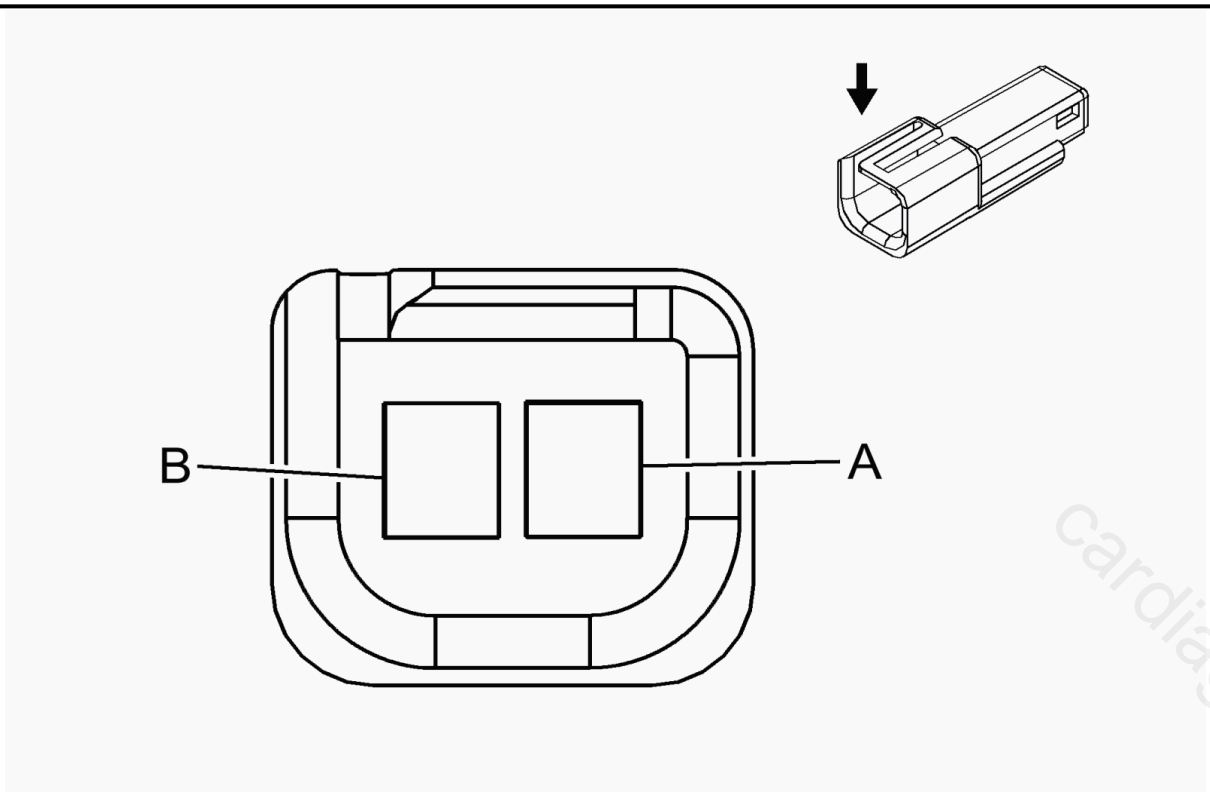
# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Component Connector End Views (A3L - B23E) - Equinox & Terrain

## COMPONENT CONNECTOR END VIEWS

### A3L SUNSHADE - LEFT




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 90565972
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series (BK)

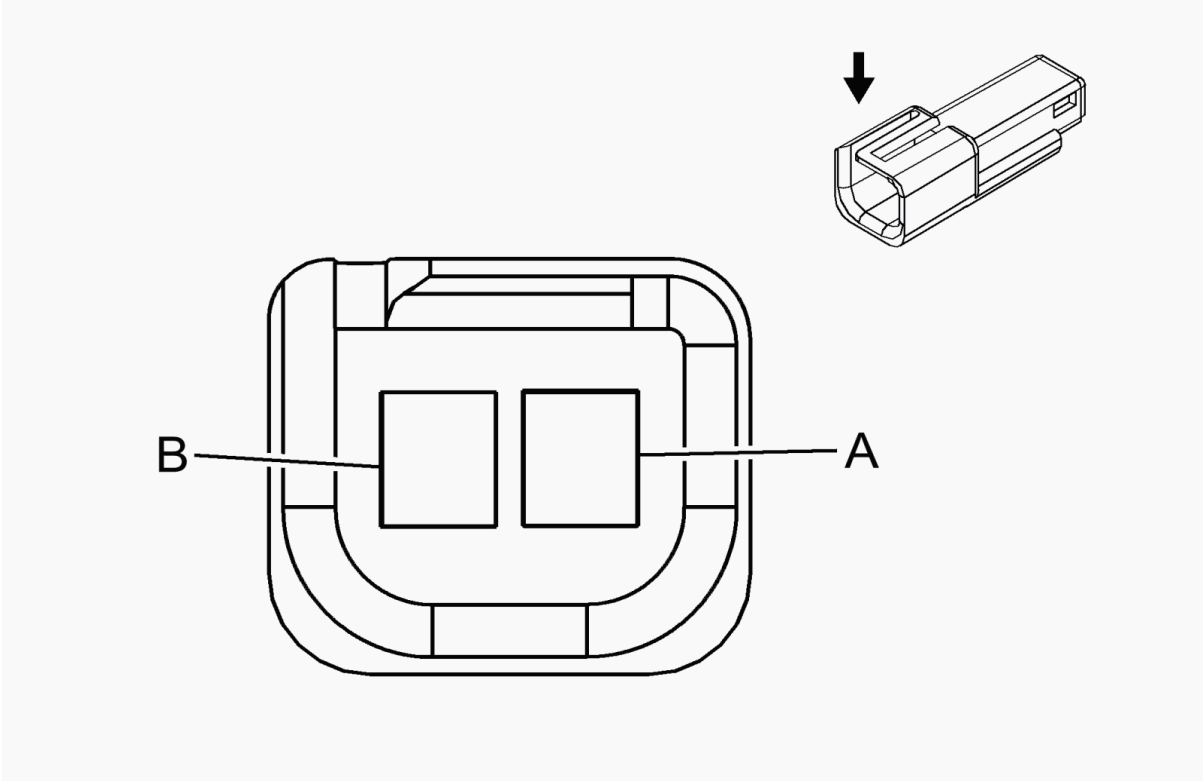
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | WH/BN | 6815 | Inadvertent Power Control | I | - |
| B | 0.35 | BK | 2050 | Ground | I | - |

### A3R SUNSHADE - RIGHT

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 90565972
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series (BK)

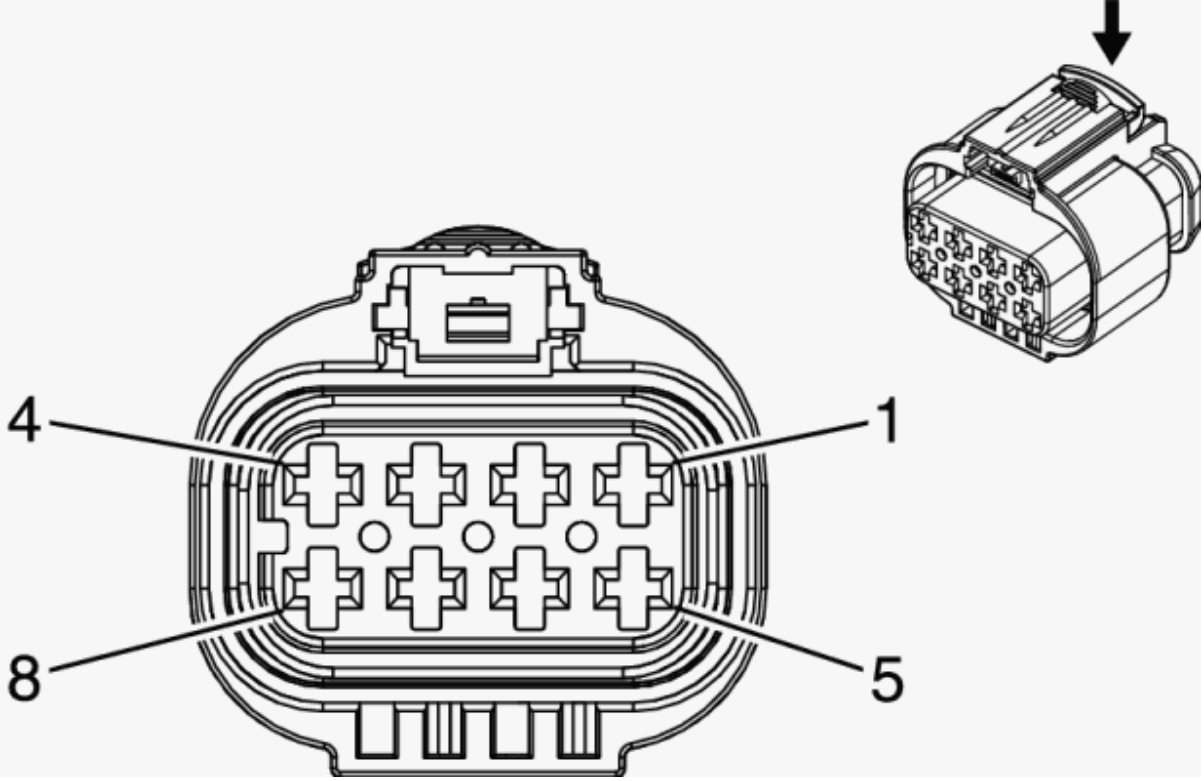
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | WH/BN | 6815 | Inadvertent Power Control | I | - |
| B | 0.35 | BK | 2050 | Ground | I | - |

## A7 FUEL PUMP AND LEVEL SENSOR ASSEMBLY (LH7+F48)

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13588284
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 Series, Sealed (L-GY)

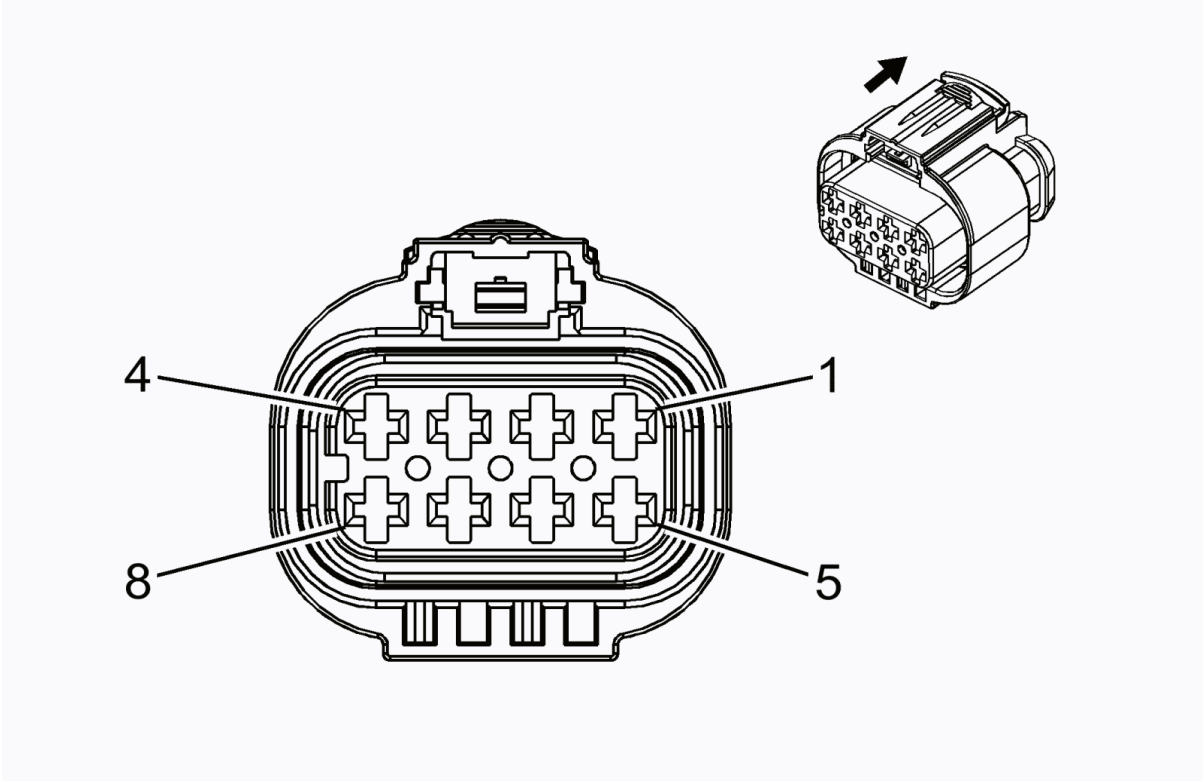
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY | 120 | Fuel Pump Control | I | - |
| 2 | 2.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | I | - |
| 3 | 2.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | I | - |
| 4 | 0.5 | BU | 7443 | Fuel System Control Module Shield Ground Extension | I | - |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | - |
| 6 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | - |
| 7 - 8 | - | - | - | Not Occupied | - | - |

## A7 FUEL PUMP AND LEVEL SENSOR ASSEMBLY (LH7+F48)

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13586306
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 Series, Sealed (L-BU)

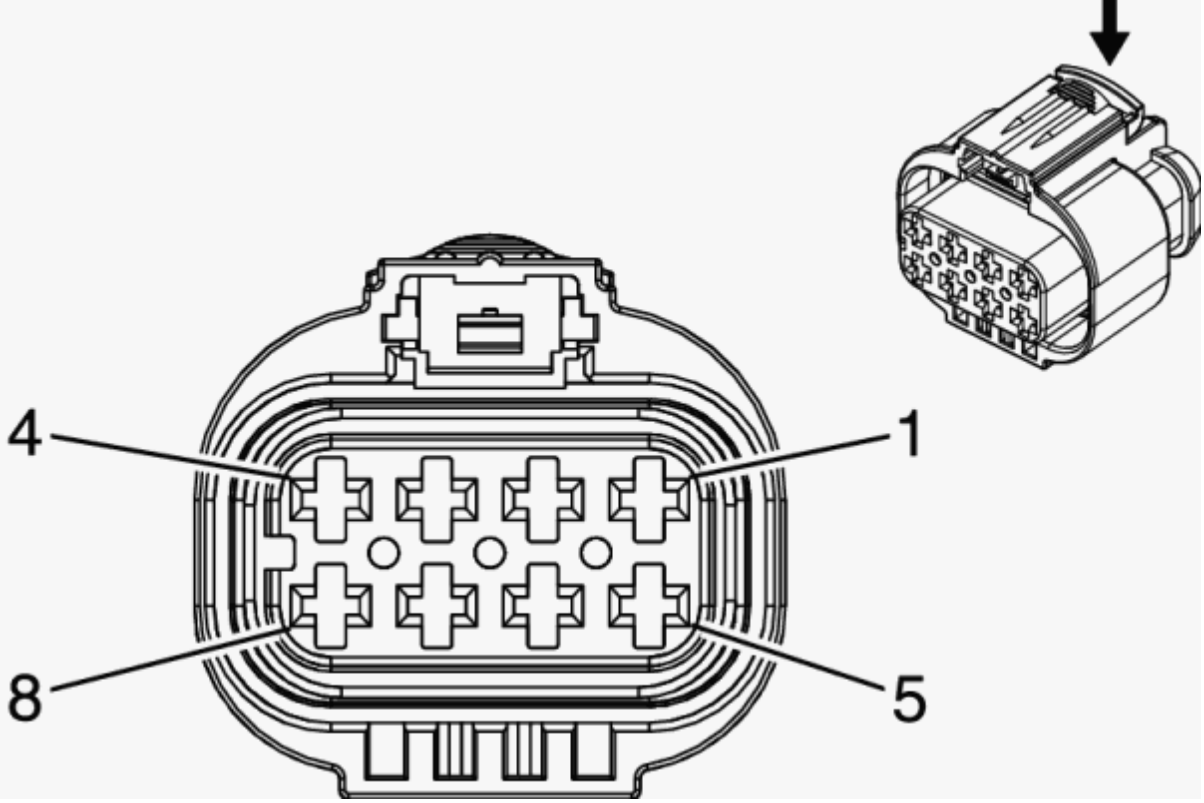
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY | 120 | Fuel Pump Control | I | - |
| 2 | 2.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | I | - |
| 3 | 2.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | I | - |
| 4 | 0.5 | BU | 7443 | Fuel System Control Module Shield Ground Extension | I | - |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | - |
| 6 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | - |
| 7 | 0.5 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | II | - |
| 8 | 0.5 | BK/BU | 6282 | Fuel Level Sensor 2 Low Reference | II | - |

## A7 FUEL PUMP AND LEVEL SENSOR ASSEMBLY (LTG/LYX)

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13588283
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 2.5 | GY | 120 | Fuel Pump Control | I | - |
| 4 | 2.5 | BK/GN | 1580 | Fuel Pump Low Reference | I | - |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | - |
| 6 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | I | - |
| 7 - 8 | - | - | - | Not Occupied | - | - |

## A7 FUEL PUMP AND LEVEL SENSOR ASSEMBLY (LTG/LYX+NTB/NUB)

-

Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13596704
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F

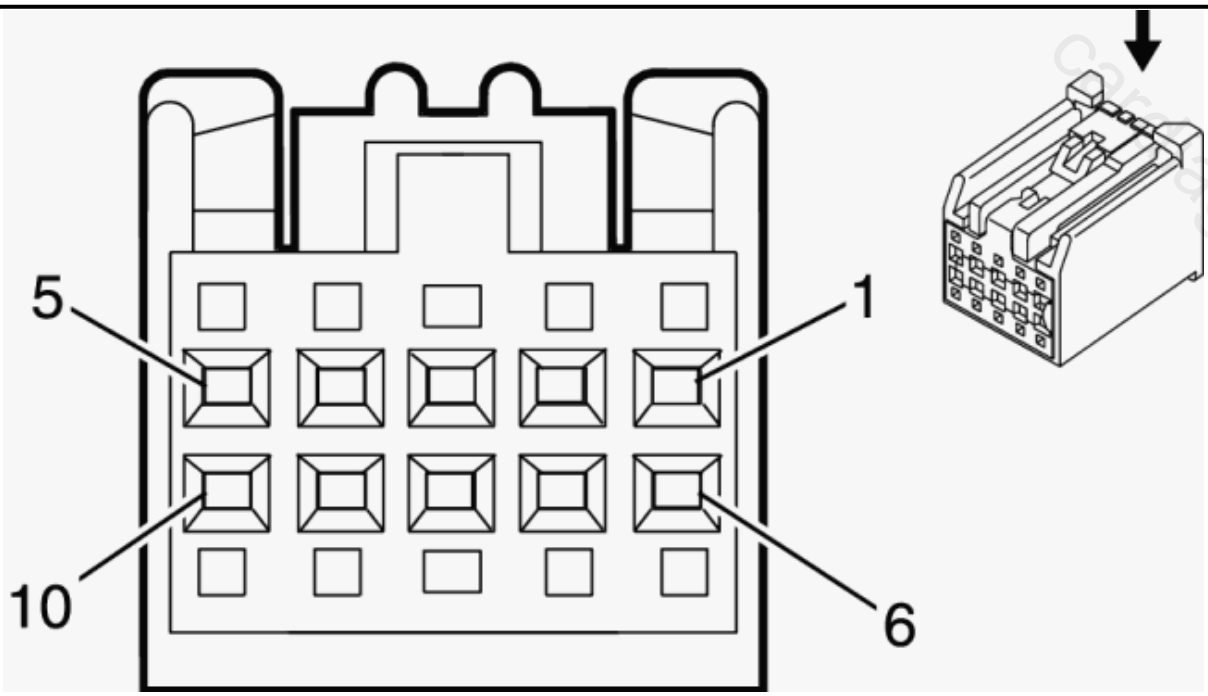
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 3 | 2.5 | GY | 120 | Fuel Pump Control | I | - |
| 4 | 2.5 | BK/GN | 1580 | Fuel Pump Low Reference | I | - |
| 5 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | - |
| 6 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | II | - |
| 7 | 0.5 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | I | - |
| 8 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | II | - |

## A10 INSIDE REARVIEW MIRROR (DD8)




Connector Part Information

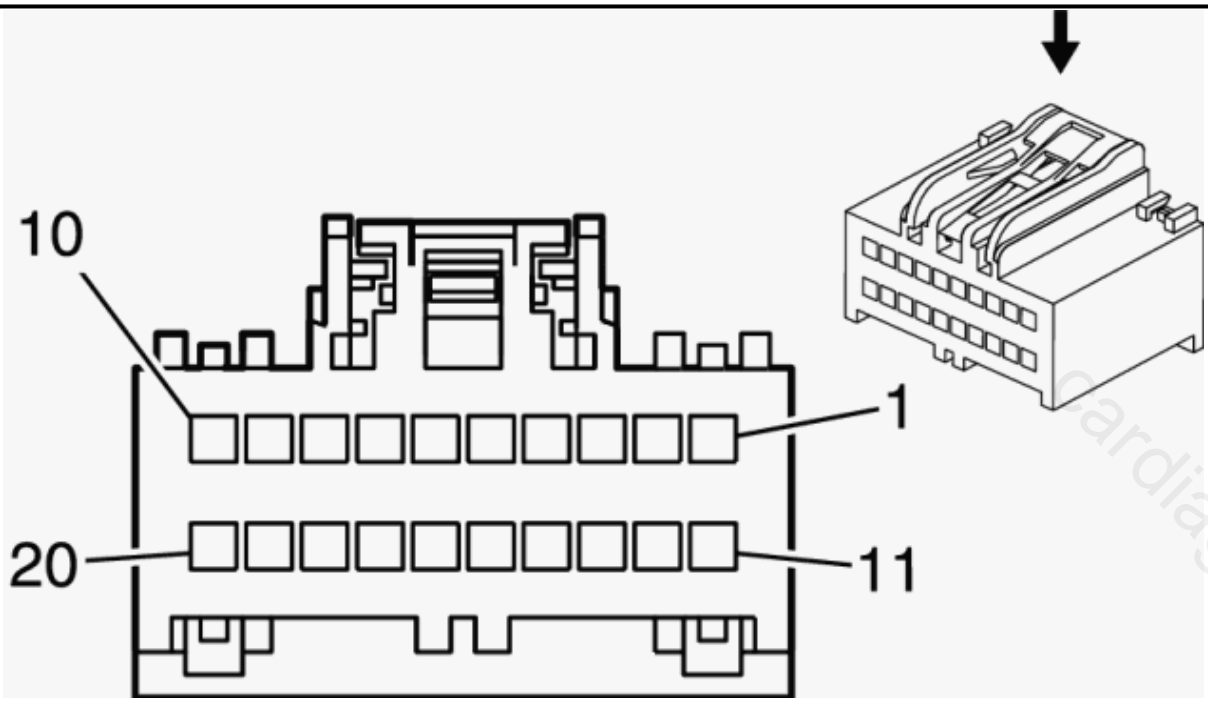
- Harness Type: Body
- OEM Connector: 13577390
- Service Connector: 13577390
- Description: 10-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 2 | 0.35 | VT/GY | 139 | Run/Crank Ignition 1 Voltage | I | - |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | BK | 1550 | Ground | I | - |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | BK/YE | 1691 | Automatic Day/Night Mirror Low Reference | I | - |
| 9 | 0.35 | YE/WH | 1690 | Automatic Day/Night Mirror Signal | I | - |
| 10 | - | - | - | Not Occupied | - | - |

## A11 RADIO X1 (IO5/IO6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 31410-0201
- Service Connector: 13593932
- Description: 20-Way F USCAR 64 Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| III | 19300629 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

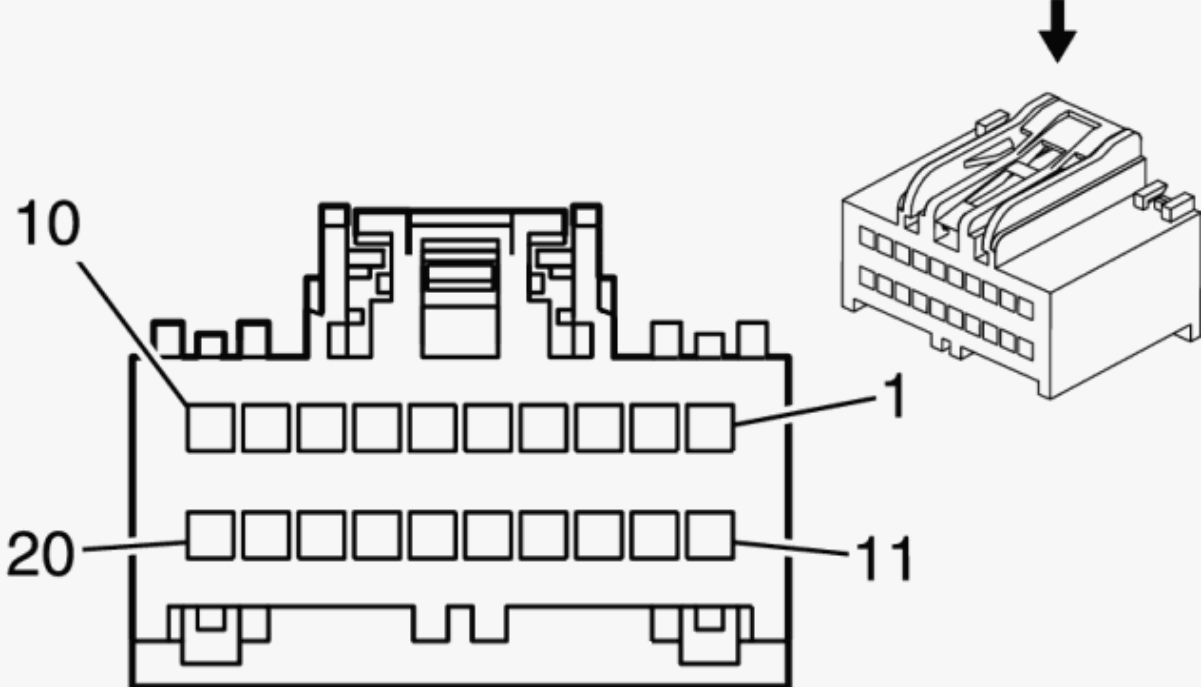
cardiagn.com

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1750 | Ground | III | IOB |
| 2 | 0.35<br>0.35 | BK/GN<br>GN/YE | 2804<br>7066 | Radio Display Backlight Low Reference<br>Entertainment Remote Enable Signal | II<br>II | IOB<br>NKC+UZ6+IO5/IO6 |
| 3 | 0.35 | BU/GN | 2813 | Radio Display Backlight Dimming Control | II | IOB |
| 4 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | II | IOB |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35<br>0.35 | BK/GY<br>BK/BN | 5152<br>654 | Voice Recognition Audio Low Reference<br>Cellular Telephone Microphone Low Reference | II<br>II | IOB+UE1<br>IOB-UE1 |
| 7 | 0.35<br>0.35 | GY/YE<br>BU | 5149<br>655 | Voice Recognition Audio Signal<br>Cellular Telephone Microphone Signal | II<br>II | IOB+UE1<br>IOB-UE1 |
| 8 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | II | IOB |
| 9 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | II | IOB+UE1 |
| 10 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | II | IOB+UE1 |
| 11 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | III | IOB |
| 12 | 0.35 | GN/YE | 7066 | Entertainment Remote Enable Signal | II | IOB+NKC+UZ6 |
| 13 | 0.35<br>0.35 | GN/BU<br>SR | 7532<br>6974 | Local Interconnect Network Serial Data Bus<br>10<br>Camera Low Reference | II<br>II | IO5/IO6<br>IOB+UVC |
| 14 | 0.35<br>0.35 | GY/GN<br>WH/BU | 1102<br>6973 | Low Speed GMLAN Serial Data #2<br>Camera Signal 2 | II<br>II | IO5/IO6<br>IOB+UVC |
| 15 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | II | IOB+UVC |
| 16 | 0.35 | BARE | 5842 | Auxiliary Audio Screen 2 | II | IOB+USR |
| 17 | 0.13 | BU | 2060 | Auxiliary Detection Signal | I | IOB+USR |
| 18 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | II | IOB+USR |
| 19 | 0.35<br>0.35 | GY<br>BK/YE | 5839<br>659 | Left Auxiliary Audio Signal 2<br>Cellular Telephone Voice Low Reference | II<br>II | IOB+USR<br>UE1+IO5/IO6 |
| 20 | 0.35<br>0.35 | GN<br>YE | 5841<br>658 | Right Auxiliary Audio Signal 2<br>Cellular Telephone Voice Signal | II<br>II | IOB+USR<br>UE1+IO5/IO6 |

## A11 RADIO X1 (IOB)



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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13593932
- Service Connector: 13593932
- Description: 20-Way F USCAR 64 Series (GY)

**Terminal Part Information**

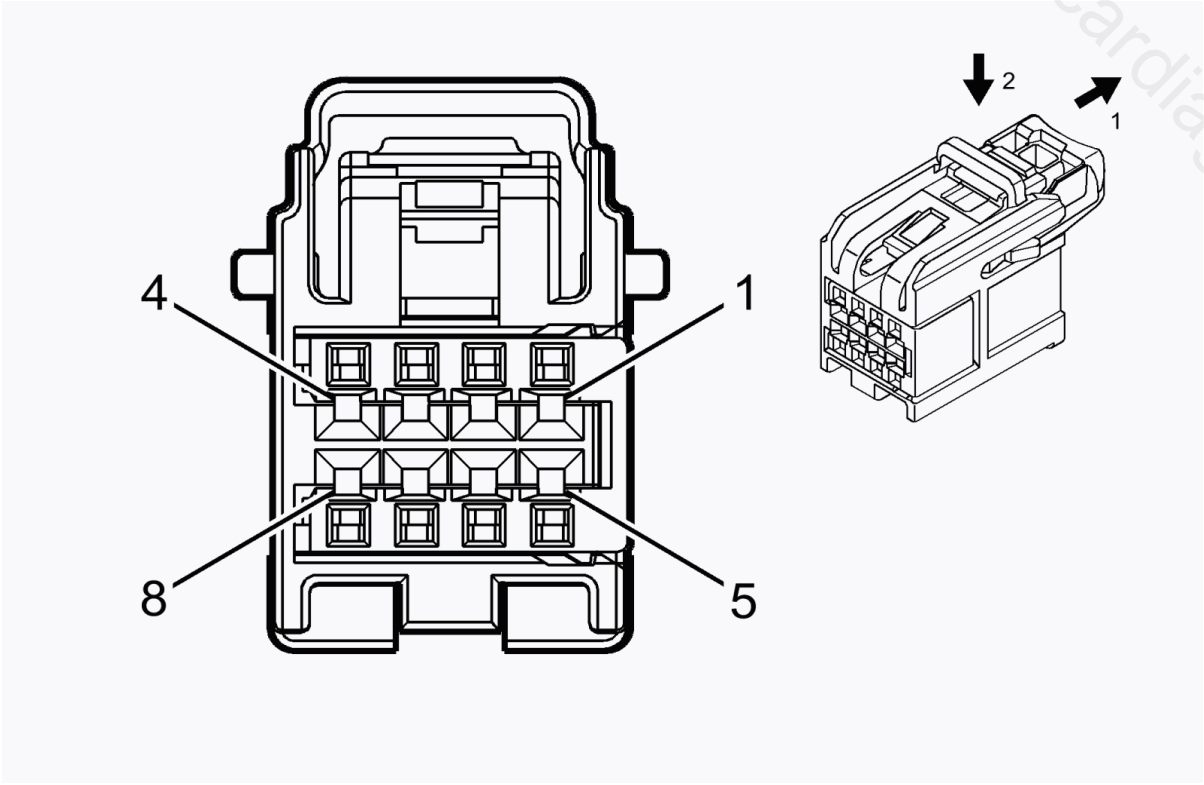
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575867 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575867 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| III | 19119865 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1750 | Ground | III | IOB |
| 2 | 0.35 | BK/GN | 2804 | Radio Display Backlight Low Reference | II | IOB |
| 3 | 0.35 | BU/GN | 2813 | Radio Display Backlight Dimming Control | II | IOB |
| 4 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | II | IOB |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35<br>0.35 | BK/GY<br>BK/BN | 5152<br>654 | Voice Recognition Audio Low Reference<br>Cellular Telephone Microphone Low Reference | II<br>II | IOB+UE1<br>IOB-UE1 |
| 7 | 0.35<br>0.35 | GY/YE<br>BU | 5149<br>655 | Voice Recognition Audio Signal<br>Cellular Telephone Microphone Signal | II<br>II | IOB+UE1<br>IOB-UE1 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | II | IOB |
| 9 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | II | IOB+UE1 |
| 10 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | II | IOB+UE1 |
| 11 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | III | IOB |
| 12 | 0.35 | GN/YE | 7066 | Entertainment Remote Enable Signal | II | IOB+NKC+UZ6 |
| 13 | 0.35 | SR | 6974 | Camera Low Reference | II | IOB+UVC |
| 14 | 0.35 | WH/BU | 6973 | Camera Signal 2 | II | IOB+UVC |
| 15 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | II | IOB+UVC |
| 16 | 0.35 | BARE | 5842 | Auxiliary Audio Screen 2 | II | IOB+USR |
| 17 | 0.13 | BU | 2060 | Auxiliary Detection Signal | I | IOB+USR |
| 18 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | II | IOB+USR |
| 19 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | II | IOB+USR |
| 20 | 0.35 | GN | 5841 | Right Auxiliary Audio Signal 2 | II | IOB+USR |

## A11 RADIO X2 (IO5/IO6)




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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13591516
- Service Connector: 19353873
- Description: 8-Way F 0.64 OCS Series (GY)

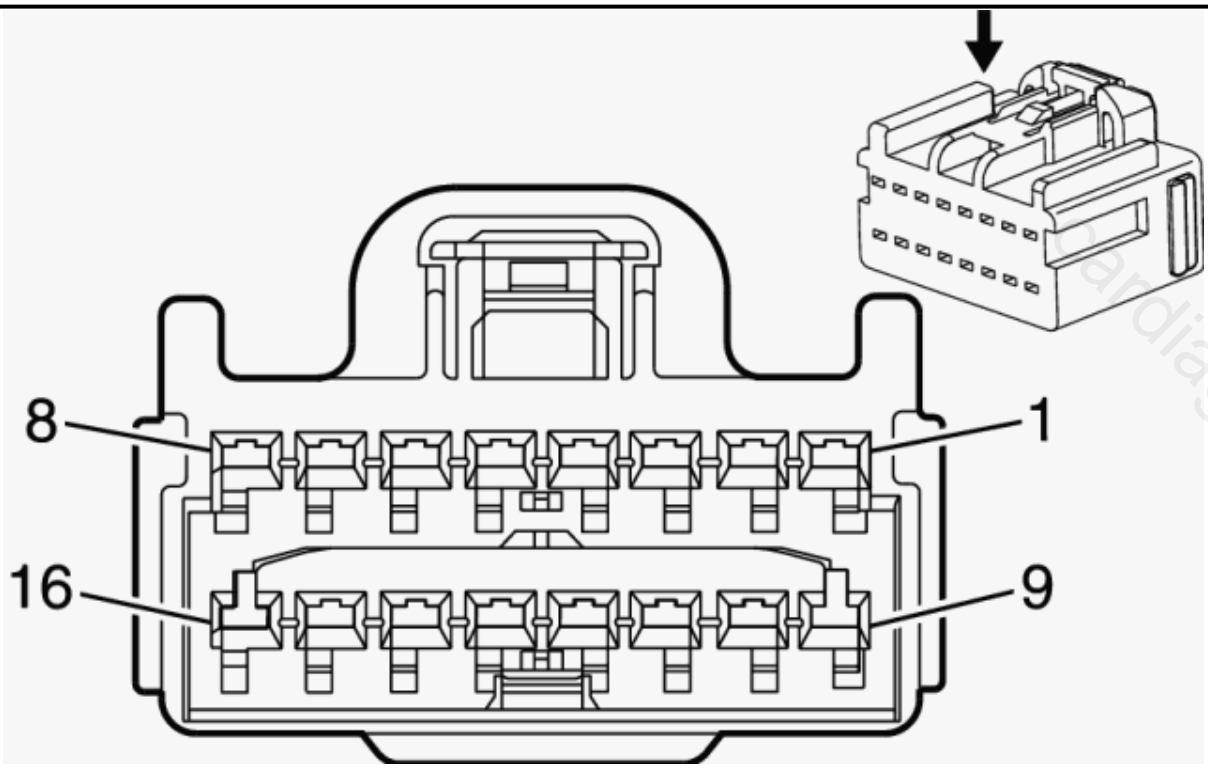
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | UDD+IO5/IO6 |
| 2 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | UDD+IO5/IO6 |
| 3 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | IO5/IO6 |
| 4 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | IO5/IO6 |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | WH/VT | 3999 | MOST Control | I | IO5/IO6+UQA/UDD |
| 7 - 8 | - | - | - | Not Occupied | - | - |

## A11 RADIO X3 (IO5/IO6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 89047090
- Service Connector: 89047090
- Description: 16-Way F 1.5 Kaizen Series (GN)

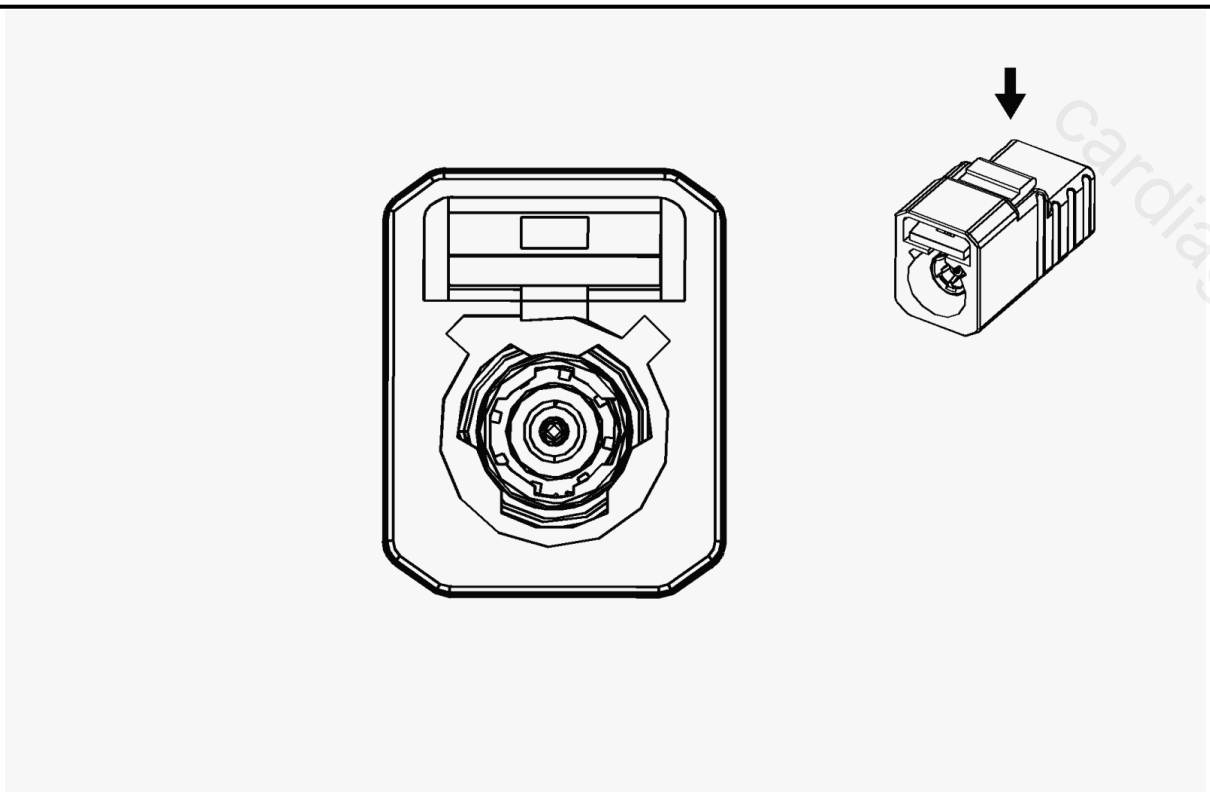
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575850 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | - |
| 3 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | - |
| 4 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | - |
| 5 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 1 | RD/YE | 5040 | Battery Positive Voltage | I | IO5/IO6 |
| 9 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | - |
| 10 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | - |
| 11 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | I | - |
| 12 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | - |
| 13 - 15 | - | - | - | Not Occupied | - | - |
| 16 | 1 | BK | 1750 | Ground | I | IO5/IO6 |

## A11 RADIO X4 (IO5/IO6)



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Connector Part Information

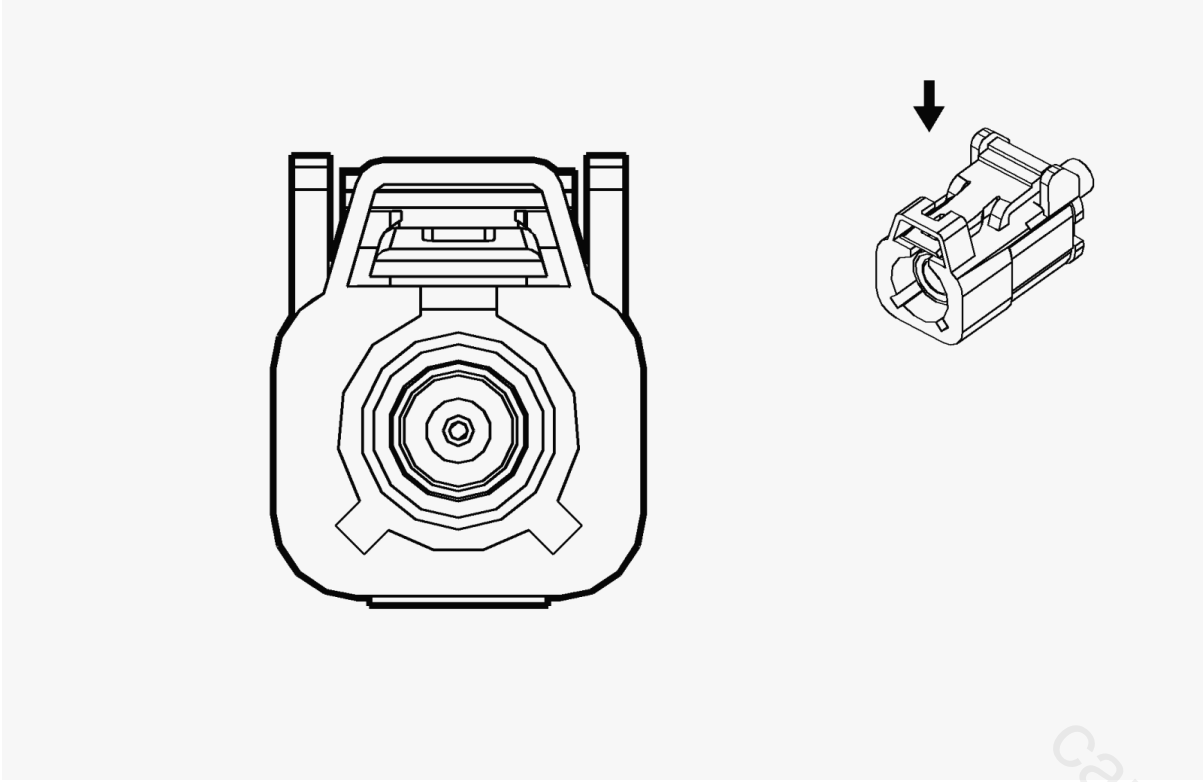
- Harness Type: Instrument Panel
- OEM Connector: 13581686
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (AM/FM) Antenna RF Signal | I | - |

## A11 RADIO X5 (IO5/IO6+U2K)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13580584
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (CU)

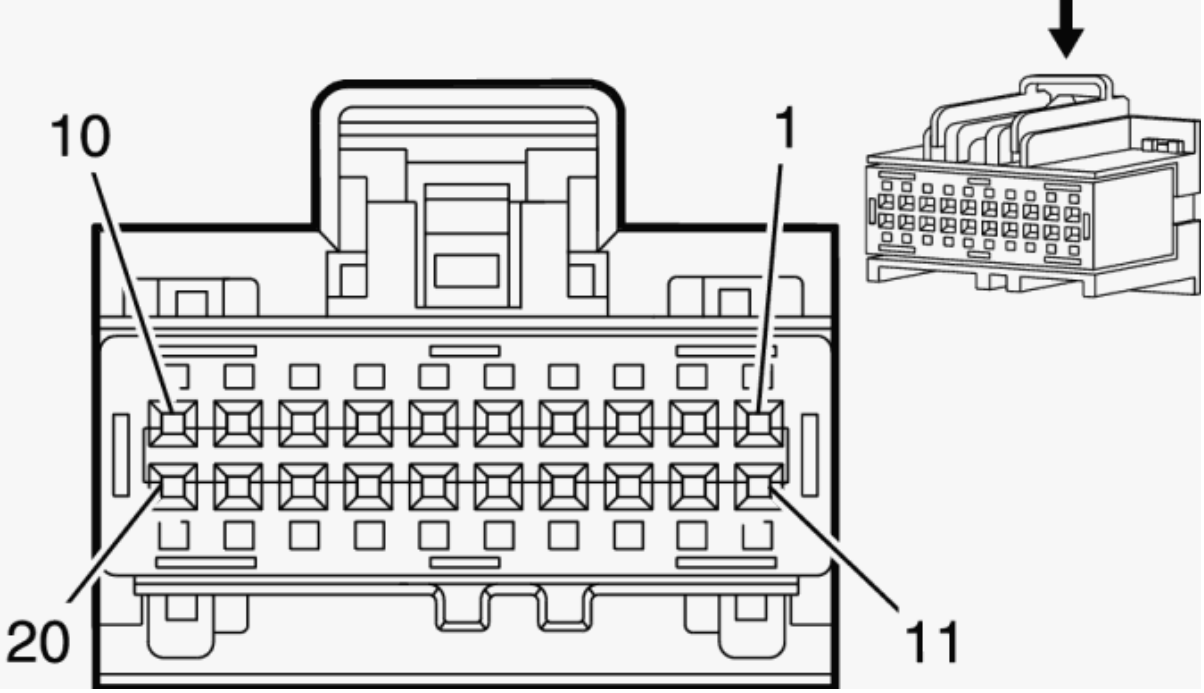
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (XM +/-HD) Coaxial Antenna XM Signal | I | - |

## A11 RADIO X2 (IOB)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13593933
- Service Connector: 13593933
- Description: 20-Way F USCAR 64 Series (BN)

**Terminal Part Information**

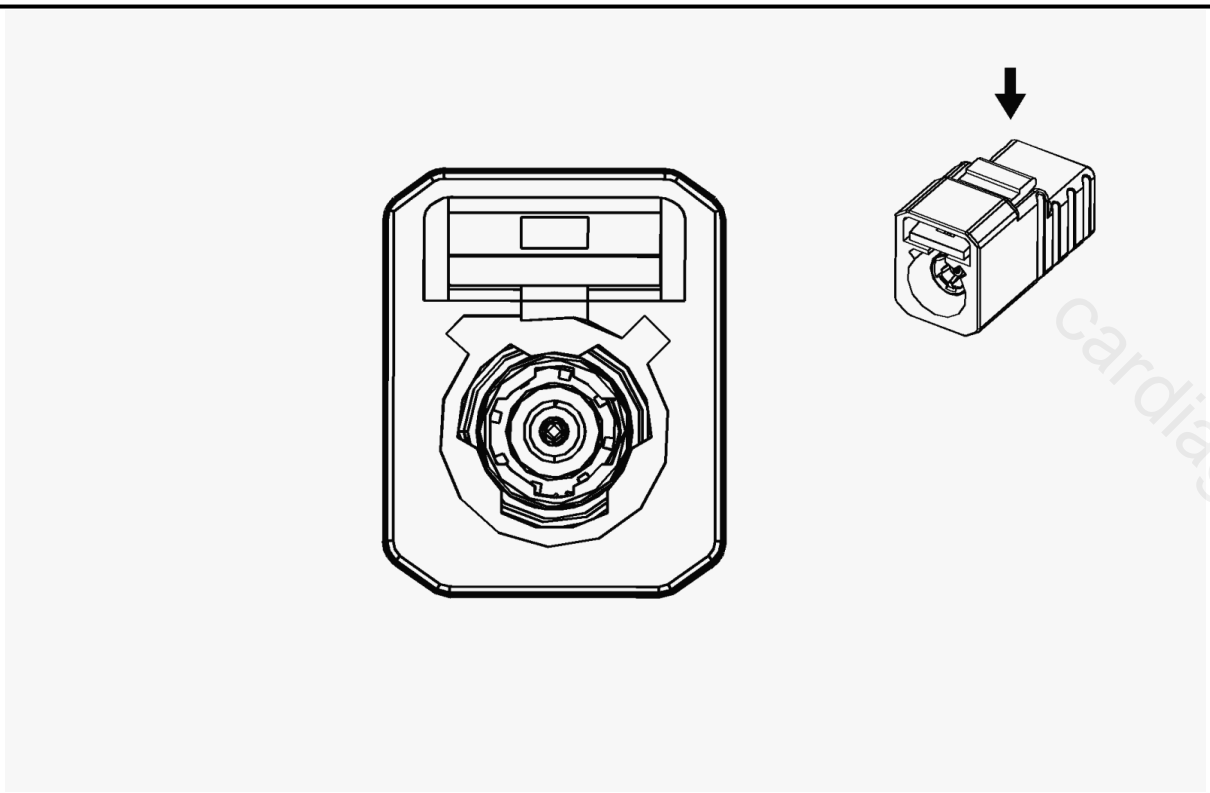
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 19300629 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BN/WH | 2809 | Radio Keypad Power Signal | I | IOB |
| 4 | 0.35 | BN | 2814 | Radio Display Low Voltage Differential Signaling Lock Signal | I | IOB |
| 5 | 0.35 | GY/VT | 2812 | Radio Display Low Voltage Differential Signaling Error Signal | I | IOB |
| 6 | 0.35 | GY/BU | 2803 | Radio Display Touch Interrupt Request Signal | I | IOB |
| 7 | 0.35 | WH | 2811 | Radio Display Diagnostic Signal | I | IOB |
| 8 | 0.35 | BU | 4315 | Radio Volume Up Signal | I | IOB |
| 9 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | IOB |
| 10 | 0.75 | BK | 1750 | Ground | II | IOB |
| 11 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | II | - |
| 12 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | II | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 13 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | II | - |
| 14 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | II | - |
| 15 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | II | - |
| 16 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | II | - |
| 17 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | II | - |
| 18 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | II | - |
| 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | II | IOB |

## A11 RADIO X4 (IOB)



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Connector Part Information

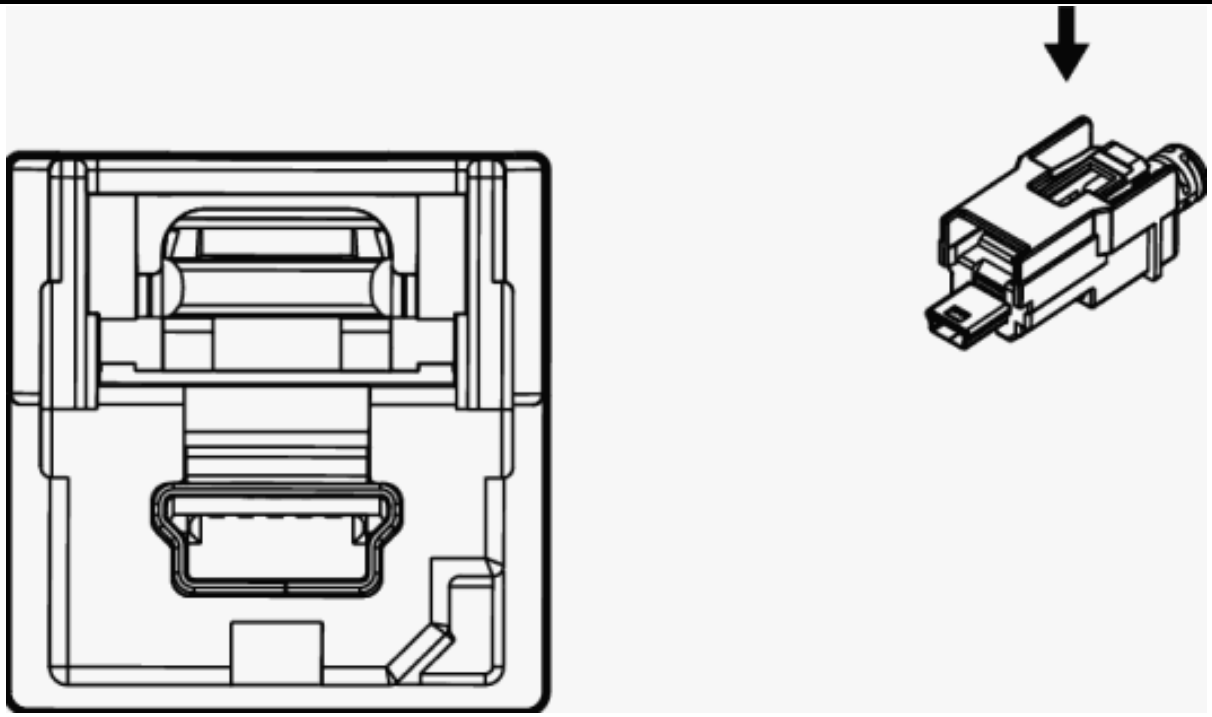
- Harness Type: Instrument Panel
- OEM Connector: 13581686
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (AM/FM) Antenna RF Signal | I | - |

## A11 RADIO X7 (IOB)



Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 13576672
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

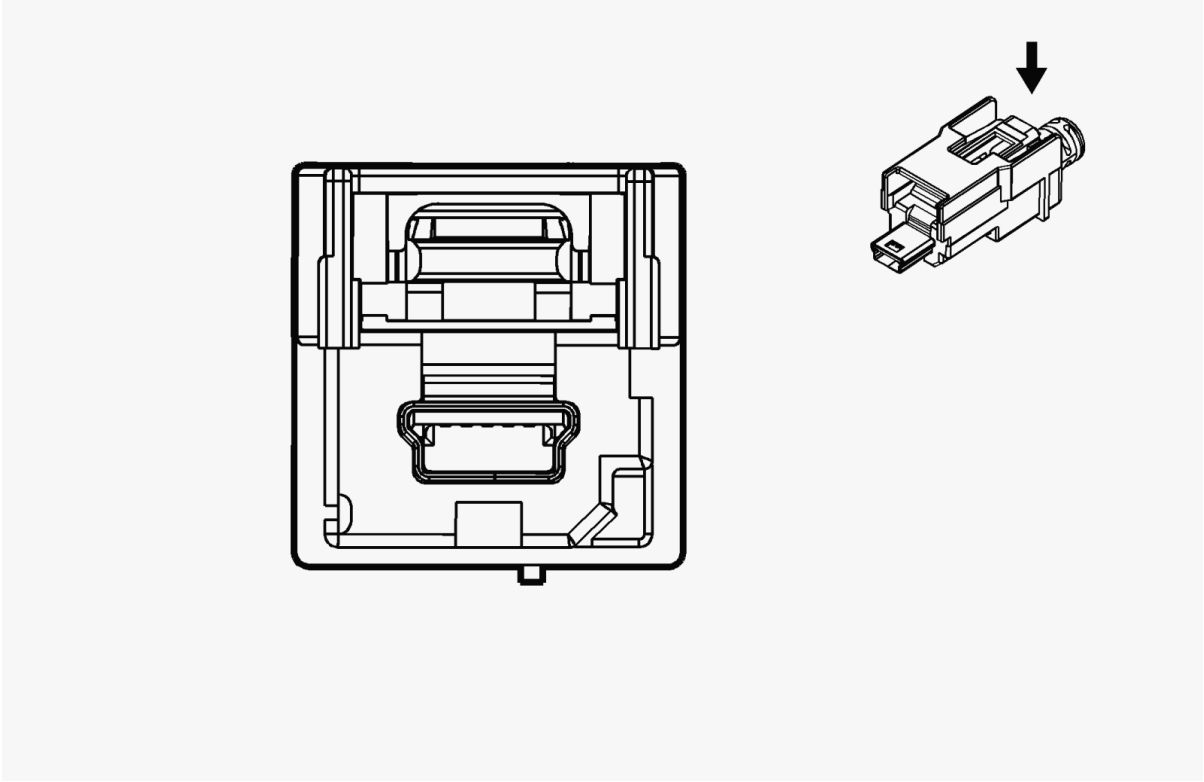
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | (Infotainment) Infotainment Display Signal | I | - |

## A11 RADIO X3 (IOB+MCY)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13578154
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BU)

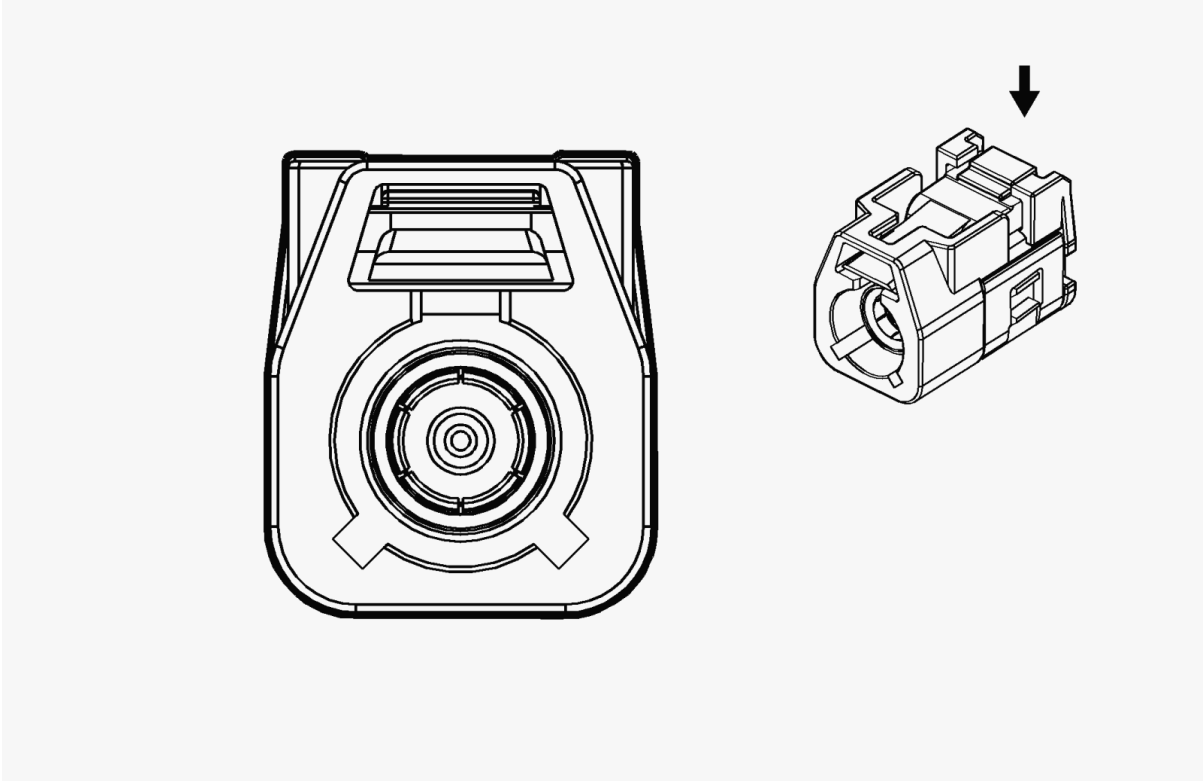
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## A11 RADIO X5 (IOB+U2K)

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Connector Part Information

- Harness Type: Instrument Panel COAX
- OEM Connector: 13586878
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (CU)

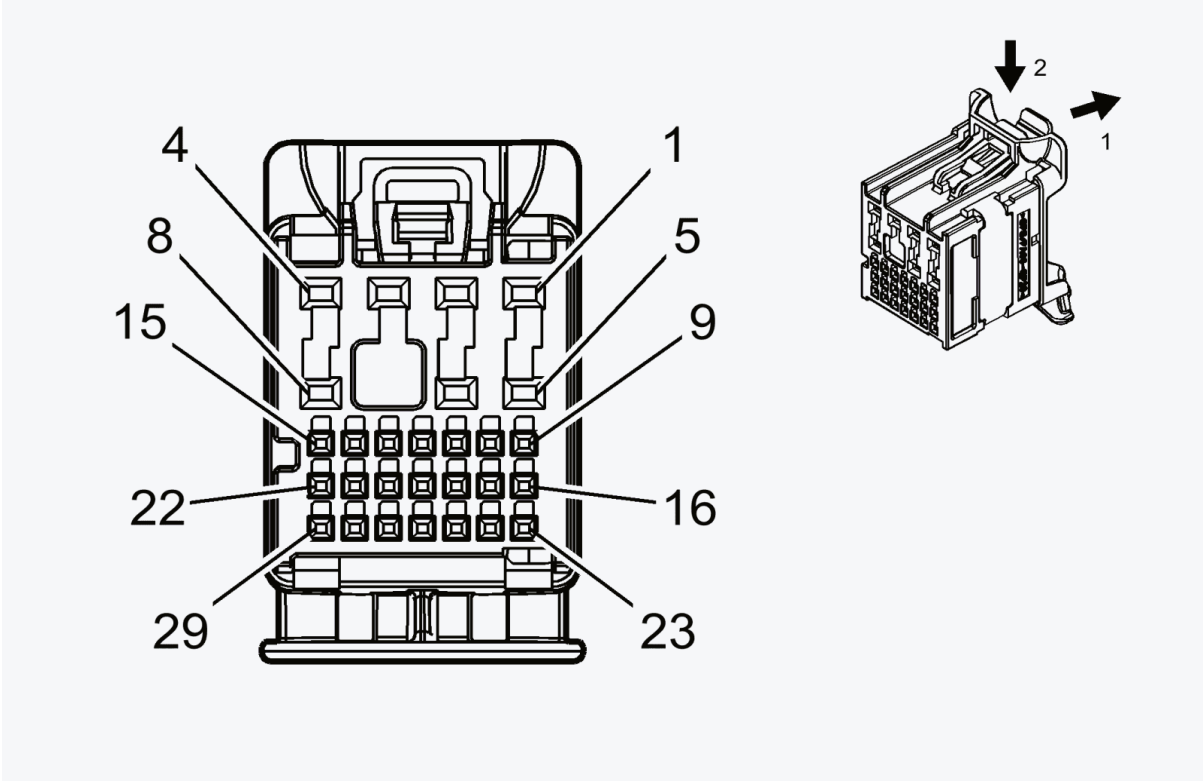
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (XM +/-HD) Coaxial Antenna XM Signal | I | - |

## A11 RADIO X1 (IOR)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 160014-0002
- Service Connector: 13506123
- Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GN)

**Terminal Part Information**

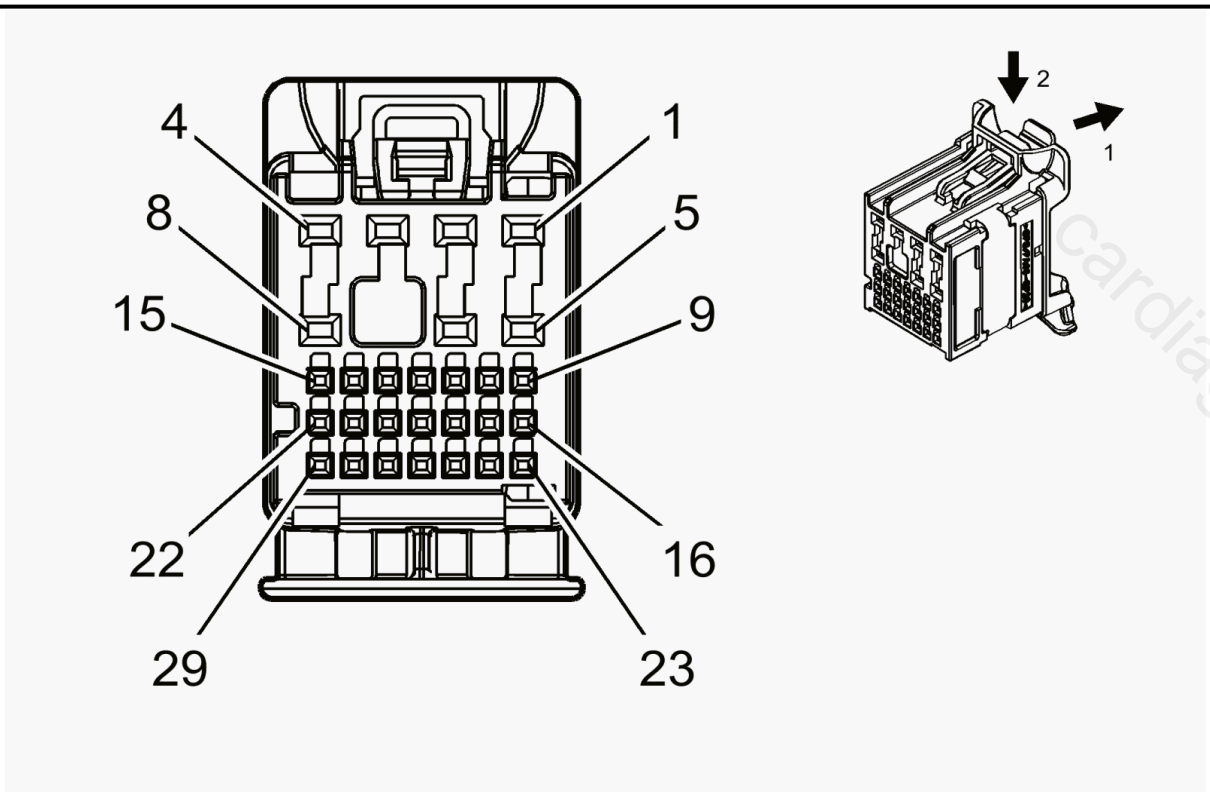
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19354361 | EL-35616-58 (BK) | EL-38125-58 | Not Available | Not Available | Not Available | Not Available |
| II | 19367551 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | II | IOR |
| 2 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | II | IOR |
| 3 | 0.75 | BK | 1750 | Ground | II | IOR |
| 4 | 0.35 | BU/RD | 2807 | Radio Keypad Voltage Reference | II | IOR |
| 5 | 0.35 | BK/GN | 2804 | Radio Display Backlight Low Reference | II | IOR |
| 6 | 0.75 | BK | 1750 | Ground | II | IOR |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | II | IOR+UZ6 |
| 9 | 0.35 | GY/BU | 2803 | Radio Display Touch Interrupt Request Signal | I | IOR |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | GN/WH | 1324 | Backup Lamp Control | I | IOR |
| 12 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | I | IOR |
| 13 - 14 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | BU/GY | 2808 | Radio Keypad Dimming Control | I | IOR |
| 16 - 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | GY/VT | 3363 | Navigation Display Dimming Control | I | IOR |
| 22 | 0.35 | BU/GN | 2813 | Radio Display Backlight Dimming Control | I | IOR |
| 23 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | I | IOR |
| 24 | 0.35 | BN/WH | 2809 | Radio Keypad Power Signal | I | IOR |
| 25 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | I | IOR |
| 26 | 0.35 | BU | 4315 | Radio Volume Up Signal | I | IOR |
| 27 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | IOR |
| 28 - 29 | - | - | - | Not Occupied | - | - |

## A11 RADIO X2 (IOR)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 160014-0003
- Service Connector: 13506123
- Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| II | 19354361 | EL-35616-58 (BK) | EL-38125-58 | Not Available | Not Available | Not Available | Not Available |
| III | 19367551 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |

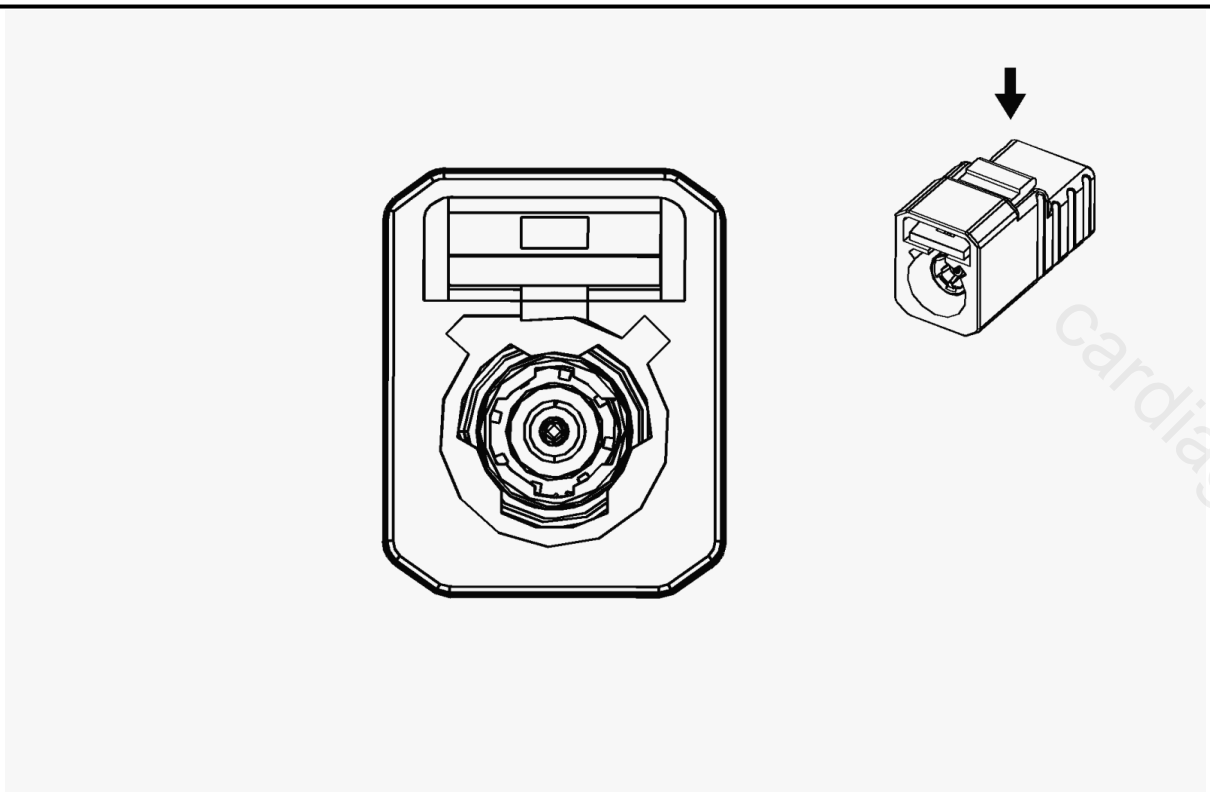
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75<br>0.75 | RD/YE<br>GN | 5040<br>199 | Battery Positive Voltage<br>Left Rear Speaker Control (+) | III<br>I | IOR<br>IOR+UZ6 |
| 2 | 0.75<br>0.75 | RD/YE<br>BU | 5040<br>201 | Battery Positive Voltage<br>Left Front Speaker Control (+) 1 | III<br>I | IOR<br>IOR+UZ6 |
| 3 | 0.75<br>0.75<br>0.75 | BK<br>YE/BK<br>YE | 1750<br>117<br>200 | Ground<br>Right Front Speaker Signal (-) 1<br>Right Front Speaker Control (+) 1 | III<br>I<br>I | IOR<br>IOR+UZ6<br>UZ6+NKC-IOR |
| 4 | 0.35<br>0.75 | BU/RD<br>BU/BK | 2807<br>115 | Radio Keypad Voltage Reference<br>Right Rear Speaker Signal (-) | III<br>I | IOR<br>IOR+UZ6 |
| 5 | 0.35<br>0.75 | BK/GN<br>BN/BU | 2804<br>118 | Radio Display Backlight Low Reference<br>Left Front Speaker Signal (-) 1 | III<br>I | IOR<br>IOR+UZ6 |
| 6 | 0.75<br>0.75<br>0.75 | BK<br>YE/BK<br>YE | 1750<br>117<br>200 | Ground<br>Right Front Speaker Signal (-) 1<br>Right Front Speaker Control (+) 1 | III<br>I<br>I | IOR<br>IOR+UZ6<br>UZ6+NKC-IOR |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | IOR+UZ6 |
| 9 | 0.35<br>0.35<br>0.35 | GY/BU<br>BK/GY<br>BK/BN | 2803<br>5152<br>654 | Radio Display Touch Interrupt Request Signal<br>Voice Recognition Audio Low Reference<br>Cellular Telephone Microphone Low Reference | II<br>II<br>II | IOR<br>IOR+UE1<br>IOR-UE1 |
| 10 | 0.35<br>0.35 | GY/YE<br>BU | 5149<br>655 | Voice Recognition Audio Signal<br>Cellular Telephone Microphone Signal | II<br>II | IOR+UE1<br>IOR-UE1 |
| 11 | 0.35 | GN/WH | 1324 | Backup Lamp Control | II | IOR |
| 12 | 0.35<br>0.35 | GY/GN<br>GY/YE | 1102<br>6972 | Low Speed GMLAN Serial Data #2<br>Camera Signal 2 + | II<br>II | IOR<br>IOR+UVC |
| 13 | 0.35 | WH/BU | 6973 | Camera Signal 2 | II | IOR+UVC |
| 14 | 0.35 | WH/GN | 1776 | Noise Reduction Microphone #4 Return | II | IOR |
| 15 | 0.35 | VT/BU | 1775 | Noise Reduction Microphone #4 Signal | II | - |
| 16 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | GY/BN | 3010 | Noise Reduction Microphone 3 Low Reference | II | IOR |
| 21 | 0.35 | GY/BU | 3007 | Noise Reduction Microphone 3 Signal | II | IOR |
| 22 | 0.35 | BU/BK | 3009 | Noise Reduction Microphone 2 Low Reference | II | IOR |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 23 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | II | IOR |
| 24 | 0.35 | BN/WH | 2809 | Radio Keypad Power Signal | II | IOR |
| 25 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | II | IOR |
| 26 | 0.35 | BU | 4315 | Radio Volume Up Signal | II | IOR |
| 27 | 0.35 | GN/BN | 3005 | Noise Reduction Microphone 1 Signal | II | IOR |
| 28 | 0.35 | GN/BK | 3008 | Noise Reduction Microphone 1 Low Reference | II | IOR |
| 29 | 0.35 | BU/YE | 3006 | Noise Reduction Microphone 2 Signal | II | IOR |

## A11 RADIO X3 (IOR)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581686
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BK)

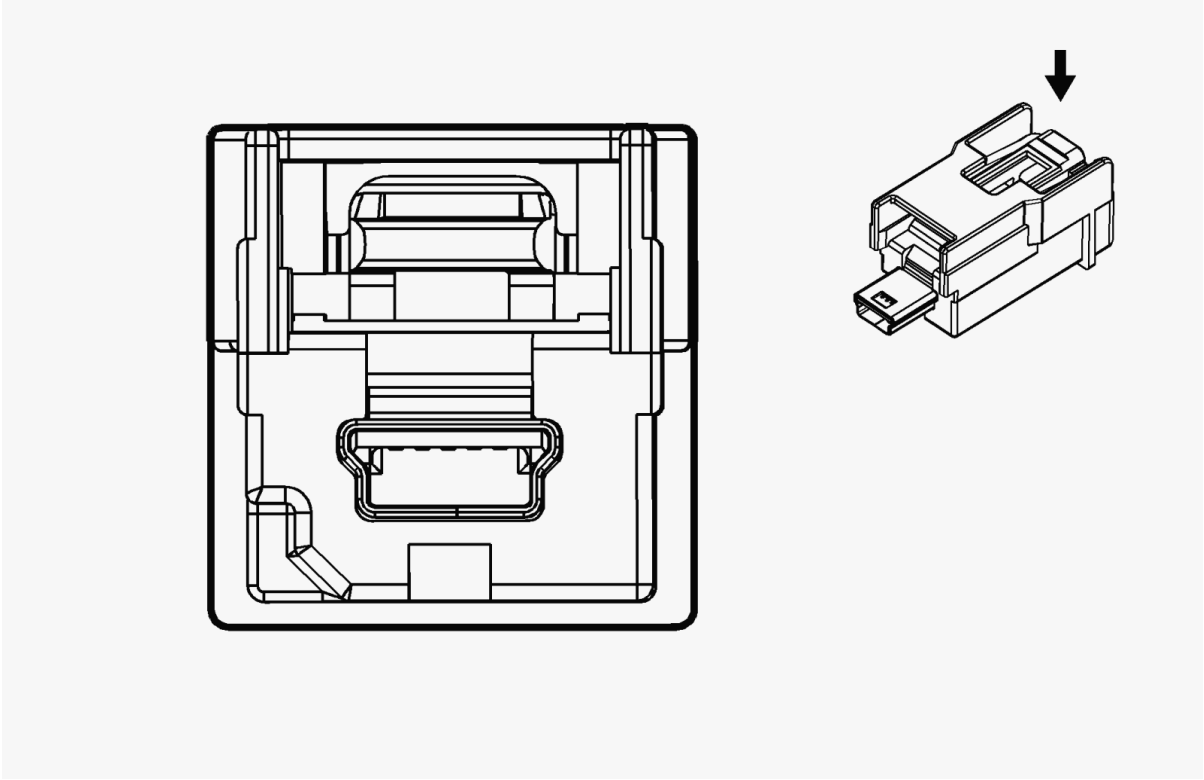
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (AM/FM) Antenna RF Signal | I | - |

## A11 RADIO X4 (IOR)

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Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 13576673
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

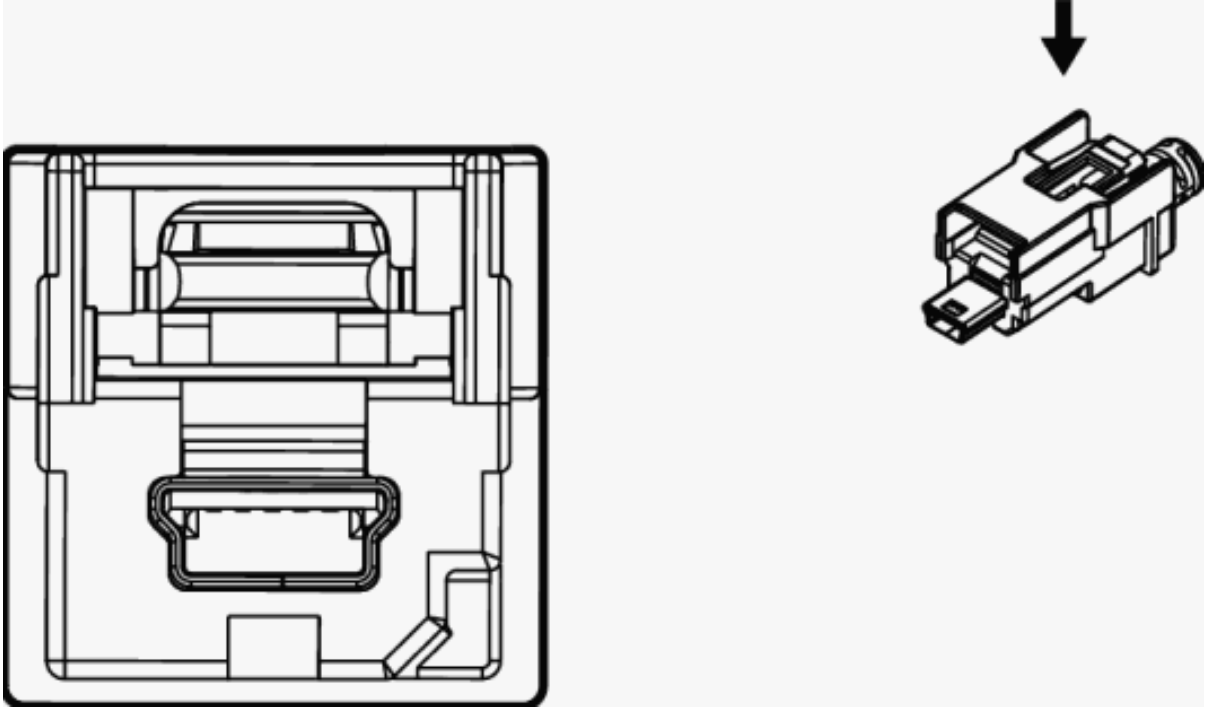
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | (Infotainment) Infotainment Display Signal | I | - |

## A11 RADIO X5 (IOR)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576672
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

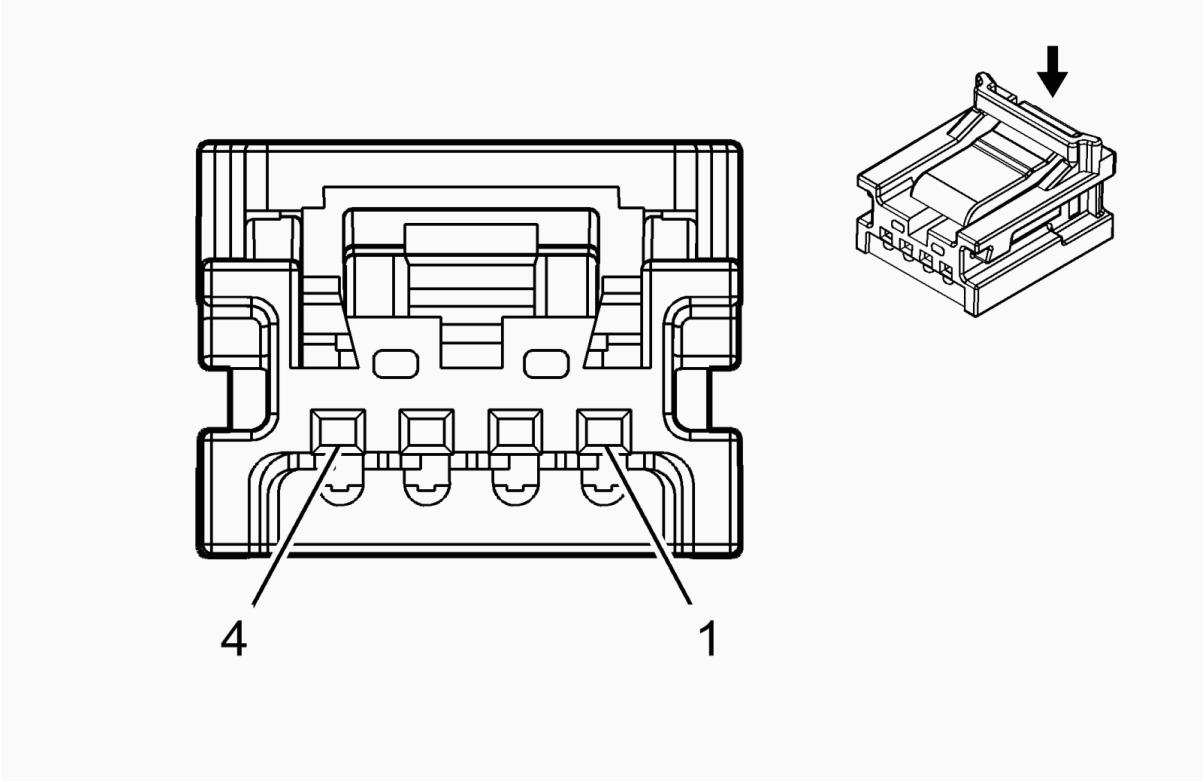
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## A11 RADIO X6 (IOR+UE1)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 34791-5140
- Service Connector: 19354840
- Description: 4-Way F Mini 50 Series (BK)

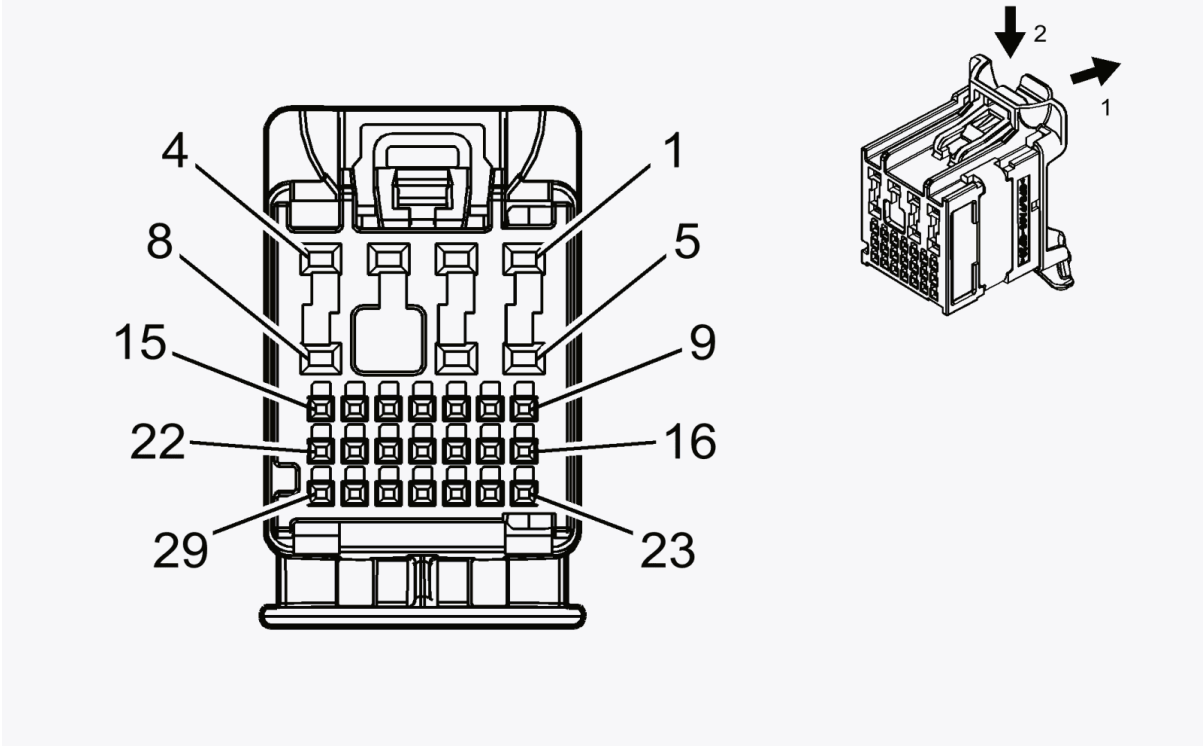
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | GY/WH | 7211 | Ethernet Bus 4 (+) | I | IOR+UE1 |
| 3 | 0.35 | GY | 7210 | Ethernet Bus 4 (-) | I | IOR+UE1 |
| 4 | - | - | - | Not Occupied | - | - |

## A11 RADIO X1 (IOS/IOT/IOU)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 160014-0004
- Service Connector: 13506123
- Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (BK)

**Terminal Part Information**

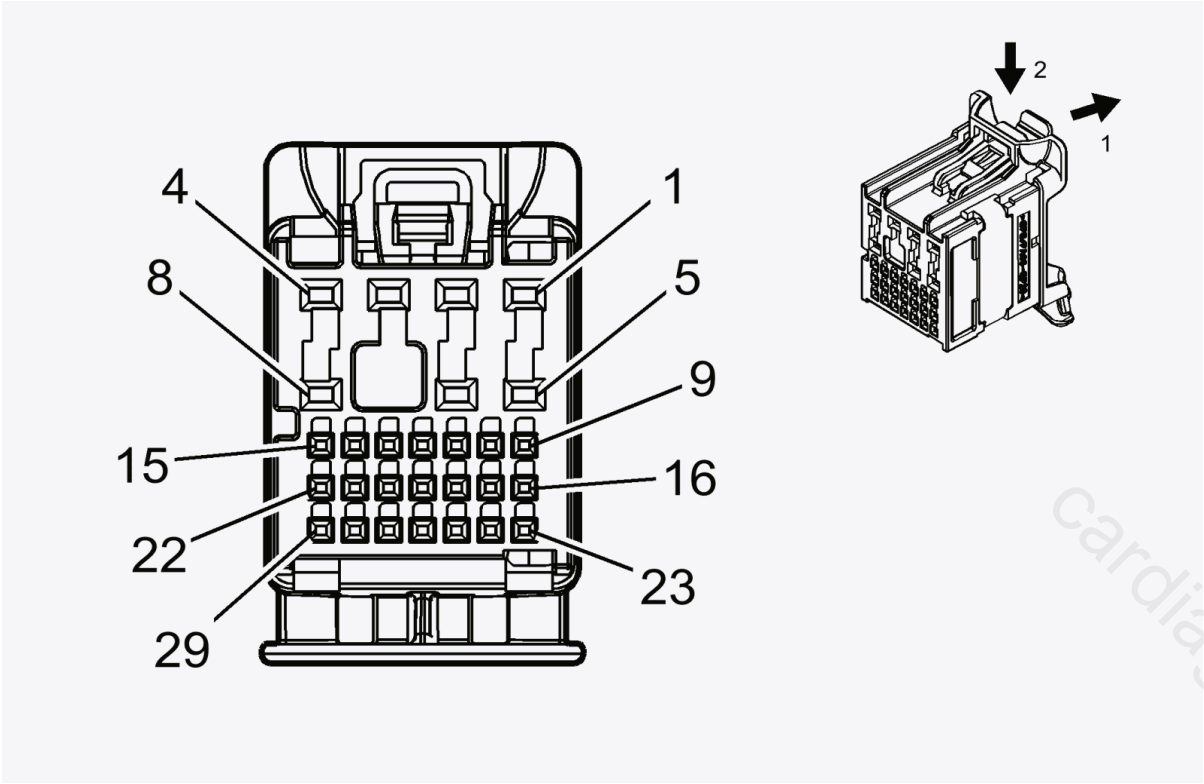
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19354361 | EL-35616-58 (BK) | EL-38125-58 | Not Available | Not Available | Not Available | Not Available |
| II | 19367551 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | II | IOS/IOT/IOU |
| 2 | 0.75 | RD/YE | 5040 | Battery Positive Voltage | II | IOS/IOT/IOU |
| 3 | 0.75 | BK | 1750 | Ground | II | IOS/IOT/IOU |
| 4 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.75 | BK | 1750 | Ground | II | IOS/IOT/IOU |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | II | NKC+UZ6+IOS/IOU |
| 9 | 0.35<br>0.35 | BU<br>GY/YE | 655<br>5149 | Cellular Telephone Microphone Signal<br>Voice Recognition Audio Signal | I<br>I | IOS/IOT/IOU-UE1<br>UE1+IOS/IOT/IOU |
| 10 | 0.35<br>0.35 | BK/BN<br>BK/GY | 654<br>5152 | Cellular Telephone Microphone Low Reference<br>Voice Recognition Audio Low Reference | I<br>I | IOS/IOT/IOU-UE1<br>UE1+IOS/IOT/IOU |
| 11 | 0.35 | VT/YE | 7043 | Microphone (+) Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 0.35 | BU/BK | 7044 | Microphone (-) Low Reference | I | IOS/IOT/IOU |
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |
| 15 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 16 - 29 | - | - | - | Not Occupied | - | - |

## A11 RADIO X2 (IOS/IOT/IOU)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 160014-0001
- Service Connector: 19355494
- Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| II | 19354361 | EL-35616-58 (BK) | EL-38125-58 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | NKC+UZ6+IOS/IOU |
| 2 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | NKC+UZ6+IOS/IOU |
| 3 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | NKC+UZ6+IOS/IOU |

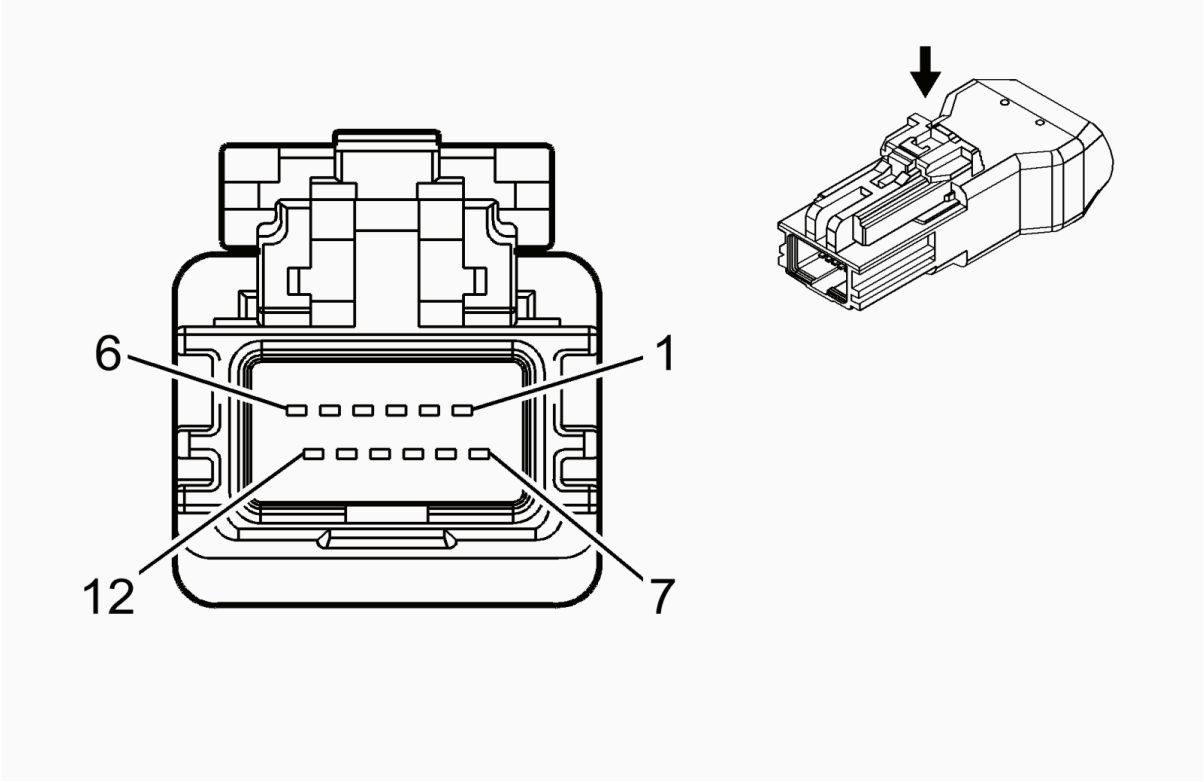
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 4 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | NKC+UZ6+IOS/IOU |
| 5 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | NKC+UZ6+IOS/IOU |
| 6 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | NKC+UZ6+IOS/IOU |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | NKC+UZ6+IOS/IOU |
| 9 | 0.35<br>0.35 | WH/GN<br>BU/GN | 1305<br>1304 | High Speed GMLAN Serial Data (-) 9<br>High Speed GMLAN Serial Data (+) 9 | II<br>II | IOS/IOT/IOU-UE1<br>UE1+IOS/IOT/IOU |
| 10 | 0.35<br>0.35 | BU/GN<br>WH/GN | 1304<br>1305 | High Speed GMLAN Serial Data (+) 9<br>High Speed GMLAN Serial Data (-) 9 | II<br>II | IOS/IOT/IOU-UE1<br>UE1+IOS/IOT/IOU |
| 11 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | II | IOS/IOT/IOU |
| 12 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | II | IOS/IOT/IOU |
| 13 | 0.35 | GN/WH | 1324 | Backup Lamp Control | II | IOS/IOT/IOU |
| 14 | 0.13 | GN/YE | 7066 | Entertainment Remote Enable Signal | II | NKC+UZ6+IOS/IOU |
| 15 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | II | IOS/IOT/IOU |
| 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | GN/BU | 7532 | Local Interconnect Network Serial Data Bus 10 | II | IOS/IOT/IOU |
| 21 - 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.35 | GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | II | IOS/IOT/IOU |
| 25 - 27 | - | - | - | Not Occupied | - | - |
| 28 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | II | IOS/IOT/IOU |
| 29 | - | - | - | Not Occupied | - | - |

## A11 RADIO X3 (IOS/IOT/IOU)



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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13511514
- Service Connector: Service by Cable - See Part Catalog
- Description: 12-Way M 2.0 HSAL-2 Series (BK)

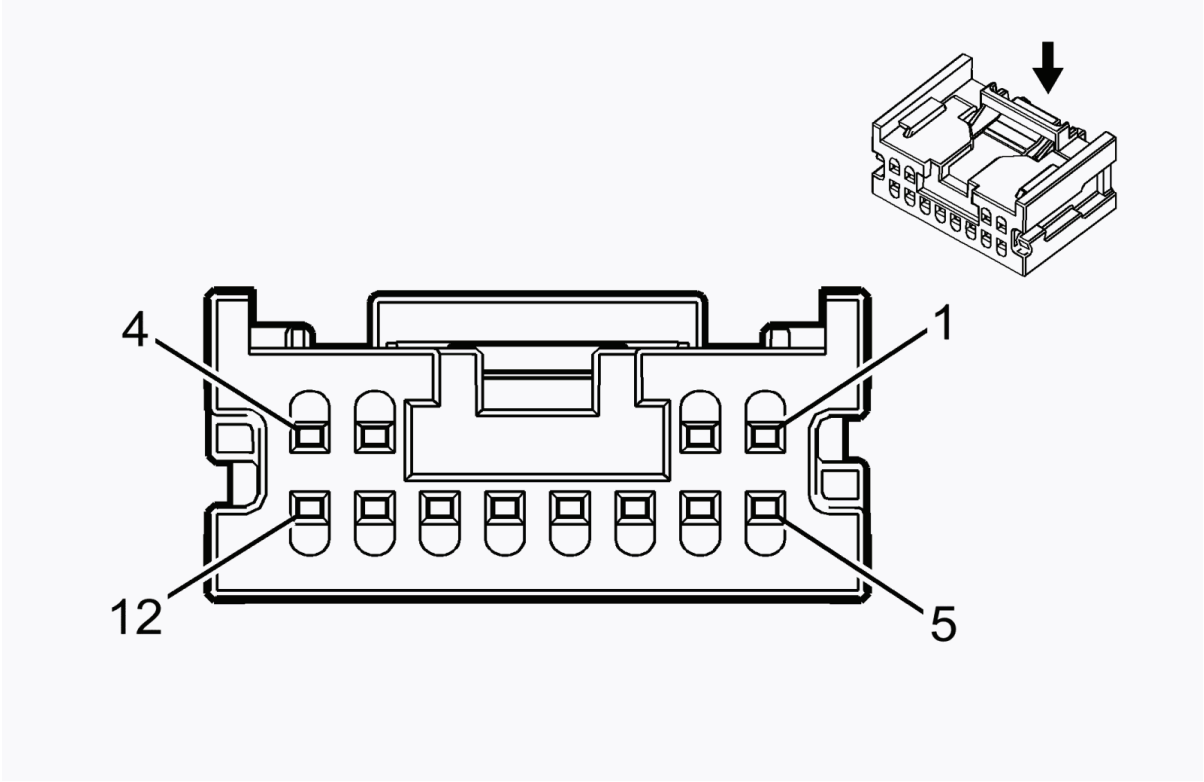
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.1 | WH/GN | 3149 | USB Serial Data Control | I | MCZ |
| 8 | 0.1 | WH | 3147 | USB D (-) Serial Data | I | MCZ |
| 9 | 0.1 | WH/GY | 3146 | USB D (+) Serial Data | I | MCZ |
| 10 | 0.1 | BK | 3148 | USB Serial Data Low Reference | I | MCZ |
| 11 - 12 | - | - | - | Not Occupied | - | - |

## A11 RADIO X6 (IOS/IOT/IOU)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 34824-5124
- Service Connector: 13507121
- Description: 12-Way F Mini 50 Series (BK)

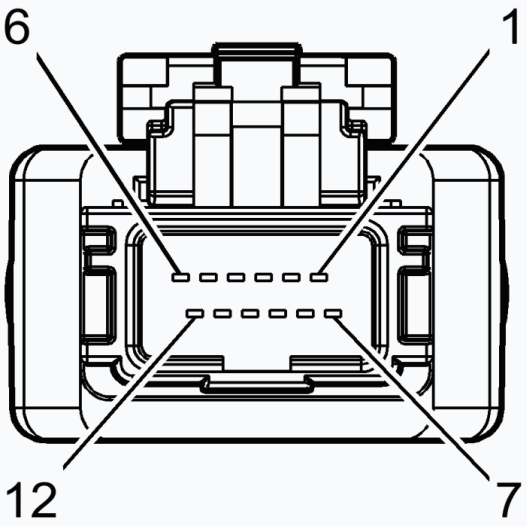
**Terminal Part Information**

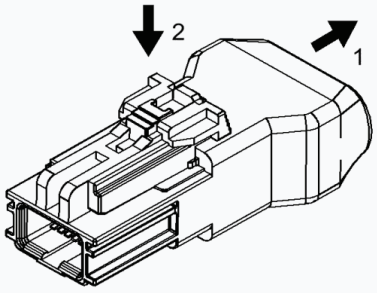
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | GY/BK | 7215 | Ethernet Bus 6 (+) | I | UQA+IOT/IOU/IOS |
| 9 | 0.35 | BN/BK | 7214 | Ethernet Bus 6 (-) | I | UQA+IOT/IOU/IOS |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | GY/WH | 7211 | Ethernet Bus 4 (+) | I | UE1+IOT/IOU/IOS |
| 12 | 0.35 | GY | 7210 | Ethernet Bus 4 (-) | I | UE1+IOT/IOU/IOS |

## A11 RADIO X7 (IOS/IOT/IOU)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13511515
- Service Connector: Service by Cable - See Part Catalog
- Description: 12-Way M 2.0 HSAL-2 Series (GY)

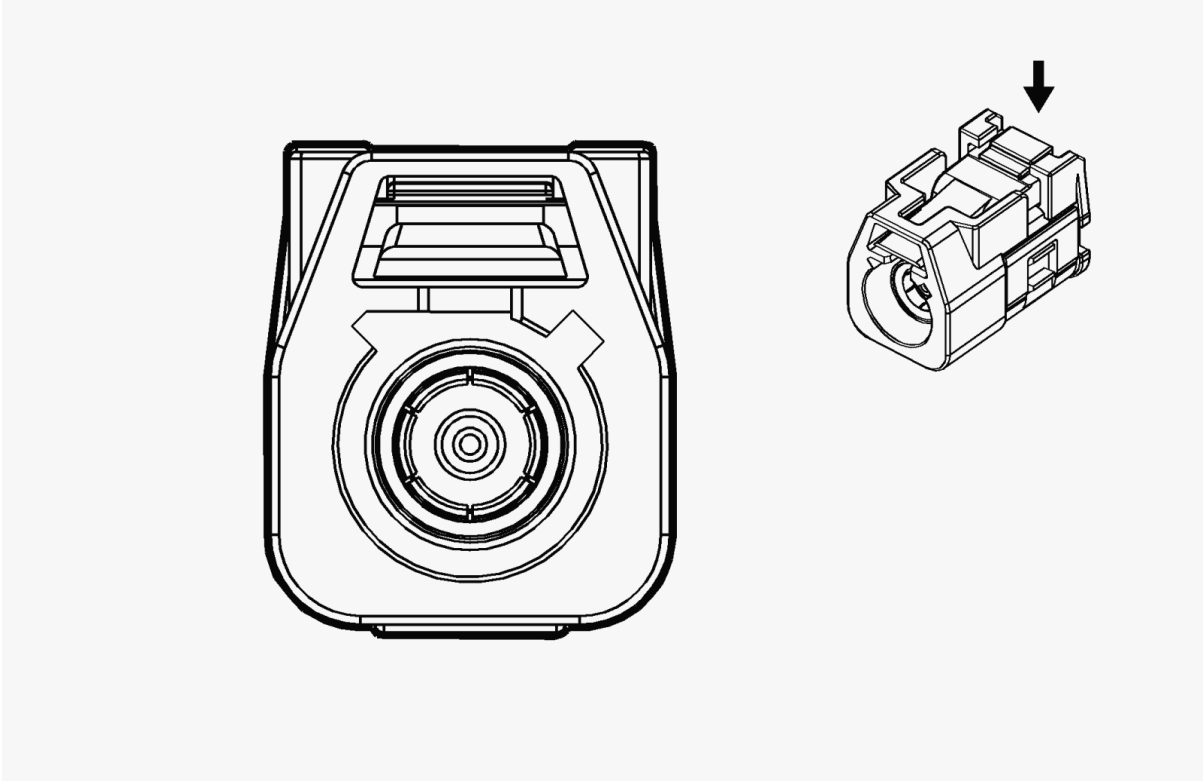
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.1 | BARE | 3365 | Navigation Display Low Reference | I | IOS/IOT/IOU |
| 2 | - | BU | 3366 | Navigation Display Signal (+) | I | IOS/IOT/IOU |
| 3 | 0.1 | BN | 3367 | Navigation Display Signal (-) | I | IOS/IOT/IOU |
| 4 - 12 | - | - | - | Not Occupied | - | - |

## A11 RADIO X4 (IOS/IOT/IOU+U2K)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13583834
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BK)

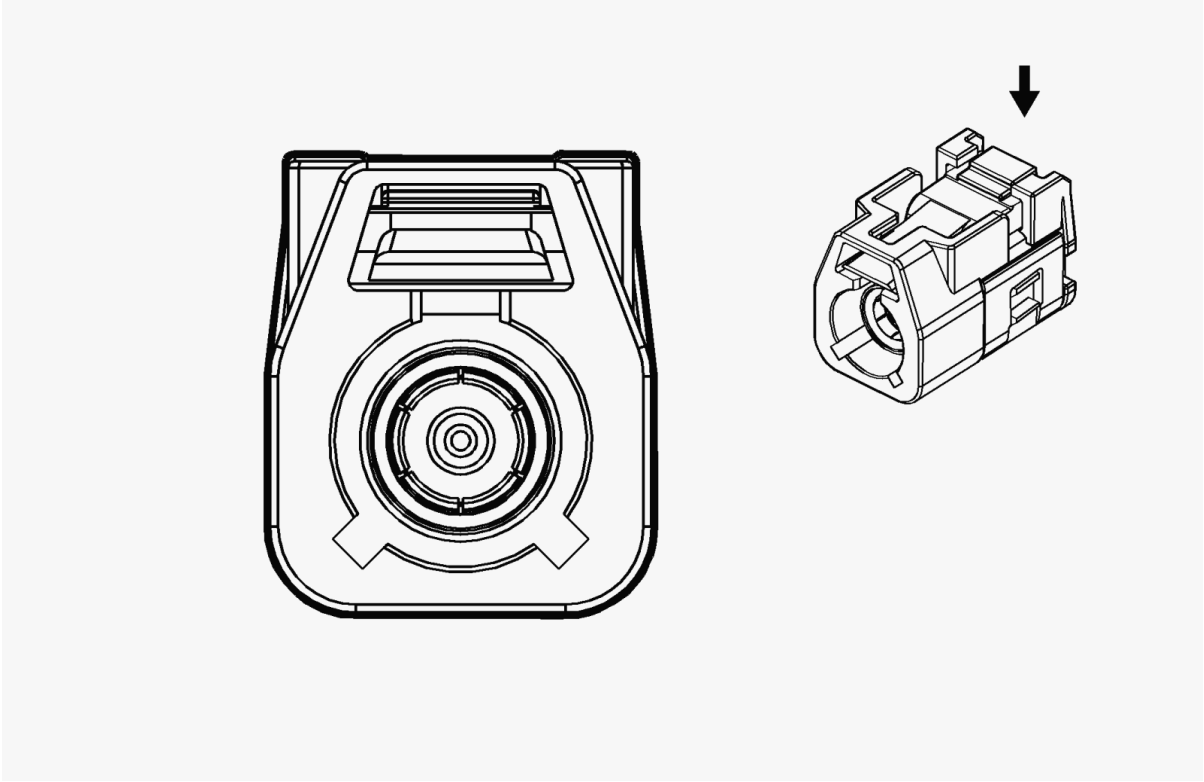
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (RFR) Coaxial Antenna RFA Signal | I | - |

## A11 RADIO X5 (IOS/IOT/IOU+U2K)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13586878
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (CU)

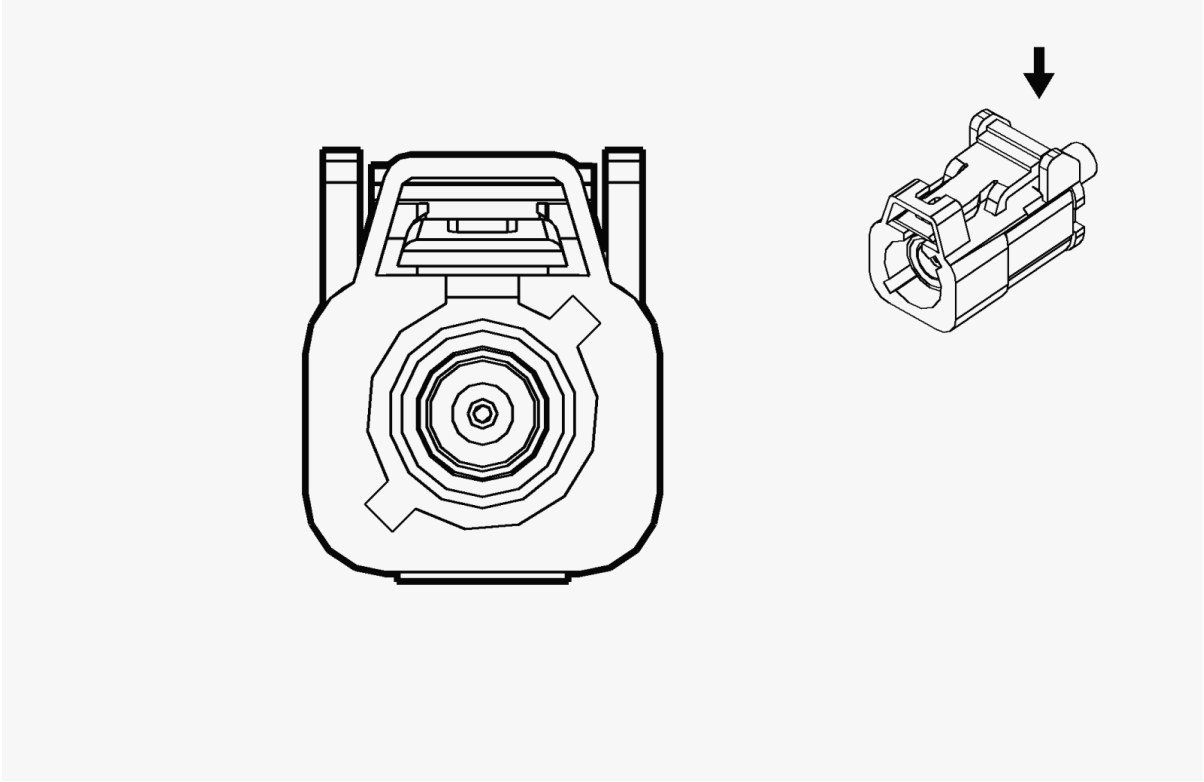
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (XM +/-HD) Coaxial Antenna XM Signal | I | - |

## A11 RADIO X4 (IOS/IOT/IOU-UE1)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13586874
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BU)

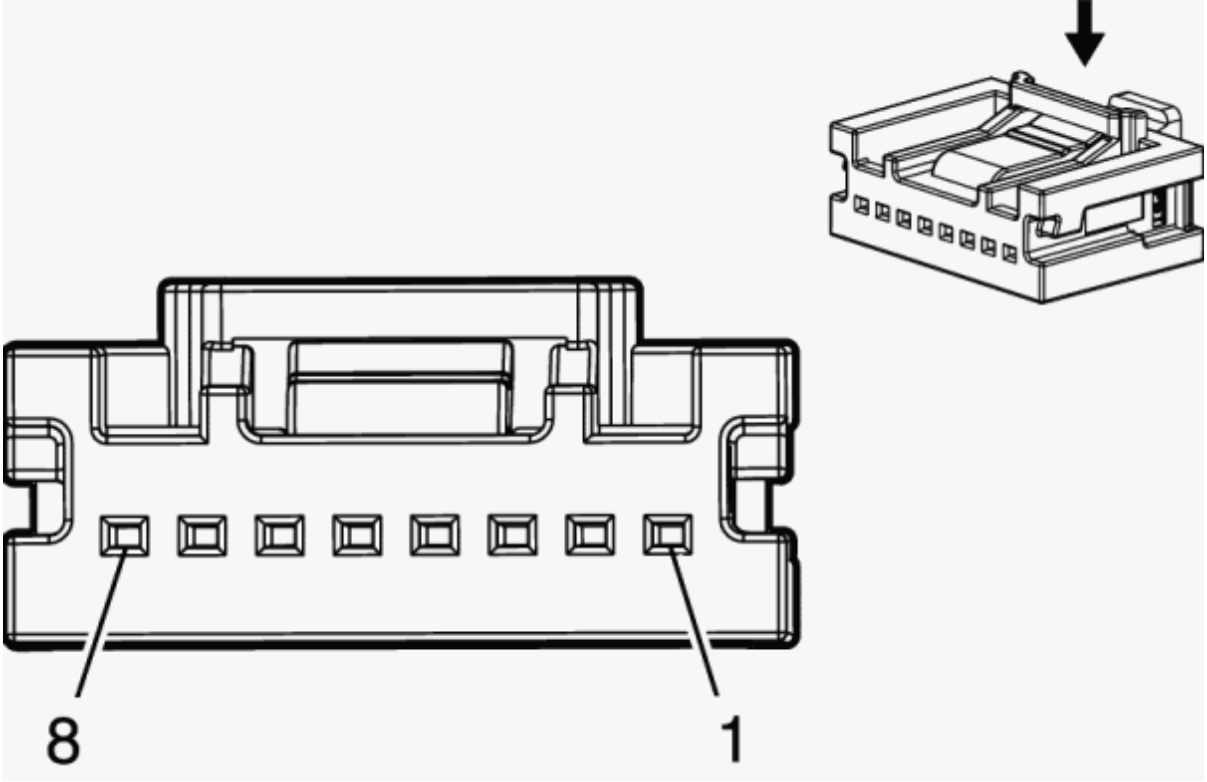
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS only) Coaxial Antenna GPS Signal | I | - |

## A22 RADIO CONTROLS (IOB/IOR)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 34791-5180
- Service Connector: 19354223
- Description: 8-Way F Mini 50 Series (BK)

**Terminal Part Information**

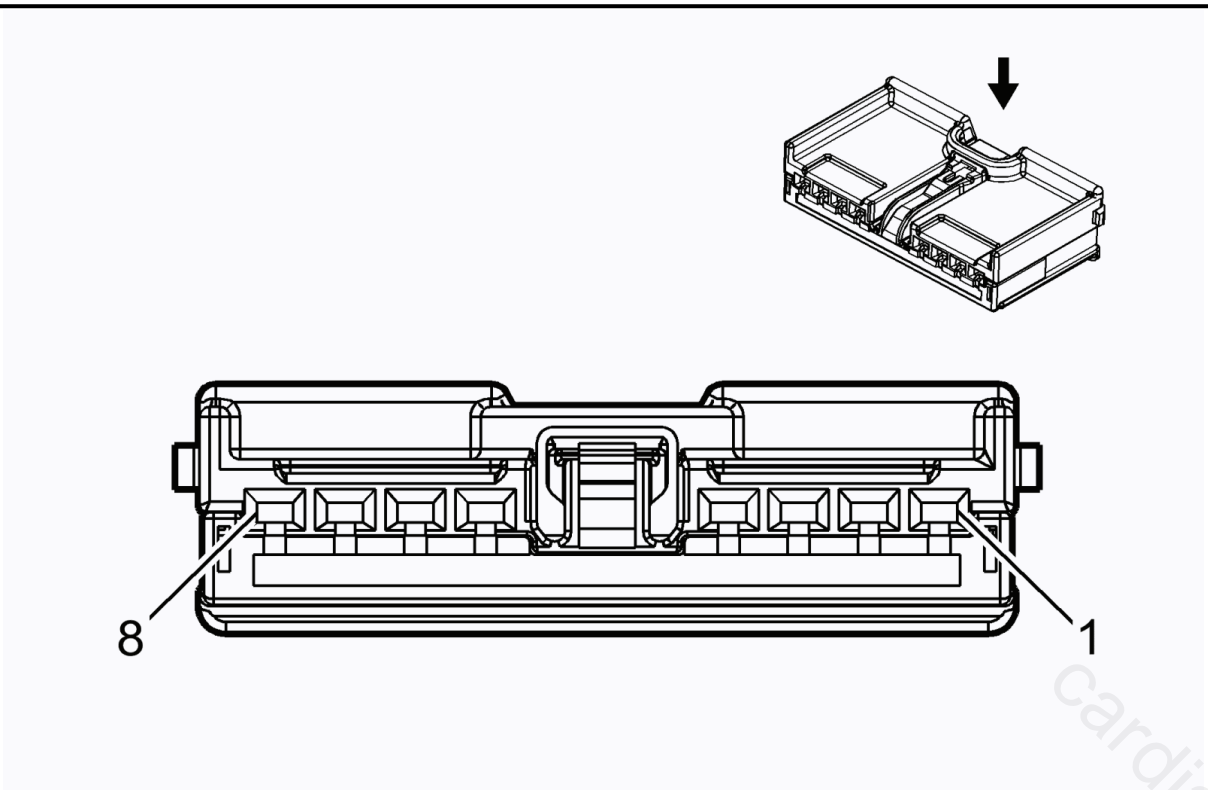
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35<br>0.35 | BU/RD<br>BN/WH | 2807<br>2517 | Radio Keypad Voltage Reference<br>Keypad Red LED Control | I<br>I | IOB<br>IOR |
| 2 | 0.35<br>0.35 | GN/BK<br>BU/RD | 2805<br>2807 | Radio Keypad Ground Return<br>Radio Keypad Voltage Reference | I<br>I | IOB<br>IOR |
| 3 | 0.35<br>0.35 | VT/WH<br>BN/WH | 2810<br>2809 | Radio Keypad Button Signal<br>Radio Keypad Power Signal | I<br>I | IOB<br>IOR |
| 4 | 0.35<br>0.35 | BN/WH<br>BK/YE | 2809<br>2806 | Radio Keypad Power Signal<br>Radio Keypad Low Reference | I<br>I | IOB<br>IOR |
| 5 | 0.35 | BU/GY | 2808 | Radio Keypad Dimming Control | I | - |
| 6 | 0.35<br>0.35 | BU<br>VT/WH | 4315<br>2810 | Radio Volume Up Signal<br>Radio Keypad Button Signal | I<br>I | IOB<br>IOR |
| 7 | 0.35<br>0.35 | GY/BN<br>BU | 4314<br>4315 | Radio Volume Down Signal<br>Radio Volume Up Signal | I<br>I | IOB<br>IOR |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 0.35<br>0.35 | BK/YE<br>GY/BN | 2806<br>4314 | Radio Keypad Low Reference<br>Radio Volume Down Signal | I<br>I | IOB<br>IOR |

## A23C LIFTGATE LATCH ASSEMBLY (TB5/TC2)




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 19115648
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 1.5 Series (BK)

**Terminal Part Information**

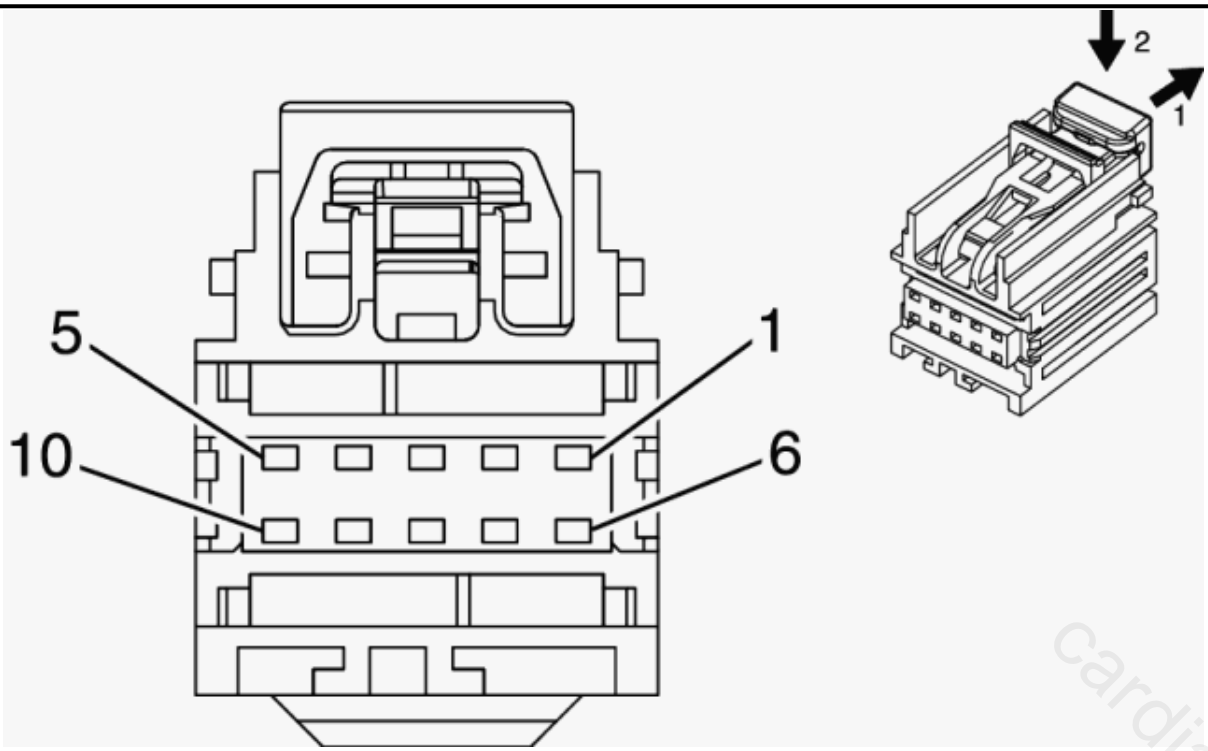
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 4668 | Rear Closure Ajar Switch Signal 3 | I | TB5/TC2 |
| 2 | 0.35 | GN/BK | 4659 | Rear Closure Open | II | TB5/TC2 |
| 3 | 0.35 | GY/VT | 4678 | Rear Closure Ajar Switch Signal 1 | II | TB5/TC2 |
| 4 | 0.35 | BU/YE | 4679 | Rear Closure Motor Release Control 2 | II | TB5/TC2 |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | BK/VT | 4656 | Rear Closure Object Sensor Low Reference | II | TB5/TC2 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 1 | BN | 4681 | Rear Closure Cinch Latch Motor Open Control | I | TB5/TC2 |
| 8 | 1 | BU/GY | 4682 | Rear Closure Cinch Latch Motor Close Control | I | TB5/TC2 |

## A23D DOOR LATCH ASSEMBLY - DRIVER




Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

**Terminal Part Information**

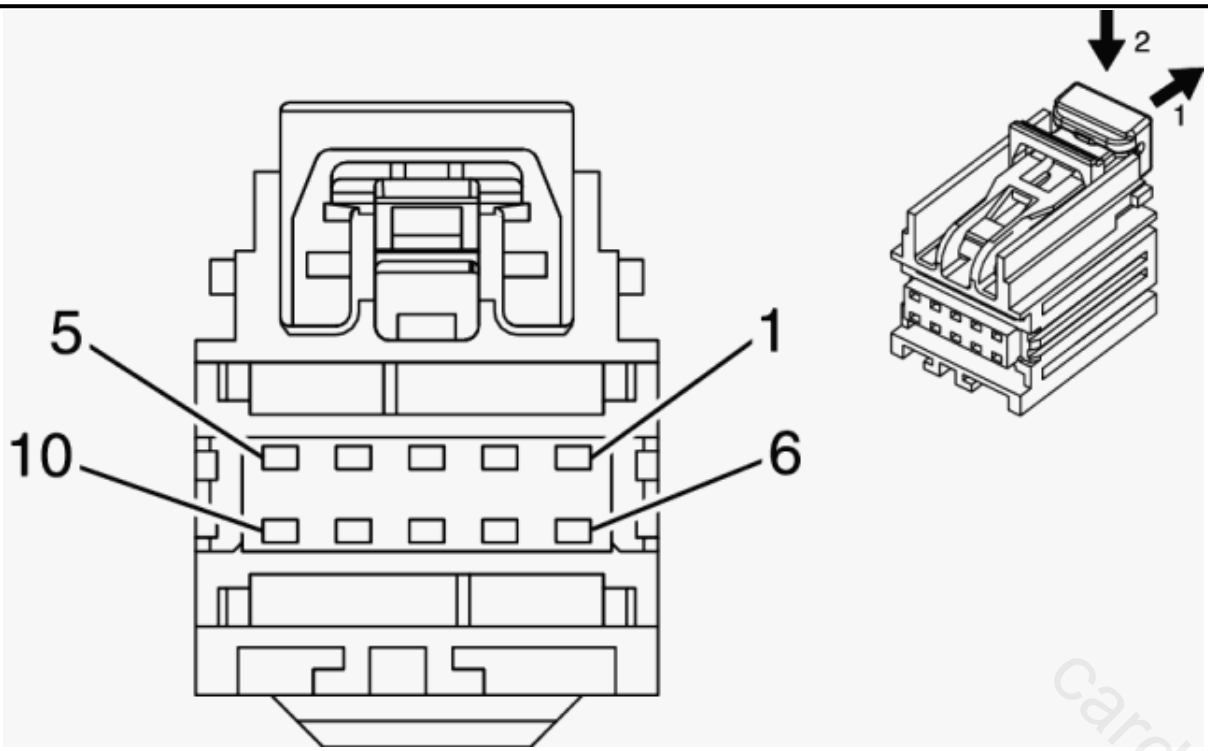
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 745 | Left Front Door Ajar Switch Signal | I | AXG |
| 2 | 0.35 | WH/YE | 3574 | Driver Door Open Switch Signal | I | - |
| 3 | 0.5 | BK | 1550 | Ground | I | - |
| 4 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | I | - |
| 5 | 0.35 | BU/VT | 1124 | Door Lock Key Switch Unlock Signal | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.75 | BU/WH | 195 | Door Lock Control | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | - |
| 9 - 10 | - | - | - | Not Occupied | - | - |

## A23LR DOOR LATCH ASSEMBLY - LEFT REAR




Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

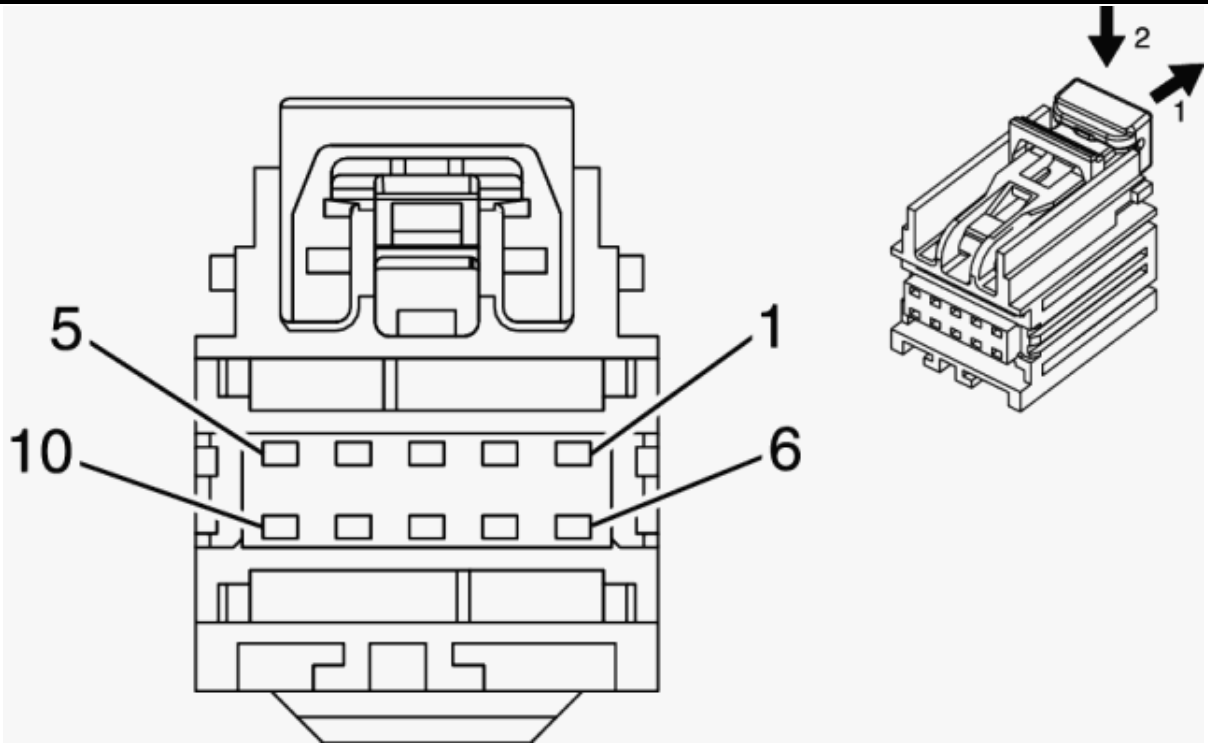
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 747 | Left Rear Door Ajar Switch Signal | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BK | 1550 | Ground | I | - |
| 4 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | - |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | - |
| 9 - 10 | - | - | - | Not Occupied | - | - |

## A23P DOOR LATCH ASSEMBLY - PASSENGER

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

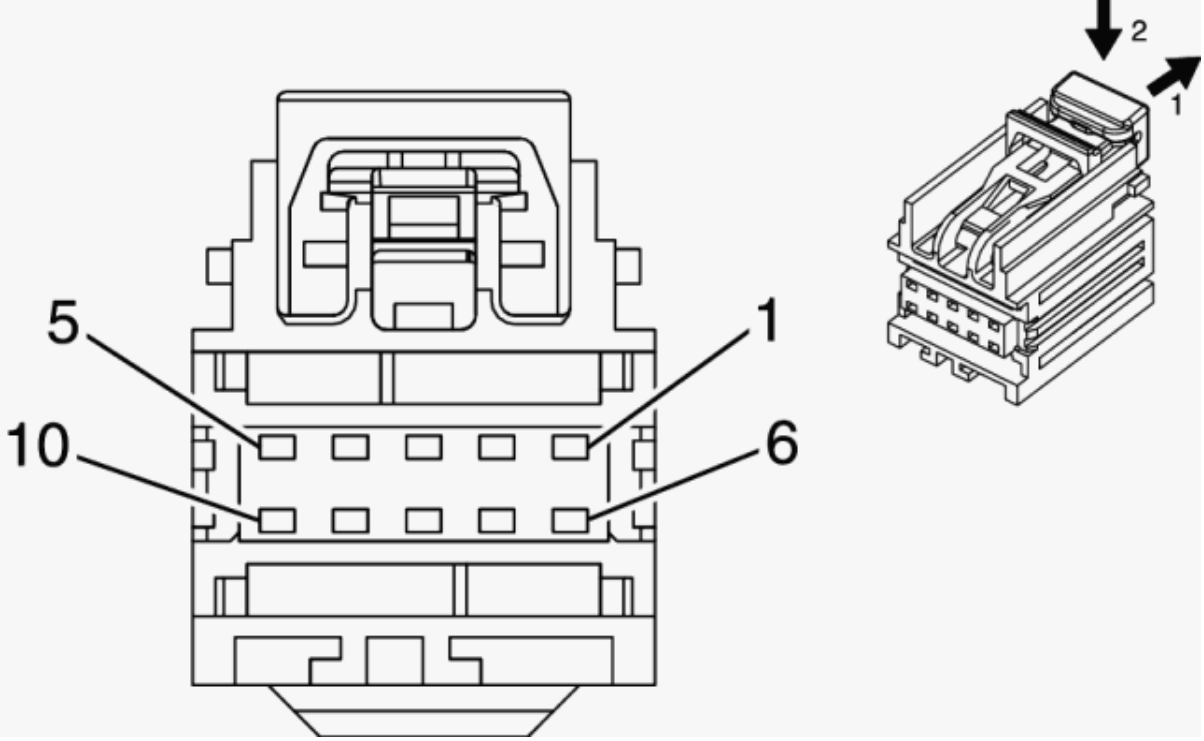
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | VT | 4009 | Passenger Door Lock Status | I | - |
| 3 | 0.35 | BK | 2050 | Ground | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | GY | 746 | Right Front Door Ajar Switch Signal | I | AED |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | - |
| 9 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | - |
| 10 | - | - | - | Not Occupied | - | - |

## A23RR DOOR LATCH ASSEMBLY - RIGHT REAR

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

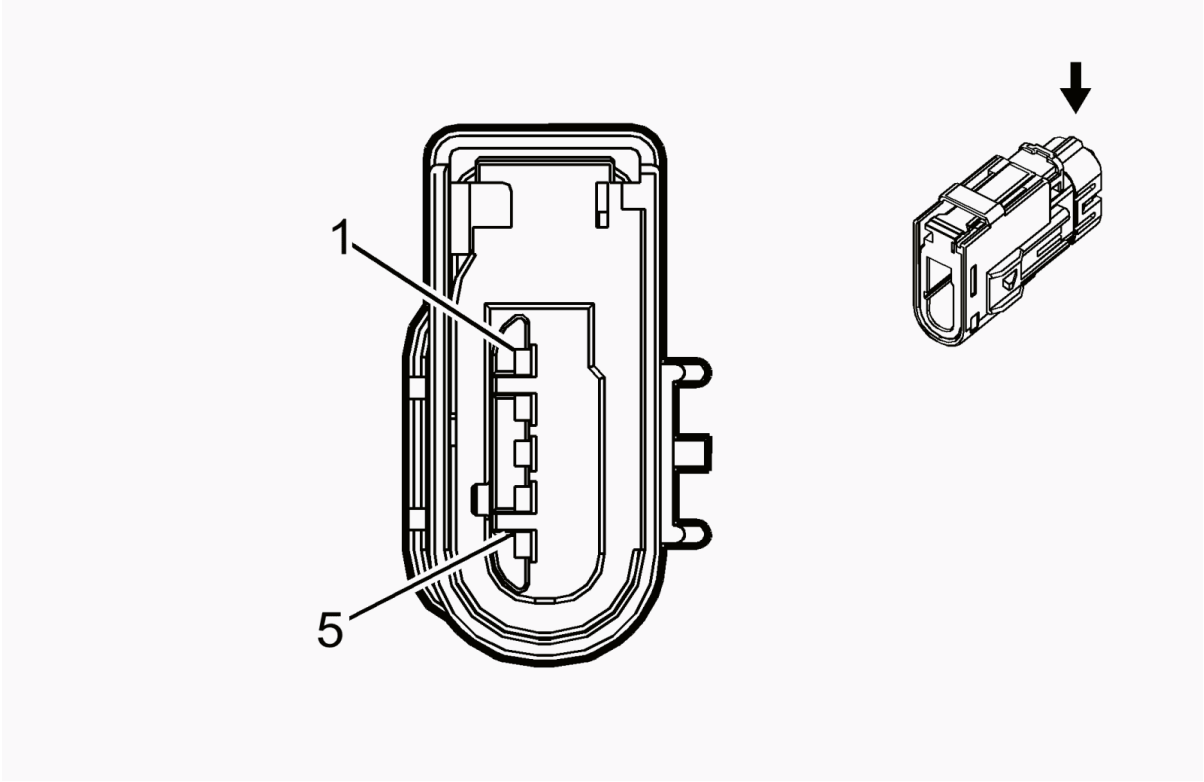
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BK | 2050 | Ground | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | GY | 748 | Right Rear Door Ajar Switch Signal | I | - |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | I | - |
| 9 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | I | - |
| 10 | - | - | - | Not Occupied | - | - |

## A24D DOOR HANDLE ASSEMBLY - DRIVER EXTERIOR

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Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 13582039
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (NA)

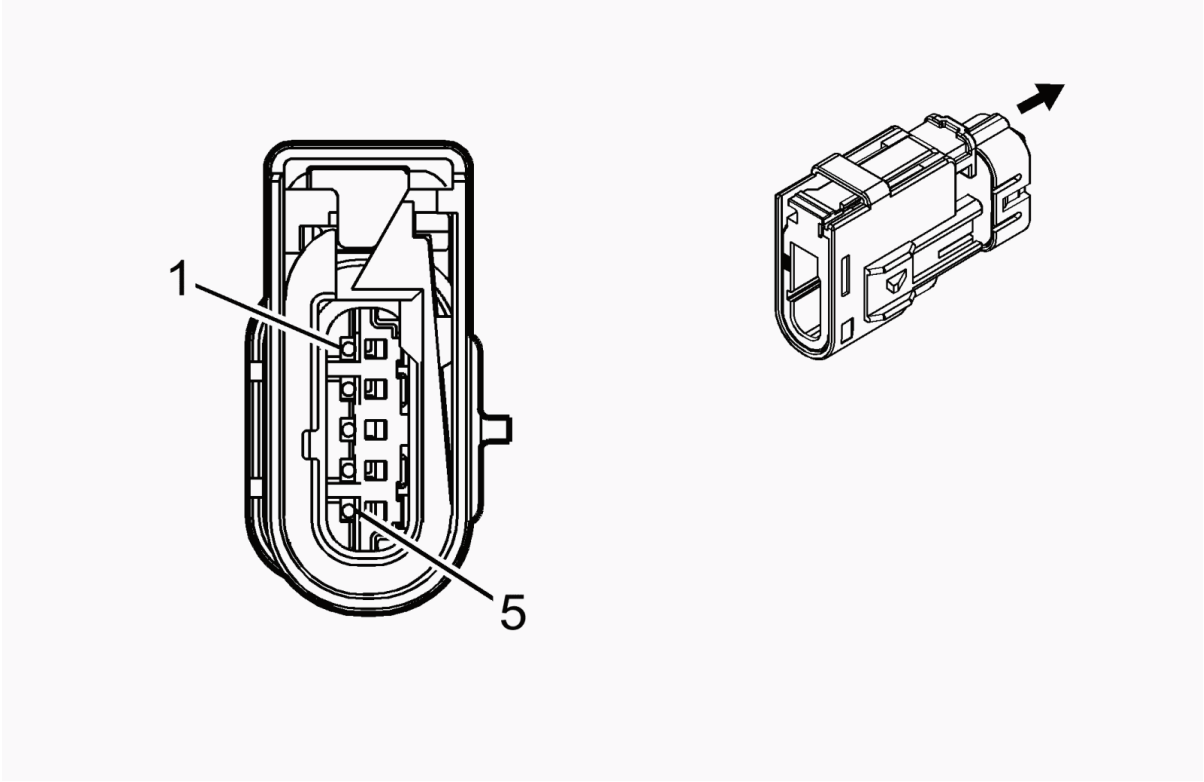
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/WH | 3570 | Driver Door Handle Switch Signal | I | - |
| 2 | 0.35 | VT | 3560 | Passive Entry Driver Door Antenna Signal Hi | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | VT/GY | 3561 | Passive Entry Driver Door Antenna Signal Lo | I | - |
| 5 | 0.35 | BK | 1550 | Ground | I | - |

## A24LR DOOR HANDLE ASSEMBLY - LEFT REAR EXTERIOR

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 13519367
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (BK)

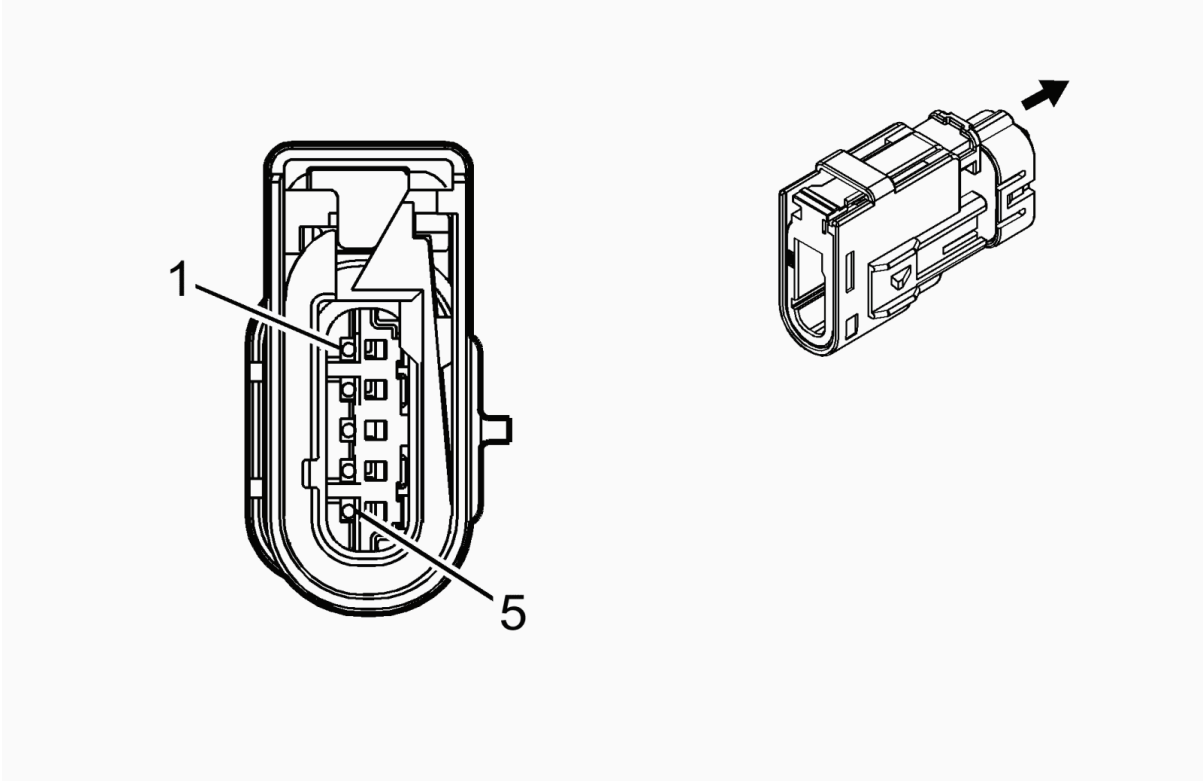
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/YE | 6157 | Left Rear Door Handle Switch Signal | I | - |
| 2 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BK | 1550 | Ground | I | - |

## A24P DOOR HANDLE ASSEMBLY - PASSENGER EXTERIOR

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 13519366
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (NA)

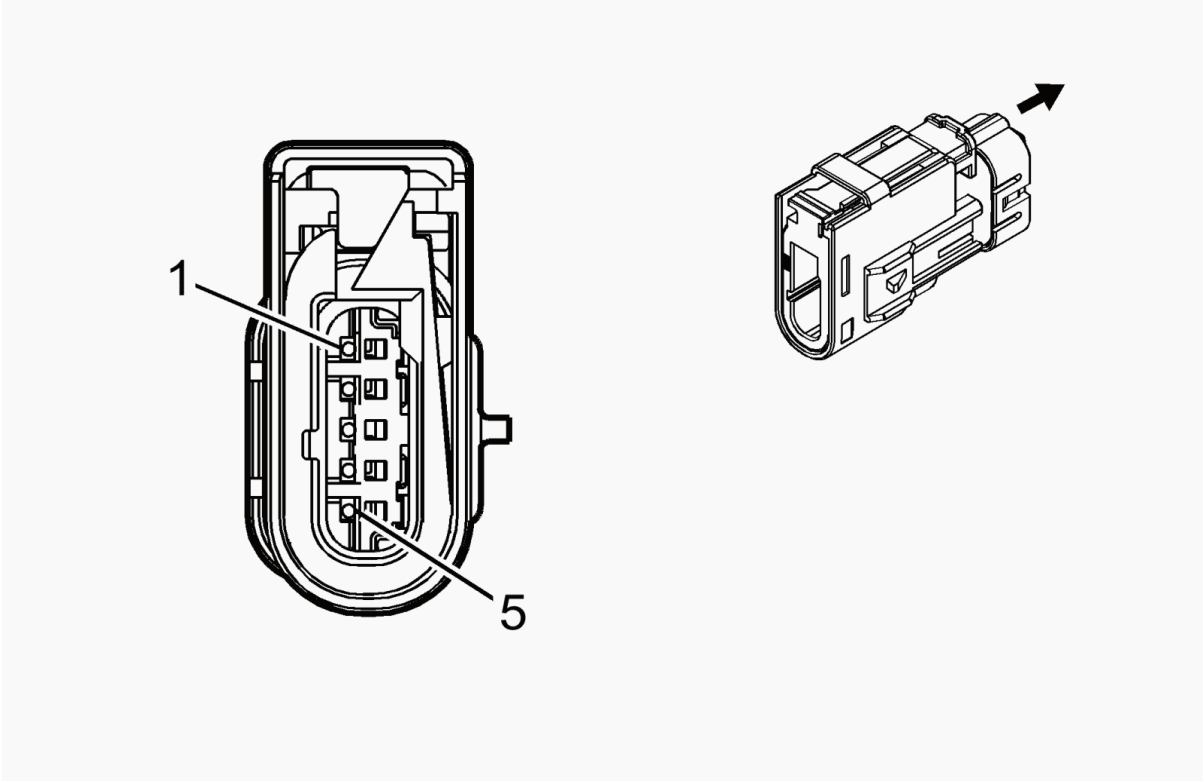
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/WH | 3571 | Passenger Door Handle Switch Signal | I | - |
| 2 | 0.35 | GN/YE | 3562 | Passive Entry Passenger Door Antenna Signal Hi | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GN/BK | 3563 | Passive Entry Passenger Door Antenna Signal Lo | I | - |
| 5 | 0.35 | BK | 2050 | Ground | I | - |

## A24RR DOOR HANDLE ASSEMBLY - RIGHT REAR EXTERIOR

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 13519367
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (BK)

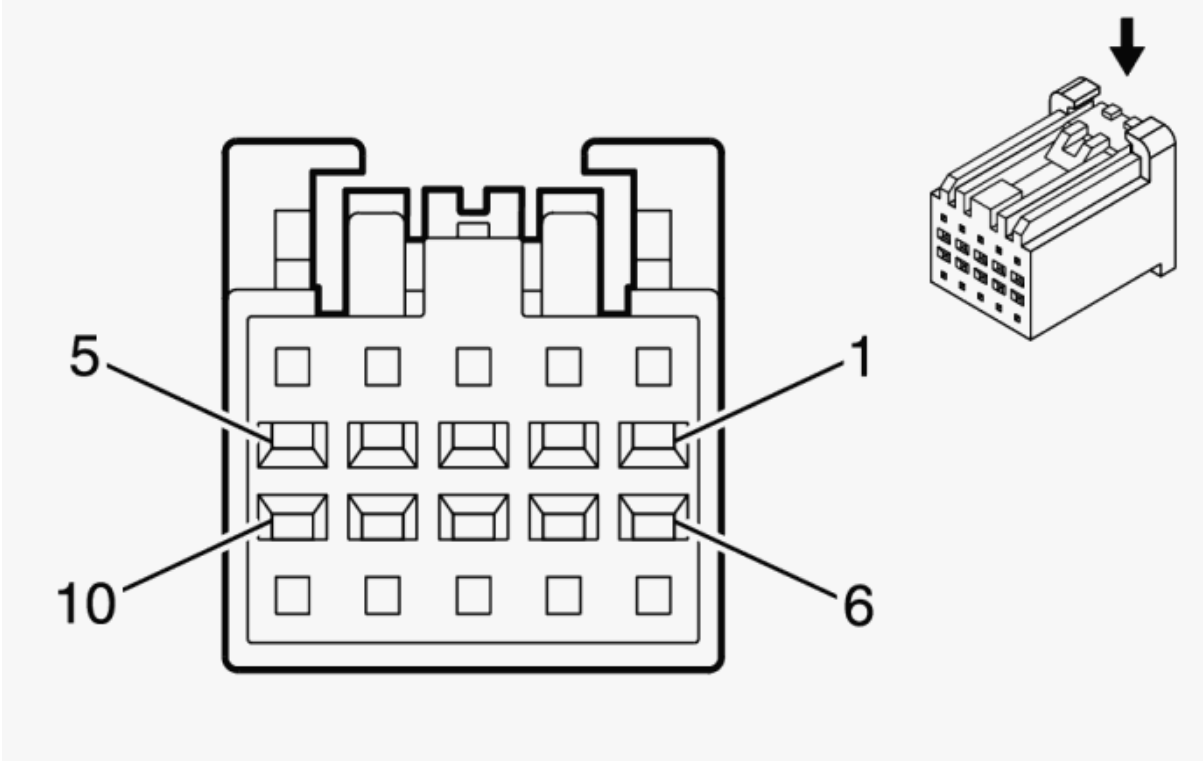
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/GY | 6158 | Right Rear Door Handle Switch Signal | I | - |
| 2 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BK | 2050 | Ground | I | - |

## A26 HVAC CONTROLS

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581139
- Service Connector: 13581139
- Description: 10-Way F 0.64 Kaizen Series (GY)

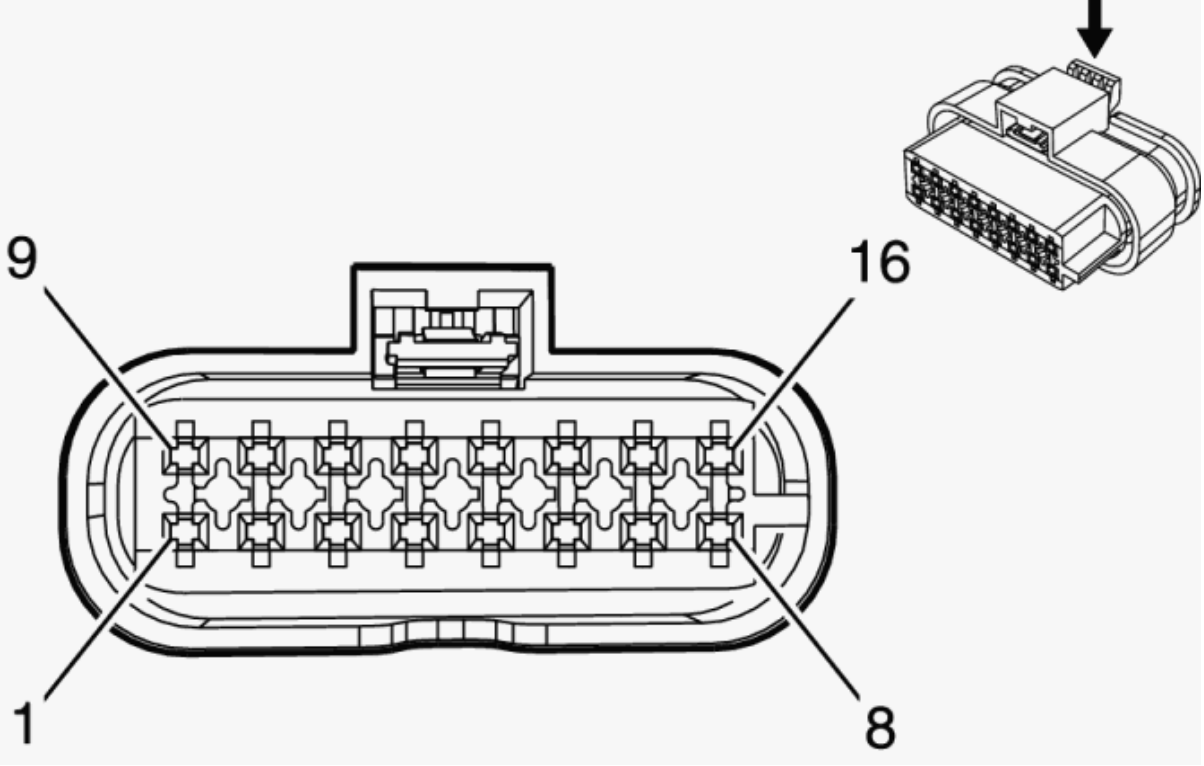
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 4 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | GN/YE | 7531 | Local Interconnect Network Serial Data Bus 9 | I | - |
| 10 | 0.35 | BK | 1750 | Ground | I | - |

## A39 REDUCTANT FLUID RESERVOIR ASSEMBLY (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Reductant
- OEM Connector: 805-587-541
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 1.2 Multilock Series (BK)

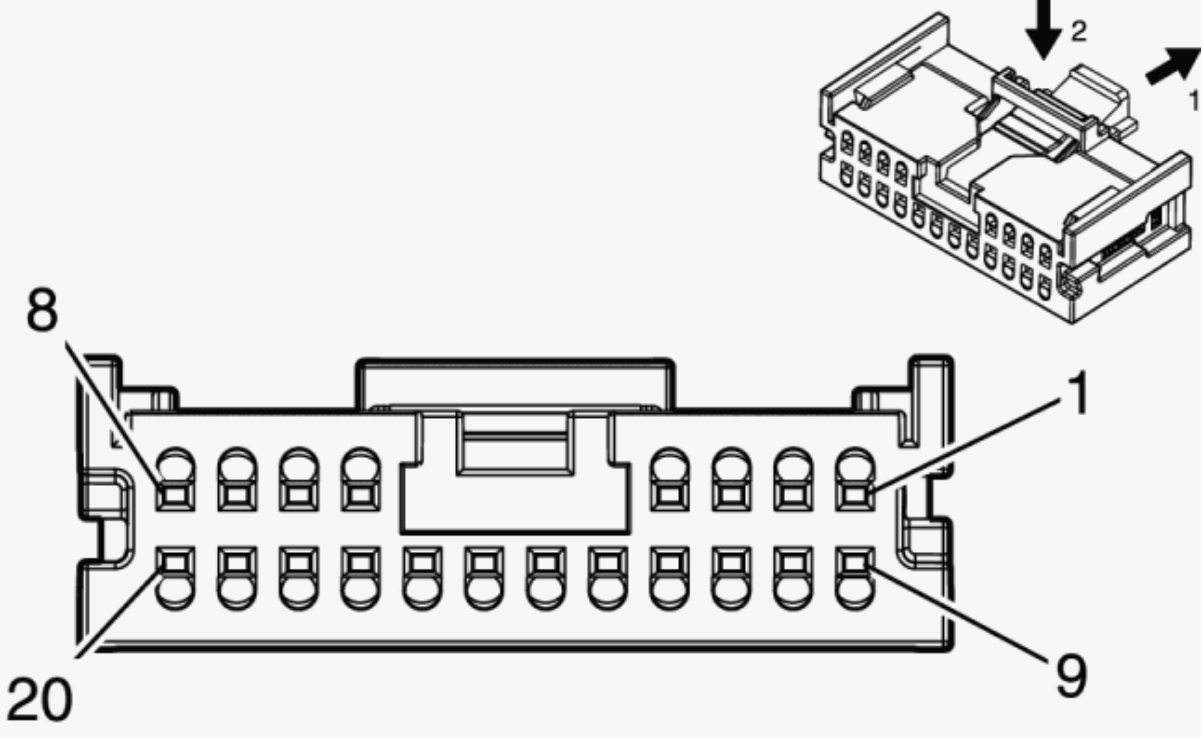
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/WH | 9001 | Temperature Sensor Signal | I | - |
| 2 | 0.5 | BK | 9002 | Temperature Sensor Ground | I | - |
| 3 | 0.5 | BK/WH | 9003 | Pressure Sensor Ground | I | - |
| 4 | 0.5 | BK | 9004 | Pressure Sensor Signal | I | - |
| 5 | 0.5 | BK | 9005 | Pressure Sensor Supply | I | - |
| 6 | 0.5 | BK/WH | 9006 | Level Sensor Ground | I | - |
| 7 | 1 | GY/WH | 9007 | Pump Phase A | I | - |
| 8 | 1 | YE/GY | 9008 | Pump Phase B | I | - |
| 9 | 1 | GY/WH | 9009 | Tank Heater Supply | I | - |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 1 | BK/WH | 9010 | Tank Heater Ground | I | - |
| 12 | - | - | - | Not Occupied | - | - |
| 13 | 0.5 | BK | 9012 | Level Sensor Supply | I | - |
| 14 | 0.5 | BK | 9013 | Level Sensor Signal | I | - |
| 15 | 0.5 | BK | 9014 | Pump Ground | I | - |
| 16 | 0.5 | BK | 9015 | Pump Phase C | I | - |

## A97 TRANSMISSION RANGE SELECTOR CONTROLS (EPH)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13596105
- Service Connector: 13596105
- Description: 20-Way F Mini 50 Series (BK)

**Terminal Part Information**

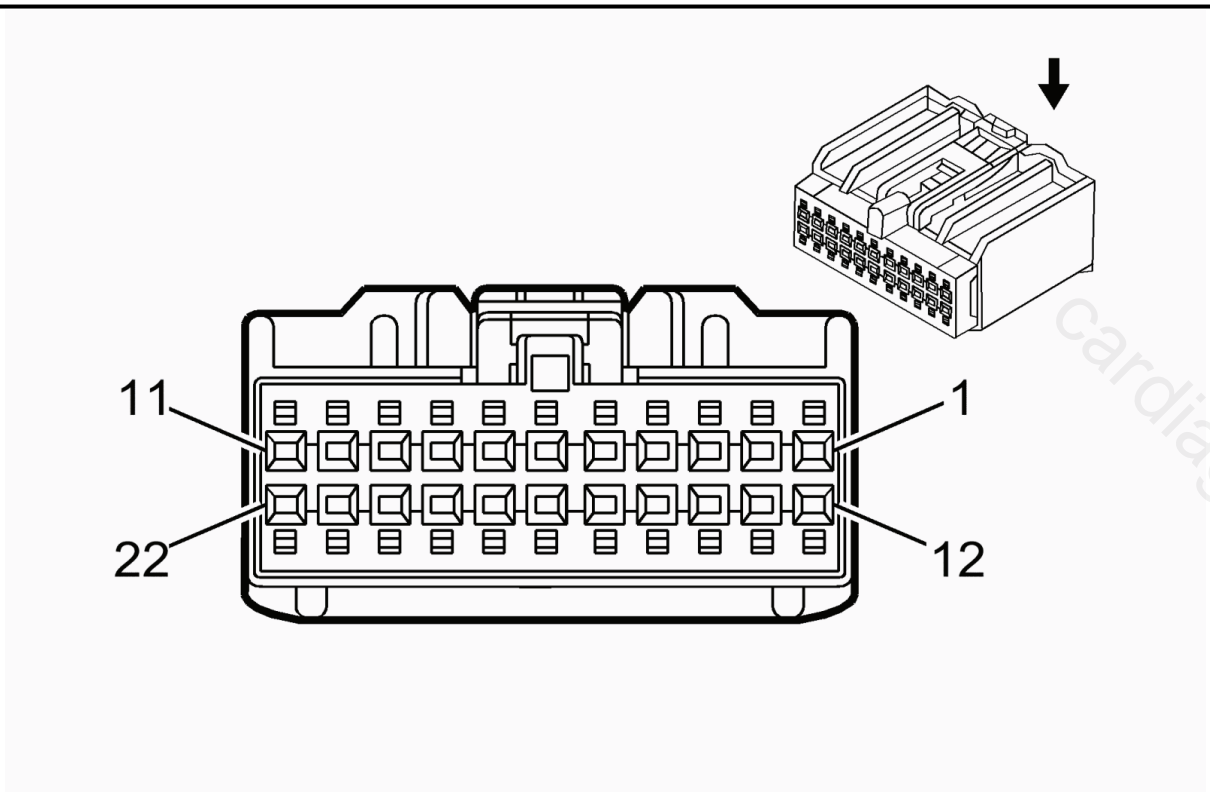
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | I | - |
| 2 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | I | - |
| 3 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | I | - |
| 4 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | I | - |
| 5 | 0.35 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | - |
| 6 | 0.35 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | - |
| 7 | 0.35 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | - |
| 8 | 0.35 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | - |
| 9 | 0.35 | RD/BN | 440 | Battery Positive Voltage | I | EPH |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.13 | VT/YE | 5526 | Tap Up/Tap Down Switch Signal | I | EPH |
| 12 | 0.35 | BK | 2250 | Ground | I | EPH |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | - |
| 15 | 0.35 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | - |
| 16 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | - |
| 17 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | EPH |
| 18 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | - |
| 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | BK | 1650 | Ground | I | EPH |

## A98 FRONT OVERHEAD CONSOLE ASSEMBLY




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Connector Part Information

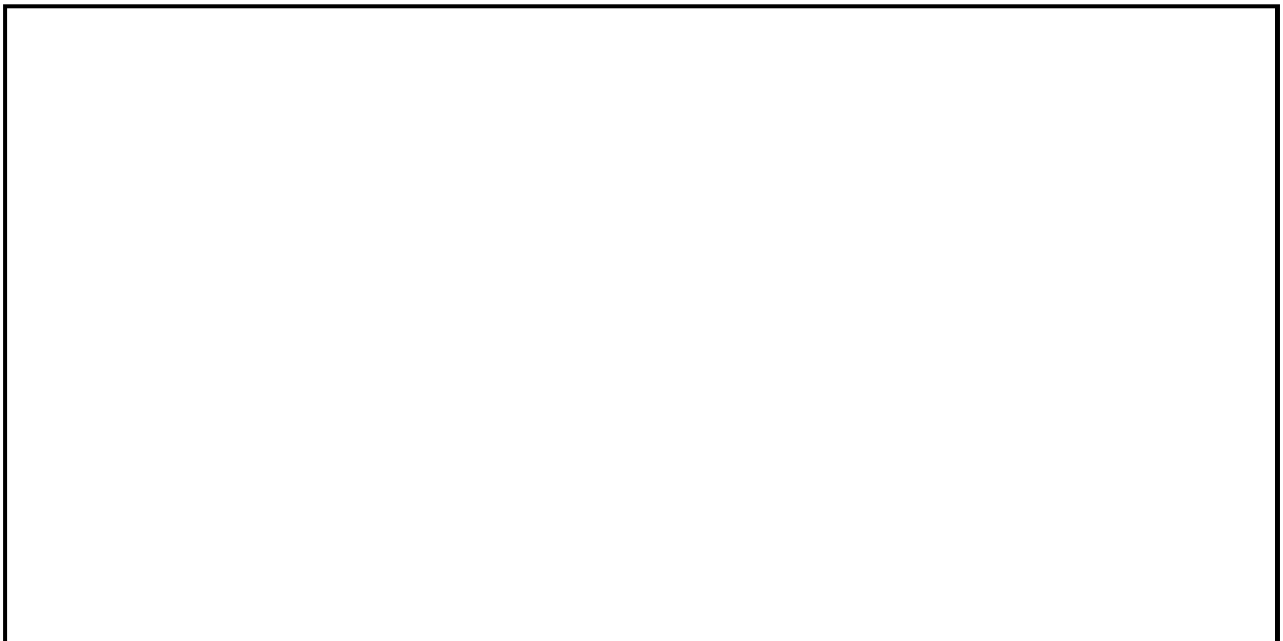
- Harness Type: Headliner
- OEM Connector: 13504097
- Service Connector: 13504097
- Description: 22-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

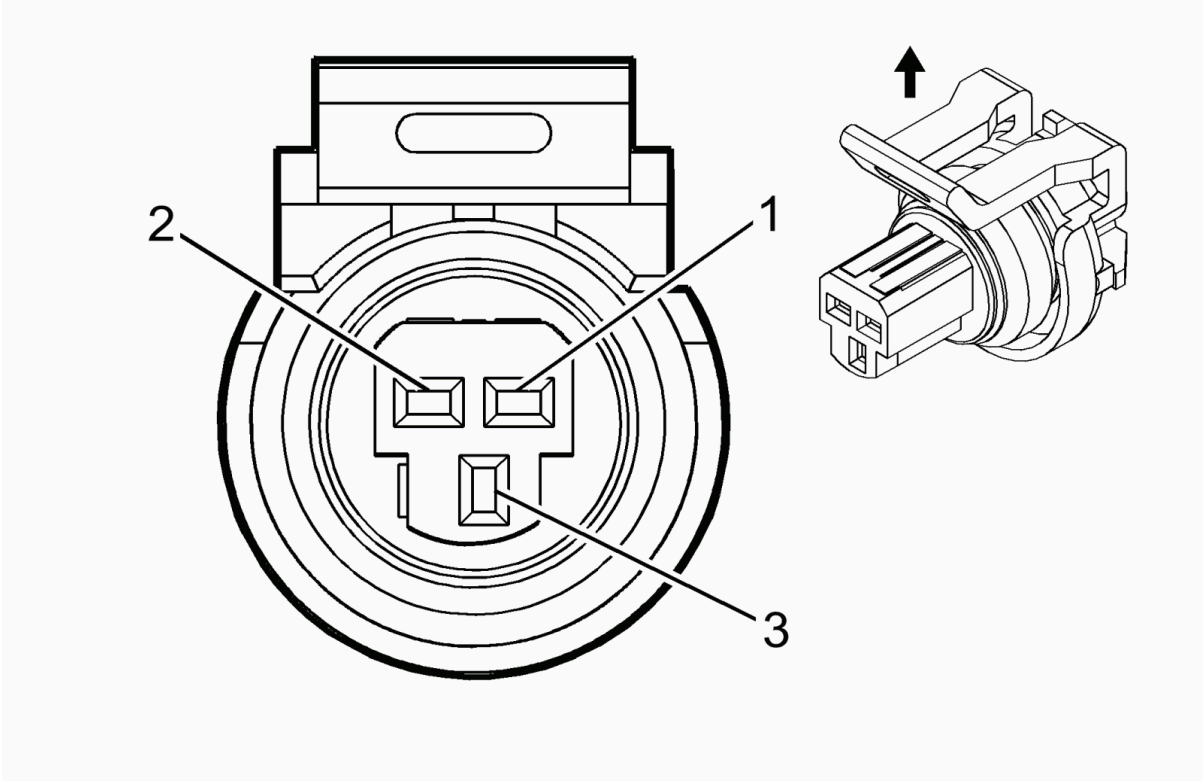
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | II | - |
| 2 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | II | - |
| 3 | 0.13 | GY | 156 | Courtesy Lamp Switch Signal | I | - |
| 4 | 0.35 | BK/BU | 5307 | Front Sunshade Switch Low Reference | II | C3U |
| 5 | 0.35 | BK | 2050 | Ground | II | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | WH/BN | 6815 | Inadvertent Power Control | II | - |
| 8 | 0.5 | GY | 157 | Interior Lamp Control | II | - |
| 9 | 0.35 | BU/VT | 5027 | Sunroof Switch Data 1 Signal | II | C3U |
| 10 | 0.35 | BU/GY | 3032 | Front Sunshade Switch Signal | II | C3U |
| 11 | 0.35 | GN | 2308 | Passenger Air Bag Off Indicator Control | II | AL0 |
| 12 | 0.35 | BU | 2307 | Passenger Air Bag On Indicator Control | II | AL0 |
| 13 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | II | AL0/UHH/UHG |
| 14 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | II | UE1 |
| 15 | 0.35 | YE/VT | 2516 | Keypad Green LED Control | II | UE1 |
| 16 | 0.35 | GN/BK | 2515 | Keypad Control | II | UE1 |
| 17 | 0.35 | GN/WH | 2514 | Keypad Signal | II | UE1 |
| 18 | 0.35 | WH | 6816 | Indicator Dimming Control | II | - |
| 19 | 0.35 | BU/GY | 4672 | Dome Lamp Off Indicator Control | II | - |
| 20 | 0.35 | BK/GY | 128 | Sunroof Switch Low Reference | II | C3U |
| 21 | 0.13 | GY/GN | 328 | Interior Lamp Defeat Switch Signal | I | - |
| 22 | 0.35 | YE | 6817 | LED Backlight Dimming Control | II | - |

## B1 A/C REFRIGERANT PRESSURE SENSOR



carsdiagn.com




Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 19210607
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 150 GT Series, Sealed (BK)

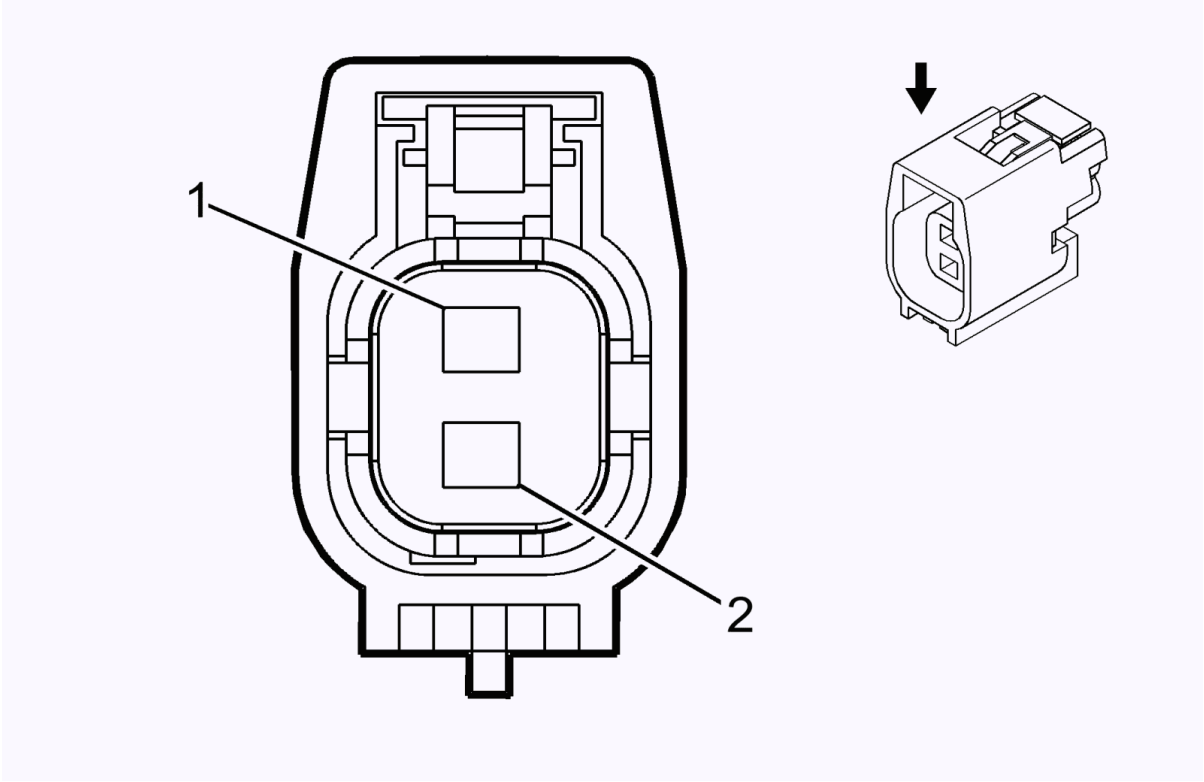
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | I | - |
| 2 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | I | - |
| 3 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | I | - |

## B5LF WHEEL SPEED SENSOR - LEFT FRONT

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 19153615
- Service Connector: 13586115
- Description: 2-Way F 1.5 GT Series, Sealed (BK)

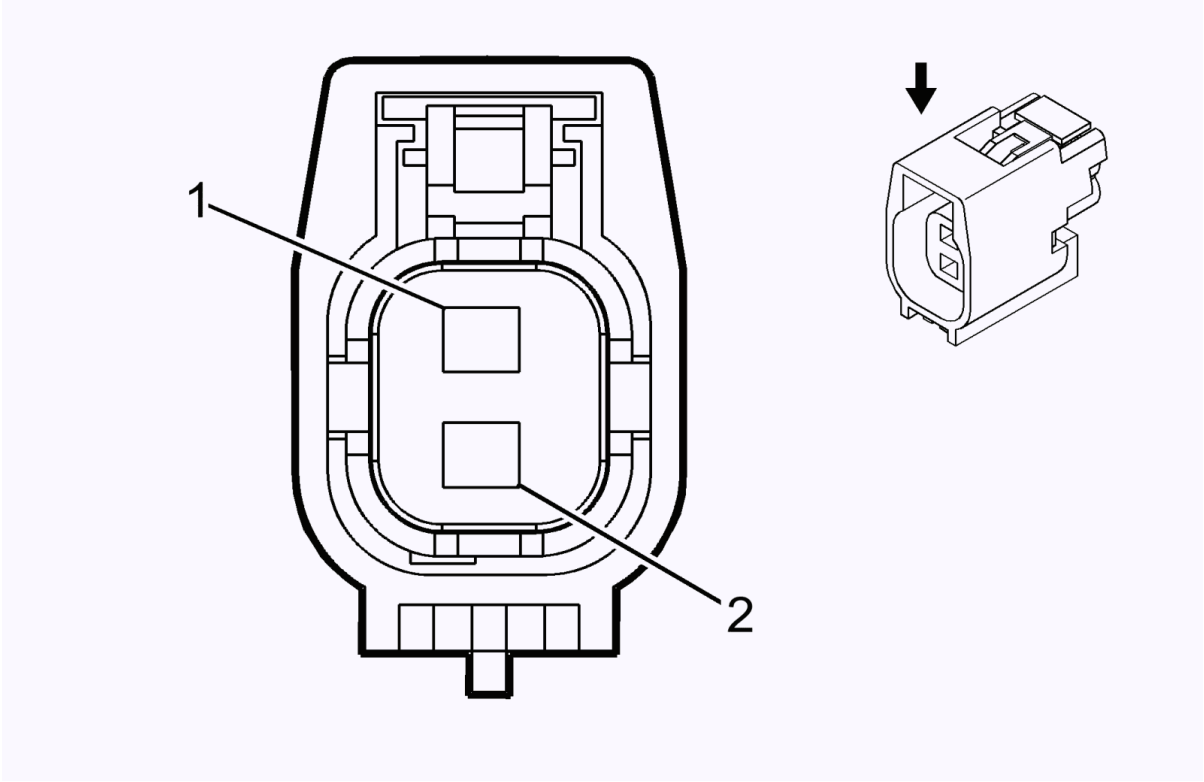
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/WH | 7064 | Wheel Speed Sensor Control Left Front | I | - |
| 2 | 0.35 | GY | 830 | Wheel Speed Sensor Signal Left Front | I | - |

## B5LR WHEEL SPEED SENSOR - LEFT REAR

cardiagn.com




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 19153615
- Service Connector: 13586115
- Description: 2-Way F 1.5 GT Series, Sealed (BK)

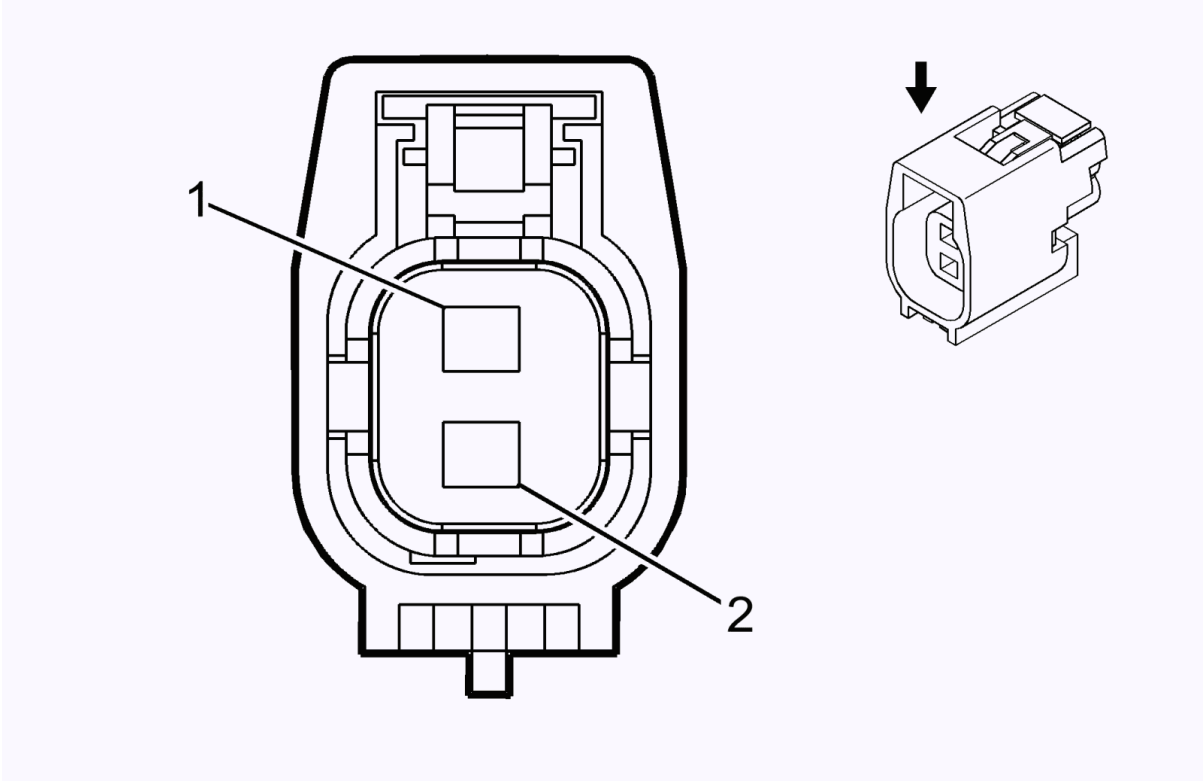
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BK | 7127 | Wheel Speed Sensor Control Left Rear | I | - |
| 2 | 0.35 | BU | 884 | Wheel Speed Sensor Signal Left Rear | I | - |

## B5RF WHEEL SPEED SENSOR - RIGHT FRONT

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 19153615
- Service Connector: 13586115
- Description: 2-Way F 1.5 GT Series, Sealed (BK)

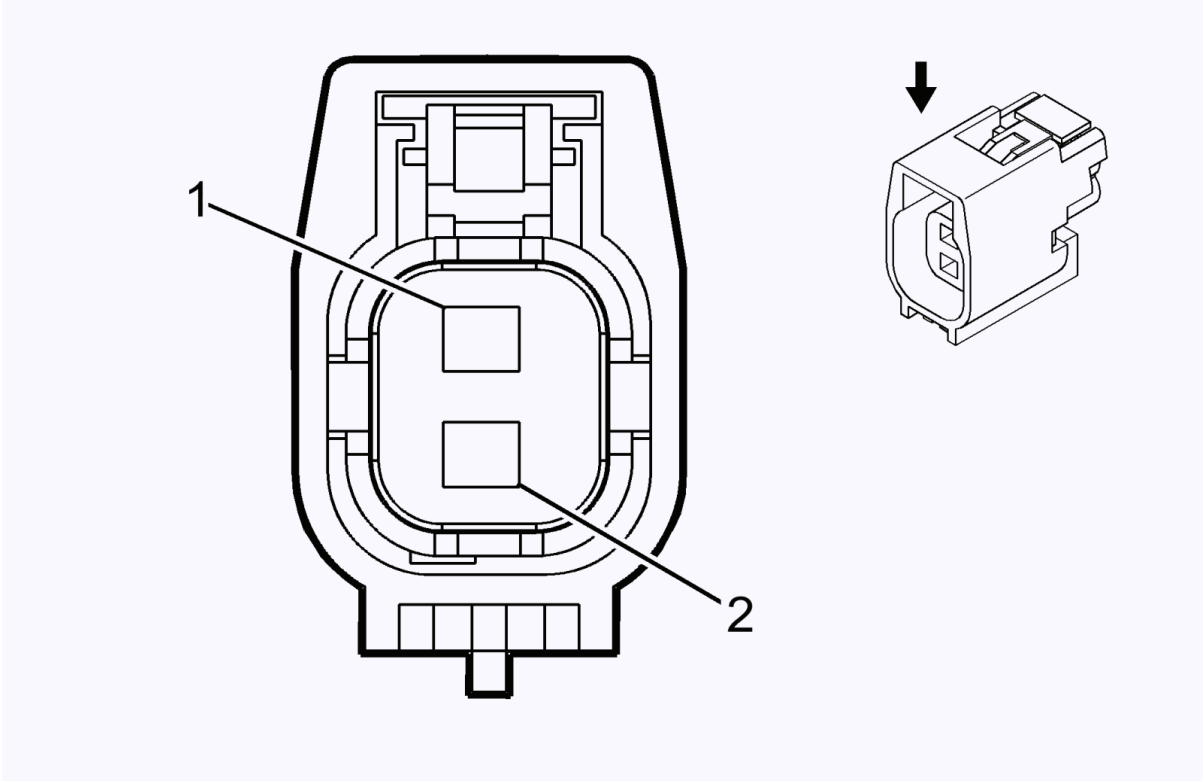
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BN | 7065 | Wheel Speed Sensor Control Right Front | I | - |
| 2 | 0.35 | YE | 872 | Wheel Speed Sensor Signal Right Front | I | - |

## B5RR WHEEL SPEED SENSOR - RIGHT REAR

cardiagn.com




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 19153615
- Service Connector: 13586115
- Description: 2-Way F 1.5 GT Series, Sealed (BK)

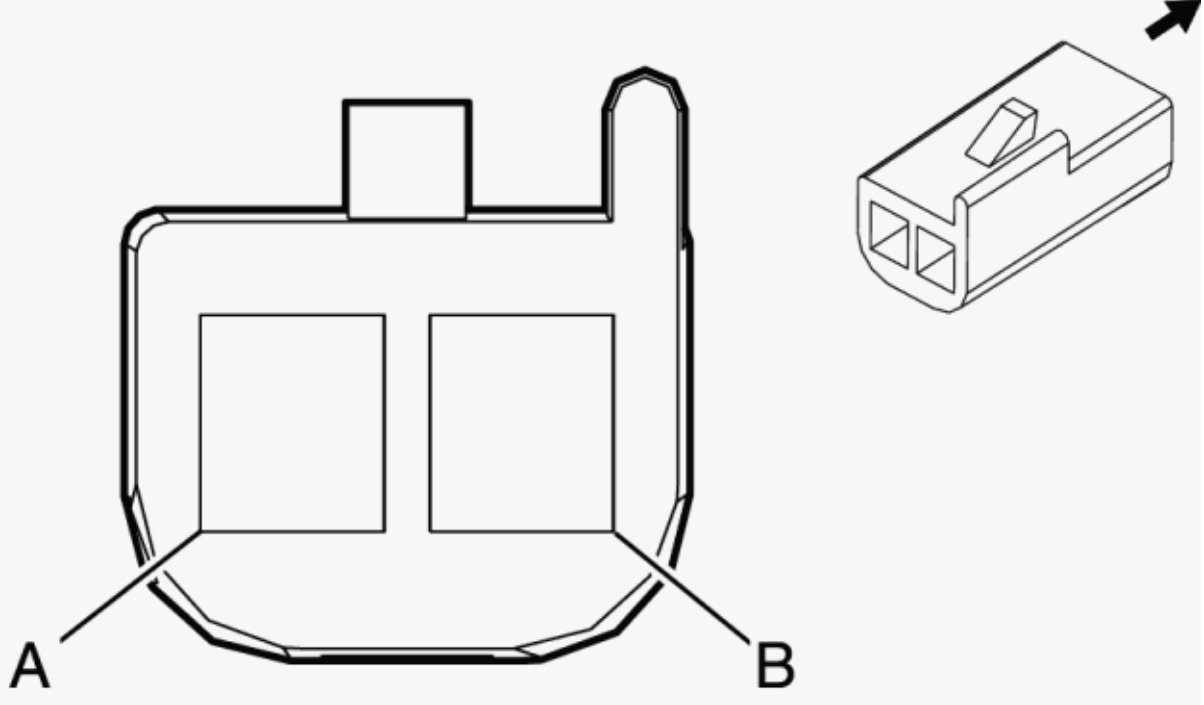
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 7128 | Wheel Speed Sensor Control Right Rear | I | - |
| 2 | 0.35 | VT | 882 | Wheel Speed Sensor Signal Right Rear | I | - |

## B7D AIR TEMPERATURE SENSOR - DUCT LEFT LOWER (CJ2/C4P)

cardiagn.com




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series (BK)

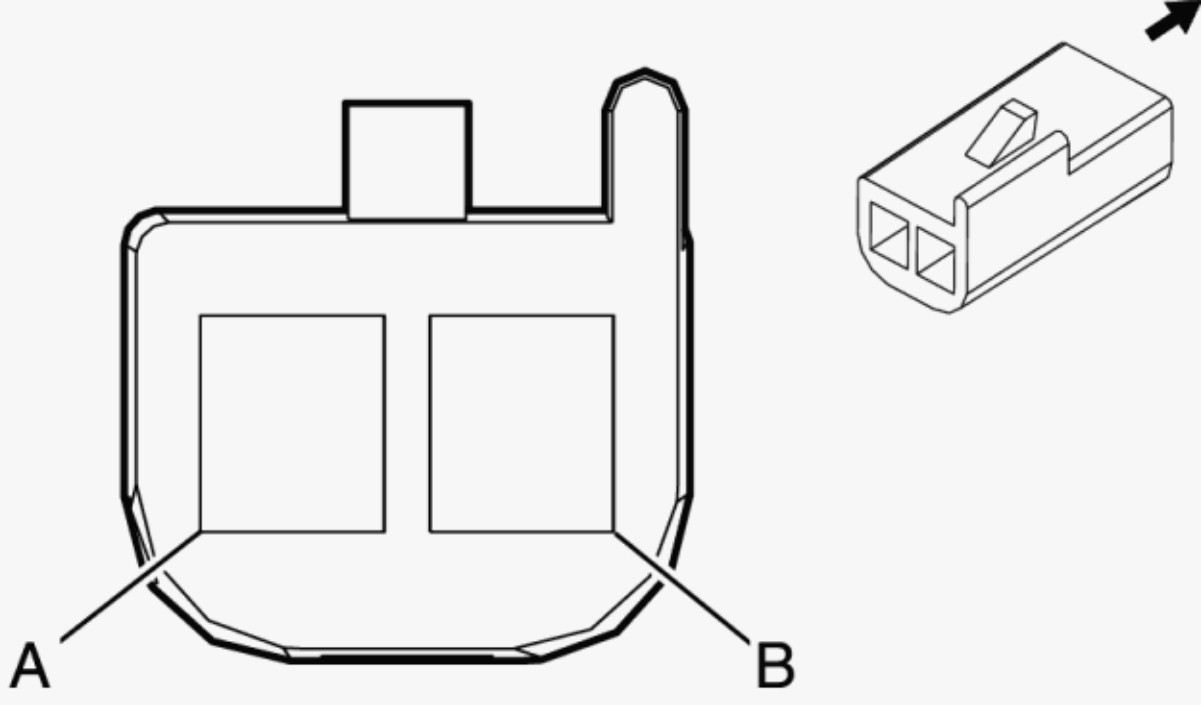
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35<br>0.35 | BU<br>BU | 404<br>518 | Upper Air Temperature Sensor Signal<br>Lower Left Air Temperature Sensor Signal | I<br>I | C4P<br>CJ2 |
| B | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |

## B7E AIR TEMPERATURE SENSOR - DUCT RIGHT LOWER (CJ2)

cardiagn.com




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series (BK)

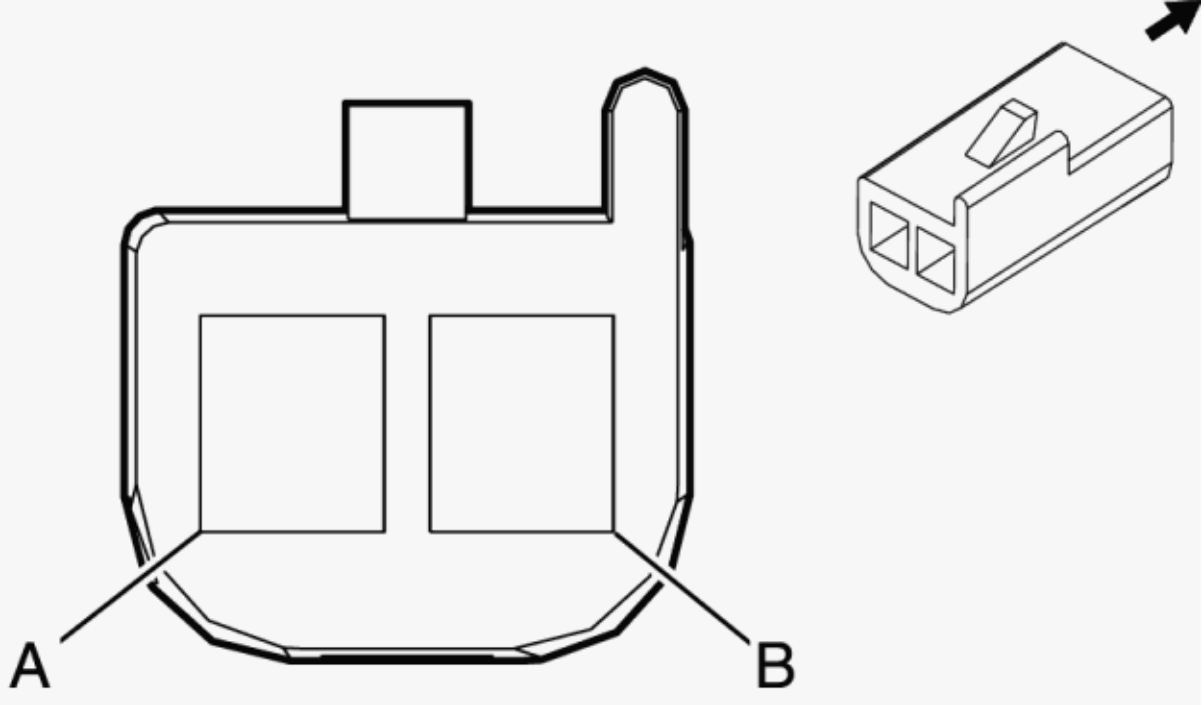
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | WH/VT | 520 | Lower Right Air Temperature Sensor Signal | I | - |
| B | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |

## B7H AIR TEMPERATURE SENSOR - DUCT LEFT UPPER (CJ2/C4P)

cardiagn.com




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series (BK)

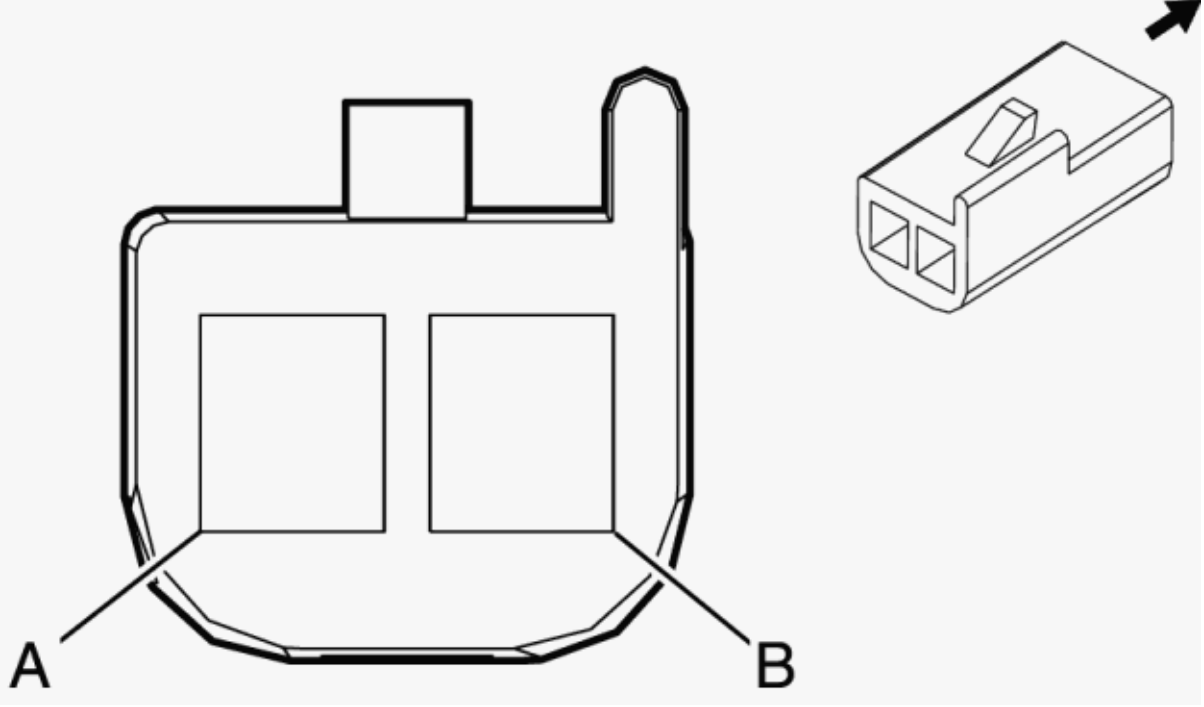
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | GY/GN | 516 | Upper Left Air Temperature Sensor Signal | I | - |
| B | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |

## B7J AIR TEMPERATURE SENSOR - DUCT RIGHT UPPER (CJ2)

cardiagn.com




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series (BK)

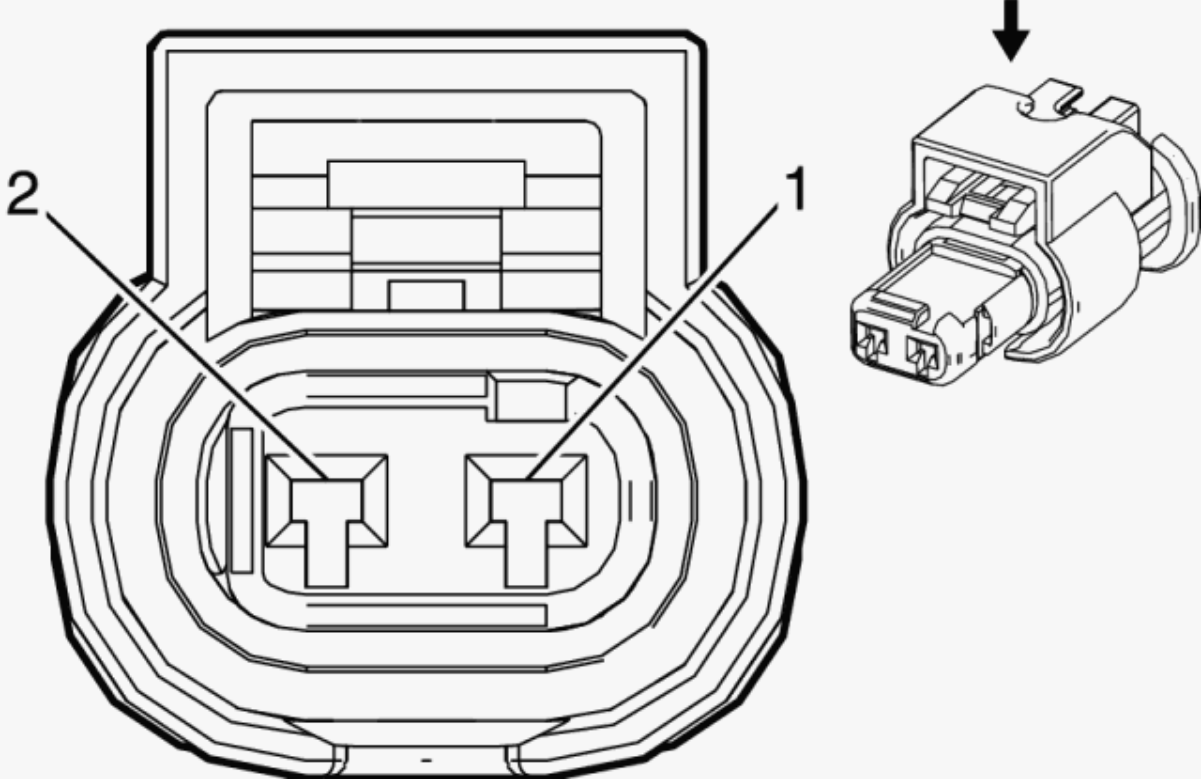
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | VT/GY | 517 | Upper Right Air Temperature Sensor Signal | I | - |
| B | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |

## B9 AMBIENT AIR TEMPERATURE SENSOR

cardiagn.com




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13586143
- Service Connector: 19329415
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

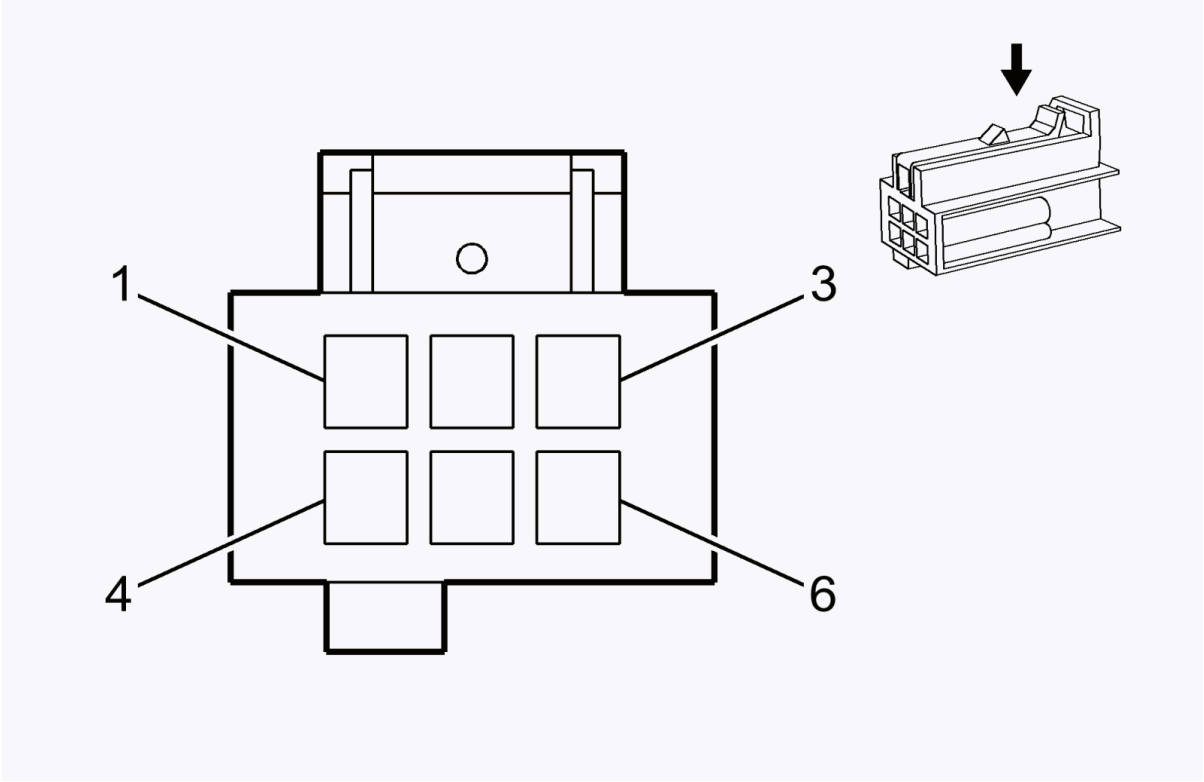
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | I | - |
| 2 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | I | - |

## B10B AMBIENT LIGHT/SUNLOAD SENSOR

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13590886
- Service Connector: 19333315
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

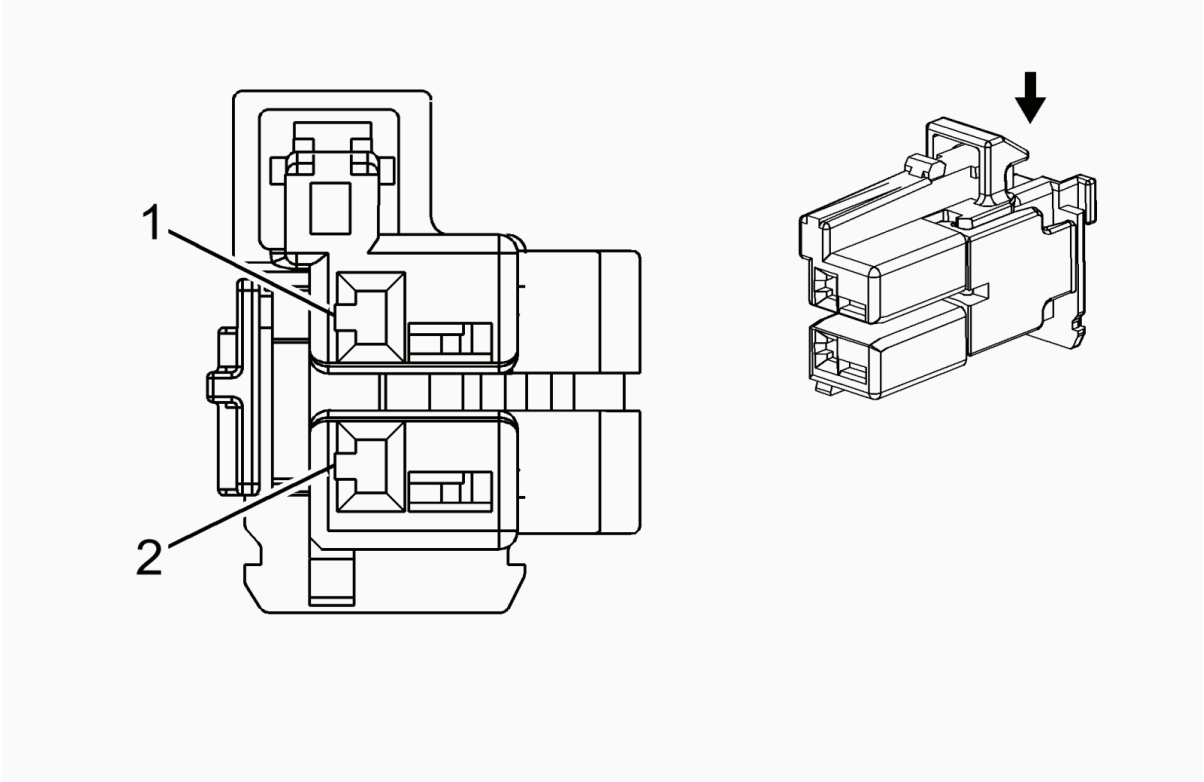
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.13 | GY | 590 | Solar Sensor Driver Signal | I | - |
| 2 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | - |
| 3 | 0.35 | WH/BU | 278 | Ambient Light Sensor Signal | I | - |
| 4 | 0.13 | BU/WH | 734 | Inside Air Temperature Sensor Signal | I | - |
| 5 | 0.35<br>0.35 | GY<br>RD/GN | 728<br>742 | Security Indicator Control<br>Battery Positive Voltage | I<br>I | C67/C4P<br>CJ2-UE1-UE3 |
| 6 | 0.13<br>0.35 | BK/GN<br>BK | 7567<br>1650 | Solar Sensor Low Reference<br>Ground | I<br>I | CJ2/C4P<br>CJ2-UE1 |

## B14A TRANSMISSION OUTPUT SHAFT SPEED SENSOR (M3D/M3H/M3U)

cardiagn.com




Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

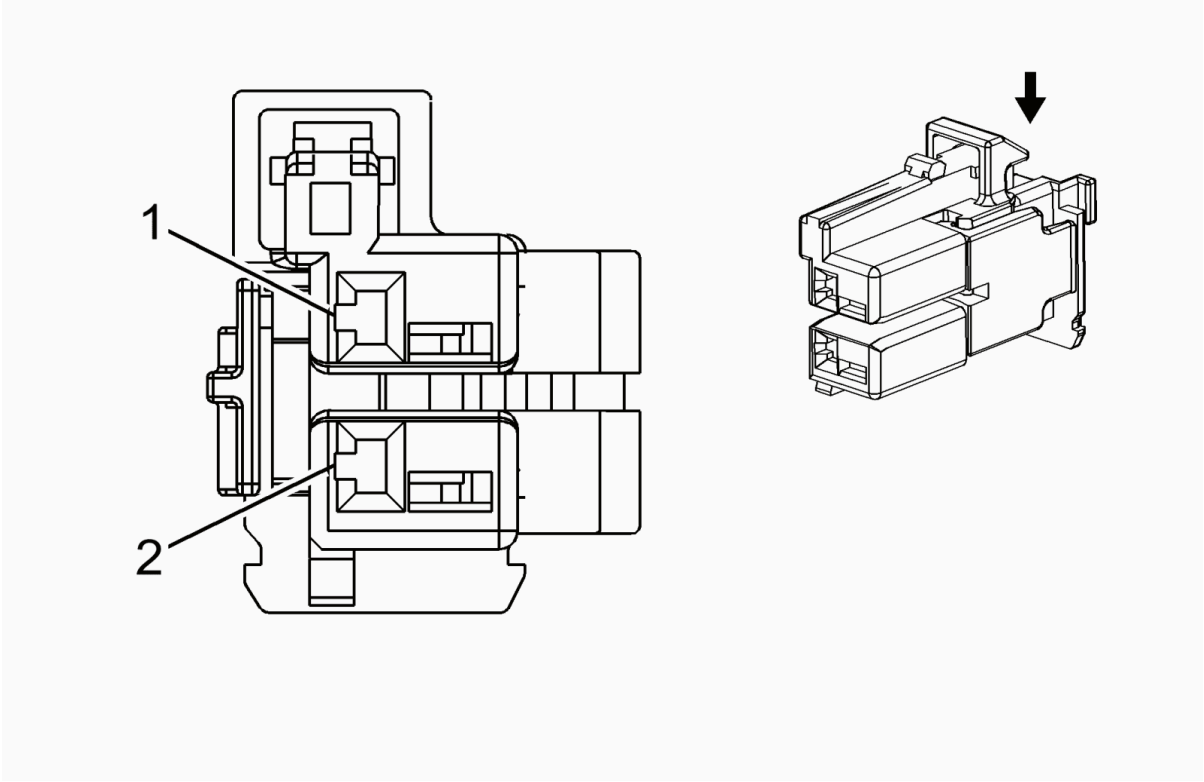
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | YE/GN<br>BN/WH | 4170<br>4171 | Transmission Position Sensor B 9V Reference<br>Transmission Position Sensor A 9V Reference | I<br>I | M3D<br>M3H/M3U |
| 2 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | M3D/M3H/M3U |

## B14A TRANSMISSION OUTPUT SHAFT SPEED SENSOR (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

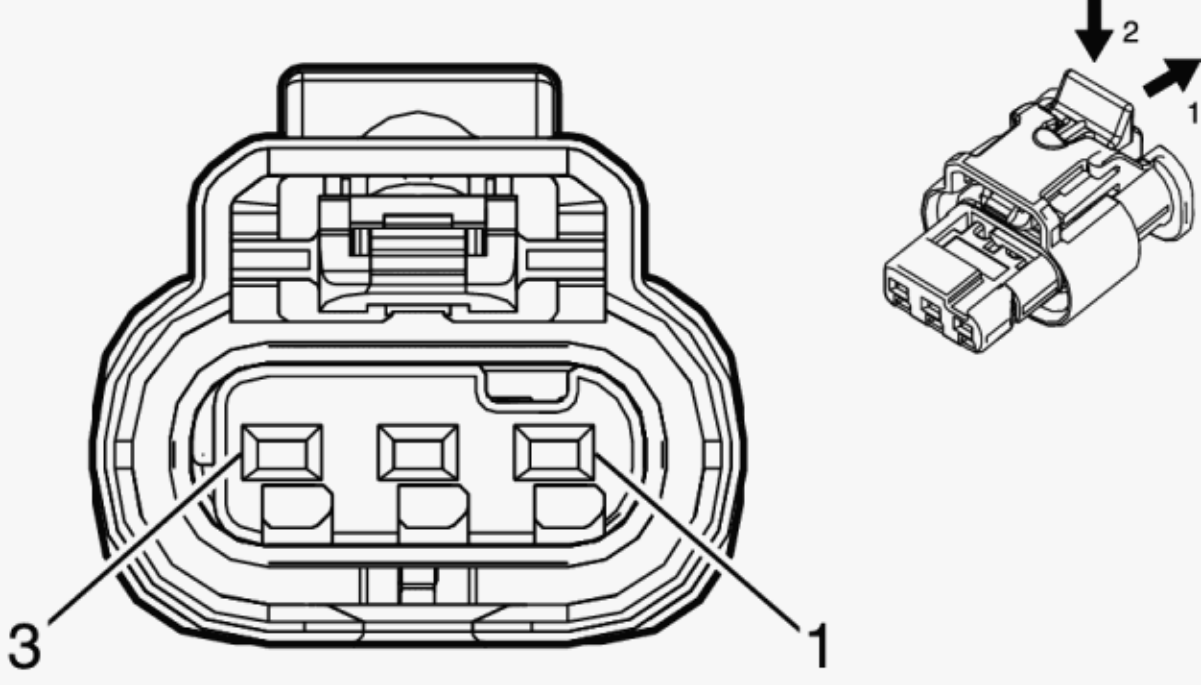
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | YE/GN<br>BN/WH | 4170<br>4171 | Transmission Position Sensor B 9V Reference<br>Transmission Position Sensor A 9V Reference | I<br>I | M3D<br>M3H/M3U |
| 2 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | M3D/M3H/M3U |

## B14E TRANSMISSION INPUT/INTERMEDIATE SHAFT SPEED SENSOR (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

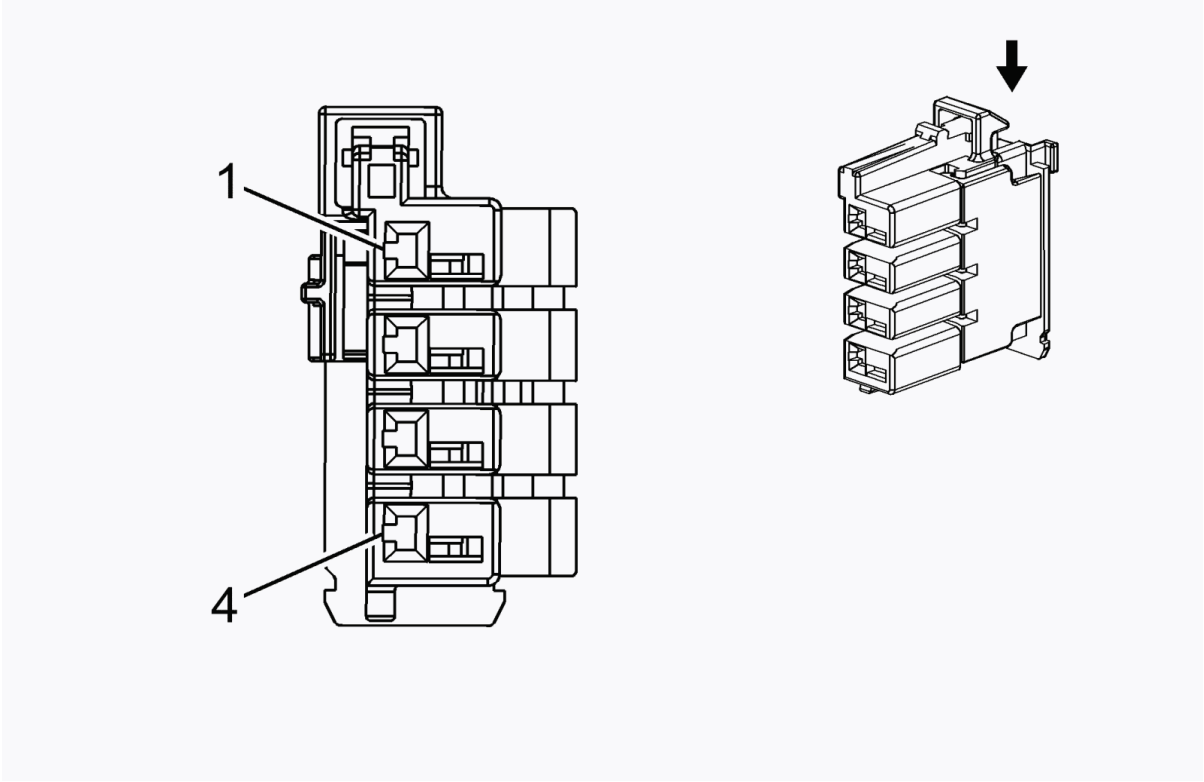
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/VT | 4510 | Transmission Intermediate Speed Signal | I | - |
| 2 | 0.5 | YE/GN | 4170 | Transmission Position Sensor B 9V Reference | I | - |
| 3 | 0.5 | GN/YE | 6353 | Input Speed Signal | I | - |

## B15 TRANSMISSION INTERNAL MODE SWITCH (M3D)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203702-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 MCON Series (BN)

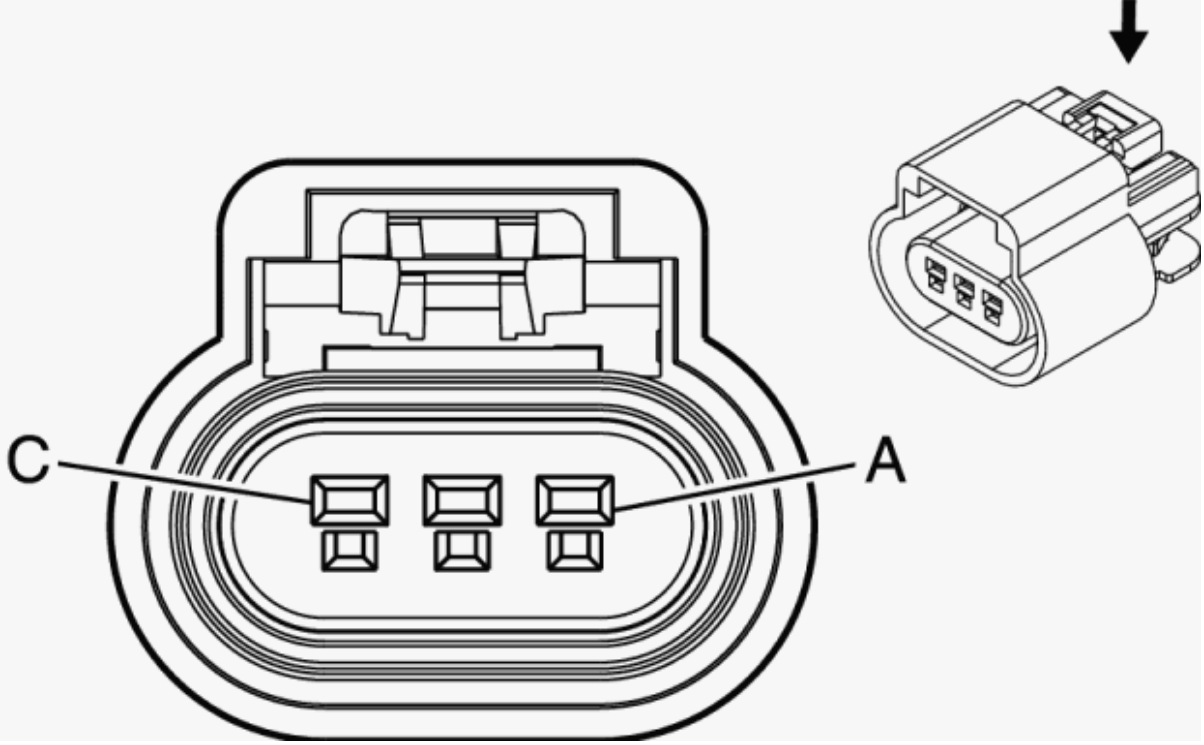
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BU | 4171 | Transmission Position Sensor A 9V Reference | I | - |
| 2 | 0.5 | GN/YE | 5724 | Ignition Mode Switch Mode Control | I | - |
| 3 | 0.5 | BK/GY | 3927 | IMS Mode Switch Low Reference | I | - |
| 4 | 0.5 | WH/BU | 5726 | Ignition Mode Switch Mode Control Backup | I | - |

## B18 BATTERY CURRENT SENSOR (-KL9)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15326808
- Service Connector: 19368886
- Description: 3-Way F 150 GT Series, Sealed (BK)

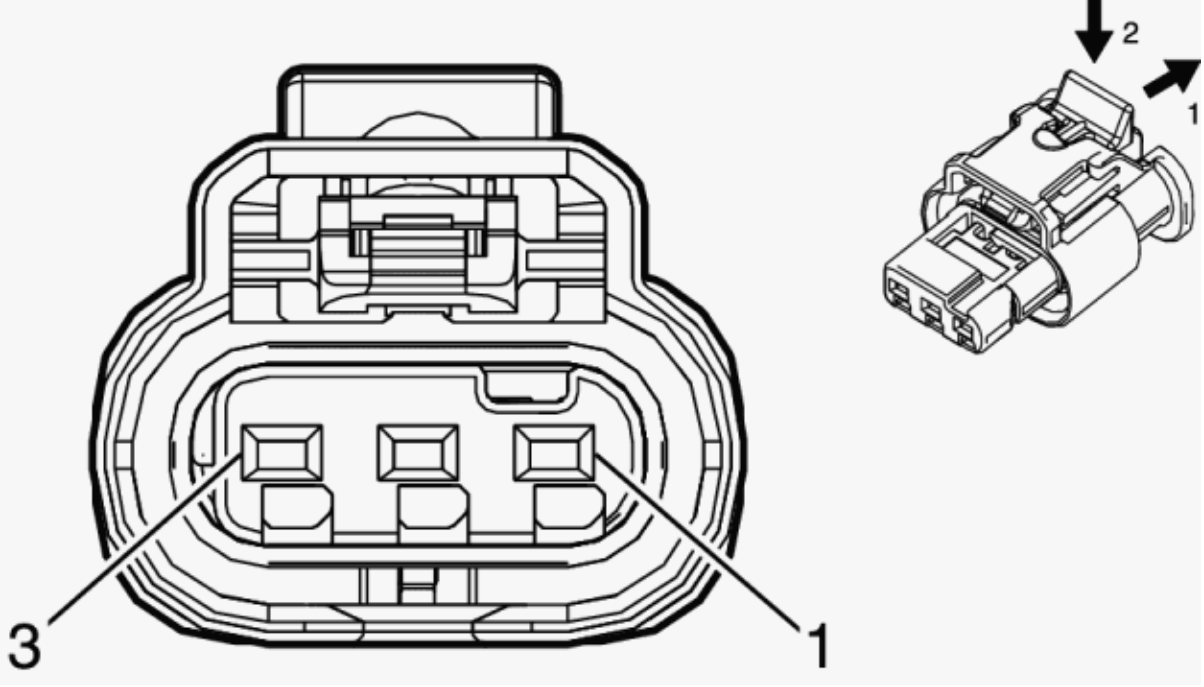
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BU/VT | 5076 | Current Sensor Control | I | LWW/LYX-KL9 |
| B | 0.35 | BK/VT | 5077 | Current Sensor Low Reference | I | LWW/LYX-KL9 |
| C | 0.35 | WH/YE | 5075 | Current Sensor Signal | I | LWW/LYX-KL9 |

## B19B BRAKE BOOSTER VACUUM SENSOR

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

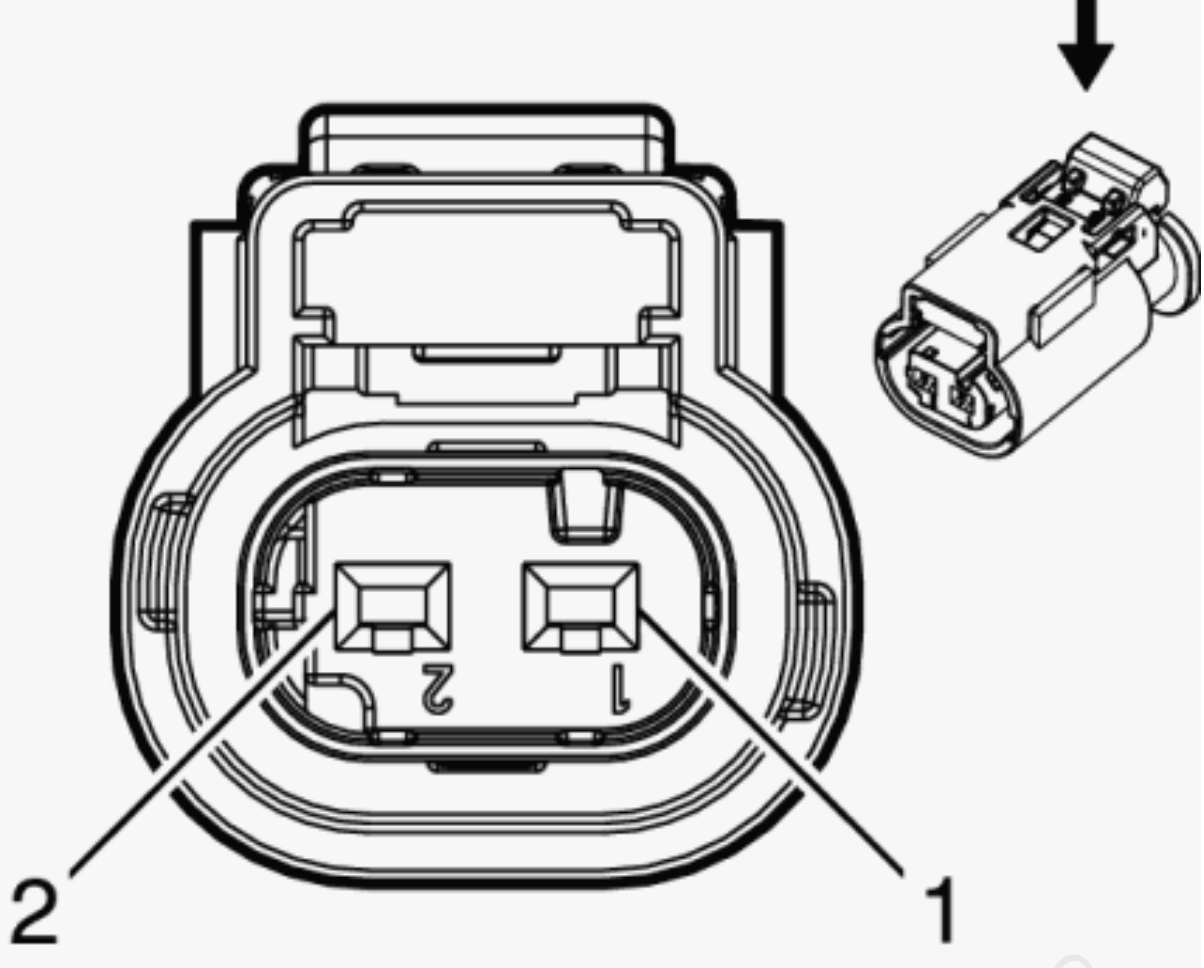
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | I | -KL9 |
| 2 | 0.35<br>0.35 | BK/YE<br>BK/GN | 6032<br>580 | Brake Vacuum Sensor Low Reference<br>Engine Control Sensors Low Reference (2) | I<br>I | -KL9<br>KL9+LYX/LTG |
| 3 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | I | -KL9 |

## B20 BRAKE FLUID LEVEL SWITCH

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

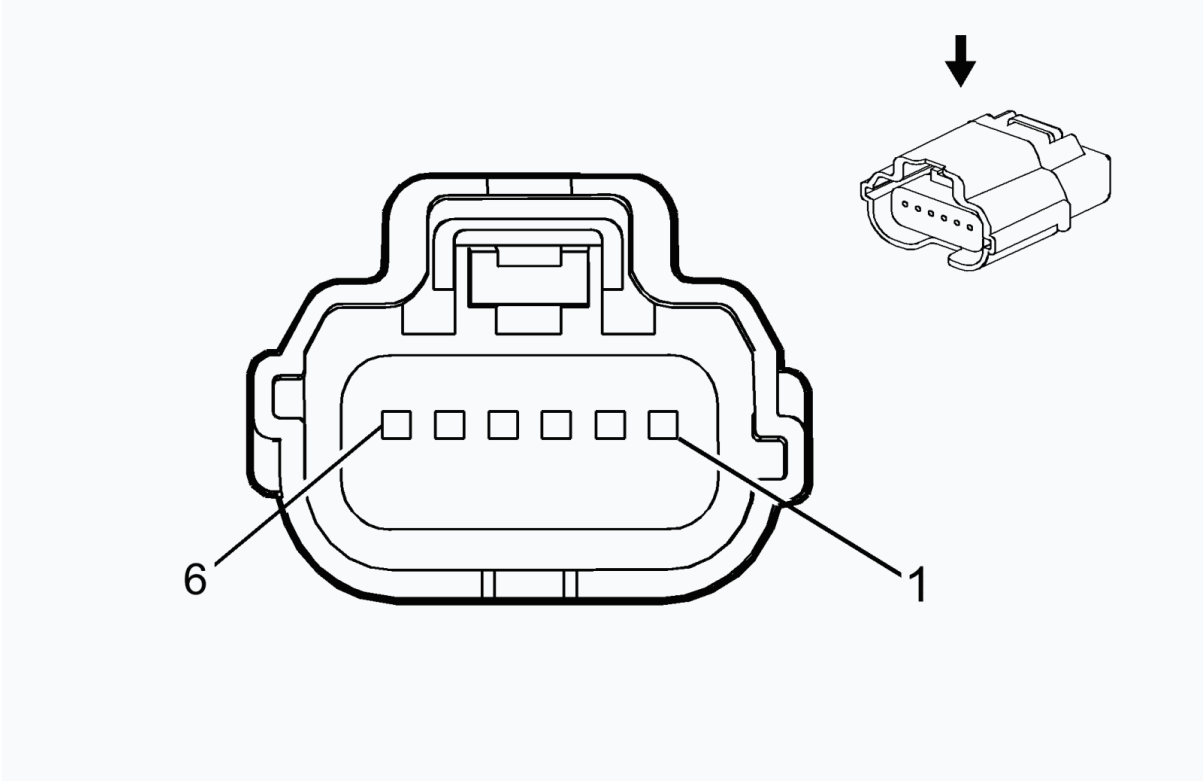
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 333 | Brake Fluid Level Sensor Signal | I | - |
| 2 | 0.35 | BK | 1550 | Ground | I | - |

## B22 BRAKE PEDAL POSITION SENSOR

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13584064
- Service Connector: 19304011
- Description: 6-Way F 64 Series, Sealed (NA)

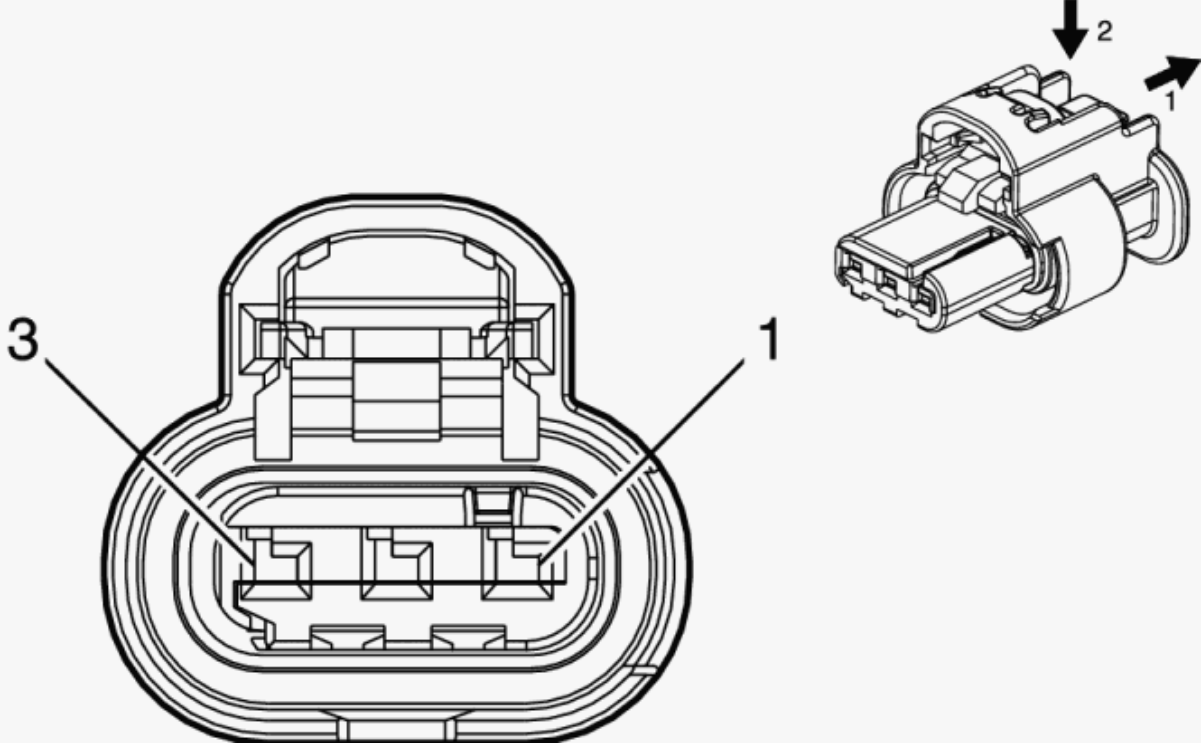
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH | 5359 | Brake Apply Sensor Control | I | - |
| 2 | 0.35 | BK/BN | 5360 | Brake Apply Sensor Low Reference | I | - |
| 3 | 0.35 | BU/YE | 5361 | Brake Apply Sensor Signal | I | - |
| 4 | 0.35 | WH/GN | 5380 | Brake Position Sensor Signal | I | - |
| 5 | 0.35 | WH/RD | 5381 | Brake Position Sensor 5V Reference | I | - |
| 6 | 0.35 | BK/YE | 5382 | Brake Position Sensor Low Reference | I | - |

## B23 CAMSHAFT POSITION SENSOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13514590
- Service Connector: 19366844
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

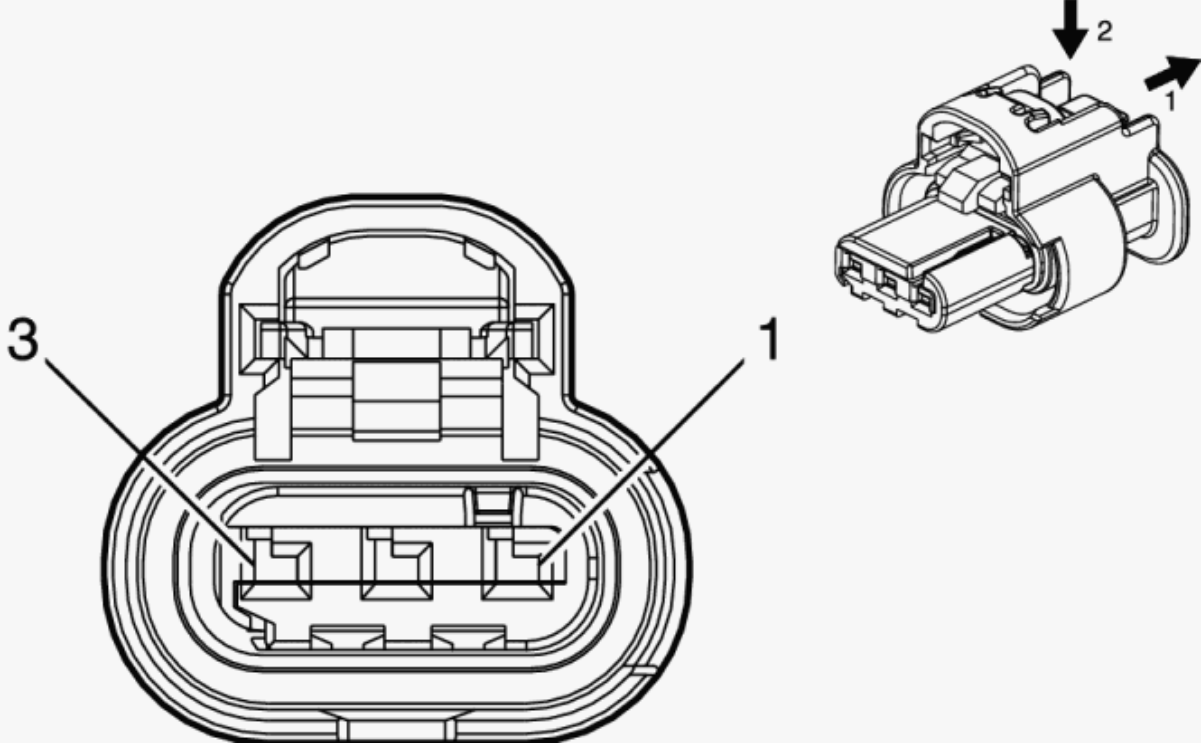
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | I | LH7 |
| 2 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | I | LH7 |
| 3 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | I | LH7 |

## B23E CAMSHAFT POSITION SENSOR - EXHAUST (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13514590
- Service Connector: 19366844
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | I | LTG |
| 2 | 0.5 | BK/GY | 5296 | Camshaft Position Exhaust Sensor Low Reference 1 | I | LTG |
| 3 | 0.5 | VT/BK | 5273 | Camshaft Position Exhaust Sensor 1 | I | LTG |

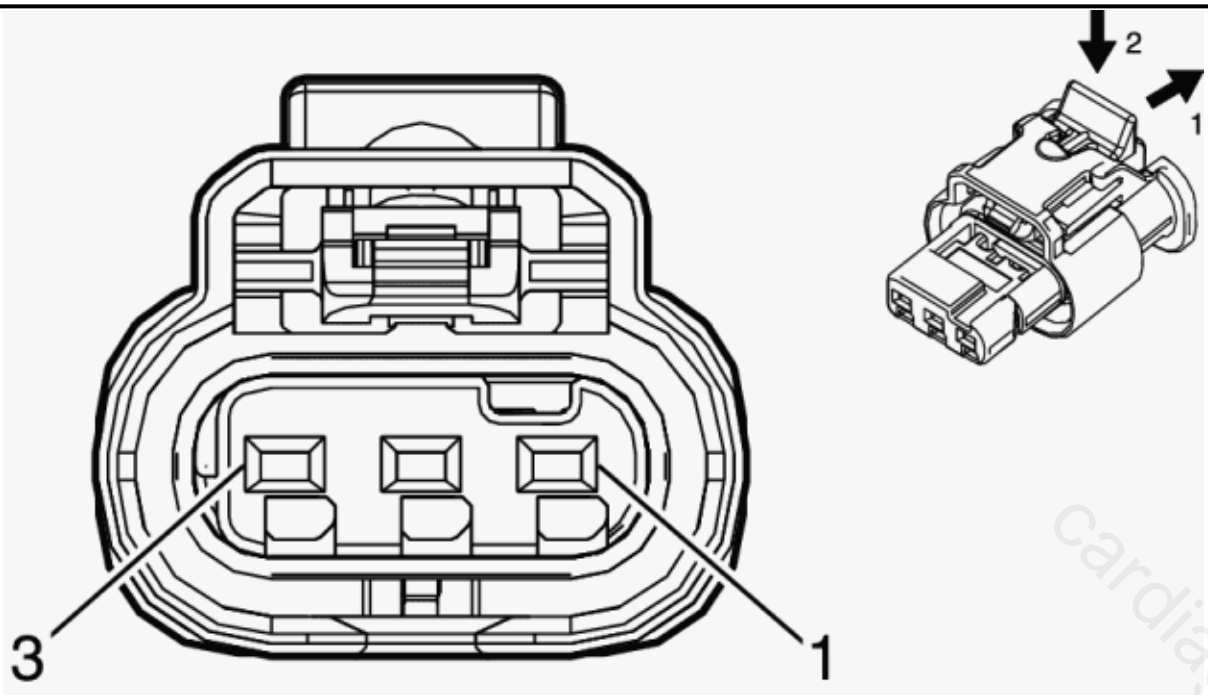
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# COMPONENT CONNECTOR END VIEWS

## B23E CAMSHAFT POSITION SENSOR - EXHAUST (LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

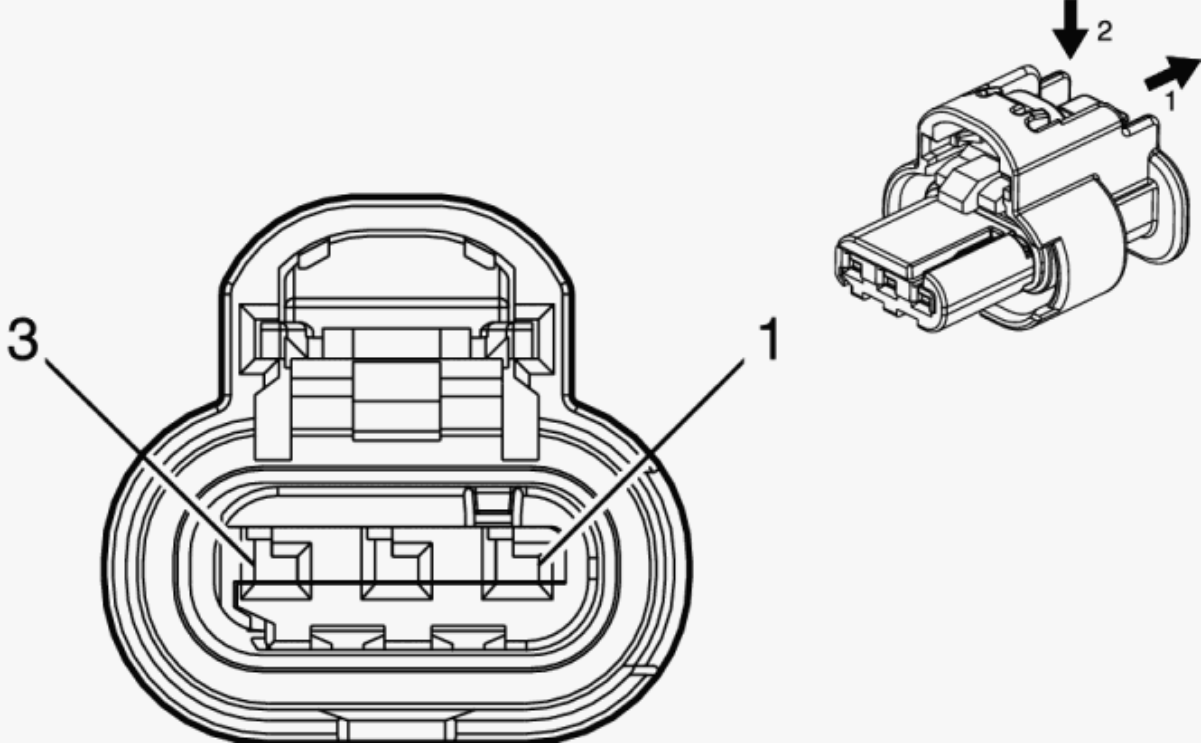
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | I | LYX |
| 2 | 0.5 | BK/GY | 5296 | Camshaft Position Exhaust Sensor Low Reference 1 | I | LYX |
| 3 | 0.5 | VT/BK | 5273 | Camshaft Position Exhaust Sensor 1 | I | - |

## B23F CAMSHAFT POSITION SENSOR - INTAKE (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13514590
- Service Connector: 19366844
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

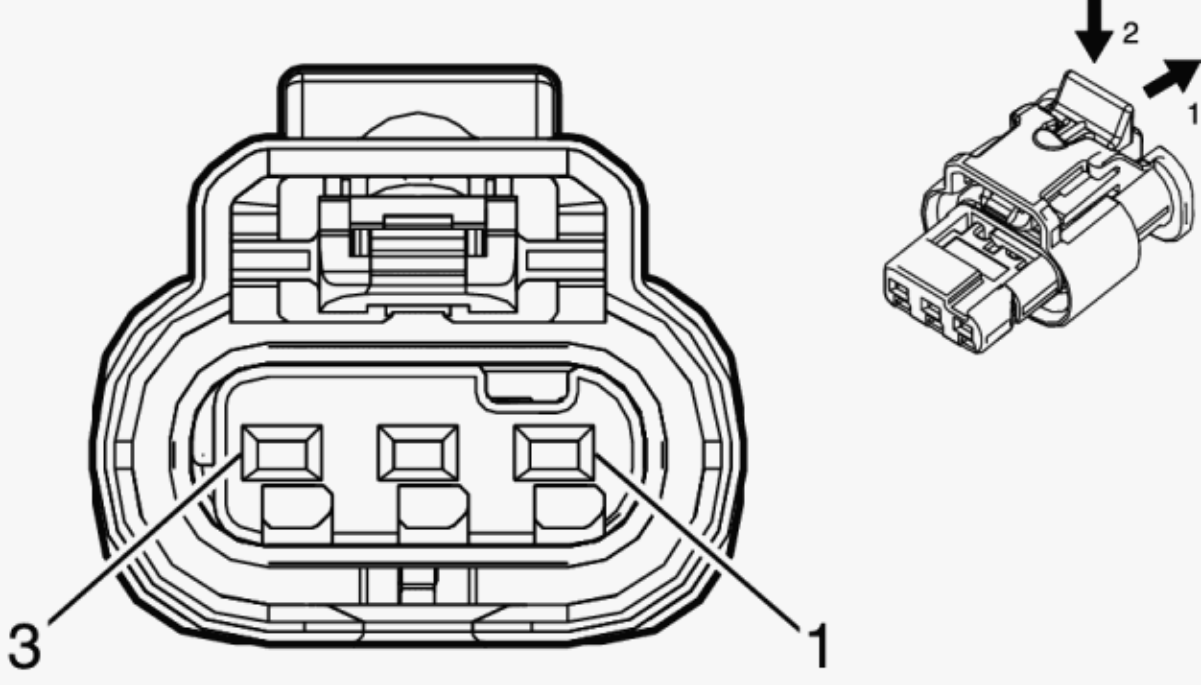
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | I | LTG |
| 2 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | I | LTG |
| 3 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | I | LTG |

## B23F CAMSHAFT POSITION SENSOR - INTAKE (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

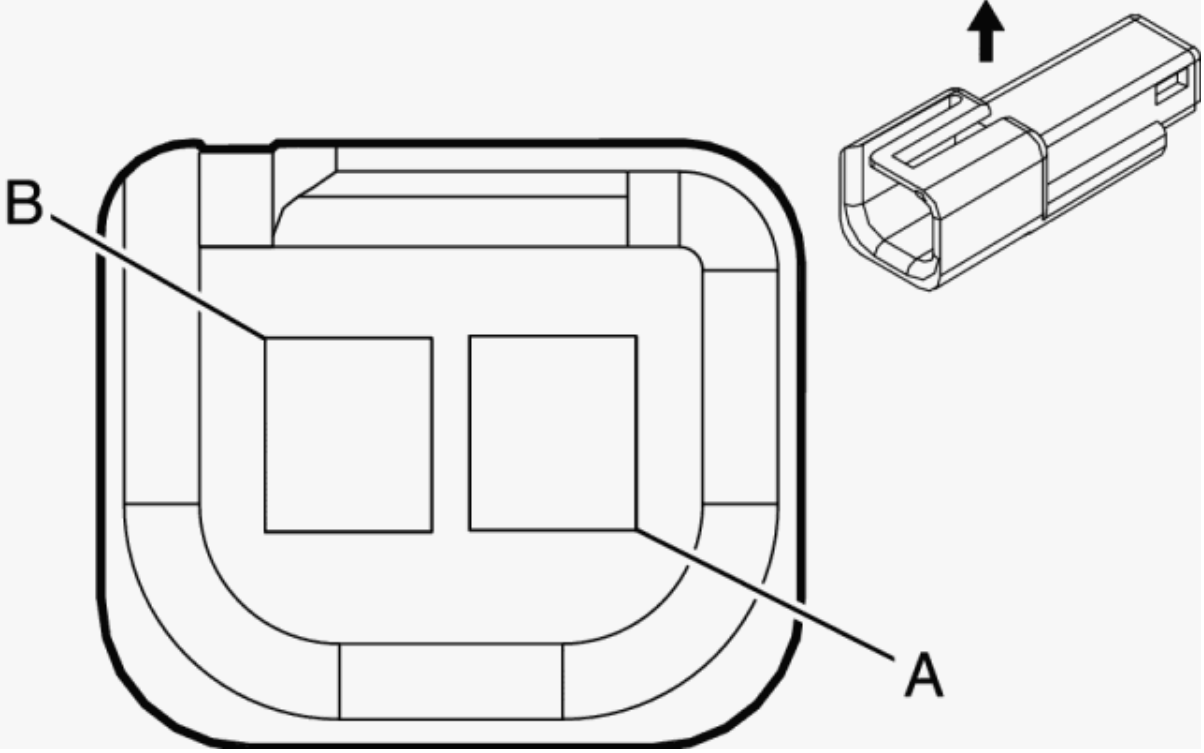
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | I | LYX |
| 2 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | I | LYX |
| 3 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | I | LYX |

## B24LF MOBILE TELEPHONE MICROPHONE - LEFT FRONT

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 12047663
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series (BK)

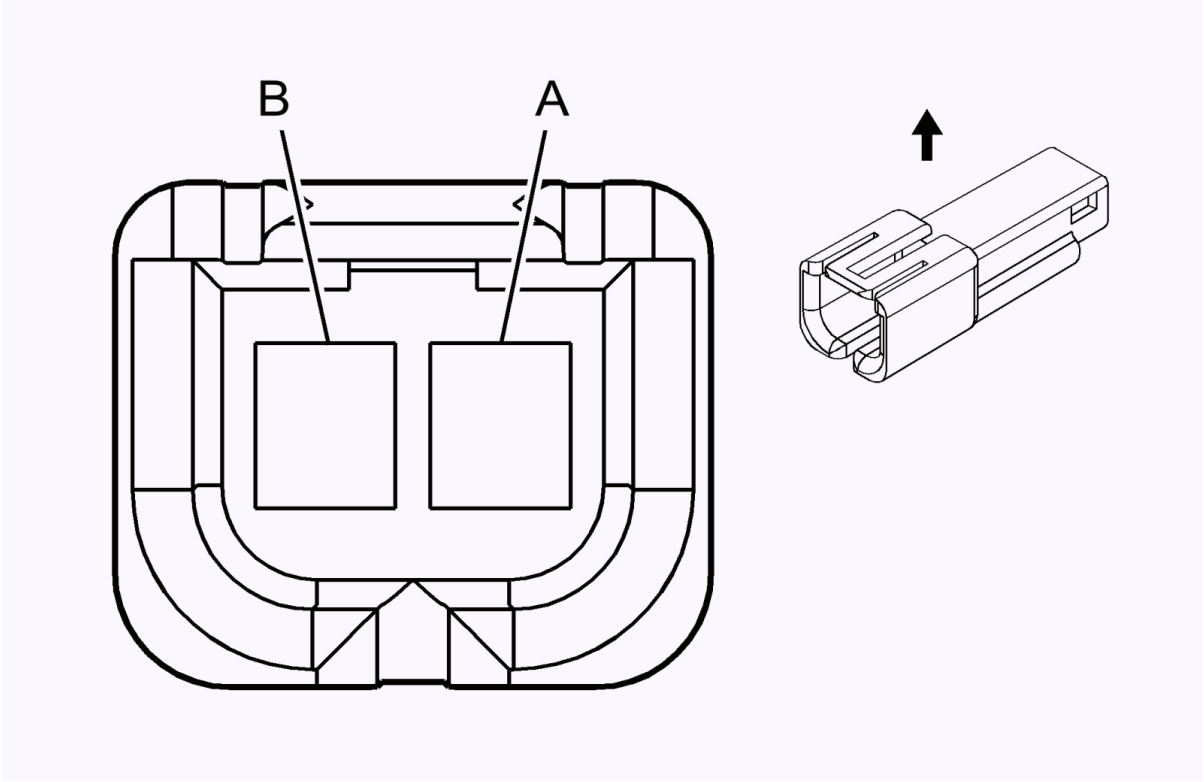
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK/BN | 654 | Cellular Telephone Microphone Low Reference | I | - |
| B | 0.35 | BU | 655 | Cellular Telephone Microphone Signal | I | - |

## B24RF MOBILE TELEPHONE MICROPHONE - RIGHT FRONT (IOS/IOT/IOU)

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 12059254
- Service Connector: 12126020
- Description: 2-Way M 150 Metri-Pack Series (GN)

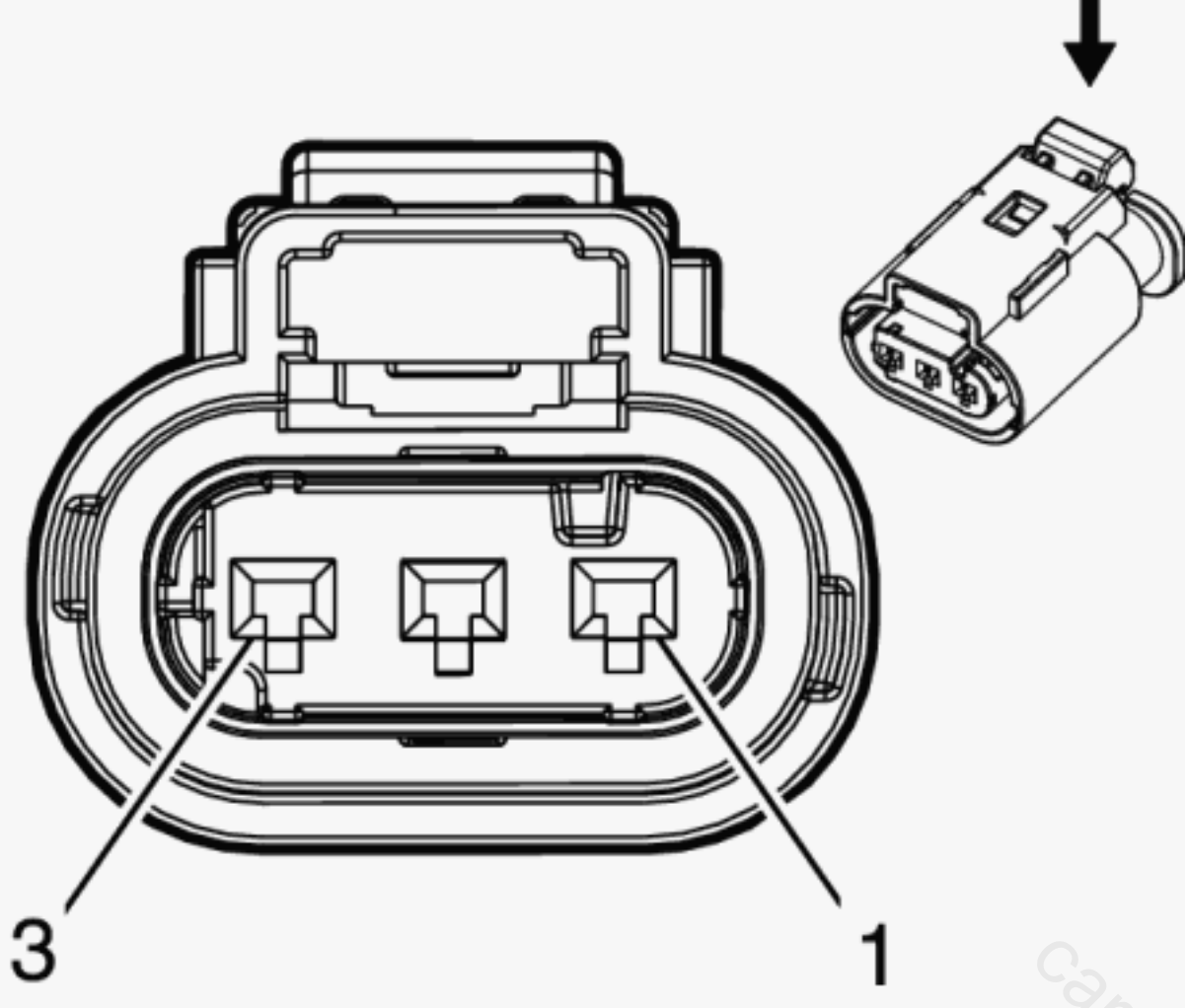
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BU/BK | 7044 | Microphone (-) Low Reference | I | IOS/IOT/IOU |
| B | 0.35 | VT/YE | 7043 | Microphone (+) Signal | I | - |

## B26 CRANKSHAFT POSITION SENSOR (LH7)

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Connector Part Information

- Harness Type: Crankshaft Position Sensor Jumper
- OEM Connector: 13503570
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

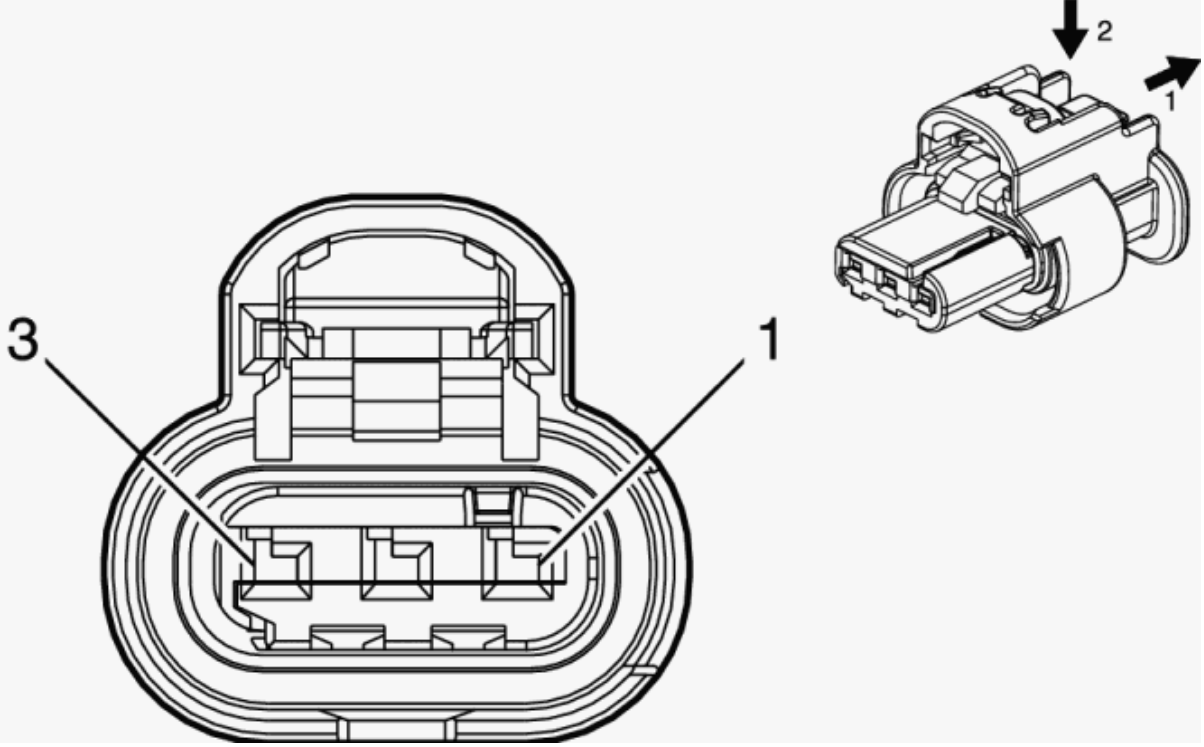
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | I | LH7 |
| 2 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | I | LH7 |
| 3 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | I | LH7 |

## B26 CRANKSHAFT POSITION SENSOR (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13514590
- Service Connector: 19366844
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

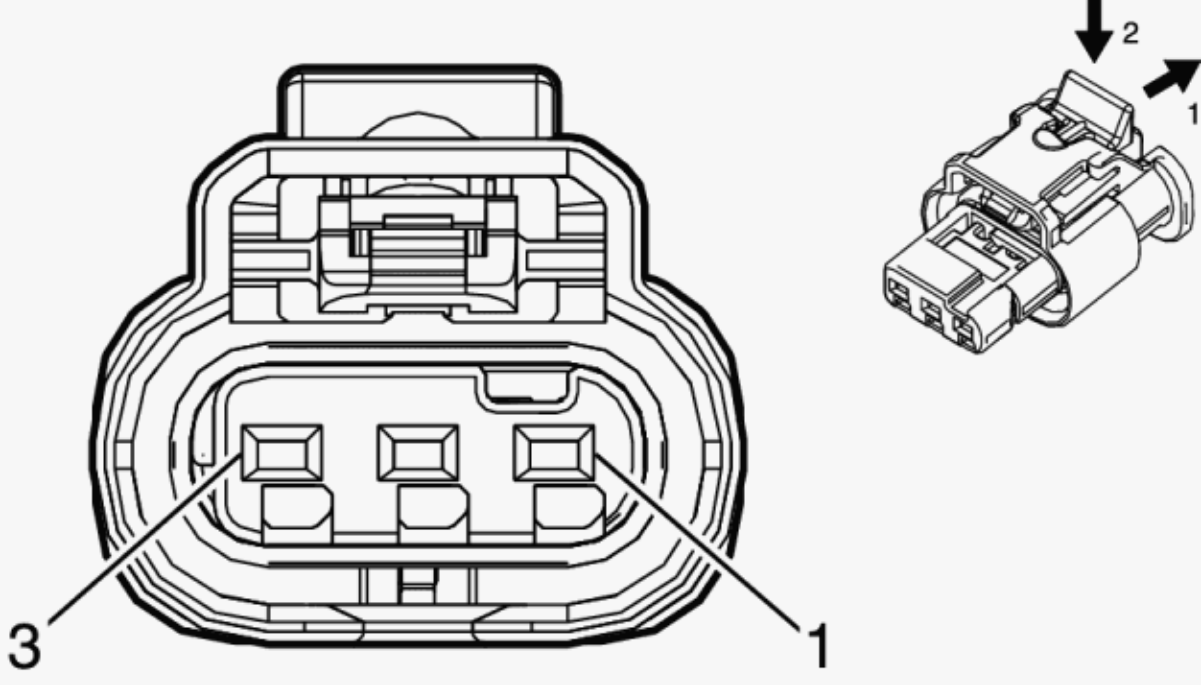
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | I | LTG |
| 2 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | I | LTG |
| 3 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | I | LTG |

## B26 CRANKSHAFT POSITION SENSOR (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

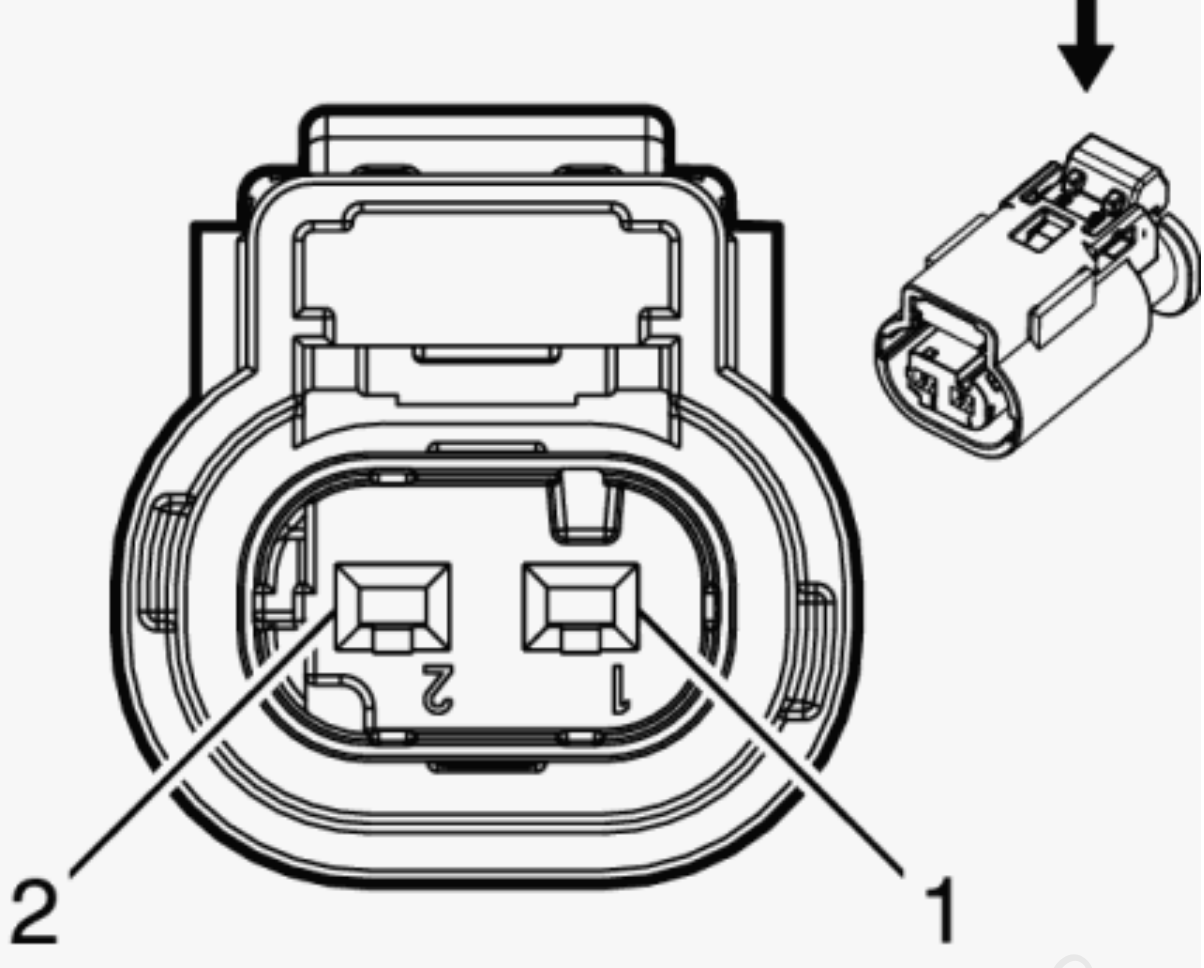
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | I | - |
| 2 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | I | LYX |
| 3 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | I | LYX |

## B34 ENGINE COOLANT TEMPERATURE SENSOR (LH7/LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

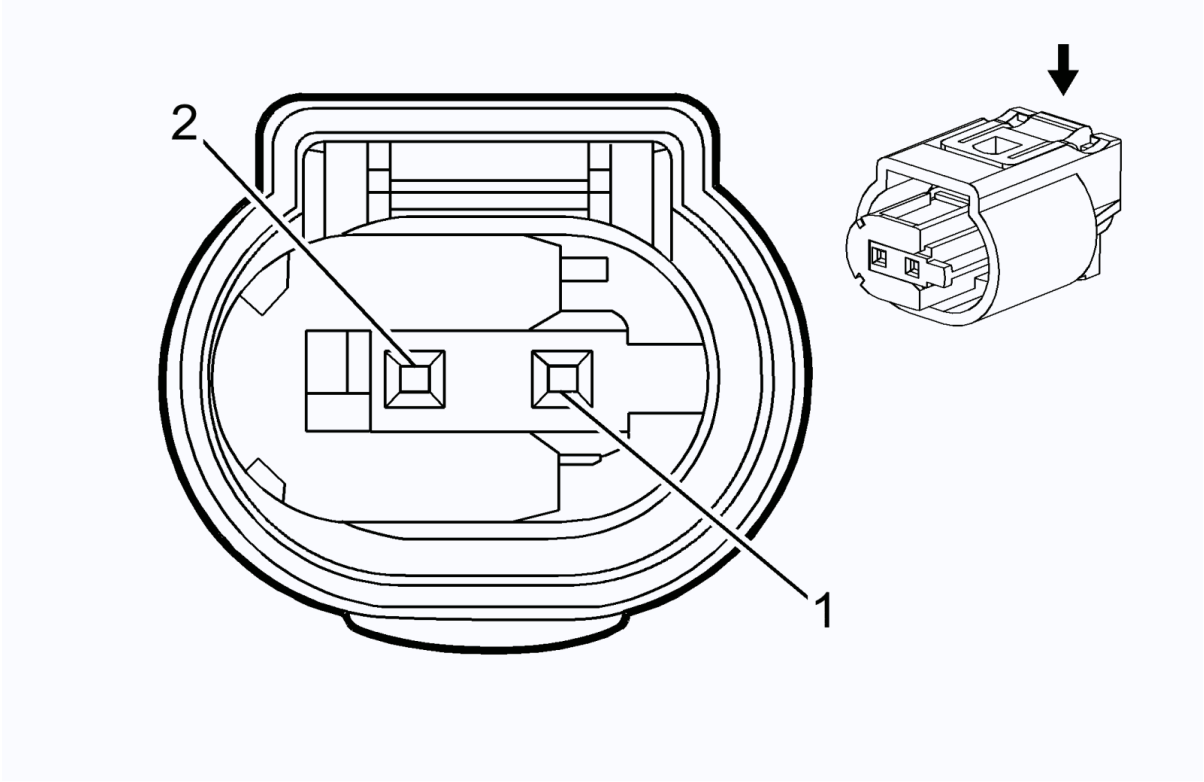
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | I | - |
| 2 | 0.5<br>0.5 | BK/BN<br>BK/YE | 2761<br>548 | Coolant Temperature Sensor Low Reference<br>Engine Control Sensors Low Reference (1) | I<br>I | LH7<br>LYX |

## B34 ENGINE COOLANT TEMPERATURE SENSOR (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 24461693
- Service Connector: 13576533
- Description: 2-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

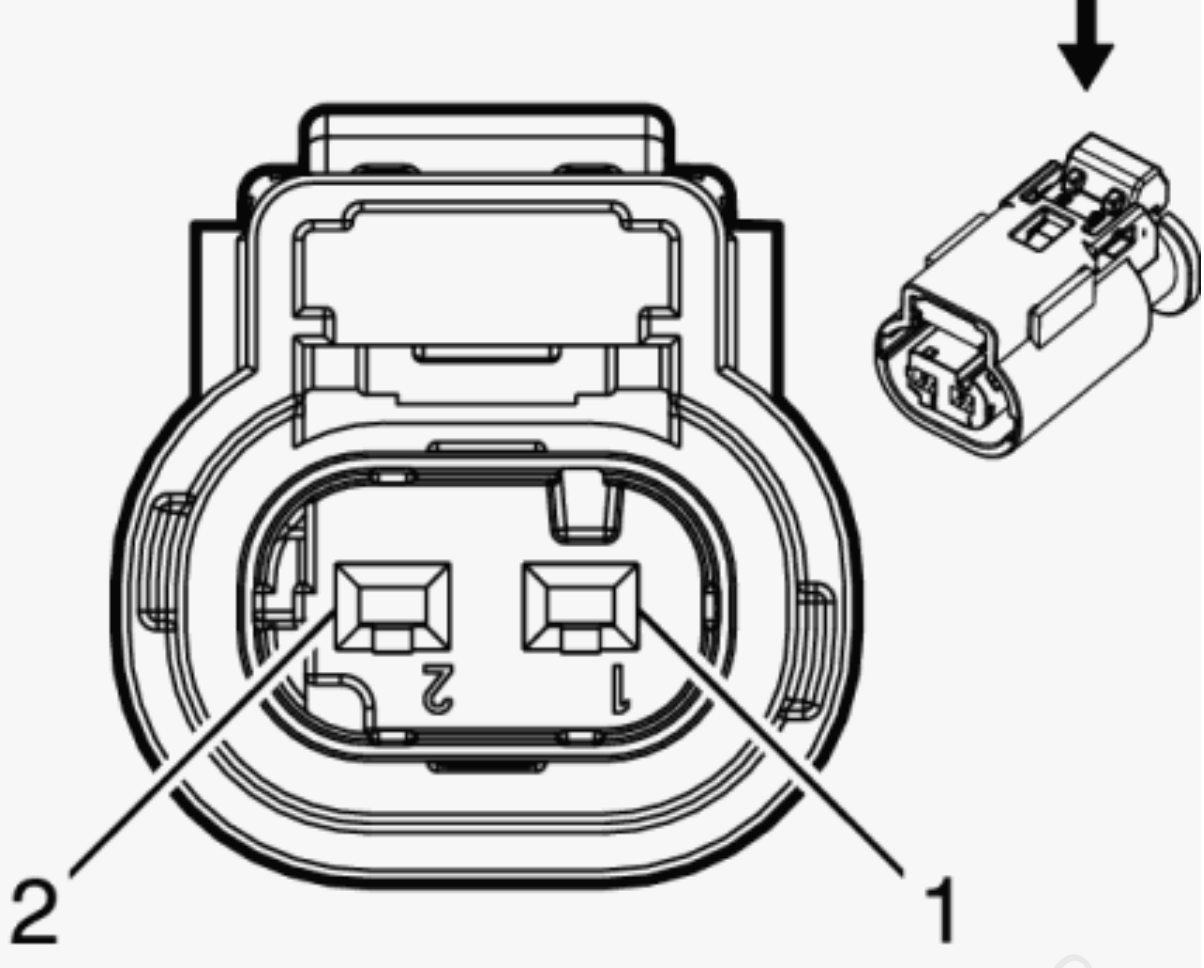
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | I | LTG |
| 2 | 0.5 | BK/YE | 548 | Engine Control Sensors Low Reference (1) | I | LTG |

## B35 ENGINE OIL LEVEL SWITCH (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

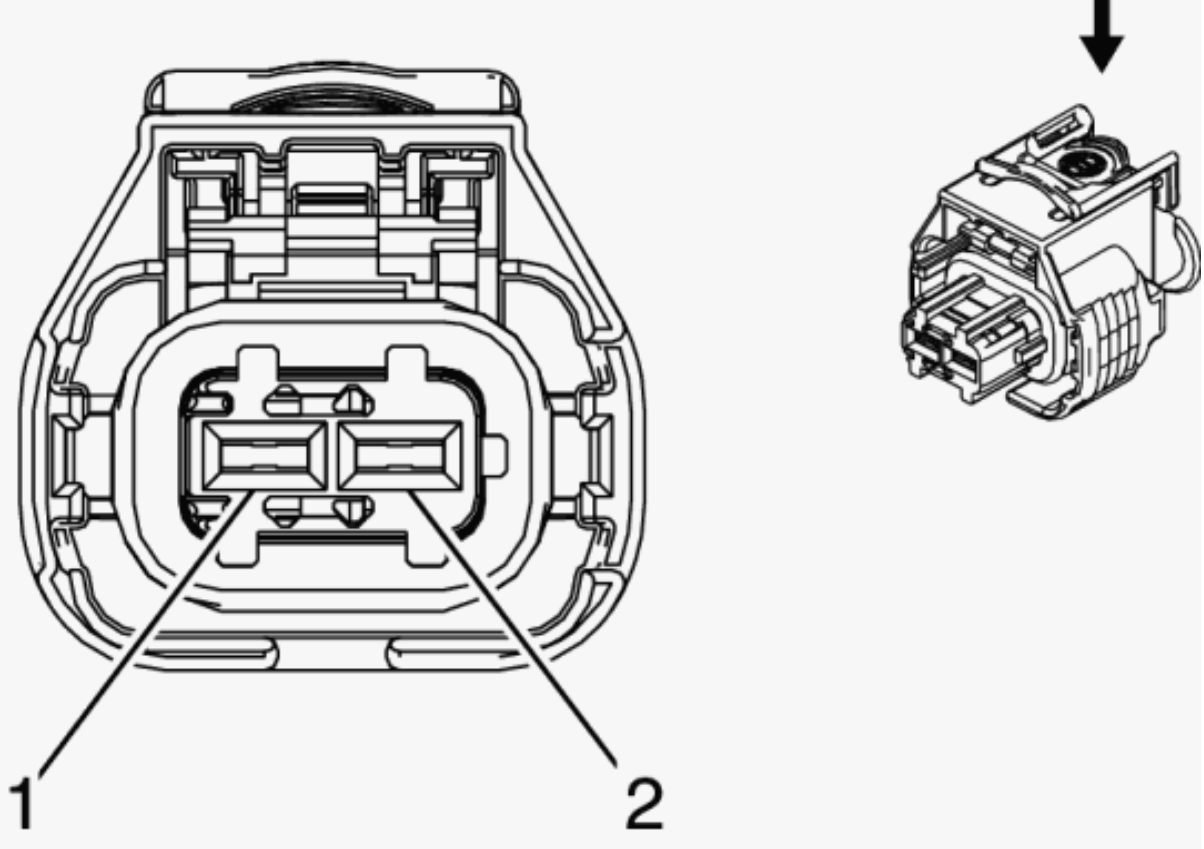
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | I | LH7 |
| 2 | 0.5 | BK/WH | 151 | Signal Ground | I | LH7 |

## B35 ENGINE OIL LEVEL SWITCH (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

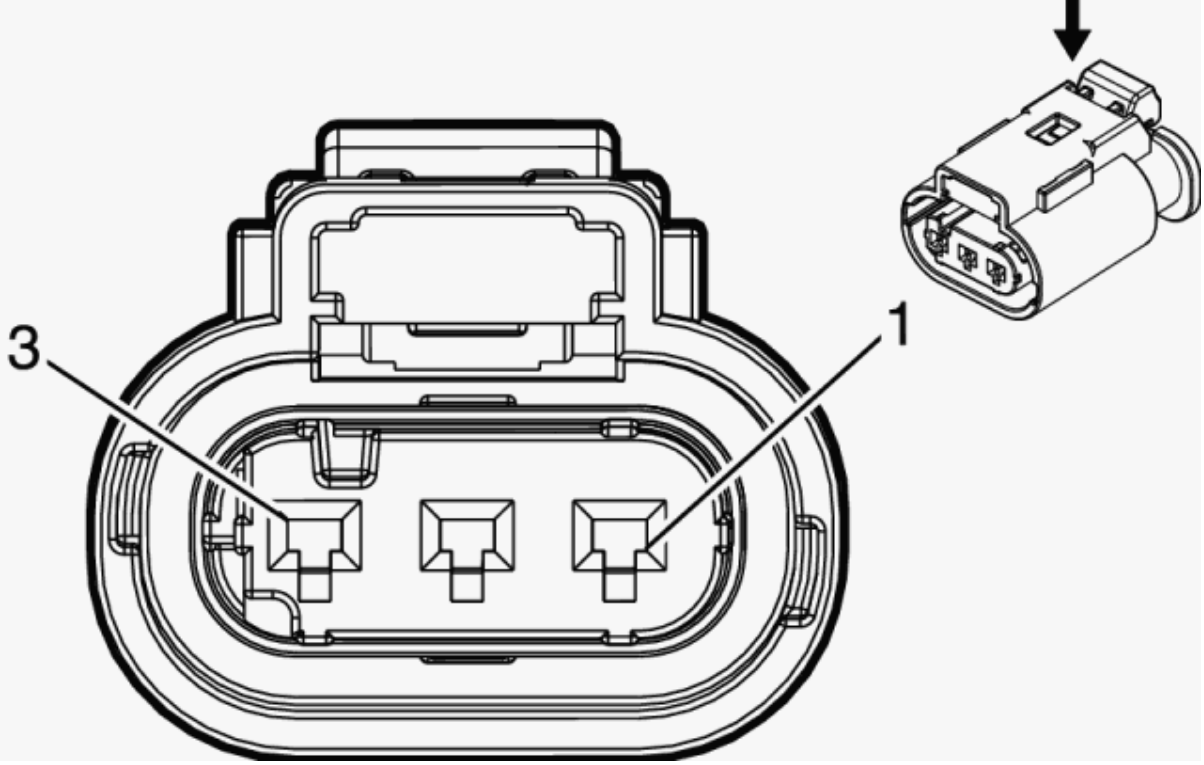
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 450 | Ground | I | - |
| 2 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | I | - |

## B37B ENGINE OIL PRESSURE SENSOR (LH7/LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503573
- Service Connector: 19301717
- Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

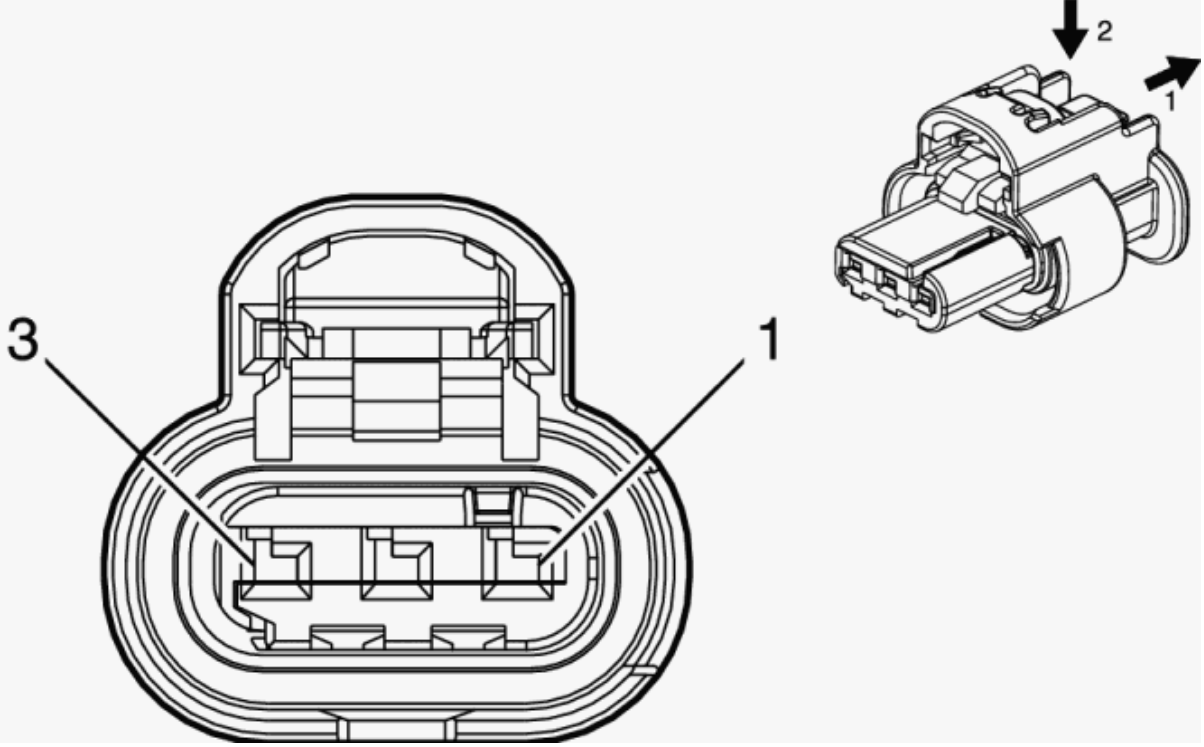
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | I | - |
| 2 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | I | - |
| 3 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | I | - |

## B37B ENGINE OIL PRESSURE SENSOR (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13514590
- Service Connector: 19366844
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

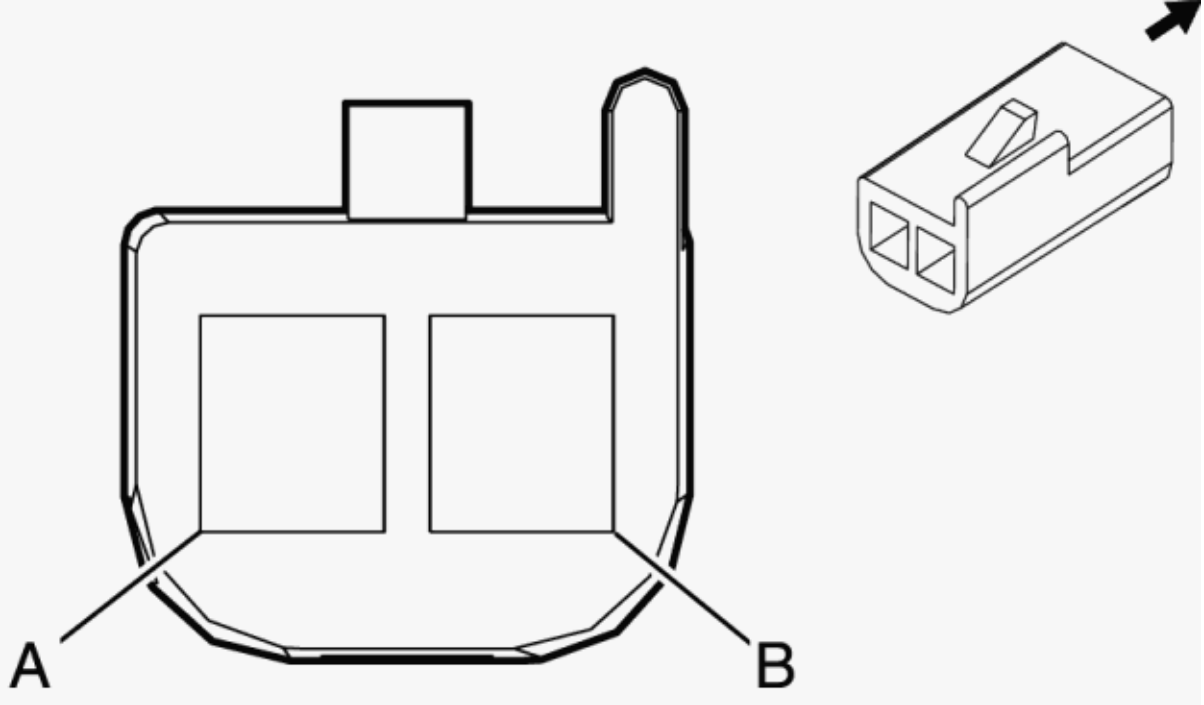
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | I | LTG |
| 2 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | I | LTG |
| 3 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | I | LTG |

## B39 AC EVAPORATOR TEMPERATURE SENSOR

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Connector Part Information

- Harness Type: HVAC
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series (BK)

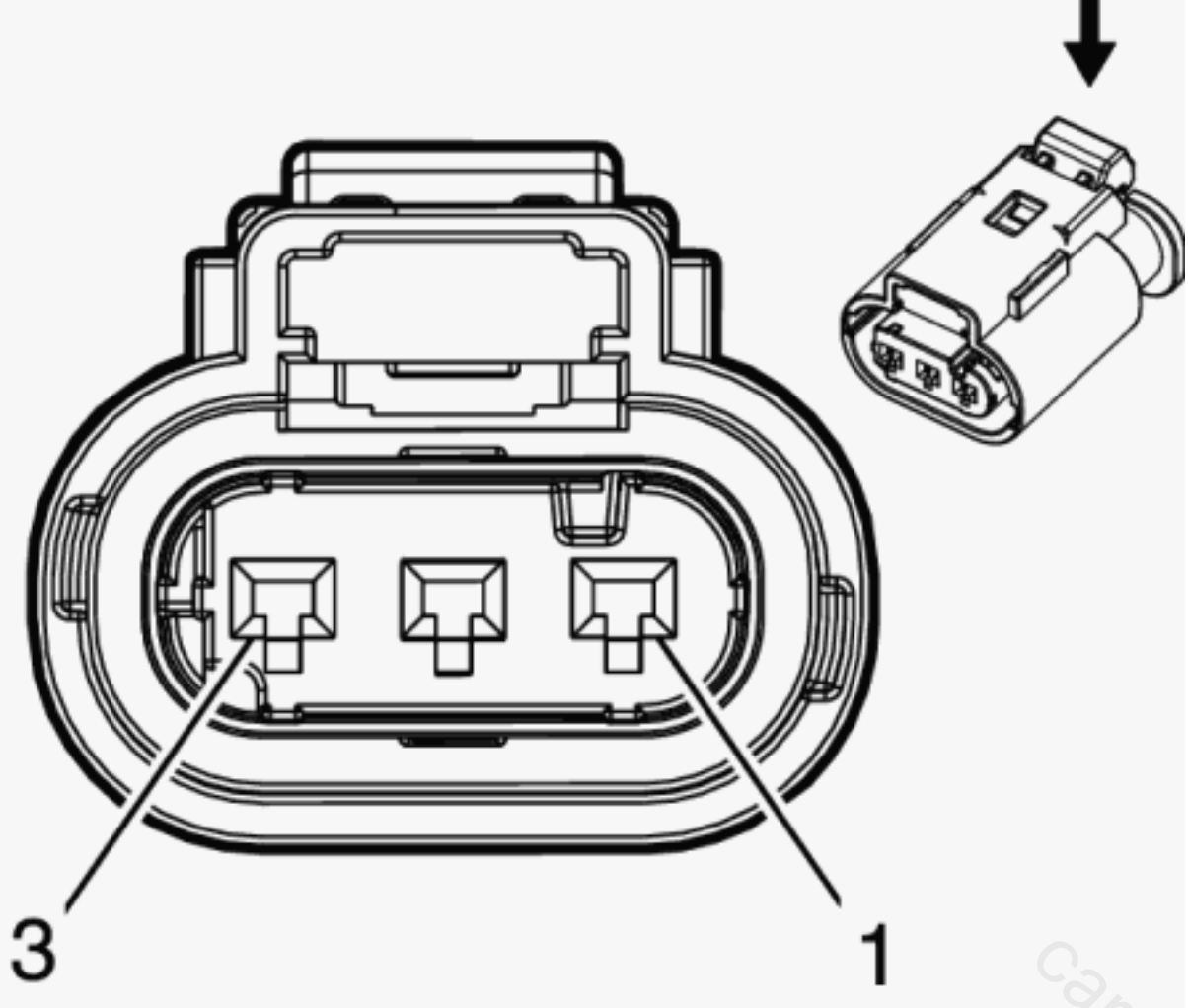
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK/GY | 6137 | EVAP Core Temperature Sensor Signal | I | - |
| B | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |

## B47 FUEL PRESSURE SENSOR

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13503570
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

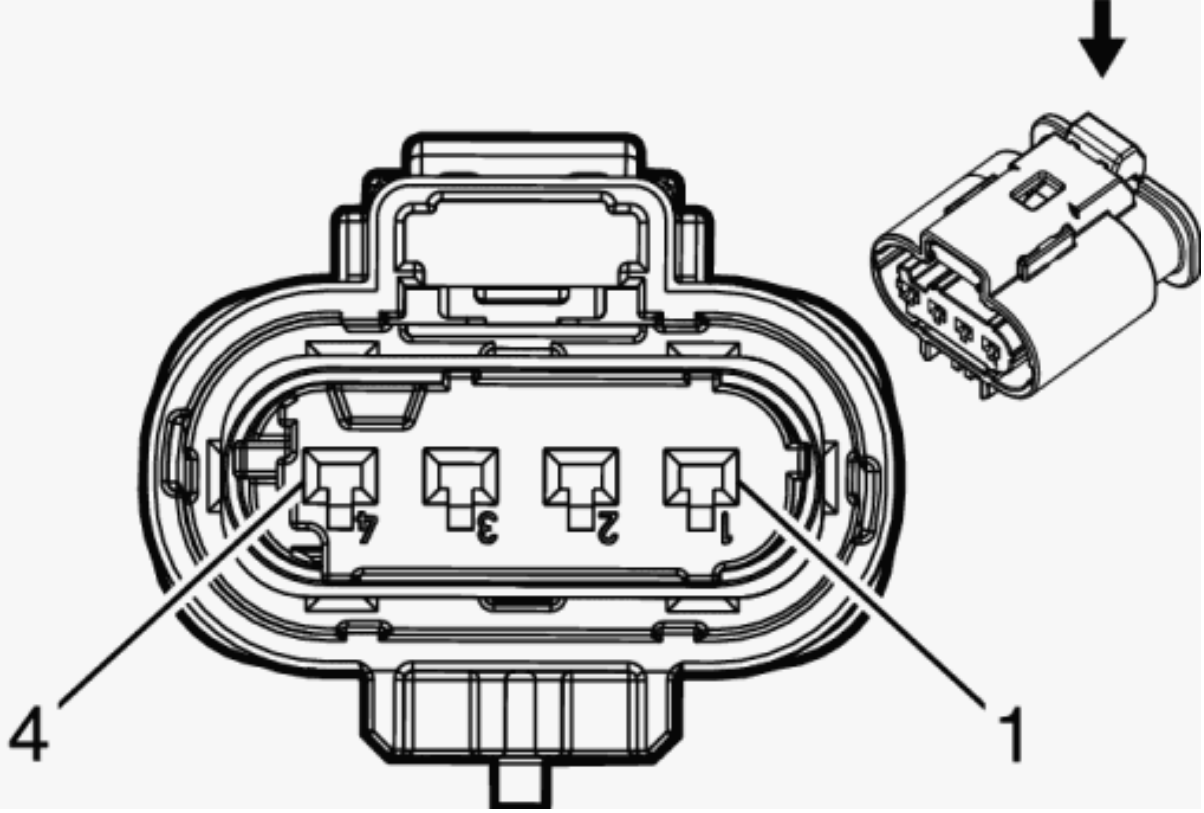
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/RD | 7446 | Fuel Line Pressure Sensor Signal | I | - |
| 2 | 0.5<br>0.5 | BK/YE<br>BK/GN | 7447<br>580 | Fuel Line Pressure Sensor Low Reference<br>Engine Control Sensors Low Reference (2) | I<br>I | LH7<br>LTG/LYX |
| 3 | 0.5 | BU/WH | 7445 | Fuel Line Pressure Sensor 5V Reference | I | - |

## B47B FUEL RAIL PRESSURE SENSOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503575
- Service Connector: 13587299
- Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

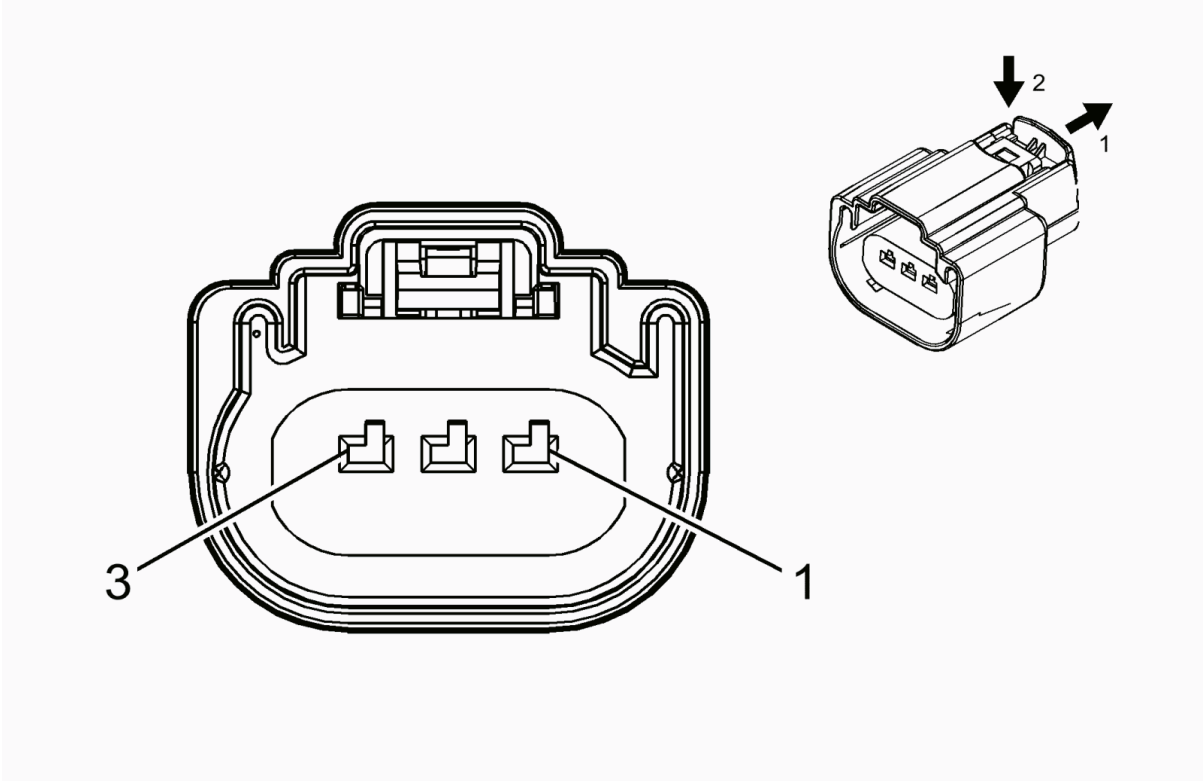
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | I | LH7 |
| 2 | 0.5 | BN/YE | 2161 | Fuel Rail Pressure Sensor 2 Signal | I | LH7 |
| 3 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | I | LH7 |
| 4 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | I | LH7 |

## B51F SUSPENSION HEIGHT SENSOR - FRONT (TR7)

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13510883
- Service Connector: 19356431
- Description: 3-Way F 150 MX Series, Sealed (GY)

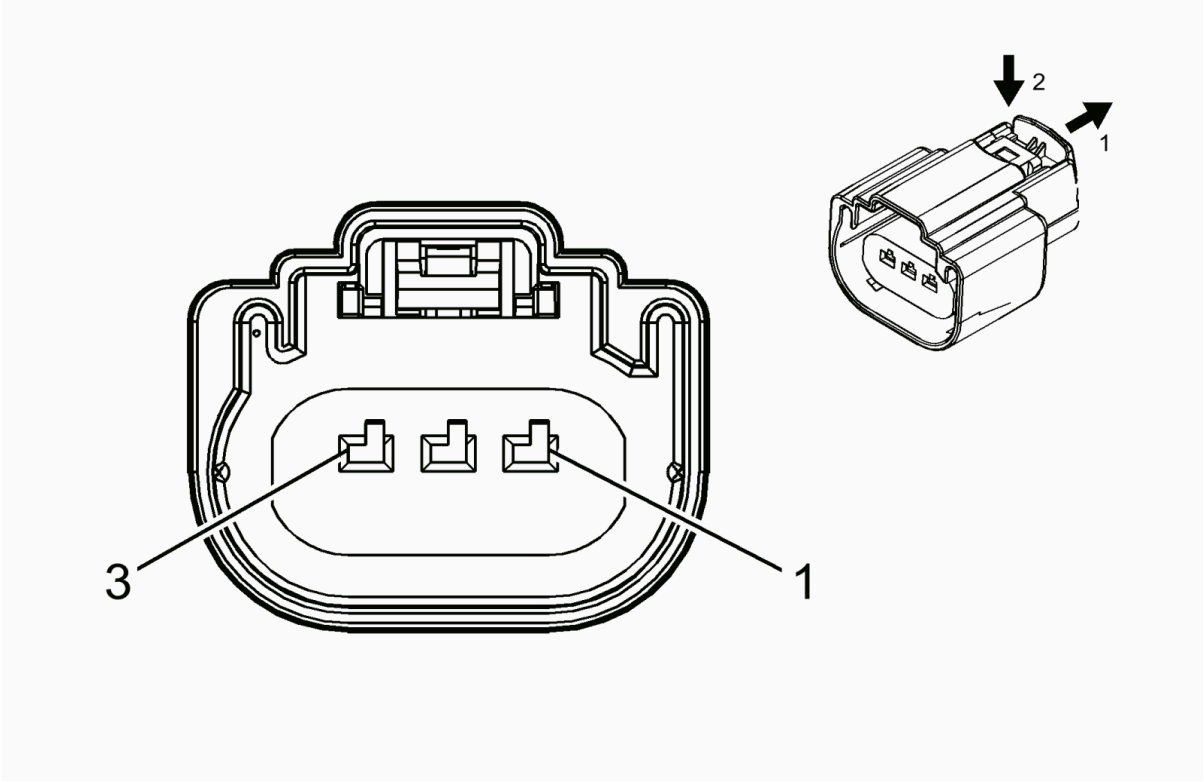
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/RD | 7524 | Front Axle Level Sensor 5V Reference | I | T4L+TR7 |
| 2 | 0.35 | BK/GY | 7526 | Front Axle Level Sensor Low Reference | I | T4L+TR7 |
| 3 | 0.35 | BN/WH | 7525 | Front Axle Level Sensor Signal | I | T4L+TR7 |

## B51R SUSPENSION HEIGHT SENSOR - REAR (TR7)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 160073-3106
- Service Connector: 19356431
- Description: 3-Way F 150 MX Series, Sealed (GY)

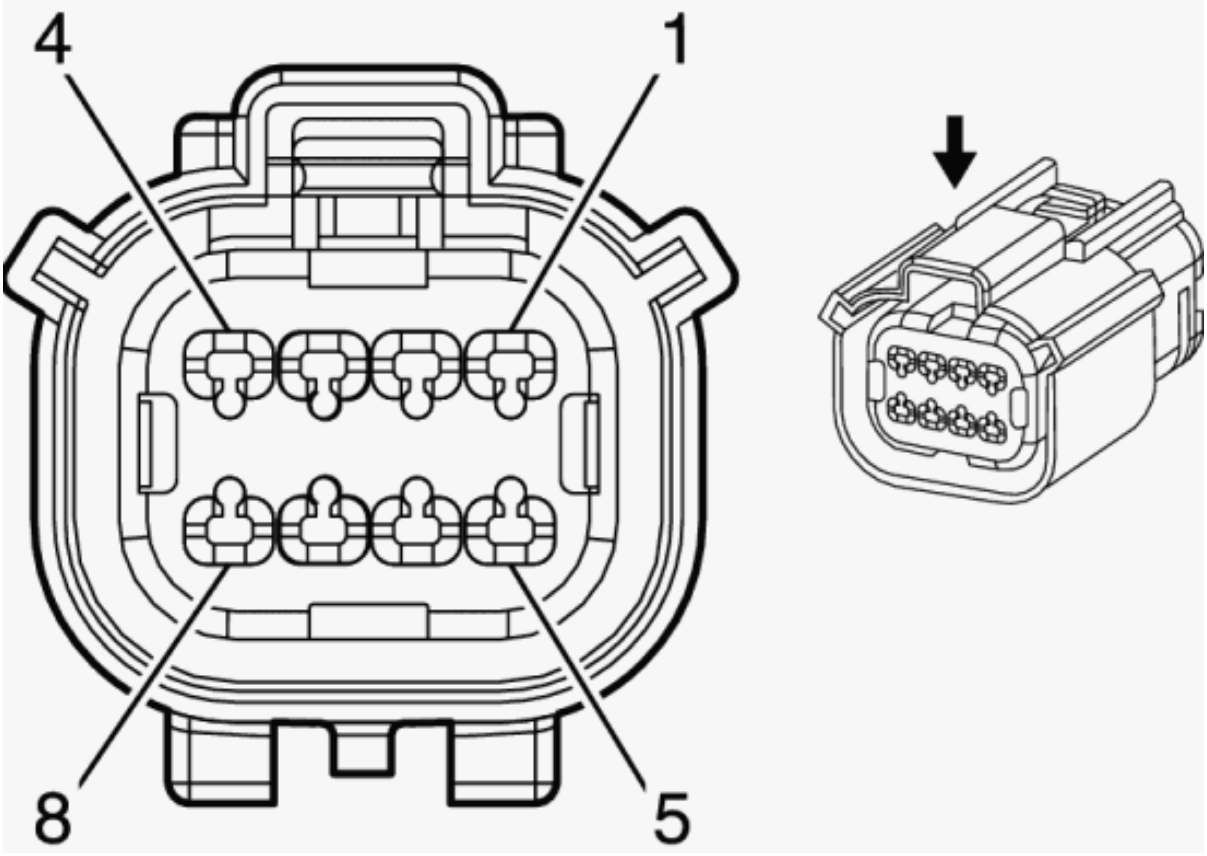
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/RD | 2165 | Automatic Level Control Position Sensor 5V Reference | I | T4L+TR7 |
| 2 | 0.35 | BK/BN | 2185 | Automatic Level Control Position Sensor Low Reference | I | T4L+TR7 |
| 3 | 0.35 | BN | 2184 | Automatic Level Control Position Sensor Signal | I | T4L+TR7 |

## B52A HEATED OXYGEN SENSOR 1 (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13586514
- Service Connector: 19330671
- Description: 8-Way F 150 MX Series, Sealed (BK)

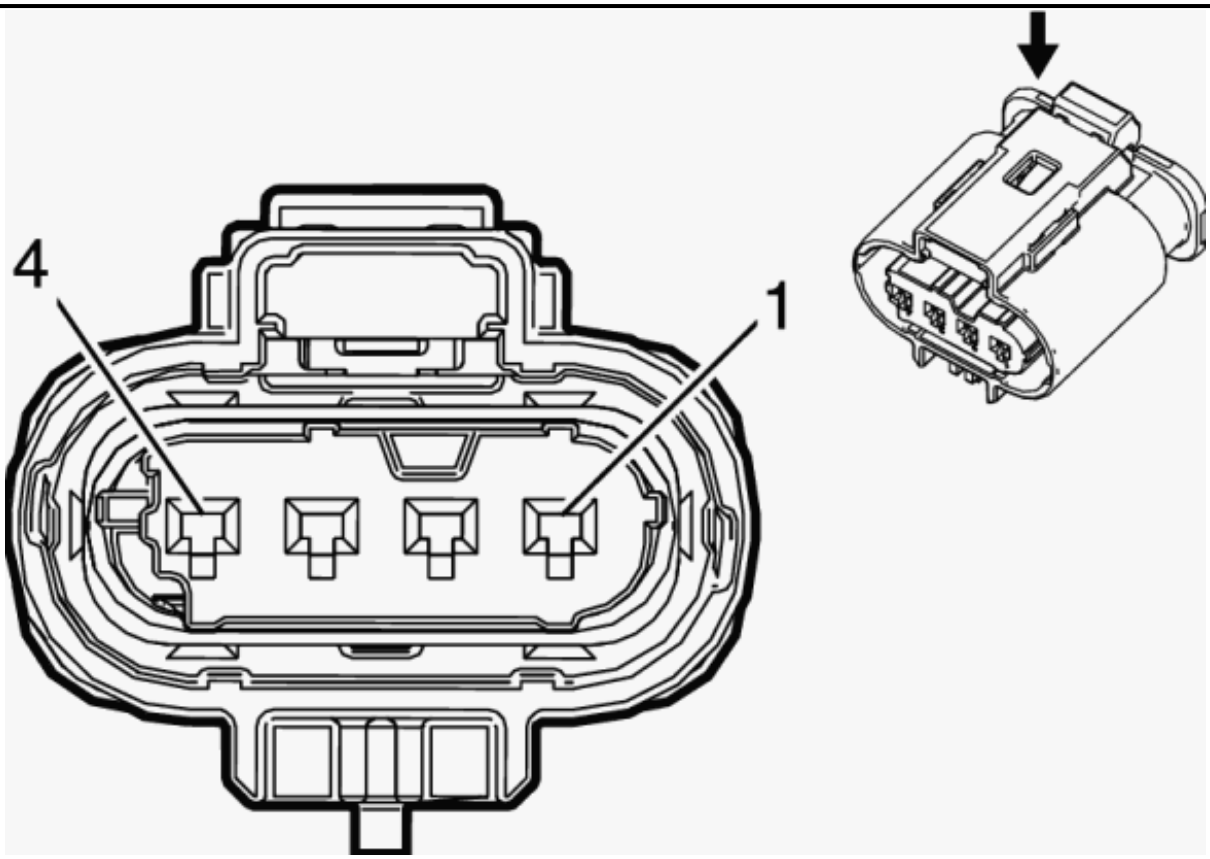
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN | 6934 | Heated Oxygen Sensor Ground | II | LTG |
| 2 | 0.5 | YE/GY | 6936 | Heated Oxygen Sensor Collector Signal | II | LTG |
| 3 | 0.5 | BN/WH | 6933 | Heated Oxygen Sensor Current Pump Signal | II | LTG |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LTG |
| 6 | 0.5 | GY/WH | 3113 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1 | I | LTG |
| 7 | 0.5 | GN | 6935 | Heated Oxygen Sensor Current Adjust Signal | I | LTG |
| 8 | - | - | - | Not Occupied | - | - |

## B52A HEATED OXYGEN SENSOR 1 (LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503577
- Service Connector: 19301716
- Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

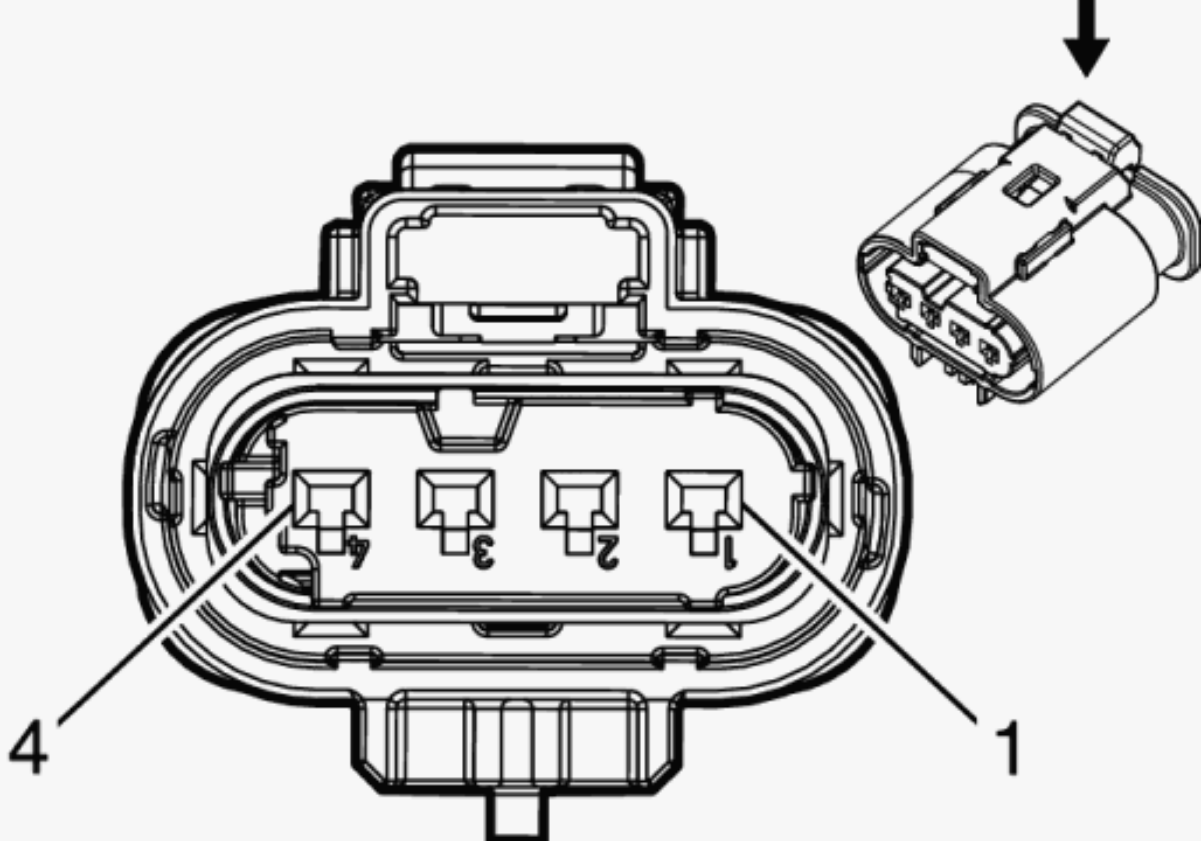
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/WH | 3113 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1 | I | LYX |
| 2 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LYX |
| 3 | 0.5 | WH/BK | 3111 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 1 | I | LYX |
| 4 | 0.5 | VT/GY | 3110 | Heated Oxygen Sensor High Signal Bank 1 Sensor 1 | I | - |

## B52B HEATED OXYGEN SENSOR 2 (LTG)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503576
- Service Connector: 13587298
- Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

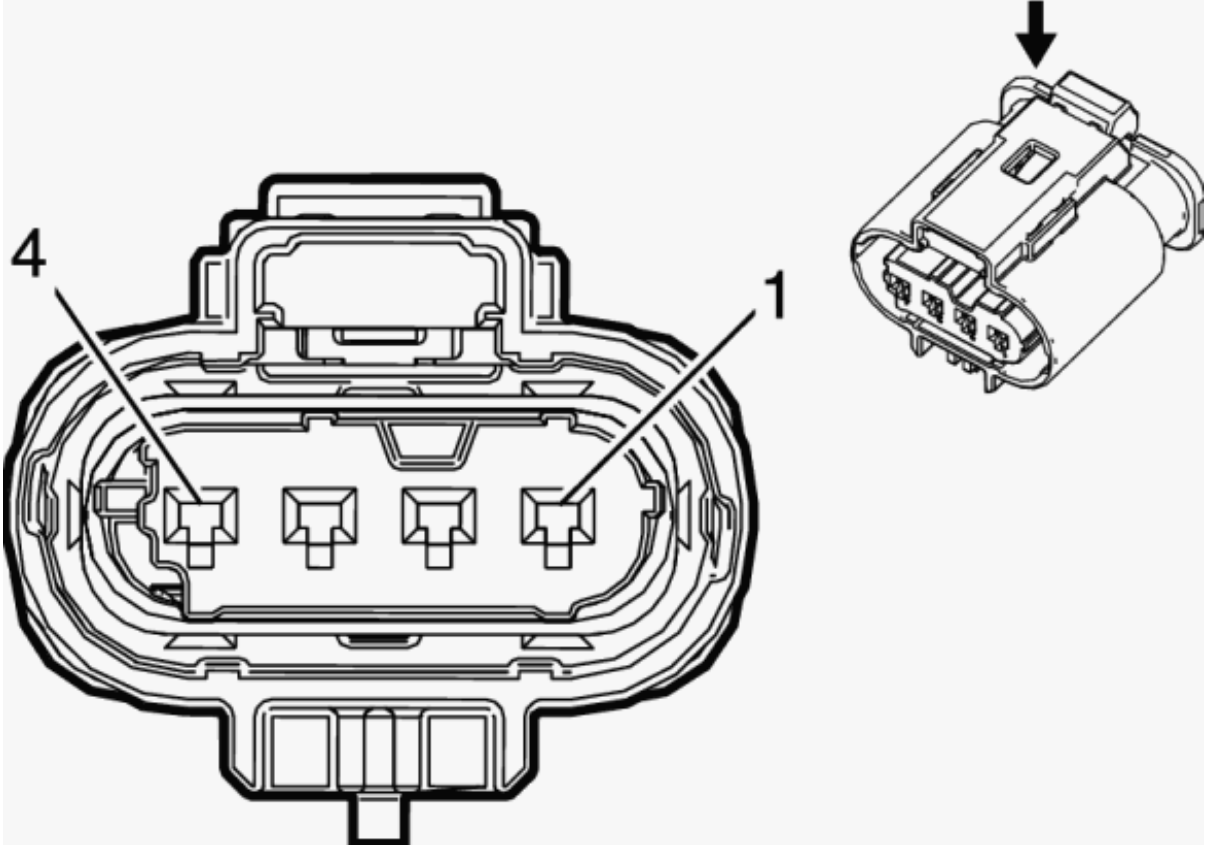
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/WH | 3122 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 | I | LTG |
| 2 | 0.5 | VT/BU | 5294 | Powertrain Main Relay Fused Supply 5 | I | LTG |
| 3 | 0.5 | WH/YE | 3121 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 | I | LTG |
| 4 | 0.5 | VT/BU | 3120 | Heated Oxygen Sensor High Signal Bank 1 Sensor 2 | I | LTG |

## B52B HEATED OXYGEN SENSOR 2 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503577
- Service Connector: 19301716
- Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

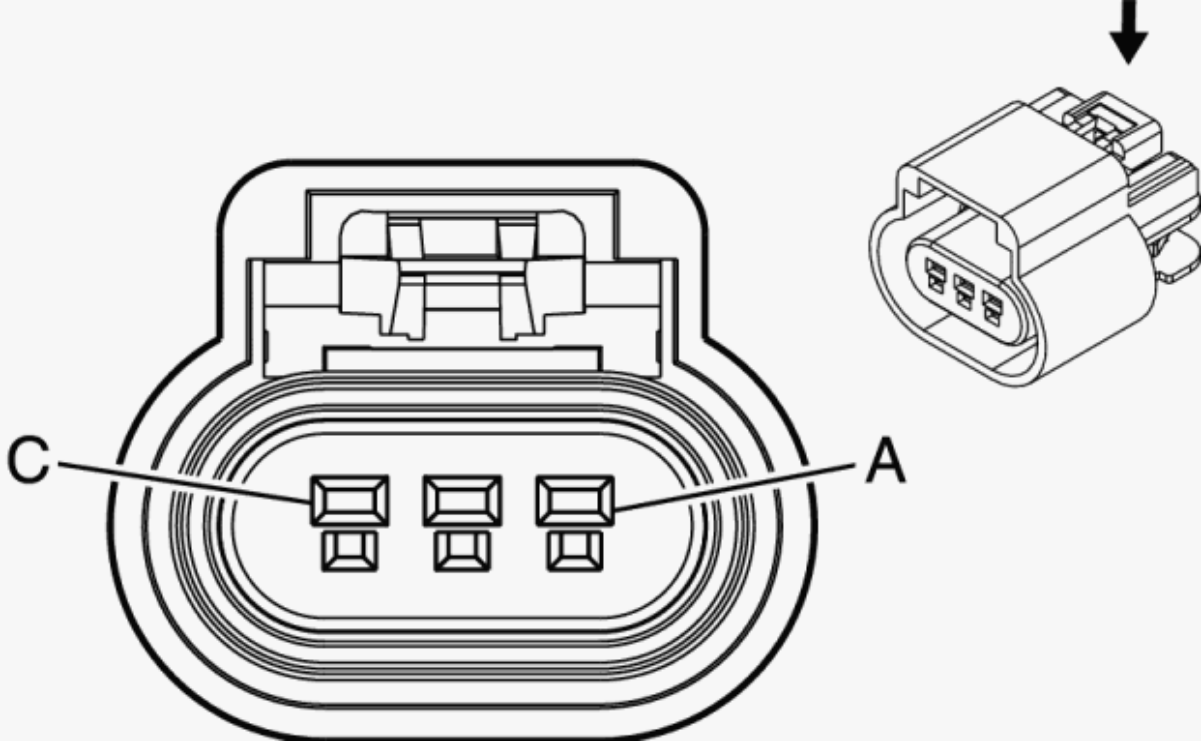
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/WH | 3122 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 | I | - |
| 2 | 0.5 | VT/BU | 5294 | Powertrain Main Relay Fused Supply 5 | I | - |
| 3 | 0.5 | WH/YE | 3121 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 | I | - |
| 4 | 0.5 | VT/BU | 3120 | Heated Oxygen Sensor High Signal Bank 1 Sensor 2 | I | - |

## B55 ENGINE HOOD SWITCH




Connector Part Information

- Harness Type: Body
- OEM Connector: 19153104
- Service Connector: 19368886
- Description: 3-Way F 150 GT Series, Sealed (BK)

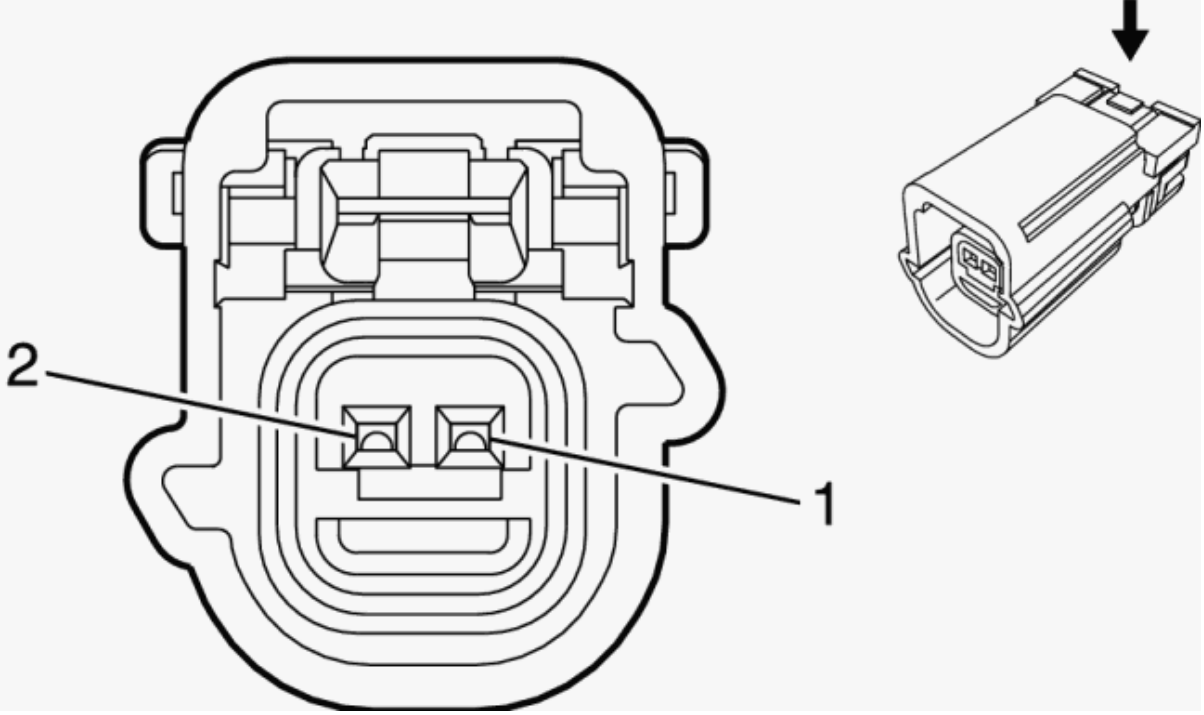
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | YE | 5530 | Hood Open Switch Signal | I | KL9 |
| B | 0.35 | BN/GN | 4064 | Hood Status B Signal | I | - |
| C | 0.35 | BK | 1150 | Ground | I | - |

## B59L FRONT IMPACT SENSOR - LEFT

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13598827
- Service Connector: 19333025
- Description: 2-Way F 0.64 OCS Series (GY)

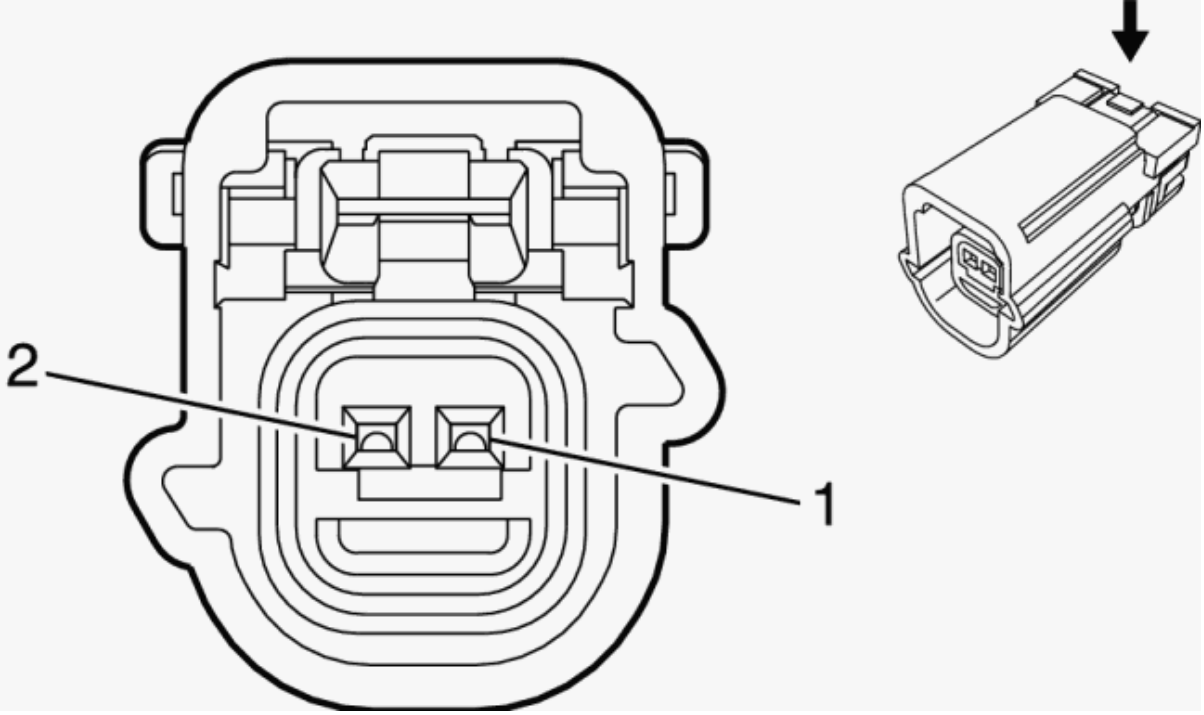
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/YE | 354 | Left Front Discriminating Sensor Signal | I | AY0/AJG |
| 2 | 0.35 | BK/OG | 5045 | Left Front Discriminating Sensor Low Reference | I | AY0/AJG |

## B59R FRONT IMPACT SENSOR - RIGHT

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Connector Part Information

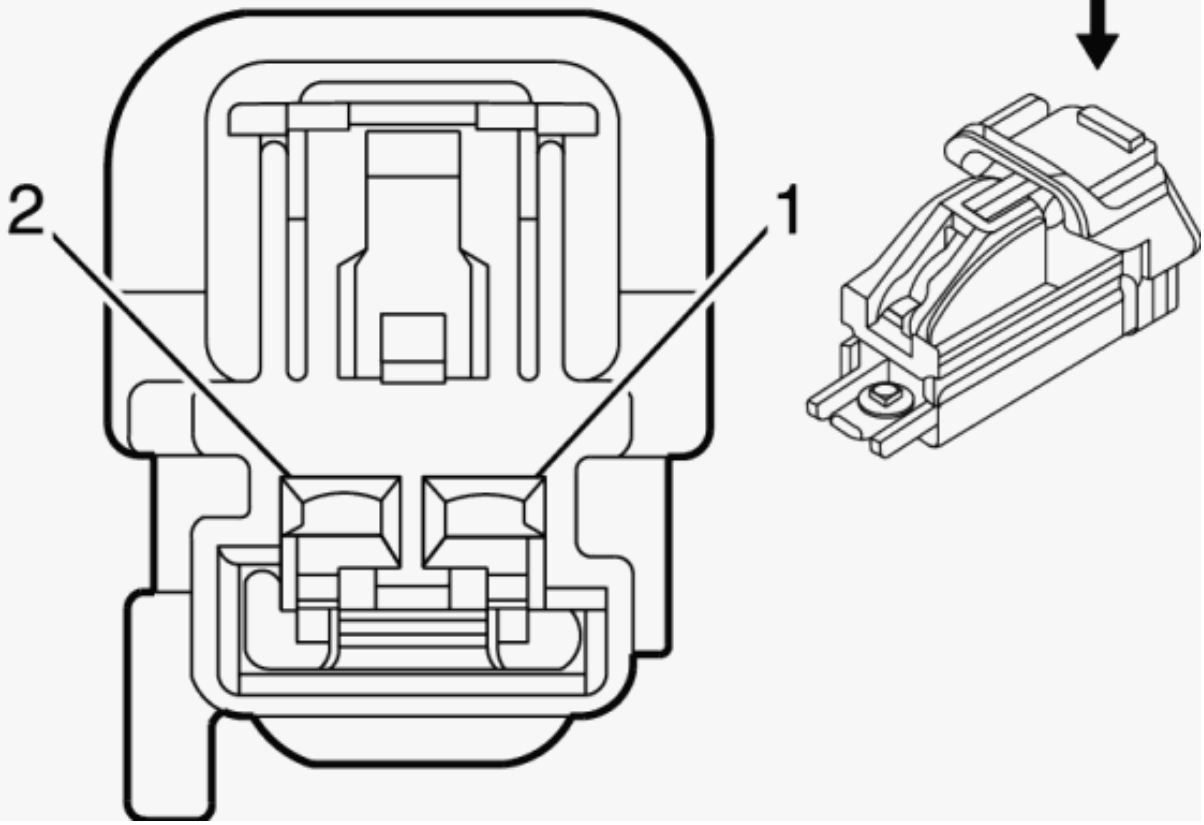
- Harness Type: Forward Lamp
- OEM Connector: 13598827
- Service Connector: 19333025
- Description: 2-Way F 0.64 OCS Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/GN | 1409 | Right Front Discriminating Sensor Signal | I | - |
| 2 | 0.5 | BK/OG | 5600 | Right Front Discriminating Sensor Low Reference | I | - |

## B60 PASSENGER PRESENCE SENSOR (UHH-AL0)




Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 7283-6443-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 YESC Series (L-GY)

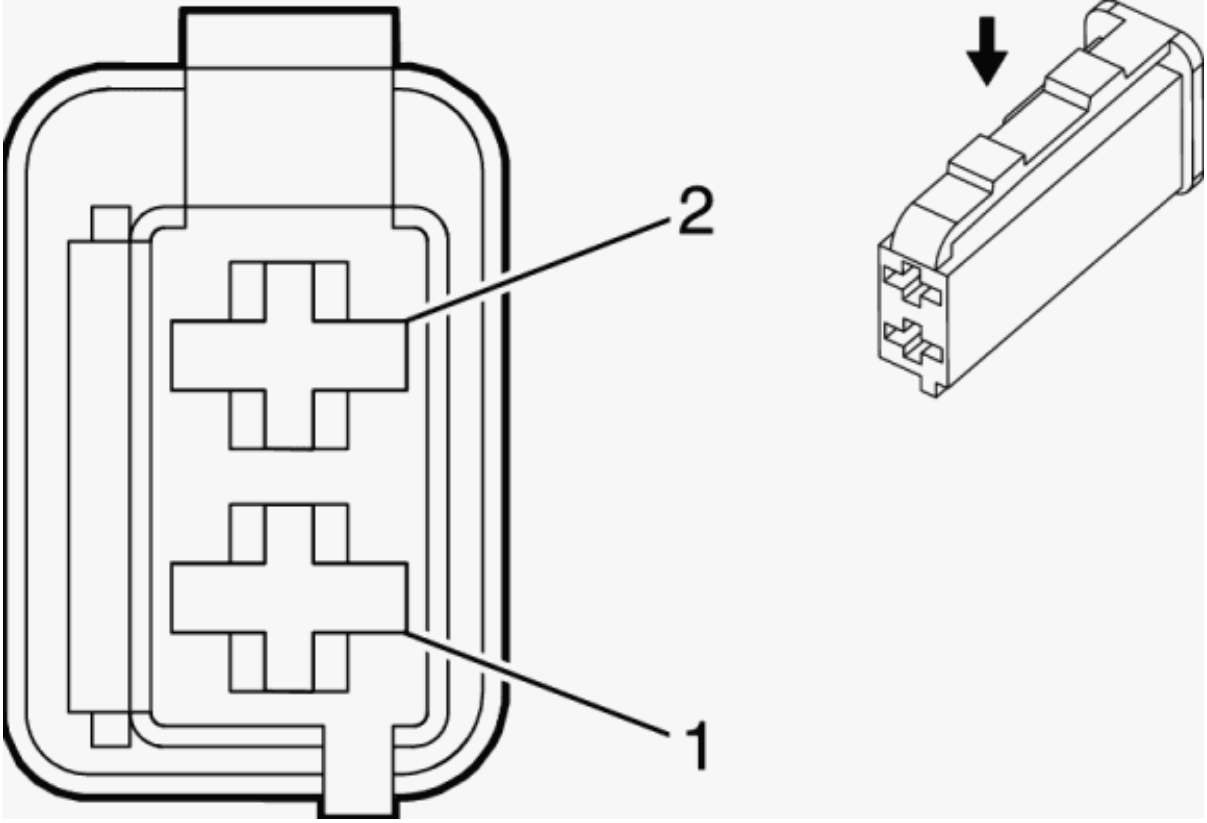
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/BN | 7571 | Passenger Seat Belt Reminder Signal | I | - |
| 2 | 0.5 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | I | - |

## B61P SEAT BELT TENSION SENSOR - PASSENGER (AL0)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 19179871
- Service Connector: 13580951
- Description: 2-Way F 1.6 Timer Series (BK)

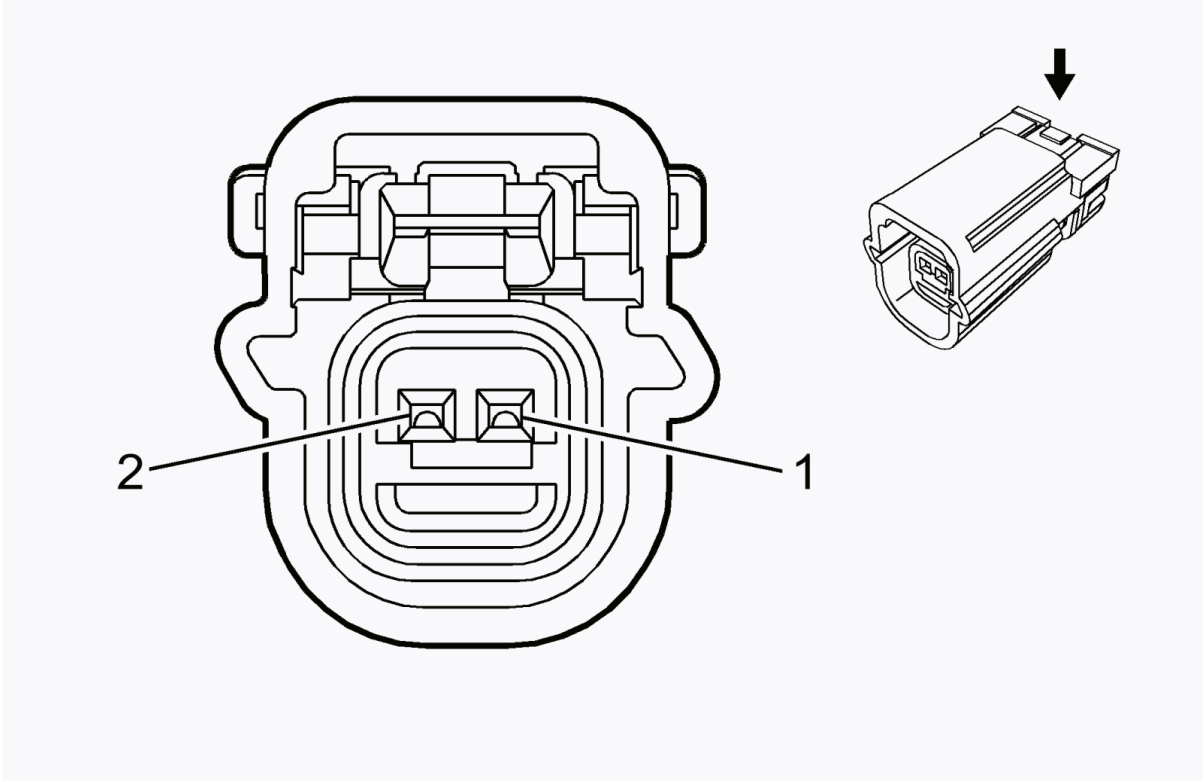
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/BN | 3947 | Automatic Locking Retractor Switch Signal | I | AL0+AY0 |
| 2 | 0.35 | GY/OG | 3946 | Automatic Locking Retractor Switch Low Reference | I | AL0+AY0 |

## B63LF SIDE IMPACT SENSOR - LEFT FRONT

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Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 33174099
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 OCS Series, Sealed (GN)

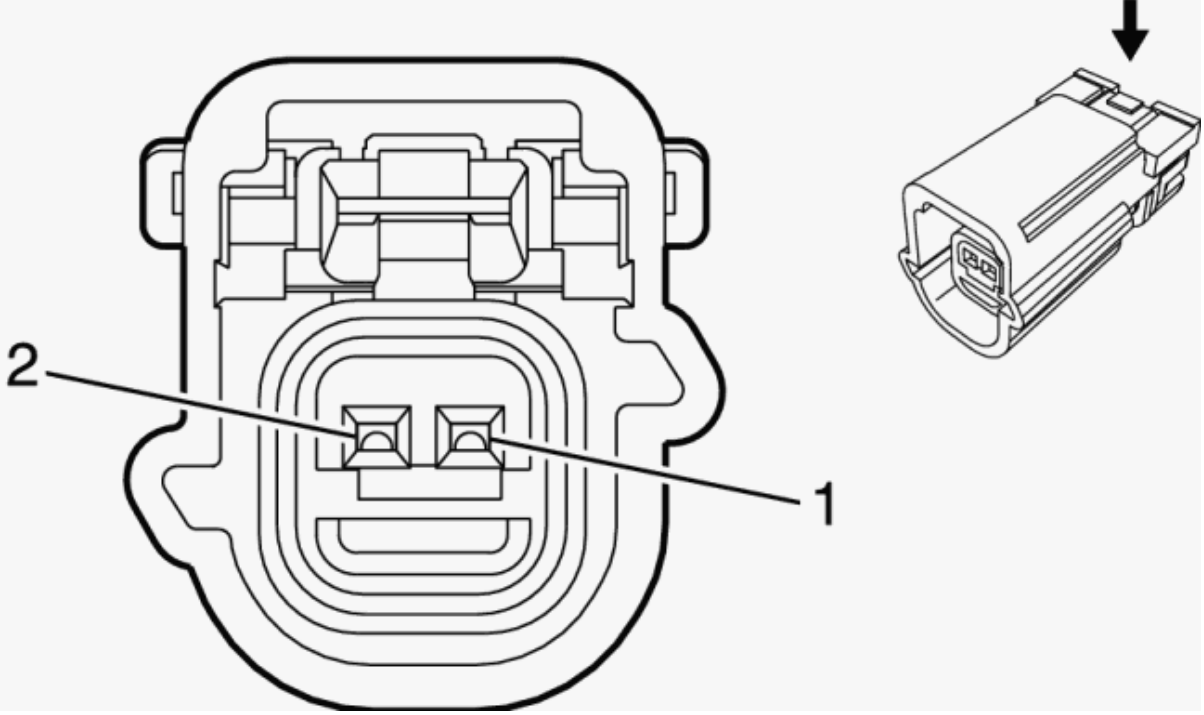
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/GN | 2132 | Left Front Side Impact Sensing Module Signal | I | - |
| 2 | 0.35 | BK/OG | 6628 | Left Front Side Impact Sensing Module Low Reference | I | - |

## B63LR SIDE IMPACT SENSOR - LEFT REAR

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Connector Part Information

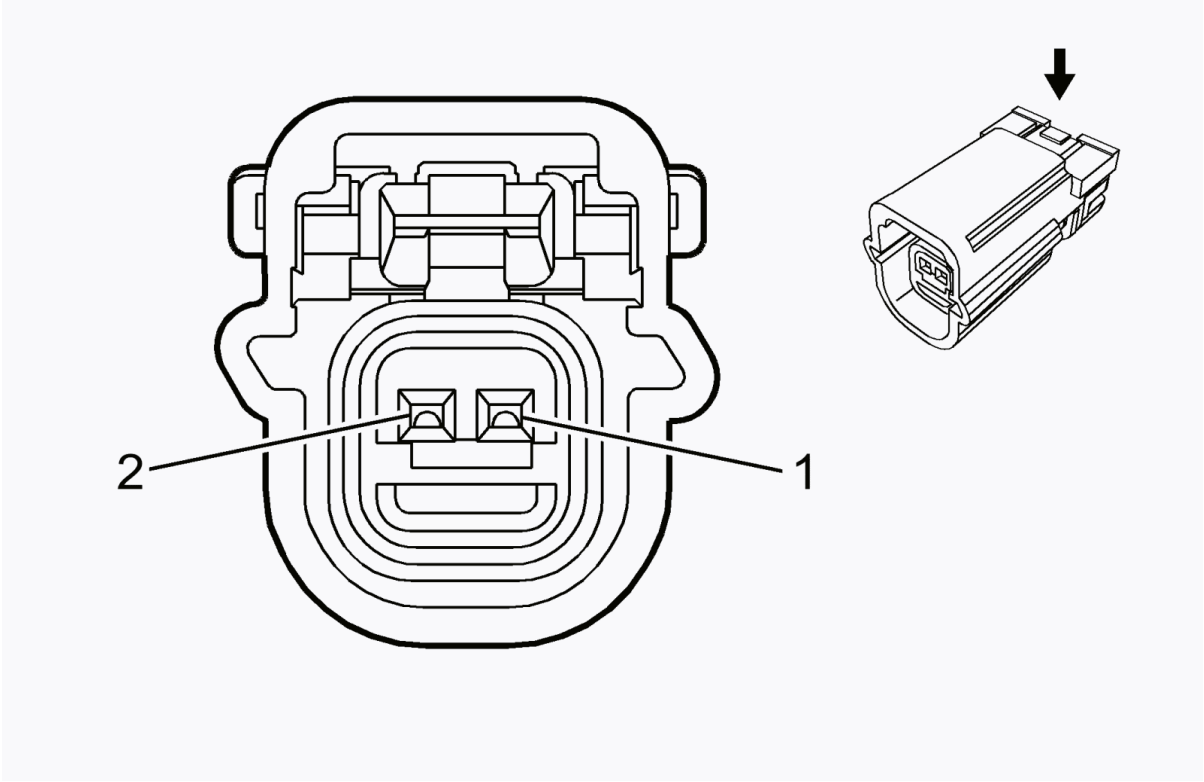
- Harness Type: Body
- OEM Connector: 33174097
- Service Connector: 19333025
- Description: 2-Way F 0.64 OCS Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/BU | 6620 | Left Middle Side Impact Sensing Module Signal | I | - |
| 2 | 0.35 | BK/OG | 6621 | Left Middle Side Impact Sensing Module Low Reference | I | - |

## B63RF SIDE IMPACT SENSOR - RIGHT FRONT




Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 33174099
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 OCS Series, Sealed (GN)

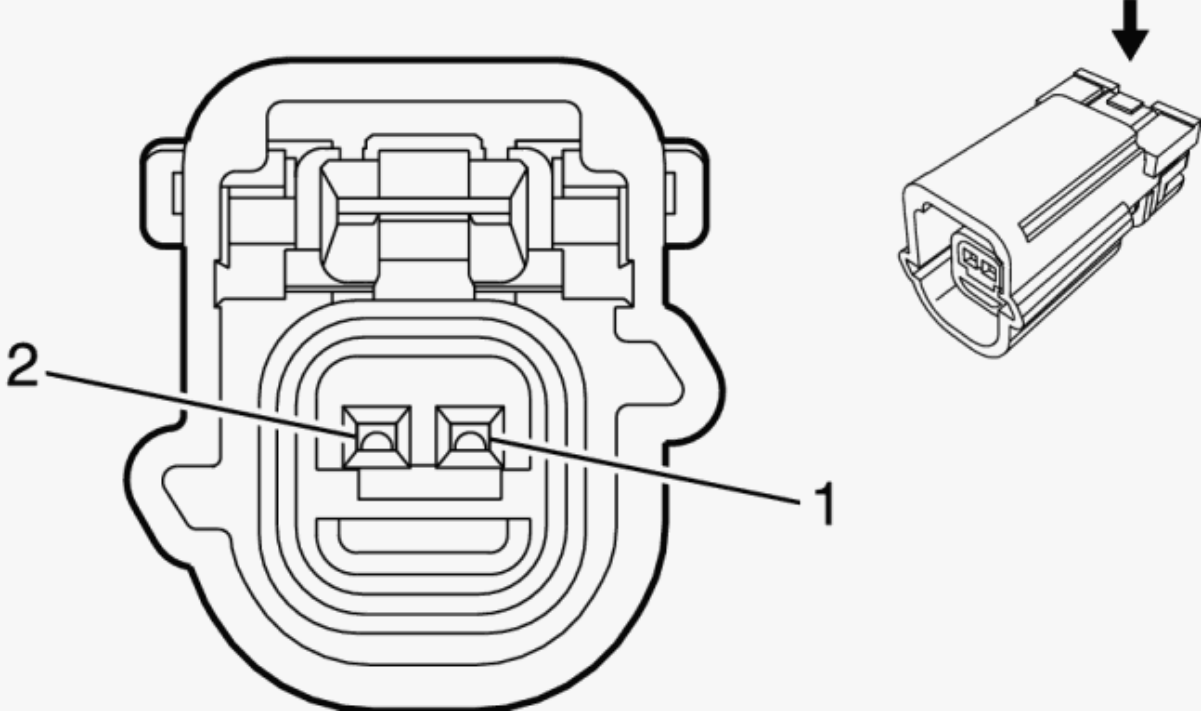
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/OG | 2134 | Right Front Side Impact Sensing Module Signal | I | - |
| 2 | 0.35 | BK/OG | 6629 | Right Front Side Impact Sensing Module Low Reference | I | - |

## B63RR SIDE IMPACT SENSOR - RIGHT REAR

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Connector Part Information

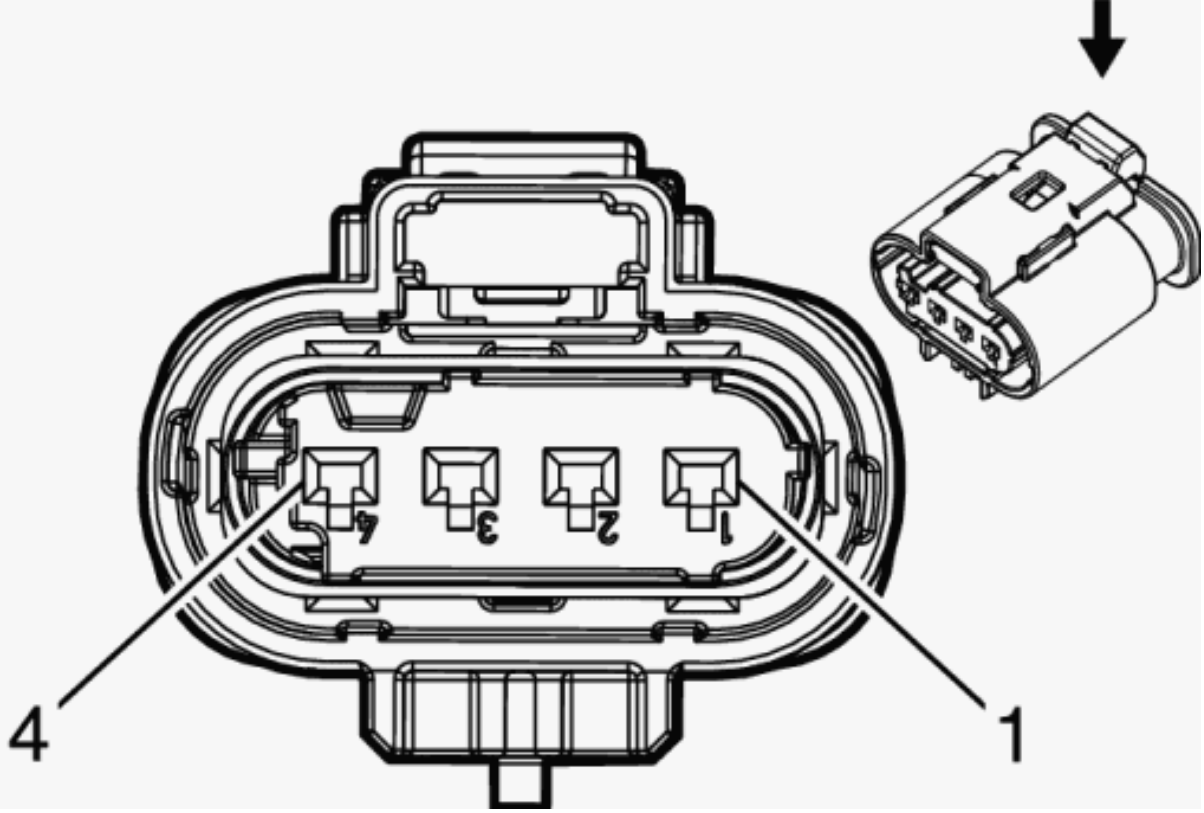
- Harness Type: Body
- OEM Connector: 33174097
- Service Connector: 19333025
- Description: 2-Way F 0.64 OCS Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/VT | 6624 | Right Middle Side Impact Sensing Module Signal | I | - |
| 2 | 0.35 | BK/OG | 6625 | Right Middle Side Impact Sensing Module Low Reference | I | - |

## B65 INTAKE MANIFOLD PRESSURE AND AIR TEMPERATURE SENSOR (LH7/LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503575
- Service Connector: 13587299
- Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

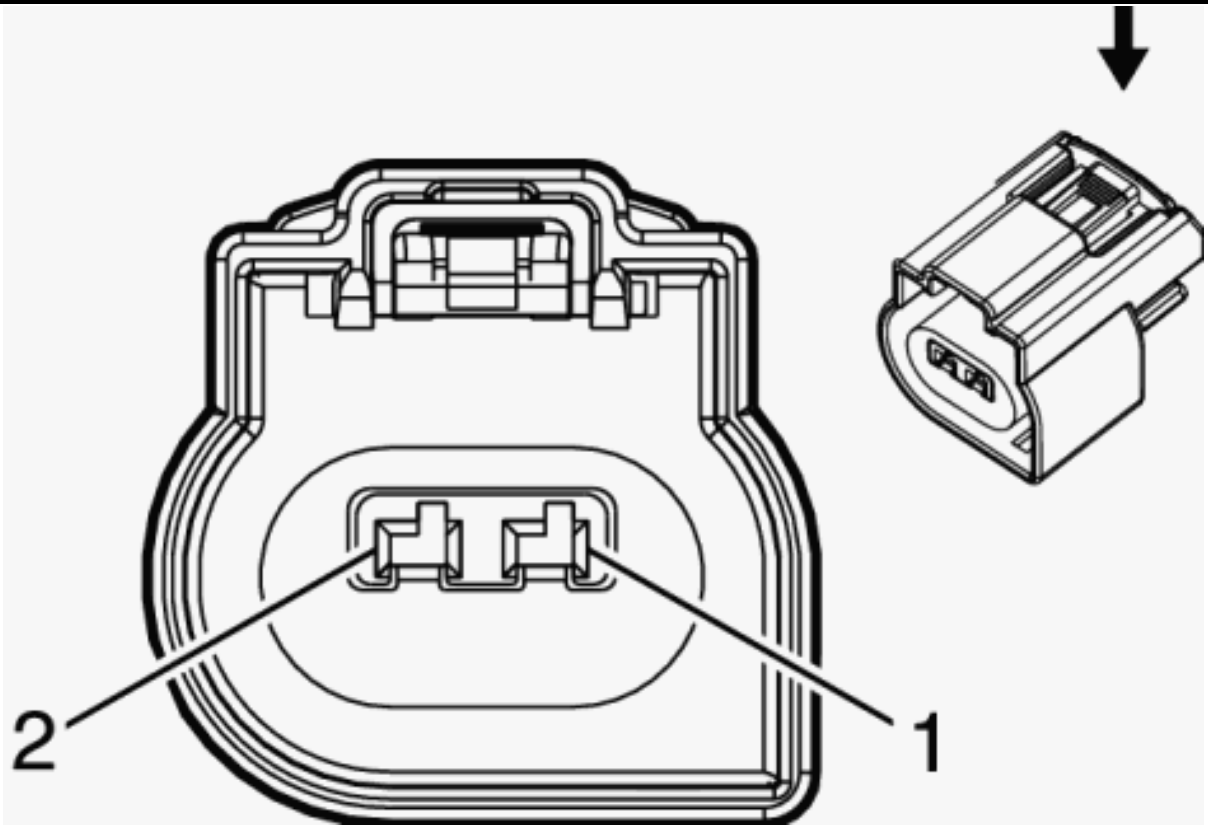
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | BN<br>WH/BU | 7348<br>7329 | Induction Air Temperature Sensor 2 Signal<br>Pre-Throttle Air Temp and Press (TMAP) Temperature Signal | I<br>I | LH7<br>LYX |
| 2 | 0.5<br>0.5 | GY/RD<br>BK/VT | 2704<br>7331 | Manifold Absolute Pressure Sensor 5V Reference<br>Pre Throttle Air Temp and Press (TMAP) 5V Reference | I<br>I | LH7<br>LYX |
| 3 | 0.5<br>0.5 | BK/GN<br>GY/RD | 469<br>7332 | Manifold Absolute Pressure Sensor Low Reference<br>Pre Throttle Air Temp and Press (TMAP) Low Reference | I<br>I | LH7<br>LYX |
| 4 | 0.5<br>0.5 | GN/WH<br>VT/BU | 432<br>7330 | Manifold Absolute Pressure Sensor Signal<br>Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal | I<br>I | LH7<br>LYX |

## B68A KNOCK SENSOR 1 (LTG/LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13583154
- Service Connector: 19301207
- Description: 2-Way F 150 MX Series, Sealed (BK)

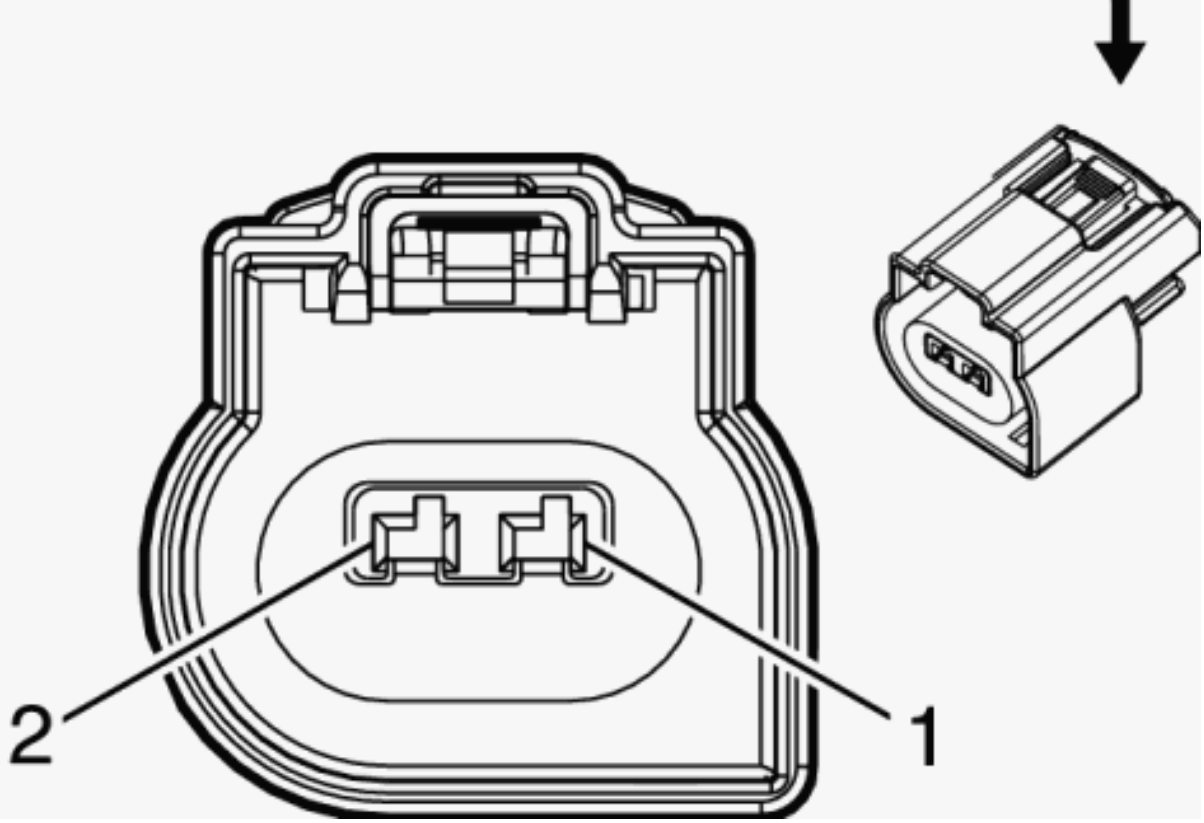
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/GY | 496 | Knock Sensor Signal 1 | I | - |
| 2 | 0.5 | BK/YE | 1716 | Knock Sensor Low Reference 1 | I | - |

## B68B KNOCK SENSOR 2 (LTG/LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13583154
- Service Connector: 19301207
- Description: 2-Way F 150 MX Series, Sealed (BK)

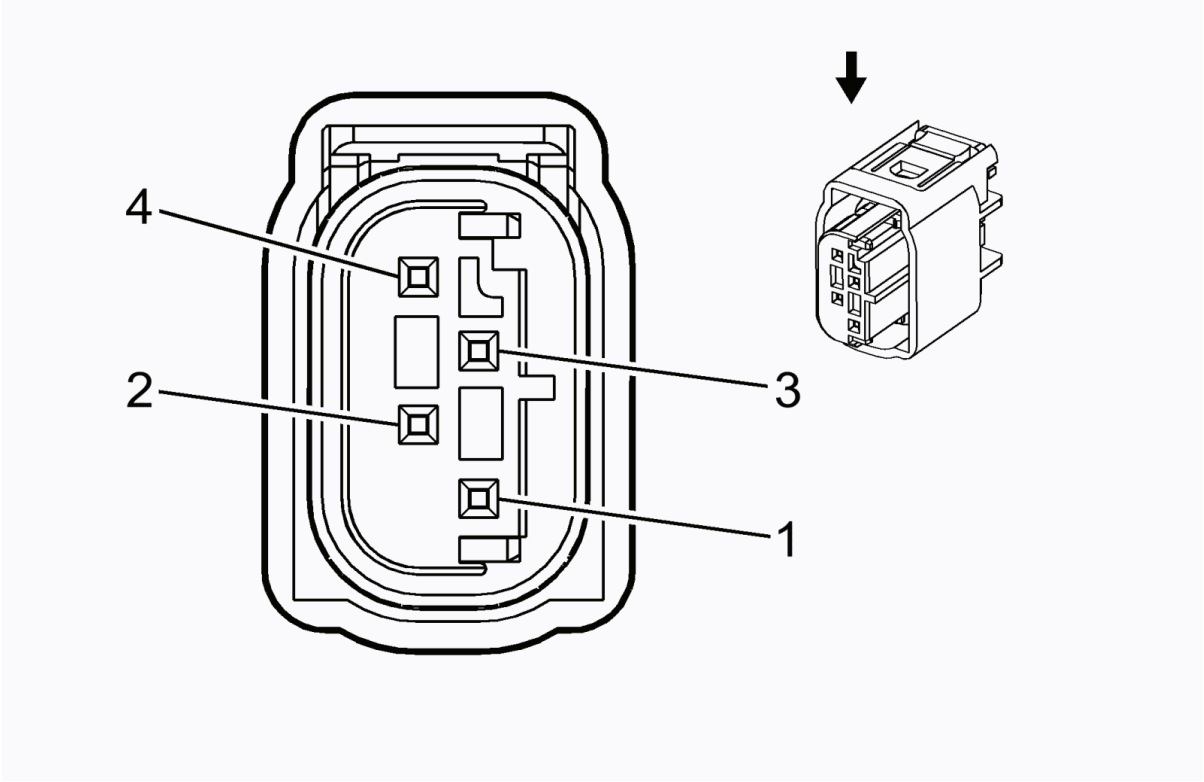
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/GY | 1876 | Knock Sensor Signal 2 | I | - |
| 2 | 0.5 | BK/GY | 2303 | Knock Sensor Low Reference 2 | I | - |

## B70 LIFTGATE CLOSE SWITCH (TB5/TC2)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 90484986
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

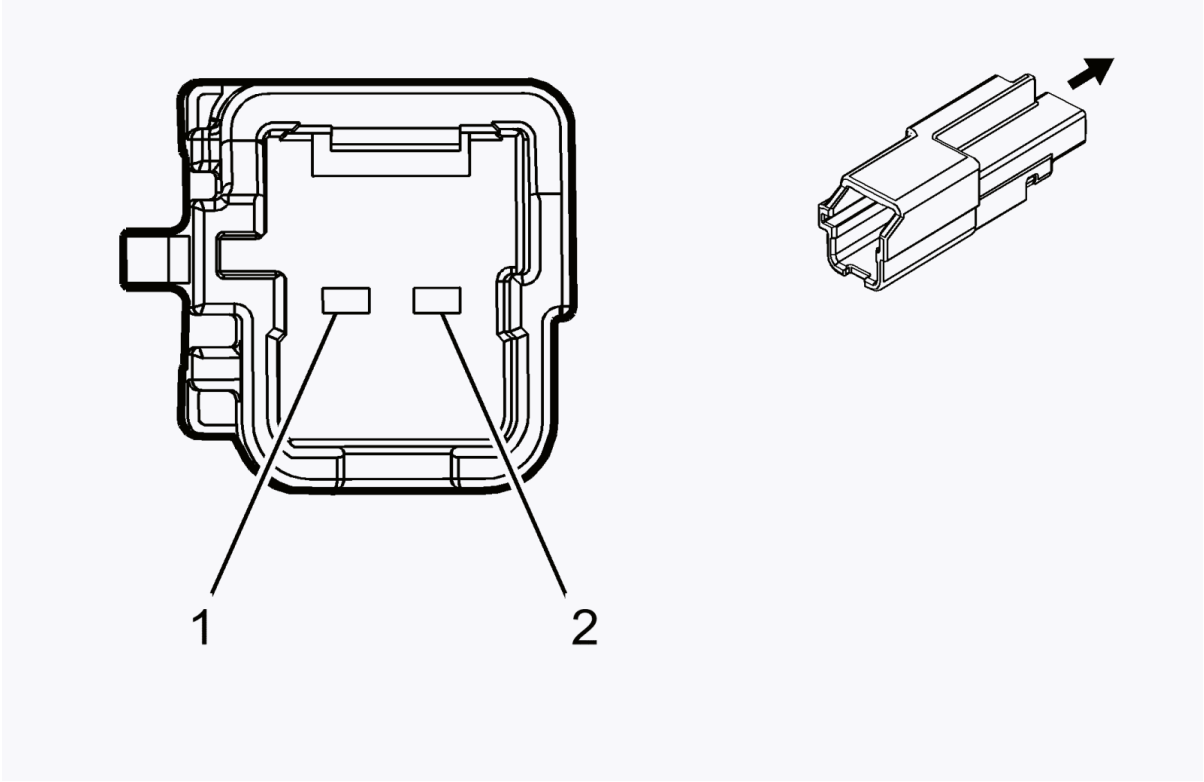
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | TB5/TC2 |
| 2 | 0.35 | GY/WH | 3034 | Lift Gate Shut Face Switch LED Control | I | TB5/TC2 |
| 3 | 0.35 | BK/VT | 4656 | Rear Closure Object Sensor Low Reference | I | TB5/TC2 |
| 4 | 0.35 | GN | 3033 | Lift Gate Shut Face Switch Signal | I | TB5/TC2 |

## B71L LIFTGATE OBJECT SENSOR - LEFT (TB5/TC2)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13588641
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Series (BK)

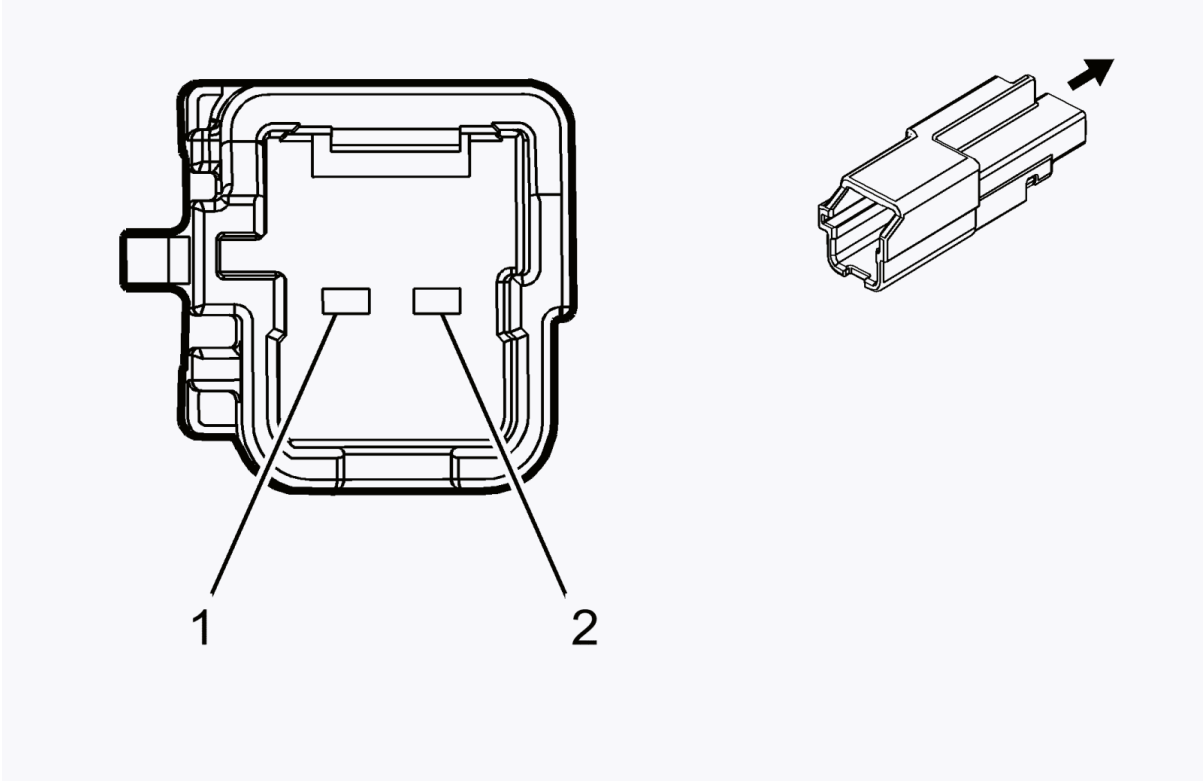
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BK | 4654 | Rear Closure Object Sensor Signal | I | TB5/TC2 |
| 2 | 0.35 | WH/BK | 4655 | Rear Closure Object Sensor 2 Signal | I | TB5/TC2 |

## B71R LIFTGATE OBJECT SENSOR - RIGHT (TB5/TC2)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13588641
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Series (BK)

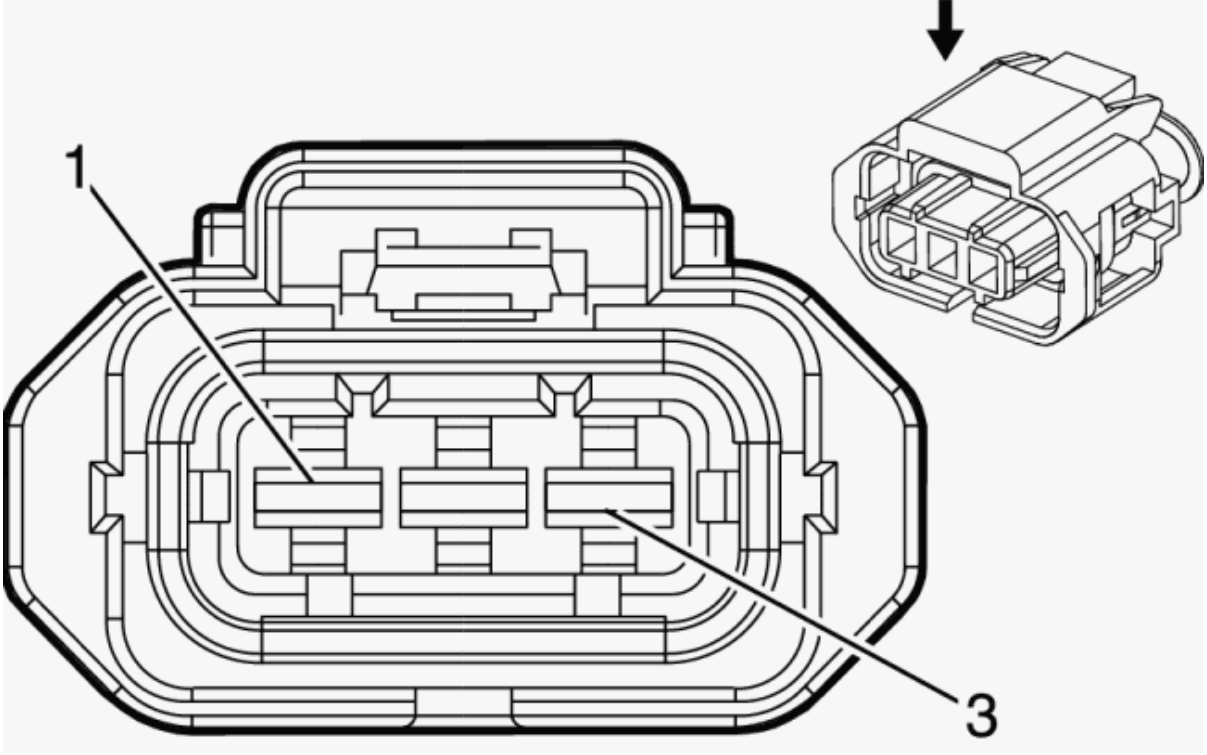
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/BK | 4655 | Rear Closure Object Sensor 2 Signal | I | TB5/TC2 |
| 2 | 0.35 | BK/VT | 4656 | Rear Closure Object Sensor Low Reference | I | TB5/TC2 |

## B74 MANIFOLD ABSOLUTE PRESSURE SENSOR (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 55567199
- Service Connector: 13580231
- Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (GY)

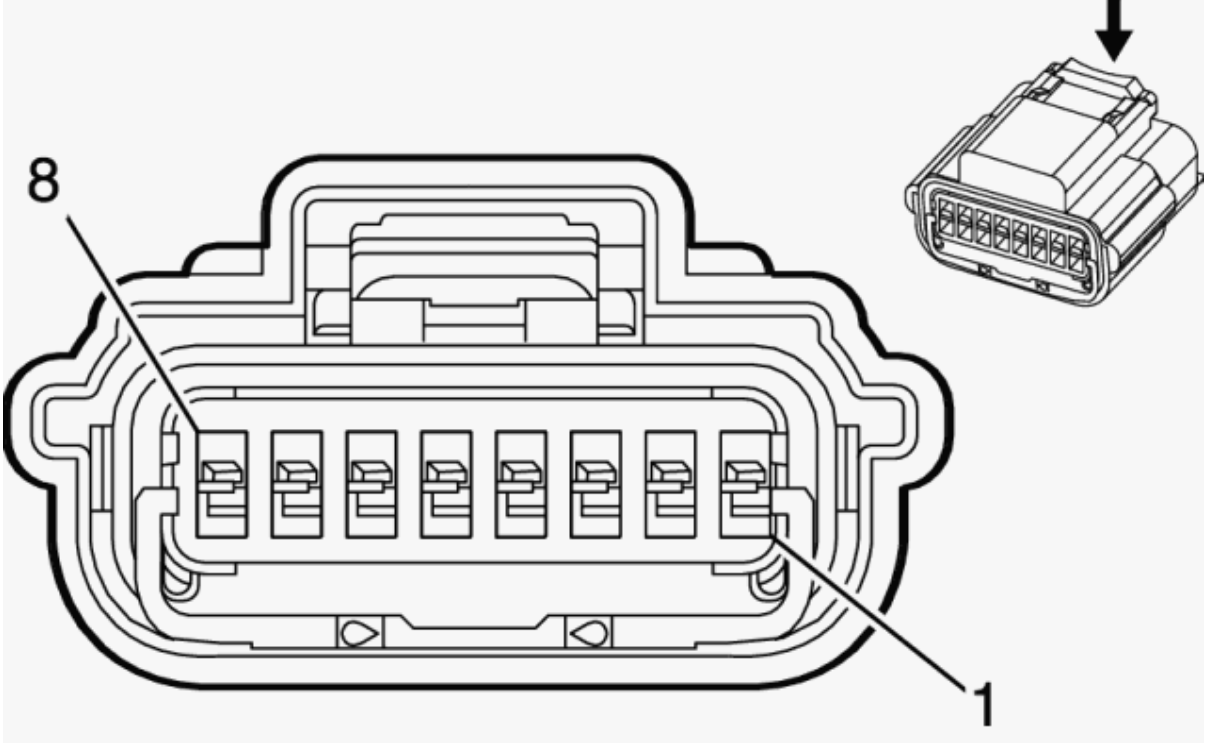
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/RD | 2704 | Manifold Absolute Pressure Sensor 5V Reference | I | LTG |
| 2 | 0.5 | BK/GN | 469 | Manifold Absolute Pressure Sensor Low Reference | I | LTG |
| 3 | 0.5 | GN/WH | 432 | Manifold Absolute Pressure Sensor Signal | I | LTG |

## B75C MULTIFUNCTION INTAKE AIR SENSOR

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13504800
- Service Connector: 13583440
- Description: 8-Way F 0.64 Series, Sealed (BK)

**Terminal Part Information**

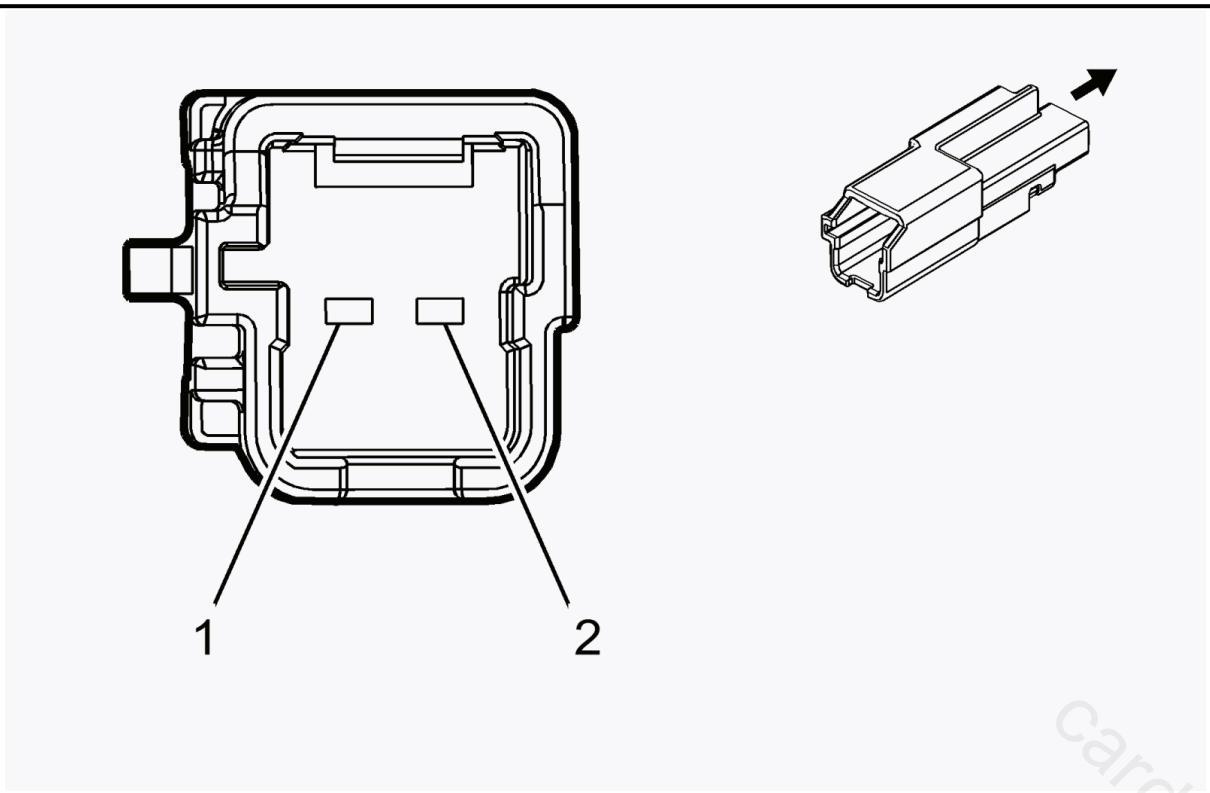
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BU | 6289 | Induction Air Temperature Sensor Signal | I | - |
| 2 | 0.5<br>0.5 | WH/RD<br>GY/RD | 3201<br>3053 | Throttle Inlet Absolute Pressure Sensor 5V Reference<br>Turbo Intake Pressure Sensor High Reference Bank 1 | I<br>I | LH7<br>LTG |
| 3 | 0.5<br>0.5 | BK/VT<br>BK/YE | 2760<br>548 | Intake Air Temperature Sensor Low Reference<br>Engine Control Sensors Low Reference (1) | I<br>I | LH7<br>LTG |
| 4 | 0.5<br>0.5 | YE/WH<br>YE | 3200<br>3054 | Throttle Inlet Absolute Pressure Sensor Signal<br>Turbo Intake Pressure Sensor Signal Bank 1 | I<br>I | LH7<br>LTG/LYX |
| 5 | 0.5<br>0.5 | BU/WH<br>VT/BU | 3608<br>5294 | High Speed Mass Air Flow Sensor Control<br>Powertrain Main Relay Fused Supply 5 | I<br>I | LH7<br>LTG/LYX |
| 6 | 0.5 | GN/WH | 492 | Mass Air Flow Sensor Signal | I | - |
| 7 | 0.5 | BK/WH | 151 | Signal Ground | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | I | - |

## B77LF RADIO VOLUME COMPENSATOR INTERIOR NOISE MICROPHONE - LEFT FRONT (NKC)




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

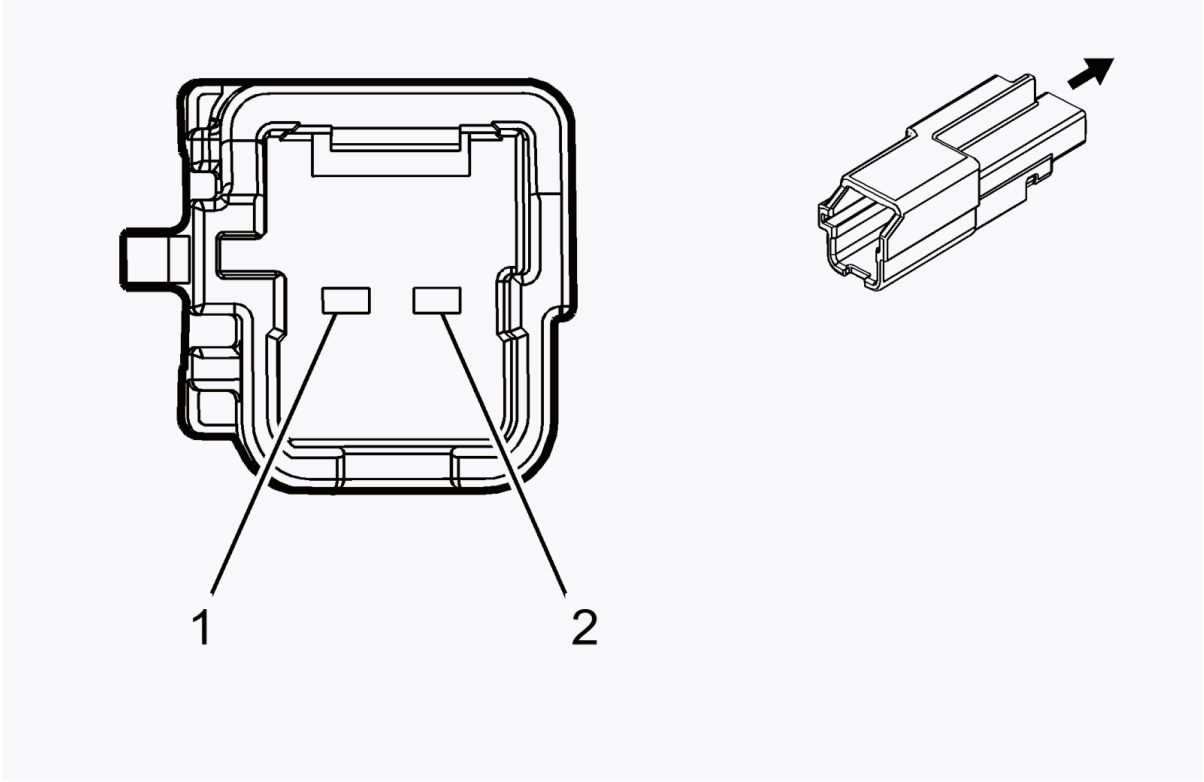
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-13 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/BK | 3008 | Noise Reduction Microphone 1 Low Reference | I | NKC |
| 2 | 0.35 | GN/BN | 3005 | Noise Reduction Microphone 1 Signal | I | NKC |

## B77LR RADIO VOLUME COMPENSATOR INTERIOR NOISE MICROPHONE - LEFT REAR (NKC)

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

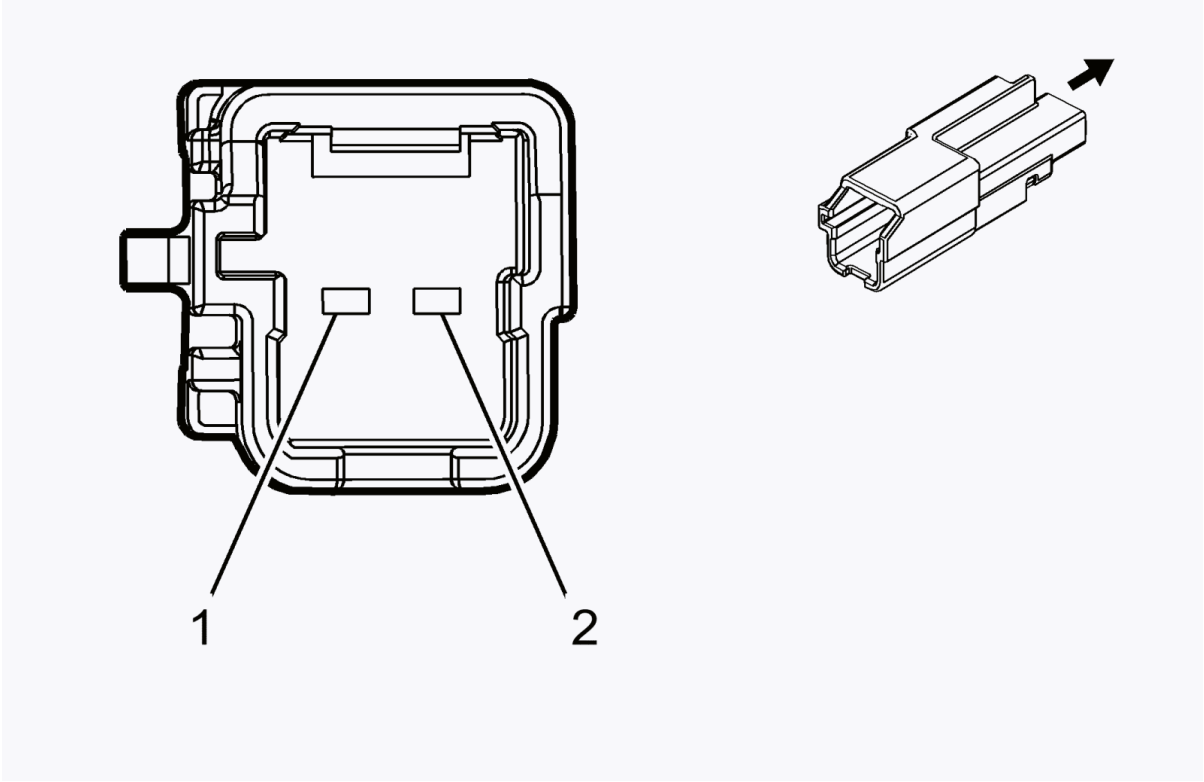
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BN | 3010 | Noise Reduction Microphone 3 Low Reference | I | NKC |
| 2 | 0.35 | GY/BU | 3007 | Noise Reduction Microphone 3 Signal | I | NKC |

## B77RF RADIO VOLUME COMPENSATOR INTERIOR NOISE MICROPHONE - RIGHT FRONT (NKC)

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

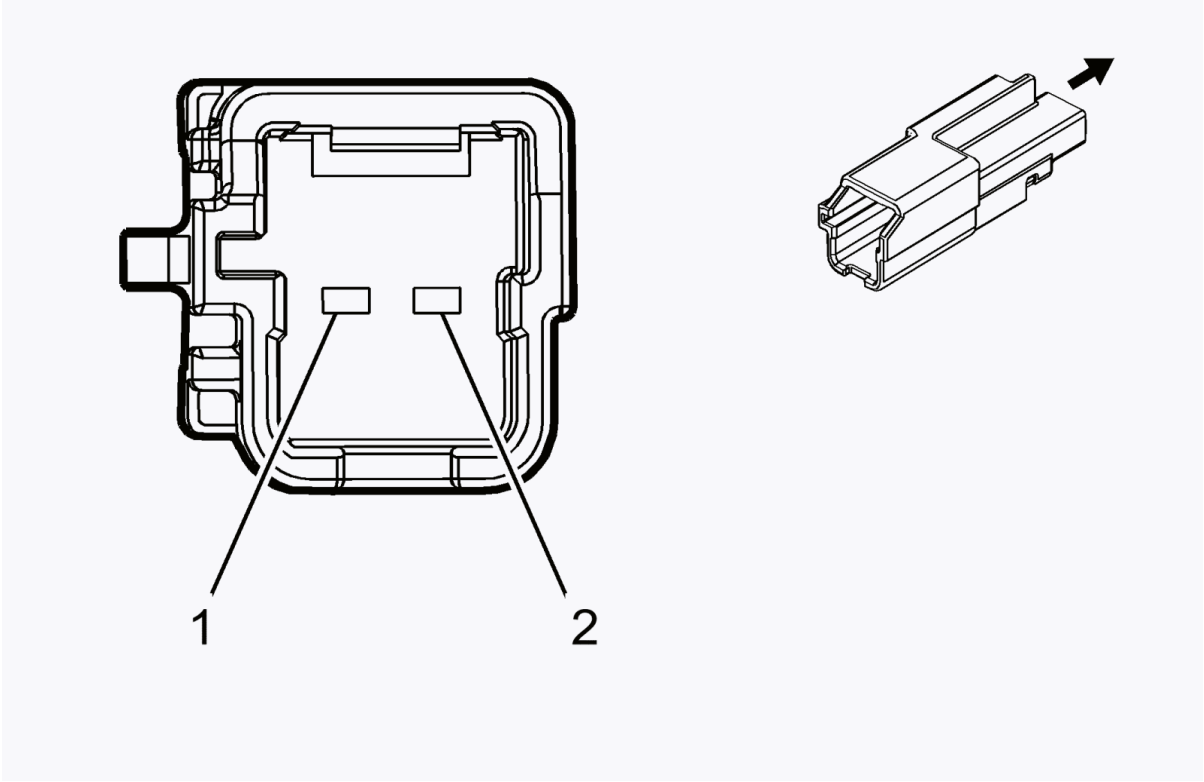
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/BK | 3009 | Noise Reduction Microphone 2 Low Reference | I | NKC |
| 2 | 0.35 | BU/YE | 3006 | Noise Reduction Microphone 2 Signal | I | NKC |

## B77RR RADIO VOLUME COMPENSATOR INTERIOR NOISE MICROPHONE - RIGHT REAR (NKC)

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

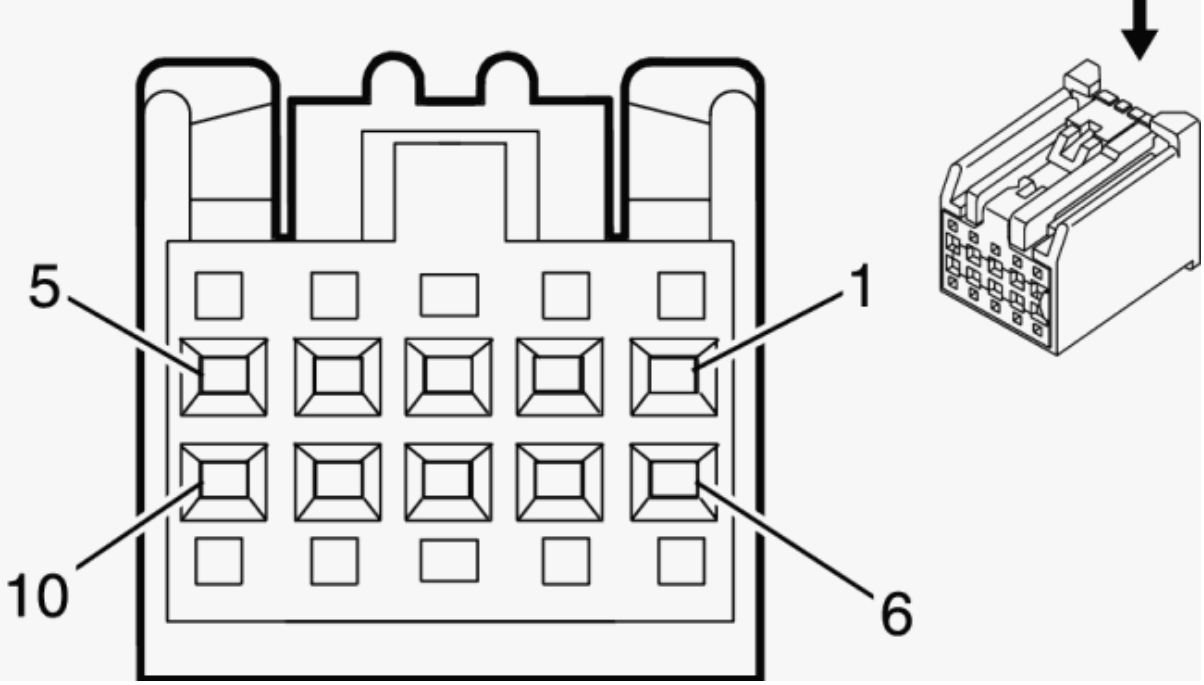
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/GN | 1776 | Noise Reduction Microphone #4 Return | I | NKC |
| 2 | 0.35 | VT/BU | 1775 | Noise Reduction Microphone #4 Signal | I | - |

## B80 PARK BRAKE SWITCH (EPH)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13577390
- Service Connector: 13577390
- Description: 10-Way F 0.64 Kaizen Series (BK)

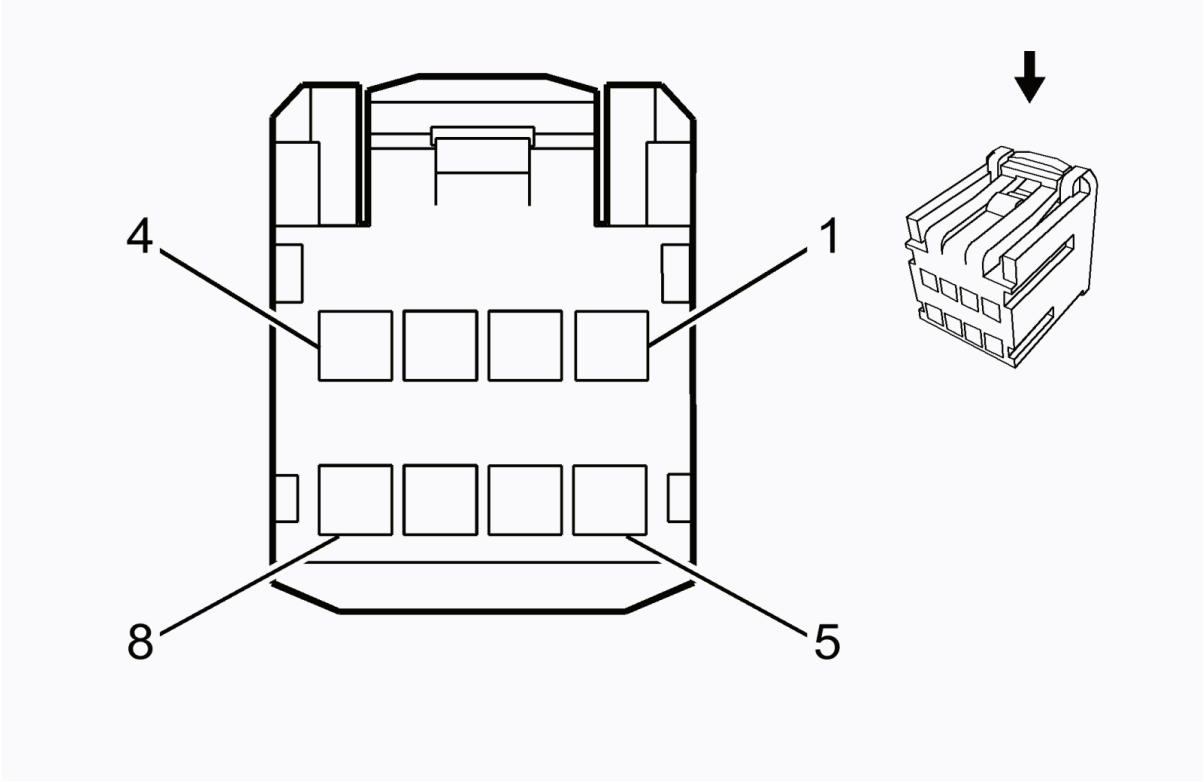
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.13 | YE | 1492 | Park Brake Switch Supply Voltage | I | EPH |
| 2 | 0.13 | GY/RD | 7684 | Park Brake Apply Switch Voltage Reference | I | EPH |
| 3 | 0.13 | BN | 6107 | Park Brake Apply Switch Signal | I | EPH+J71 |
| 4 | 0.13 | BU/BK | 6108 | Park Brake Release Switch Signal | I | EPH |
| 5 | 0.13 | YE/RD | 7683 | Park Brake Release Switch Voltage Reference | I | EPH |
| 6 | 0.13 | BU/VT | 1134 | Park Brake Switch Signal | I | EPH |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | EPH |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | BK | 2250 | Ground | I | EPH |

## B80 PARK BRAKE SWITCH (-EPH)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 19153437
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 1.2 HCM Series (BK)

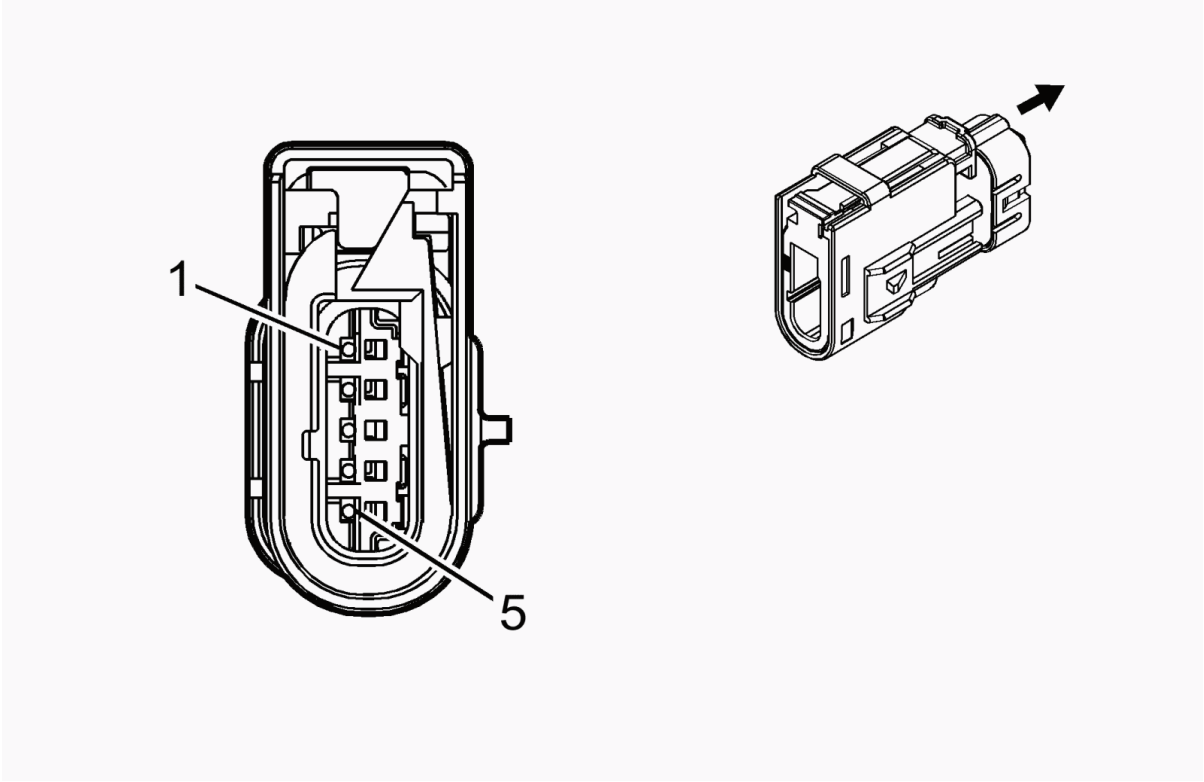
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 1492 | Park Brake Switch Supply Voltage | I | J71+MM1-EPH |
| 2 | 0.35 | BU/VT | 1134 | Park Brake Switch Signal | I | J71+MM1-EPH |
| 3 | 0.35 | YE/RD | 7683 | Park Brake Release Switch Voltage Reference | I | J71+MM1-EPH |
| 4 | 0.35 | BN | 6107 | Park Brake Apply Switch Signal | I | J71+MM1-EPH |
| 5 | 0.35 | BU/BK | 6108 | Park Brake Release Switch Signal | I | J71+MM1-EPH |
| 6 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 7 | 0.35 | GY/RD | 7684 | Park Brake Apply Switch Voltage Reference | I | J71+MM1-EPH |
| 8 | 0.35 | BK | 2250 | Ground | I | - |

## B87 REARVIEW CAMERA (UVC+X88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13519369
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (BK)

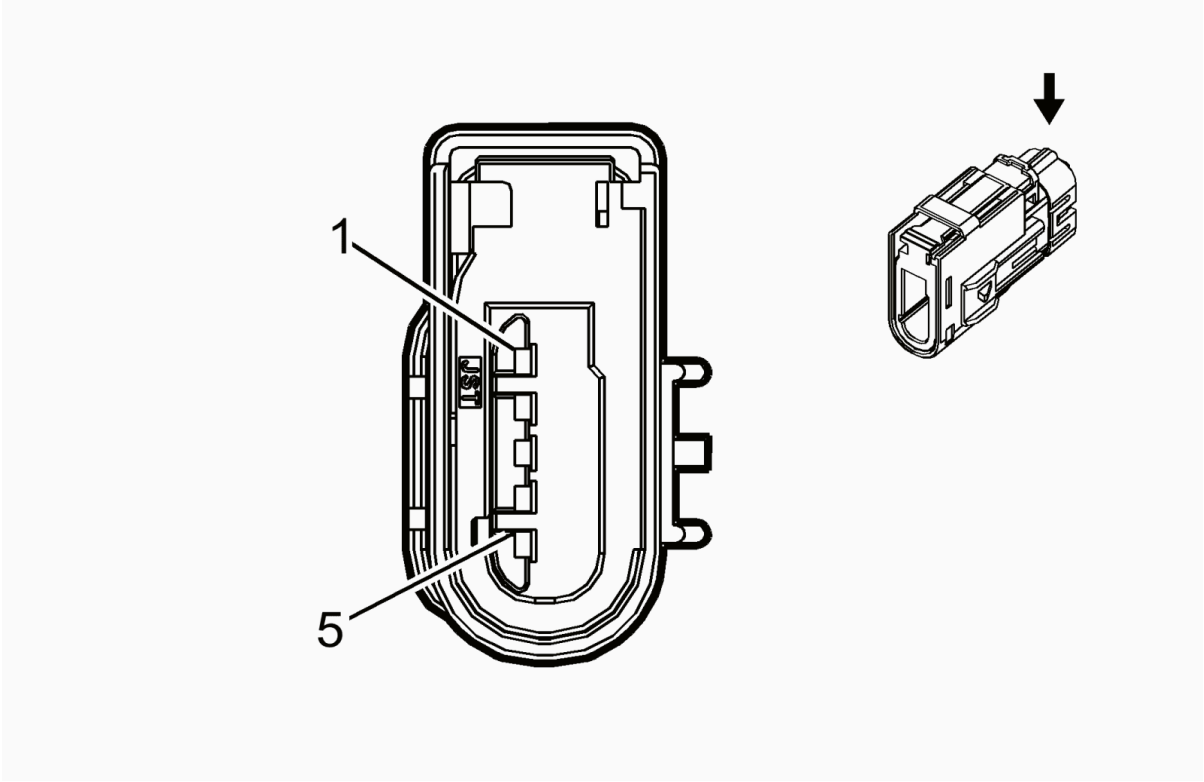
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | UVH-Z88 |
| 2 | 0.35 | WH | 6974 | Camera Low Reference | I | UVH-Z88 |
| 3 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | UVH-Z88 |
| 4 | 0.35 | BK/YE | 4670 | Rear Camera Return | I | UVH-Z88 |
| 5 | 0.35 | VT/BN | 4669 | Rear Camera Control | I | UVH-Z88 |

## B87 REARVIEW CAMERA (UVC+Z88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13582038
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (L-GY)

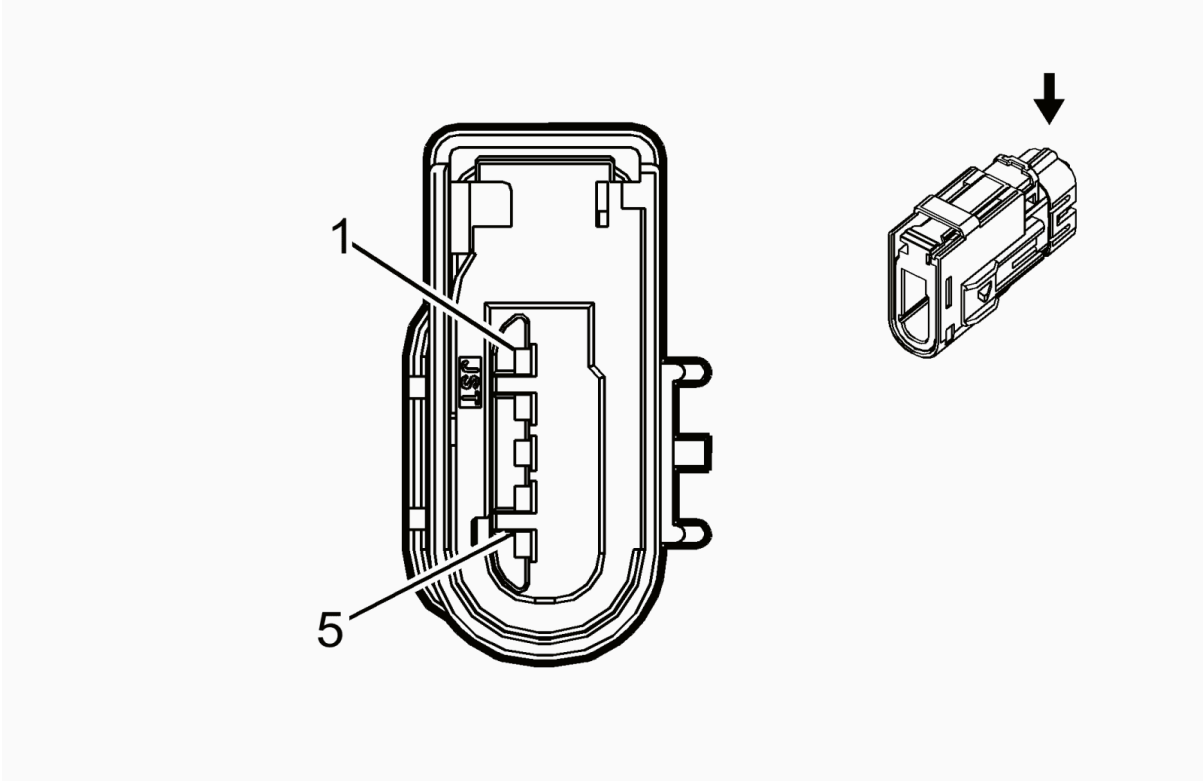
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |
| 2 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 3 | 0.35 | WH | 6974 | Camera Low Reference | I | - |
| 4 | 0.35 | BK | 2550 | Ground | I | UVC |
| 5 | 0.35 | VT/GY | 139 | Run/Crank Ignition 1 Voltage | I | - |

## B87 REARVIEW CAMERA (UVH+X88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13594922
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way F 1.2 Series, Sealed (L-GY)

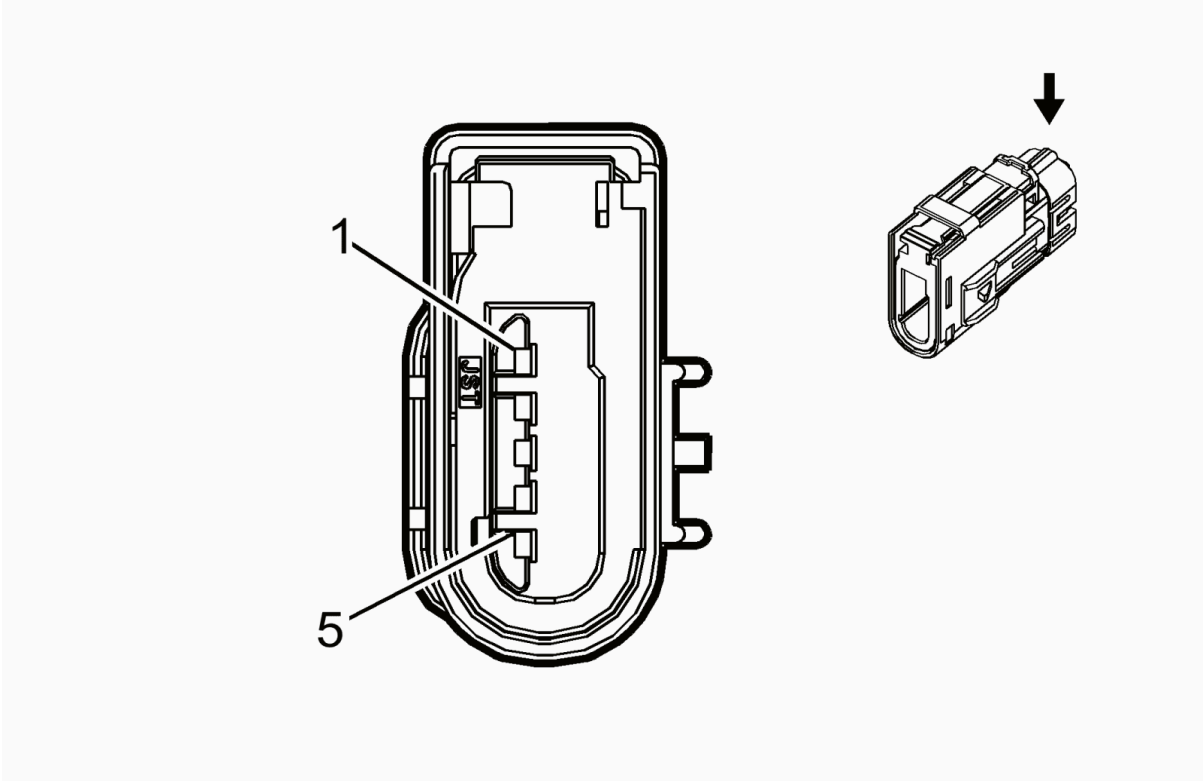
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |
| 2 | 0.35 | WH | 6974 | Camera Low Reference | I | - |
| 3 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 4 | 0.35 | BK/YE | 4670 | Rear Camera Return | I | - |
| 5 | 0.35 | VT/BN | 4669 | Rear Camera Control | I | - |

## B87 REARVIEW CAMERA (UVH+Z88)

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Connector Part Information

- Harness Type: License Lamp
- OEM Connector: 13594922
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (L-GY)

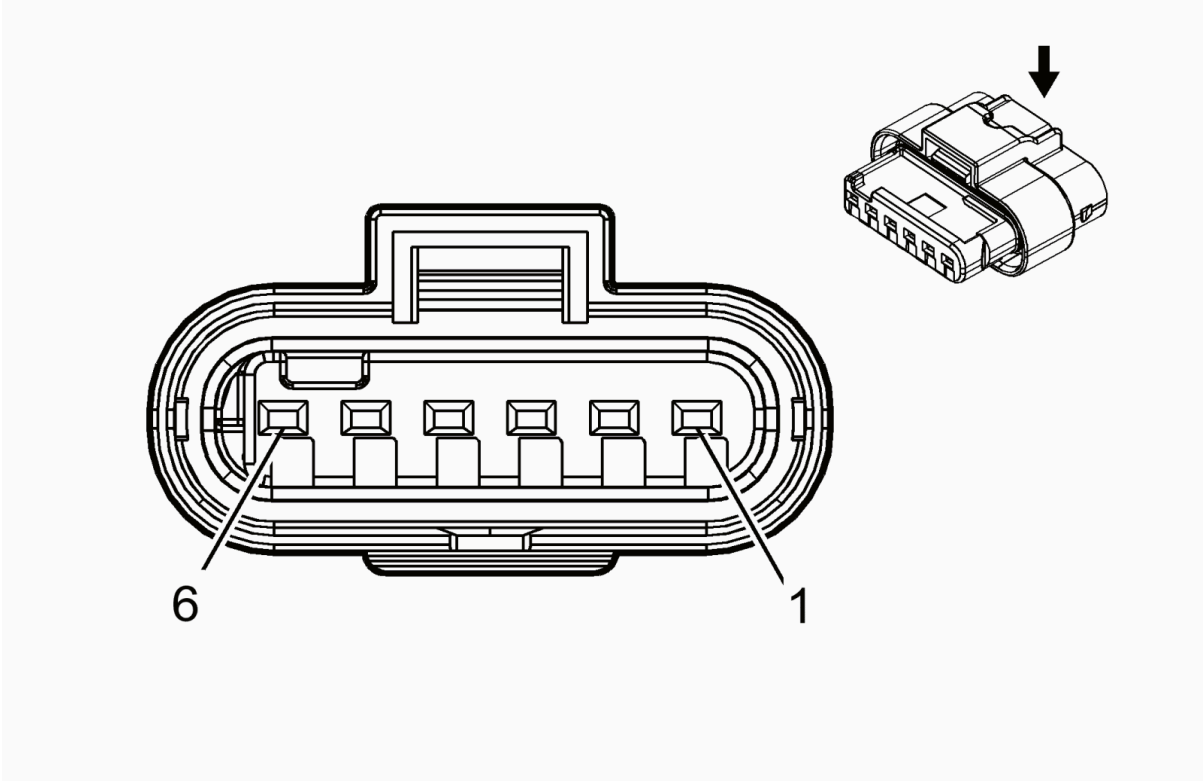
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-13 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | Z88+UVH |
| 2 | 0.35 | WH | 6974 | Camera Low Reference | I | Z88+UVH |
| 3 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | Z88+UVH |
| 4 | 0.35 | BK/YE | 4670 | Rear Camera Return | I | Z88+UVH |
| 5 | 0.35 | PU/BN | 4669 | Rear Camera Control | I | Z88+UVH |

## B107 ACCELERATOR PEDAL POSITION SENSOR

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13580188
- Service Connector: 19369713
- Description: 6-Way F 1.2 MCP Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | I | - |
| 2 | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | I | - |
| 3 | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | I | - |
| 4 | 0.35 | BK/BU | 1271 | Accelerator Pedal Position Low Reference 1 | I | - |
| 5 | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | I | - |
| 6 | 0.35 | GN/WH | 1162 | Accelerator Pedal Position Signal 2 | I | - |

## B110 BATTERY SENSOR MODULE X1 (KL9)

-

Connector Part Information

- Harness Type: Battery
- OEM Connector: 19537

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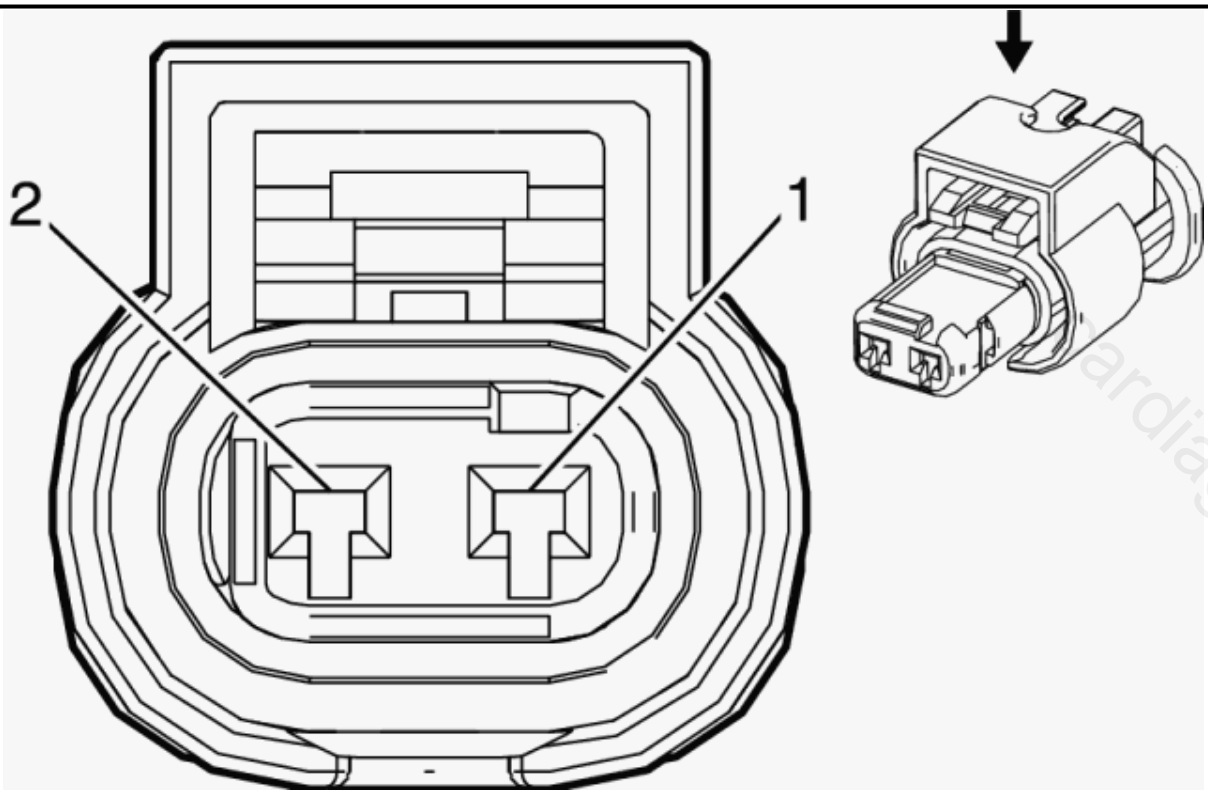
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 35 | BK | 150 | Ground | I | KL9 |

## B110 BATTERY SENSOR MODULE X2 (KL9)




Connector Part Information

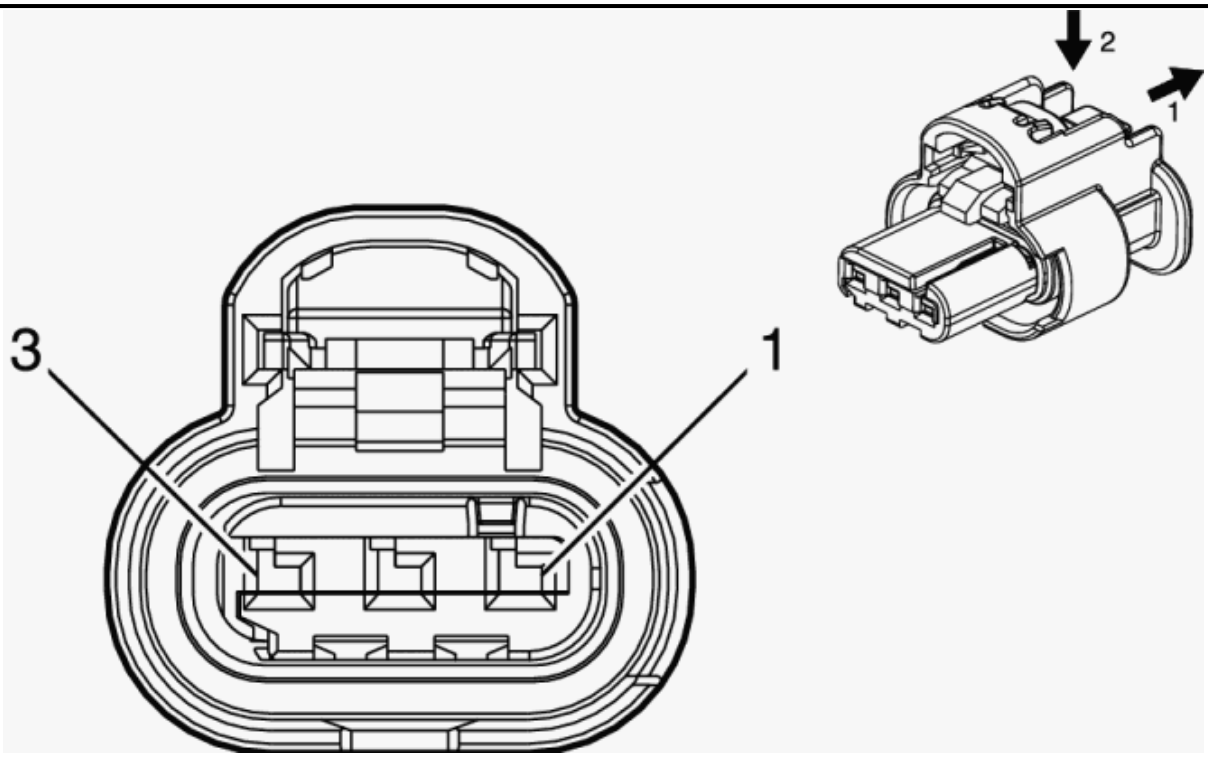
- Harness Type: Body
- OEM Connector: 13505426
- Service Connector: 13577519
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | I | KL9+VTI |
| 2 | 0.5 | RD/BN | 2740 | Battery Positive Voltage | I | KL9 |

## B111 TURBOCHARGER BOOST SENSOR (LYX)




Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 13514590
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

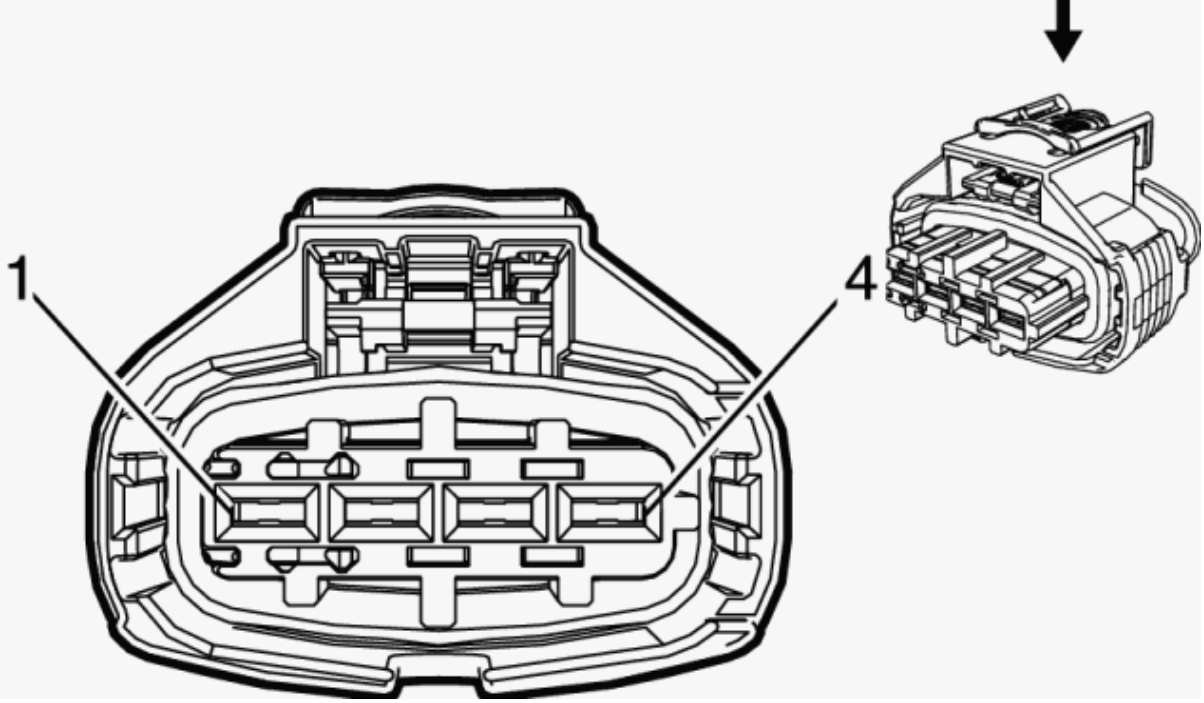
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | I | LYX |
| 2 | 0.35 | WH/YE | 3202 | Throttle Inlet Absolute Pressure Sensor Low Reference | I | LYX |
| 3 | 0.35 | YE/WH | 3200 | Throttle Inlet Absolute Pressure Sensor Signal | I | LYX |

## B111B TURBOCHARGER BOOST/INTAKE AIR TEMPERATURE SENSOR (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343438
- Service Connector: 13584423
- Description: 4-Way F 2.8 Series, Sealed (BK)

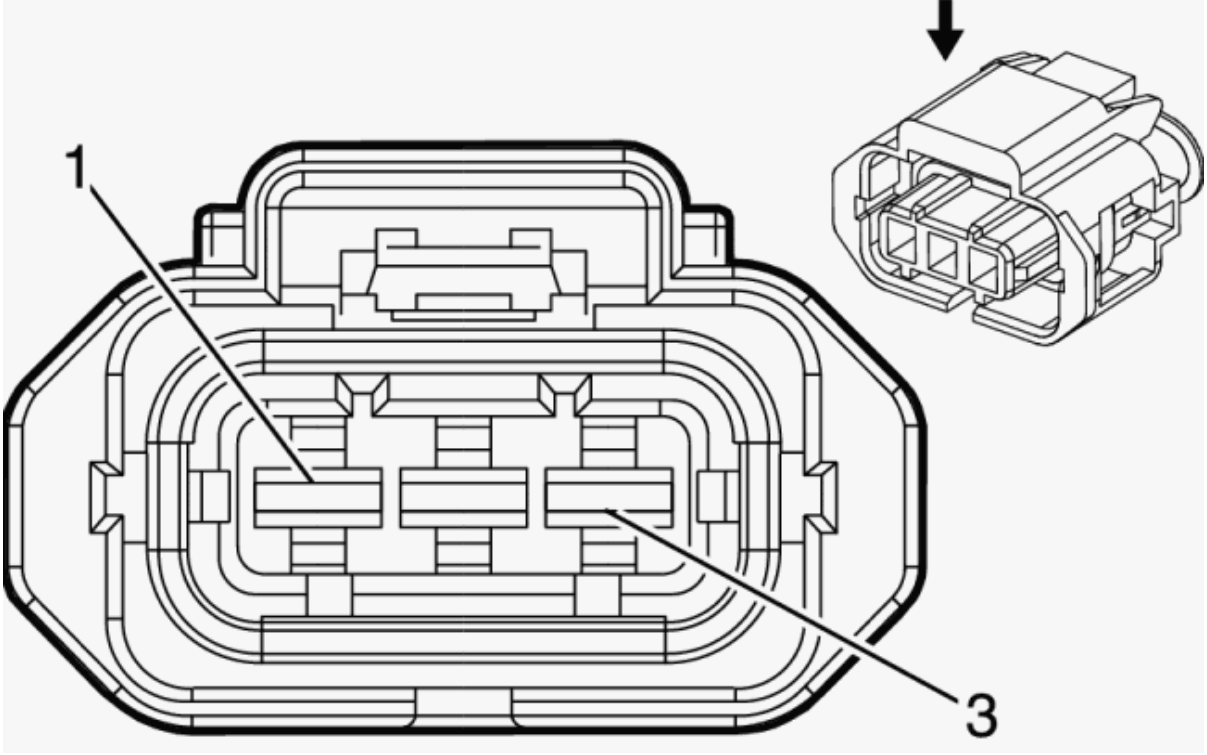
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/VT | 7332 | Pre Throttle Air Temp and Press (TMAP) Low Reference | I | LTG |
| 2 | 0.5 | WH/BU | 7329 | Pre-Throttle Air Temp and Press (TMAP) Temperature Signal | I | LTG |
| 3 | 0.5 | GY/RD | 7331 | Pre Throttle Air Temp and Press (TMAP) 5V Reference | I | LTG |
| 4 | 0.5 | VT/BU | 7330 | Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal | I | - |

## B112 TURBOCHARGER VANE POSITION SENSOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13140564
- Service Connector: 13585845
- Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/YE | 5947 | Variable Nozzle Turbo Position Sensor Signal | I | LH7 |
| 2 | 0.5 | BK/BN | 5929 | Variable Nozzle Turbo Position Sensor Low Reference | I | LH7 |
| 3 | 0.5 | GY/RD | 5928 | Variable Nozzle Turbo Position Sensor 5V Reference | I | LH7 |

## B116 WATER IN FUEL SENSOR (LH7)

-

Connector Part Information

- Harness Type: Particulate Filter
- OEM Connector: 90589974
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F

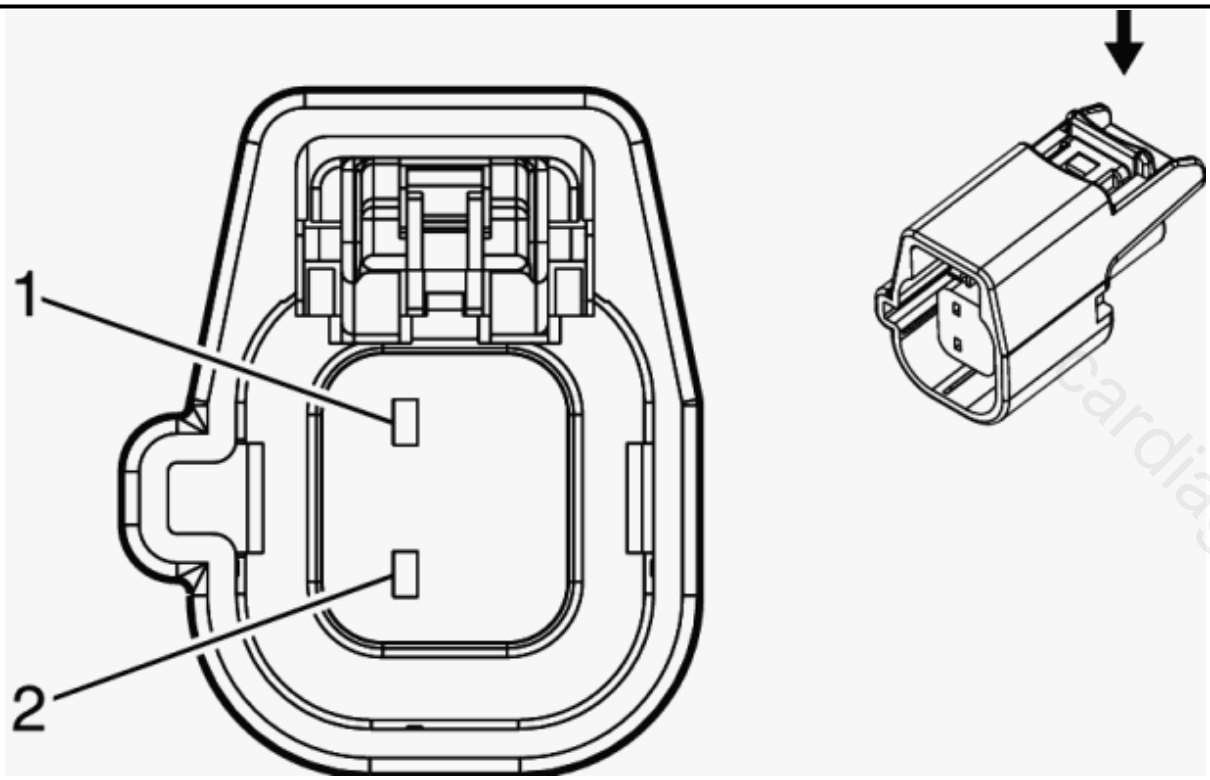
**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Available | No Tool Required | Not Available | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/RD | 6862 | Water In Fuel Sensor 5V Reference | I | - |
| 2 | 0.35 | BK/BU | 6863 | Water In Fuel Sensor Low Reference | I | - |
| 3 | 0.35 | BU/YE | 6861 | Water In Fuel Sensor Signal | I | - |

## B118B WINDSHIELD WASHER FLUID LEVEL SWITCH




Connector Part Information

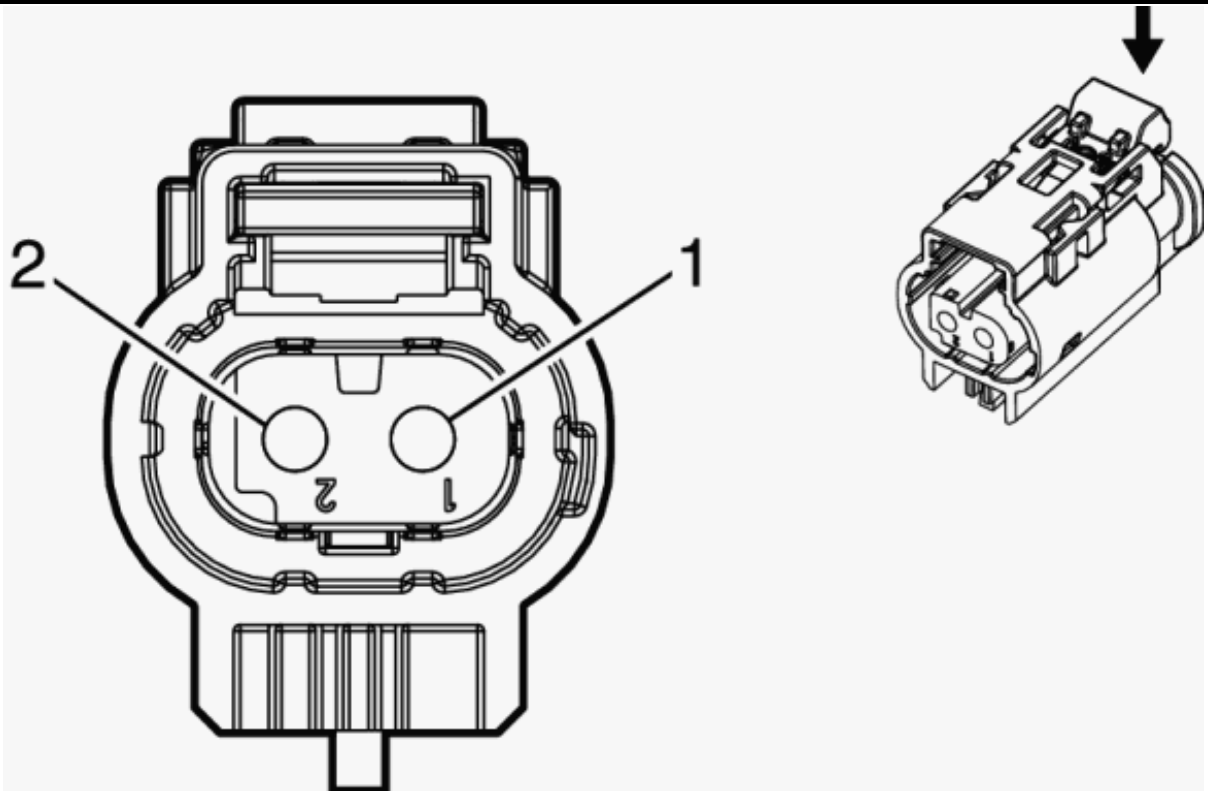
- Harness Type: Forward Lamp
- OEM Connector: 7287-8378-40
- Service Connector: 13593220
- Description: 2-Way F 1.5 Series (L-GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | PU | 185 | Low Washer Fluid Indicator Control | I | Y67 |
| 2 | 0.35 | BK | 1150 | Ground | I | Y67 |

## B130A EXHAUST GAS RECIRCULATION TEMPERATURE SENSOR 1 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13583197
- Service Connector: 19332627
- Description: 2-Way F 1.2 Multilock Series, Sealed

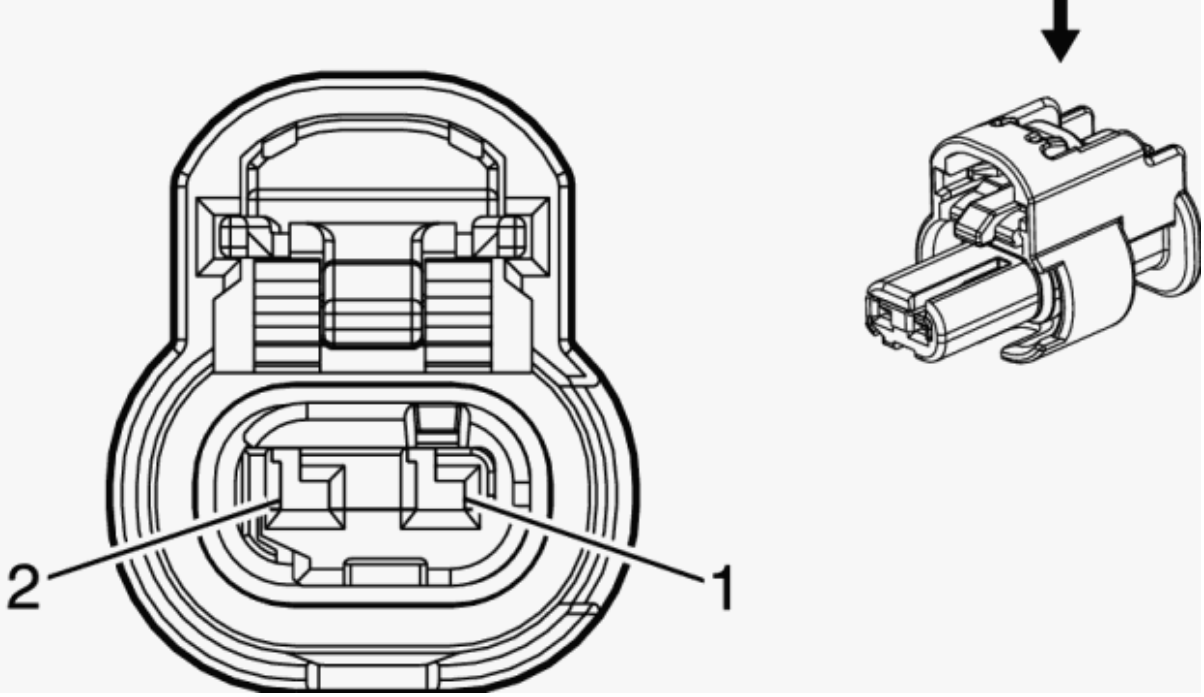
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/GN | 3236 | Exhaust Gas Recirculation Temperature Sensor 2 Signal | I | LH7 |
| 2 | 0.5 | BK/YE | 6275 | Exhaust Gas Recirculation Temperature Sensor 2 Low Reference | I | LH7 |

## B130B EXHAUST GAS RECIRCULATION TEMPERATURE SENSOR 2 (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13512365
- Service Connector: 19366858
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)

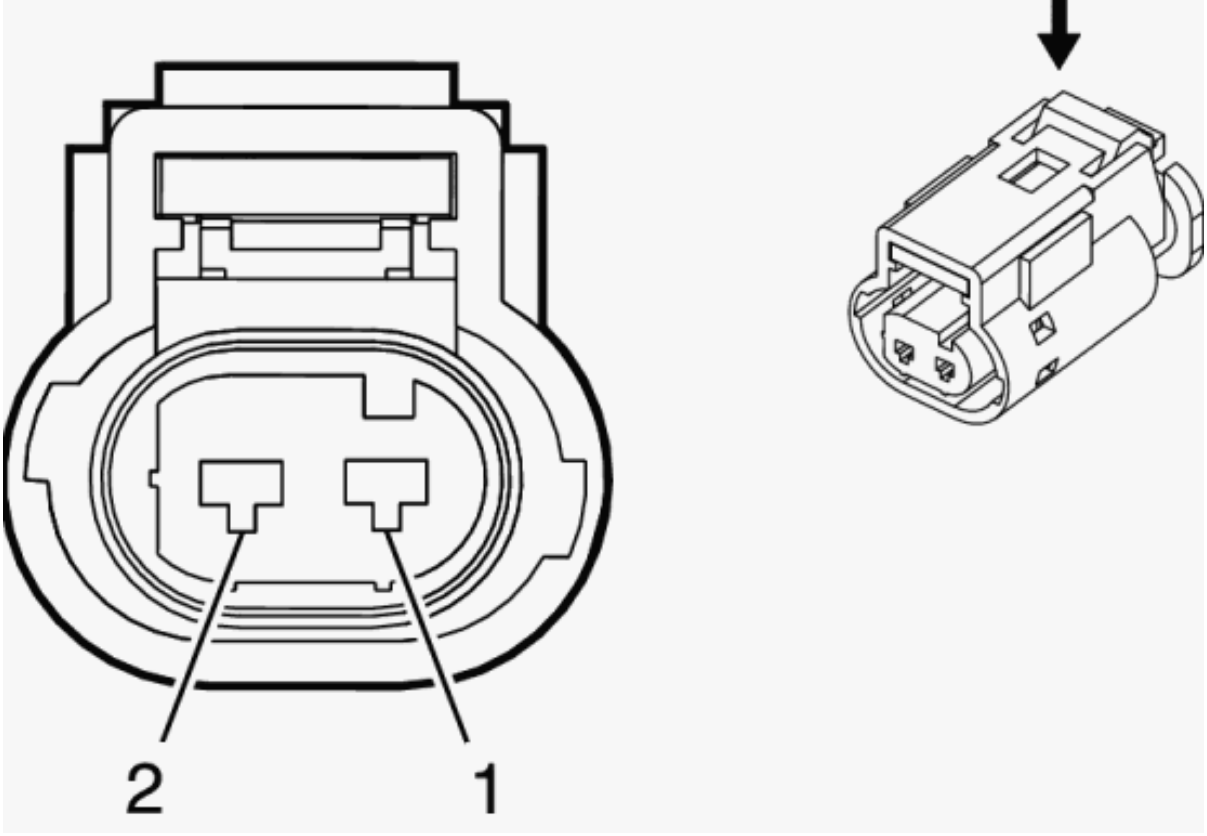
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BN | 3237 | Exhaust Gas Recirculation Temperature Sensor Signal | I | LH7 |
| 2 | 0.5 | BK/BU | 6274 | Exhaust Gas Recirculation Temperature Sensor Low Reference | I | LH7 |

## B131A EXHAUST TEMPERATURE SENSOR 1 (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13576809
- Service Connector: 19301825
- Description: 2-Way F 1.2 Series, Sealed (BK)

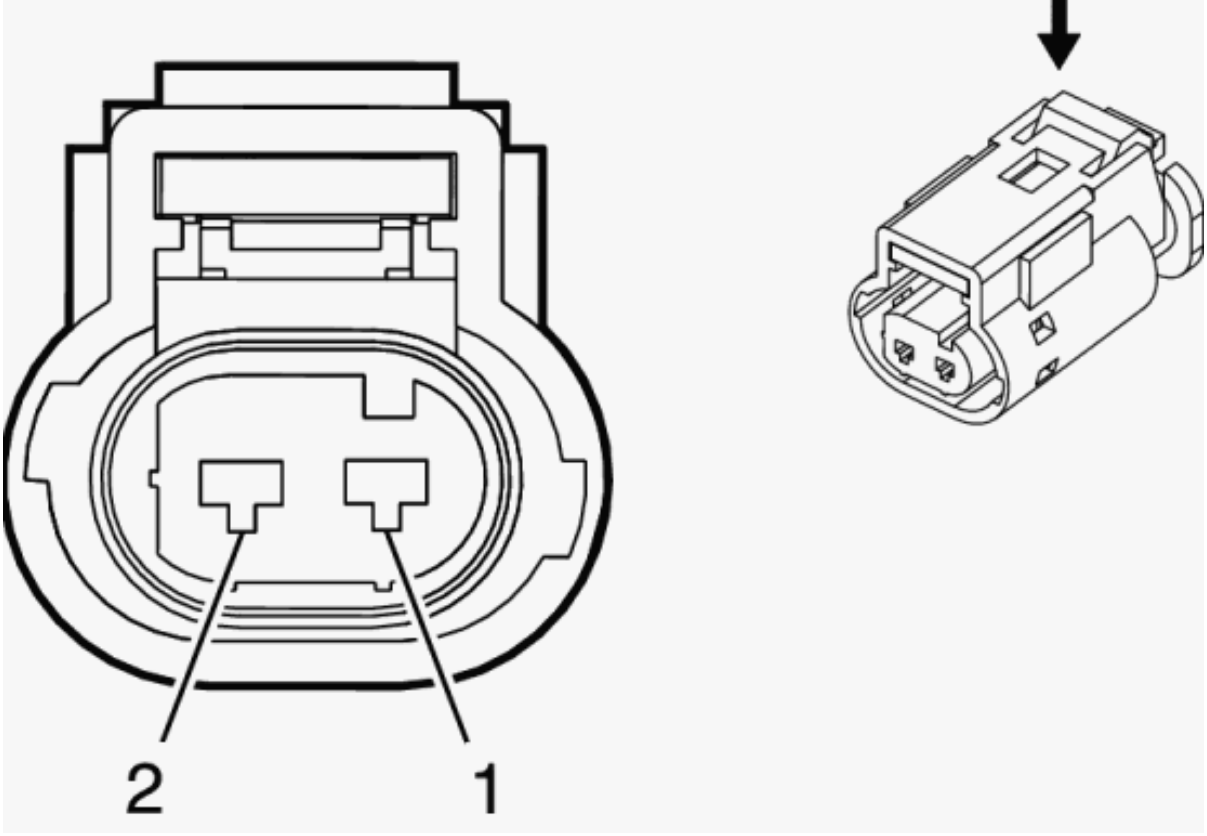
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 5277 | Exhaust Gas Temperature Sensor 1 | I | LH7 |
| 2 | 0.5 | BK/BN | 6782 | Exhaust Gas Temperature Sensor 1 Low Reference | I | LH7 |

## B131B EXHAUST TEMPERATURE SENSOR 2 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13576809
- Service Connector: 19301825
- Description: 2-Way F 1.2 Series, Sealed (BK)

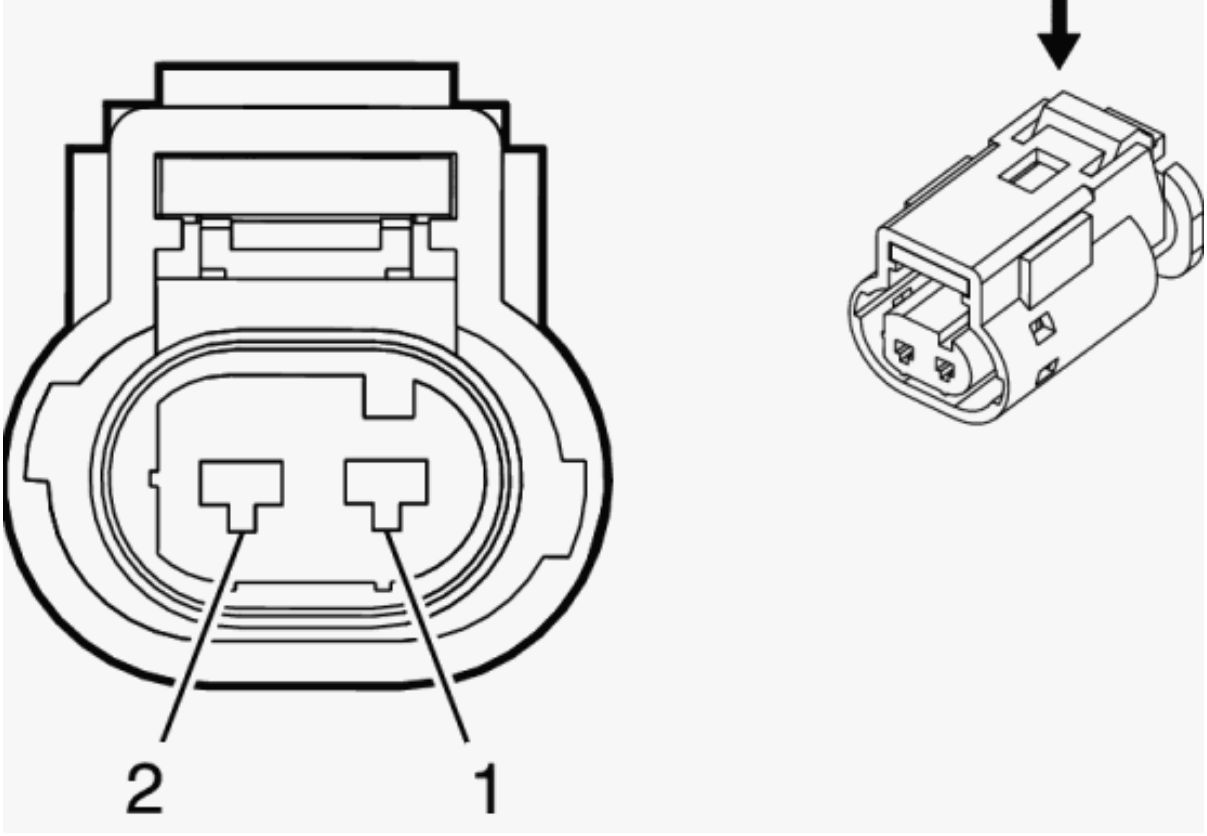
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/GN | 5377 | Exhaust Gas Temperature Sensor 2 | I | LH7 |
| 2 | 0.5 | BK/BU | 6783 | Exhaust Gas Temperature Sensor 2 Low Reference | I | LH7 |

## B131C EXHAUST TEMPERATURE SENSOR 3 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13576809
- Service Connector: 19301825
- Description: 2-Way F 1.2 Series, Sealed (BK)

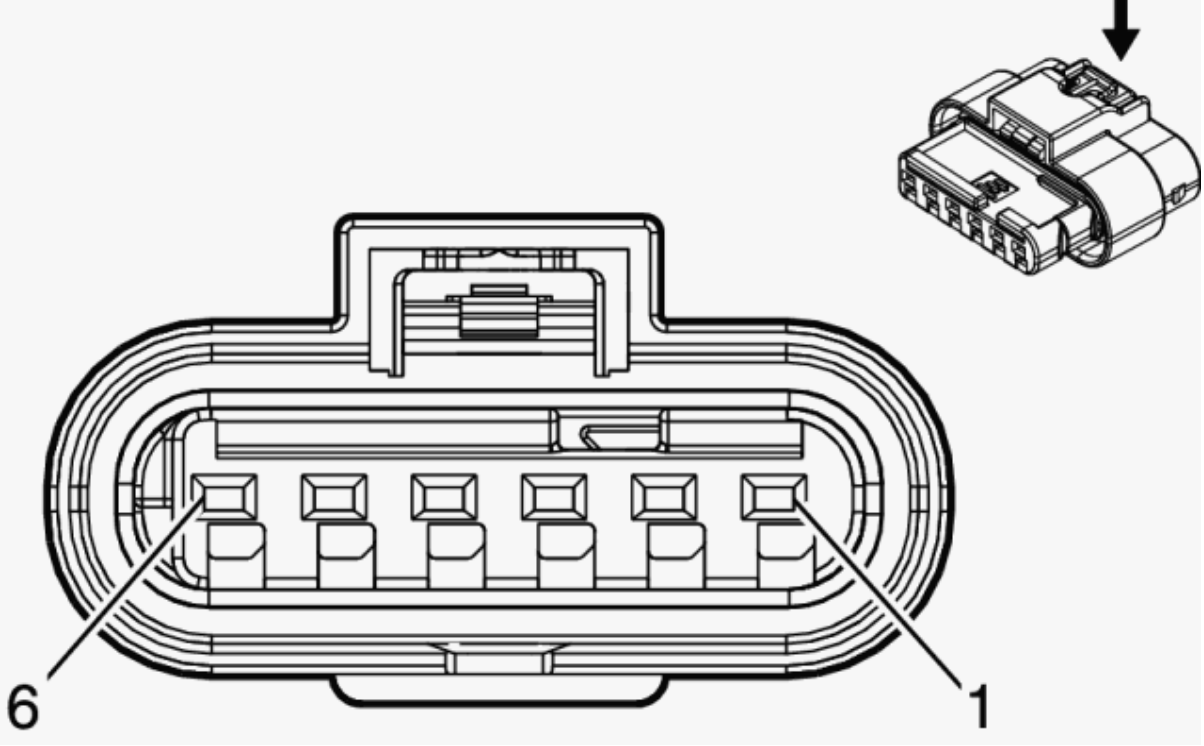
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/GN | 5378 | Exhaust Gas Temperature Sensor 3 | I | LH7 |
| 2 | 0.5 | BK/GN | 3657 | Exhaust Gas Temperature Sensor 3 Low Reference | I | LH7 |

## B136 EXHAUST PARTICULATE MATTER SENSOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13599896
- Service Connector: 19354530
- Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | LH7+NDE |
| 2 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 3 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 4 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 5 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 6 | 0.75 | VT/BU | 3674 | NOx Sensor 1 Control | I | LH7+NDE |

## B150 FUEL TANK PRESSURE SENSOR (LTG/LYX+NTB/NUB)

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13594671
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F

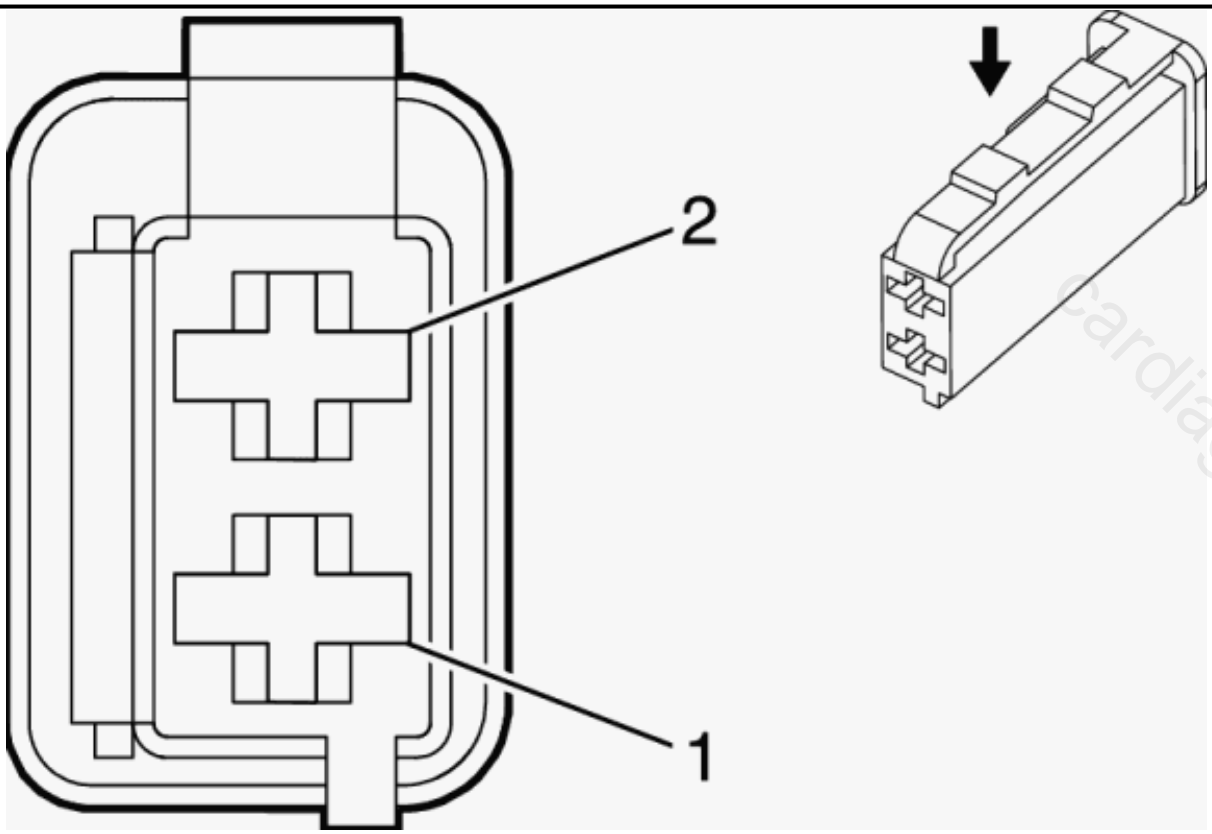
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 890 | Fuel Tank Pressure Sensor Signal | I | - |
| 2 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | I | - |
| 3 | 0.5 | YE/RD | 2709 | Fuel Tank Pressure Sensor 5V Reference | I | - |

## B153D SEAT BELT BUCKLE - DRIVER




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 1563189-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

**Terminal Part Information**

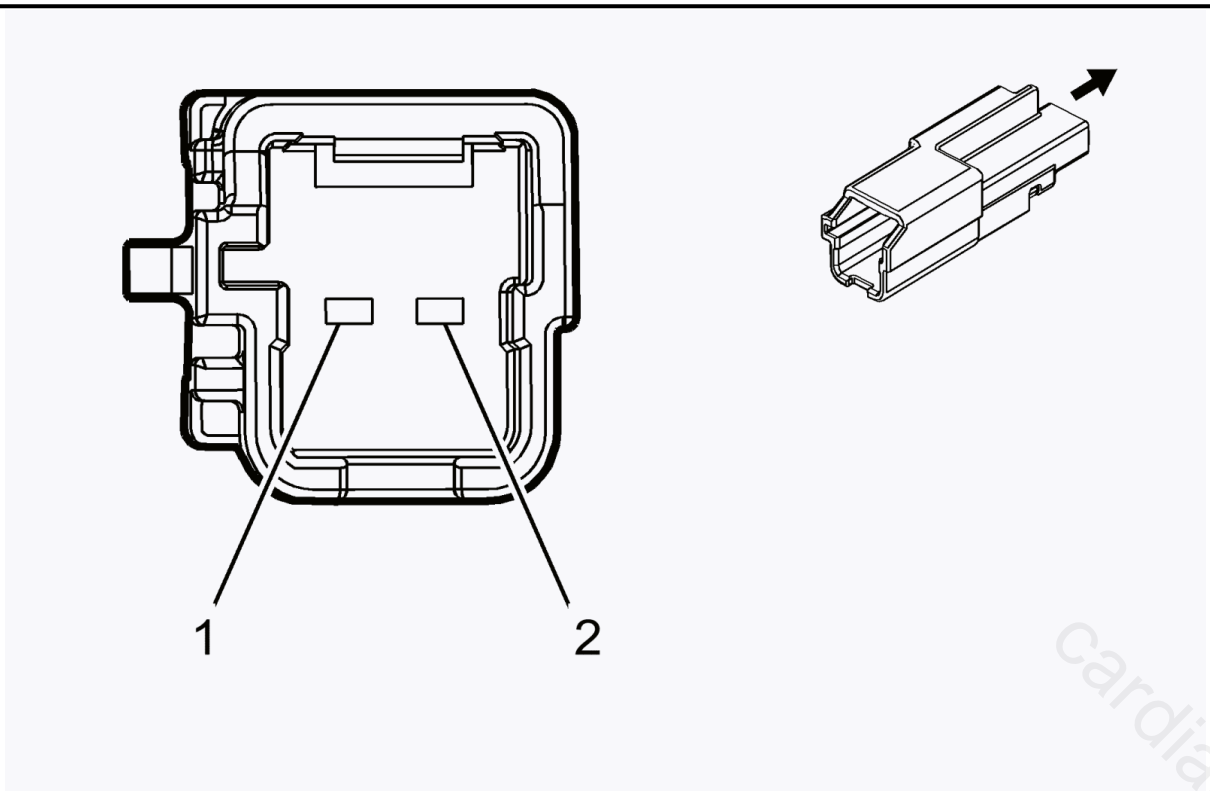
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| | | | | | | |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1363 | Driver Seat Belt Switch Low Reference | I | - |
| 2 | 0.5 | OG/BN | 238 | Driver Seat Belt Switch Signal | I | - |

## B153LR SEAT BELT BUCKLE - LEFT REAR (UH5)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

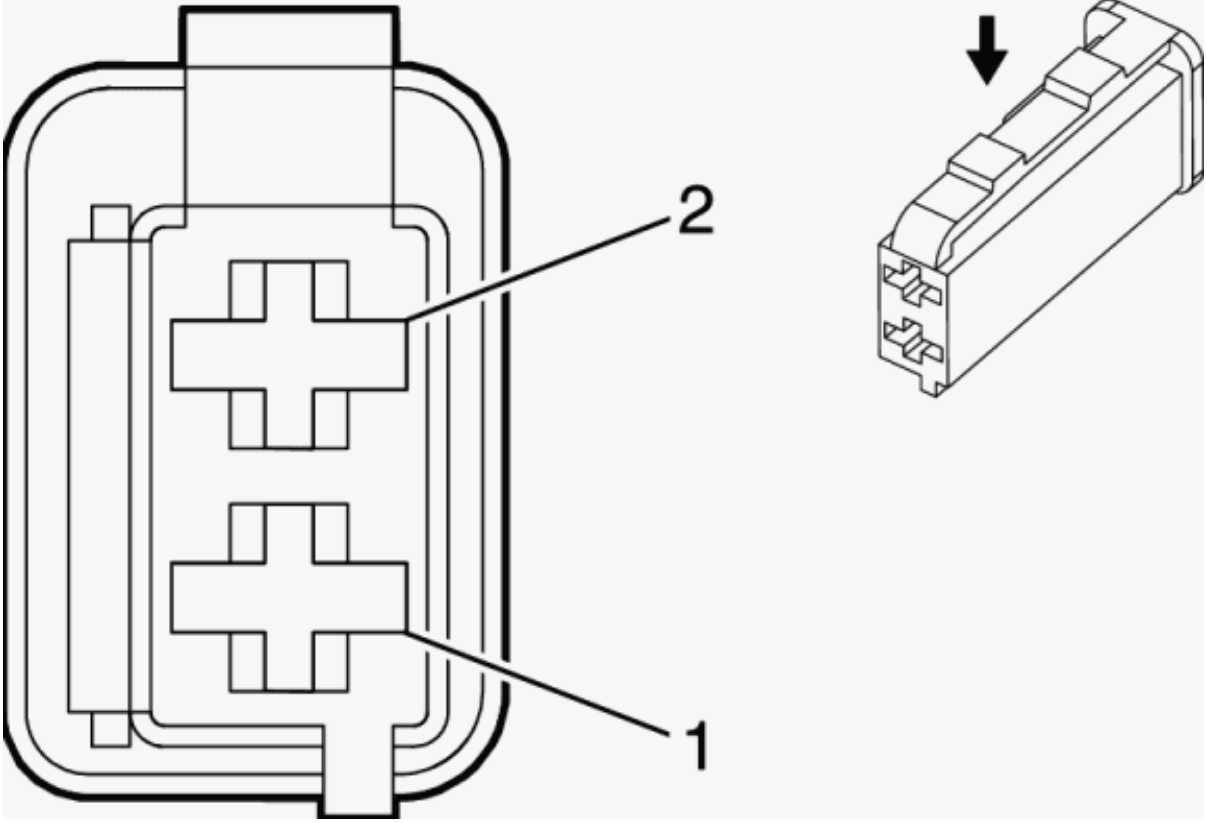
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | I | UH5+AJG |
| 2 | 0.35 | YE/OG | 5161 | Left Rear Seat Belt Switch Signal | I | UH5+AJG |

## B153P SEAT BELT BUCKLE - PASSENGER

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 1563189-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

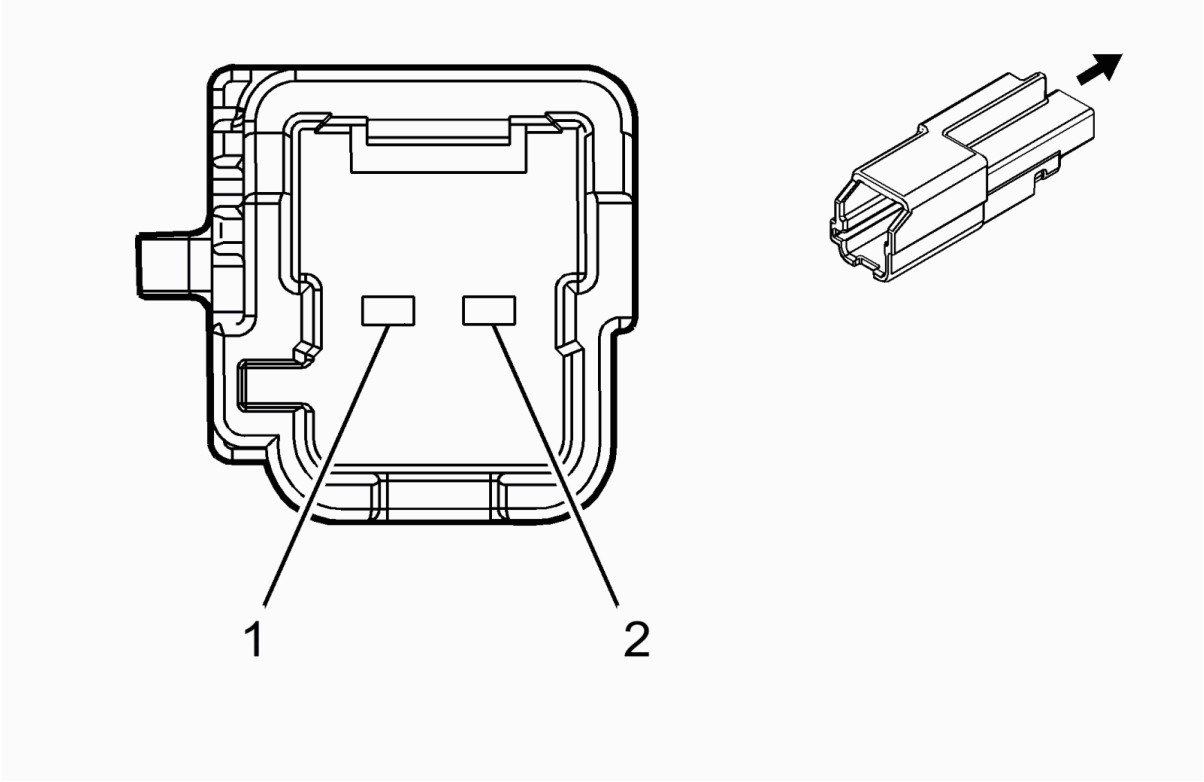
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | I | - |
| 2 | 0.35 | OG/VT | 1362 | Passenger Seat Belt Switch Signal | I | - |

## B153RM SEAT BELT BUCKLE - REAR MIDDLE (UH5)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13591362
- Service Connector: 19332377
- Description: 2-Way M 1.2 Series (GY)

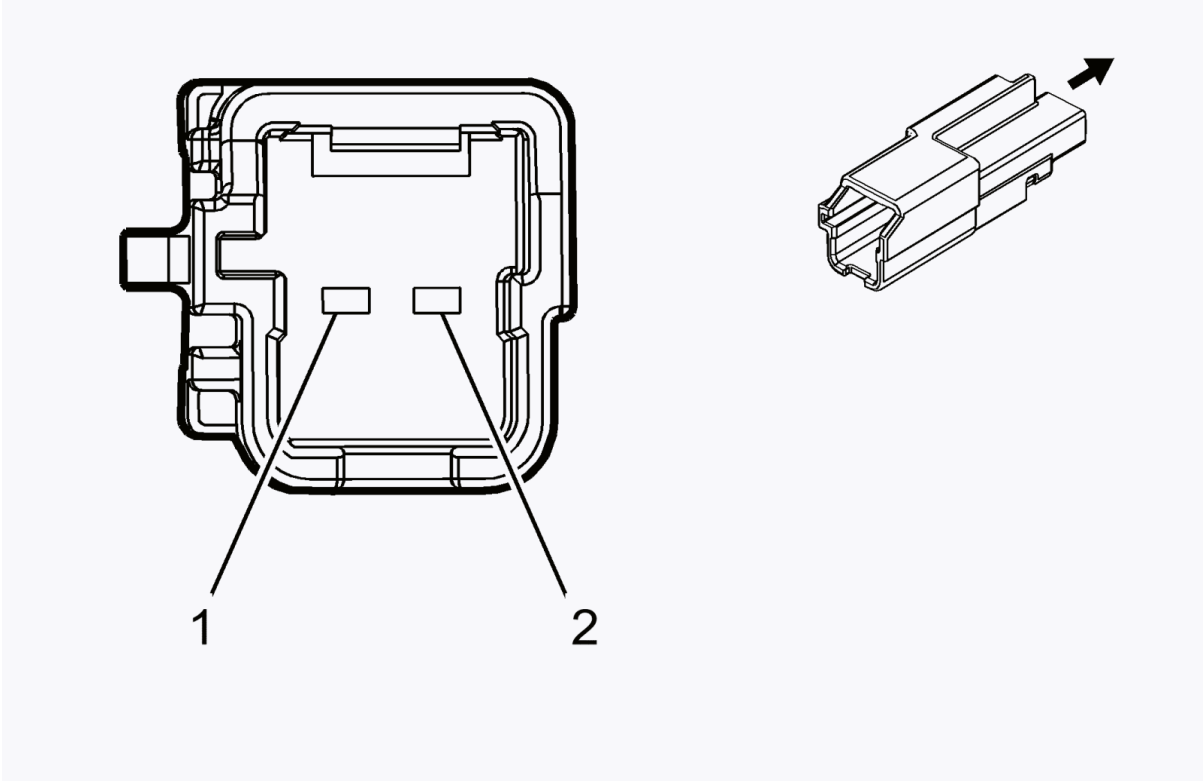
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | I | UH5+AJG |
| 2 | 0.35 | BU/OG | 5163 | Center Rear Seat Belt Switch Signal | I | UH5+AJG |

## B153RR SEAT BELT BUCKLE - RIGHT REAR (UH5)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13588641
- Service Connector: 19332376
- Description: 2-Way M 1.2 Series (BK)

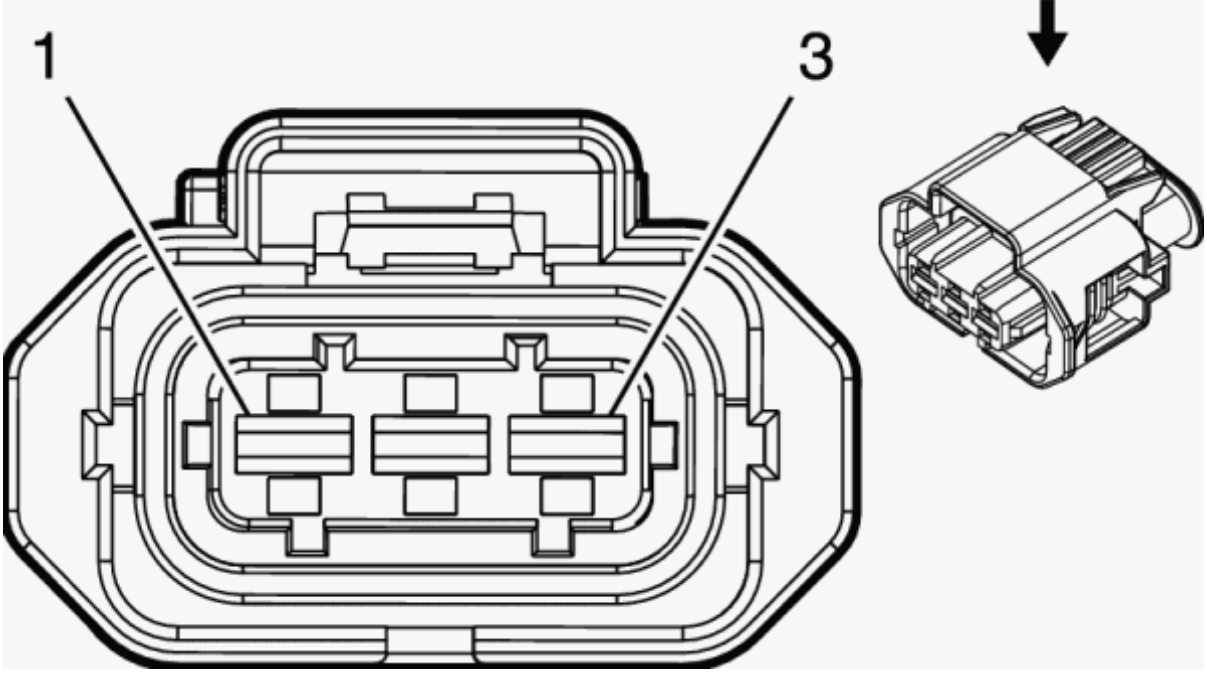
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | I | UH5+AJG |
| 2 | 0.35 | BN/OG | 5162 | Right Rear Seat Belt Switch Signal | I | UH5+AJG |

## B154 DIESEL PARTICULATE FILTER EXHAUST DIFFERENTIAL PRESSURE SENSOR (LH7)

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Connector Part Information

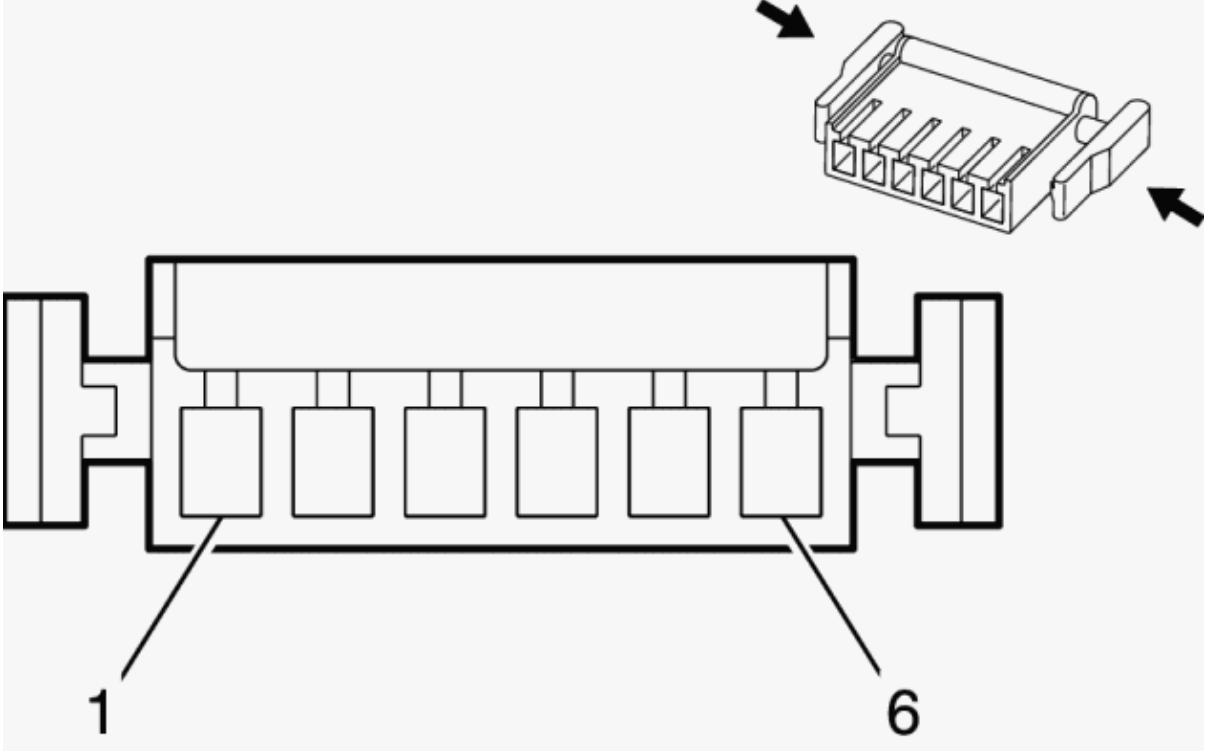
- Harness Type: Engine
- OEM Connector: 1928405717
- Service Connector: 13384360
- Description: 3-Way F 2.8 Series, Sealed (BK with BU Lock)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/RD | 6054 | Exhaust Pressure Sensor 5V Reference 1 | I | LH7 |
| 2 | 0.5 | BK/YE | 6055 | Exhaust Pressure Sensor Low Reference 1 | I | LH7 |
| 3 | 0.5 | BU | 6053 | Exhaust Pressure Sensor Signal 1 | I | LH7 |

## B160 WINDSHIELD TEMPERATURE AND INSIDE MOISTURE SENSOR (ASV)




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 24419225
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

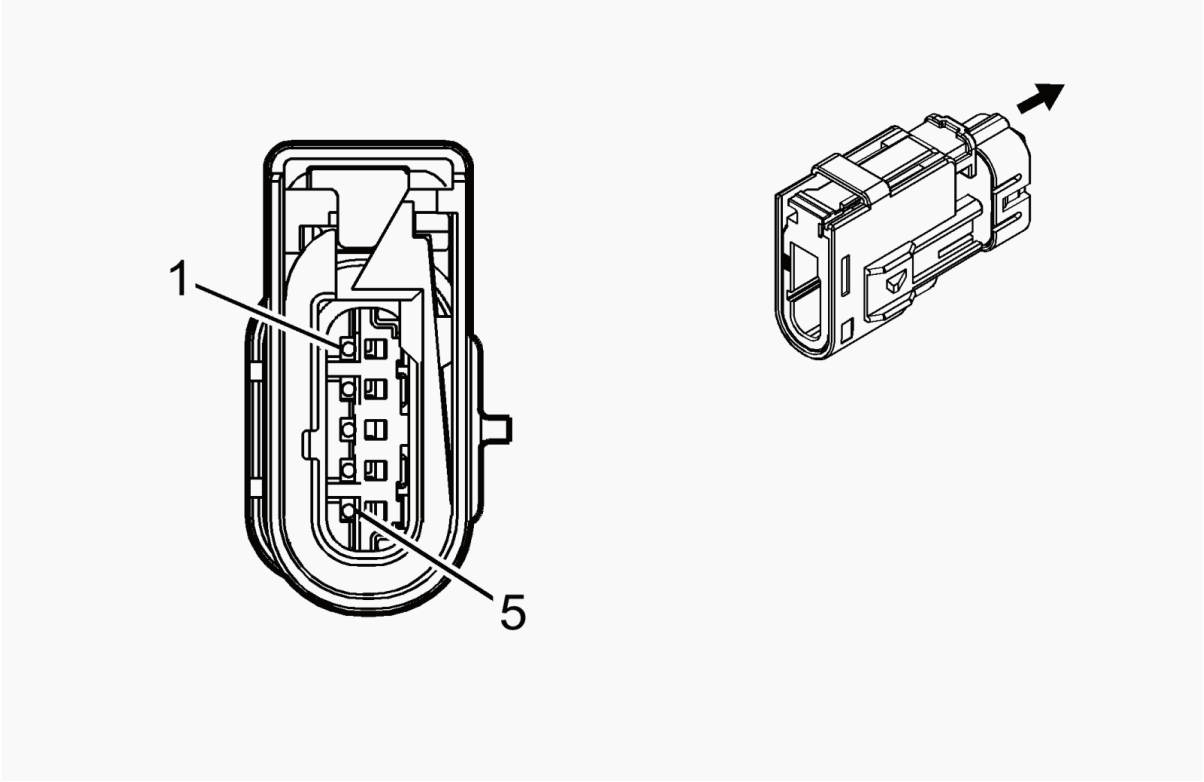
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/RD | 597 | 5V Reference | I | - |
| 2 | 0.35 | GY/BU | 7564 | Humidity Sensor Signal | I | - |
| 3 | 0.35 | BK/BU | 7566 | Humidity/Windscreen Temp Sensor Low Reference | I | - |
| 4 | 0.35 | GY/GN | 7565 | Windscreen Temp Sensor Signal | I | - |
| 5 | 0.35 | YE/BU | 3197 | Humidity Temperature Sensor Signal | I | - |
| 6 | - | - | - | Not Occupied | - | - |

## B174G FRONTVIEW CAMERA - GRILLE (UVH)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13519369
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way M 1.2 Series, Sealed (BK)

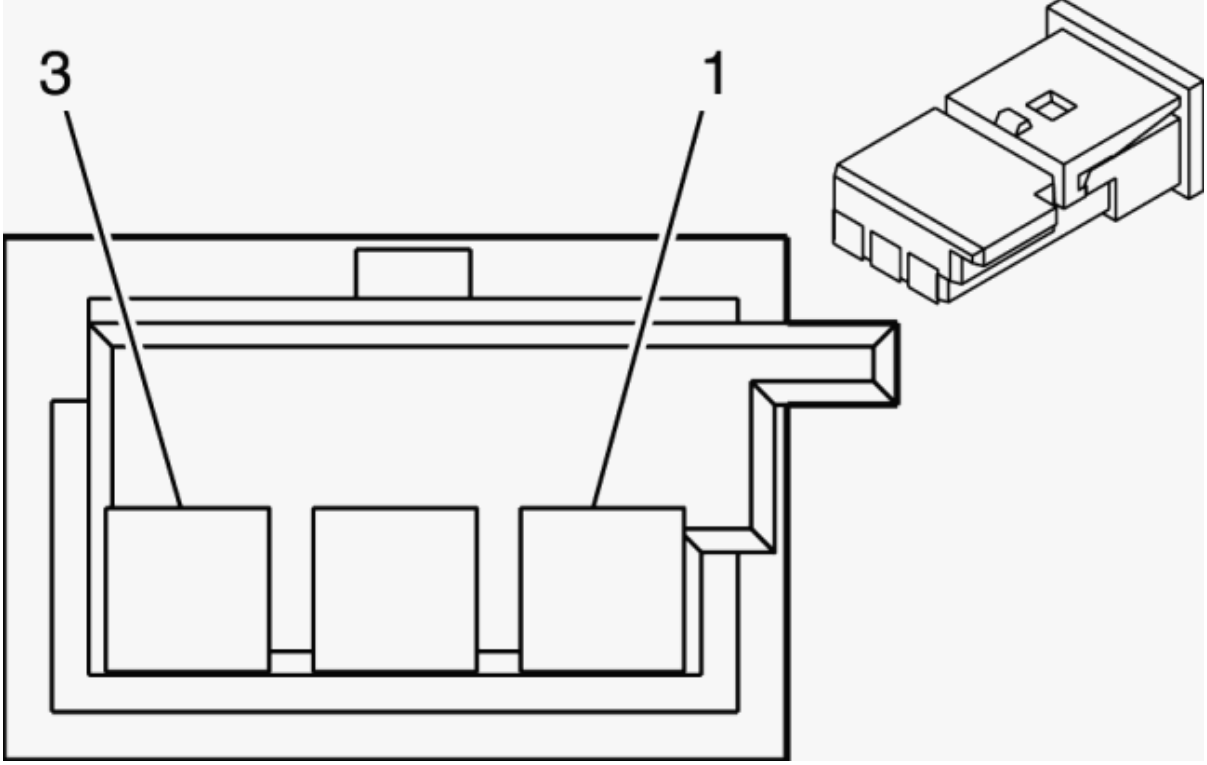
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | UVH |
| 2 | 0.35 | WH | 6974 | Camera Low Reference | I | UVH |
| 3 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | UVH |
| 4 | 0.35 | BK/WH | 1351 | Signal Ground | I | UVH |
| 5 | 0.35 | GN/YE | 6840 | Auxiliary Device 2 Switched Voltage | I | UVH |

## B177 RAIN/AMBIENT LIGHT SENSOR MODULE (CE1)

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Connector Part Information

- Harness Type: Rain/Ambient Light Sensor Module
- OEM Connector: 13153088
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Micro-Quadlock Series (BK)

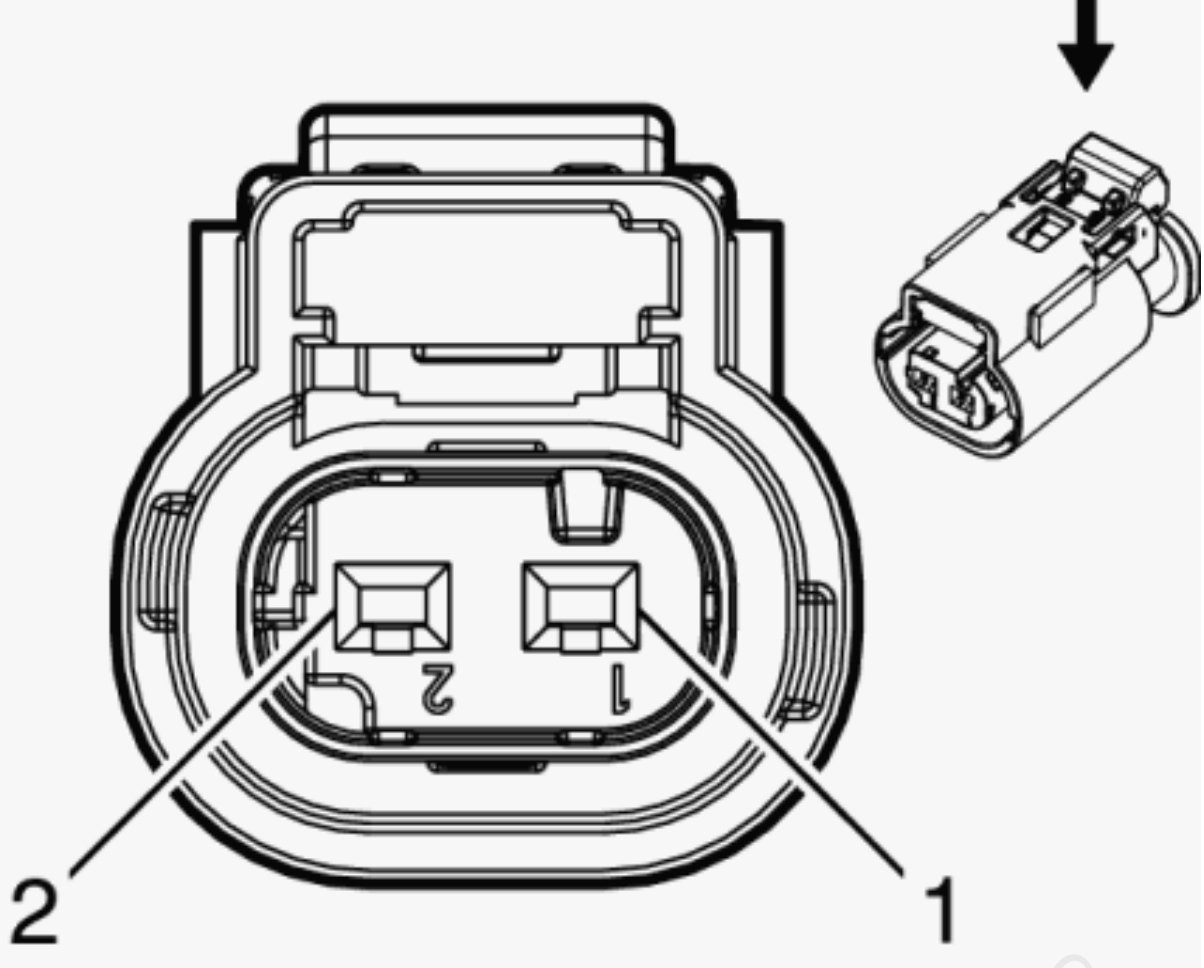
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/VT | 1940 | Battery Positive Voltage | I | - |
| 2 | 0.35 | GN/BN | 6132 | Local Interconnect Network Serial Data Bus 1 | I | - |
| 3 | 0.35 | BK | 850 | Ground | I | - |

## B193A CHARGE AIR COOLER INLET TEMPERATURE SENSOR (LH7)

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Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 13503566
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

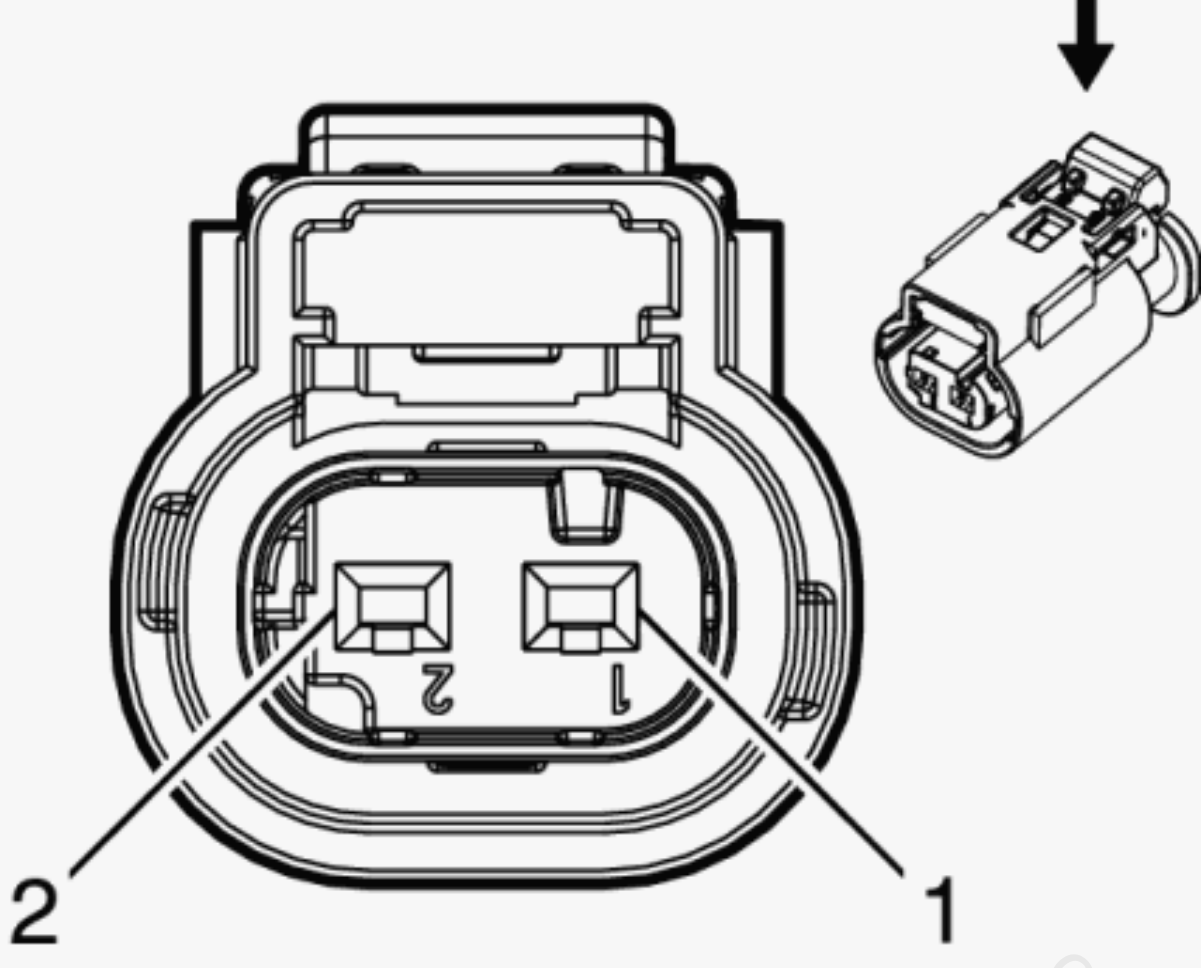
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | I | LH7 |
| 2 | 0.35 | YE/BK | 3682 | Charge Air Cooler Inlet Temperature Sensor Low Reference | I | LH7 |

## B193B CHARGE AIR COOLER OUTLET TEMPERATURE SENSOR (LH7)

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Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 13503566
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

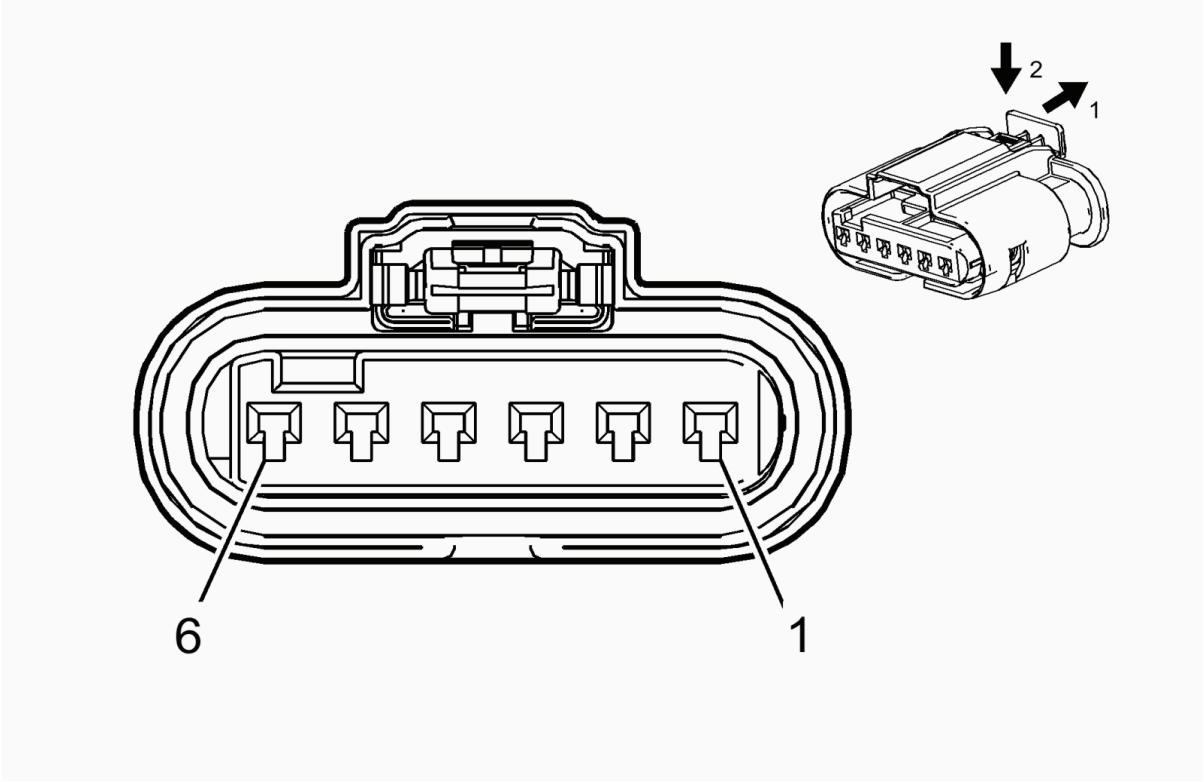
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN | 3681 | Charge Air Cooler Outlet Temperature Sensor Signal | I | LH7 |
| 2 | 0.35 | YE/BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | I | LH7 |

## B195A NITROGEN OXIDES SENSOR 1 (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13599894
- Service Connector: 19368560
- Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

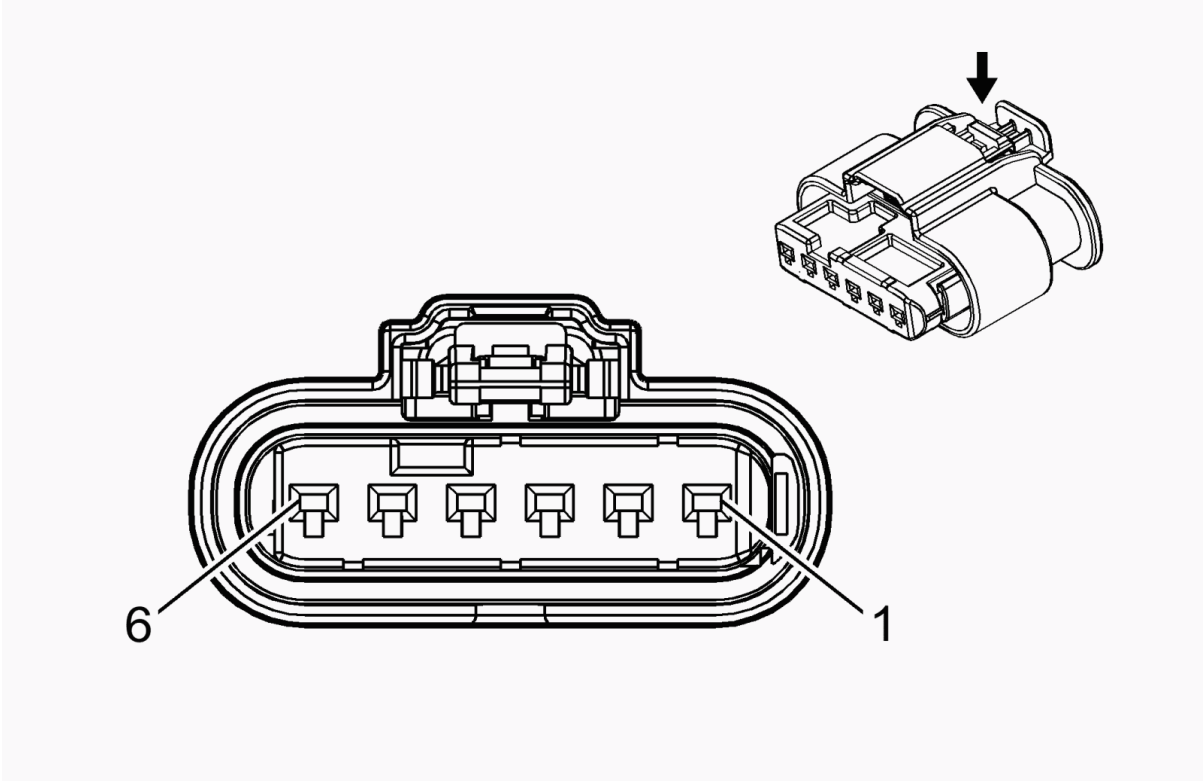
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/BU | 3674 | NOx Sensor 1 Control | I | LH7+NDE |
| 2 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 3 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 4 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 5 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 6 | 0.75 | BK | 450 | Ground | I | LH7+NDE |

## B195B NITROGEN OXIDES SENSOR 2 (LH7)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 34900-6128
- Service Connector: 19368561
- Description: 6-Way F 1.2 MCON-LL Series, Sealed (GY)

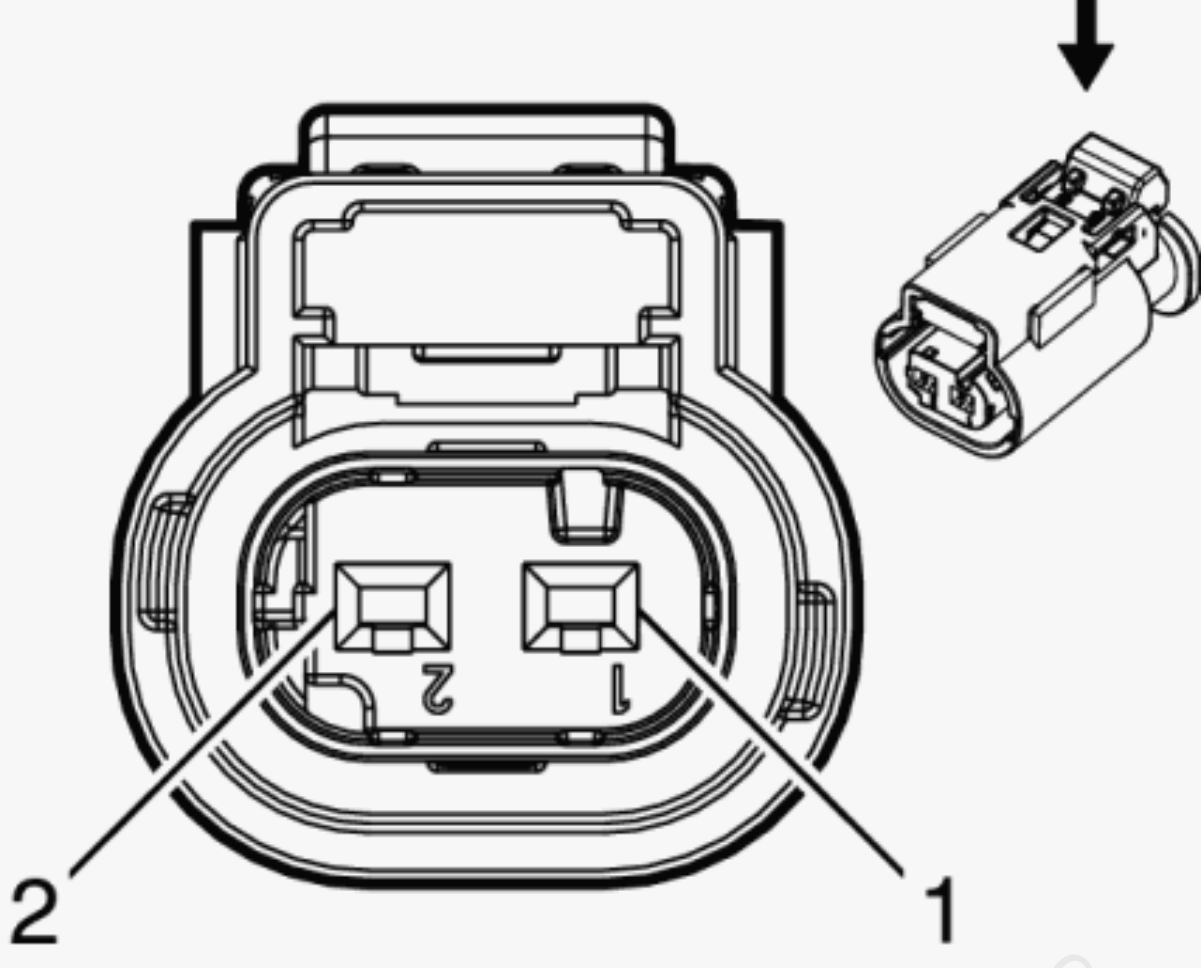
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/BU | 3674 | NOx Sensor 1 Control | I | - |
| 2 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 3 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 4 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 5 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 6 | 0.75 | BK | 1950 | Ground | I | LH7+NDE |

## B203 RADIATOR COOLANT TEMPERATURE SENSOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

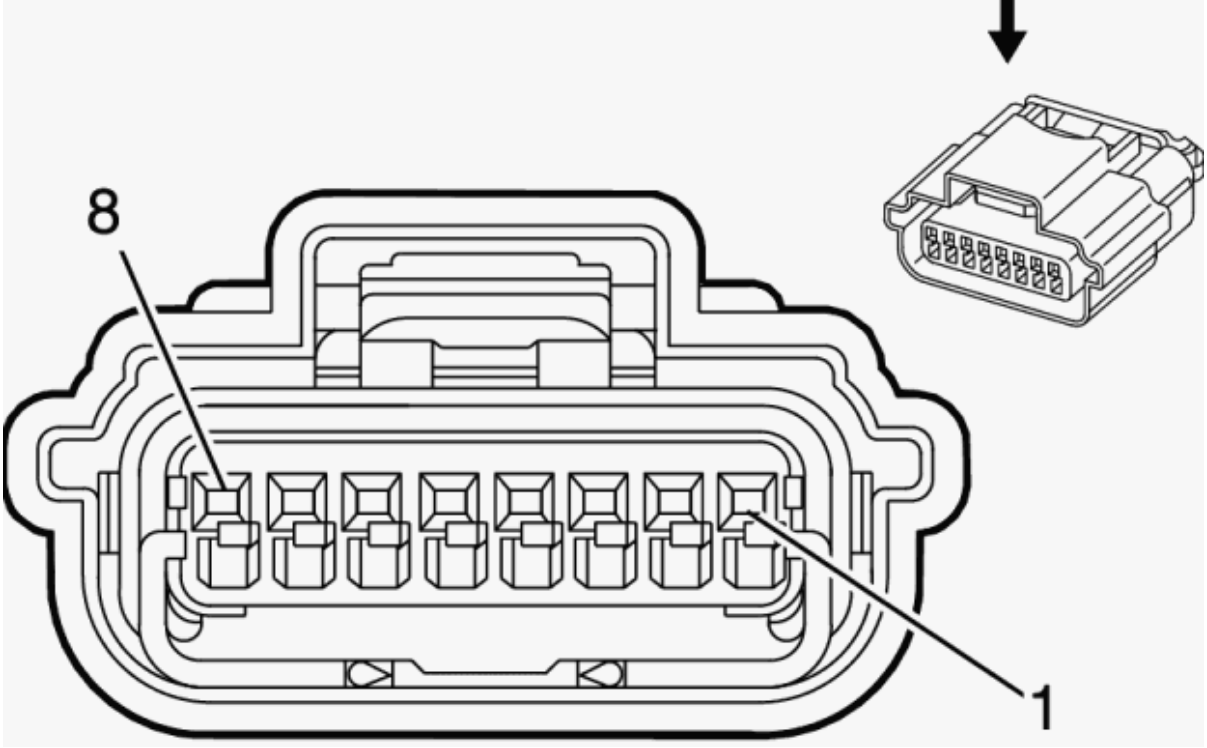
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/VT | 2032 | Coolant Temperature Sensor Signal | I | LH7 |
| 2 | 0.5 | BK/BU | 6813 | Coolant Temperature Sensor 2 Low Reference | I | LH7 |

## B218L SIDE OBJECT SENSOR MODULE - LEFT (UKC)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13591765
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64 Series, Sealed (BK)

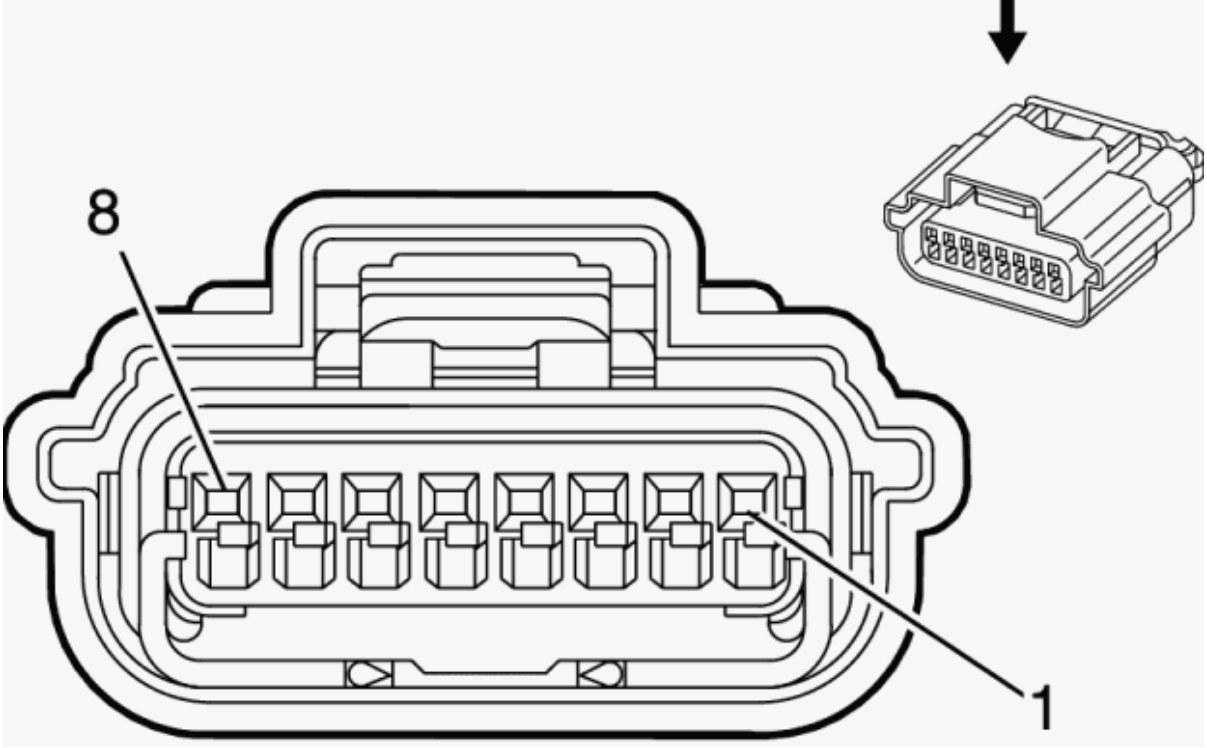
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | UKC |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BU/WH | 3812 | High Speed GMLAN Serial Data (+) 5 | I | UKC |
| 5 | 0.35 | BU/YE | 3810 | High Speed GMLAN Serial Data (-) 5 | I | UKC |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | BK | 2550 | Ground | I | UKC |
| 8 | 0.5 | RD/BN | 1140 | Battery Positive Voltage | I | UKC |

## B218R SIDE OBJECT SENSOR MODULE - RIGHT (UKC)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13591766
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64 Series, Sealed (BK)

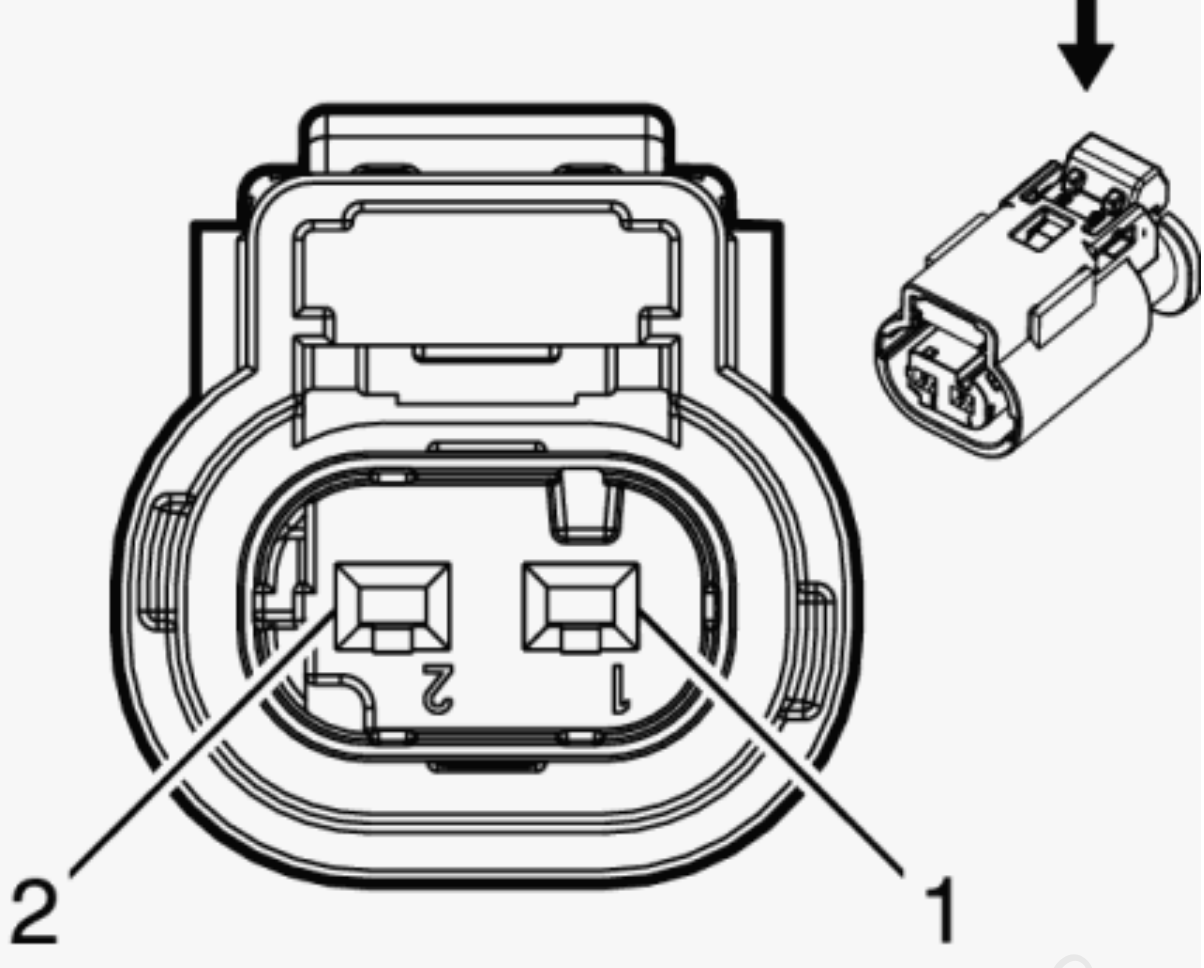
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 1761 | Right Side Object Detection LED Control | I | UKC |
| 2 | 0.35 | GY/YE | 1760 | Left Side Object Detection LED Control | I | UKC |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BU/WH | 3812 | High Speed GMLAN Serial Data (+) 5 | I | UKC |
| 5 | 0.35 | BU/YE | 3810 | High Speed GMLAN Serial Data (-) 5 | I | UKC |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | BK | 2550 | Ground | I | UKC |
| 8 | 0.5 | RD/BN | 1140 | Battery Positive Voltage | I | UKC |

## B267 PISTON COOLING OIL PRESSURE SWITCH (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

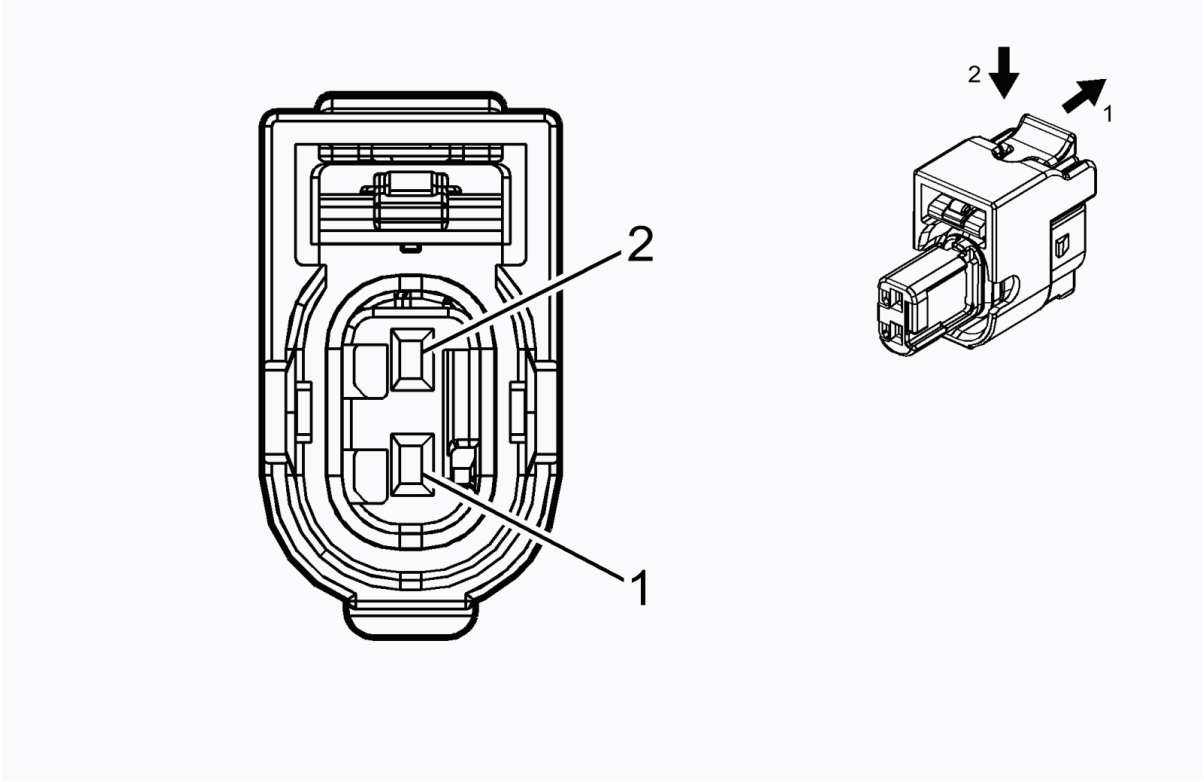
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN | 3919 | Piston Cooling Oil Pressure Signal | I | LH7 |
| 2 | - | - | - | Not Occupied | - | - |

## B280 AUTOMATIC TRANSMISSION ACCUMULATOR SOLENOID VALVE (KL9+M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 4-2098641-1
- Service Connector: 19355451
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

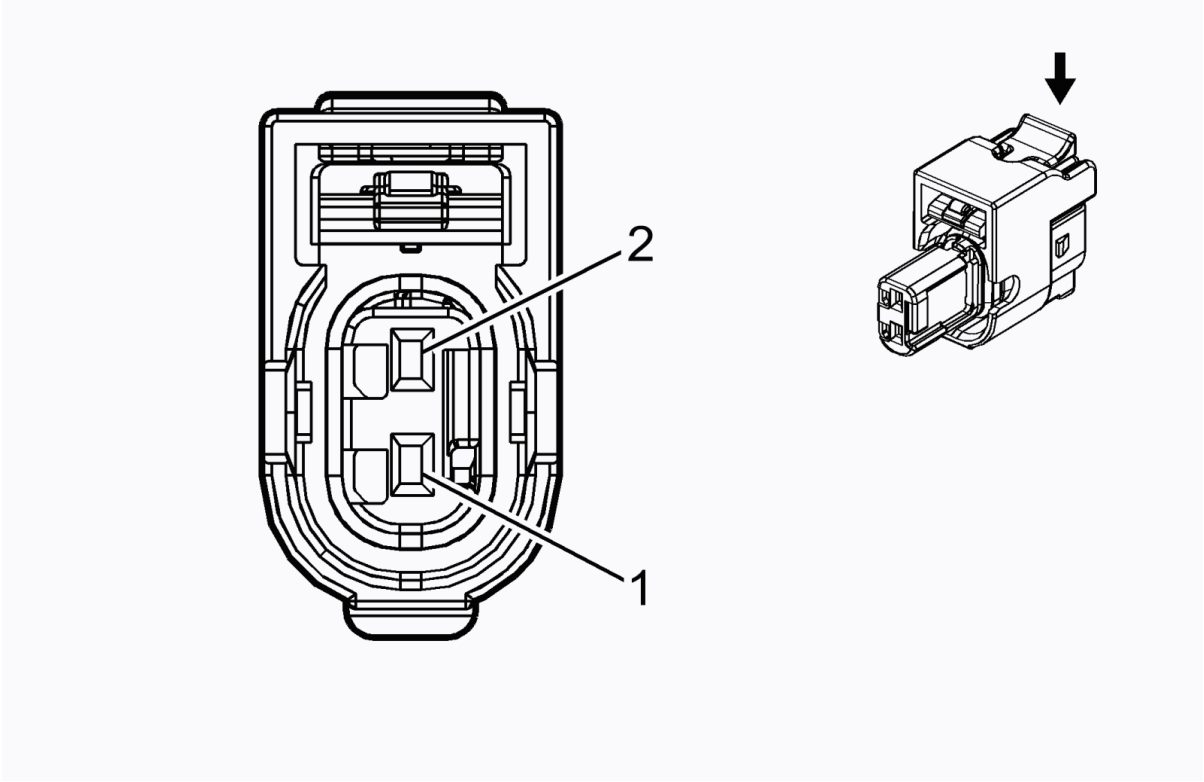
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | - |
| 2 | 0.5 | WH/GY | 4578 | Surge Accumulator Solenoid Low Side Control | I | - |

## B280 AUTOMATIC TRANSMISSION ACCUMULATOR SOLENOID VALVE (KL9+MHG/MNH)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 2098641-1
- Service Connector: 19330669
- Description: 2-Way F 1.2 MCP Series, Sealed (BN)

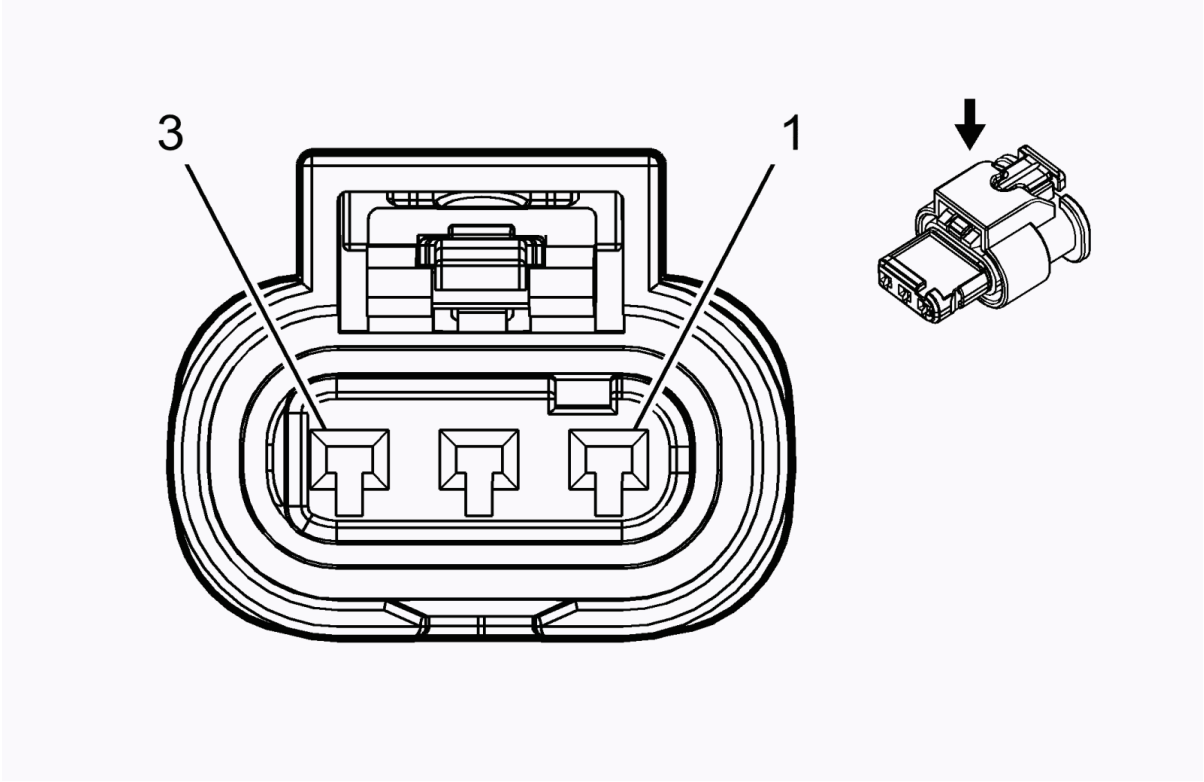
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | VT/BU<br>VT/BU | 5293<br>5294 | Powertrain Main Relay Fused Supply 4<br>Powertrain Main Relay Fused Supply 5 | I<br>I | KL9+LH7<br>KL9+LYX-MD3 |
| 2 | 0.5 | WH/GY | 4578 | Surge Accumulator Solenoid Low Side Control | I | - |

## B295 REDUCTANT QUALITY SENSOR (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Reductant
- OEM Connector: 1-1718644-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCON Series, Sealed (BK)

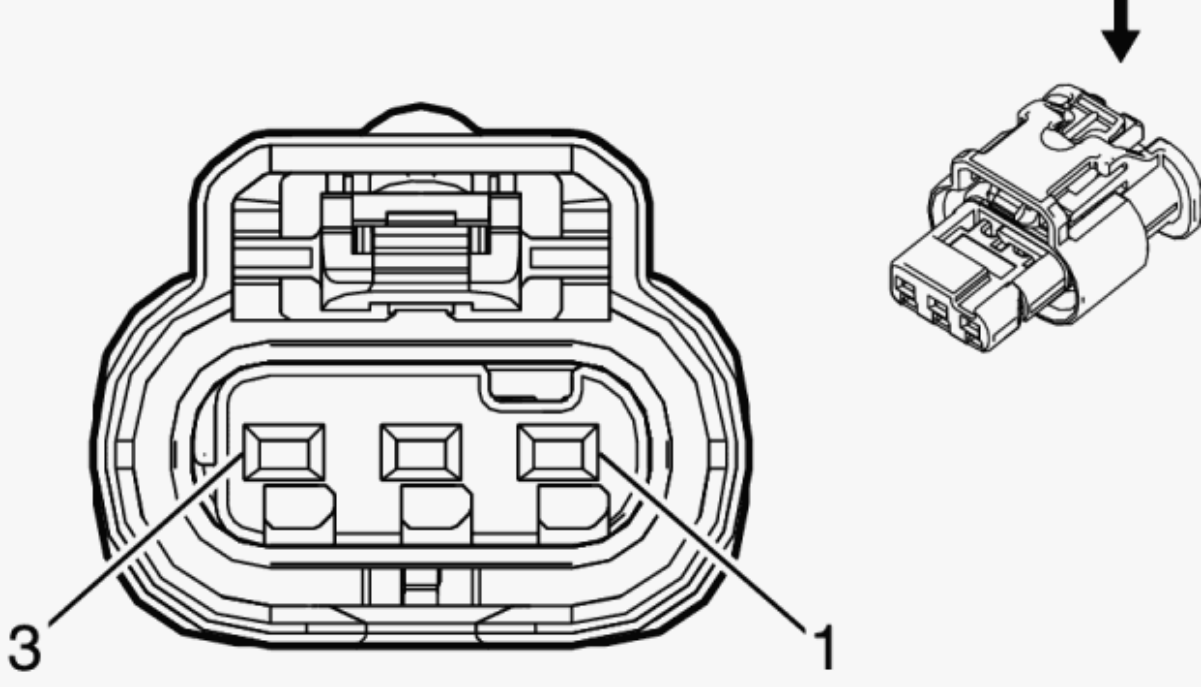
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/WH | 9030 | Sensor 5V Reference | I | - |
| 2 | 0.5 | WH | 9031 | Sensor Signal | I | - |
| 3 | 0.5 | BK | 9032 | Signal Ground | I | - |

## B306A PARKING ASSIST SENSOR - FRONT LEFT OUTER (UD5/UFQ)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

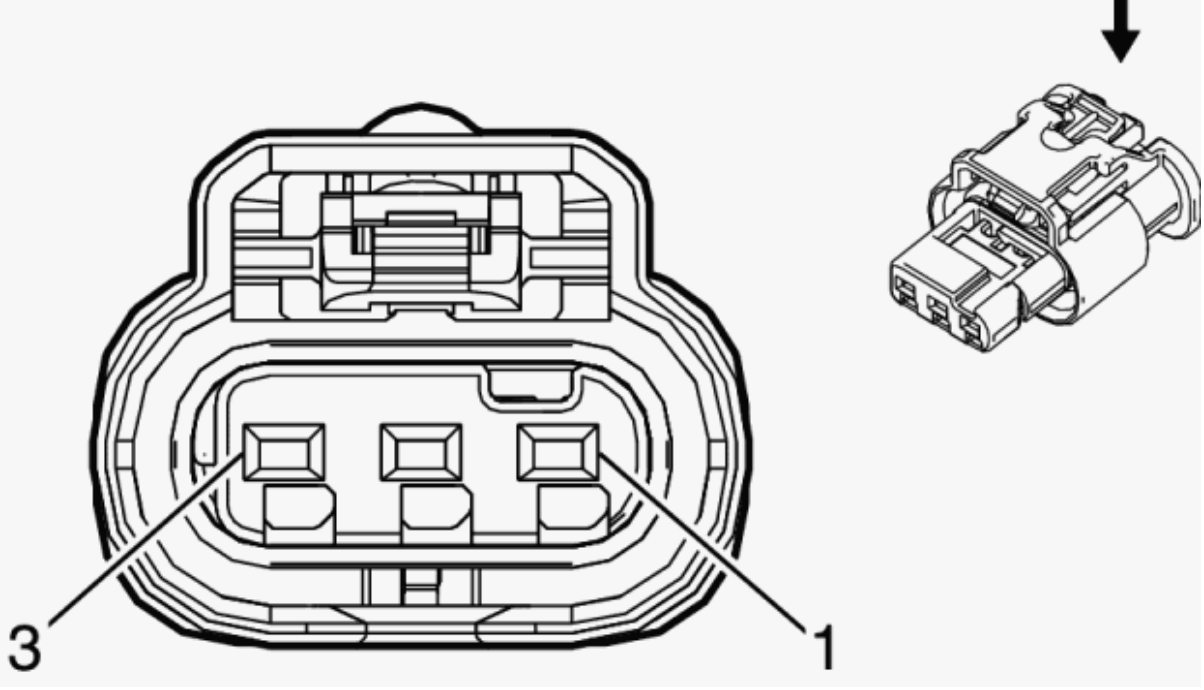
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UD5/UFQ |
| 2 | 0.35 | VT/WH | 5215 | Front Parking Left Corner Sensor | I | UD5/UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UD5/UFQ |

## B306B PARKING ASSIST SENSOR - FRONT LEFT MIDDLE (UD5/UFQ)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

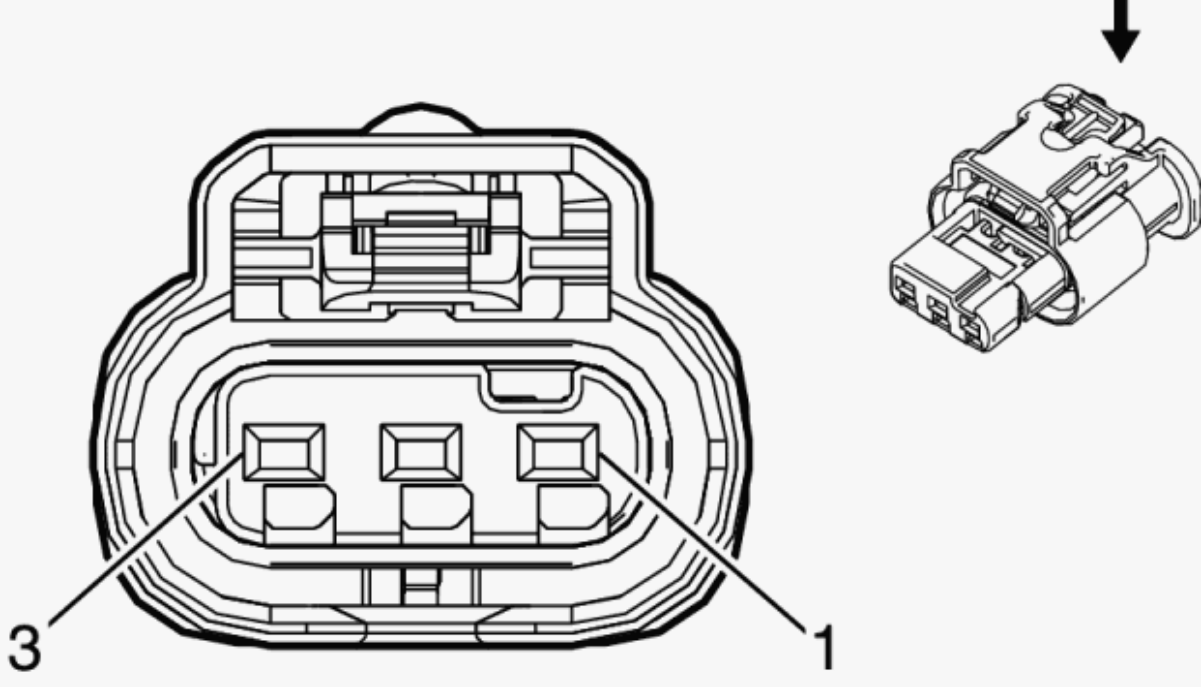
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UD5/UFQ |
| 2 | 0.35 | YE/GY | 5216 | Front Parking Left Mid Sensor | I | UD5/UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UD5/UFQ |

## B306C PARKING ASSIST SENSOR - FRONT RIGHT MIDDLE (UD5/UFQ)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

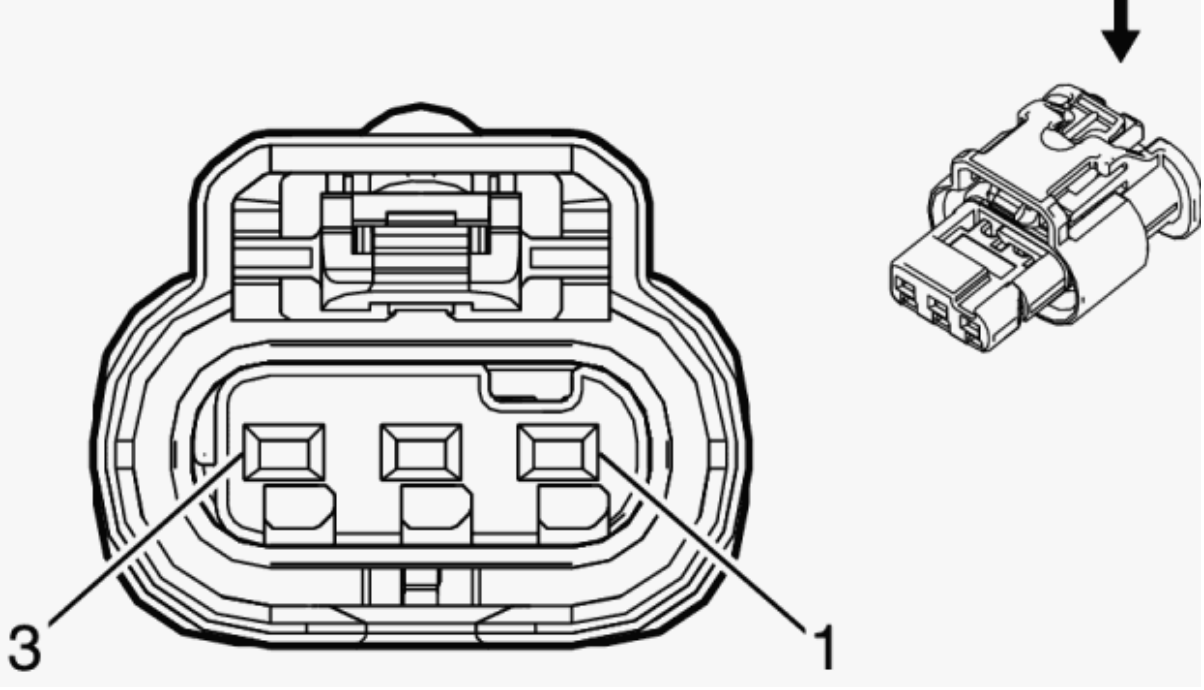
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UD5/UFQ |
| 2 | 0.35 | VT/GY | 5218 | Front Parking Right Mid Sensor | I | UD5/UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UD5/UFQ |

## B306D PARKING ASSIST SENSOR - FRONT RIGHT OUTER (UD5/UFQ)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

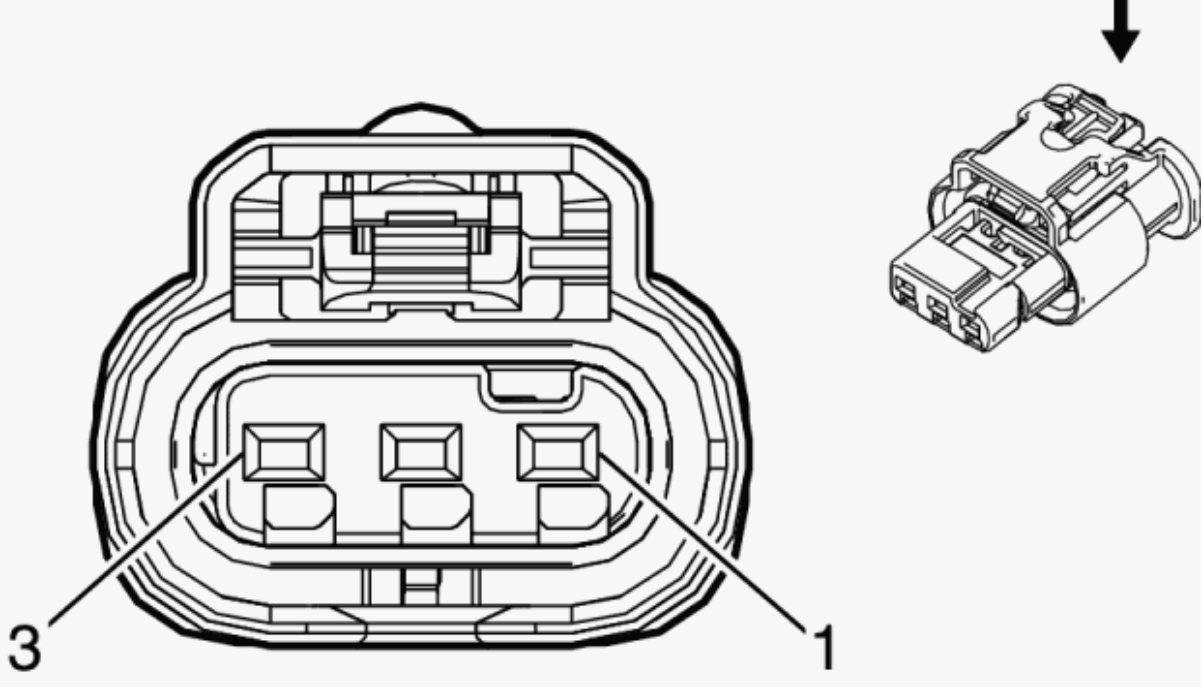
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UD5/UFQ |
| 2 | 0.35 | WH/GY | 5217 | Front Parking Right Corner Sensor | I | UD5/UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UD5/UFQ |

## B306E PARKING ASSIST SENSOR - REAR LEFT OUTER (UD5/UD7/UFQ)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

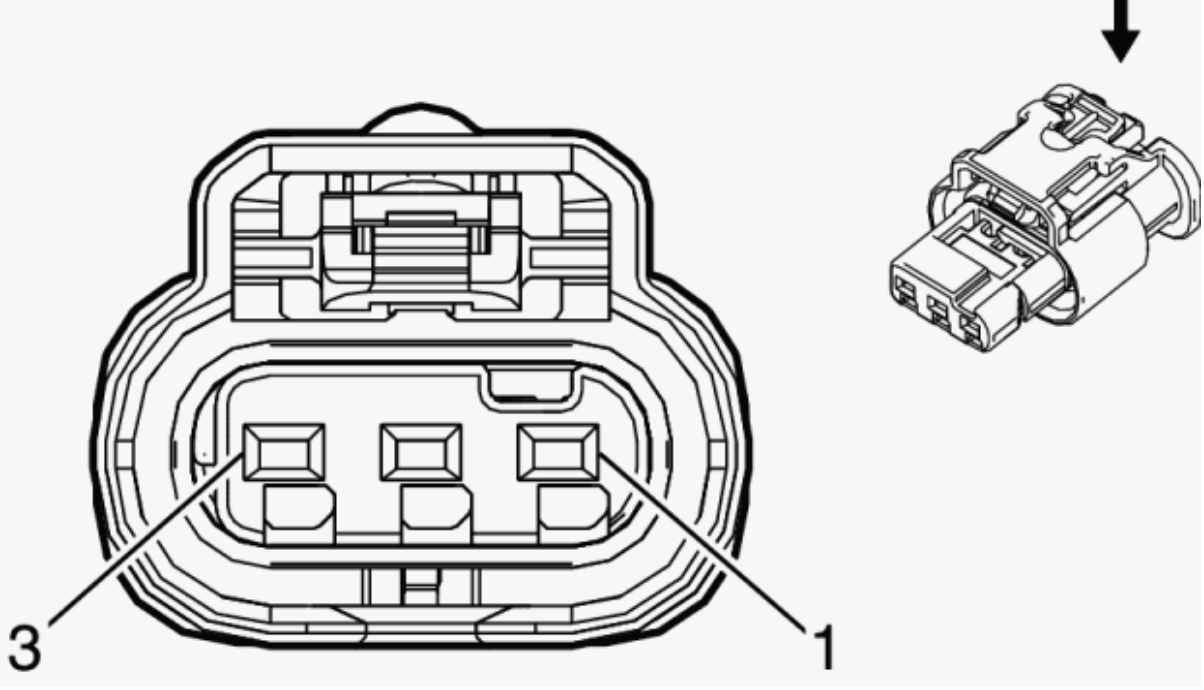
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/WH | 2374 | Object Sensor Control | I | UD5/UD7/UFQ |
| 2 | 0.35 | YE | 2375 | Left Rear Corner Object Sensor Signal | I | UD5/UD7/UFQ |
| 3 | 0.35 | BK/GY | 2379 | Object Sensor Low Reference | I | UD5/UD7/UFQ |

## B306F PARKING ASSIST SENSOR - REAR LEFT MIDDLE (UD5/UD7/UFQ)

cardiagn.com




Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

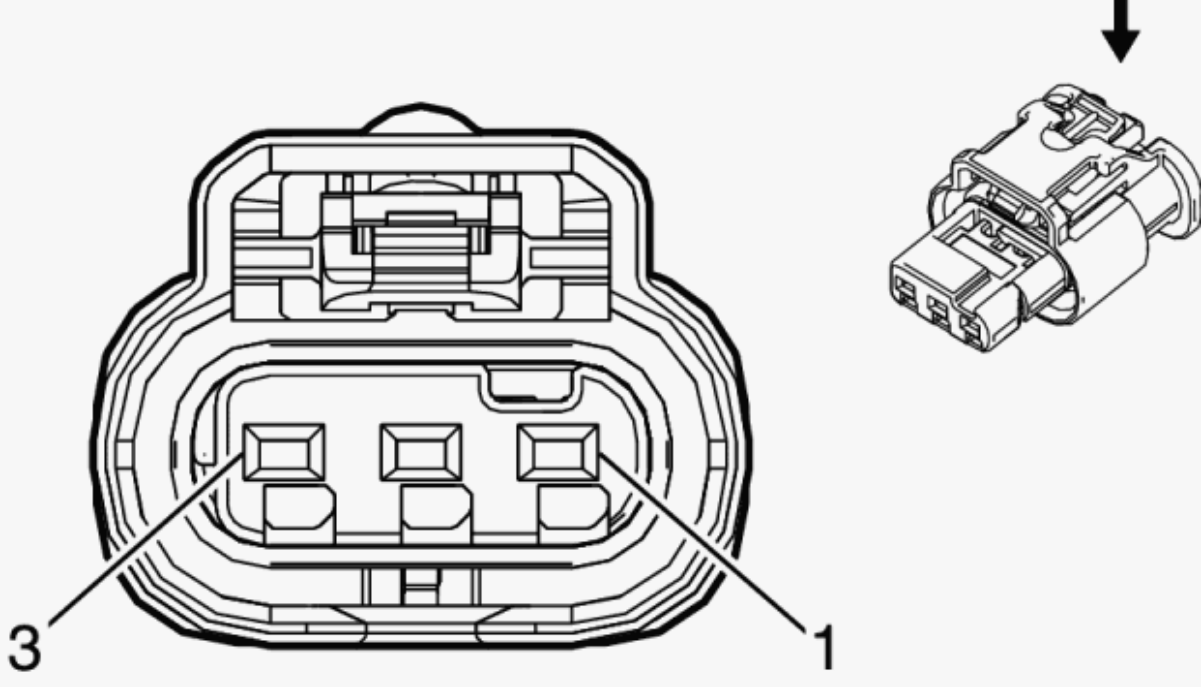
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/WH | 2374 | Object Sensor Control | I | UD5/UD7/UFQ |
| 2 | 0.35 | YE/BU | 2376 | Left Rear Middle Object Sensor Signal | I | UD5/UD7/UFQ |
| 3 | 0.35 | BK/GY | 2379 | Object Sensor Low Reference | I | UD5/UD7/UFQ |

## B306G PARKING ASSIST SENSOR - REAR RIGHT MIDDLE (UD5/UD7/UFQ)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

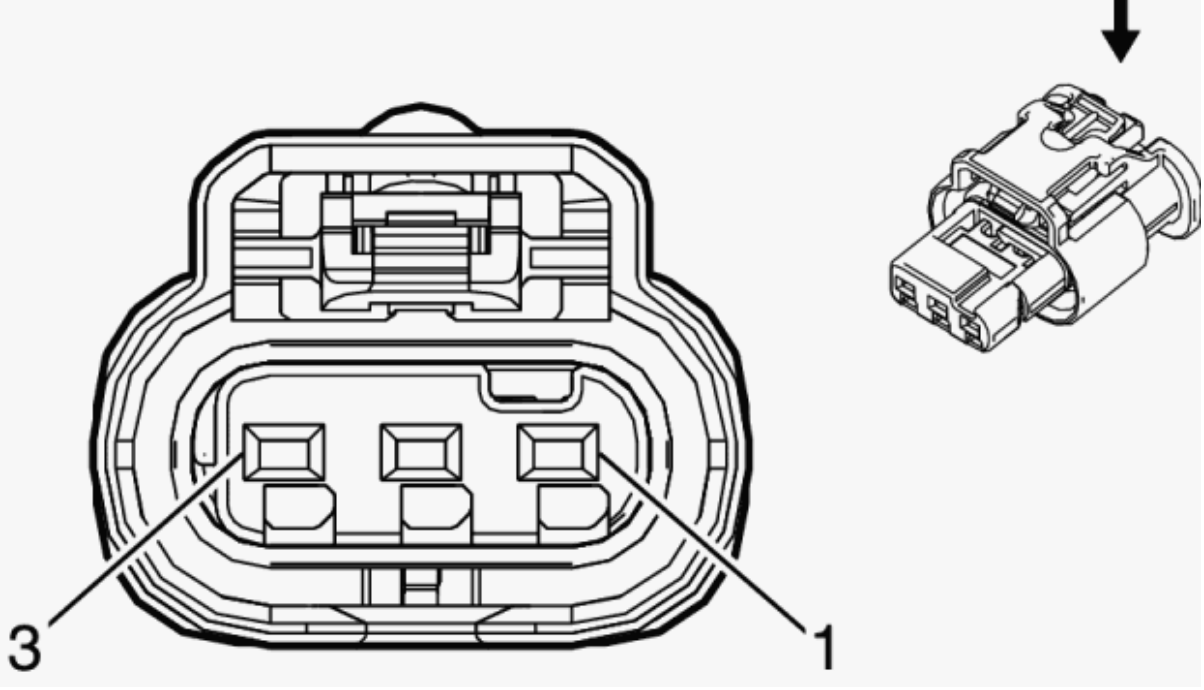
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/WH | 2374 | Object Sensor Control | I | UD5/UD7/UFQ |
| 2 | 0.35 | YE/WH | 2377 | Right Rear Middle Object Sensor Signal | I | UD5/UD7/UFQ |
| 3 | 0.35 | BK/GY | 2379 | Object Sensor Low Reference | I | UD5/UD7/UFQ |

## B306H PARKING ASSIST SENSOR - REAR RIGHT OUTER (UD5/UD7/UFQ)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13577106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BK)

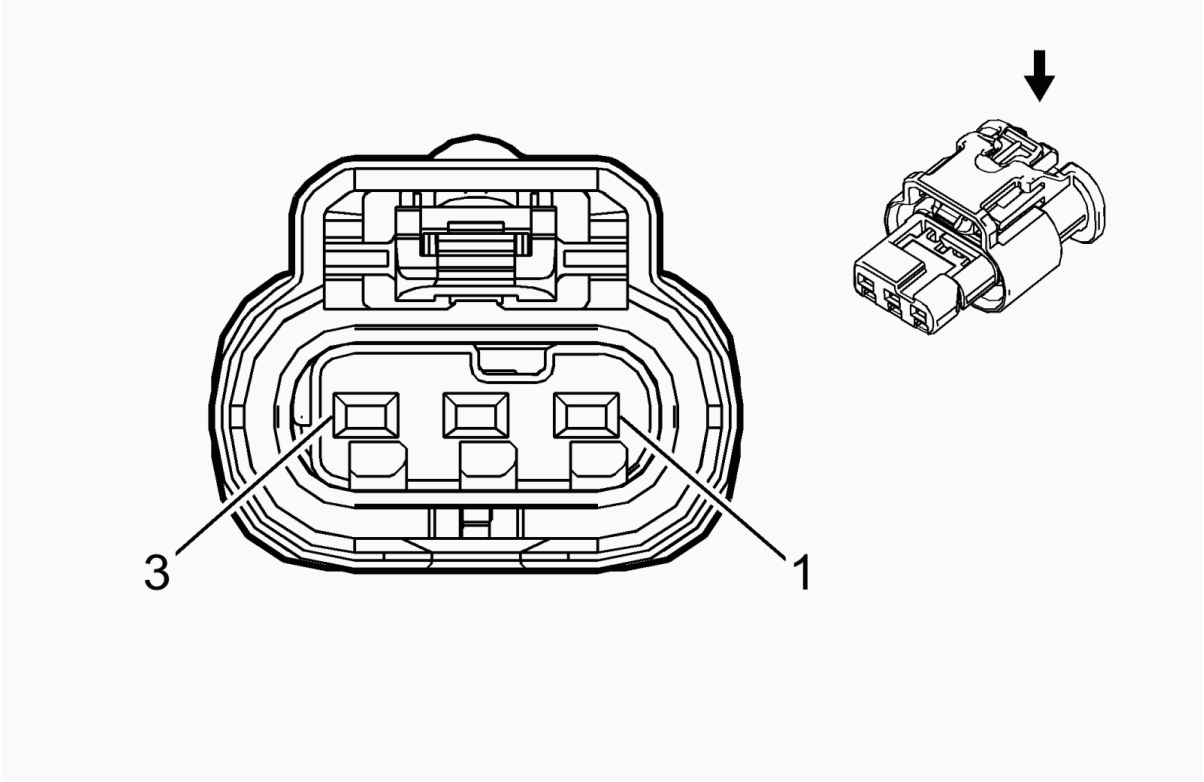
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/WH | 2374 | Object Sensor Control | I | UD5/UD7/UFQ |
| 2 | 0.35 | YE/VT | 2378 | Right Rear Corner Object Sensor Signal | I | UD5/UD7/UFQ |
| 3 | 0.35 | BK/GY | 2379 | Object Sensor Low Reference | I | UD5/UD7/UFQ |

## B306K PARKING ASSIST SENSOR - SIDE LEFT FRONT (UFQ)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577107
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (NA)

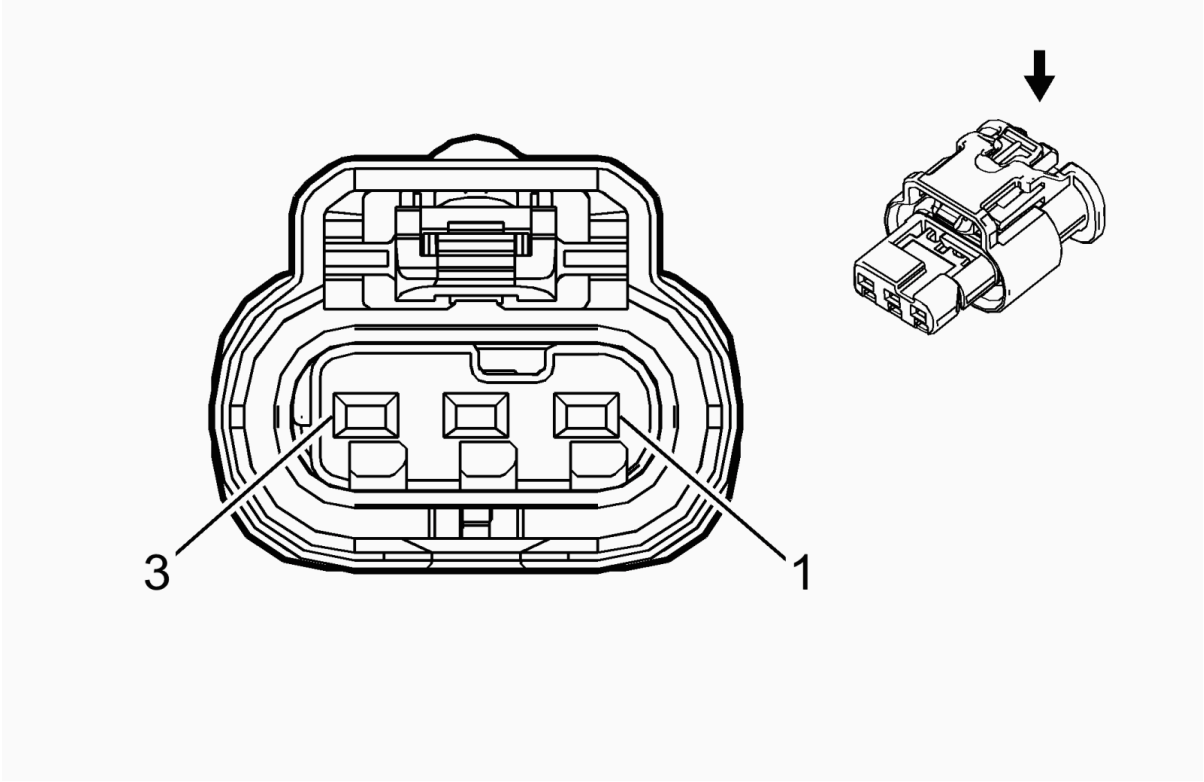
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UFQ |
| 2 | 0.35 | GY | 3154 | Left Front Supplemental Object Sensor Signal | I | UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UFQ |

## B306L PARKING ASSIST SENSOR - SIDE RIGHT FRONT (UFQ)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13577107
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (NA)

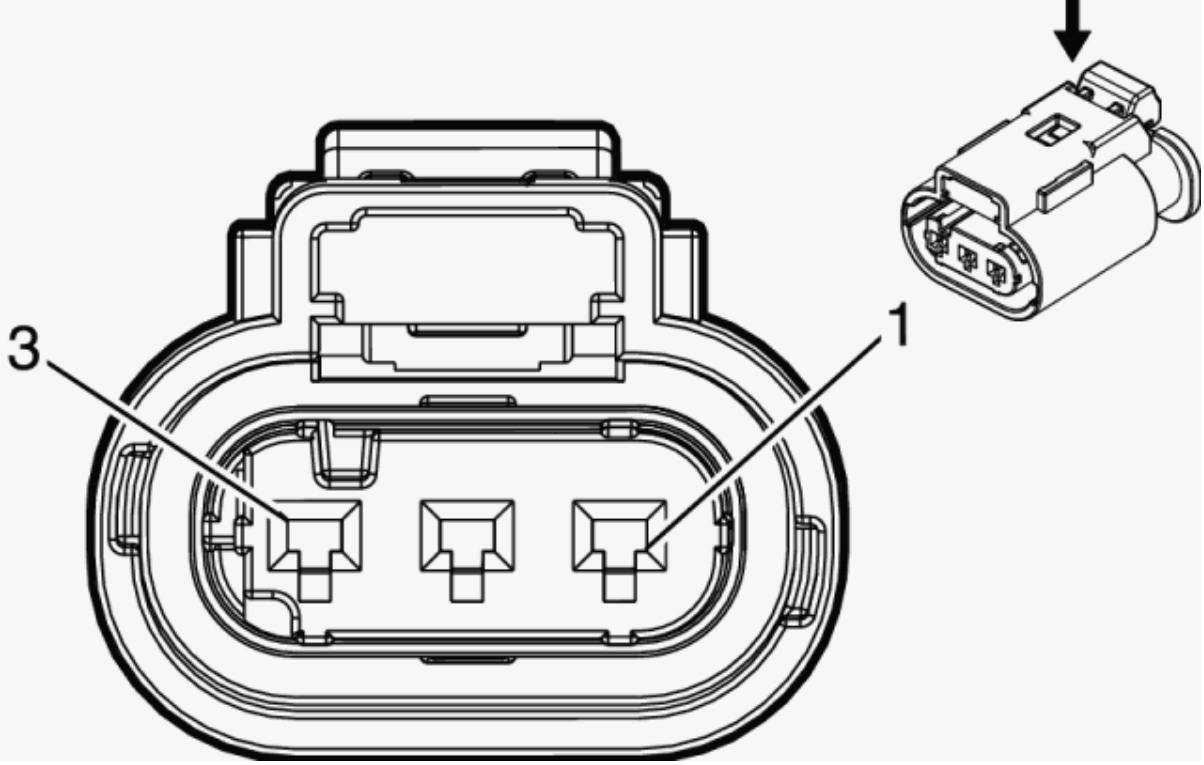
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | UFQ |
| 2 | 0.35 | GN | 3155 | Right Front Supplemental Object Sensor Signal | I | UFQ |
| 3 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UFQ |

## B310 FUEL PRESSURE/TEMPERATURE SENSOR (LTG/LYX)

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Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 13503573
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

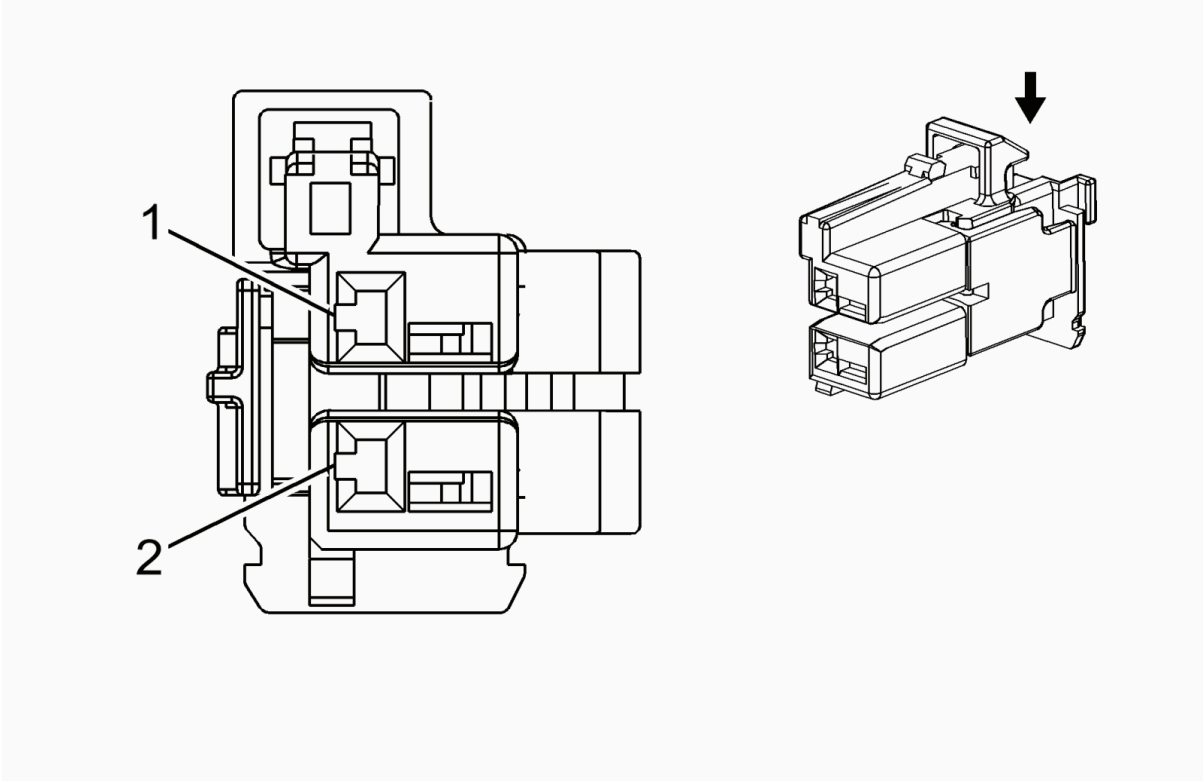
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | I | - |
| 2 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | I | - |
| 3 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | I | - |

## B315A TRANSMISSION RANGE CONTROL VALVE 1 POSITION SWITCH (M3H/M3U)

cardiagn.com




Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

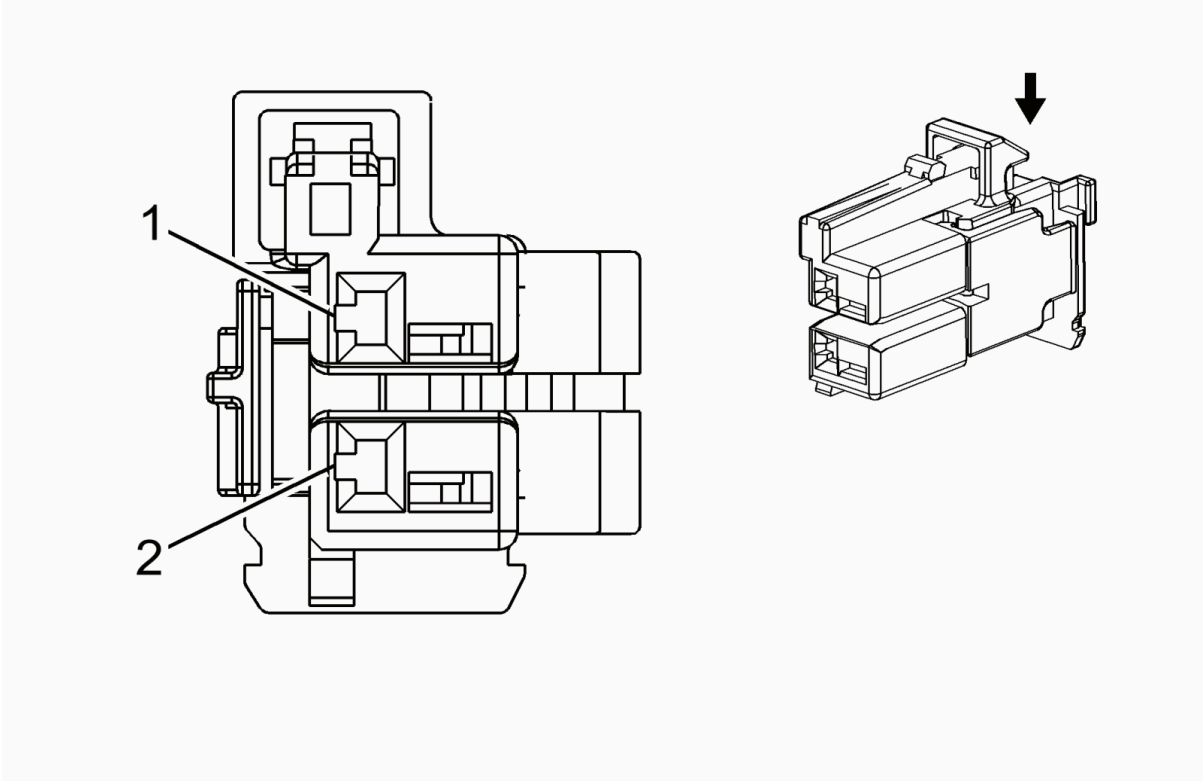
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN | 3706 | ETRS Switch Analog Signal 1 | I | M3H/M3U |
| 2 | 0.5 | WH/BK | 4171 | Transmission Position Sensor A 9V Reference | I | M3H/M3U |

## B315B TRANSMISSION RANGE CONTROL VALVE 2 POSITION SWITCH (M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

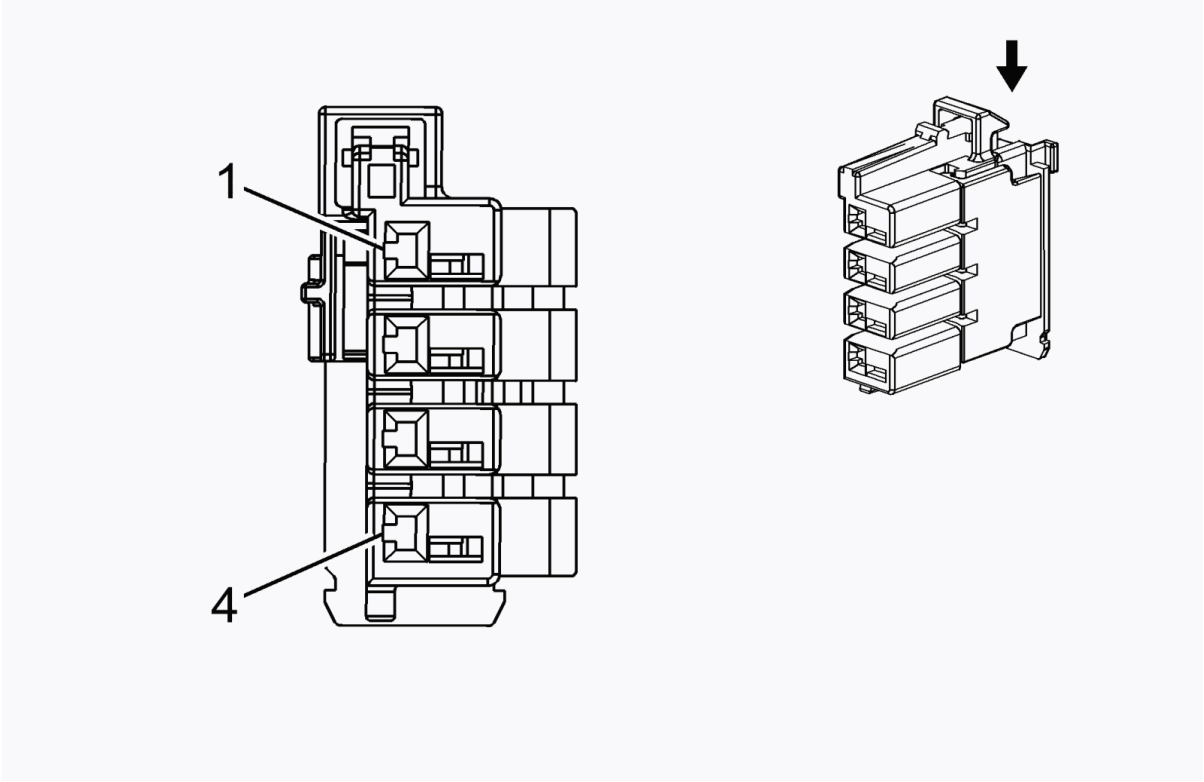
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BU | 3705 | ETRS Switch Analog Signal 2 | I | M3H/M3U |
| 2 | 0.5 | WH/BK | 4171 | Transmission Position Sensor A 9V Reference | I | M3H/M3U |

## B316 TRANSMISSION PARK VALVE POSITION SWITCH (M3H/M3U)

cardiagn.com




Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203702-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 MCON Series (BN)

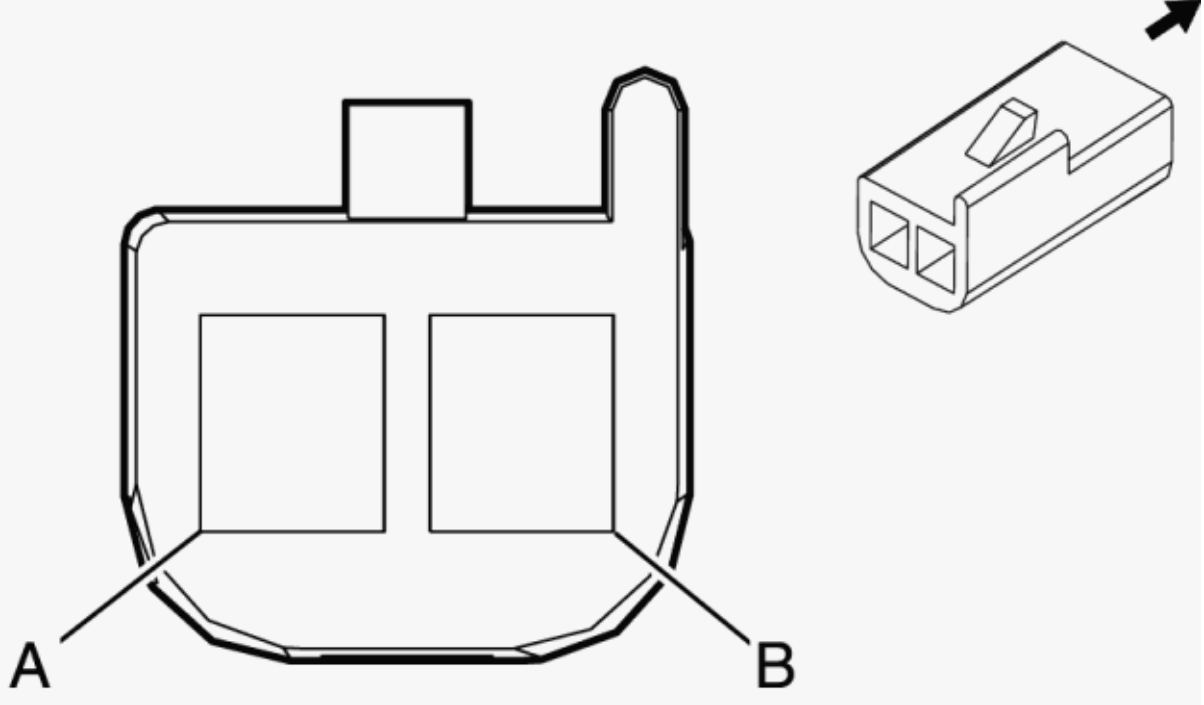
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/GN | 4170 | Transmission Position Sensor B 9V Reference | I | M3H/M3U |
| 2 | 0.5 | WH/YE | 6319 | ETRS Out of Park Switch 2 Signal | I | M3H/M3U |
| 3 | 0.5 | VT/YE | 6317 | ETRS Out of Park Switch Signal | I | M3H/M3U |
| 4 | - | - | - | Not Occupied | - | - |

## C3 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE BATTERY (UE1+IOB/IO5/IO6)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 12047662
- Service Connector: 12085535
- Description: 2-Way F 150 Metri-Pack Series (BK)

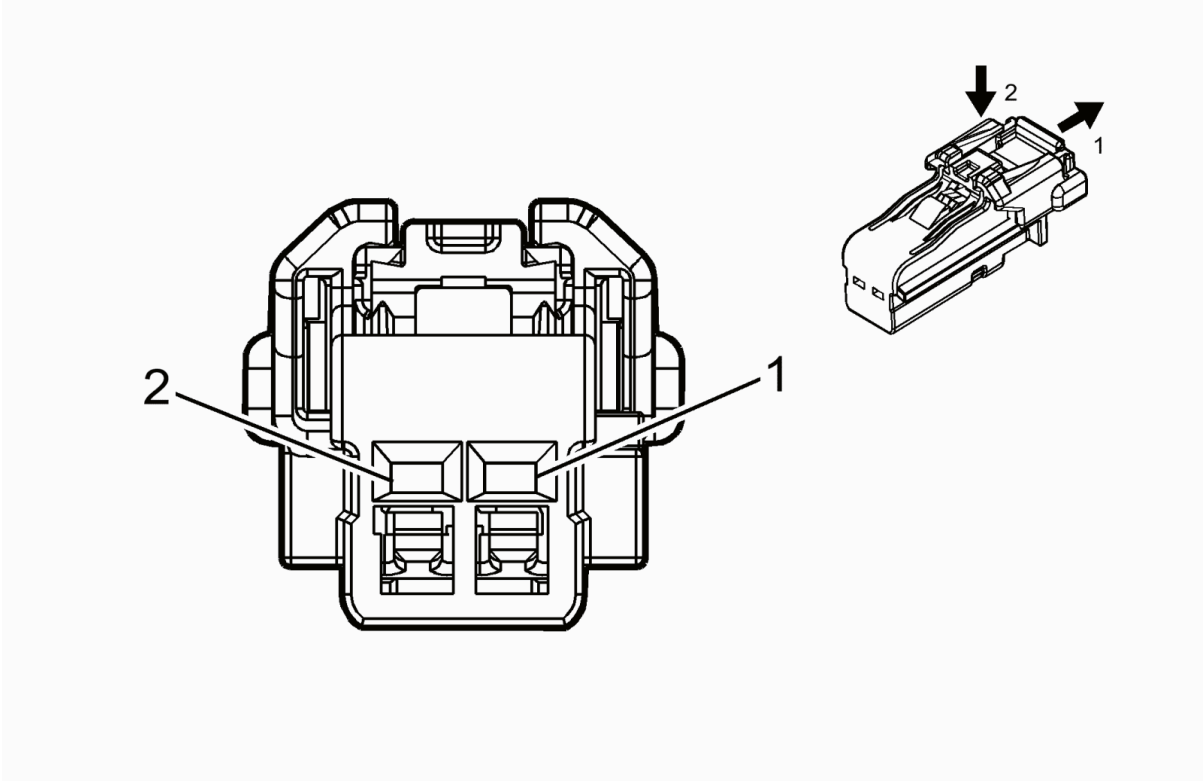
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35<br>0.35 | YE/OG<br>YE/VT | 3025<br>5235 | Passenger IP Module Stage 1 High Control<br>Battery Backup Control | II<br>I | AJG<br>UE1+IOB/IO5/IO6 |
| B | 0.35<br>0.35 | OG/WH<br>BK/VT | 3024<br>5167 | Passenger IP Module Stage 1 Low Control<br>Battery Backup Low Reference | II<br>I | AJG<br>UE1+IOB/IO5/IO6 |

## E1AC ACCENT LAMP - CENTER CONSOLE CUPHOLDER

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13588640
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

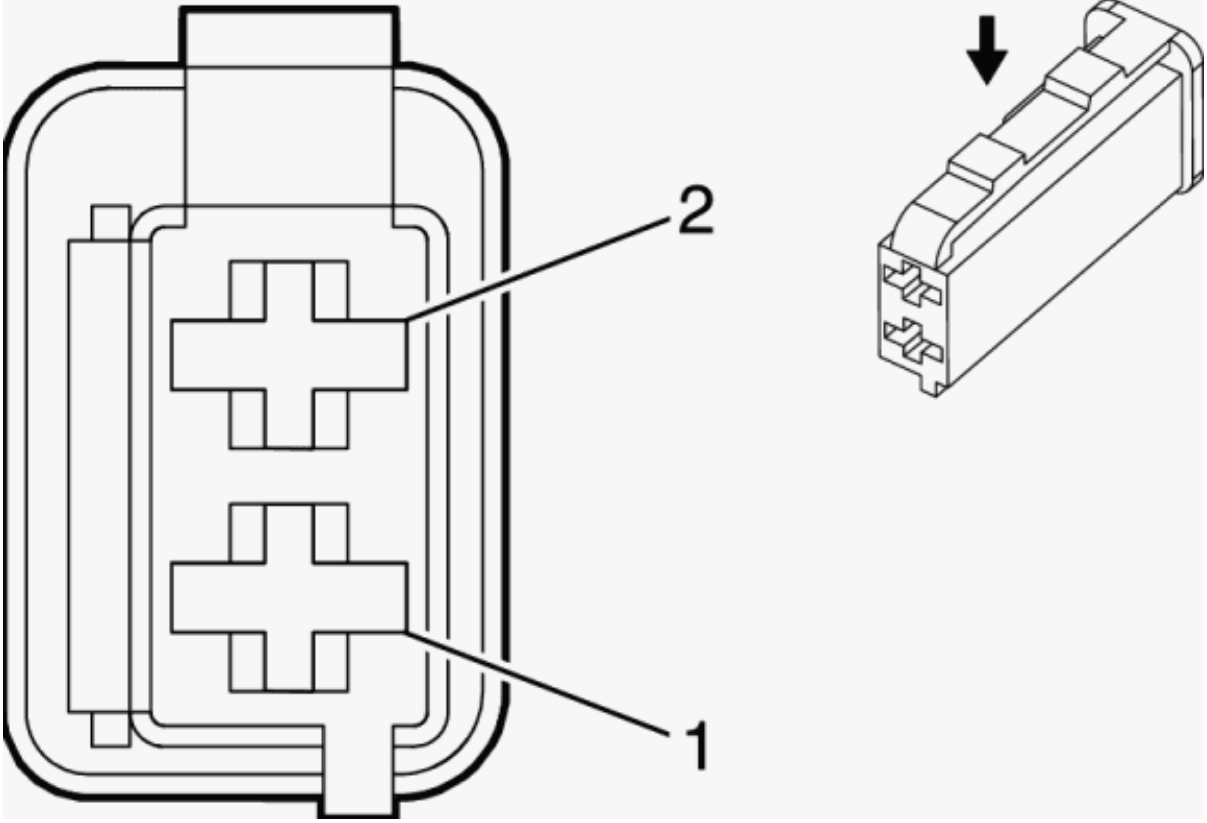
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | Z88+TSQ |
| 2 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | Z88+TSQ |

## E1C ACCENT LAMP - DRIVER DOOR HANDLE

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Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: 19179871
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |
| 2 | 0.35 | BK | 1550 | Ground | I | - |

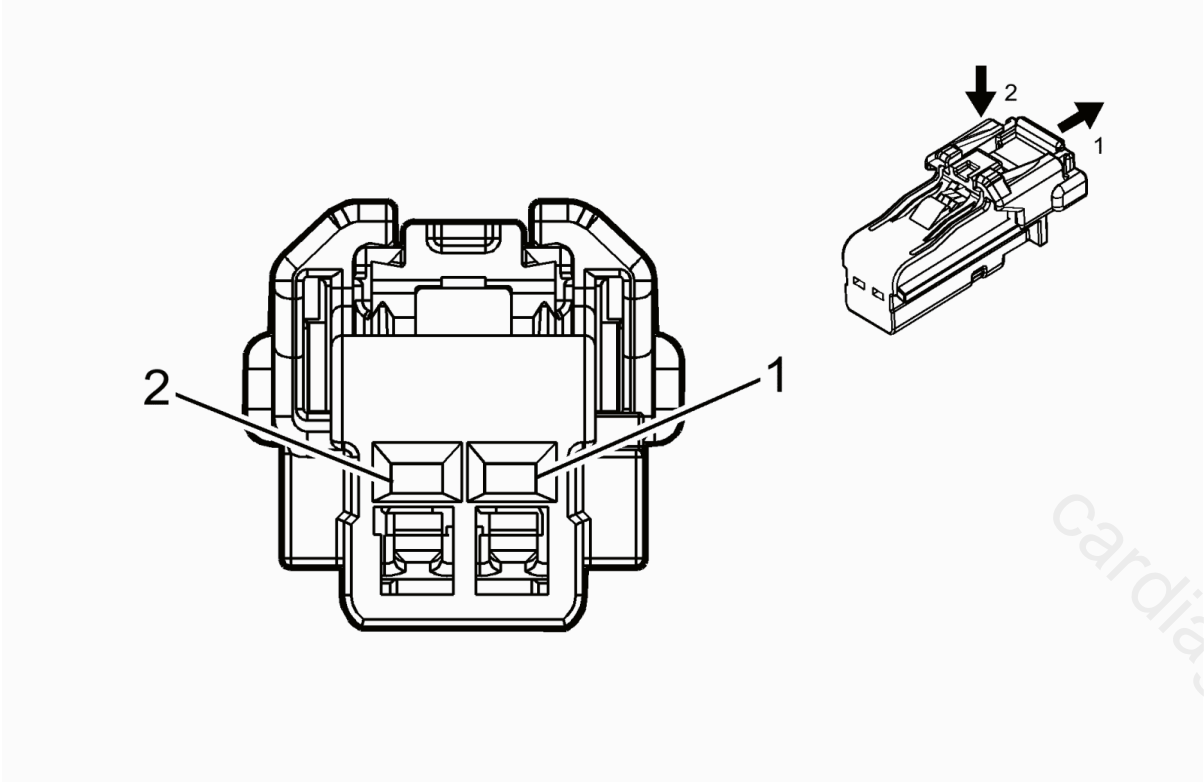
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# COMPONENT CONNECTOR END VIEWS

## E1D ACCENT LAMP - DRIVER DOOR (X88+TSQ)




Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: 13517403
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

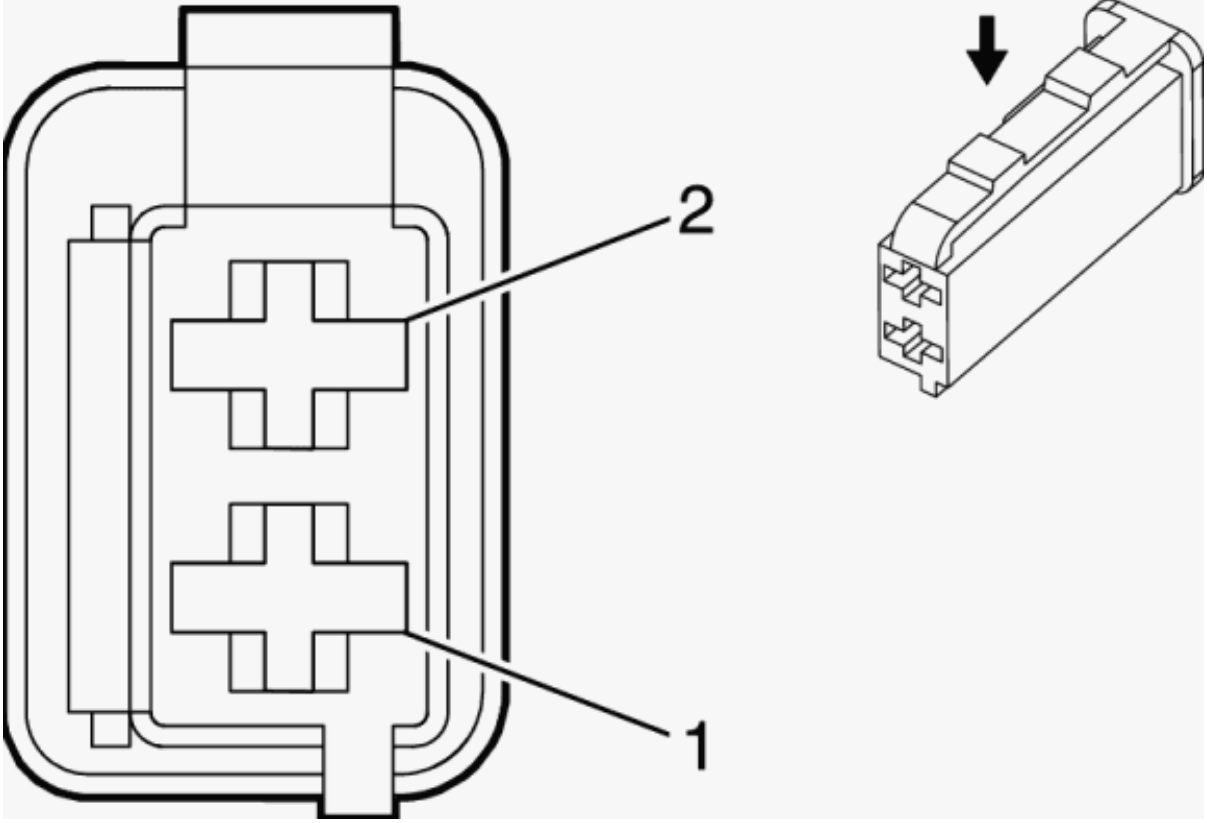
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1550 | Ground | I | - |
| 2 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |

## E1D ACCENT LAMP - DRIVER DOOR (Z88+TSQ)

cardiagn.com




Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: 19179871
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

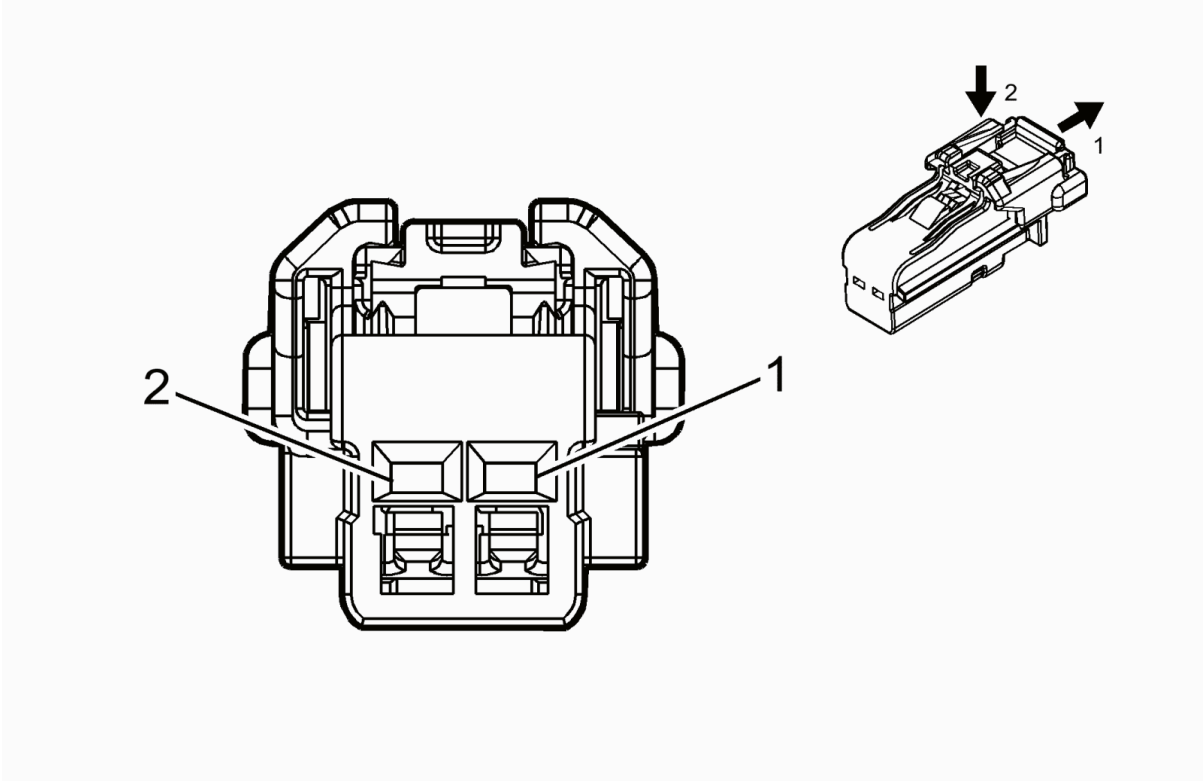
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |
| 2 | 0.35 | BK | 1550 | Ground | I | - |

## E1H ACCENT LAMP - RIGHT INSTRUMENT PANEL (TSQ)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13588640
- Service Connector: 19352066
- Description: 2-Way F 1.2 Series (BK)

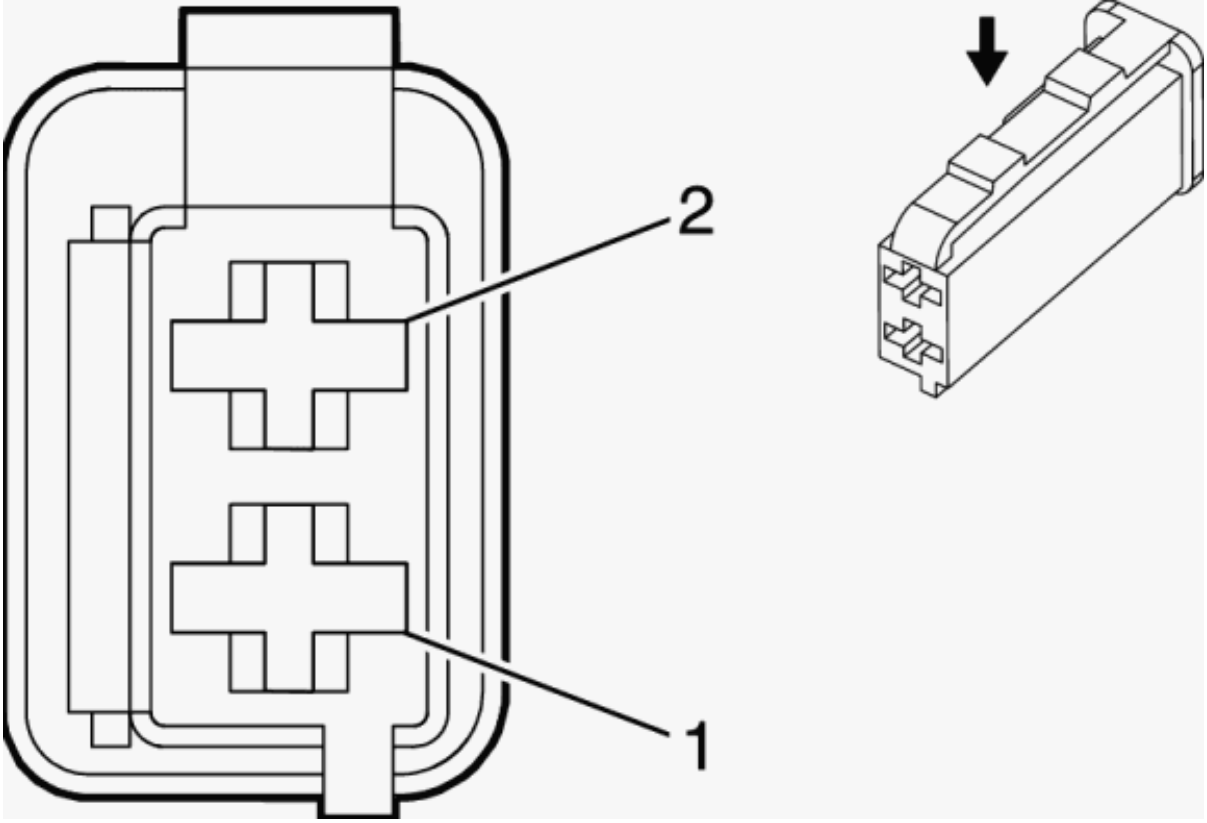
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | - |
| 2 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |

## E1M ACCENT LAMP - PASSENGER DOOR HANDLE

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Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: 19179871
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

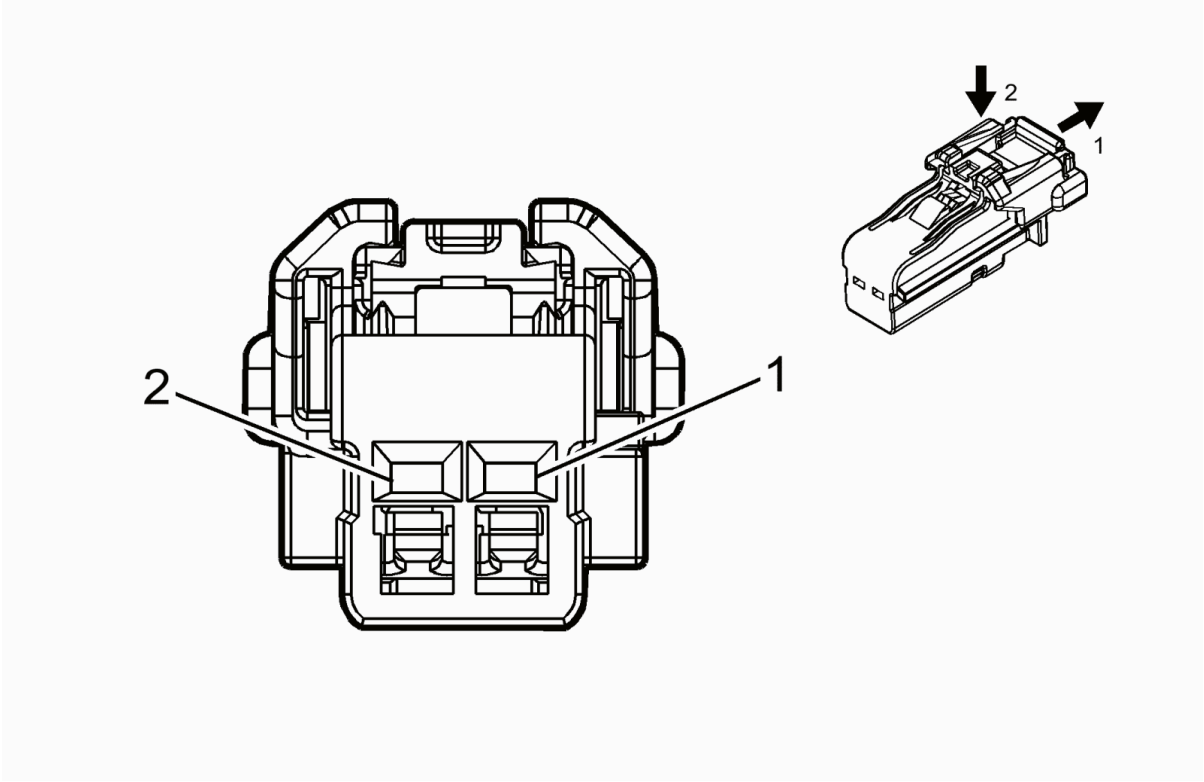
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |
| 2 | 0.35 | BK | 2050 | Ground | I | - |

## E1P ACCENT LAMP - PASSENGER DOOR (X88+TSQ)

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Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: 13517403
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

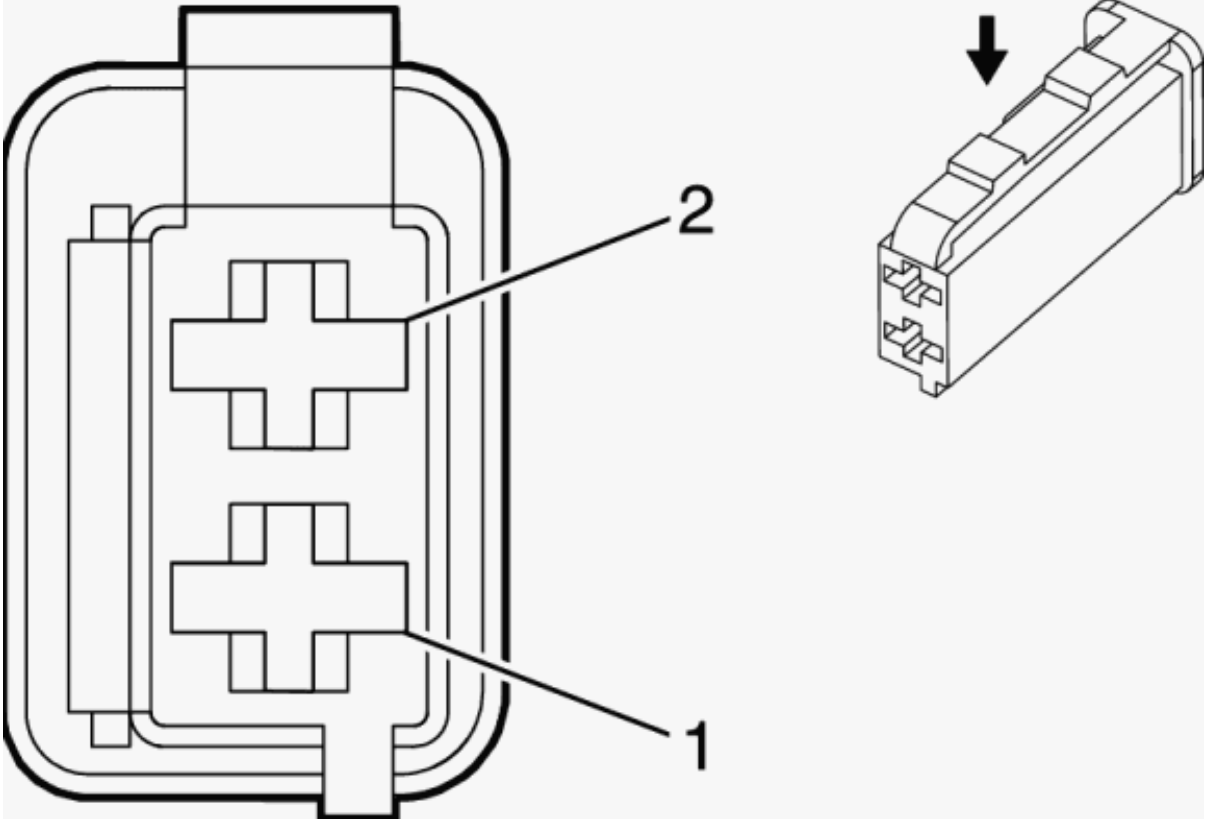
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2050 | Ground | I | - |
| 2 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |

## E1P ACCENT LAMP - PASSENGER DOOR (Z88+TSQ)

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Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: 19179871
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.6 Timer Series (BK)

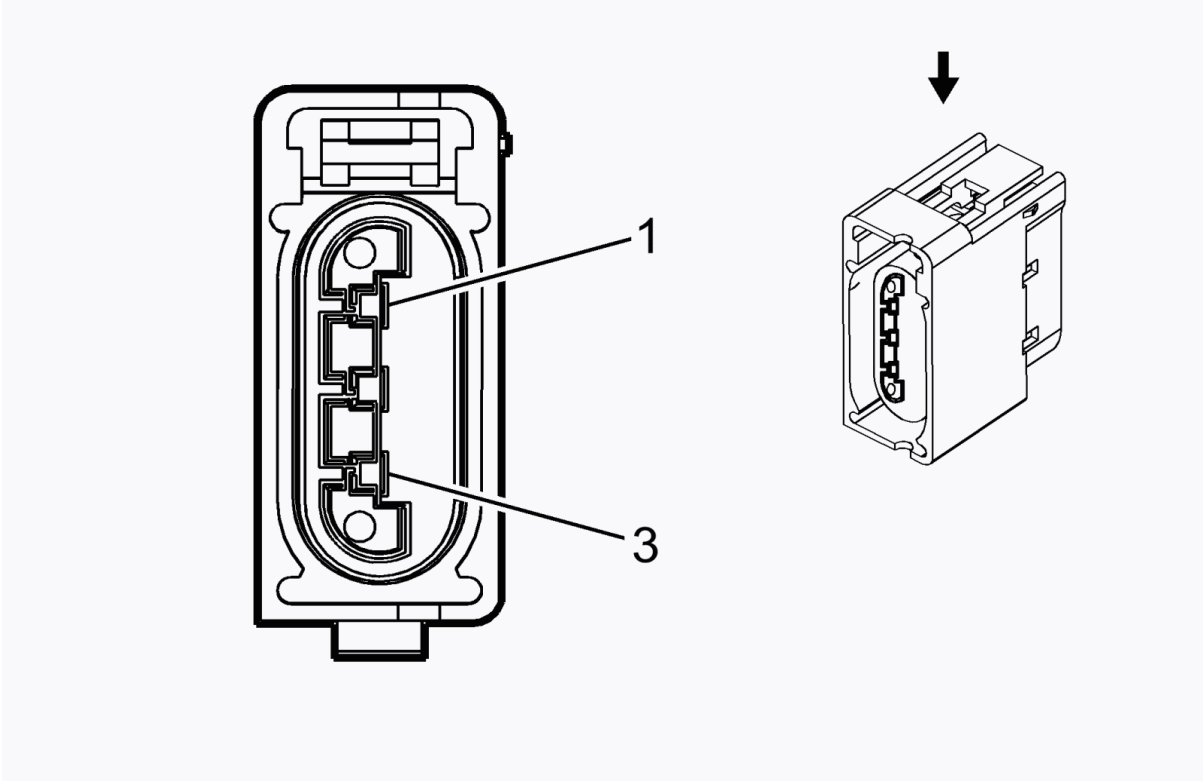
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |
| 2 | 0.35 | BK | 2050 | Ground | I | - |

## E4LF TURN SIGNAL LAMP - LEFT FRONT (X88+T3U)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13590063
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 Series, Sealed (BK)

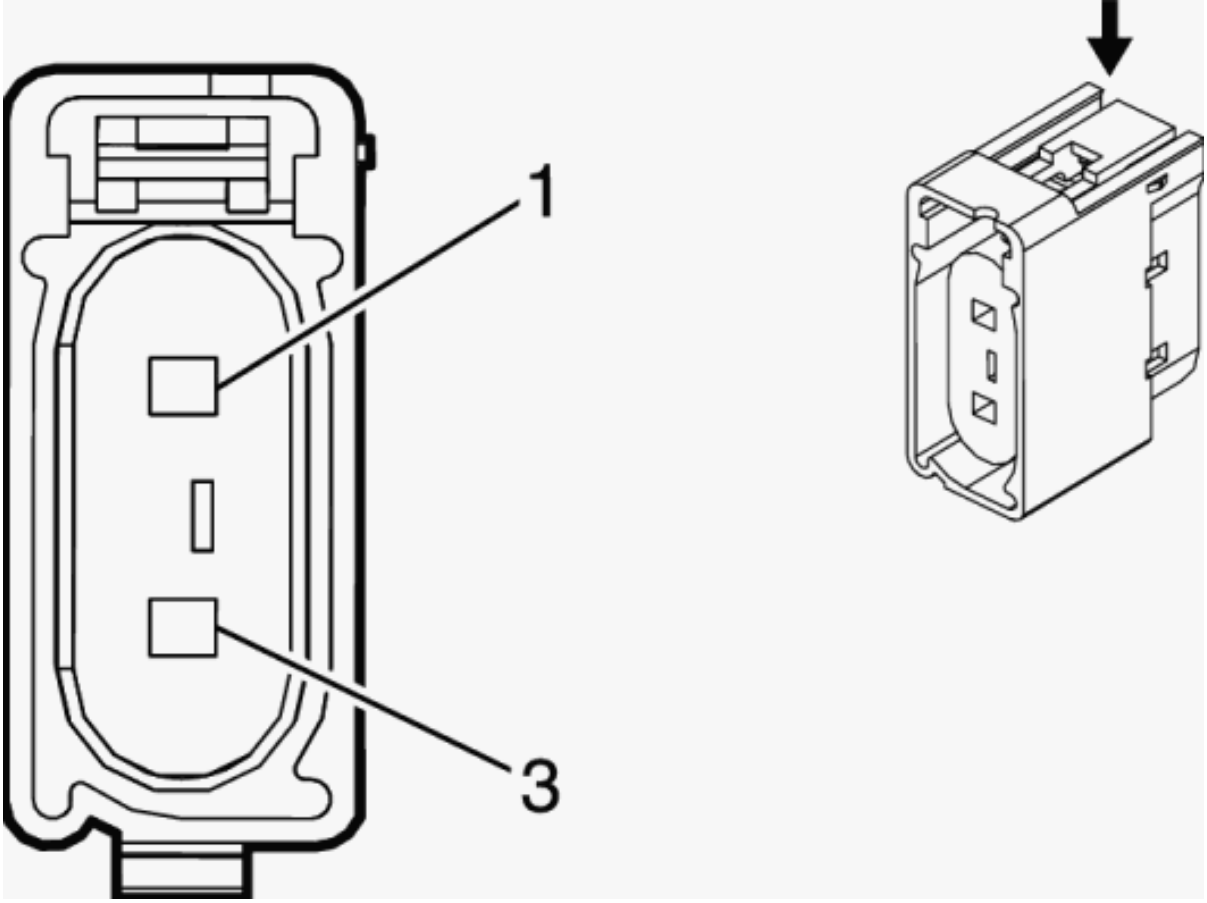
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 1314 | Left Front Turn Signal Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 1550 | Ground | I | - |

## E4LF TURN SIGNAL LAMP - LEFT FRONT (X88-T3U/MAM)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13628679
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 Series, Sealed (GY)

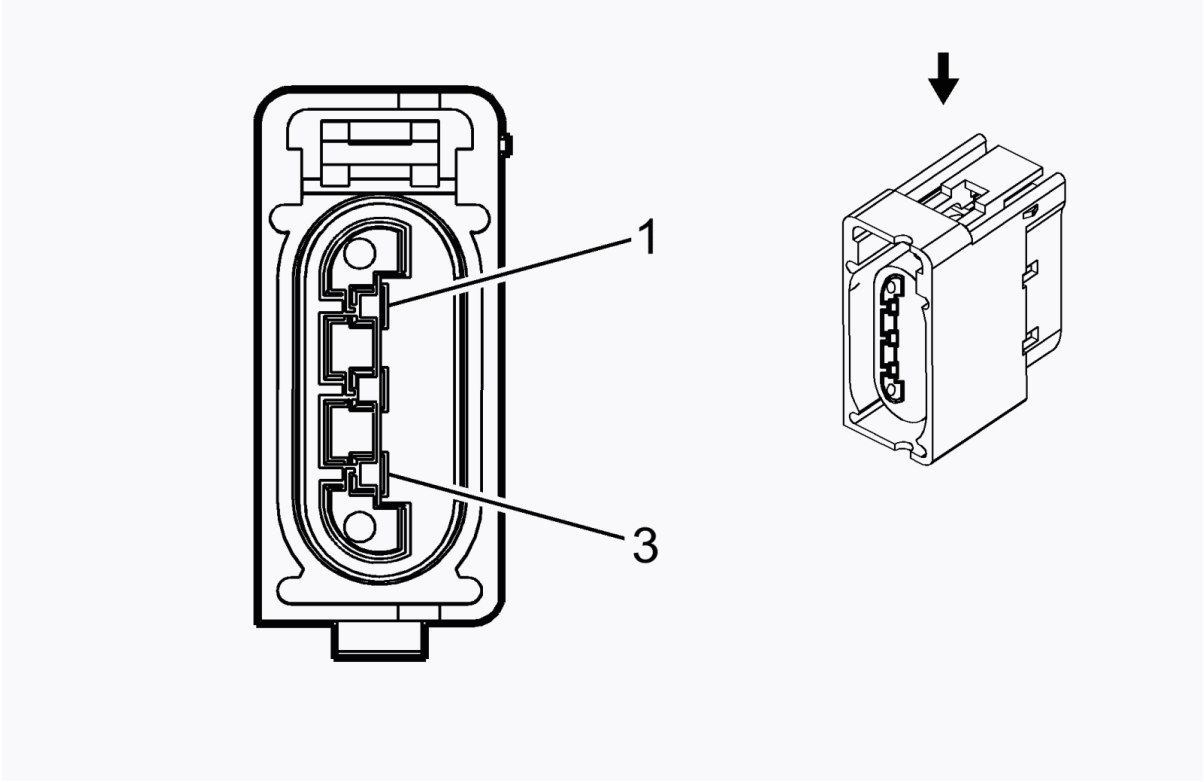
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 1314 | Left Front Turn Signal Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 1550 | Ground | I | - |

## E4RF TURN SIGNAL LAMP - RIGHT FRONT (X88+T3U)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13590063
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 Series, Sealed (BK)

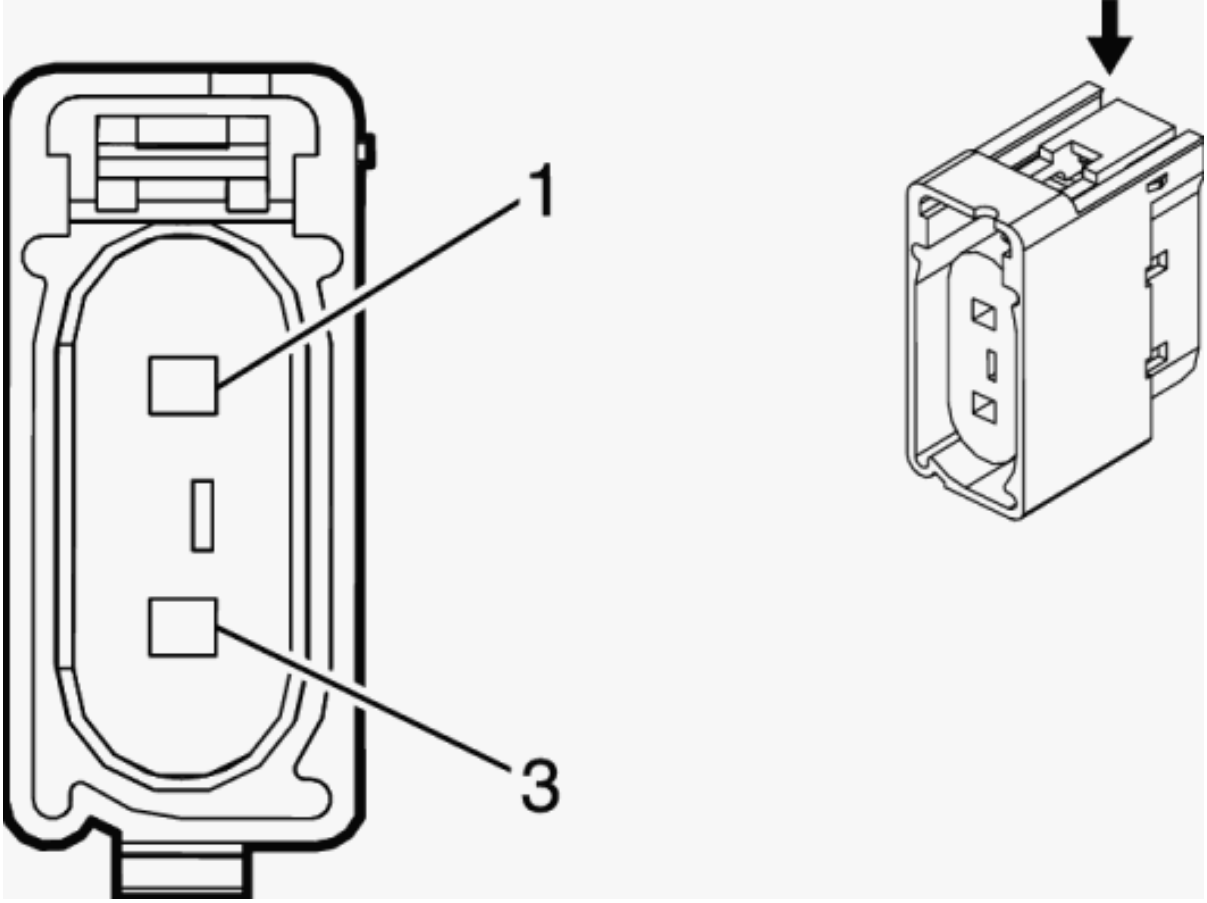
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/VT | 1315 | Right Front Turn Signal Lamp Control | I | T3U |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BK | 2050 | Ground | I | T3U+MAH/MBC/MCX/MBI-Z88 |

## E4RF TURN SIGNAL LAMP - RIGHT FRONT (X88-T3U/MAM)

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Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13628679
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 Series, Sealed (GY)

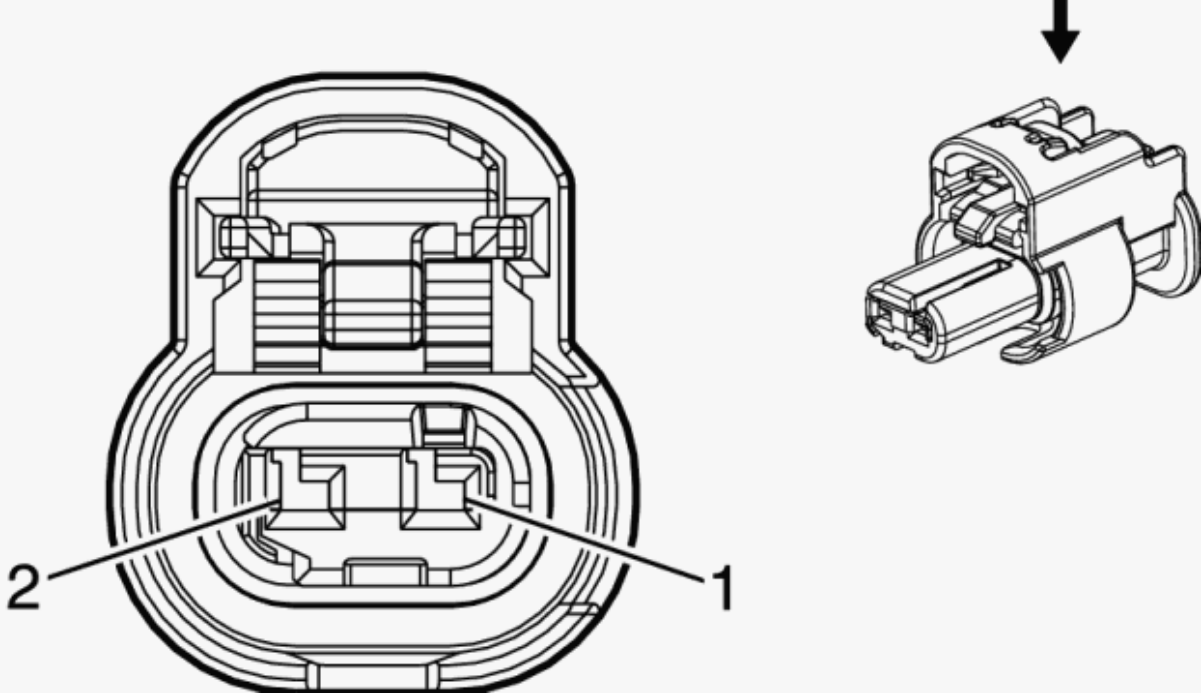
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/VT | 1315 | Right Front Turn Signal Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BK | 2050 | Ground | I | - |

## E6 CENTER HIGH MOUNTED STOP LAMP (EPH)

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Connector Part Information

- Harness Type: Center High Mount Stop Lamp
- OEM Connector: 13591334
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)

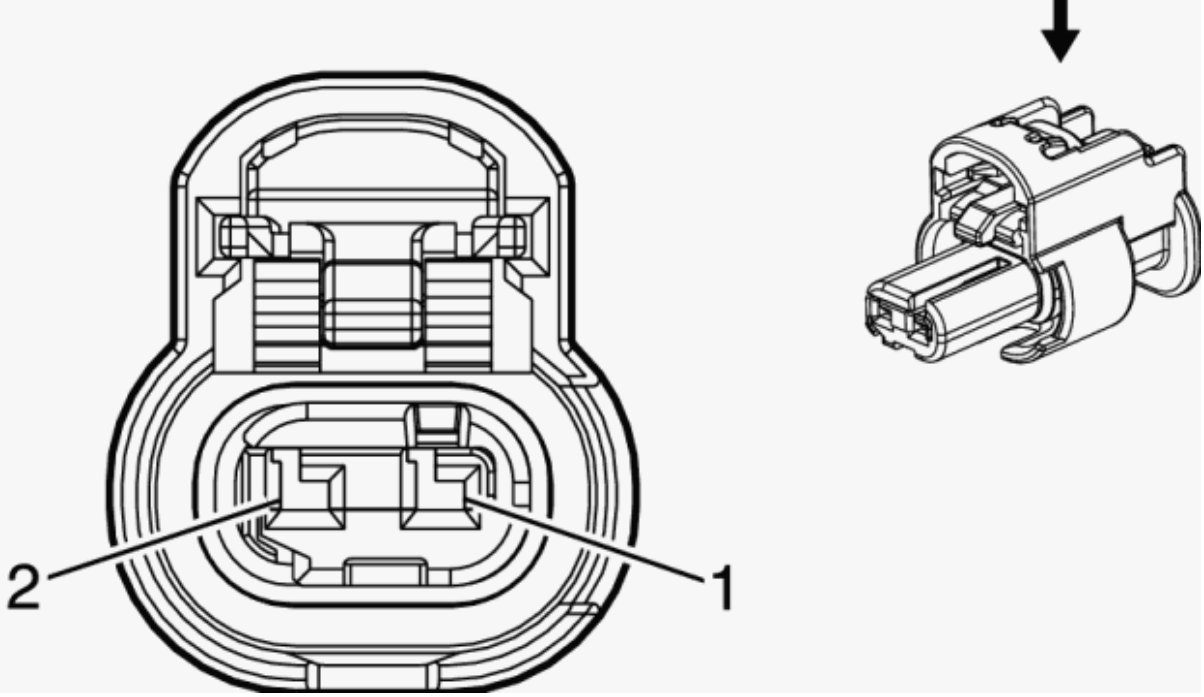
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | EPH |
| 2 | 0.35 | VT/WH | 5065 | Stop Lamp Relay Coil Control | I | EPH |

## E6 CENTER HIGH MOUNTED STOP LAMP (-EPH)

cardiagn.com




Connector Part Information

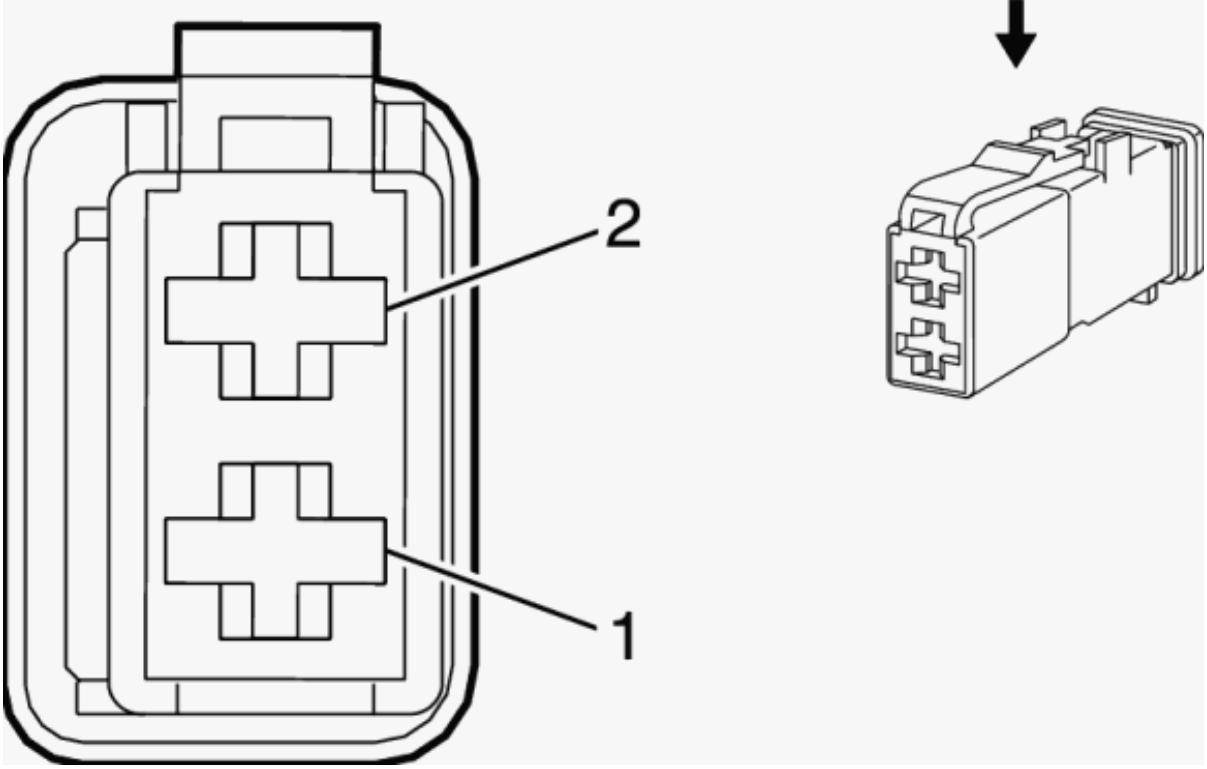
- Harness Type: Body
- OEM Connector: 1-2296694-1
- Service Connector: 19366858
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | -EPH |
| 2 | 0.35 | VT/WH | 5065 | Stop Lamp Relay Coil Control | I | - |

## E7L LICENSE PLATE LAMP - LEFT (X88)




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 24466118
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Timer Series (GY)

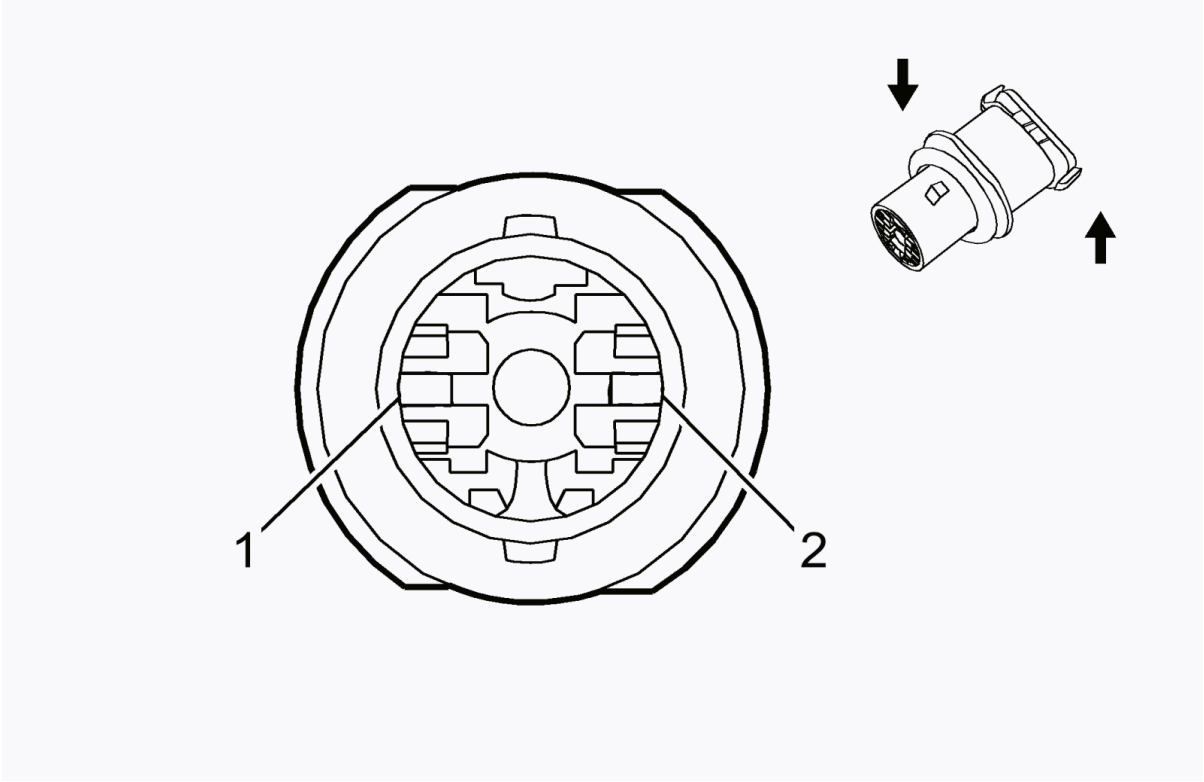
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | X88 |
| 2 | 0.35 | GN/YE | 6846 | Rear License Lamp Control | I | X88 |

## E7L LICENSE PLATE LAMP - LEFT (Z88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13698133
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F Lamp Socket Wedge Base, Sealed (BK)

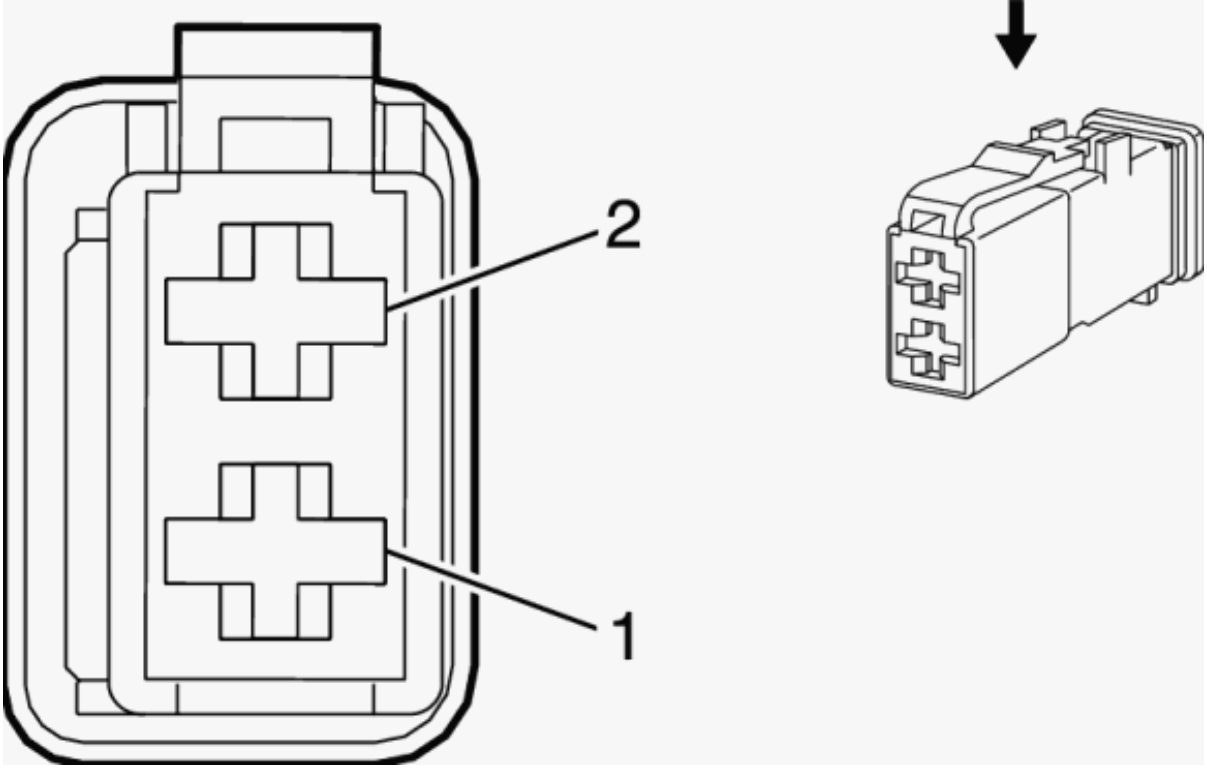
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | Z88 |
| 2 | 0.35 | GN/YE | 6846 | Rear License Lamp Control | I | Z88 |

## E7R LICENSE PLATE LAMP - RIGHT (X88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 24466118
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Timer Series (GY)

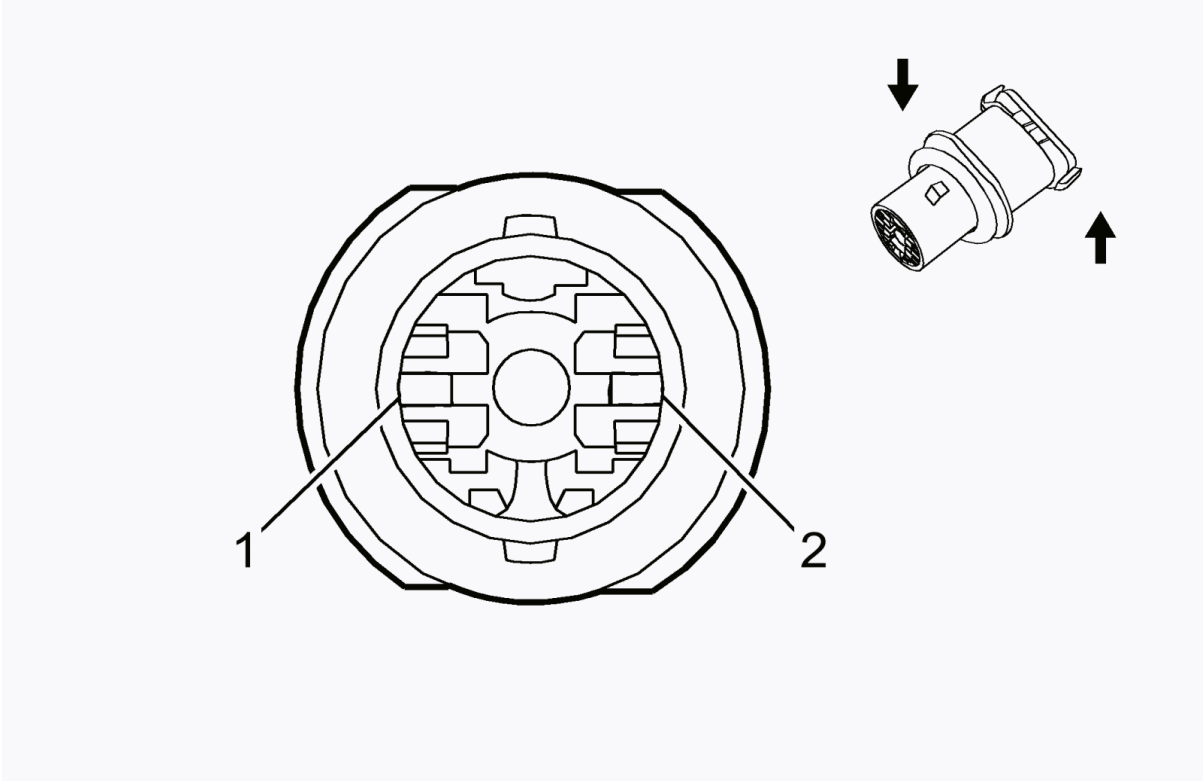
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | X88 |
| 2 | 0.35 | GN/YE | 6846 | Rear License Lamp Control | I | X88 |

## E7R LICENSE PLATE LAMP - RIGHT (Z88)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13698133
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F Lamp Socket Wedge Base, Sealed (BK)

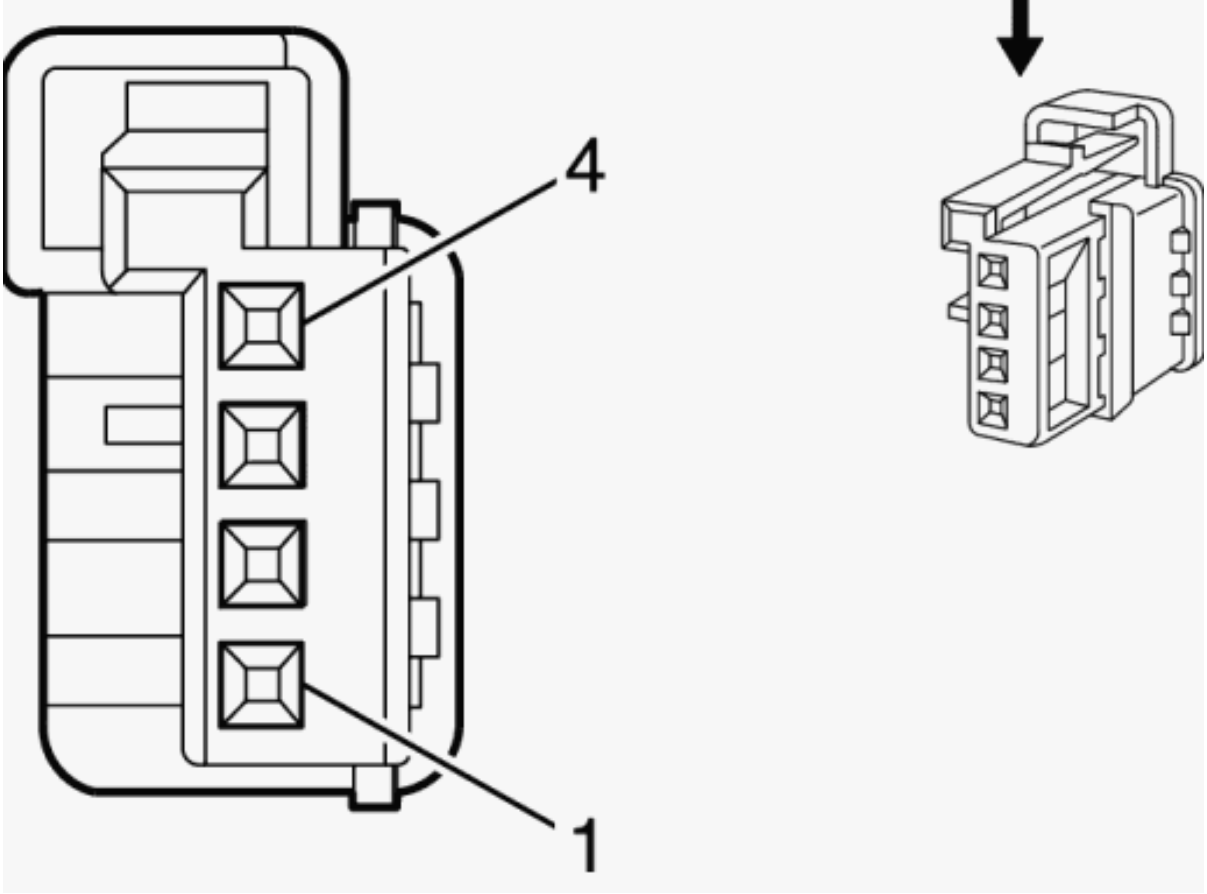
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | Z88 |
| 2 | 0.35 | GN/YE | 6846 | Rear License Lamp Control | I | Z88 |

## E8S REAR COMPARTMENT COURTESY LAMP

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13580945
- Service Connector: 19119349
- Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

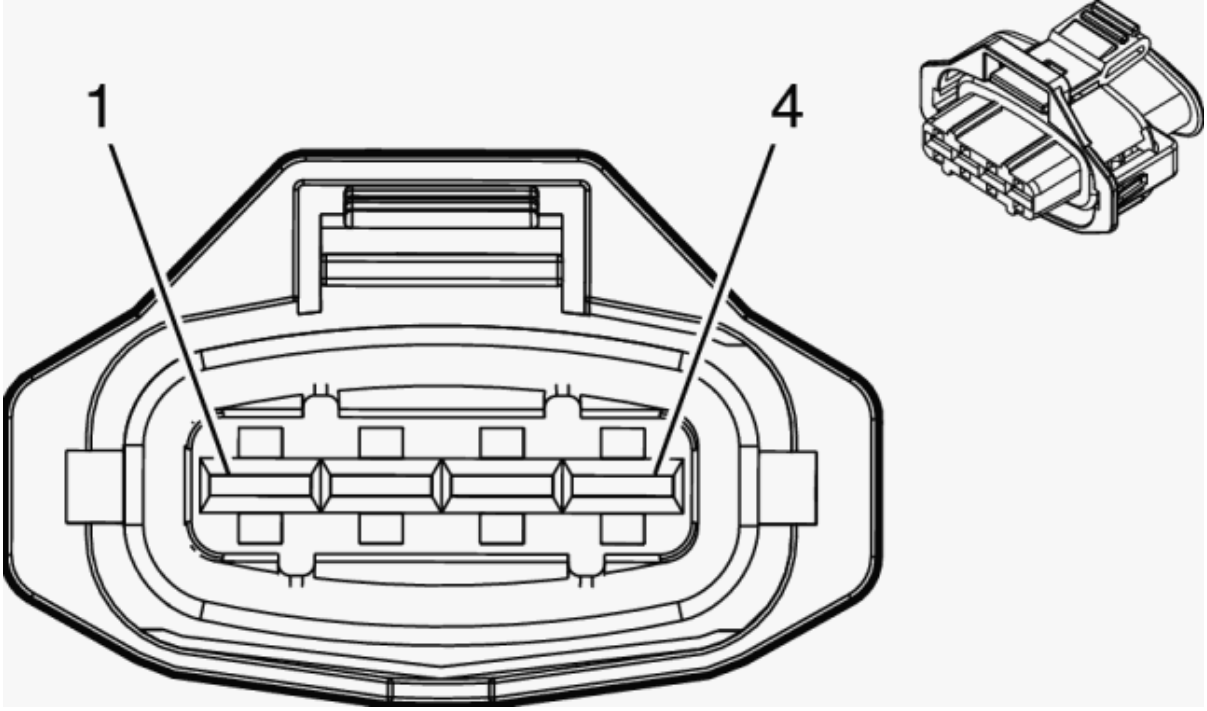
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 737 | Rear Compartment Lid Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BK | 2050 | Ground | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## E11 FUEL HEATER (LH7)




Connector Part Information

- Harness Type: Particulate Filter
- OEM Connector: 13203442
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 2.8 Timer Series, Sealed (BK)

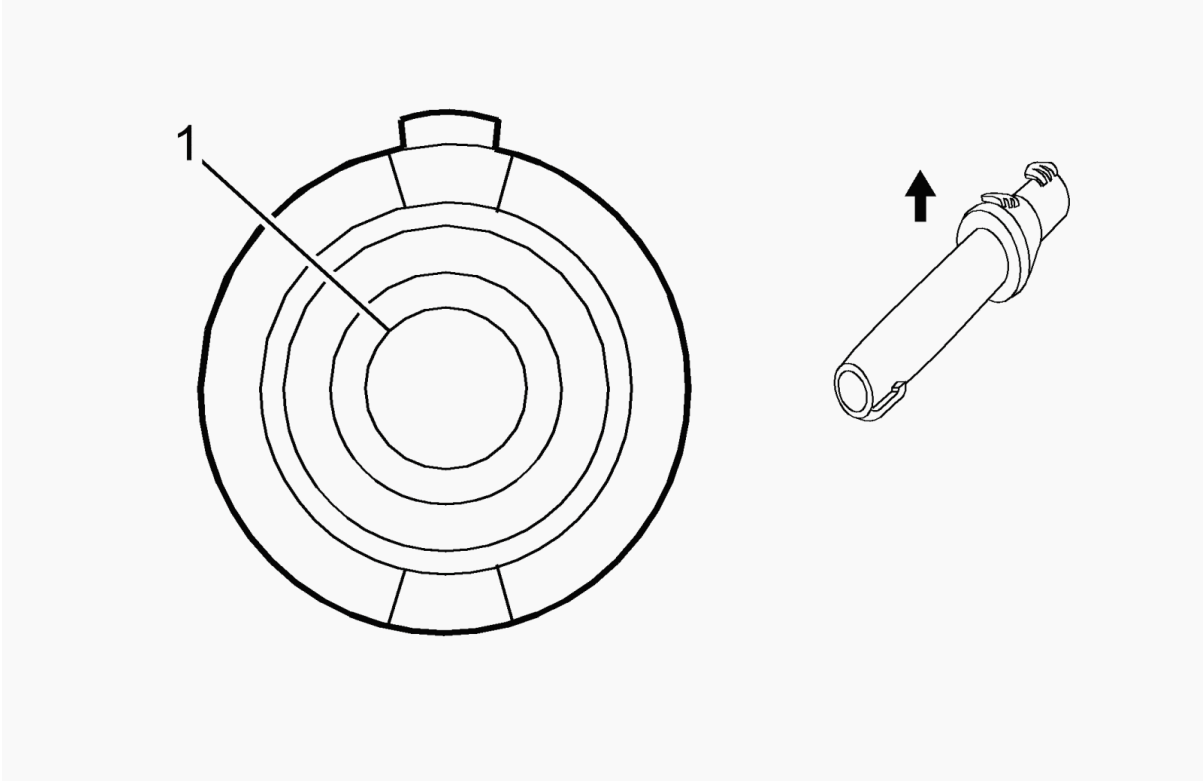
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/VT | 455 | Fuel Filter Temperature Signal | I | - |
| 2 | 2.5 | VT/GN | 355 | Fuel Filter Heater Voltage | I | - |
| 3 | 0.35 | BK/VT | 412 | Fuel Filter Temperature Sensor Low Reference | I | - |
| 4 | 2.5 | BK | 1950 | Ground | I | - |

## E12A GLOW PLUG 1 (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571433
- Service Connector: Service by Cable - See Part Catalog
- Description: 1-Way F 4.0 Series (BK)

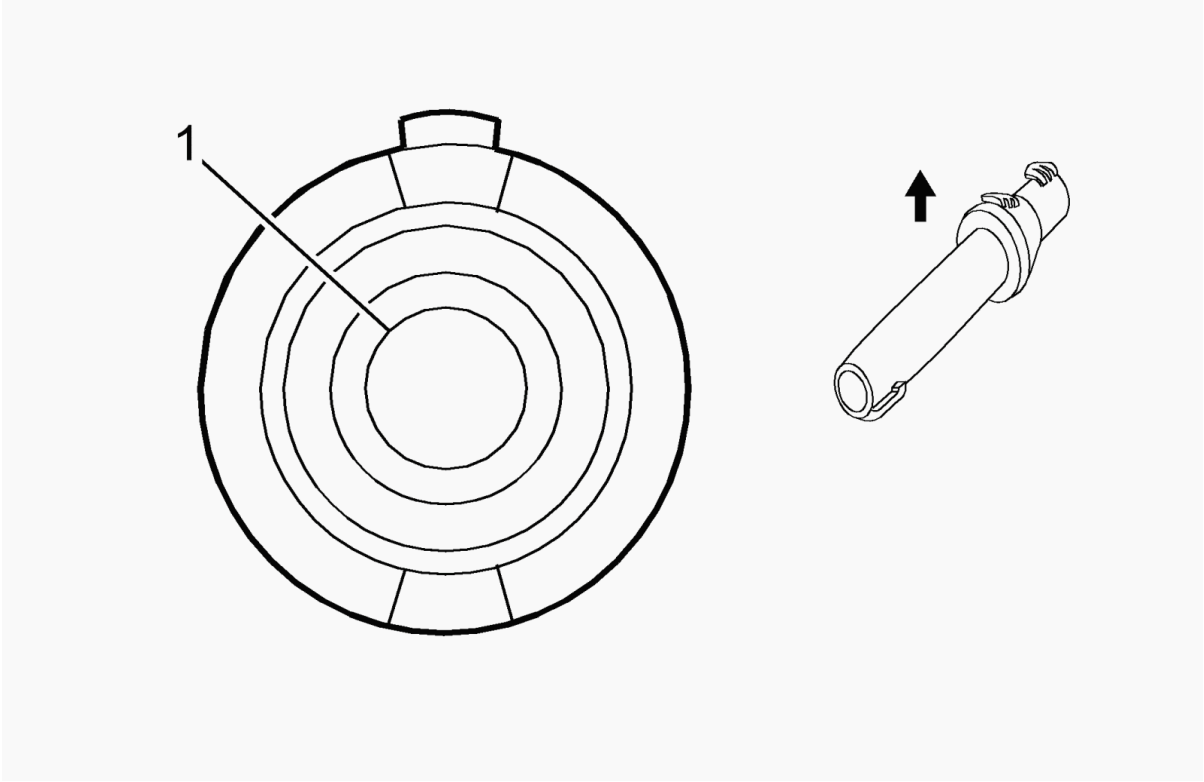
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY/BU | 1581 | Glow Plug Control 1 | I | LH7 |

## E12B GLOW PLUG 2 (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571433
- Service Connector: Service by Cable - See Part Catalog
- Description: 1-Way F 4.0 Series (BK)

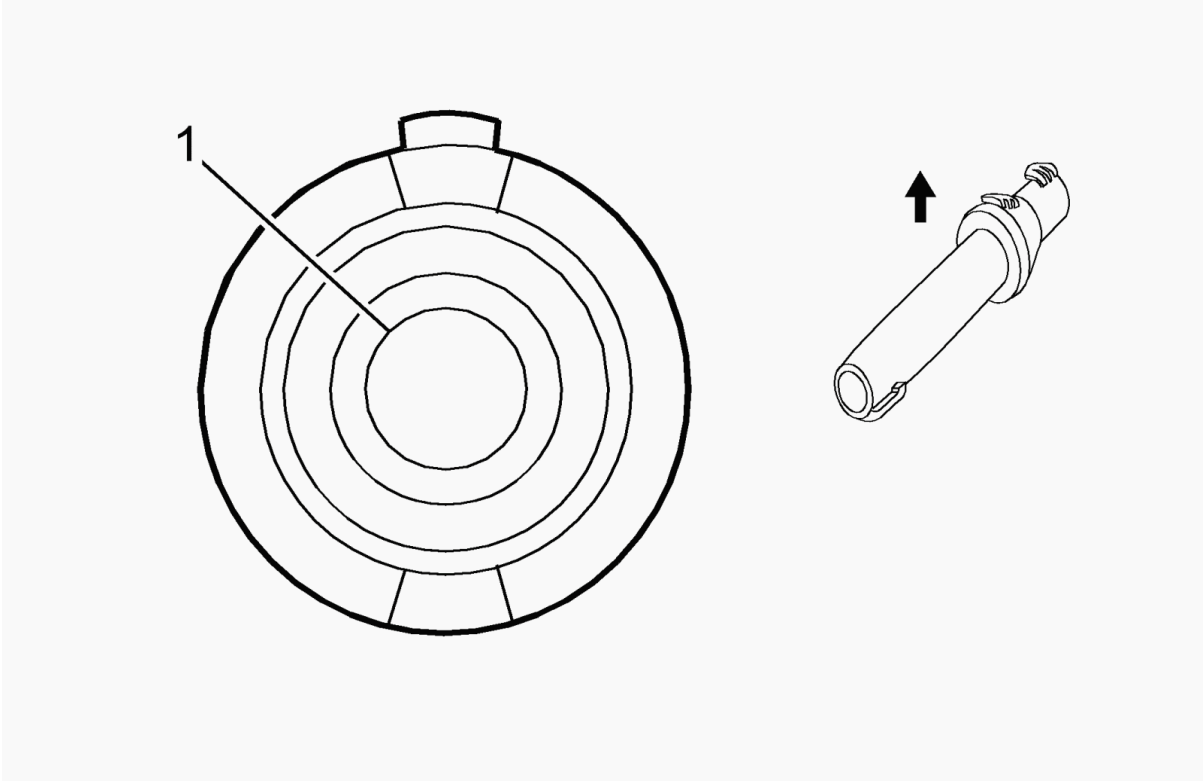
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY/BN | 1582 | Glow Plug Control 2 | I | LH7 |

## E12C GLOW PLUG 3 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571433
- Service Connector: Service by Cable - See Part Catalog
- Description: 1-Way F 4.0 Series (BK)

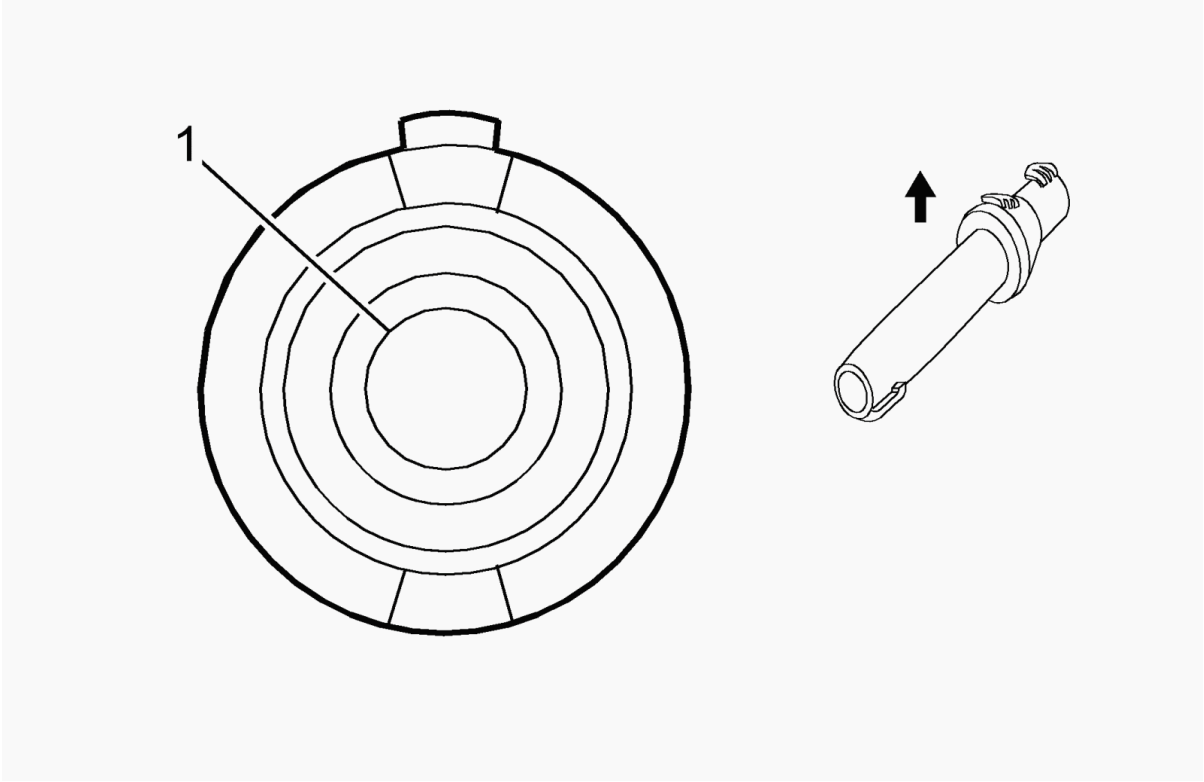
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY/GN | 1583 | Glow Plug Control 3 | I | LH7 |

## E12D GLOW PLUG 4 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571433
- Service Connector: Service by Cable - See Part Catalog
- Description: 1-Way F 4.0 Series (BK)

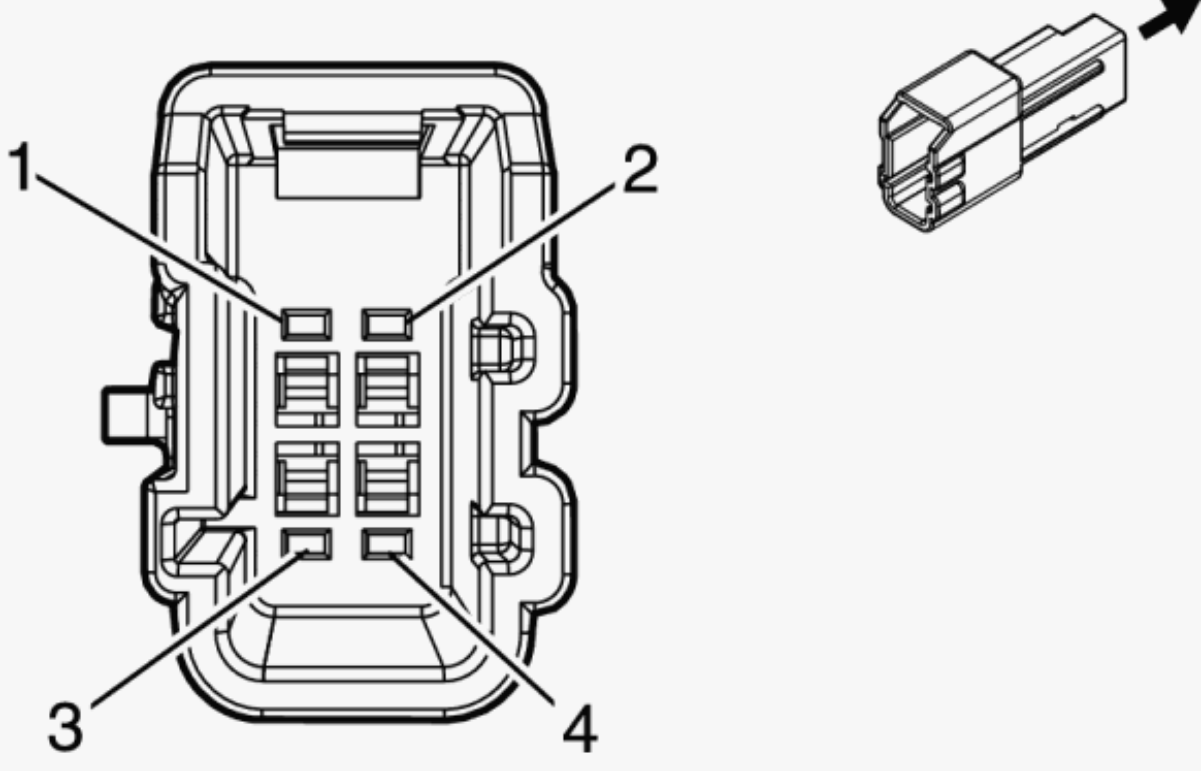
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GY/YE | 1584 | Glow Plug Control 4 | I | LH7 |

## E14A SEAT HEATING ELEMENT - DRIVER BACK (KA1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

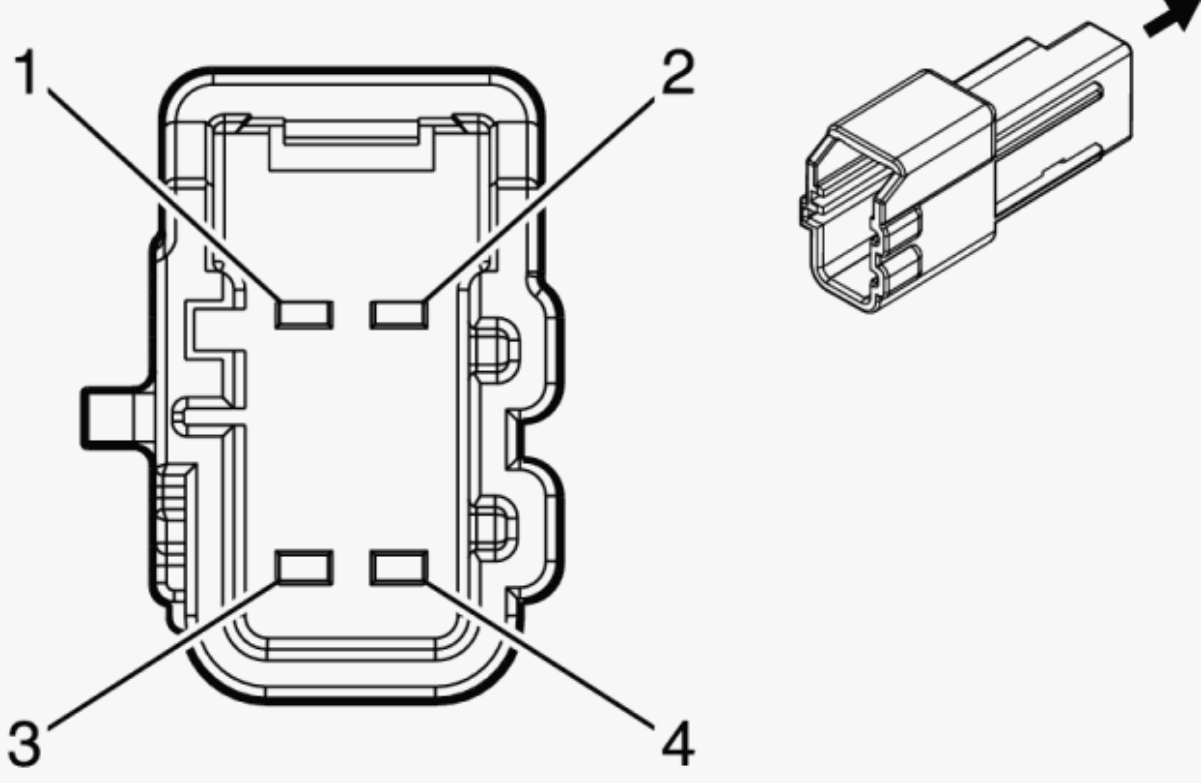
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75<br>0.75 | BN<br>BN/VT | 2432<br>2077 | Driver Heated Back Element Control<br>Driver Heated Seat Element Control | I<br>I | EPH+KA1-KU1-KU3<br>KA1/KU1/KU3-EPH |
| 2 | 0.35 | BU | 2425 | Driver Heated Back NTC Signal | I | - |
| 3 | 0.35<br>0.35 | BK/VT<br>BK/YE | 2426<br>2080 | Driver Heated Back NTC Low Reference<br>Driver Heated Seat NTC Low Reference | I<br>I | EPH+KA1-KU1-KU3<br>KA1/KU1/KU3-EPH |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | - |

## E14B SEAT HEATING ELEMENT - DRIVER CUSHION (KA1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 6098-7779
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (BK)

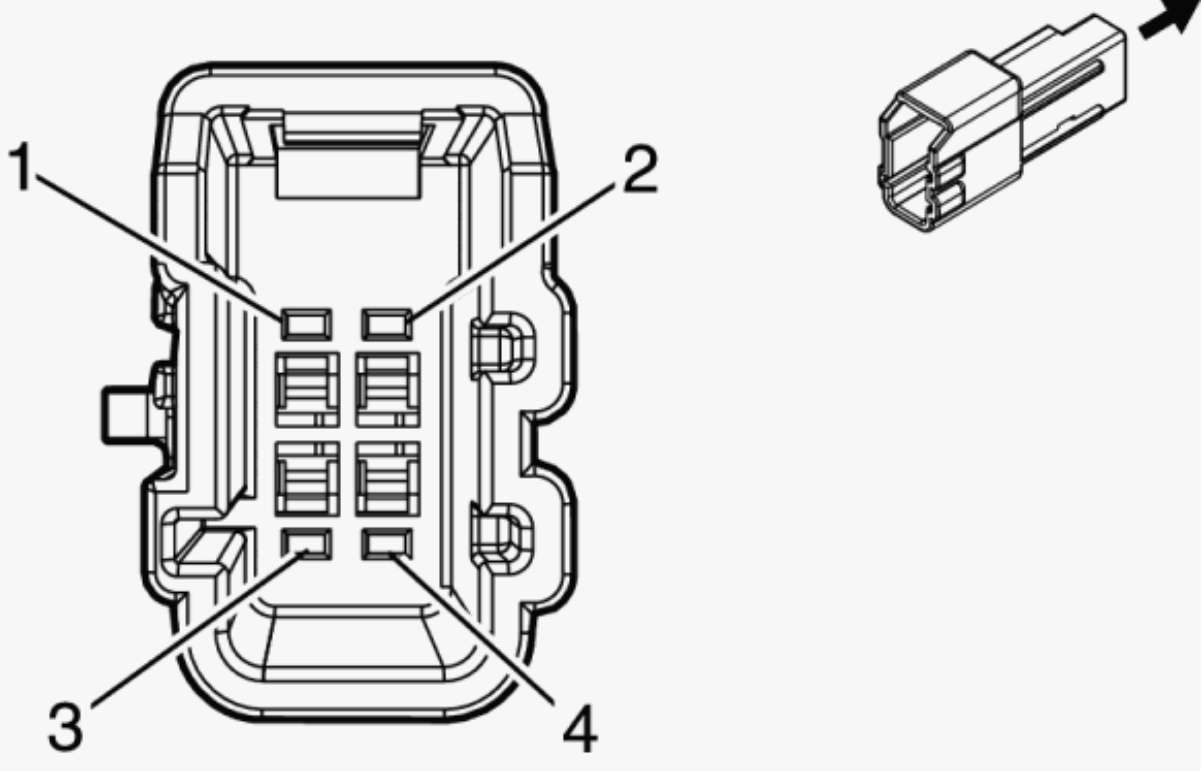
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/VT | 2077 | Driver Heated Seat Element Control | I | - |
| 2 | 0.35 | YE/GY | 2079 | Driver Heated Seat NTC Signal | I | - |
| 3 | 0.35 | BK/YE | 2080 | Driver Heated Seat NTC Low Reference | I | - |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | - |

## E14C SEAT HEATING ELEMENT - PASSENGER BACK (KA1)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

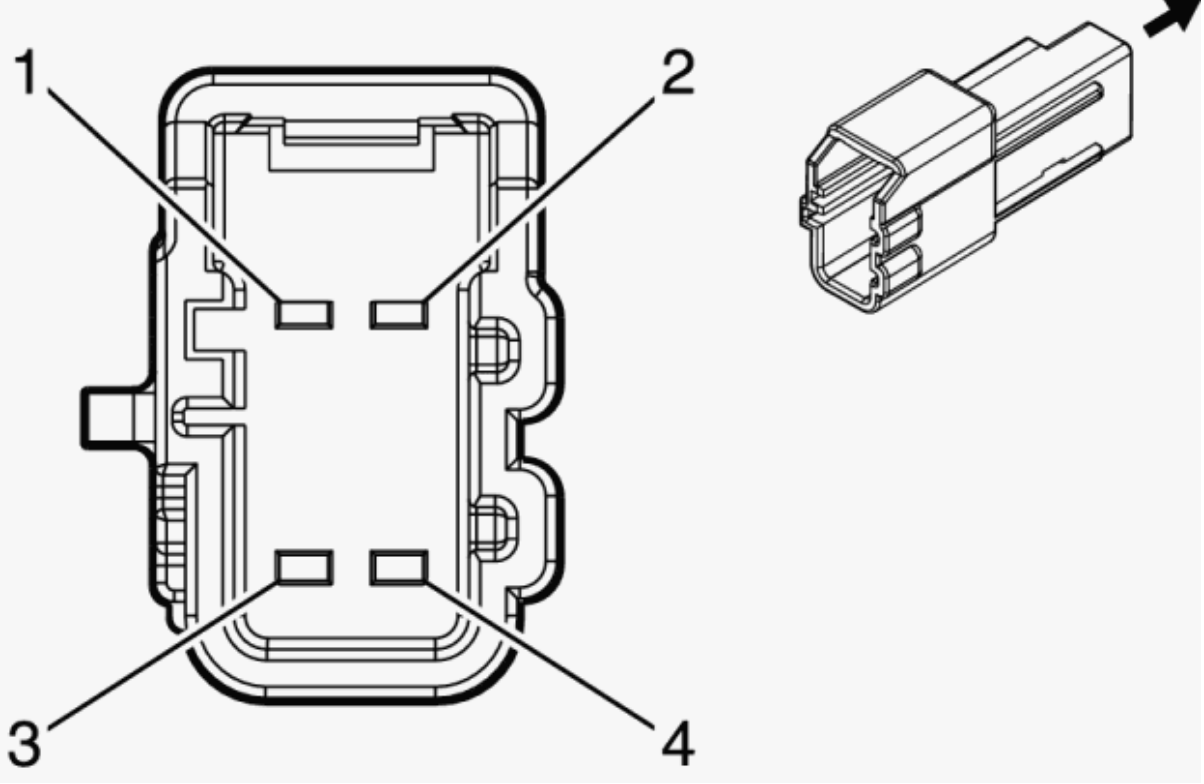
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75<br>0.75 | WH/BN<br>BN/BU | 2481<br>2479 | Passenger Heated Back Element Control<br>Passenger Heated Seat Element Control | I<br>I | EPH-KA1-KU1-KU3<br>KA1/KU1/KU3 |
| 2 | 0.75 | WH/BU | 2436 | Passenger Heated Back NTC Signal | I | - |
| 3 | 0.75 | BK/GN | 2482 | Passenger Heated Back NTC Low Reference | I | - |
| 4 | 0.75 | GY/BK | 2480 | Passenger Heated Seat Element Low Reference | I | - |

## E14D SEAT HEATING ELEMENT - PASSENGER CUSHION (KA1)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 6098-7779
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (BK)

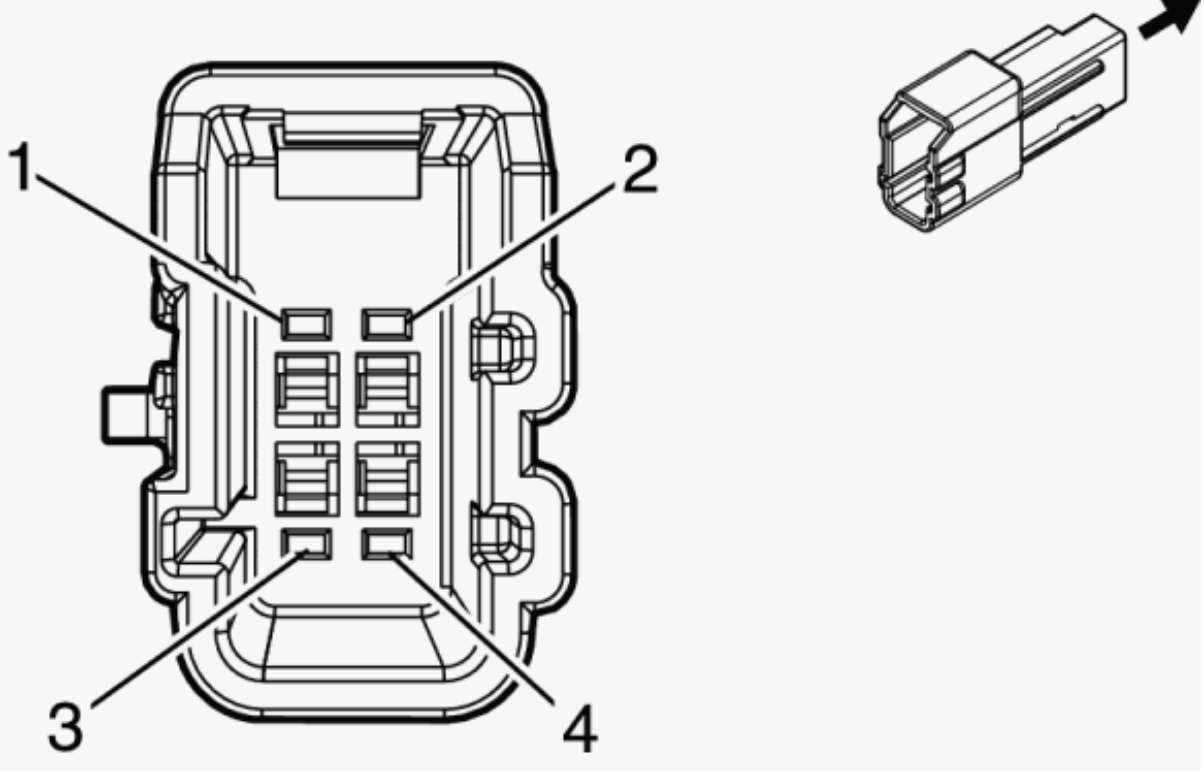
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/BU | 2479 | Passenger Heated Seat Element Control | I | - |
| 2 | 0.35 | WH/GY | 2434 | Passenger Heated Seat NTC Signal | I | - |
| 3 | 0.35 | BK/GY | 2435 | Passenger Heated Seat NTC Low Reference | I | - |
| 4 | 0.75 | GY/BK | 2480 | Passenger Heated Seat Element Low Reference | I | - |

## E14E SEAT HEATING ELEMENT - LEFT REAR BACK (KA6)

cardiagn.com




Connector Part Information

- Harness Type: Left Rear Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

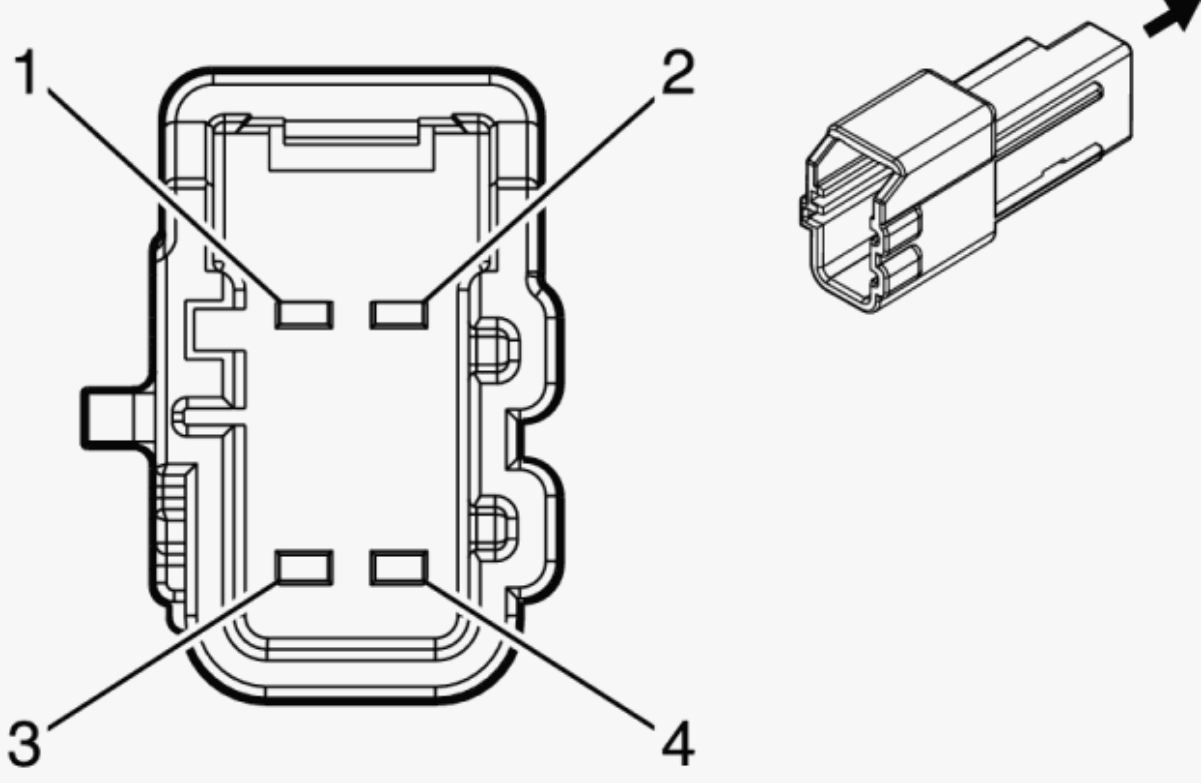
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD | 2445 | Left Rear Heated Seat Element Control | I | - |
| 2 | 0.5 | BK/RD | 7045 | Left Rear Seat Back NTC Signal | I | - |
| 3 | 0.5 | BK/BN | 7046 | Left Rear Seat Back NTC Low Reference | I | - |
| 4 | 0.75 | BK | 2295 | Left Rear Heated Seat Cushion Element Low Reference | I | - |

## E14F SEAT HEATING ELEMENT - LEFT REAR CUSHION (KA6)

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Connector Part Information

- Harness Type: Left Rear Seat
- OEM Connector: 6098-7779
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (BK)

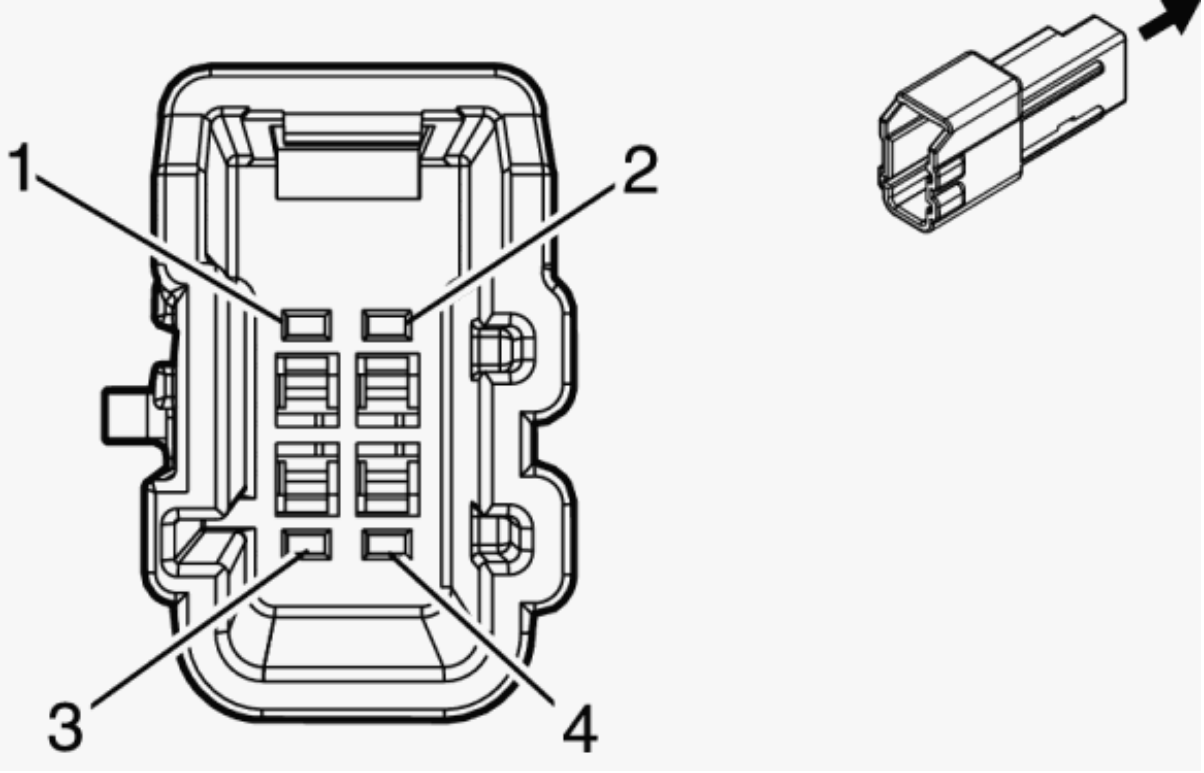
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY | 2294 | Left Rear Heated Seat Cushion Element Control | I | - |
| 2 | 0.5 | RD/YE | 7047 | Left Rear Cushion NTC Signal | I | - |
| 3 | 0.5 | BU/WH | 7048 | Left Rear Cushion NTC Low Reference | I | - |
| 4 | 0.75 | BK | 2295 | Left Rear Heated Seat Cushion Element Low Reference | I | - |

## E14G SEAT HEATING ELEMENT - RIGHT REAR BACK (KA6)

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Connector Part Information

- Harness Type: Right Rear Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

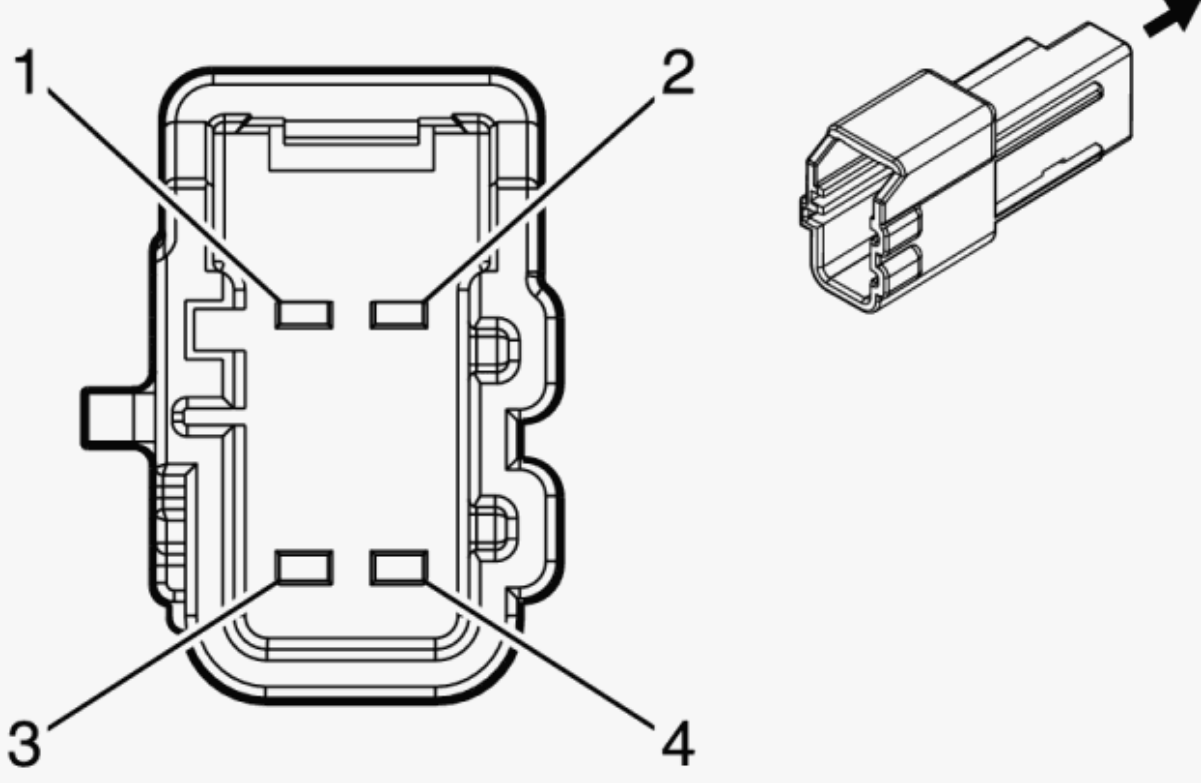
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/VT | 2455 | Right Rear Heated Seat Element Control | I | - |
| 2 | 0.5 | YE | 7049 | Right Rear Seat Back NTC Signal | I | - |
| 3 | 0.5 | YE/BK | 7052 | Right Rear Seat Back NTC Low Reference | I | - |
| 4 | 0.75 | VT/BK | 2297 | Right Rear Heated Seat Cushion Element Low Reference | I | - |

## E14H SEAT HEATING ELEMENT - RIGHT REAR CUSHION (KA6)

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Connector Part Information

- Harness Type: Right Rear Seat
- OEM Connector: 6098-7779
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (BK)

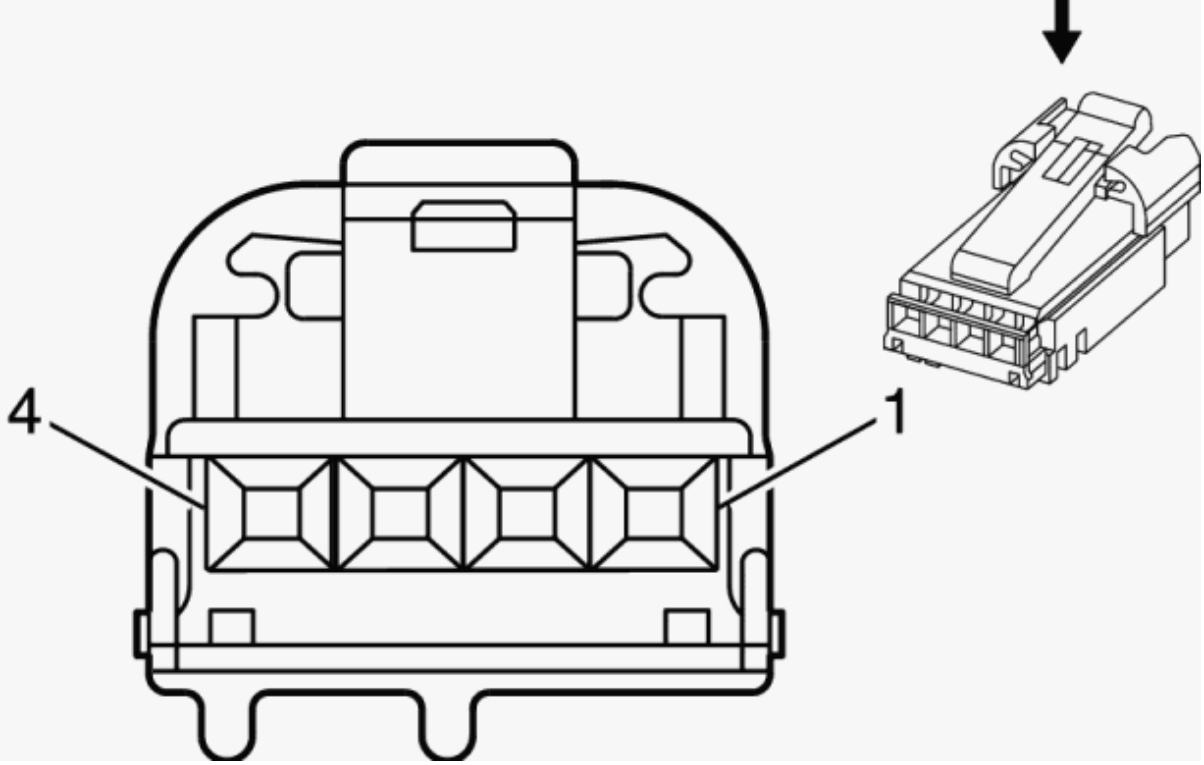
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN/BN | 2296 | Right Rear Heated Seat Cushion Element Control | I | - |
| 2 | 0.5 | YE/WH | 7053 | Right Rear Cushion NTC Signal | I | - |
| 3 | 0.5 | WH/BK | 7054 | Right Rear Cushion NTC Low Reference | I | - |
| 4 | 0.75 | VT/BK | 2297 | Right Rear Heated Seat Cushion Element Low Reference | I | - |

## E15 STEERING WHEEL HEATER (UVD)

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Connector Part Information

- Harness Type: Steering Wheel Heating Control Module
- OEM Connector: 15422579
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 H-DAC Series (BK)

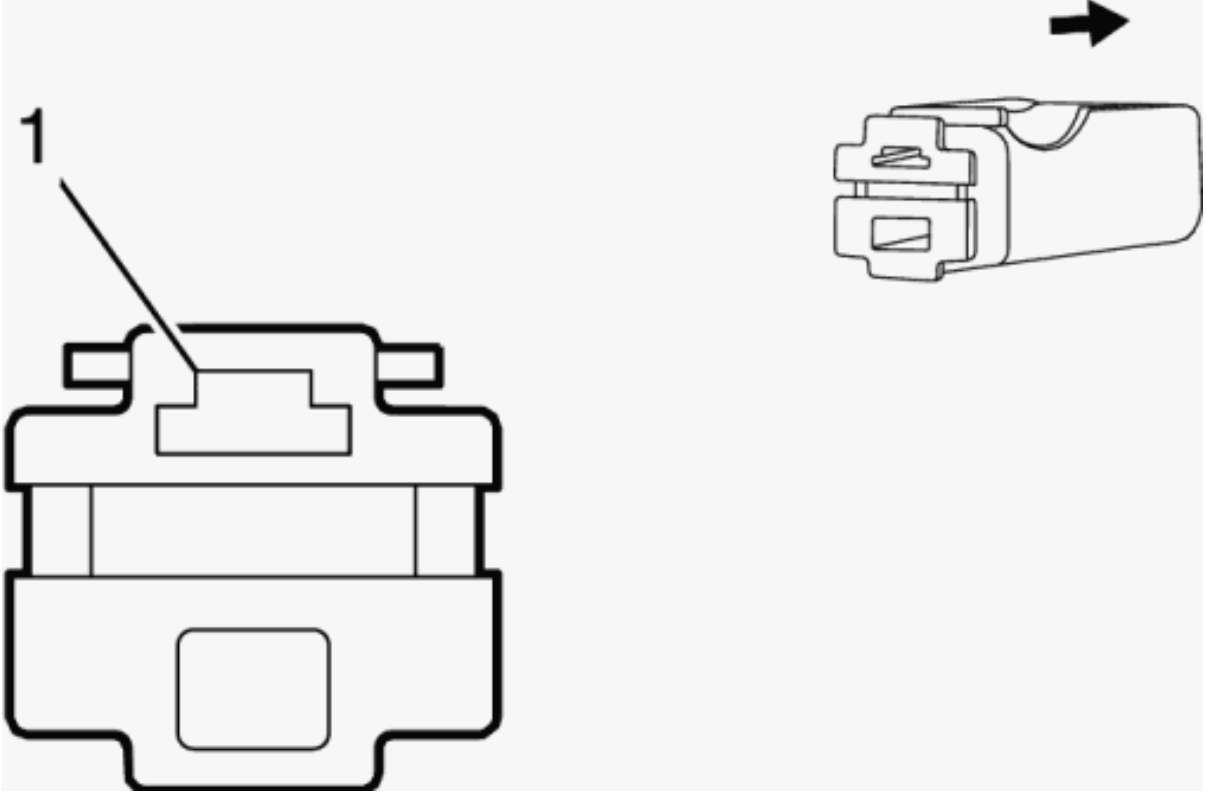
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/ | 5885 | Heated Steering Wheel Voltage Reference | I | - |
| 2 | 0.35 | GY | 5886 | Heated Steering Wheel Sensor Signal | I | - |
| 3 | 0.5 | WH/ | 5888 | Heated Steering Wheel High Control | I | - |
| 4 | 0.5 | BK | 1650 | Ground | I | - |

## E18 REAR DEFOGGER GRID X1

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13585268
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 250 Series (BK)

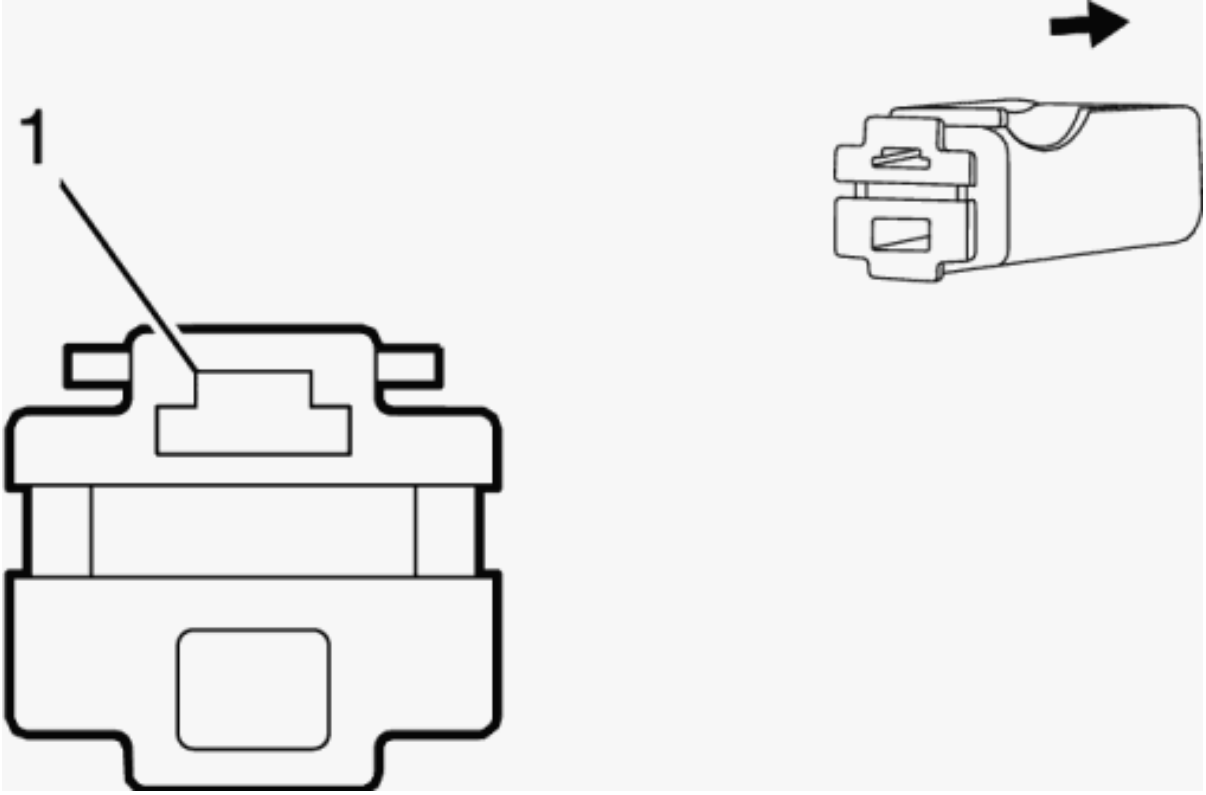
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2 | BN/VT | 293 | Rear Defog Element Control | I | - |

## E18 REAR DEFOGGER GRID X2

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13585268
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 250 Series (BK)

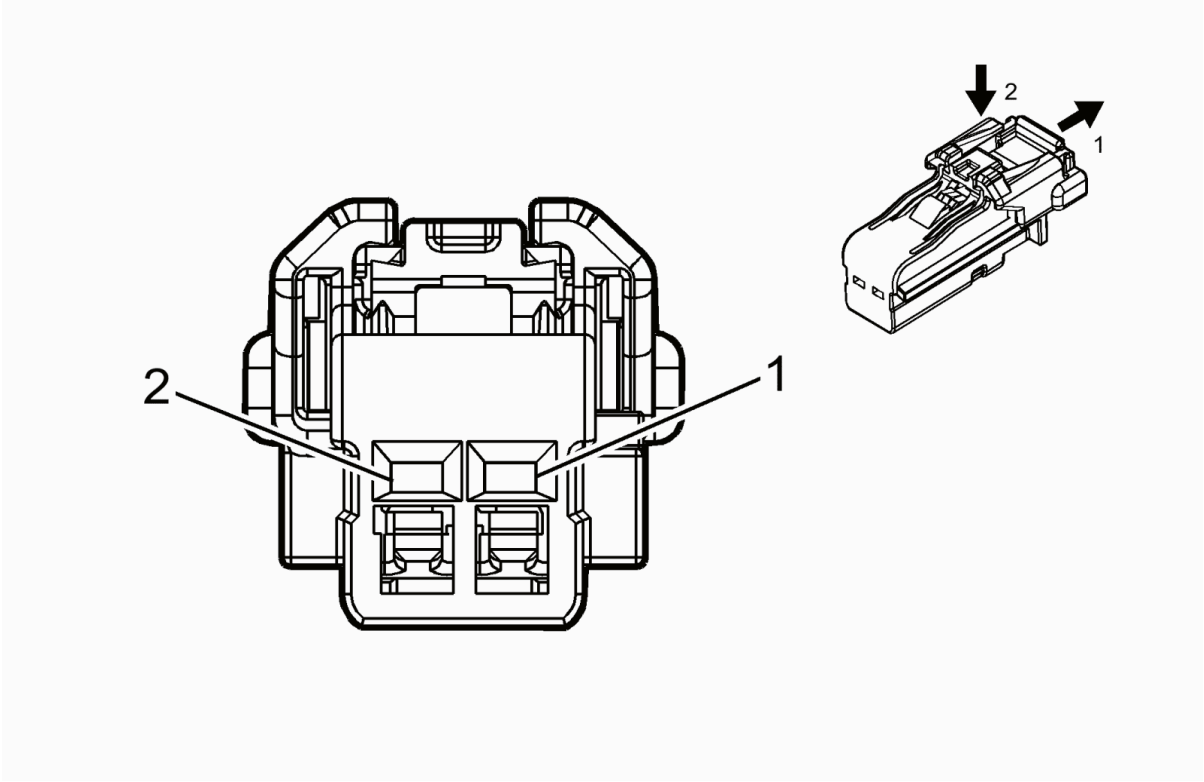
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2 | BK | 2550 | Ground | I | - |

## E28 CENTER CONSOLE COMPARTMENT LAMP

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13517403
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

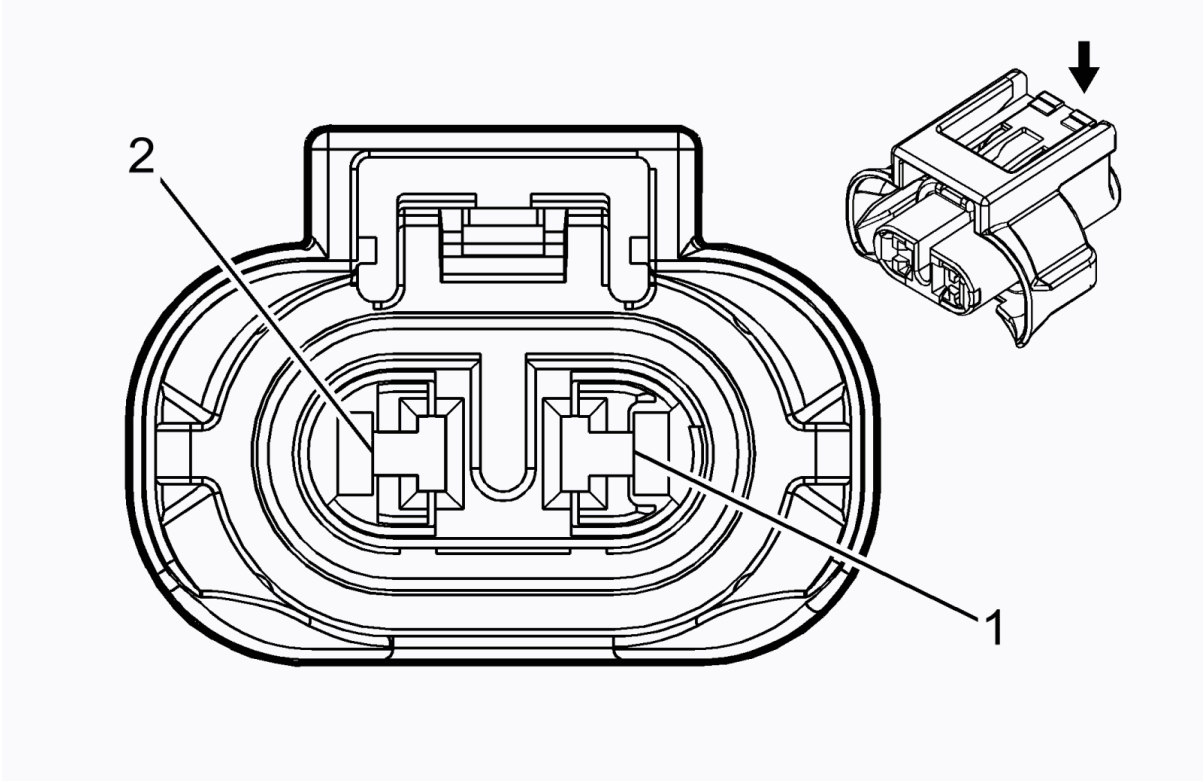
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | - |
| 2 | 0.5<br>0.35 | WH/BN<br>WH/YE | 6815<br>7557 | Inadvertent Power Control<br>LED Ambient Lighting Control 1 | I<br>I | X88<br>Z88 |

## E29LF FOG LAMP - LEFT FRONT (T3U)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: F094300
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed (BK)

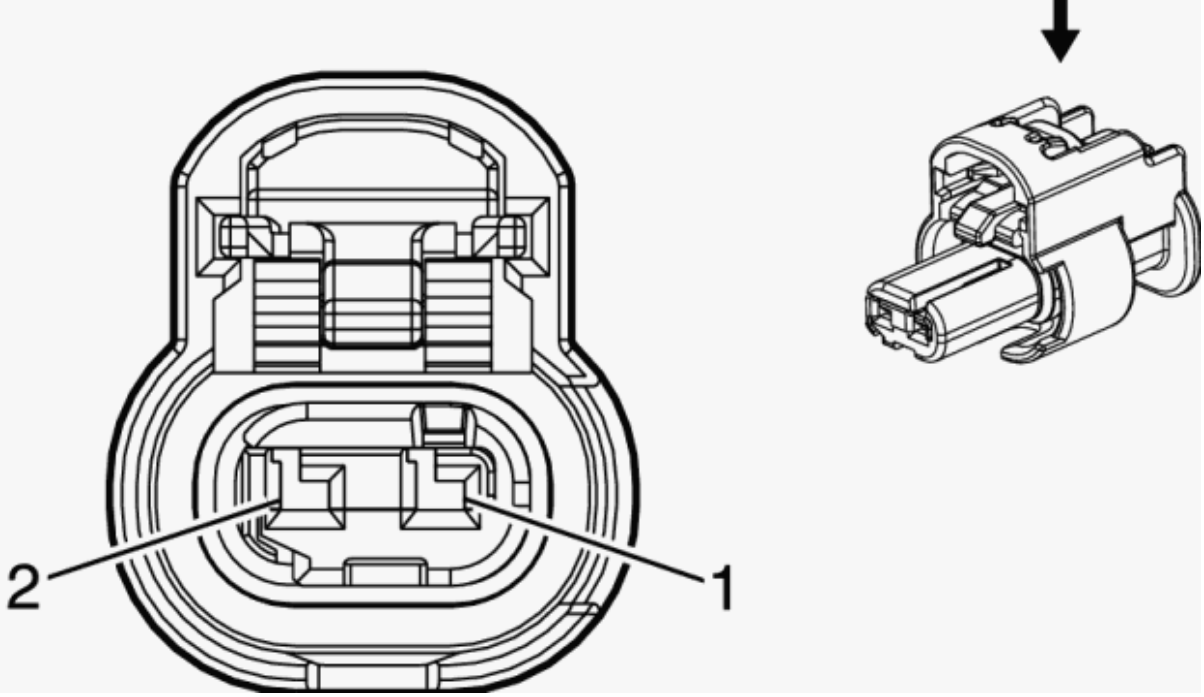
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | Front Fog Lamp Control | I | - |
| 2 | 1.5 | BK | 1550 | Ground | I | - |

## E29R FOG LAMP - REAR (T79)

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Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13591334
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)

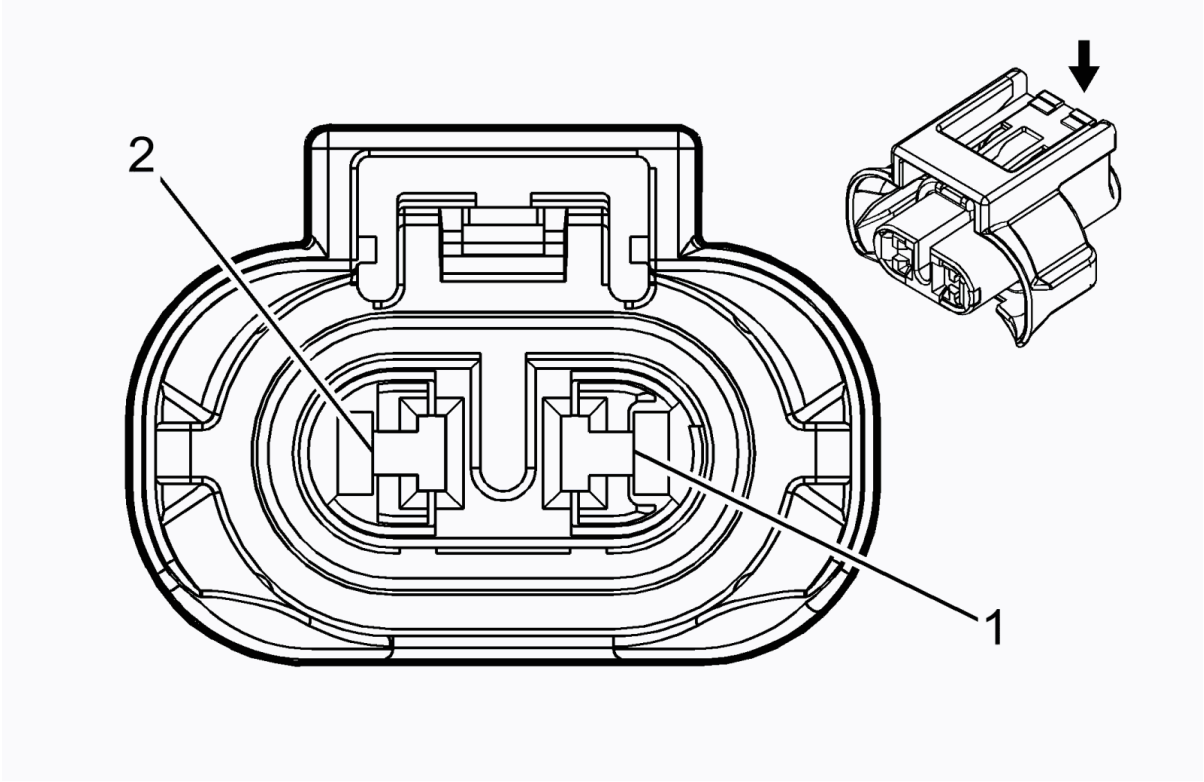
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.75 | BK<br>BK | 2550<br>2550 | Ground<br>Ground | I<br>I | TC2<br>-TC2 |
| 2 | 0.5 | YE/GY | 122 | Rear Fog Lamp Control | I | - |

## E29RF FOG LAMP - RIGHT FRONT (T3U)

cardiagn.com




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: F094300
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed (BK)

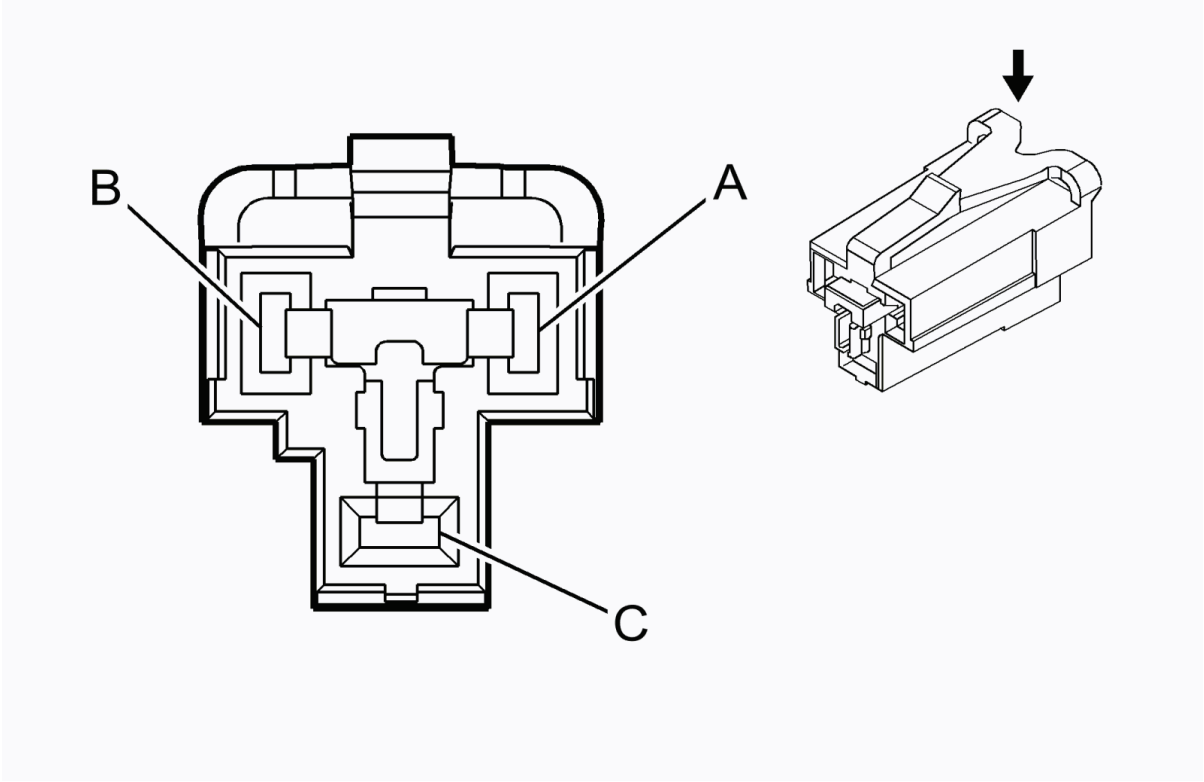
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/VT | 2234 | Front Fog Lamp Control | I | - |
| 2 | 1.5 | BK | 2050 | Ground | I | - |

## E32 CIGARETTE LIGHTER RECEPTACLE (SAO/U37)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13589102
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 2.8 APEX Series (BK)

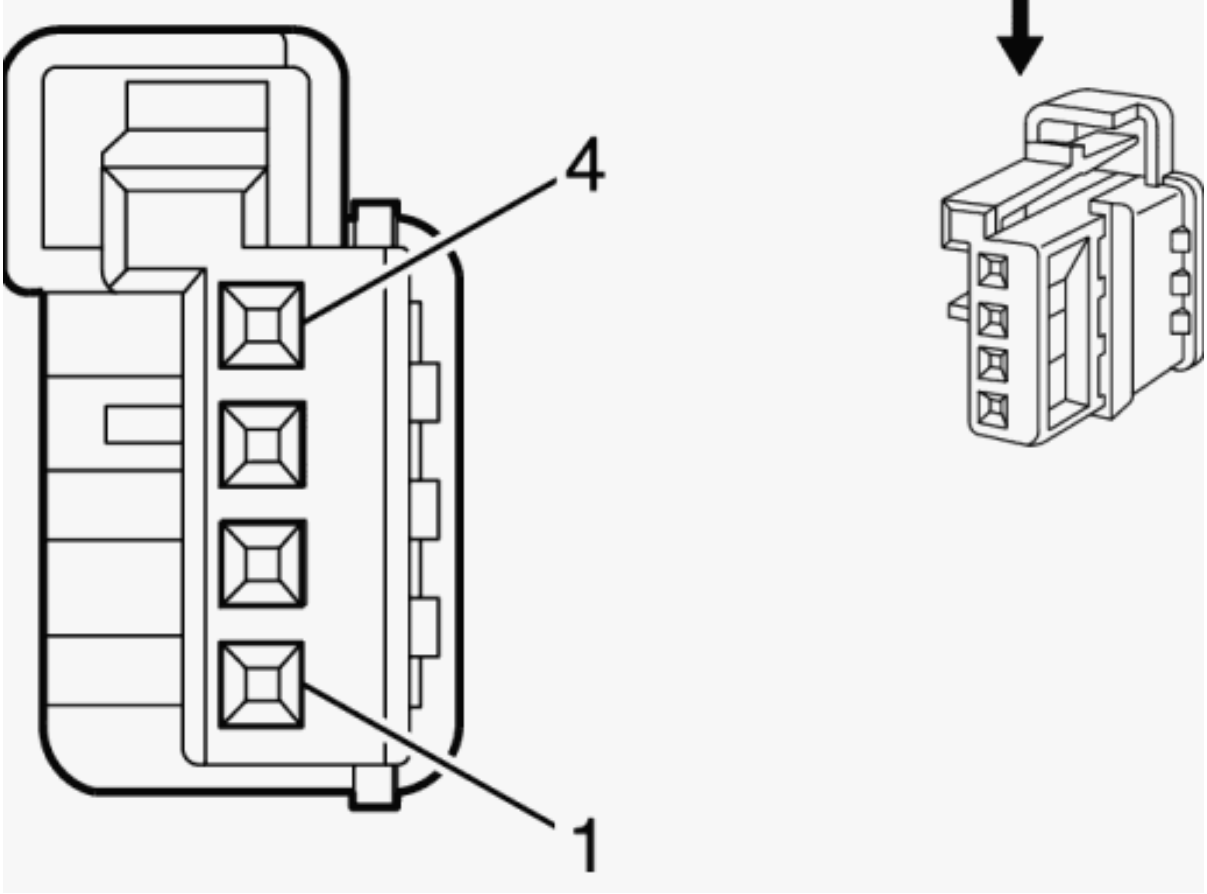
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT | 1301 | Retained Accessory Power Fuse Control | I | KC5 |
| B | - | - | - | Not Occupied | - | - |
| C | 1.5 | BK | 2250 | Ground | I | KC5 |

## E37LR DOME/READING LAMPS - LEFT REAR

cardiagn.com




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13580945
- Service Connector: 19119349
- Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

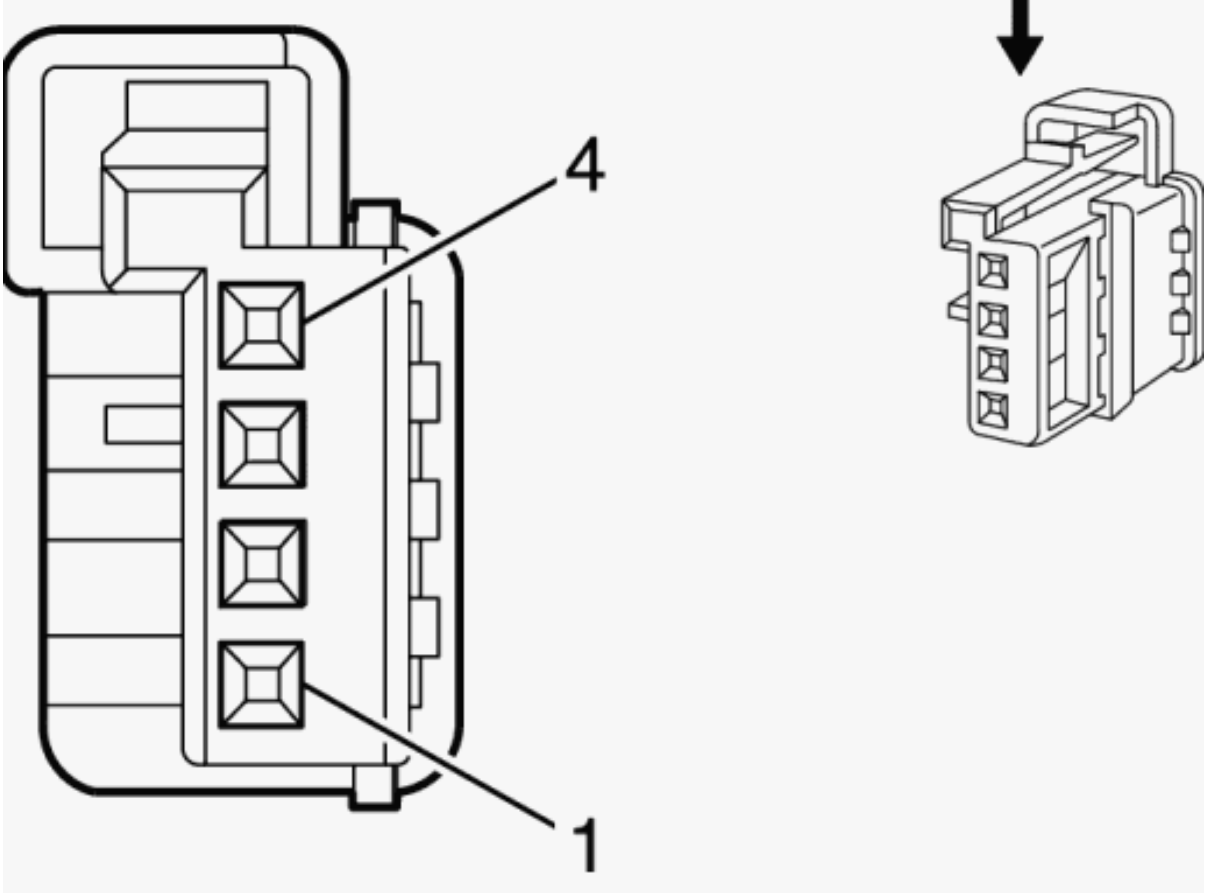
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/BN | 6815 | Inadvertent Power Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 2050 | Ground | I | - |
| 4 | 0.5 | GY | 157 | Interior Lamp Control | I | - |

## E37RR DOME/READING LAMPS - RIGHT REAR




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13580945
- Service Connector: 19119349
- Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

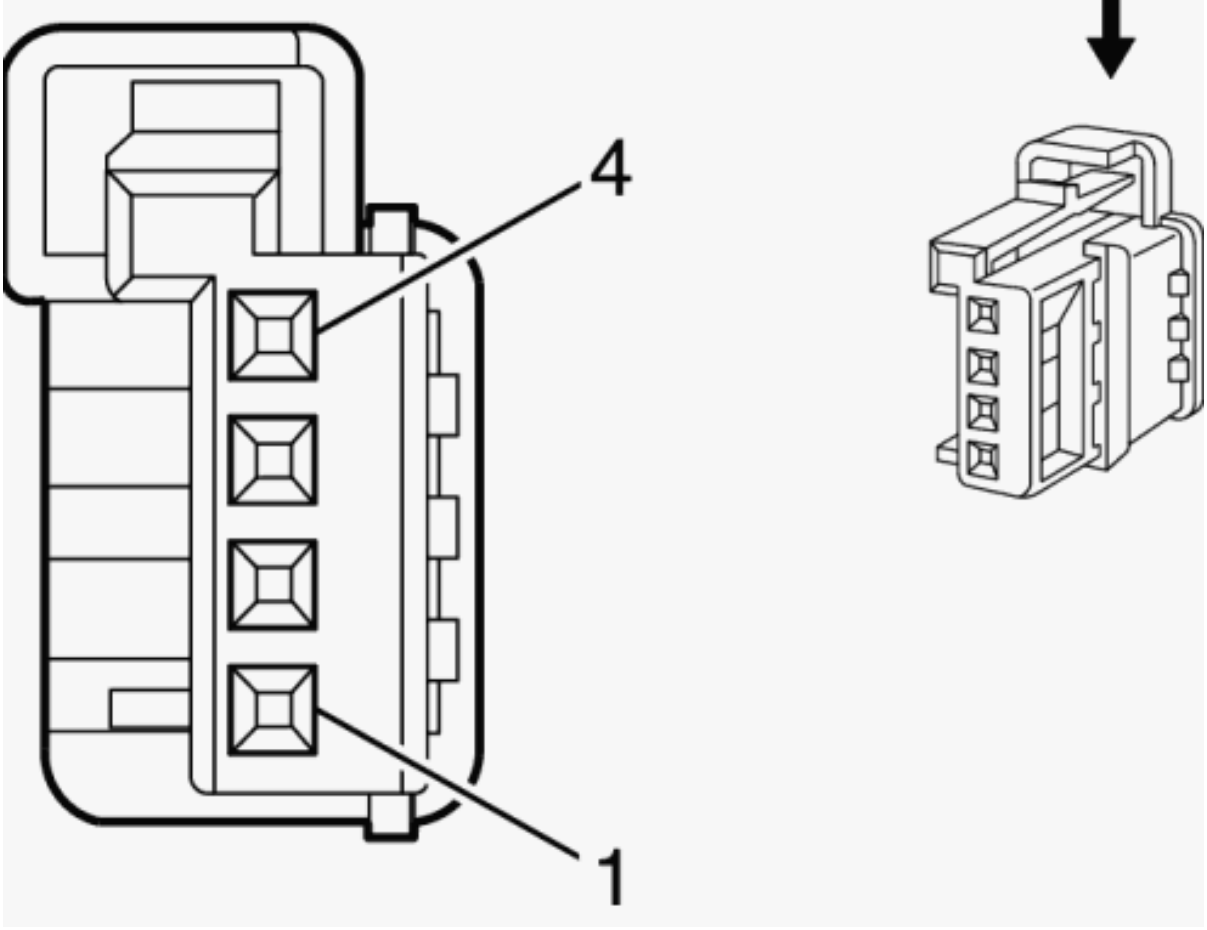
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/BN | 6815 | Inadvertent Power Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 2050 | Ground | I | - |
| 4 | 0.5 | GY | 157 | Interior Lamp Control | I | - |

## E40 ELECTRICAL AUXILIARY HEATER X1 (C32)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13216377
- Service Connector: 13584096
- Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

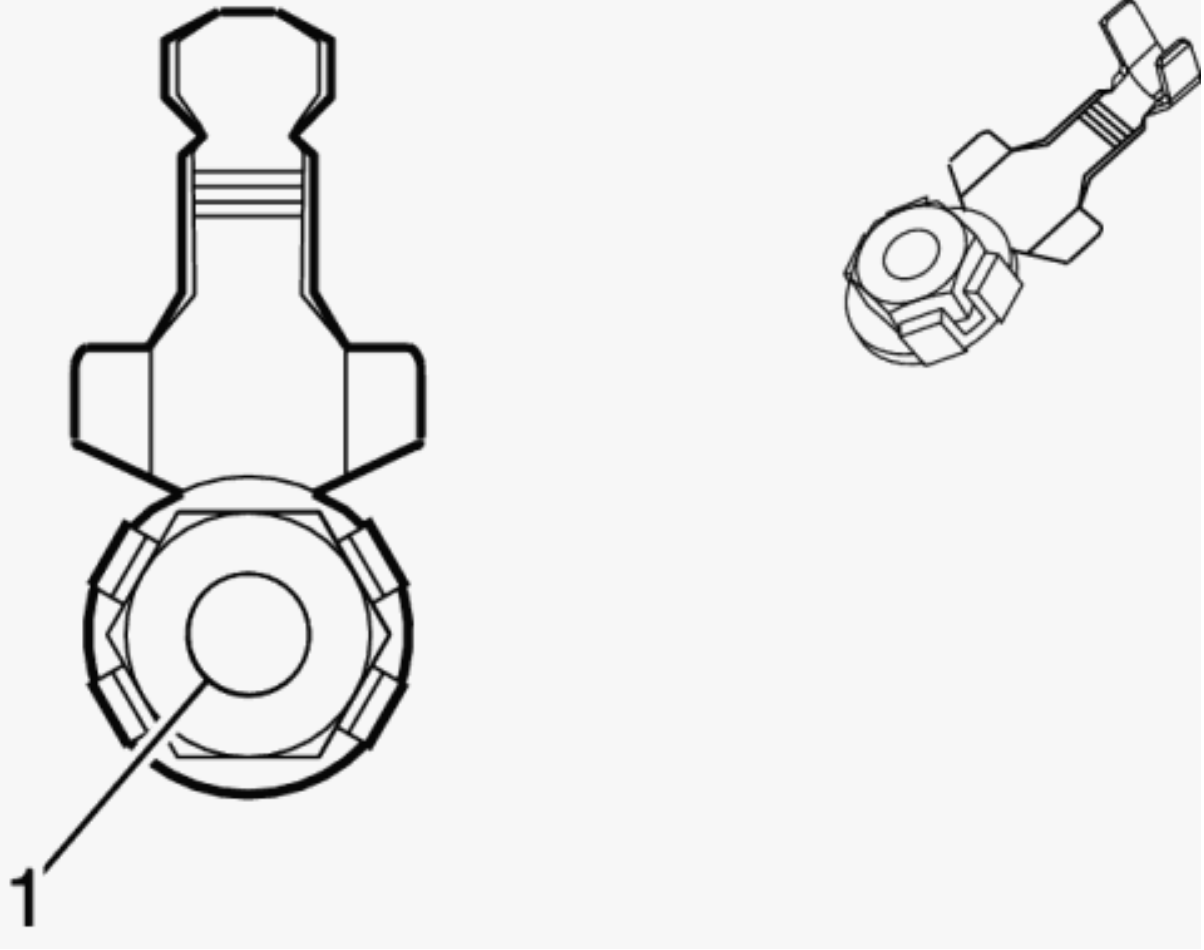
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 3195 | Auxiliary Heater Control | I | C32 |
| 2 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | C32 |
| 3 - 4 | - | - | - | Not Occupied | - | - |

## E40 ELECTRICAL AUXILIARY HEATER X2 (C32)

cardiagn.com




Connector Part Information

- Harness Type: Auxiliary Heater
- OEM Connector: 15337277
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

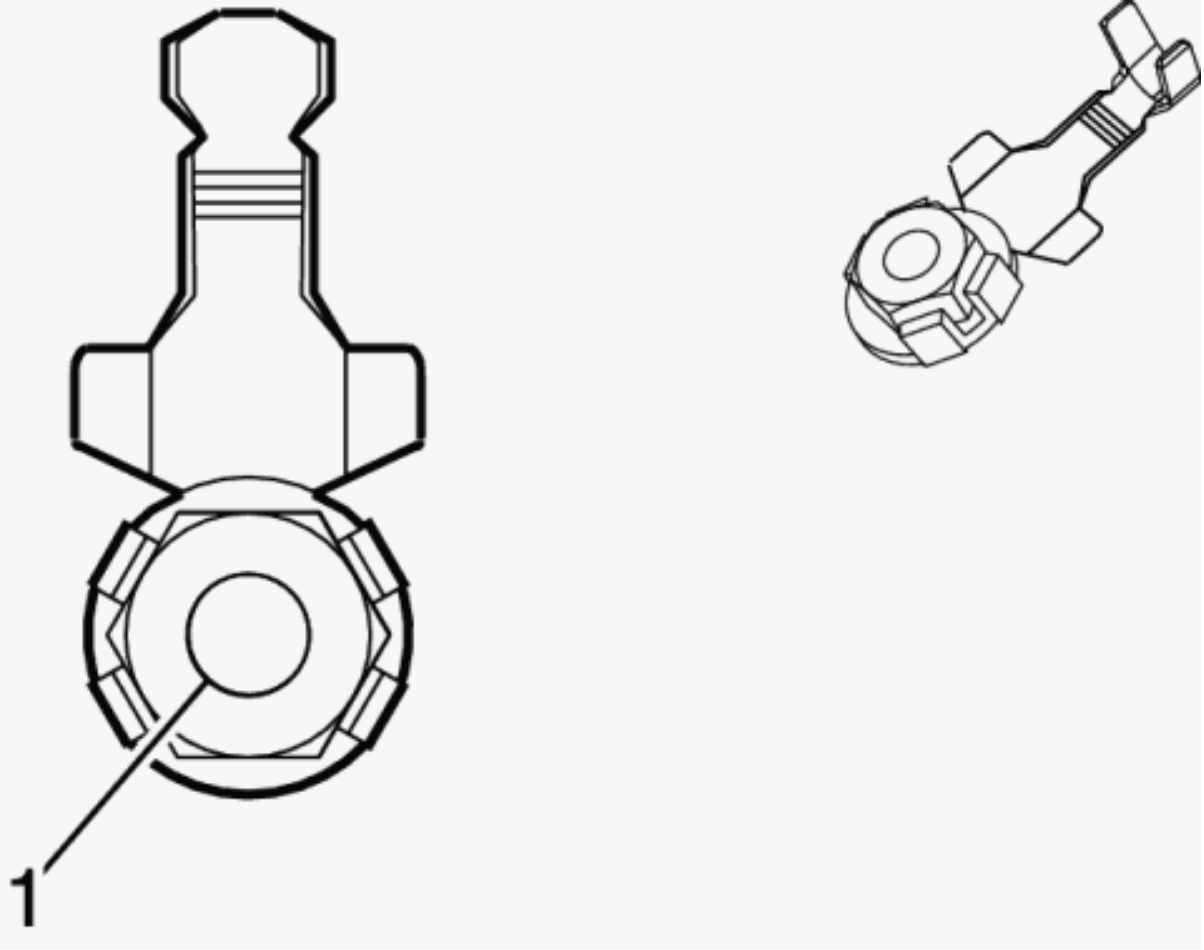
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | RD | 1 | Unfused Battery Positive Voltage | I | C32 |

## E40 ELECTRICAL AUXILIARY HEATER X3 (C32)

cardiagn.com




Connector Part Information

- Harness Type: Auxiliary Heater
- OEM Connector: 15337277
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

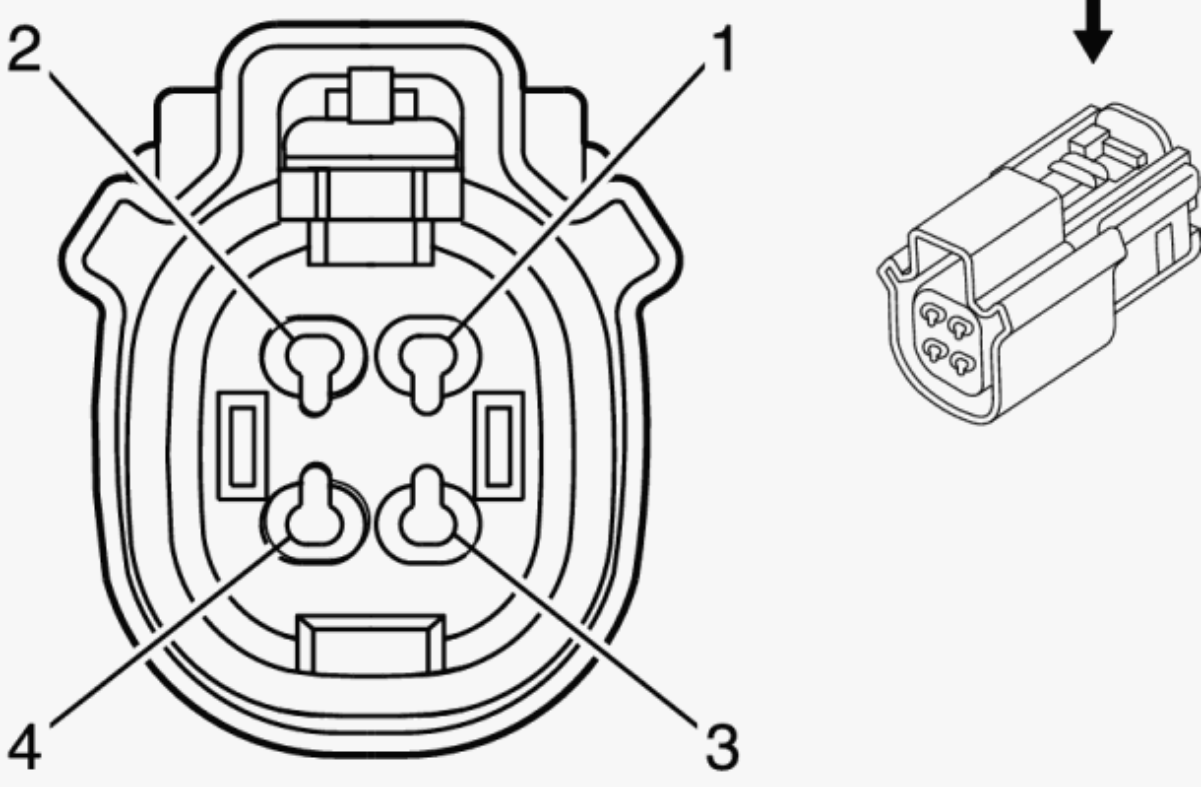
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | BK | 1350 | Ground | I | - |

## E42L TAIL LAMP ASSEMBLY - LEFT (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-4006
- Service Connector: 19366645
- Description: 4-Way F 150 MX Series, Sealed (BK)

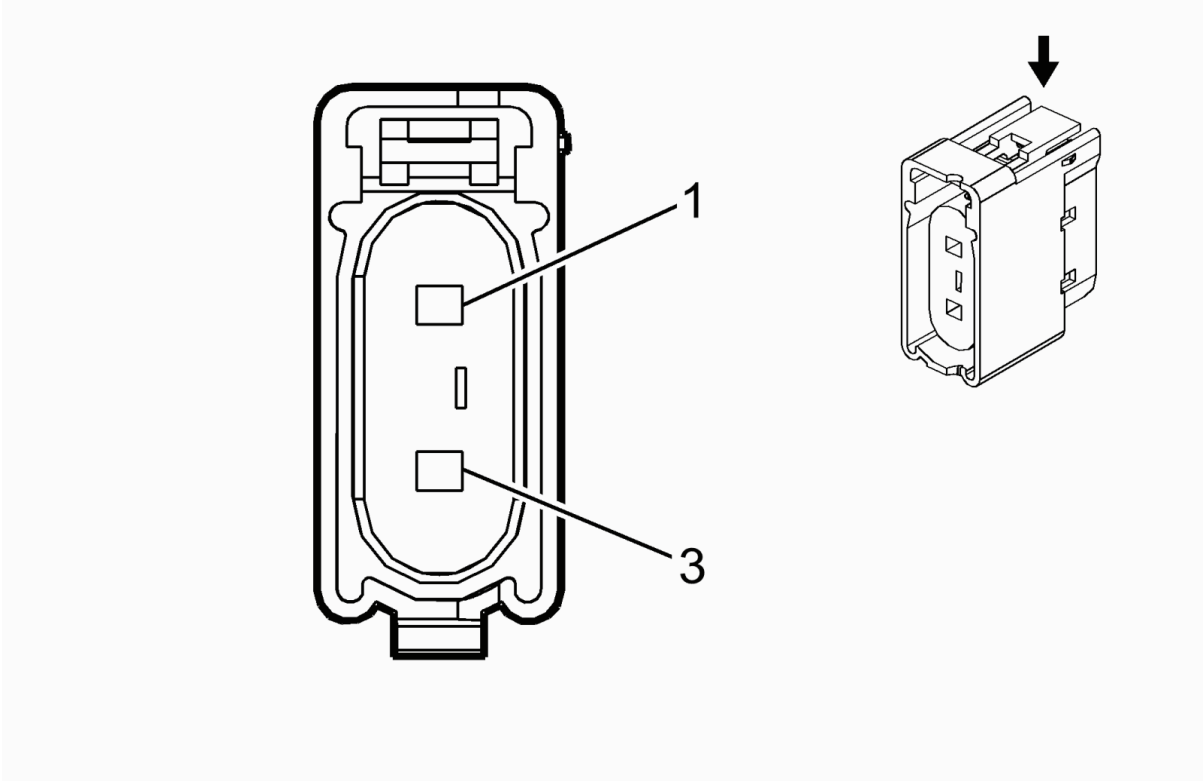
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/YE | 7542 | Left Rear Stop Lamp Control | I | - |
| 2 | 0.35 | WH/YE | 1204 | Left Park Lamp Control | I | - |
| 3 | 0.35 | BN/YE | 1968 | Left Stop/Tail Lamp Feedback Signal | I | - |
| 4 | 0.5 | BK | 2550 | Ground | I | - |

## E42L TAIL LAMP ASSEMBLY - LEFT X1 (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 13628677
- Service Connector: 19257924
- Description: 3-Way F 1.5 Series, Sealed (GN)

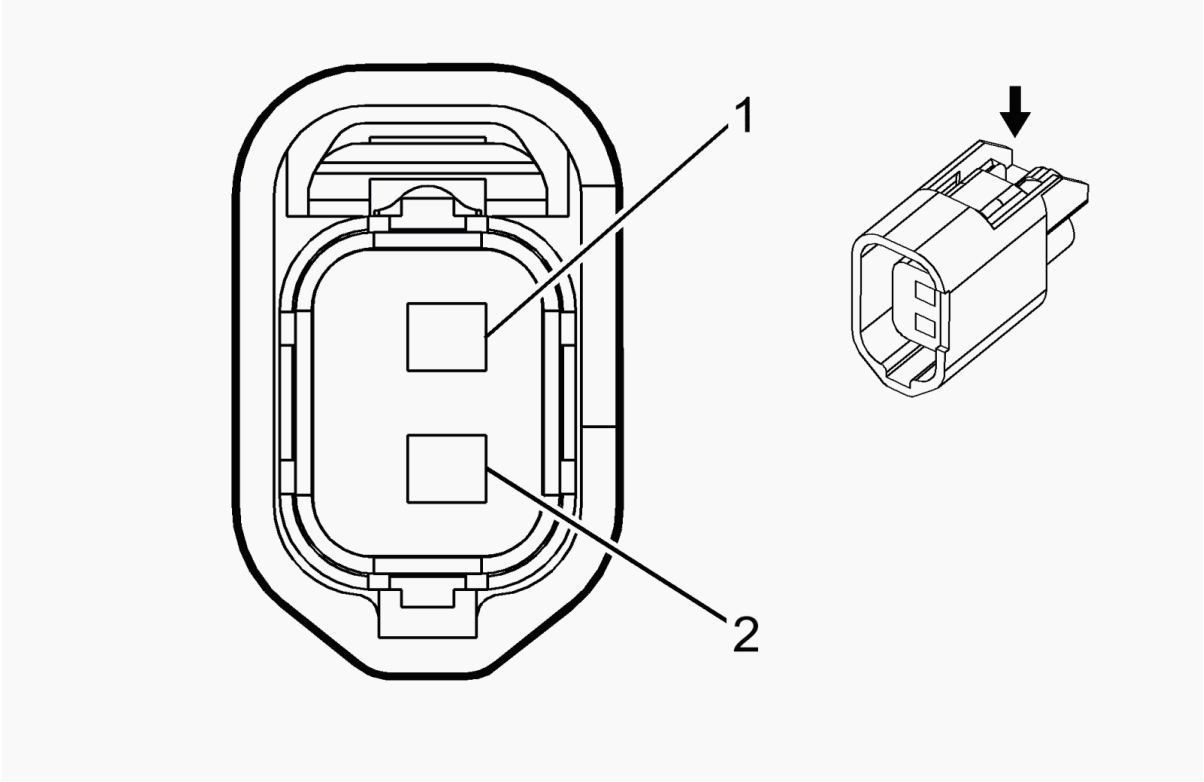
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/YE | 7542 | Left Rear Stop Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 2550 | Ground | I | - |

## E42L TAIL LAMP ASSEMBLY - LEFT X2 (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 7283-4110-40
- Service Connector: 19355532
- Description: 2-Way F 1.5 Series, Sealed (GY)

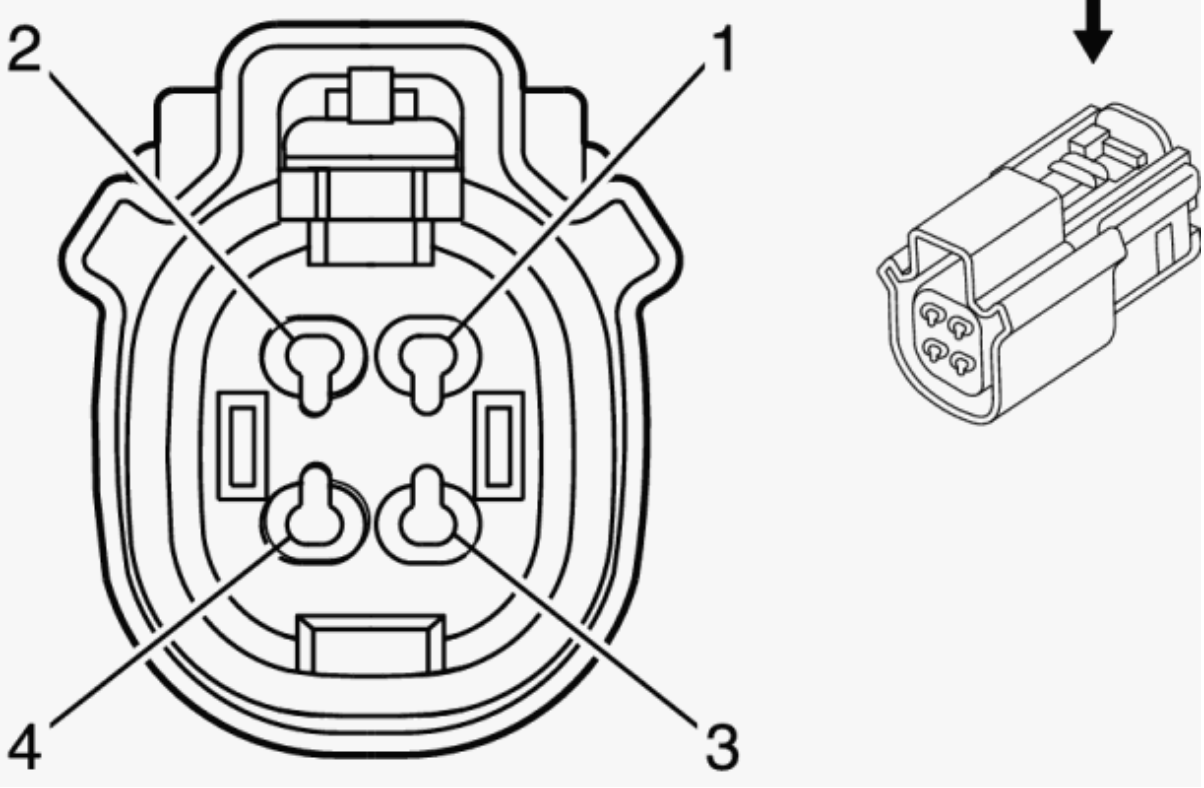
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/YE | 1204 | Left Park Lamp Control | I | - |
| 2 | 0.5 | BK | 2550 | Ground | I | - |

## E42R TAIL LAMP ASSEMBLY - RIGHT (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-4006
- Service Connector: 19366645
- Description: 4-Way F 150 MX Series, Sealed (BK)

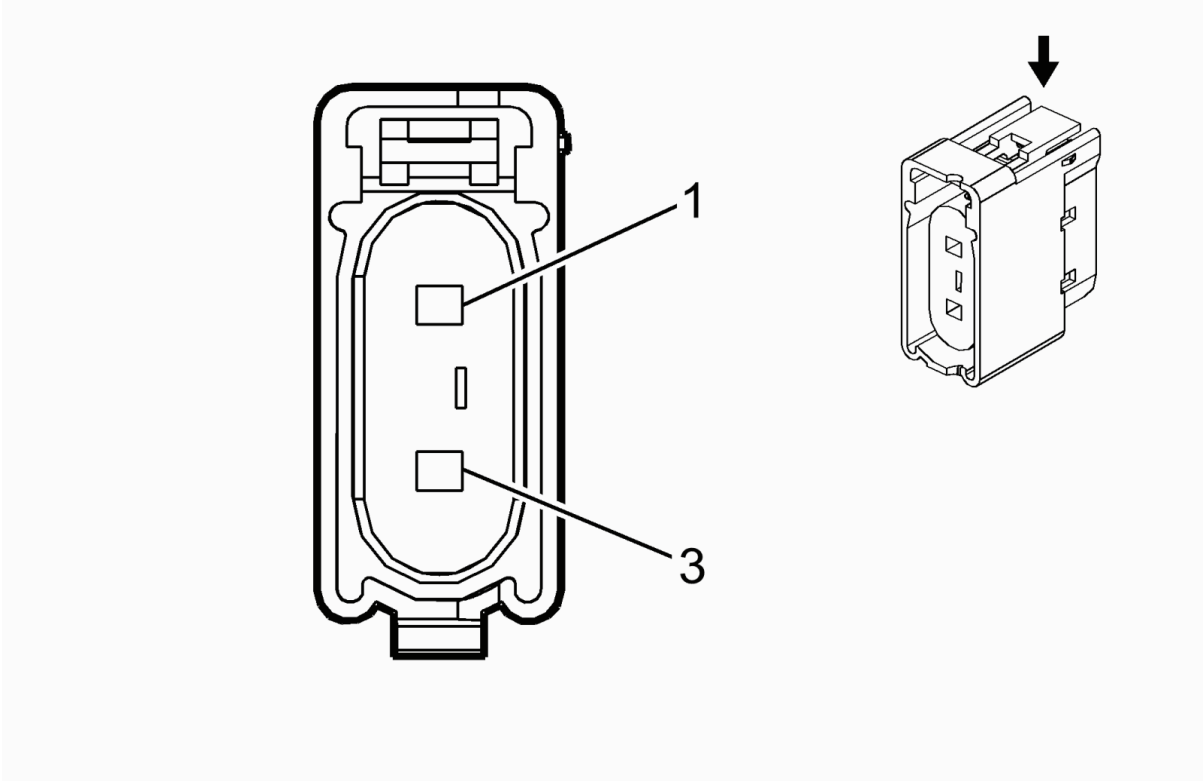
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/YE | 7541 | Right Rear Stop Lamp Control | I | - |
| 2 | 0.35 | VT | 1203 | Right Park Lamp Control | I | - |
| 3 | 0.35 | YE/BK | 1967 | Right Stop/Tail Lamp Feedback Signal | I | - |
| 4 | 0.5 | BK | 1950 | Ground | I | - |

## E42R TAIL LAMP ASSEMBLY - RIGHT X1 (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 13628677
- Service Connector: 19257924
- Description: 3-Way F 1.5 Series, Sealed (GN)

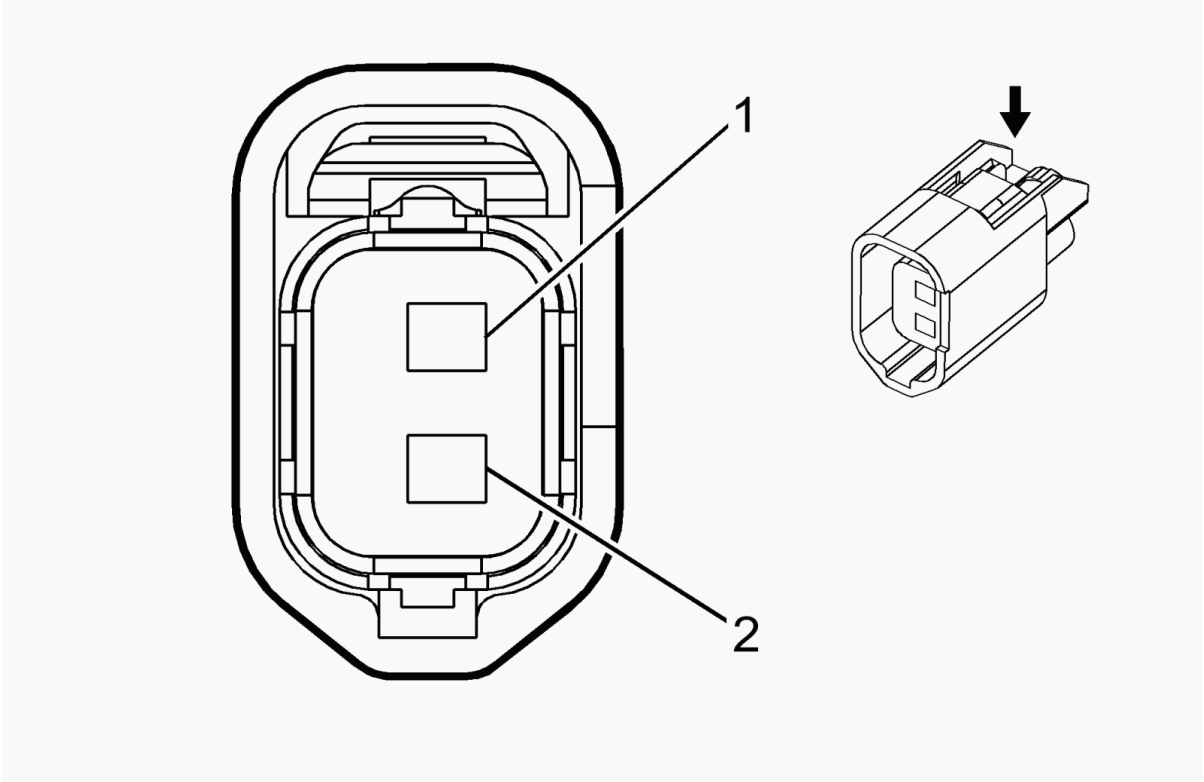
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/YE | 7541 | Right Rear Stop Lamp Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 1950 | Ground | I | - |

## E42R TAIL LAMP ASSEMBLY - RIGHT X2 (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 7283-4110-40
- Service Connector: 19355532
- Description: 2-Way F 1.5 Series, Sealed (GY)

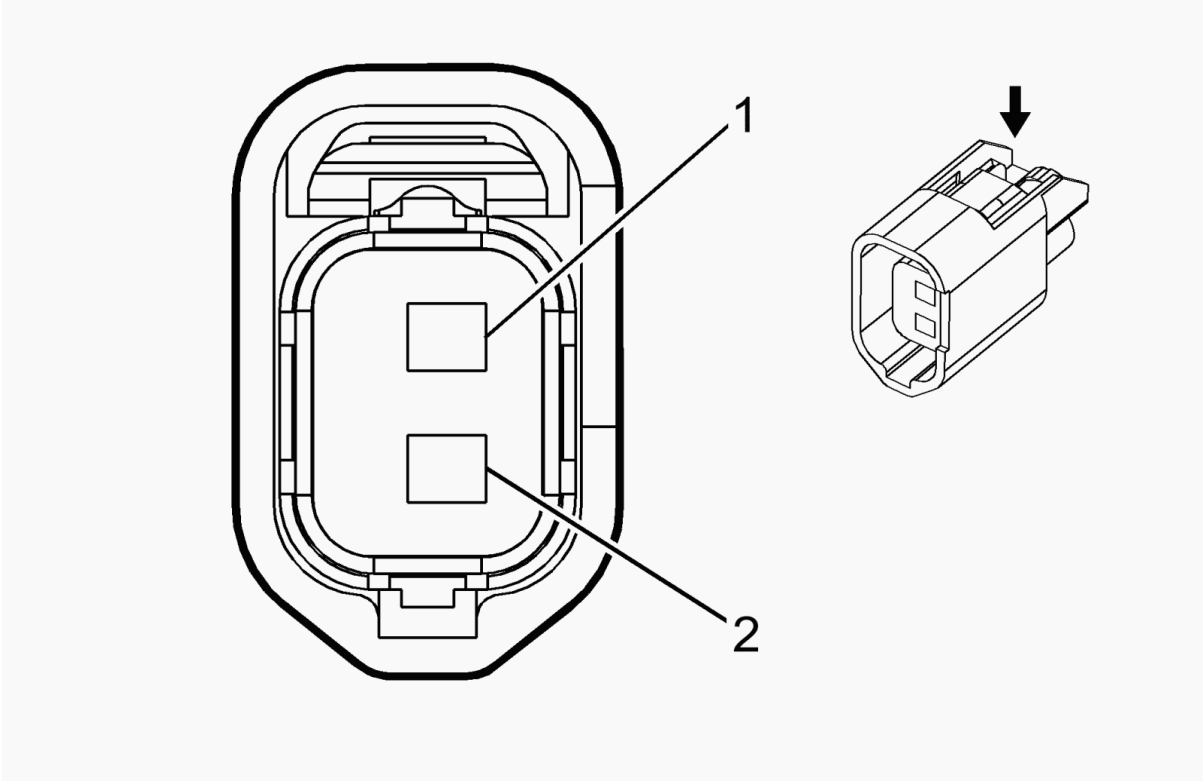
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT | 1203 | Right Park Lamp Control | I | - |
| 2 | 0.5 | BK | 1950 | Ground | I | - |

## E43L LIFTGATE TAIL LAMP ASSEMBLY - LEFT X1 (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 7283-4110-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (GY)

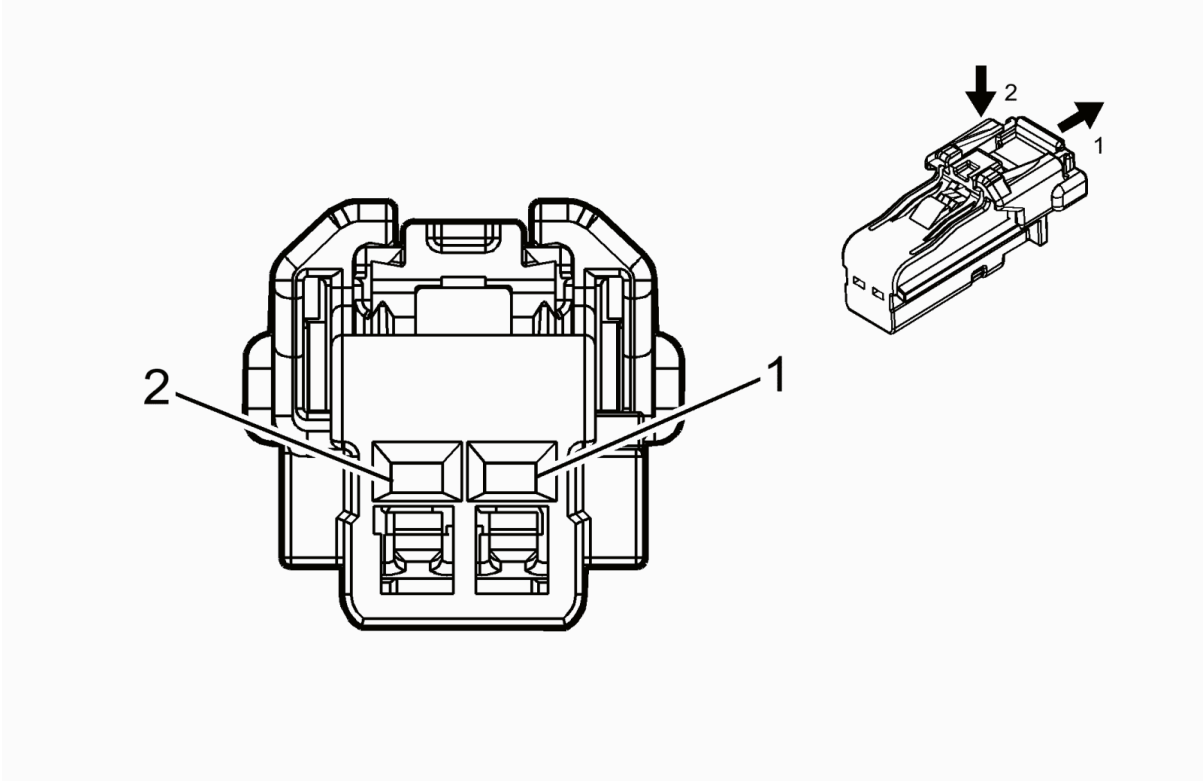
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 2 | 0.5 | BK | 2550 | Ground | I | UGE-T79 |

## E43L LIFTGATE TAIL LAMP ASSEMBLY - LEFT X2 (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13517403
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

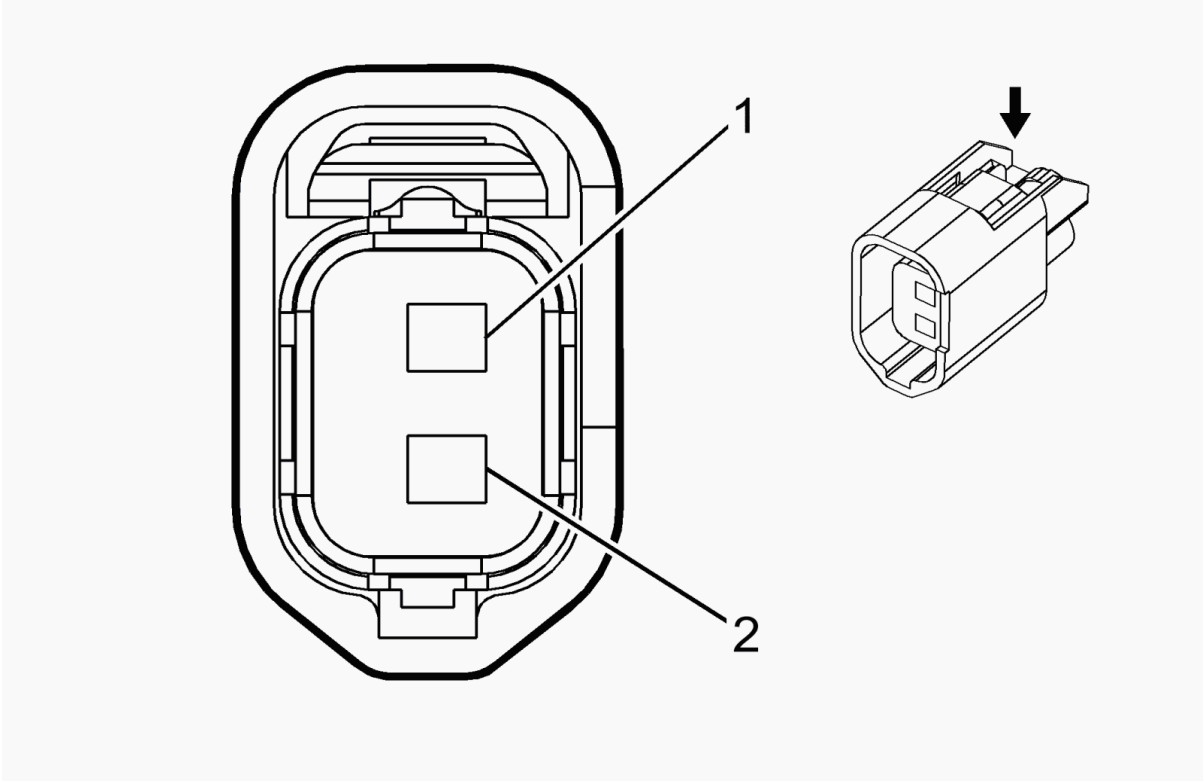
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 1204 | Left Park Lamp Control | I | - |
| 2 | 0.35 | BK | 2550 | Ground | I | UGE-T79 |

## E43L LIFTGATE TAIL LAMP ASSEMBLY - LEFT (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 7283-4110-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (GY)

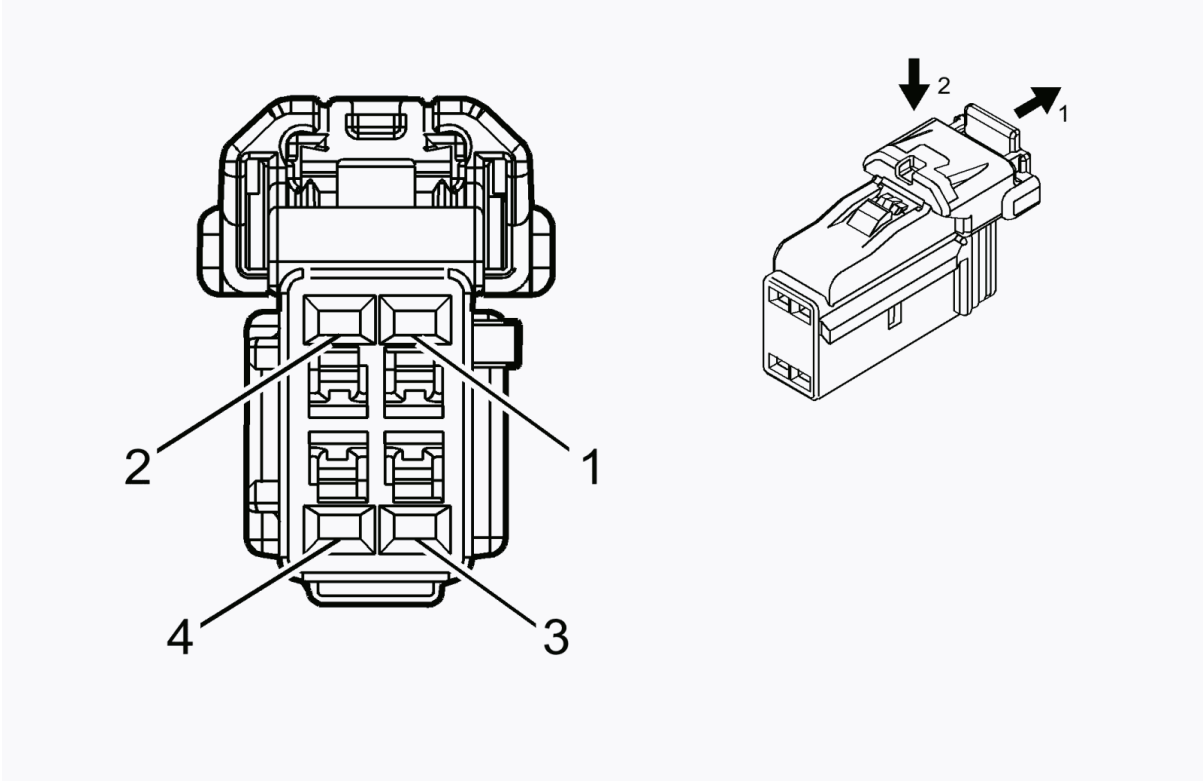
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 2 | 0.75 | BK | 2550 | Ground | I | X88-UGE-T79-V9V |

## E43L LIFTGATE TAIL LAMP ASSEMBLY - LEFT (Z88+V9V)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13517405
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 Series (BK)

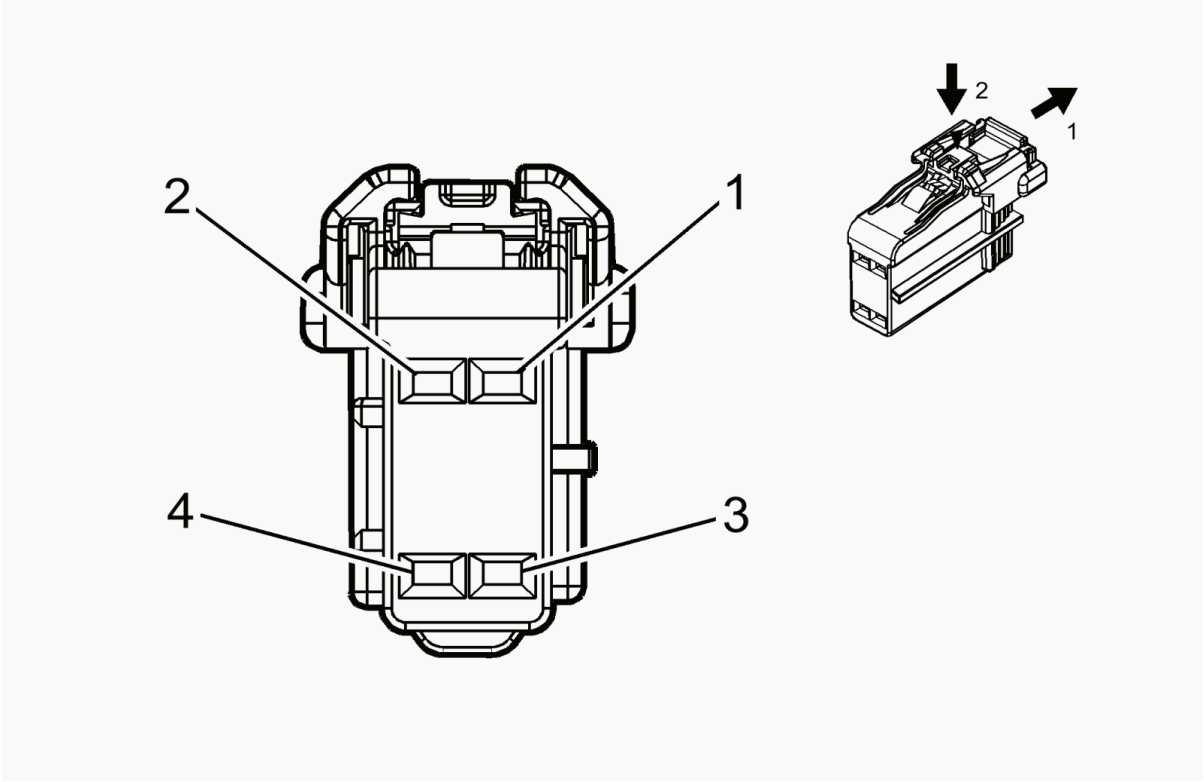
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | Ground | I | - |
| 2 | 0.5 | WH/YE | 1204 | Left Park Lamp Control | I | - |
| 3 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## E43L LIFTGATE TAIL LAMP ASSEMBLY - LEFT (Z88-9V9)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13595574
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 Series (BK)

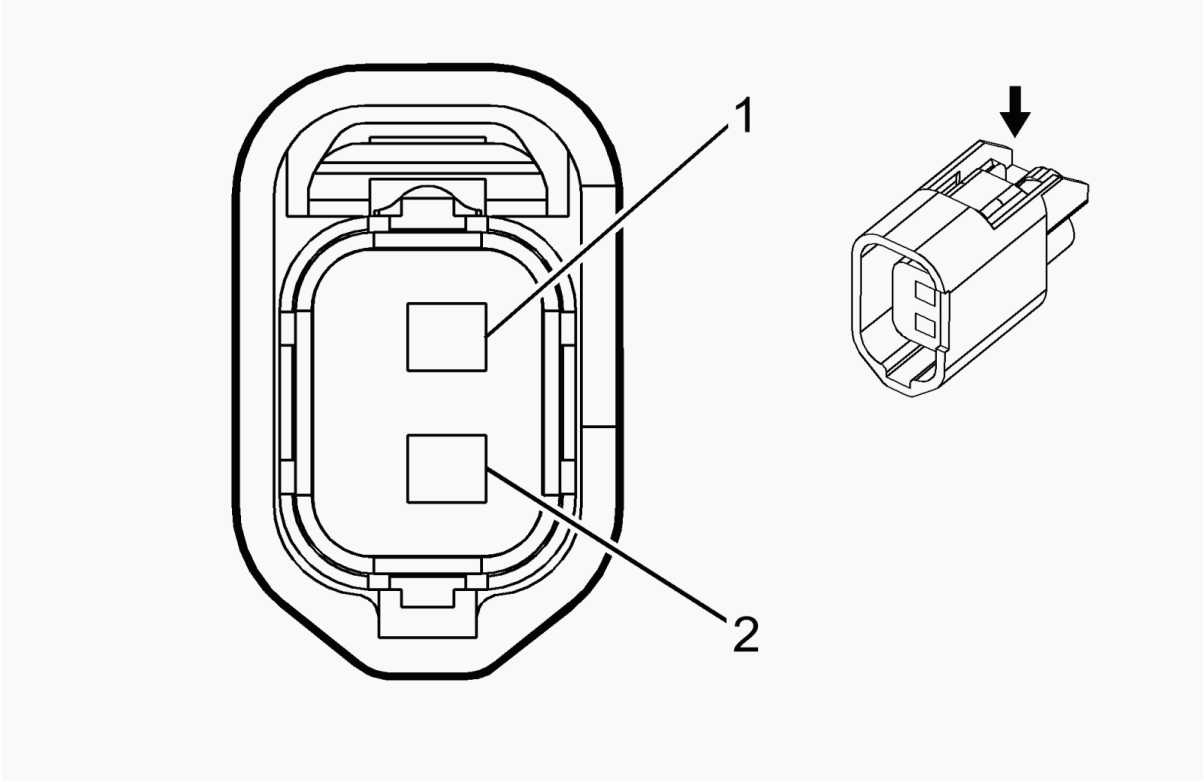
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | Ground | I | - |
| 2 | 0.5 | WH/YE | 1204 | Left Park Lamp Control | I | - |
| 3 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## E43R LIFTGATE TAIL LAMP ASSEMBLY - RIGHT X1 (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 7283-4110-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (GY)

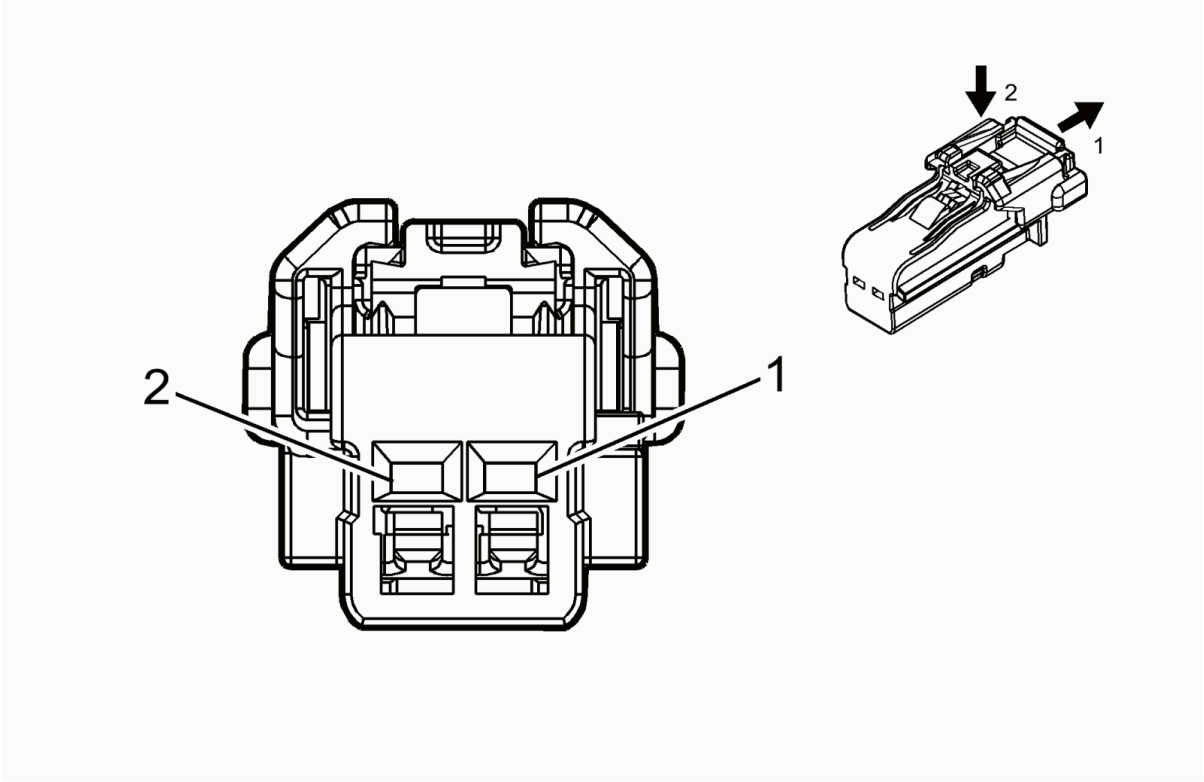
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 2 | 0.75 | BK | 2550 | Ground | I | X88-UGE-T79-V9V |

## E43R LIFTGATE TAIL LAMP ASSEMBLY - RIGHT X2 (X88+UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13517403
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

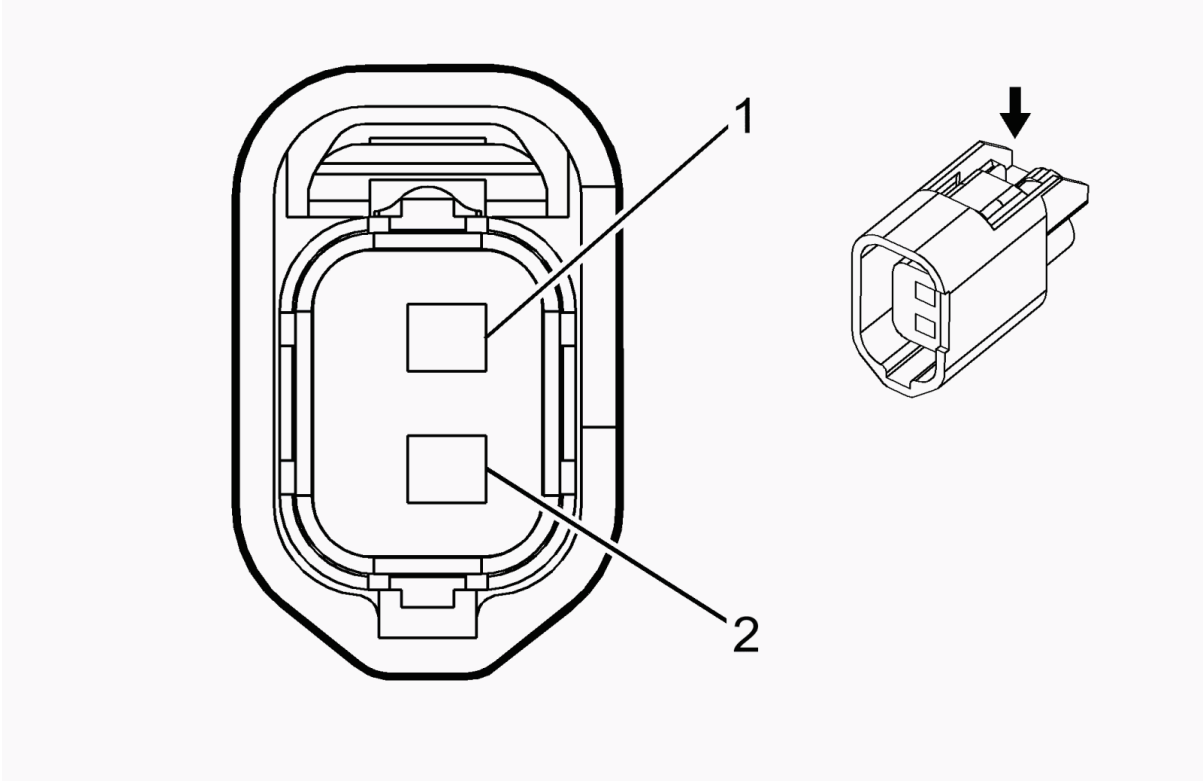
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 1203 | Right Park Lamp Control | I | - |
| 2 | 0.35 | BK | 2550 | Ground | I | UGE-T79 |

## E43R LIFTGATE TAIL LAMP ASSEMBLY - RIGHT (X88-UGE)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 7283-4110-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (GY)

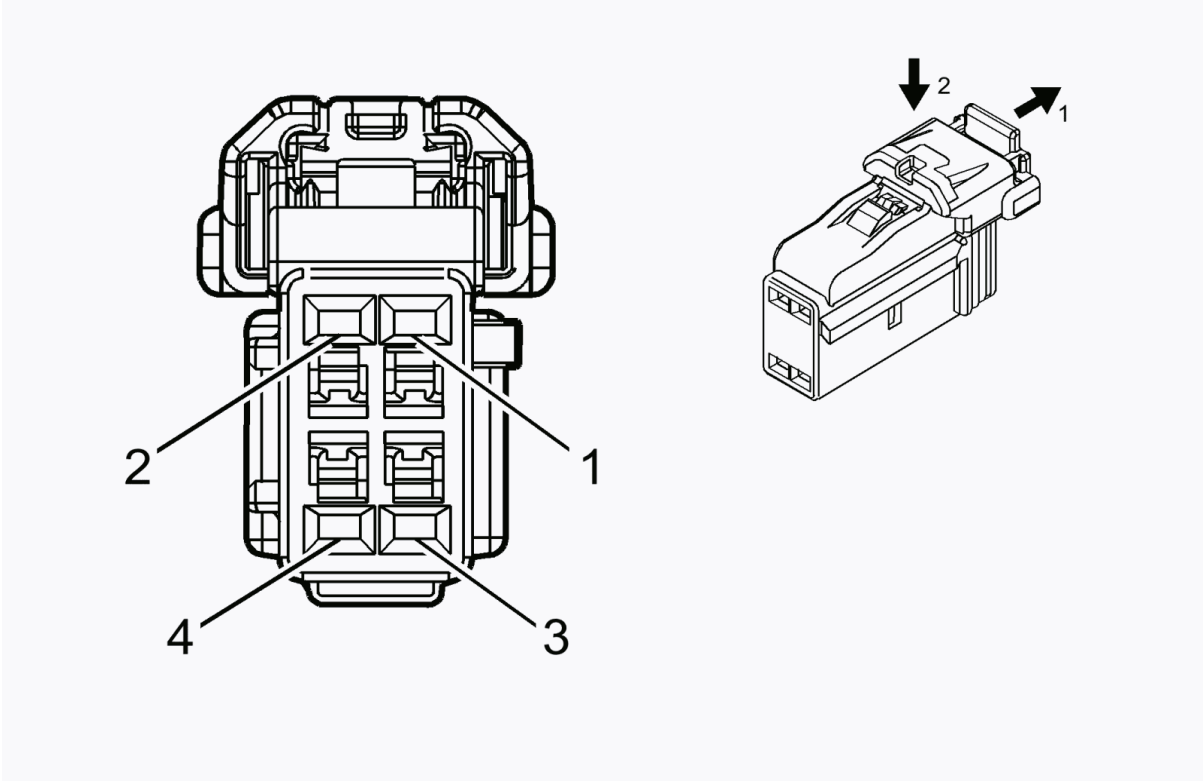
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 2 | 0.5 | BK | 2550 | Ground | I | - |

## E43R LIFTGATE TAIL LAMP ASSEMBLY - RIGHT (Z88+V9V)

cardiagn.com




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13517405
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 Series (BK)

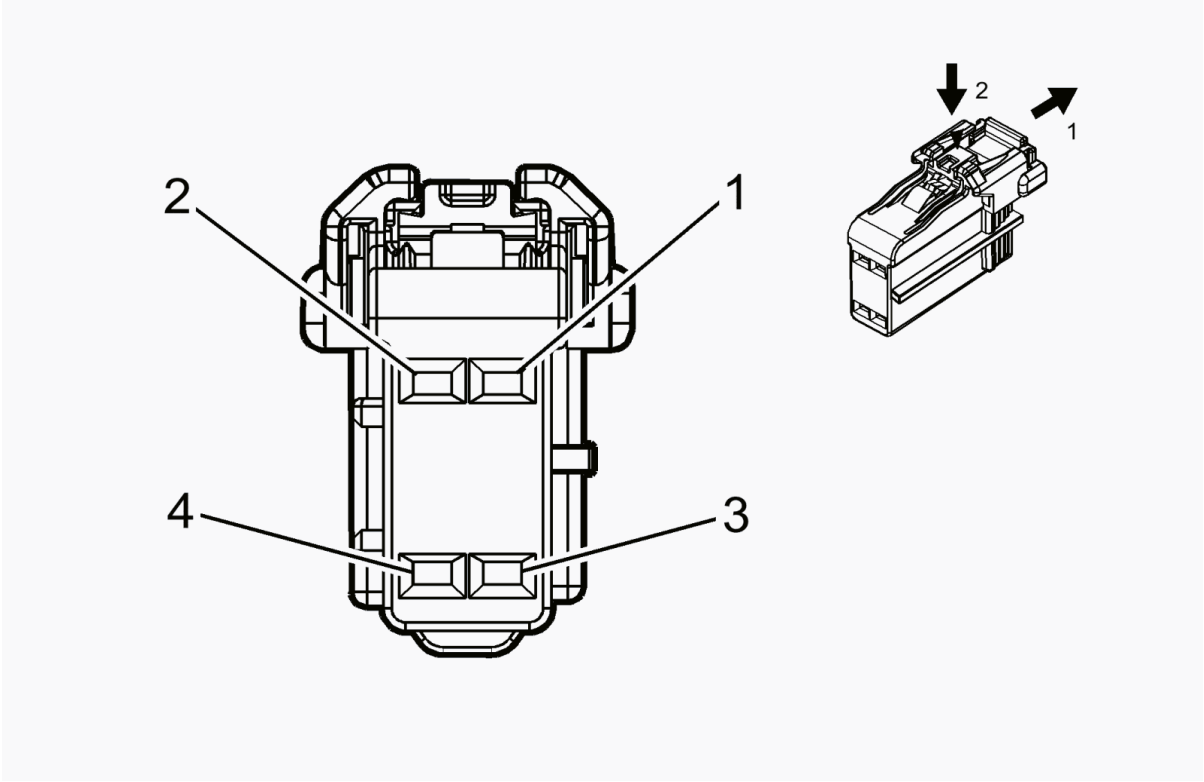
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | Ground | I | - |
| 2 | 0.5 | VT | 1203 | Right Park Lamp Control | I | - |
| 3 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## E43R LIFTGATE TAIL LAMP ASSEMBLY - RIGHT (Z88-V9V)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13595574
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 Series (BK)

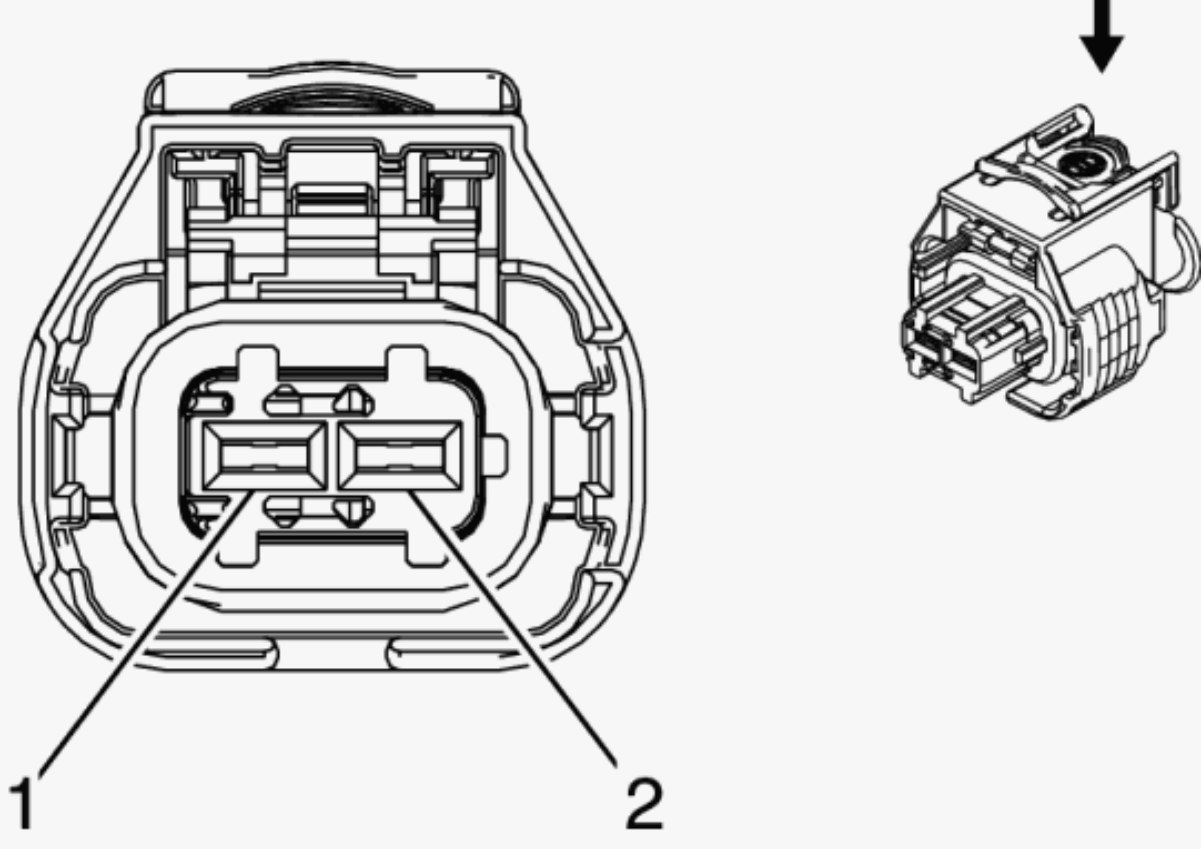
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | Ground | I | - |
| 2 | 0.5 | VT | 1203 | Right Park Lamp Control | I | - |
| 3 | 0.5 | GN/WH | 1324 | Backup Lamp Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## E45 POSITIVE CRANKCASE VENTILATION HEATER (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

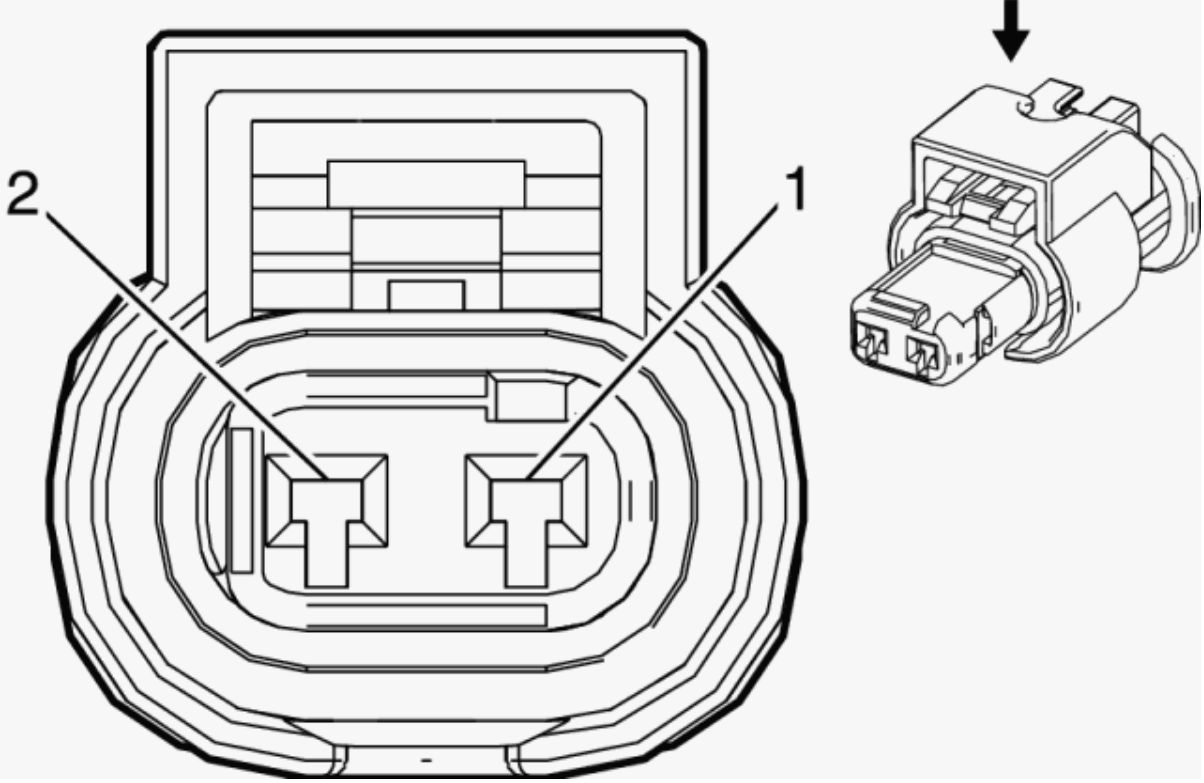
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/BU | 1497 | Crankcase Ventilation (Blowby) Heater Control Signal | I | LH7 |
| 2 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LH7 |

## E52 REDUCTANT LINE HEATER (LH7)




Connector Part Information

- Harness Type: Reductant Line Heater
- OEM Connector: 1-1823608-5
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

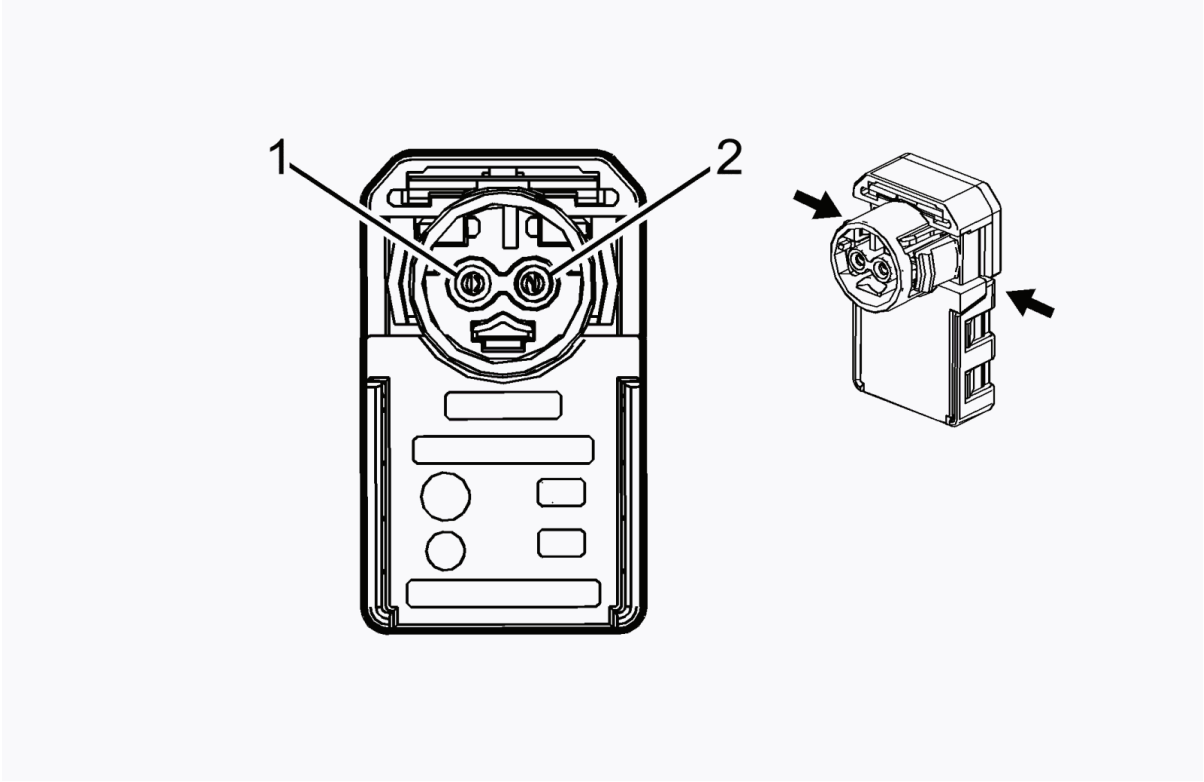
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BK/WH | 9016 | Ground | I | - |
| 2 | 1 | GY/WH | 9017 | Voltage Supply | I | - |

## F101 PASSENGER INSTRUMENT PANEL AIR BAG (AJG)

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Connector Part Information

- Harness Type: Passenger Air Bag
- OEM Connector: 13262034
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F (BK with YE Cover)

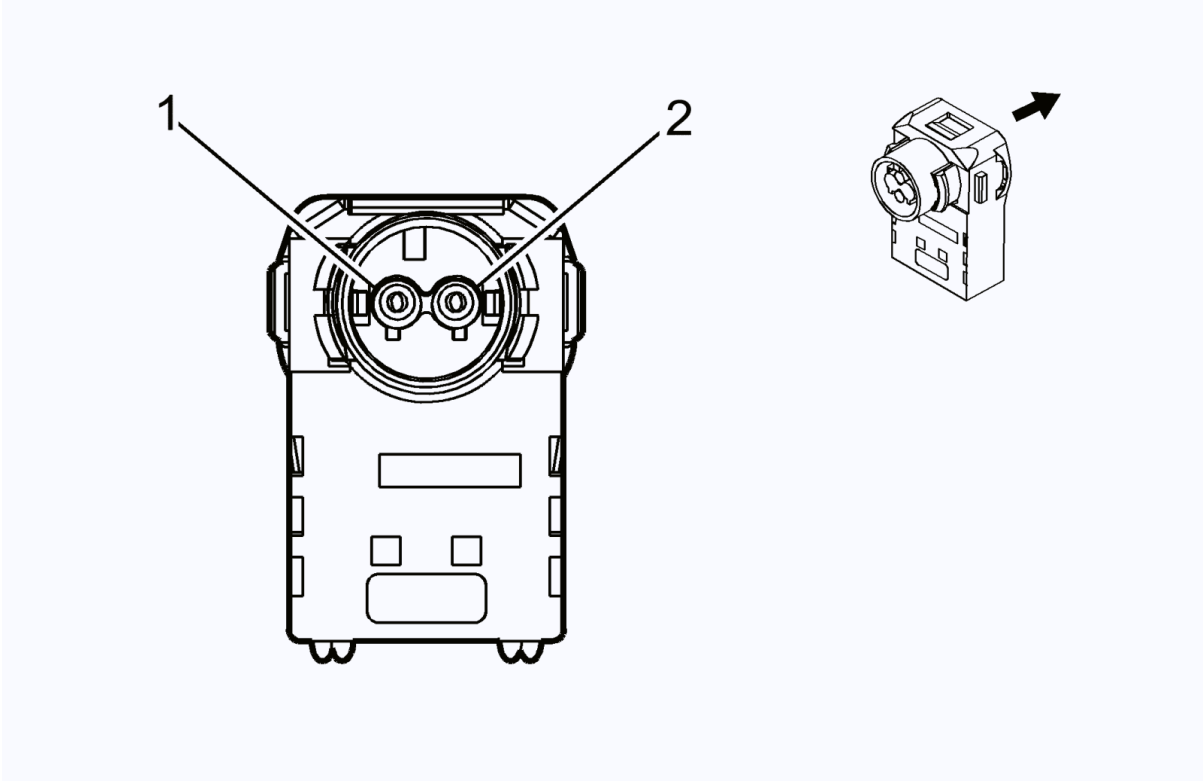
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/OG | 3025 | Passenger IP Module Stage 1 High Control | I | - |
| 2 | 0.5 | OG/WH | 3024 | Passenger IP Module Stage 1 Low Control | I | - |

## F101 PASSENGER INSTRUMENT PANEL AIR BAG X1 (AY0)

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Connector Part Information

- Harness Type: Passenger Air Bag
- OEM Connector: 33154418
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.0 MAC Series (PK with YE Cover)

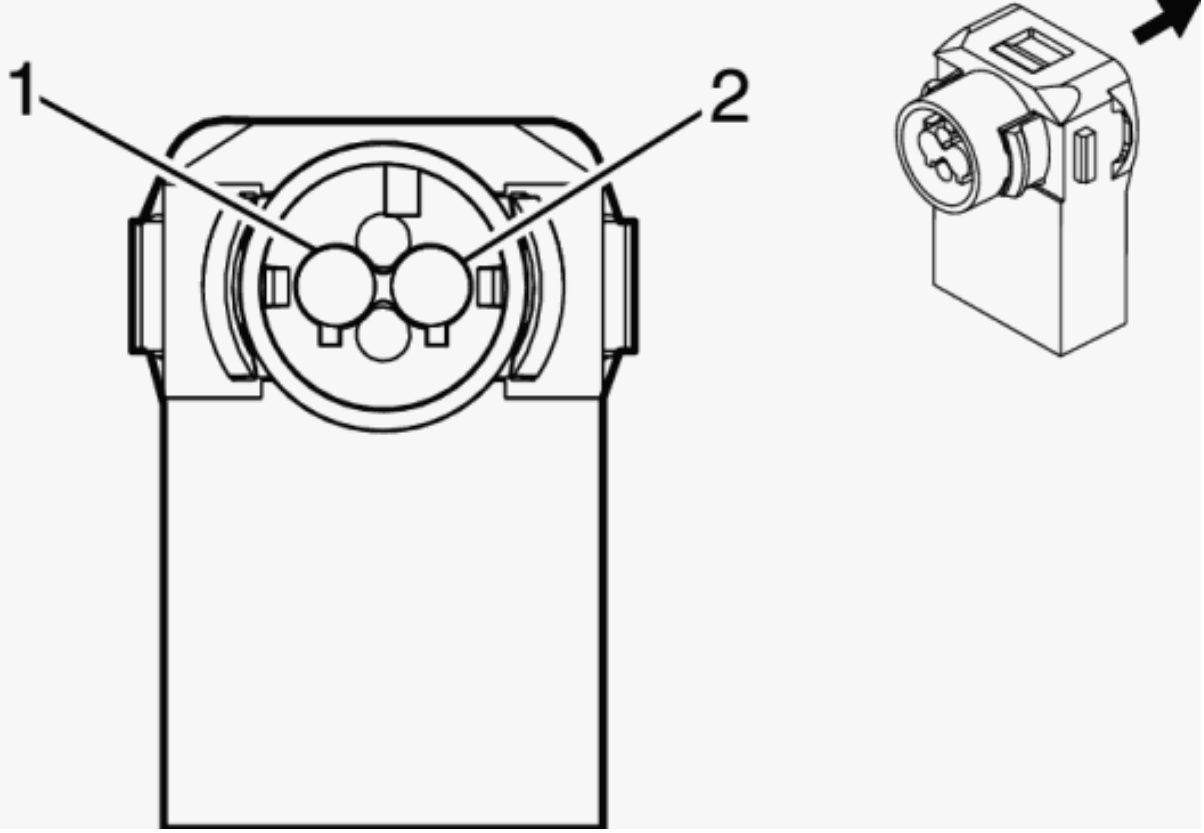
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/WH | 3025 | Passenger IP Module Stage 1 High Control | I | - |
| 2 | 0.35 | YE/OG | 3024 | Passenger IP Module Stage 1 Low Control | I | - |

## F101 PASSENGER INSTRUMENT PANEL AIR BAG X2 (AY0)

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Connector Part Information

- Harness Type: Passenger Air Bag
- OEM Connector: 33154433
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.0 MAC Series (PU with YE Cover)

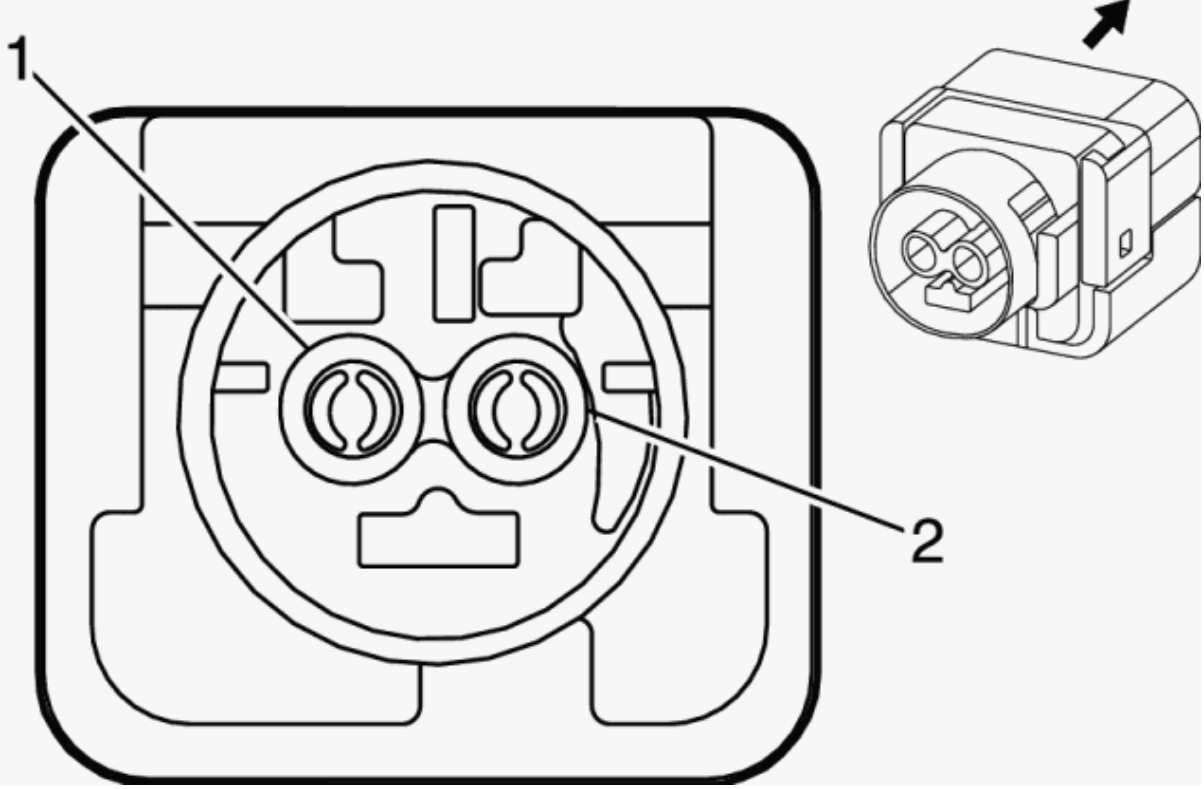
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/VT | 3027 | Passenger IP Module Stage 2 High Control | I | - |
| 2 | 0.35 | GY/OG | 3026 | Passenger IP Module Stage 2 Low Control | I | - |

## F105L ROOF RAIL AIR BAG - LEFT (AY0)

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Connector Part Information

- Harness Type: Body
- OEM Connector: PPI0001142
- Service Connector: 19355495
- Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

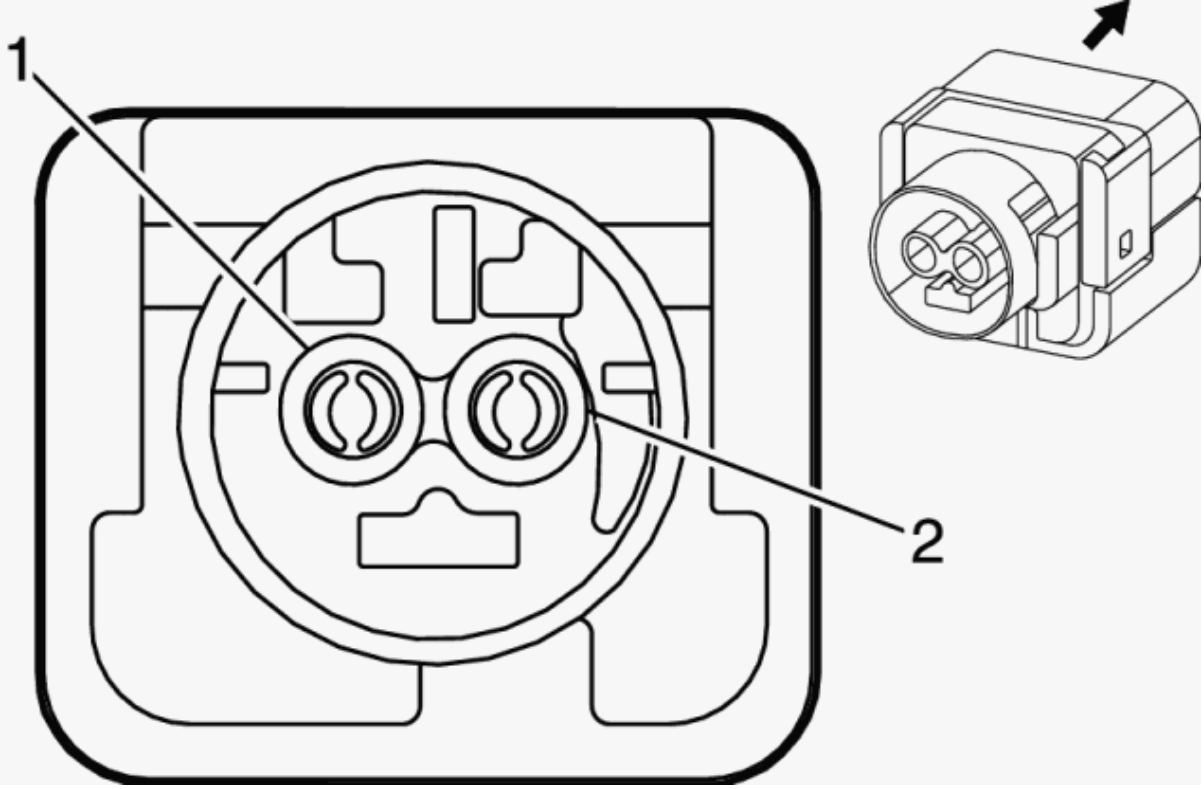
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/GN | 5019 | Left Front Head Curtain Module High Control | I | AY0 |
| 2 | 0.35 | VT/OG | 5020 | Left Front Head Curtain Module Low Control | I | - |

## F105R ROOF RAIL AIR BAG - RIGHT (AY0)

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Connector Part Information

- Harness Type: Body
- OEM Connector: PPI0001142
- Service Connector: 19355495
- Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/GY | 5021 | Right Front Head Curtain Module High Control | I | AY0 |
| 2 | 0.35 | WH/OG | 5022 | Right Front Head Curtain Module Low Control | I | AY0 |

## F106D SEAT SIDE AIR BAG - DRIVER

-

Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 13599239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/BU | 3068 | Driver Side Impact Module High Control | I | - |
| 2 | 0.5 | BK/OG | 3069 | Driver Side Impact Module Low Control | I | - |

## F106P SEAT SIDE AIR BAG - PASSENGER

-

Connector Part Information

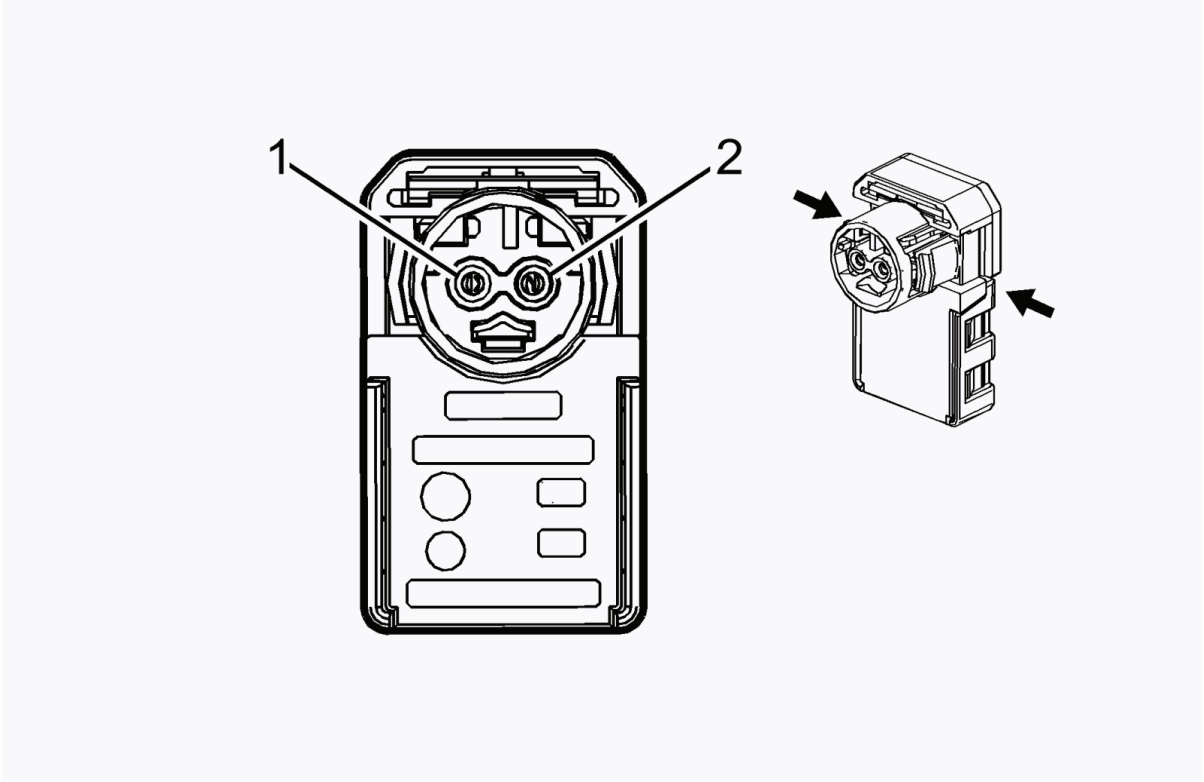
- Harness Type: Passenger Seat
- OEM Connector: 13599239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/GY | 3066 | Passenger Side Impact Module High Control | I | - |
| 2 | 0.5 | BU/OG | 3067 | Passenger Side Impact Module Low Control | I | - |

## F107 STEERING WHEEL AIR BAG (AJG)




Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13262034
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F (BK with YE Cover)

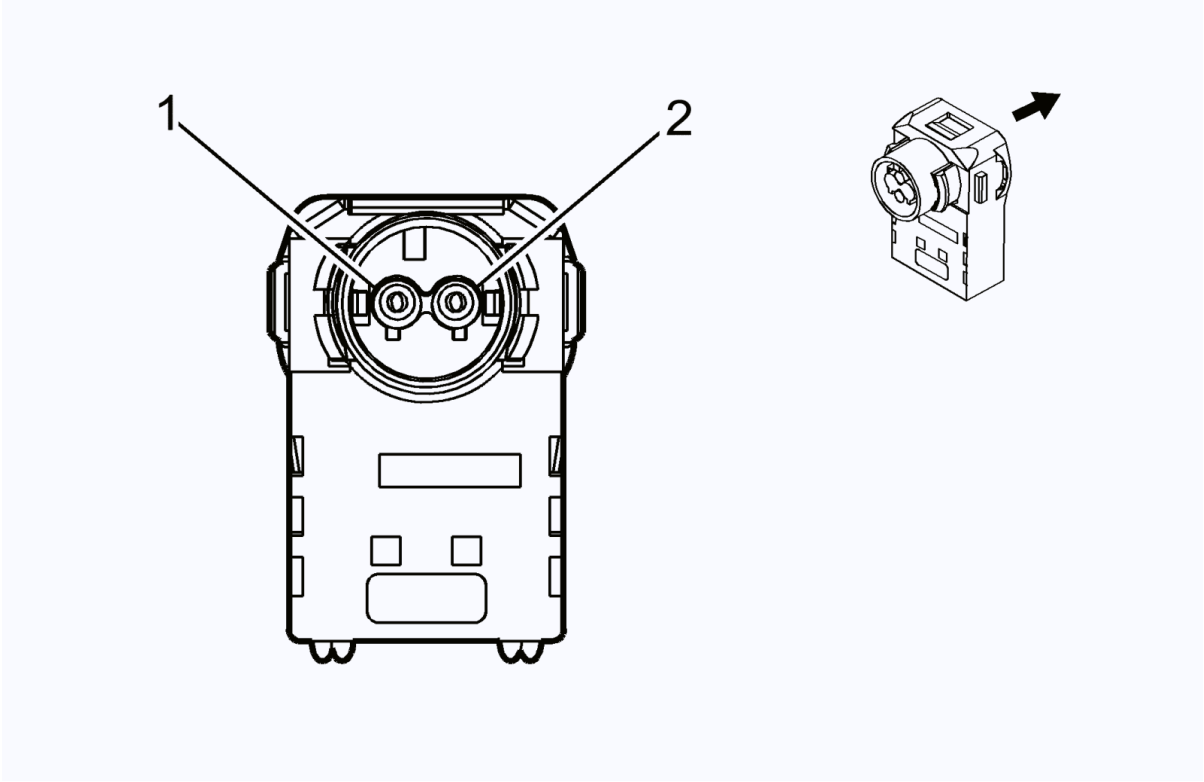
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/VT | 3021 | Steering Wheel Module Stage 1 High Control | I | - |
| 2 | 0.5 | BN/OG | 3020 | Steering Wheel Module Stage 1 Low Control | I | - |

## F107 STEERING WHEEL AIR BAG X1 (AY0)

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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 33154418
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.0 MAC Series (PK with YE Cover)

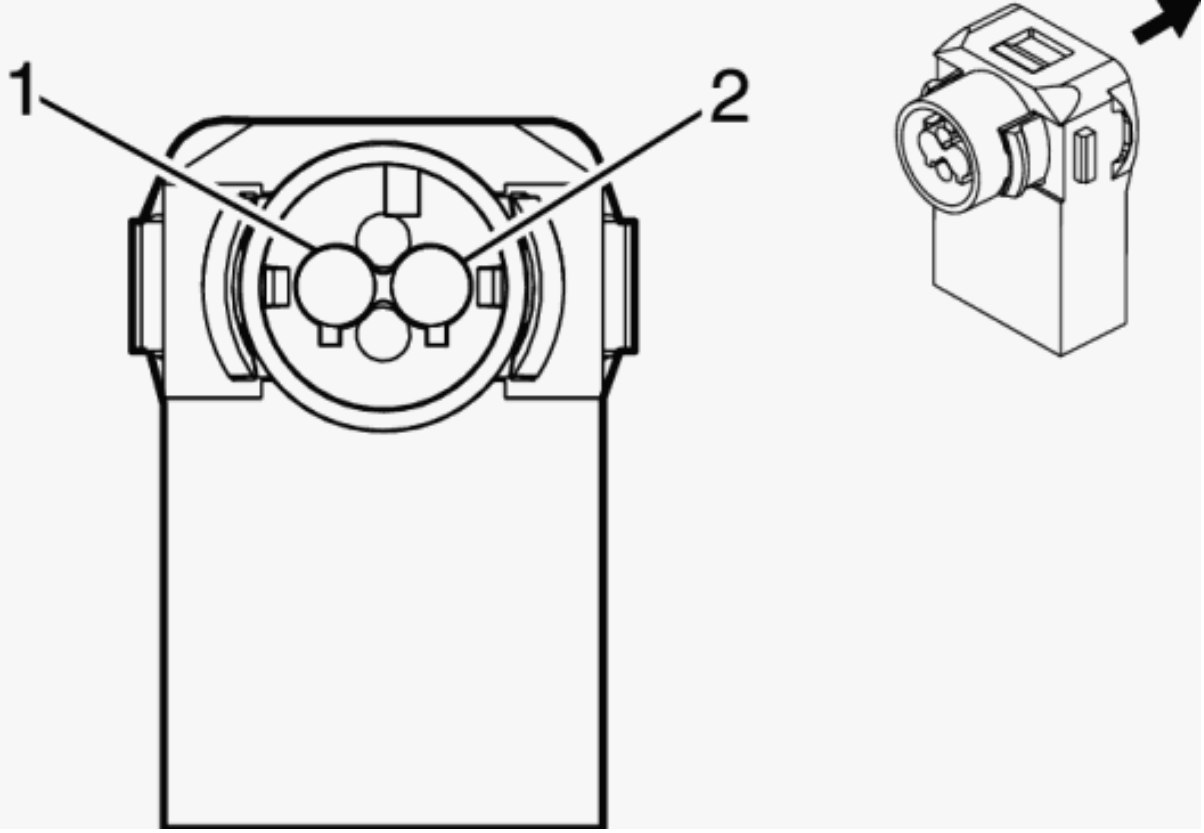
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | BU<br>TN | 3021<br>3021 | Steering Wheel Module Stage 1 High Control<br>Steering Wheel Module Stage 1 High Control | I<br>I | X88<br>Z88 |
| 2 | 0.5<br>0.5 | GN<br>BN | 3020<br>3020 | Steering Wheel Module Stage 1 Low Control<br>Steering Wheel Module Stage 1 Low Control | I<br>I | X88<br>Z88 |

## F107 STEERING WHEEL AIR BAG X2 (AY0)

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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 33154433
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.0 MAC Series (PU with YE Cover)

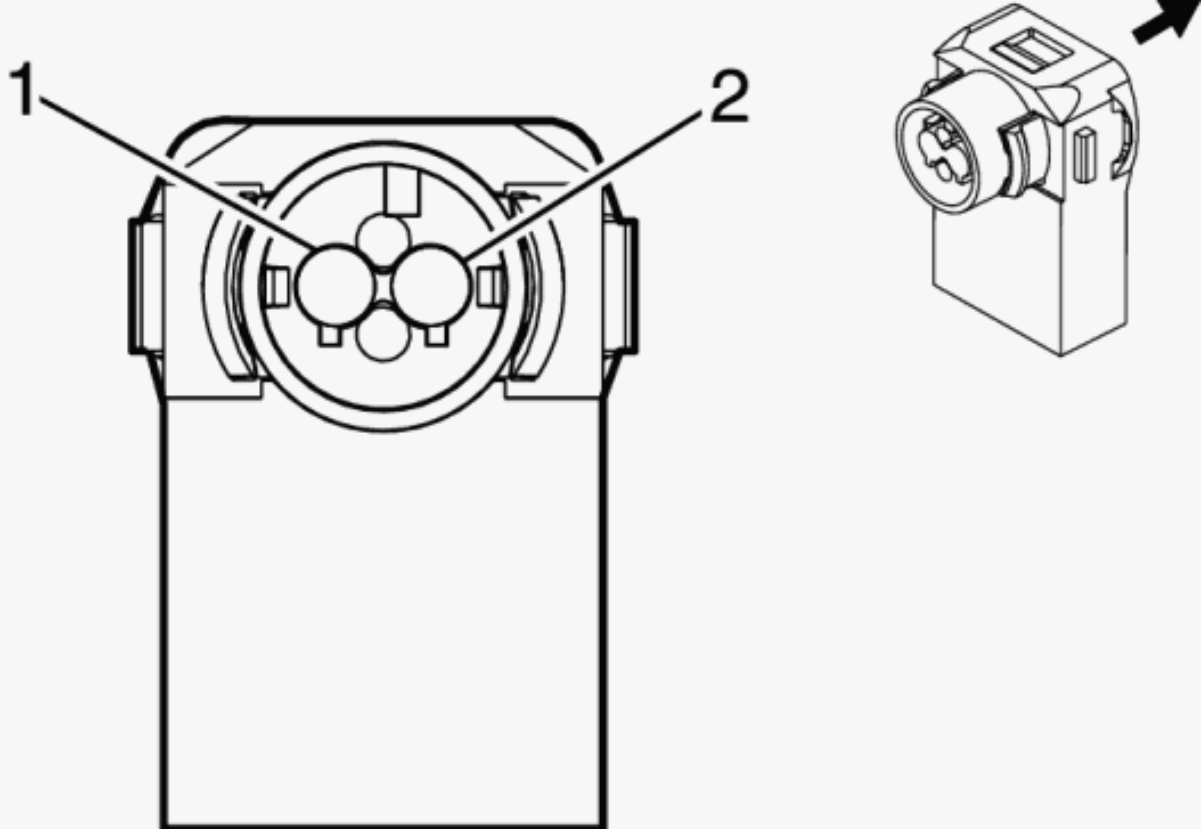
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | TN<br>WH | 3023<br>3023 | Steering Wheel Module Stage 2 High Control<br>Steering Wheel Module Stage 2 High Control | I<br>I | X88<br>Z88 |
| 2 | 0.5<br>0.5 | BN<br>PK | 3022<br>3022 | Steering Wheel Module Stage 2 Low Control<br>Steering Wheel Module Stage 2 Low Control | I<br>I | X88<br>Z88 |

## F112D SEAT BELT RETRACTOR PRETENSIONER - DRIVER

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Connector Part Information

- Harness Type: Body
- OEM Connector: 33345774
- Service Connector: 19355490
- Description: 2-Way F ABX-5 Series (PU with YE Cover)

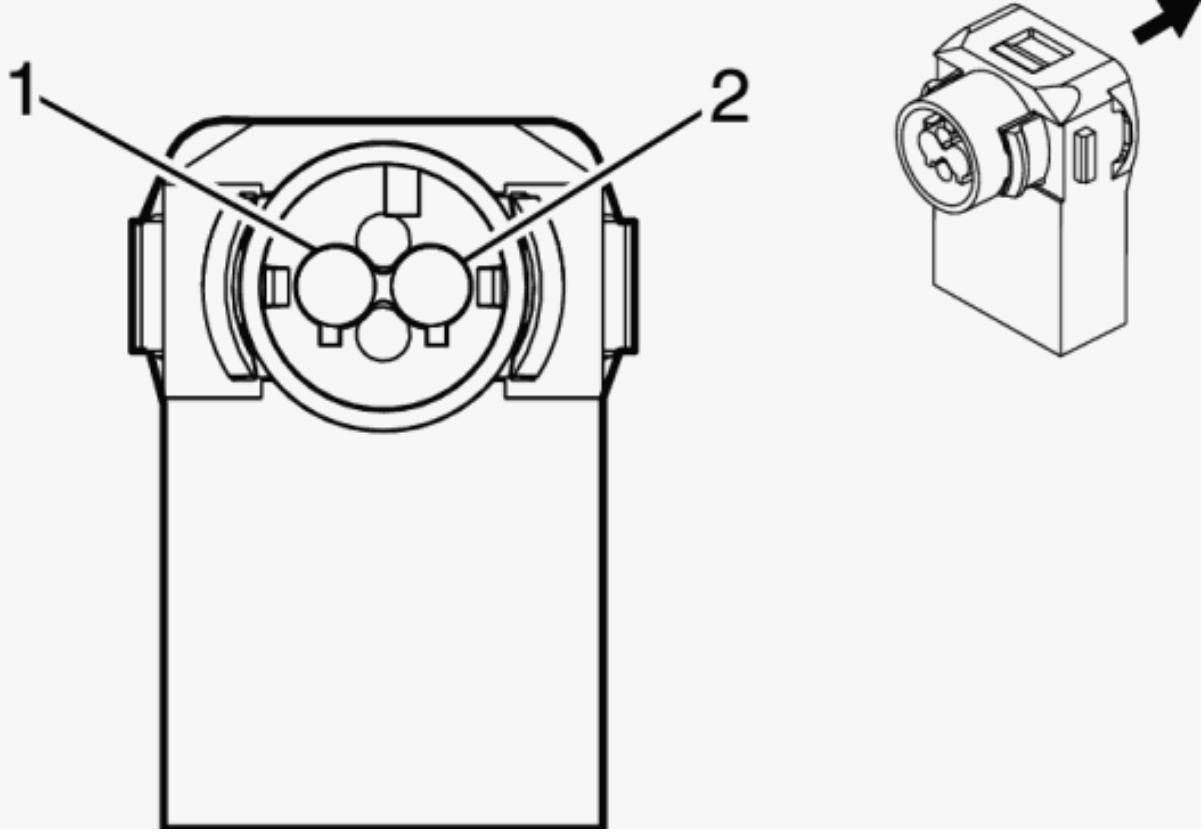
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/WH | 3477 | Driver Seat Belt Retractor Pretensioner High Control | I | - |
| 2 | 0.35 | GY/OG | 3478 | Driver Seat Belt Retractor Pretensioner Low Control | I | - |

## F112P SEAT BELT RETRACTOR PRETENSIONER - PASSENGER

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Connector Part Information

- Harness Type: Body
- OEM Connector: 33345774
- Service Connector: 19355490
- Description: 2-Way F ABX-5 Series (PU with YE Cover)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/GN | 3475 | Passenger Seat Belt Retractor Pretensioner High Control | I | - |
| 2 | 0.35 | WH/OG | 3476 | Passenger Seat Belt Retractor Pretensioner Low Control | I | - |

## F113D SEAT BELT ANCHOR PRETENSIONER - DRIVER

-

Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 13599240
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/YE | 3481 | Driver Seat Belt Anchor Pretensioner High Control | I | - |
| 2 | 0.5 | VT/OG | 3482 | Driver Seat Belt Anchor Pretensioner Low Control | I | - |

## F113P SEAT BELT ANCHOR PRETENSIONER - PASSENGER

-

Connector Part Information

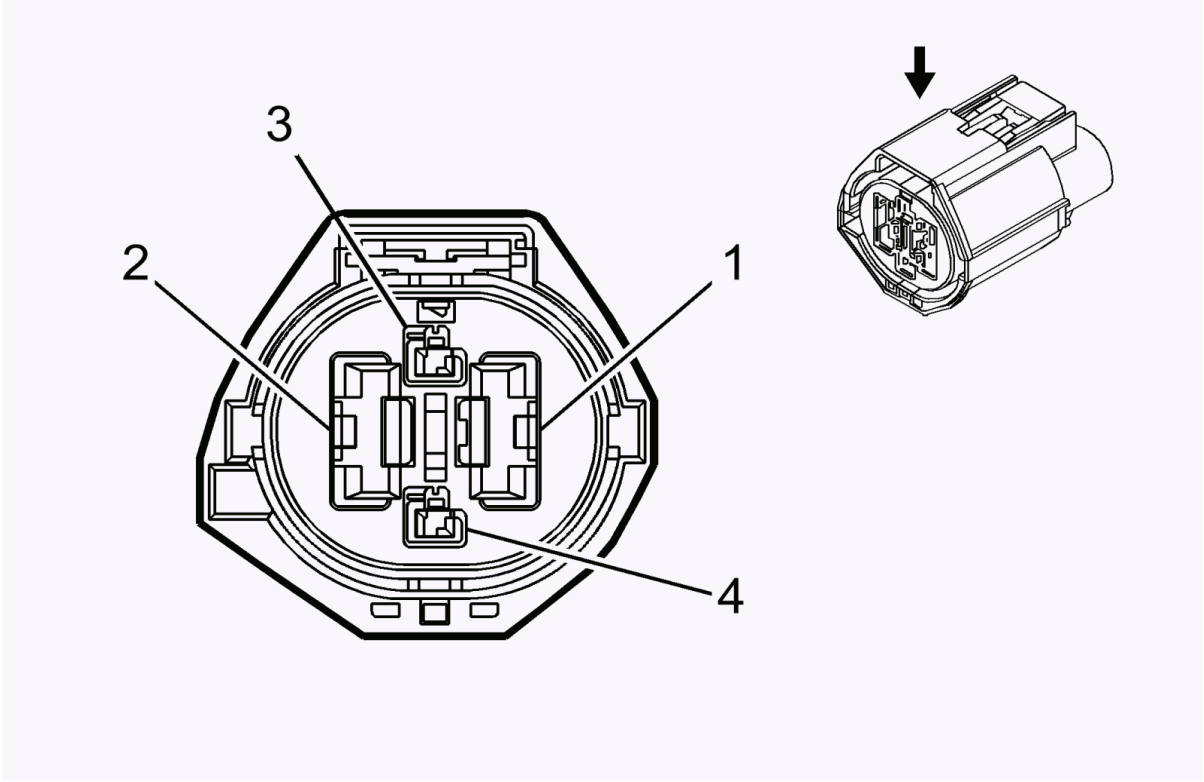
- Harness Type: Passenger Seat
- OEM Connector: 13599240
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | OG/BN | 3479 | Passenger Seat Belt Anchor Pretensioner High Control | I | - |
| 2 | 0.5 | GY/OG | 3480 | Passenger Seat Belt Anchor Pretensioner Low Control | I | - |

## G10 COOLING FAN MOTOR




Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 19181808
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.5, 9.5 Series, Sealed (D-GY)

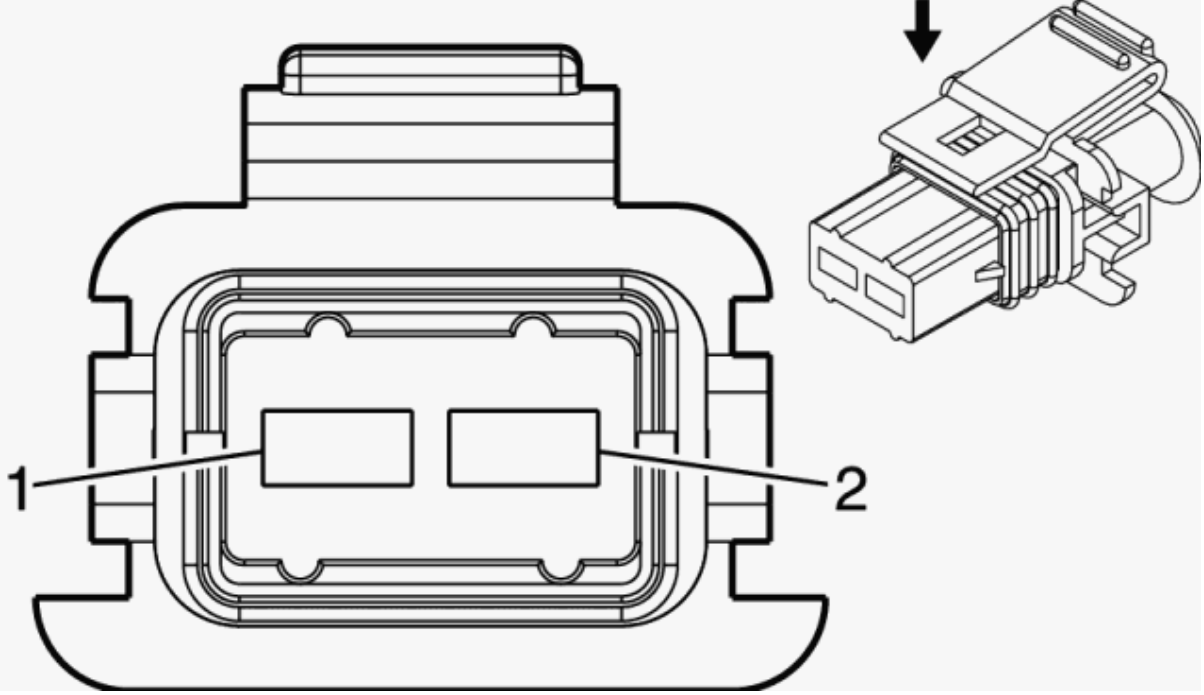
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 8 | BK | 1250 | Ground | II | - |
| 2 | 8 | RD/BU | 302 | Battery Positive Voltage | II | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | I | - |

## G13 GENERATOR X1

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Connector Part Information

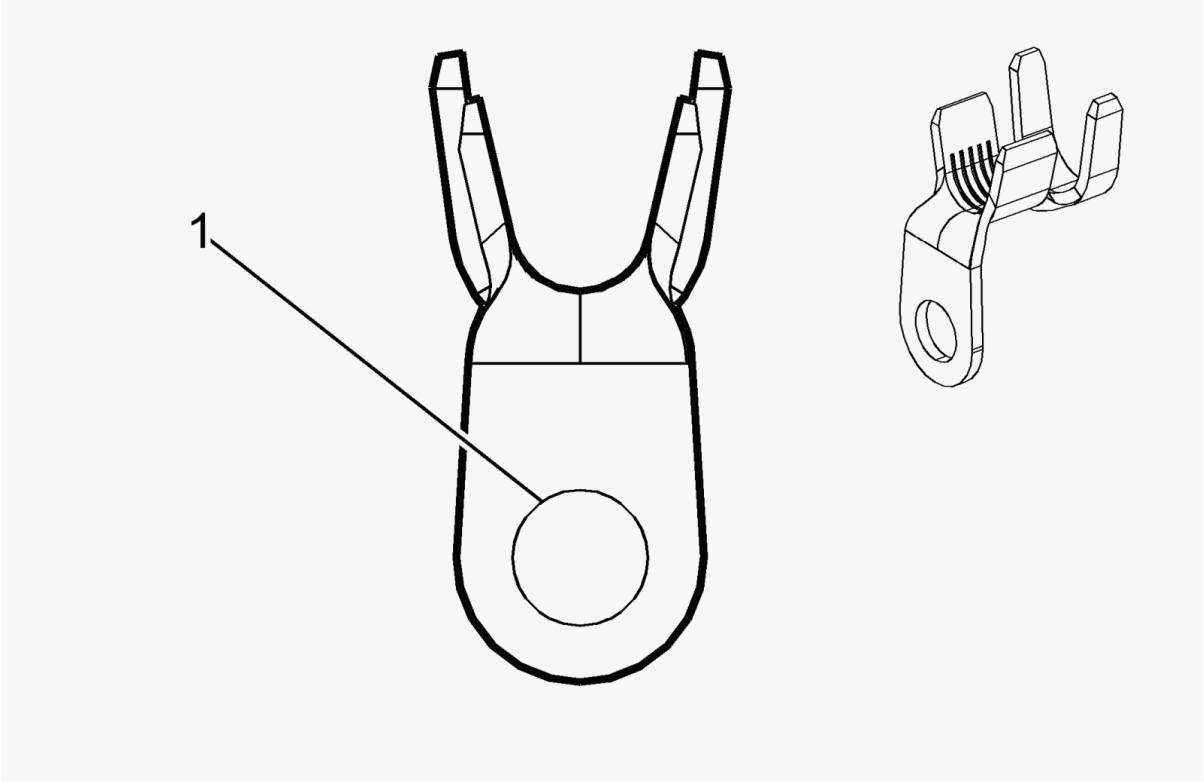
- Harness Type: Engine
- OEM Connector: 12186308
- Service Connector: 13585849
- Description: 2-Way F Junior Power Timer Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN | 25 | Charge Indicator Control | I | - |
| 2 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | I | - |

## G13 GENERATOR X2 (LH7/LTG)




Connector Part Information

- Harness Type: Battery Cable
- OEM Connector: 12146716
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

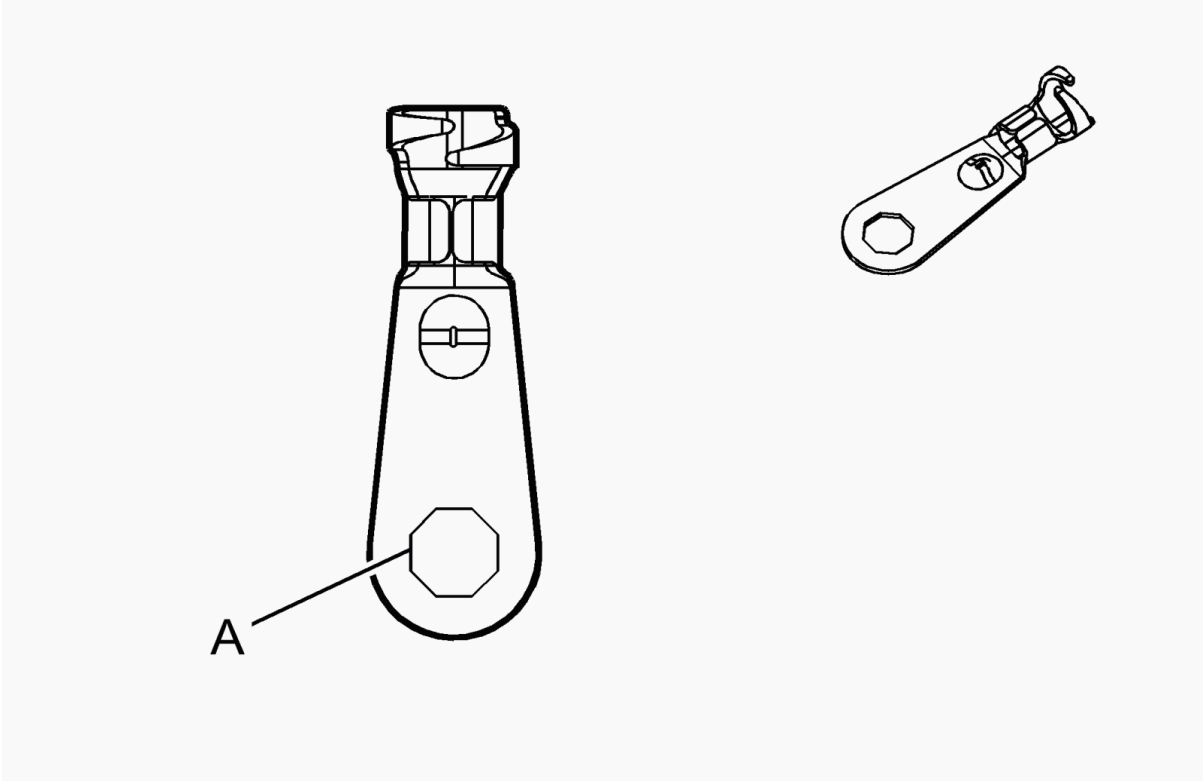
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 35 | RD | 2 | Battery Positive Voltage | I | - |

## G13 GENERATOR X2 (LYX)

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Connector Part Information

- Harness Type: Battery Cable
- OEM Connector: 12146361
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

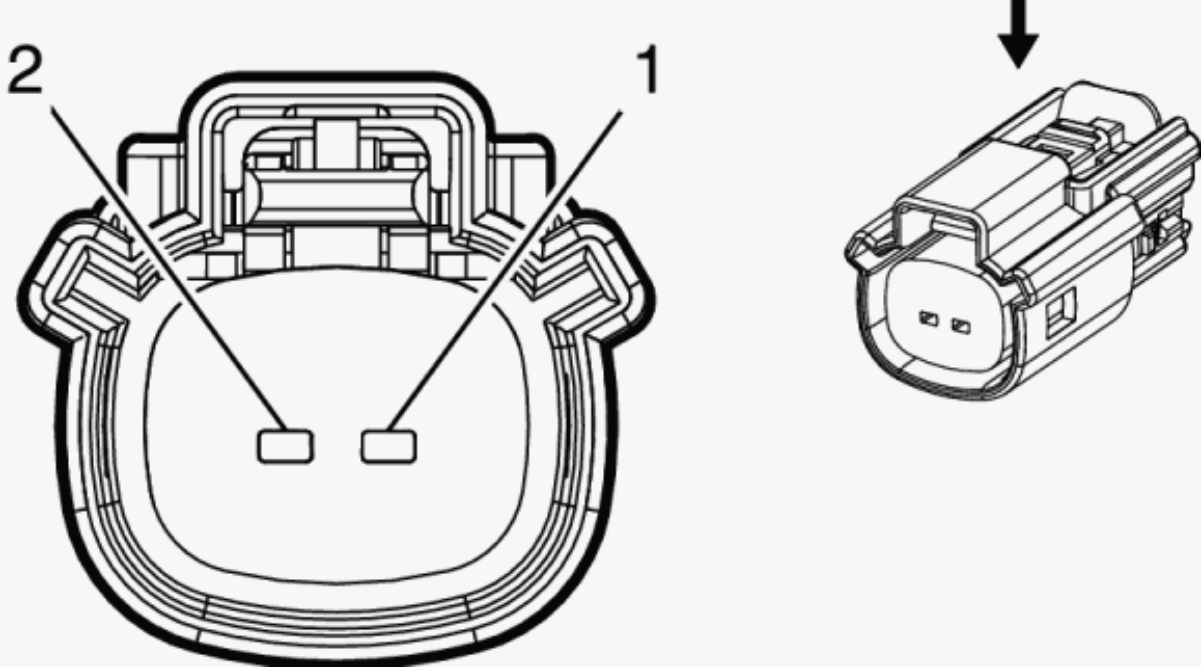
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 35 | RD | 2 | Battery Positive Voltage | I | - |

## G18 HIGH PRESSURE FUEL PUMP (LTG/LYX)

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Connector Part Information

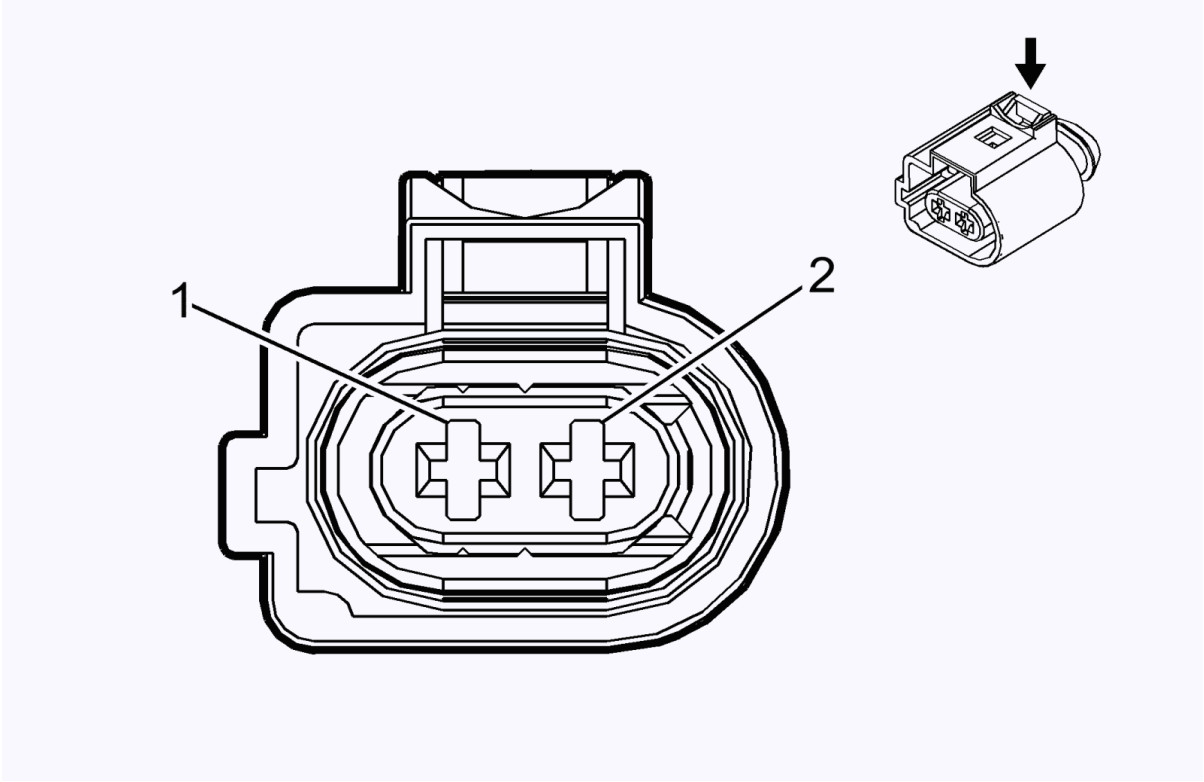
- Harness Type: Engine
- OEM Connector: 13583151
- Service Connector: 13577534
- Description: 2-Way F 150 MX Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.5 | YE<br>VT/BK | 7301<br>7300 | High Pressure Fuel Pump Actuator High - Control<br>High Pressure Fuel Pump Actuator Low - Control | I<br>I | LTG<br>LYX |
| 2 | 0.5<br>0.5 | VT/BK<br>YE | 7300<br>7301 | High Pressure Fuel Pump Actuator Low - Control<br>High Pressure Fuel Pump Actuator High - Control | I<br>I | LTG<br>LYX |

## G19 REAR WINDOW WASHER PUMP




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13583821
- Service Connector: 19301746
- Description: 2-Way F 2.8 MCP Series, Sealed (NA)

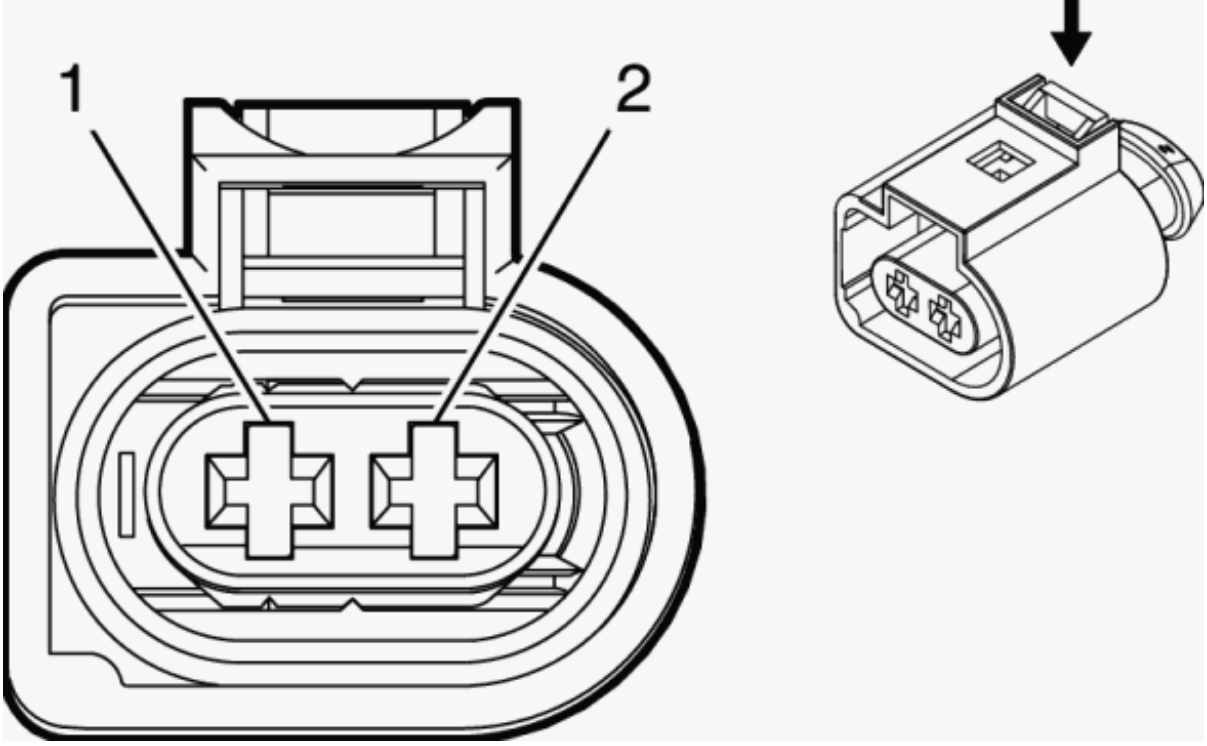
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/VT | 392 | Rear Window Washer Pump Control | I | - |
| 2 | 0.5 | BK | 1150 | Ground | I | - |

## G24 WINDSHIELD WASHER PUMP

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 1-1355200-1
- Service Connector: 19368727
- Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

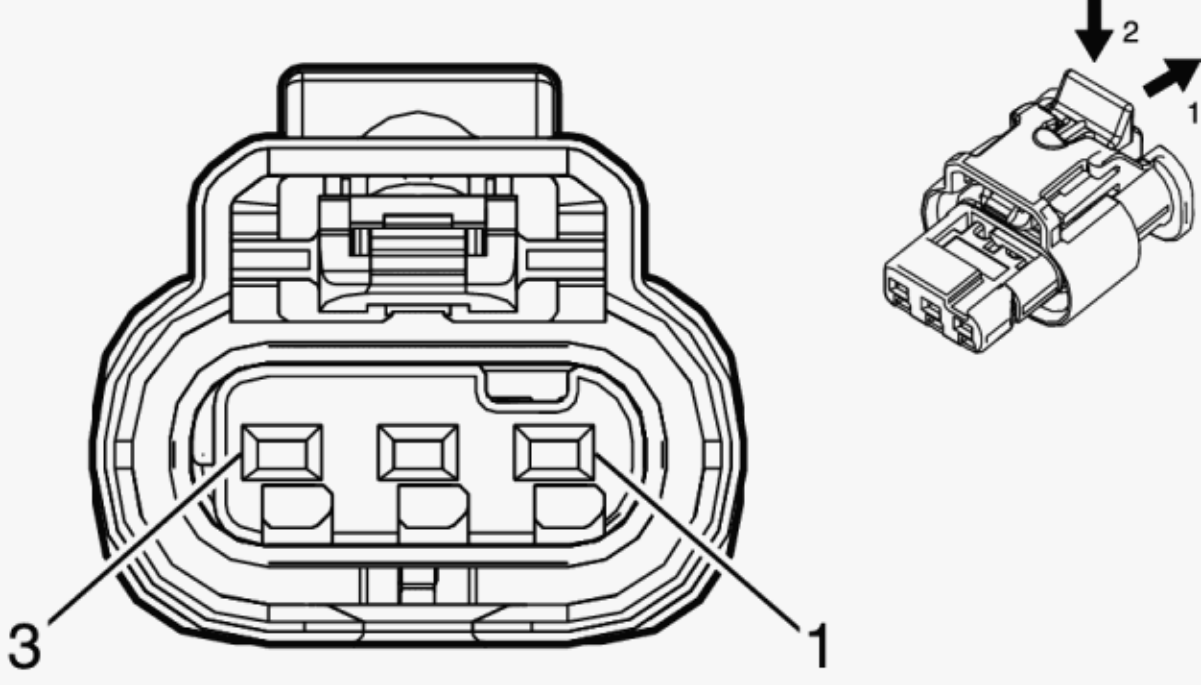
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/VT | 228 | Windshield Washer Pump Control | I | - |
| 2 | 0.5 | BK | 1150 | Ground | I | - |

## G36 AUXILIARY HEATER COOLANT PUMP (KL9)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594670
- Service Connector: 19352065
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

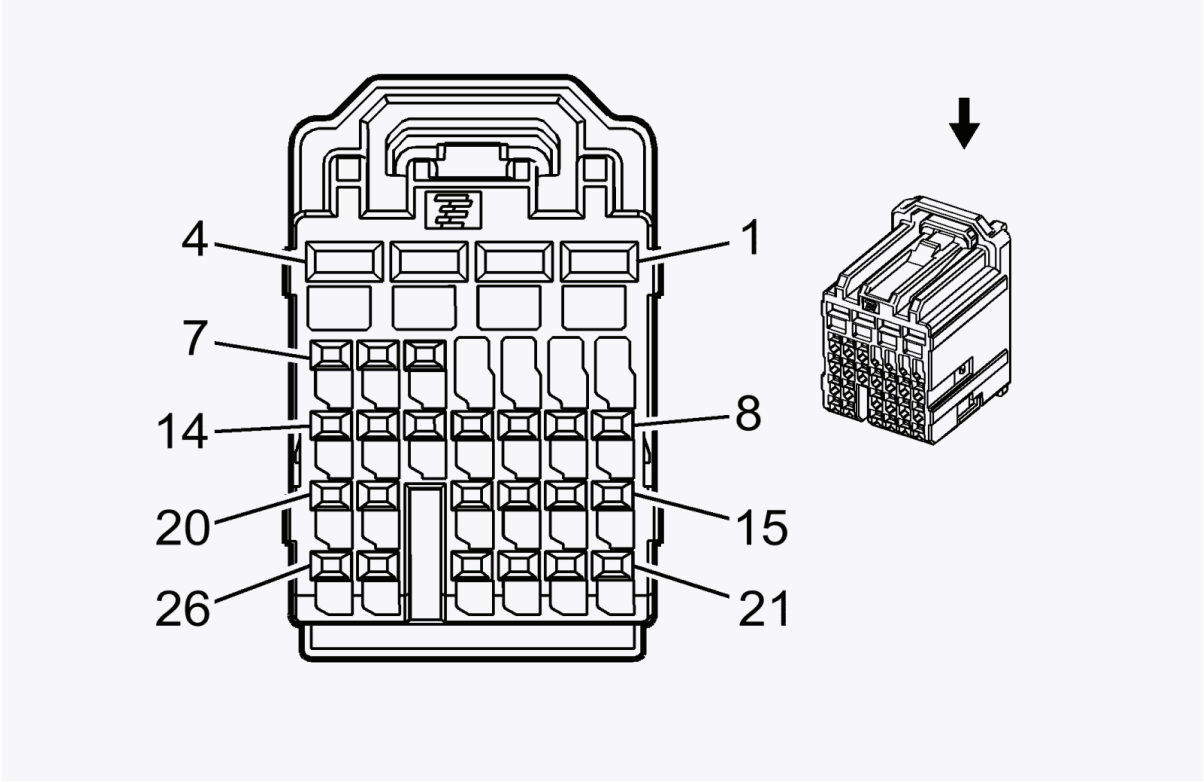
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 450 | Ground | I | - |
| 2 | 0.5<br>0.35 | YE/BU<br>YE/BU | 5126<br>5126 | After Boil Heater Pump Control<br>After Boil Heater Pump Control | I<br>I | LH7<br>LYX/LTG+MAH/MBC/MCX/EPH |
| 3 | - | - | - | Not Occupied | - | - |

## K9 BODY CONTROL MODULE X1

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576031
- Service Connector: 13576031
- Description: 26-Way F 0.64, 2.8 Series (NA)

**Terminal Part Information**

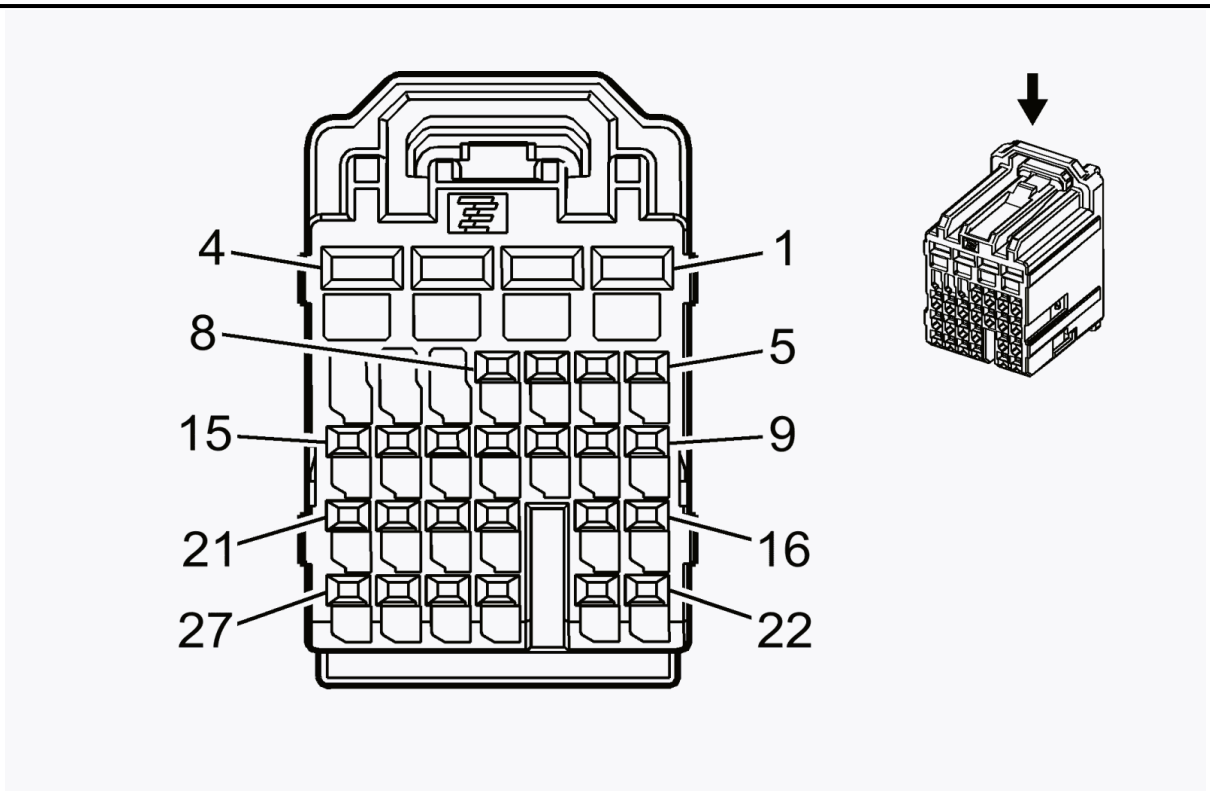
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575578 | J-35616-35 (VT) | J-38125-553 | 8100-4445 | Sumitomo 22 | F | D |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13582326 | J-35616-35 (VT) | J-38125-553 | 8100-4444 | Sumitomo 22 | 2 | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BK | 2250 | Ground | I | - |
| 2 | 1 | RD/BU | 4540 | Battery Positive Voltage | III | - |
| 3 | 1 | RD/GN | 4440 | Battery Positive Voltage | III | - |
| 4 | 2.5<br>0.75 | RD/GN<br>RD/YE | 2173<br>4340 | 12V Regulated Supply Voltage 2<br>Battery Positive Voltage | I<br>III | KL9<br>-KL9 |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | II | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | BK/YE | 5005 | Instrument Panel Lamp Dimmer Switch Low Reference | II | - |
| 8 | 0.35 | BN/BK | 5720 | Ignition Mode Switch Accessory LED Signal | II | - |
| 9 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 10 | 0.35 | BU/YE | 6844 | ABS/TCS Hill Descent Control Switch Signal | II | - |
| 11 | 0.35 | GN/BN | 306 | Headlamp Switch Headlamps Off Signal Control | II | T83/TTW |
| 12 | 0.35 | BU/GY | 553 | Shift Select Switch Performance Signal | II | V92-EPH |
| 13 | 0.35 | BU/RD | 1688 | 5V Reference | II | - |
| 14 | 0.35 | BU/GY | 187 | Rear Fog Lamp Switch Signal | II | T79 |
| 15 | 0.35 | BU/GY | 192 | Front Fog Lamp Switch Signal | II | - |
| 16 | 0.35 | WH/VT | 103 | Headlamp Switch On Signal | II | - |
| 17 | 0.35 | GY/YE | 7543 | Hazard LED Dimming Signal | II | - |
| 18 | - | - | - | Not Occupied | - | - |
| 19 | 0.35 | BK/BN | 5360 | Brake Apply Sensor Low Reference | II | - |
| 20 | 0.35 | BU/BK | 5719 | Ignition Mode Switch Start LED Signal | II | - |
| 21 | 0.35 | GY | 728 | Security Indicator Control | II | - |
| 22 | 0.35 | GN/GY | 13 | Headlamp Switch Park Lamp Signal | II | - |
| 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | - |
| 25 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | - |
| 26 | 0.13 | BU/WH | 3275 | Remote Function Actuator Receive Signal | II | - |

## K9 BODY CONTROL MODULE X2




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576032

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- Service Connector: 13576032
- Description: 27-Way F 0.64, 2.8 Series (BU)

**Terminal Part Information**

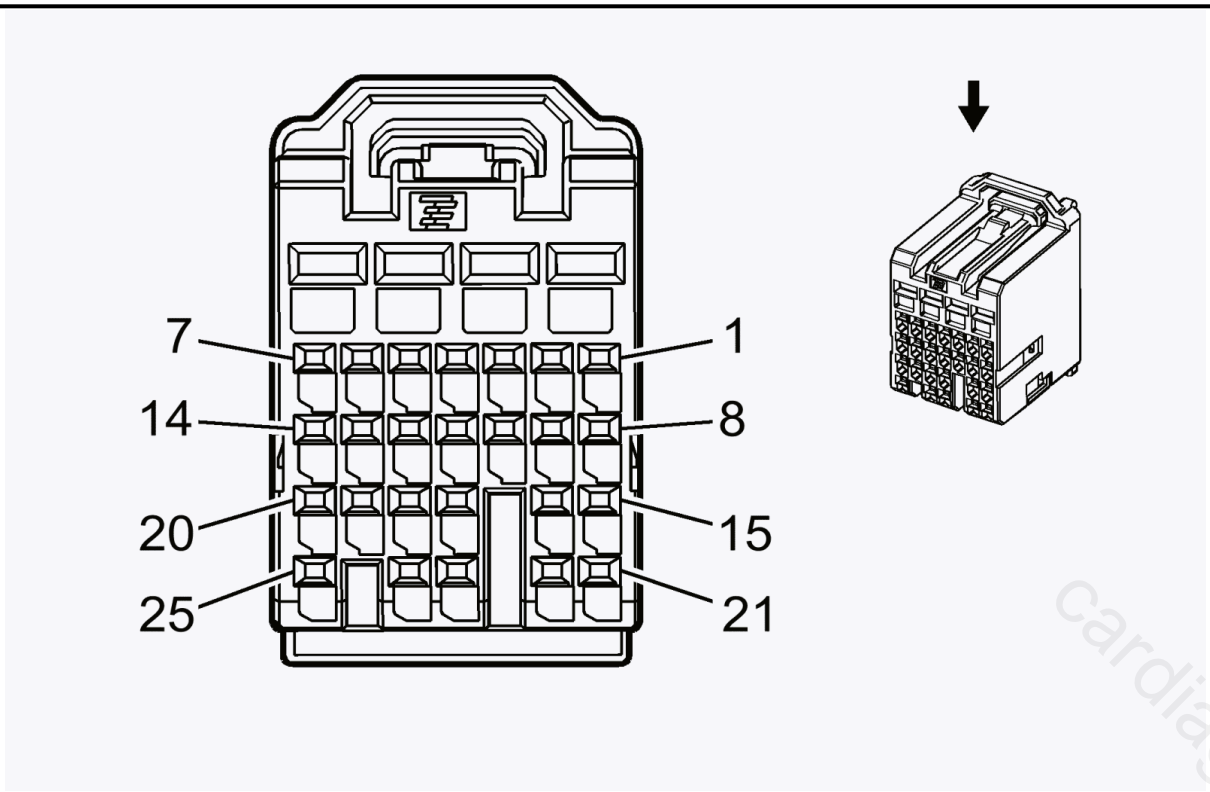
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575578 | J-35616-35 (VT) | J-38125-553 | 8100-4445 | Sumitomo 22 | F | D |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13582326 | J-35616-35 (VT) | J-38125-553 | 8100-4444 | Sumitomo 22 | 2 | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5<br>1 | GY/BN<br>RD/GY | 3761<br>4840 | Infotainment Regulated Control<br>Battery Positive Voltage | I<br>III | KL9<br>-KL9 |
| 2 | 2.5 | BK | 2250 | Ground | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 1 | RD/BN | 4940 | Battery Positive Voltage | III | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | VT/YE | 2663 | Driver Mode 5 Indicator Control | II | - |
| 7 | 0.35 | BU/YE | 5361 | Brake Apply Sensor Signal | II | - |
| 8 | 0.35 | YE | 6817 | LED Backlight Dimming Control | II | - |
| 9 | 0.35 | YE/GY | 44 | Instrument Panel Lamp Dimmer Switch Signal | II | - |
| 10 | 0.35 | WH/BU | 278 | Ambient Light Sensor Signal | II | - |
| 11 | 0.13 | VT/YE | 5526 | Tap Up/Tap Down Switch Signal | II | - |
| 12 | 0.35 | BN/BU | 391 | Rear Window Wiper Switch Signal | II | - |
| 13 | 0.35 | WH | 5359 | Brake Apply Sensor Control | II | - |
| 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | II | - |
| 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.35 | BU/GN | 5723 | Ignition Mode Switch Mode Voltage | II | - |
| 18 | 0.35 | BU | 6856 | Headlamp Automatic High Beam Dim Control | II | - |
| 19 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | II | - |
| 20 | 0.5 | WH/BU | 3691 | Trailer Brake Apply Signal | II | V92 |
| 21 | 0.35 | GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | II | - |
| 22 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | II | - |
| 23 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | - |
| 24 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 25 | 0.35 | GY/WH | 3272 | Remote Function Actuator Control | II | - |
| 26 | 0.35 | GN/WH | 111 | Hazard Switch Signal | II | - |
| 27 | 0.35 | YE/GN | 3274 | Remote Function Actuator Transmit Signal | II | - |

## K9 BODY CONTROL MODULE X3




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576037
- Service Connector: 13576037
- Description: 25-Way F 0.64, 2.8 Series (GN)

**Terminal Part Information**

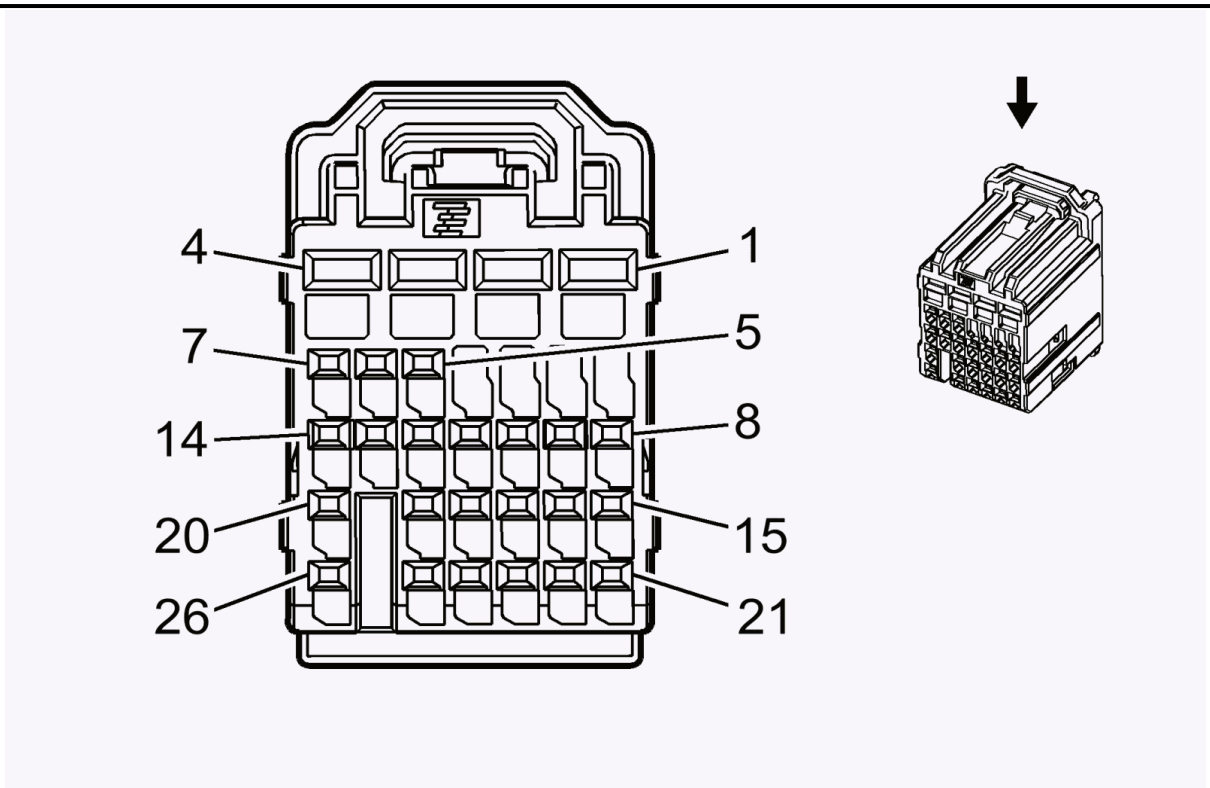
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 3277 | Vehicle Anti-Theft System Immobilizer Low Reference | I | - |
| 2 | 0.35 | GN/VT | 7533 | Local Interconnect Network Serial Data Bus 11 | I | - |
| 3 | 0.35 | GY/BK | 3276 | Vehicle Anti-Theft System Immobilizer Control | I | - |
| 4 | 0.13 | WH/RD | 1444 | 12V Reference | I | UEU/UHX |
| 5 | 0.13 | VT/YE | 4 | Accessory Ignition Voltage | I | - |
| 6 | 0.13 | VT/BK | 3 | Run/Crank Ignition 1 Voltage | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.13 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | - |
| 10 | 0.35 | BK/GY | 6009 | Windshield Wiper Switch Low Reference | I | - |
| 11 | 0.35 | WH | 524 | Headlamp Dimmer Switch High Beam Signal | I | - |
| 12 | 0.35 | WH/GN | 663 | Hazard Switch Left Turn Signal | I | - |
| 13 | 0.35 | YE/BU | 1714 | Windshield Wiper Switch Low Signal | I | - |
| 14 - 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.13 | GY/GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | - |
| 17 | 0.35 | YE/BN | 307 | Headlamp Switch Flash To Pass Signal | I | - |
| 18 | 0.13 | GN/WH | 3287 | Horn Switch Signal | I | - |
| 19 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | - |
| 20 | 0.35 | GY | 1715 | Windshield Wiper Switch High Signal | I | - |
| 21 - 22 | - | - | - | Not Occupied | - | - |
| 23 | 0.35 | GN | 4512 | Wireless Charging System Charge Indicator Control | I | - |
| 24 | 0.35 | VT/BU | 664 | Hazard Switch Right Turn Signal | I | - |
| 25 | 0.35 | WH/BK | 94 | Windshield Washer Switch Signal | I | - |

## K9 BODY CONTROL MODULE X4




Connector Part Information

- Harness Type: Body
- OEM Connector: 13576033

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- Service Connector: 13576033
- Description: 26-Way F 0.64, 2.8 Series (BK)

**Terminal Part Information**

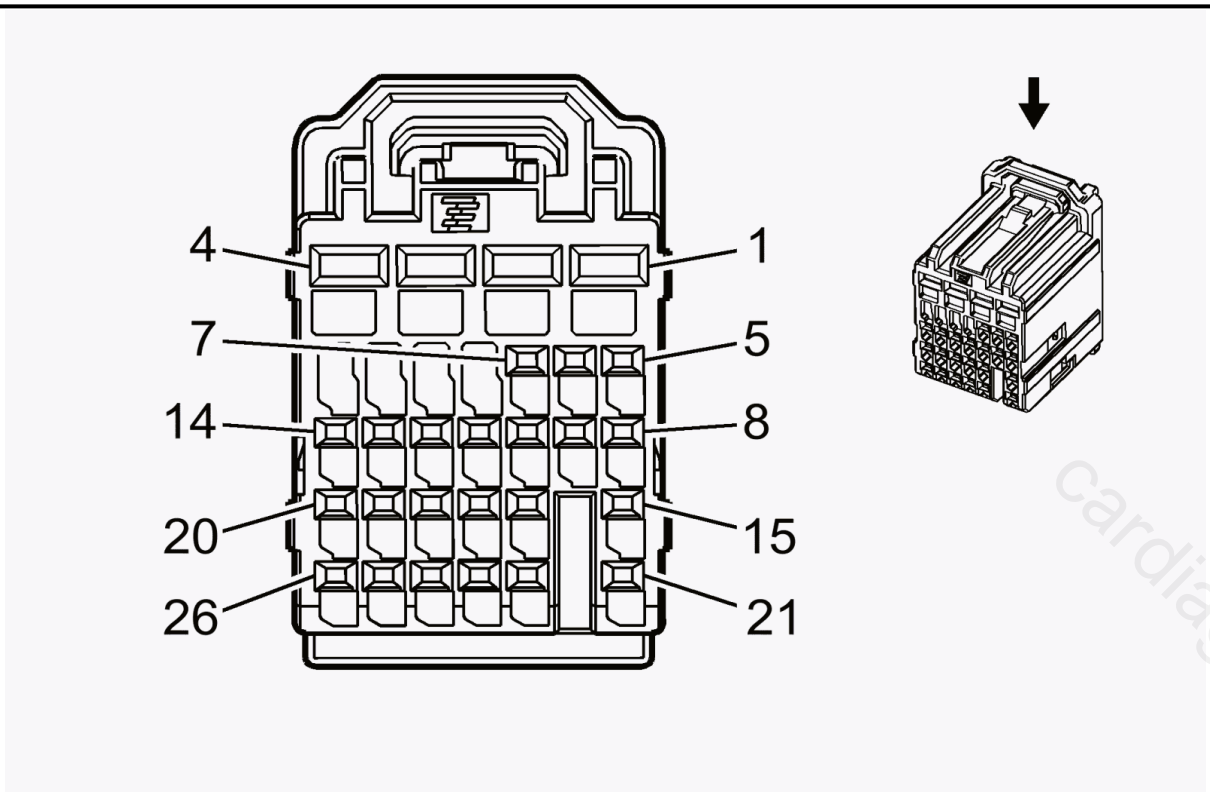
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575578 | J-35616-35 (VT) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13582298 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| IV | 19366999 | J-35616-35 (VT) | J-38125-553 | 8100-4443 | Sumitomo 22 | E | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE | 312 | Right Headlamp Low Beam Control | I | - |
| 2 | 1.5 | YE | 712 | Left Headlamp Low Beam Control | I | - |
| 3 | 0.5<br>0.5 | GN/VT<br>GN/VT | 1315<br>1315 | Right Front Turn Signal Lamp Control<br>Right Front Turn Signal Lamp Control | II<br>IV | DLF<br>-DLF |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | GY/BN | 309 | Right Park Lamp Control | II | - |
| 6 | 0.35 | VT/GY | 709 | Left Park Lamp Control | II | - |
| 7 | 0.5 | GY/YE | 7542 | Left Rear Stop Lamp Control | II | - |
| 8 | 0.35 | YE | 5420 | Rear Wiper Motor Relay Coil Control | II | - |
| 9 | 0.35 | GY/VT | 3264 | Logistic Mode Relay Close Control | II | -KL9 |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | VT/WH | 5065 | Stop Lamp Relay Coil Control | II | - |
| 12 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | II | - |
| 13 | 0.35 | GN/YE | 6846 | Rear License Lamp Control | II | - |
| 14 | 0.35 | BN/GY | 2268 | Windshield Washer Relay Control | II | - |
| 15 | 0.35 | GN/VT | 5199 | Run/Crank Relay Coil Control | II | - |
| 16 | 0.35 | GY | 91 | Windshield Wiper Motor Relay Coil Control | II | - |
| 17 | 0.35 | BN/GN | 196 | Windshield Wiper Motor Park Switch Signal | II | - |
| 18 | 0.35 | WH/YE | 5075 | Current Sensor Signal | II | - |
| 19 | 0.35 | BN/YE | 1968 | Left Stop/Tail Lamp Feedback Signal | II | UGE+MAH/MBC/MCX-Z88 |
| 20 | 0.75 | RD/WH | 2740 | Battery Positive Voltage | III | LYX-KL9 |
| 21 | 0.35 | BU/VT | 5076 | Current Sensor Control | II | LYX-KL9 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 22 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | II | - |
| 23 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | II | - |
| 24 | 0.35 | BN/GN | 4064 | Hood Status B Signal | II | - |
| 25 | 0.35 | YE/BK | 1967 | Right Stop/Tail Lamp Feedback Signal | II | - |
| 26 | 0.75 | BK | 1550 | Ground | II | LWW/LYX-KL9 |

## K9 BODY CONTROL MODULE X5




Connector Part Information

- Harness Type: Body
- OEM Connector: 13576034
- Service Connector: 13576034
- Description: 26-Way F 0.64, 2.8 Series (BN)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575578 | J-35616-35 (VT) | J-38125-553 | 8100-4445 | Sumitomo 22 | F | D |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13582326 | J-35616-35 (VT) | J-38125-553 | 8100-4444 | Sumitomo 22 | 2 | A |
| IV | 19366999 | J-35616-35 (VT) | J-38125-553 | 8100-4443 | Sumitomo 22 | E | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

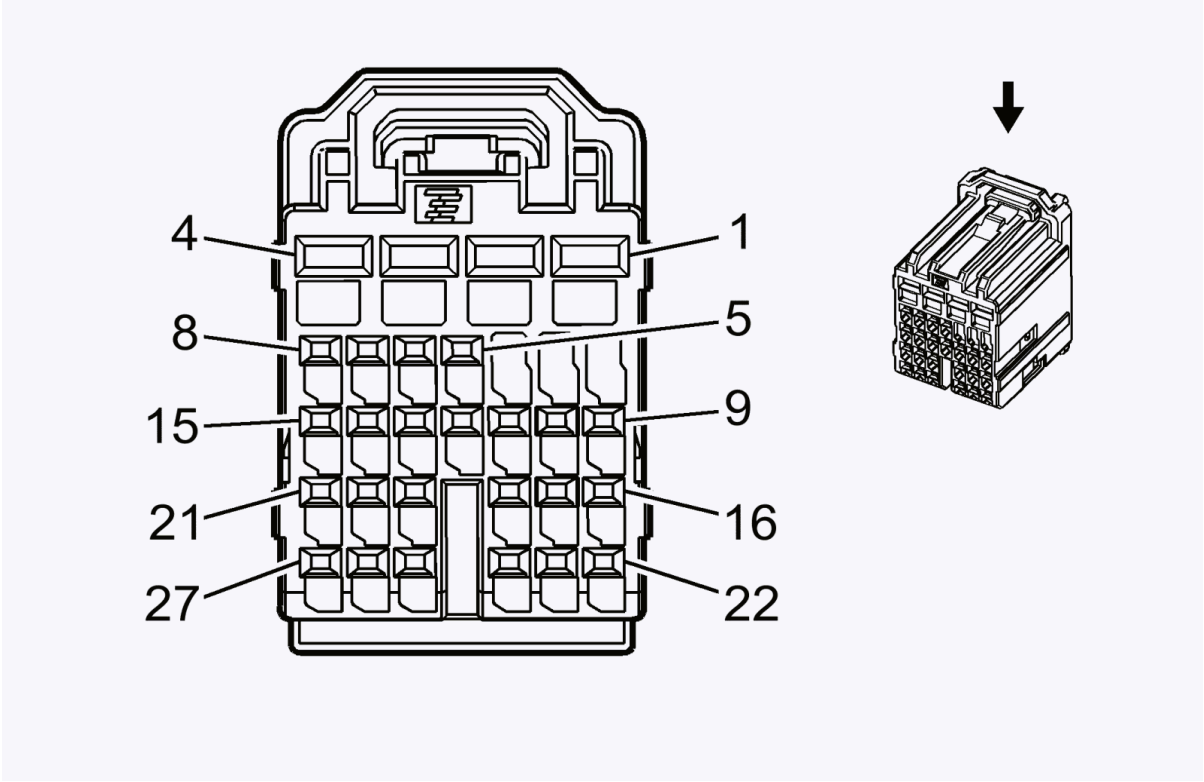
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 1334 | Left Rear Turn Signal Lamp Control | IV | - |
| 2 | 0.5 | BU/WH | 1314 | Left Front Turn Signal Lamp Control | IV | - |
| 3 | 1 | RD/GY | 4840 | Battery Positive Voltage | III | - |
| 4 | 2.5<br>1 | RD/GN<br>RD/WH | 2173<br>4740 | 12V Regulated Supply Voltage 2<br>Battery Positive Voltage | I<br>III | KL9<br>-KL9 |
| 5 | 0.5 | YE/GY | 122 | Rear Fog Lamp Control | II | T79 |
| 6 | 0.35 | BK/VT | 5077 | Current Sensor Low Reference | II | LYX-KL9 |
| 7 | 0.5 | WH/YE | 7541 | Right Rear Stop Lamp Control | II | - |
| 8 | 0.35 | BU/GY | 4672 | Dome Lamp Off Indicator Control | II | - |
| 9 | 0.35 | GN/WH | 2270 | Rear Window Washer Relay Control | II | - |
| 10 | 0.35 | BN/WH | 1317 | Fog Lamp Relay Control | II | T3U |
| 11 | 0.35 | BU/BN | 38 | Backup Lamp Relay Control | II | V92 |
| 12 | 0.35 | WH/BU | 6311 | Cruise/ETC/TCC Brake Signal | II | - |
| 13 | 0.35 | WH/BN | 544 | DRL Relay Control | II | - |
| 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BN/VT | 2914 | Driver Mode 4 Indicator Control | II | - |
| 16 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | BN/VT | 1969 | Headlamp High Beam Relay Control | II | - |
| 19 | 0.35 | BN/WH | 28 | Horn Relay Control | II | - |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | YE/BU | 2912 | Driver Mode 2 Indicator Control | II | EPH |
| 22 | 0.35 | BU | 45 | Park Lamp Relay Control | II | - |
| 23 | 0.35 | WH/GN | 2911 | Driver Mode 1 Indicator Control | II | EPH+V92 |
| 24 | 0.35 | WH/VT | 860 | Front Windshield Wiper Switch High Signal | II | - |
| 25 | 0.35 | GY/YE | 6188 | Lift Glass/Rear Compartment Lid Motor Release Control | II | TB4 |
| 26 | - | - | - | Not Occupied | - | - |

## K9 BODY CONTROL MODULE X6



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Connector Part Information

- Harness Type: Body
- OEM Connector: 13576035
- Service Connector: 13576035
- Description: 27-Way F 0.64, 2.8 Series (PK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575578 | J-35616-35 (VT) | J-38125-553 | 8100-4445 | Sumitomo 22 | F | D |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 13582326 | J-35616-35 (VT) | J-38125-553 | 8100-4444 | Sumitomo 22 | 2 | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BU/WH | 195 | Door Lock Control | III | - |
| 2 | 0.75 | GY | 295 | Door Lock Actuator Lock Control | III | - |
| 3 | 2.5 | BK | 1550 | Ground | I | - |
| 4 | 0.75 | BN/YE | 294 | Door Lock Actuator Unlock Control | III | - |
| 5 | 0.35 | VT/GY | 1303 | Lift Gate Ajar Switch Signal 1 | II | - |
| 6 | 0.13 | YE/BU | 4086 | Pushbutton Start Challenge Active Signal | II | - |
| 7 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | GN/BU | 6133 | Local Interconnect Network Serial Data Bus 2 | II | - |
| 10 | 0.35 | GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | II | - |
| 11 - 14 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | YE/BU | 5797 | Rear Closure Handle Switch Open Signal | II | - |
| 16 | 0.35 | GN/BN | 6132 | Local Interconnect Network Serial Data Bus 1 | II | - |
| 17 - 21 | - | - | - | Not Occupied | - | - |
| 22 | 0.13 | GY/GN | 328 | Interior Lamp Defeat Switch Signal | II | - |
| 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | - |
| 25 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | - |
| 26 - 27 | - | - | - | Not Occupied | - | - |

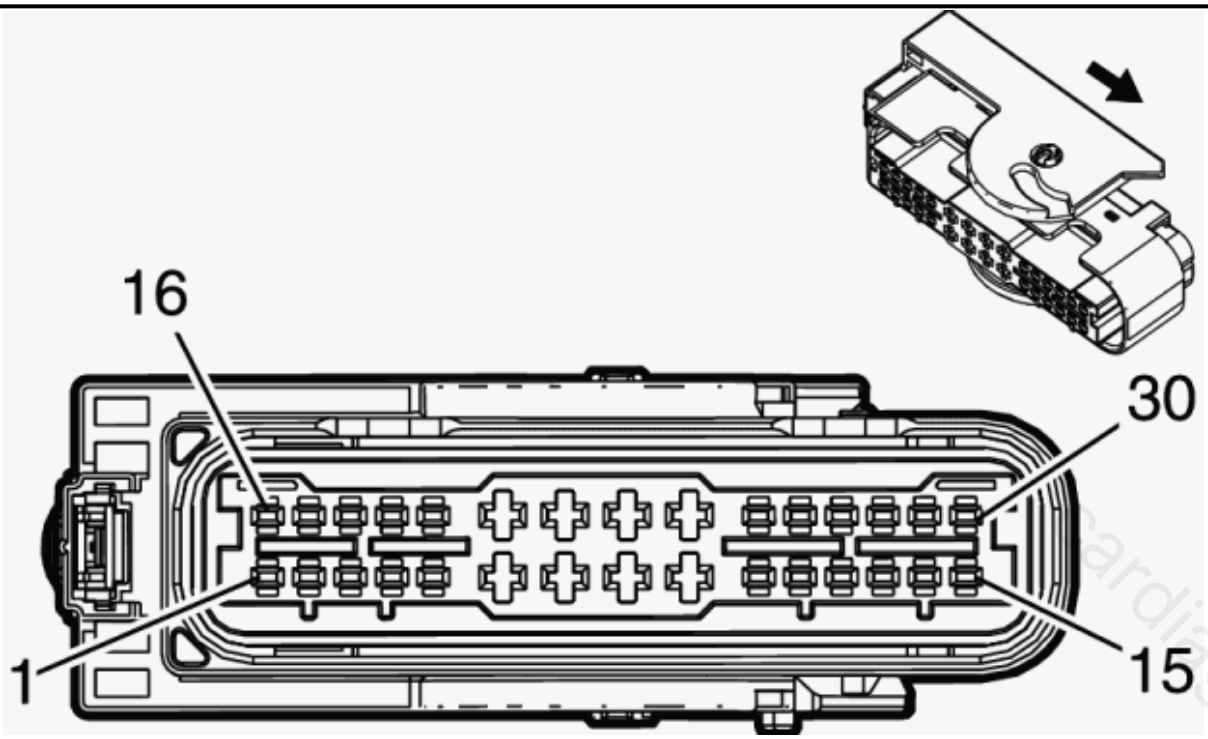
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# COMPONENT CONNECTOR END VIEWS

## K111 FUEL PUMP DRIVER CONTROL MODULE (LH7)




Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13581771
- Service Connector: Service by Harness - See Part Catalog
- Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

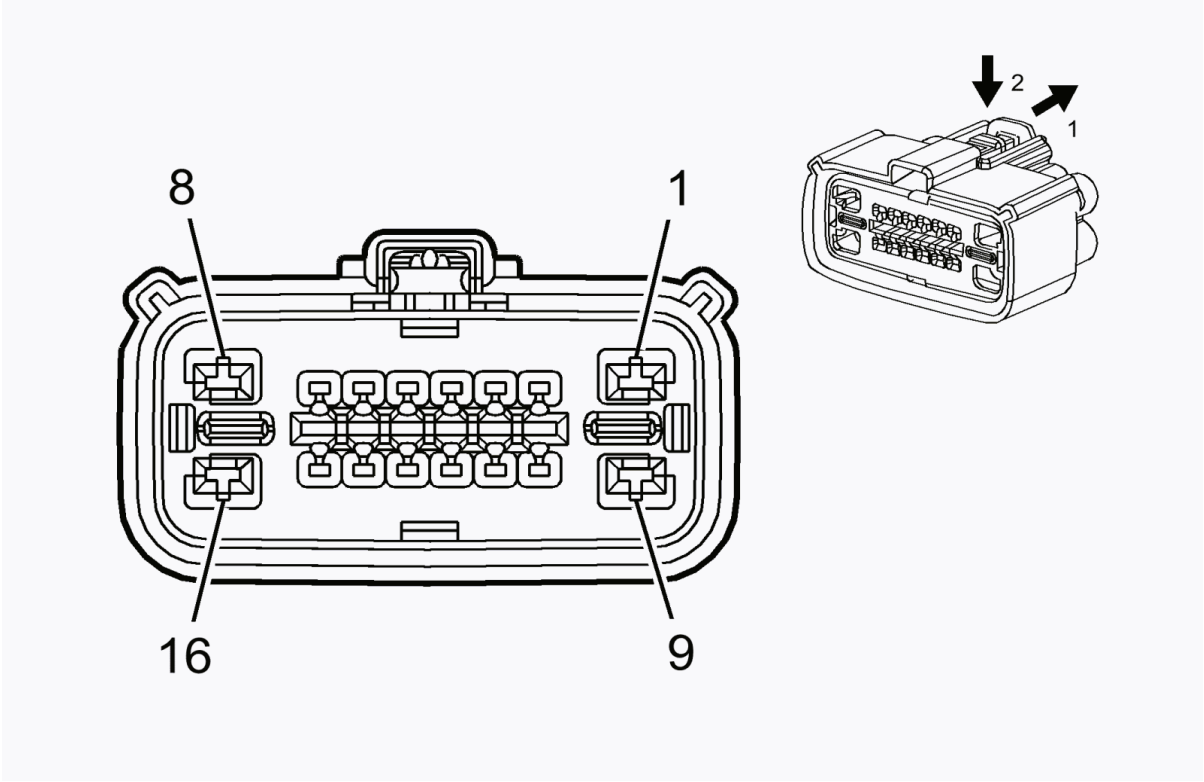
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/RD | 6862 | Water In Fuel Sensor 5V Reference | III | - |
| 2 | 0.35 | BU/YE | 6861 | Water In Fuel Sensor Signal | III | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK/VT | 455 | Fuel Filter Temperature Signal | III | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 2.5 | RD/BU | 3240 | Battery Positive Voltage | II | - |
| 8 | 2.5 | GY | 120 | Fuel Pump Control | II | - |
| 9 | 2.5 | YE/GY | 4137 | Fuel Pump Supply Voltage Phase 2 | II | - |
| 10 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | BN/RD | 7445 | Fuel Line Pressure Sensor 5V Reference | I | - |
| 13 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | - |
| 14 | 0.5 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | III | F48 |
| 15 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | - |
| 16 | 0.5<br>0.5 | VT<br>VT | 3674<br>5985 | NOx Sensor 1 Control<br>Accessory Wakeup Serial Data | I<br>I | NDE<br>-NDE |
| 17 | 0.5 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | - |
| 18 | 0.5 | GN/GY | 465 | Fuel Pump Primary Relay Control | I | - |
| 19 | 0.35 | BK/VT | 412 | Fuel Filter Temperature Sensor Low Reference | III | - |
| 20 - 21 | - | - | - | Not Occupied | - | - |
| 22 | 2.5 | BK | 1950 | Ground | II | - |
| 23 | 0.5 | BU | 7443 | Fuel System Control Module Shield Ground Extension | II | - |
| 24 | 2.5 | WH/BN | 4138 | Fuel Pump Supply Voltage Phase 3 | II | - |
| 25 | 0.35 | BK/BU | 6863 | Water In Fuel Sensor Low Reference | III | - |
| 26 | 0.5 | BU/WH | 7446 | Fuel Line Pressure Sensor Signal | I | - |
| 27 | 0.5 | BK/YE | 7447 | Fuel Line Pressure Sensor Low Reference | I | - |
| 28 | 0.5 | BK/GN | 6281 | Fuel Level Sensor Low Reference | I | - |
| 29 | 0.5 | BK/BU | 6282 | Fuel Level Sensor 2 Low Reference | III | F48 |
| 30 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | - |

## K111 FUEL PUMP DRIVER CONTROL MODULE (LTG/LYX+X88)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13599887
- Service Connector: 19352906
- Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

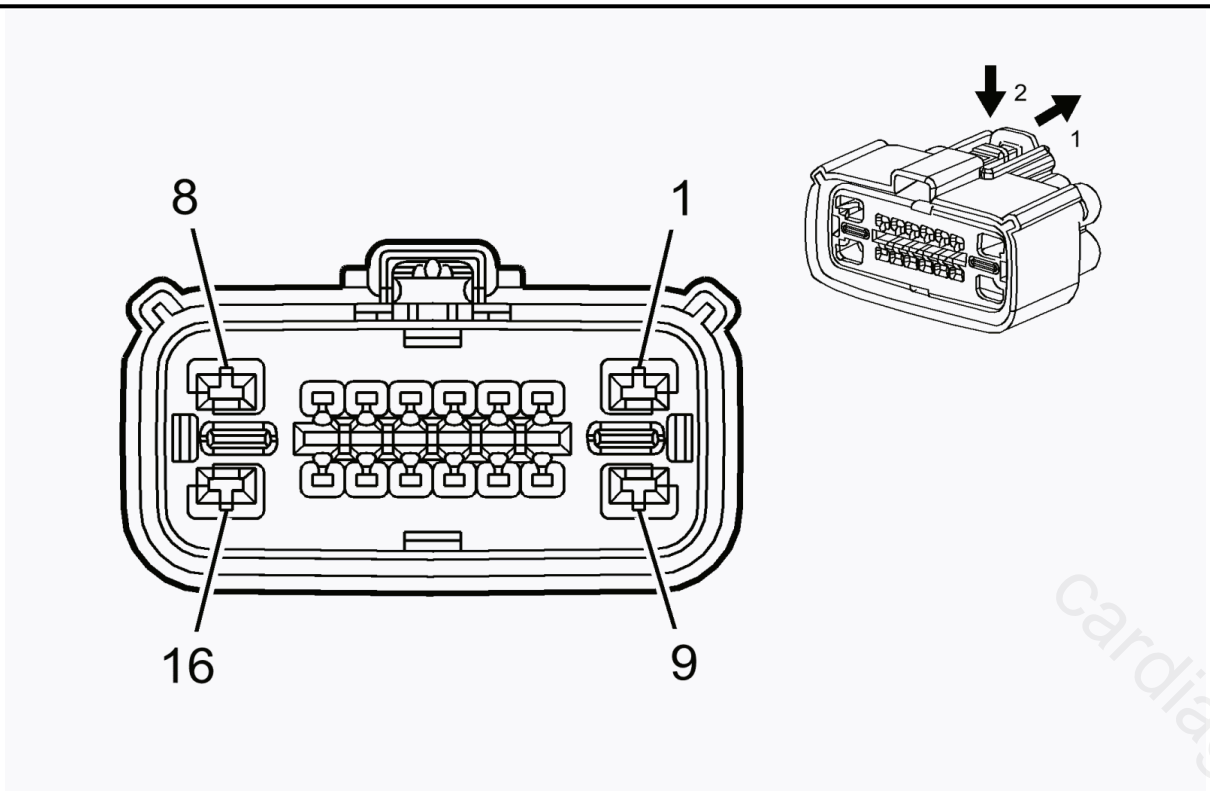
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575809 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 13576377 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/BU | 3240 | Battery Positive Voltage | II | LYX/LTG |
| 2 | 0.35 | GY | 5660 | Fuel Pump Controller Data Out Signal | III | LYX/LTG |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | High Speed GMLAN Serial Data (+) 3<br>High Speed GMLAN Serial Data (+) 3 | III<br>I | KL9<br>-KL9 |
| 5 | 0.35<br>0.35 | WH<br>WH | 7494<br>7494 | High Speed GMLAN Serial Data (-) 3<br>High Speed GMLAN Serial Data (-) 3 | III<br>I | KL9<br>-KL9 |
| 6 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | III | LYX/LTG |
| 7 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | III | LYX/LTG |
| 8 | 2.5 | GY | 120 | Fuel Pump Control | II | LYX/LTG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 9 | 2.5 | BK | 1950 | Ground | II | LYX/LTG |
| 10 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BU | 7443 | Fuel System Control Module Shield Ground Extension | III | LYX/LTG |
| 16 | 2.5 | BK/GN | 1580 | Fuel Pump Low Reference | II | LYX/LTG |

## K111 FUEL PUMP DRIVER CONTROL MODULE (LTG/LYX+Z88)




Connector Part Information

- Harness Type: Body
- OEM Connector: 34985-4003
- Service Connector: 19352906
- Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

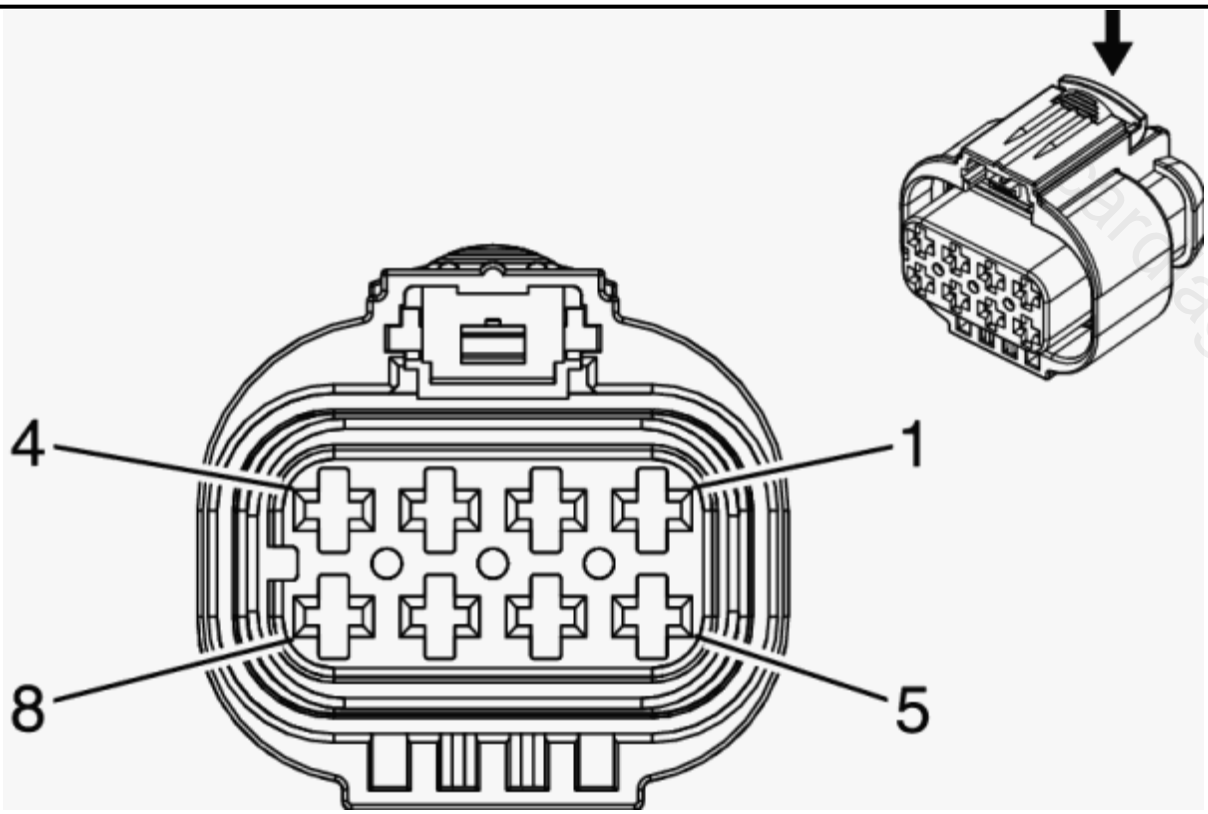
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575809 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 13576377 | J-35616-35 (VT) | J-38125-12A | 1326030-8 | Lear 17 | 4 | D |
| III | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/BU | 3240 | Battery Positive Voltage | II | LYX/LTG |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | High Speed GMLAN Serial Data (+) 3<br>High Speed GMLAN Serial Data (+) 3 | I<br>III | EPH+LYX/LTG<br>-EPH+LYX/LTG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 0.35<br>0.35 | WH<br>WH | 7494<br>7494 | High Speed GMLAN Serial Data (-) 3<br>High Speed GMLAN Serial Data (-) 3 | I<br>III | EPH+LYX/LTG<br>-EPH+LYX/LTG |
| 6 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | - |
| 7 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | - |
| 8 | 2.5 | GY | 120 | Fuel Pump Control | II | LYX/LTG |
| 9 | 2.5 | BK | 1950 | Ground | II | LYX/LTG |
| 10 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BU | 7443 | Fuel System Control Module Shield Ground Extension | III | LYX/LTG |
| 16 | 2.5 | BK/GN | 1580 | Fuel Pump Low Reference | II | LYX/LTG |

## K115 REDUCTANT CONTROL MODULE X1 (LH7)




Connector Part Information

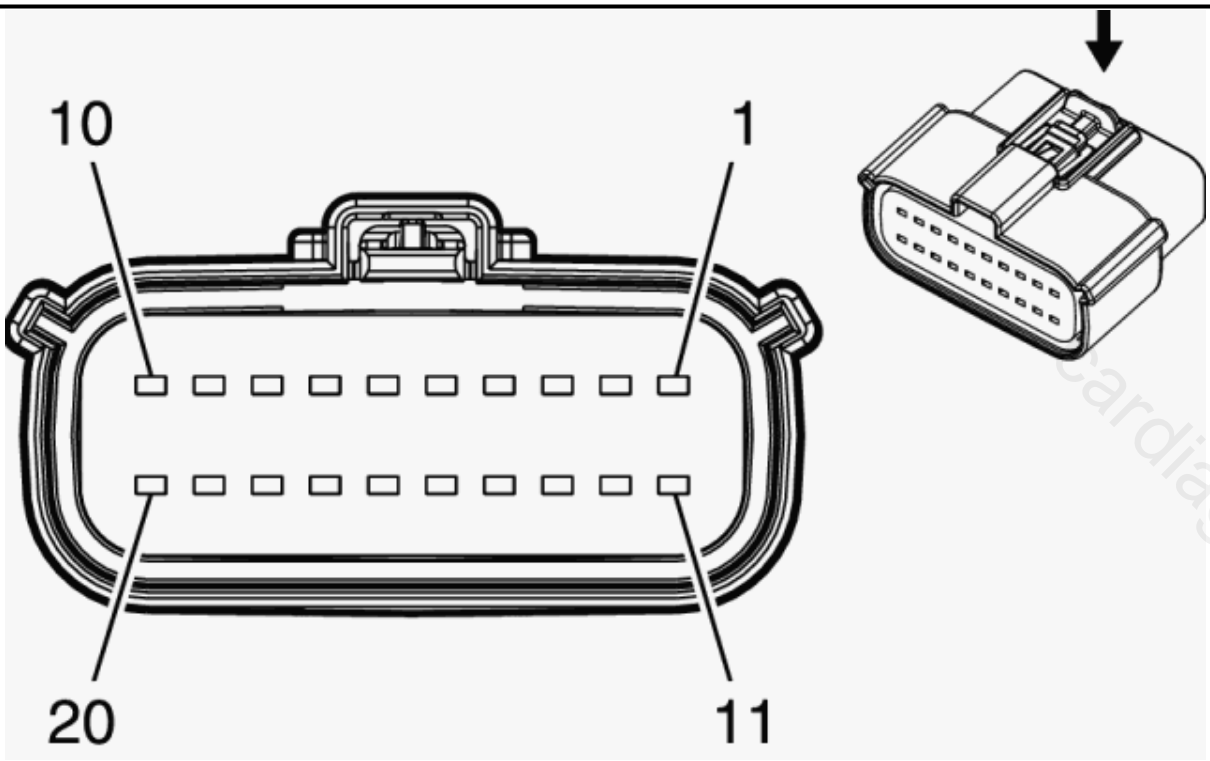
- Harness Type: Body
- OEM Connector: 13581768
- Service Connector: 19370092
- Description: 8-Way F 2.8 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/VT | 542 | Battery Positive Voltage | I | - |
| 2 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | I | LH7+NDE |
| 3 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | I | LH7+NDE |
| 4 | 2.5 | BK | 1950 | Ground | I | - |
| 5 | 0.35 | VT/GN | 4320 | Selective Catalytic Reduction Power Module Wake-Up Signal | I | - |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 3 | BU | 3921 | DEF Heater Supply 1 | I | NDE |

## K115 REDUCTANT CONTROL MODULE X2 (LH7)




Connector Part Information

- Harness Type: Reductant Control Module
- OEM Connector: 33472-2006
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 150 MX Series, Sealed (BK)

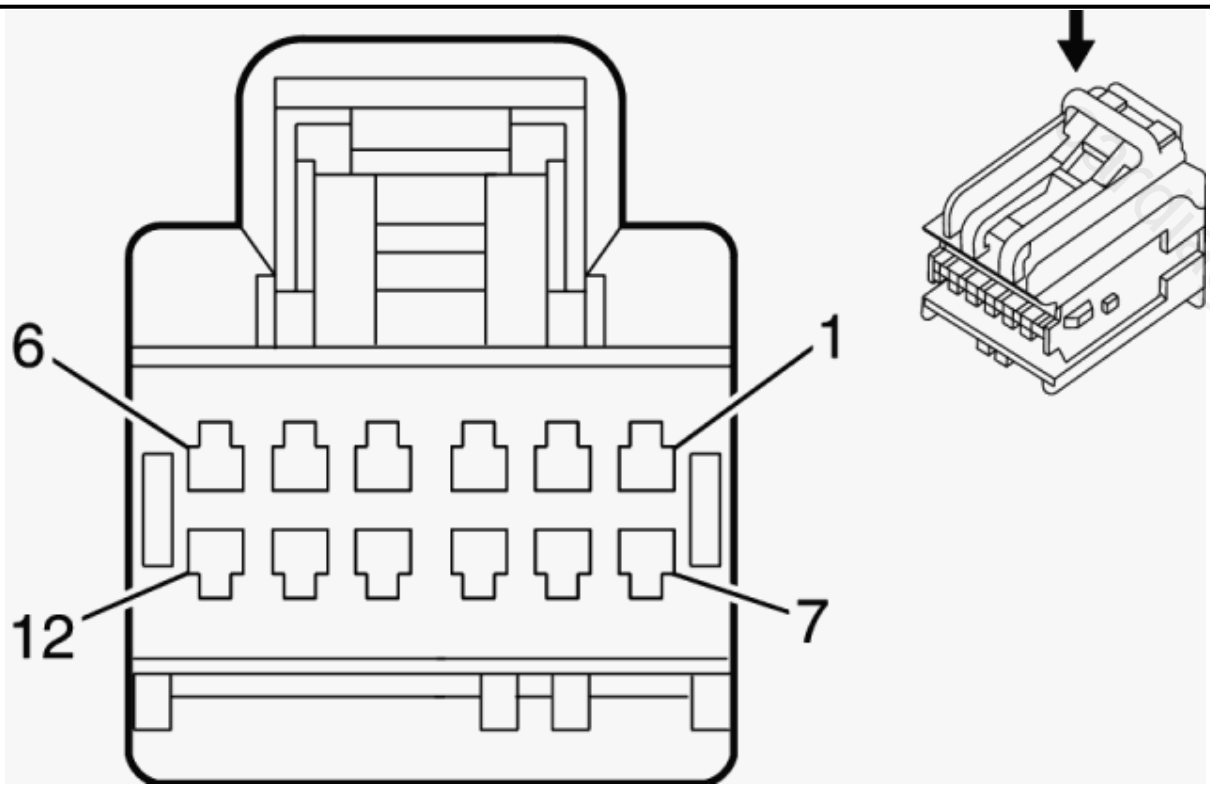
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BK | 9015 | Pump Phase C | I | - |
| 2 | 1 | YE/GY | 9008 | Pump Phase B | I | - |
| 3 | 1 | GY/WH | 9007 | Pump Phase A | I | - |
| 4 | 1 | BK/WH | 9010 | Tank Heater Ground | I | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 1 | BK | 9014 | Pump Ground | I | - |
| 6 | 0.5 | BK | 9032 | Sensor Ground | I | - |
| 7 | 1 | GY/WH | 9017 | Line Heater Ground | I | - |
| 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.5 | BK/WH | 9001 | Temperature Sensor Signal | I | - |
| 10 | 0.5 | BK | 9002 | Temperature Sensor Ground | I | - |
| 11 | 1 | GY/WH | 9009 | Tank Heater Supply | I | - |
| 12 | 0.5 | BK | 9005 | Pressure Sensor Supply | I | - |
| 13 | 0.5 | BK | 9004 | Pressure Sensor Signal | I | - |
| 14 | 0.5 | BK/WH | 9003 | Pressure Sensor Ground | I | - |
| 15 | 0.5 | BK | 9012 | Level Sensor Supply | I | - |
| 16 | 0.5 | BK | 9013 | Level Sensor Signal | I | - |
| 17 | 1 | BK/WH | 9006 | Level Sensor Ground | I | - |
| 18 | 0.5 | WH | 9031 | Sensor Signal | I | - |
| 19 | 0.5 | BK/WH | 9030 | Sensor Supply | I | - |
| 20 | 1 | BK/WH | 9016 | Line Heater Ground | I | - |

## K157 VIDEO PROCESSING CONTROL MODULE X1 (UVH)




Connector Part Information

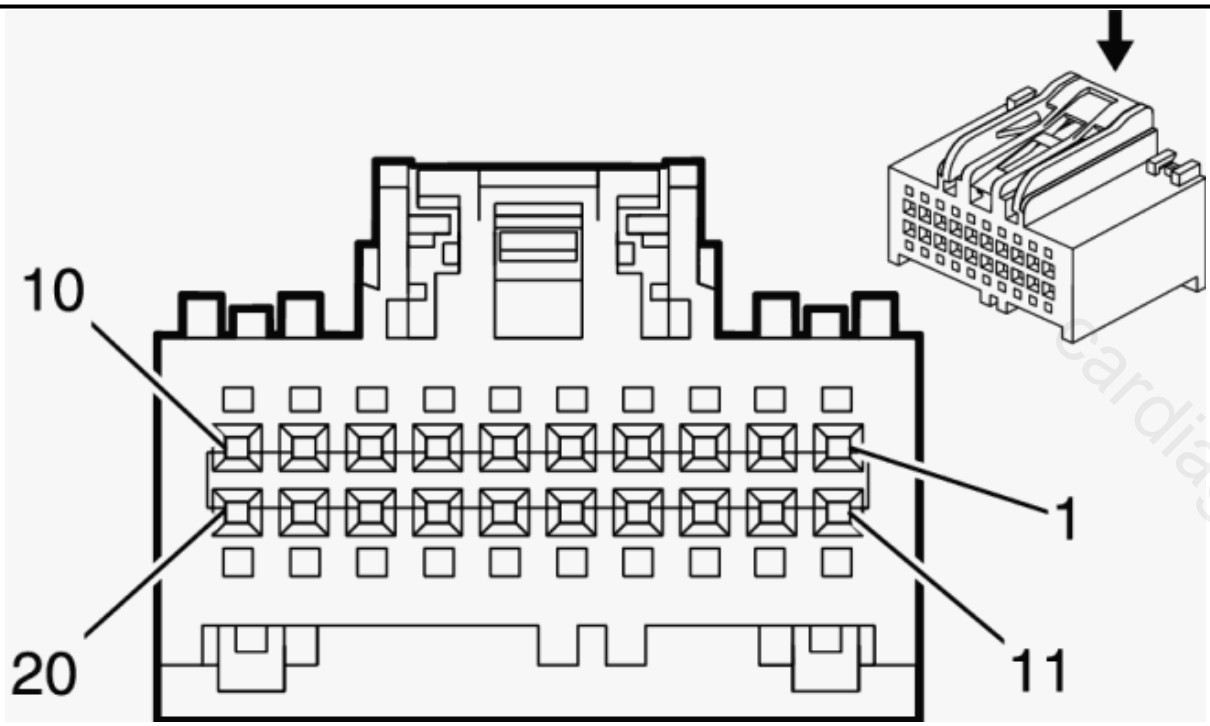
- Harness Type: Body
- OEM Connector: 31410-1120
- Service Connector: 89047364
- Description: 12-Way F 0.64 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GN | 2440 | Battery Positive Voltage | I | UVH |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | I | UVH |
| 4 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | UVH |
| 7 | 0.35 | BK | 1950 | Ground | I | UVH |
| 8 | 0.35 | BK | 1950 | Ground | I | UVH |
| 9 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | BARE | 6974 | Camera Low Reference | I | UVH |
| 12 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | UVH |

## K157 VIDEO PROCESSING CONTROL MODULE X2 (UVH)




Connector Part Information

- Harness Type: Body
- OEM Connector: 31410-1200
- Service Connector: 15126711
- Description: 20-Way F 64 Series, Sealed (BK)

**Terminal Part Information**

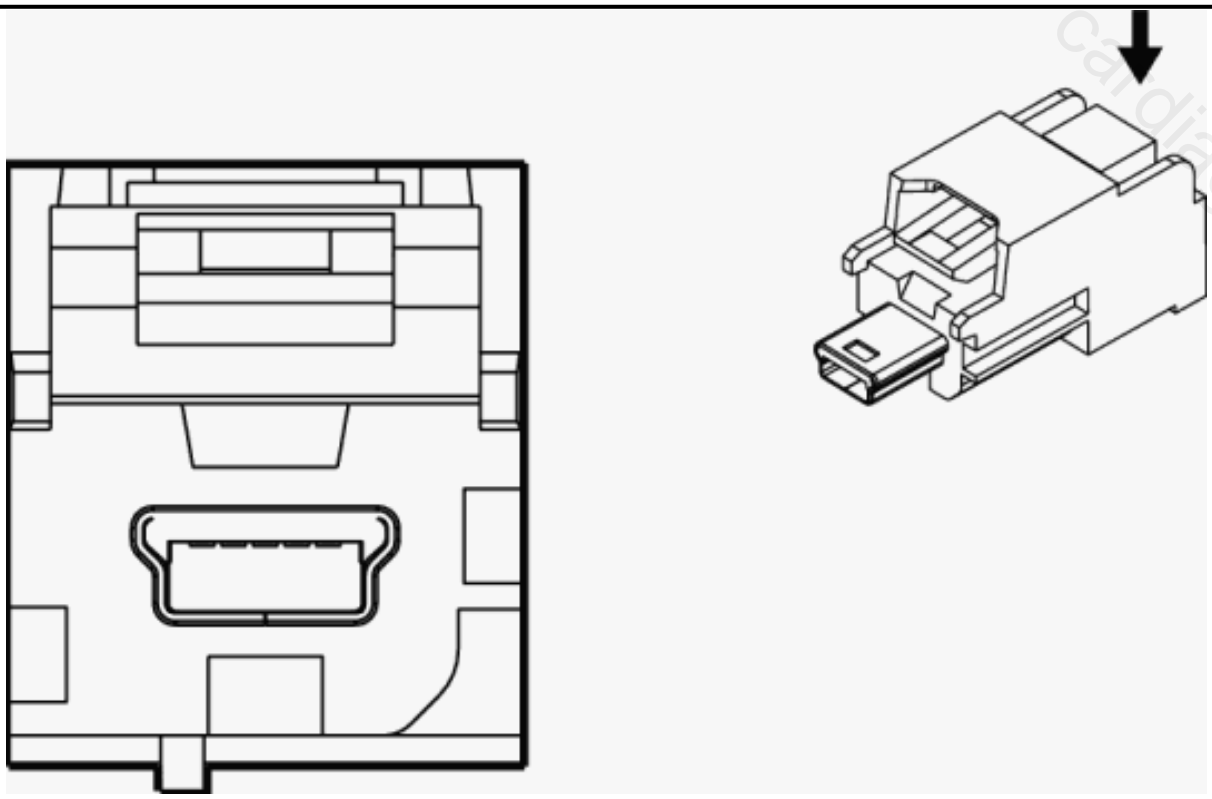
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | UVH |
| 2 | 0.35 | BK/WH | 1351 | Signal Ground | I | UVH |
| 3 | 0.35 | BK/YE | 4670 | Rear Camera Return | I | - |
| 4 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 0.35 | WH/GN | 2628 | Left Side Vision Camera Video Signal (+) | I | UVH |
| 6 | 0.35 | BK/GN | 4664 | Left Side Camera Return | I | UVH |
| 7 | 0.35 | BK/BU | 4667 | Right Side Camera Return | I | UVH |
| 8 | 0.35 | WH/BU | 2627 | Right Side Vision Camera Video Signal (+) | I | UVH |
| 9 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | UVH |
| 12 | 0.35 | GN/YE | 6840 | Auxiliary Device 2 Switched Voltage | I | UVH |
| 13 | 0.35 | VT/BN | 4669 | Rear Camera Control | I | - |
| 14 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 15 | 0.35 | GY/GN | 2625 | Left Side Vision Camera Video Signal (-) | I | UVH |
| 16 | 0.35 | VT/GN | 4663 | Left Side Camera Control | I | - |
| 17 | 0.35 | VT/BU | 4666 | Right Side Camera Control | I | UVH |
| 18 | 0.35 | GY/BU | 2626 | Right Side Vision Camera Video Signal (-) | I | UVH |
| 19 - 20 | - | - | - | Not Occupied | - | - |

## K157 VIDEO PROCESSING CONTROL MODULE X3 (UVH)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13584755
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

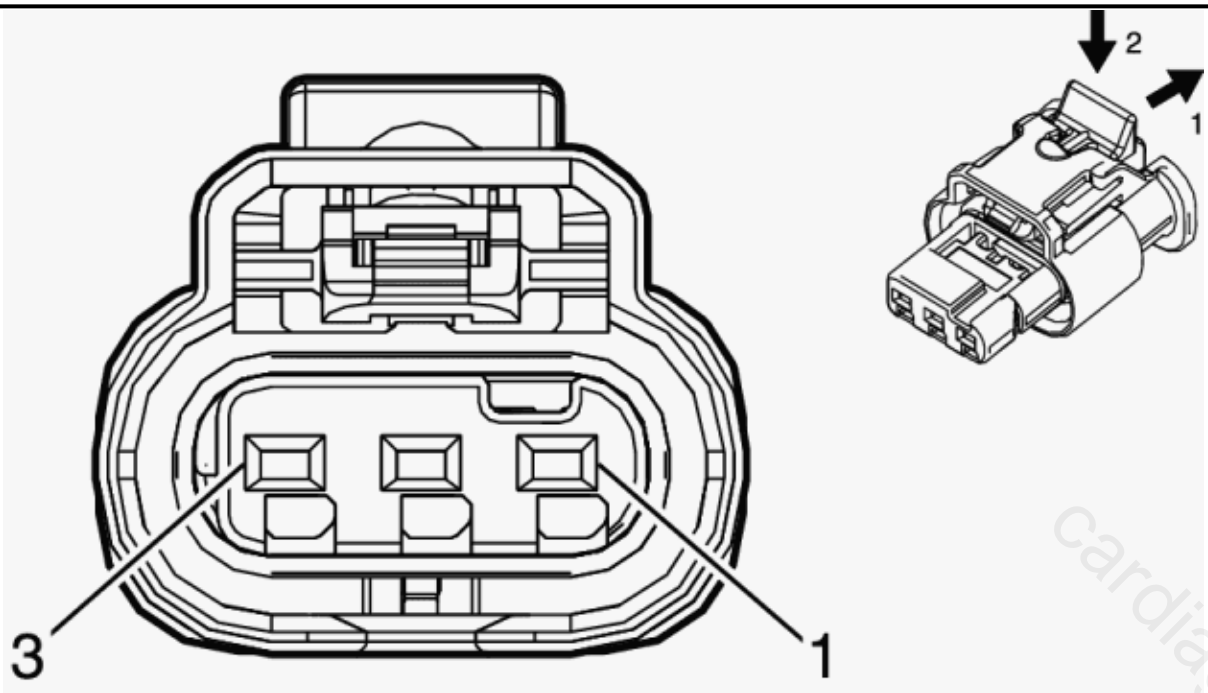
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## K171 HANDS-FREE LIFTGATE SENSOR CONTROL MODULE X1 (TC2)




Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 4-2272004-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 MCP Series, Sealed (BN)

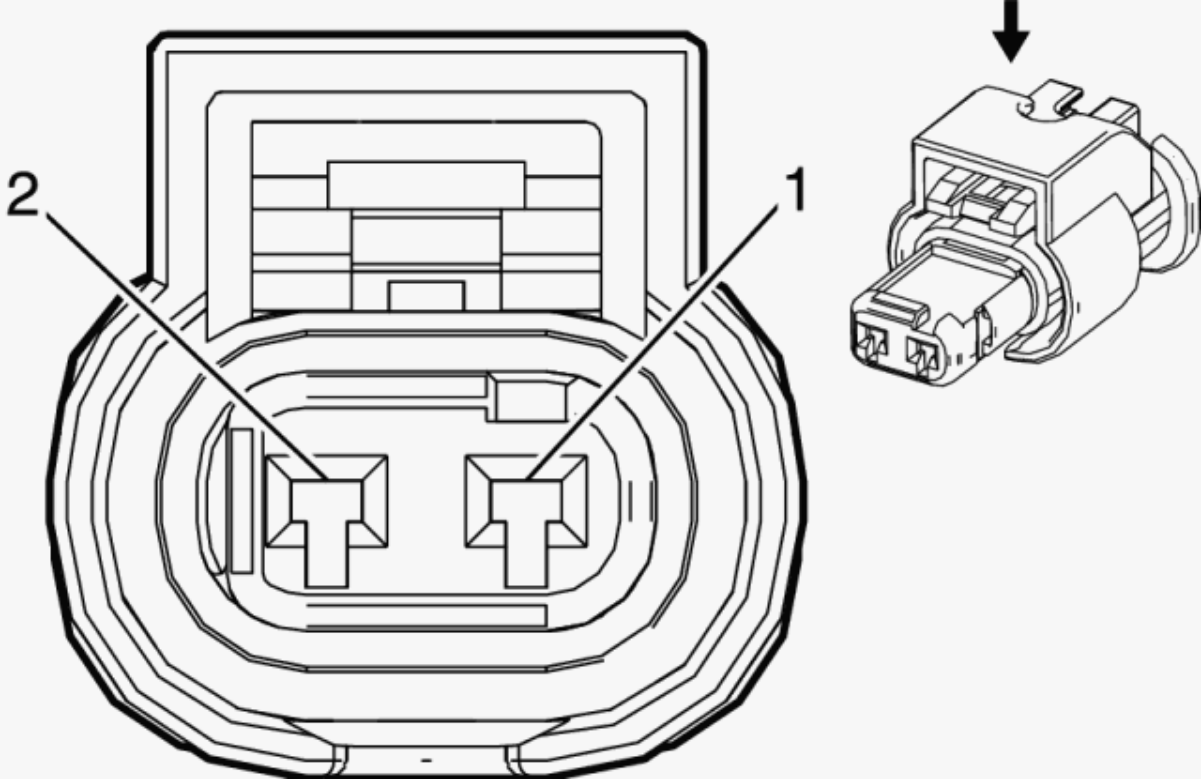
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/BN | 4118 | Local Interconnect Network Serial Data Bus 18 | I | TC2 |
| 2 | 0.5 | RD/GN | 2440 | Battery Positive Voltage | I | TC2 |
| 3 | 0.5 | BK | 2550 | Ground | I | - |

## K171 HANDS-FREE LIFTGATE SENSOR CONTROL MODULE X2 (TC2)

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Connector Part Information

- Harness Type: Hands-Free Liftgate Sensor Control Module
- OEM Connector: 13586143
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

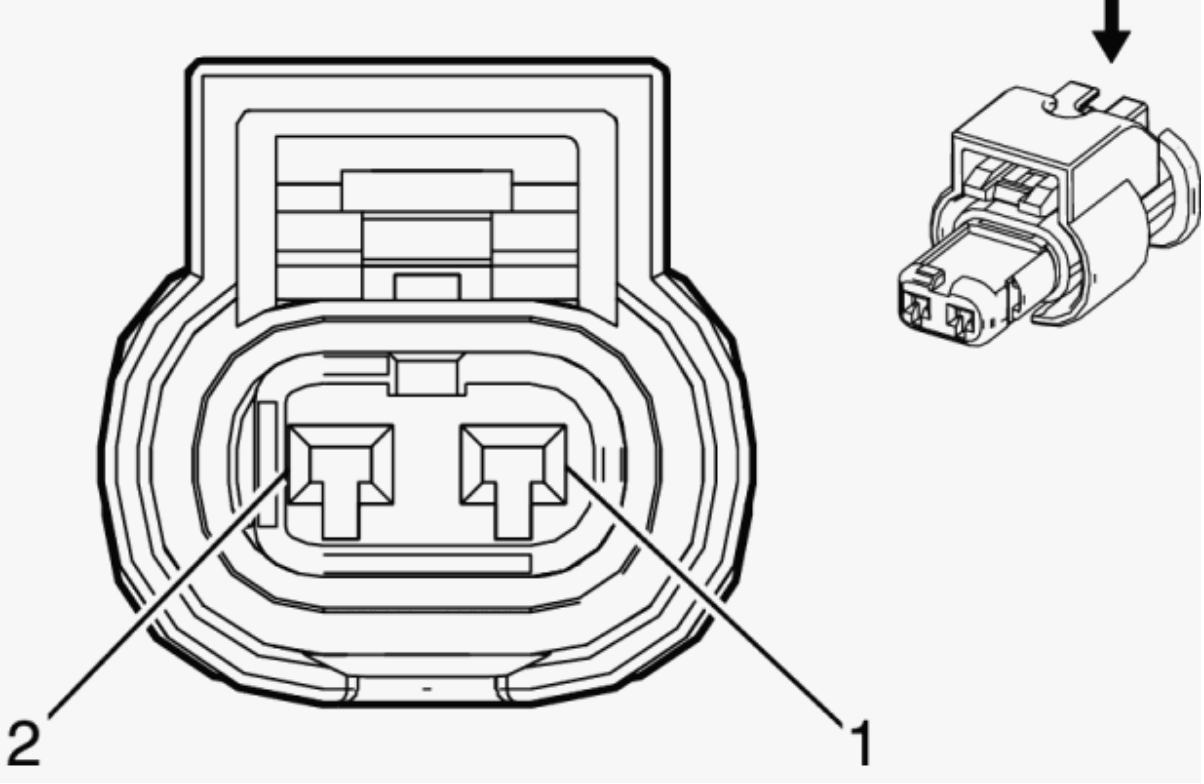
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/BN | 4898 | Hands Free Closure Release Sensor Signal 1 | I | TC2 |
| 2 | 0.5 | RD/GN | 4897 | Hands Free Closure Release Sensor Low Reference 1 | I | TC2 |

## K171 HANDS-FREE LIFTGATE SENSOR CONTROL MODULE X3 (TC2)

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Connector Part Information

- Harness Type: Hands-Free Liftgate Sensor Control Module
- OEM Connector: 13586144
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

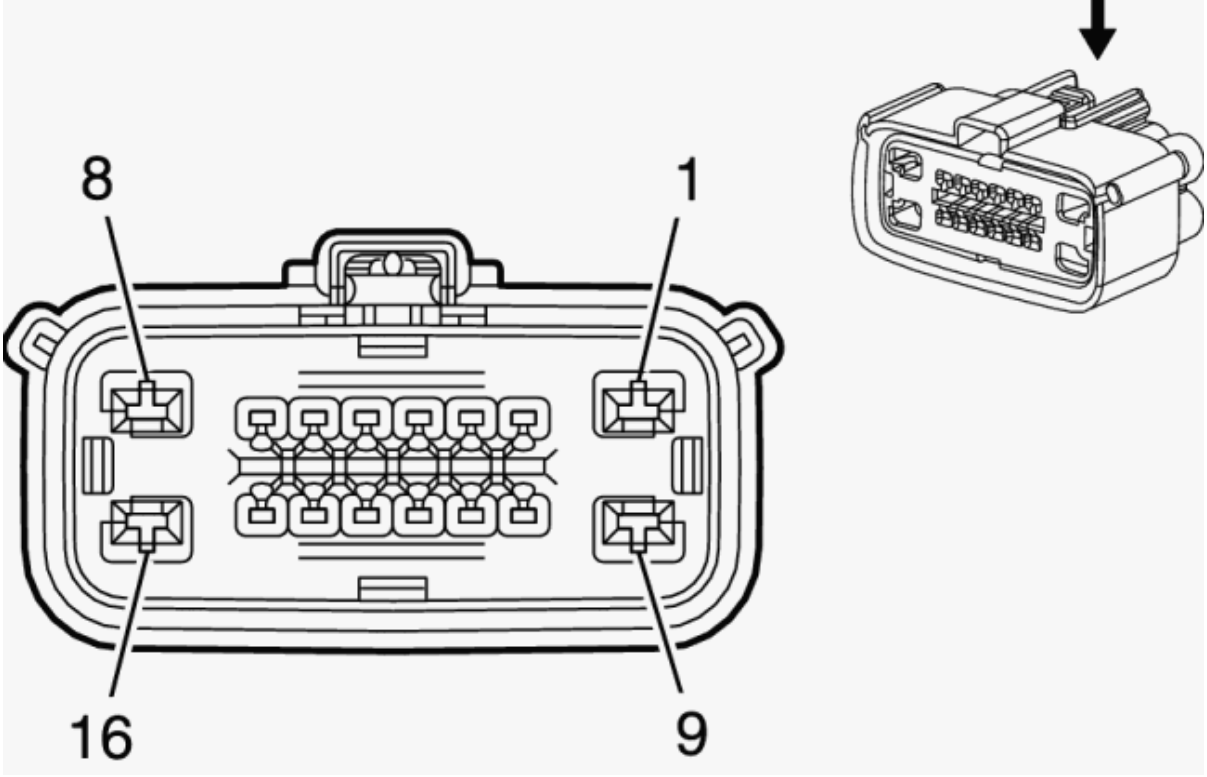
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/BN | 4900 | Hands Free Closure Release Sensor Signal 2 | I | TC2 |
| 2 | 0.5 | RD/GN | 4899 | Hands Free Closure Release Sensor Low Reference 2 | I | TC2 |

## K173 TRANSMISSION RANGE CONTROL MODULE (LH7+EPH)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13599854
- Service Connector: 19352906
- Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

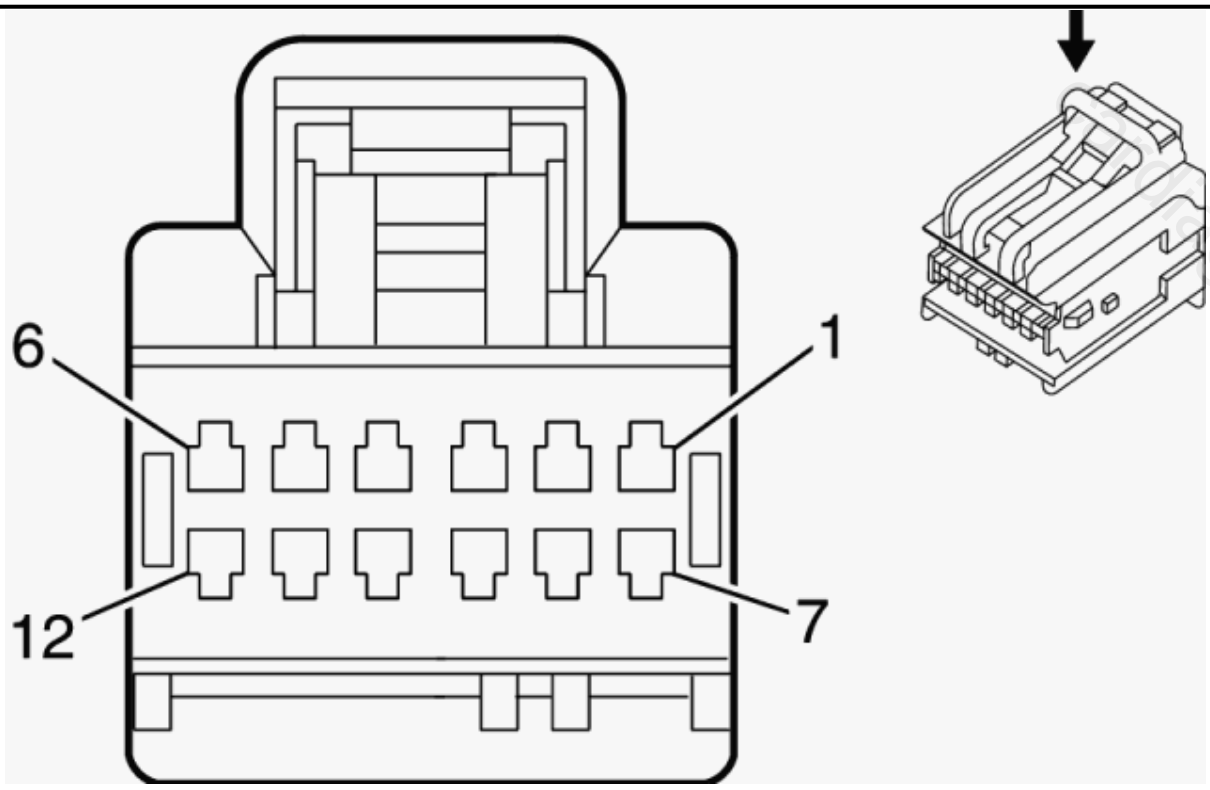
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13505803 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 13576377 | J-35616-35 (VT) | J-38125-12A | 1326030-8 | Lear 17 | A | 4 |
| III | 13578813 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| IV | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | MHG+EPH |
| 2 | 0.35 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | III | MHG+EPH |
| 3 | 0.35 | VT/YE | 5985 | Accessory Wakeup Serial Data | III | MHG+EPH |
| 4 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | IV | EPH+LH7 |
| 5 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | IV | EPH+LH7 |
| 6 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | IV | EPH+LH7 |
| 7 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | IV | EPH+LH7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 1.5 | BK | 1450 | Ground | II | MHG+EPH |
| 9 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | IV | MHG+EPH |
| 12 | 0.35<br>0.35 | WH<br>WH | 2501<br>2501 | High Speed GMLAN Serial Data (-) 1<br>High Speed GMLAN Serial Data (-) 1 | IV<br>IV | EPH+LH7+UEU/UHX<br>EPH+LH7-UEU-UHX |
| 13 | 0.35<br>0.35 | BU<br>BU | 2500<br>2500 | High Speed GMLAN Serial Data (+) 1<br>High Speed GMLAN Serial Data (+) 1 | IV<br>IV | EPH+LH7+UEU/UHX<br>EPH+LH7-UEU-UHX |
| 14 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | IV | EPH+LH7 |
| 15 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | IV | EPH+LH7 |
| 16 | 1.5 | RD/GY | 2140 | Battery Positive Voltage | II | EPH+MHG |

## K182 PARKING ASSIST CONTROL MODULE X1 (UD5/UD7/UFQ)




Connector Part Information

- Harness Type: Body
- OEM Connector: 31410-1120
- Service Connector: 89047364
- Description: 12-Way F 0.64 Series, Sealed (BK)

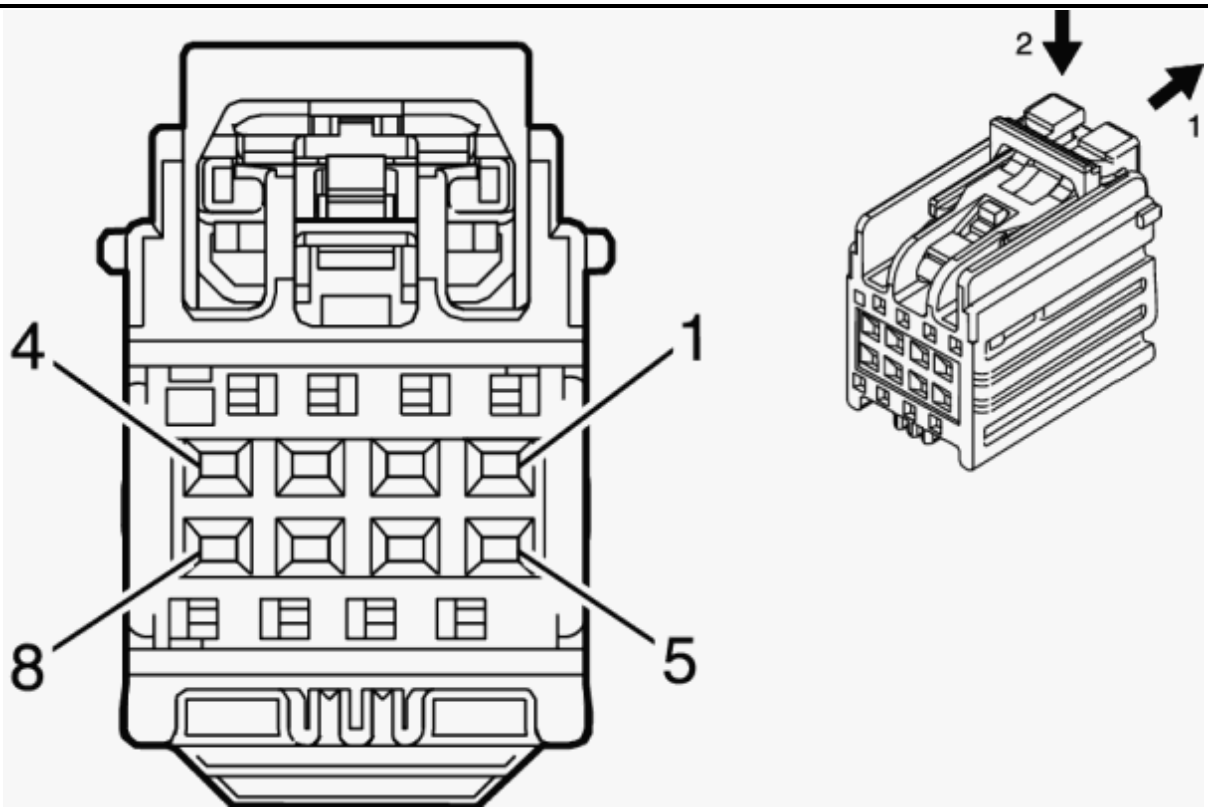
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/YE | 5040 | Battery Positive Voltage | I | UD7/UD5/UFQ |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/BN | 5852 | Rear Park Assist LED Disable Signal | I | UD5/UFQ |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 6 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | UFQ |
| 7 | 0.35 | BK | 2350 | Ground | I | UD5/UD7/UFQ |
| 8 | 0.13 | GY/GN | 2555 | Rear Park Assist Disable Signal | I | UD5/UFQ |
| 9 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | UD5/UD7/UFQ |
| 10 | 0.13 | BU/BN | 3161 | Parallel Park Assist Disable Switch Signal | II | UFQ |
| 11 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | UFQ |
| 12 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |

## K182 PARKING ASSIST CONTROL MODULE X2 (UD5/UD7/UFQ)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13593893
- Service Connector: 19355209

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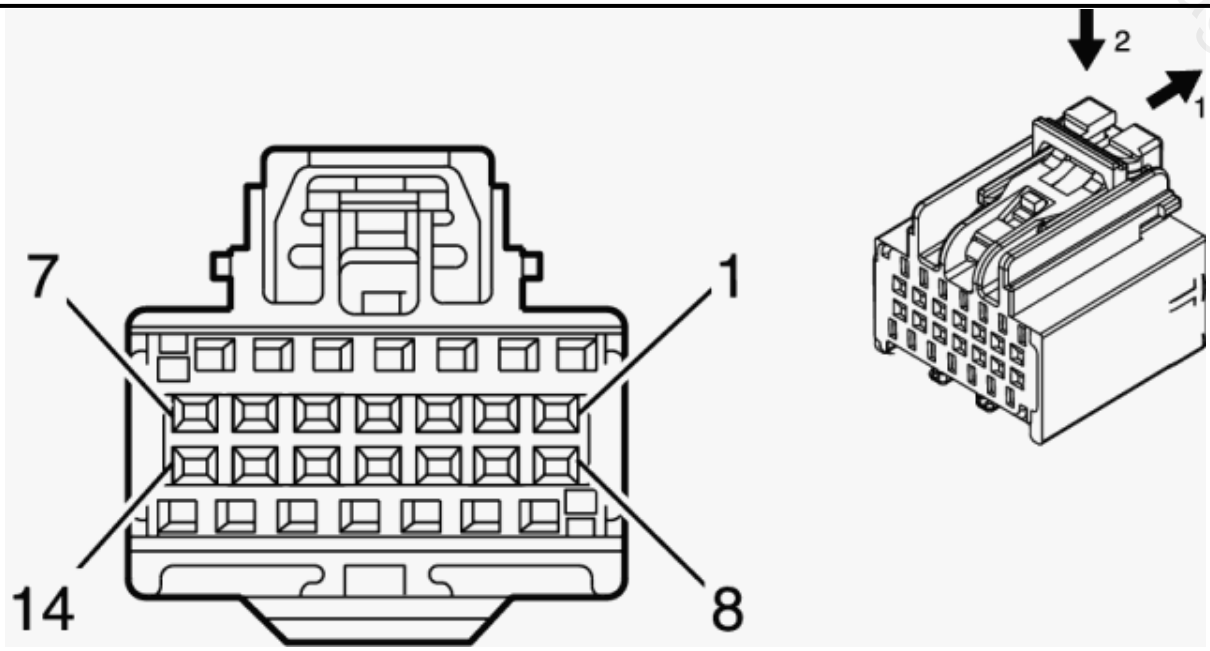
- Description: 8-Way F YESC Kaizen Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 2375 | Left Rear Corner Object Sensor Signal | I | UD5/UD7/UFQ |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | YE/BU | 2376 | Left Rear Middle Object Sensor Signal | I | UD5/UD7/UFQ |
| 4 | 0.35 | BN/WH | 2374 | Object Sensor Control | I | UD5/UD7/UFQ |
| 5 | 0.35 | YE/VT | 2378 | Right Rear Corner Object Sensor Signal | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | YE/WH | 2377 | Right Rear Middle Object Sensor Signal | I | UD5/UD7/UFQ |
| 8 | 0.35 | BK/GY | 2379 | Object Sensor Low Reference | I | UD5/UD7/UFQ |

## K182 PARKING ASSIST CONTROL MODULE X3 (UD5/UFQ)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13593897
- Service Connector: 19354933
- Description: 14-Way F 0.64 Kaizen Series (BU)

**Terminal Part Information**

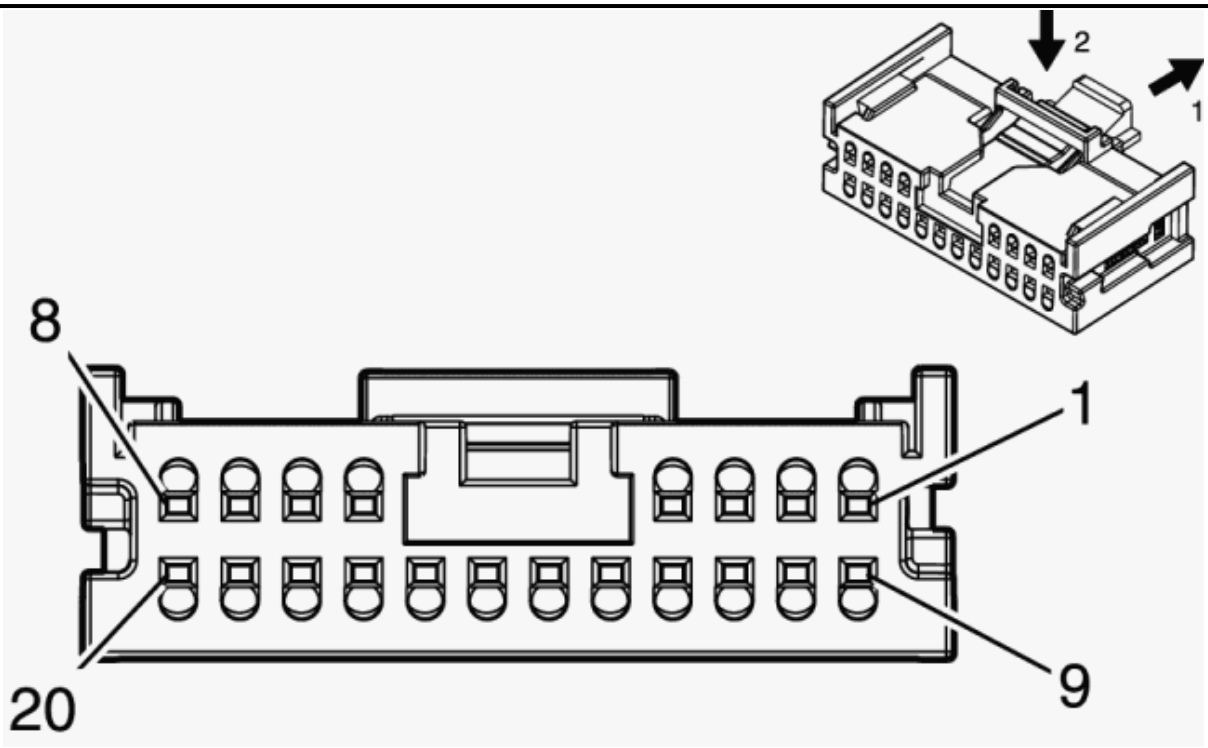
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | Front Parking Left/Right/Mid Sensor | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GY | 3154 | Left Front Supplemental Object Sensor Signal | I | UFQ |
| 4 | 0.35 | VT/WH | 5215 | Front Parking Left Corner Sensor | I | - |
| 5 | 0.35 | YE/GY | 5216 | Front Parking Left Mid Sensor | I | UD5/UFQ |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | BK/BU | 5214 | Front Parking Sensor Low Reference | I | UD5/UFQ |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | GN | 3155 | Right Front Supplemental Object Sensor Signal | I | UFQ |
| 11 | 0.35 | WH/GY | 5217 | Front Parking Right Corner Sensor | I | UD5/UFQ |
| 12 | 0.35 | VT/GY | 5218 | Front Parking Right Mid Sensor | I | - |
| 13 - 14 | - | - | - | Not Occupied | - | - |

## K188 HUMAN MACHINE INTERFACE CONTROL MODULE BYPASS MODULE X1 (IO5/IO6+MAH/MBC)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13596105
- Service Connector: 13596105

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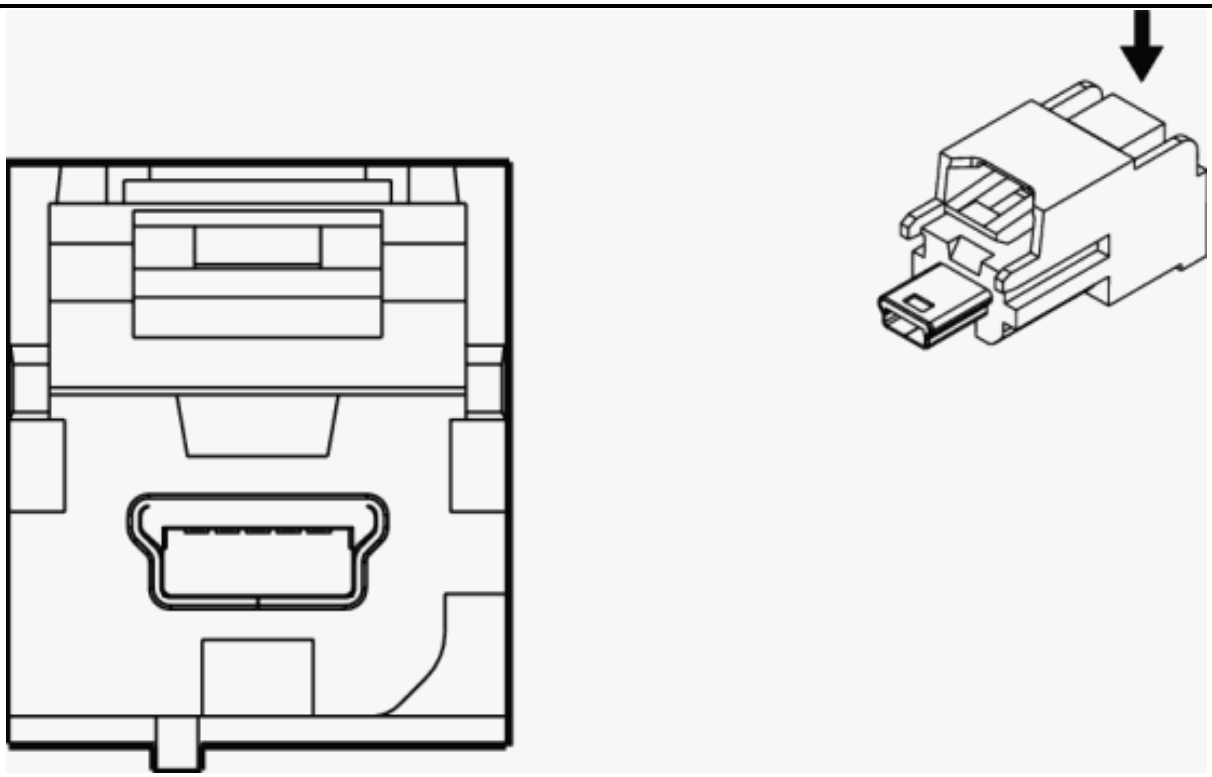
- Description: 20-Way F Mini 50 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | IO5/IO6+MAH/MBC |
| 2 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | I | IO5/IO6+MAH/MBC |
| 3 | 0.35 | GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | IO5/IO6+MAH/MBC |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BK | 1750 | Ground | I | IO5/IO6+MAH/MBC |
| 6 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | IO5/IO6+MAH/MBC |
| 9 | 0.35 | GN/WH | 1324 | Backup Lamp Control | I | IO5/IO6+MAH/MBC |
| 10 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 19 | 0.35 | BARE | 6974 | Camera Low Reference | I | IO5/IO6+MAH/MBC |
| 20 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | IO5/IO6+MAH/MBC |

## K188 HUMAN MACHINE INTERFACE CONTROL MODULE BYPASS MODULE X2 (IO5/IO6+MAH/MBC)



Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 1-1438912-0
- Service Connector: Service by Cable Assembly - See Part Catalog

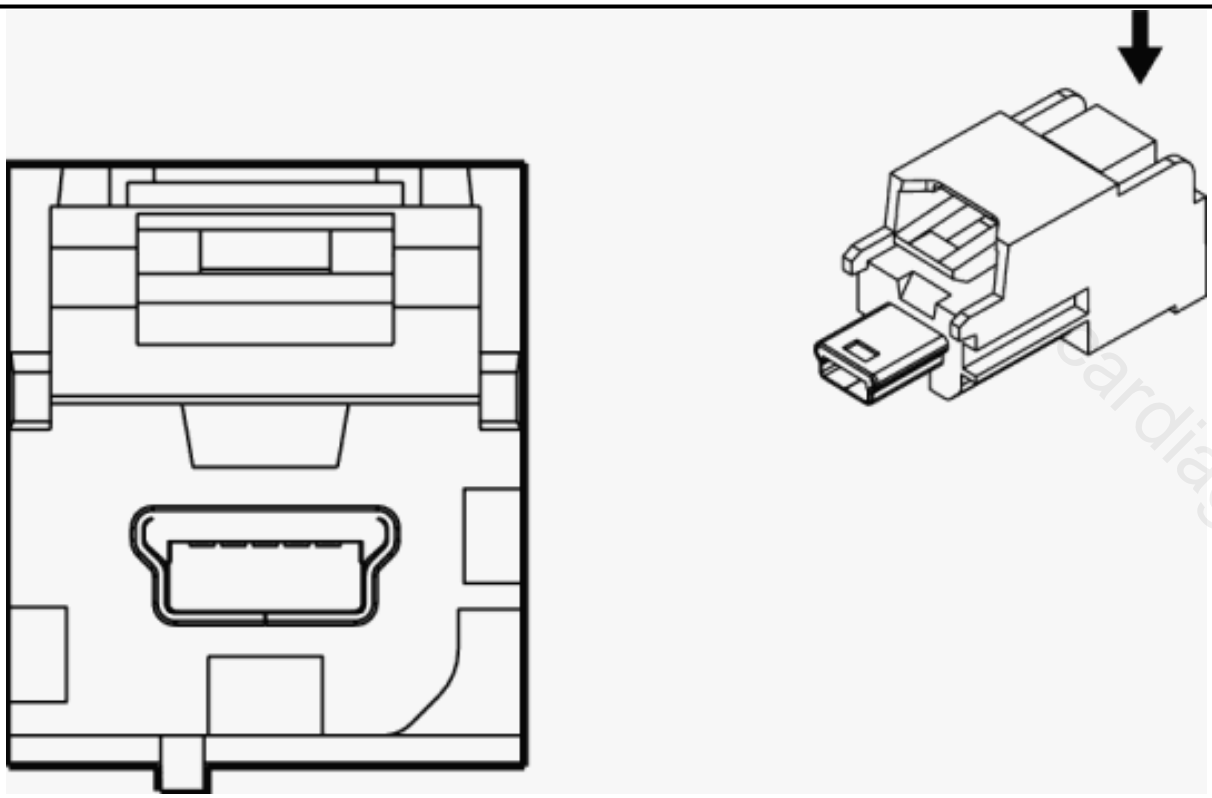
- Description: 5-Way M 2.0 Mini-B USB Type (BN)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | Navigation Display Signal | I | - |

## K188 HUMAN MACHINE INTERFACE CONTROL MODULE BYPASS MODULE X3 (IO5/IO6+MAH/MBC)



Connector Part Information

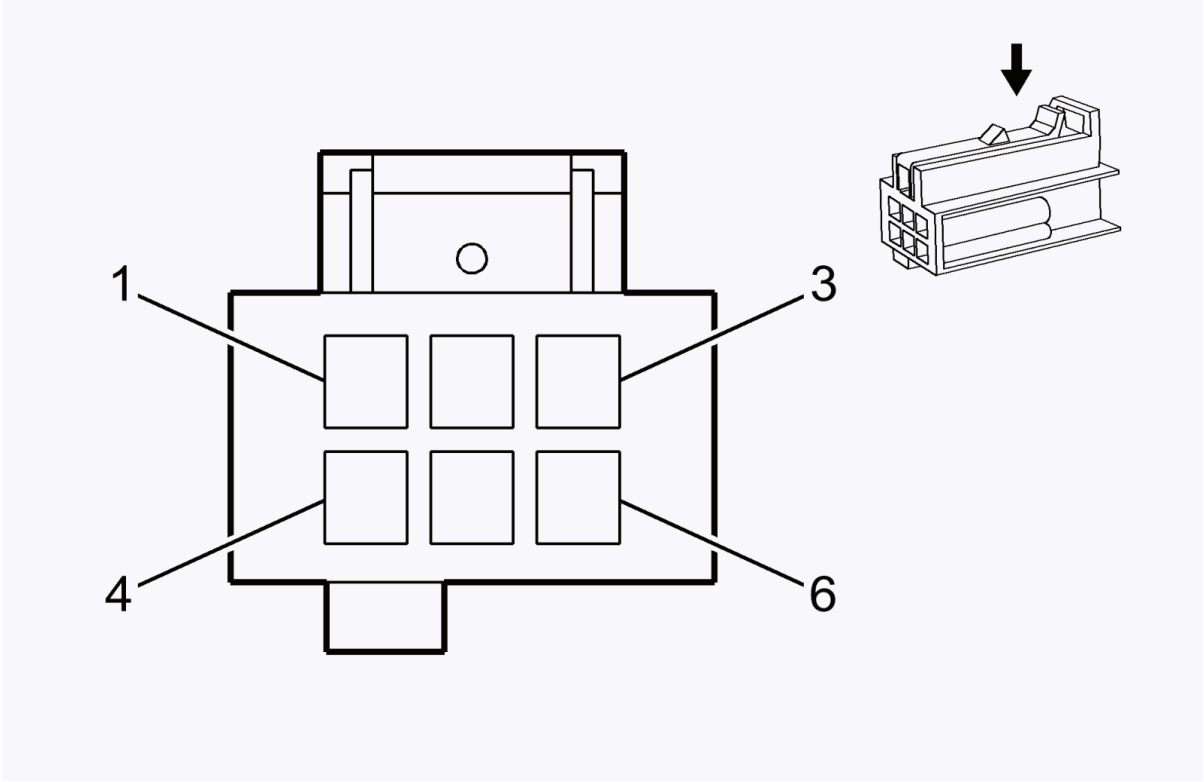
- Harness Type: Instrument Panel USB
- OEM Connector: 13584755
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## M6 AIR TEMPERATURE DOOR ACTUATOR (C67)




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15338980
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

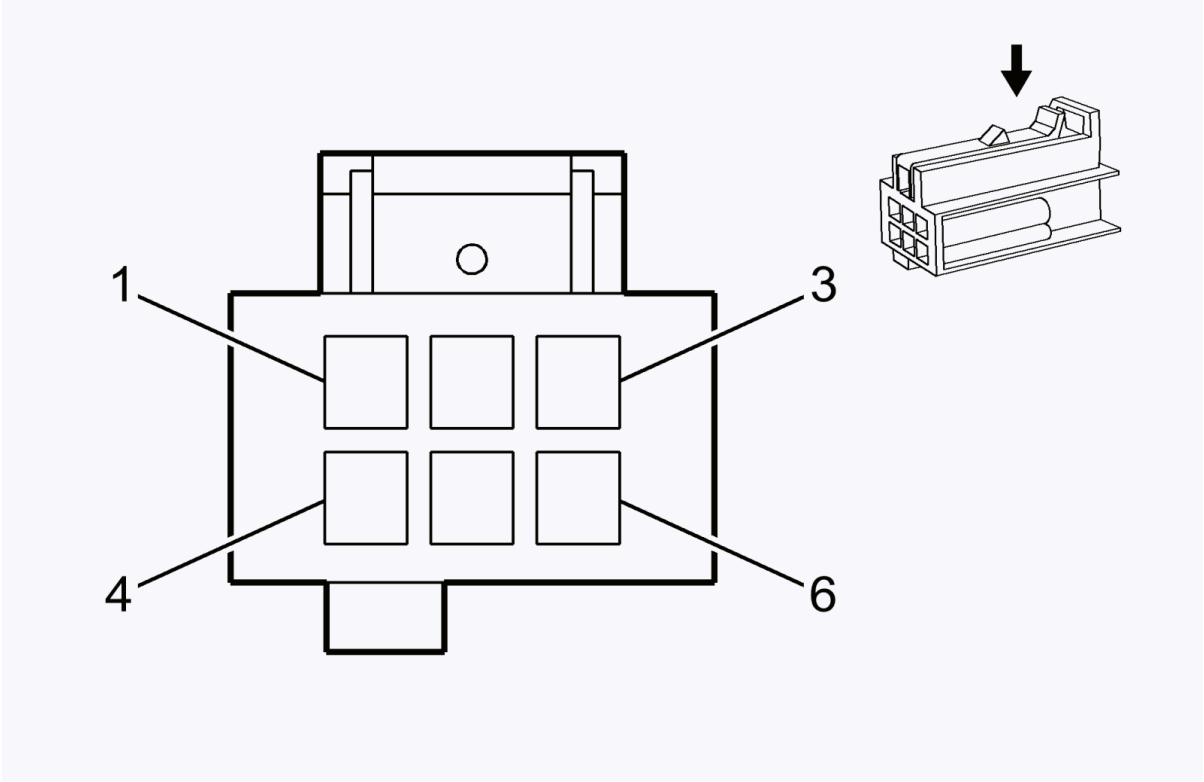
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 3169 | Temp Door Stepper Motor Control 1 | I | - |
| 2 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 3 | 0.35 | WH/PK | 3170 | Temp Door Stepper Motor Control 2 | I | - |
| 4 | 0.35 | GY/RD | 3171 | Temp Door Stepper Motor Control 3 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/BK | 3172 | Temp Door Stepper Motor Control 4 | I | - |

## M6L AIR TEMPERATURE DOOR ACTUATOR - LEFT (CJ2/C4P)

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Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15338980
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

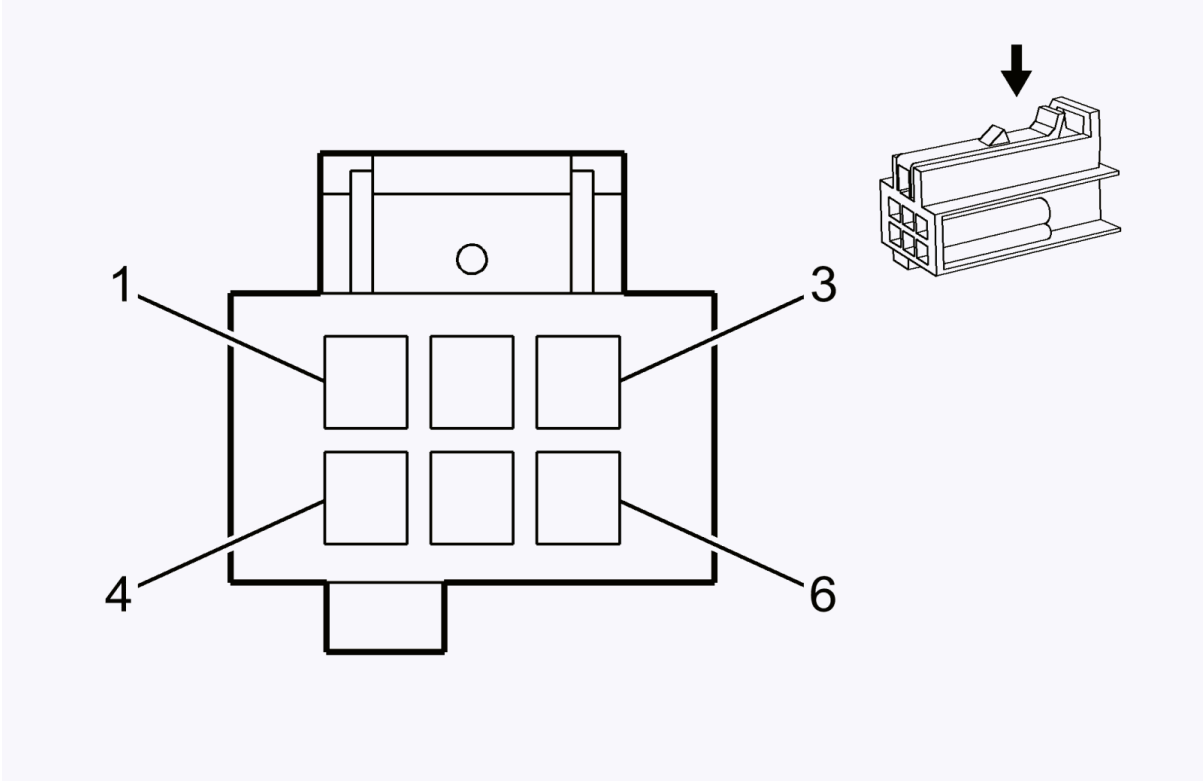
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 3169 | Temp Door Stepper Motor Control 1 | I | - |
| 2 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 3 | 0.35 | WH/PK | 3170 | Temp Door Stepper Motor Control 2 | I | - |
| 4 | 0.35 | GY/RD | 3171 | Temp Door Stepper Motor Control 3 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/BK | 3172 | Temp Door Stepper Motor Control 4 | I | - |

## M6R AIR TEMPERATURE DOOR ACTUATOR - RIGHT (CJ2)

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Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15338980
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

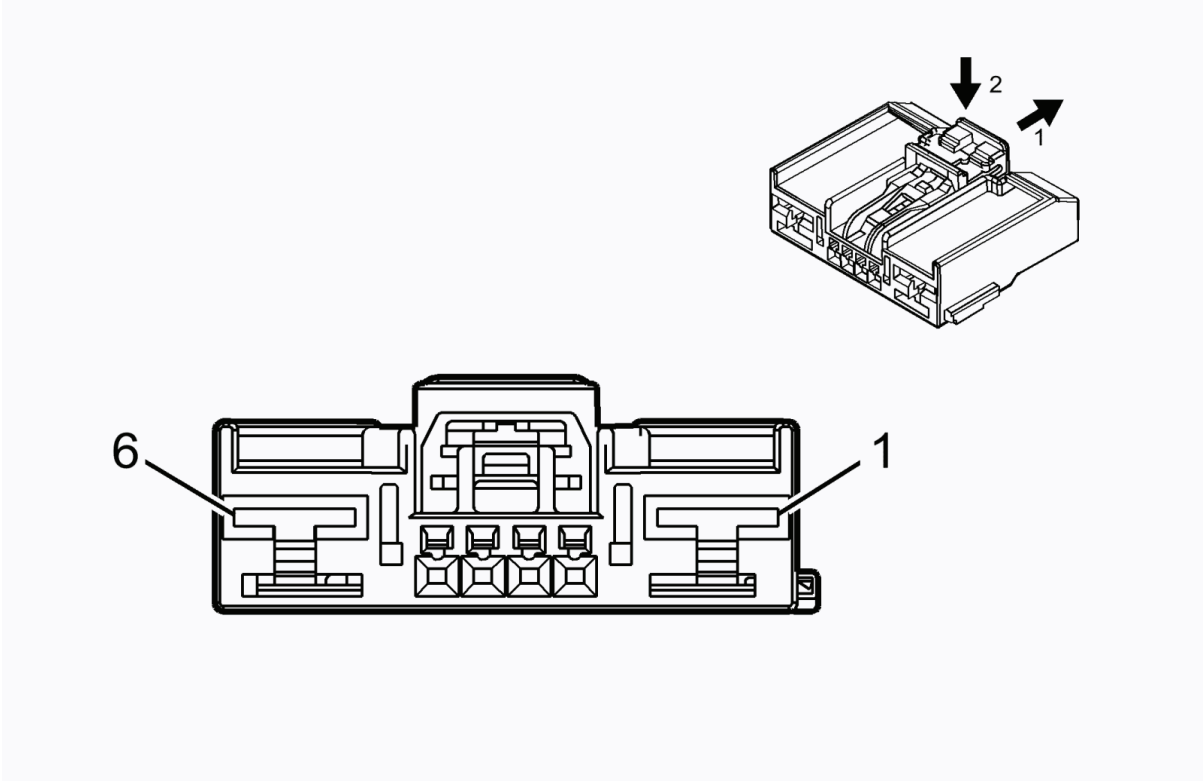
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH | 3181 | Temp Door Stepper Motor Passenger Control 1 | I | - |
| 2 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 3 | 0.35 | VT/BU | 3182 | Temp Door Stepper Motor Passenger Control 2 | I | - |
| 4 | 0.35 | GY/WH | 3183 | Temp Door Stepper Motor Passenger Control 3 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | YE/GN | 3184 | Temp Door Stepper Motor Passenger Control 4 | I | - |

## M8 BLOWER MOTOR

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 7289-7139-30
- Service Connector: 19356432
- Description: 6-Way F 0.64, 6.3 Series (BK)

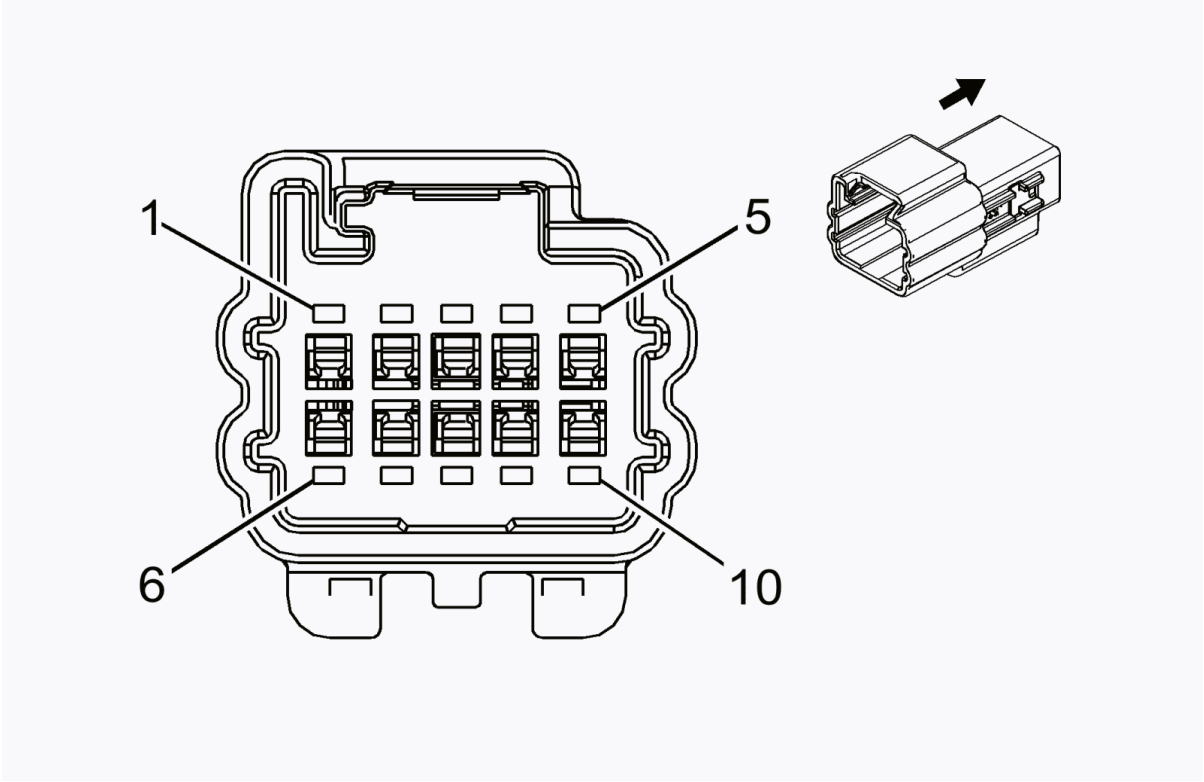
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 4 | RD/BU | 840 | Battery Positive Voltage | I | - |
| 2 | 0.35 | BU/GY | 754 | Blower Motor Speed Control | II | - |
| 3 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 4 | BK | 1750 | Ground | I | - |

## M17 LIFTGATE MOTOR ASSEMBLY (TB5/TC2)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13595576
- Service Connector: 13595576
- Description: 10-Way M 1.2 Series (BK)

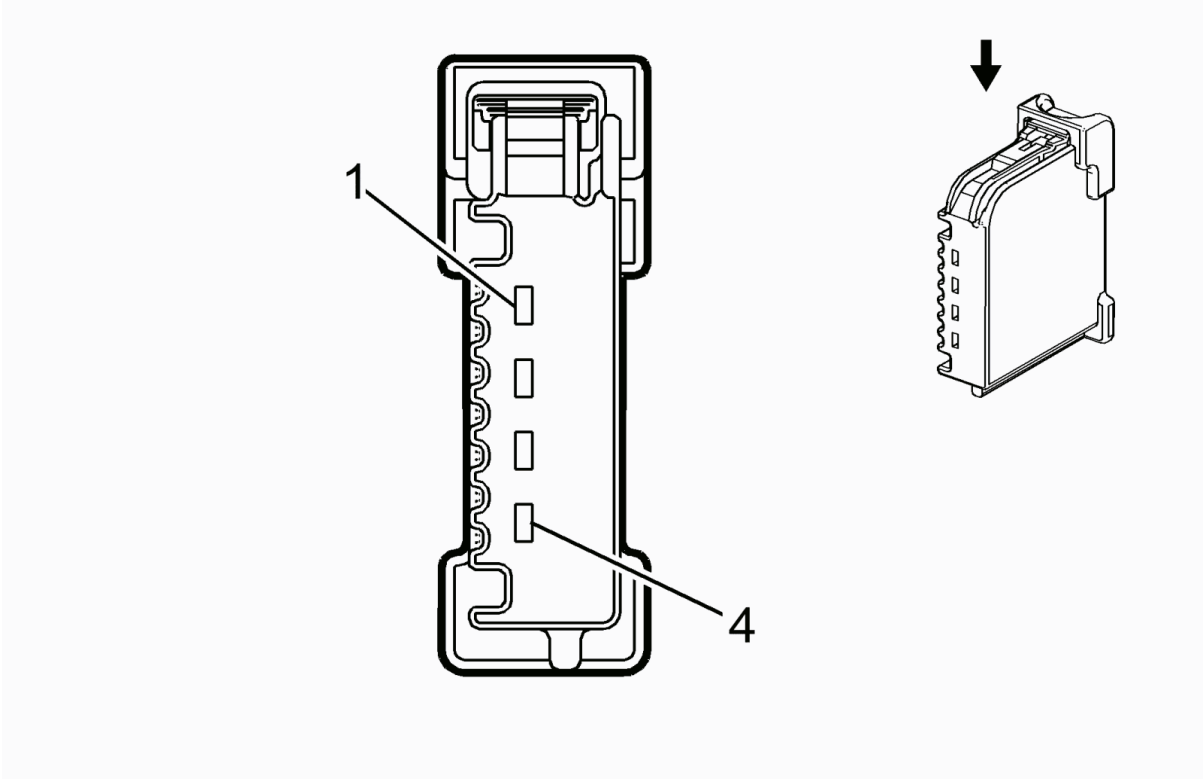
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 19355426 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | WH | 5798 | Lift Gate Open/Close Motor Open Control | III | TB5/TC2 |
| 2 | 0.5 | BN/RD | 5803 | Lift Gate Position Sensor 5V Reference | II | TB5/TC2 |
| 3 | 0.35 | BK/GN | 5804 | Lift Gate Position Sensor Low Reference | I | TB5/TC2 |
| 4 | 0.35 | BU/WH | 5805 | Lift Gate Position Sensor Signal 1 | I | TB5/TC2 |
| 5 | 1.5 | BN/WH | 5799 | Lift Gate Open/Close Motor Close Control | III | TB5/TC2 |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | BN/YE | 5806 | Lift Gate Position Sensor Signal 2 | I | TB5/TC2 |
| 8 - 10 | - | - | - | Not Occupied | - | - |

## M30 LIFTGATE LATCH (TB4)

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Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 19115646
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.5 Series (BK)

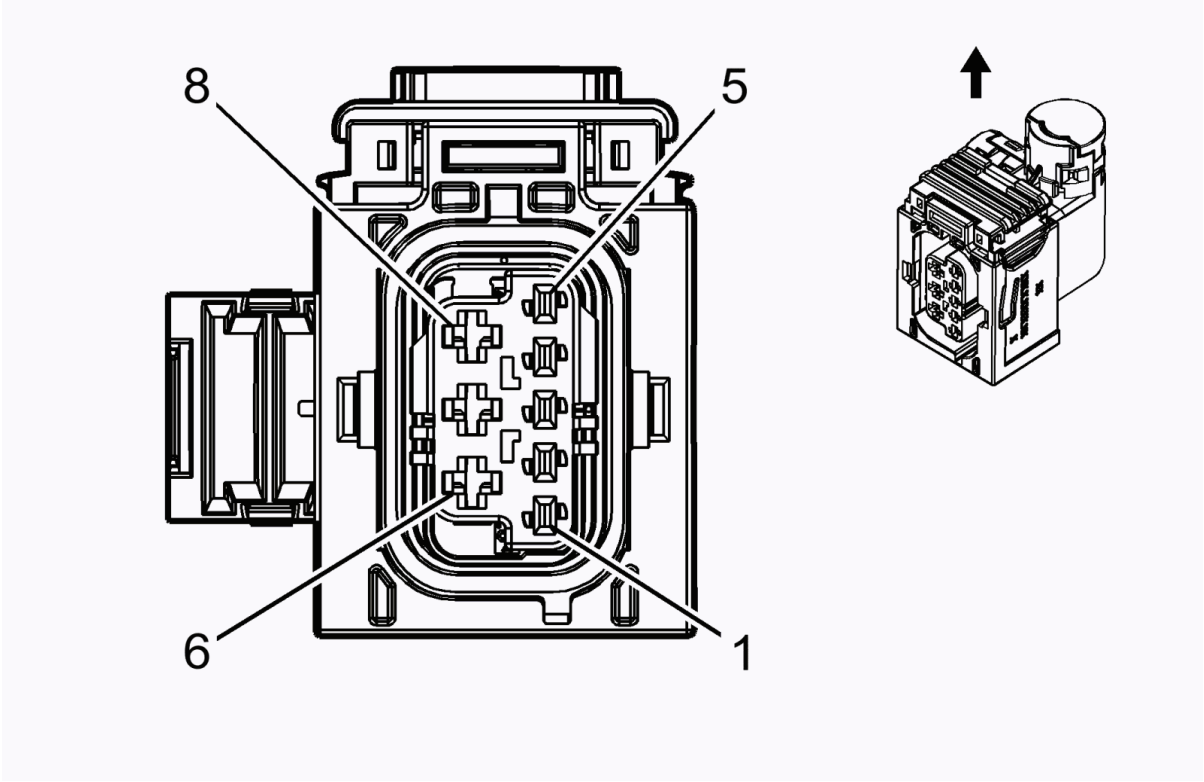
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | Ground | I | TB4 |
| 2 | 0.35 | VT/GY | 1303 | Lift Gate Ajar Switch Signal 1 | I | TB4 |
| 3 | 0.35 | BU/WH | 6128 | Rear Closure Unlatch Motor Unlatch Control | I | TB4 |
| 4 | - | - | - | Not Occupied | - | - |

## M32 DIFFERENTIAL CLUTCH PUMP (F48)

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Connector Part Information

- Harness Type: Rear Differential
- OEM Connector: 13719694
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 ATS, 1.5 CTS Series, Sealed

**Terminal Part Information**

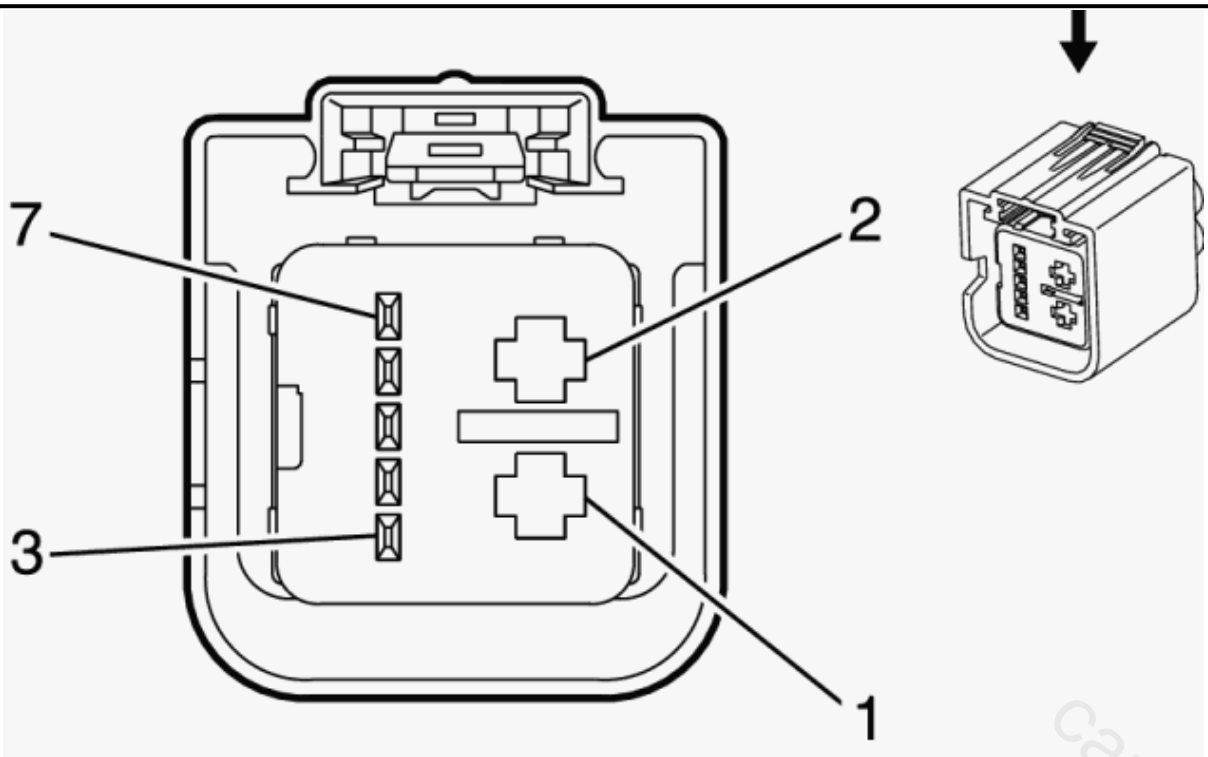
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/WH | 908 | Differential Clutch Pump Motor Hall-Effect Sensor Supply Voltage | I | - |
| 2 | 0.5 | BU/OG | 906 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 2 | I | - |
| 3 | 0.5 | BU | 907 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 3 | I | - |
| 4 | 0.5 | BU/WH | 905 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 1 | I | - |
| 5 | 0.5<br>2.5 | VT<br>BK | 904<br>2550 | Differential Clutch Pump Motor Hall-Effect Sensor Low Reference<br>Ground | I | -<br>- |
| 6 | 2.5 | RD/WH | 903 | Differential Clutch Pump Motor U-Phase | I | - |
| 7 | 2.5 | RD | 901 | Differential Clutch Pump Motor W-Phase | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 2.5 | RD/BK | 902 | Differential Clutch Pump Motor V-Phase | I | - |

## M35D WINDOW MOTOR MODULE - DRIVER




Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 13590001
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (GY)

**Terminal Part Information**

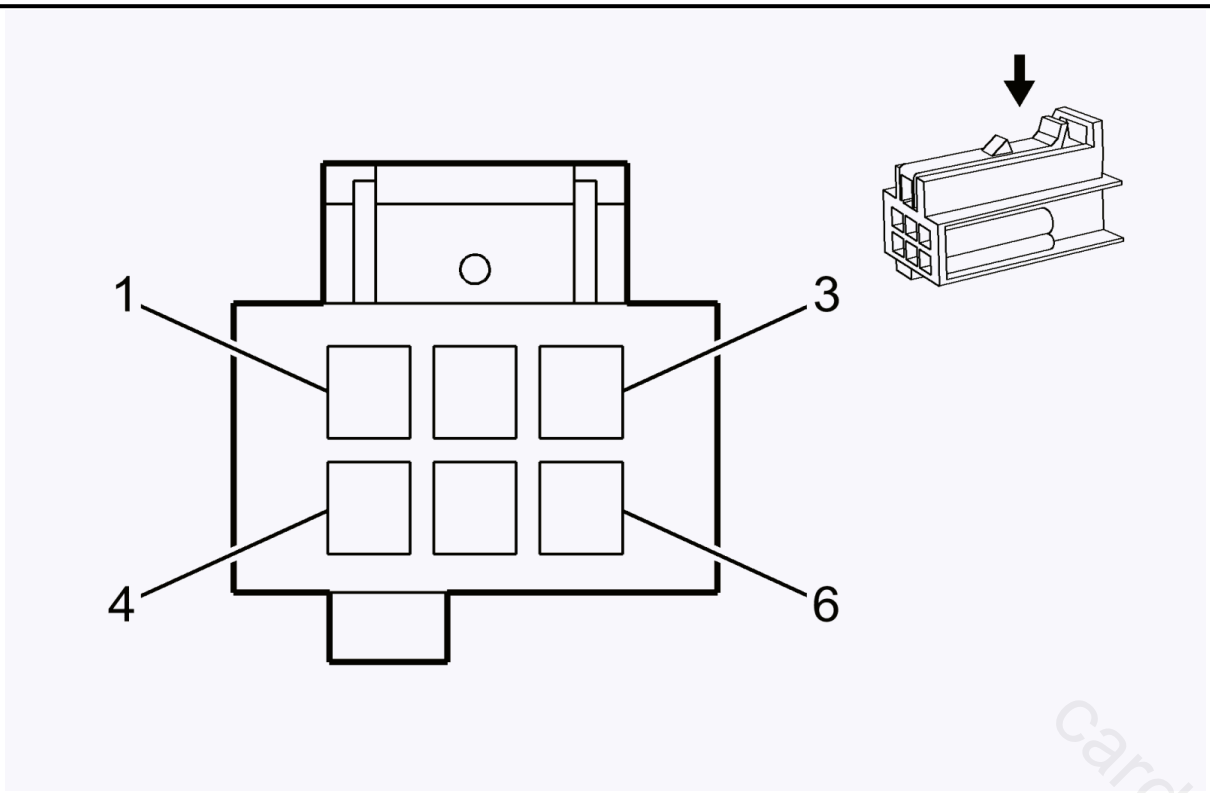
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BK | 1550 | Ground | I | AXG |
| 2 | 2.5 | RD/BN | 3640 | Battery Positive Voltage | I | AXG |
| 3 | 0.35 | GN/WH | 3379 | Power Window Switch Driver Up Signal | II | AXG |
| 4 | 0.35 | GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | II | AXG |
| 5 | 0.35 | GN | 3381 | Power Window Switch Driver Express Signal | II | AXG |
| 6 | 0.35 | GY | 745 | Left Front Door Ajar Switch Signal | II | AXG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 0.35 | GY | 3380 | Power Window Switch Driver Down Signal | II | AXG |

## M37 MODE DOOR ACTUATOR




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15338980
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

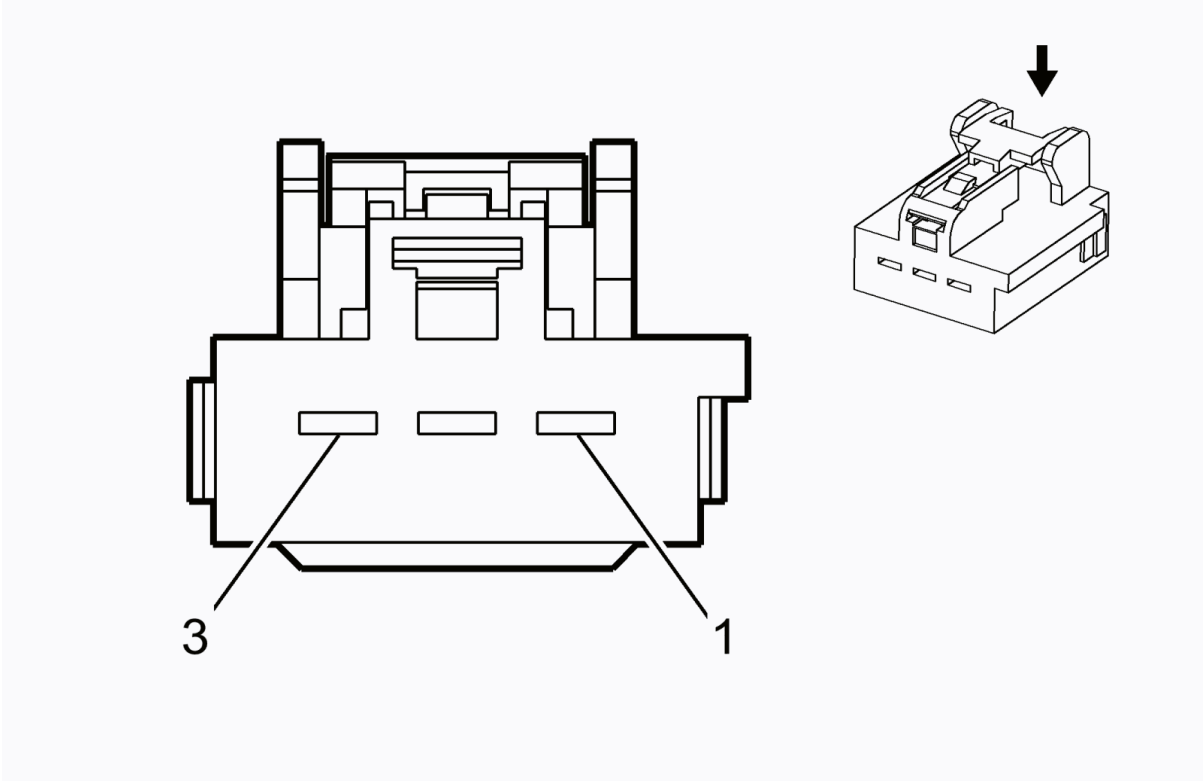
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 3165 | Mode Door Stepper Motor Control 1 | I | - |
| 2 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 3 | 0.35 | WH/RD | 3166 | Mode Door Stepper Motor Control 2 | I | - |
| 4 | 0.35 | GY/BN | 3167 | Mode Door Stepper Motor Control 3 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | GN/WH | 3168 | Mode Door Stepper Motor Control 4 | I | - |

## M45 REAR WIPER MOTOR




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13581043
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 2.8 Series (GY)

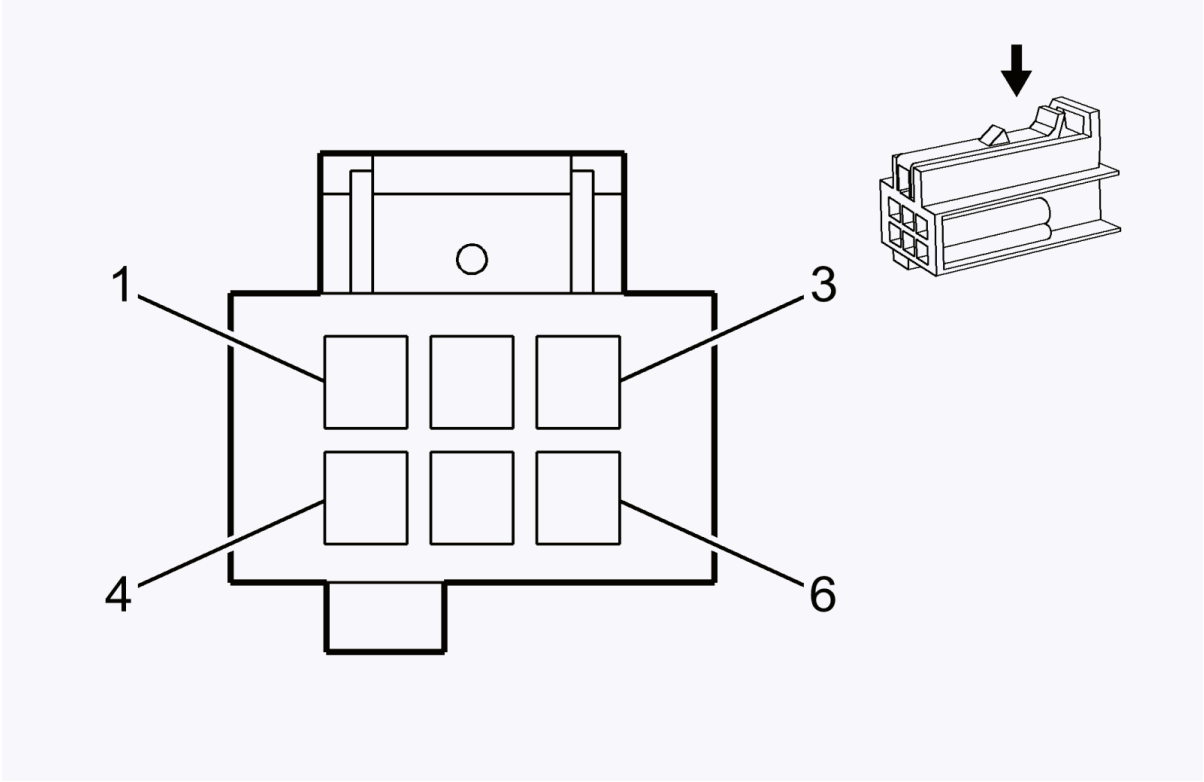
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BU | 393 | Rear Window Wiper Motor Control | I | - |
| 2 | 1 | BK | 2550 | Ground | I | - |
| 3 | 1 | RD/BN | 1742 | Battery Positive Voltage | I | - |

## M46 AIR RECIRCULATION DOOR ACTUATOR

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Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15338980
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

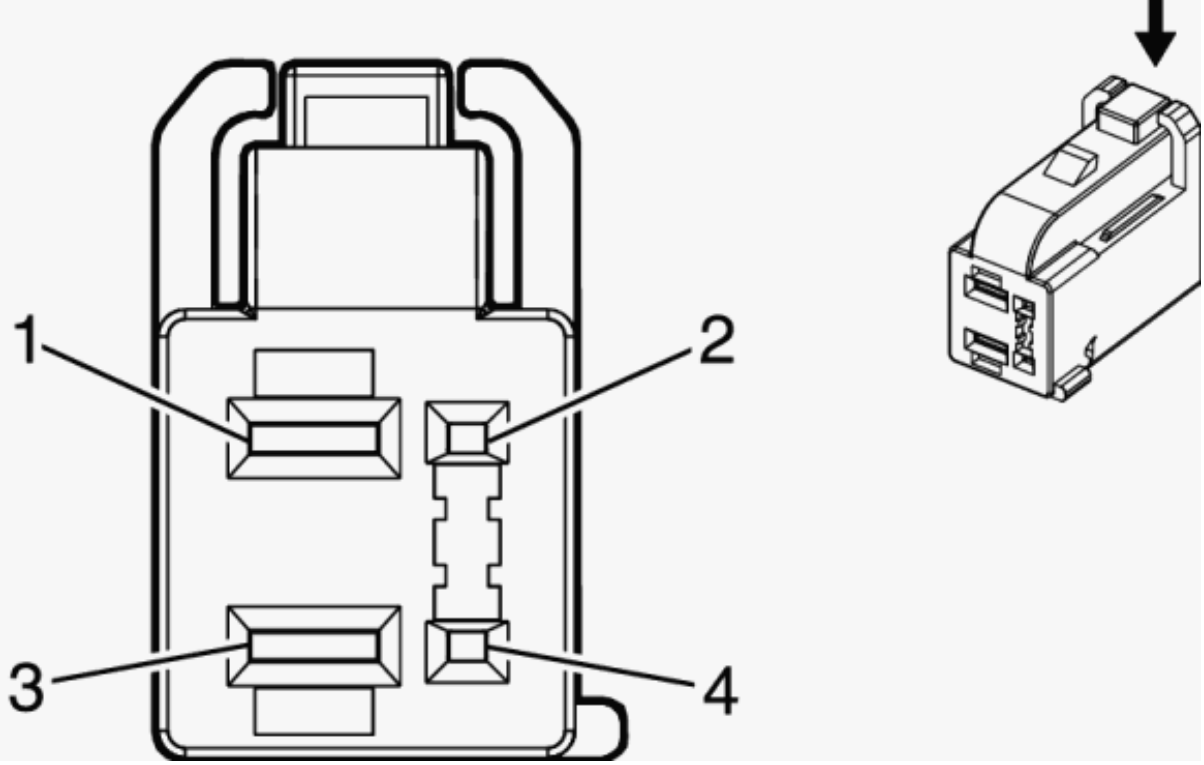
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 3173 | Air Inlet Door Stepper Motor Control 1 | I | - |
| 2 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 3 | 0.35 | BU/WH | 3174 | Air Inlet Door Stepper Motor Control 2 | I | - |
| 4 | 0.35 | BN/GN | 3175 | Air Inlet Door Stepper Motor Control 3 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/GN | 3176 | Air Inlet Door Stepper Motor Control 4 | I | - |

## M50D SEAT FRONT VERTICAL MOTOR - DRIVER (A45/AG1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

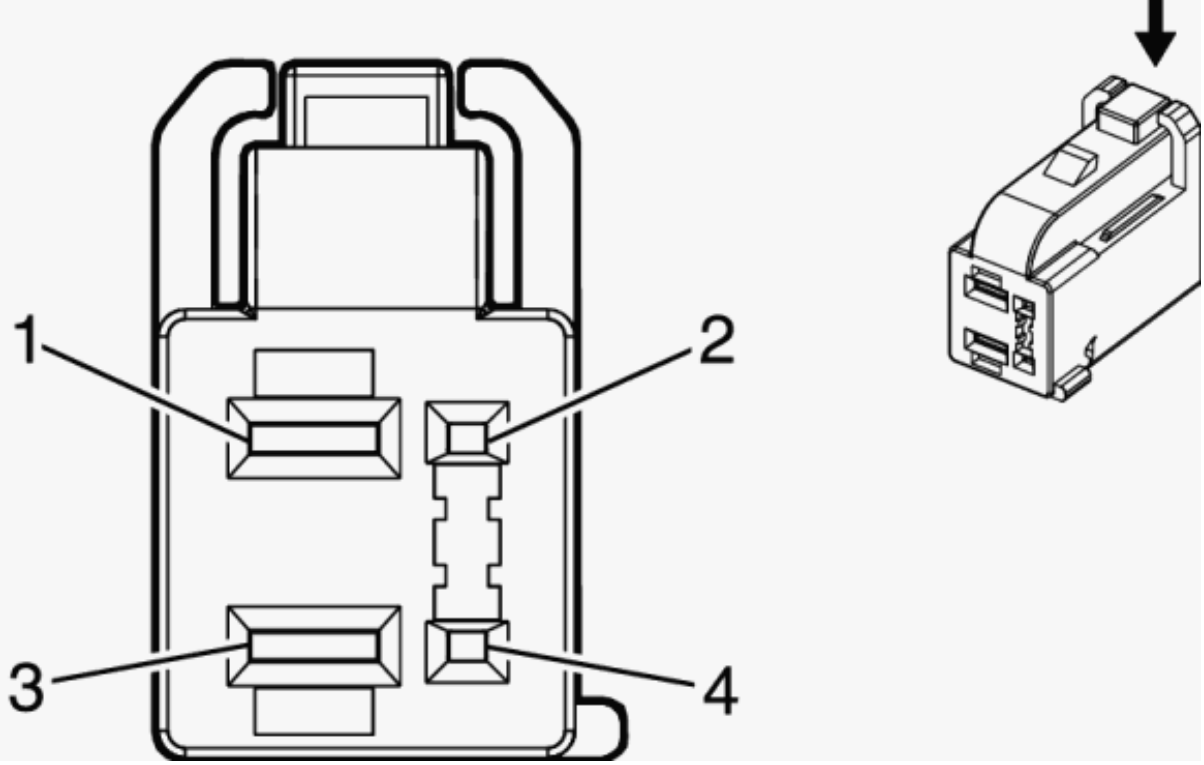
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BU/VT | 287 | Driver Power Seat Front Vertical Motor Down Control | I | AG1-A45-A74 |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | - |
| 3 | 1.5 | GN/BN | 286 | Driver Power Seat Front Vertical Motor Up Control | I | AG1-A45-A74 |
| 4 | 0.35 | BN/WH | 557 | Memory Seat Front Vertical Motor Position Sensor Signal | II | - |

## M50P SEAT FRONT VERTICAL MOTOR - PASSENGER (ADT/AG2)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

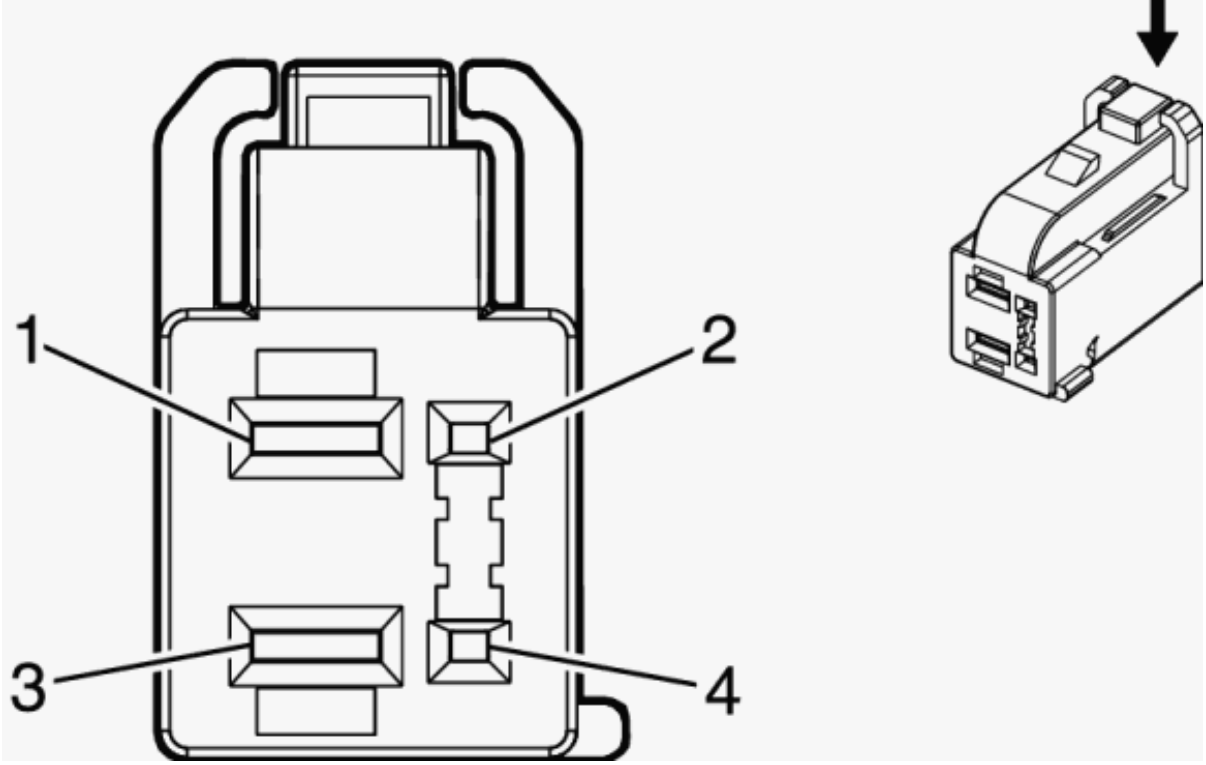
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GN/VT | 297 | Passenger Power Seat Front Vertical Motor Up Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 1.5 | GN/BU | 298 | Passenger Power Seat Front Vertical Motor Down Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M51D SEAT HORIZONTAL MOTOR - DRIVER (A45/AG1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

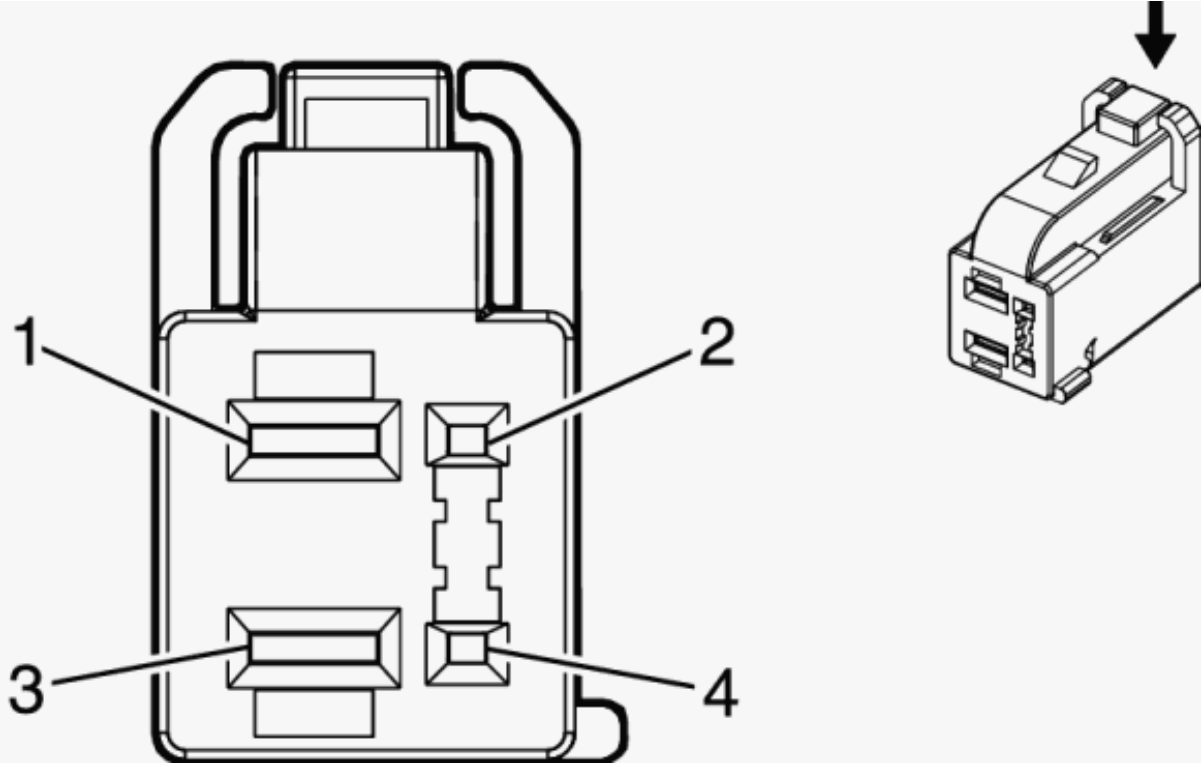
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2<br>1.5 | GY/GN<br>GY/GN | 284<br>284 | Driver Power Seat Horizontal Motor Rearward Control<br>Driver Power Seat Horizontal Motor Rearward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 2 | 0.35 | GN | 569 | Memory Seat Horizontal Motor Position Sensor Signal | II | - |
| 3 | 2<br>1.5 | YE/BU<br>YE/BU | 285<br>285 | Driver Power Seat Horizontal Motor Forward Control<br>Driver Power Seat Horizontal Motor Forward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 4 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | - |

## M51P SEAT HORIZONTAL MOTOR - PASSENGER (ADT/AG2)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

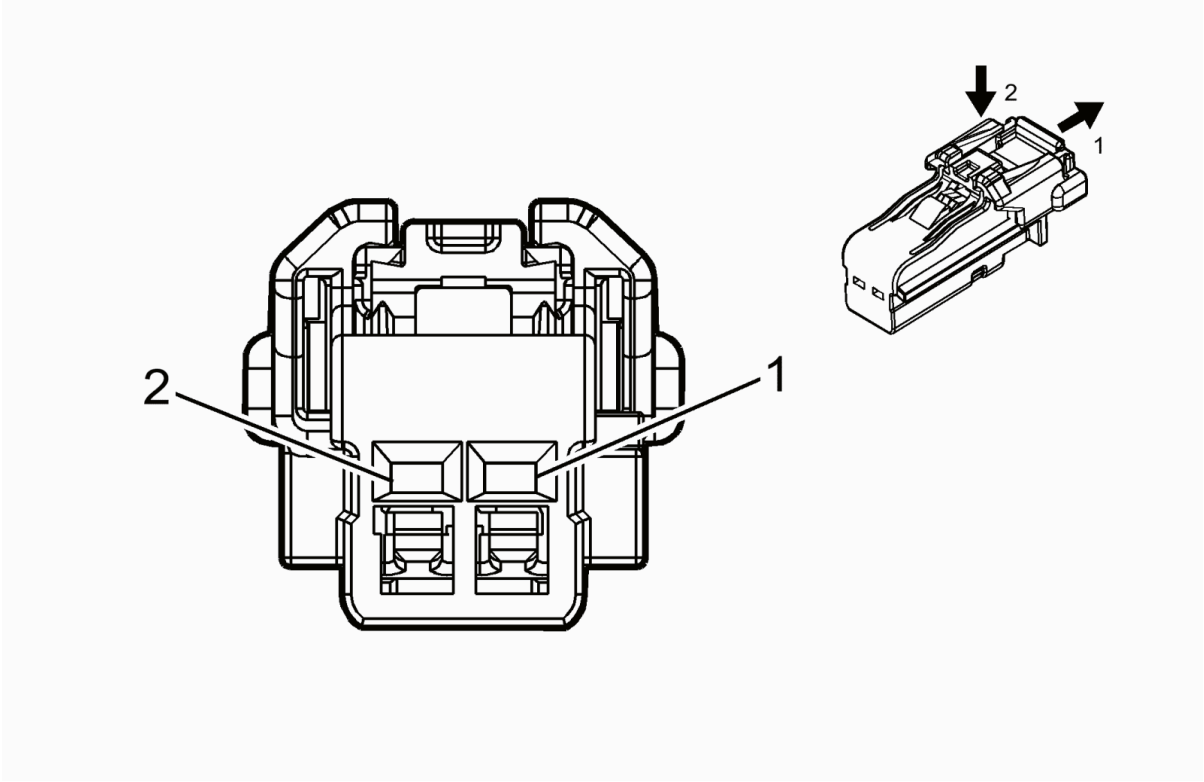
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE/BU | 290 | Passenger Power Seat Horizontal Motor Rearward Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 1.5 | YE/WH | 296 | Passenger Power Seat Horizontal Motor Forward Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M53D SEAT LUMBAR SUPPORT MOTOR - DRIVER (AL9+X88)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 6098-7685
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

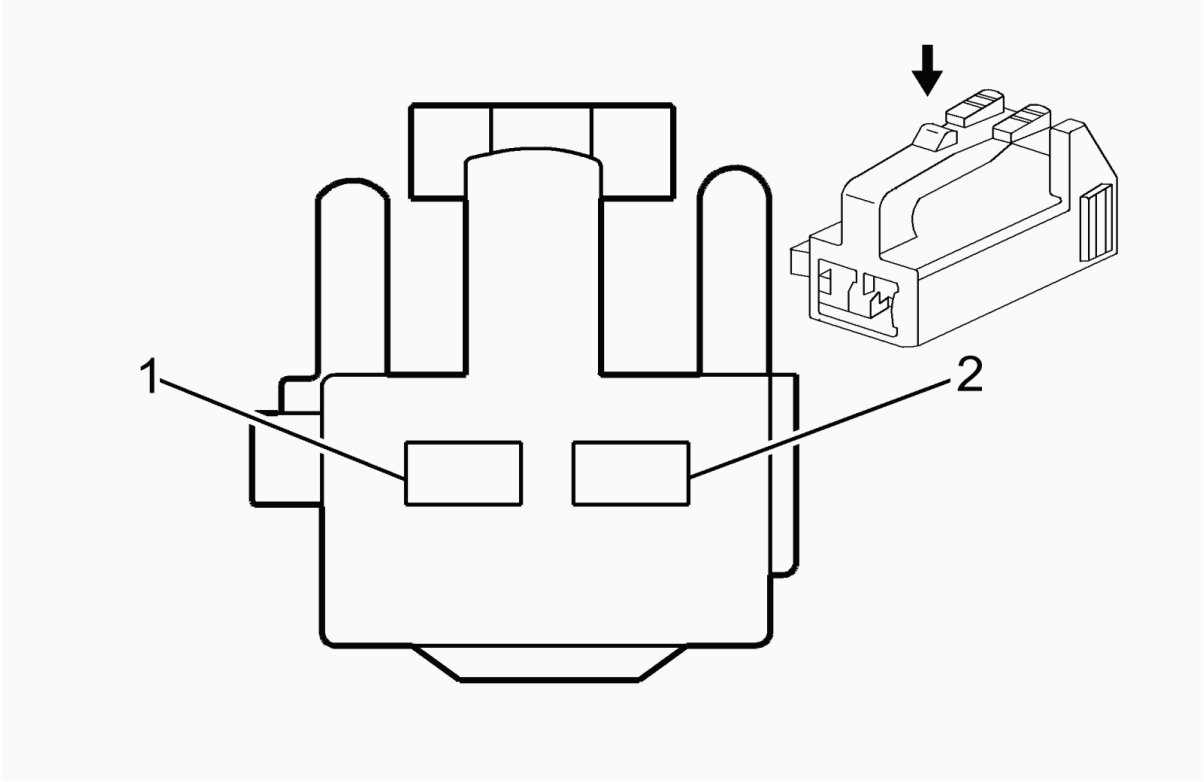
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 610 | Driver Power Seat Lumbar Motor Rearward Control | I | - |
| 2 | 0.35 | BU | 611 | Driver Power Seat Lumbar Motor Forward Control | I | - |

## M53D SEAT LUMBAR SUPPORT MOTOR - DRIVER (AL9+Z88)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 7283-1020
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.3 Series (NA)

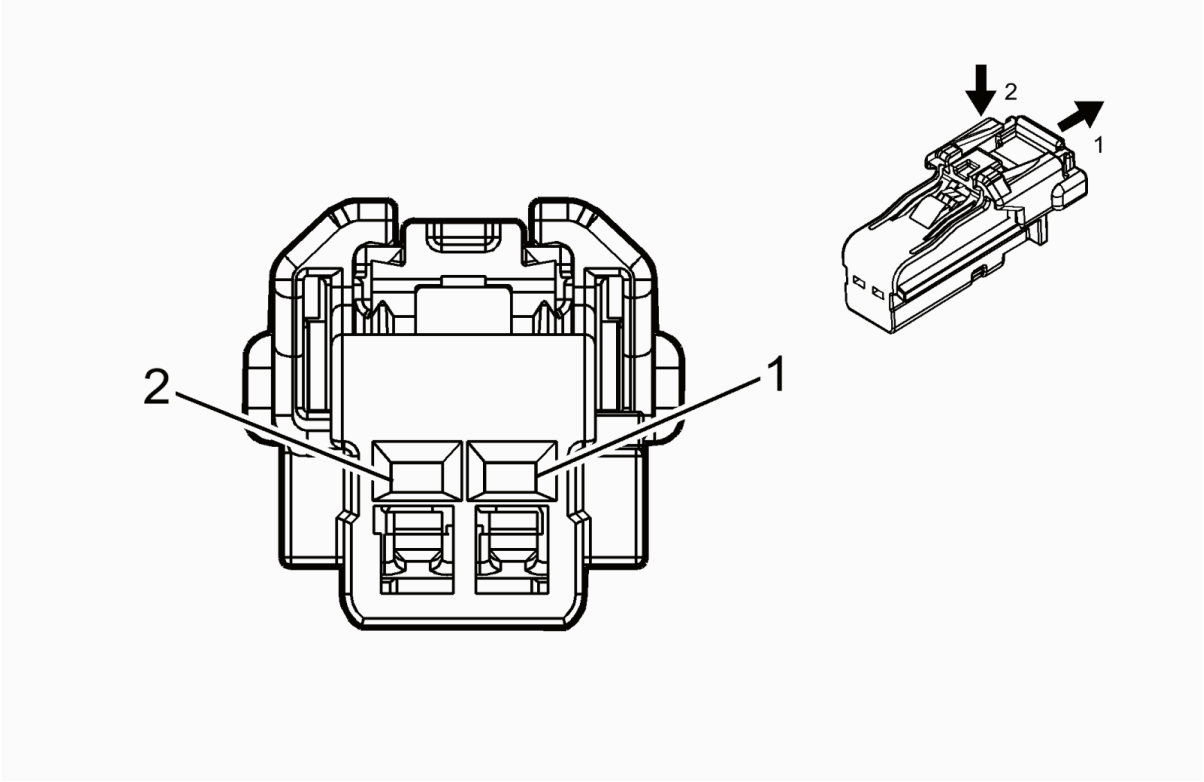
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 610 | Driver Power Seat Lumbar Motor Rearward Control | I | - |
| 2 | 0.35 | BU | 611 | Driver Power Seat Lumbar Motor Forward Control | I | - |

## M53P SEAT LUMBAR SUPPORT MOTOR - PASSENGER (AT9+X88)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 6098-7685
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Series (BK)

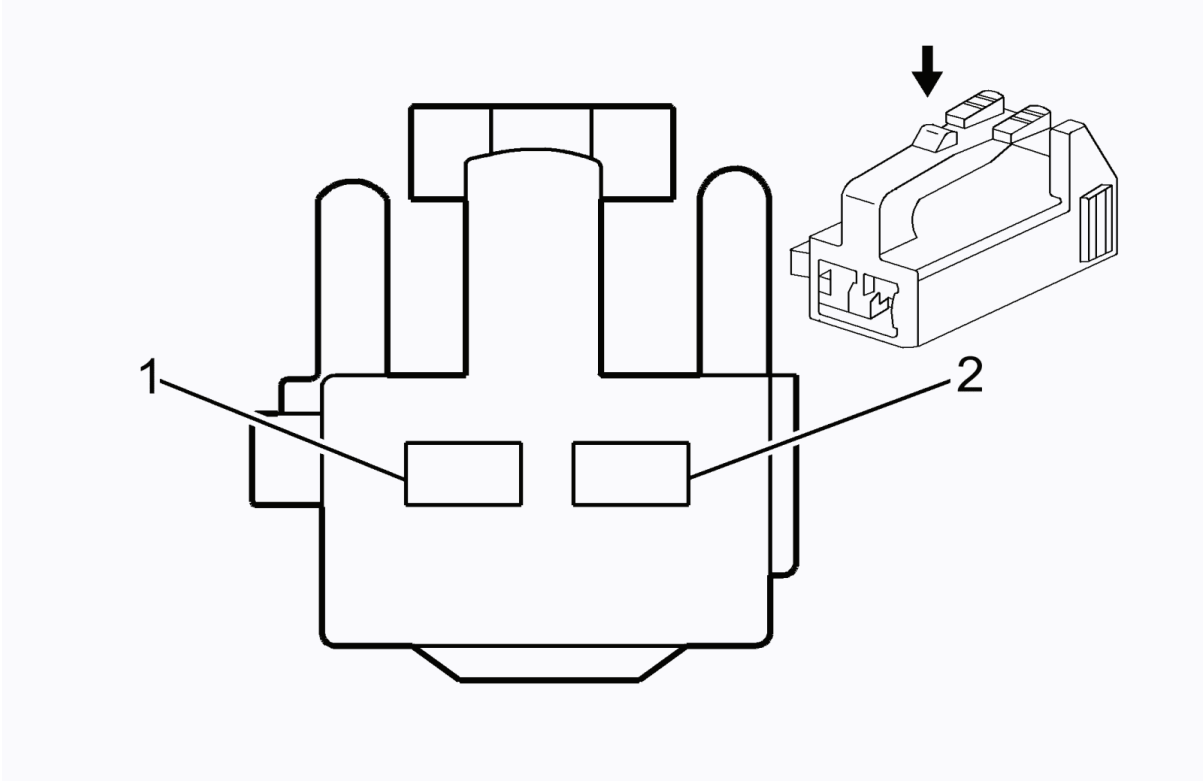
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 210 | Passenger Power Seat Lumbar Motor Rearward Control | I | - |
| 2 | 0.35 | BU | 211 | Passenger Power Seat Lumbar Motor Forward Control | I | - |

## M53P SEAT LUMBAR SUPPORT MOTOR - PASSENGER (AT9+Z88)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 7283-1020
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.3 Series (NA)

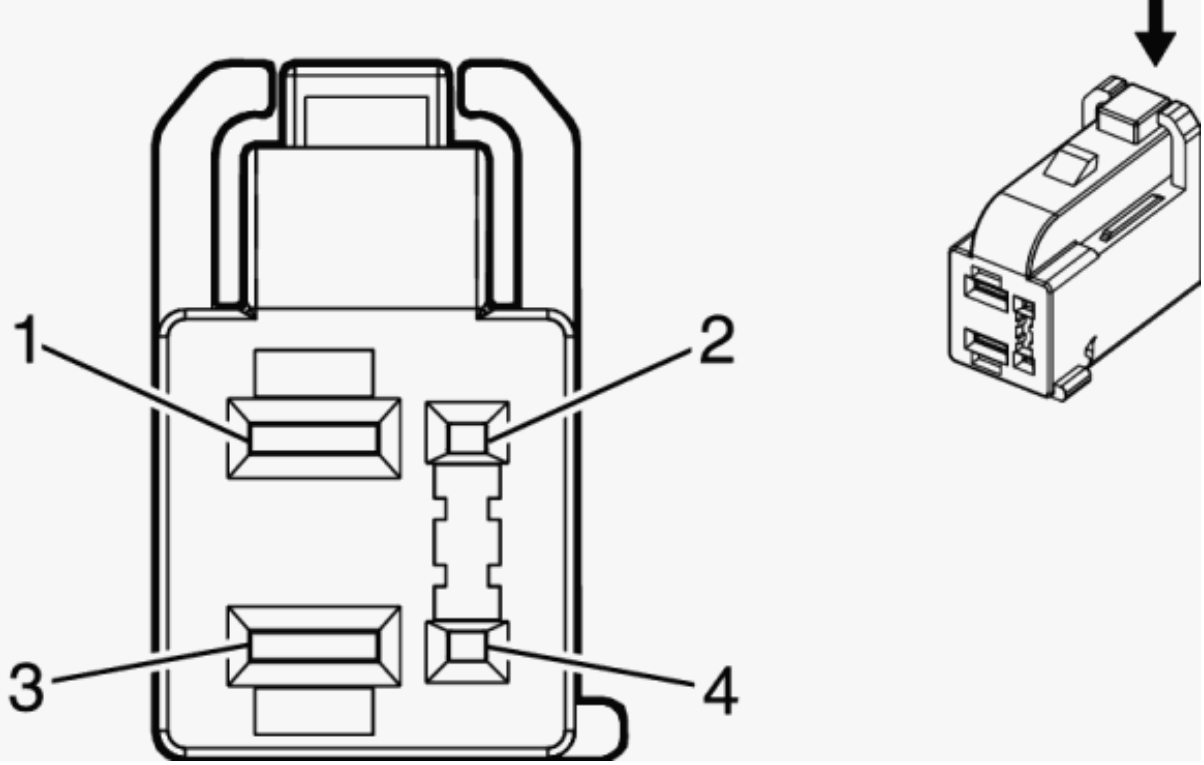
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 210 | Passenger Power Seat Lumbar Motor Rearward Control | I | - |
| 2 | 0.35 | BU | 211 | Passenger Power Seat Lumbar Motor Forward Control | I | - |

## M55D SEAT REAR VERTICAL MOTOR - DRIVER (A45/AG1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

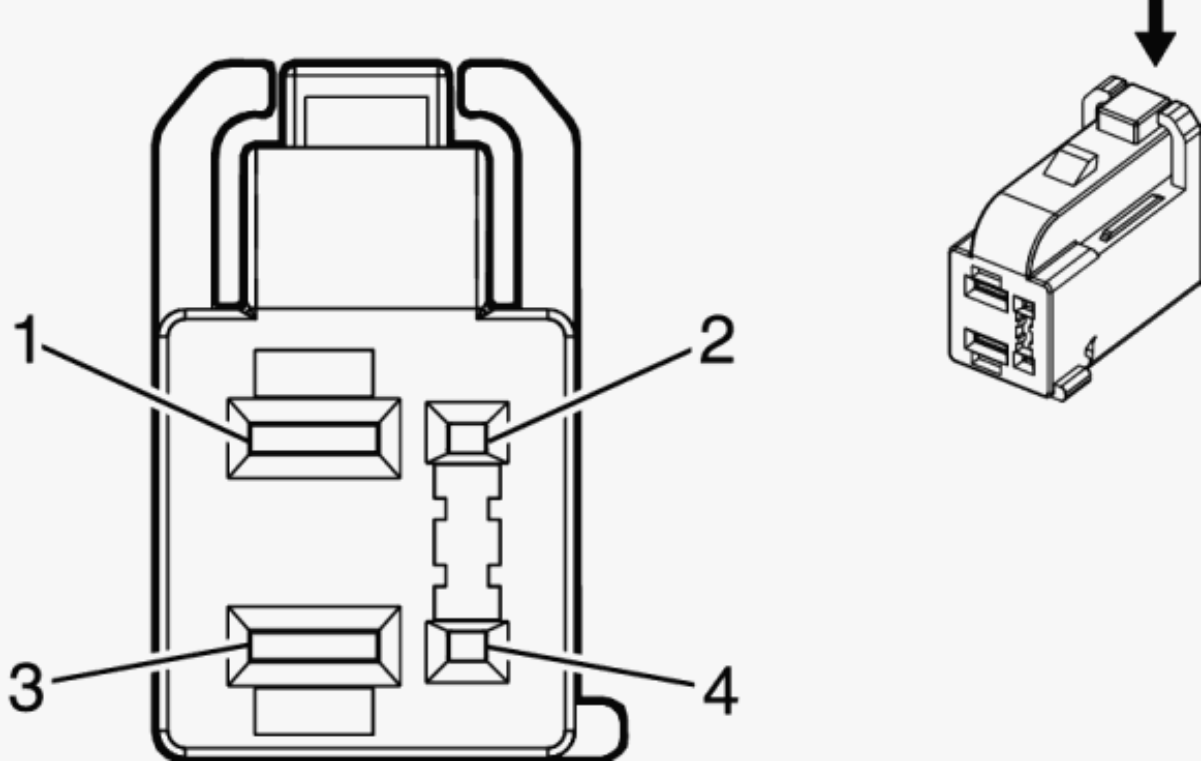
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2<br>1.5 | GY/BU<br>GY/BU | 283<br>283 | Driver Power Seat Rear Vertical Motor Down Control<br>Driver Power Seat Rear Vertical Motor Down Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 2 | 0.35 | YE/BU | 568 | Memory Seat Rear Vertical Motor Position Sensor Signal | II | - |
| 3 | 2<br>1.5 | YE<br>YE | 282<br>282 | Driver Power Seat Rear Vertical Motor Up Control<br>Driver Power Seat Rear Vertical Motor Up Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 4 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | - |

## M55P SEAT REAR VERTICAL MOTOR - PASSENGER (ADT/AG2)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

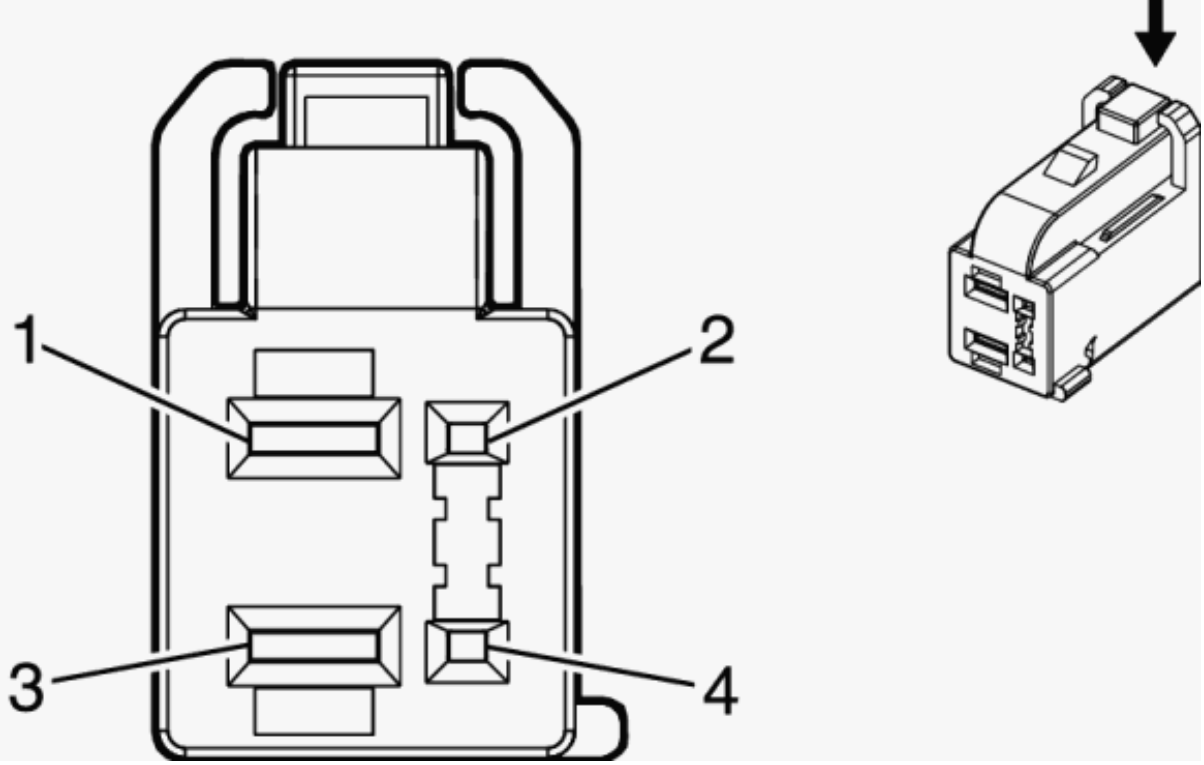
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BU/WH | 289 | Passenger Power Seat Rear Vertical Motor Down Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 1.5 | GN/WH | 288 | Passenger Power Seat Rear Vertical Motor Up Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M56D SEAT RECLINE MOTOR - DRIVER (A45/AG1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

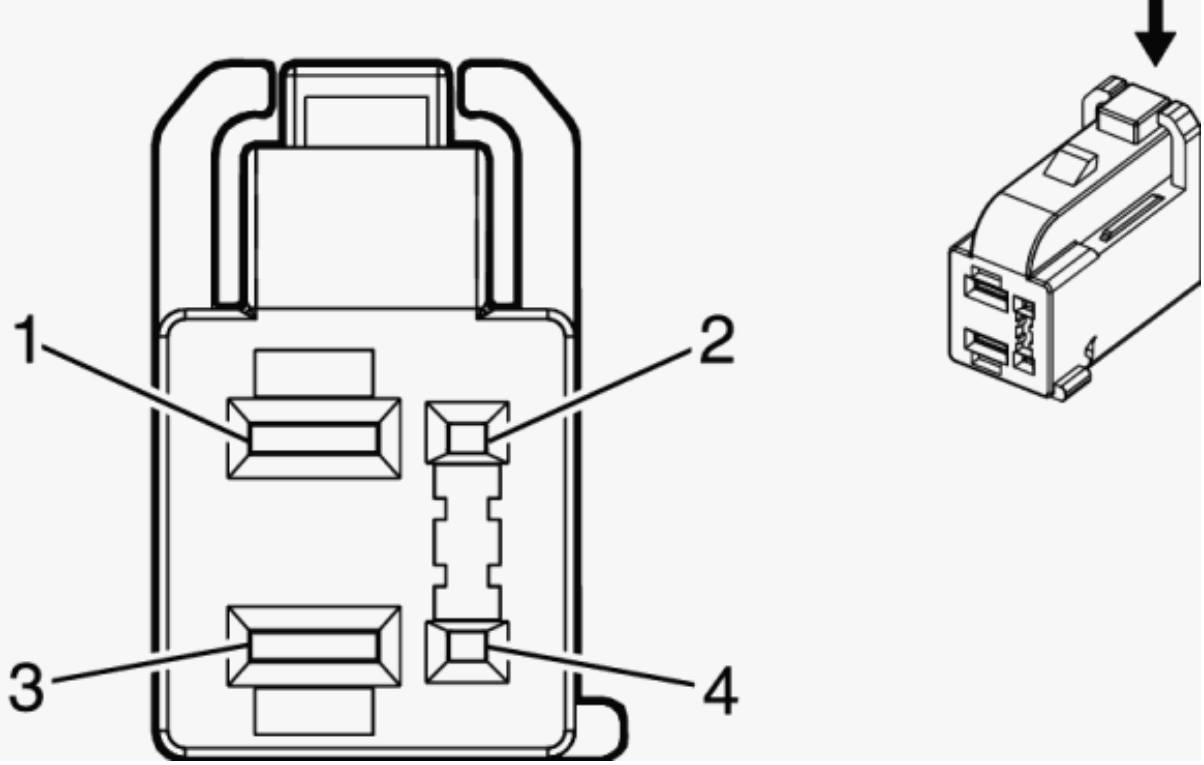
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2<br>1.5 | GN/YE<br>GN/YE | 276<br>276 | Driver Power Seat Recline Motor Forward Control<br>Driver Power Seat Recline Motor Forward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 2 | 0.35 | WH/RD | 3298 | Memory Sensor High Reference 2 | II | - |
| 3 | 2<br>1.5 | BU/YE<br>BU/YE | 277<br>277 | Driver Power Seat Recline Motor Rearward Control<br>Driver Power Seat Recline Motor Rearward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| 4 | 0.35 | WH/BK | 570 | Driver Memory Seat Recline Motor Position Sensor Signal | II | - |

## M56P SEAT RECLINE MOTOR - PASSENGER (AG2)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 2272784-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64, 2.8 Series (BK)

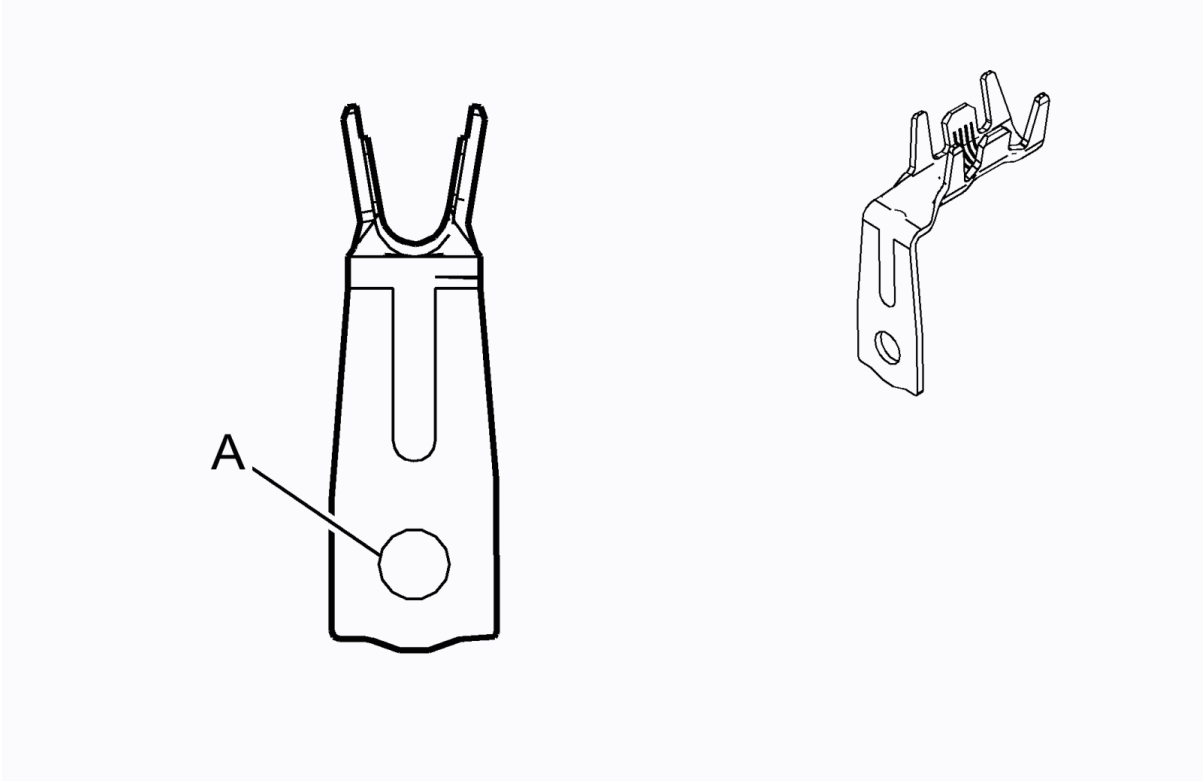
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GN | 76 | Passenger Power Seat Recline Motor Forward Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 1.5 | BU/BN | 77 | Passenger Power Seat Recline Motor Rearward Control | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M64 STARTER MOTOR X2

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Connector Part Information

- Harness Type: Battery
- OEM Connector: 23129272
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Ring Terminal

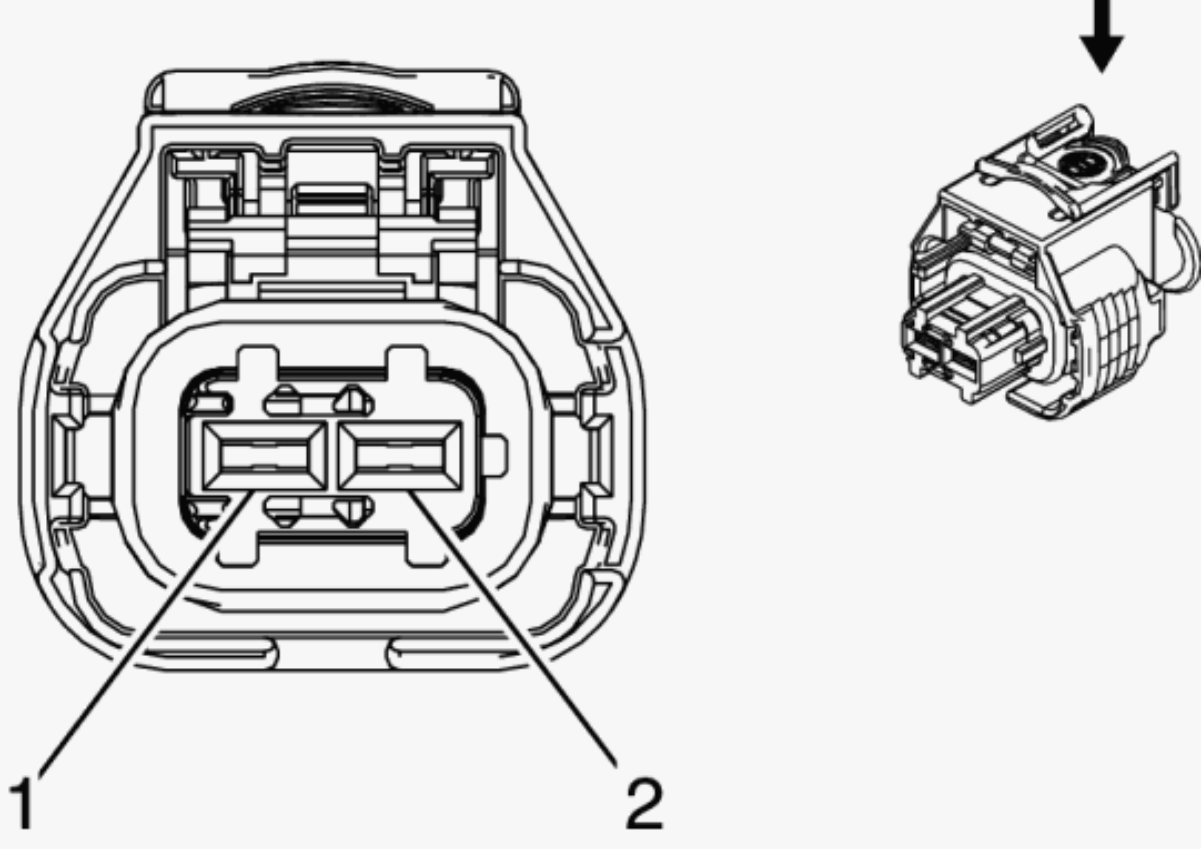
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 35 | RD | 2 | Battery Positive Voltage | I | - |

## M64 STARTER MOTOR X1 (KL9)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

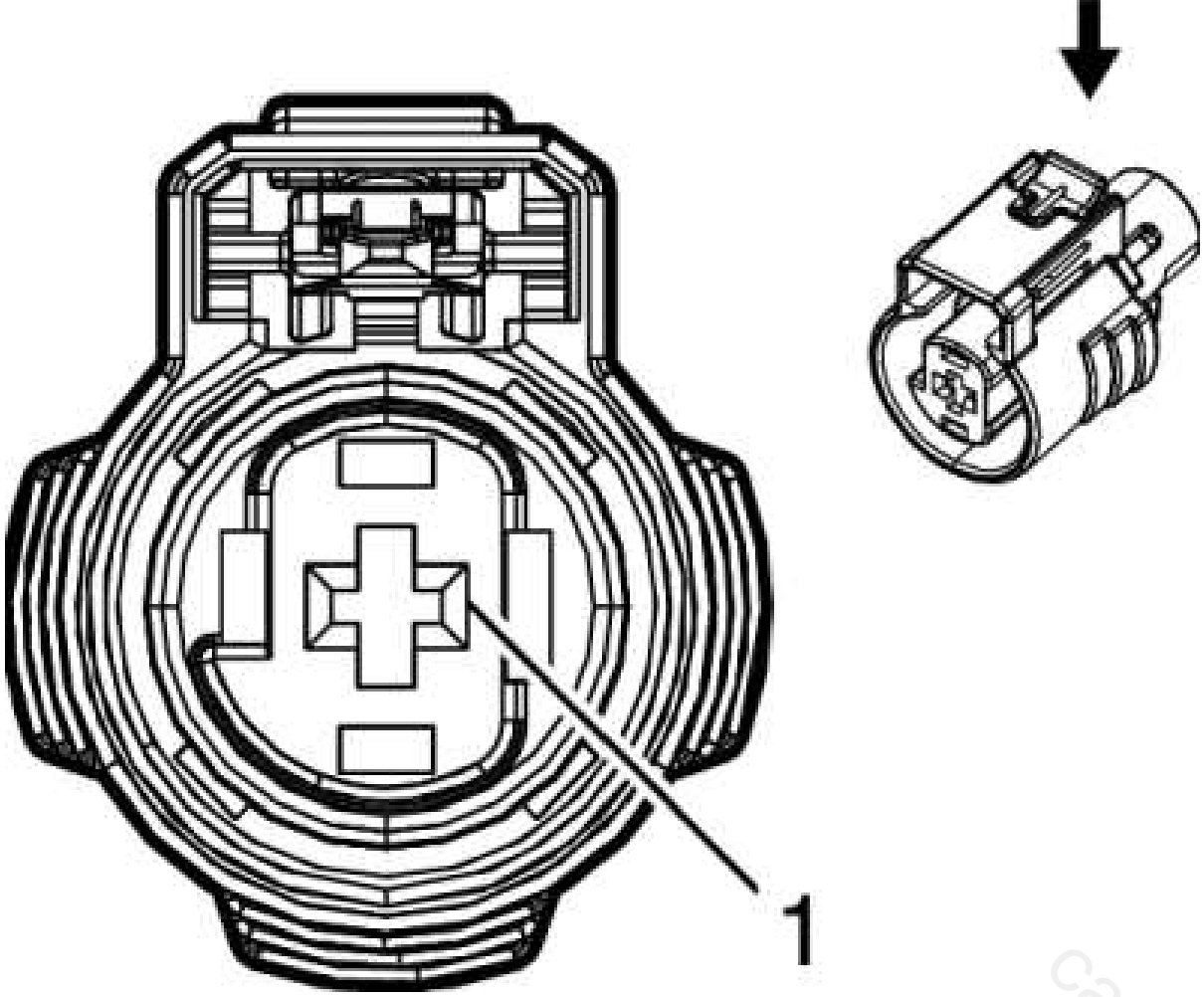
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE | 6 | Starter Solenoid Crank Ignition Voltage | I | - |
| 2 | 2.5 | YE/GN | 4358 | Starter Pinion Solenoid Voltage | I | - |

## M64 STARTER MOTOR X1 (-KL9)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13589322
- Service Connector: 19300471
- Description: 1-Way F 2.8 MCP Series, Sealed (BK)

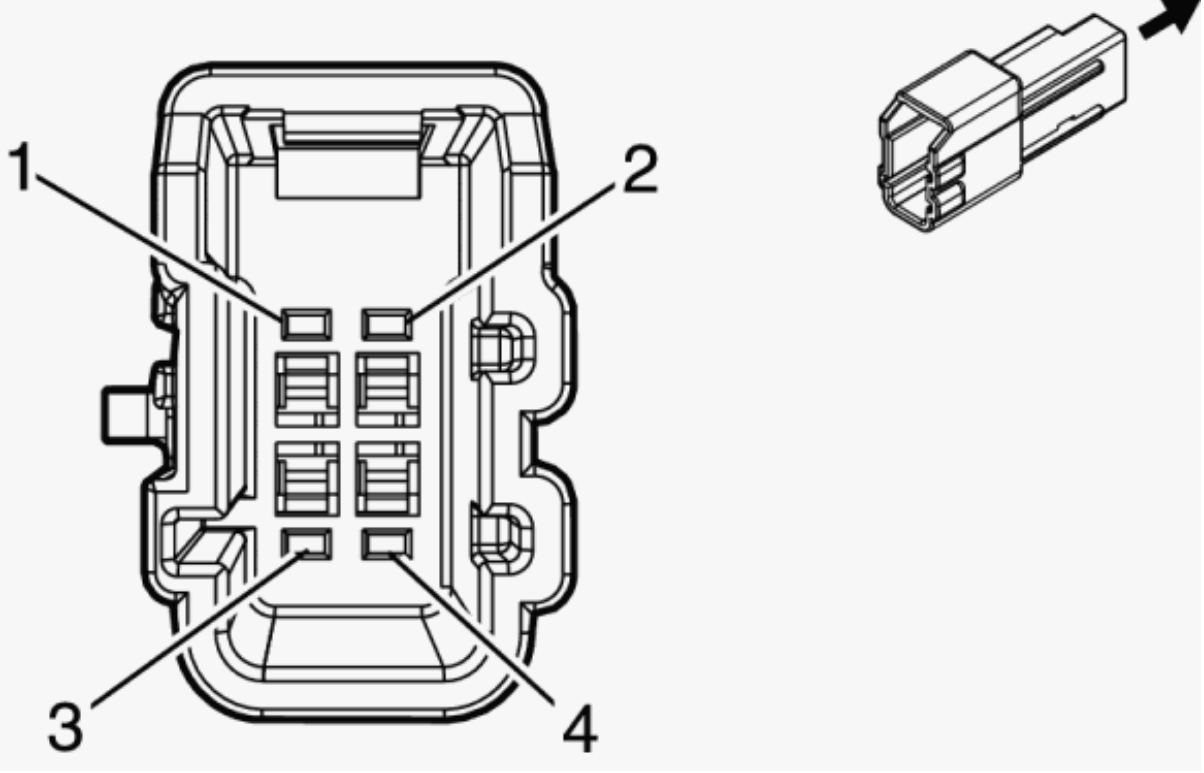
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE | 6 | Starter Solenoid Crank Ignition Voltage | I | - |

## M73A SEAT BLOWER MOTOR - DRIVER BACK (KU1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

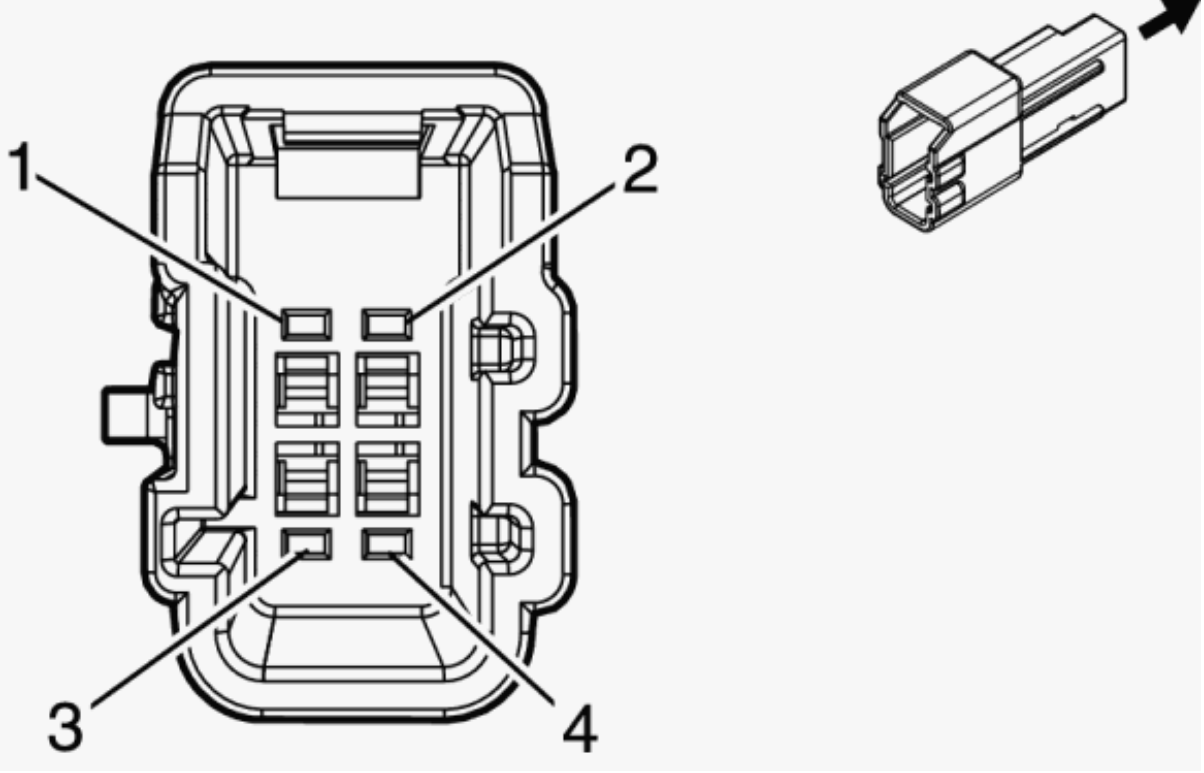
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/VT | 5906 | Driver Seat Vent Motor Control 1 | I | - |
| 2 | 0.35 | BK | 2350 | Ground | I | - |
| 3 | 0.35 | VT/BK | 339 | Run/Crank Ignition 1 Voltage | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M73B SEAT BLOWER MOTOR - PASSENGER BACK (KU3)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

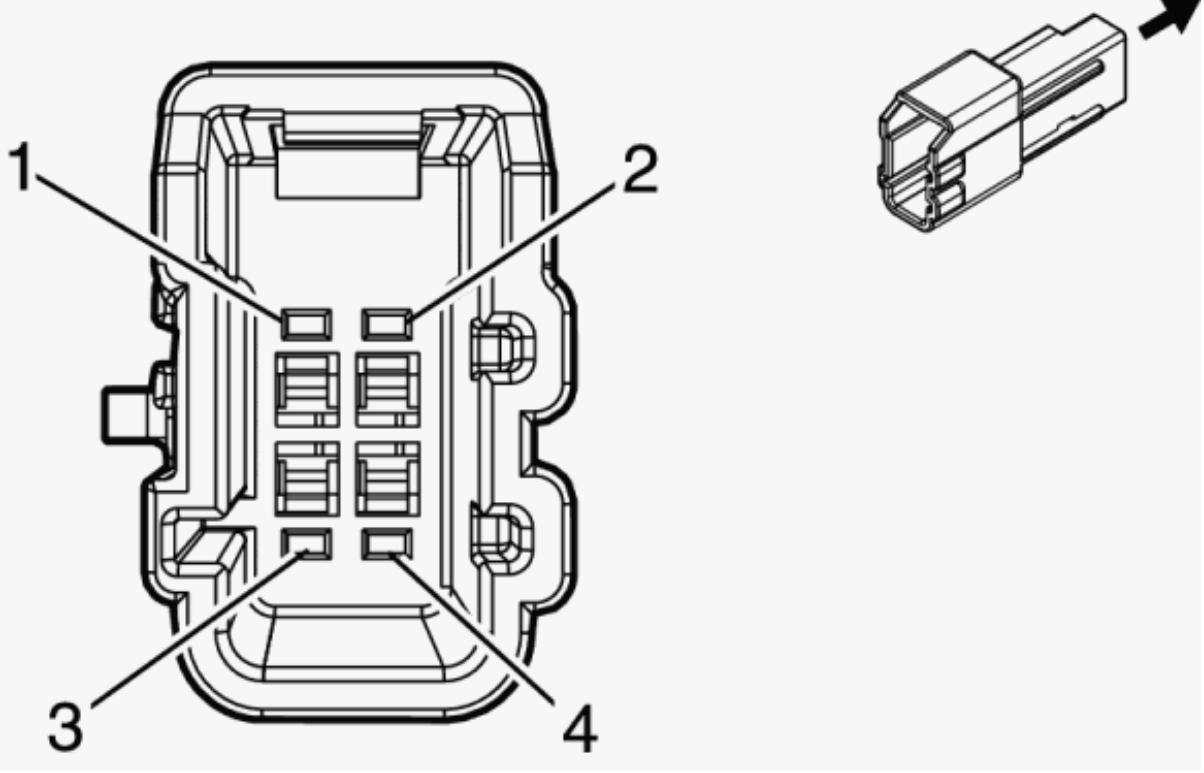
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/WH | 5908 | Passenger Seat Vent Motor Control 1 | I | - |
| 2 | 0.35 | BK | 1950 | Ground | I | - |
| 3 | 0.35 | VT/GY | 1039 | Run/Crank Ignition 1 Voltage | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M73C SEAT BLOWER MOTOR - DRIVER CUSHION (KU1)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

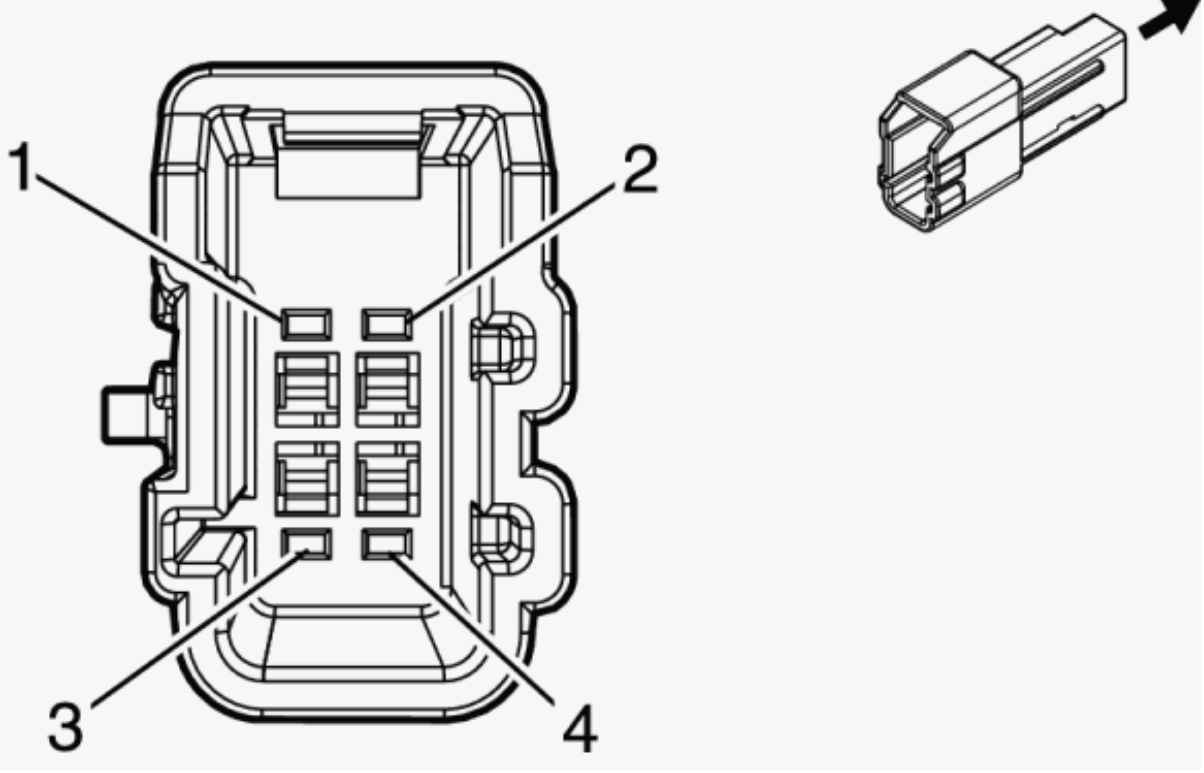
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/VT | 5906 | Driver Seat Vent Motor Control 1 | I | - |
| 2 | 0.35 | BK | 2350 | Ground | I | - |
| 3 | 0.35 | VT/BK | 339 | Run/Crank Ignition 1 Voltage | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M73D SEAT BLOWER MOTOR - PASSENGER CUSHION (KU3)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 6098-7781
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (GY)

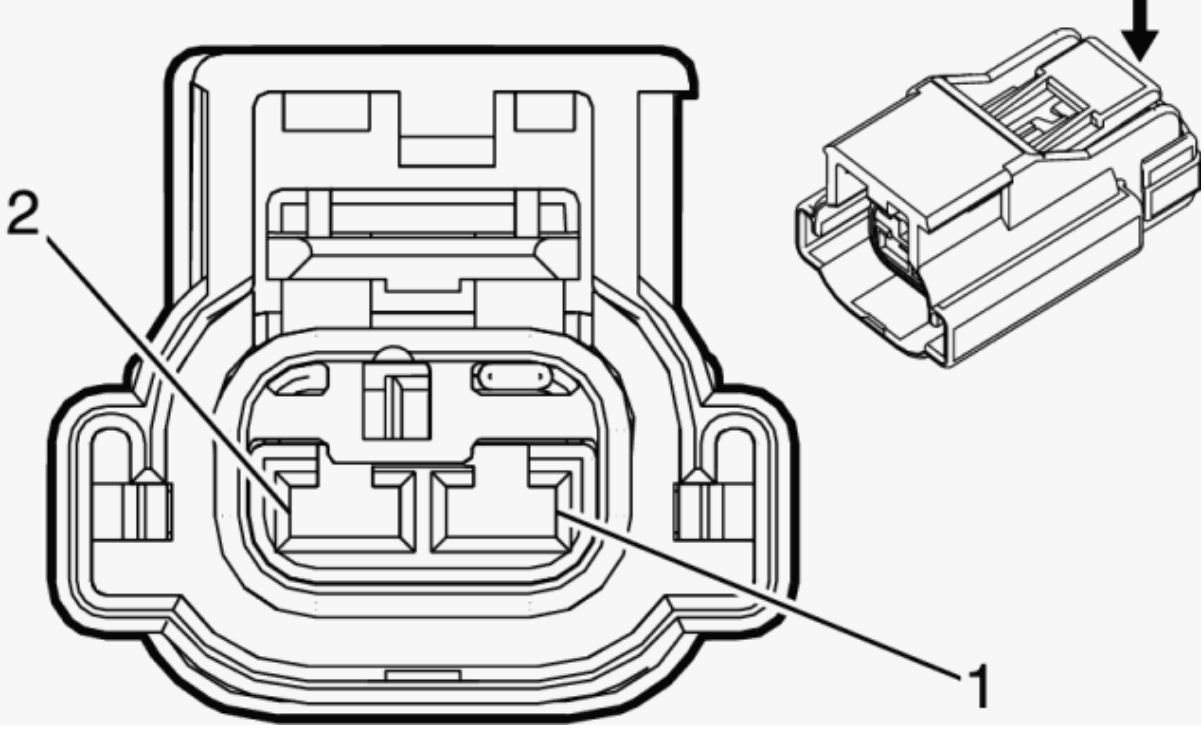
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/WH | 5908 | Passenger Seat Vent Motor Control 1 | I | - |
| 2 | 0.35 | BK | 1950 | Ground | I | - |
| 3 | 0.35 | VT/GY | 1039 | Run/Crank Ignition 1 Voltage | I | - |
| 4 | - | - | - | Not Occupied | - | - |

## M74LR WINDOW MOTOR - LEFT REAR

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 13580233
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed (BK)

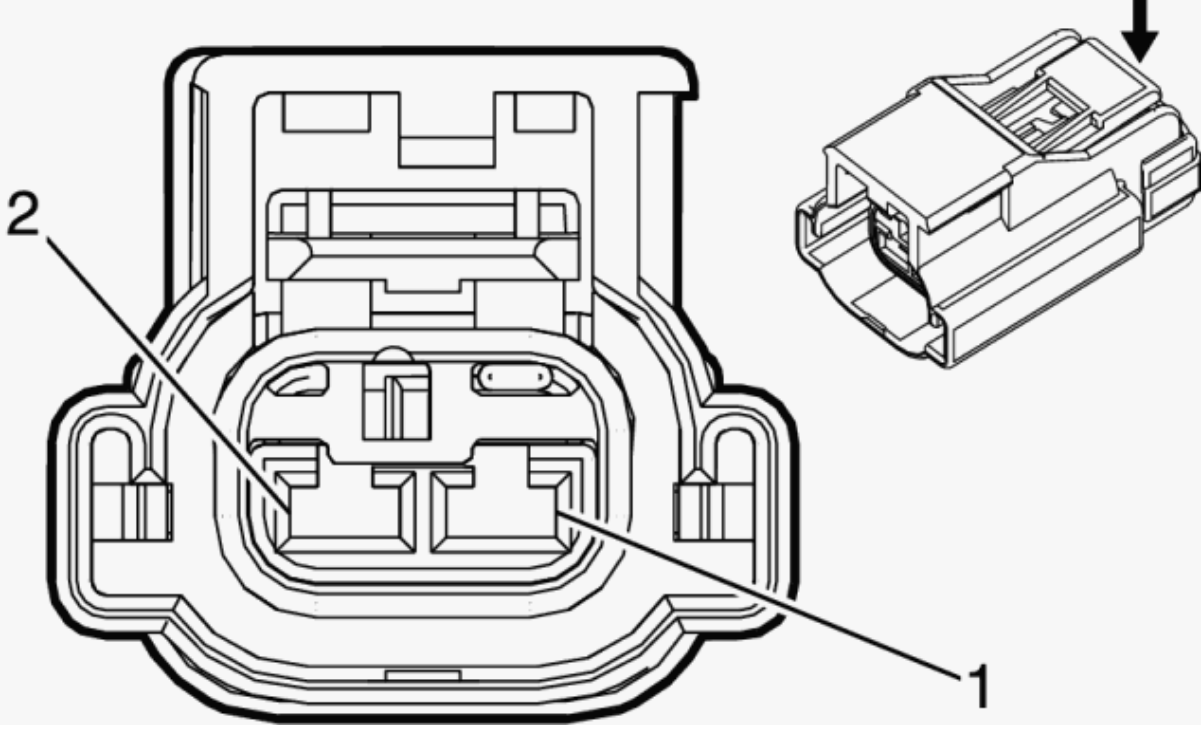
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BU/VT | 668 | Power Window Motor Left Rear Up Control | I | - |
| 2 | 2.5 | YE/BU | 669 | Power Window Motor Left Rear Down Control | I | AEQ |

## M74P WINDOW MOTOR - PASSENGER

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 13580233
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed (BK)

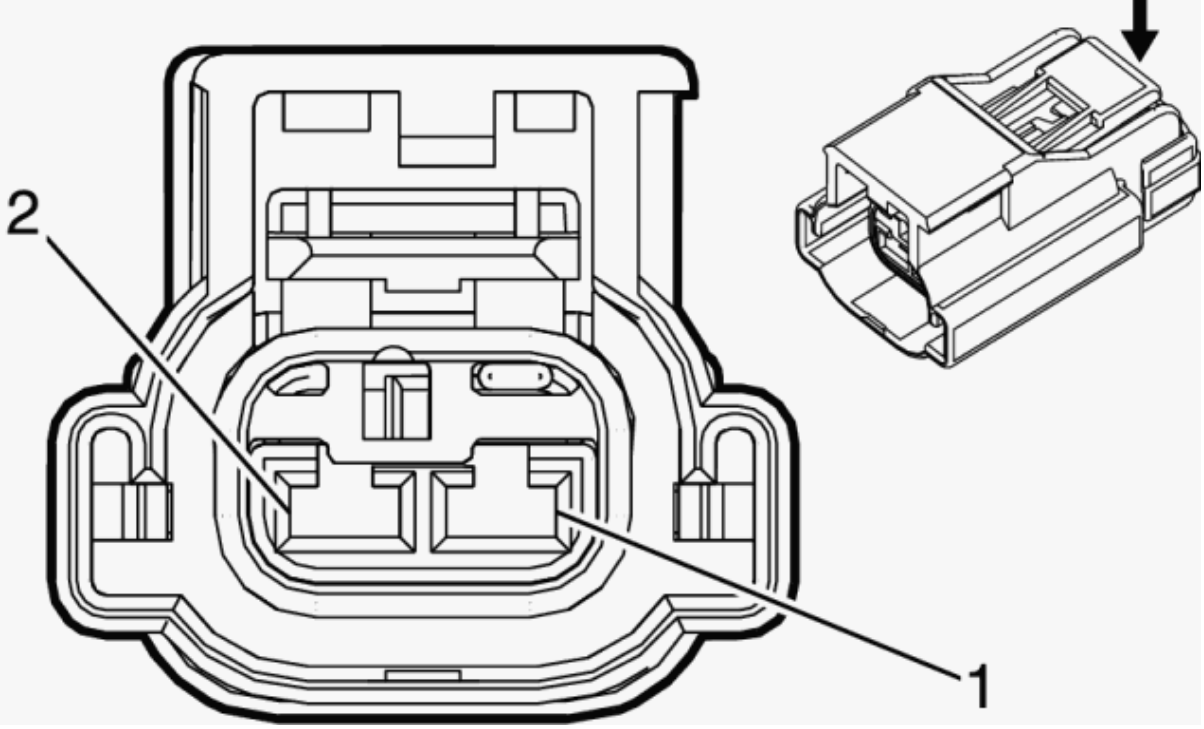
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GN/GY | 3387 | Power Window Motor Passenger Up Control | I | AED/A45 |
| 2 | 2.5 | YE/BU | 3388 | Power Window Motor Passenger Down Control | I | AED/A45 |

## M74RR WINDOW MOTOR - RIGHT REAR

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 13580233
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed (BK)

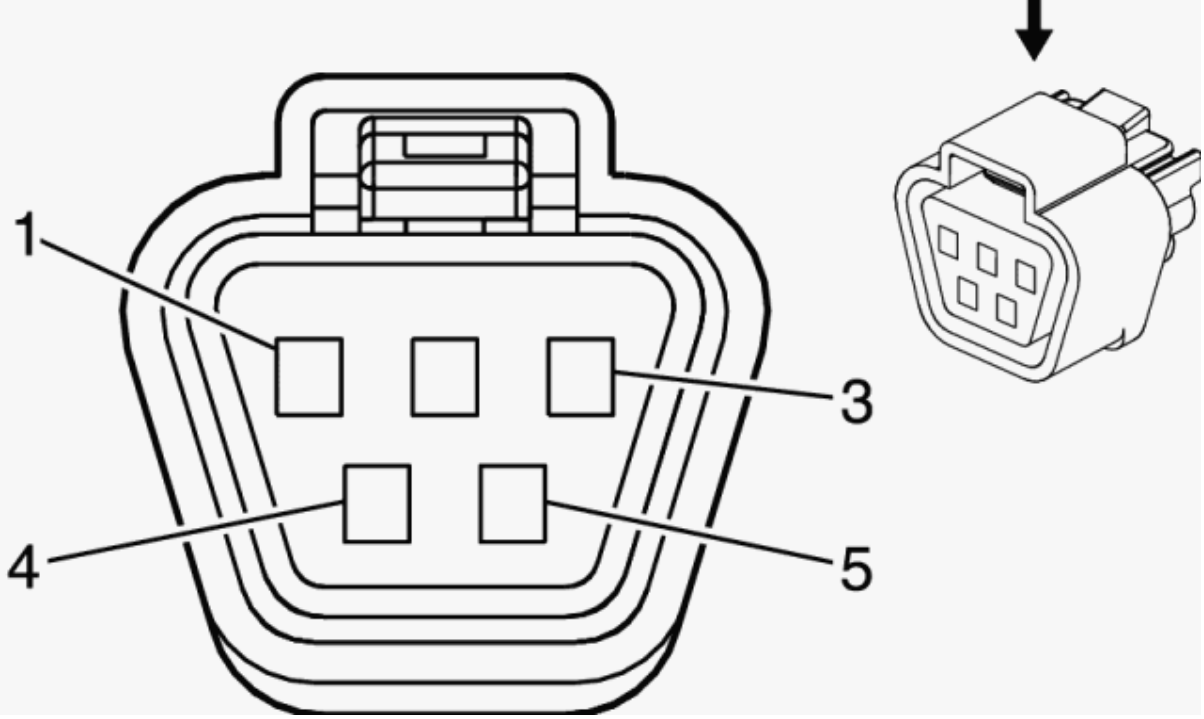
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BU/GY | 670 | Power Window Motor Right Rear Up Control | I | AEQ |
| 2 | 2.5 | GN/BK | 671 | Power Window Motor Right Rear Down Control | I | AEQ |

## M75 WINDSHIELD WIPER MOTOR

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15316488
- Service Connector: 13587179
- Description: 5-Way F 090 Series, Sealed (BK)

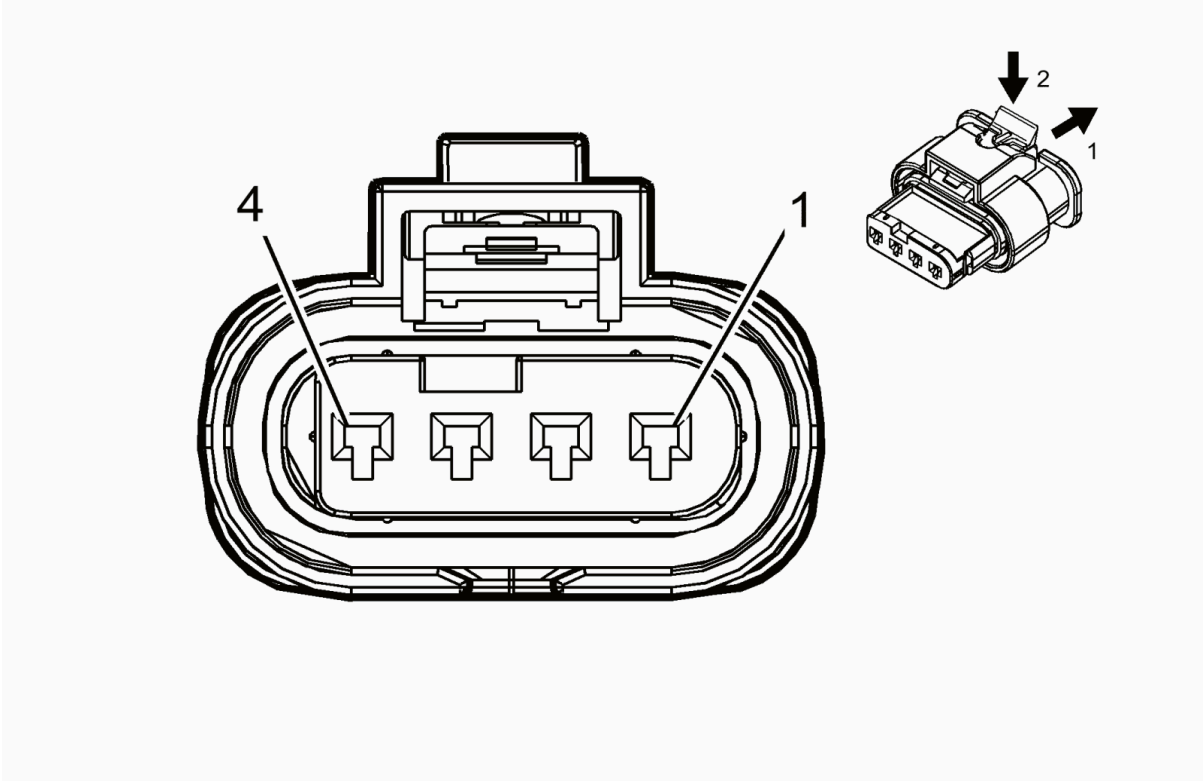
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE/BN | 95 | Windshield Wiper Motor Low Speed Control | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BN/GN | 196 | Windshield Wiper Motor Park Switch Signal | I | - |
| 4 | 1.5 | WH | 92 | Windshield Wiper Motor High Speed Control | I | - |
| 5 | 1.5 | BK | 1450 | Ground | I | - |

## M96A ACTIVE GRILLE AIR SHUTTER 1 ACTUATOR (VTI)

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Connector Part Information

- Harness Type: Forward Lamp Extension
- OEM Connector: 4-2272005-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 MCON Series (BK)

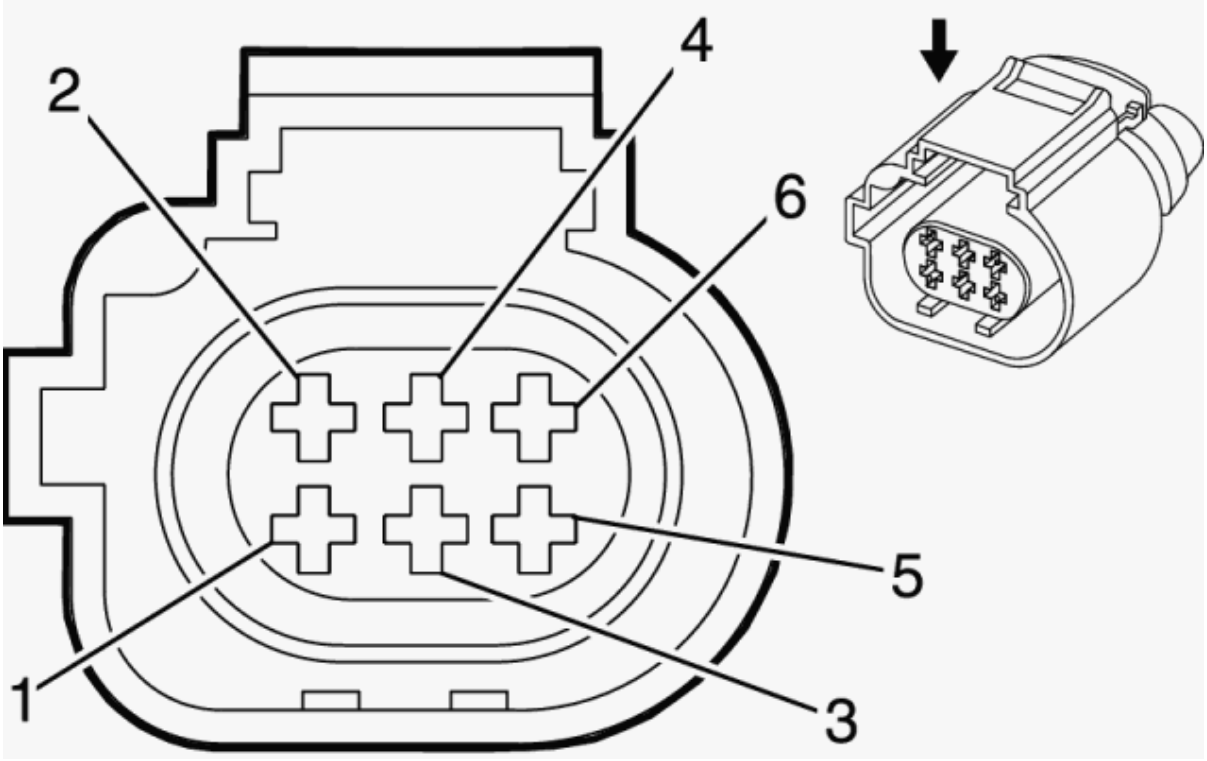
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/BU | 5705 | Powertrain Main Relay Fused Control 6 | I | - |
| 2 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK | 1150 | Ground | I | VTI |

## M98 INTAKE MANIFOLD RUNNER VALVE ACTUATOR (LH7)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571437
- Service Connector: 19368732
- Description: 6-Way F 1.6 Micro-Timer Series, Sealed (BN)

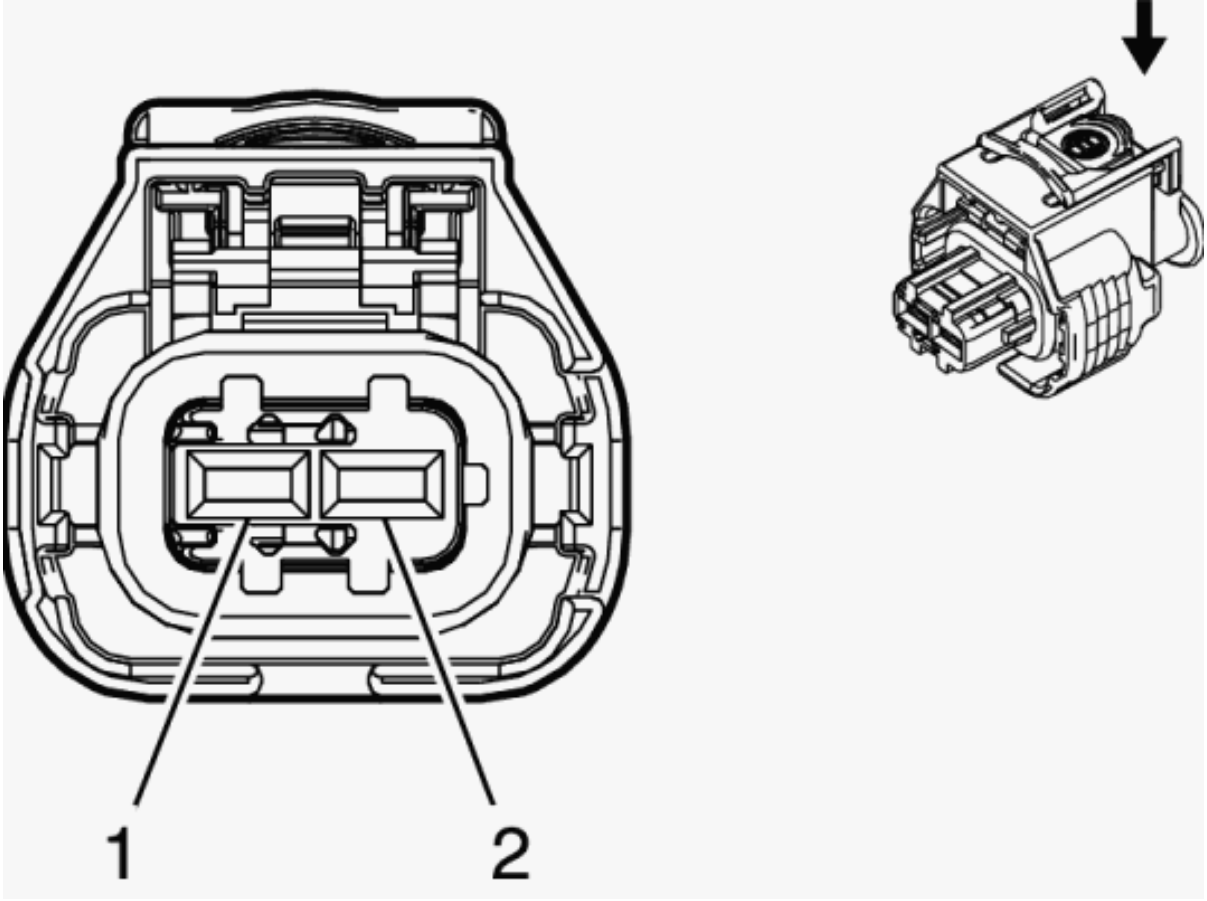
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 7316 | Variable Swirl Valve PWM Control Signal | I | LH7 |
| 2 | 0.75 | BK | 450 | Ground | I | LH7 |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | GY/VT | 7368 | Variable Swirl and Actuator Position Signal | I | LH7 |
| 6 | 0.75 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | - |

## M104L PARK BRAKE ACTUATOR - LEFT

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Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 13343445
- Service Connector: 19299882
- Description: 2-Way F 2.8 Series, Sealed (BK)

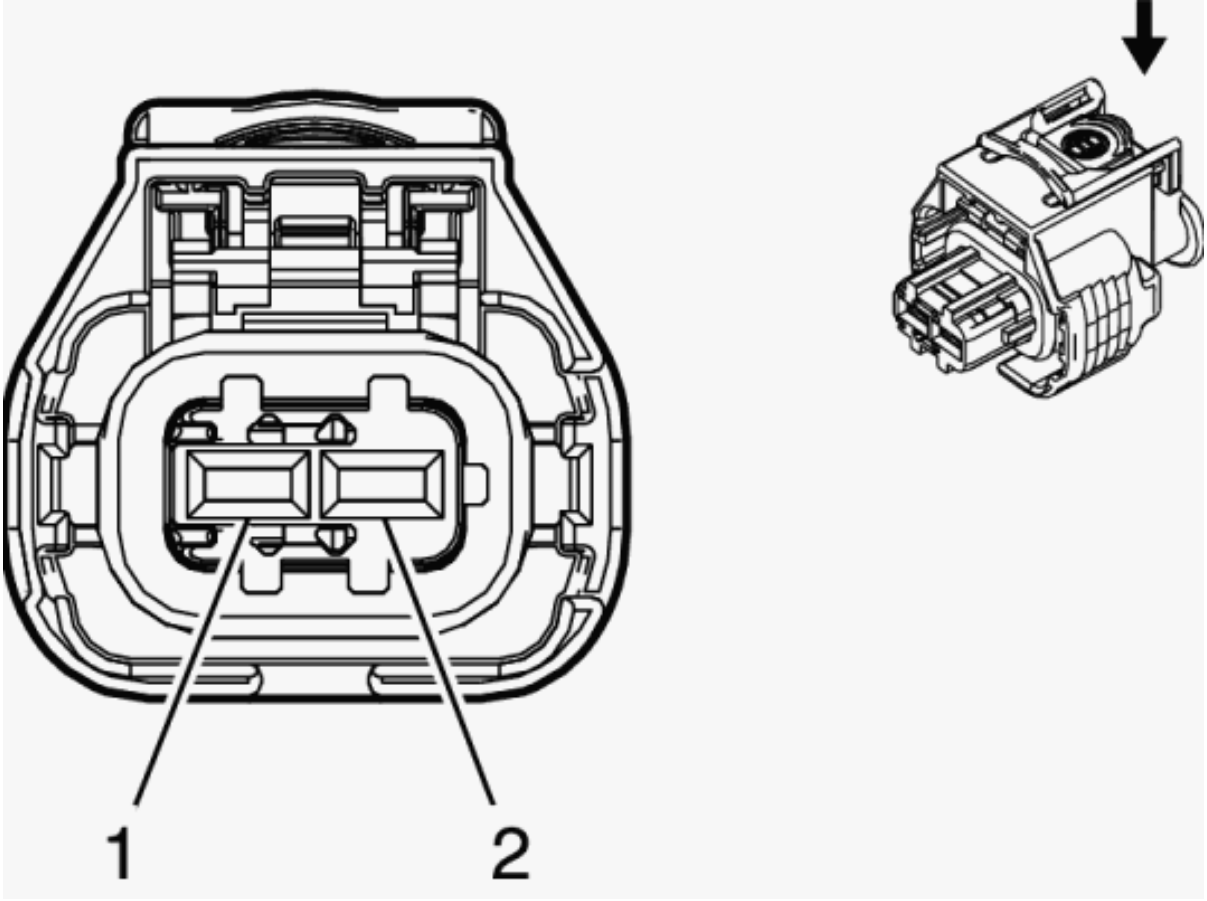
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | WH | 2001 | Park Brake Motor Apply Left Rear Control | I | - |
| 2 | 2.5 | GY/BK | 4369 | Park Brake Motor Low Reference Left Rear | I | - |

## M104R PARK BRAKE ACTUATOR - RIGHT

cardiagn.com




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 13343445
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 Series, Sealed (BK)

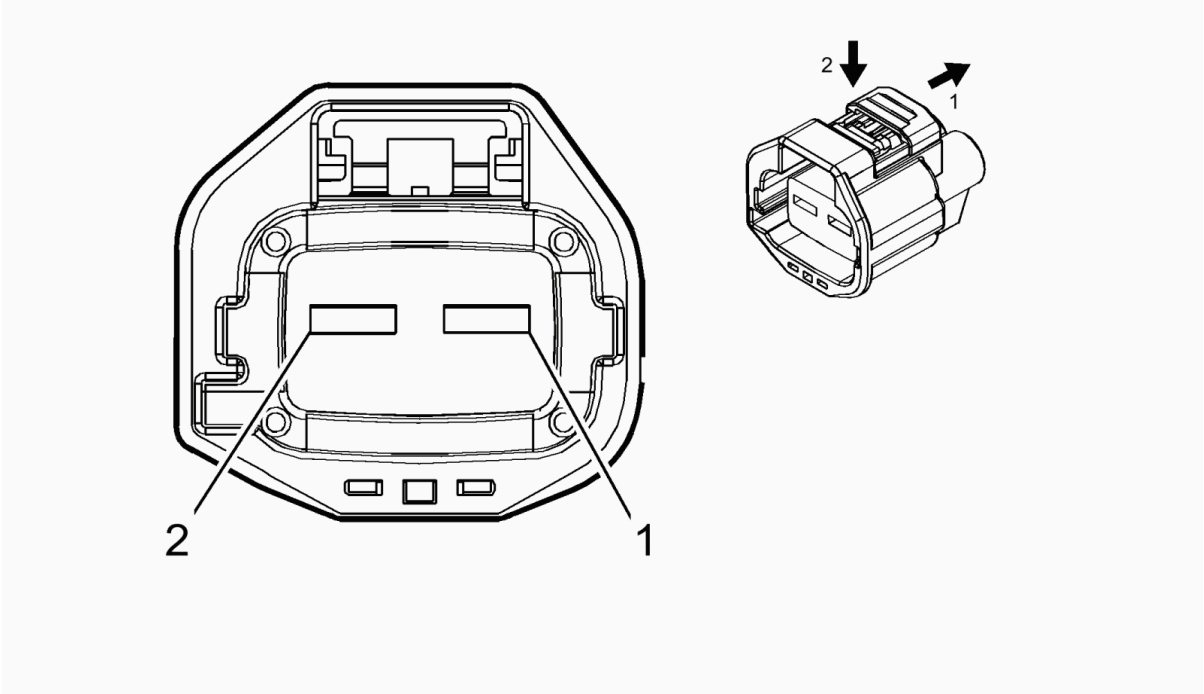
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | GN/VT | 1988 | Park Brake Motor Apply Right Rear Control | I | - |
| 2 | 2.5 | GY | 4368 | Park Brake Motor Low Reference Right Rear | I | - |

## M115 POWER TRANSFER UNIT SHIFT ACTUATOR X1 (F48)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 7287-6196-10
- Service Connector: 19355452
- Description: 2-Way F 6.3 Series, Sealed (D-GY)

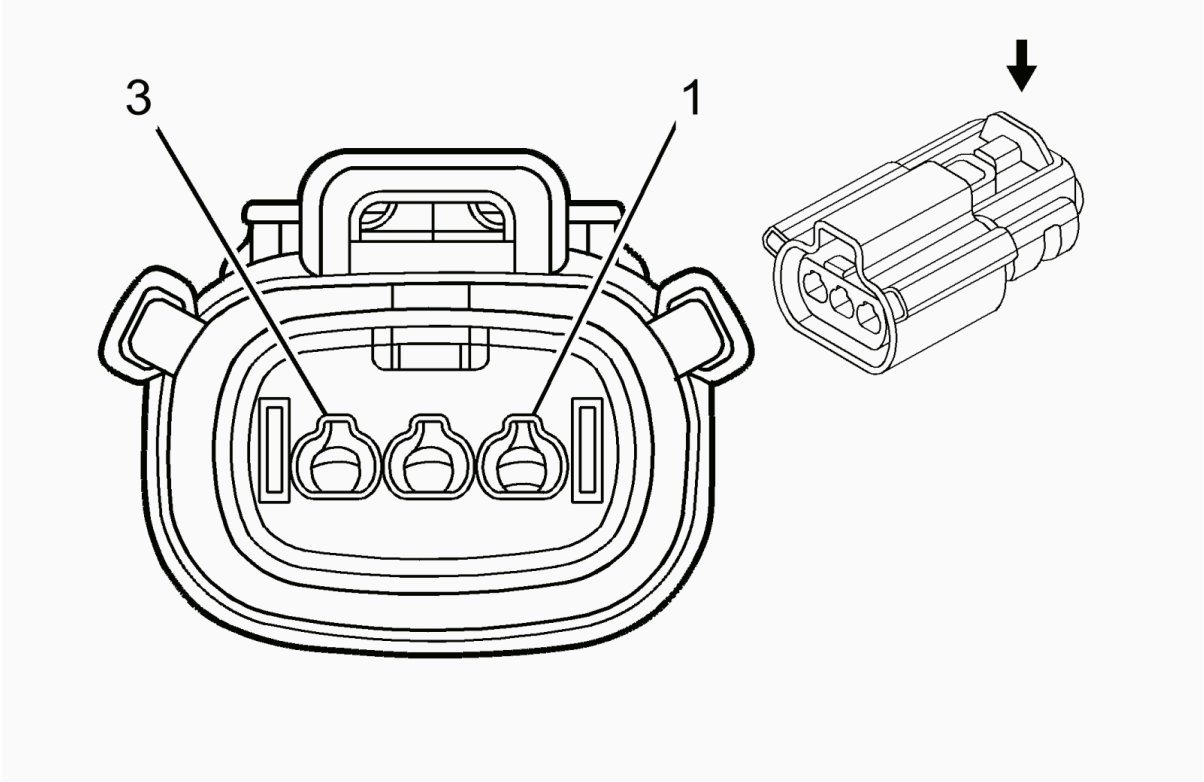
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | BN/GN | 3945 | All Wheel Drive Power Transfer Motor Control B | I | F48 |
| 2 | 2.5 | VT/BN | 3944 | All Wheel Drive Power Transfer Motor Control A | I | - |

## M115 POWER TRANSFER UNIT SHIFT ACTUATOR X2 (F48)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503225
- Service Connector: 19301648
- Description: 3-Way F 150 MX Series, Sealed (BK)

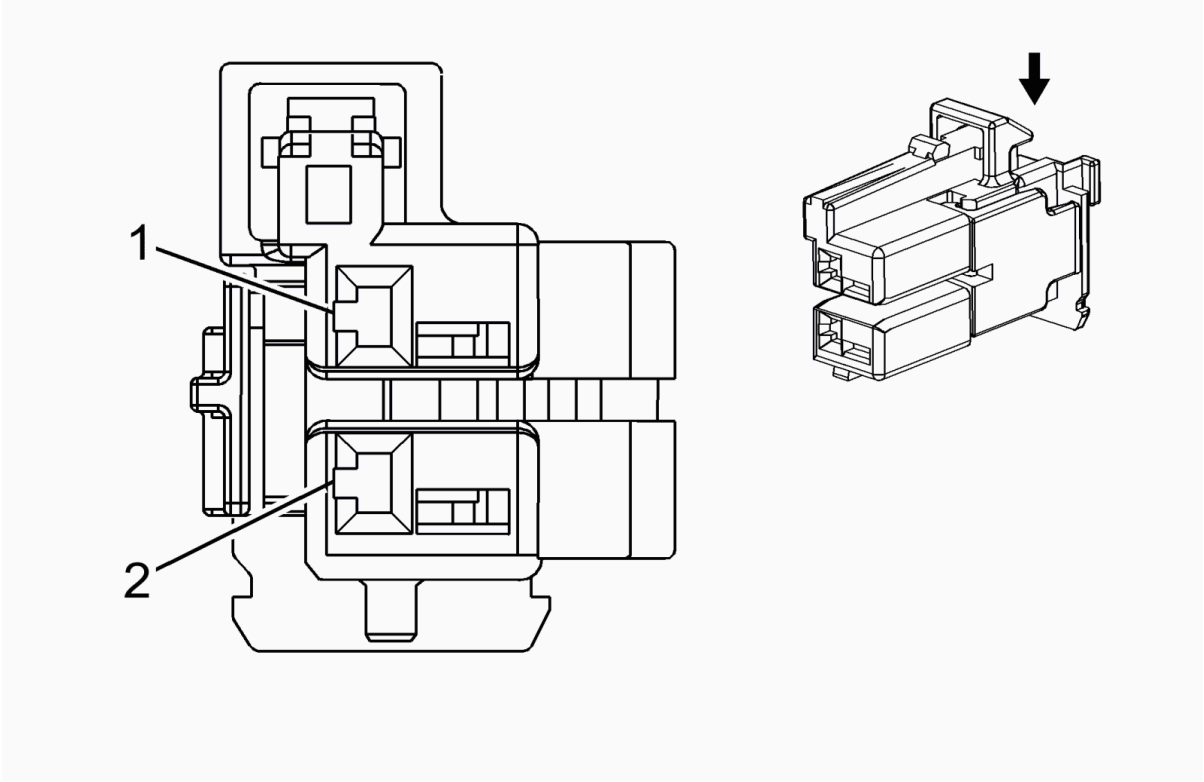
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/BN | 3848 | All Wheel Drive Power Transfer Unit Position Sensor Signal | I | F48 |
| 2 | 0.5 | WH/RD | 3847 | All Wheel Drive Power Transfer Unit Position Sensor Voltage Reference | I | F48 |
| 3 | 0.5 | BK/VT | 3846 | All Wheel Drive Power Transfer Unit Position Sensor Low Reference | I | - |

## M123 TRANSMISSION PARK VALVE LOCK SOLENOID ACTUATOR (M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BU)

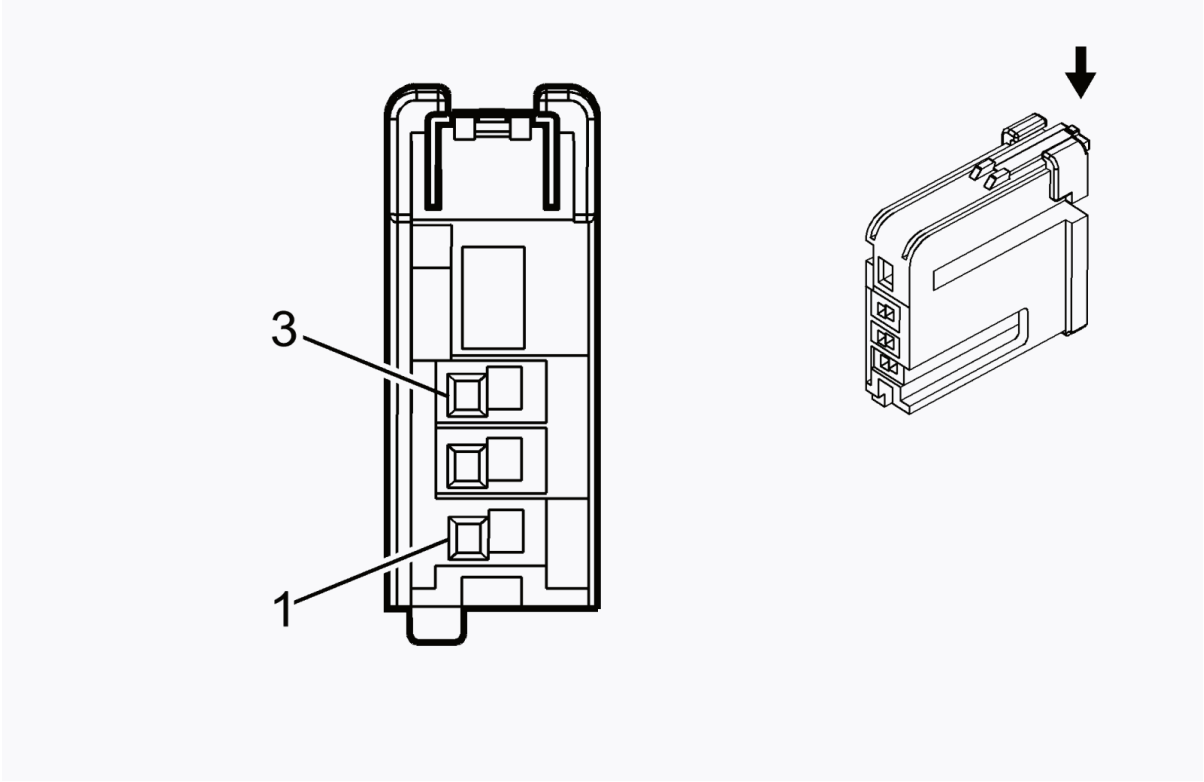
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3H/M3U |
| 2 | 0.5 | VT/BK | 7553 | Park Lock Solenoid Control | I | M3H/M3U |

## P2 TRANSMISSION SHIFT LEVER POSITION INDICATOR

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 19153430
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series (BK)

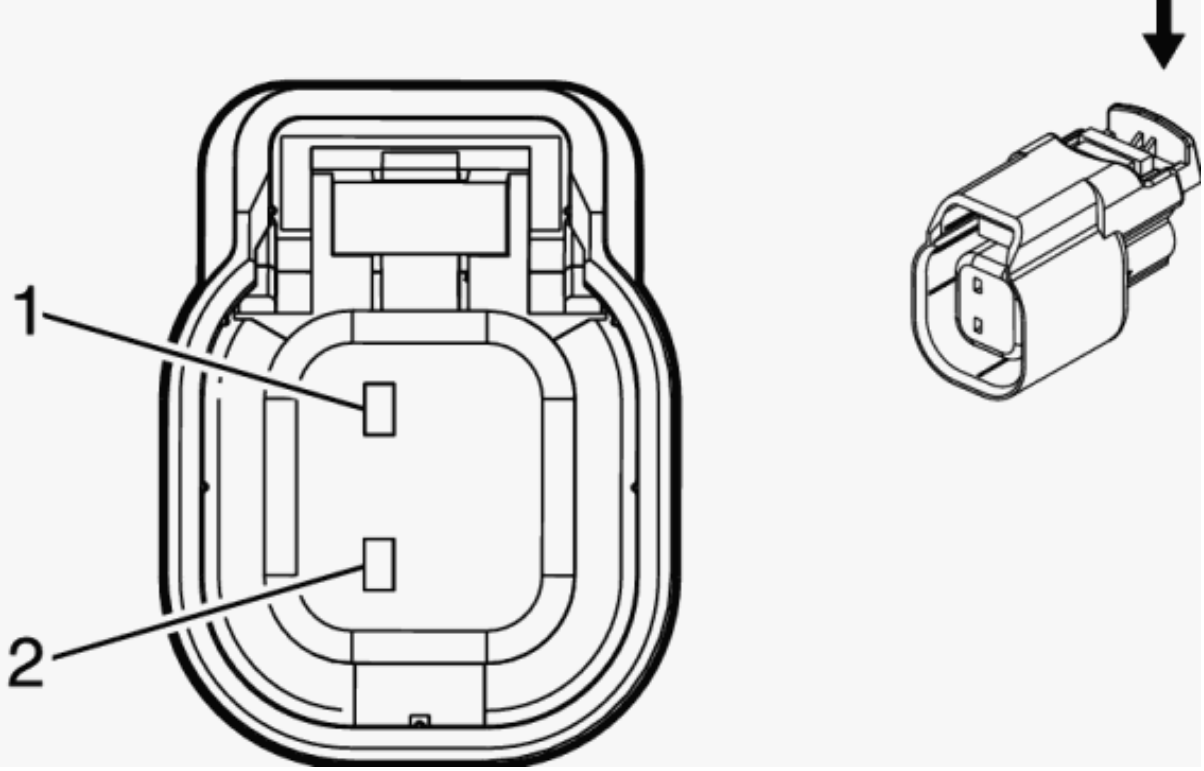
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/VT | 755 | RAP Relay Coil Control | I | - |
| 2 | 0.35 | GN/BU | 6133 | Local Interconnect Network Serial Data Bus 2 | I | - |
| 3 | 0.35 | BK | 2250 | Ground | I | - |

## P13 HORN ASSEMBLY

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Connector Part Information

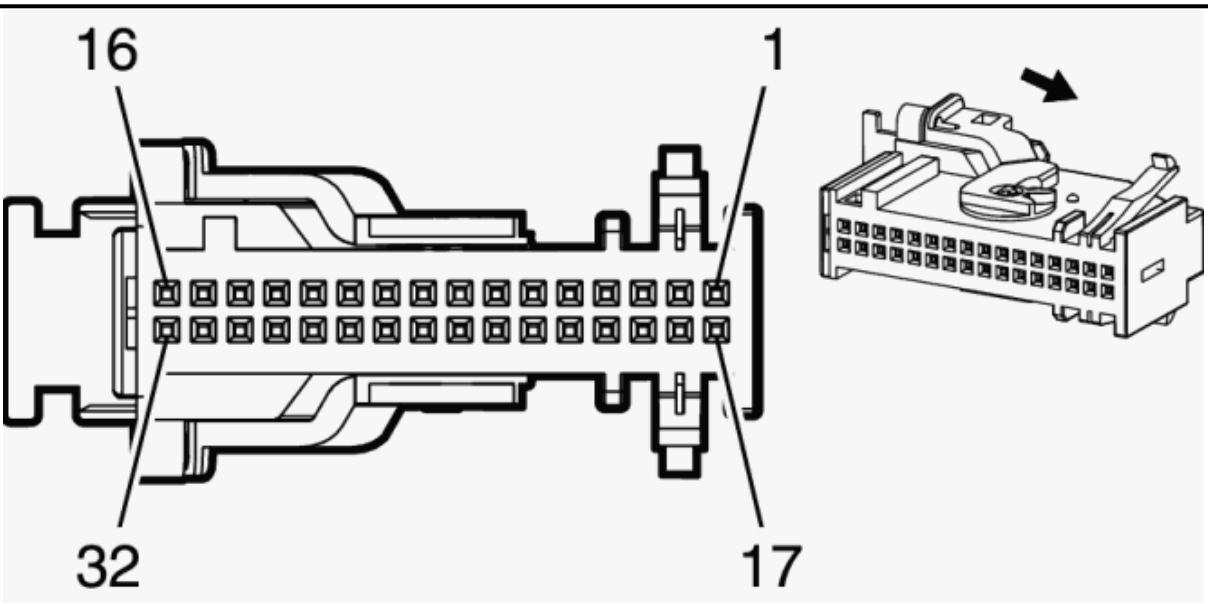
- Harness Type: Forward Lamp
- OEM Connector: 13503510
- Service Connector: 19367569
- Description: 2-Way F 1.5 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1050 | Ground | I | U05 |
| 2 | 0.75 | BN/GY | 29 | Horn Control | I | - |

## P16 INSTRUMENT CLUSTER X1




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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 90587345
- Service Connector: 88988405
- Description: 32-Way F 0.64 Micro-Quadlock Series (BK)

**Terminal Part Information**

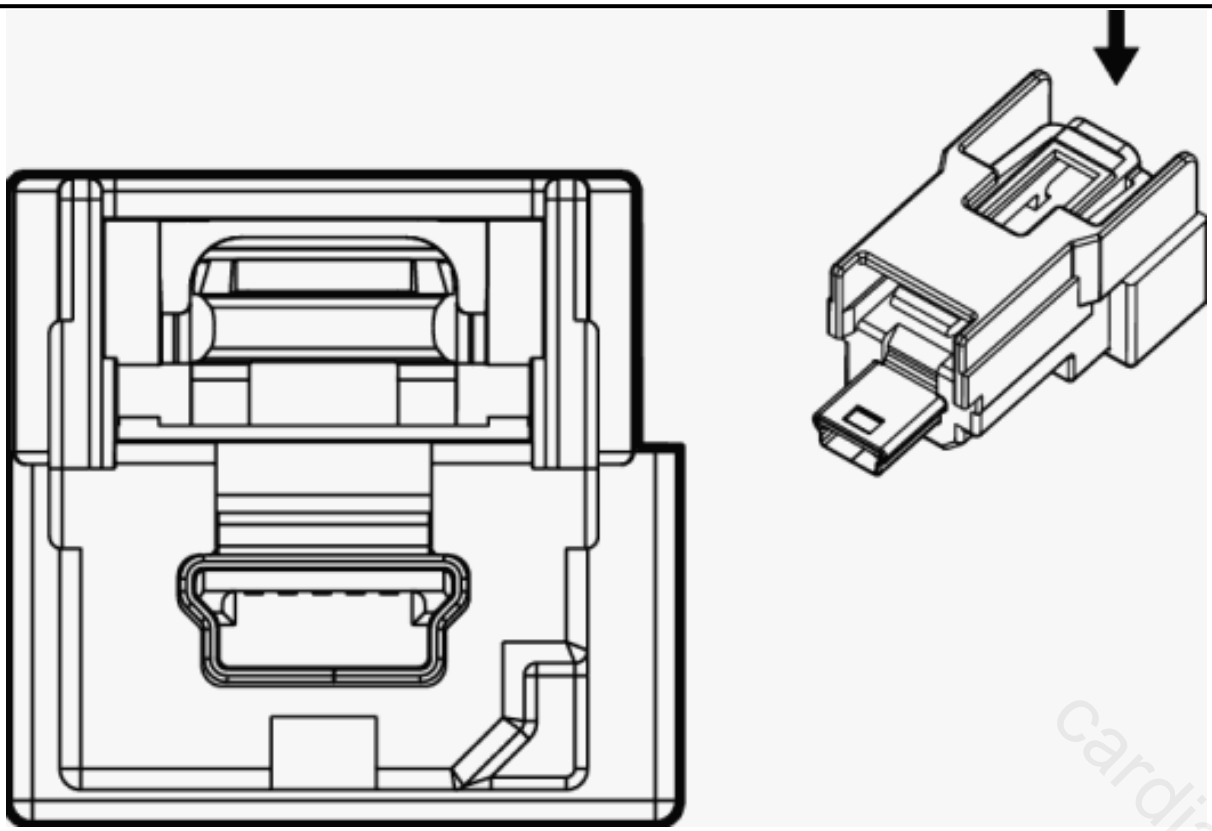
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575584 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19352073 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19352073 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | UDD+IO5/IO6 |
| 2 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | UDD+IO5/IO6 |
| 3 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | II | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | WH/VT | 3999 | MOST Control | I | UDD+IO5/IO6/UQA-IOS-IOT-IOU |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | II | - |
| 8 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | II | - |
| 9 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | GY/YE | 3885 | Forward Collision Alert LED Control | II | UEU |
| 13 - 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.13 | BN/WH | 419 | Check Engine Indicator Control | II | NTB/NUB/LH7 |
| 17 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | - |
| 18 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | - |
| 19 | 0.35 | BK | 1750 | Ground | II | - |
| 20 | 0.35 | GN/BK | 3894 | Local Interconnect Network Serial Data Bus 12 | II | - |
| 21 - 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.35 | VT | 185 | Low Washer Fluid Indicator Control | II | - |
| 25 - 29 | - | - | - | Not Occupied | - | - |
| 30 | 0.35 | WH/GN | 3535 | Reflected LED Display Dimming Control | II | UEU |
| 31 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 32 | 0.35 | GN/BN | 507 | Wait To Start Indicator Control | II | LH7 |

## P16 INSTRUMENT CLUSTER X3



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576692
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

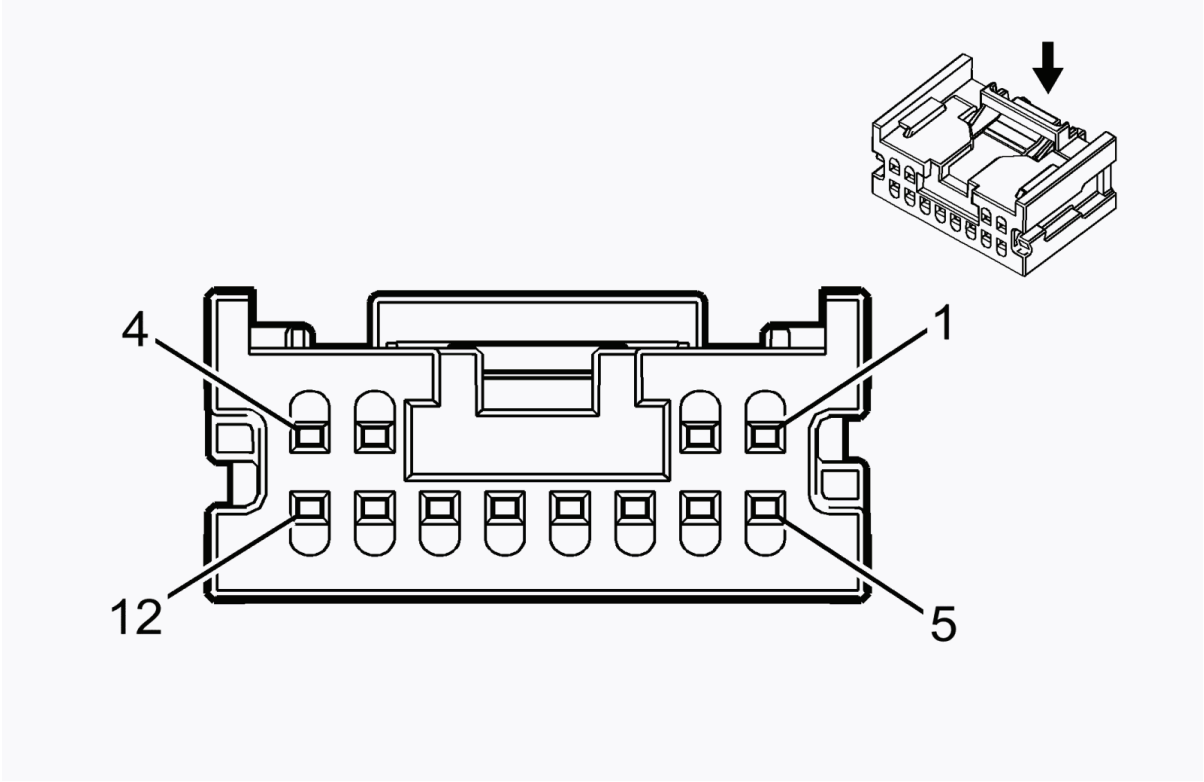
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## P17 INFO DISPLAY MODULE X1 (IOB)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13507121
- Service Connector: 13507121
- Description: 12-Way F Mini 50 Series (BK)

**Terminal Part Information**

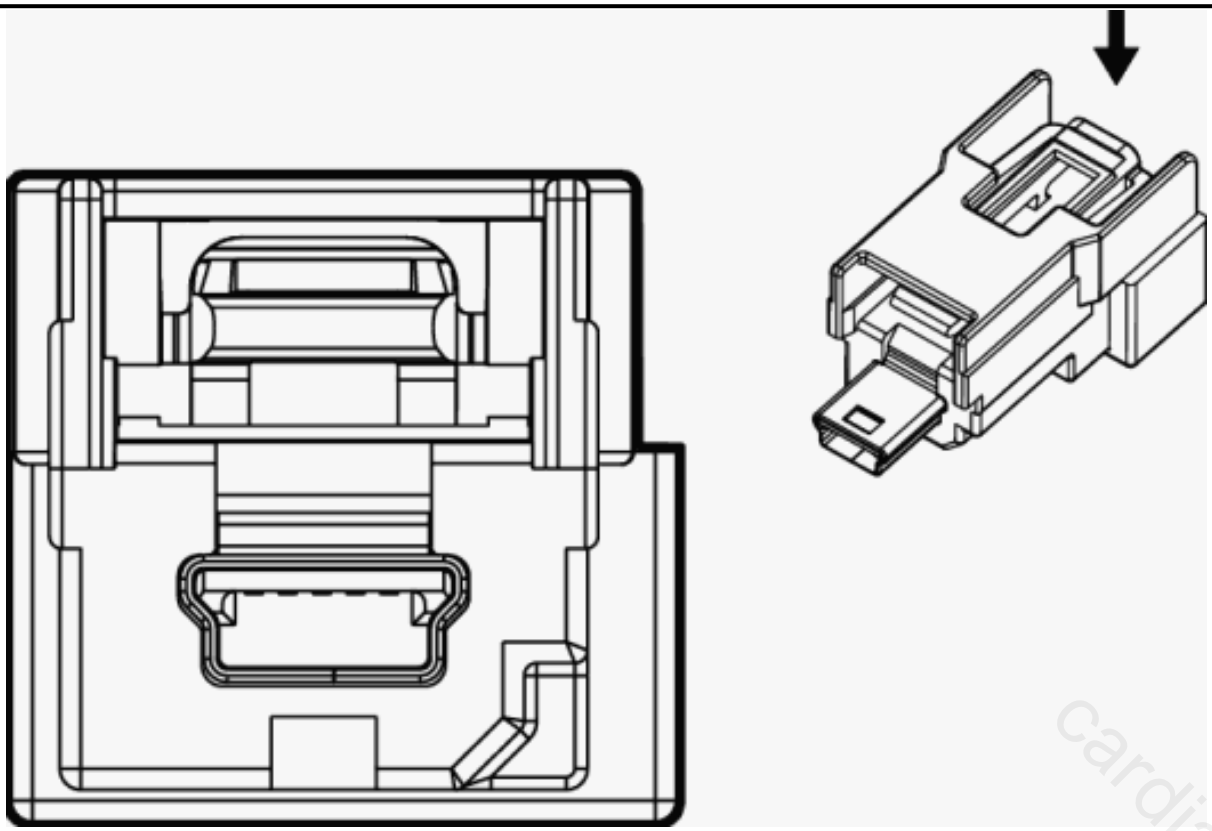
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/GN | 2813 | Radio Display Backlight Dimming Control | I | IOB |
| 2 | 0.35 | WH | 2811 | Radio Display Diagnostic Signal | I | IOB |
| 3 | 0.35 | BU/RD | 2807 | Radio Keypad Voltage Reference | I | IOB |
| 4 | 0.35 | GN/BK | 2805 | Radio Keypad Ground Return | I | IOB |
| 5 | 0.35 | BN | 2814 | Radio Display Low Voltage Differential Signaling Lock Signal | I | IOB |
| 6 | 0.35 | GY/VT | 2812 | Radio Display Low Voltage Differential Signaling Error Signal | I | IOB |
| 7 | 0.35 | GY/BU | 2803 | Radio Display Touch Interrupt Request Signal | I | IOB |
| 8 | 0.35 | BK/GN | 2804 | Radio Display Backlight Low Reference | I | IOB |
| 9 | 0.35 | BK | 1750 | Ground | I | IOB |
| 10 | 0.35 | BK | 1750 | Ground | I | IOB |
| 11 | 0.35 | BK/YE | 2806 | Radio Keypad Low Reference | I | IOB |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 0.35 | BU/GY | 2808 | Radio Keypad Dimming Control | I | IOB |

## P17 INFO DISPLAY MODULE X2 (IOB/IO5/IO6)



Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 13581312
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

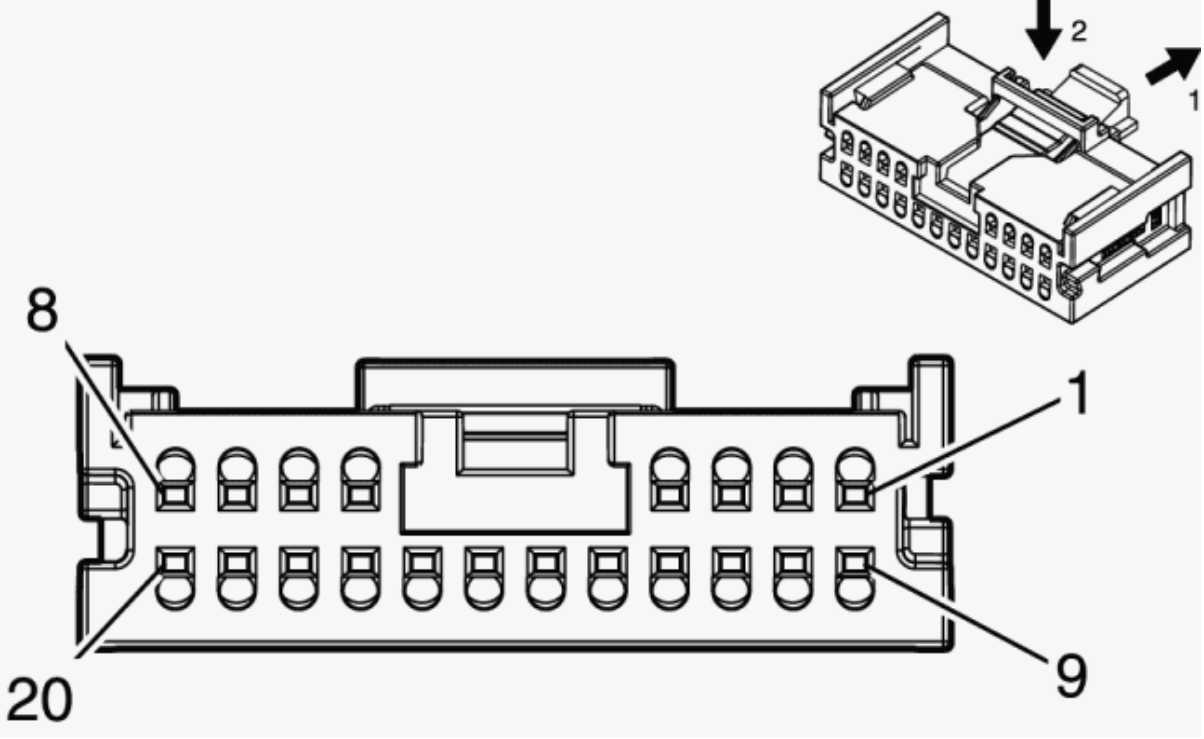
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | Navigation Display Signal | I | - |

## P17 INFO DISPLAY MODULE X1 (IOR)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13596105
- Service Connector: 13596105
- Description: 20-Way F Mini 50 Series (BK)

**Terminal Part Information**

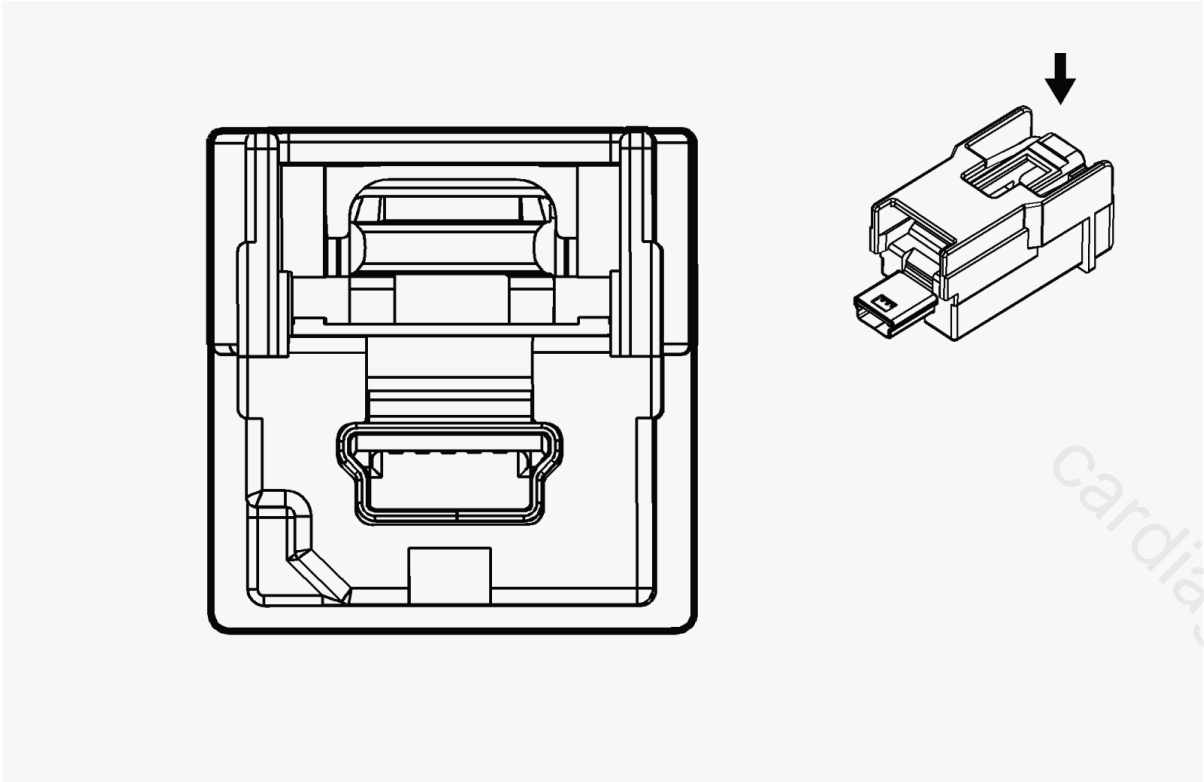
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/RD | 2807 | Radio Keypad Voltage Reference | I | IOR |
| 2 | 0.35 | GY/BU | 2803 | Radio Display Touch Interrupt Request Signal | I | IOR |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BU | 4315 | Radio Volume Up Signal | I | IOR |
| 5 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | IOR |
| 6 | 0.35 | BN/WH | 2809 | Radio Keypad Power Signal | I | IOR |
| 7 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | I | IOR |
| 8 | 0.35 | BU/GY | 2808 | Radio Keypad Dimming Control | I | IOR |
| 9 | 0.35 | BU/GN | 2813 | Radio Display Backlight Dimming Control | I | IOR |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | BK/GN | 2804 | Radio Display Backlight Low Reference | I | IOR |
| 12 | 0.35 | BN/WH | 2517 | Keypad Red LED Control | I | IOR |
| 13 | 0.35 | BU/RD | 2807 | Radio Keypad Voltage Reference | I | IOR |
| 14 | 0.35 | BU | 4315 | Radio Volume Up Signal | I | IOR |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | IOR |
| 16 | 0.35 | BN/WH | 2809 | Radio Keypad Power Signal | I | IOR |
| 17 | 0.35 | VT/WH | 2810 | Radio Keypad Button Signal | I | IOR |
| 18 | 0.35 | BU/GY | 2808 | Radio Keypad Dimming Control | I | IOR |
| 19 | 0.35 | GY/VT | 3363 | Navigation Display Dimming Control | I | IOR |
| 20 | 0.35 | BK/YE | 2806 | Radio Keypad Low Reference | I | IOR |

## P17 INFO DISPLAY MODULE X2 (IOR)



Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 111014-9501
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

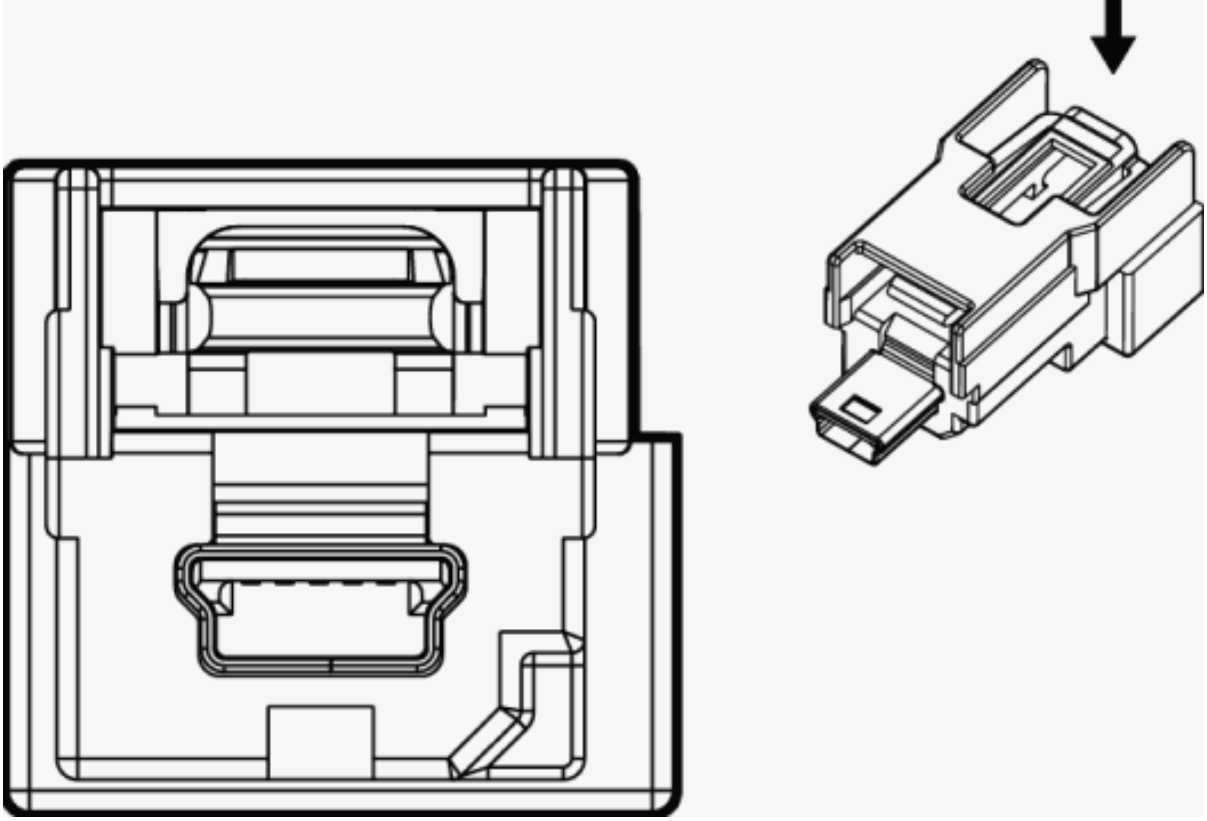
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | Navigation Display Signal | I | - |

## P17 INFO DISPLAY MODULE X2 (IOS/IOT/IOU)

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Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 111014-9400
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

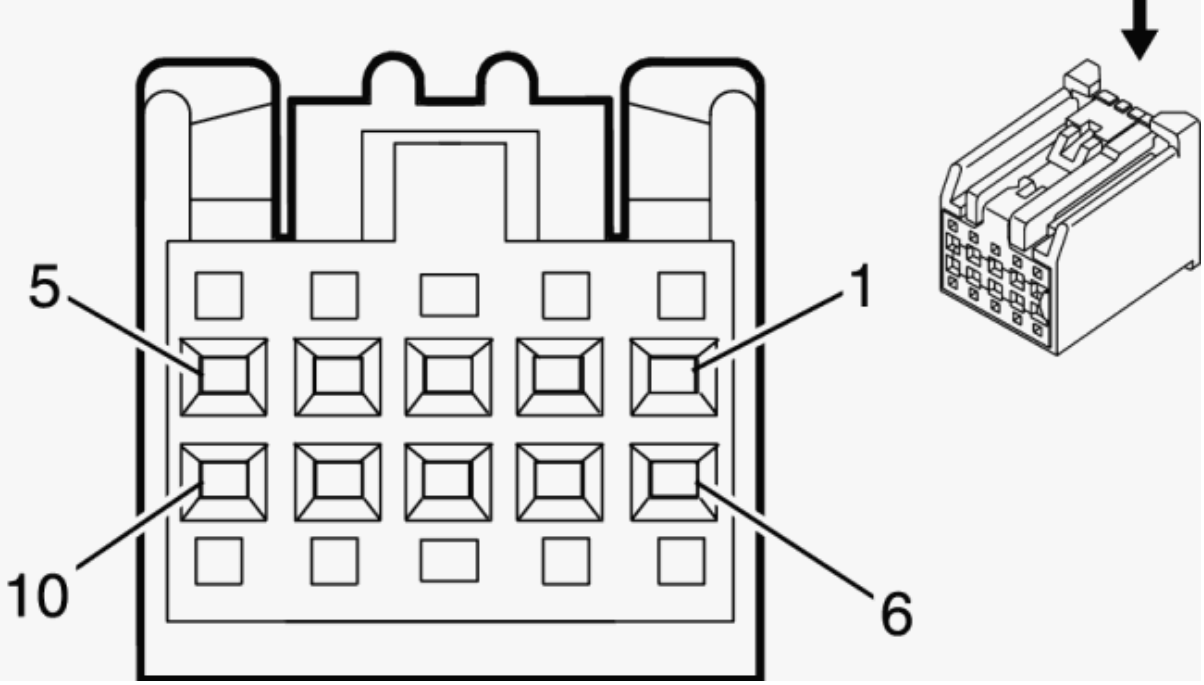
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | Navigation Display Signal | I | - |

## P17 INFO DISPLAY MODULE X1 (IOS/IOT/IOU/IO5/IO6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13577390
- Service Connector: 13577390
- Description: 10-Way F 0.64 Kaizen Series (BK)

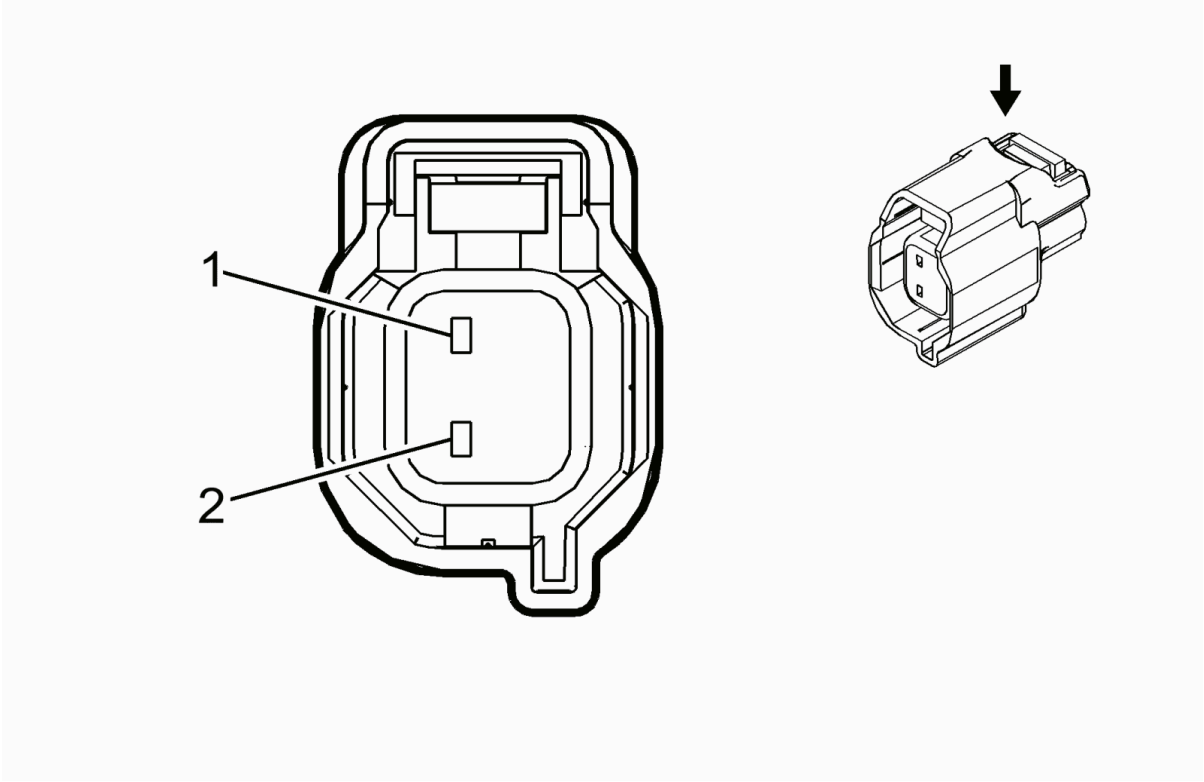
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | GN/BU | 7532 | Local Interconnect Network Serial Data Bus 10 | I | - |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | - |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | BK | 1750 | Ground | I | - |

## P19AG SPEAKER - LEFT FRONT DOOR (UQA)

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Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 34062-0022
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (L-GY)

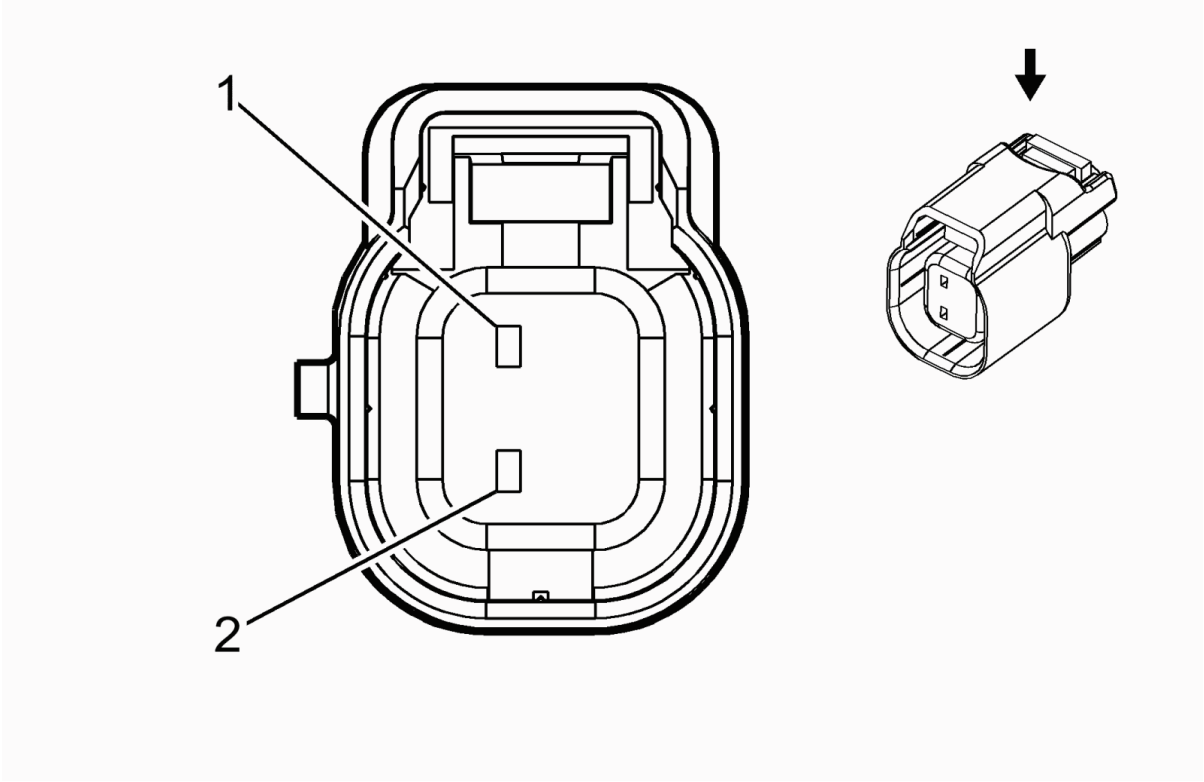
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | UQA |
| 2 | 1.5 | BU | 201 | Left Front Speaker Control (+) 1 | I | UQA |

## P19AG SPEAKER - LEFT FRONT DOOR (UZ6)

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Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 34062-0046
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

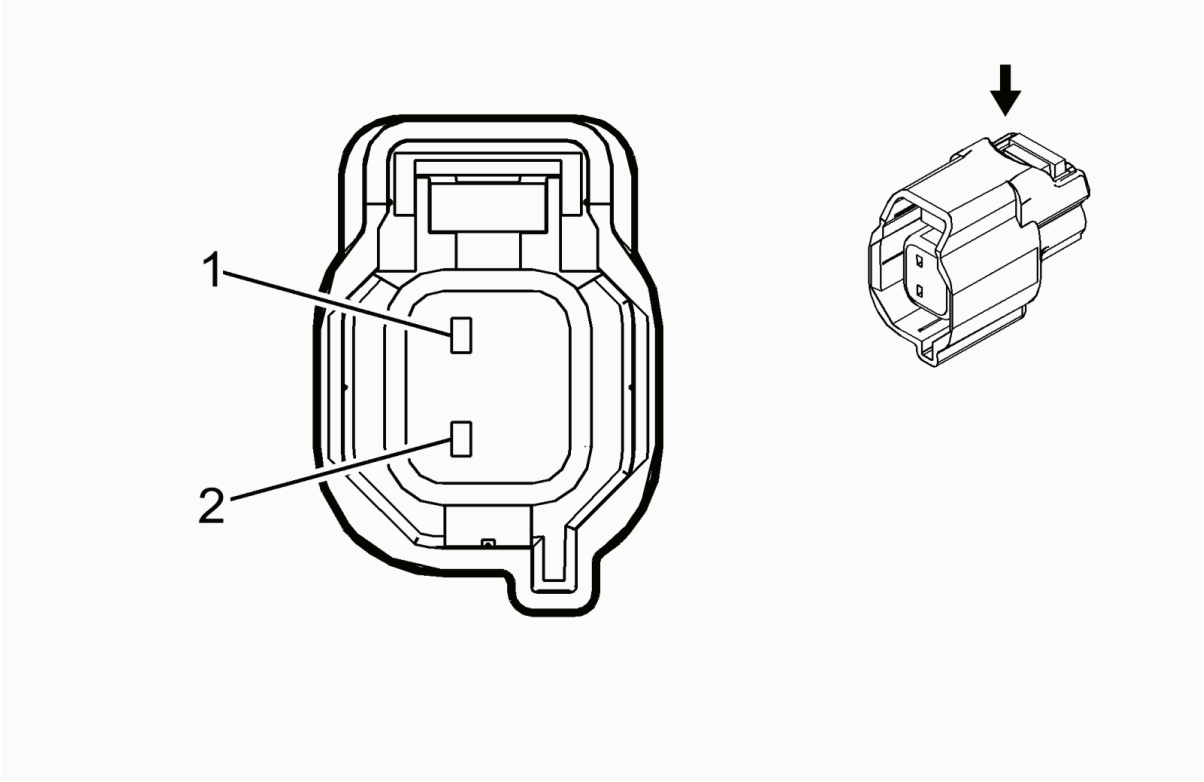
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | UZ6 |
| 2 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | UZ6 |

## P19AH SPEAKER - RIGHT FRONT DOOR (UQA)

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 34062-0022
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (L-GY)

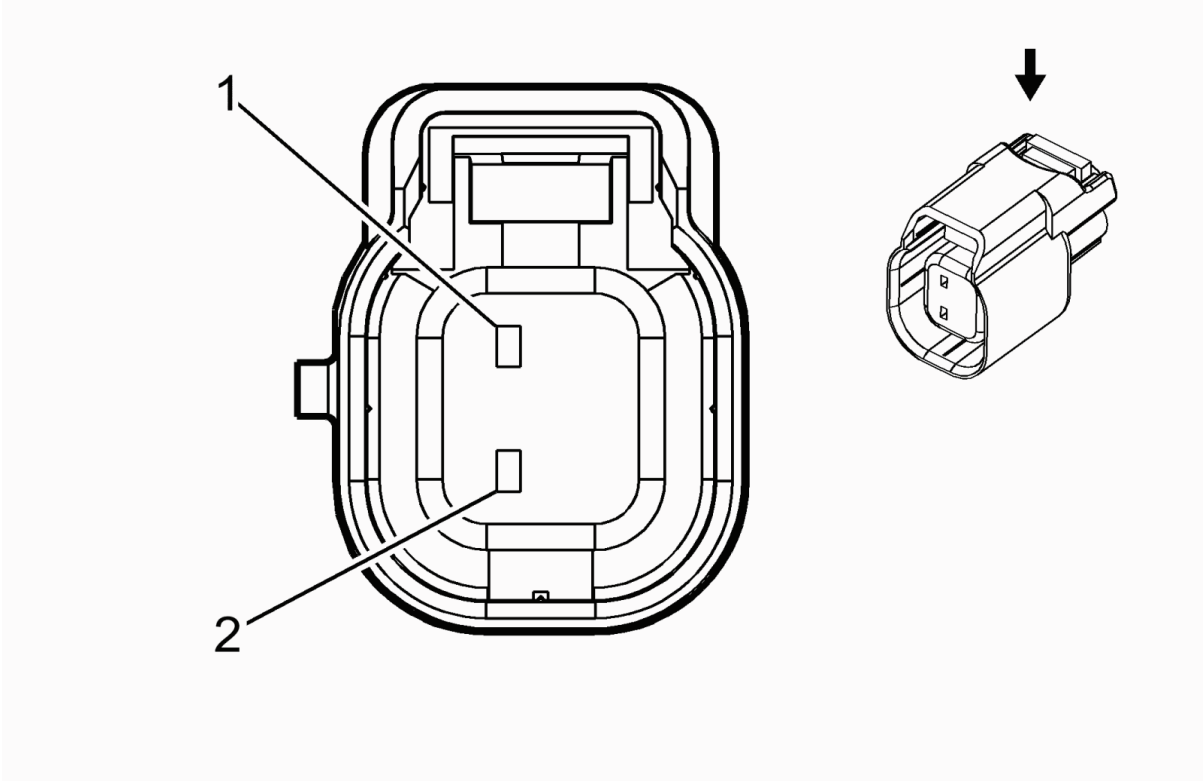
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | UQA |
| 2 | 1.5 | YE | 200 | Right Front Speaker Control (+) 1 | I | UQA |

## P19AH SPEAKER - RIGHT FRONT DOOR (UZ6)

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 34062-0046
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

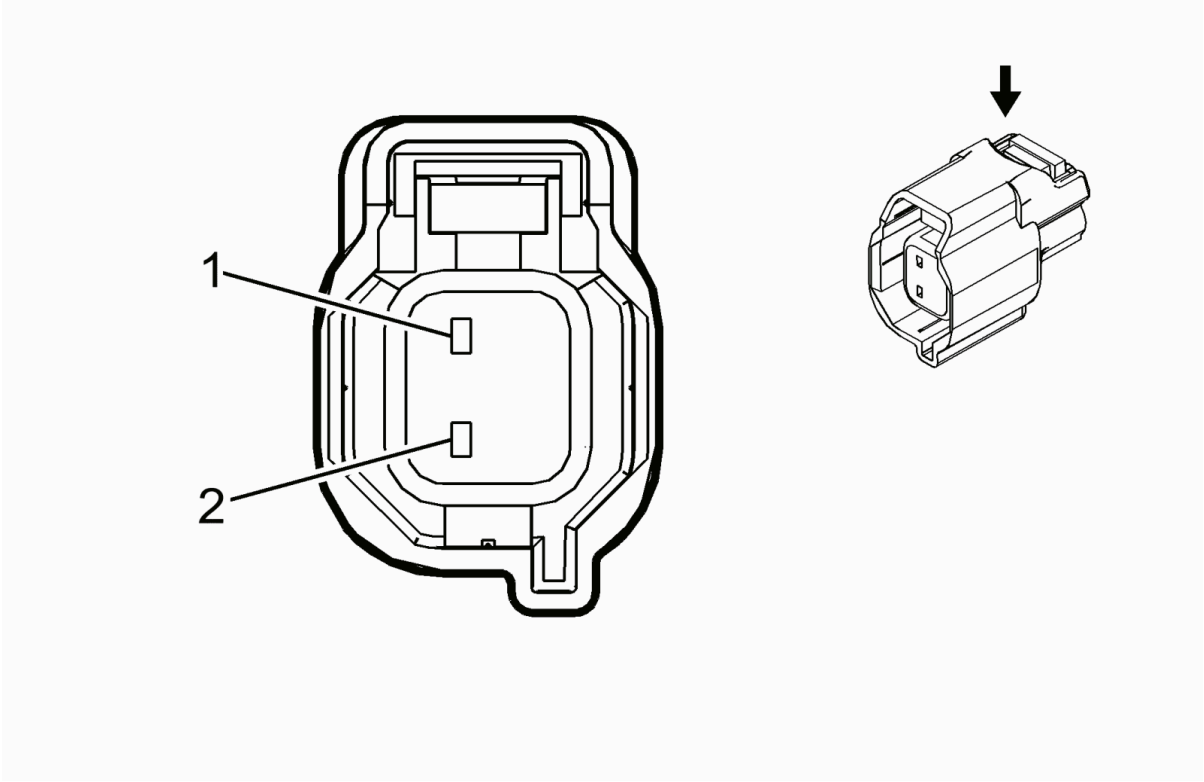
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | UZ6 |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | UZ6 |

## P19AL SPEAKER - LEFT REAR DOOR (UQA)

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 13582637
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series (L-GY)

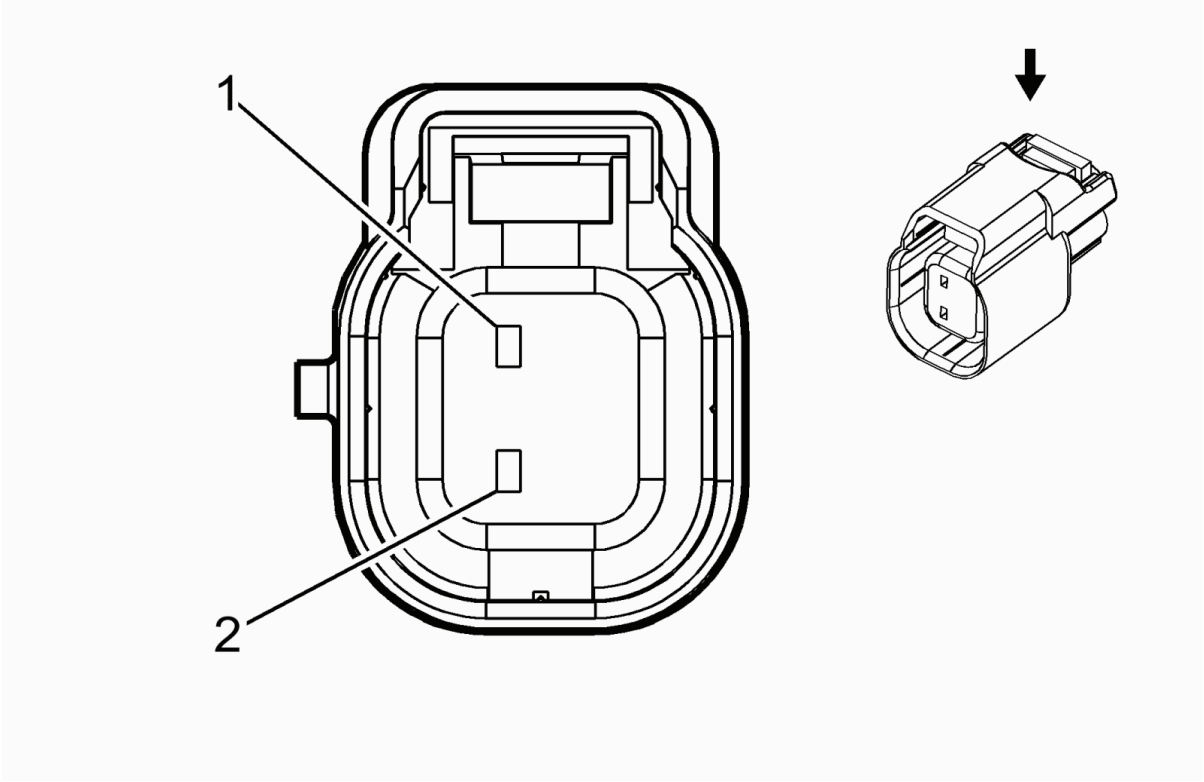
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | I | UQA |
| 2 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | UQA |

## P19AL SPEAKER - LEFT REAR DOOR (UZ6)

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 13582919
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

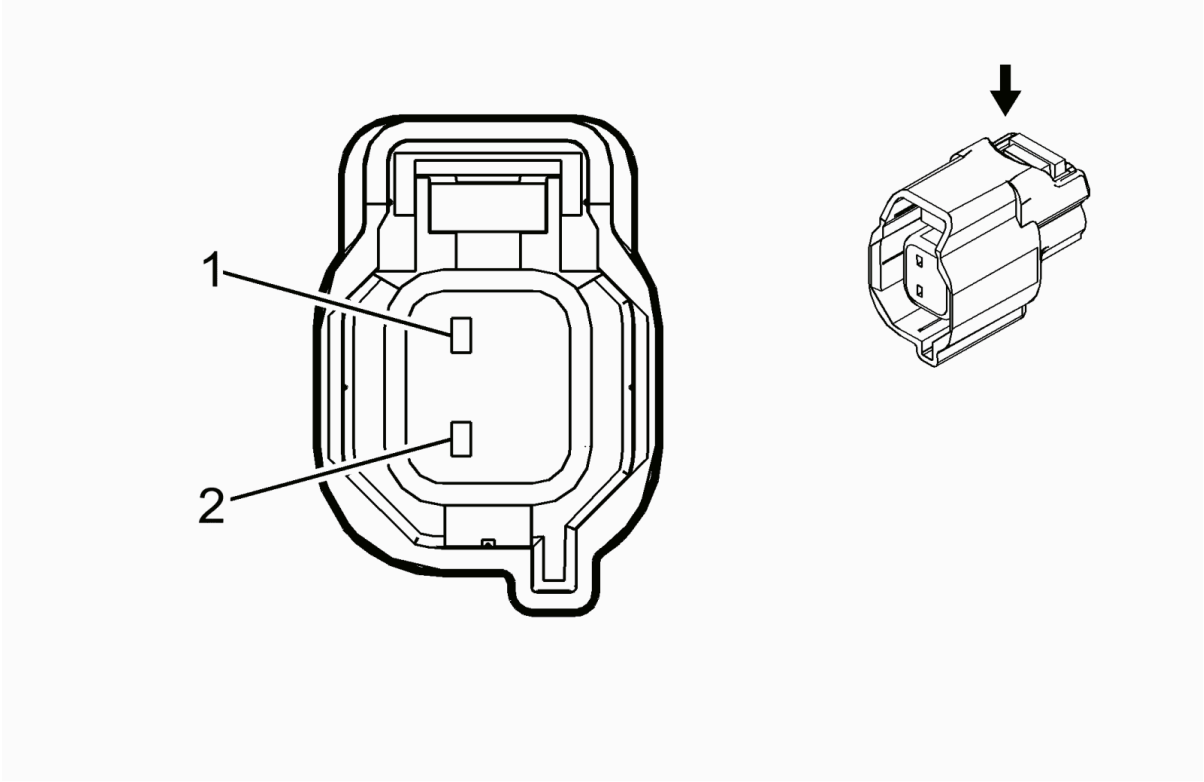
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | I | UZ6 |
| 2 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | UZ6 |

## P19AM SPEAKER - RIGHT REAR DOOR (UQA)

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 13582637
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series (L-GY)

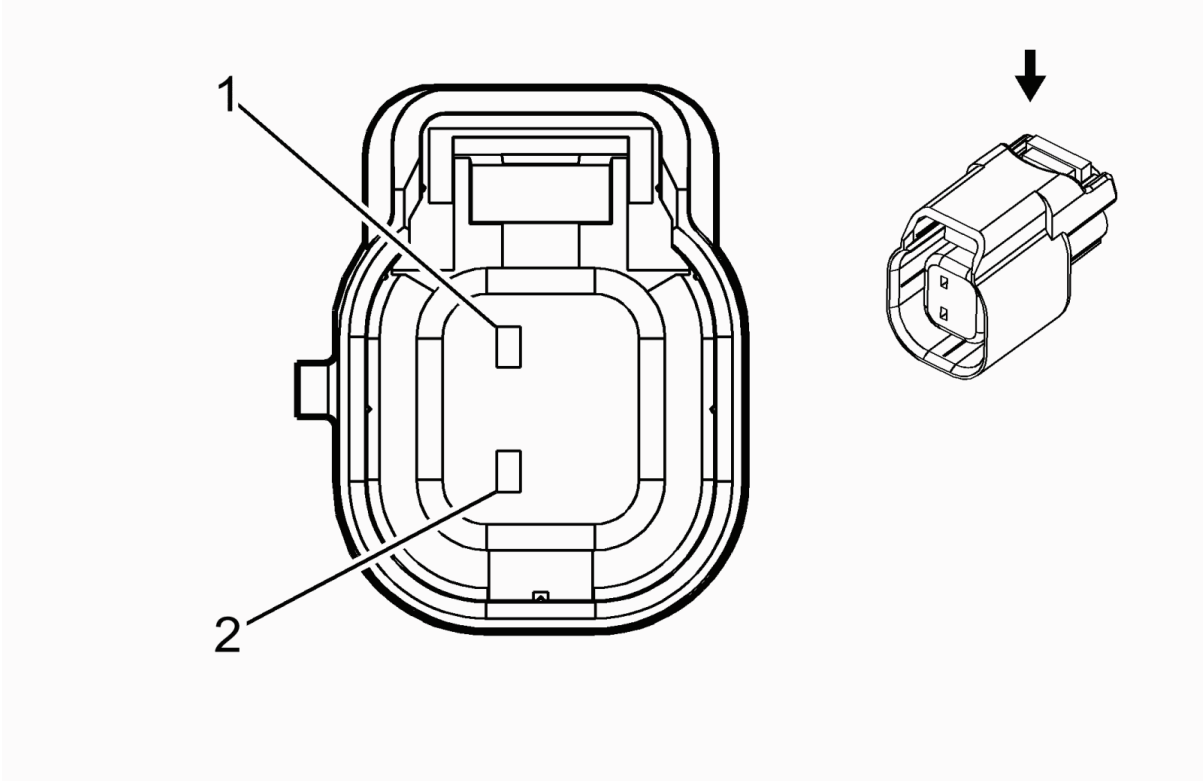
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | UQA |
| 2 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | UQA |

## P19AM SPEAKER - RIGHT REAR DOOR (UZ6)

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 13582919
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

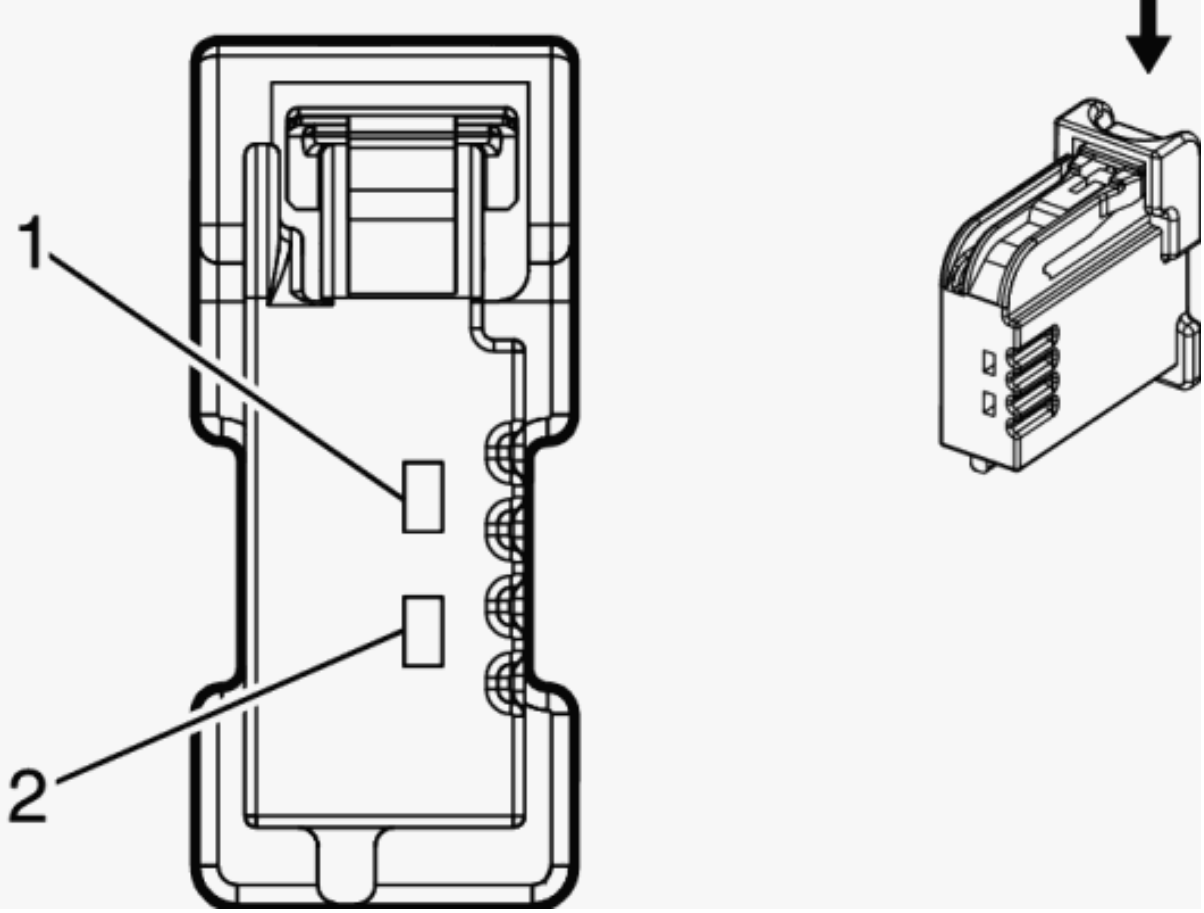
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | UZ6 |
| 2 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | UZ6 |

## P19B SPEAKER - CENTER INSTRUMENT PANEL (UQA)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19150056
- Service Connector: 13314097
- Description: 2-Way F 1.5 Series (GY)

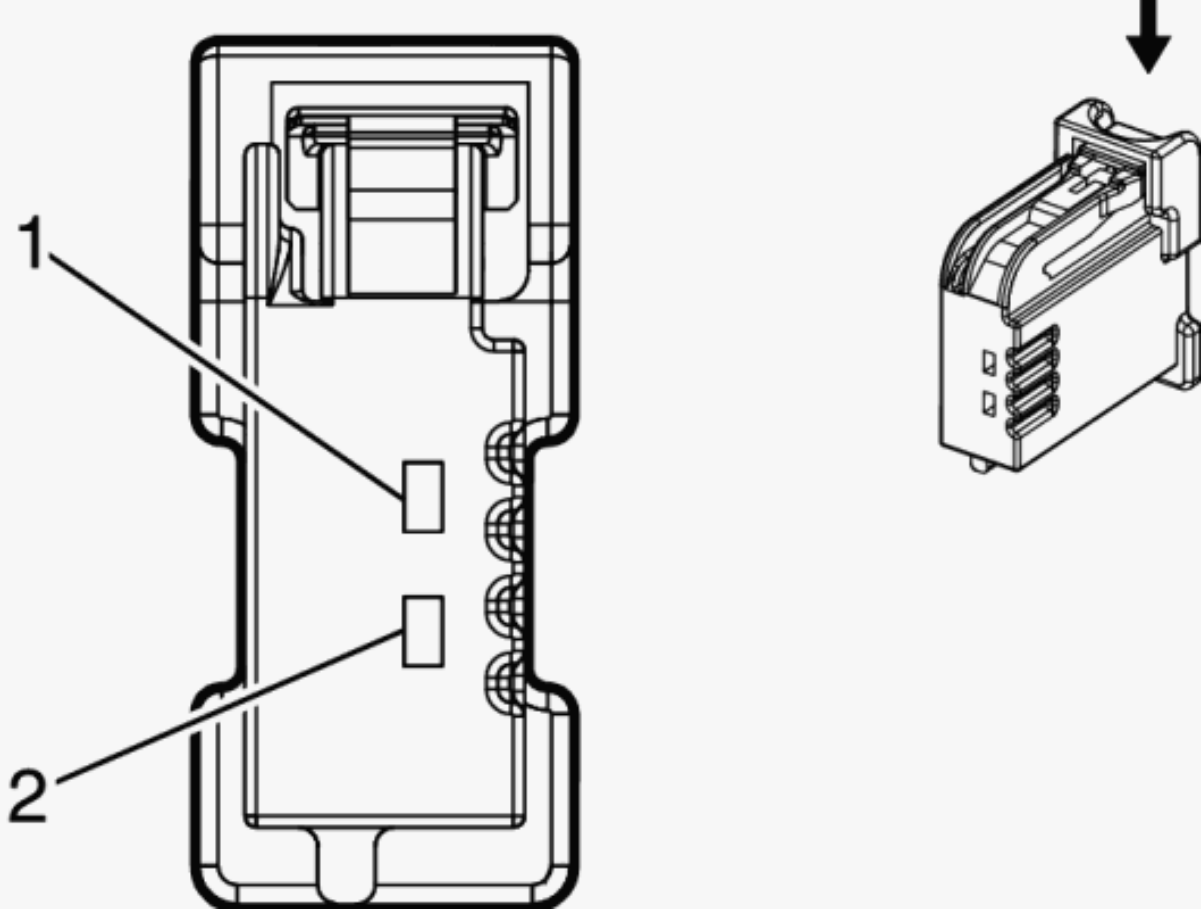
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/YE | 1960 | Front Center Speaker (-) Low Reference | I | - |
| 2 | 0.75 | YE/WH | 1860 | Front Center Speaker Control (+) | I | - |

## P19J SPEAKER - LEFT INSTRUMENT PANEL (UQA)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19150056
- Service Connector: 13314097
- Description: 2-Way F 1.5 Series (GY)

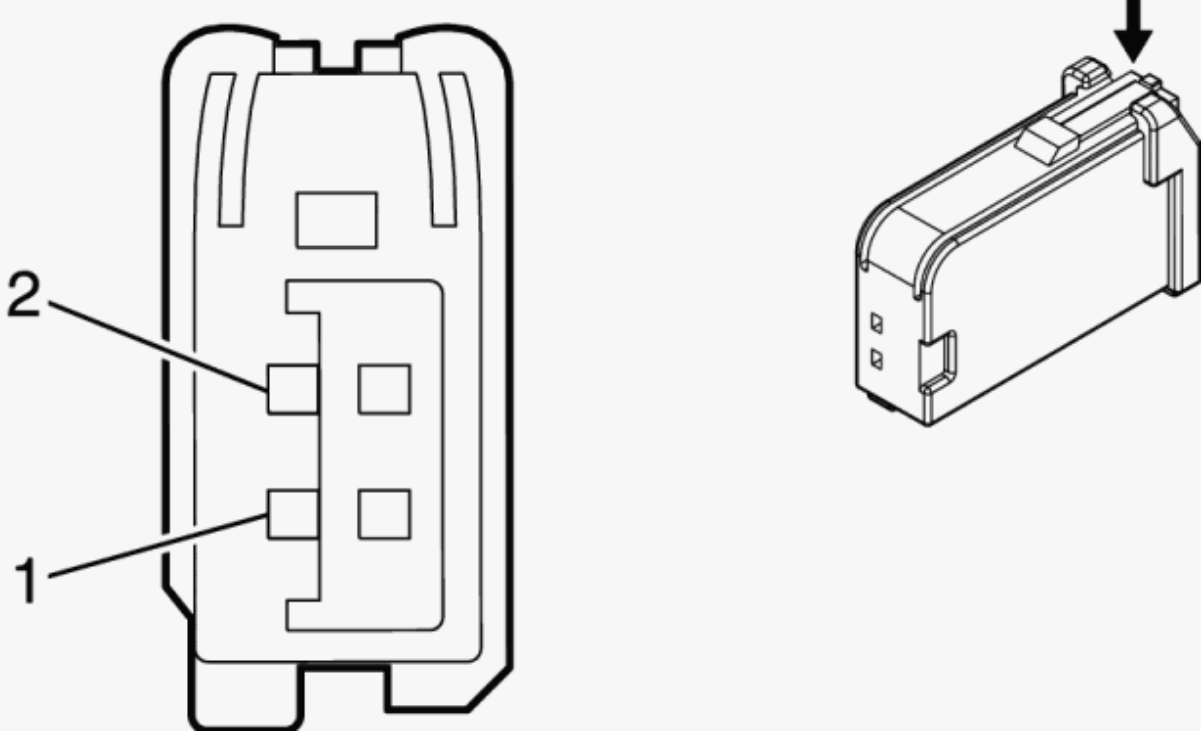
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/GY | 1956 | Left Front Tweeter Speaker (-) Low Reference | I | - |
| 2 | 0.75 | YE/BU | 1856 | Left Front Tweeter Speaker Control (+) | I | - |

## P19J SPEAKER - LEFT INSTRUMENT PANEL (UZ6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13585901
- Service Connector: 13585901
- Description: 2-Way F 0.64 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | - |
| 2 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | - |

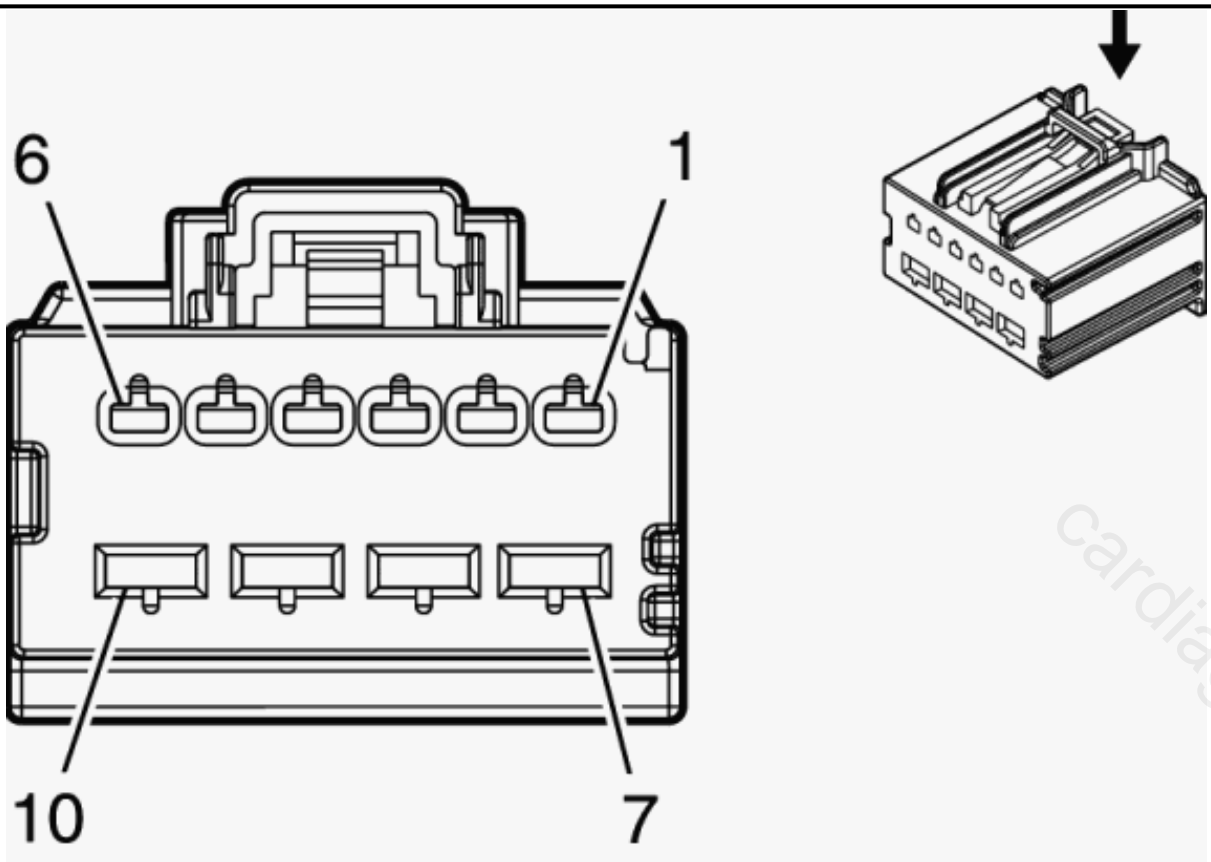
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# COMPONENT CONNECTOR END VIEWS

## K29R SEAT HEATING CONTROL MODULE - REAR X1 (KA6)




Connector Part Information

- Harness Type: Left Rear Seat
- OEM Connector: 31372-1000
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 1.5, 2.8 Series (BK)

**Terminal Part Information**

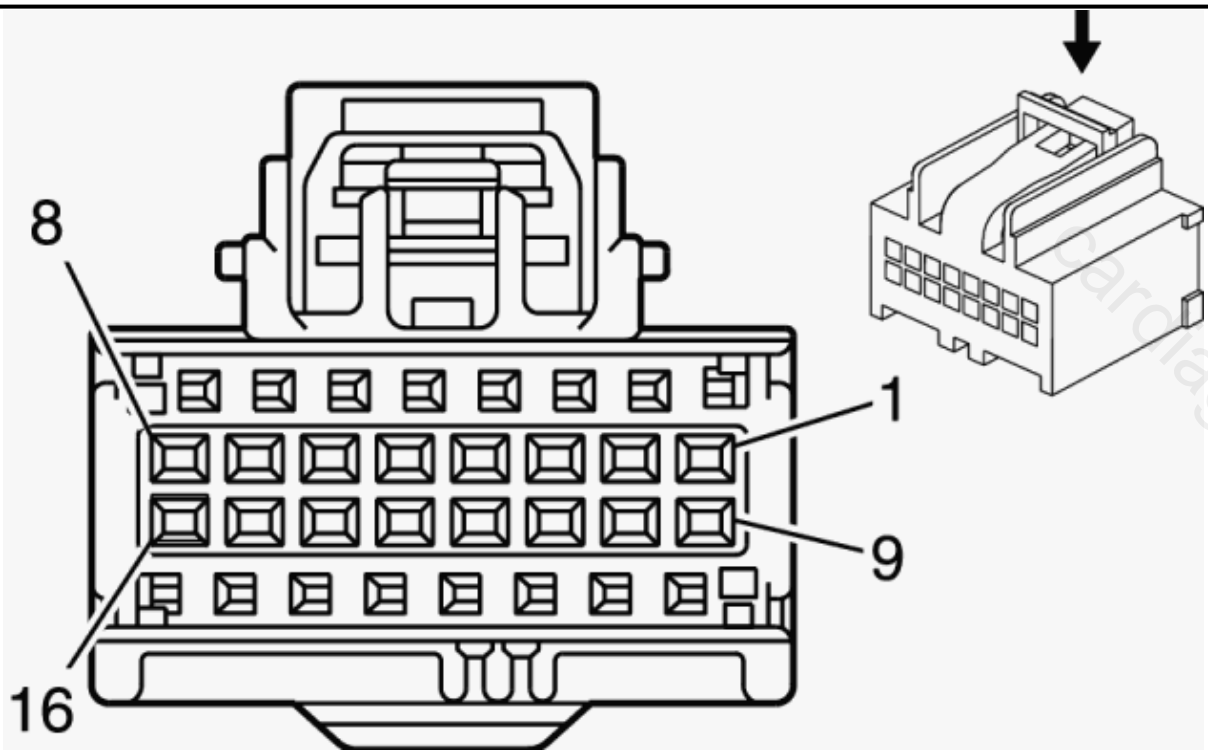
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/VT | 2455 | Right Rear Heated Seat Element Control | I | - |
| 2 | 0.75 | GN/BN | 2296 | Right Rear Heated Seat Cushion Element Control | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 3 | 0.75 | VT/BK | 2297 | Right Rear Heated Seat Cushion Element Low Reference | I | - |
| 4 | 0.75 | BK | 2295 | Left Rear Heated Seat Cushion Element Low Reference | I | - |
| 5 | 0.75 | RD | 2445 | Left Rear Heated Seat Element Control | I | - |
| 6 | 0.75 | GY | 2294 | Left Rear Heated Seat Cushion Element Control | I | - |
| 7 | 0.75 | RD/GN | 1840 | Battery Positive Voltage | II | - |
| 8 | 0.75 | BK | 2350 | Ground | II | - |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.75 | RD/BN | 5940 | Battery Positive Voltage | II | - |

## K29R SEAT HEATING CONTROL MODULE - REAR X2 (KA6)




Connector Part Information

- Harness Type: Left Rear Seat
- OEM Connector: 7283-9076-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 0.64 Kaizen Series (BK)

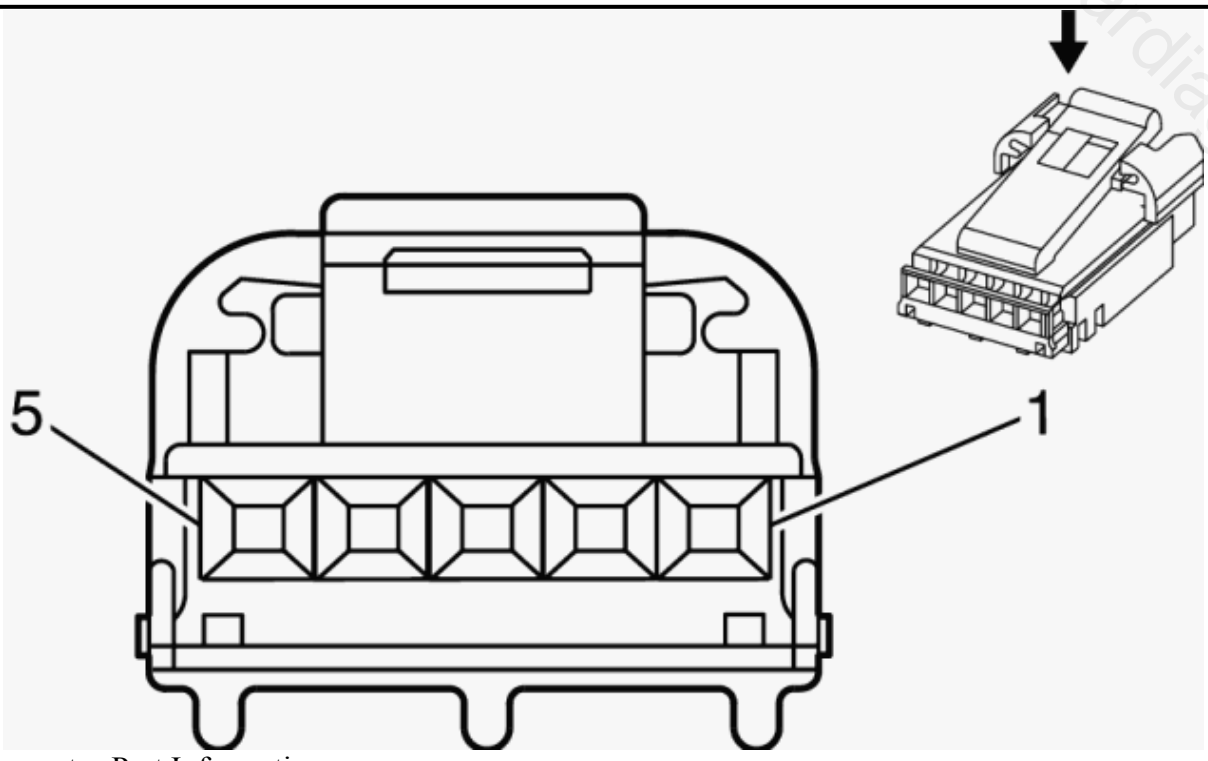
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 7048 | Left Rear Cushion NTC Low Reference | I | - |
| 2 | 0.5 | WH/BK | 7054 | Right Rear Cushion NTC Low Reference | I | - |
| 3 | 0.5 | BK/RD | 7045 | Left Rear Seat Back NTC Signal | I | - |
| 4 | 0.5 | YE | 7049 | Right Rear Seat Back NTC Signal | I | - |
| 5 | 0.5 | YE/WH | 7053 | Right Rear Cushion NTC Signal | I | - |
| 6 | 0.5 | RD/YE | 7047 | Left Rear Cushion NTC Signal | I | - |
| 7 | 0.5 | BK | 2350 | Ground | I | - |
| 8 | 0.5 | GN/BU | 6133 | Local Interconnect Network Serial Data Bus 2 | I | - |
| 9 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.5 | BK/BN | 7046 | Left Rear Seat Back NTC Low Reference | I | - |
| 12 | 0.5 | YE/BK | 7052 | Right Rear Seat Back NTC Low Reference | I | - |
| 13 - 16 | - | - | - | Not Occupied | - | - |

## K32 STEERING WHEEL HEATING CONTROL MODULE (UVD)




Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 31072-1040
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way F (BK)

**Terminal Part Information**

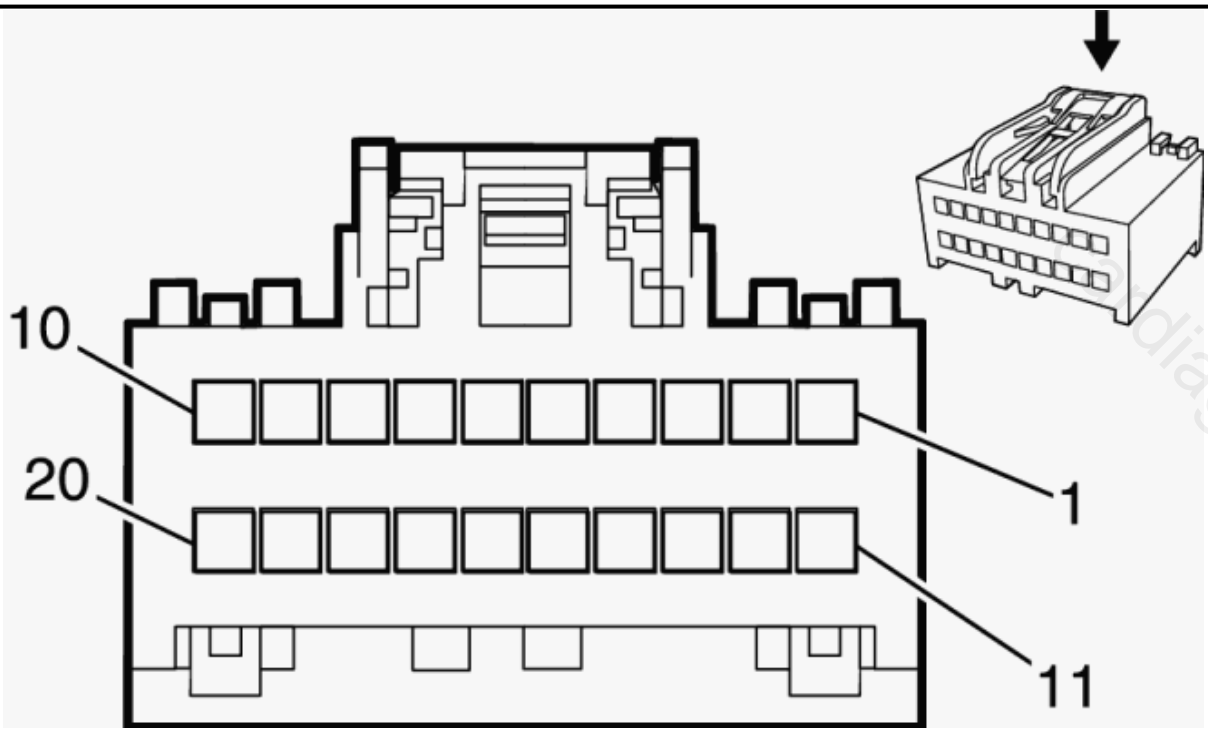
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/ | 5885 | Heated Steering Wheel Voltage Reference | I | - |
| 2 | 0.35 | GN/RD | 5884 | Heated Steering Wheel Switch LED Control | I | - |
| 3 | 0.5 | OG | 739 | Run/Crank Ignition 1 Voltage | I | - |
| 4 | 0.5 | BK | 1650 | Ground | I | - |
| 5 | 0.5 | BK | 1650 | Ground | I | - |

## K33 HVAC CONTROL MODULE X1




Connector Part Information

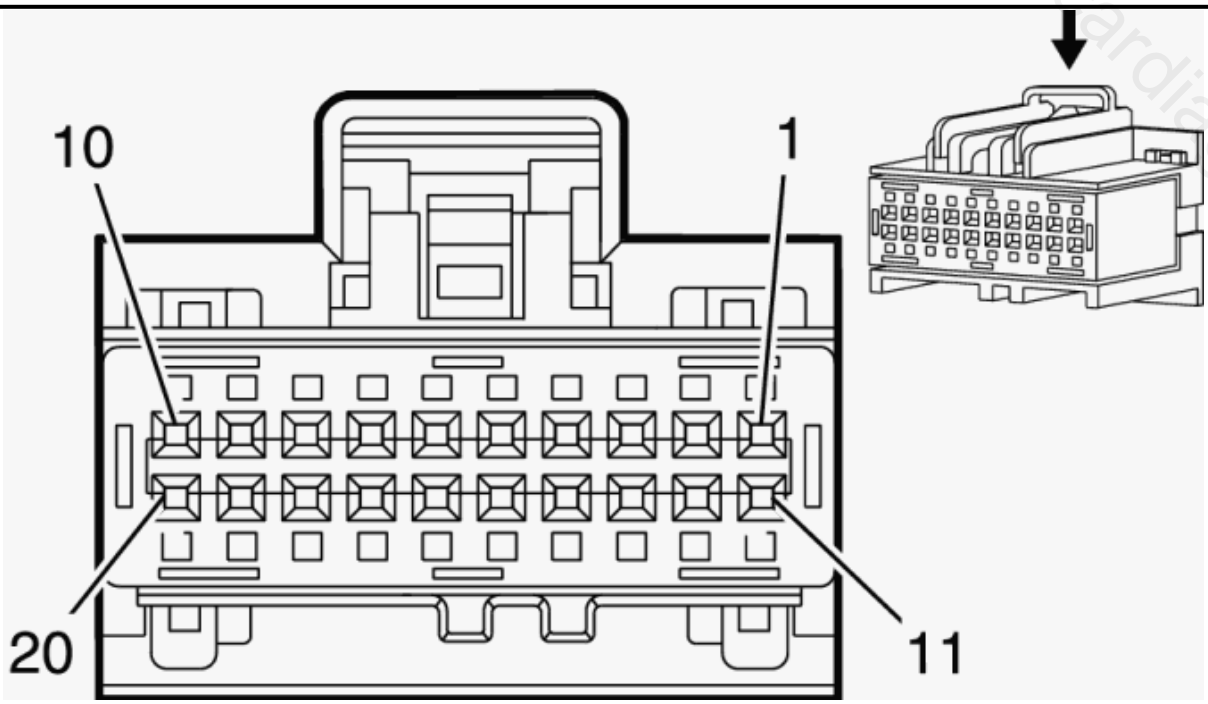
- Harness Type: Instrument Panel
- OEM Connector: 19153728
- Service Connector: 13576644
- Description: 20-Way F 0.64 Series (GN)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.13 | GY/GN | 7565 | Windscreen Temp Sensor Signal | I | ASV-CE1 |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.13 | BU/WH | 734 | Inside Air Temperature Sensor Signal | II | CJ2/C4P |
| 5 | 0.13 | YE/BU | 3197 | Humidity Temperature Sensor Signal | I | ASV-CE1 |
| 6 | 0.13 | YE/RD | 597 | 5V Reference | I | ASV-CE1 |
| 7 | 0.13 | BK/BU | 7566 | Humidity/Windscreen Temp Sensor Low Reference | I | ASV-CE1 |
| 8 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.13 | GY/BU | 7564 | Humidity Sensor Signal | I | ASV-CE1 |
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.13 | GY | 590 | Solar Sensor Driver Signal | II | CJ2/C4P |
| 15 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | BN | 404 | Upper Air Temperature Sensor Signal | I | - |
| 19 - 20 | - | - | - | Not Occupied | - | - |

## K33 HVAC CONTROL MODULE X2




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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 31410-0202
- Service Connector: 13593933
- Description: 20-Way F USCAR 64 Series (BN)

**Terminal Part Information**

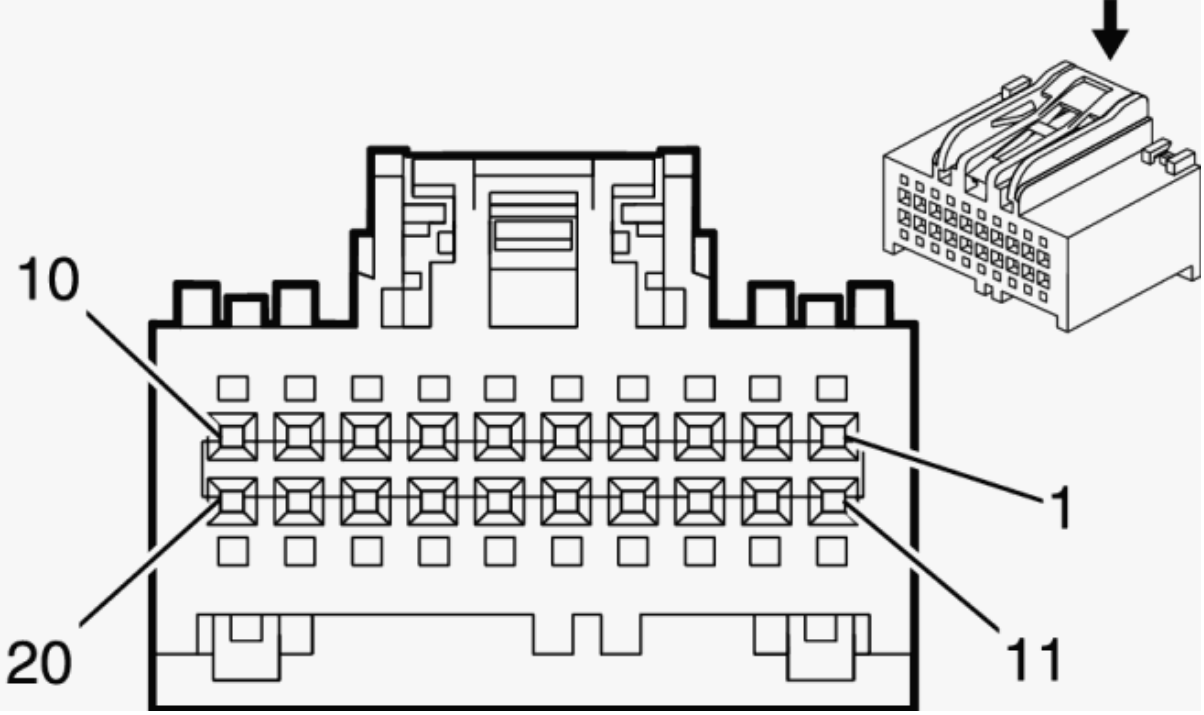
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GN | 742 | Battery Positive Voltage | I | (CJ2-UE1)/(CJ2/C4P) |
| 2 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | II | - |
| 3 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 4 | 0.35 | GN/YE | 7531 | Local Interconnect Network Serial Data Bus 9 | I | - |
| 5 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | VT | 3195 | Auxiliary Heater Control | II | C32 |
| 8 | 0.35 | BK | 1650 | Ground | II | - |
| 9 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | - |
| 10 | 0.35 | BU/YE | 7574 | Electric Variable Displacement Control | II | - |
| 11 | 0.35 | BU/BN | 7573 | Electric Variable Displacement Supply | I | - |
| 12 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BU/GY | 754 | Blower Motor Speed Control | II | - |
| 16 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | BK/GN | 7567 | Solar Sensor Low Reference | II | (UE1+CJ2/T83)/(C4P) |
| 19 | 0.35 | BN/VT | 193 | Rear Defog Relay Control | I | - |
| 20 | - | - | - | Not Occupied | - | - |

## K33 HVAC CONTROL MODULE X3

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Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15489824
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 0.64 Series (BK)

**Terminal Part Information**

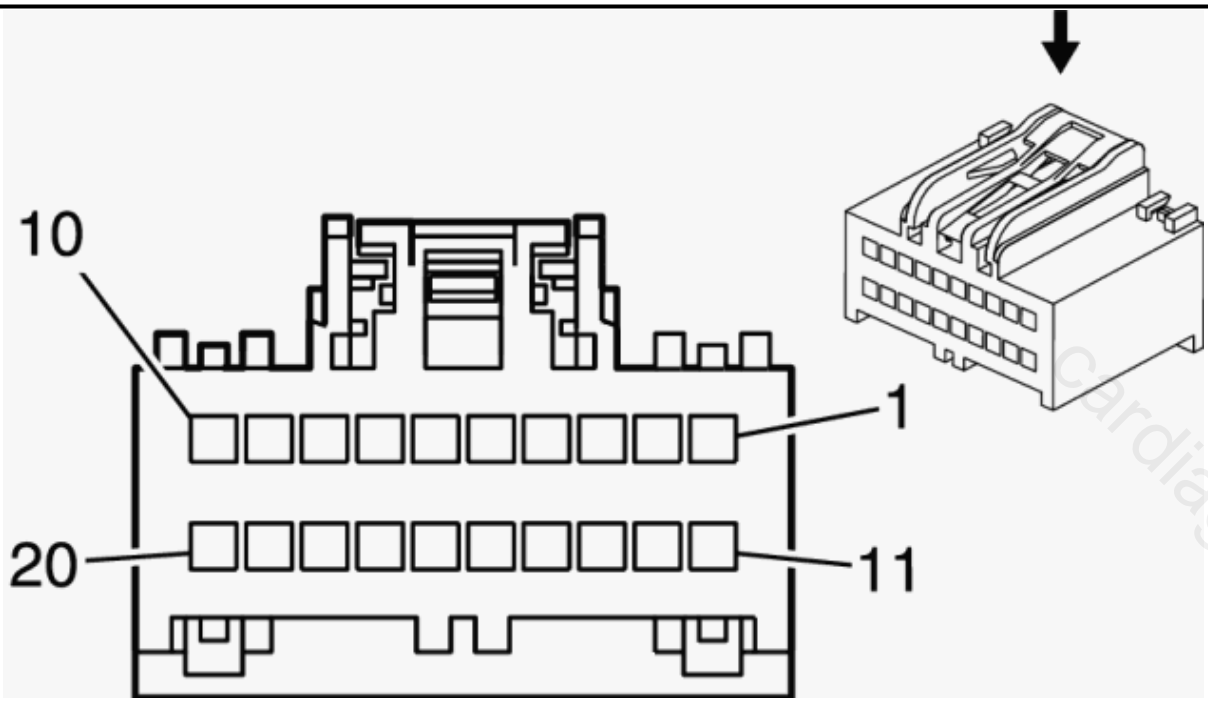
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | YE | 3165 | Mode Door Stepper Motor Control 1 | I | - |
| 3 | 0.35 | WH/RD | 3166 | Mode Door Stepper Motor Control 2 | I | - |
| 4 | 0.35 | GY/BN | 3167 | Mode Door Stepper Motor Control 3 | I | - |
| 5 | 0.35 | GN/WH | 3168 | Mode Door Stepper Motor Control 4 | I | - |
| 6 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | BK | 1791 | Air Temperature Door Control Low Reference | I | - |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | GN | 3169 | Temp Door Stepper Motor Control 1 | I | - |
| 12 | 0.35 | WH/PK | 3170 | Temp Door Stepper Motor Control 2 | I | - |
| 13 | 0.35 | GY/RD | 3171 | Temp Door Stepper Motor Control 3 | I | - |
| 14 | 0.35 | RD/BK | 3172 | Temp Door Stepper Motor Control 4 | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.75 | OG | 7572 | HVAC Motor Control | I | - |
| 16 | 0.35 | GY | 3173 | Air Inlet Door Stepper Motor Control 1 | I | - |
| 17 | 0.35 | BU/WH | 3174 | Air Inlet Door Stepper Motor Control 2 | I | - |
| 18 | 0.35 | BN/GN | 3175 | Air Inlet Door Stepper Motor Control 3 | I | - |
| 19 | 0.35 | RD/GN | 3176 | Air Inlet Door Stepper Motor Control 4 | I | - |
| 20 | 0.35 | BK/GY | 6137 | EVAP Core Temperature Sensor Signal | I | - |

## K33 HVAC CONTROL MODULE X4 (CJ2)




Connector Part Information

- Harness Type: HVAC
- OEM Connector: 15491304
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F USCAR 64 Series (GY)

**Terminal Part Information**

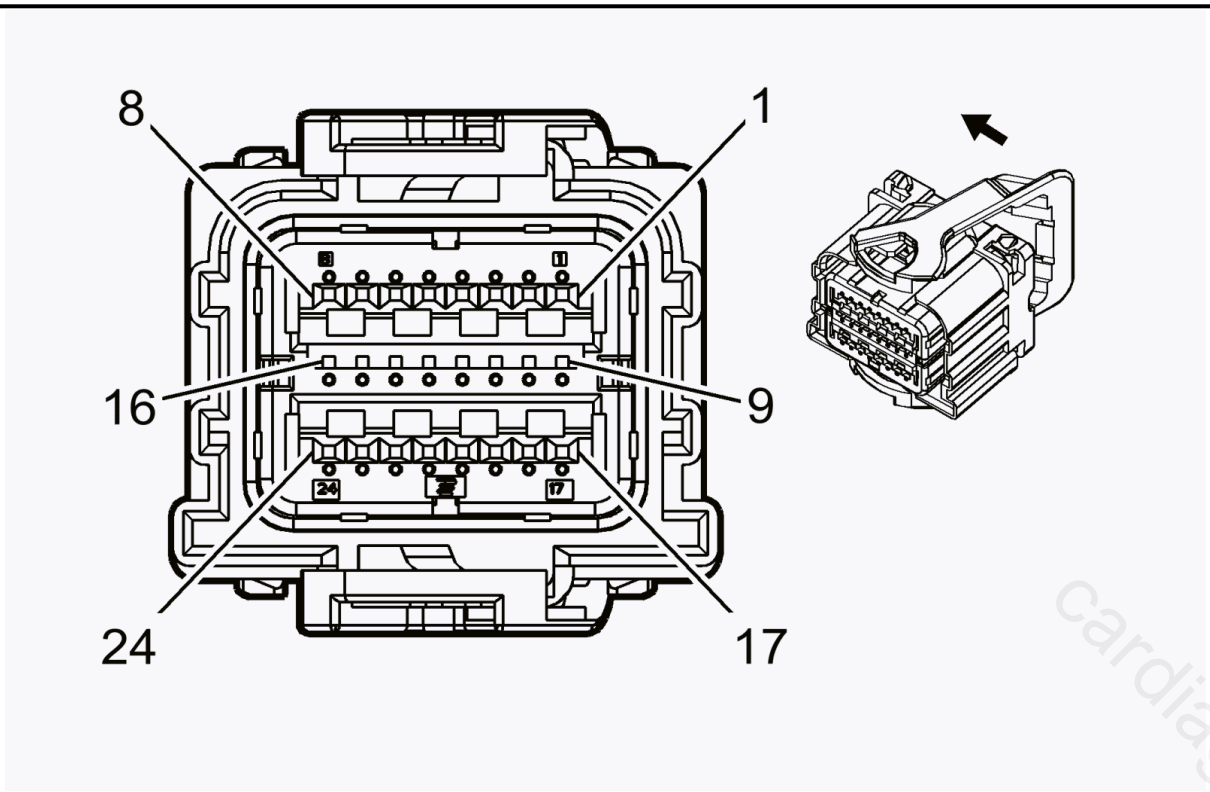
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | WH | 3181 | Temp Door Stepper Motor Passenger Control 1 | I | CJ2 |
| 6 | 0.35 | VT/BU | 3182 | Temp Door Stepper Motor Passenger Control 2 | I | CJ2 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 0.35 | GY/WH | 3183 | Temp Door Stepper Motor Passenger Control 3 | I | CJ2 |
| 8 | 0.35 | YE/GN | 3184 | Temp Door Stepper Motor Passenger Control 4 | I | CJ2 |
| 9 - 20 | - | - | - | Not Occupied | - | - |

## K36 INFLATABLE RESTRAINT SENSING AND DIAGNOSTIC MODULE X1




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13579296
- Service Connector: 13579296
- Description: 24-Way F 0.64 Series, Sealed (YE)

**Terminal Part Information**

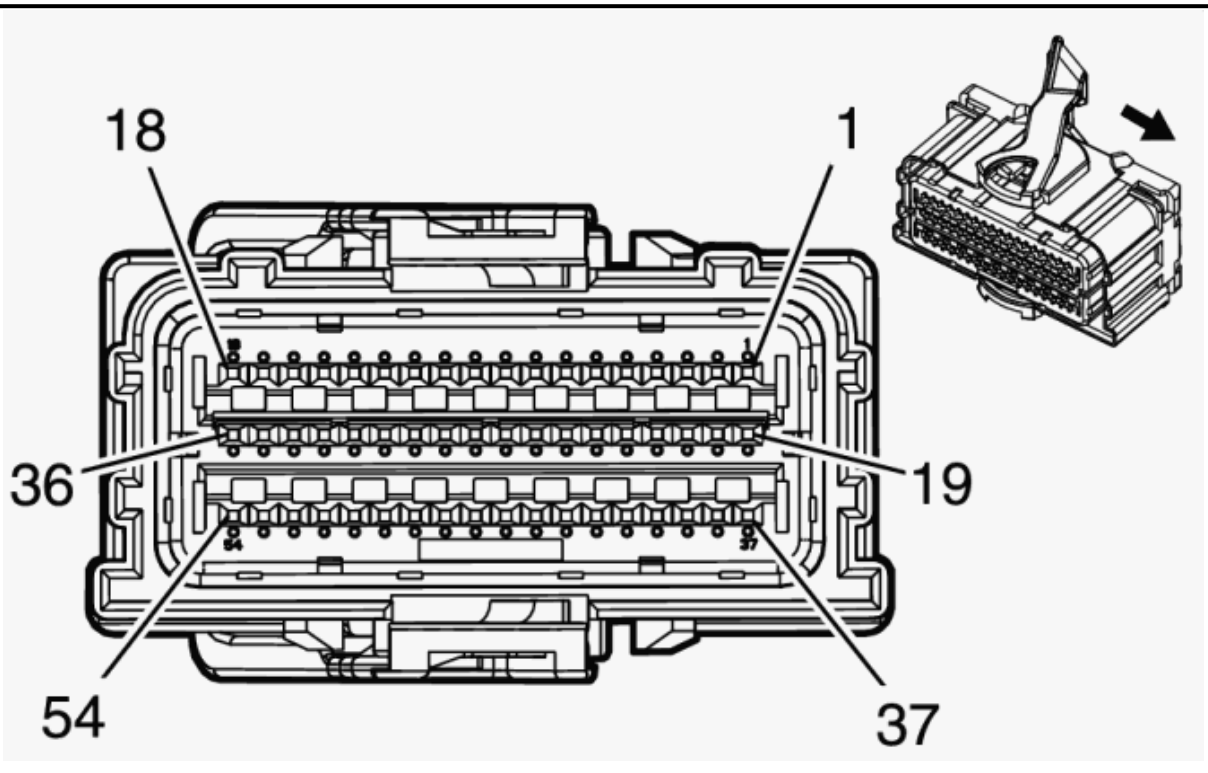
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19331015 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19368490 | J-35616-64B (LT BU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/GN | 3023 | Steering Wheel Module Stage 2 High Control | I | AY0 |
| 2 | 0.35 | WH/OG | 3022 | Steering Wheel Module Stage 2 Low Control | I | AY0 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 3 | 0.35<br>0.35 | VT/OG<br>BN/OG | 5020<br>3020 | Left Front Head Curtain Module Low Control<br>Steering Wheel Module Stage 1 Low Control | I<br>I | AJG<br>AY0 |
| 4 | 0.35 | OG/VT | 3021 | Steering Wheel Module Stage 1 High Control | I | - |
| 5 | 0.35 | YE/OG | 3025 | Passenger IP Module Stage 1 High Control | I | - |
| 6 | 0.35 | OG/WH | 3024 | Passenger IP Module Stage 1 Low Control | I | - |
| 7 | 0.35 | OG/VT | 3026 | Passenger IP Module Stage 2 Low Control | I | - |
| 8 | 0.35 | GY/OG | 3027 | Passenger IP Module Stage 2 High Control | I | AY0 |
| 9 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | - |
| 10 | 0.35 | VT/WH | 5234 | Passenger Seat Belt Indicator Control | I | - |
| 11 | 0.35 | BU | 2307 | Passenger Air Bag On Indicator Control | I | AL0 |
| 12 | 0.35 | GN | 2308 | Passenger Air Bag Off Indicator Control | I | AL0 |
| 13 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | - |
| 18 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 19 | 0.5 | BK | 2450 | Ground | II | - |
| 20 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |
| 21 - 24 | - | - | - | Not Occupied | - | - |

## K36 INFLATABLE RESTRAINT SENSING AND DIAGNOSTIC MODULE X2




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Connector Part Information

- Harness Type: Body
- OEM Connector: 13579285
- Service Connector: 19303770
- Description: 54-Way F 0.64 Series, Sealed (YE)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 19331015 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

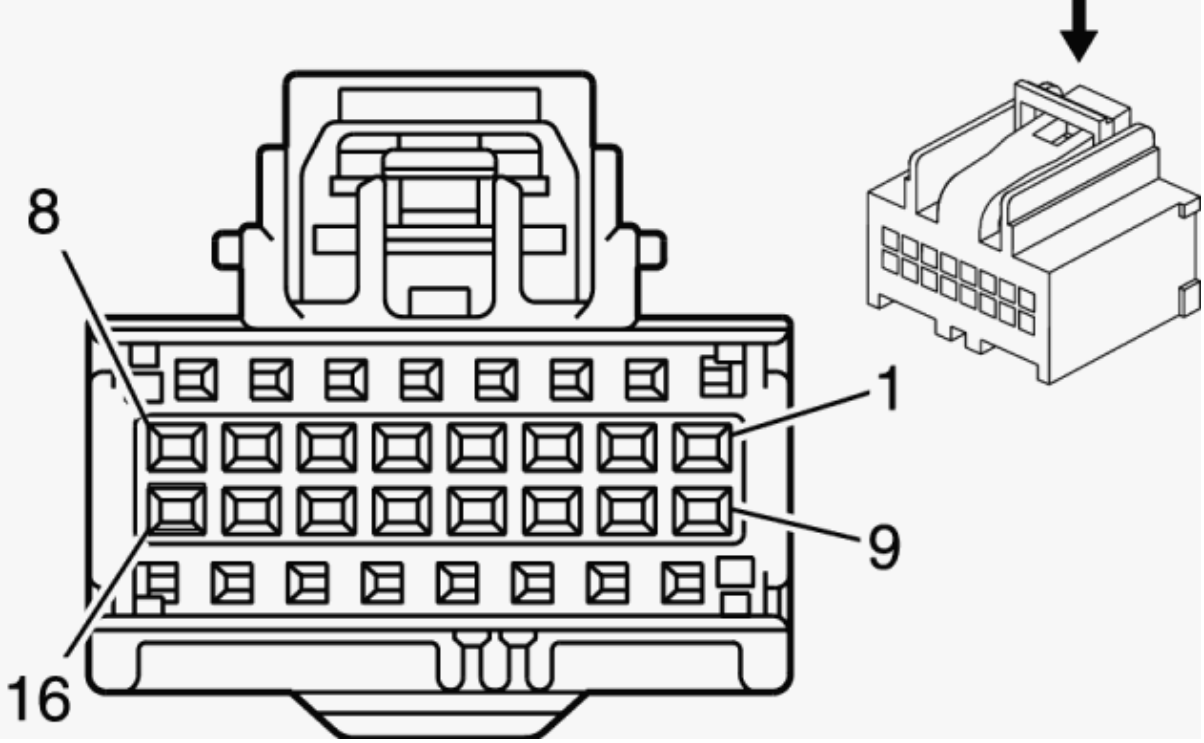
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | OG/YE | 3481 | Driver Seat Belt Anchor Pretensioner High Control | II | - |
| 10 | 0.35 | YE/OG | 3482 | Driver Seat Belt Anchor Pretensioner Low Control | II | - |
| 11 | 0.35 | GY/OG | 3480 | Passenger Seat Belt Anchor Pretensioner Low Control | II | - |
| 12 | 0.35 | OG/BN | 3479 | Passenger Seat Belt Anchor Pretensioner High Control | II | - |
| 13 | 0.35 | OG/BU | 3068 | Driver Side Impact Module High Control | II | - |
| 14 | 0.35 | GN/OG | 3069 | Driver Side Impact Module Low Control | II | - |
| 15 | 0.35 | BN/OG | 3067 | Passenger Side Impact Module Low Control | II | - |
| 16 | 0.35 | OG/GY | 3066 | Passenger Side Impact Module High Control | II | - |
| 17 | 0.35 | OG/GN | 5019 | Left Front Head Curtain Module High Control | II | - |
| 18 | 0.35 | VT/OG | 5020 | Left Front Head Curtain Module Low Control | II | - |
| 19 | 0.35 | OG/GN | 2132 | Left Front Side Impact Sensing Module Signal | II | - |
| 20 | 0.35 | BK/OG | 6628 | Left Front Side Impact Sensing Module Low Reference | II | - |
| 21 | 0.35 | BK/OG | 6629 | Right Front Side Impact Sensing Module Low Reference | II | - |
| 22 | 0.35 | BN/OG | 2134 | Right Front Side Impact Sensing Module Signal | II | - |
| 23 | 0.35 | OG/YE | 354 | Left Front Discriminating Sensor Signal | II | - |
| 24 | 0.35 | BK/OG | 5045 | Left Front Discriminating Sensor Low Reference | II | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 25 | 0.35 | BK/OG | 5600 | Right Front Discriminating Sensor Low Reference | II | - |
| 26 | 0.35 | OG/GN | 1409 | Right Front Discriminating Sensor Signal | II | - |
| 27 | 0.35 | OG/BU | 6620 | Left Middle Side Impact Sensing Module Signal | II | - |
| 28 | 0.35 | BK/OG | 6621 | Left Middle Side Impact Sensing Module Low Reference | II | - |
| 29 | 0.35 | BK/OG | 6625 | Right Middle Side Impact Sensing Module Low Reference | II | - |
| 30 | 0.35 | OG/VT | 6624 | Right Middle Side Impact Sensing Module Signal | II | - |
| 31 - 36 | - | - | - | Not Occupied | - | - |
| 37 | 0.35 | OG/WH | 3477 | Driver Seat Belt Retractor Pretensioner High Control | II | - |
| 38 | 0.35<br>0.35 | GY/OG<br>GY/OG | 3478<br>3478 | Driver Seat Belt Retractor Pretensioner Low Control<br>Driver Seat Belt Retractor Pretensioner Low Control | II<br>I | AJG/AYC-MAO<br>AYO |
| 39 | 0.35 | WH/OG | 3476 | Passenger Seat Belt Retractor Pretensioner Low Control | II | - |
| 40 | 0.35 | OG/GN | 3475 | Passenger Seat Belt Retractor Pretensioner High Control | II | - |
| 41 | 0.35 | OG/BN | 238 | Driver Seat Belt Switch Signal | II | - |
| 42 | - | - | - | Not Occupied | - | - |
| 43 | 0.35 | BK/OG | 1363 | Driver Seat Belt Switch Low Reference | II | - |
| 44 | 0.35 | BK/OG | 1361 | Passenger Seat Belt Switch Low Reference | II | - |
| 45 | 0.35 | OG/VT | 1362 | Passenger Seat Belt Switch Signal | II | - |
| 46 | - | - | - | Not Occupied | - | - |
| 47 | 0.35 | OG/BN | 7571 | Passenger Seat Belt Reminder Signal | II | - |
| 48 | 0.35 | BU/OG | 5163 | Center Rear Seat Belt Switch Signal | II | UH5+AJG |
| 49 | 0.35 | YE/OG | 5161 | Left Rear Seat Belt Switch Signal | II | UH5+AJG |
| 50 | 0.35 | BN/OG | 5162 | Right Rear Seat Belt Switch Signal | II | UH5+AJG |
| 51 - 52 | - | - | - | Not Occupied | - | - |
| 53 | 0.35 | OG/GY | 5021 | Right Front Head Curtain Module High Control | II | - |
| 54 | 0.35 | WH/OG | 5022 | Right Front Head Curtain Module Low Control | II | - |

## K39 LIFTGATE CONTROL MODULE X1 (TB5/TC2)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15136073
- Service Connector: 15136073
- Description: 16-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

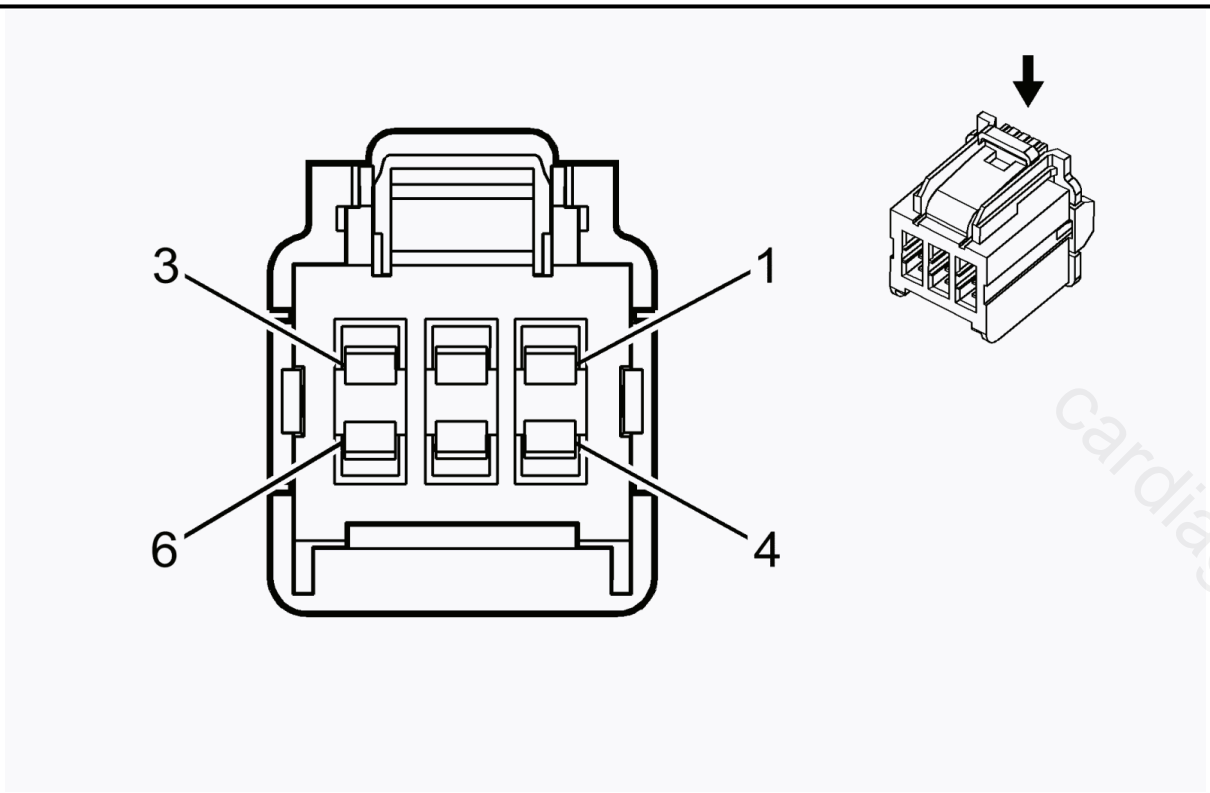
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 19300629 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 6112 | Power Lift Gate On/Off Switch Signal | I | TB5/TC2 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | GN | 3033 | Lift Gate Shut Face Switch Signal | I | TB5/TC2 |
| 4 | 0.35 | GN/BK | 4659 | Rear Closure Open | I | TB5/TC2 |
| 5 | 0.35 | BU/BK | 4665 | Rear Closure Ajar Switch Signal 2 | I | TB5/TC2 |
| 6 | 0.35 | GY | 4668 | Rear Closure Ajar Switch Signal 3 | I | TB5/TC2 |
| 7 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | TB5/TC2 |
| 8 | 0.35 | GY/BK | 4654 | Rear Closure Object Sensor Signal | I | TB5/TC2 |
| 9 | 0.35 | GY/VT | 4678 | Rear Closure Ajar Switch Signal 1 | I | TB5/TC2 |
| 10 - 11 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 0.35 | GY/BK | 6113 | Rear Lift Gate Open/Close Switch Signal | I | TB5/TC2 |
| 13 | 0.35 | GY/WH | 3034 | Lift Gate Shut Face Switch LED Control | I | TB5/TC2 |
| 14 | 0.35 | YE/BU | 5797 | Rear Closure Handle Switch Open Signal | I | TB5/TC2 |
| 15 | 0.35 | GN/BN | 4118 | Local Interconnect Network Serial Data Bus 18 | I | TC2 |
| 16 | 0.35 | BK/VT | 4656 | Rear Closure Object Sensor Low Reference | II | TB5/TC2 |

## K39 LIFTGATE CONTROL MODULE X2 (TB5/TC2)




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Connector Part Information

- Harness Type: Body
- OEM Connector: 13583929
- Service Connector: 19368139
- Description: 6-Way F 280 GT Series (BK)

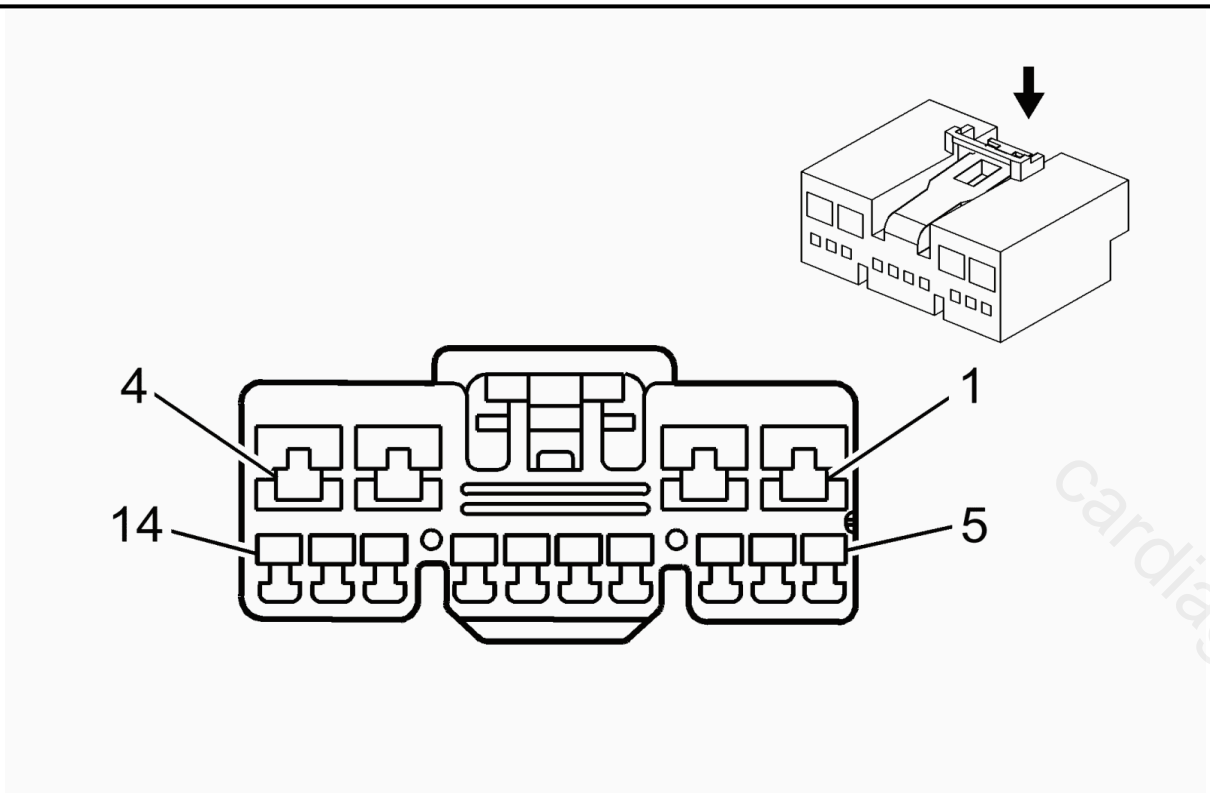
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | BU/GY | 4682 | Rear Closure Cinch Latch Motor Close Control | I | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 2 | 1 | BN | 4681 | Rear Closure Cinch Latch Motor Open Control | I | - |
| 3 | 2.5 | RD/GY | 3540 | Battery Positive Voltage | I | TB5/TC2 |
| 4 | 0.35<br>0.5 | RD/GN<br>RD/GN | 2440<br>2440 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>I | TB5-TC2-UEU-UVH<br>TC2/TB5+UEU/UVH |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 2.5 | BK | 2550 | Ground | I | TC2/TB5 |

## K39 LIFTGATE CONTROL MODULE X3 (TB5/TC2)




Connector Part Information

- Harness Type: Body
- OEM Connector: 19179972
- Service Connector: 19179972
- Description: 14-Way F 0.64, 2.8 YESC Series (L-GY)

**Terminal Part Information**

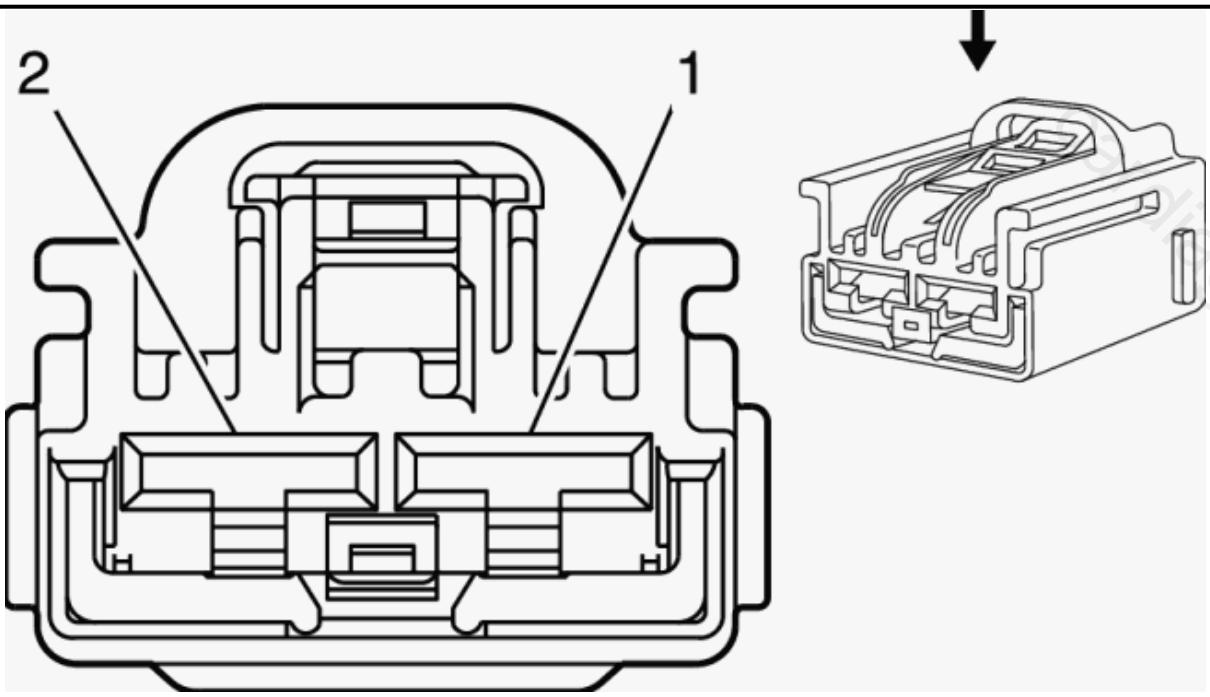
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575847 | J-35616-64B (LT BU) | J-38125-553 | 7116-4720-02 | Yazaki 14 | H | H |
| II | 13578896 | J-35616-64B (LT BU) | J-38125-553 | 7116-4720-02 | Yazaki 14 | J | J |
| III | 19368264 | J-35616-35 (VT) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/WH | 5799 | Lift Gate Open/Close Motor Close Control | III | TB5/TC2 |
| 2 | 1.5 | WH | 5798 | Lift Gate Open/Close Motor Open Control | III | TB5/TC2 |
| 3 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.5 | BN/RD | 5803 | Lift Gate Position Sensor 5V Reference | II | TB5/TC2 |
| 9 | 0.35 | BU/WH | 5805 | Lift Gate Position Sensor Signal 1 | I | TB5/TC2 |
| 10 | 0.35 | BN/YE | 5806 | Lift Gate Position Sensor Signal 2 | I | TB5/TC2 |
| 11 | 0.35 | BK/GN | 5804 | Lift Gate Position Sensor Low Reference | I | TB5/TC2 |
| 12 | - | - | - | Not Occupied | - | - |
| 13 | 0.35 | BU/YE | 4679 | Rear Closure Motor Release Control 2 | I | TB5/TC2 |
| 14 | - | - | - | Not Occupied | - | - |

## K40D SEAT MEMORY CONTROL MODULE - DRIVER X1 (A45/A74)




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 7283-6458-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 6.3 Series (L-GY)

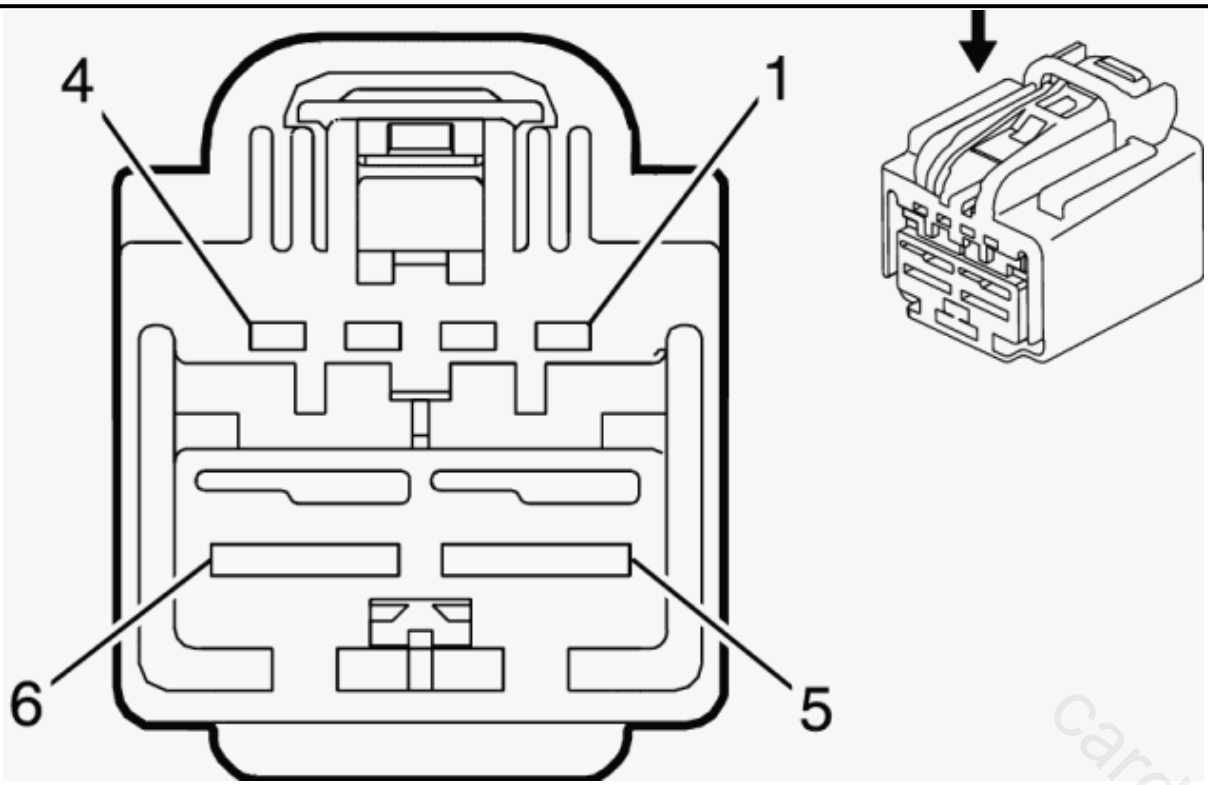
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | RD/GN | 3840 | Battery Positive Voltage | I | - |
| 2 | 2 | RD/BN | 2940 | Battery Positive Voltage | I | - |

## K40D SEAT MEMORY CONTROL MODULE - DRIVER X2 (A45/A74)




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 7283-9749-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F YESC Kaizen Series (BK)

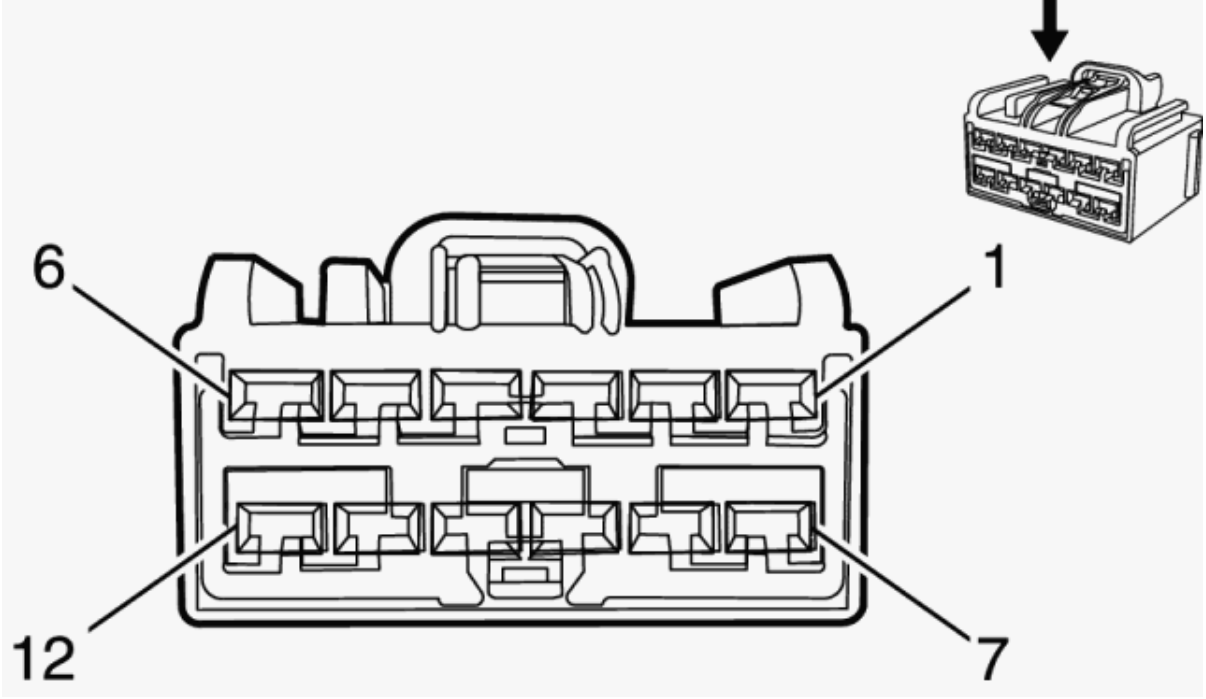
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/WH | 7530 | Local Interconnect Network Serial Data Bus 8 | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 2 | BK | 2350 | Ground | II | - |
| 6 | - | - | - | Not Occupied | - | - |

## K40D SEAT MEMORY CONTROL MODULE - DRIVER X3 (A45/A74)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 7283-6467-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F 2.8 Kaizen Series (L-GY)

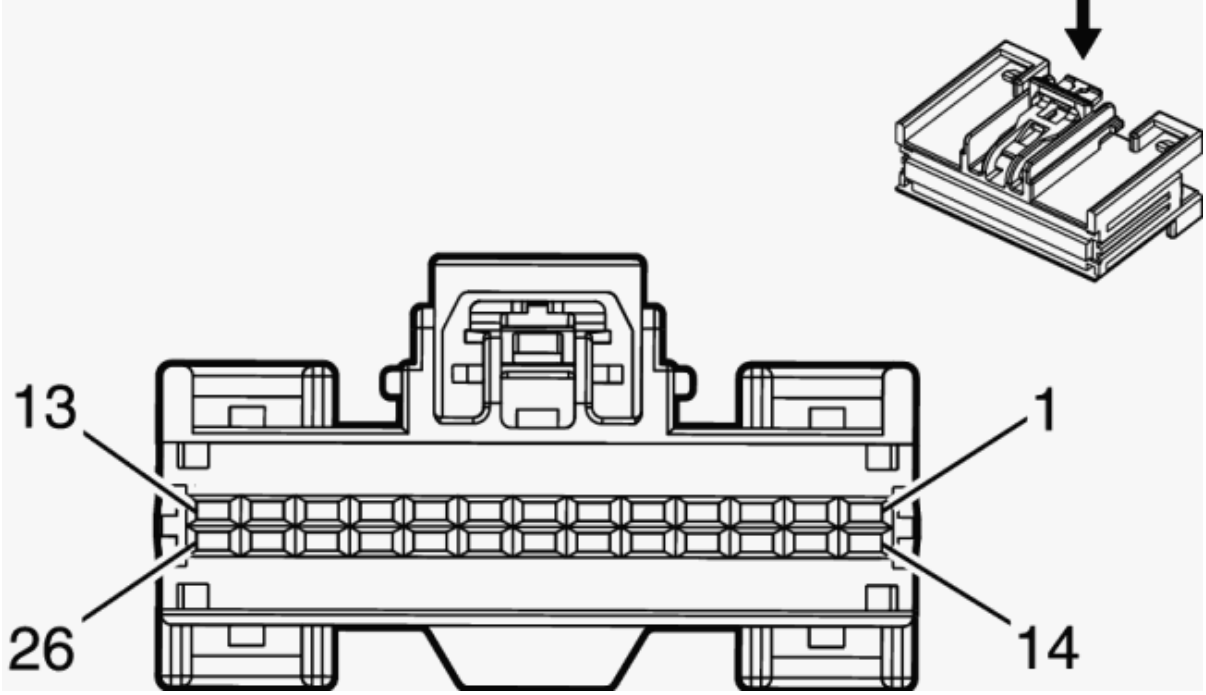
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2 | GN/YE | 276 | Driver Power Seat Recline Motor Forward Control | I | - |
| 2 | 2 | BU/YE | 277 | Driver Power Seat Recline Motor Rearward Control | I | - |
| 3 | 2 | GN/BN | 286 | Driver Power Seat Front Vertical Motor Up Control | I | - |
| 4 | 2 | BU/VT | 287 | Driver Power Seat Front Vertical Motor Down Control | I | - |
| 5 | 2 | YE | 282 | Driver Power Seat Rear Vertical Motor Up Control | I | - |
| 6 | 2 | GY/BU | 283 | Driver Power Seat Rear Vertical Motor Down Control | I | - |
| 7 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 2 | YE/BU | 285 | Driver Power Seat Horizontal Motor Forward Control | I | - |
| 12 | 2 | GY/GN | 284 | Driver Power Seat Horizontal Motor Rearward Control | I | - |

## K40D SEAT MEMORY CONTROL MODULE - DRIVER X5 (A45/A74)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 7287-2043-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 26-Way F 0.64 Series (BK)

**Terminal Part Information**

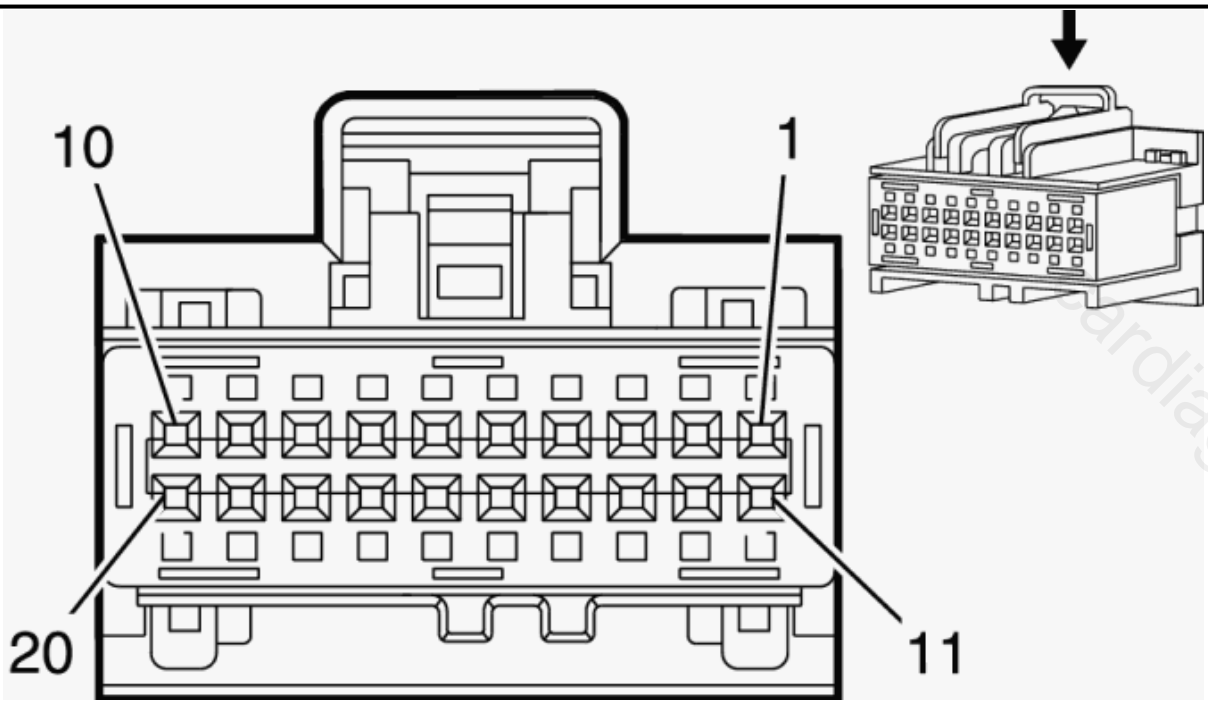
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/RD | 3298 | Memory Sensor High Reference 2 | I | - |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | BN | 3038 | Right Rear Haptic Seat Motor Control | I | - |
| 5 | 0.5 | YE/BN | 3037 | Left Rear Haptic Seat Motor Control | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.5 | YE/BN | 1522 | Power Seat Horizontal Forward Switch Signal | I | - |
| 8 | 0.5 | GY/GN | 1523 | Power Seat Horizontal Rearward Switch Signal | I | - |
| 9 | 0.5 | GN/BN | 1518 | Power Seat Front Vertical Up Switch Signal | I | - |
| 10 | 0.5 | BU/VT | 1520 | Power Seat Front Vertical Down Switch Signal | I | - |
| 11 | 0.35 | GN | 569 | Memory Seat Horizontal Motor Position Sensor Signal | I | - |
| 12 | 0.35 | BN/WH | 557 | Memory Seat Front Vertical Motor Position Sensor Signal | I | - |
| 13 - 18 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 19 | 0.5 | YE | 1519 | Power Seat Rear Vertical Up Switch Signal | I | - |
| 20 | 0.5 | YE/BU | 1521 | Power Seat Rear Vertical Down Switch Signal | I | - |
| 21 | 0.5 | GY/BK | 1269 | Power Seat Recline Forward Switch Signal | I | - |
| 22 | 0.5 | GN/GY | 1270 | Power Seat Recline Rearward Switch Signal | I | - |
| 23 - 24 | - | - | - | Not Occupied | - | - |
| 25 | 0.35 | YE/BU | 568 | Memory Seat Rear Vertical Motor Position Sensor Signal | I | - |
| 26 | 0.35 | WH/BK | 570 | Driver Memory Seat Recline Motor Position Sensor Signal | I | - |

## K40D SEAT MEMORY CONTROL MODULE - DRIVER X6 (A45/A74)




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 31410-1201
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 64 Series, Sealed (GY)

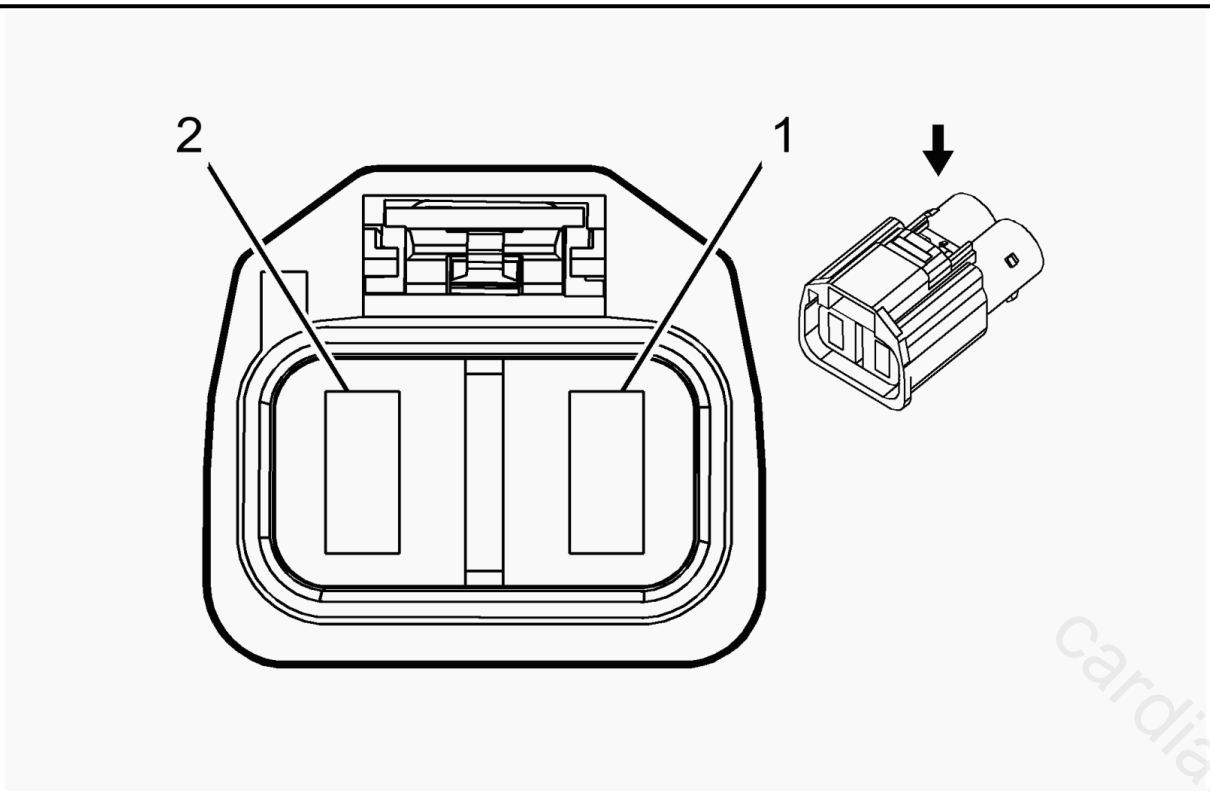
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | WH | 615 | Memory Seat Switch Signal 1 | I | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 13 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | BU/GN | 614 | Memory Seat Switch Set Signal | I | - |
| 16 - 20 | - | - | - | Not Occupied | - | - |

## K43 POWER STEERING CONTROL MODULE X1




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13581053
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 9.5 Series, Sealed (BK)

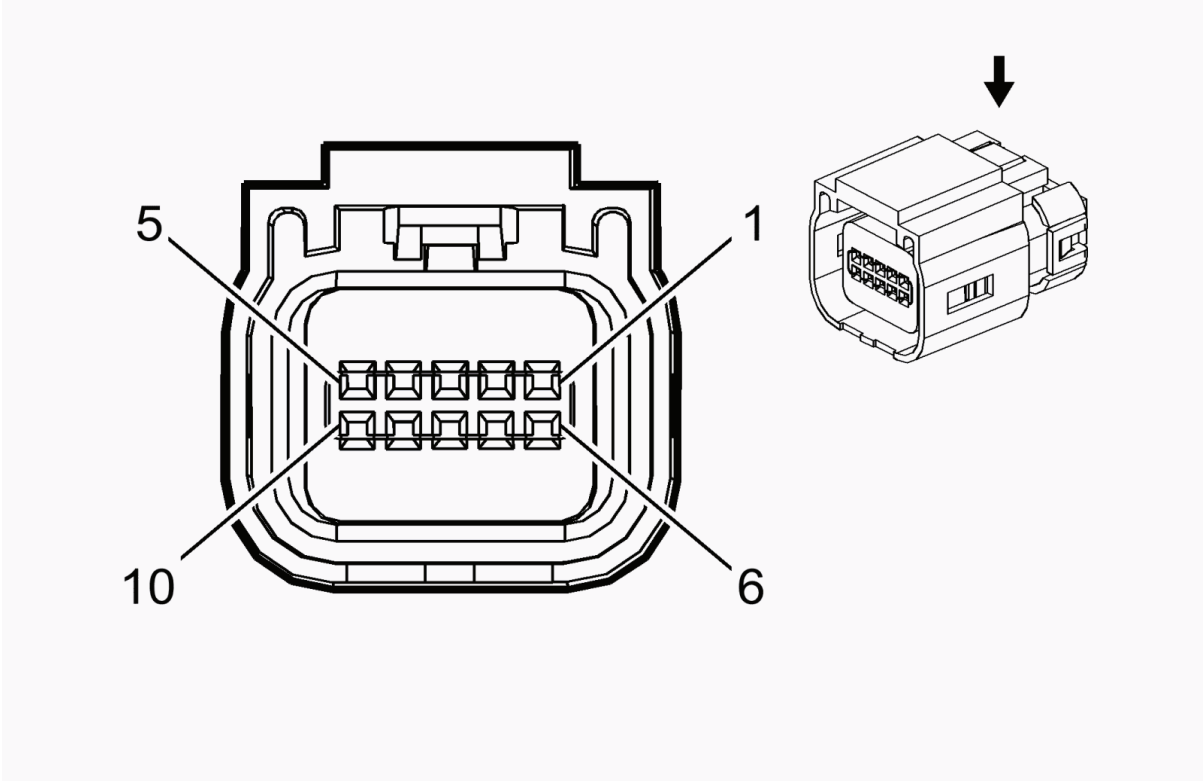
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | RD | 2840 | Battery Positive Voltage | I | - |
| 2 | 10 | BK | 350 | Ground | I | - |

## K43 POWER STEERING CONTROL MODULE X2

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 19178082
- Service Connector: 19178082
- Description: 10-Way F 0.64 Series, Sealed (BK)

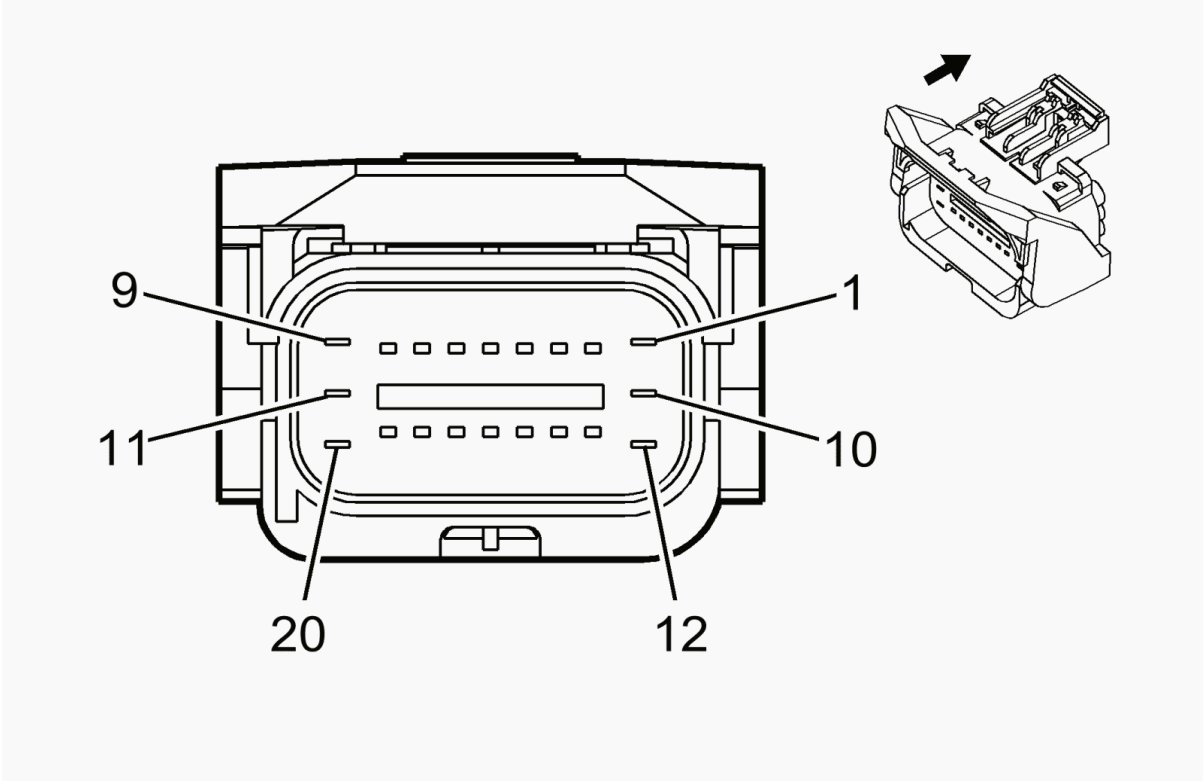
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 3 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 4 | 0.5 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 5 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |
| 6 | 0.5 | WH/BU | 5986 | Serial Data Communication Enable | I | - |
| 7 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 8 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 9 | 0.5 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 10 | 0.5 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |

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# K47 REAR DIFFERENTIAL CLUTCH CONTROL MODULE X1 (F48)




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 13586802
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

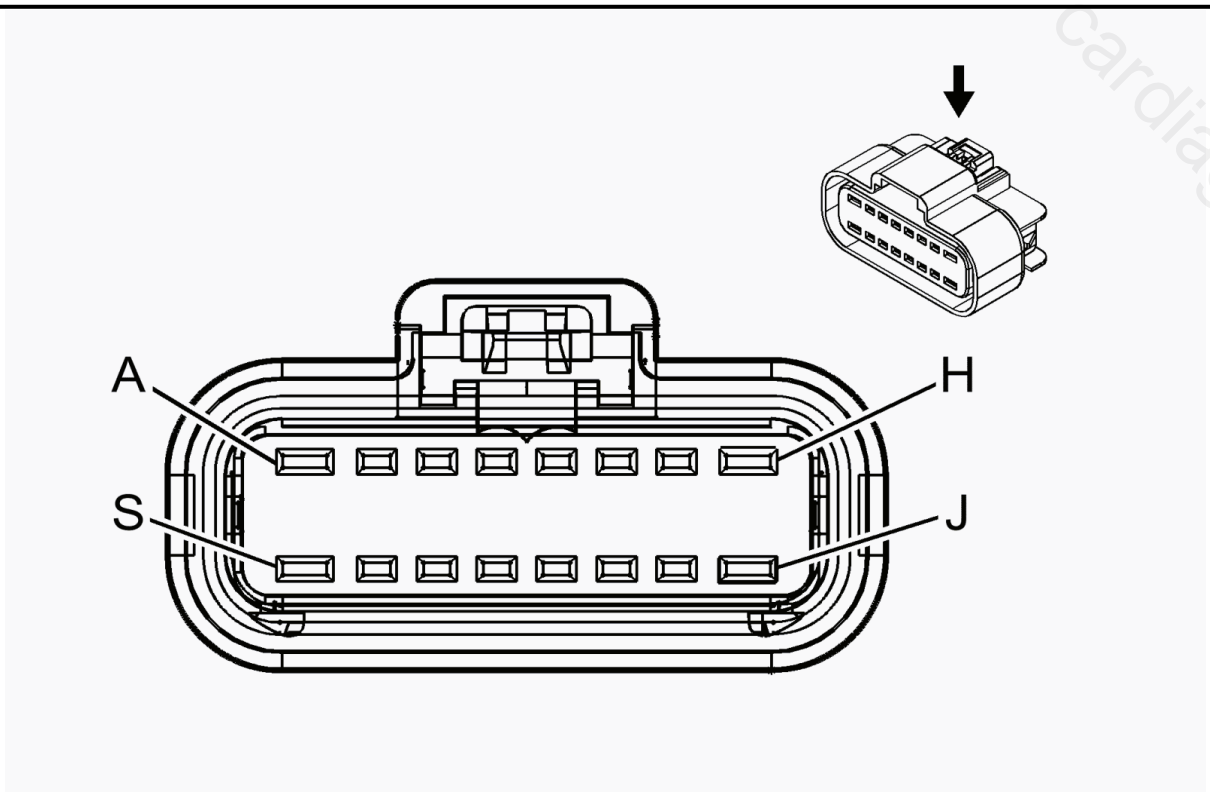
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 3 | BN/GN | 3945 | All Wheel Drive Power Transfer Motor Control B | II | F48 |
| 2 | 0.35 | GY/GN | 1561 | AWD Indicator Control | I | F48 |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | F48 |
| 6 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | F48 |
| 7 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | F48 |
| 8 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | F48 |
| 9 | 2.5 | BK | 2550 | Ground | II | F48 |
| 10 | 0.35 | RD/VT | 1940 | Battery Positive Voltage | I | F48 |
| 11 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | F48 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 3 | VT/BN | 3944 | All Wheel Drive Power Transfer Motor Control A | II | - |
| 13 | 0.35 | BK/VT | 3846 | All Wheel Drive Power Transfer Unit Position Sensor Low Reference | I | F48 |
| 14 | 0.35 | GN/BN | 3848 | All Wheel Drive Power Transfer Unit Position Sensor Signal | I | F48 |
| 15 | 0.35 | WH/RD | 3847 | All Wheel Drive Power Transfer Unit Position Sensor Voltage Reference | I | F48 |
| 16 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | F48 |
| 17 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | F48 |
| 18 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | F48 |
| 19 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | F48 |
| 20 | 2.5 | RD/VT | 1640 | Battery Positive Voltage | II | F48 |

## K47 REAR DIFFERENTIAL CLUTCH CONTROL MODULE X2 (F48)




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Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 15326084
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 150, 280 GT Series, Sealed (BK)

**Terminal Part Information**

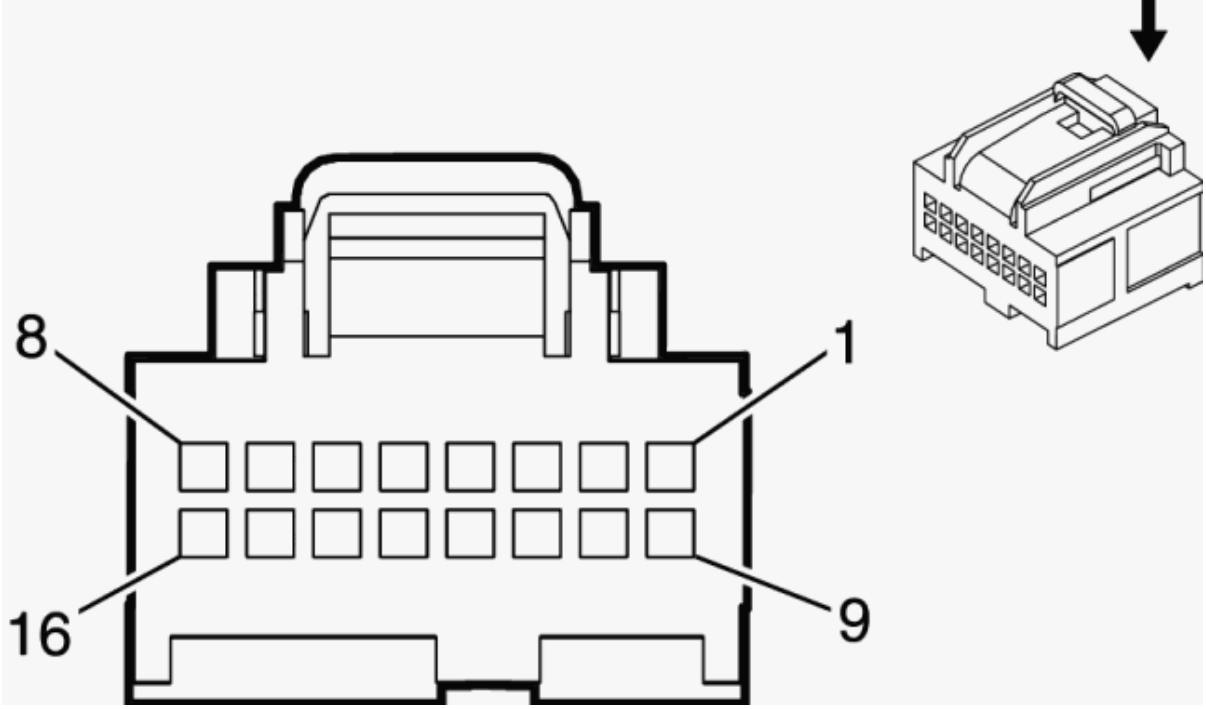
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | RD/BK | 902 | Differential Clutch Pump Motor V-Phase | I | - |
| B | 0.5 | BU/WH | 905 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 1 | I | - |
| C | 0.5 | BU/OG | 906 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 2 | I | - |
| D | 0.5 | BU | 907 | Differential Clutch Pump Motor Hall-Effect Sensor Signal 3 | I | - |
| E | 0.5 | VT/WH | 908 | Differential Clutch Pump Motor Hall-Effect Sensor Supply Voltage | I | - |
| F | 0.5 | VT | 904 | Differential Clutch Pump Motor Hall-Effect Sensor Low Reference | I | - |
| G | - | - | - | Not Occupied | - | - |
| H | 0.5 | RD | 901 | Differential Clutch Pump Motor W-Phase | I | - |
| J | 0.5 | RD/WH | 903 | Differential Clutch Pump Motor U-Phase | I | - |
| K - N | - | - | - | Not Occupied | - | - |
| P | 0.5 | WH/BK | 911 | Rear Differential Clutch Solenoid Valve 2 Low Control Signal | I | - |
| R | 0.5 | WH/OG | 910 | Rear Differential Clutch Solenoid Valve 1 Low Control Signal | I | - |
| S | 0.5 | WH | 909 | Rear Differential Clutch Solenoid Valve High Control Signal | I | - |

## K56 SERIAL DATA GATEWAY MODULE X1

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13594065
- Service Connector: 13594065
- Description: 16-Way F 0.64 OCS Series (BK)

**Terminal Part Information**

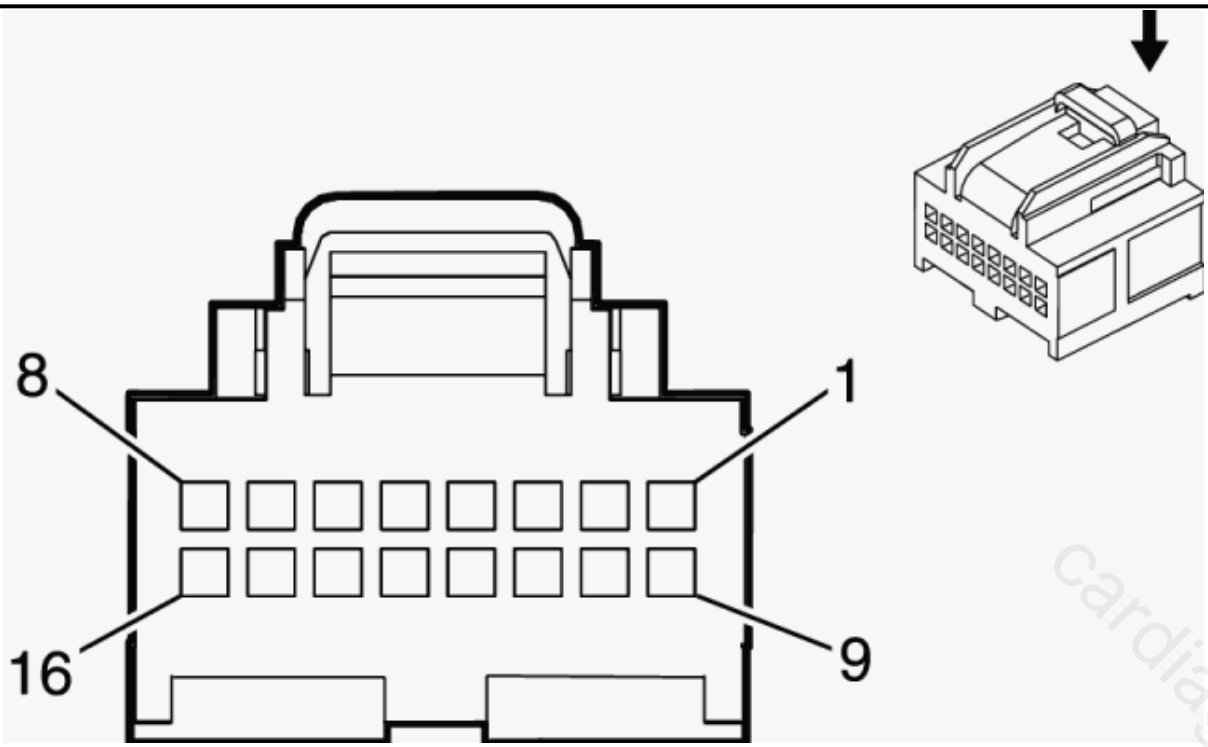
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13587581 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GN | 3140 | Battery Positive Voltage | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | - |
| 4 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | BK | 1650 | Ground | I | - |
| 7 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 8 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | - |
| 11 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | - |
| 12 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | - |
| 13 | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 14 | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |
| 15 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 16 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | I | - |

## K56 SERIAL DATA GATEWAY MODULE X2




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13594066
- Service Connector: 13594066
- Description: 16-Way F 0.64 OCS Series (GY)

**Terminal Part Information**

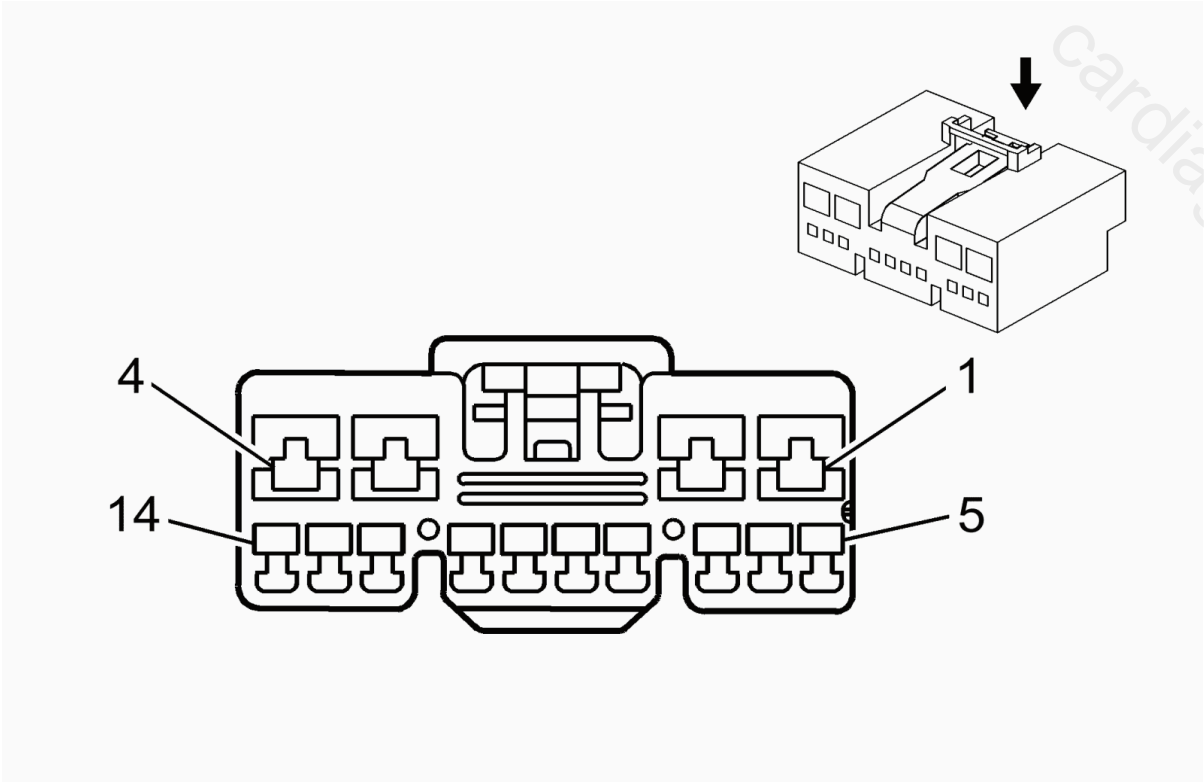
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13587581 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 2 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |
| 6 | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 8 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |
| 9 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | - |
| 12 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | - |
| 13 | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |
| 14 | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |
| 15 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 16 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |

## K61 SUNROOF CONTROL MODULE (C3U)




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 15466088
- Service Connector: 19179972
- Description: 14-Way F 0.64, 2.8 YESC Series (L-GY)

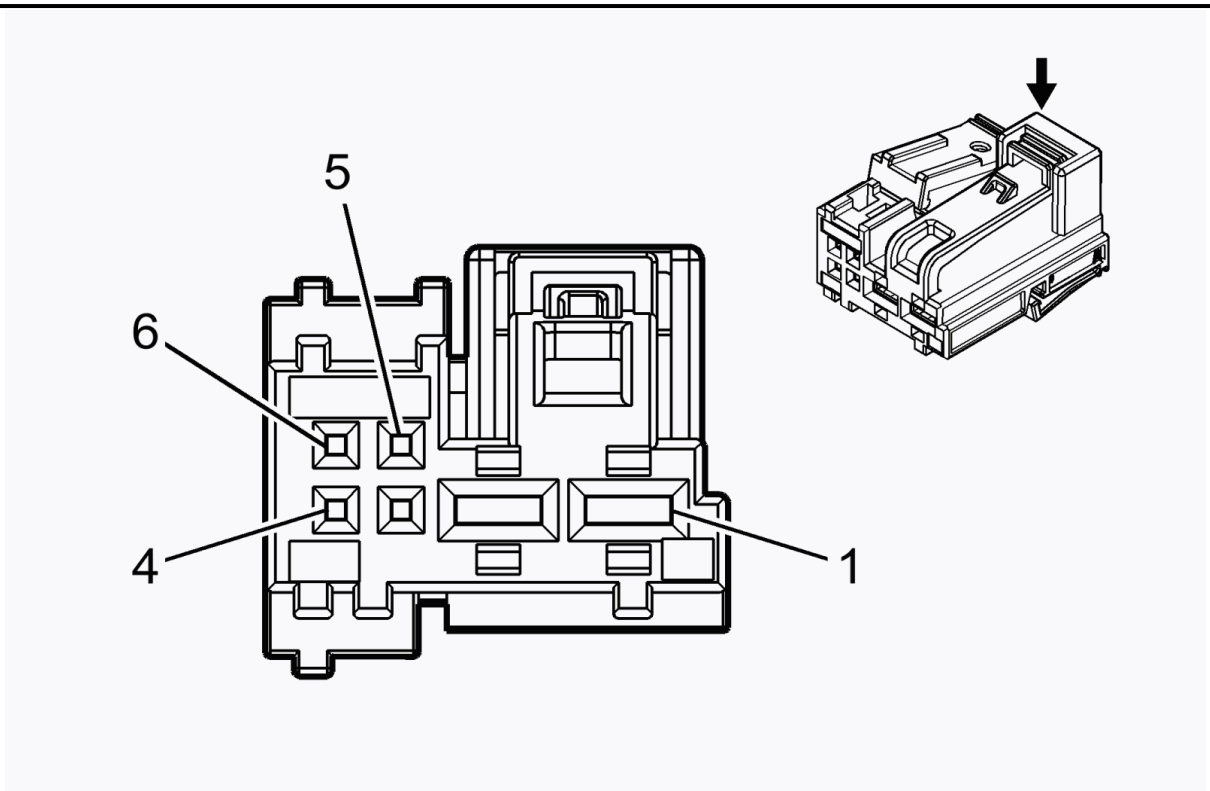
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| I | Not Required | No Tool Required | No Tool Required | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2 | RD/BU | 540 | Battery Positive Voltage | I | - |
| 2 | 2 | OG | 5938 | Sunshade Motor Up Control | I | - |
| 3 | 2 | VT | 5939 | Sunshade Motor Down Control | I | - |
| 4 | 2 | BK | 1550 | Ground | I | - |
| 5 | 0.35 | BU | 900 | Sunroof Serial Data K-Line | I | - |
| 6 | 2 | BU/GY | 3032 | Front Sunshade Switch Signal | I | - |
| 7 | 0.35 | PK | 5027 | Sunroof Switch Data 1 Signal | I | - |
| 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | BN | 6132 | Local Interconnect Network Serial Data Bus 1 | I | - |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | VT/WH | 128 | Sunroof Switch Low Reference | I | - |
| 12 | 0.35 | TN | 5033 | Sunroof Obstruction Sensor 5V Reference | I | - |
| 13 | 0.35 | WH | 5034 | Sunroof Obstruction Sensor Signal 1 | I | - |
| 14 | 0.35 | YE | 5124 | Sunroof Obstruction Sensor Signal 2 | I | - |

## K62 SUNROOF SUNSHADE MOTOR MODULE (C3U)




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 1670575-1

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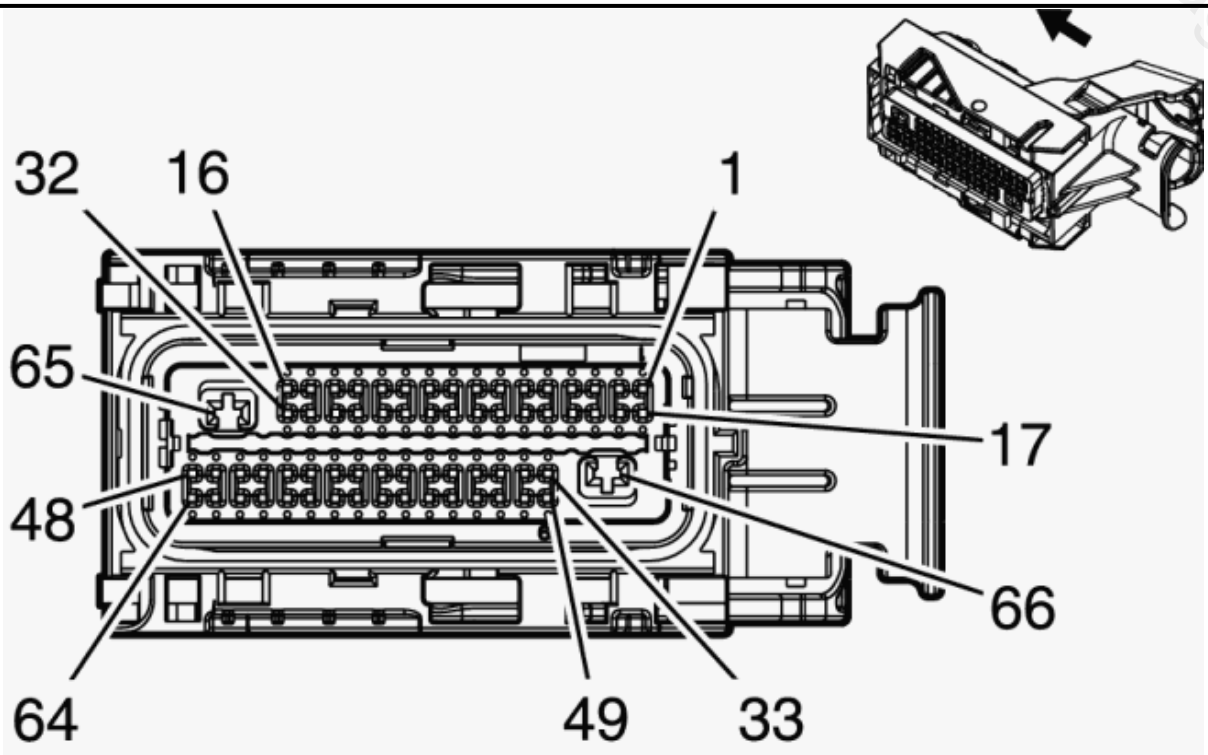
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F Conn (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2 | VT | 5939 | Sunshade Motor Down Control | I | - |
| 2 | 2 | OG | 5938 | Sunshade Motor Up Control | I | - |
| 3 | 0.35 | WH | 5034 | Sunroof Obstruction Sensor Signal 1 | I | - |
| 4 | 0.35 | VT/WH | 128 | Sunroof Switch Low Reference | I | - |
| 5 | 0.35 | YE | 5124 | Sunroof Obstruction Sensor Signal 2 | I | - |
| 6 | 0.35 | TN | 5033 | Sunroof Obstruction Sensor 5V Reference | I | - |

## K71 TRANSMISSION CONTROL MODULE (M3D/M3H/M3U)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 12642692
- Service Connector: 19329822
- Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

**Terminal Part Information**

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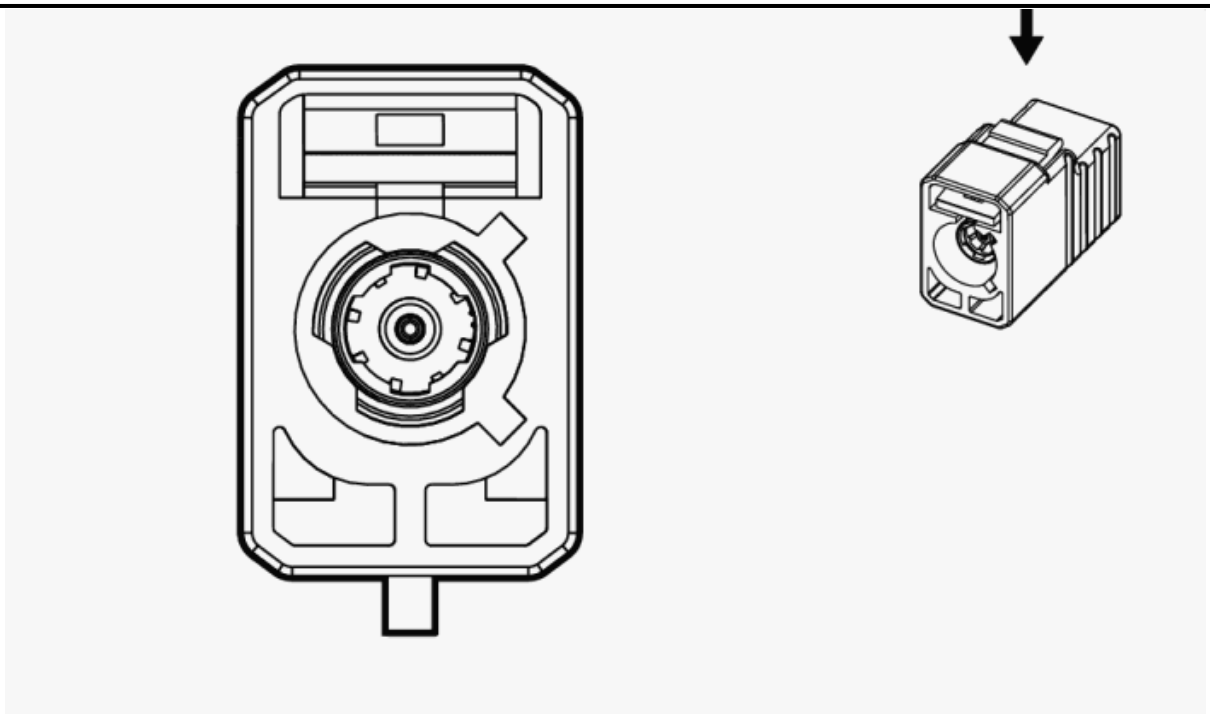
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BU | 4507 | Transmission Clutch H Control | I | - |
| 2 | 0.5 | BU | 6401 | Clutch B Control | I | - |
| 3 | 0.5 | GY/GN | 6403 | Clutch D Control | I | - |
| 4 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.5 | YE/GN | 4170 | Transmission Position Sensor B 9V Reference | I | - |
| 8 | 0.5 | YE/BU | 4171 | Transmission Position Sensor A 9V Reference | I | - |
| 9 - 12 | - | - | - | Not Occupied | - | - |
| 13 | 0.5 | GN/VT | 4510 | Transmission Intermediate Speed Signal | I | - |
| 14 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | - |
| 15 | 0.5 | GN/YE | 6353 | Input Speed Signal | I | - |
| 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.5 | WH | 4508 | Transmission Clutch G Control | I | - |
| 18 | 0.5 | BN | 6400 | Clutch A Control | II | - |
| 19 | 0.5 | GY | 6402 | Clutch C Control | I | - |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.5 | GY/BK | 5501 | TCC/Clutch Select Solenoid Control | I | - |
| 22 | 0.5 | VT/BK | 7553 | Park Lock Solenoid Control | I | M3H/M3U |
| 23 | 0.5 | WH | 1971 | Transmission Oil Level Sensor Signal | II | - |
| 24 - 30 | - | - | - | Not Occupied | - | - |
| 31 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | II | - |
| 32 | - | - | - | Not Occupied | - | - |
| 33 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | II | - |
| 34 - 36 | - | - | - | Not Occupied | - | - |
| 37 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 38 - 48 | - | - | - | Not Occupied | - | - |
| 49 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | II | - |
| 50 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 51 | 0.5<br>0.35 | VT/YE<br>VT/YE | 5985<br>5985 | Accessory Wakeup Serial Data<br>Accessory Wakeup Serial Data | I<br>II | M3D<br>MM1+M3H/M3U |
| 52 | - | - | - | Not Occupied | - | - |
| 53 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | M3H/M3D/M3U |
| 54 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | M3H/M3D/M3U |
| 55 - 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.5 | VT/WH | 6319 | ETRS Out of Park Switch 2 Signal | II | - |
| 60 | 0.5 | WH/BK | 3705 | ETRS Switch Analog Signal 2 | I | M3H/M3U |
| 61 | 0.5 | WH/YE | 6317 | ETRS Out of Park Switch Signal | I | M3H/M3U |
| 62 | 0.5 | BN | 3706 | ETRS Switch Analog Signal 1 | II | M3H/M3U |
| 63 | 0.5 | BN/WH | 585 | Transmission Oil Temperature Sensor Signal | II | - |
| 64 | 0.5 | GN/YE | 5724 | Ignition Mode Switch Mode Control | I | M3D |
| 65 | 1.5 | BK/WH | 151 | Signal Ground | I | - |
| 66 | 1.5 | RD/GN | 2173 | 12V Regulated Supply Voltage 2 | I | - |

## K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X5 (UE1)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581693
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (VT)

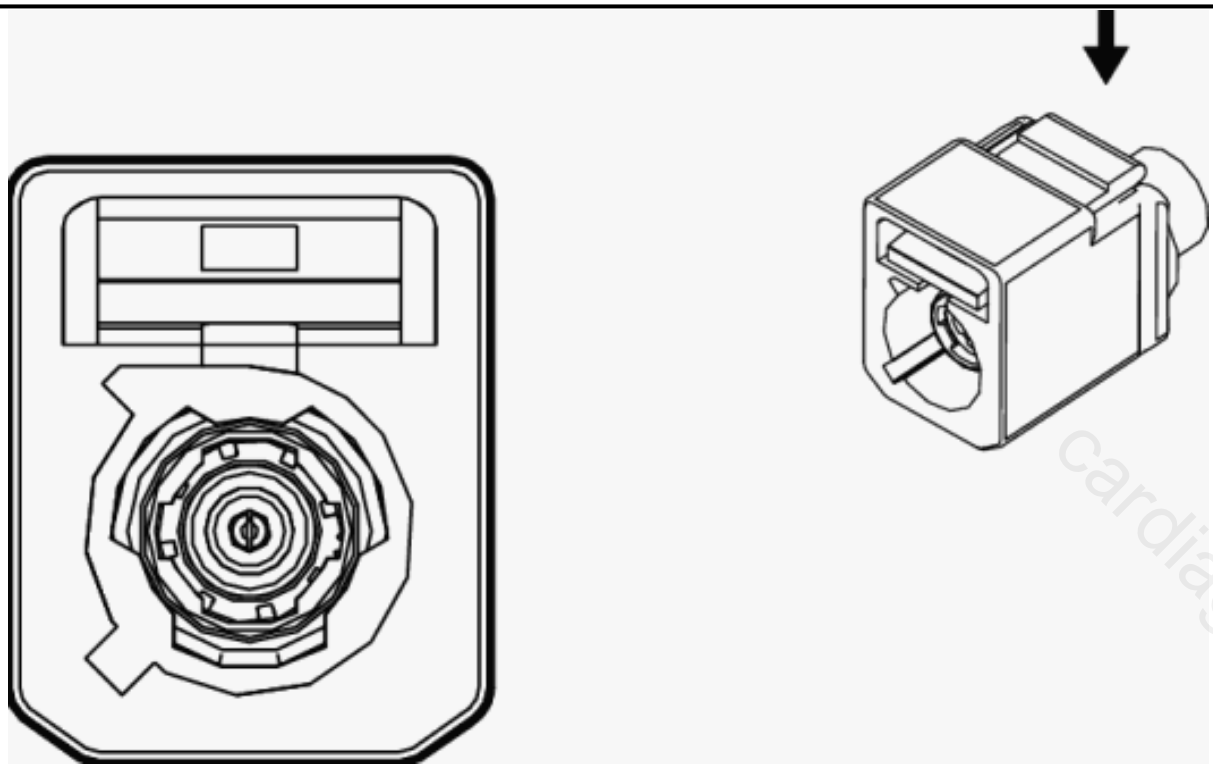
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (Cell only) Coaxial Antenna Cell Phone Signal | I | - |

## K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X7 (UE1)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581969
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BN)

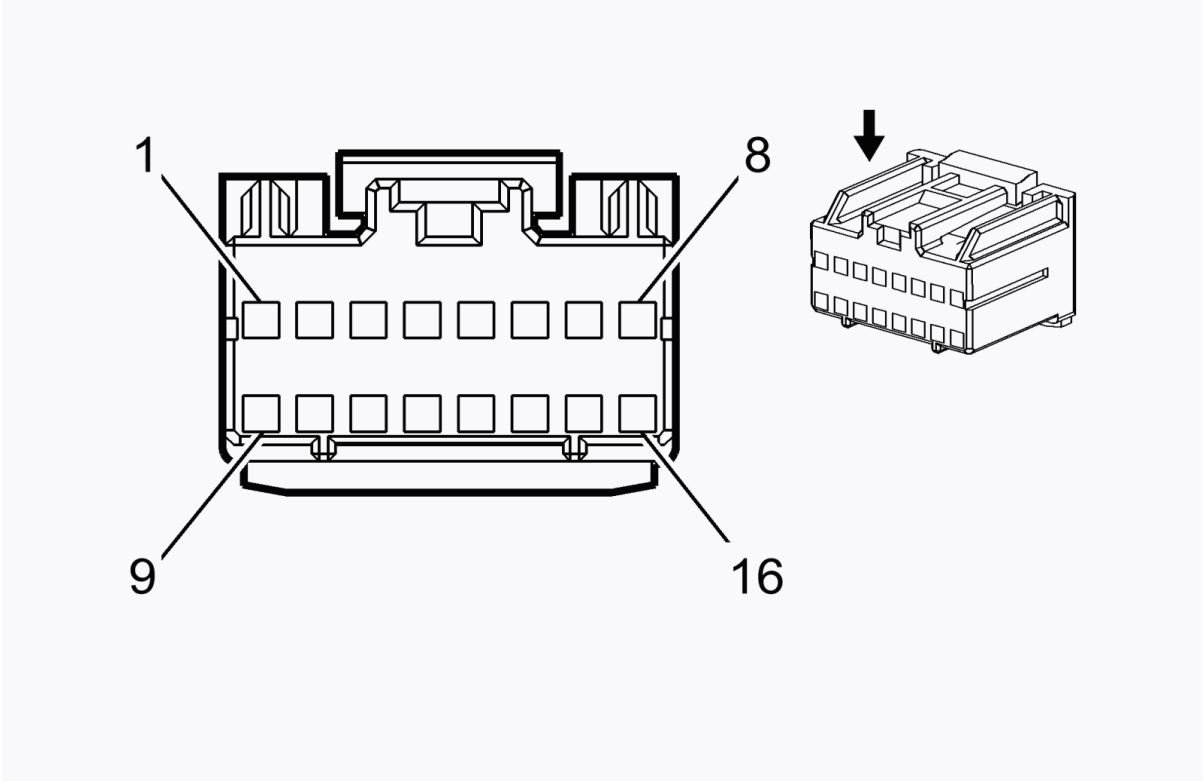
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |

## K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X1 (UE1+IOB/IO5/IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 1456601-1
- Service Connector: 19153138
- Description: 16-Way F 040 Multilock II Series (WH)

**Terminal Part Information**

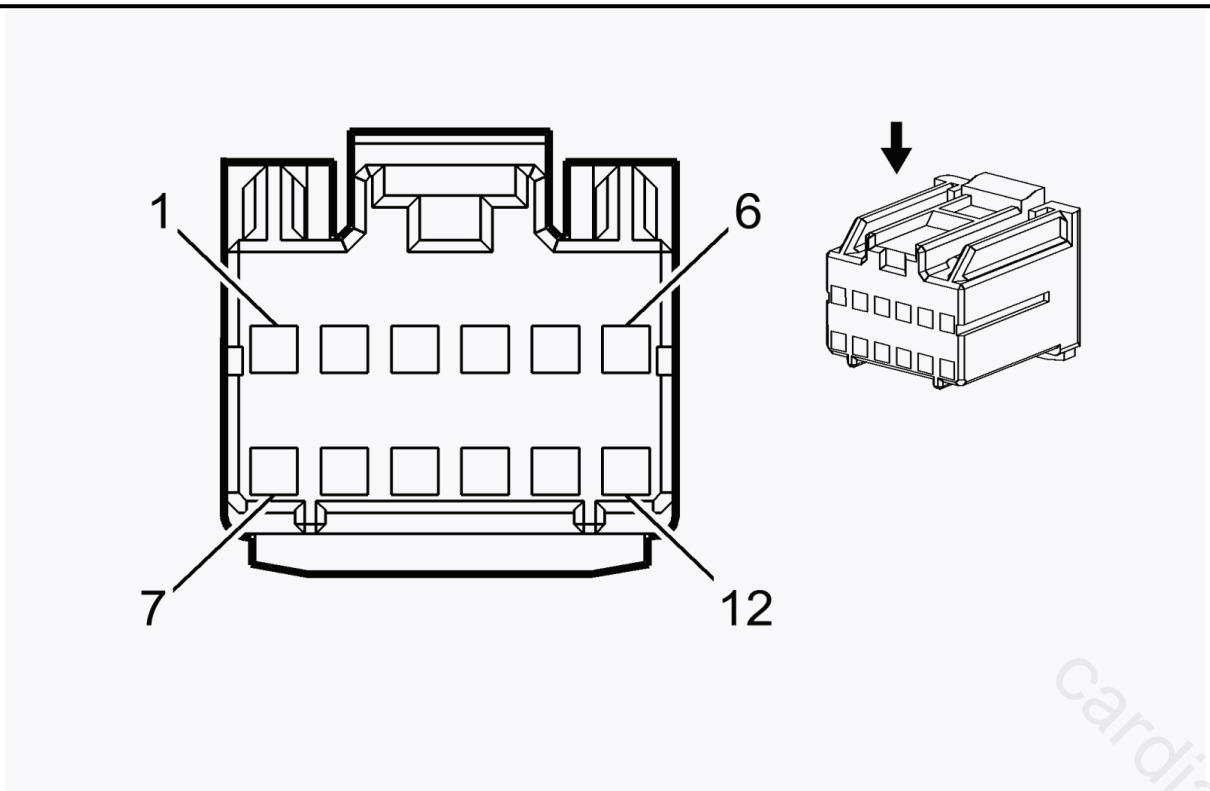
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575803 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |
| II | 13575803 | J-35616-16 (LT GN) | J-38125-559 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | I | UE1+IOB/IO5/IO6 |
| 2 | 0.13 | BN/WH | 2517 | Keypad Red LED Control | II | UE1+IOB/IO5/IO6 |
| 3 | 0.13 | YE/VT | 2516 | Keypad Green LED Control | II | UE1+IOB/IO5/IO6 |
| 4 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.13 | GN/BK | 2515 | Keypad Control | II | UE1+IOB/IO5/IO6 |
| 7 | 0.35 | BK | 1750 | Ground | I | UE1+IOB/IO5/IO6 |
| 8 - 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | UE1+IOB/IO5/IO6 |
| 11 | 0.13 | GN/WH | 2514 | Keypad Signal | II | UE1+IOB/IO5/IO6 |
| 12 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | UE1+IOB/IO5/IO6 |
| 13 | 0.35 | BK/VT | 5167 | Battery Backup Low Reference | I | UE1+IOB/IO5/IO6 |
| 14 | 0.35 | YE/VT | 5235 | Battery Backup Control | I | UE1+IOB/IO5/IO6 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | RD/GY | 2140 | Battery Positive Voltage | I | UE1+IOB/IO5/IO6 |
| 16 | - | - | - | Not Occupied | - | - |

## K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X2 (UE1+IOB/IO5/IO6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19153139
- Service Connector: 88952886
- Description: 12-Way F 040 Multilock II Series (WH)

**Terminal Part Information**

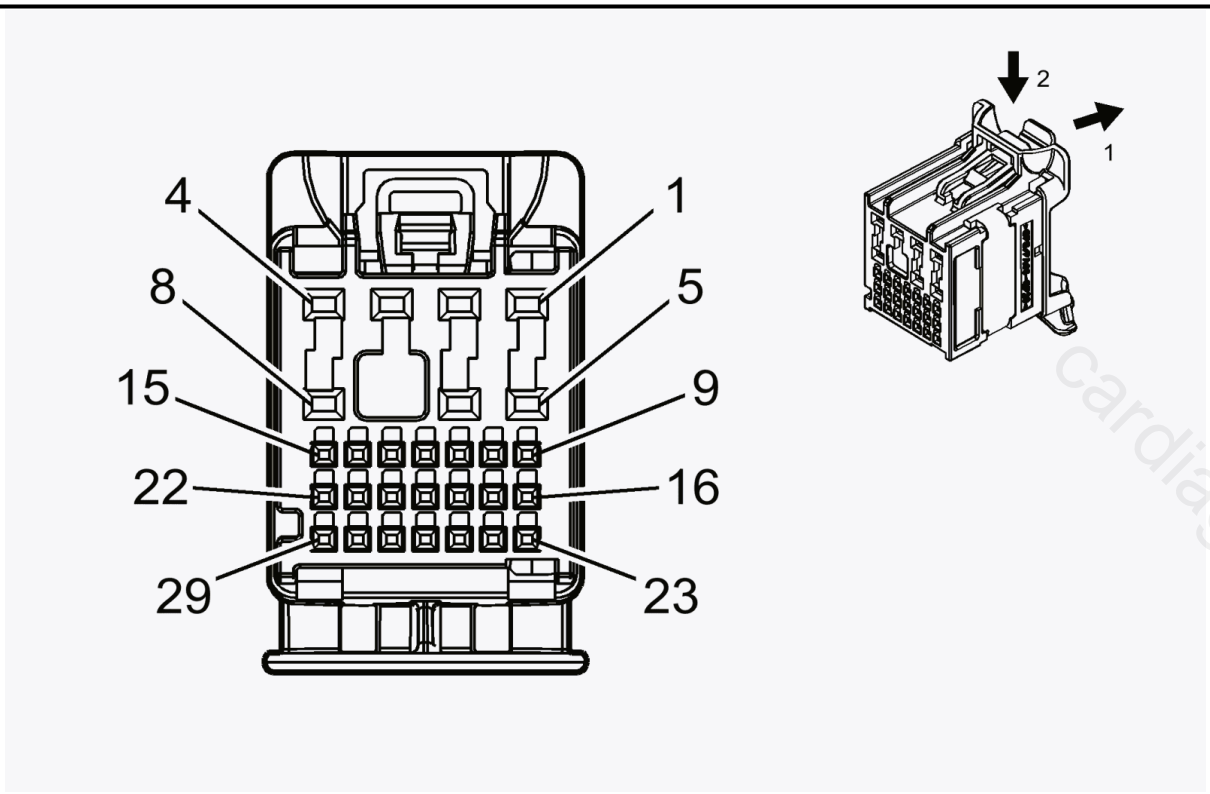
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575803 | J-35616-16 (LT GN) | J-38125-559 | 15445905 | Delphi 23 | J | J |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 658 | Cellular Telephone Voice Signal | I | - |
| 2 | 0.35 | BK/YE | 659 | Cellular Telephone Voice Low Reference | I | - |
| 3 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | - |
| 4 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | - |
| 5 | 0.35 | BARE | 1792 | Low Reference | I | - |
| 6 | 0.35 | GY/YE | 5149 | Voice Recognition Audio Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | UE1+IOB/IO5/IO6 |
| 8 | 0.35 | BARE | 1782 | Low Reference | I | - |
| 9 | 0.35 | BU | 655 | Cellular Telephone Microphone Signal | I | UE1+IO5/IO6/IOB |
| 10 | 0.35 | BK/BN | 654 | Cellular Telephone Microphone Low Reference | I | UE1+IO5/IO6/IOB |
| 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | BK/GY | 5152 | Voice Recognition Audio Low Reference | I | - |

## K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X1 (UE1+IOR/IOS/IOT/IOU)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 160014-0004
- Service Connector: 13506123
- Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| II | 19354361 | EL-35616-58 (BK) | EL-38125-58 | Not Available | Not Available | Not Available | Not Available |

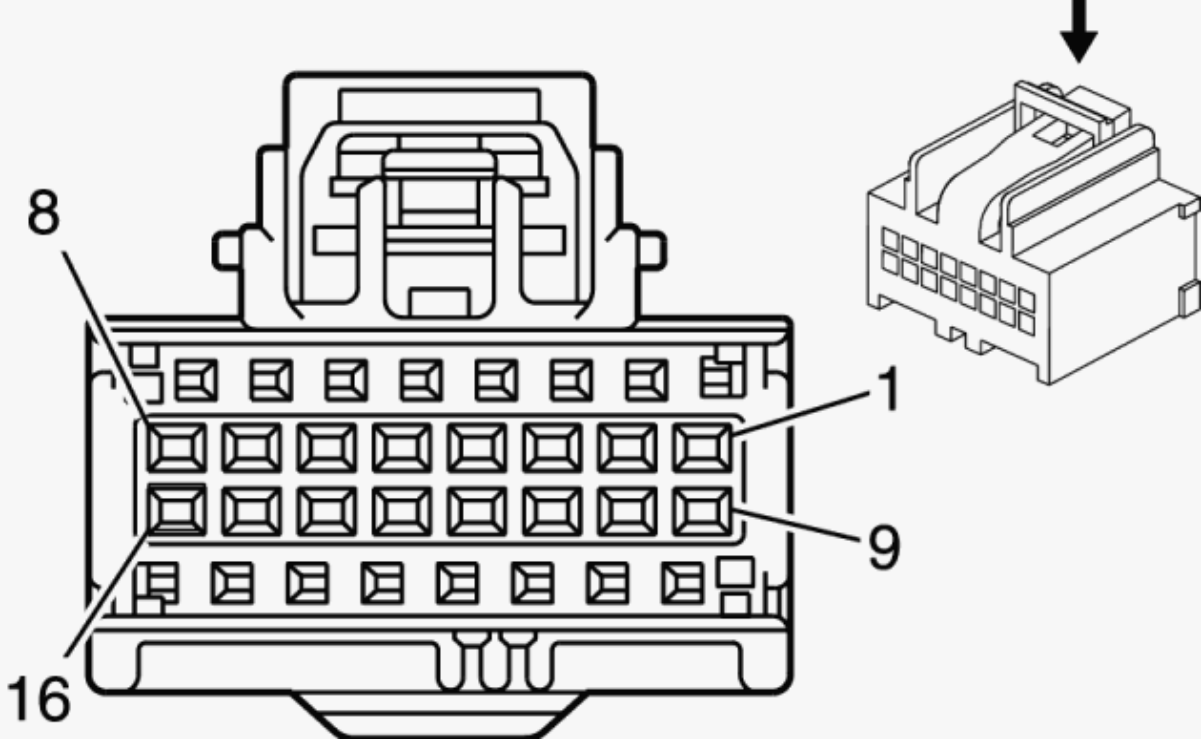
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GY | 2140 | Battery Positive Voltage | I | UE1+IOR/IOS/IOT/IOU |
| 2 - 3 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 4 | 0.5 | BK | 1750 | Ground | I | UE1+IOR/IOS/IOT/IOU |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | GN/BK | 2515 | Keypad Control | I | UE1+IOR/IOS/IOT/IOU |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.5 | BK | 1750 | Ground | I | UE1+IOR/IOS/IOT/IOU |
| 9 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | II | UE1+IOR/IOS/IOT/IOU |
| 10 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | II | UE1+IOR/IOS/IOT/IOU |
| 11 | 0.13 | GN/WH | 2514 | Keypad Signal | II | UE1+IOR/IOS/IOT/IOU |
| 12 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | II | UE1+IOR/IOS/IOT/IOU |
| 13 | 0.35 | BARE | 1792 | Low Reference | II | - |
| 14 | 0.35 | BK/GY | 5152 | Voice Recognition Audio Low Reference | II | - |
| 15 | 0.35 | GY/YE | 5149 | Voice Recognition Audio Signal | II | - |
| 16 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | II | - |
| 17 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | II | - |
| 18 | - | - | - | Not Occupied | - | - |
| 19 | 0.13 | YE/VT | 2516 | Keypad Green LED Control | II | UE1+IOR/IOS/IOT/IOU |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | BK/BN | 654 | Cellular Telephone Microphone Low Reference | II | UE1+IOR/IOS/IOT/IOU |
| 22 | 0.35 | BU | 655 | Cellular Telephone Microphone Signal | II | UE1+IOR/IOS/IOT/IOU |
| 23 | 0.35 | GY/GN | 1102 | Low Speed GMLAN Serial Data #2 | II | UE1+IOR/IOS/IOT/IOU |
| 24 - 25 | - | - | - | Not Occupied | - | - |
| 26 | 0.13 | BN/WH | 2517 | Keypad Red LED Control | II | UE1+IOR/IOS/IOT/IOU |
| 27 | - | - | - | Not Occupied | - | - |
| 28 | 0.35 | GY/WH | 7211 | Ethernet Bus 4 (+) | II | - |
| 29 | 0.35 | GY | 7210 | Ethernet Bus 4 (-) | II | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X1 (IO5/IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 15136073
- Service Connector: 15136073
- Description: 16-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

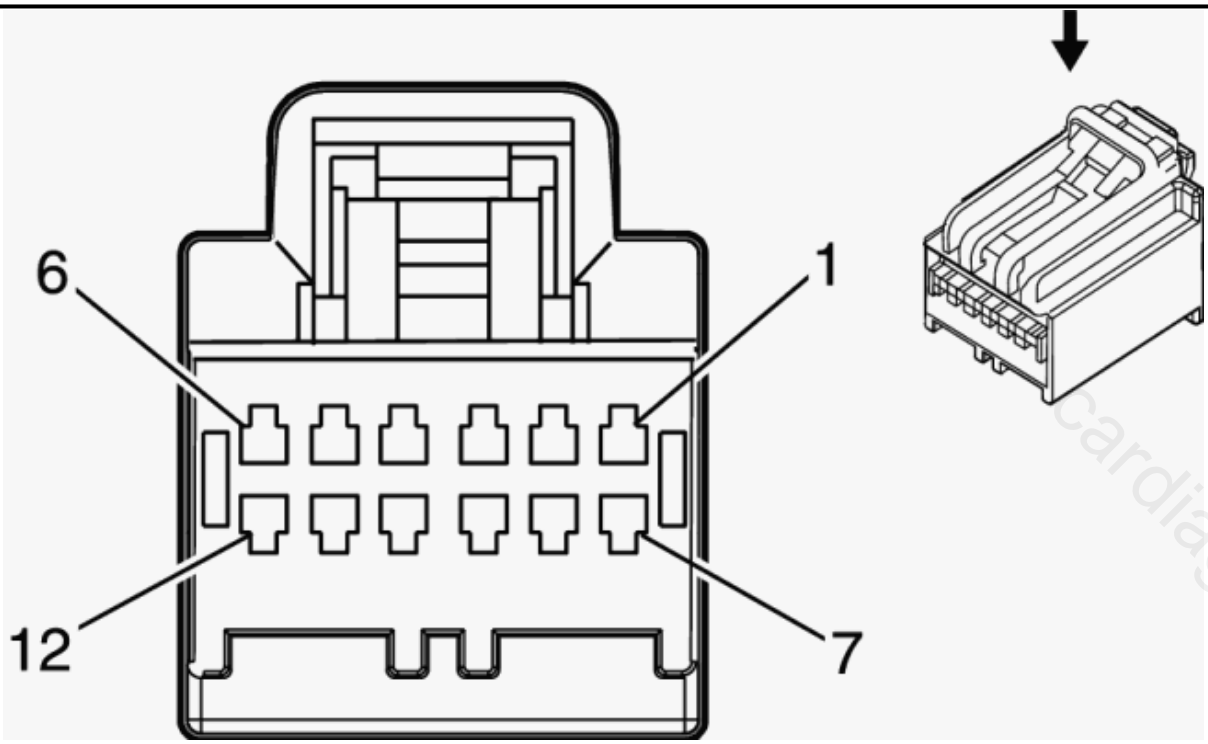
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35<br>0.35 | BU<br>GY/YE | 655<br>5149 | Cellular Telephone Microphone Signal<br>Voice Recognition Audio Signal | I<br>I | IO5/IO6<br>UE1+IO5/IO6 |
| 2 | 0.35<br>0.35 | BK/BN<br>BK/GY | 654<br>5152 | Cellular Telephone Microphone Low Reference<br>Voice Recognition Audio Low Reference | I<br>I | IO5/IO6<br>UE1+IO5/IO6 |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | IO5/IO6 |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | IO5/IO6 |
| 8 | 0.35 | BK | 1750 | Ground | I | IO5/IO6 |
| 9 | 0.35 | GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | IO5/IO6+MAH/MBC |
| 10 | 0.35 | GN/WH | 7527 | Local Interconnect Network Serial Data Bus 5 | I | IO5/IO6 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 11 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | - |
| 12 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | - |
| 13 | 0.35 | BU/GN | 1304 | High Speed GMLAN Serial Data (+) 9 | I | IO5/IO6 |
| 14 | 0.35 | WH/GN | 1305 | High Speed GMLAN Serial Data (-) 9 | I | IO5/IO6 |
| 15 - 16 | - | - | - | Not Occupied | - | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X2 (IO5/IO6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19151154
- Service Connector: 19151154
- Description: 12-Way F 64 Series, Sealed (GY)

**Terminal Part Information**

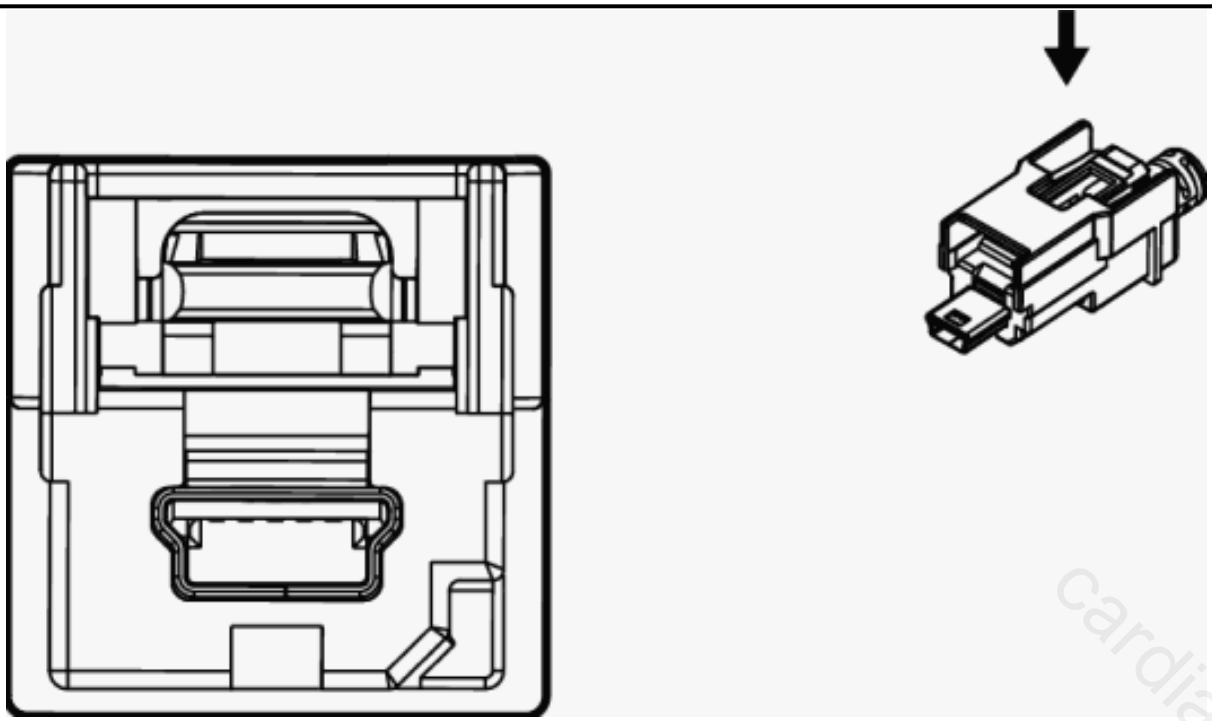
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/VT | 3999 | MOST Control | I | - |
| 2 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | - |
| 3 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | GY/YE | 6972 | Camera Signal 2 + | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 6 | 0.35 | WH/BU | 6973 | Camera Signal 2 | I | - |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | - |
| 9 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | - |
| 10 - 12 | - | - | - | Not Occupied | - | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X3 (IO5/IO6)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576672
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

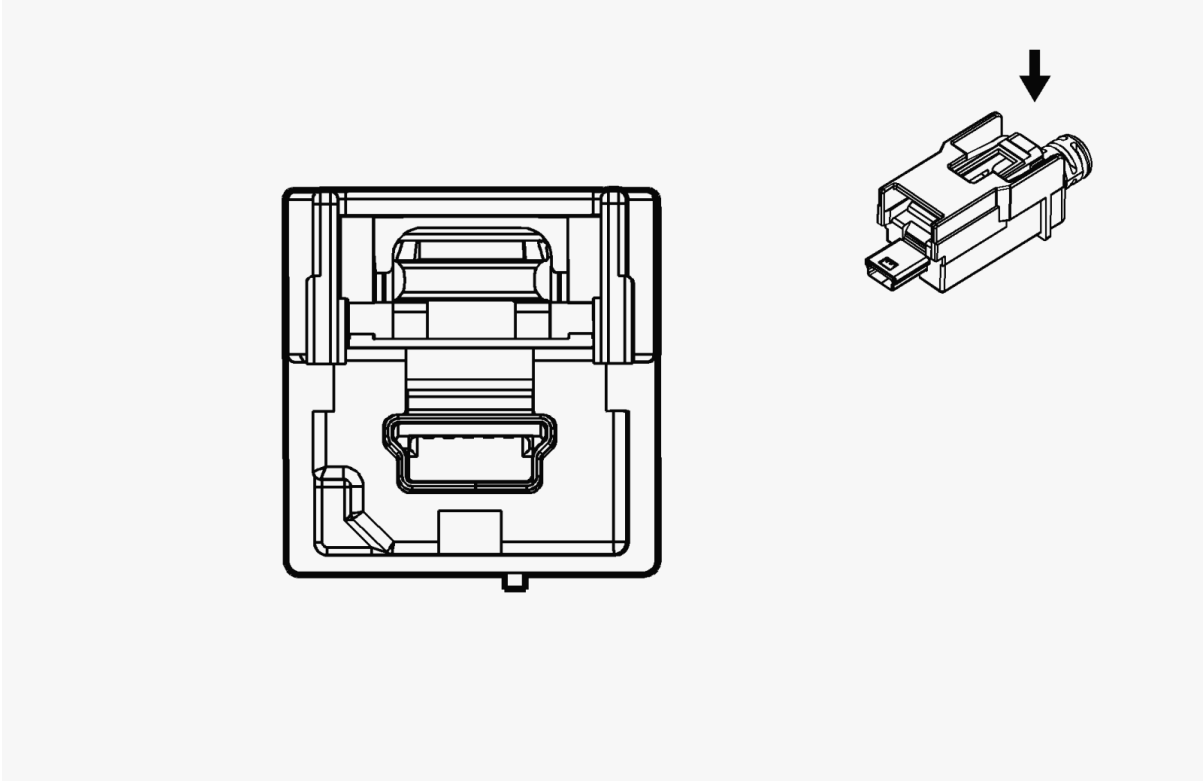
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X4 (IO5/IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13578153
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GN)

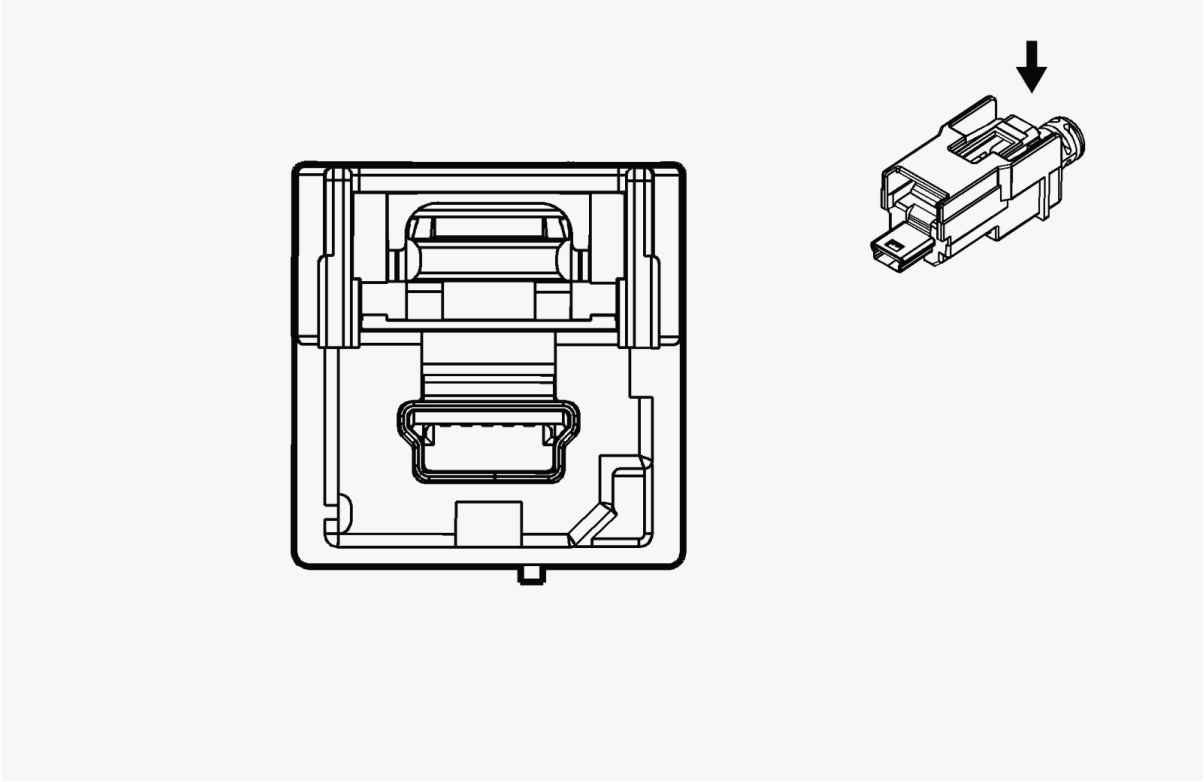
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X5 (IO5/IO6)

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Connector Part Information

- Harness Type: Instrument Panel LVDS
- OEM Connector: 13578154
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BU)

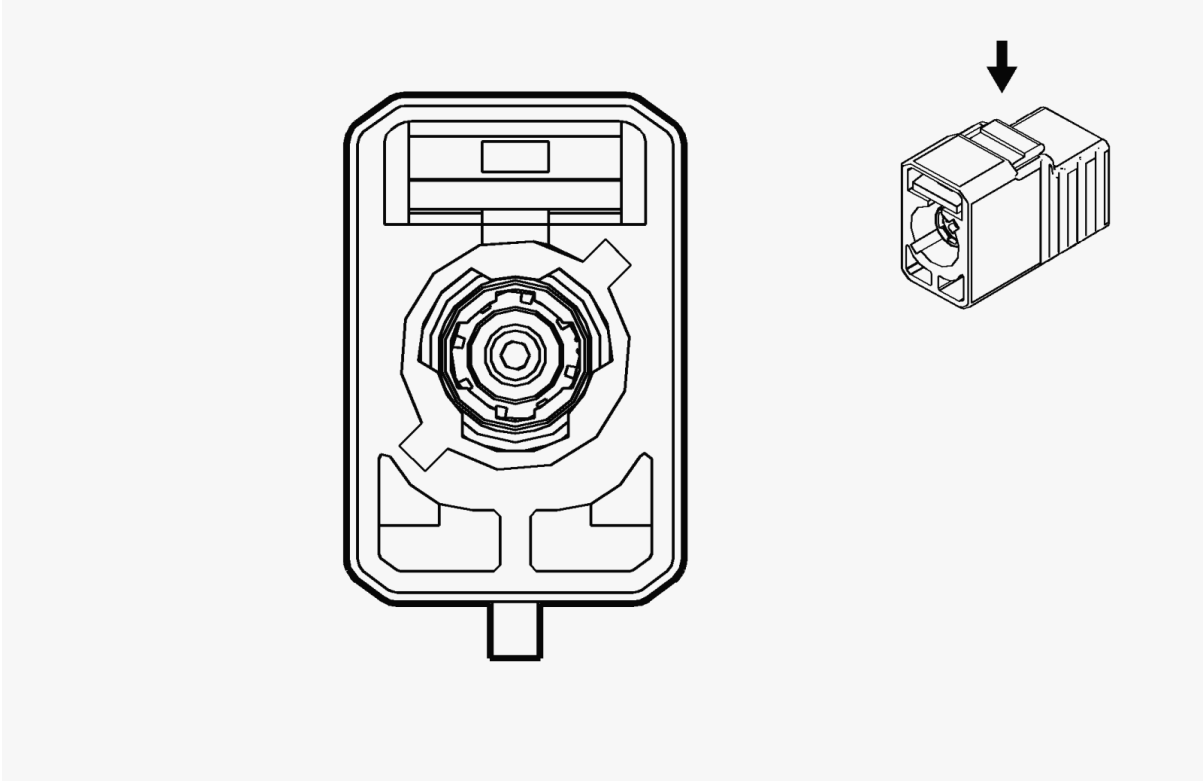
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | LVDS | - | Navigation Display Signal | I | - |

## K74 HUMAN MACHINE INTERFACE CONTROL MODULE X7 (IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581689
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BU)

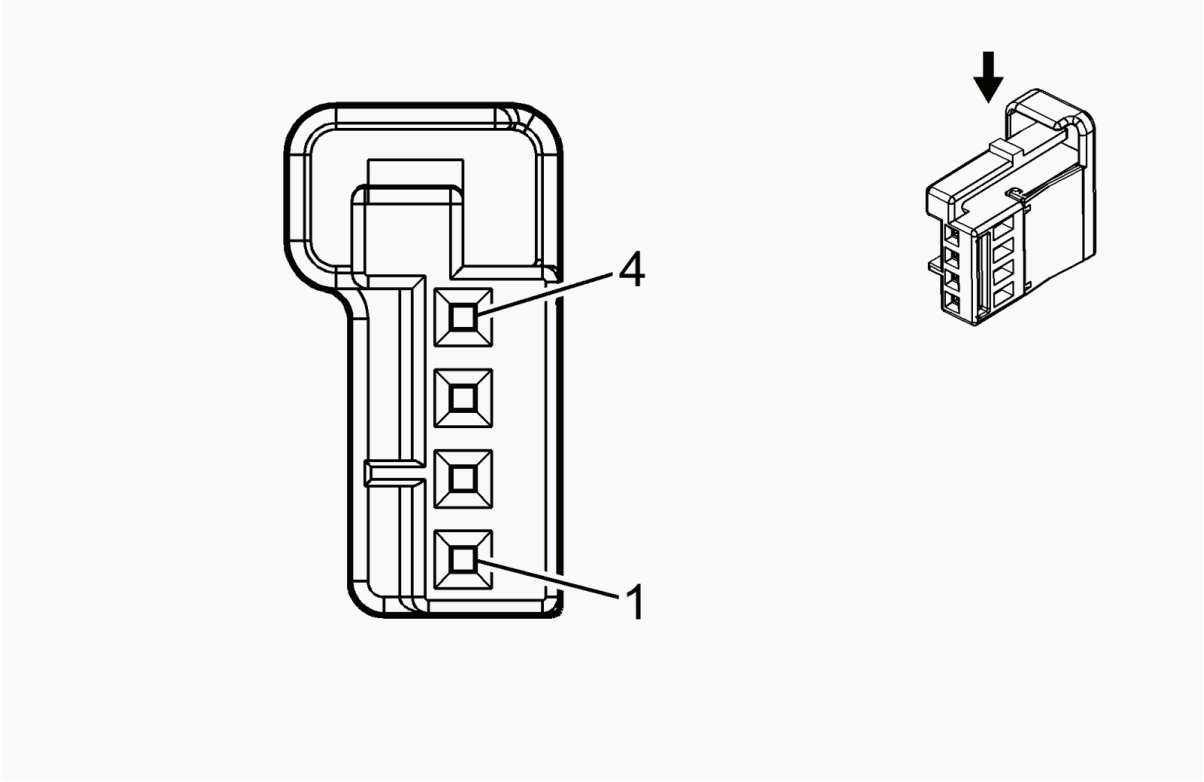
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS only) Coaxial Antenna GPS Signal | I | - |

## K77 REMOTE CONTROL DOOR LOCK RECEIVER

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13365028
- Service Connector: 13316147
- Description: 4-Way F 0.64 Micro-Quadlock Series, Sealed (BU)

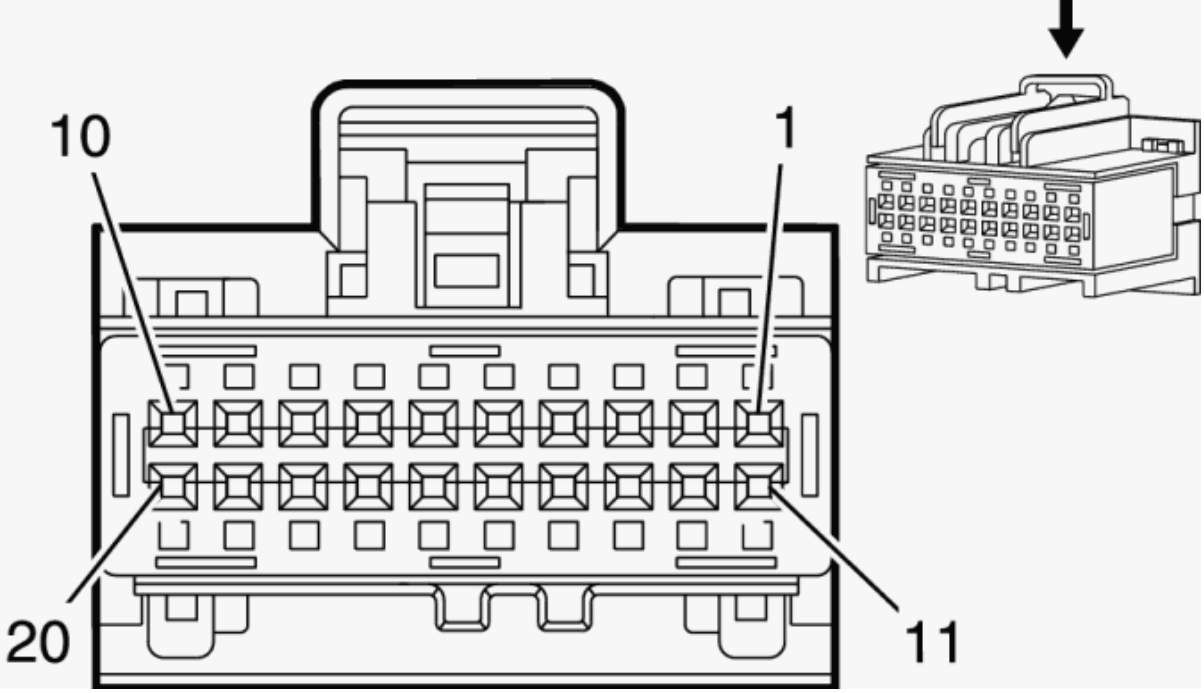
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1950 | Ground | I | - |
| 2 | 0.35 | YE/GN | 3274 | Remote Function Actuator Transmit Signal | I | - |
| 3 | 0.13 | BU/WH | 3275 | Remote Function Actuator Receive Signal | I | - |
| 4 | 0.35 | GY/WH | 3272 | Remote Function Actuator Control | I | - |

## K84 KEYLESS ENTRY CONTROL MODULE X1

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13593933
- Service Connector: 13593933
- Description: 20-Way F USCAR 64 Series (BN)

**Terminal Part Information**

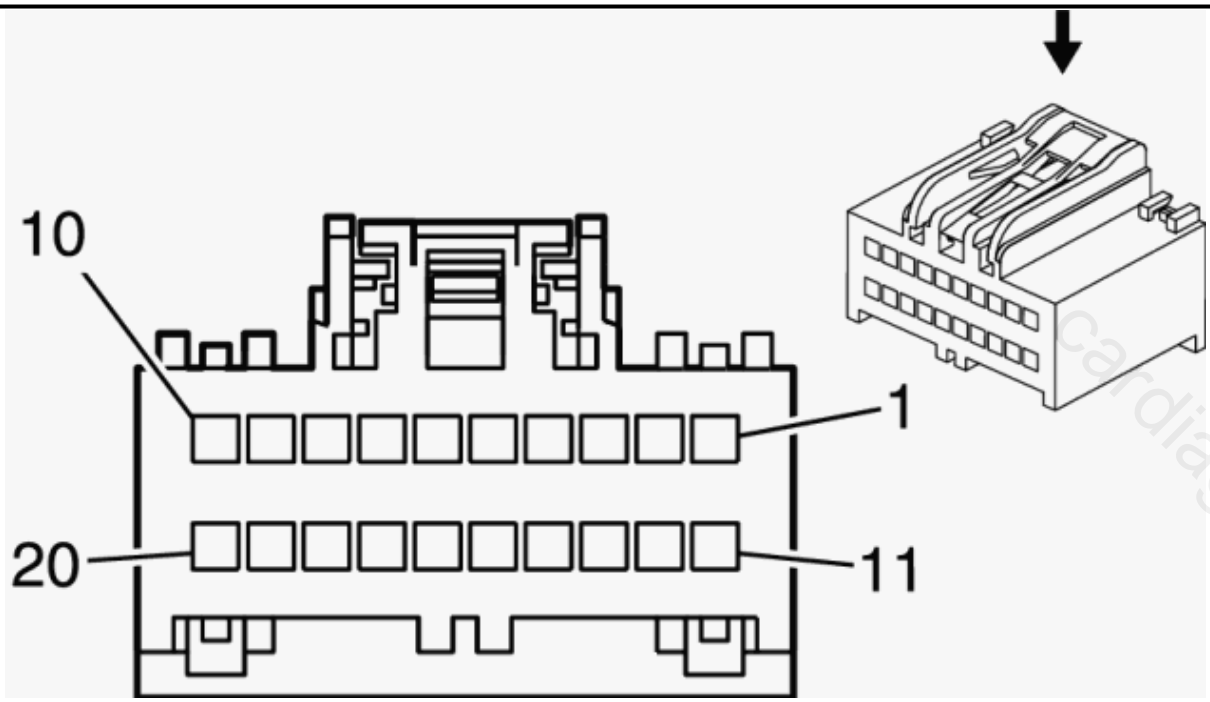
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | RD/WH | 4042 | Battery Positive Voltage | II | - |
| 3 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | II | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | VT/YE | 4 | Accessory Ignition Voltage | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | GY/GN | 4083 | RAP Relay 2 Coil Control | I | - |
| 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | WH/YE | 3574 | Driver Door Open Switch Signal | II | - |
| 10 | 0.35 | YE/BU | 4086 | Pushbutton Start Challenge Active Signal | I | - |
| 11 | 0.35 | GN/BK | 3558 | Passive Start Switch Signal 2 | I | - |
| 12 | 0.35 | BK/GY | 3559 | Passive Start Switch 2 Low Reference | I | - |
| 13 | 0.35 | VT/BK | 3 | Run/Crank Ignition 1 Voltage | I | - |
| 14 | 0.35 | BK | 1550 | Ground | II | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | GY/BK | 3555 | Passive Start Interior Antenna 2 Signal Lo | II | - |
| 16 | 0.35 | BN/BK | 3552 | Passive Start Interior Antenna 1 Signal Hi | II | - |
| 17 | 0.35 | WH | 3553 | Passive Start Interior Antenna 1 Signal Lo | II | - |
| 18 | 0.35 | WH/GN | 3556 | Passive Start Interior Antenna 3 Signal Hi | II | - |
| 19 | 0.35 | GN | 3557 | Passive Start Interior Antenna 3 Signal Lo | II | - |
| 20 | 0.35 | BU | 3554 | Passive Start Interior Antenna 2 Signal Hi | II | - |

## K84 KEYLESS ENTRY CONTROL MODULE X2




Connector Part Information

- Harness Type: Body
- OEM Connector: 13593932
- Service Connector: 13593932
- Description: 20-Way F USCAR 64 Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |

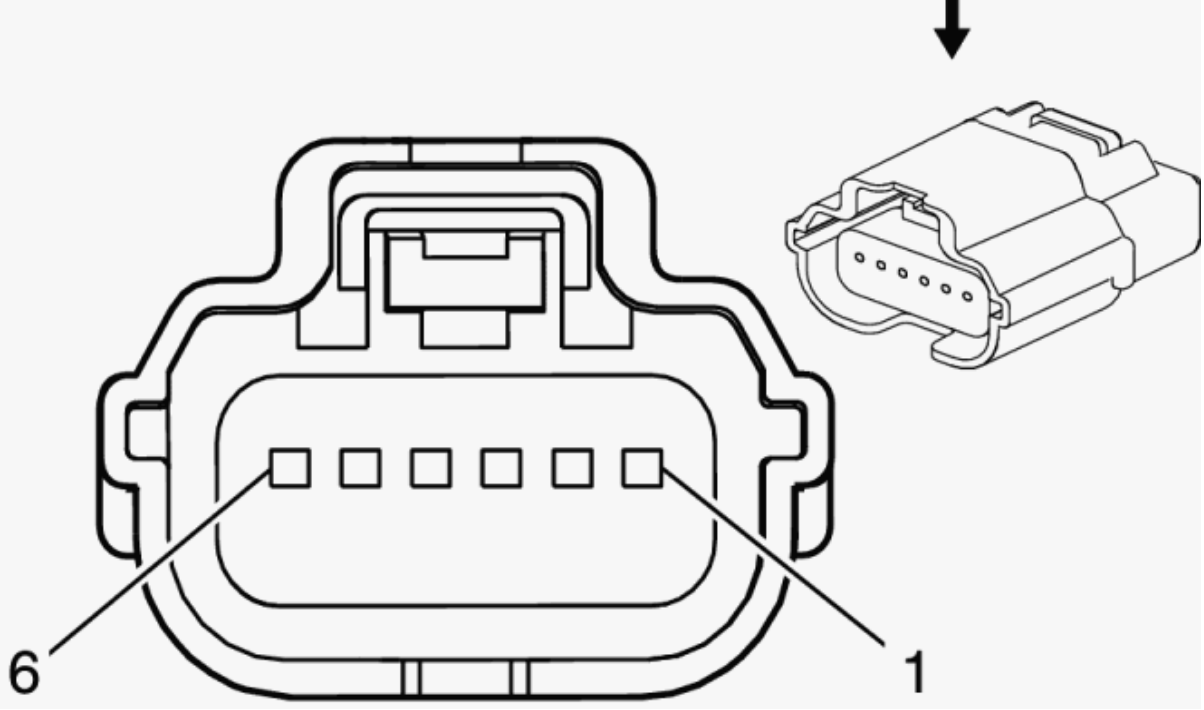
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/GY | 6158 | Right Rear Door Handle Switch Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 2 | 0.35<br>0.35 | BN/YE<br>BN/YE | 6157<br>6157 | Left Rear Door Handle Switch Signal<br>Left Rear Door Handle Switch Signal | I<br>II | X88<br>Z88 |
| 3 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35<br>0.35 | VT<br>VT | 3560<br>3560 | Passive Entry Driver Door Antenna Signal Hi<br>Passive Entry Driver Door Antenna Signal Hi | I<br>II | X88<br>Z88 |
| 7 | 0.35<br>0.35 | VT/GY<br>VT/GY | 3561<br>3561 | Passive Entry Driver Door Antenna Signal Lo<br>Passive Entry Driver Door Antenna Signal Lo | I<br>II | X88<br>Z88 |
| 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35<br>0.35 | GN/BK<br>GN/BK | 3563<br>3563 | Passive Entry Passenger Door Antenna Signal Lo<br>Passive Entry Passenger Door Antenna Signal Lo | I<br>II | X88<br>Z88 |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35<br>0.35 | VT/WH<br>VT/WH | 3571<br>3571 | Passenger Door Handle Switch Signal<br>Passenger Door Handle Switch Signal | I<br>II | X88<br>Z88 |
| 12 | 0.35<br>0.35 | GN/WH<br>GN/WH | 3570<br>3570 | Driver Door Handle Switch Signal<br>Driver Door Handle Switch Signal | I<br>II | X88<br>Z88 |
| 13 - 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.35<br>0.35 | BN/BK<br>BN/GN | 3552<br>3568 | Passive Start Interior Antenna 1 Signal Hi<br>Passive Entry Rear Closure Antenna Signal Hi | II<br>II | X88<br>Z88 |
| 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35<br>0.35 | GN/GY<br>GN/GY | 3569<br>3569 | Passive Entry Rear Closure Antenna Signal Lo<br>Passive Entry Rear Closure Antenna Signal Lo | I<br>II | X88<br>Z88 |
| 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35<br>0.35 | GN/YE<br>GN/YE | 3562<br>3562 | Passive Entry Passenger Door Antenna Signal Hi<br>Passive Entry Passenger Door Antenna Signal Hi | I<br>II | X88<br>Z88 |

## K85 PASSENGER PRESENCE MODULE (AL0)

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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 31404-6132
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Series, Sealed (BK)

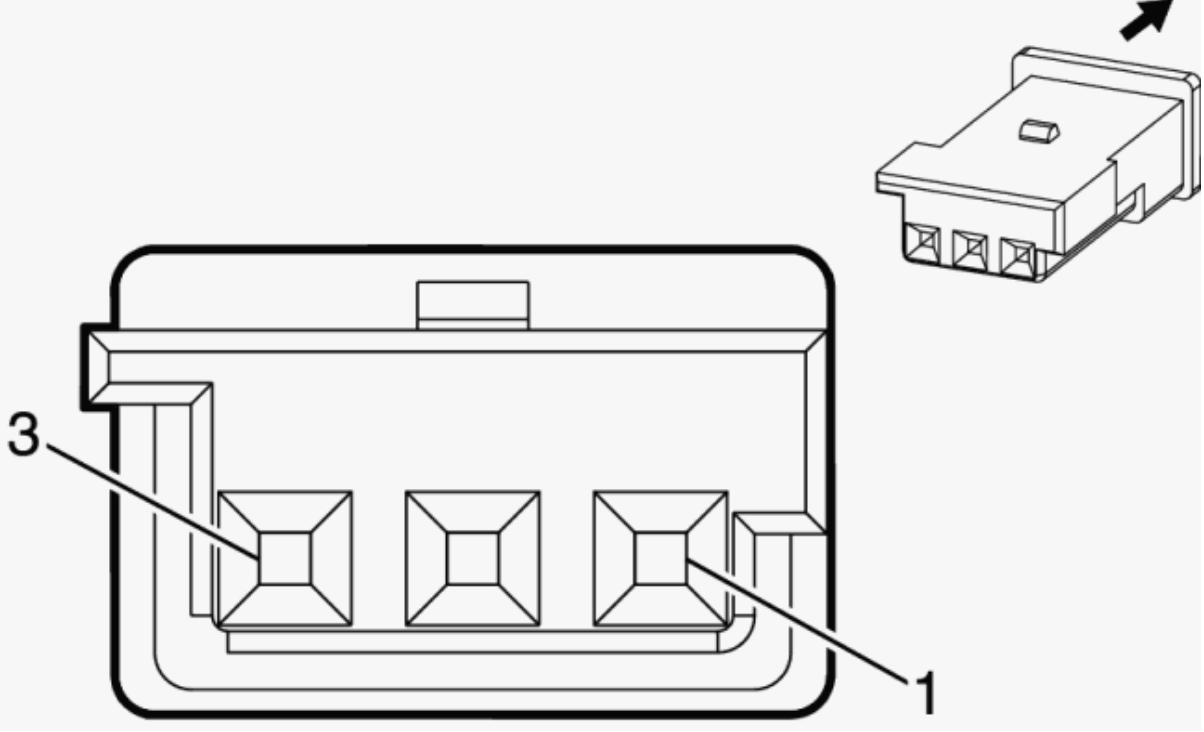
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/GN | 2440 | Battery Positive Voltage | I | - |
| 2 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK | 2450 | Ground | I | - |
| 5 | 0.35 | GY/OG | 3946 | Automatic Locking Retractor Switch Low Reference | I | - |
| 6 | 0.35 | OG/BN | 3947 | Automatic Locking Retractor Switch Signal | I | - |

## K89 IMMOBILIZER CONTROL MODULE

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 19153569
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F Micro-Quadlock Series (PU)

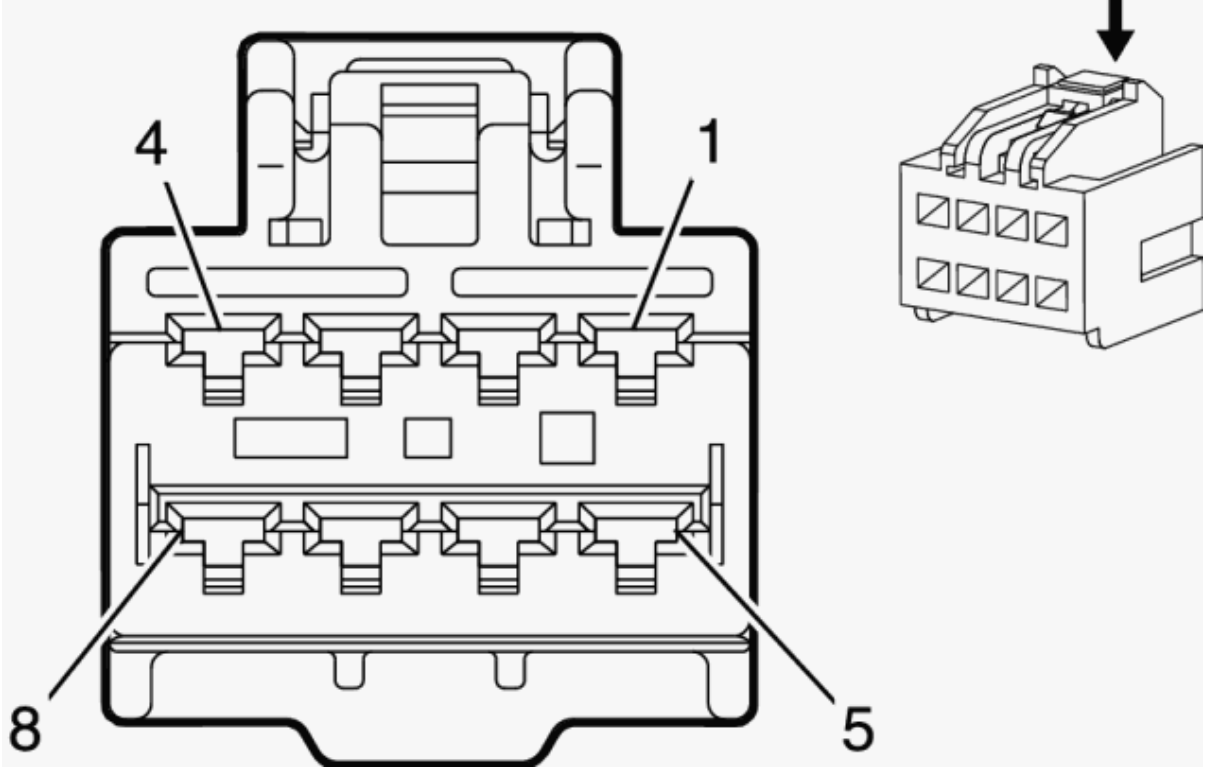
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 3277 | Vehicle Anti-Theft System Immobilizer Low Reference | I | - |
| 2 | 0.35 | GN/VT | 7533 | Local Interconnect Network Serial Data Bus 11 | I | - |
| 3 | 0.35 | GY/BK | 3276 | Vehicle Anti-Theft System Immobilizer Control | I | - |

## K108 ACTIVE NOISE CANCELLATION MODULE X1 (NKC+UZ6-IOR)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15134093
- Service Connector: 13580111
- Description: 8-Way F 2.8 Series (BK)

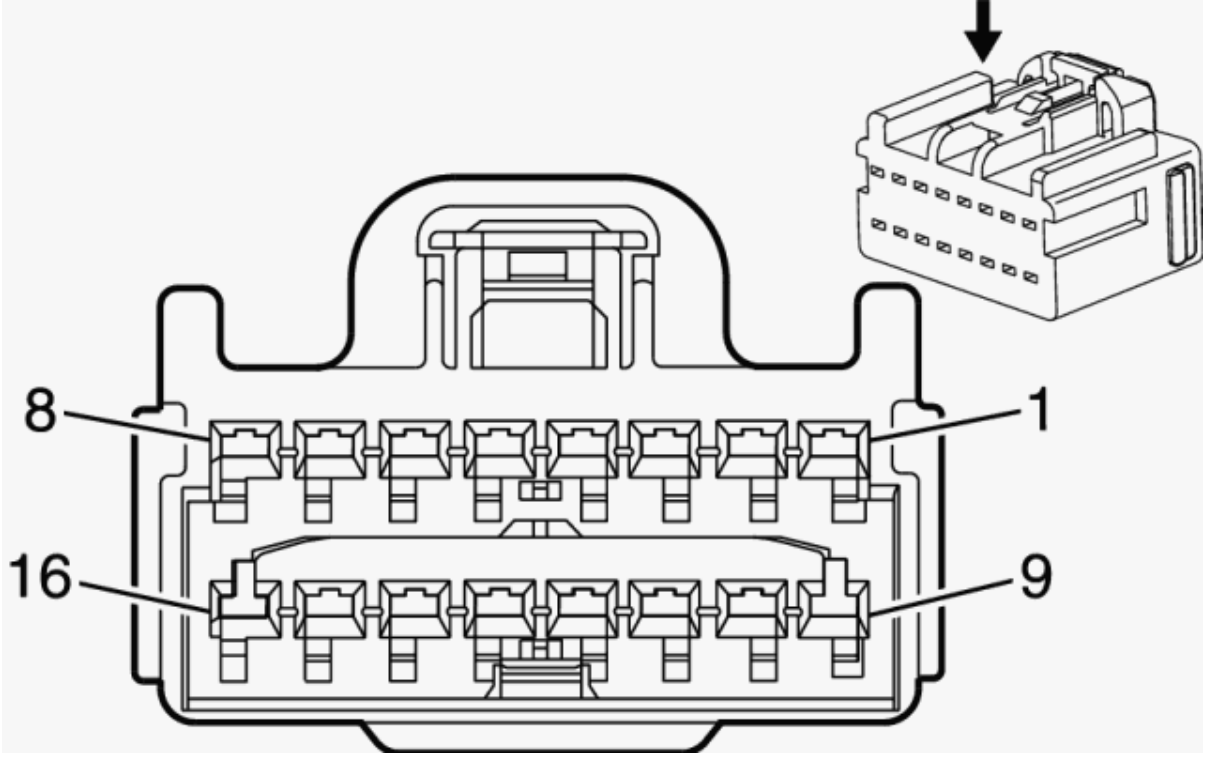
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.13<br>0.35 | GN/YE<br>GN/YE | 7066<br>7066 | Entertainment Remote Enable Signal<br>Entertainment Remote Enable Signal | II<br>II | NKC+UZ6+IO5/IO6<br>UZ6+NKC+IOB |
| 4 | 2<br>2 | RD/VT<br>RD/VT | 5340<br>5340 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>II | (UZ6+NKC+IOB)/(UQA+IO5/IO6)<br>UZ6+NKC-IOR |
| 5 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 2.5 | BK | 1750 | Ground | II | - |

## K108 ACTIVE NOISE CANCELLATION MODULE X2 (NKC+UZ6-IOR)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 89047090
- Service Connector: 89047090
- Description: 16-Way F 1.5 Kaizen Series (GN)

**Terminal Part Information**

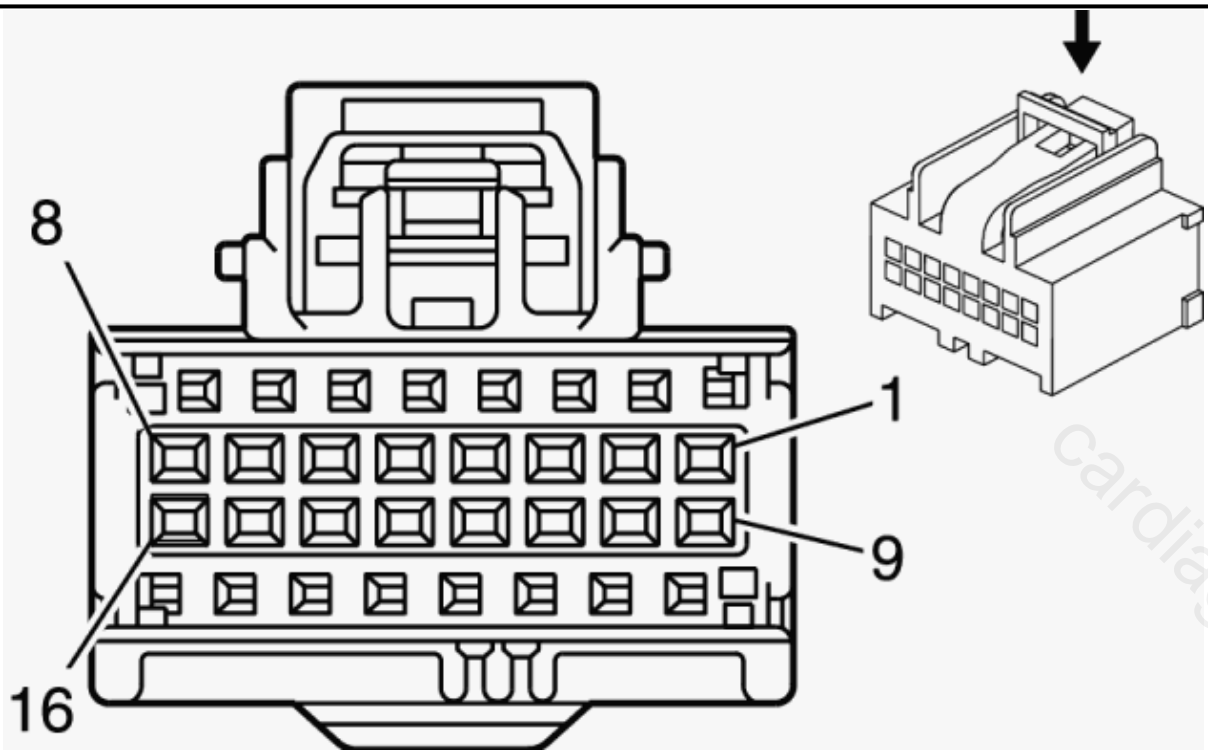
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575850 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | - |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | - |
| 3 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | - |
| 4 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | - |
| 5 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | I | NKC+UZ6-IOR |
| 6 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | NKC+UZ6-IOR |
| 7 | 0.75 | GN | 199 | Left Rear Speaker Control (+) | I | NKC+UZ6-IOR |
| 8 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | NKC+UZ6-IOR |
| 9 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | - |
| 10 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | - |
| 11 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | - |
| 13 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | NKC+UZ6-IOR |
| 14 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | NKC+UZ6-IOR |
| 15 | 0.75 | GN/BK | 116 | Left Rear Speaker Signal (-) | I | NKC+UZ6-IOR |
| 16 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | NKC+UZ6-IOR |

## K108 ACTIVE NOISE CANCELLATION MODULE X3 (NKC+UZ6-IOR)




Connector Part Information

- Harness Type: Body
- OEM Connector: 15136073
- Service Connector: 15136073
- Description: 16-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

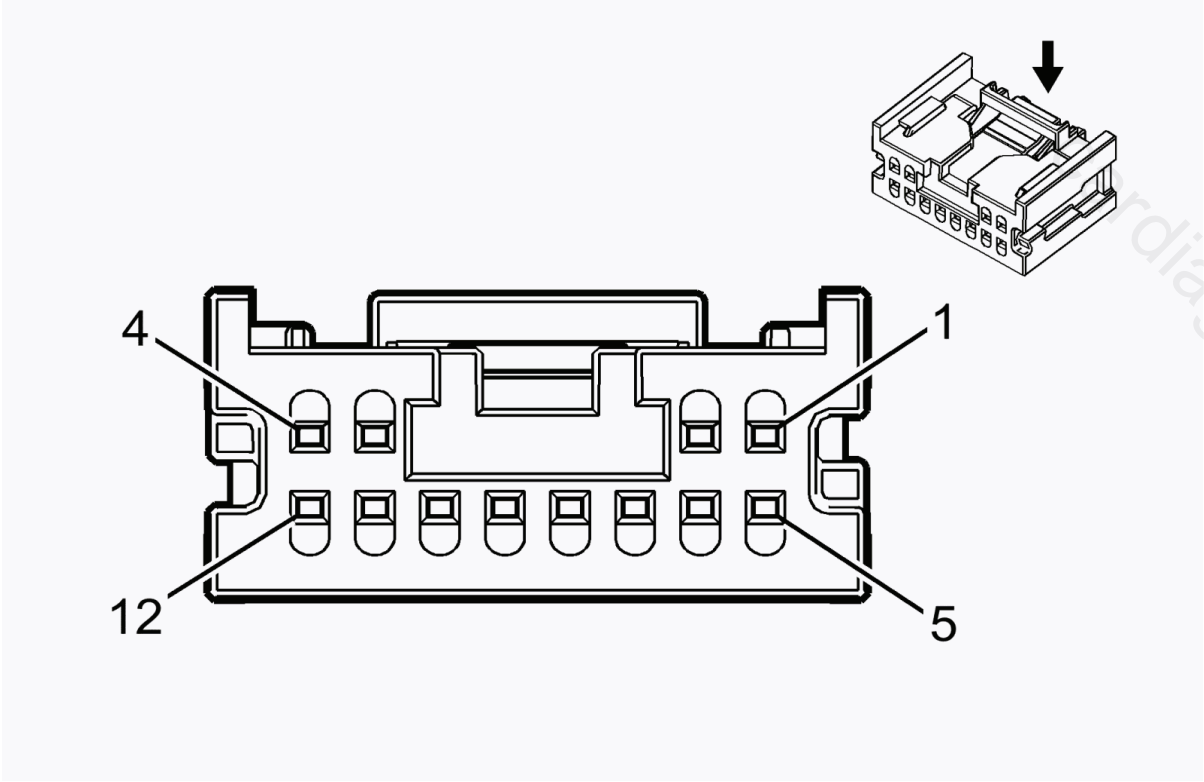
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GN/BN | 3005 | Noise Reduction Microphone 1 Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 0.35 | BU/YE | 3006 | Noise Reduction Microphone 2 Signal | I | - |
| 6 | 0.35 | GY/BU | 3007 | Noise Reduction Microphone 3 Signal | I | - |
| 7 | 0.35 | VT/BU | 1775 | Noise Reduction Microphone #4 Signal | I | - |
| 8 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | GN/BK | 3008 | Noise Reduction Microphone 1 Low Reference | I | - |
| 13 | 0.35 | BU/BK | 3009 | Noise Reduction Microphone 2 Low Reference | I | - |
| 14 | 0.35 | GY/BN | 3010 | Noise Reduction Microphone 3 Low Reference | I | - |
| 15 | 0.35 | WH/GN | 1776 | Noise Reduction Microphone #4 Return | I | - |
| 16 | - | - | - | Not Occupied | - | - |

## K109 FRONTVIEW CAMERA MODULE (UEU/UHX)




Connector Part Information

- Harness Type: Body
- OEM Connector: 34824-1124
- Service Connector: 13588265
- Description: 12-Way F Mini 50 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19333221 | EL-35616-58 (BK) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1550 | Ground | I | UEU/UHX |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | RD/GN | 2440 | Battery Positive Voltage | I | - |
| 4 | 0.35 | WH | 3152 | Lane Departure Warning Indicator Control | I | UEU/UHX |
| 5 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | UEU/UHX |
| 6 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | UEU/UHX |
| 7 - 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | UEU/UHX |
| 10 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | UEU/UHX |

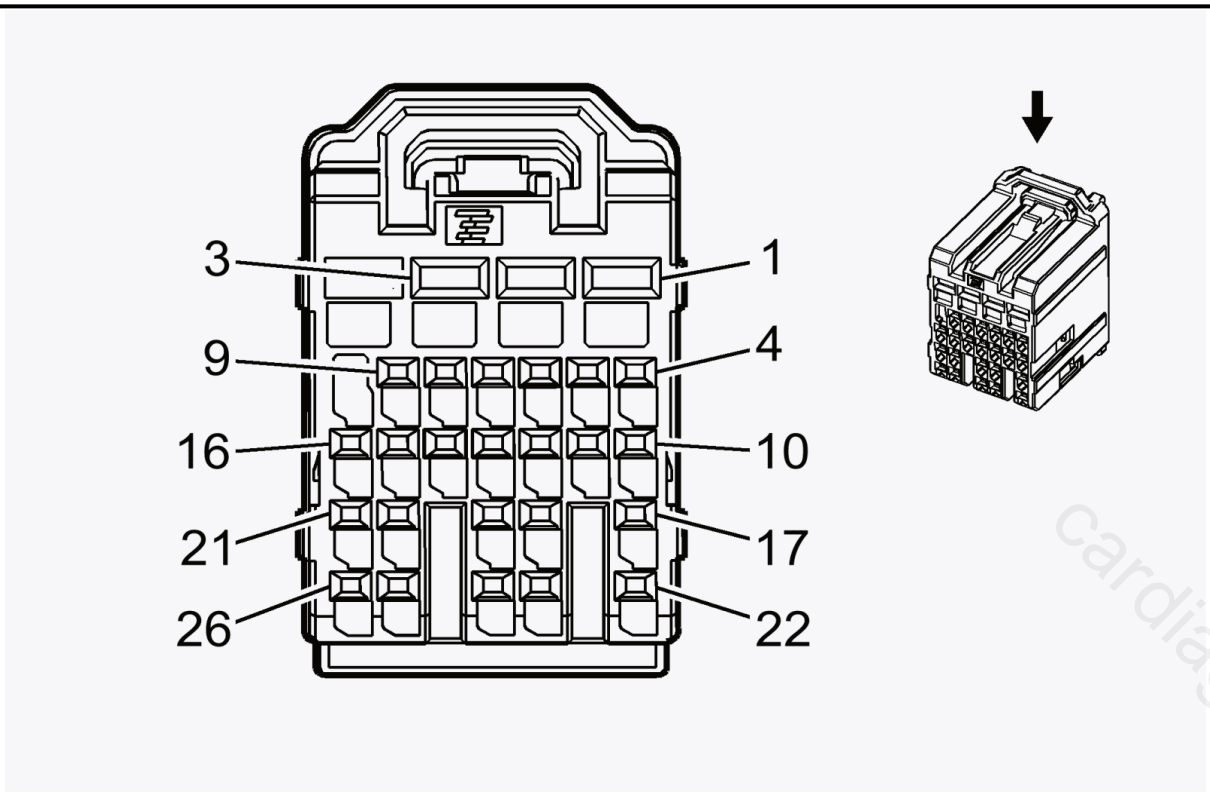
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# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Component Connector End Views (K9 - K29F) - Equinox & Terrain

## COMPONENT CONNECTOR END VIEWS

### K9 BODY CONTROL MODULE X7




Connector Part Information

- Harness Type: Body
- OEM Connector: 13576036
- Service Connector: 13576036
- Description: 26-Way F 0.64, 2.8 Series (GY)

**Terminal Part Information**

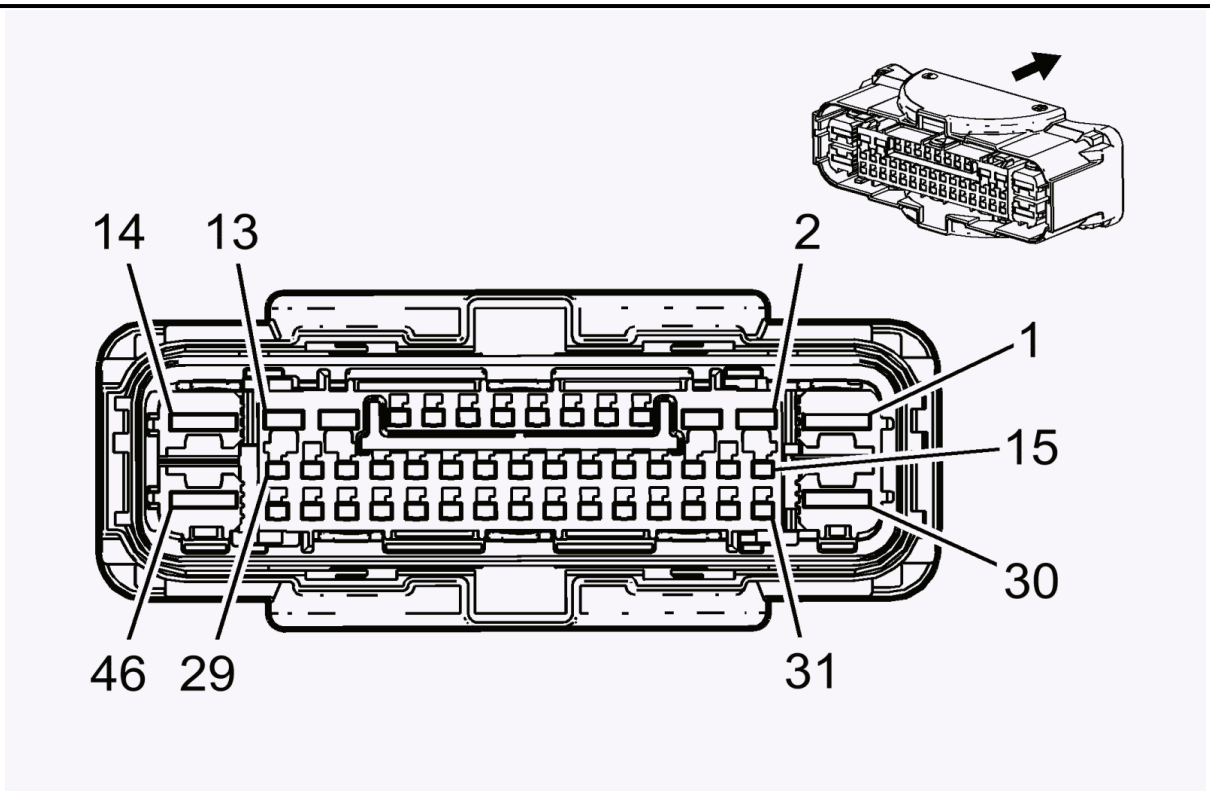
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| II | 19366999 | J-35616-35 (VT) | J-38125-553 | 8100-4443 | Sumitomo 22 | E | A |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY | 157 | Interior Lamp Control | II | - |
| 2 | 0.5 | GN/WH | 1324 | Backup Lamp Control | II | - |
| 3 | 0.5 | WH/BN | 6815 | Inadvertent Power Control | II | - |
| 4 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 0.35 | BU/WH | 1334 | Left Rear Turn Signal Lamp Control | I | - |
| 6 | 0.13 | VT/BK | 7553 | Park Lock Solenoid Control | I | - |
| 7 | 0.35 | GN/GY | 737 | Rear Compartment Lid Lamp Control | I | - |
| 8 | 0.35 | BU/VT | 1335 | Right Rear Turn Signal Lamp Control | I | - |
| 9 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 10 - 12 | - | - | - | Not Occupied | - | - |
| 13 | 0.13 | WH/VT | 5905 | Key Capture/Column Lock Shift Position Signal | I | - |
| 14 - 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.13 | VT/BU | 3263 | Logistic Mode Relay Open Control | I | -KL9 |
| 17 | 0.5 | WH/BU | 3691 | Trailer Brake Apply Signal | I | V92 |
| 18 | - | - | - | Not Occupied | - | - |
| 19 | 0.13 | GY | 156 | Courtesy Lamp Switch Signal | I | - |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | YE/VT | 244 | Passenger Door Lock Switch Lock Control | I | - |
| 22 | 0.35 | WH/YE | 7557 | LED Ambient Lighting Control 1 | I | - |
| 23 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 24 | 0.35 | BN/VT | 245 | Passenger Door Lock Switch Unlock Control | I | - |
| 25 - 26 | - | - | - | Not Occupied | - | - |

## K17 ELECTRONIC BRAKE CONTROL MODULE




Connector Part Information

- Harness Type: Body
- OEM Connector: 13582922

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- Service Connector: 19333357
- Description: 46-Way F 1.2, 2.8, 5.8 Series, Sealed (BK)

**Terminal Part Information**

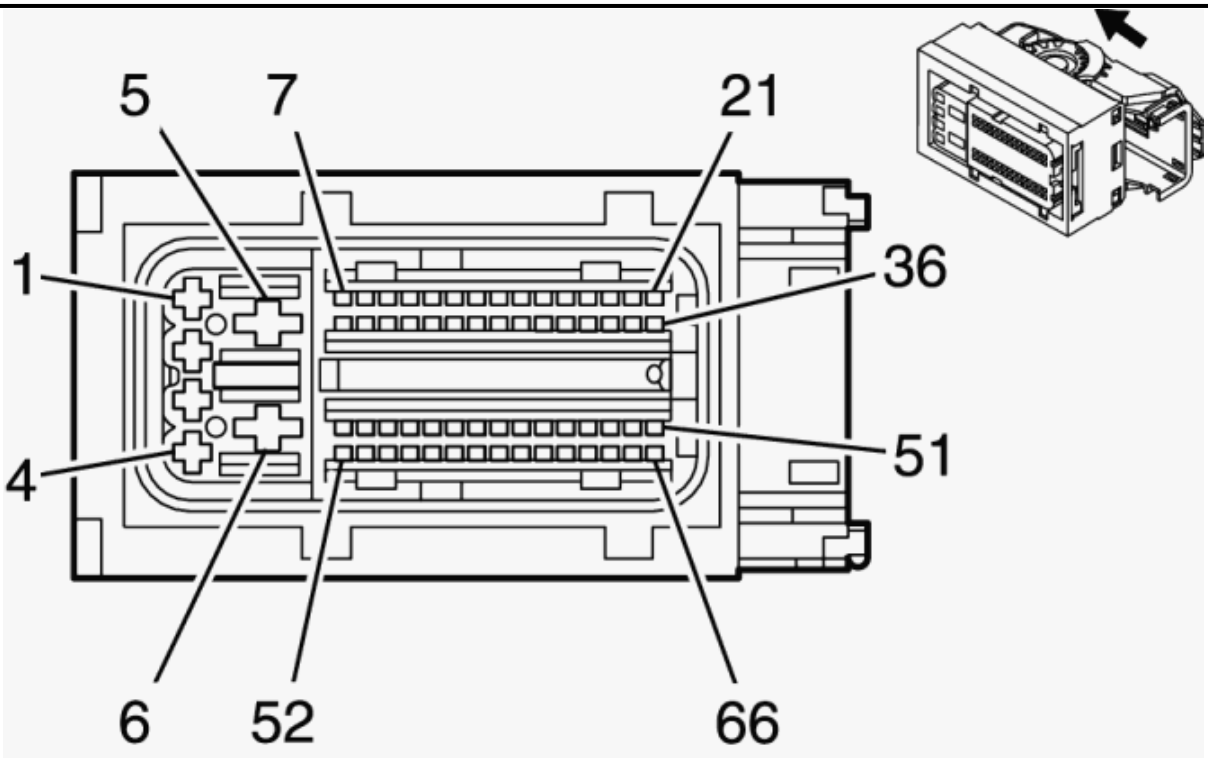
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300444 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19330700 | J-35616-35 (VT) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| III | 19369189 | J-35616-40 (BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 4 | RD/VT | 340 | Battery Positive Voltage | III | - |
| 2 | 2.5 | GN/VT | 1988 | Park Brake Motor Apply Right Rear Control | II | - |
| 3 | 2.5 | GY | 4368 | Park Brake Motor Low Reference Right Rear | II | - |
| 4 | 0.35 | YE | 872 | Wheel Speed Sensor Signal Right Front | I | - |
| 5 | 0.35 | GY/BN | 7065 | Wheel Speed Sensor Control Right Front | I | - |
| 6 | 0.35 | BU | 884 | Wheel Speed Sensor Signal Left Rear | I | - |
| 7 | 0.35 | GY/BK | 7127 | Wheel Speed Sensor Control Left Rear | I | - |
| 8 | 0.35 | GY | 830 | Wheel Speed Sensor Signal Left Front | I | - |
| 9 | 0.35 | GY/WH | 7064 | Wheel Speed Sensor Control Left Front | I | - |
| 10 | 0.35 | VT | 882 | Wheel Speed Sensor Signal Right Rear | I | - |
| 11 | 0.35 | GY/YE | 7128 | Wheel Speed Sensor Control Right Rear | I | - |
| 12 | 2.5 | GY/BK | 4369 | Park Brake Motor Low Reference Left Rear | II | - |
| 13 | 2.5 | WH | 2001 | Park Brake Motor Apply Left Rear Control | II | - |
| 14 | 4 | BK | 1450 | Ground | III | - |
| 15 - 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.35 | YE | 1492 | Park Brake Switch Supply Voltage | I | - |
| 18 | 0.35 | GY/RD | 7684 | Park Brake Apply Switch Voltage Reference | I | - |
| 19 | 0.35 | BU/VT | 1134 | Park Brake Switch Signal | I | - |
| 20 | 0.35 | GN/GY | 333 | Brake Fluid Level Sensor Signal | I | - |
| 21 - 22 | - | - | - | Not Occupied | - | - |
| 23 | 0.35 | BU/BK | 6108 | Park Brake Release Switch Signal | I | - |
| 24 | 0.35 | BN | 6107 | Park Brake Apply Switch Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 25 | 0.35 | YE/RD | 7683 | Park Brake Release Switch Voltage Reference | I | - |
| 26 - 31 | - | - | - | Not Occupied | - | - |
| 32 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 33 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |
| 34 | - | - | - | Not Occupied | - | - |
| 35 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | - |
| 36 - 37 | - | - | - | Not Occupied | - | - |
| 38 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | I | - |
| 39 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | I | - |
| 40 | 0.35 | BK/YE | 6032 | Brake Vacuum Sensor Low Reference | I | - |
| 41 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 42 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 43 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 44 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 45 - 46 | - | - | - | Not Occupied | - | - |

## K20 ENGINE CONTROL MODULE X1 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 19181736
- Service Connector: 19332707
- Description: 66-Way F 0.64, 2.8, 6.3 Series, Sealed (BK)

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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579752 | J-35616-4A (PU) | J-38125-36 | 4-964286-1 | Lear 16 | E | 1 |
| II | 13579752 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| III | 13584448 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | H | H |
| IV | 13584530 | J-35616-4A (PU) | J-38125-36 | 4-964273-1 | Yazaki 15 | C | 5 |
| V | 19369848 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | H | H |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | VT/BU | 5290 | Powertrain Main Relay Fused Supply 1 | IV | LH7 |
| 2 | 0.5 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | LH7 |
| 3 | 1 | VT/BU | 5292 | Powertrain Main Relay Fused Supply 3 | I | LH7 |
| 4 | 1 | RD/WH | 140 | Battery Positive Voltage | I | LH7 |
| 5 | 6 | BN/BU | 104 | Glow Plug Control | V | LH7 |
| 6 | 6 | BK/WH | 451 | Signal Ground | V | LH7 |
| 7 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | IV | LH7 |
| 8 | 0.5 | GY | 8000 | Blunt Cut | III | LH7 |
| 9 | 0.5 | GY | 8001 | Blunt Cut | IV | LH7 |
| 10 | 0.35 | YE | 5530 | Hood Open Switch Signal | III | KL9+LH7 |
| 11 | 0.5 | GY | 8002 | Blunt Cut | IV | LH7 |
| 12 | 0.5 | GY | 8003 | Blunt Cut | IV | LH7 |
| 13 | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | IV | LH7 |
| 14 | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | III | LH7 |
| 15 | 0.35 | GN/WH | 1162 | Accelerator Pedal Position Signal 2 | IV | LH7 |
| 16 | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | IV | LH7 |
| 17 | 0.35 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | IV | LH7 |
| 18 | 0.35 | BN/WH | 419 | Check Engine Indicator Control | III | LH7 |
| 19 | 0.35 | GN/BN | 507 | Wait To Start Indicator Control | III | LH7 |
| 20 | 0.5 | GY | 8004 | Blunt Cut | IV | LH7 |
| 21 | 0.5 | YE | 2928 | Fuel Metering Valve High Control | IV | LH7 |
| 22 | 0.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | IV | LH7 |
| 23 | 0.35 | WH/BU | 6311 | Cruise/ETC/TCC Brake Signal | IV | LH7 |

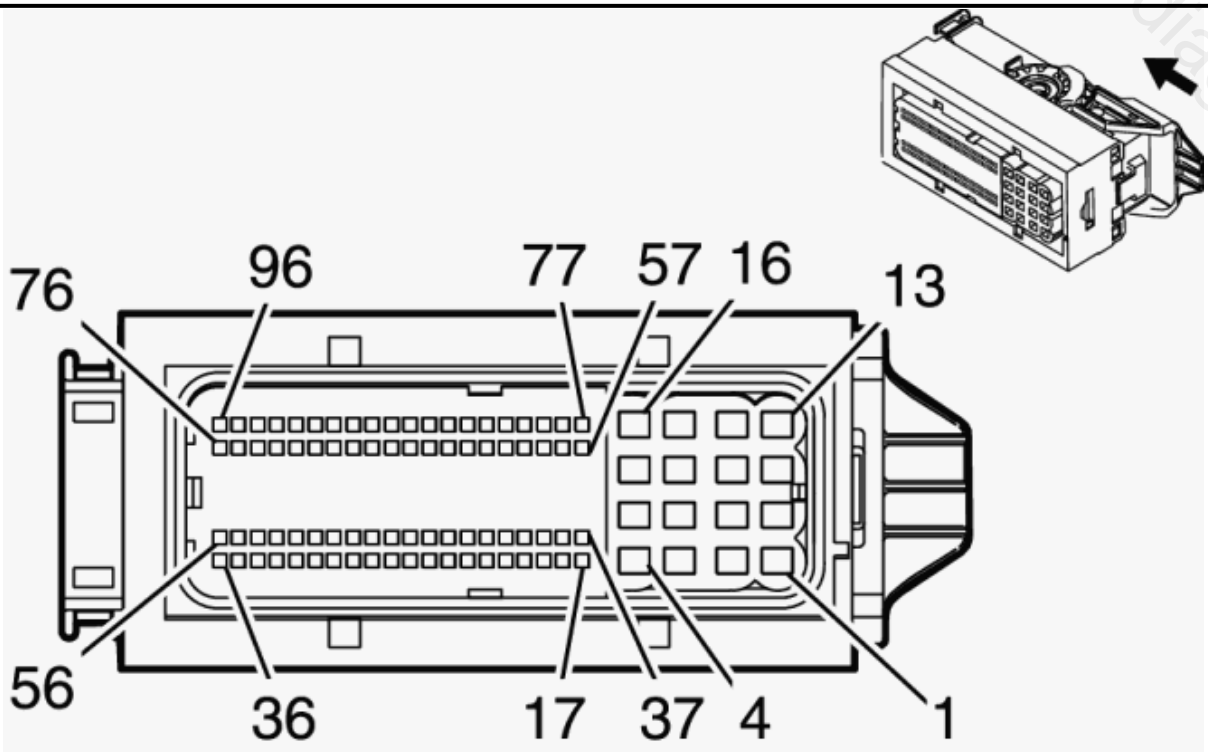
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 24 | 0.5 | WH/GY | 1786 | Transmission Park/Neutral Signal 1 | III | - |
| 25 | 0.5 | GN/WH | 492 | Mass Air Flow Sensor Signal | III | - |
| 26 | 0.5 | GY | 8005 | Blunt Cut | IV | LH7 |
| 27 | 0.35 | BK/BU | 1271 | Accelerator Pedal Position Low Reference 1 | IV | LH7 |
| 28 | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | IV | LH7 |
| 29 | 0.5 | GY | 8006 | Blunt Cut | IV | LH7 |
| 30 | 0.5 | GY | 8007 | Blunt Cut | III | LH7 |
| 31 | 0.5 | GY | 8008 | Blunt Cut | IV | LH7 |
| 32 | 0.5 | GY | 8009 | Blunt Cut | IV | LH7 |
| 33 | 0.35 | WH/GY | 459 | A/C Compressor Clutch Relay Control | IV | LH7 |
| 34 | 0.5 | GY | 8010 | Blunt Cut | IV | LH7 |
| 35 | 0.5 | GY | 2022 | Coolant Pump Control | IV | LH7 |
| 36 | 0.5 | BN/BK | 2929 | Fuel Metering Valve Low Control | III | - |
| 37 | 0.5<br>0.5 | WH<br>GY | 7494<br>7494 | High Speed GMLAN Serial Data (-) 3<br>High Speed GMLAN Serial Data (-) 3 | IV<br>III | EPH+LH7<br>-KL9 |
| 38 | 0.5 | GY | 8011 | Blunt Cut | III | LH7 |
| 39 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | IV | LH7+NDE |
| 40 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | III | - |
| 41 | 0.5 | GY | 8012 | Blunt Cut | IV | LH7 |
| 42 | 0.5 | GY | 8013 | Blunt Cut | IV | LH7 |
| 43 | 0.35 | BK/YE | 5382 | Brake Position Sensor Low Reference | III | LH7 |
| 44 | 0.35 | WH/RD | 5381 | Brake Position Sensor 5V Reference | IV | LH7 |
| 45 | 0.5 | WH/BU | 6289 | Induction Air Temperature Sensor Signal | IV | LH7 |
| 46 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | III | LH7 |
| 47 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | IV | LH7 |
| 48 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | IV | LH7 |
| 49 | 0.35 | GY/BK | 3865 | Heater Loop Auxiliary Pump Relay Control | III | LH7 |
| 50 | 0.35 | GN/GY | 465 | Fuel Pump Primary Relay Control | IV | LH7 |
| 51 | 0.35 | YE | 5991 | Powertrain Relay Coil Control | III | LH7 |
| 52 | 0.5<br>0.5<br>0.5 | BU/BK<br>GY<br>BU/BK | 7493<br>7493<br>7493 | High Speed GMLAN Serial Data (+) 3<br>High Speed GMLAN Serial Data (+) 3<br>High Speed GMLAN Serial Data (+) 3 | IV<br>III<br>III | EPH+LH7<br>-KL9<br>KL9+LVL/LH7/LWW-EPH |
| 53 | 0.5 | GY | 8014 | Blunt Cut | III | LH7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 54 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | III | LH7+NDE |
| 55 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | III | - |
| 56 | 0.5 | GY | 8015 | Blunt Cut | IV | LH7 |
| 57 | 0.5 | GY | 8016 | Blunt Cut | IV | LH7 |
| 58 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | IV | KL9/VTI/EPH+LH7 |
| 59 | 0.35 | WH/GN | 5380 | Brake Position Sensor Signal | IV | LH7 |
| 60 | 0.5 | BK/VT | 2760 | Intake Air Temperature Sensor Low Reference | III | - |
| 61 | 0.5 | GY | 8017 | Blunt Cut | IV | LH7 |
| 62 | 0.5 | GY | 8018 | Blunt Cut | IV | LH7 |
| 63 | 0.5 | GY | 8019 | Blunt Cut | IV | LH7 |
| 64 | 0.5 | WH/GY | 4578 | Surge Accumulator Solenoid Low Side Control | IV | KL9+LH7 |
| 65 | 0.5 | GY | 8020 | Blunt Cut | III | LH7 |
| 66 | 0.35 | YE/BK | 625 | Starter Enable Relay Control | IV | KL9+LH7 |

## K20 ENGINE CONTROL MODULE X2 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 12672831
- Service Connector: 19354404
- Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579752 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| II | 13584448 | J-35616-64B (LT BU) | J-38125-12A | 1719532-5 | Lear 7 | H | H |
| III | 13584530 | J-35616-4A (PU) | J-38125-36 | 4-964273-1 | Yazaki 15 | C | 5 |
| IV | 13584530 | J-35616-4A (PU) | J-38125-36 | 4-964273-1 | Yazaki 15 | E | 1 |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | IV | LH7 |
| 2 | 1.5 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | IV | LH7 |
| 3 | 1.5 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | IV | LH7 |
| 4 | 1.5 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | IV | LH7 |
| 5 | 1.5 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | IV | LH7 |
| 6 | 1.5 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | IV | LH7 |
| 7 | 1.5 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | IV | LH7 |
| 8 | 1.5 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | IV | LH7 |
| 9 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | GN | 3919 | Piston Cooling Oil Pressure Signal | I | LH7 |
| 13 | 2.5 | GY/BN | 1582 | Glow Plug Control 2 | III | LH7 |
| 14 | 2.5 | GY/YE | 1584 | Glow Plug Control 4 | III | LH7 |
| 15 | 2.5 | GY/GN | 1583 | Glow Plug Control 3 | III | LH7 |
| 16 | 2.5 | GY/BU | 1581 | Glow Plug Control 1 | III | LH7 |
| 17 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | II | LH7 |
| 18 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | II | - |
| 19 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | II | LH7 |
| 20 | 0.5 | GY | 9000 | Blunt Cut | II | LH7 |
| 21 | 0.5 | GY | 9001 | Blunt Cut | II | LH7 |
| 22 | 0.5 | GY | 9002 | Blunt Cut | II | LH7 |
| 23 | 0.5 | GY/RD | 5928 | Variable Nozzle Turbo Position Sensor 5V Reference | II | LH7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 24 | 0.5 | VT/YE | 5947 | Variable Nozzle Turbo Position Sensor Signal | II | - |
| 25 | 0.5 | BK/BN | 5929 | Variable Nozzle Turbo Position Sensor Low Reference | II | LH7 |
| 26 | 0.5 | BN | 7348 | Induction Air Temperature Sensor 2 Signal | II | - |
| 27 | 0.5 | GY | 9003 | Blunt Cut | II | LH7 |
| 28 | 0.5 | GN/VT | 2032 | Coolant Temperature Sensor Signal | II | LH7 |
| 29 | 0.5 | GY | 9004 | Blunt Cut | II | LH7 |
| 30 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | II | LH7 |
| 31 | 0.5 | BN | 3681 | Charge Air Cooler Outlet Temperature Sensor Signal | II | - |
| 32 | 0.5 | GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | II | - |
| 33 | 0.5 | GY | 37 | Engine Metal Temperature Sensor Signal | II | LH7 |
| 34 | 0.5 | BN | 25 | Charge Indicator Control | II | - |
| 35 | 0.5 | WH/BK | 5931 | Variable Nozzle Turbo Solenoid Low Signal | II | LH7 |
| 36 | 0.5 | GY/BU | 5930 | Variable Nozzle Turbo Solenoid High Signal | II | LH7 |
| 37 | 0.5 | GY | 9005 | Blunt Cut | II | LH7 |
| 38 | 0.5 | BN/YE | 2161 | Fuel Rail Pressure Sensor 2 Signal | II | - |
| 39 | 0.5 | GY | 9006 | Blunt Cut | II | LH7 |
| 40 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | II | LH7 |
| 41 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | II | LH7 |
| 42 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | II | LH7 |
| 43 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | II | - |
| 44 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | II | LH7 |
| 45 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | II | - |
| 46 | 0.5 | GY | 9007 | Blunt Cut | II | LH7 |
| 47 | 0.5 | GY | 9008 | Blunt Cut | II | LH7 |
| 48 | 0.5 | BK/BU | 6813 | Coolant Temperature Sensor 2 Low Reference | II | - |
| 49 | 0.5 | GY | 9009 | Blunt Cut | II | LH7 |
| 50 | 0.5 | BK/BN | 2761 | Coolant Temperature Sensor Low Reference | II | - |
| 51 | 0.5 | YE/BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | II | LH7 |
| 52 | 0.5 | YE/BK | 3682 | Charge Air Cooler Inlet Temperature Sensor Low Reference | II | LH7 |
| 53 | 0.5 | GY | 3721 | Engine Metal Temperature Low Reference | II | LH7 |

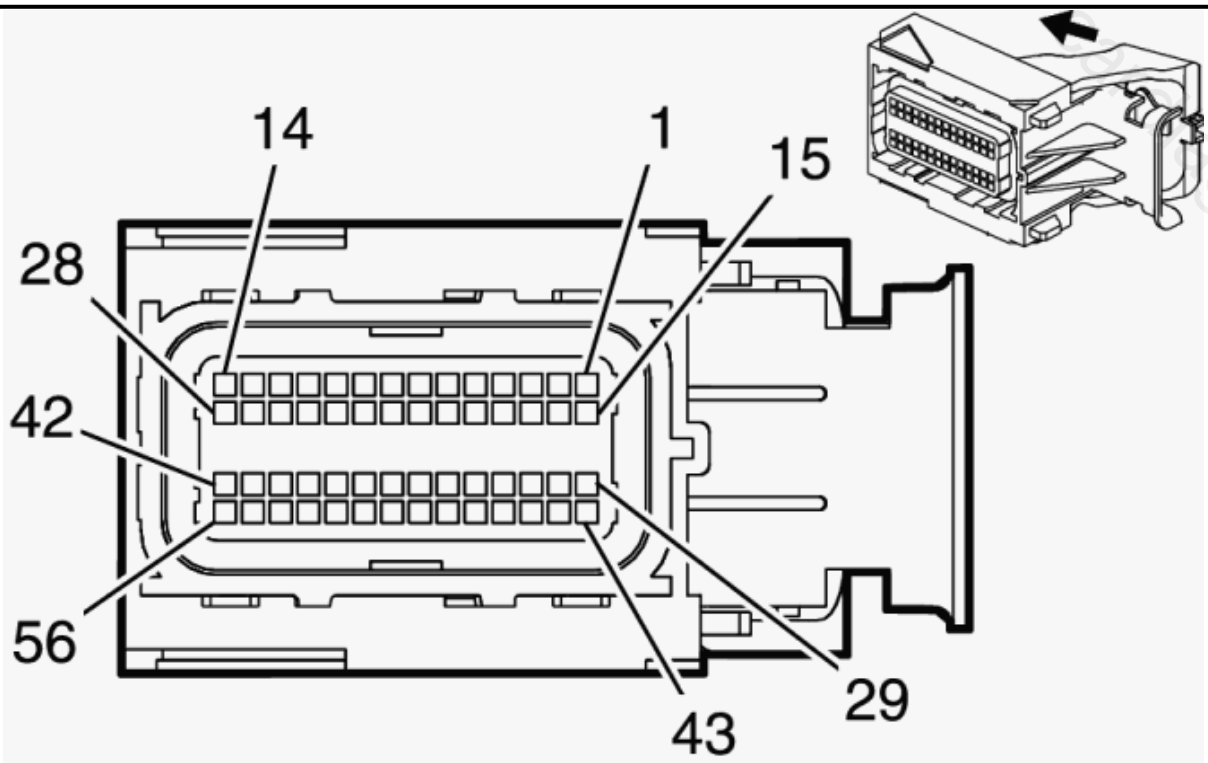
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 54 | 0.5 | GN/GY | 7316 | Variable Swirl Valve PWM Control Signal | II | LH7 |
| 55 | 0.5 | GY | 9010 | Blunt Cut | II | LH7 |
| 56 | 0.5 | GY | 9011 | Blunt Cut | II | LH7 |
| 57 | 0.5 | BK/BN | 2753 | Exhaust Gas Recirculation Sensor Low Reference | II | - |
| 58 | 0.5 | BN/WH | 5763 | Exhaust Gas Recirculation Valve Sensor Signal | II | - |
| 59 | 0.5 | BU/RD | 5047 | Exhaust Gas Recirculation 5V Reference 1 | II | LH7 |
| 60 | 0.5 | GY | 9012 | Blunt Cut | II | LH7 |
| 61 | 0.5 | GY | 9013 | Blunt Cut | II | LH7 |
| 62 | 0.5 | GY | 9014 | Blunt Cut | II | LH7 |
| 63 | 0.5 | GY | 9015 | Blunt Cut | II | LH7 |
| 64 | 0.5 | GY | 9016 | Blunt Cut | II | LH7 |
| 65 | 0.5 | GY | 9017 | Blunt Cut | II | LH7 |
| 66 | 0.5 | GY/VT | 7368 | Variable Swirl and Actuator Position Signal | II | LH7 |
| 67 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | II | - |
| 68 | 0.5 | GY | 9018 | Blunt Cut | II | LH7 |
| 69 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | II | LH7 |
| 70 | 0.5 | VT/BK | 5746 | Exhaust Gas Recirculation Valve Motor Low Signal | II | - |
| 71 | 0.5 | WH/VT | 5764 | Exhaust Gas Recirculation Valve Motor High Signal | II | LH7 |
| 72 | 0.5 | GY | 9019 | Blunt Cut | II | LH7 |
| 73 | 0.5 | GY | 9020 | Blunt Cut | II | LH7 |
| 74 | 0.5 | BU/WH | 3608 | High Speed Mass Air Flow Sensor Control | II | - |
| 75 | 0.5 | BU | 179 | Oil Pump Command Signal | II | LH7 |
| 76 | 0.5 | BK/YE | 2834 | Fuel Rail Pressure Solenoid Low Reference | II | LH7 |
| 77 | 0.5 | GY | 9021 | Blunt Cut | II | LH7 |
| 78 | 0.5 | GY | 9022 | Blunt Cut | II | LH7 |
| 79 | 0.5 | GY | 9023 | Blunt Cut | II | LH7 |
| 80 | 0.5 | BK/GN | 469 | Manifold Absolute Pressure Sensor Low Reference | II | LH7 |
| 81 | 0.5 | GN/WH | 432 | Manifold Absolute Pressure Sensor Signal | II | LH7 |
| 82 | 0.5 | GY/RD | 2704 | Manifold Absolute Pressure Sensor 5V Reference | II | - |
| 83 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | II | LH7 |
| 84 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | II | LH7 |
| 85 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | II | - |
| 86 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | II | - |
| 87 | 0.5 | GY | 3045 | Variable Swirl Actuator Diagnostic Signal | II | LH7 |
| 88 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | II | LH7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 89 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | II | - |
| 90 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | II | - |
| 91 | 0.5 | YE | 581 | Throttle Actuator Control Open | II | LH7 |
| 92 | 0.35<br>0.5 | YE/VT<br>GY | 4325<br>4325 | Starter Pinion Solenoid Relay Control<br>Starter Pinion Solenoid Relay Control | II<br>II | KL9+LH7<br>LWW-KL9 |
| 93 | 0.75 | GN/VT | 3920 | Piston Cooling Jet Valve Control | II | LH7 |
| 94 | 0.5 | YE/BU | 3231 | Exhaust Gas Recirculation Cooler Bypass Solenoid Control | II | LH7 |
| 95 | 0.5 | GY/BU | 3230 | Exhaust Gas Recirculation Cooler Bypass Solenoid Control | II | - |
| 96 | 0.5 | BU/WH | 2530 | Fuel Rail Pressure Solenoid Control | II | LH7 |

## K20 ENGINE CONTROL MODULE X3 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582680
- Service Connector: 88988373
- Description: 56-Way F MX123 34576 Series (BU with BU Terminal Position Assurance)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

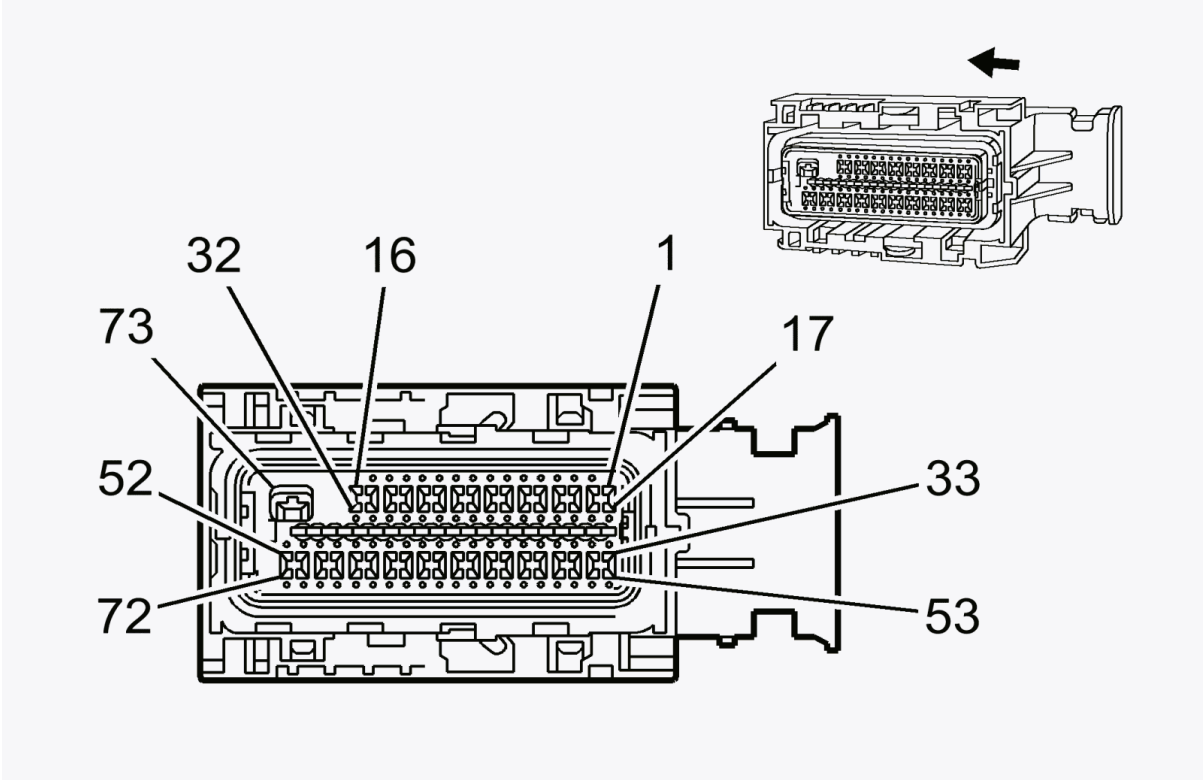
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575812 | J-35616-64B (LT BU) | J-38125-213 | 33467-0003 | Delphi 23 | H | H |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/WH | 3100 | DEF Dosing Valve Low Control | II | - |
| 2 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | YE/WH | 3200 | Throttle Inlet Absolute Pressure Sensor Signal | II | LH7 |
| 7 | 0.5 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | II | LH7 |
| 8 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | I | LH7 |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.5 | BK/BU | 6274 | Exhaust Gas Recirculation Temperature Sensor Low Reference | II | LH7 |
| 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | BK/GN | 3657 | Exhaust Gas Temperature Sensor 3 Low Reference | II | - |
| 13 | 0.5 | BK/BU | 6783 | Exhaust Gas Temperature Sensor 2 Low Reference | II | LH7 |
| 14 | 0.5 | BU/WH | 5277 | Exhaust Gas Temperature Sensor 1 | II | LH7 |
| 15 | 0.5 | BN | 3099 | DEF Dosing Valve High Control | II | - |
| 16 - 18 | - | - | - | Not Occupied | - | - |
| 19 | 0.5 | BK/YE | 6275 | Exhaust Gas Recirculation Temperature Sensor 2 Low Reference | II | LH7 |
| 20 | 0.5 | YE/GN | 3236 | Exhaust Gas Recirculation Temperature Sensor 2 Signal | II | LH7 |
| 21 | - | - | - | Not Occupied | - | - |
| 22 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | I | LH7 |
| 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.5 | WH/BN | 3237 | Exhaust Gas Recirculation Temperature Sensor Signal | II | LH7 |
| 25 | - | - | - | Not Occupied | - | - |
| 26 | 0.5 | GY/GN | 5378 | Exhaust Gas Temperature Sensor 3 | II | LH7 |
| 27 | 0.5 | BK/BN | 6782 | Exhaust Gas Temperature Sensor 1 Low Reference | II | LH7 |
| 28 | 0.5 | BU/GN | 5377 | Exhaust Gas Temperature Sensor 2 | II | LH7 |
| 29 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 30 | 0.5 | YE/BU | 1497 | Crankcase Ventilation (Blowby) Heater Control Signal | II | LH7 |
| 31 | - | - | - | Not Occupied | - | - |
| 32 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | II | LH7 |
| 33 | 0.35 | BK/YE | 6032 | Brake Vacuum Sensor Low Reference | I | KL9+LH7 |
| 34 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | I | KL9+LH7 |
| 35 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | I | KL9+LH7 |
| 36 | 0.35 | GY | 4109 | Driver Mode Switch 5V Reference | I | F48/EPH+LH7 |
| 37 | 0.35 | WH/VT | 4108 | Driver Mode Switch Signal | I | F48/EPH+LH7 |
| 38 - 42 | - | - | - | Not Occupied | - | - |
| 43 | 0.35 | GN/BU | 3889 | DEF Power Module Relay Control | I | LH7+NDE |
| 44 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | I | NKC+LH7 |
| 45 | 0.35 | BU | 3017 | Fuel Heater Relay Control 1 | I | LH7 |
| 46 - 49 | - | - | - | Not Occupied | - | - |
| 50 | 0.5 | WH/RD | 6054 | Exhaust Pressure Sensor 5V Reference 1 | II | LH7 |
| 51 | 0.5 | BU | 6053 | Exhaust Pressure Sensor Signal 1 | II | LH7 |
| 52 | 0.5 | BK/YE | 6055 | Exhaust Pressure Sensor Low Reference 1 | II | LH7 |
| 53 - 56 | - | - | - | Not Occupied | - | - |

## K20 ENGINE CONTROL MODULE X1 (LTG)




Connector Part Information

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- Harness Type: Engine
- OEM Connector: 12615654
- Service Connector: 13574782
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-213 | Not Available | Not Available | Not Available | Not Available |
| III | 19331615 | J-35616-64B (LT BU) | J-38125-213 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | III | EPH+LTG/LYX |
| 6 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | II | EPH+LTG/LYX |
| 7 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | II | - |
| 8 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | II | - |
| 9 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | LTG+M3H/M3D |
| 10 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | LTG+M3H/M3D |
| 11 | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | II | LTG |
| 12 | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | II | LTG |
| 13 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | II | LTG |
| 14 | 0.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | II | LTG |
| 15 | 0.5 | RD/WH | 140 | Battery Positive Voltage | II | LTG |
| 16 | 0.5 | VT/BU | 5292 | Powertrain Main Relay Fused Supply 3 | II | LTG |
| 17 | 0.35 | YE | 5530 | Hood Open Switch Signal | II | KL9+LTG |
| 18 | 0.5 | GY/RD | 3053 | Turbo Intake Pressure Sensor High Reference Bank 1 | II | LTG |
| 19 - 22 | - | - | - | Not Occupied | - | - |
| 23 | 0.5 | BK/GY | 3927 | IMS Mode Switch Low Reference | II | LTG+M3D |
| 24 | - | - | - | Not Occupied | - | - |
| 25 | 0.35 | BK/YE | 5382 | Brake Position Sensor Low Reference | II | LTG |
| 26 | - | - | - | Not Occupied | - | - |

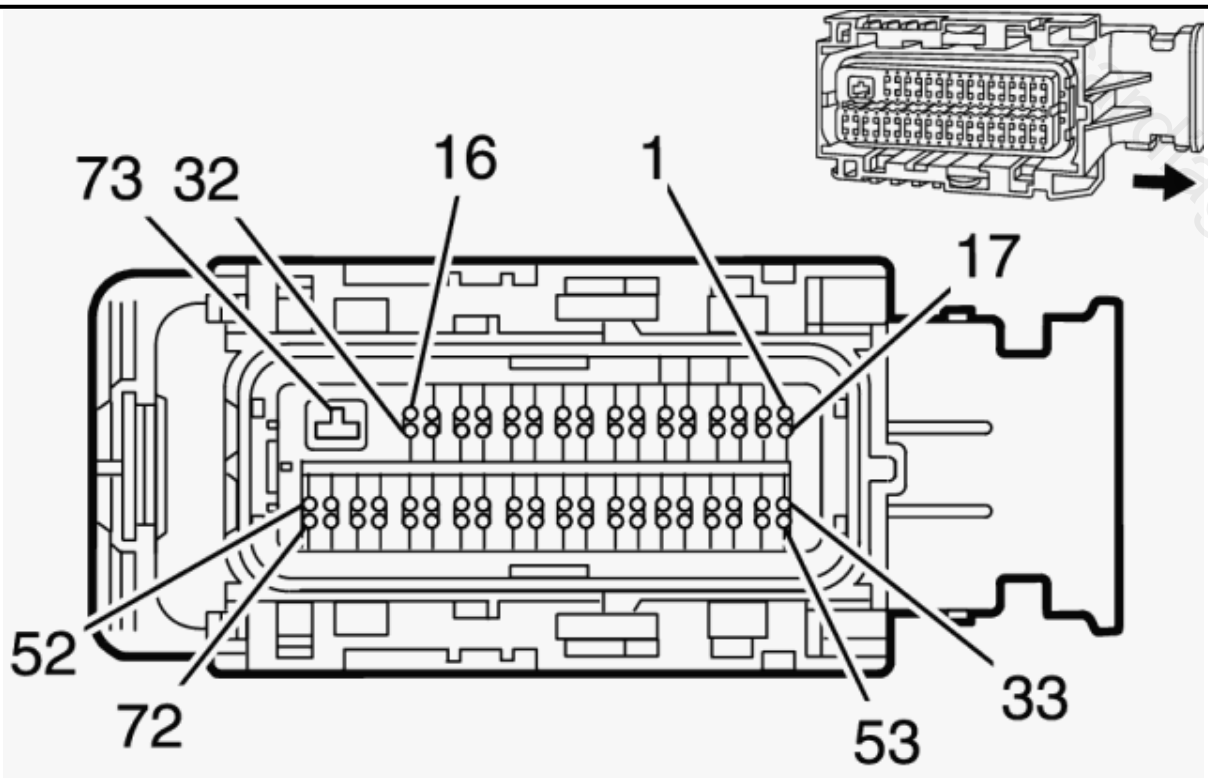
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 27 | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | II | LTG |
| 28 | 0.35 | BK/BU | 1271 | Accelerator Pedal Position Low Reference 1 | II | LTG |
| 29 - 31 | - | - | - | Not Occupied | - | - |
| 32 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | II | KL9+LTG |
| 33 | 0.35 | GN/WH | 1162 | Accelerator Pedal Position Signal 2 | II | LTG |
| 34 | 0.5 | GN/WH | 492 | Mass Air Flow Sensor Signal | II | LTG |
| 35 - 36 | - | - | - | Not Occupied | - | - |
| 37 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | II | LTG |
| 38 | 0.35 | GY | 4109 | Driver Mode Switch 5V Reference | II | LTG+F48/EPH |
| 39 | 0.5 | YE/BU | 4171 | 5V Reference | II | LTG+M3D |
| 40 | - | - | - | Not Occupied | - | - |
| 41 | 0.35 | WH/RD | 5381 | Brake Position Sensor 5V Reference | II | - |
| 42 - 43 | - | - | - | Not Occupied | - | - |
| 44 | 0.35 | YE/BK | 625 | Starter Enable Relay Control | II | KL9+LTG |
| 45 | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | II | LTG |
| 46 | - | - | - | Not Occupied | - | - |
| 47 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | II | LTG |
| 48 | 0.5 | WH/BU | 6289 | Induction Air Temperature Sensor Signal | II | LTG |
| 49 | - | - | - | Not Occupied | - | - |
| 50 | 0.35 | WH/BU | 6311 | Cruise/ETC/TCC Brake Signal | II | LTG |
| 51 | 0.5 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | LTG |
| 52 | 0.35 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | II | LTG |
| 53 | - | - | - | Not Occupied | - | - |
| 54 | 0.35 | WH/GY | 459 | A/C Compressor Clutch Relay Control | II | LTG |
| 55 - 56 | - | - | - | Not Occupied | - | - |
| 57 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | II | LTG |
| 58 | 0.35 | WH/VT | 4108 | Driver Mode Switch Signal | II | LTG+F48/EPH |
| 59 | 0.5 | WH/BU | 5726 | Ignition Mode Switch Mode Control Backup | II | LTG+M3D |
| 60 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | II | LTG |
| 61 | 0.35 | WH/GN | 5380 | Brake Position Sensor Signal | II | LTG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 62 - 63 | - | - | - | Not Occupied | - | - |
| 64 | 0.35 | GY | 5660 | Fuel Pump Controller Data Out Signal | II | LTG |
| 65 | 0.35 | WH | 1310 | EVAP Canister Vent Solenoid Control | II | LTG+NTB/NUB |
| 66 | 0.35 | GY | 5127 | After Boil Heater Relay Control | II | LTG+MAH/MBC/MCX |
| 67 | 0.35 | YE | 5991 | Powertrain Relay Coil Control | II | LTG |
| 68 - 69 | - | - | - | Not Occupied | - | - |
| 70 | 0.35 | YE/VT | 4325 | Starter Pinion Solenoid Relay Control | II | KL9+LTG |
| 71 | 0.35 | BN/WH | 419 | Check Engine Indicator Control | II | LTG+NTB/NUB |
| 72 | - | - | - | Not Occupied | - | - |
| 73 | 2 | VT/BU | 5290 | Powertrain Main Relay Fused Supply 1 | I | LTG |

## K20 ENGINE CONTROL MODULE X2 (LTG)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582677
- Service Connector: 88988931
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | II | LTG |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BN/RD | 7445 | Fuel Line Pressure Sensor 5V Reference | II | LTG |
| 5 | 0.5 | GY/RD | 2704 | Manifold Absolute Pressure Sensor 5V Reference | II | LTG |
| 6 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | II | LTG |
| 7 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | II | LTG |
| 8 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | II | - |
| 13 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | II | LTG |
| 14 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | II | LTG |
| 15 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | II | LTG |
| 16 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | BU/WH | 7446 | Fuel Line Pressure Sensor Signal | II | LTG |
| 21 | 0.5 | BK/GN | 469 | Manifold Absolute Pressure Sensor Low Reference | II | LTG |
| 22 | 0.5 | BK/GY | 5296 | Camshaft Position Exhaust Sensor Low Reference 1 | II | LTG |
| 23 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | II | LTG |
| 24 - 27 | - | - | - | Not Occupied | - | - |
| 28 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | II | - |
| 29 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | II | LTG |
| 30 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | II | LTG |
| 31 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | II | LTG |
| 32 | 0.5 | GN | 3060 | Turbo Bypass Solenoid Control Bank 1 | II | LTG |
| 33 | - | - | - | Not Occupied | - | - |
| 34 | 0.5 | WH/YE | 3121 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 | II | LTG |
| 35 | - | - | - | Not Occupied | - | - |
| 36 | 0.5 | BK/VT | 6754 | Cam Phaser X Low Reference | II | - |

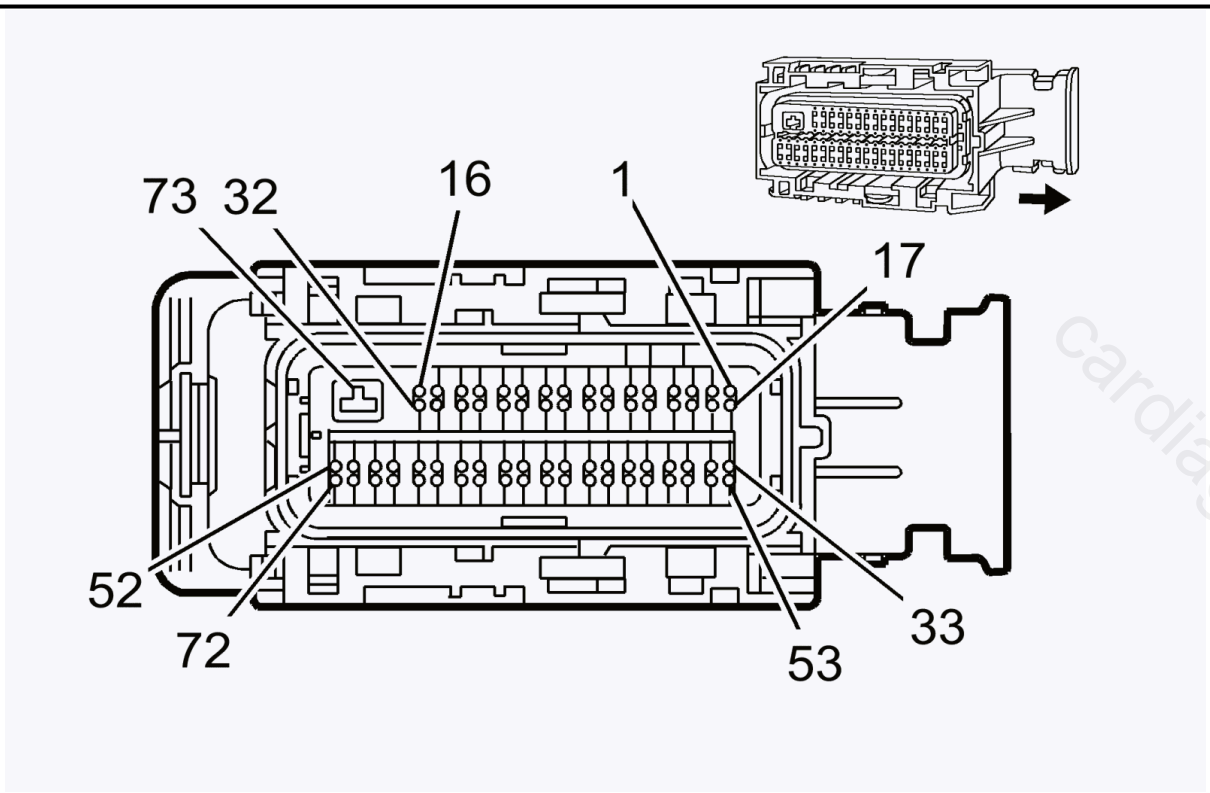
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 37 | 0.5 | BK/BN | 6753 | Cam Phaser W Low Reference | II | LTG |
| 38 | 0.5 | VT/BK | 5273 | Camshaft Position Exhaust Sensor 1 | II | LTG |
| 39 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | II | LTG |
| 40 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | II | LTG |
| 41 | - | - | - | Not Occupied | - | - |
| 42 | 0.5 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | II | LTG+NKC |
| 43 | 0.5 | BK/YE | 548 | Engine Control Sensors Low Reference (1) | II | - |
| 44 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | II | LTG |
| 45 | 0.5 | GN/BU | 2123 | Ignition Control 3 | II | LTG |
| 46 | 0.5 | BU/VT | 2121 | Ignition Control 1 | II | LTG |
| 47 | - | - | - | Not Occupied | - | - |
| 48 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | II | LTG |
| 49 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | II | LTG |
| 50 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | II | LTG |
| 51 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | II | LTG |
| 52 | 0.5 | YE | 581 | Throttle Actuator Control Open | II | LTG |
| 53 | - | - | - | Not Occupied | - | - |
| 54 | 0.5 | VT/BU | 3120 | Heated Oxygen Sensor High Signal Bank 1 Sensor 2 | II | LTG |
| 55 | - | - | - | Not Occupied | - | - |
| 56 | 0.5 | GY/BU | 5282 | Camshaft Phaser Exhaust Solenoid 1 | II | LTG |
| 57 | 0.5 | VT/BN | 5284 | Camshaft Phaser Intake Solenoid 1 | II | - |
| 58 - 59 | - | - | - | Not Occupied | - | - |
| 60 | 0.5 | GY/WH | 3122 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 | II | LTG |
| 61 - 62 | - | - | - | Not Occupied | - | - |
| 63 | 0.5 | BN/YE | 258 | Waste Gate Solenoid Control | II | - |
| 64 | 0.5 | BU | 179 | Oil Pump Command Signal | II | LTG |
| 65 | 0.5 | BU/WH | 2122 | Ignition Control 2 | II | LTG |
| 66 | 0.5 | YE/BU | 2124 | Ignition Control 4 | II | LTG |
| 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | II | LTG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 69 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | II | LTG |
| 70 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | II | LTG |
| 71 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | II | LTG |
| 72 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | II | LTG |
| 73 | 2 | BK/WH | 151 | Signal Ground | I | LTG |

## K20 ENGINE CONTROL MODULE X3 (LTG)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582678
- Service Connector: 88988372
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

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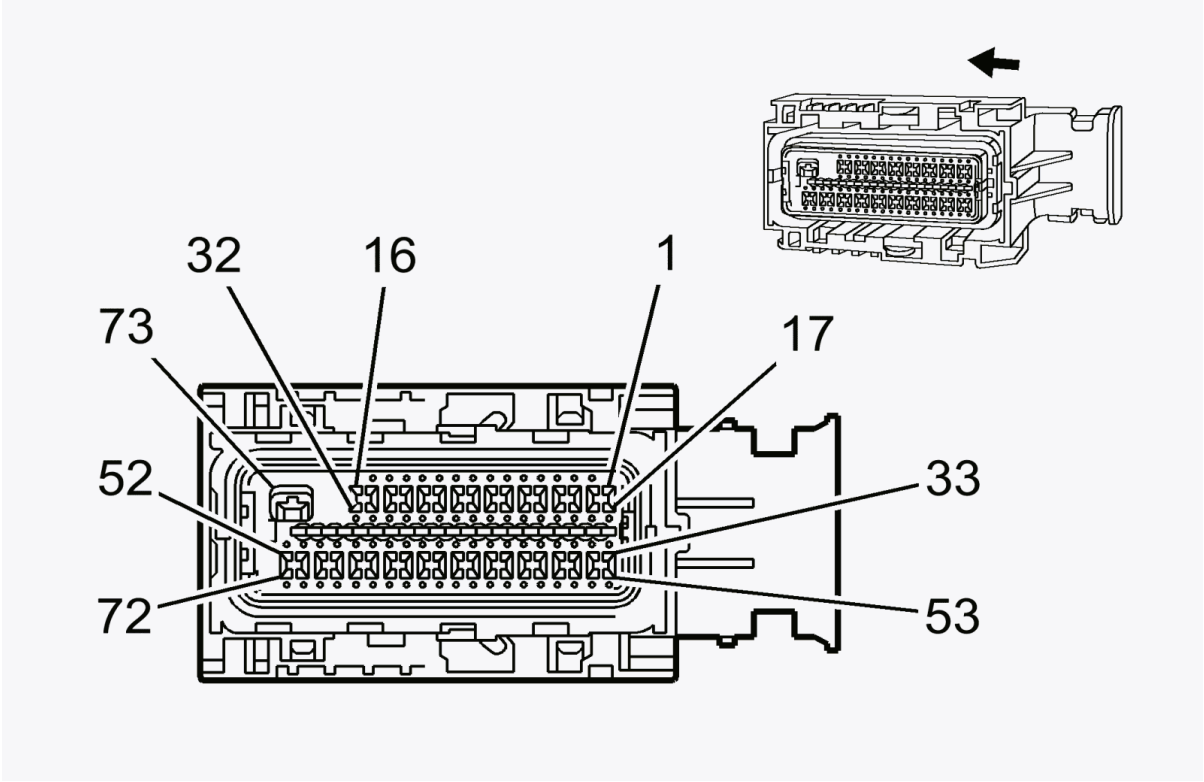
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/WH | 3113 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1 | II | LTG |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | GN/BU | 428 | EVAP Canister Purge Solenoid Control | II | LTG |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | II | - |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | YE/RD | 2709 | Fuel Tank Pressure Sensor 5V Reference | I | LTG+NTB/NUB |
| 9 - 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.5 | GY/RD | 7331 | Pre Throttle Air Temp and Press (TMAP) 5V Reference | II | LTG |
| 15 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | I | KL9+LTG |
| 16 | 0.5 | VT/BU | 5294 | Powertrain Main Relay Fused Supply 5 | II | LTG |
| 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.5 | BN | 25 | Charge Indicator Control | II | LTG |
| 19 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | II | - |
| 20 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | II | LTG |
| 21 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | II | LTG |
| 22 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | II | LTG |
| 23 - 29 | - | - | - | Not Occupied | - | - |
| 30 | 0.5 | BK/VT | 7332 | Pre Throttle Air Temp and Press (TMAP) Low Reference | II | LTG |
| 31 - 34 | - | - | - | Not Occupied | - | - |
| 35 | 0.5 | GN | 6935 | Heated Oxygen Sensor Current Adjust Signal | II | LTG |
| 36 | 0.5 | YE/GY | 6936 | Heated Oxygen Sensor Collector Signal | II | LTG |
| 37 | 0.5 | BN/WH | 6933 | Heated Oxygen Sensor Current Pump Signal | II | LTG |
| 38 | 0.5 | BN | 6934 | Heated Oxygen Sensor Ground | II | LTG |
| 39 | - | - | - | Not Occupied | - | - |
| 40 | 0.5 | GN/WH | 432 | Manifold Absolute Pressure Sensor Signal | II | LTG |
| 41 | 0.5 | BN/GN | 1174 | Oil Level Switch Signal | II | - |
| 42 | - | - | - | Not Occupied | - | - |
| 43 | 0.35 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | LTG |
| 44 | 0.35 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | I | F48+LTG |
| 45 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 46 | 0.5 | VT/BU | 7330 | Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal | II | LTG |
| 47 | 0.5 | WH/BU | 7329 | Pre-Throttle Air Temp and Press (TMAP) Temperature Signal | II | LTG |
| 48 | 0.5 | YE | 3054 | Turbo Intake Pressure Sensor Signal Bank 1 | II | LTG |
| 49 - 51 | - | - | - | Not Occupied | - | - |
| 52 | 0.5 | VT/BK | 7300 | High Pressure Fuel Pump Actuator Low - Control | II | LTG |
| 53 - 54 | - | - | - | Not Occupied | - | - |
| 55 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | I | - |
| 56 - 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.5 | BK/GY | 2303 | Knock Sensor Low Reference 2 | II | LTG |
| 60 | 0.5 | WH/GY | 1876 | Knock Sensor Signal 2 | II | LTG |
| 61 | 0.5 | BK/YE | 1716 | Knock Sensor Low Reference 1 | II | LTG |
| 62 | 0.5 | VT/GY | 496 | Knock Sensor Signal 1 | II | LTG |
| 63 - 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.35 | BU/WH | 890 | Fuel Tank Pressure Sensor Signal | I | LTG+NTB/NUB |
| 69 - 71 | - | - | - | Not Occupied | - | - |
| 72 | 0.5 | YE | 7301 | High Pressure Fuel Pump Actuator High - Control | II | LTG |
| 73 | 2 | BK/WH | 151 | Signal Ground | I | LTG |

## K20 ENGINE CONTROL MODULE X1 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 12615654
- Service Connector: 13574782
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| III | 19331615 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | BU/BN | 4498 | High Speed GMLAN Serial Data (+) 7 | III | EPH+LTG/LYX |
| 6 | 0.5 | WH | 4499 | High Speed GMLAN Serial Data (-) 7 | III | EPH+LTG/LYX |
| 7 | 0.35 | WH | 7494 | High Speed GMLAN Serial Data (-) 3 | II | - |
| 8 | 0.35 | BU/BK | 7493 | High Speed GMLAN Serial Data (+) 3 | II | - |
| 9 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | II | - |
| 10 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | II | - |

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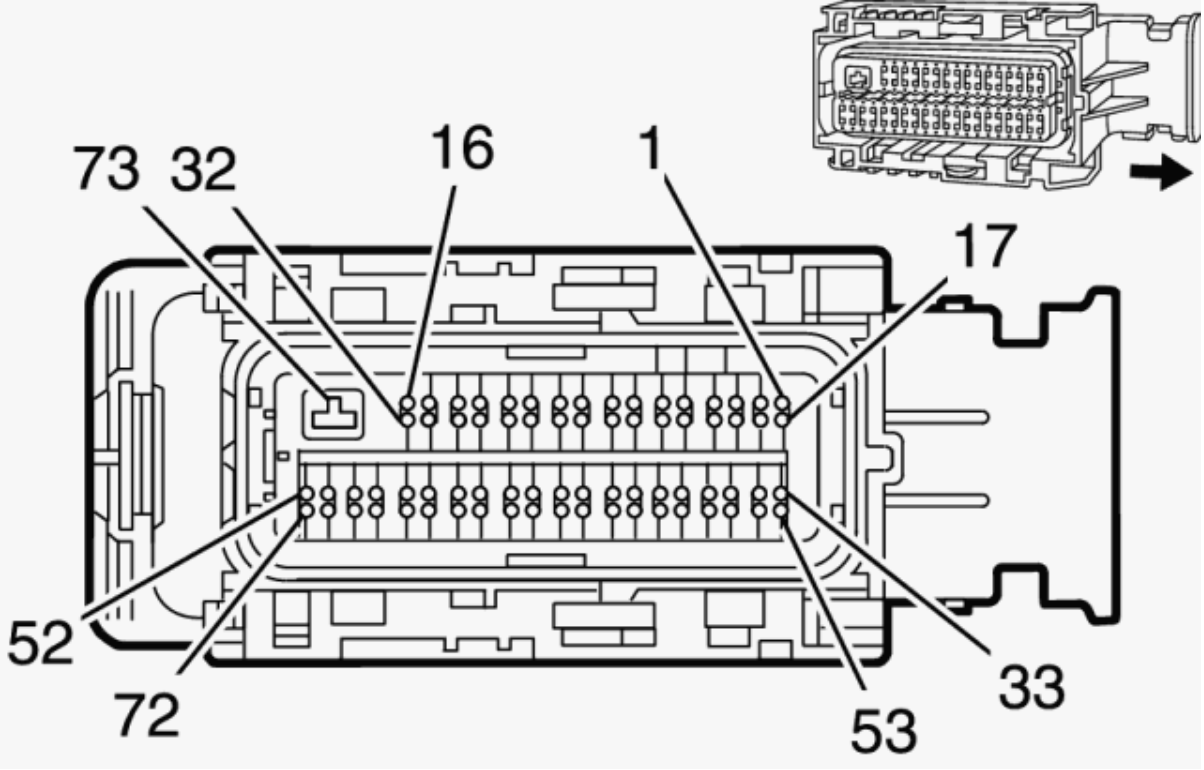
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 11 | 0.35 | BN/RD | 1274 | Accelerator Pedal Position 5V Reference 2 | II | LYX |
| 12 | 0.35 | WH/RD | 1164 | Accelerator Pedal Position 5V Reference 1 | II | LYX |
| 13 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | II | - |
| 14 | 0.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | II | - |
| 15 | 0.5 | RD/WH | 140 | Battery Positive Voltage | III | LYX |
| 16 | 0.5 | VT/BU | 5292 | Powertrain Main Relay Fused Supply 3 | III | LYX |
| 17 | 0.35 | YE | 5530 | Hood Open Switch Signal | II | KL9+LYX |
| 18 | 0.5 | GY/RD | 3053 | Turbo Intake Pressure Sensor High Reference Bank 1 | II | LYX |
| 19 - 24 | - | - | - | Not Occupied | - | - |
| 25 | 0.35 | BK/YE | 5382 | Brake Position Sensor Low Reference | II | LYX |
| 26 | - | - | - | Not Occupied | - | - |
| 27 | 0.35 | BK/VT | 1272 | Accelerator Pedal Position Low Reference 2 | II | LYX |
| 28 | 0.35 | BK/BU | 1271 | Accelerator Pedal Position Low Reference 1 | II | LYX |
| 29 - 31 | - | - | - | Not Occupied | - | - |
| 32 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | II | KL9+LYX |
| 33 | 0.35 | GN/WH | 1162 | Accelerator Pedal Position Signal 2 | II | LYX |
| 34 | 0.5 | GN/WH | 492 | Mass Air Flow Sensor Signal | III | LYX |
| 35 - 36 | - | - | - | Not Occupied | - | - |
| 37 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | II | LYX |
| 38 | 0.35 | GY | 4109 | Driver Mode Switch 5V Reference | II | LYX+F48/EPH |
| 39 - 40 | - | - | - | Not Occupied | - | - |
| 41 | 0.35 | WH/RD | 5381 | Brake Position Sensor 5V Reference | II | LYX |
| 42 - 43 | - | - | - | Not Occupied | - | - |
| 44 | 0.35 | YE/BK | 625 | Starter Enable Relay Control | II | - |
| 45 | 0.35 | YE/WH | 1161 | Accelerator Pedal Position Signal 1 | II | LYX |
| 46 | - | - | - | Not Occupied | - | - |
| 47 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | II | LYX |
| 48 | 0.5 | WH/BU | 6289 | Induction Air Temperature Sensor Signal | III | LYX |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 49 | 0.5 | WH/GY | 1786 | Transmission Park/Neutral Signal 1 | III | - |
| 50 | 0.35 | WH/BU | 6311 | Cruise/ETC/TCC Brake Signal | II | LYX |
| 51 | 0.5 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | III | LYX |
| 52 | 0.35 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | II | LYX |
| 53 | - | - | - | Not Occupied | - | - |
| 54 | 0.35 | WH/GY | 459 | A/C Compressor Clutch Relay Control | II | LYX |
| 55 - 56 | - | - | - | Not Occupied | - | - |
| 57 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | II | LYX |
| 58 | 0.35 | WH/VT | 4108 | Driver Mode Switch Signal | II | LYX+F48/EPH |
| 59 | - | - | - | Not Occupied | - | - |
| 60 | 0.5 | BN/GY | 4008 | Humidity Sensor Signal | II | LYX |
| 61 | 0.35 | WH/GN | 5380 | Brake Position Sensor Signal | II | LYX |
| 62 - 63 | - | - | - | Not Occupied | - | - |
| 64 | 0.35 | GY | 5660 | Fuel Pump Controller Data Out Signal | II | LYX |
| 65 | 0.35 | WH | 1310 | EVAP Canister Vent Solenoid Control | II | LYX+NTB/NUB |
| 66 | 0.35 | GY | 5127 | After Boil Heater Relay Control | II | LYX+MAH/MBC/MCX |
| 67 | 0.35 | YE | 5991 | Powertrain Relay Coil Control | II | LYX |
| 68 - 69 | - | - | - | Not Occupied | - | - |
| 70 | 0.35 | YE/VT | 4325 | Starter Pinion Solenoid Relay Control | II | - |
| 71 | 0.35 | BN/WH | 419 | Check Engine Indicator Control | II | LYX+NTB/NUB |
| 72 | - | - | - | Not Occupied | - | - |
| 73 | 2 | VT/BU | 5290 | Powertrain Main Relay Fused Supply 1 | I | - |

## K20 ENGINE CONTROL MODULE X2 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582677
- Service Connector: 88988931
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | II | LYX |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BN/RD | 7445 | Fuel Line Pressure Sensor 5V Reference | II | - |
| 5 | 0.5 | BK/VT | 7331 | Pre Throttle Air Temp and Press (TMAP) 5V Reference | II | LYX |
| 6 | 0.5 | GY/YE | 5297 | Camshaft Position Exhaust Sensor Control 1 | II | LYX |
| 7 | 0.5 | GY/BU | 5300 | Camshaft Position Intake Sensor Control 1 | II | LYX |
| 8 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | II | - |
| 13 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | II | - |

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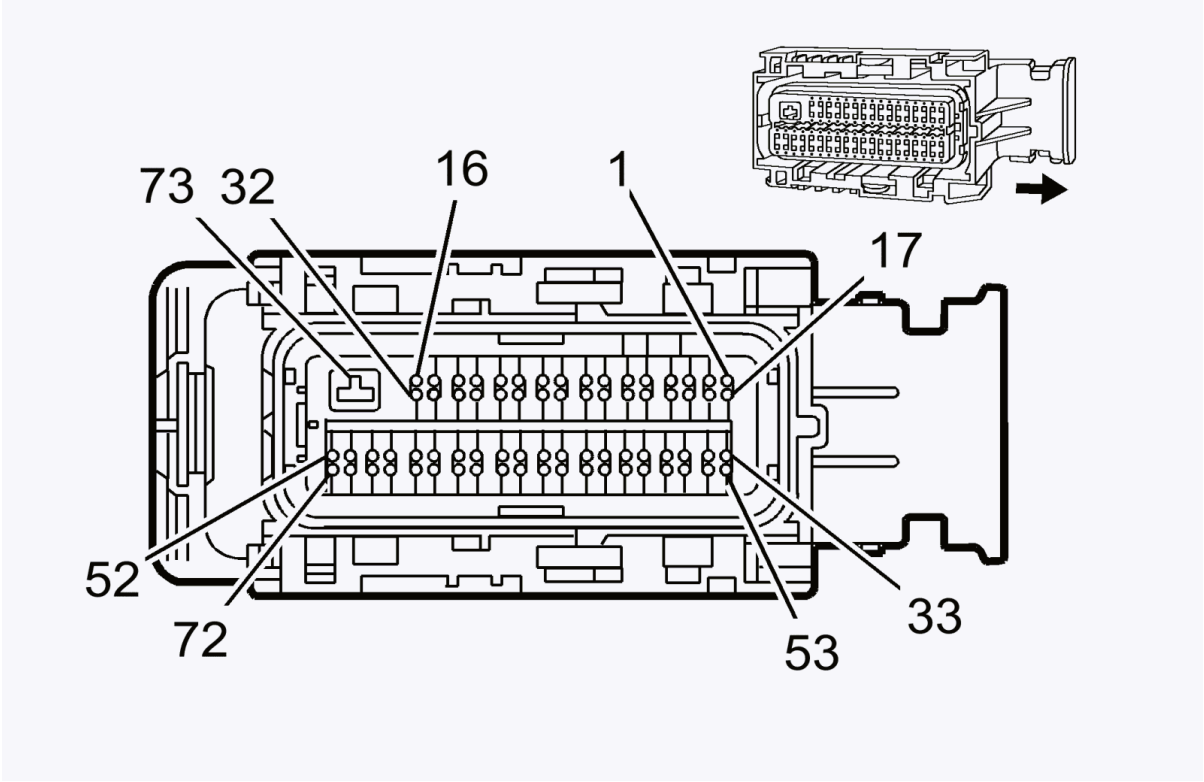
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 14 | 0.5 | WH/RD | 2705 | Oil Pressure Sensor 5V Reference | II | LYX |
| 15 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor 5V Reference | II | - |
| 16 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | BU/WH | 7446 | Fuel Line Pressure Sensor Signal | II | - |
| 21 | 0.5 | GY/RD | 7332 | Pre Throttle Air Temp and Press (TMAP) Low Reference | II | LYX |
| 22 | 0.5 | BK/GY | 5296 | Camshaft Position Exhaust Sensor Low Reference 1 | II | LYX |
| 23 | 0.5 | BK/GN | 5301 | Camshaft Position Intake Sensor Low Reference 1 | II | LYX |
| 24 - 27 | - | - | - | Not Occupied | - | - |
| 28 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | II | - |
| 29 | 0.5 | YE/BN | 331 | Oil Pressure Sensor Signal | II | - |
| 30 | 0.5 | BK/VT | 2755 | Oil Pressure Sensor Low Reference | II | LYX |
| 31 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | II | - |
| 32 | 0.5 | GN | 3060 | Turbo Bypass Solenoid Control Bank 1 | II | LYX |
| 33 | 0.5 | WH/BK | 3111 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 1 | II | LYX |
| 34 | 0.5 | WH/YE | 3121 | Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 | II | - |
| 35 | - | - | - | Not Occupied | - | - |
| 36 | 0.5 | BK/VT | 6754 | Cam Phaser X Low Reference | II | LYX |
| 37 | 0.5 | BK/BN | 6753 | Cam Phaser W Low Reference | II | - |
| 38 | 0.5 | VT/BK | 5273 | Camshaft Position Exhaust Sensor 1 | II | - |
| 39 | 0.5 | YE/VT | 5275 | Camshaft Position Intake Sensor 1 | II | LYX |
| 40 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | II | - |
| 41 | - | - | - | Not Occupied | - | - |
| 42 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | II | - |
| 43 | 0.5 | BK/YE | 548 | Engine Control Sensors Low Reference (1) | II | LYX |
| 44 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | II | - |
| 45 | 0.5 | GN/BU | 2123 | Ignition Control 3 | II | - |
| 46 | 0.5 | BU/VT | 2121 | Ignition Control 1 | II | LYX |
| 47 | - | - | - | Not Occupied | - | - |
| 48 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | II | - |
| 49 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | II | LYX |
| 50 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | II | LYX |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 51 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | II | - |
| 52 | 0.5 | YE | 581 | Throttle Actuator Control Open | II | LYX |
| 53 | 0.5 | VT/GY | 3110 | Heated Oxygen Sensor High Signal Bank 1 Sensor 1 | II | - |
| 54 | 0.5 | VT/BU | 3120 | Heated Oxygen Sensor High Signal Bank 1 Sensor 2 | II | - |
| 55 | - | - | - | Not Occupied | - | - |
| 56 | 0.5 | GY/BU | 5282 | Camshaft Phaser Exhaust Solenoid 1 | II | LYX |
| 57 | 0.5 | VT/BN | 5284 | Camshaft Phaser Intake Solenoid 1 | II | - |
| 58 - 59 | - | - | - | Not Occupied | - | - |
| 60 | 0.5 | GY/WH | 3122 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 | II | - |
| 61 | 0.5 | GY/WH | 3113 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1 | II | LYX |
| 62 | - | - | - | Not Occupied | - | - |
| 63 | 0.5 | BN/YE | 258 | Waste Gate Solenoid Control | II | - |
| 64 | 0.5 | BU | 179 | Oil Pump Command Signal | II | - |
| 65 | 0.5 | BU/WH | 2122 | Ignition Control 2 | II | LYX |
| 66 | 0.5 | YE/BU | 2124 | Ignition Control 4 | II | LYX |
| 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | II | LYX |
| 69 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | II | LYX |
| 70 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | II | - |
| 71 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | II | - |
| 72 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | II | - |
| 73 | 2 | BK/WH | 151 | Signal Ground | I | LYX |

## K20 ENGINE CONTROL MODULE X3 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582678
- Service Connector: 88988372
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579770 | J-35616-4A (PU) | J-38125-11A | 7116-4152-02 | Yazaki 9 | 2 | 5 |
| II | 19330179 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | GN/BU | 428 | EVAP Canister Purge Solenoid Control | II | LYX |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor 5V Reference | II | LYX |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | YE/RD | 2709 | Fuel Tank Pressure Sensor 5V Reference | II | LYX+NTB/NUB |
| 9 - 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.5 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | II | LYX |
| 15 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | II | KL9+LYX |
| 16 | 0.5 | VT/BU | 5294 | Powertrain Main Relay Fused Supply 5 | II | LYX |

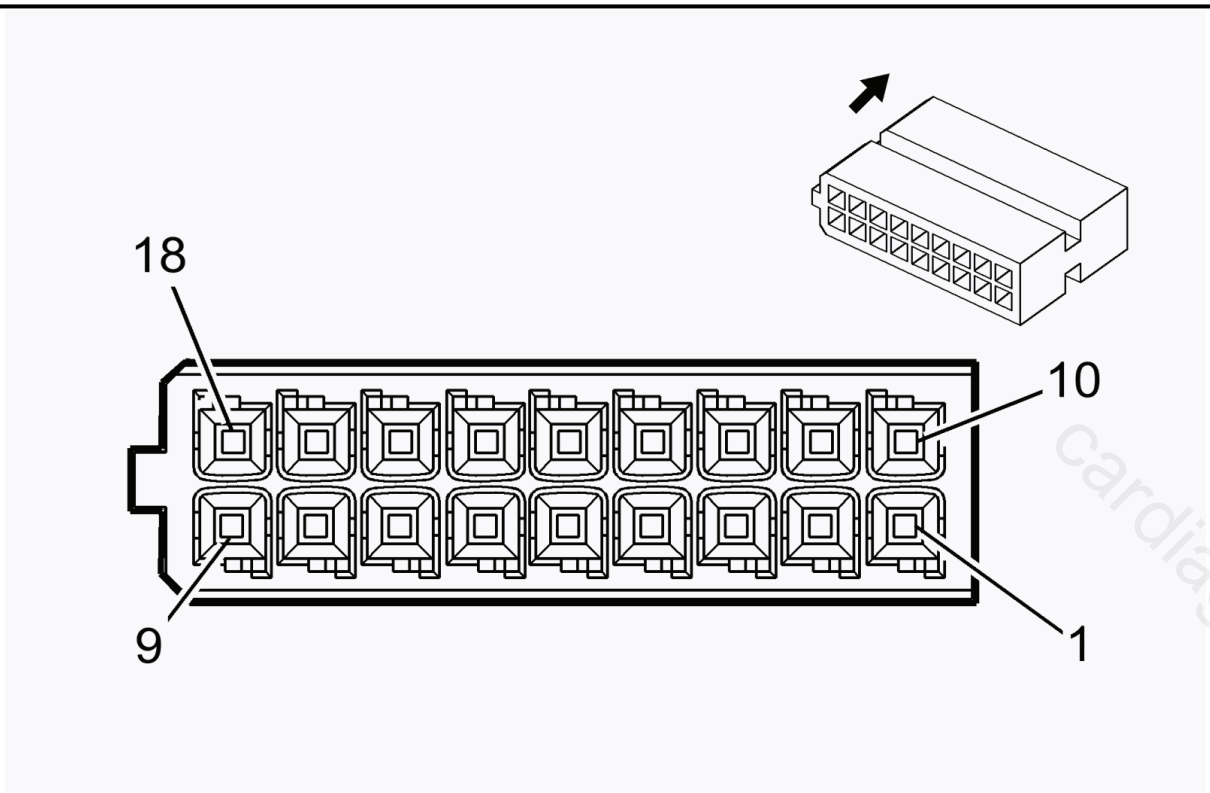
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 17 | 0.5 | WH/GY | 4578 | Surge Accumulator Solenoid Low Side Control | II | KL9+LYX-M3D-M3H-M3U |
| 18 | 0.5 | BN | 25 | Charge Indicator Control | II | LYX |
| 19 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | II | LYX |
| 20 | 0.5 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | II | LYX |
| 21 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | II | LYX |
| 22 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | II | LYX |
| 23 - 29 | - | - | - | Not Occupied | - | - |
| 30 | 0.5 | WH/YE | 3202 | Throttle Inlet Absolute Pressure Sensor Low Reference | II | LYX |
| 31 - 32 | - | - | - | Not Occupied | - | - |
| 33 | 0.5 | YE/GN | 4321 | Park Phaser Lock Control | II | LYX |
| 34 - 39 | - | - | - | Not Occupied | - | - |
| 40 | 0.5 | VT/BU | 7330 | Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal | II | LYX |
| 41 - 42 | - | - | - | Not Occupied | - | - |
| 43 | 0.35 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | II | LYX |
| 44 | 0.35 | BU/WH | 1937 | Secondary Fuel Level Sensor Signal | II | F48+LYX |
| 45 | - | - | - | Not Occupied | - | - |
| 46 | 0.5 | YE/WH | 3200 | Throttle Inlet Absolute Pressure Sensor Signal | II | LYX |
| 47 | 0.5 | WH/BU | 7329 | Pre-Throttle Air Temp and Press (TMAP) Temperature Signal | II | LYX |
| 48 | 0.5 | YE | 3054 | Turbo Intake Pressure Sensor Signal Bank 1 | II | LYX |
| 49 - 51 | - | - | - | Not Occupied | - | - |
| 52 | 0.5 | VT/BK | 7300 | High Pressure Fuel Pump Actuator Low - Control | II | LYX |
| 53 - 54 | - | - | - | Not Occupied | - | - |
| 55 | 0.35 | GN/VT | 4621 | Local Interconnect Network Serial Data Bus 21 | II | - |
| 56 - 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.5 | BK/GY | 2303 | Knock Sensor Low Reference 2 | II | LYX |
| 60 | 0.5 | WH/GY | 1876 | Knock Sensor Signal 2 | II | LYX |
| 61 | 0.5 | BK/YE | 1716 | Knock Sensor Low Reference 1 | II | LYX |
| 62 | 0.5 | VT/GY | 496 | Knock Sensor Signal 1 | II | LYX |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 63 - 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.35 | BU/WH | 890 | Fuel Tank Pressure Sensor Signal | II | LYX+NTB/NUB |
| 69 - 71 | - | - | - | Not Occupied | - | - |
| 72 | 0.5 | YE | 7301 | High Pressure Fuel Pump Actuator High - Control | II | LYX |
| 73 | 2 | BK/WH | 151 | Signal Ground | I | LYX |

## K26 HEADLAMP CONTROL MODULE (TR7)




Connector Part Information

- Harness Type: Body
- OEM Connector: 1379102-1
- Service Connector: 13504129
- Description: 18-Way F 0.64 Micro-Quadlock Series (BK)

**Terminal Part Information**

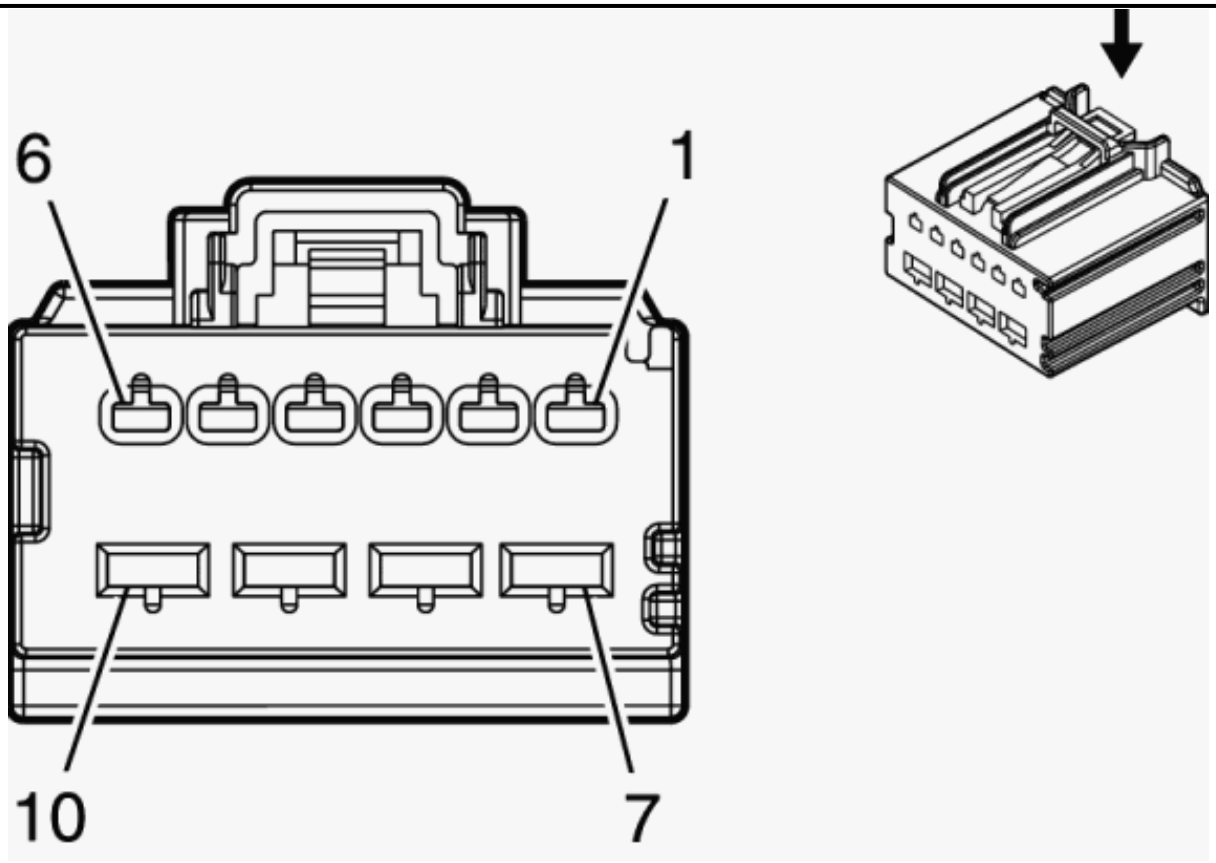
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579993 | J-35616-64B (LT BU) | J-38125-12A | 144969-1 | Lear 25 | E | 2 |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1050 | Ground | I | T4L+TR7 |
| 2 | 0.35 | WH/RD | 2165 | Automatic Level Control Position Sensor 5V Reference | I | T4L+TR7 |
| 3 | 0.35 | BK/BN | 2185 | Automatic Level Control Position Sensor Low Reference | I | T4L+TR7 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 4 | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |
| 5 | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |
| 6 | 0.35 | BN | 2184 | Automatic Level Control Position Sensor Signal | I | T4L+TR7 |
| 7 | 0.35 | WH/BU | 5986 | Serial Data Communication Enable | I | T4L+TR7 |
| 8 - 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.35 | RD/VT | 1242 | Battery Positive Voltage | I | - |
| 11 | 0.35 | WH/RD | 7524 | Front Axle Level Sensor 5V Reference | I | T4L+TR7 |
| 12 | 0.35 | BK/GY | 7526 | Front Axle Level Sensor Low Reference | I | T4L+TR7 |
| 13 | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |
| 14 | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |
| 15 | 0.35 | BN/WH | 7525 | Front Axle Level Sensor Signal | I | T4L+TR7 |
| 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.35 | GN/WH | 7530 | Local Interconnect Network Serial Data Bus 8 | I | T4L+TR7 |
| 18 | 0.35 | GN/BN | 7529 | Local Interconnect Network Serial Data Bus 7 | I | T4L+TR7 |

## K29F SEAT HEATING CONTROL MODULE - FRONT X1 (KA1)




Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 31372-1000
- Service Connector: Service by Harness - See Part Catalog

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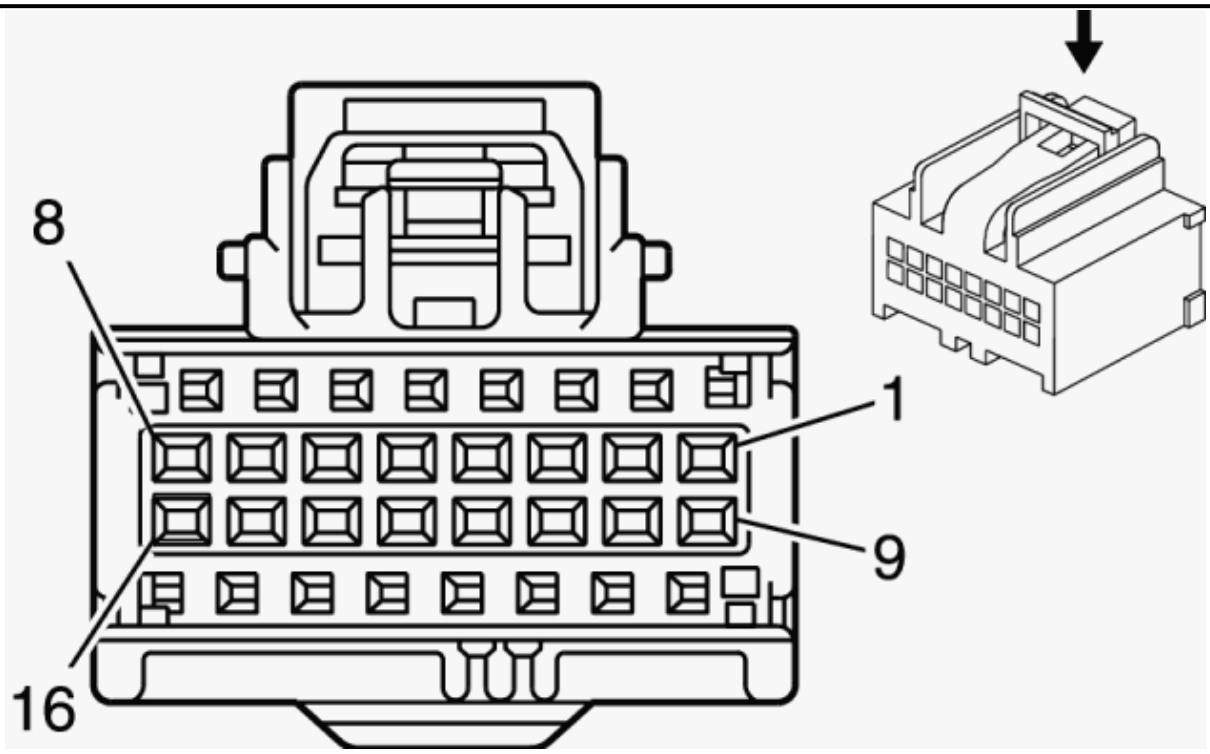
- Description: 10-Way F 1.5, 2.8 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | WH/BN | 2481 | Passenger Heated Back Element Control | I | - |
| 2 | 0.75 | BN/BU | 2479 | Passenger Heated Seat Element Control | I | - |
| 3 | 0.75 | GY/BK | 2480 | Passenger Heated Seat Element Low Reference | I | - |
| 4 | 0.75 | BN/BK | 2078 | Driver Heated Seat Element Low Reference | I | - |
| 5 | 0.75 | BN | 2432 | Driver Heated Back Element Control | I | - |
| 6 | 0.75 | BN/VT | 2077 | Driver Heated Seat Element Control | I | - |
| 7 | 0.5 | RD/WH | 4740 | Battery Positive Voltage | II | - |
| 8 | 1<br>2.5 | BK<br>BK | 1950<br>1950 | Ground<br>Ground | II<br>II | KA1+AG2/AT9/KU1/KU3<br>KA1-AT9-AG2-KU3-ADT |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.5 | RD/GY | 1740 | Battery Positive Voltage | II | - |

## K29F SEAT HEATING CONTROL MODULE - FRONT X2 (KA1)




Connector Part Information

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- Harness Type: Passenger Seat
- OEM Connector: 7283-9076-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/YE | 2080 | Driver Heated Seat NTC Low Reference | I | - |
| 2 | 0.35 | BK/GY | 2435 | Passenger Heated Seat NTC Low Reference | I | - |
| 3 | 0.35 | BU | 2425 | Driver Heated Back NTC Signal | I | - |
| 4 | 0.75 | WH/BU | 2436 | Passenger Heated Back NTC Signal | I | - |
| 5 | 0.35 | WH/GY | 2434 | Passenger Heated Seat NTC Signal | I | - |
| 6 | 0.35 | YE/GY | 2079 | Driver Heated Seat NTC Signal | I | - |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.35 | GN/BU | 6133 | Local Interconnect Network Serial Data Bus 2 | I | - |
| 9 | 0.35 | GN/VT | 5906 | Driver Seat Vent Motor Control 1 | I | - |
| 10 | 0.35 | VT/WH | 5908 | Passenger Seat Vent Motor Control 1 | I | - |
| 11 | 0.35 | BK/VT | 2426 | Driver Heated Back NTC Low Reference | I | - |
| 12 | 0.75 | BK/GN | 2482 | Passenger Heated Back NTC Low Reference | I | - |
| 13 - 16 | - | - | - | Not Occupied | - | - |

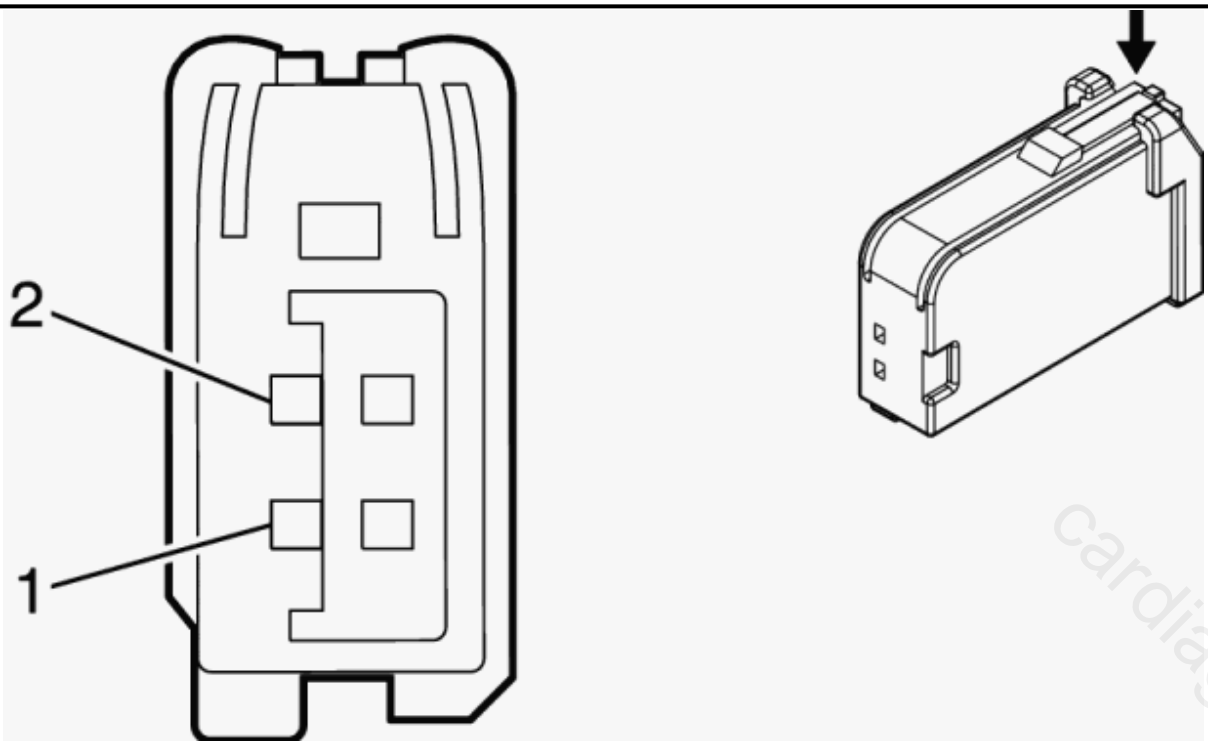
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# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Component Connector End Views (P19W - S79LR) - Equinox & Terrain

## COMPONENT CONNECTOR END VIEWS

### P19W SPEAKER - RIGHT INSTRUMENT PANEL (IOR+UZ6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13585901
- Service Connector: 13585901
- Description: 2-Way F 0.64 Series (BK)

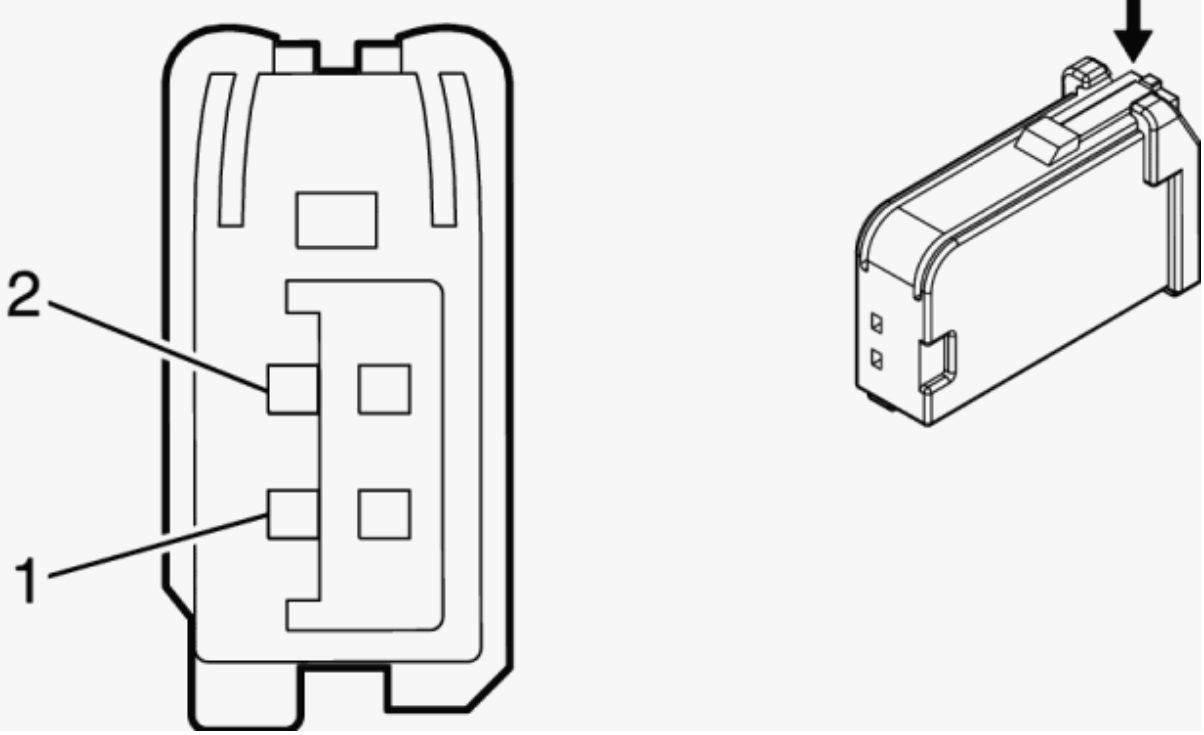
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | IOR+UZ6 |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | IOR+UZ6 |

### P19W SPEAKER - RIGHT INSTRUMENT PANEL (NKC+UZ6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13585901
- Service Connector: 13585901
- Description: 2-Way F 0.64 Series (BK)

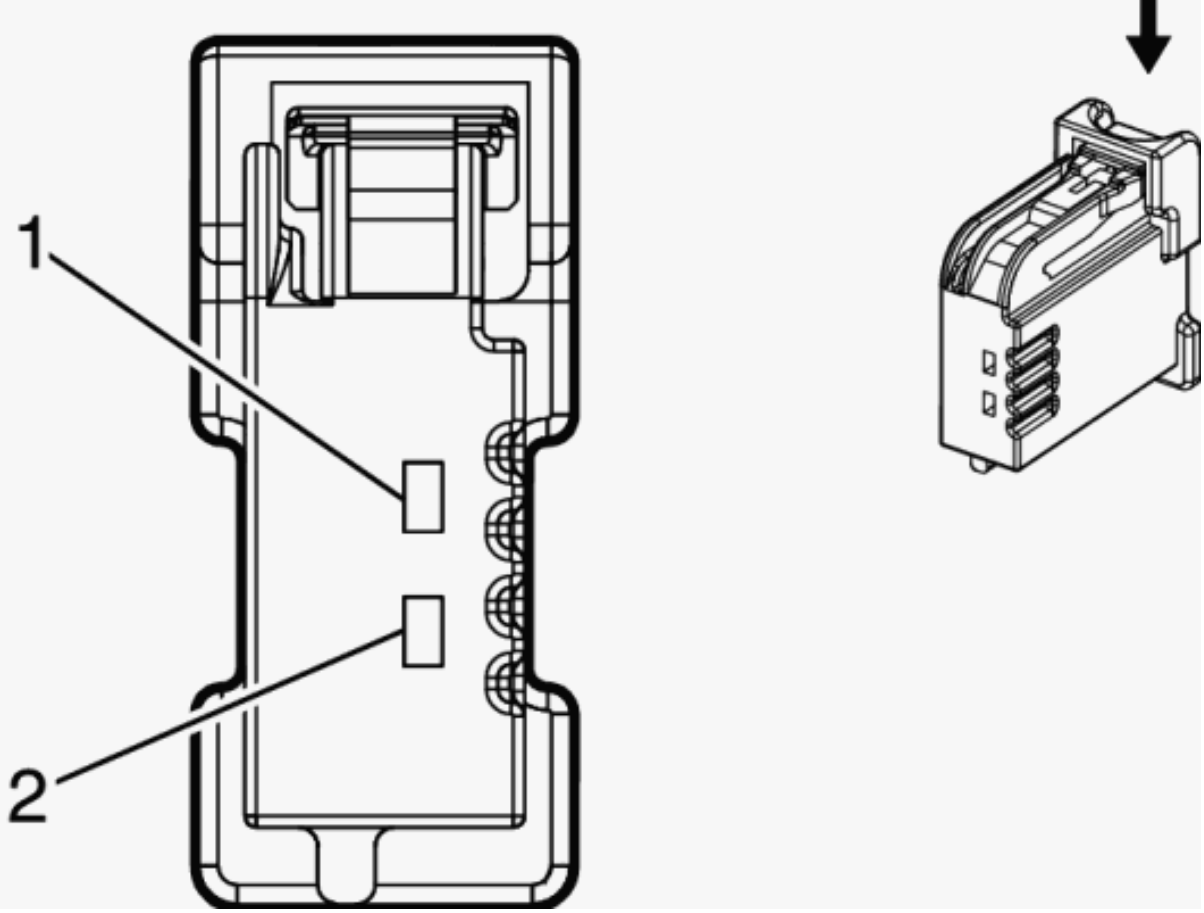
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | NKC+UZ6-IOR |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | NKC+UZ6-IOR |

## P19W SPEAKER - RIGHT INSTRUMENT PANEL (UQA)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19150056
- Service Connector: 13314097
- Description: 2-Way F 1.5 Series (GY)

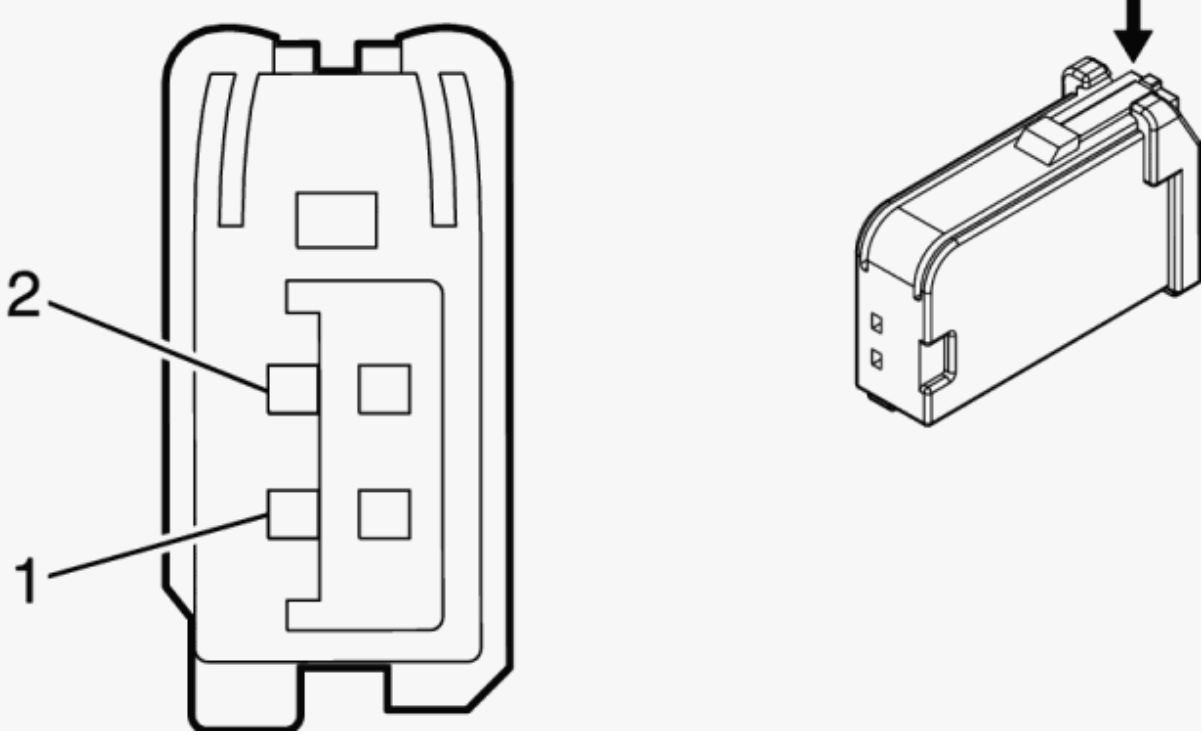
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/BN | 1952 | Right Front Tweeter Speaker (-) Low Reference | I | - |
| 2 | 0.75 | BN/GN | 1852 | Right Front Tweeter Speaker Control (+) | I | - |

## P19W SPEAKER - RIGHT INSTRUMENT PANEL (UZ6)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13585901
- Service Connector: 13585901
- Description: 2-Way F 0.64 Series (BK)

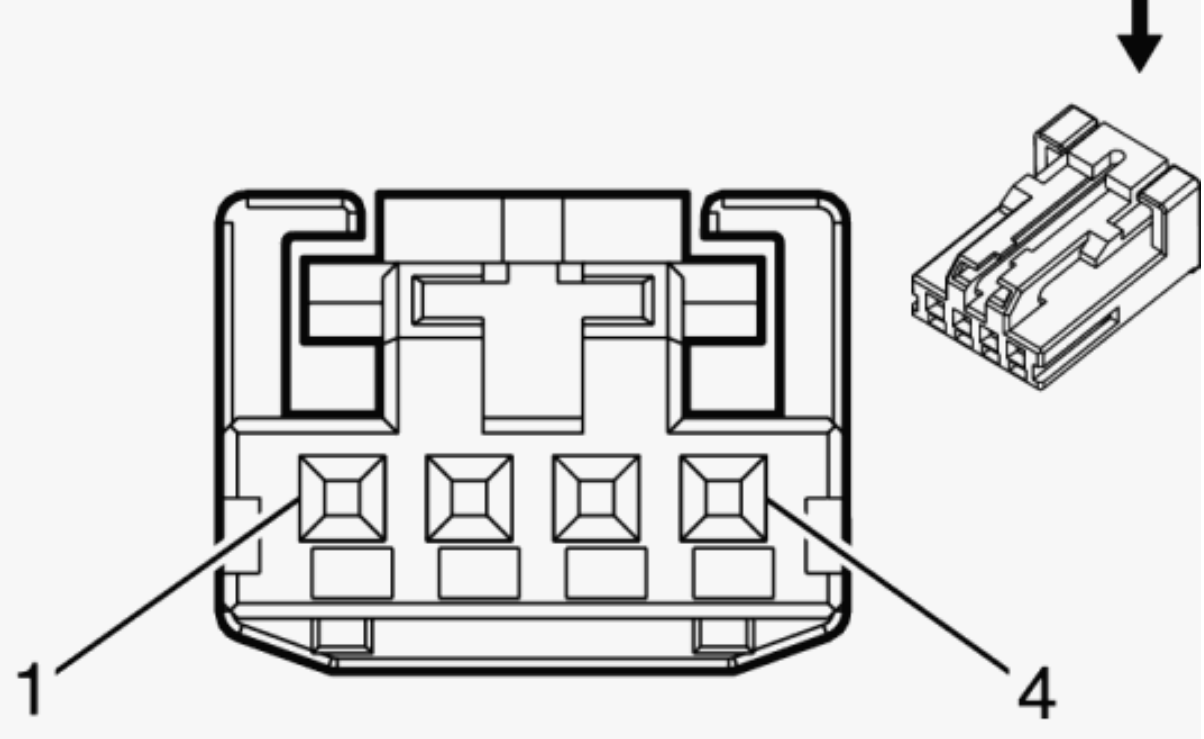
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | - |
| 2 | 0.75 | YE | 200 | Right Front Speaker Control (+) 1 | I | - |

## P43 COLLISION ALERT INDICATORS (UEU)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 936119-1
- Service Connector: 13587297
- Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

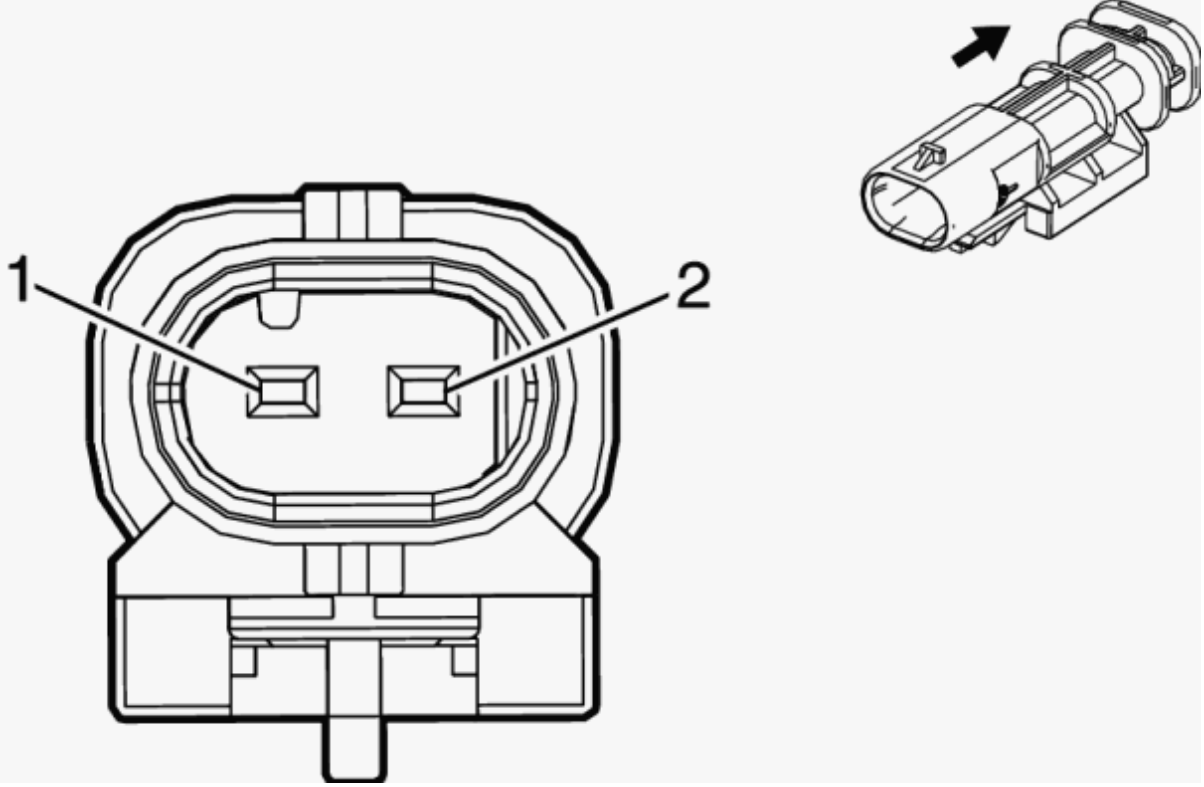
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | - |
| 2 | 0.35 | GY/YE | 3885 | Forward Collision Alert LED Control | I | UEU |
| 3 | 0.35 | WH/GN | 3535 | Reflected LED Display Dimming Control | I | UEU |
| 4 | 0.35 | BK | 1650 | Ground | I | UEU |

## P45LR SEAT HAPTIC MOVEMENT MOTOR - DRIVER LEFT REAR (UEU)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 1-1703498-3
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

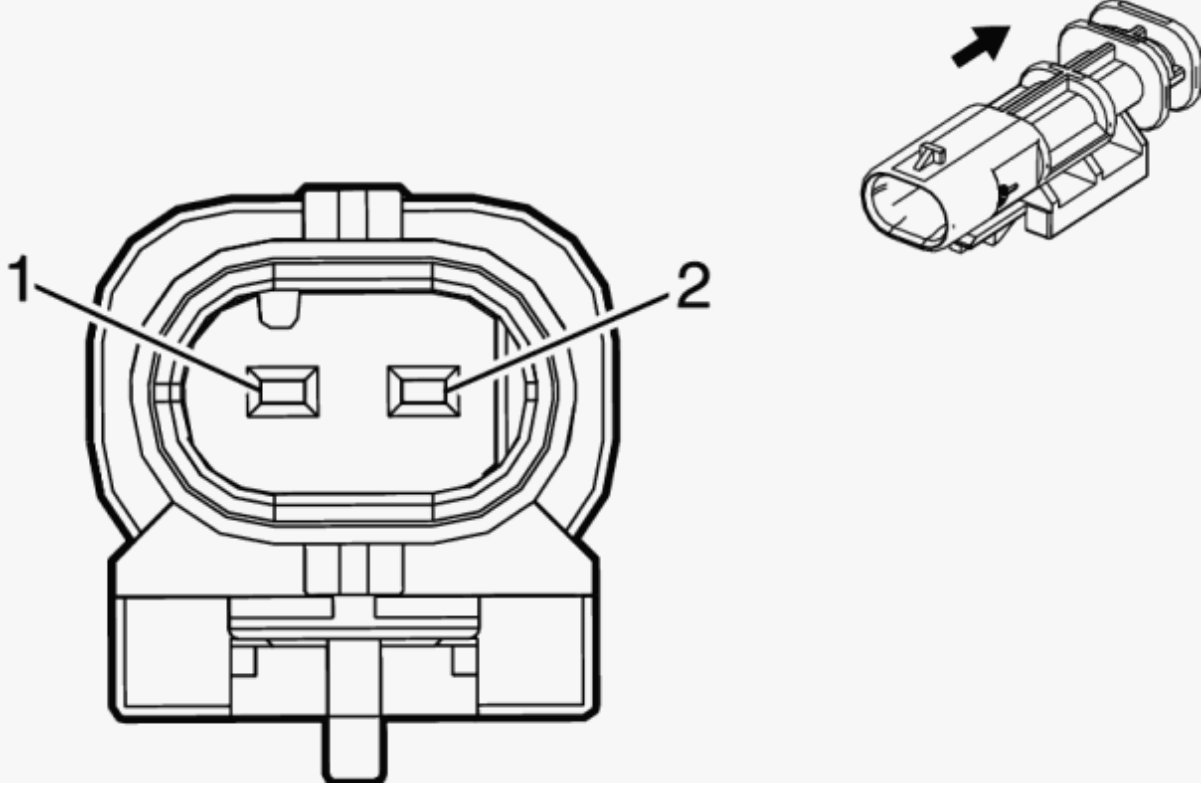
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 2350 | Ground | I | - |
| 2 | 0.5 | YE/BN | 3037 | Left Rear Haptic Seat Motor Control | I | - |

## P45RR SEAT HAPTIC MOVEMENT MOTOR - DRIVER RIGHT REAR (UEU)

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Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 1-1703498-3
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

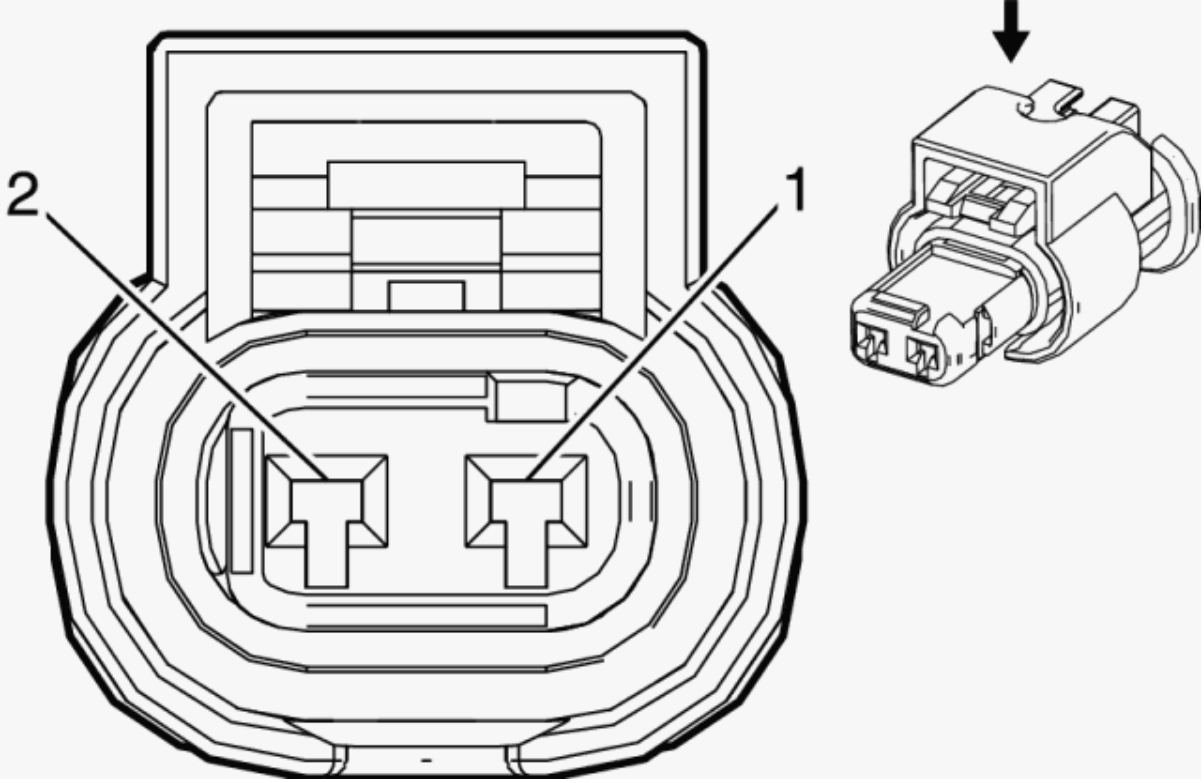
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 2350 | Ground | I | - |
| 2 | 0.5 | BN | 3038 | Right Rear Haptic Seat Motor Control | I | - |

## Q2 A/C COMPRESSOR CLUTCH

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13505426
- Service Connector: 13577519
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

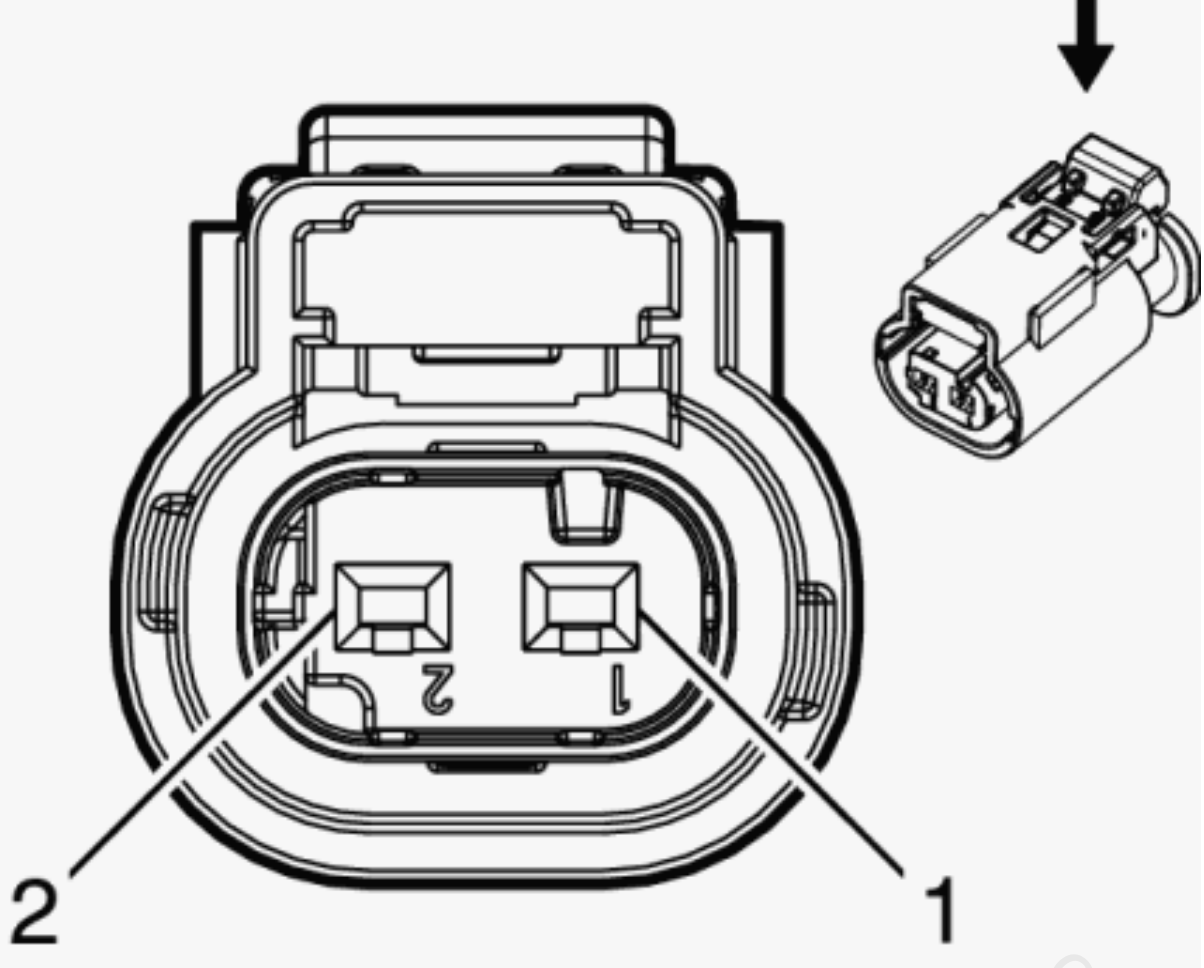
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | - |
| 2 | 0.75 | BN/GN | 59 | A/C Compressor Clutch Control | I | - |

## Q6E CAMSHAFT POSITION ACTUATOR SOLENOID VALVE - EXHAUST (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

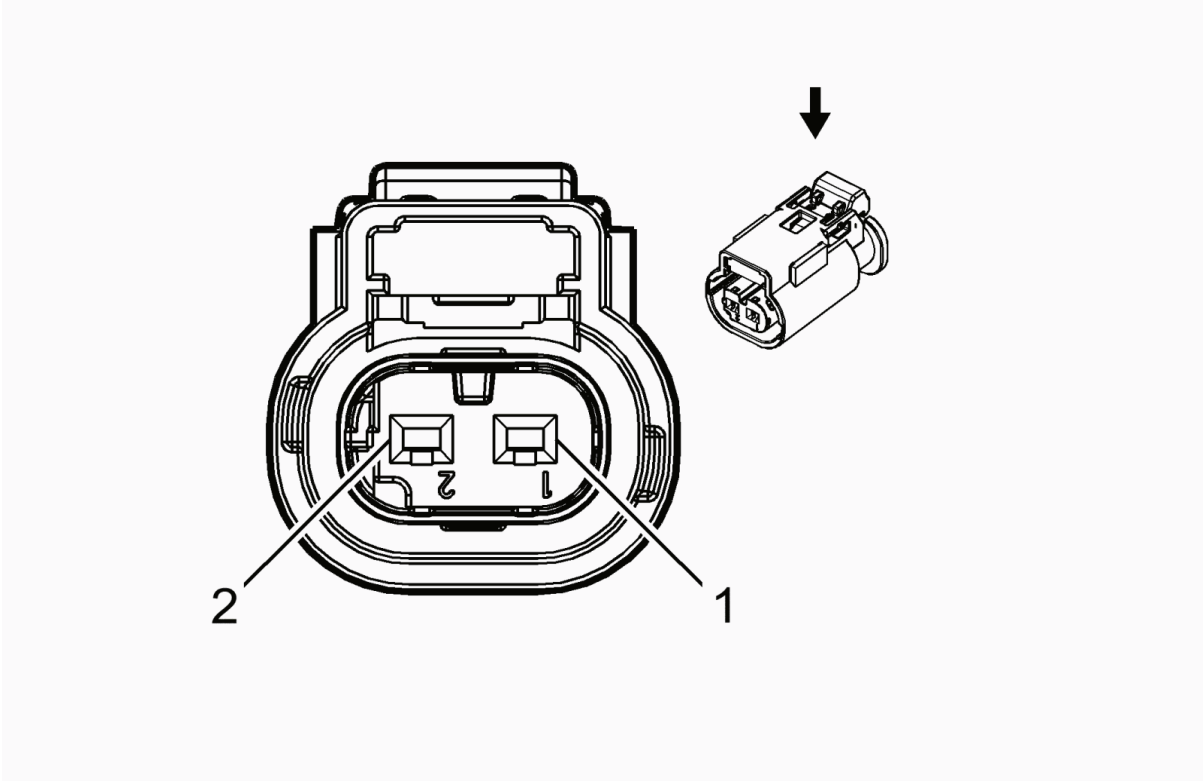
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5282 | Camshaft Phaser Exhaust Solenoid 1 | I | LTG |
| 2 | 0.5 | BK/VT | 6754 | Cam Phaser X Low Reference | I | - |

## Q6E CAMSHAFT POSITION ACTUATOR SOLENOID VALVE - EXHAUST (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503567
- Service Connector: 13587325
- Description: 2-Way F 1.2 Multilock Series, Sealed (L-GY)

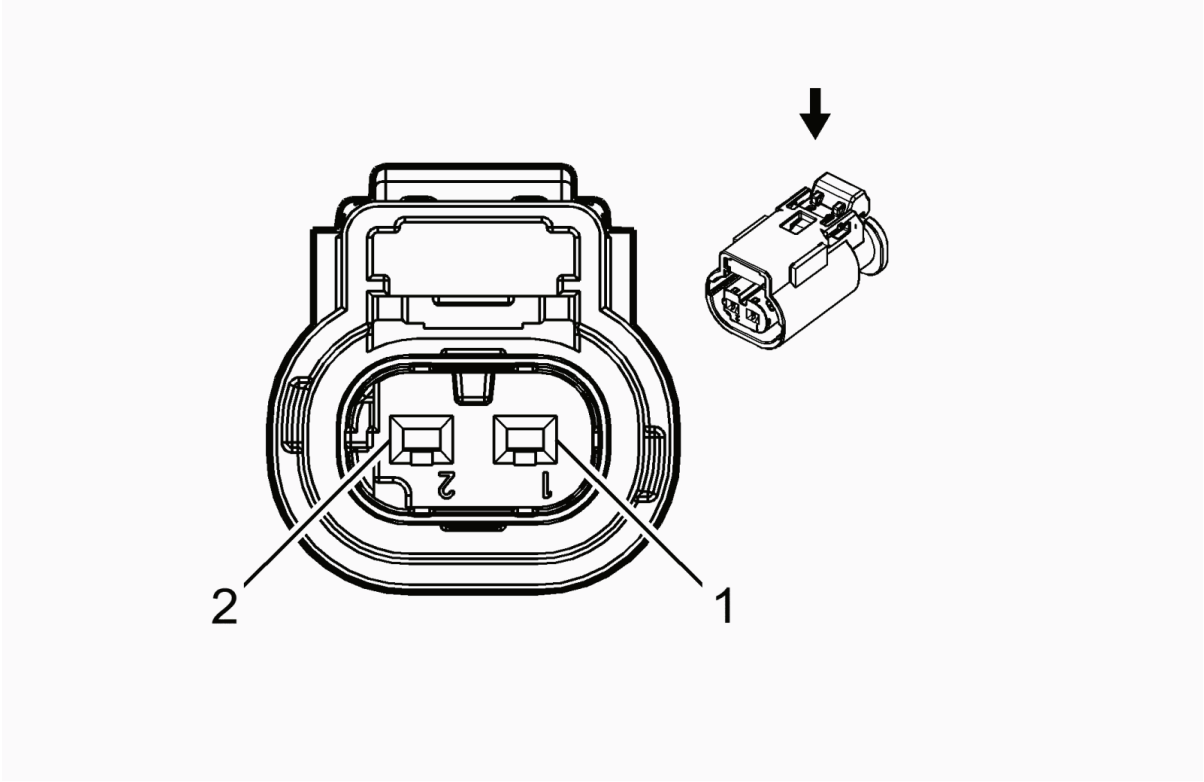
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 5282 | Camshaft Phaser Exhaust Solenoid 1 | I | LYX |
| 2 | 0.5 | BK/VT | 6754 | Cam Phaser X Low Reference | I | LYX |

## Q6F CAMSHAFT POSITION ACTUATOR SOLENOID VALVE - INTAKE (LTG/LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503567
- Service Connector: 13587325
- Description: 2-Way F 1.2 Multilock Series, Sealed (L-GY)

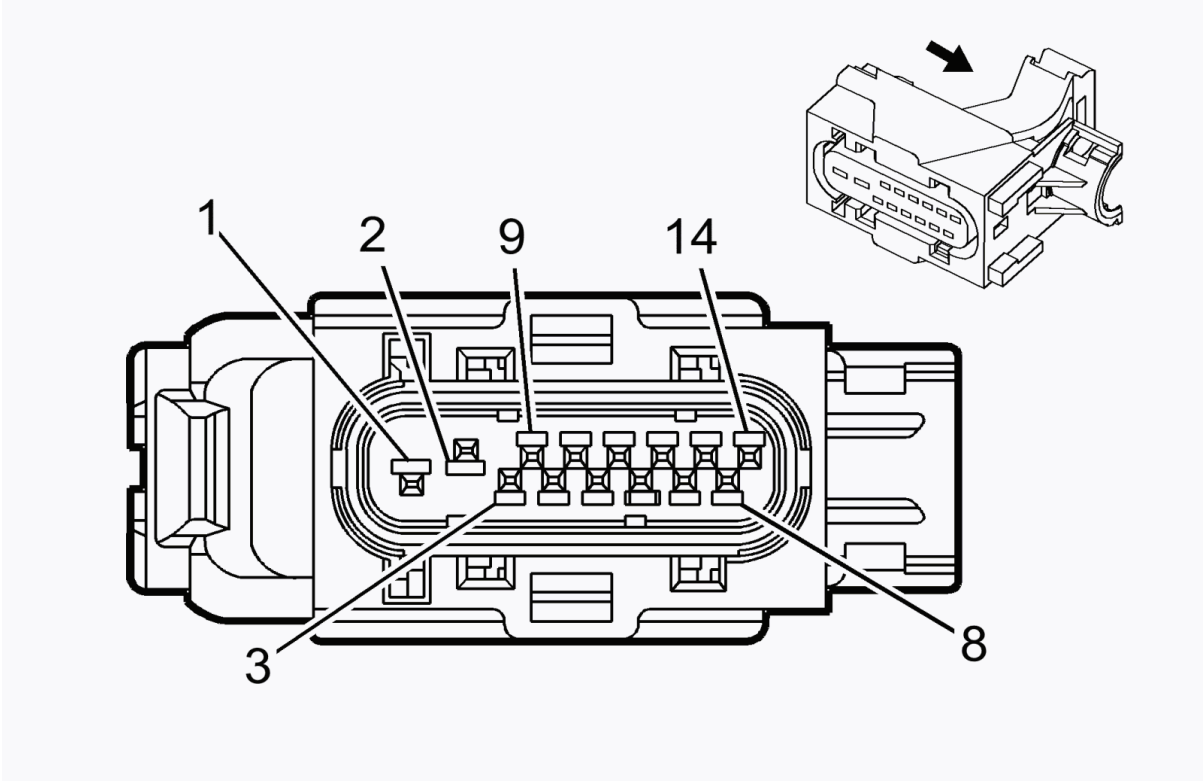
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BN | 5284 | Camshaft Phaser Intake Solenoid 1 | I | - |
| 2 | 0.5 | BK/BN | 6753 | Cam Phaser W Low Reference | I | - |

## Q8 CONTROL SOLENOID VALVE ASSEMBLY X1 (MHG/MNH/MNK)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13522378
- Service Connector: 13503939
- Description: 14-Way F 150, 280 GT Series, Sealed (L-GY)

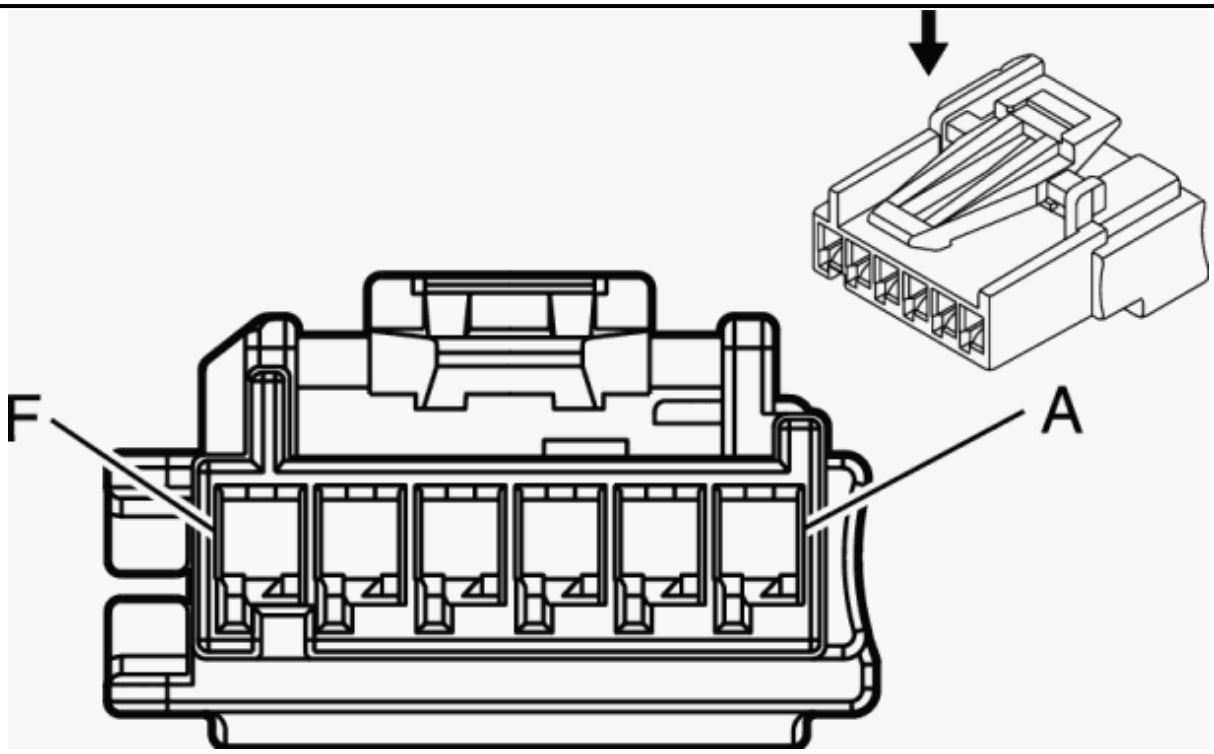
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575400 | J-35616-14 (GN) | J-38125-553 | 15326267 | Delphi 19 | E | 4 |
| II | 13576356 | J-35616-4A (PU) | J-38125-553 | 15304719 | Delphi 19 | 2 | 5 |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | RD/VT | 340 | Battery Positive Voltage | II | - |
| 2 | 1 | BK/WH | 151 | Signal Ground | II | - |
| 3 | 0.5 | WH/GY | 1786 | Transmission Park/Neutral Signal 1 | I | - |
| 4 - 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 7 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 8 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 9 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | I | - |
| 13 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | I | MNH/MHG |
| 14 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |

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## Q8 CONTROL SOLENOID VALVE ASSEMBLY X2 (MHG/MNH/MNK)




Connector Part Information

- Harness Type: Automatic Transmission
- OEM Connector: 13540209
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 150.2 Micro-Pack Series, Sealed (BU)

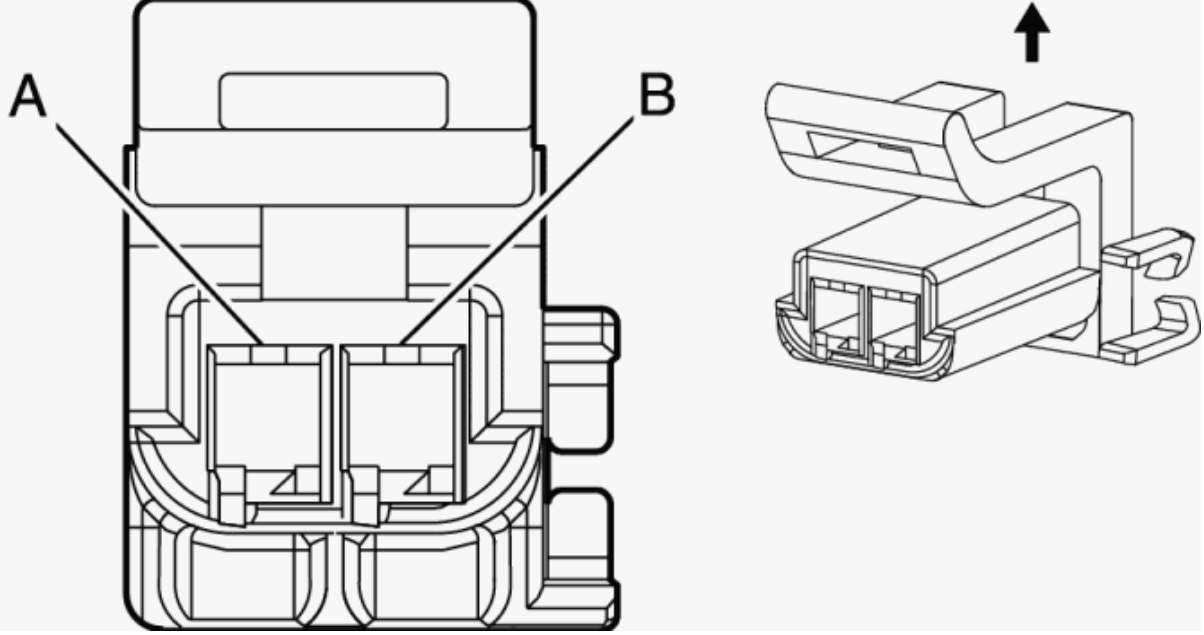
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH/GY | 1786 | Transmission Park/Neutral Signal 1 | I | - |
| B | 0.5 | BN/WH | 771 | Transmission Position Switch Bit 1 Signal | I | - |
| C | 0.5 | YE | 772 | Transmission Position Switch Bit 2 Signal | I | - |
| D | 0.5 | GY | 773 | Transmission Position Switch Bit 3 Signal | I | - |
| E | 0.5 | WH | 776 | Transmission Position Switch Parity Bit Signal | I | - |
| F | 0.5 | BK | 50 | Ground | I | - |

## Q8 CONTROL SOLENOID VALVE ASSEMBLY X3 (MHG/MNH/MNK)




Connector Part Information

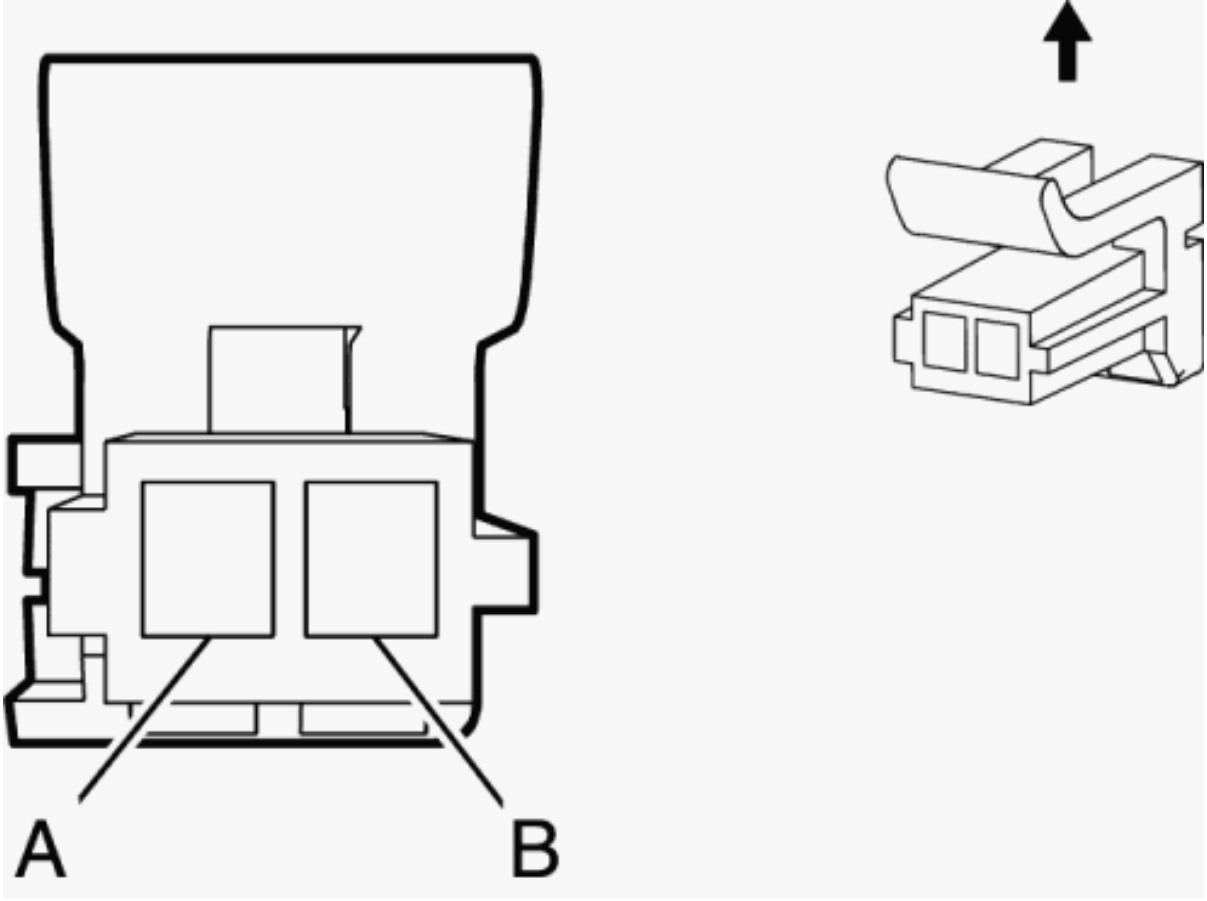
- Harness Type: Transmission Input Speed Sensor
- OEM Connector: 13586529
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150.2 Metri-Pack Series (CR)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH | 4174 | Transmission Speed Input Signal High | I | - |
| B | 0.5 | BK | 4173 | Transmission Speed Input Signal Low | I | - |

## Q8 CONTROL SOLENOID VALVE ASSEMBLY X4 (MHG/MNH/MNK)




Connector Part Information

- Harness Type: Transmission Output Speed Sensor
- OEM Connector: 13543034
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150.2 Metri-Pack Series (BU)

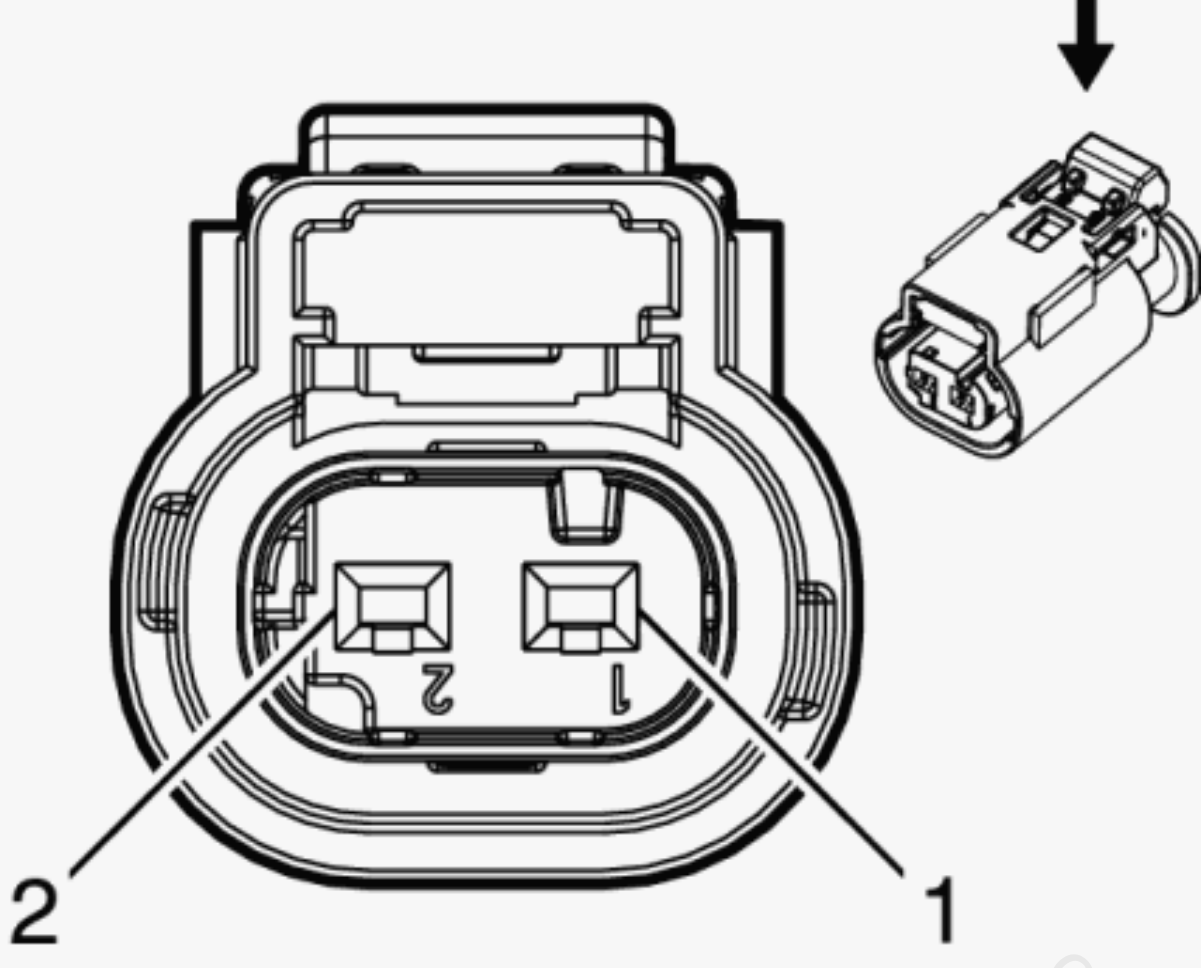
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH | 6355 | Output Speed High Signal Output | I | - |
| B | 0.5 | BK | 6356 | Output Speed Low Signal | I | - |

## Q12 EVAPORATIVE EMISSION PURGE SOLENOID VALVE (LTG/LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

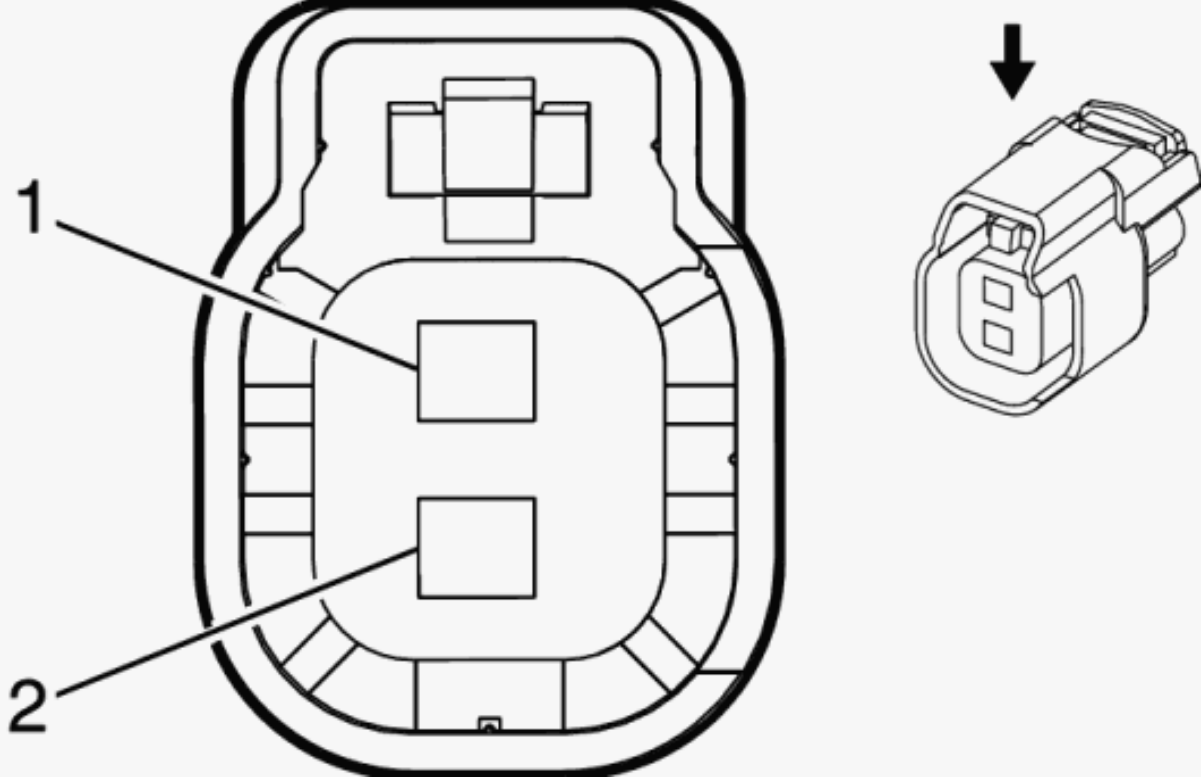
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | - |
| 2 | 0.5 | GN/BU | 428 | EVAP Canister Purge Solenoid Control | I | - |

## Q13 EVAPORATIVE EMISSION VENT SOLENOID VALVE (LTG/LYX)

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Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13503511
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

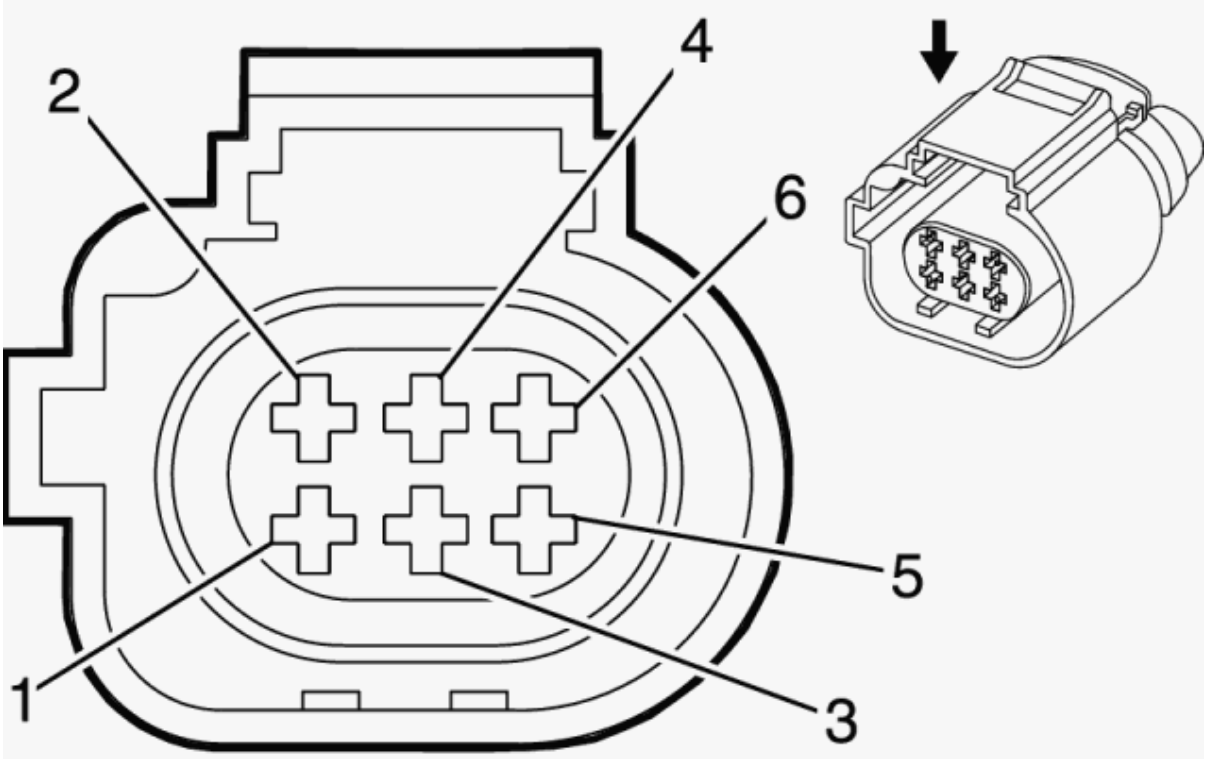
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH | 1310 | EVAP Canister Vent Solenoid Control | I | - |
| 2 | 0.5 | RD/VT | 542 | Battery Positive Voltage | I | - |

## Q14 EXHAUST GAS RECIRCULATION VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55571437
- Service Connector: 19368732
- Description: 6-Way F 1.6 Micro-Timer Series, Sealed (BN)

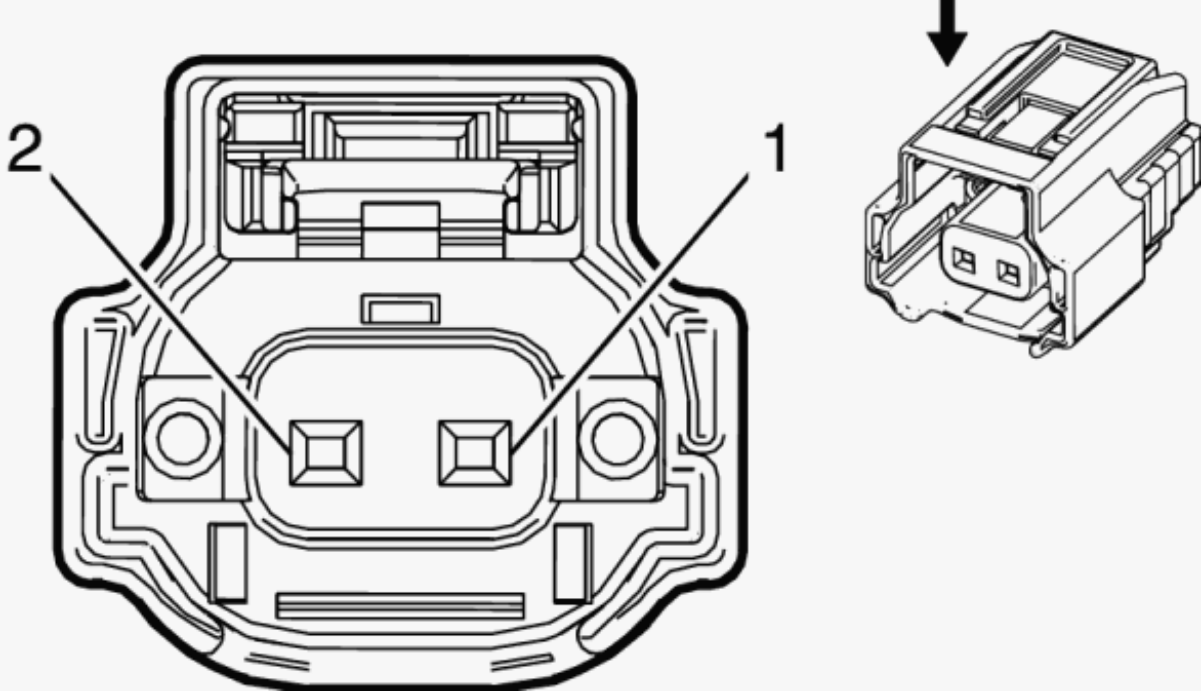
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/RD | 5047 | Exhaust Gas Recirculation 5V Reference 1 | I | LH7 |
| 2 | 0.5 | VT/BK | 5746 | Exhaust Gas Recirculation Valve Motor Low Signal | I | LH7 |
| 3 | 0.5 | BK/BN | 2753 | Exhaust Gas Recirculation Sensor Low Reference | I | LH7 |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | BN/WH | 5763 | Exhaust Gas Recirculation Valve Sensor Signal | I | LH7 |
| 6 | 0.5 | WH/VT | 5764 | Exhaust Gas Recirculation Valve Motor High Signal | I | LH7 |

## Q17A FUEL INJECTOR 1 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55573377
- Service Connector: 13407097
- Description: 2-Way F 090 DL Series, Sealed (BK)

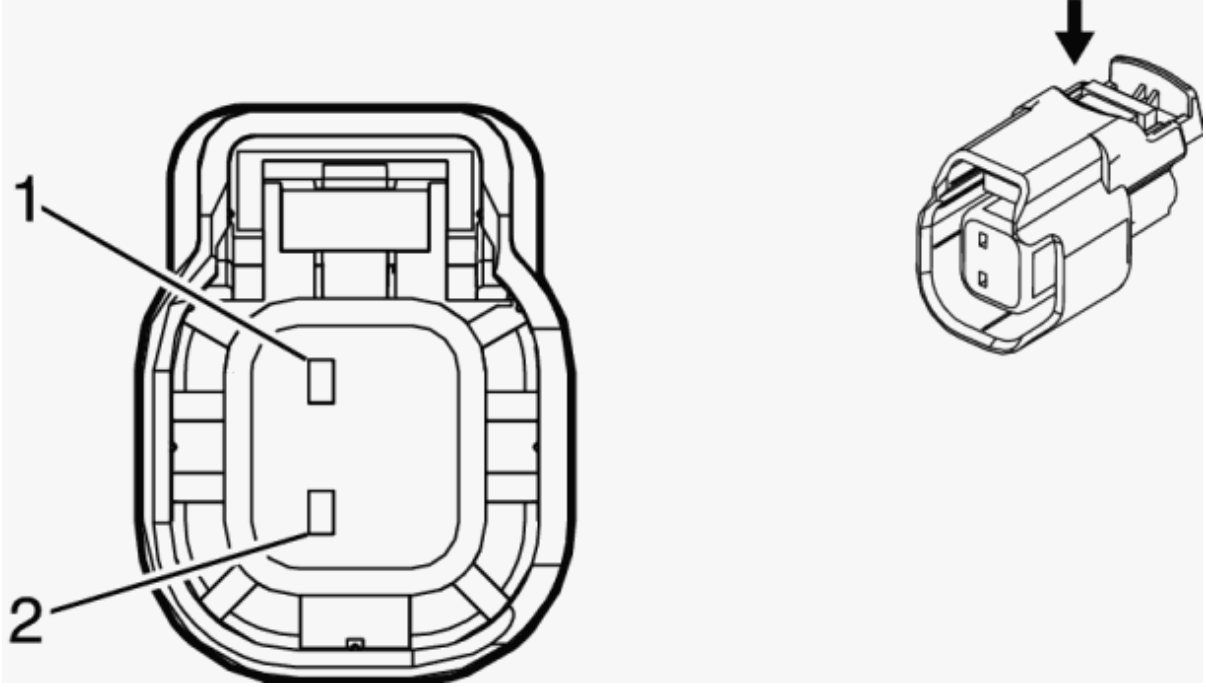
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | I | LH7 |
| 2 | 1.5 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | I | LH7 |

## Q17A FUEL INJECTOR 1 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 13580239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

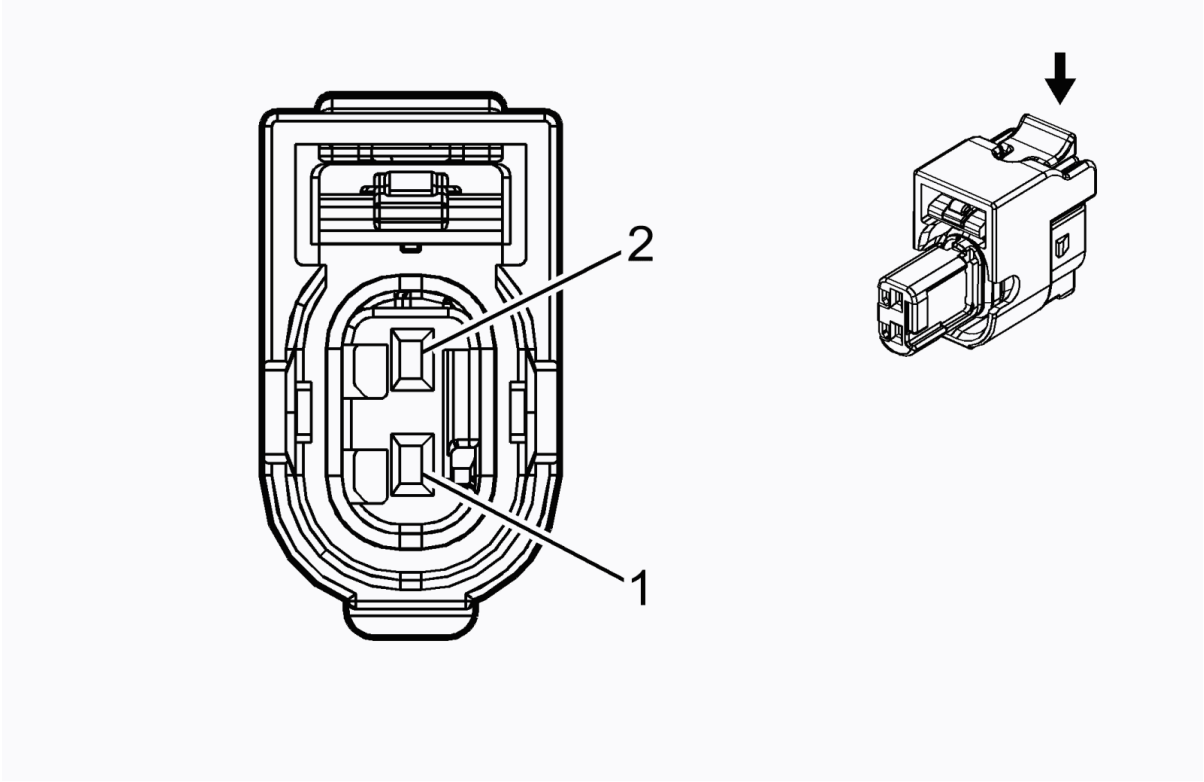
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | I | - |
| 2 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | I | - |

## Q17A FUEL INJECTOR 1 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 2098641-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BN)

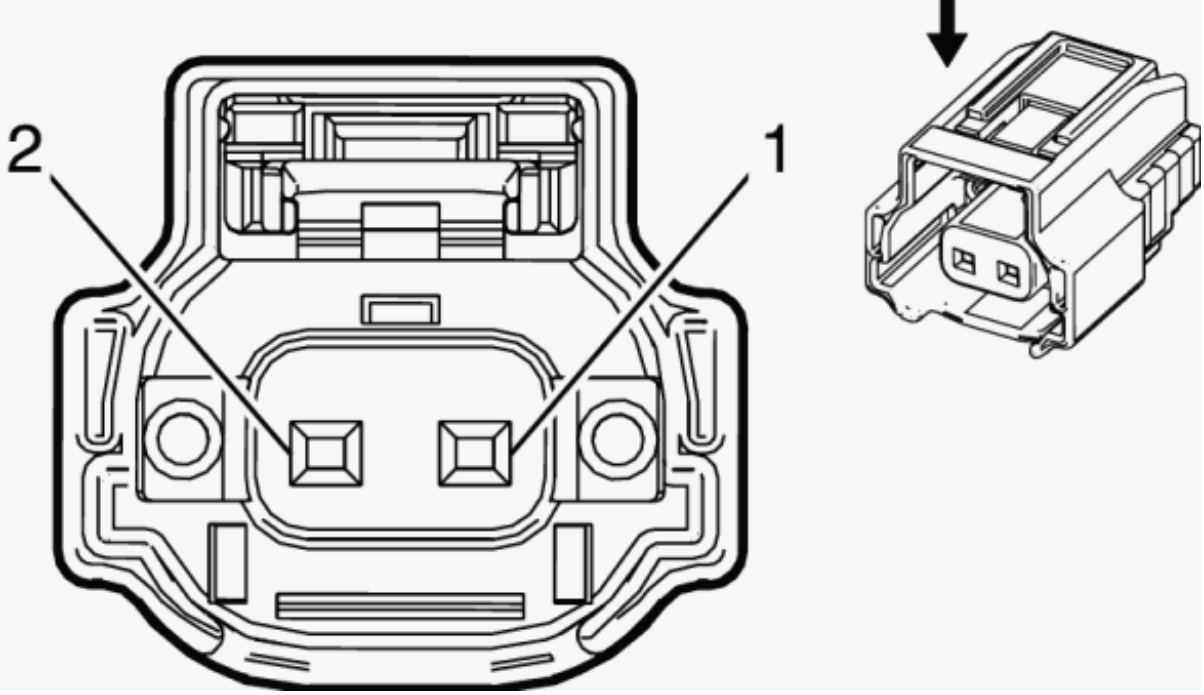
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 4801 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | I | - |
| 2 | 0.75 | BN/WH | 4901 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | I | - |

## Q17B FUEL INJECTOR 2 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55573377
- Service Connector: 13407097
- Description: 2-Way F 090 DL Series, Sealed (BK)

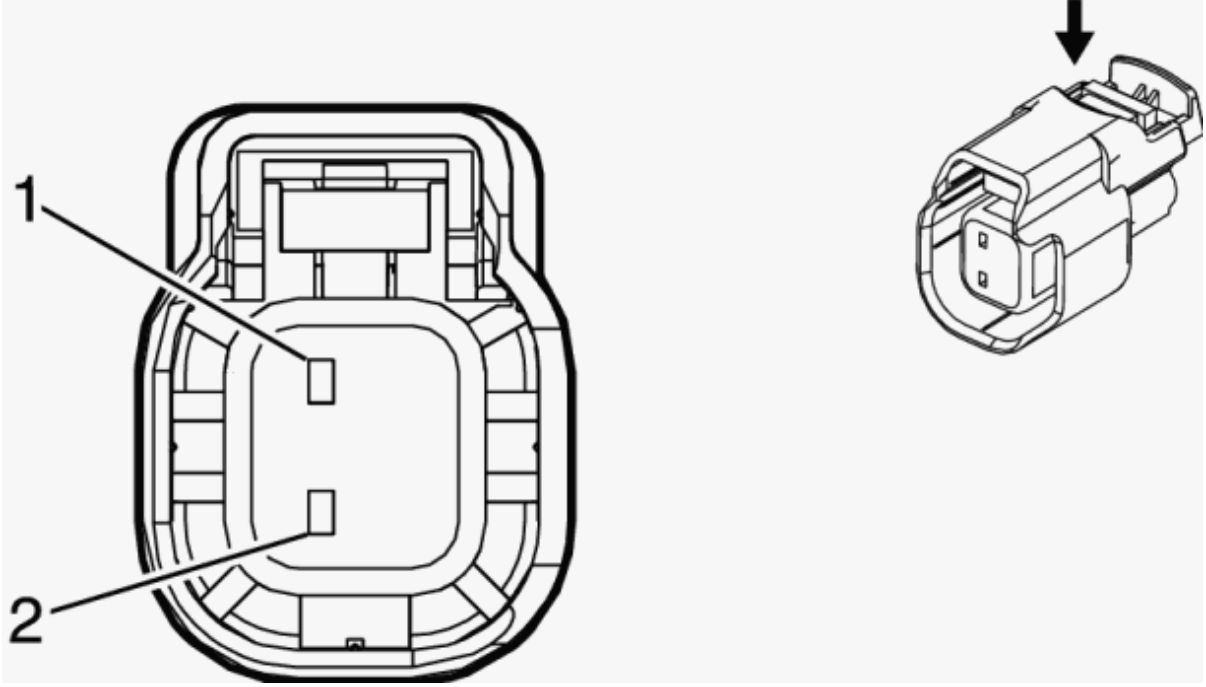
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | I | LH7 |
| 2 | 1.5 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | I | LH7 |

## Q17B FUEL INJECTOR 2 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 13580239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

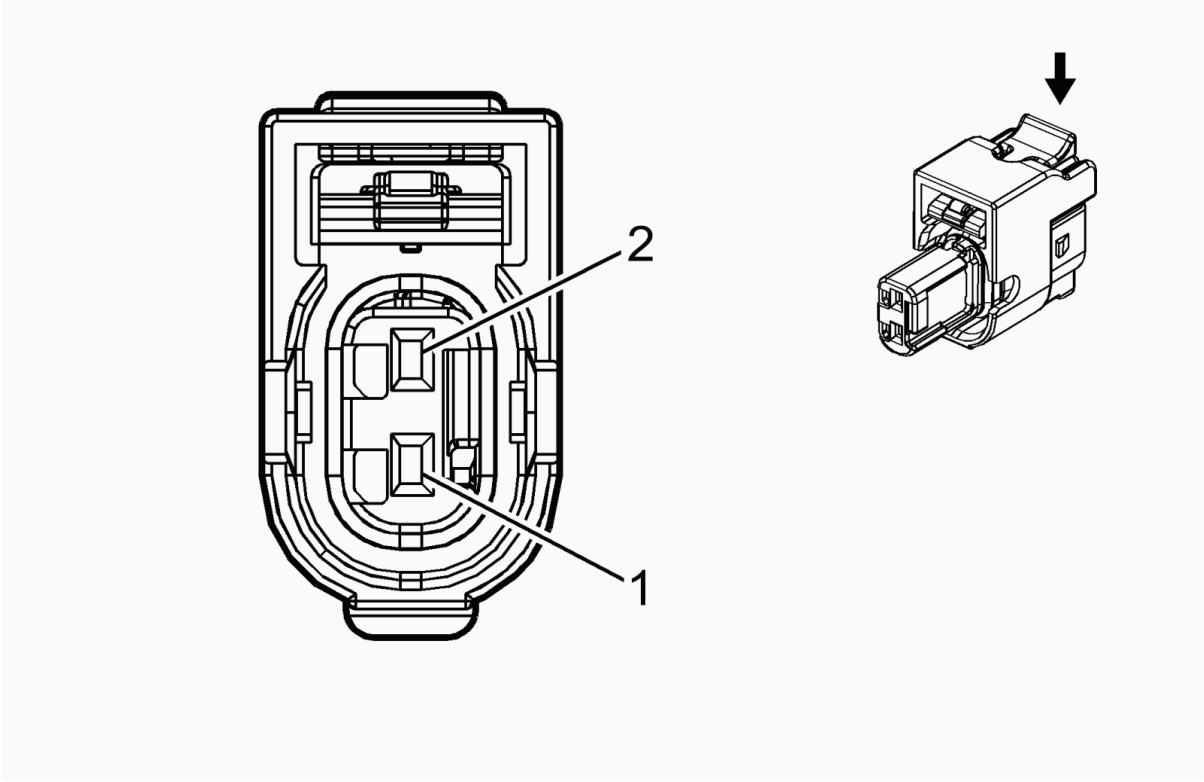
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | I | - |
| 2 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | I | - |

## Q17B FUEL INJECTOR 2 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 2098641-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BN)

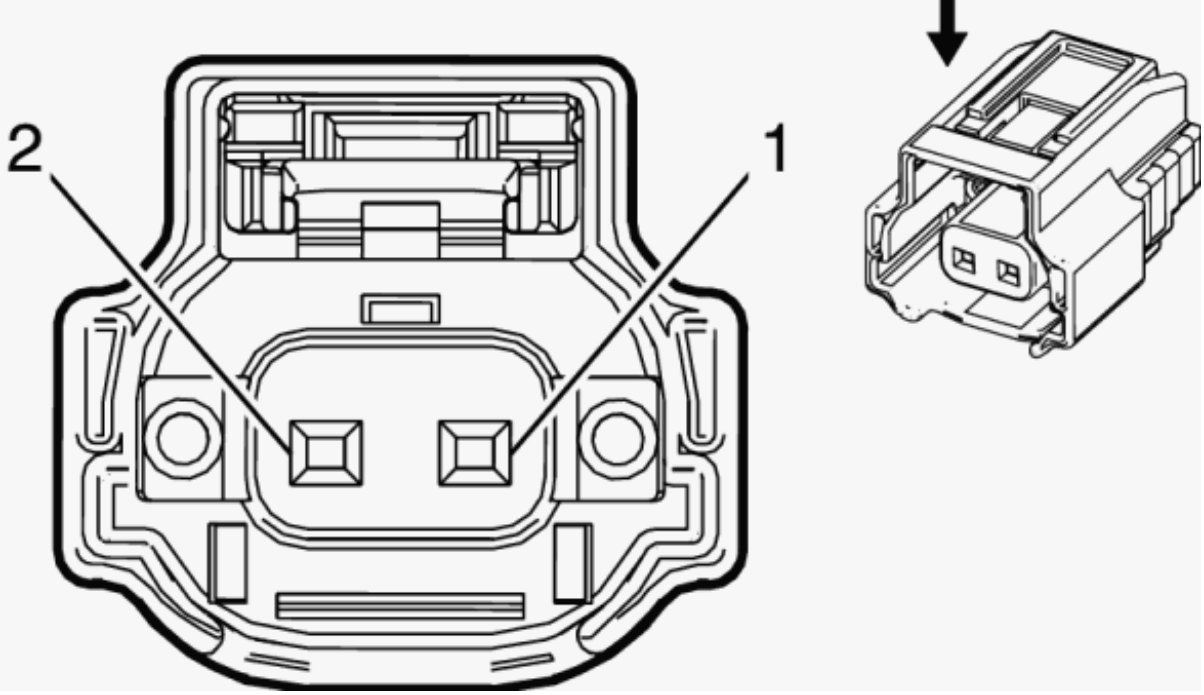
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 4802 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | I | - |
| 2 | 0.75 | BU/GY | 4902 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | I | - |

## Q17C FUEL INJECTOR 3 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55573377
- Service Connector: 13407097
- Description: 2-Way F 090 DL Series, Sealed (BK)

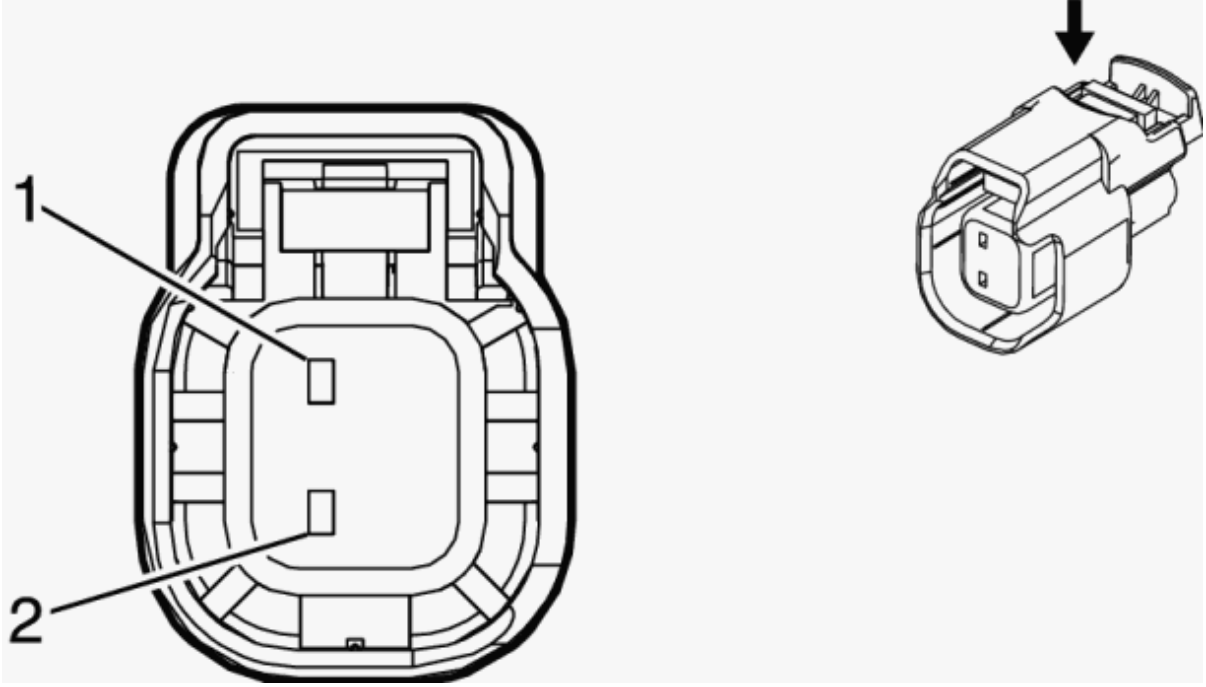
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | I | LH7 |
| 2 | 1.5 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | I | LH7 |

## Q17C FUEL INJECTOR 3 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 13580239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

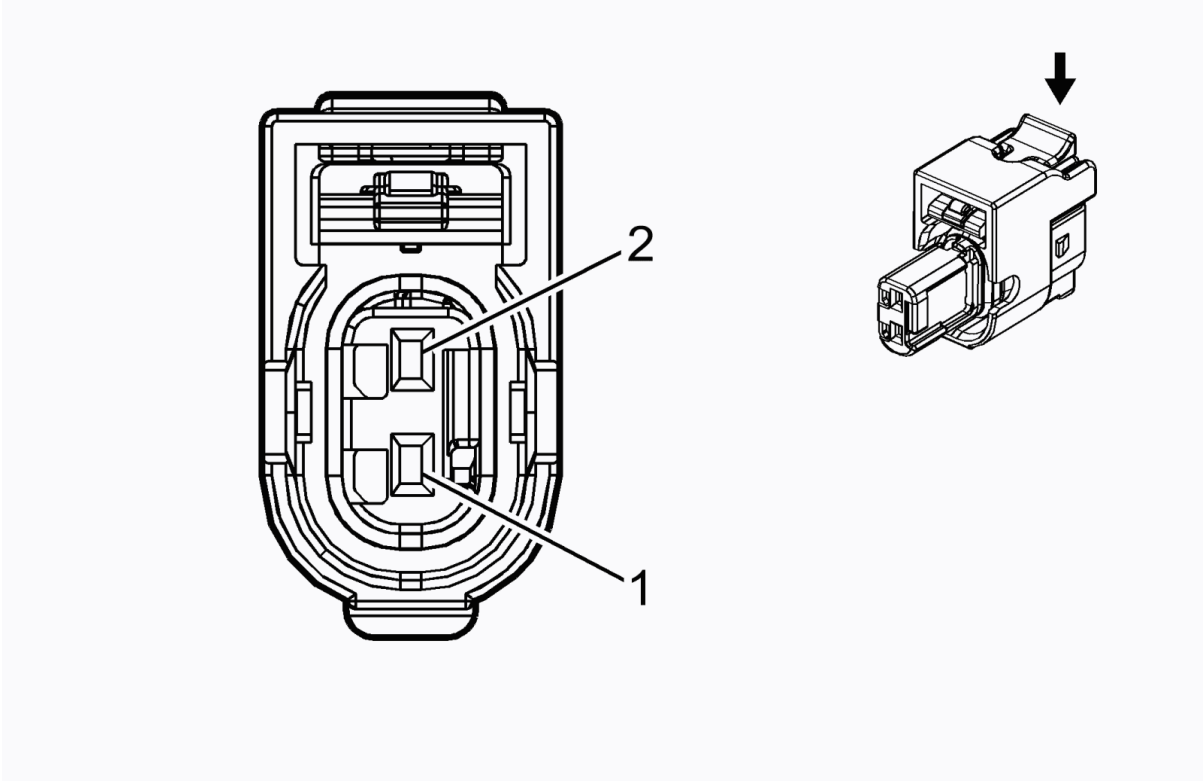
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | I | - |
| 2 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | I | - |

## Q17C FUEL INJECTOR 3 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 2098641-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BN)

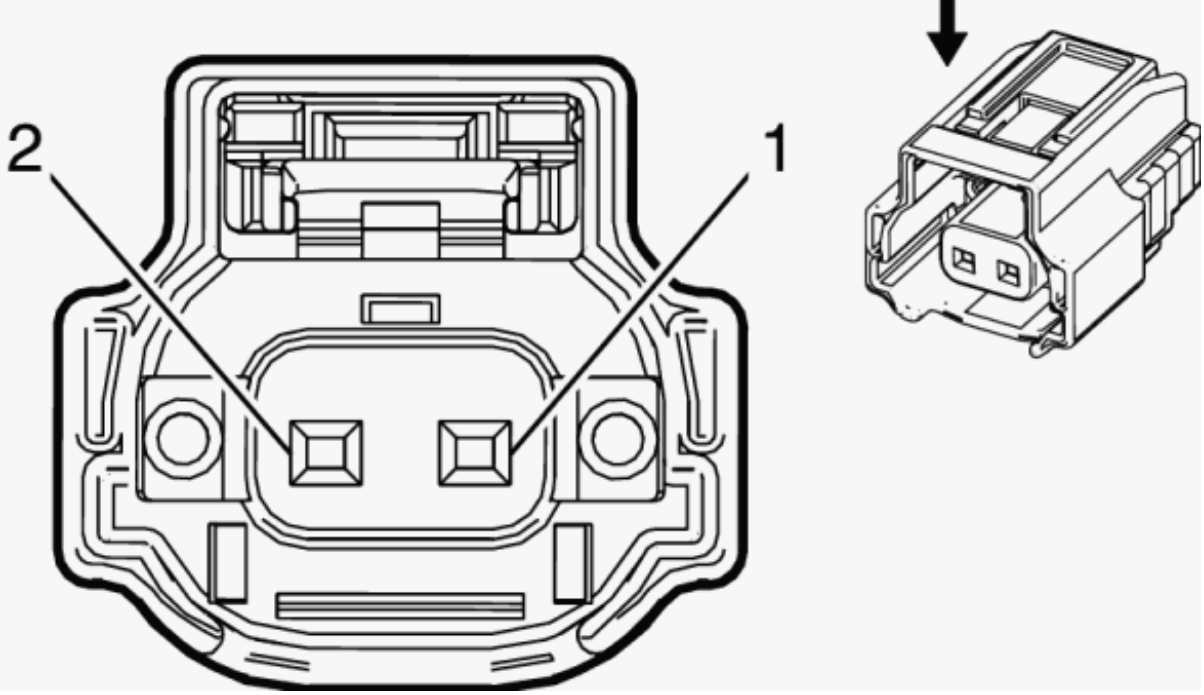
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GN | 4803 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | I | - |
| 2 | 0.75 | GN/GY | 4903 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | I | - |

## Q17D FUEL INJECTOR 4 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55573377
- Service Connector: 13407097
- Description: 2-Way F 090 DL Series, Sealed (BK)

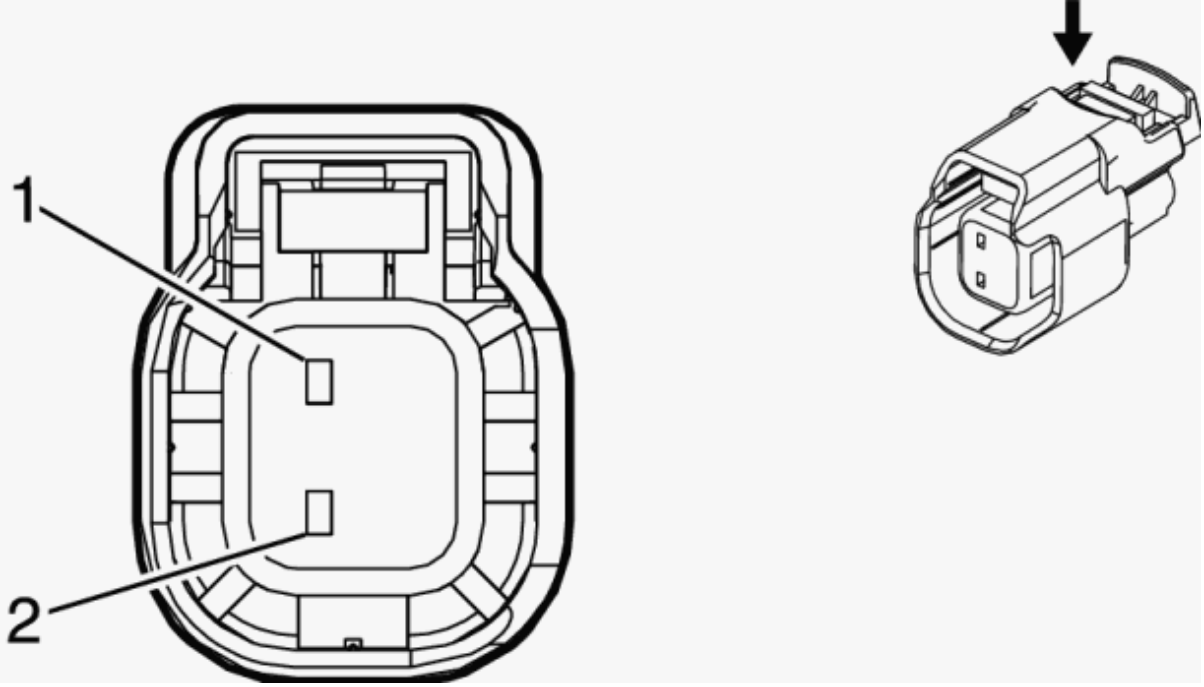
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-18 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | I | LH7 |
| 2 | 1.5 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | I | LH7 |

## Q17D FUEL INJECTOR 4 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 13580239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed (BK)

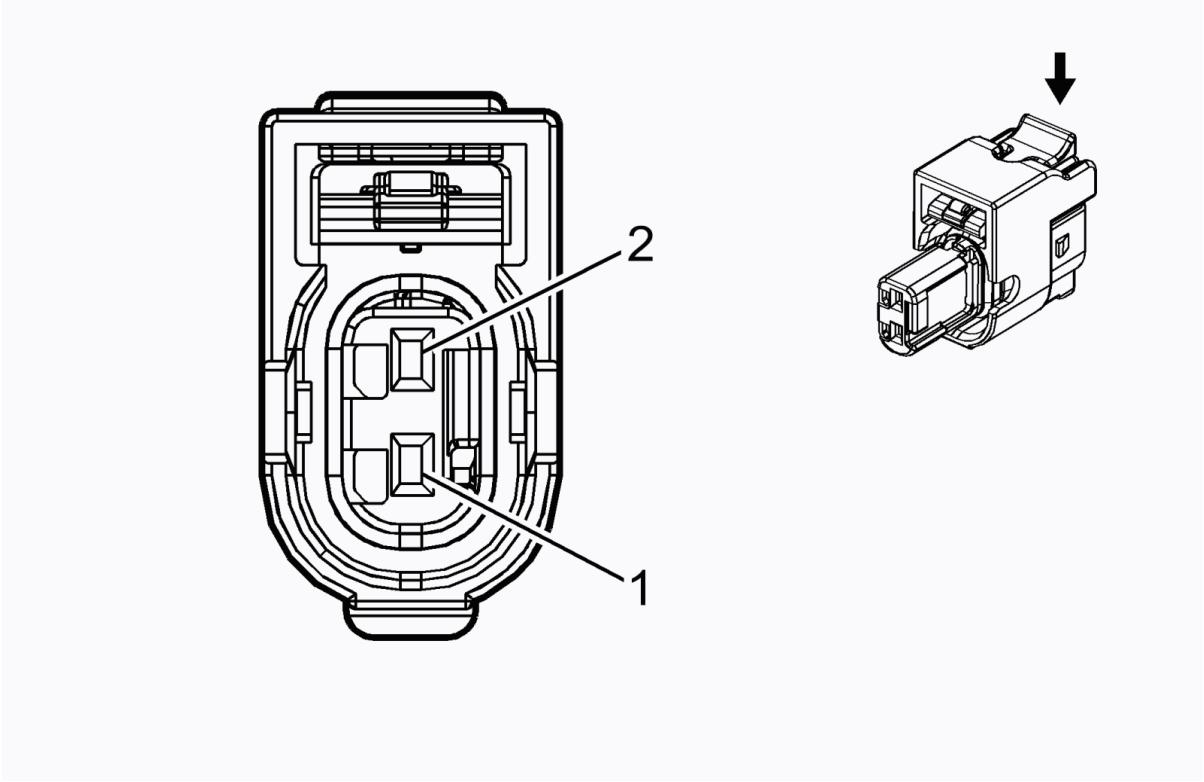
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | I | - |
| 2 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | I | - |

## Q17D FUEL INJECTOR 4 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 2098641-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BN)

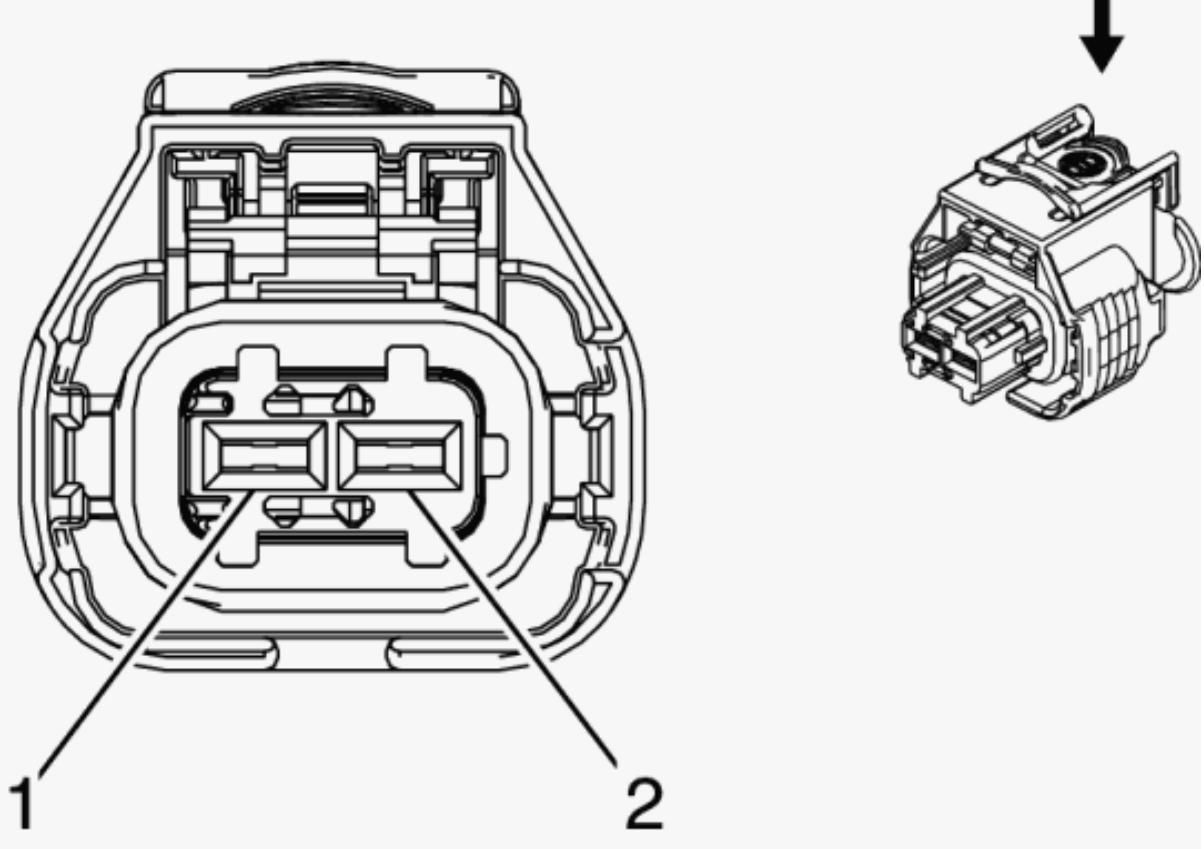
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/BU | 4804 | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | I | - |
| 2 | 0.75 | BU/WH | 4904 | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | I | - |

## Q18A FUEL PRESSURE REGULATOR 1 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

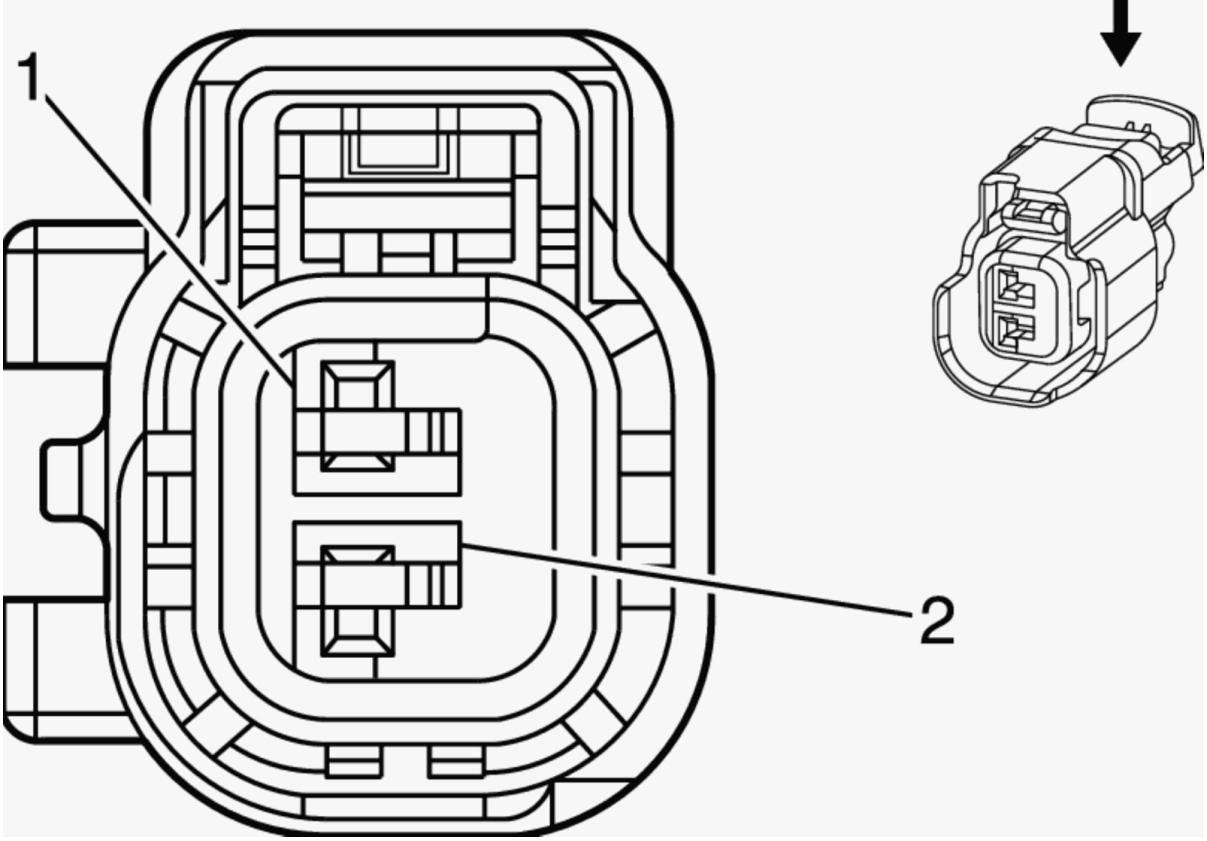
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE | 2928 | Fuel Metering Valve High Control | I | LH7 |
| 2 | 0.5 | BN/BK | 2929 | Fuel Metering Valve Low Control | I | LH7 |

## Q18B FUEL PRESSURE REGULATOR 2 (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 34062-0001
- Service Connector: 19355450
- Description: 2-Way F 1.5 Series, Sealed (BK)

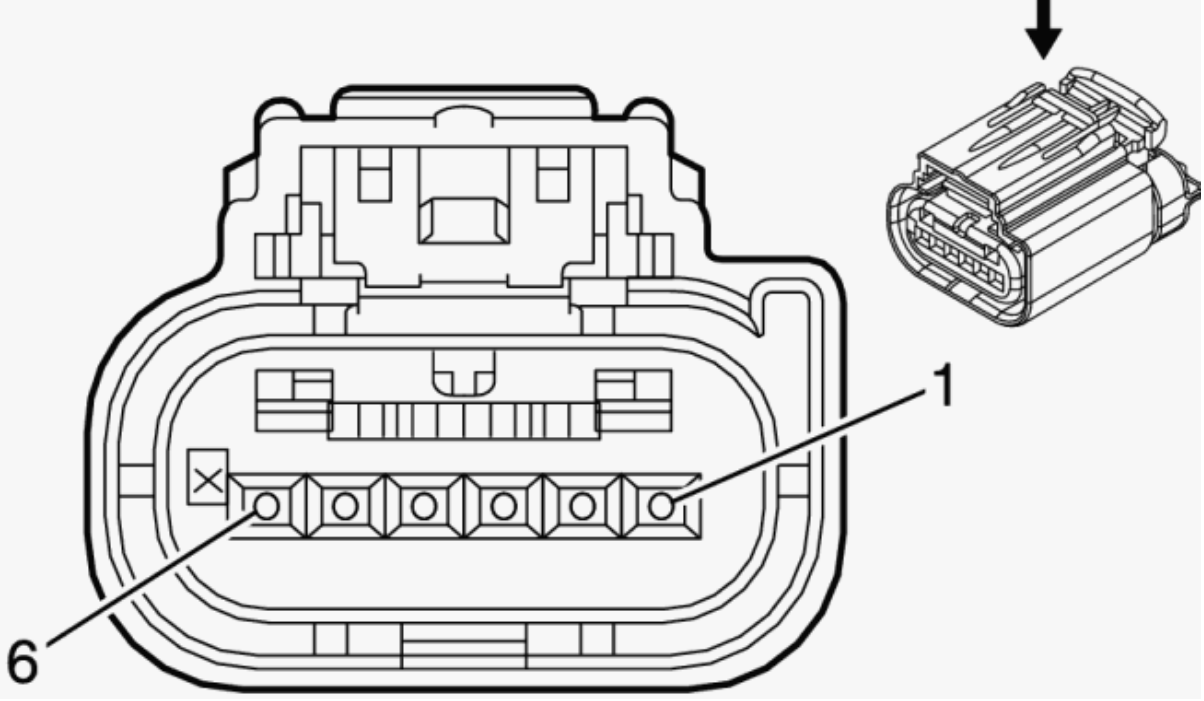
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BU/WH | 2530 | Fuel Rail Pressure Solenoid Control | I | LH7 |
| 2 | 0.5 | BK/YE | 2834 | Fuel Rail Pressure Solenoid Low Reference | I | LH7 |

## Q20 INTAKE AIR FLOW VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13505967
- Service Connector: 13586581
- Description: 6-Way F 0.64 GET Series, Sealed (BK)

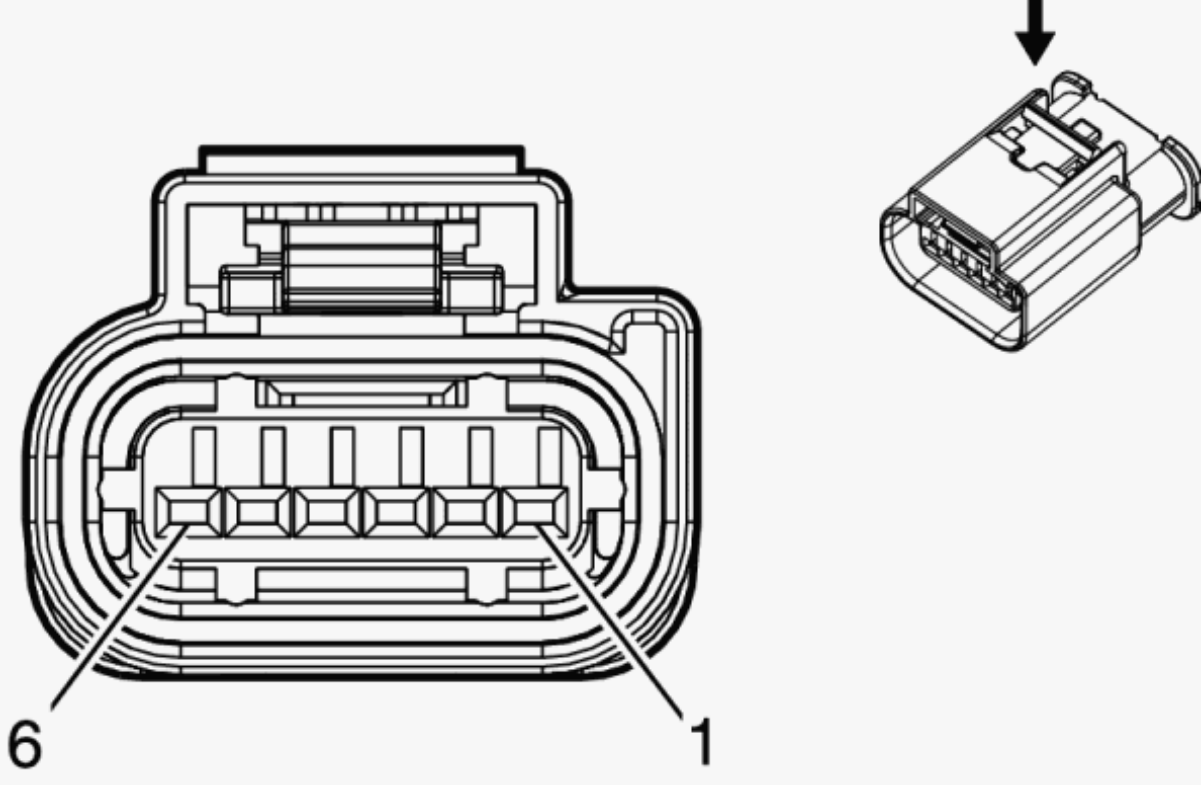
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE | 581 | Throttle Actuator Control Open | I | LH7 |
| 2 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | I | LH7 |
| 3 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | I | LH7 |
| 4 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | I | LH7 |
| 5 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | I | LH7 |
| 6 | - | - | - | Not Occupied | - | - |

## Q38 THROTTLE BODY (LTG/LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13507087
- Service Connector: 19352911
- Description: 6-Way F 1.2 MCON Series, Sealed (BK)

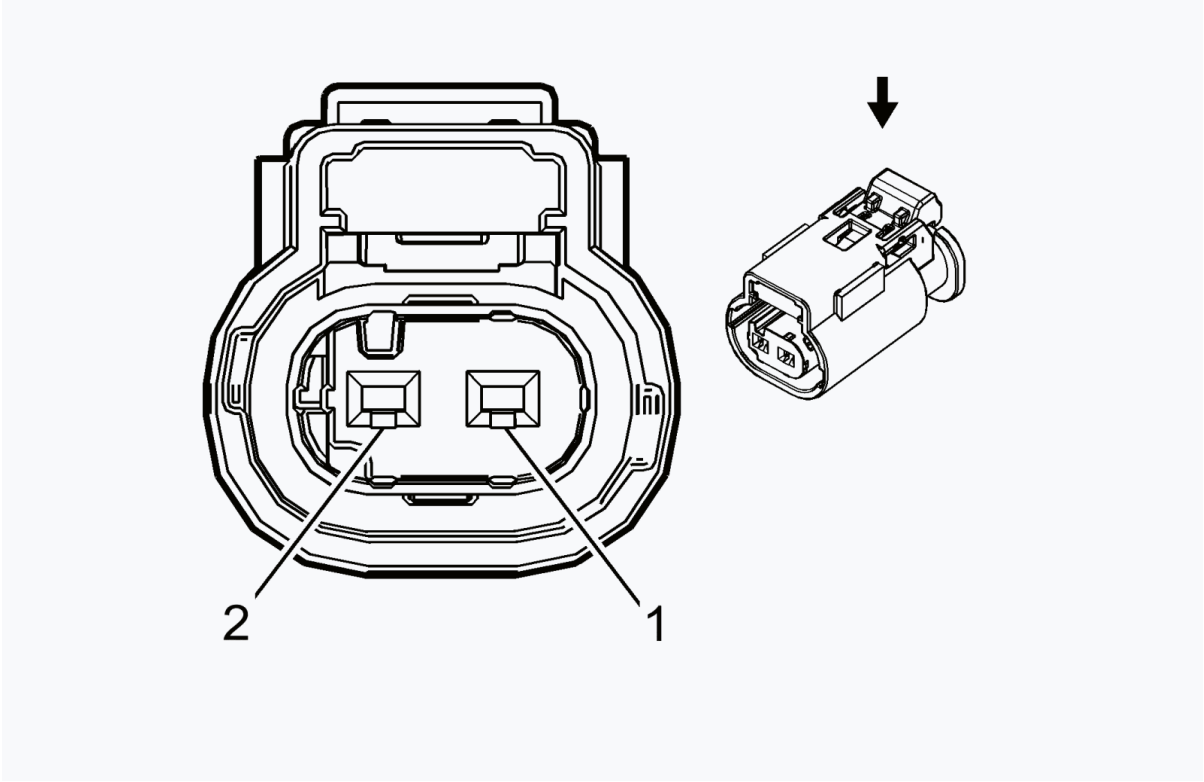
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE | 581 | Throttle Actuator Control Open | I | - |
| 2 | 0.5 | BN/WH | 582 | Throttle Actuator Control Close | I | - |
| 3 | 0.5 | BU/WH | 3630 | Throttle Position Sensor (SENT1) Signal | I | - |
| 4 | 0.5 | BK/BN | 2752 | Throttle Position Sensor Low Reference | I | - |
| 5 | 0.5 | BN/RD | 2701 | Throttle Position Sensor 5V Reference | I | - |
| 6 | - | - | - | Not Occupied | - | - |

## Q40 TURBOCHARGER BYPASS SOLENOID VALVE (LTG/LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503568
- Service Connector: 13587321
- Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

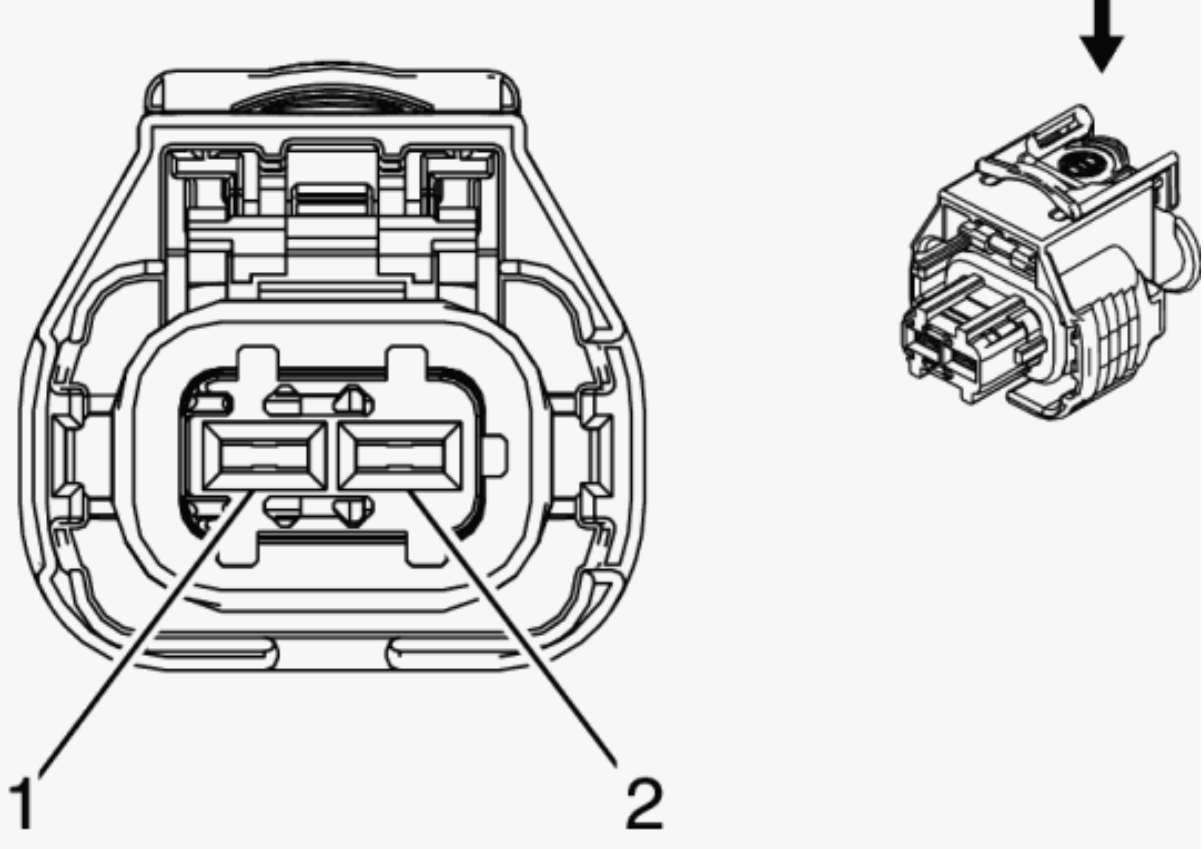
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | - |
| 2 | 0.5 | GN | 3060 | Turbo Bypass Solenoid Control Bank 1 | I | - |

## Q41 TURBOCHARGER VANE POSITION CONTROL SOLENOID VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

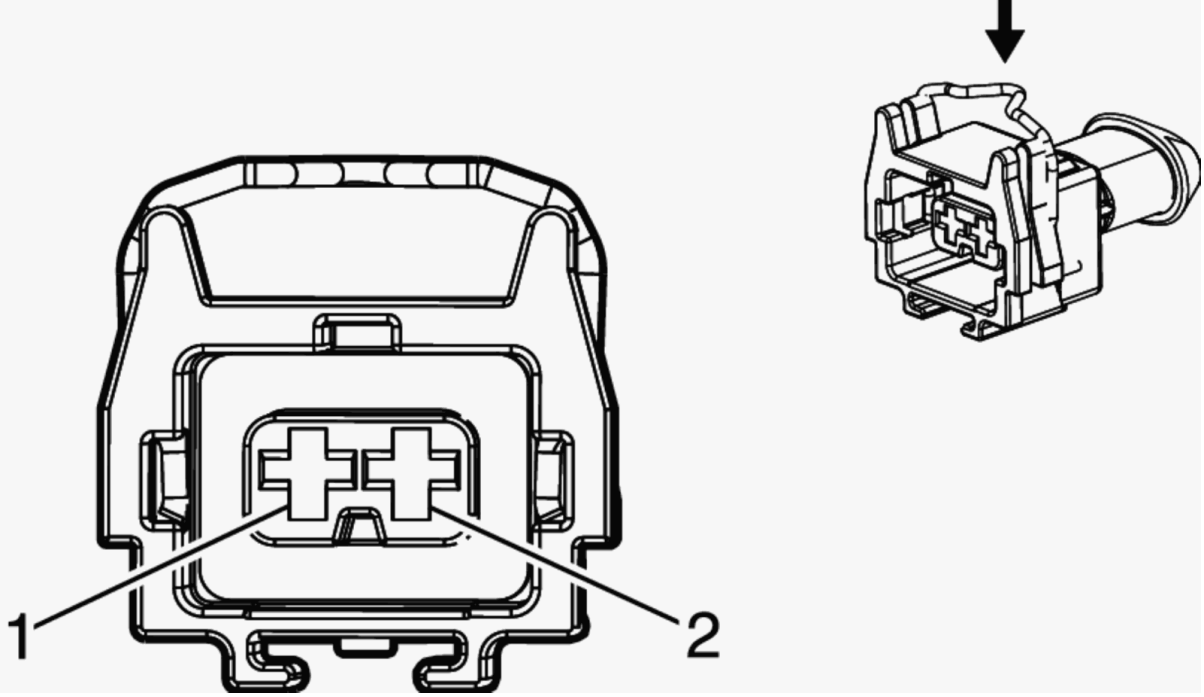
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BK | 5931 | Variable Nozzle Turbo Solenoid Low Signal | I | LH7 |
| 2 | 0.5 | GY/BU | 5930 | Variable Nozzle Turbo Solenoid High Signal | I | LH7 |

## Q42 TURBOCHARGER WASTEGATE SOLENOID VALVE (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13596651
- Service Connector: 19331009
- Description: 2-Way F 2.8 Timer Series, Sealed (BK)

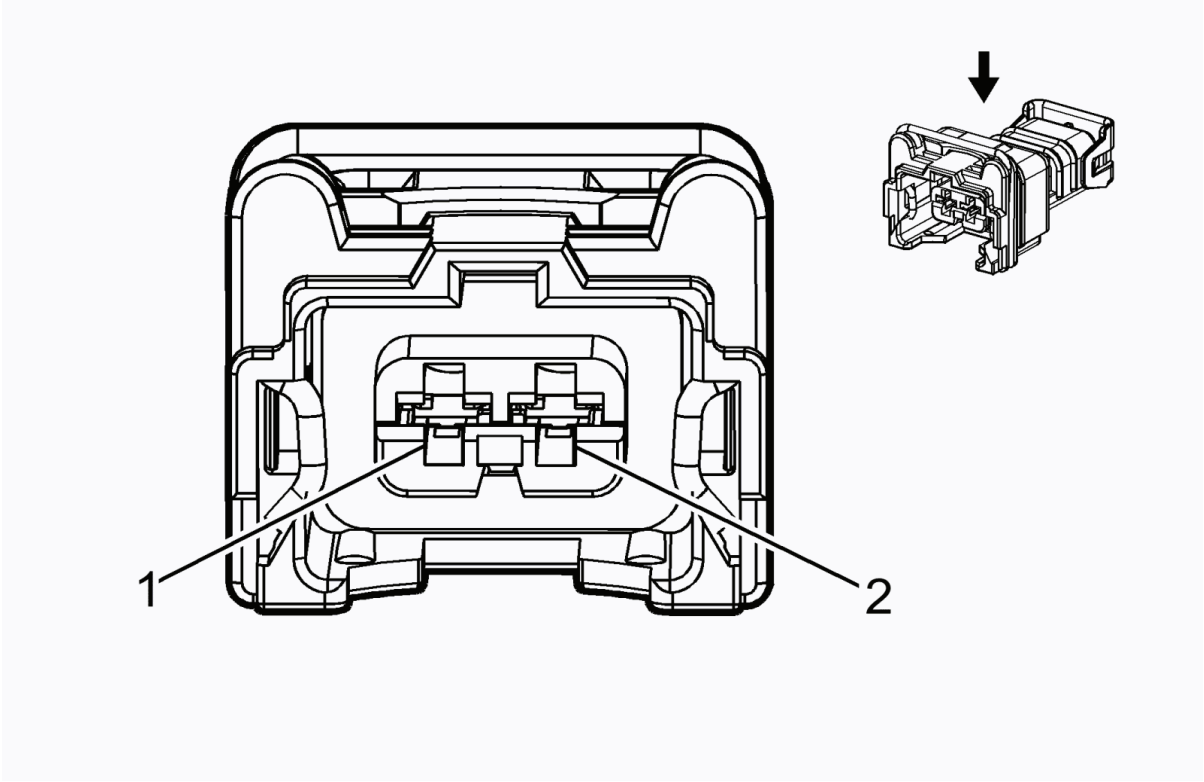
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LTG |
| 2 | 0.5 | BN/YE | 258 | Waste Gate Solenoid Control | I | LTG |

## Q42 TURBOCHARGER WASTEGATE SOLENOID VALVE (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 55565698
- Service Connector: 13577536
- Description: 2-Way F 2.8 DCS Series, Sealed (BK)

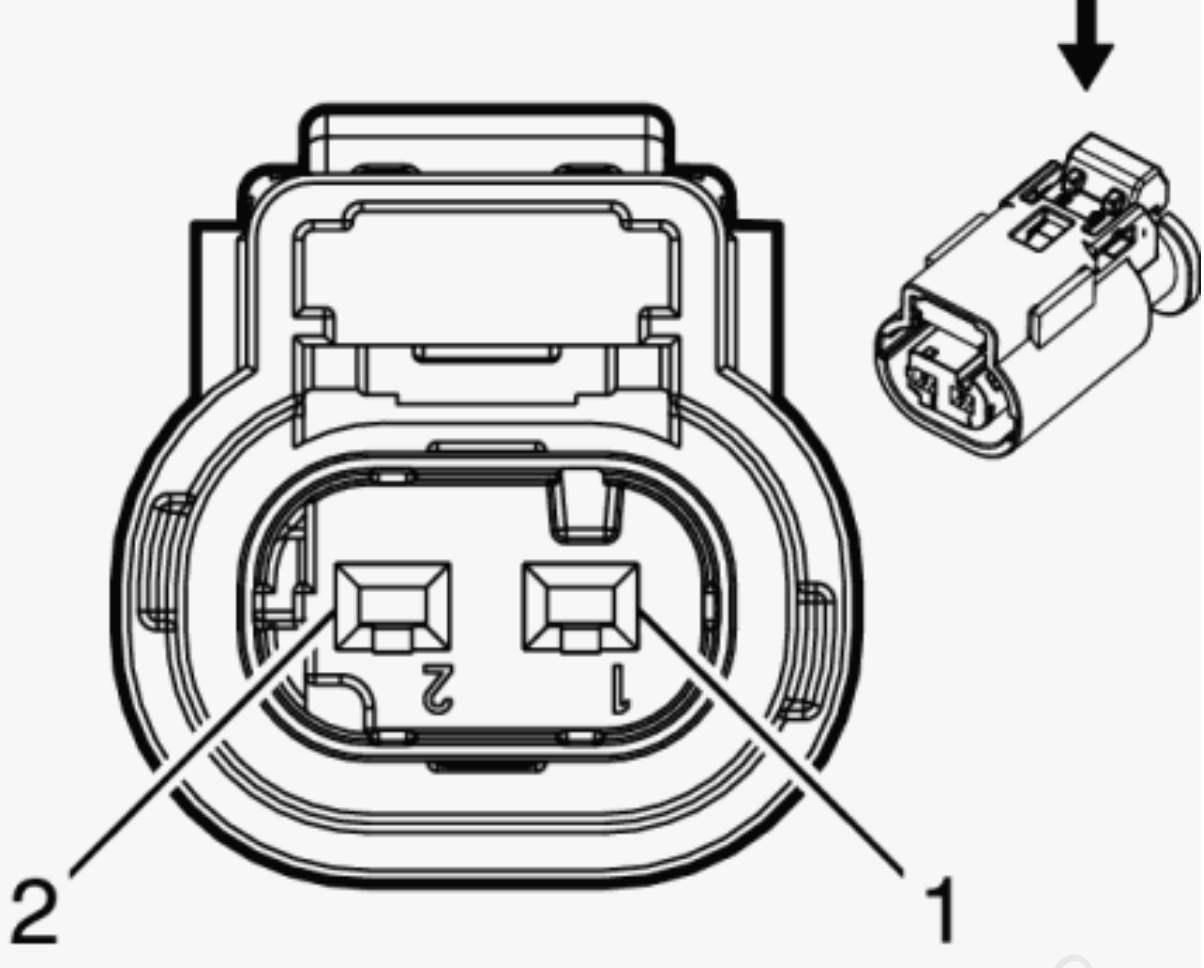
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/YE | 258 | Waste Gate Solenoid Control | I | LYX |
| 2 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LYX |

## Q44 ENGINE OIL PRESSURE CONTROL SOLENOID VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

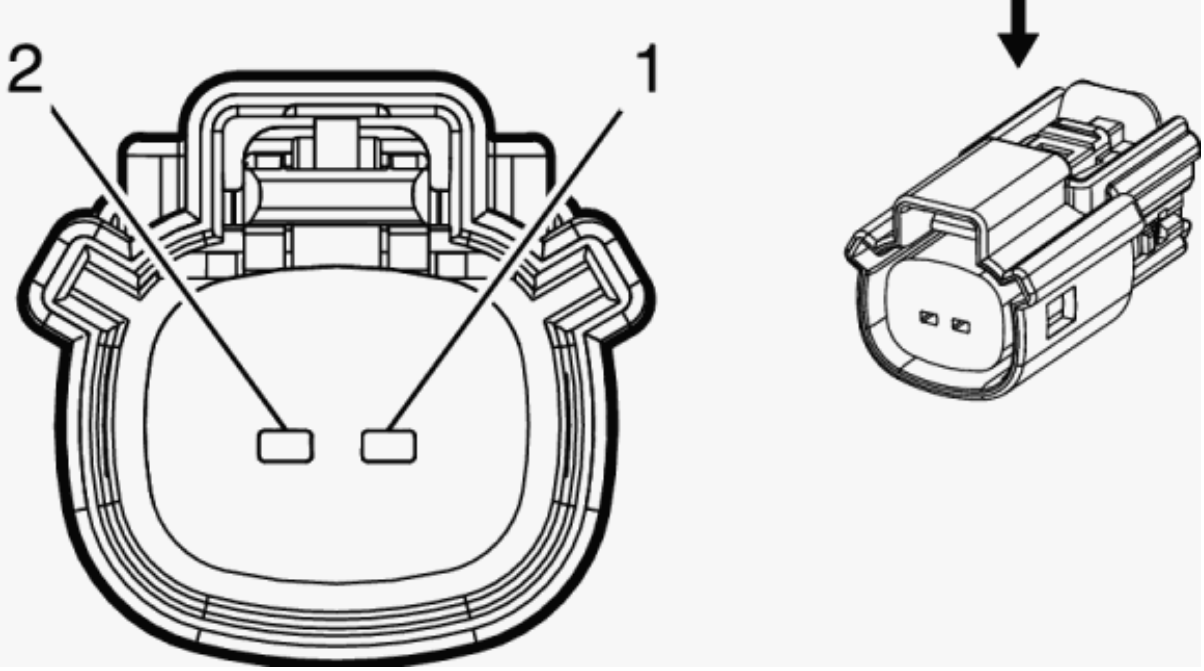
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LH7 |
| 2 | 0.5 | BU | 179 | Oil Pump Command Signal | I | LH7 |

## Q44 ENGINE OIL PRESSURE CONTROL SOLENOID VALVE (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13583151
- Service Connector: 13577534
- Description: 2-Way F 150 MX Series, Sealed (BK)

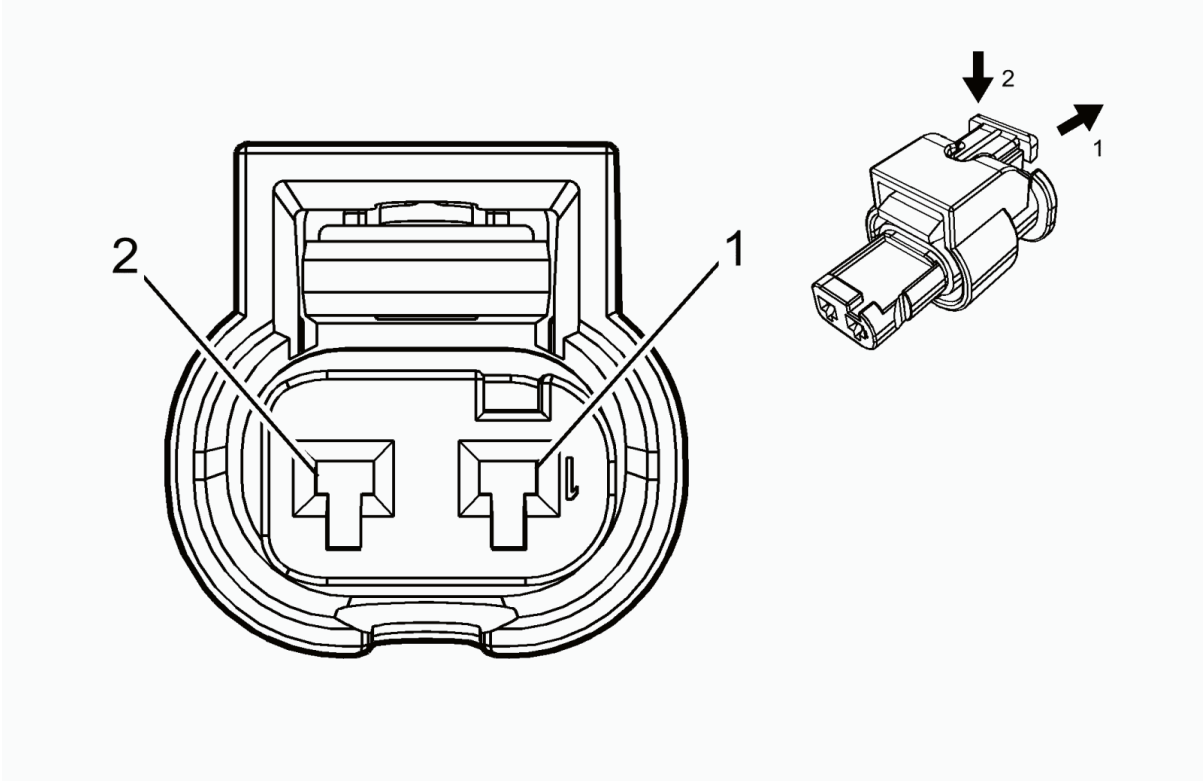
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LTG |
| 2 | 0.5 | BU | 179 | Oil Pump Command Signal | I | LTG |

## Q44 ENGINE OIL PRESSURE CONTROL SOLENOID VALVE (LYX)

carlogun.com




Connector Part Information

- Harness Type: Engine Oil Pressure Control Solenoid Valve
- OEM Connector: 13587570
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BN)

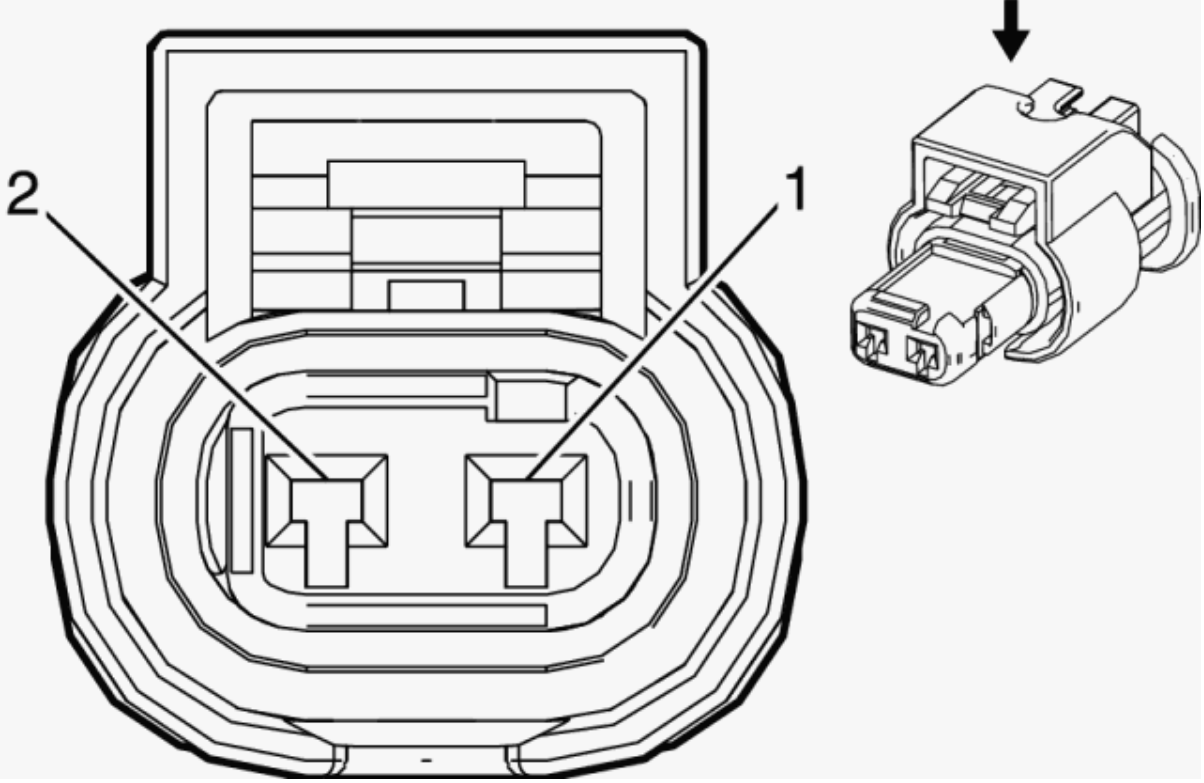
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | - |
| 2 | 0.5 | BU | 179 | Oil Pump Command Signal | I | - |

## Q45 PISTON COOLING OIL JET SOLENOID VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13586143
- Service Connector: 19329415
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

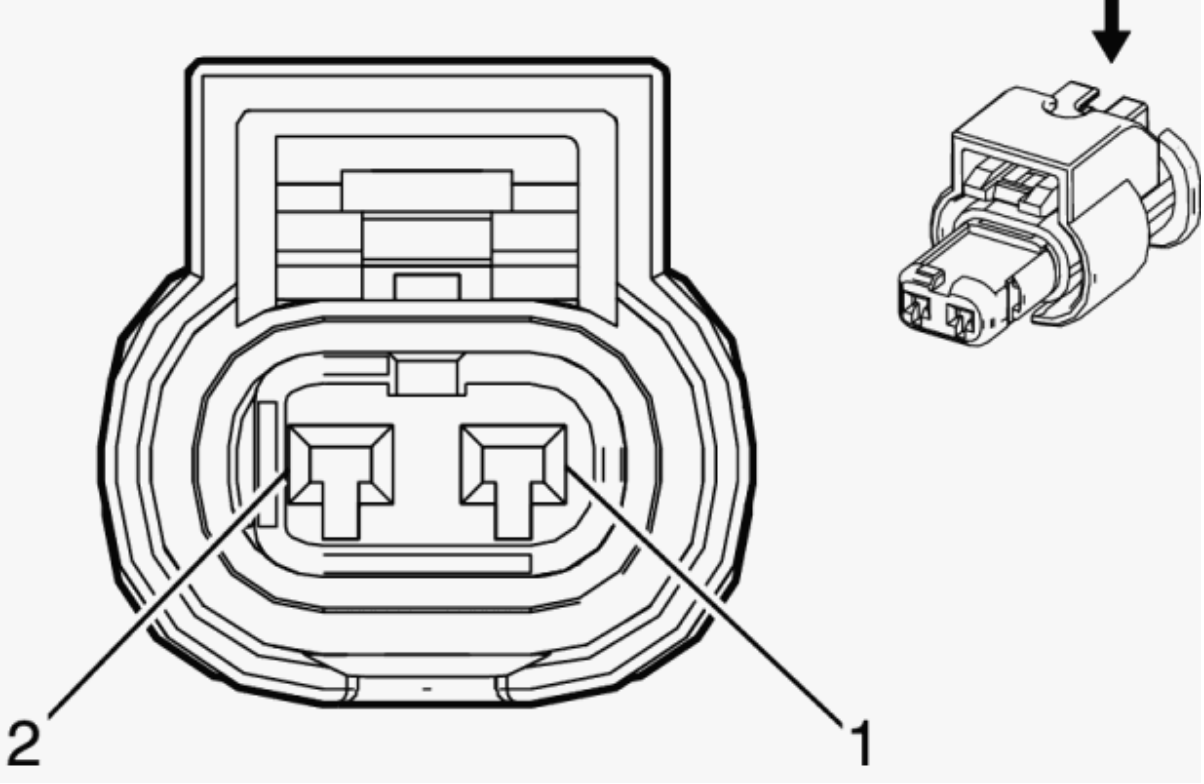
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LH7 |
| 2 | 0.75 | GN/VT | 3920 | Piston Cooling Jet Valve Control | I | LH7 |

## Q46 A/C COMPRESSOR SOLENOID VALVE

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13505429
- Service Connector: 19368733
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

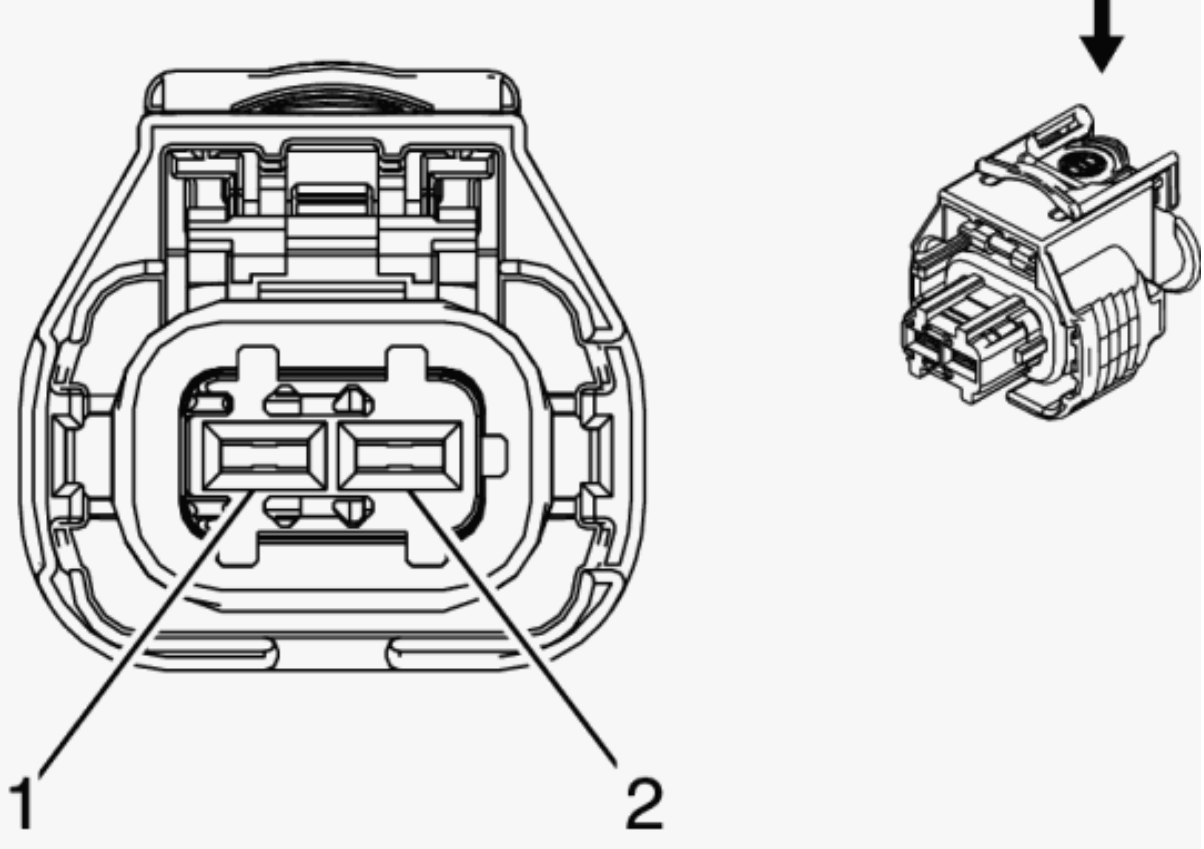
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/YE | 7574 | Electric Variable Displacement Control | I | - |
| 2 | 0.75 | BU/BN | 7573 | Electric Variable Displacement Supply | I | - |

## Q47 EXHAUST GAS RECIRCULATION COOLER BYPASS SOLENOID VALVE (LH7)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13343443
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed (BK)

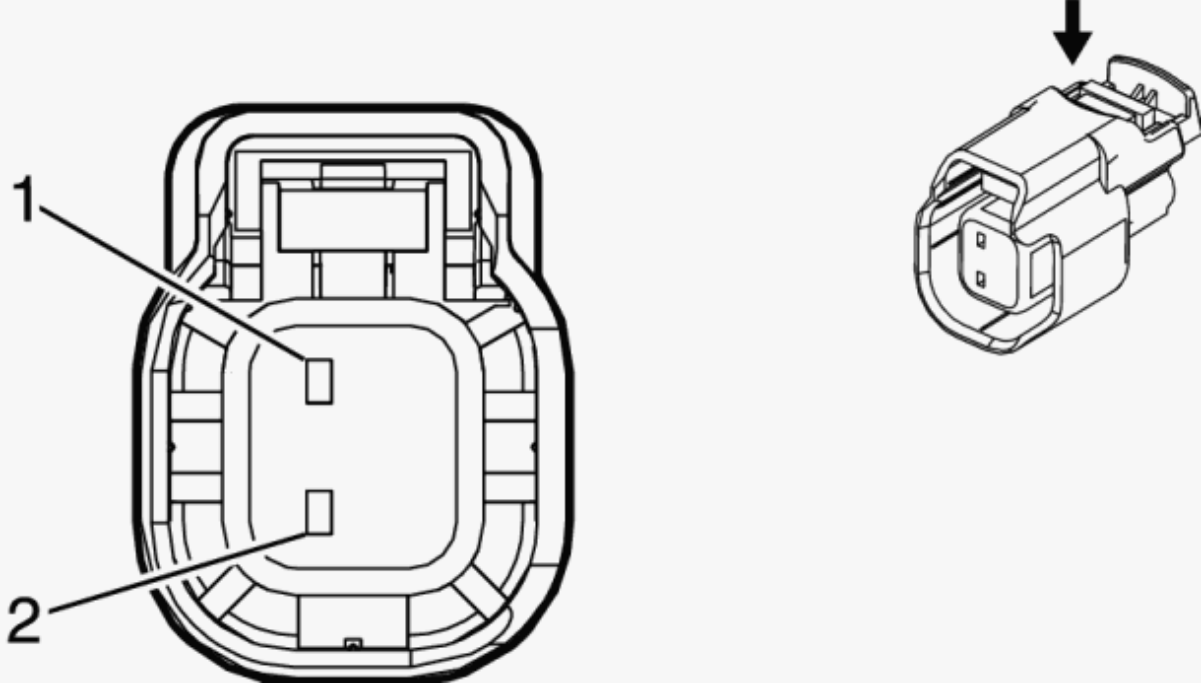
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BU | 3230 | Exhaust Gas Recirculation Cooler Bypass Solenoid Control | I | LH7 |
| 2 | 0.5 | YE/BU | 3231 | Exhaust Gas Recirculation Cooler Bypass Solenoid Control | I | LH7 |

## Q61 REDUCTANT INJECTOR (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13580239
- Service Connector: 19352404
- Description: 2-Way F 1.5 Series, Sealed (BK)

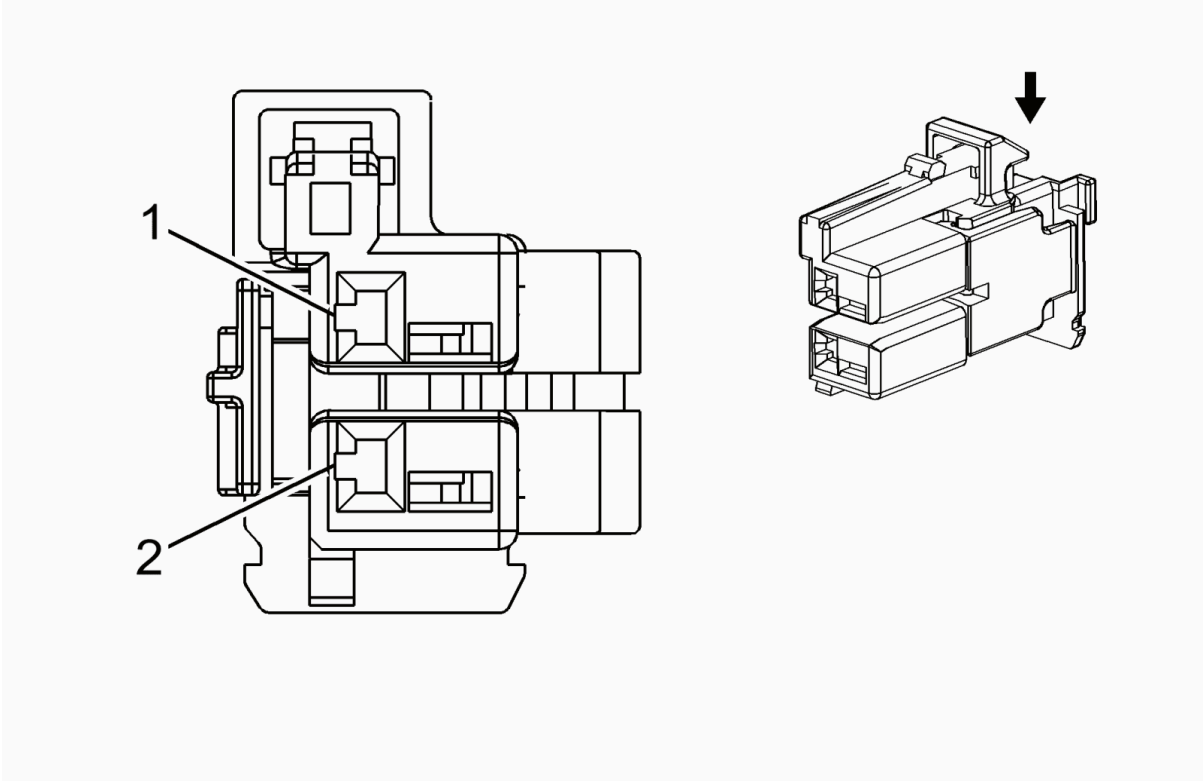
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BN/WH | 3100 | DEF Dosing Valve Low Control | I | - |
| 2 | 0.5 | BN | 3099 | DEF Dosing Valve High Control | I | - |

## Q77A TRANSMISSION CONTROL SOLENOID VALVE 1 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

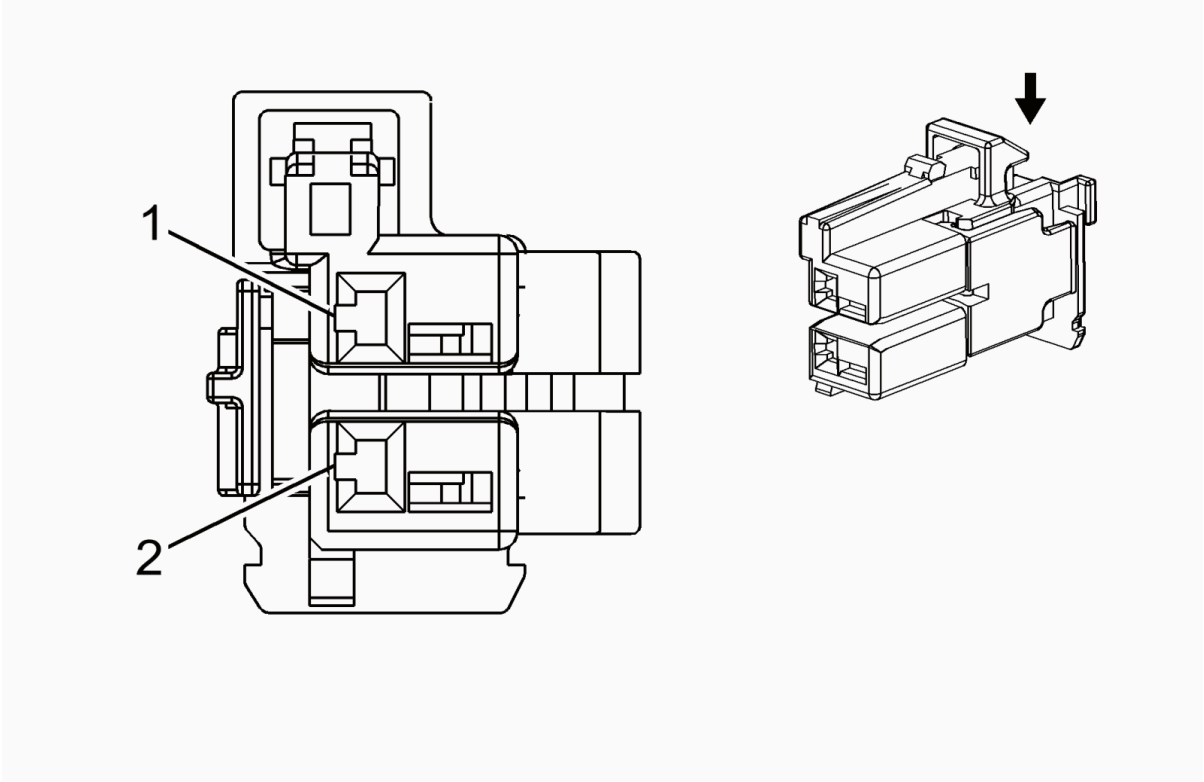
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | GY | 6402 | Clutch C Control | I | M3D/M3H/M3U |

## Q77B TRANSMISSION CONTROL SOLENOID VALVE 2 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

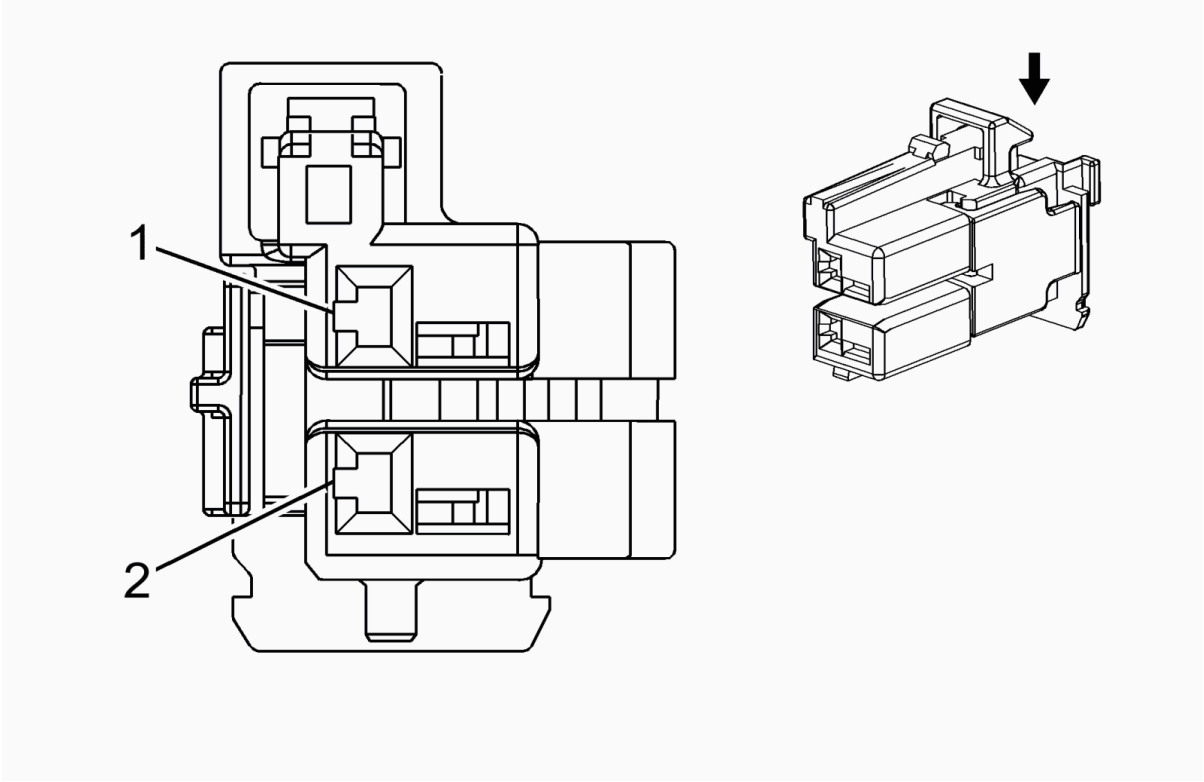
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | GY/GN | 6403 | Clutch D Control | I | M3D/M3H/M3U |

## Q77C TRANSMISSION CONTROL SOLENOID VALVE 3 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BU)

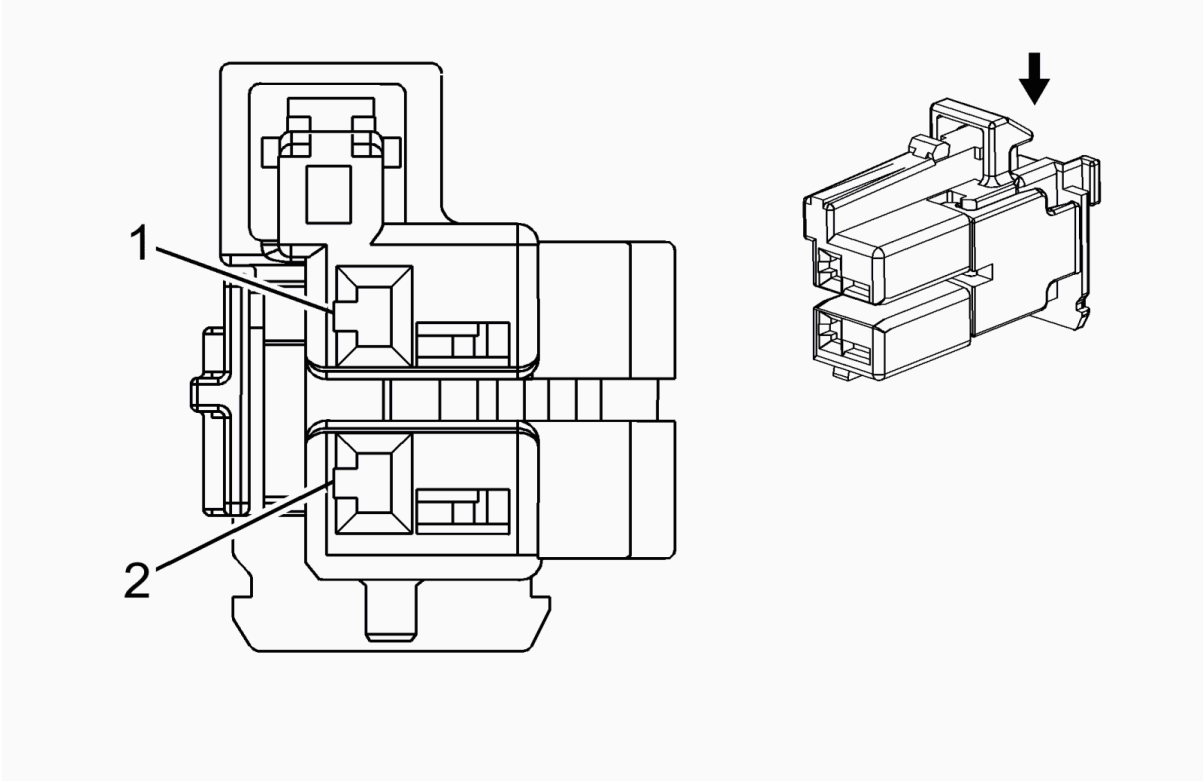
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | YE/BN | 6404 | Clutch E Control | I | M3D/M3H/M3U |

## Q77D TRANSMISSION CONTROL SOLENOID VALVE 4 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BU)

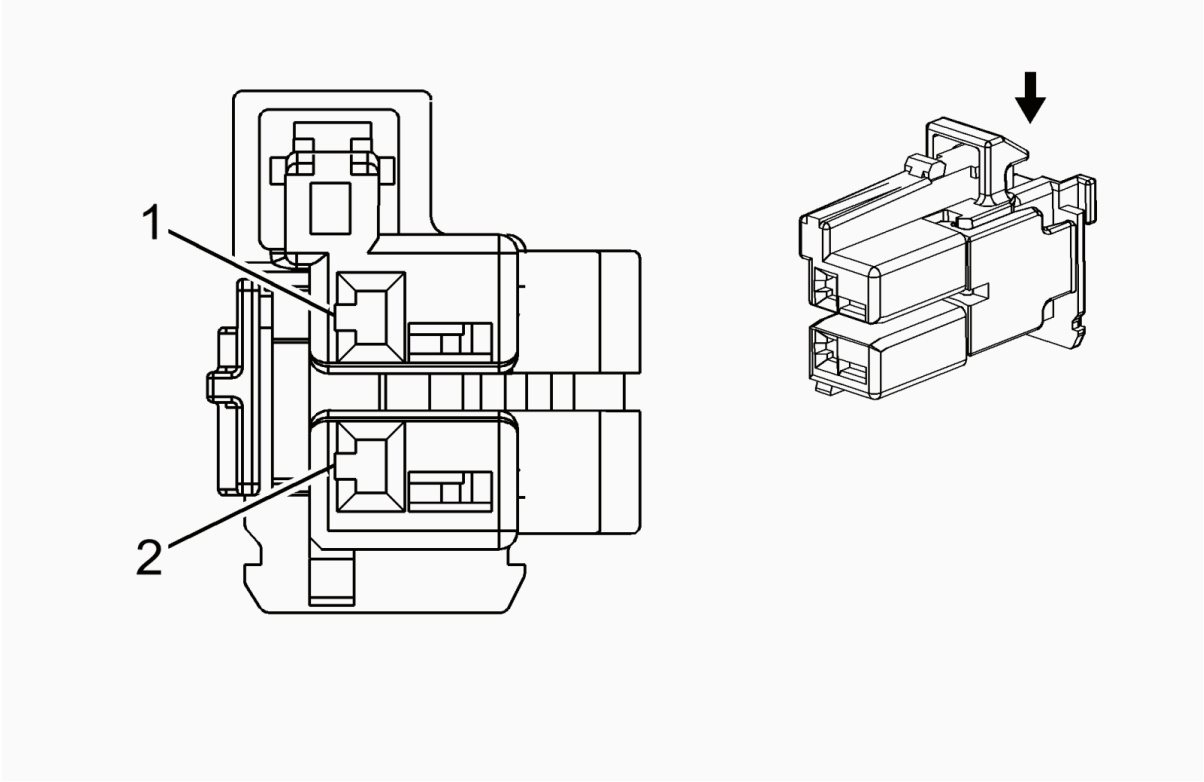
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | VT | 4509 | Transmission Clutch F Control | I | M3D/M3H/M3U |

## Q77E TRANSMISSION CONTROL SOLENOID VALVE 5 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

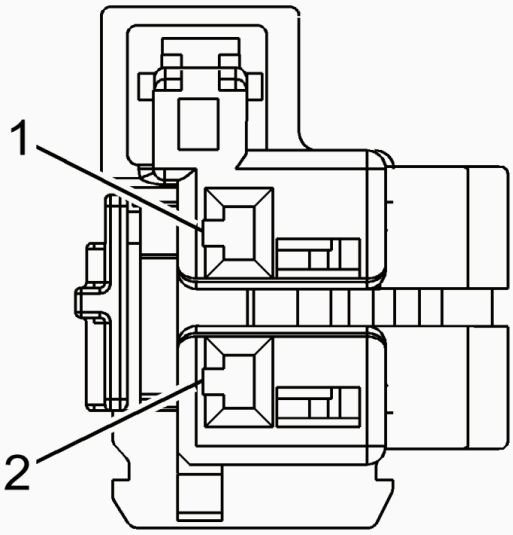
**Terminal Part Information**

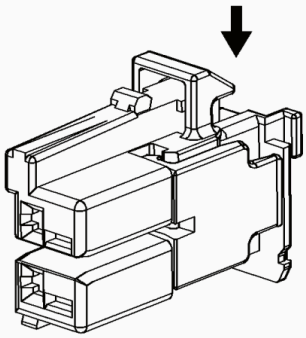
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | M3D/M3H/M3U |
| 2 | 0.5 | WH | 4508 | Transmission Clutch G Control | I | M3D/M3H/M3U |

## Q77F TRANSMISSION CONTROL SOLENOID VALVE 6 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

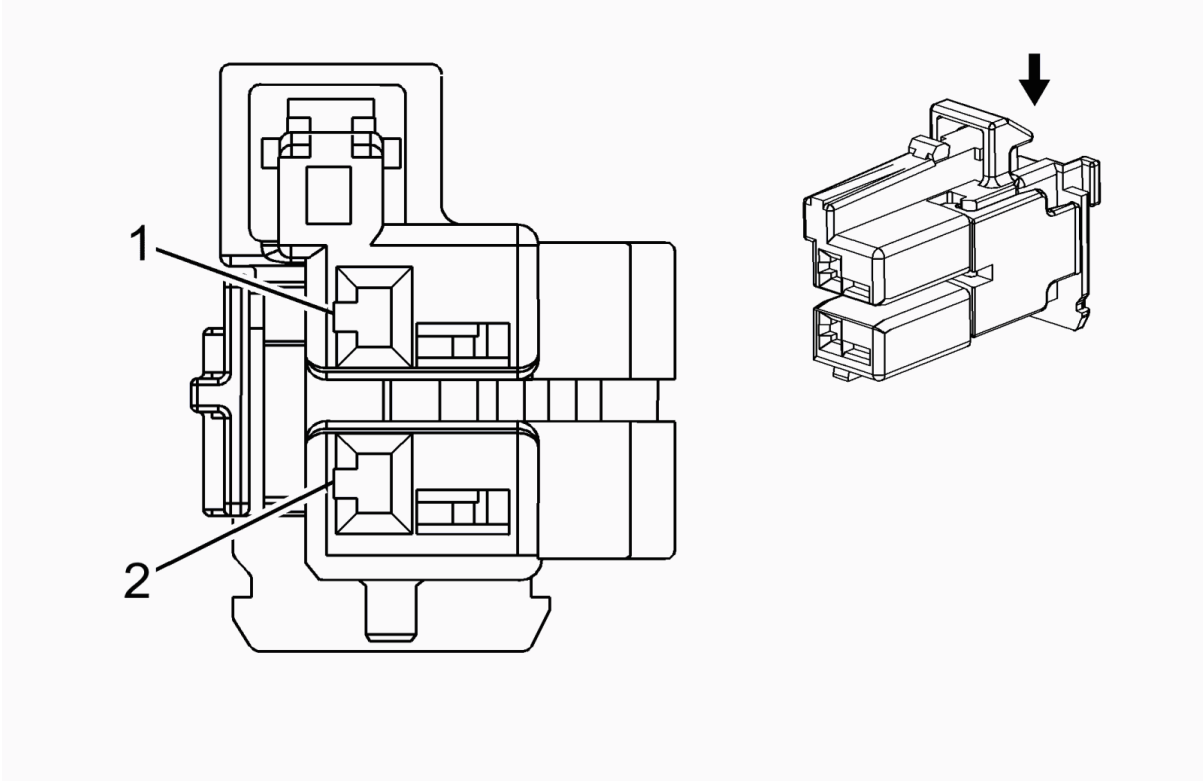
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | M3D/M3H/M3U |
| 2 | 0.5 | WH/BU | 4507 | Transmission Clutch H Control | I | M3D/M3H/M3U |

## Q77G TRANSMISSION CONTROL SOLENOID VALVE 7 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BU)

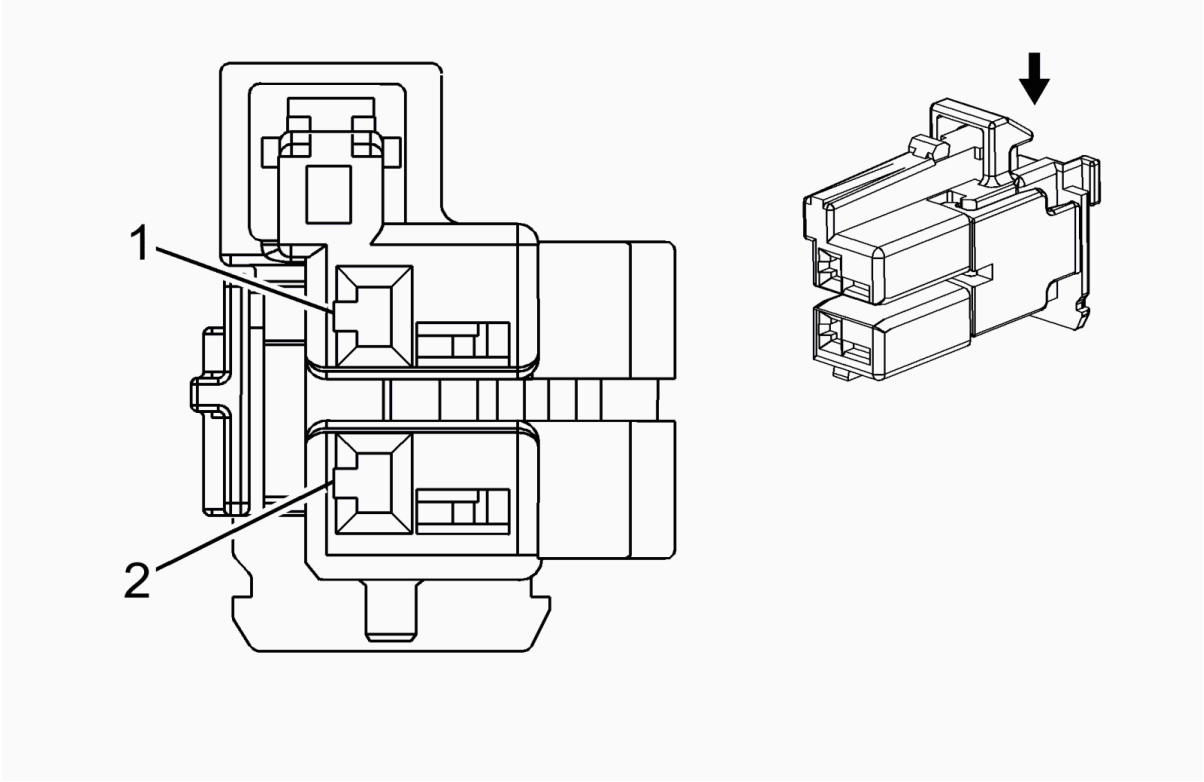
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | BN | 6400 | Clutch A Control | I | M3D/M3H/M3U |

## Q77H TRANSMISSION CONTROL SOLENOID VALVE 8 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (BU)

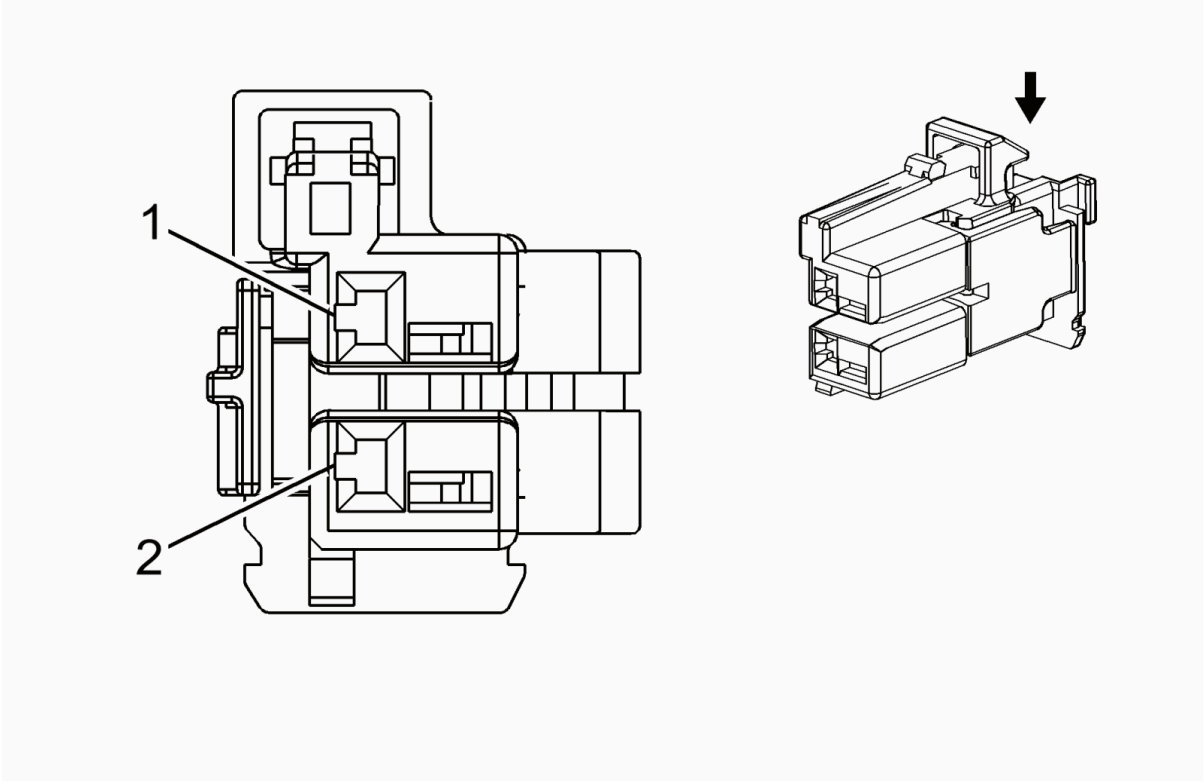
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | M3D/M3H/M3U |
| 2 | 0.5 | BU | 6401 | Clutch B Control | I | M3D/M3H/M3U |

## Q77J TRANSMISSION CONTROL SOLENOID VALVE 9 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

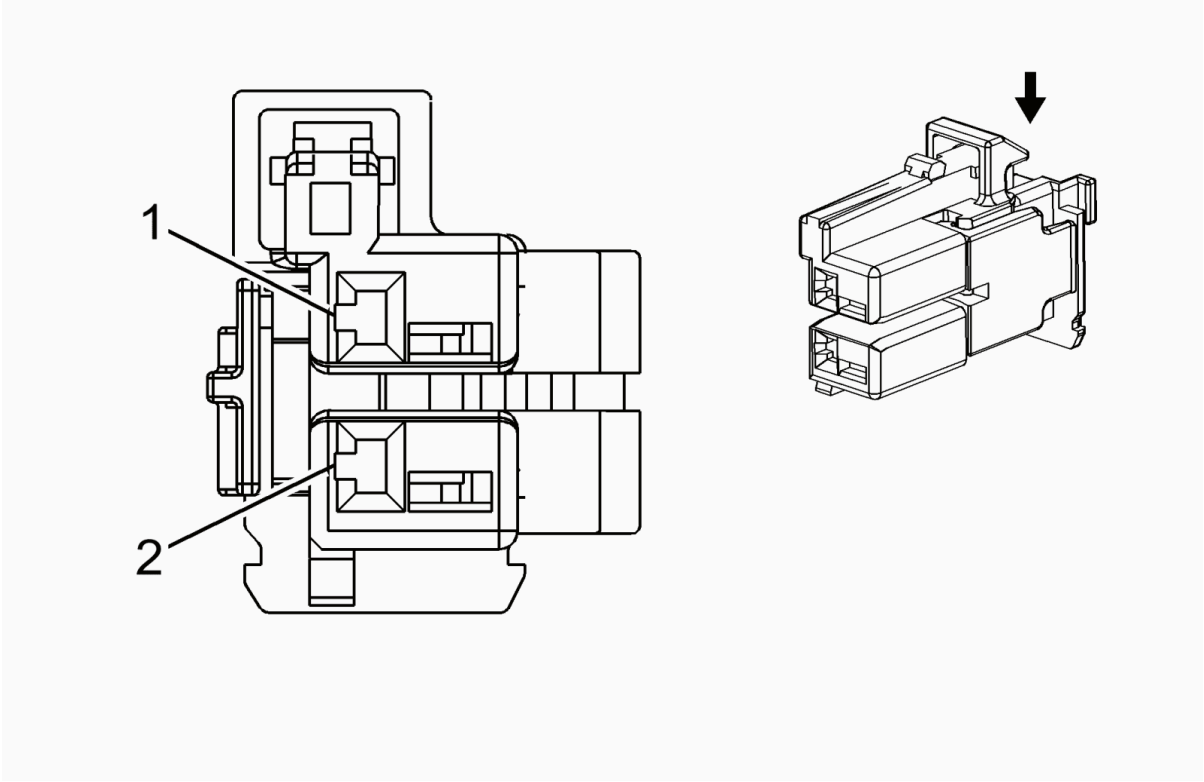
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | M3D/M3H/M3U |
| 2 | 0.5 | GY/BK | 5501 | TCC/Clutch Select Solenoid Control | I | M3D/M3H/M3U |

## Q77K TRANSMISSION CONTROL SOLENOID VALVE 10 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203696-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series (NA)

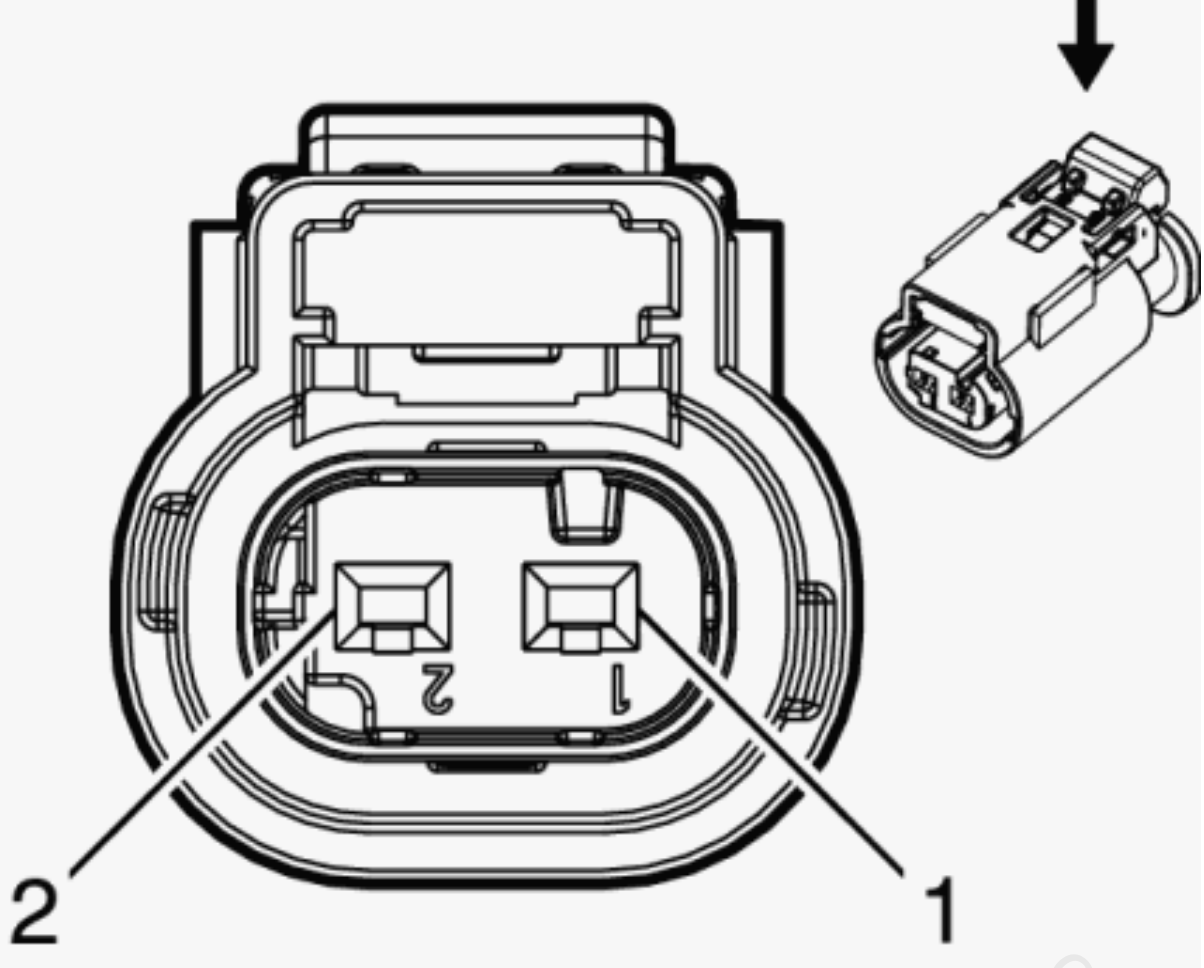
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | M3D/M3H/M3U |
| 2 | 0.5 | WH | 1971 | Transmission Oil Level Sensor Signal | I | M3D/M3H/M3U |

## Q84C CAMSHAFT POSITION ACTUATOR PARK LOCK SOLENOID VALVE - INTAKE (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13503566
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

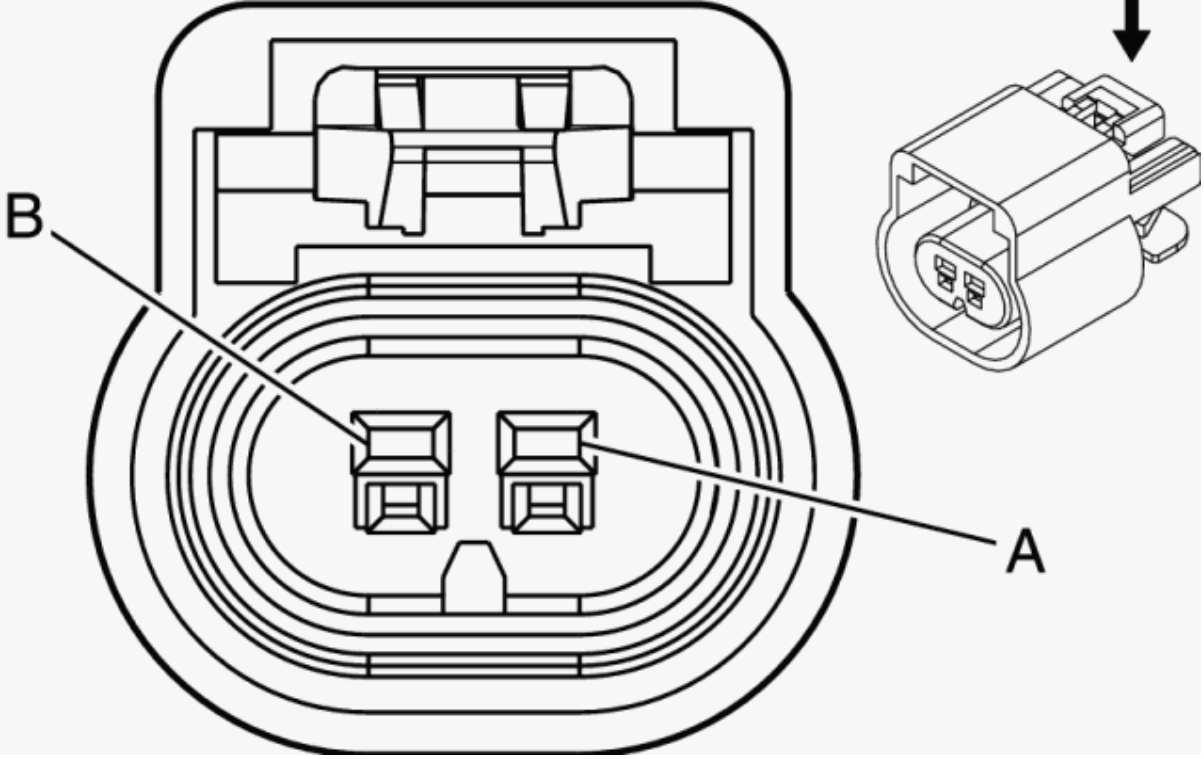
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | I | LYX |
| 2 | 0.5 | YE/GN | 4321 | Park Phaser Lock Control | I | LYX |

## R6A TERMINATING RESISTOR - HIGH SPEED BUS

cardiagn.com




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 19153731
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 GT Series, Sealed (BK)

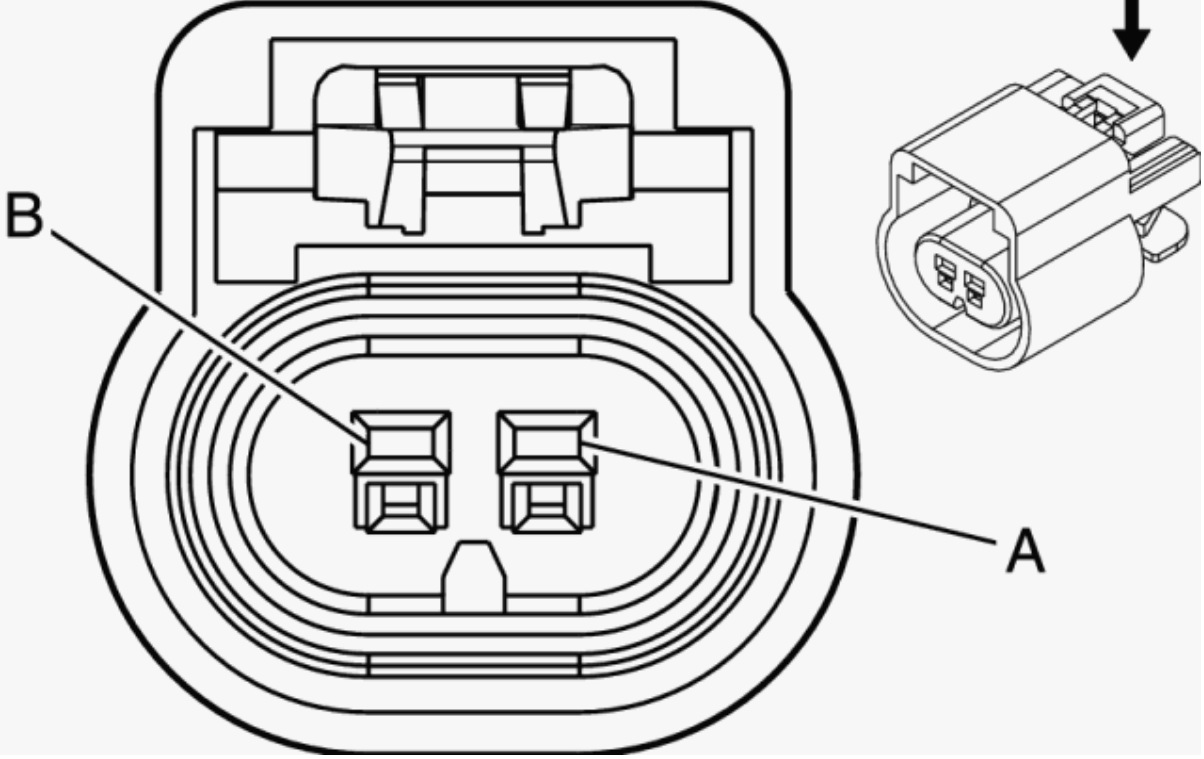
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35<br>0.35 | BU<br>BU | 2500<br>2500 | High Speed GMLAN Serial Data (+) 1<br>High Speed GMLAN Serial Data (+) 1 | III<br>I | F48<br>-F48 |
| B | 0.35<br>0.35 | WH<br>WH | 2501<br>2501 | High Speed GMLAN Serial Data (-) 1<br>High Speed GMLAN Serial Data (-) 1 | III<br>II | F48<br>-F48 |

## R6E TERMINATING RESISTOR - HIGH SPEED EXTENSION BUS 1 (TR7)

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 19153731
- Service Connector: 13580114
- Description: 2-Way F 150 GT Series, Sealed (BK)

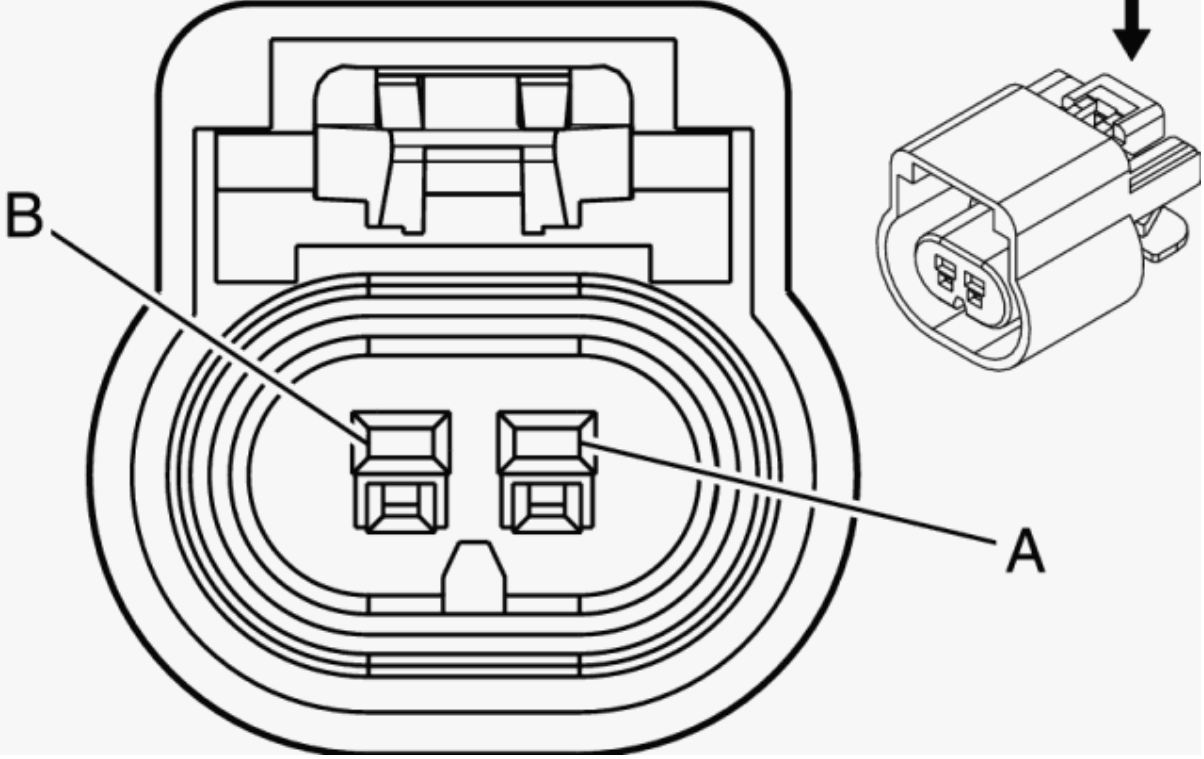
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BU/GY | 3935 | High Speed GMLAN Serial Data (+) 8 | I | T4L+TR7 |
| B | 0.35 | WH/GY | 3936 | High Speed GMLAN Serial Data (-) 8 | I | T4L+TR7 |

## R6F TERMINATING RESISTOR - HIGH SPEED EXTENSION BUS 2

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19153731
- Service Connector: 13580114
- Description: 2-Way F 150 GT Series, Sealed (BK)

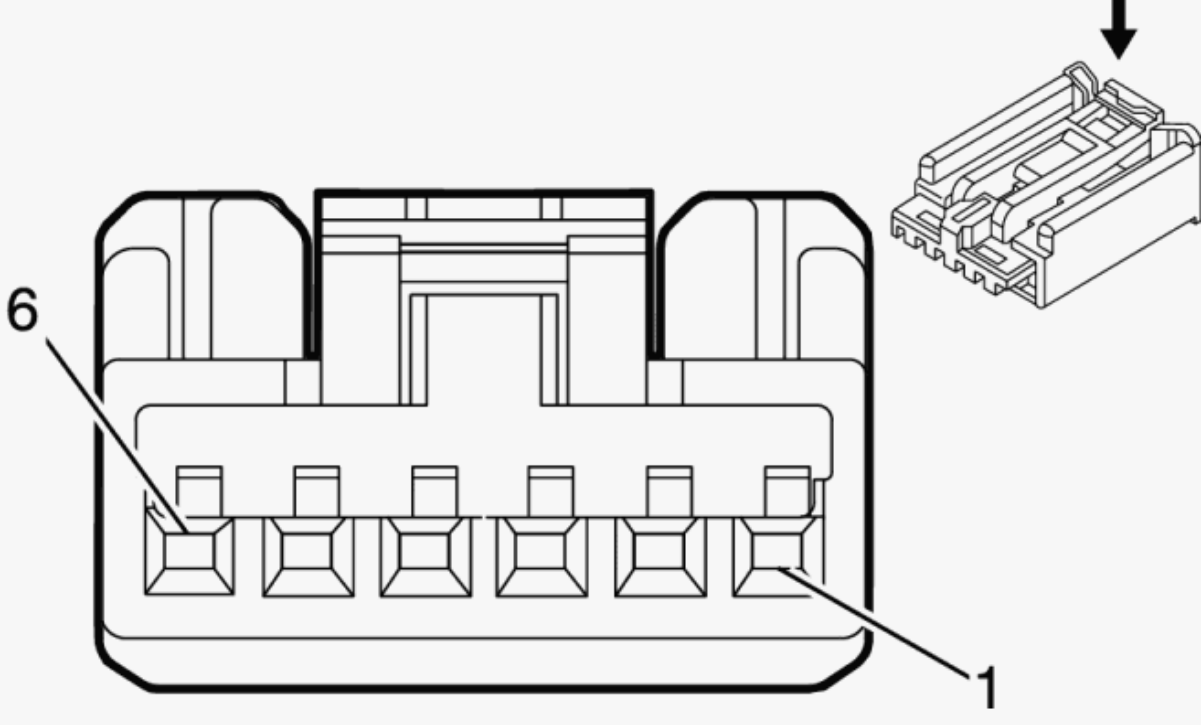
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35<br>0.35 | BU/GN<br>BU/GN | 1304<br>1304 | High Speed GMLAN Serial Data (+) 9<br>High Speed GMLAN Serial Data (+) 9 | III<br>I | IOR+UE1<br>IOS/IOT/IOU |
| B | 0.35<br>0.35 | WH/GN<br>WH/GN | 1305<br>1305 | High Speed GMLAN Serial Data (-) 9<br>High Speed GMLAN Serial Data (-) 9 | III<br>II | IOR+UE1<br>IOS/IOT/IOU |

## S3 TRANSMISSION SHIFT LEVER (-EPH)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 15269798
- Service Connector: 19367517
- Description: 6-Way F 0.64 Kaizen Series (BK)

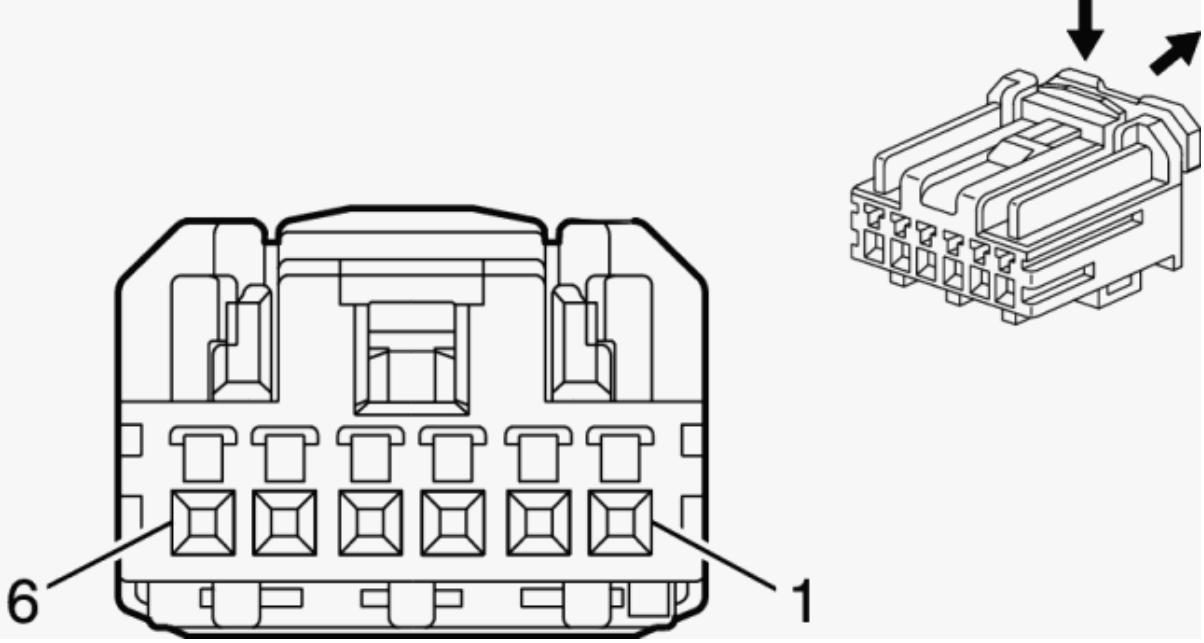
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | BK | 2250 | Ground | I | -EPH |
| 3 | 0.13 | VT/YE | 5526 | Tap Up/Tap Down Switch Signal | I | -EPH |
| 4 | 0.13 | VT/BK | 7553 | Park Lock Solenoid Control | I | -EPH |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | WH/VT | 5905 | Key Capture/Column Lock Shift Position Signal | I | -EPH |

## S13D DOOR LOCK SWITCH - DRIVER

cardiagn.com




Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: HCMPB-C06A-K
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 HCM Series (BK)

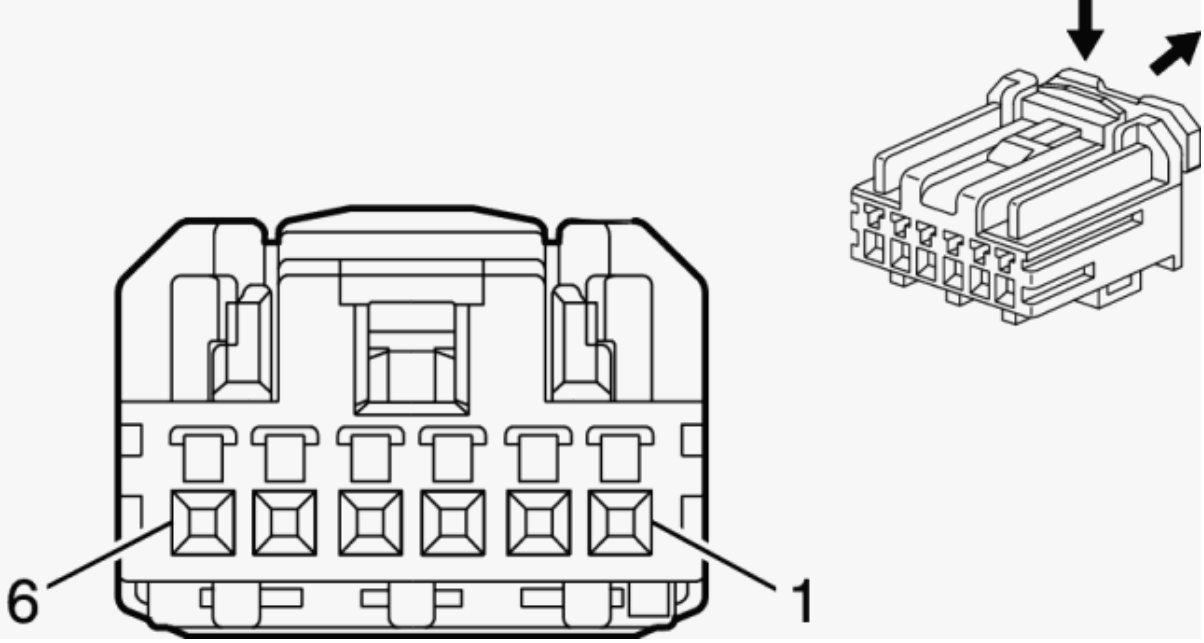
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 2 | 0.35 | BN/YE | 780 | Driver Door Lock Switch Lock Signal | I | - |
| 3 | 0.35 | BN/WH | 781 | Driver Door Lock Switch Unlock Signal | I | - |
| 4 | 0.35 | BK | 1550 | Ground | I | - |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | I | - |
| 6 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | I | - |

## S13P DOOR LOCK SWITCH - PASSENGER

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Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: HCMPB-C06A-K
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 HCM Series (BK)

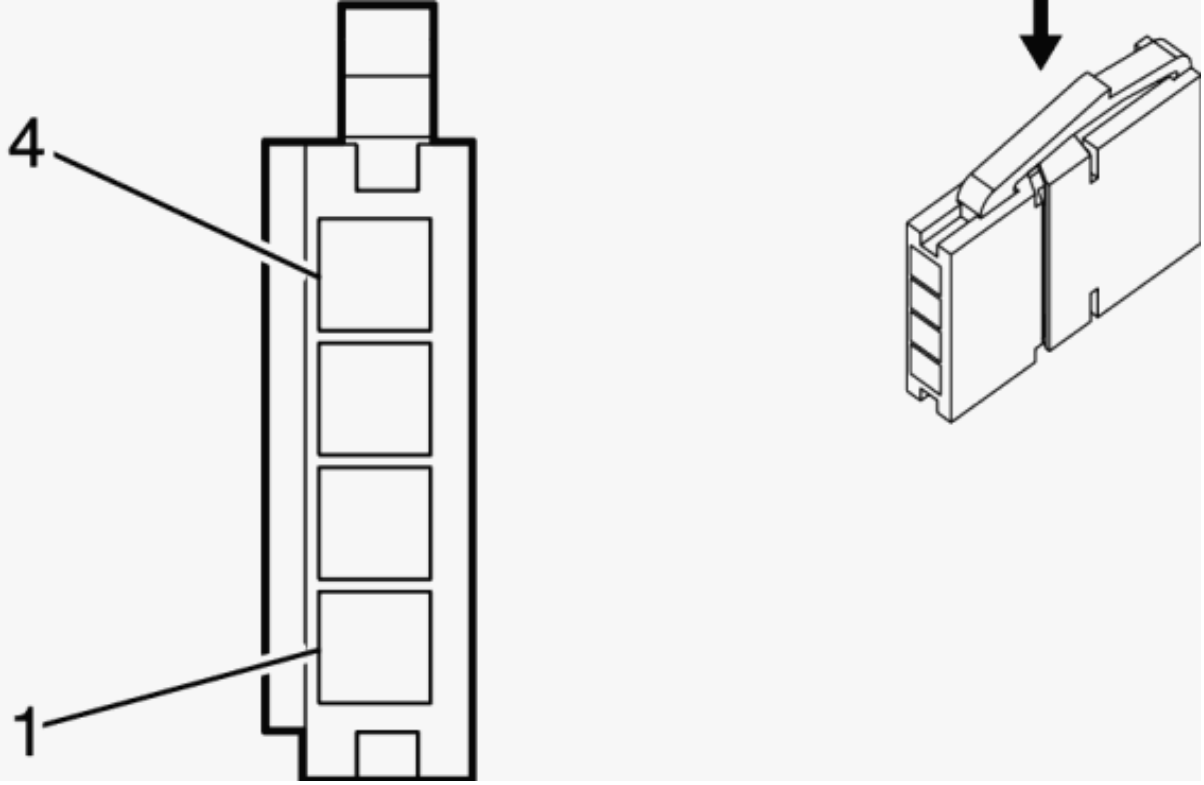
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 2 | 0.35 | YE/VT | 244 | Passenger Door Lock Switch Lock Control | I | - |
| 3 | 0.35 | BN/VT | 245 | Passenger Door Lock Switch Unlock Control | I | - |
| 4 | 0.35 | BK | 2050 | Ground | I | - |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | I | - |
| 6 | 0.35 | VT | 4009 | Passenger Door Lock Status | I | - |

## S25 GARAGE DOOR OPENER (UG1)

carmagn.com




Connector Part Information

- Harness Type: Overhead Console
- OEM Connector: 13583930
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.50 OCS Series (BK)

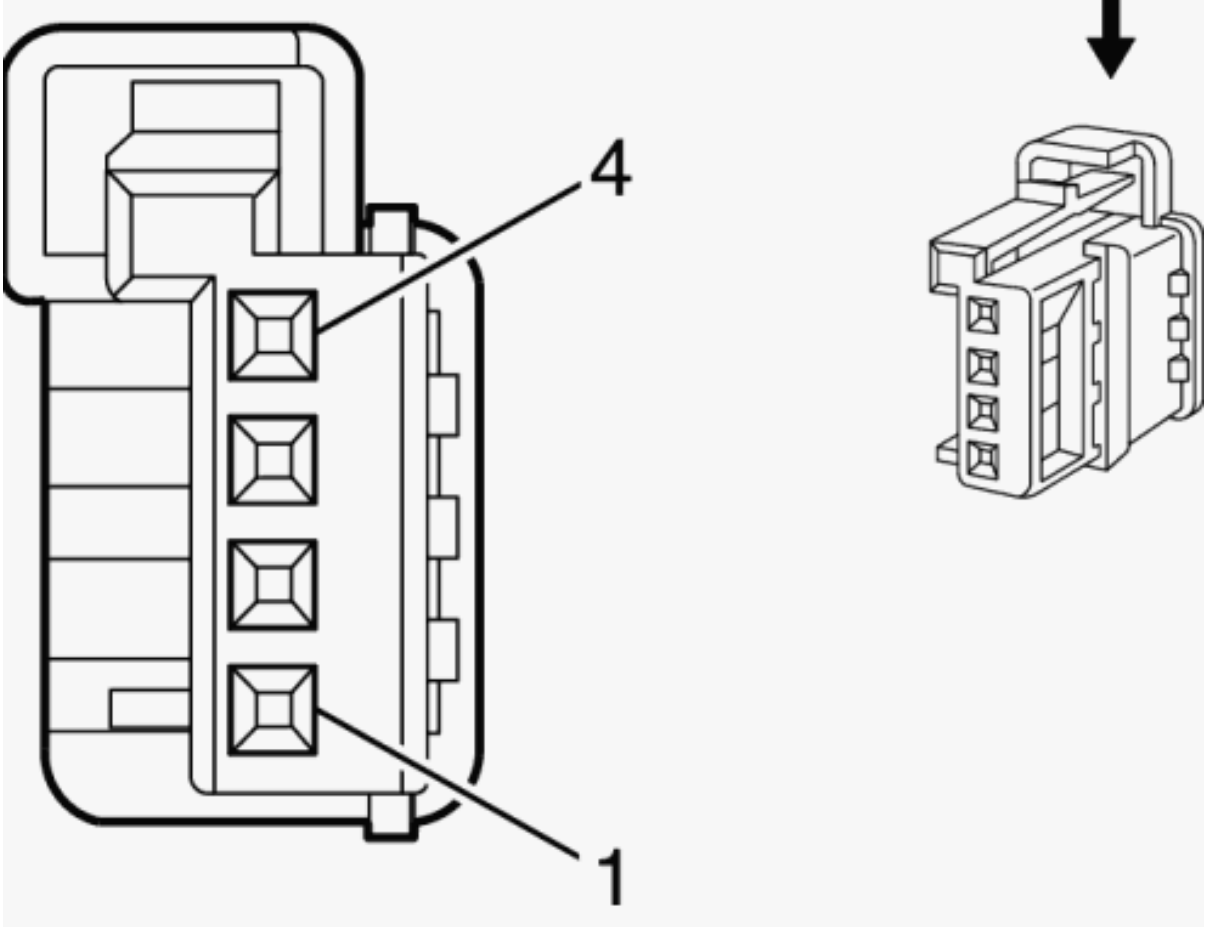
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD | 2540 | Battery Positive Voltage | I | - |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 3 | - | - | - | Not Occupied | I | - |
| 4 | 0.35 | BK | 2050 | Ground | I | - |

## S26 HAZARD WARNING SWITCH

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13216377
- Service Connector: 13584096
- Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

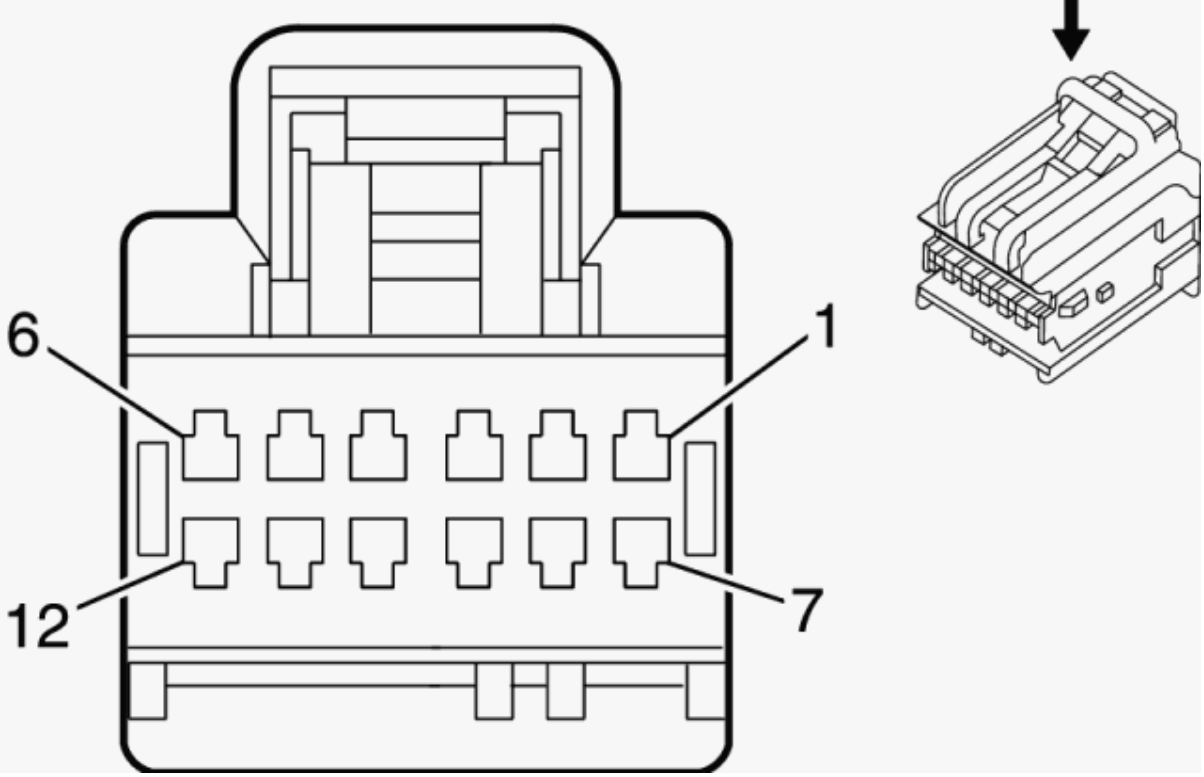
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | - |
| 2 | 0.35 | GN/WH | 111 | Hazard Switch Signal | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GY/YE | 7543 | Hazard LED Dimming Signal | I | - |

## S30 HEADLAMP SWITCH

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 31410-1120
- Service Connector: 89047364
- Description: 12-Way F 0.64 Series, Sealed (BK)

**Terminal Part Information**

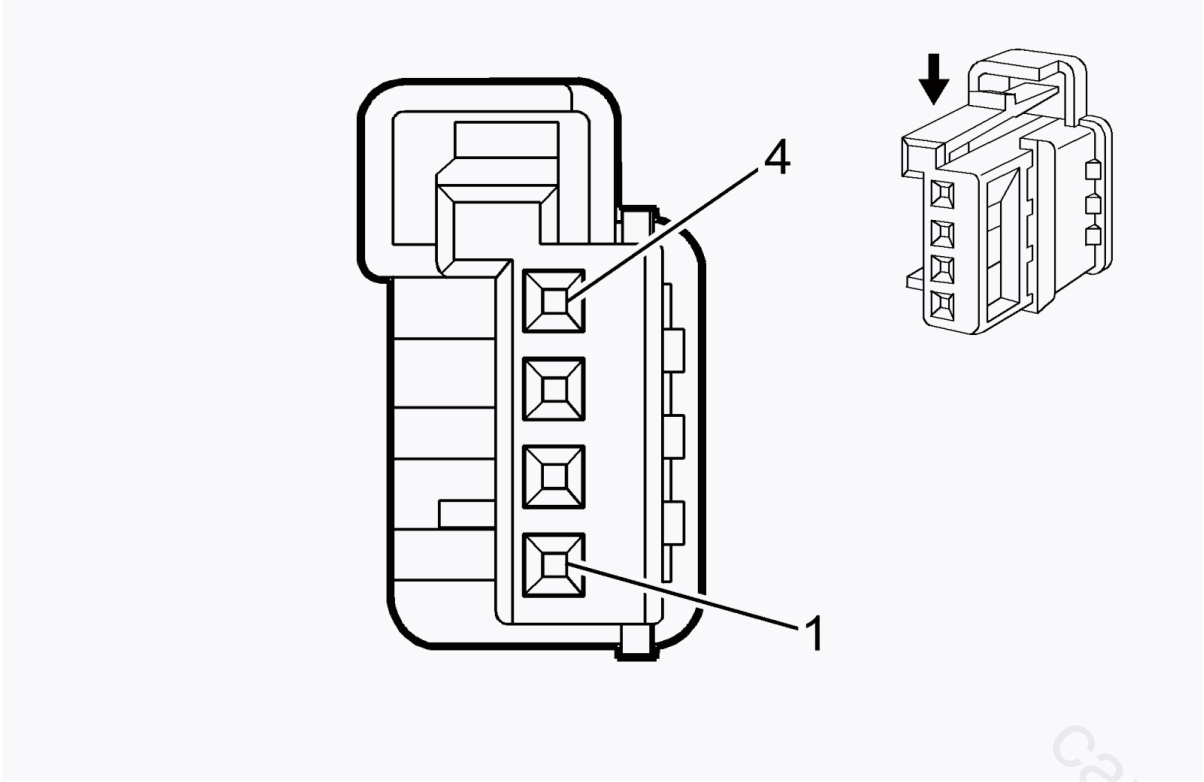
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/VT | 103 | Headlamp Switch On Signal | I | - |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 3 | 0.35 | GN/BN | 306 | Headlamp Switch Headlamps Off Signal Control | I | - |
| 4 | 0.35 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | I | TR6 |
| 5 | 0.35 | GN/GY | 13 | Headlamp Switch Park Lamp Signal | I | - |
| 6 | 0.35 | BU/GY | 187 | Rear Fog Lamp Switch Signal | I | T79 |
| 7 | 0.35 | BK/YE | 5005 | Instrument Panel Lamp Dimmer Switch Low Reference | I | - |
| 8 | 0.35 | BK | 1650 | Ground | I | - |
| 9 | 0.35 | BN/YE | 189 | Headlamp Leveling Motor Control | I | TR6 |
| 10 | 0.35 | BU/GY | 192 | Front Fog Lamp Switch Signal | I | T3U |
| 11 | 0.35 | YE/GY | 44 | Instrument Panel Lamp Dimmer Switch Signal | I | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 12 | 0.35 | BU/RD | 1688 | 5V Reference | I | - |

## S32D SEAT HEATING SWITCH - DRIVER (Z88+KA1)




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13271139
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series (WH)

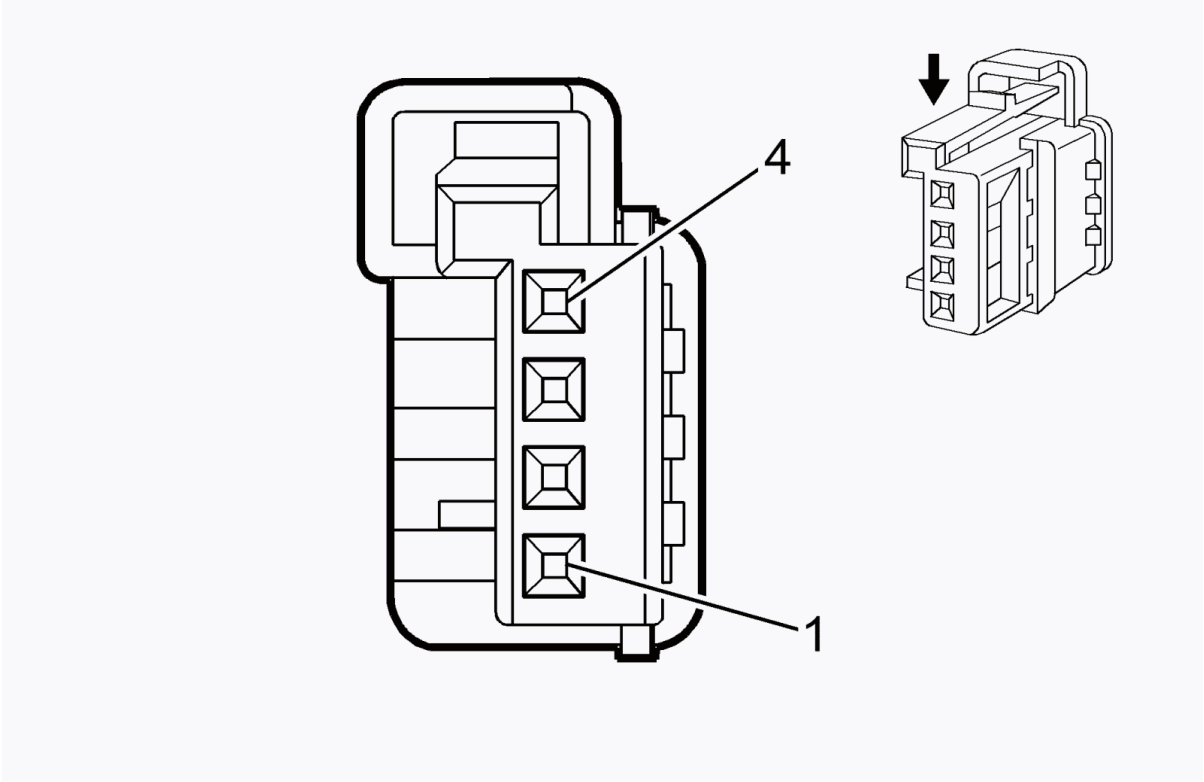
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | Z88+KA1/KA6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | Z88+KA1/KA6 |
| 4 | 0.35 | RD/YE | 2340 | Battery Positive Voltage | I | Z88+KA1/KA6 |

## S32LR SEAT HEATING SWITCH - LEFT REAR (KA6)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13271139
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series (WH)

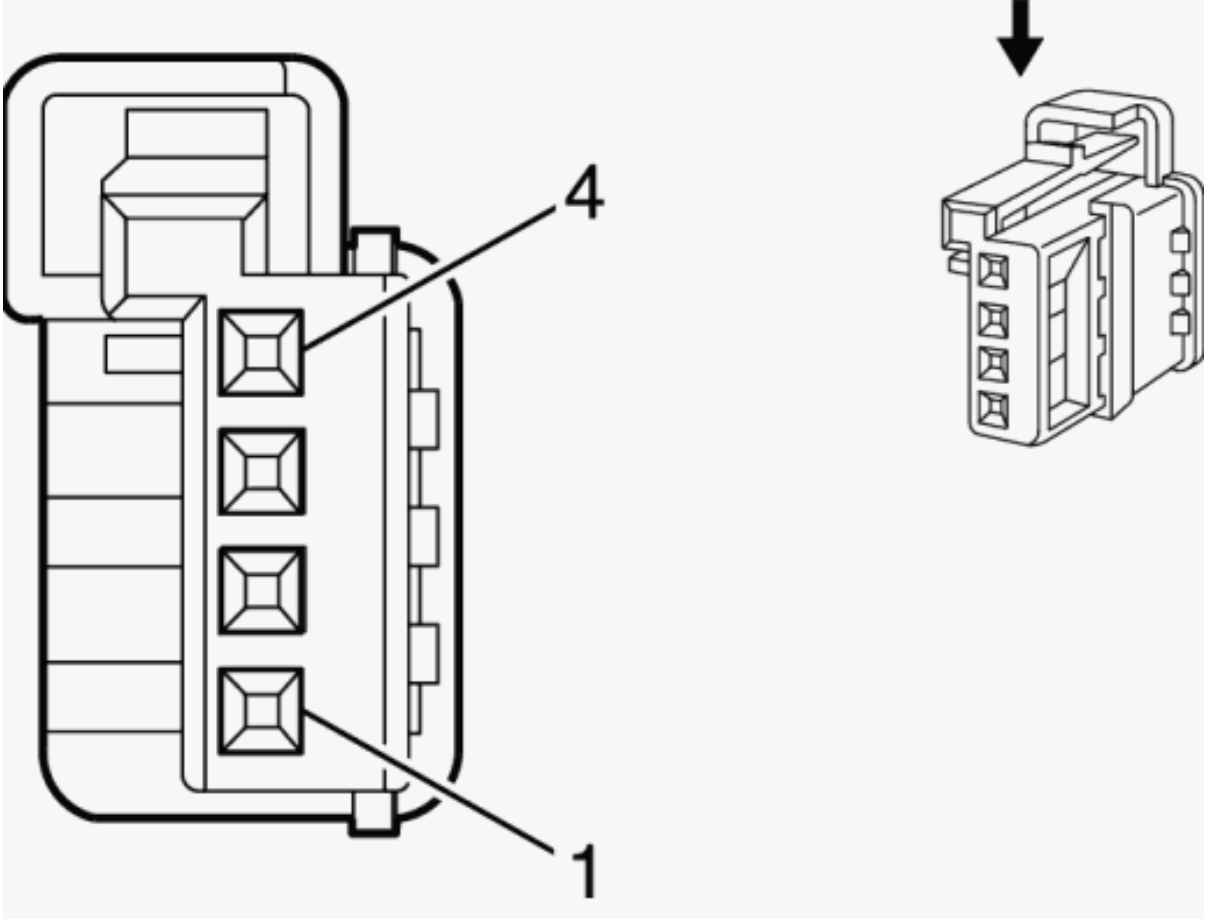
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | KA6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | - |
| 4 | 0.35 | RD/GY | 2840 | Battery Positive Voltage | I | KA6 |

## S32P SEAT HEATING SWITCH - PASSENGER (Z88+KA1)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13580946
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series (BN)

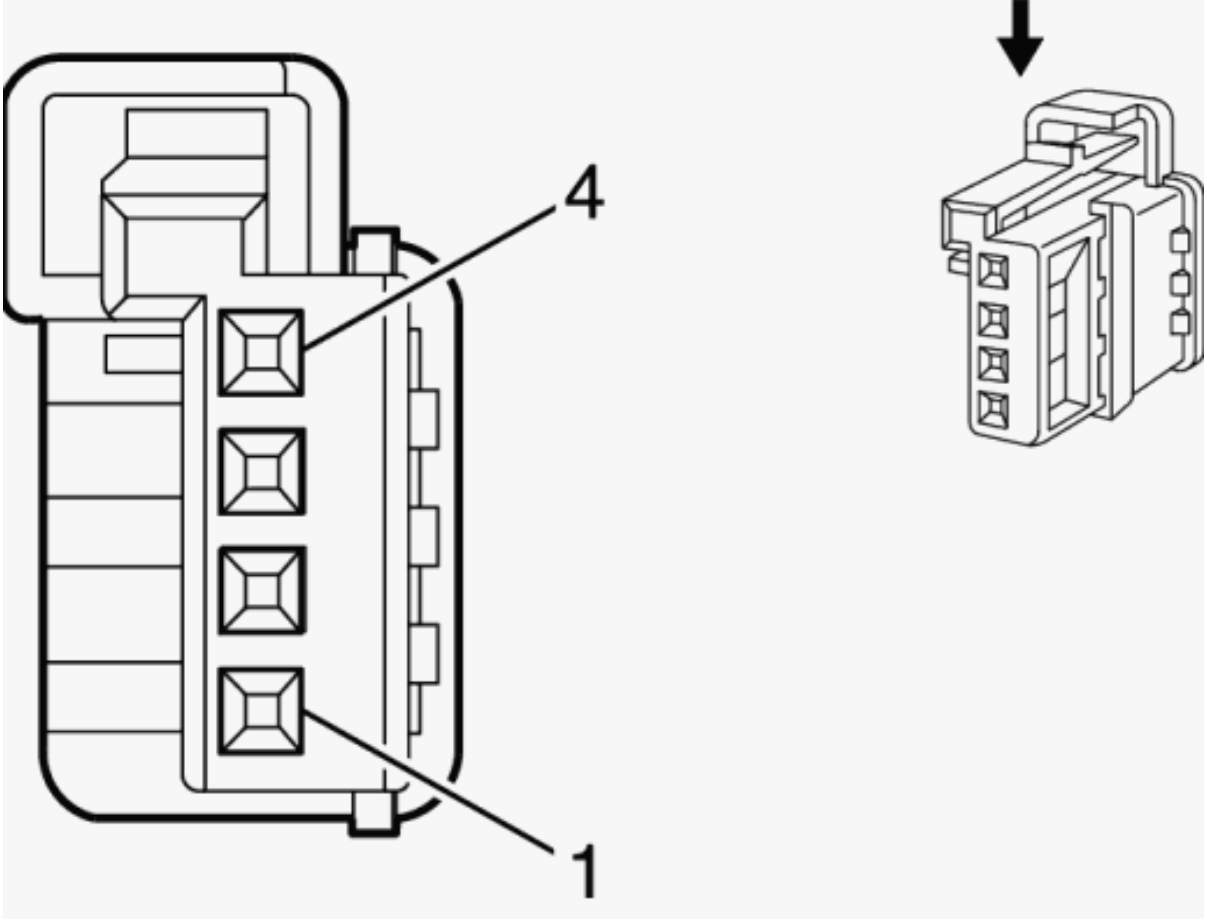
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | Z88+KA1/KA6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | Z88+KA1/KA6 |
| 4 | 0.35 | RD/YE | 2340 | Battery Positive Voltage | I | Z88+KA1/KA6 |

## S32RR SEAT HEATING SWITCH - RIGHT REAR (KA6)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13580946
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series (BN)

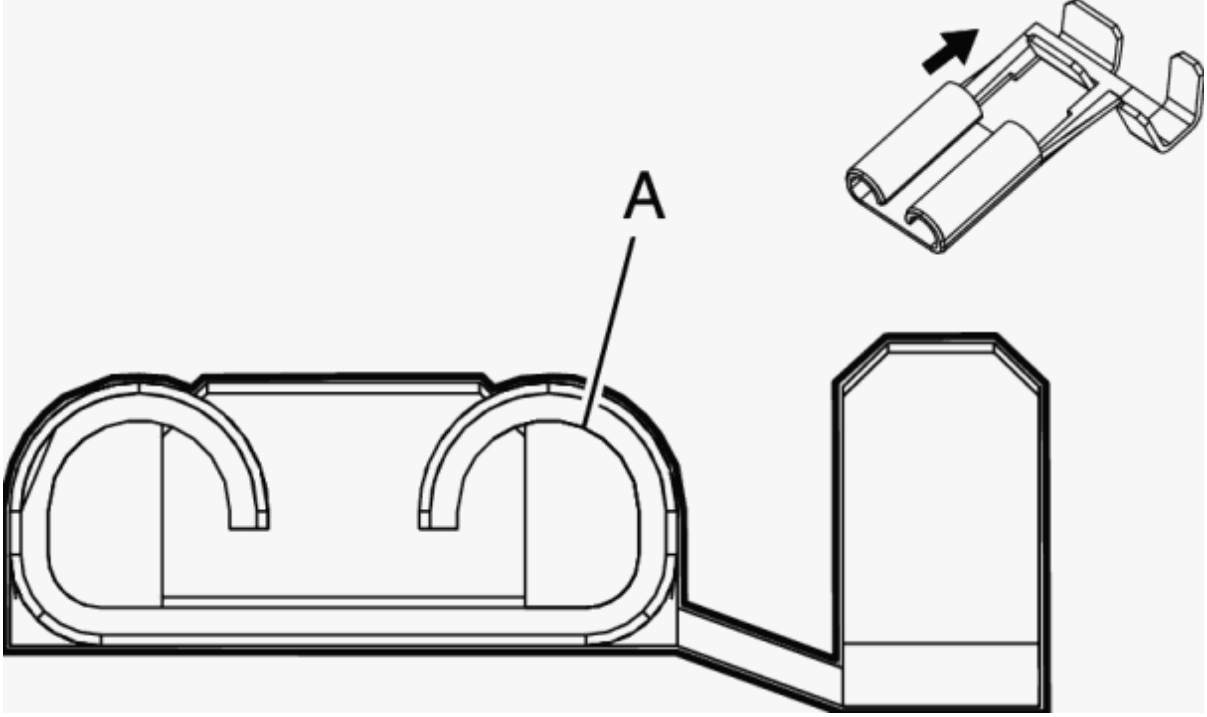
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2250 | Ground | I | KA6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN/WH | 4115 | Local Interconnect Network Serial Data Bus 15 | I | - |
| 4 | 0.35 | RD/GY | 2840 | Battery Positive Voltage | I | KA6 |

## S33 HORN SWITCH X1

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Connector Part Information

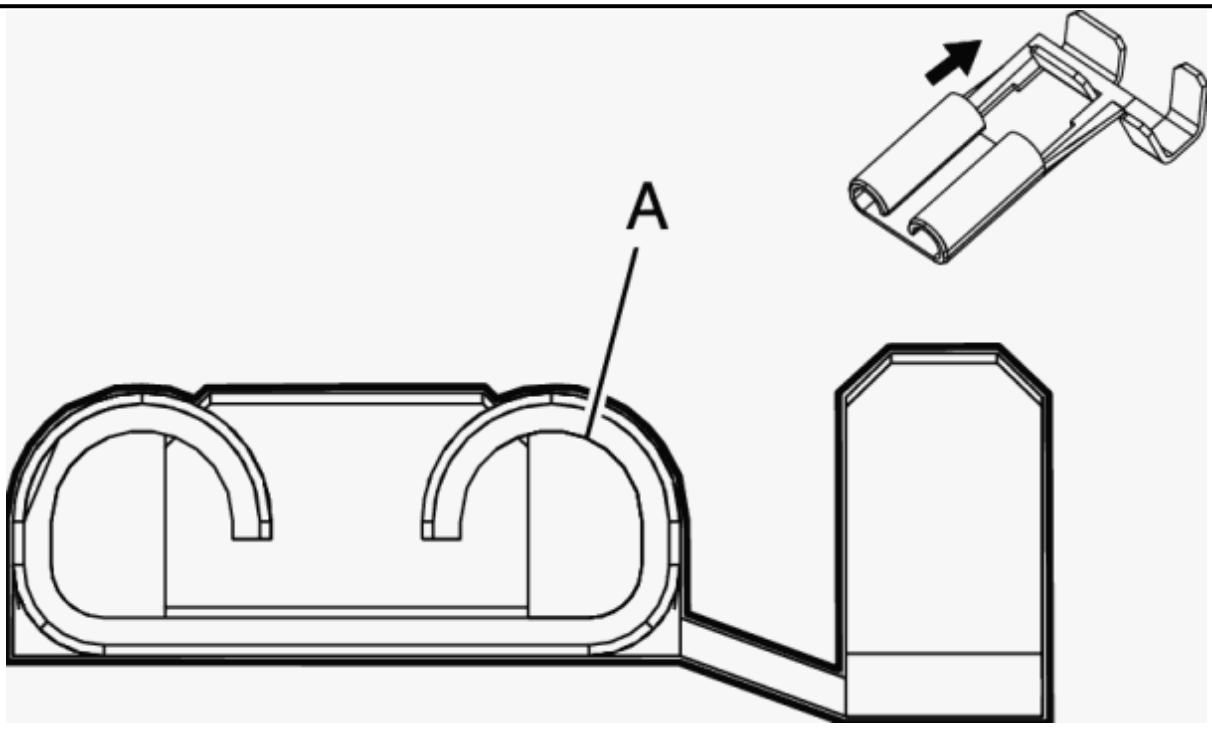
- Harness Type: Steering Wheel
- OEM Connector: 1742086-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F Fast-In-On Series

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | GN/WH | 3287 | Horn Switch Signal | I | - |

## S33 HORN SWITCH X2




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Connector Part Information

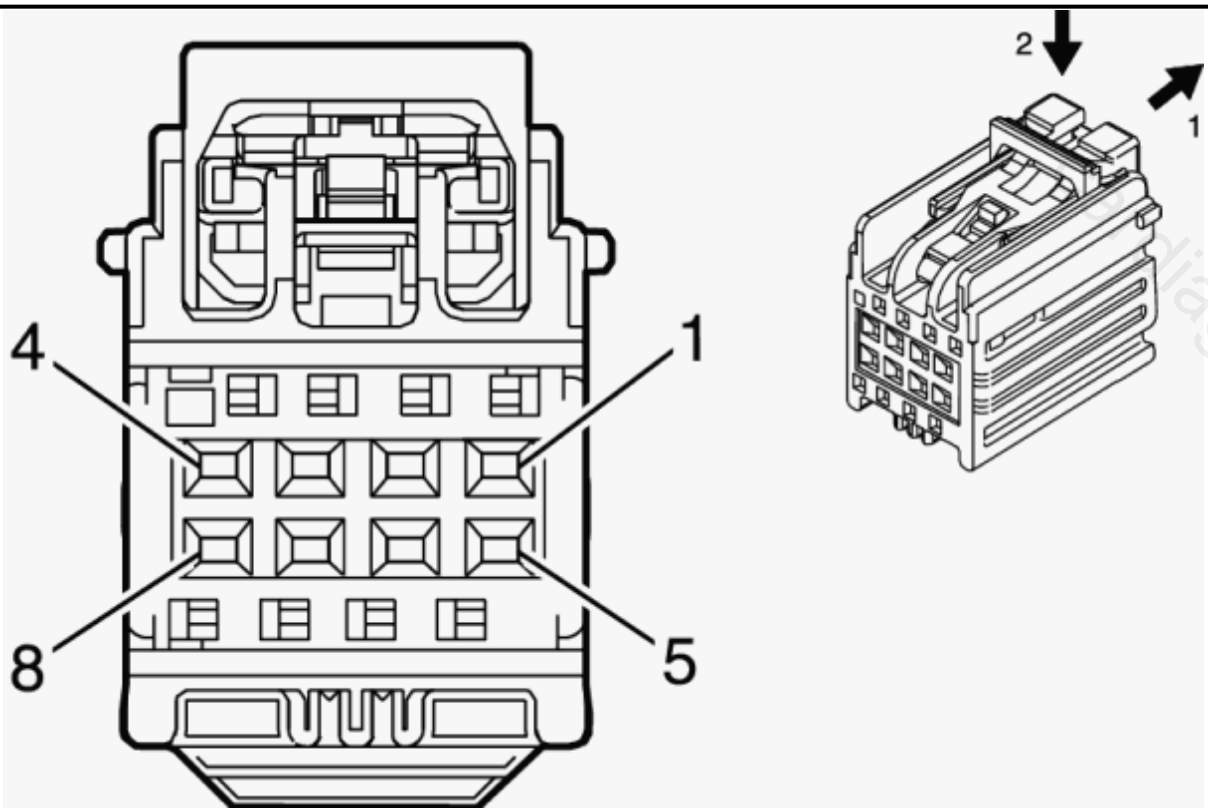
- Harness Type: Steering Wheel
- OEM Connector: 1742086-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F Fast-In-On Series

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.35 | BK | 1650 | Ground | I | - |

## S38 IGNITION MODE SWITCH (X88)




Connector Part Information

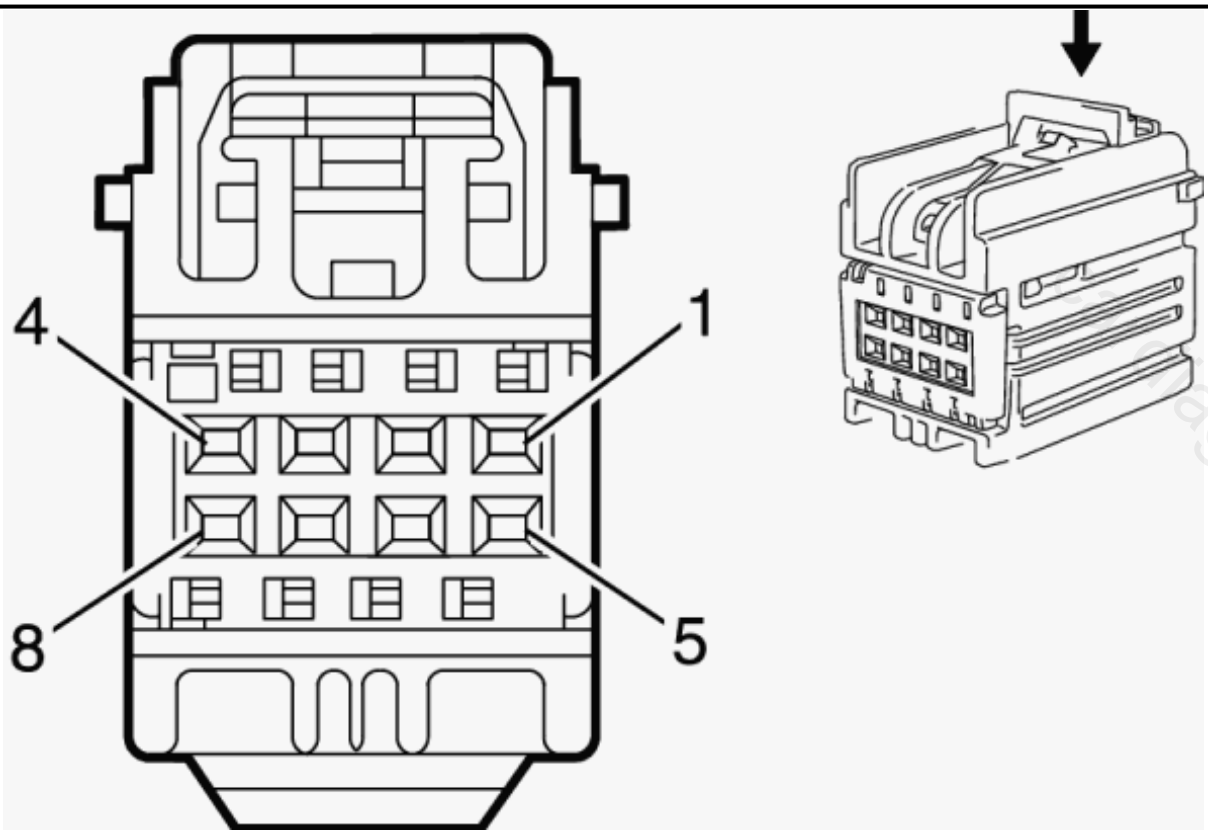
- Harness Type: Instrument Panel
- OEM Connector: 13593893
- Service Connector: 19355209
- Description: 8-Way F YESC Kaizen Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | BN/BK | 5720 | Ignition Mode Switch Accessory LED Signal | I | - |
| 3 | 0.13 | GN/BK | 3558 | Passive Start Switch Signal 2 | I | - |
| 4 | 0.35 | BK | 1650 | Ground | I | - |
| 5 | 0.35 | BU/BK | 5719 | Ignition Mode Switch Start LED Signal | I | - |
| 6 | 0.35 | BU/GN | 5723 | Ignition Mode Switch Mode Voltage | I | - |
| 7 | 0.13 | BK/GY | 3559 | Passive Start Switch 2 Low Reference | I | - |
| 8 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |

## S38 IGNITION MODE SWITCH (Z88)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 89047354
- Service Connector: 19368737
- Description: 8-Way F YESC Kaizen Series (L-GY)

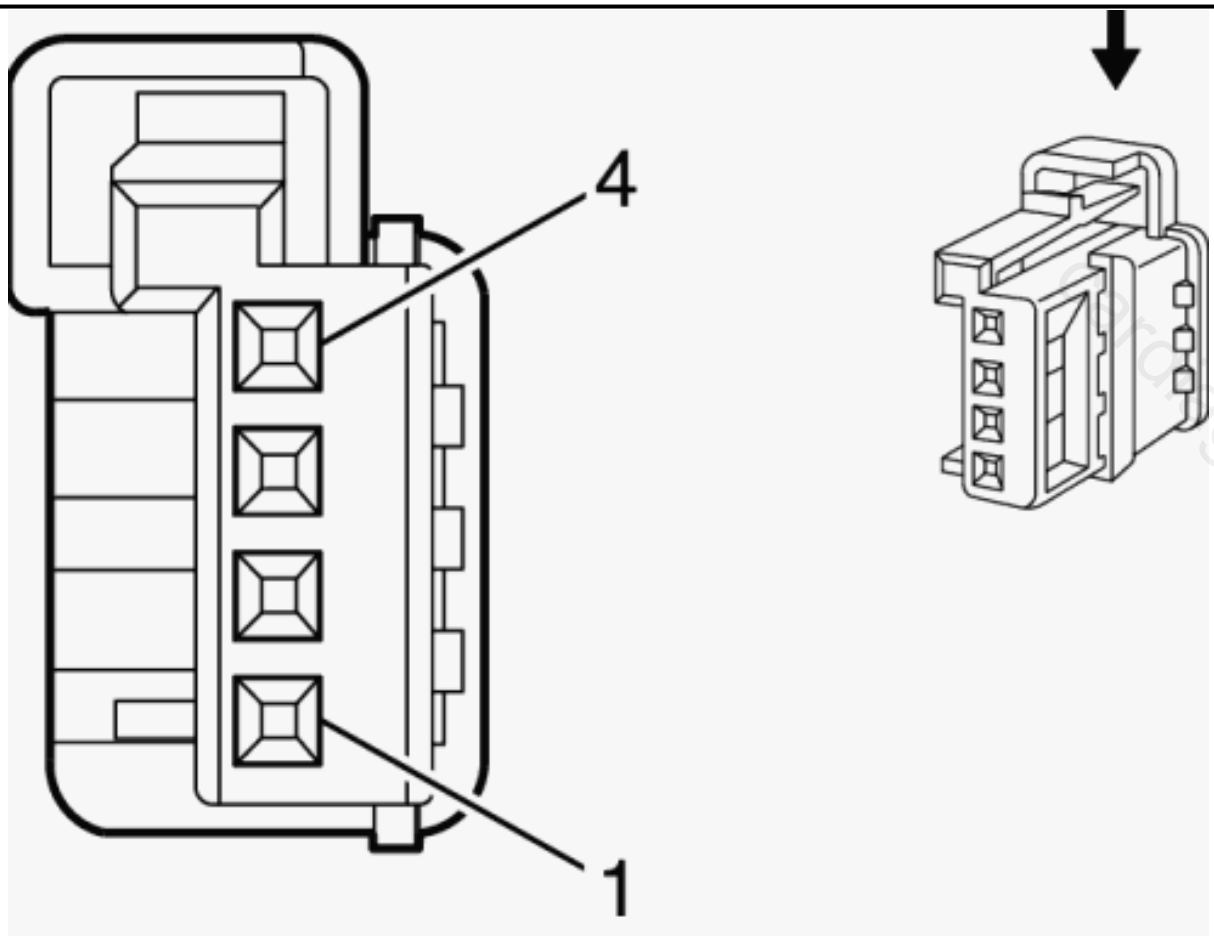
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35 | BN/BK | 5720 | Ignition Mode Switch Accessory LED Signal | I | - |
| 3 | 0.13 | GN/BK | 3558 | Passive Start Switch Signal 2 | I | - |
| 4 | 0.35 | BK | 1650 | Ground | I | - |
| 5 | 0.35 | BU/BK | 5719 | Ignition Mode Switch Start LED Signal | I | - |
| 6 | 0.35 | BU/GN | 5723 | Ignition Mode Switch Mode Voltage | I | - |
| 7 | 0.13 | BK/GY | 3559 | Passive Start Switch 2 Low Reference | I | - |
| 8 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |

## S45B LIFTGATE CONTROL SWITCH - INTERIOR (TB5/TC2)




Connector Part Information

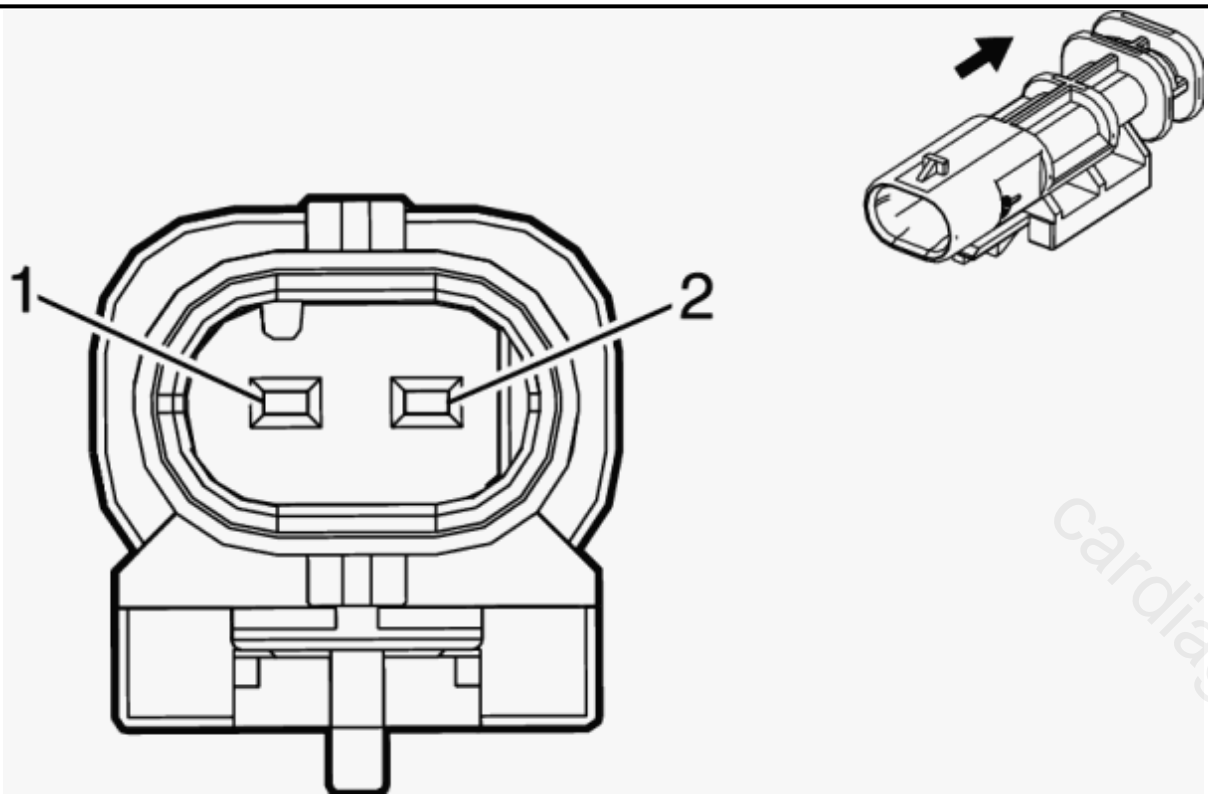
- Harness Type: Driver Door Trim Panel
- OEM Connector: 13216377
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1550 | Ground | I | TB5/TC2 |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | TB5/TC2 |
| 3 | 0.35 | GN | 6112 | Power Lift Gate On/Off Switch Signal | I | TB5/TC2 |
| 4 | 0.35 | GY/BK | 6113 | Rear Lift Gate Open/Close Switch Signal | I | TB5/TC2 |

## S46B LIFTGATE UNLATCH SWITCH




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13505427
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

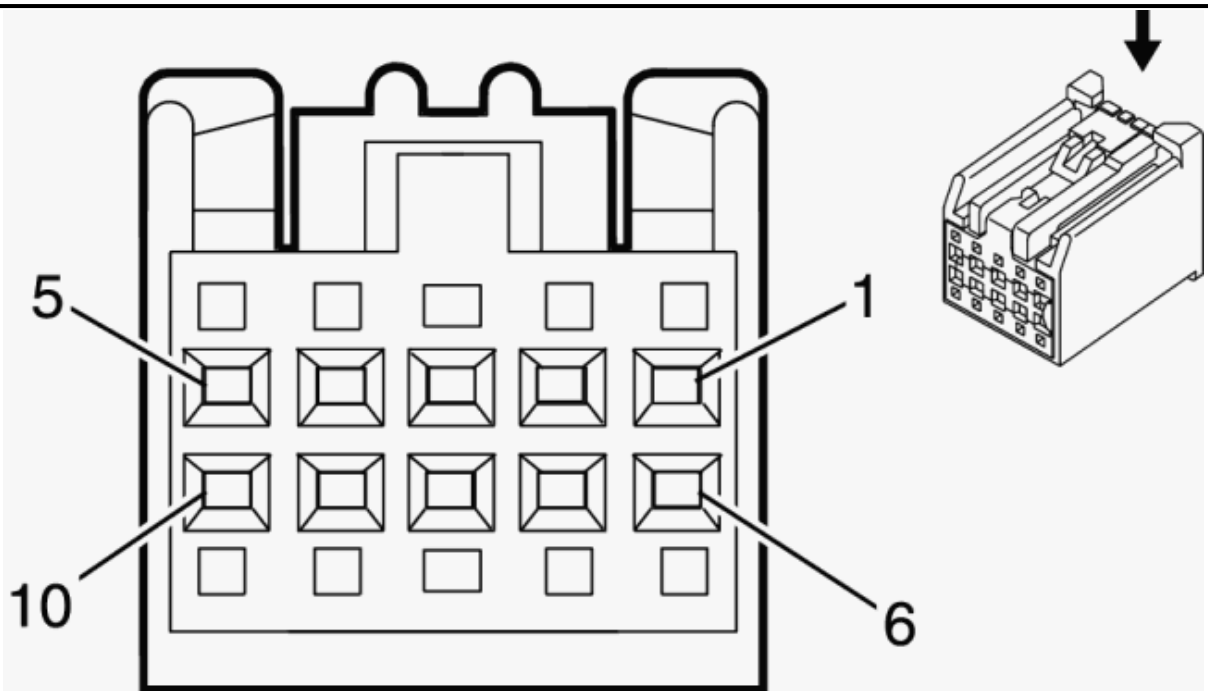
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.35 | BK<br>BK | 2550<br>5797 | Ground<br>Rear Closure Handle Switch Open Signal | I<br>I | TB4<br>TB5/TC2 |
| 2 | 0.5<br>0.35 | BK<br>BK/VT | 5797<br>4656 | Rear Closure Handle Switch Open Signal<br>Rear Closure Object Sensor Low Reference | I<br>I | TB4<br>TB5/TC2 |

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## S47D SEAT MEMORY SWITCH - DRIVER (A45/A74)




Connector Part Information

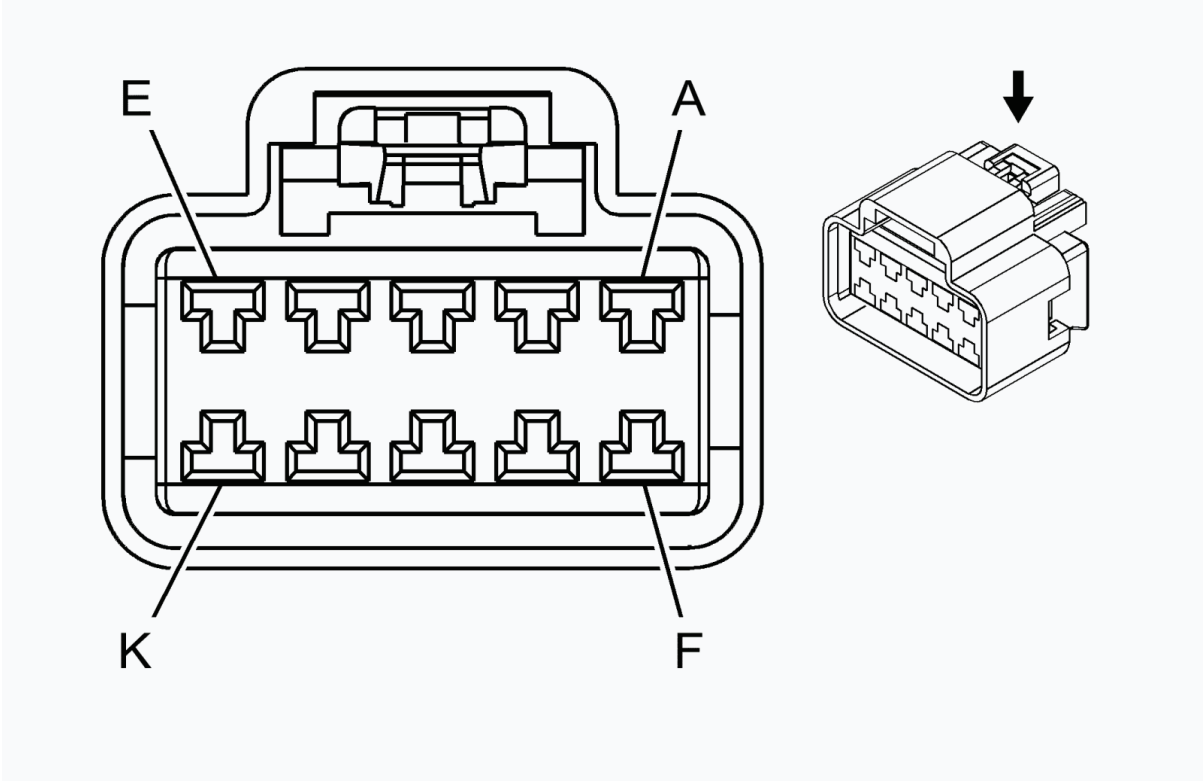
- Harness Type: Driver Door Trim Panel
- OEM Connector: 13577390
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1550 | Ground | I | A45 |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | A45 |
| 3 - 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BU/GN | 614 | Memory Seat Switch Set Signal | I | A45 |
| 6 | 0.35 | WH | 615 | Memory Seat Switch Signal 1 | I | A45 |
| 7 - 10 | - | - | - | Not Occupied | - | - |

## S64D SEAT ADJUSTER SWITCH - DRIVER (AG1)




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 15326931
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 280 GT Series (BK)

**Terminal Part Information**

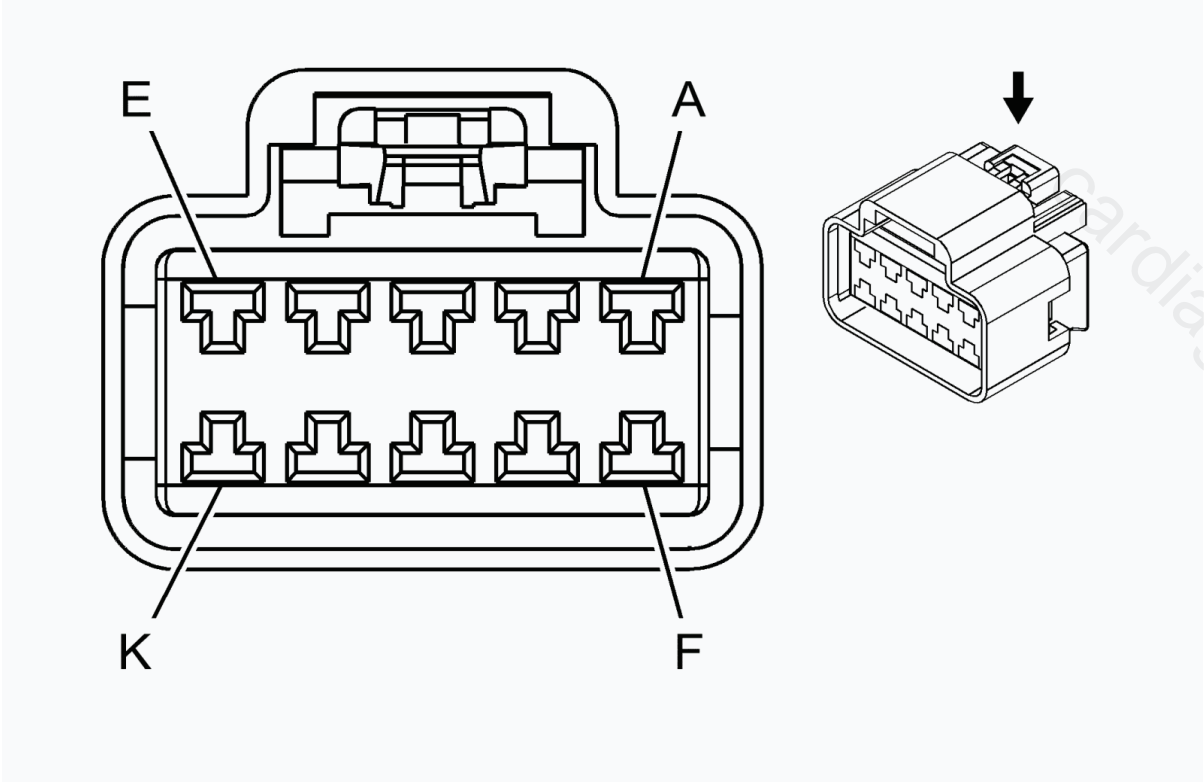
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5<br>1.5 | GN/BN<br>GN/BN | 1518<br>286 | Power Seat Front Vertical Up Switch Signal<br>Driver Power Seat Front Vertical Motor Up Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| B | 2 | BK | 2350 | Ground | I | - |
| C | 0.5<br>1.5 | GY/GN<br>GY/GN | 1523<br>284 | Power Seat Horizontal Rearward Switch Signal<br>Driver Power Seat Horizontal Motor Rearward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| D | 0.5<br>1.5 | YE/BN<br>YE/BU | 1522<br>285 | Power Seat Horizontal Forward Switch Signal<br>Driver Power Seat Horizontal Motor Forward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| E | 0.75<br>2 | BK<br>RD/BN | 2350<br>2940 | Ground<br>Battery Positive Voltage | I<br>I | A45/A74<br>AG1-A45-A74 |
| F | 0.5<br>1.5 | YE<br>YE | 1519<br>282 | Power Seat Rear Vertical Up Switch Signal<br>Driver Power Seat Rear Vertical Motor Up Control | I<br>I | A45/A74<br>AG1-A45-A74 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| G | 0.5<br>1.5 | GN/GY<br>BU/YE | 1270<br>277 | Power Seat Recline Rearward Switch Signal<br>Driver Power Seat Recline Motor Rearward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| H | 0.5<br>1.5 | GY/BK<br>GN/YE | 1269<br>276 | Power Seat Recline Forward Switch Signal<br>Driver Power Seat Recline Motor Forward Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| J | 0.5<br>1.5 | YE/BU<br>GY/BU | 1521<br>283 | Power Seat Rear Vertical Down Switch Signal<br>Driver Power Seat Rear Vertical Motor Down Control | I<br>I | A45/A74<br>AG1-A45-A74 |
| K | 0.5<br>1.5 | BU/VT<br>BU/VT | 1520<br>287 | Power Seat Front Vertical Down Switch Signal<br>Driver Power Seat Front Vertical Motor Down Control | I<br>I | A45/A74<br>AG1-A45-A74 |

## S64P SEAT ADJUSTER SWITCH - PASSENGER (AG2+X88)




Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 15326931
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 280 GT Series (BK)

**Terminal Part Information**

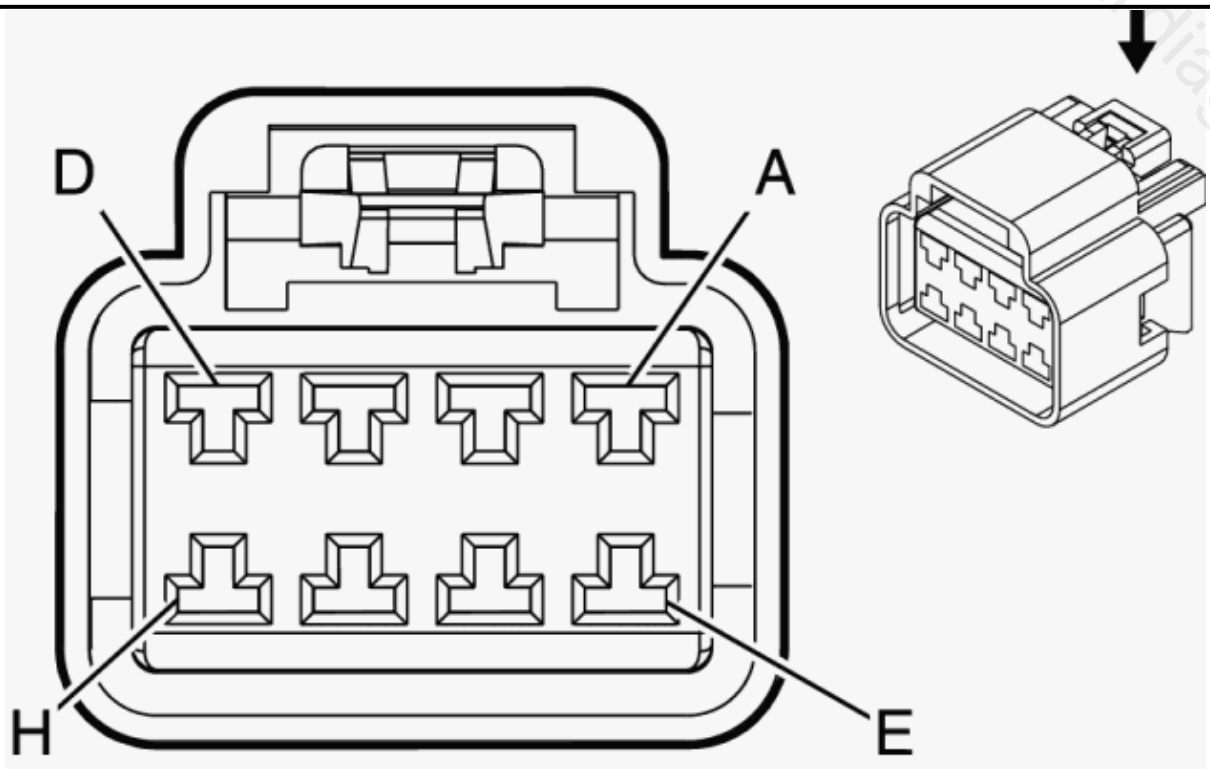
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | GN/BU | 298 | Passenger Power Seat Front Vertical Motor Down Control | I | - |
| B | 2.5 | BK | 1950 | Ground | I | - |
| C | 1.5 | YE/BU | 290 | Passenger Power Seat Horizontal Motor Rearward Control | I | - |
| D | 1.5 | YE/WH | 296 | Passenger Power Seat Horizontal Motor Forward Control | I | - |
| E | 2.5 | RD/YE | 240 | Battery Positive Voltage | I | - |
| F | 1.5 | BU/WH | 289 | Passenger Power Seat Rear Vertical Motor Down Control | I | - |
| G | 1.5 | BU/BN | 77 | Passenger Power Seat Recline Motor Rearward Control | I | - |
| H | 1.5 | GN | 76 | Passenger Power Seat Recline Motor Forward Control | I | - |
| J | 1.5 | GN/WH | 288 | Passenger Power Seat Rear Vertical Motor Up Control | I | - |
| K | 1.5 | GN/VT | 297 | Passenger Power Seat Front Vertical Motor Up Control | I | - |

## S64P SEAT ADJUSTER SWITCH - PASSENGER (AG2+Z88)




Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 15326924
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 GT Series (BK)

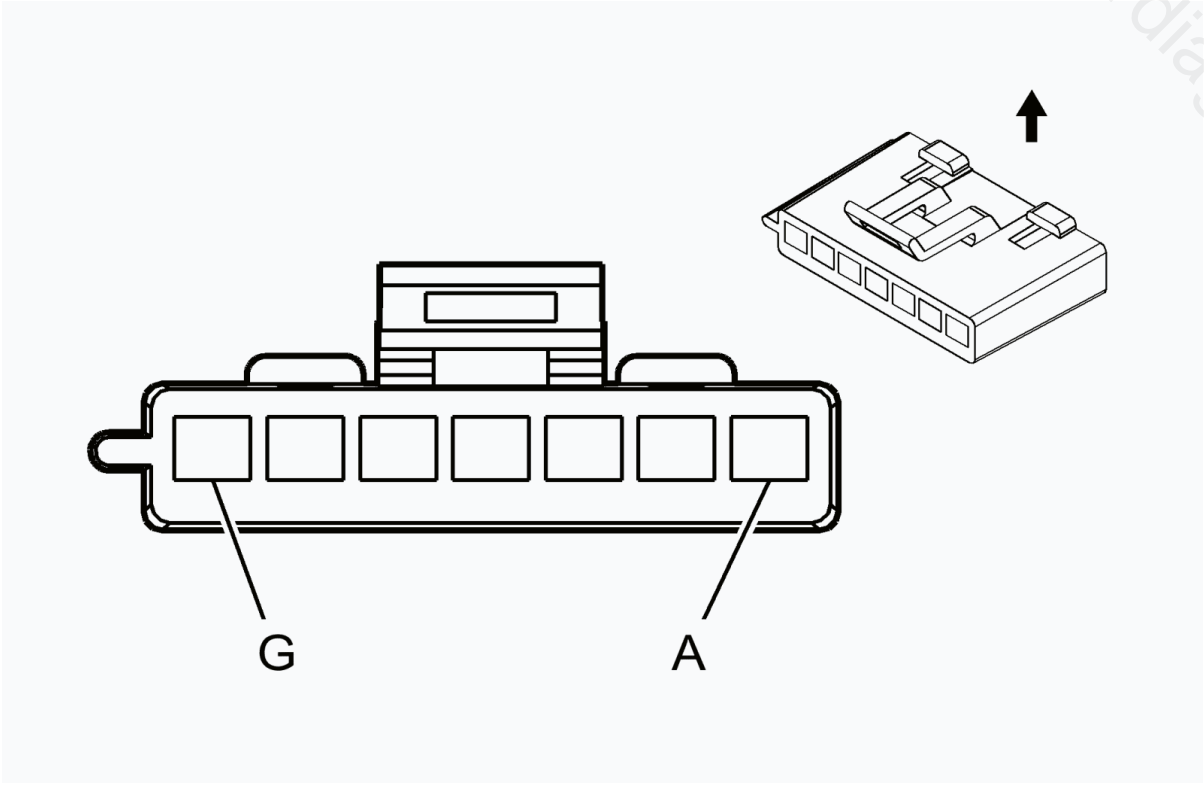
**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | GN/BU | 298 | Passenger Power Seat Front Vertical Motor Down Control | I | - |
| B | 2.5 | BK | 1950 | Ground | I | - |
| C | 1.5 | YE/WH | 296 | Passenger Power Seat Horizontal Motor Forward Control | I | - |
| D | 2.5 | RD/YE | 240 | Battery Positive Voltage | I | - |
| E | 1.5 | BU/WH | 289 | Passenger Power Seat Rear Vertical Motor Down Control | I | - |
| F | 1.5 | YE/BU | 290 | Passenger Power Seat Horizontal Motor Rearward Control | I | - |
| G | 1.5 | GN/WH | 288 | Passenger Power Seat Rear Vertical Motor Up Control | I | - |
| H | 1.5 | GN/VT | 297 | Passenger Power Seat Front Vertical Motor Up Control | I | - |

## S65D SEAT LUMBAR SUPPORT SWITCH - DRIVER (AL9)




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 12052854
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 280 Metri-Pack Series (BK)

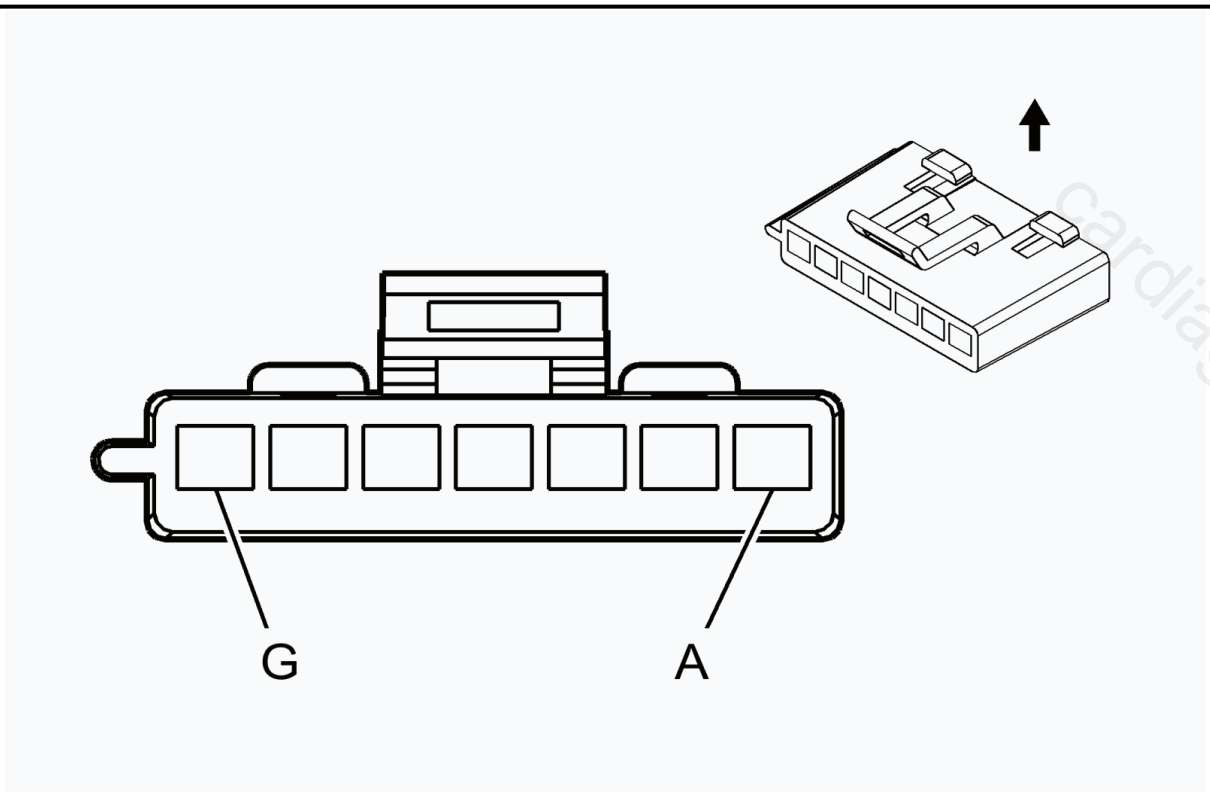
**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | - | - | - | Not Occupied | - | - |
| B | 0.35 | VT | 610 | Driver Power Seat Lumbar Motor Rearward Control | I | - |
| C | 0.35 | BU | 611 | Driver Power Seat Lumbar Motor Forward Control | I | - |
| D | - | - | - | Not Occupied | - | - |
| E | 0.5 | BK | 2350 | Ground | I | - |
| F | - | - | - | Not Occupied | - | - |
| G | 0.35 | RD/GN | 1540 | Battery Positive Voltage | I | - |

## S65P SEAT LUMBAR SUPPORT SWITCH - PASSENGER (AT9)




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Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 12052854
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 280 Metri-Pack Series (BK)

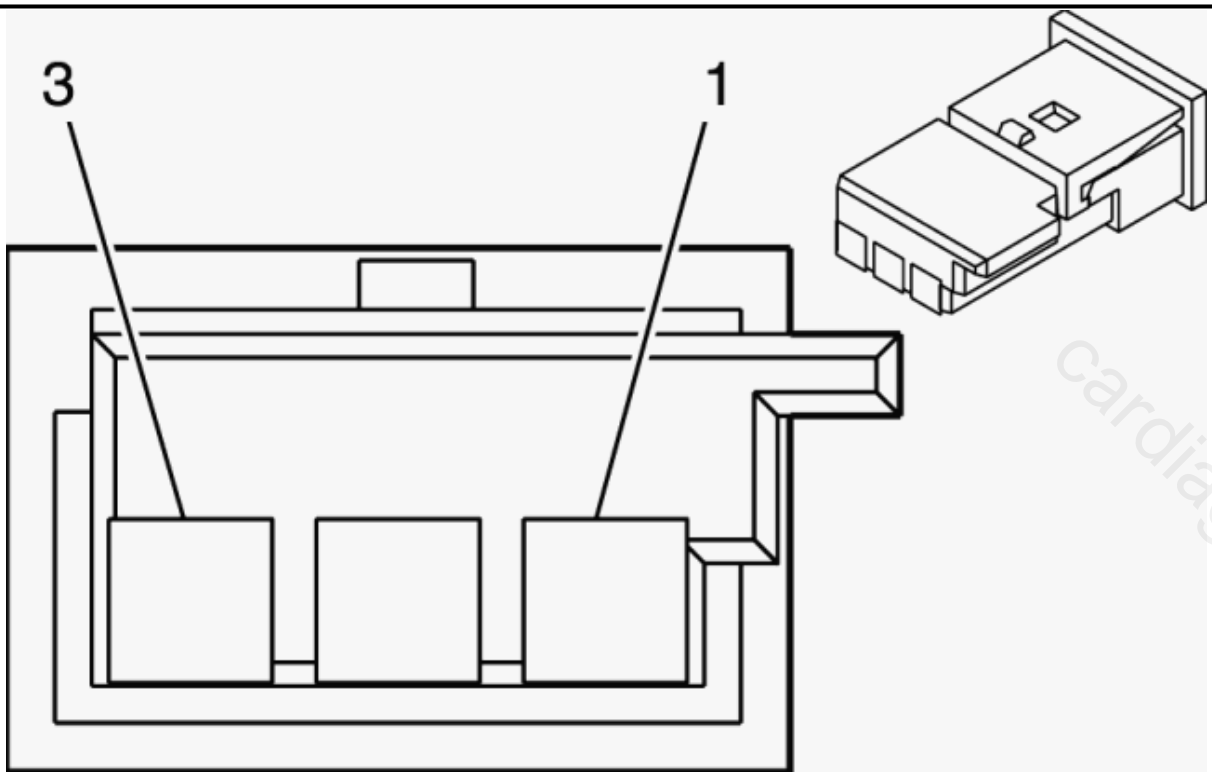
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | - | - | - | Not Occupied | - | - |
| B | 0.35 | VT | 210 | Passenger Power Seat Lumbar Motor Rearward Control | I | - |
| C | 0.35 | BU | 211 | Passenger Power Seat Lumbar Motor Forward Control | I | - |
| D | - | - | - | Not Occupied | - | - |
| E | 0.35 | BK | 1950 | Ground | I | - |
| F | - | - | - | Not Occupied | - | - |
| G | 0.35 | RD/GN | 1540 | Battery Positive Voltage | I | - |

## S70E STEERING WHEEL CONTROLS SWITCH - RADIO PRESETS




Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13153088
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Micro-Quadlock Series (BK)

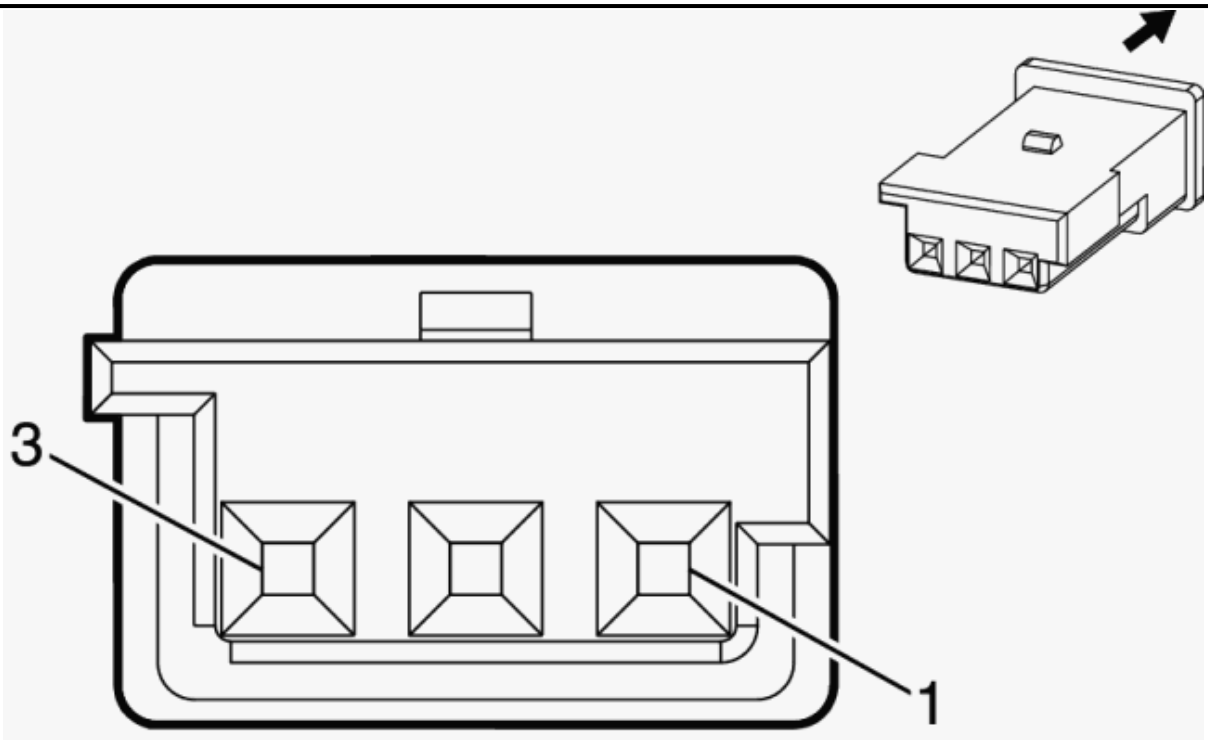
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/OG | 4313 | Radio Favorite Forward Signal | I | - |
| 2 | 0.35 | GN/OG | 4312 | Radio Favorite Back Signal | I | - |
| 3 | 0.35 | BK | 1650 | Ground | I | - |

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## S70F STEERING WHEEL CONTROLS SWITCH - RADIO VOLUME




Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 19153569
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F Micro-Quadlock Series (PU)

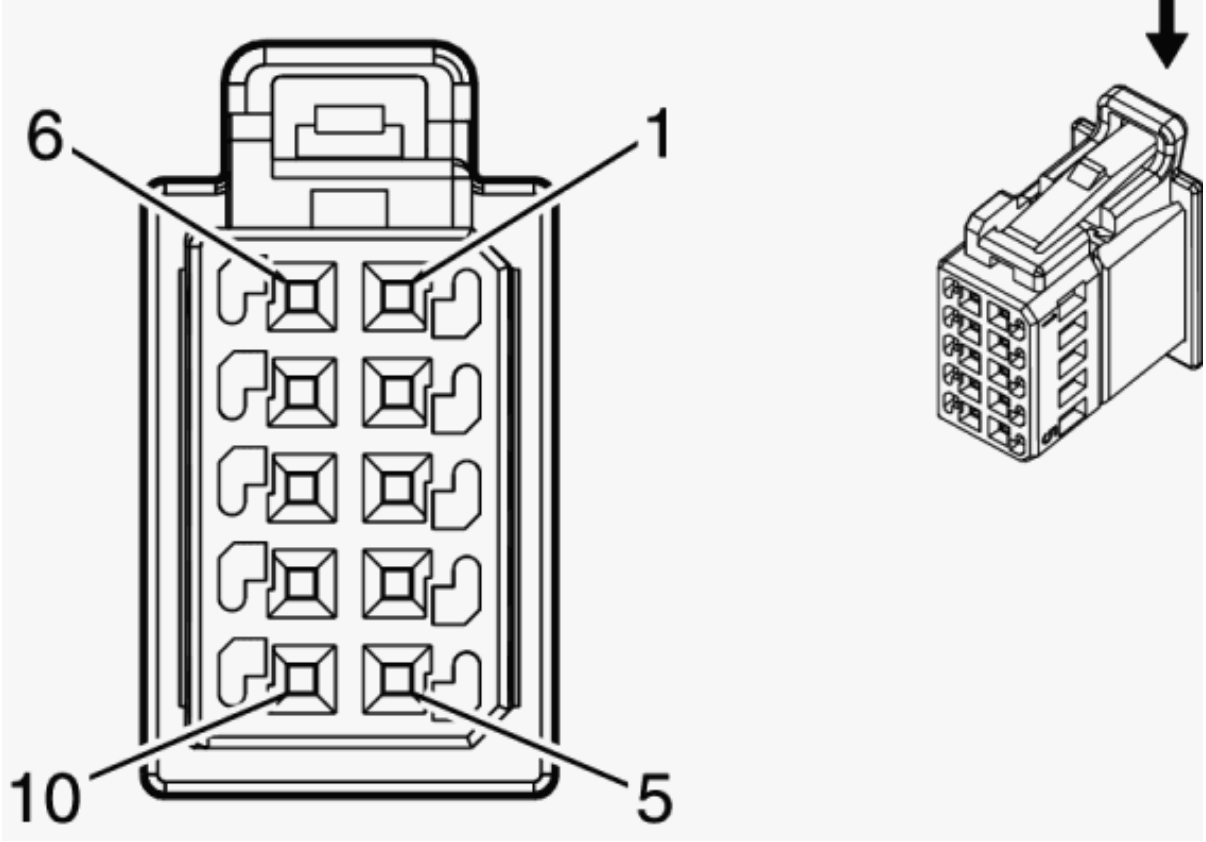
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/BU | 4315 | Radio Volume Up Signal | I | - |
| 2 | 0.35 | BU/RD | 4314 | Radio Volume Down Signal | I | - |
| 3 | 0.35 | BK | 1650 | Ground | I | - |

## S70L STEERING WHEEL CONTROLS SWITCH - LEFT (EPH)

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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13582767
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Micro-Quadlock Series (BK)

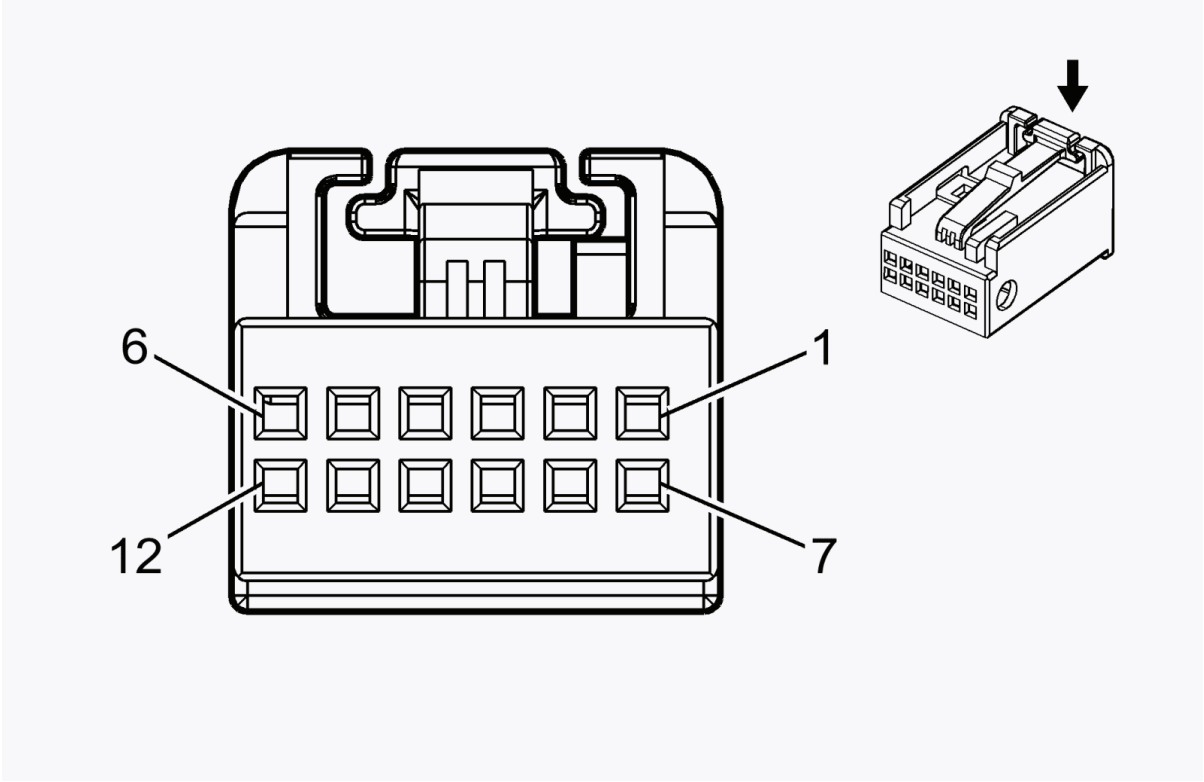
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1650 | Ground | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | - |
| 4 | 0.35 | BK/RD | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | - |
| 5 | 0.35 | BU/RD | 5883 | Heated Steering Wheel Switch Signal | I | - |
| 6 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 7 | 0.35 | GY | 6816 | Indicator Dimming Control | I | - |
| 8 | 0.35 | GN/RD | 5884 | Heated Steering Wheel Switch LED Control | I | - |
| 9 | 0.35 | BN | 1444 | 12V Reference | I | - |
| 10 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | - |

## S70L STEERING WHEEL CONTROLS SWITCH - LEFT (-EPH)




Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13578797
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F 0.64 GET Series (BK with NA Case)

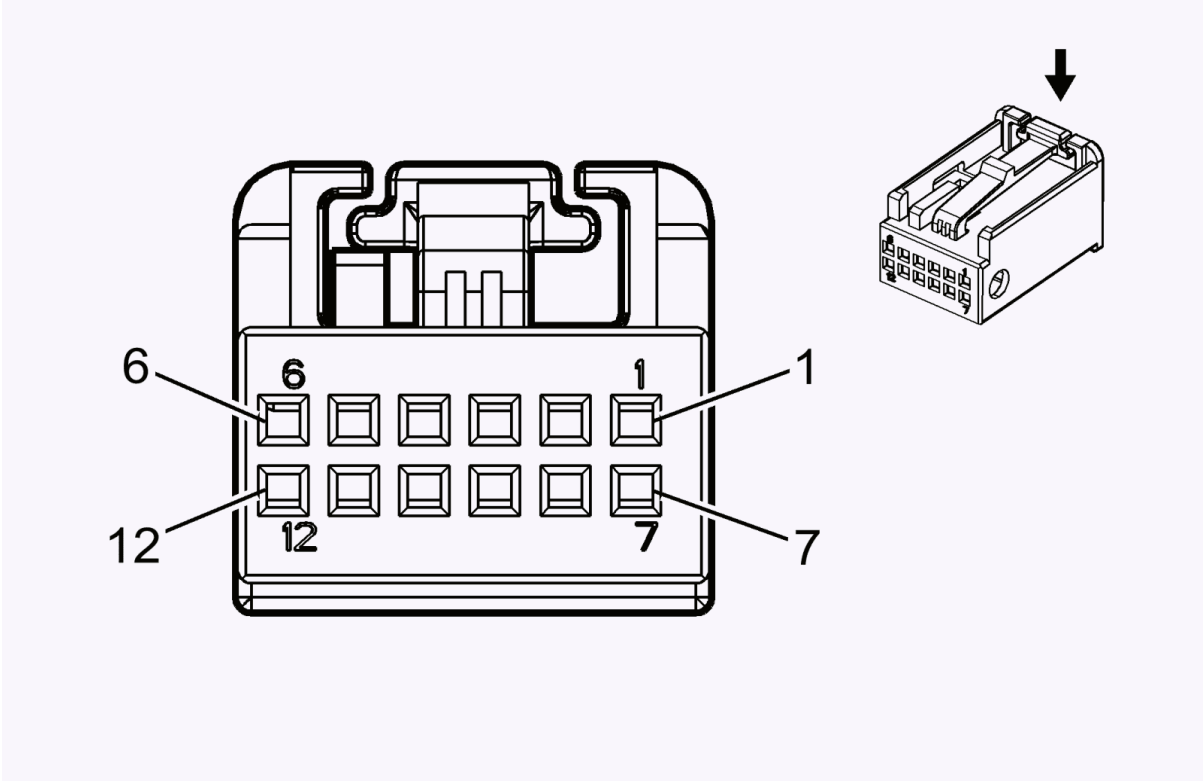
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1650 | Ground | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 4 | 0.35 | GY | 6816 | Indicator Dimming Control | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | BU | 2540 | Battery Positive Voltage | I | - |
| 7 | 0.35 | GN/RD | 5884 | Heated Steering Wheel Switch LED Control | I | - |
| 8 | 0.35 | BU/RD | 5883 | Heated Steering Wheel Switch Signal | I | - |
| 9 | 0.35 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | - |
| 10 | 0.35 | GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | - |
| 11 | 0.35 | WH | 3152 | Lane Departure Warning Indicator Control | I | - |
| 12 | 0.35 | WH/RD | 1444 | 12V Reference | I | - |

## S70R STEERING WHEEL CONTROLS SWITCH - RIGHT (EPH)

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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13578798
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F 0.64 GET Series (BK with BK Case)

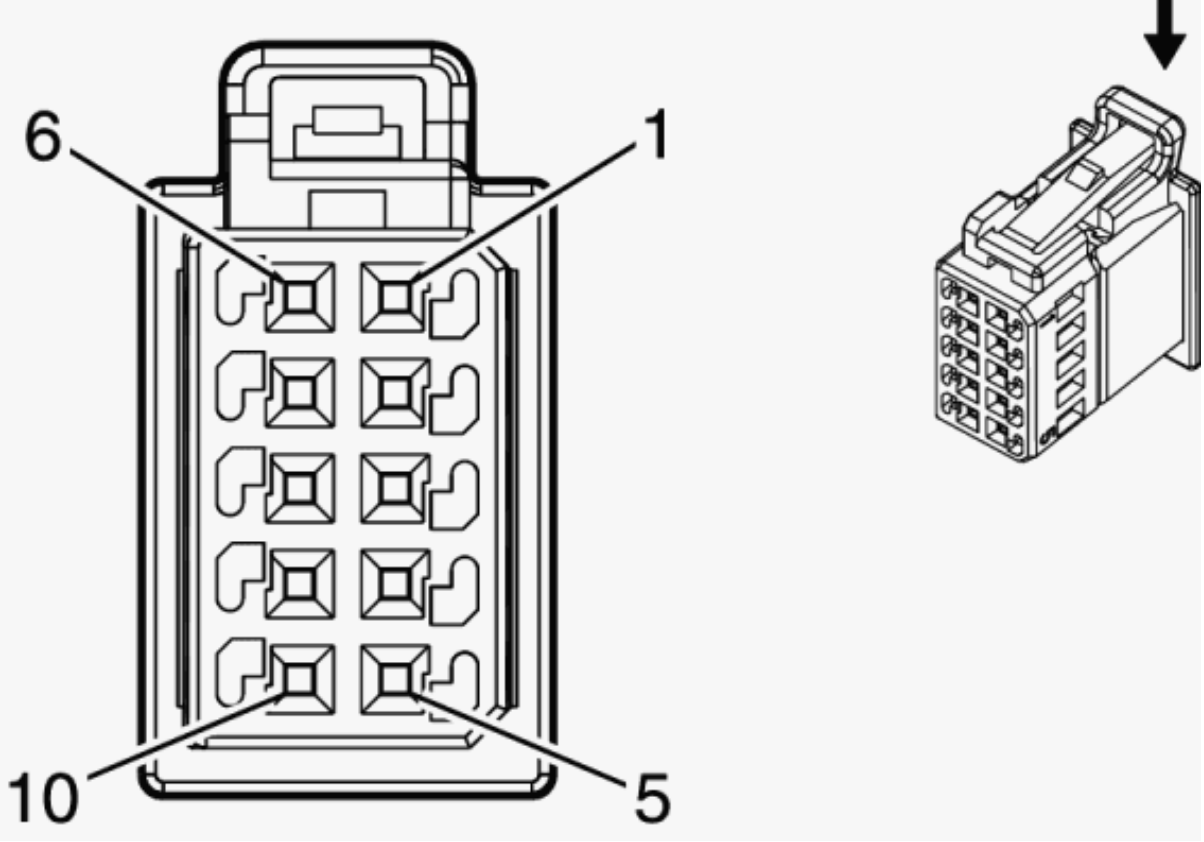
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1650 | Ground | I | - |
| 2 | 0.35 | GN/WH | 3894 | Local Interconnect Network Serial Data Bus 12 | I | - |
| 3 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 4 | 0.35 | GY | 6816 | Indicator Dimming Control | I | - |
| 5 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | BU/OG | 4312 | Radio Favorite Back Signal | I | - |
| 8 | 0.35 | GY/BN | 4313 | Radio Favorite Forward Signal | I | - |
| 9 | 0.35 | WH/YE | 4314 | Radio Volume Down Signal | I | - |
| 10 | 0.35 | YE/BU | 4315 | Radio Volume Up Signal | I | - |
| 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | BU | 2540 | Battery Positive Voltage | I | - |

## S70R STEERING WHEEL CONTROLS SWITCH - RIGHT (-EPH)

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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13582767
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Micro-Quadlock Series (BK)

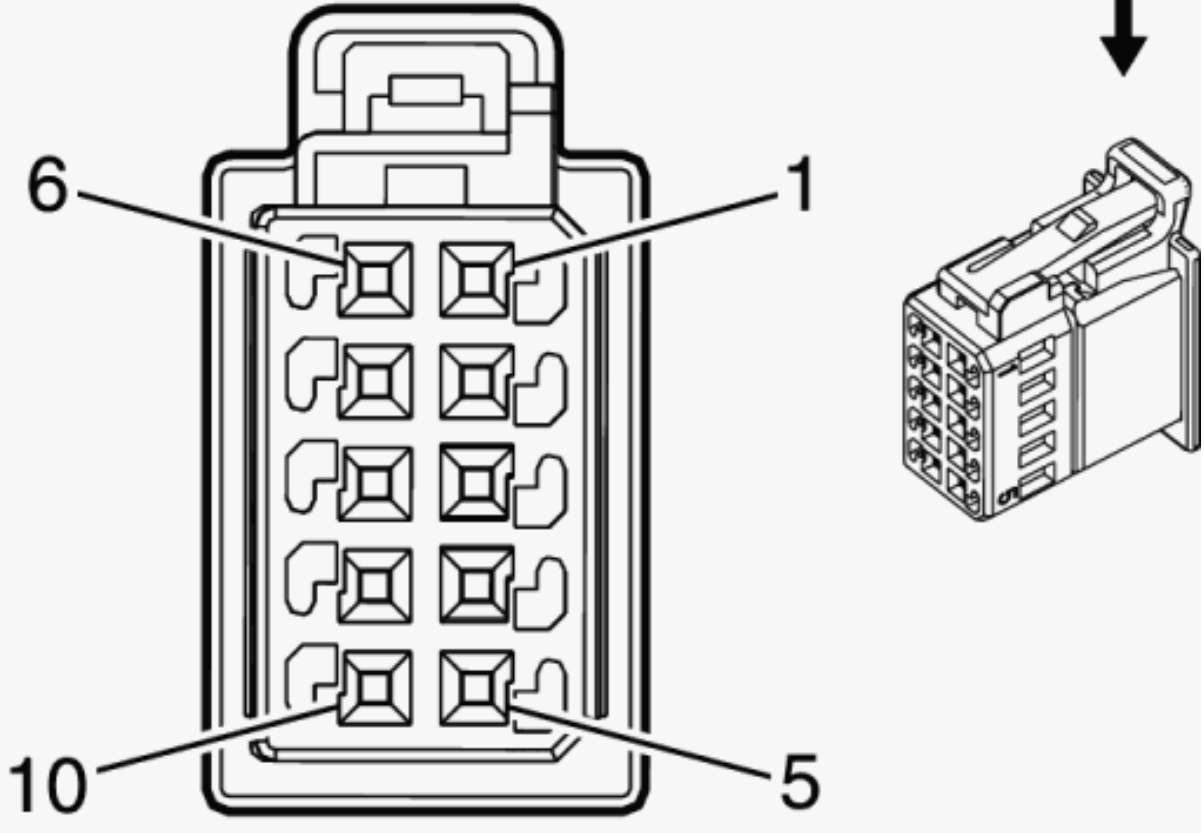
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 6817 | LED Backlight Dimming Control | I | - |
| 2 | 0.35 | GN/WH | 6816 | Indicator Dimming Control | I | - |
| 3 | 0.35 | YE | 3894 | Local Interconnect Network Serial Data Bus 12 | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BU | 2540 | Battery Positive Voltage | I | - |
| 6 | 0.35 | BK | 1650 | Ground | I | - |
| 7 | 0.35 | BU/BU | 4315 | Radio Volume Up Signal | I | - |
| 8 | 0.35 | GY/BN | 4314 | Radio Volume Down Signal | I | - |
| 9 | 0.35 | WH/YE | 4313 | Radio Favorite Forward Signal | I | - |
| 10 | 0.35 | YE/BU | 4312 | Radio Favorite Back Signal | I | - |

## S78 TURN SIGNAL/MULTIFUNCTION SWITCH

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13582766
- Service Connector: 19299776
- Description: 10-Way F 0.64 Micro-Quadlock Series (BK)

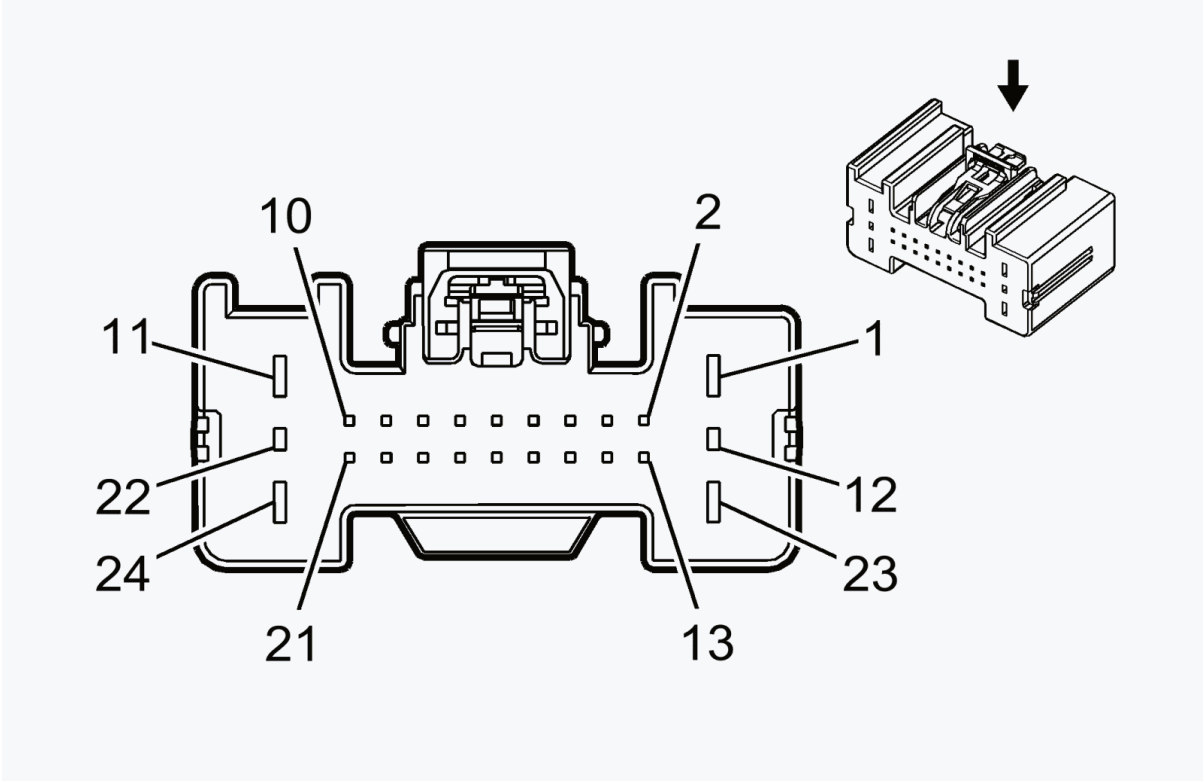
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19352073 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/GN | 663 | Hazard Switch Left Turn Signal | I | LHD |
| 2 | 0.35 | VT/BU | 664 | Hazard Switch Right Turn Signal | I | LHD |
| 3 | 0.35 | BK | 1650 | Ground | I | LHD |
| 4 | 0.35 | BU | 6856 | Headlamp Automatic High Beam Dim Control | I | TQ5 |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | YE/BN | 307 | Headlamp Switch Flash To Pass Signal | I | LHD |
| 7 | 0.35 | WH | 524 | Headlamp Dimmer Switch High Beam Signal | I | LHD |
| 8 - 10 | - | - | - | Not Occupied | - | - |

## S79D WINDOW SWITCH - DRIVER

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Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: 13581061
- Service Connector: Service by Harness - See Part Catalog
- Description: 24-Way F 0.64, 1.5, 2.8 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

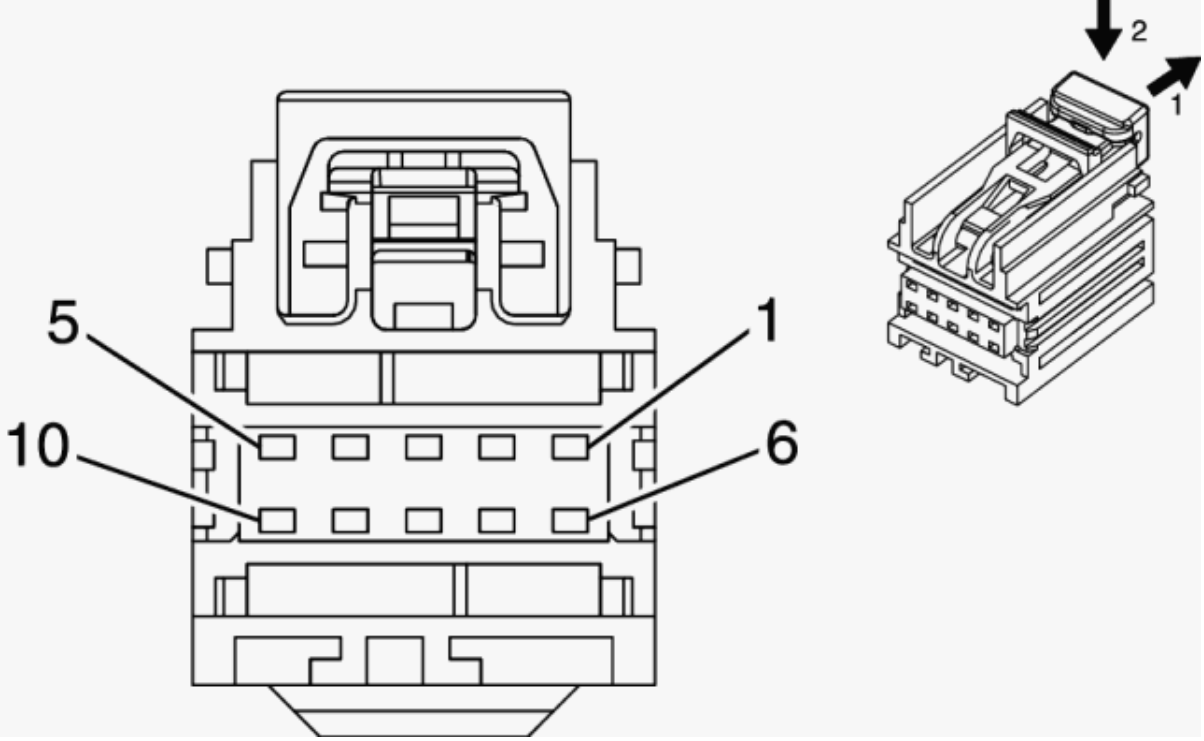
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 3380 | Power Window Switch Driver Down Signal | II | AXG |
| 2 | 0.35 | YE/VT | 3397 | Passenger Mirror Motor Up (+) Down (-) Control | III | DLF/DWK/DWM/DWW |
| 3 | 0.35 | WH | 3398 | Passenger Mirror Motor Common Control | III | DLF/DWK/DWM/DWW |
| 4 | 0.35 | GN/BK | 3396 | Passenger Mirror Motor Right (+) Left (-) Control | III | DLF/DWK/DWM/DWW |
| 5 | 0.35 | GN | 3381 | Power Window Switch Driver Express Signal | III | AXG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 6 | 0.35 | BN/BK | 3389 | Driver Mirror Motor Right (+) Left (-) Control | III | - |
| 7 | 0.35 | VT/BU | 3390 | Driver Mirror Motor Up (+) Down (-) Control | III | - |
| 8 | 0.35 | YE/BN | 3391 | Driver Mirror Motor Common Control | III | - |
| 9 | 0.35 | GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | III | AXG |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | GN/WH | 3379 | Power Window Switch Driver Up Signal | II | AXG |
| 12 | 0.35 | WH/BN | 3410 | Mirror Motor Fold In Control | I | DWW |
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | WH/VT | 3270 | Driver Door Lock Motor Status Signal | III | AXG |
| 15 | 0.35 | BU/VT | 1124 | Door Lock Key Switch Unlock Signal | III | AXG |
| 16 | 0.35 | WH/YE | 3395 | Driver Mirror Position Sensor Left (-) Right (+) Signal | III | A45/DWL |
| 17 | 0.35 | VT/RD | 3392 | Driver Mirror Position Sensor 5V Reference | III | A45/DWL |
| 18 | 0.35 | GY/BN | 3394 | Driver Mirror Position Sensor Up (+) Down (-) Signal | III | A45/DWL |
| 19 | 0.35 | BK/BN | 3393 | Driver Mirror Position Sensor Low Reference | III | A45/DWL |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | GN/WH | 7530 | Local Interconnect Network Serial Data Bus 8 | III | A45/DWL |
| 22 | 0.35 | VT/YE | 3409 | Mirror Motor Fold Out Control | I | - |
| 23 | 0.35 | RD/BN | 1440 | Battery Positive Voltage | II | AXG |
| 24 | 0.35 | BK | 1550 | Ground | II | AXG |

## S79LR WINDOW SWITCH - LEFT REAR (X88)

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | AEQ |
| 2 | 0.35 | GY | 747 | Left Rear Door Ajar Switch Signal | I | AEQ |
| 3 | 0.35 | BK | 1550 | Ground | I | AEQ |
| 4 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 2.5 | BK | 1550 | Ground | II | AEQ |
| 8 | 2.5 | RD/YE | 3740 | Battery Positive Voltage | II | AEQ |
| 9 | 2.5 | BU/VT | 668 | Power Window Motor Left Rear Up Control | II | AEQ |
| 10 | 2.5 | YE/BU | 669 | Power Window Motor Left Rear Down Control | II | AEQ |

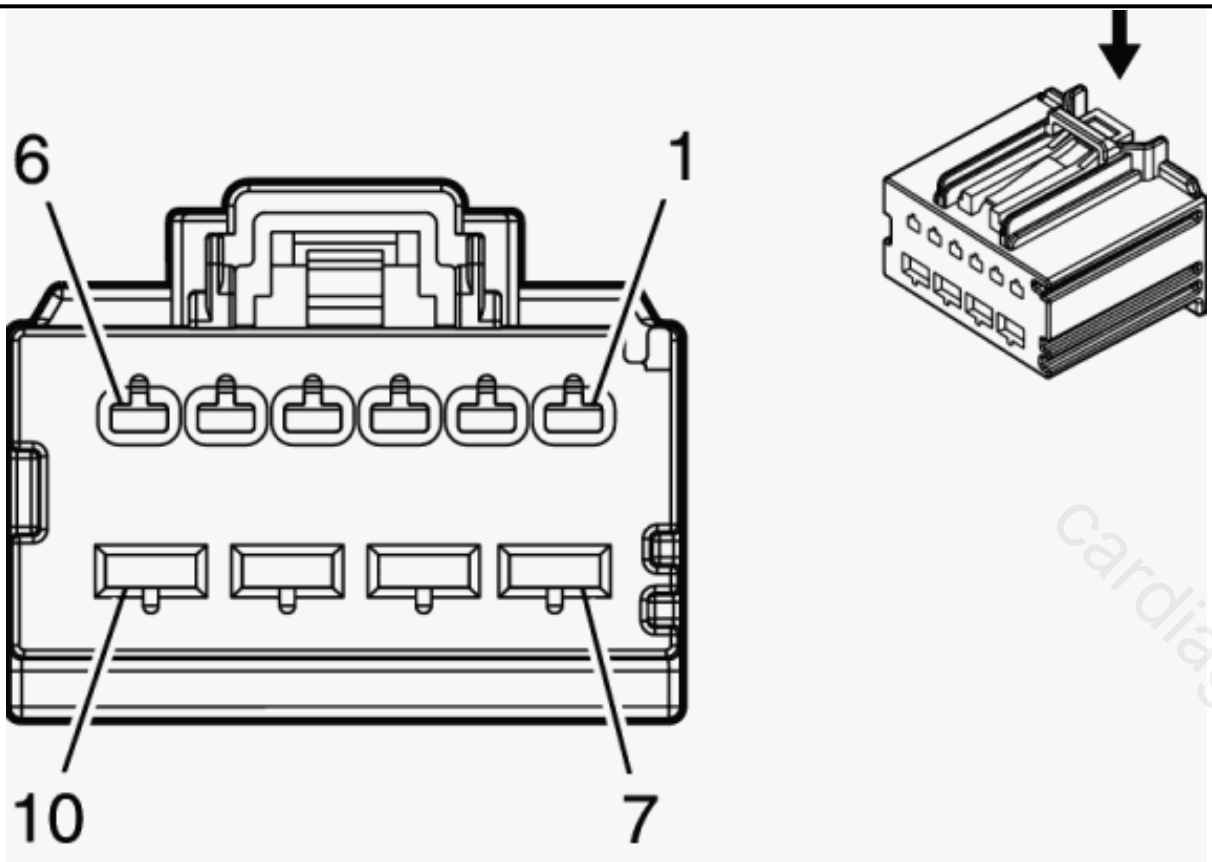
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# COMPONENT CONNECTOR END VIEWS

## S79LR WINDOW SWITCH - LEFT REAR (Z88)




Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: 31372-1300
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 1.5, 2.8 Series (BK)

**Terminal Part Information**

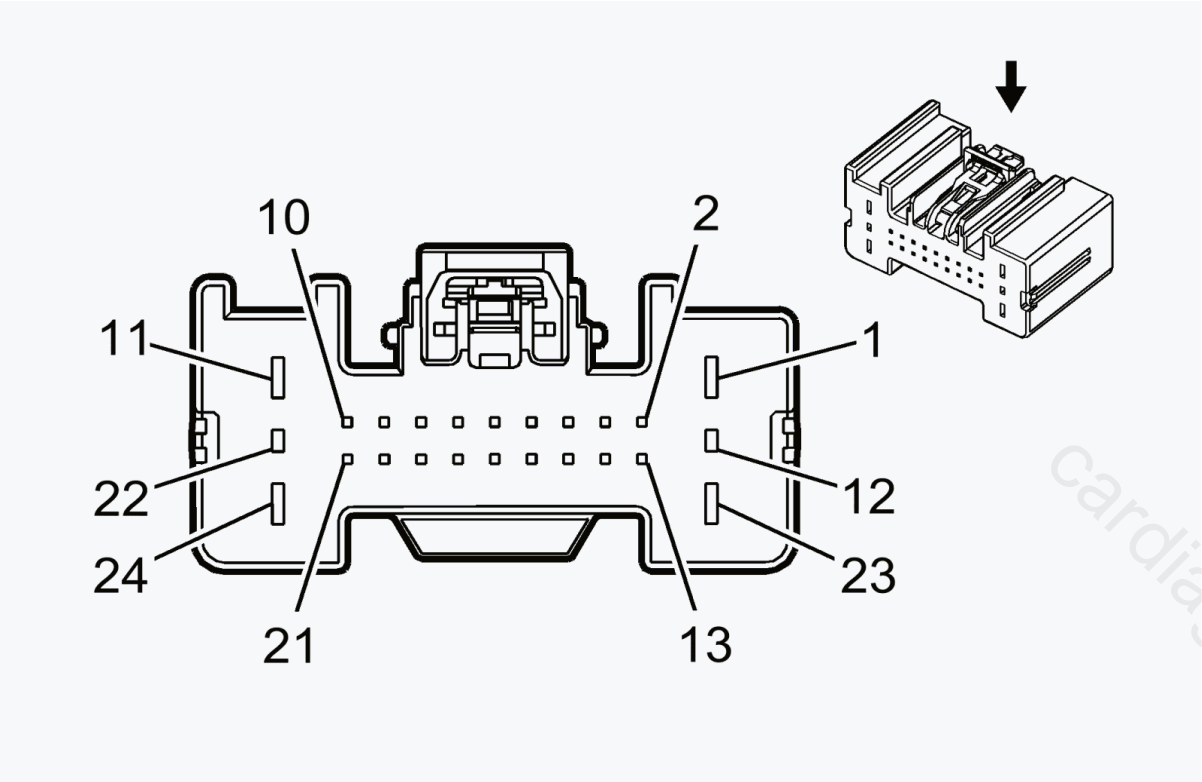
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | AEQ |
| 2 | 0.35 | GY | 747 | Left Rear Door Ajar Switch Signal | I | AEQ |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 3 | 0.35 | BK | 1550 | Ground | I | AEQ |
| 4 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 2.5 | BK | 1550 | Ground | II | AEQ |
| 8 | 2.5 | RD/YE | 3740 | Battery Positive Voltage | II | AEQ |
| 9 | 2.5 | BU/VT | 668 | Power Window Motor Left Rear Up Control | II | AEQ |
| 10 | 2.5 | YE/BU | 669 | Power Window Motor Left Rear Down Control | II | AEQ |

## S79P WINDOW SWITCH - PASSENGER




Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: 13581061
- Service Connector: Service by Harness - See Part Catalog
- Description: 24-Way F 0.64, 1.5, 2.8 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 2.5 | YE/BU | 3388 | Power Window Motor Passenger Down Control | I | AED/A45 |
| 2 | 0.35 | GY | 746 | Right Front Door Ajar Switch Signal | II | AED |

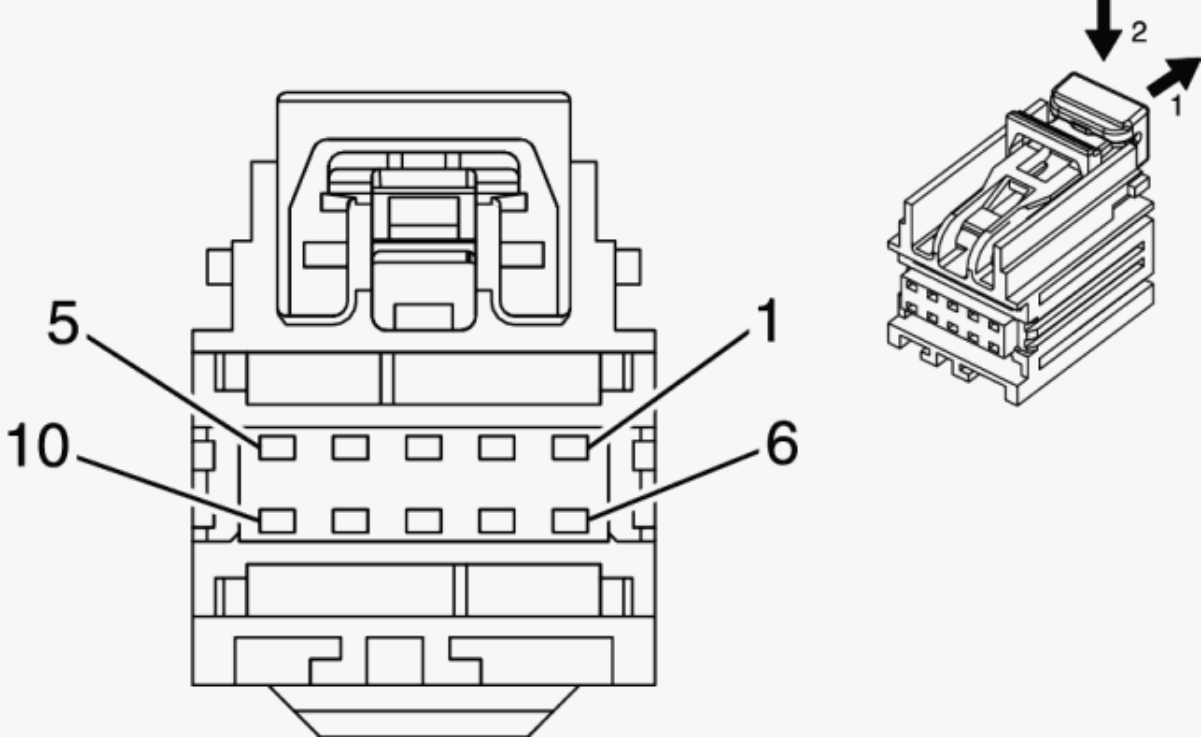
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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 3 | 0.35<br>0.35 | GN/BK<br>GN/BK | 3396<br>3396 | Passenger Mirror Motor Right (+) Left (-) Control<br>Passenger Mirror Motor Right (+) Left (-) Control | II<br>II | A45/DWL<br>A45+DWL |
| 4 | 0.35<br>0.35 | YE/VT<br>YE/VT | 3397<br>3397 | Passenger Mirror Motor Up (+) Down (-) Control<br>Passenger Mirror Motor Up (+) Down (-) Control | II<br>II | A45/DWL<br>A45+DWL |
| 5 | 0.35<br>0.35 | WH<br>WH | 3398<br>3398 | Passenger Mirror Motor Common Control<br>Passenger Mirror Motor Common Control | II<br>II | A45/DWL<br>A45+DWL |
| 6 | 0.35<br>0.35 | YE/RD<br>YE/RD | 3399<br>3399 | Passenger Mirror Position Sensor 5V Reference<br>Passenger Mirror Position Sensor 5V Reference | II<br>II | A45/DWL<br>A45+DWL |
| 7 | 0.35<br>0.35 | BU/YE<br>BU/YE | 3401<br>3401 | Passenger Mirror Position Sensor Up (+) Down (-) Signal<br>Passenger Mirror Position Sensor Up (+) Down (-) Signal | II<br>II | A45/DWL<br>A45+DWL |
| 8 | 0.35<br>0.35 | BK/GN<br>BK/GN | 3400<br>3400 | Passenger Mirror Position Sensor Low Reference<br>Passenger Mirror Position Sensor Low Reference | II<br>II | A45/DWL<br>A45+DWL |
| 9 | 0.35<br>0.35 | VT/WH<br>VT/WH | 3403<br>3403 | Passenger Mirror Position Sensor Left (-) Right (+) Signal<br>Passenger Mirror Position Sensor Left (-) Right (+) Signal | II<br>II | A45/DWL<br>A45+DWL |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 2.5 | GN/GY | 3387 | Power Window Motor Passenger Up Control | I | AED/A45 |
| 12 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | GN/YE | 6134 | Local Interconnect Network Serial Data Bus 3 | II | AED/A45 |
| 21 | 0.35<br>0.35 | GN/WH<br>GN/WH | 7530<br>7530 | Local Interconnect Network Serial Data Bus 8<br>Local Interconnect Network Serial Data Bus 8 | II<br>II | A45/DWL<br>A45+DWL |
| 22 | - | - | - | Not Occupied | - | - |
| 23 | 2.5 | RD/BN | 3640 | Battery Positive Voltage | I | AED/A45 |
| 24 | 2.5 | BK | 2050 | Ground | I | AED/A45 |

## S79RR WINDOW SWITCH - RIGHT REAR (X88)



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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 7289-5068-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 YESC Kaizen Series (GN)

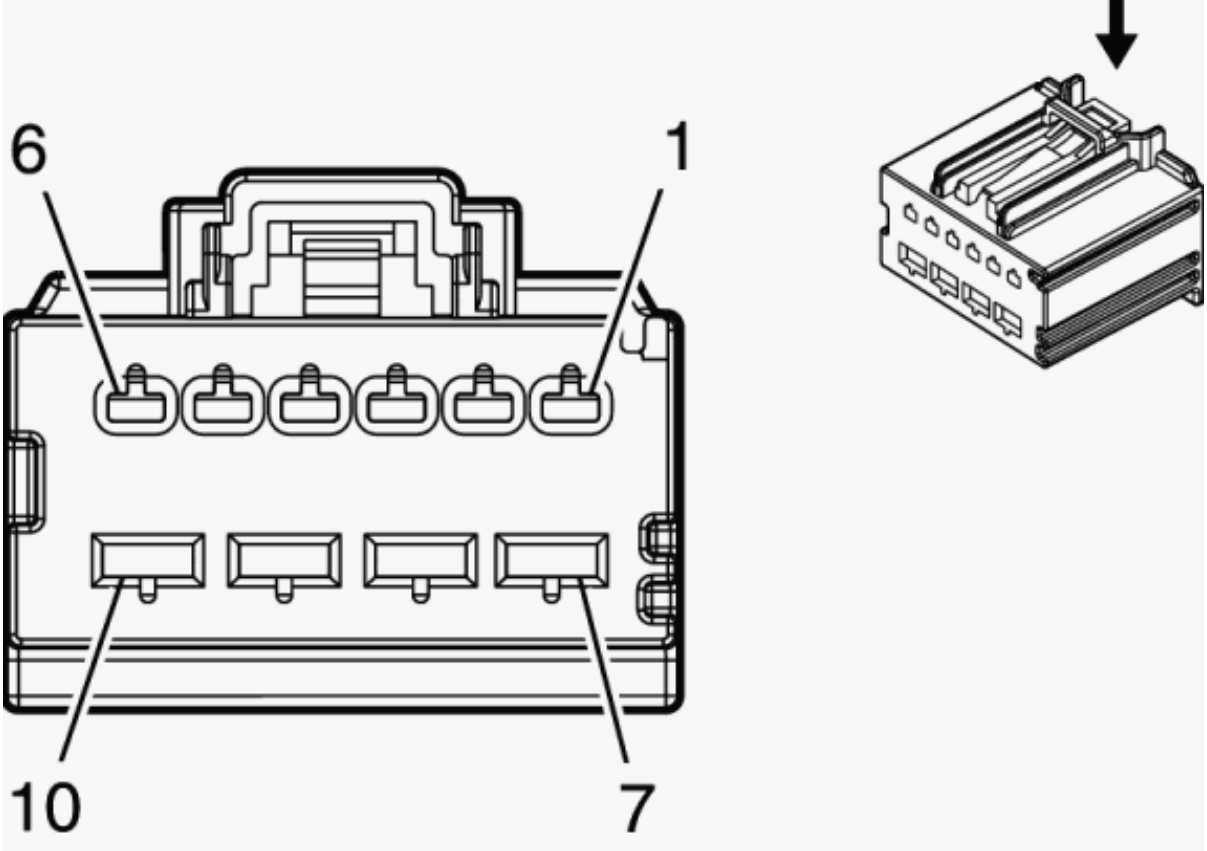
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | AEQ |
| 2 | 0.35 | GY | 748 | Right Rear Door Ajar Switch Signal | I | AEQ |
| 3 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 2.5 | BK | 2050 | Ground | II | AEQ |
| 8 | 2.5 | RD/YE | 3740 | Battery Positive Voltage | II | AEQ |
| 9 | 2.5 | BU/GY | 670 | Power Window Motor Right Rear Up Control | II | AEQ |
| 10 | 2.5 | GN/BK | 671 | Power Window Motor Right Rear Down Control | II | AEQ |

## S79RR WINDOW SWITCH - RIGHT REAR (Z88)

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Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 31372-1300
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 1.5, 2.8 Series (BK)

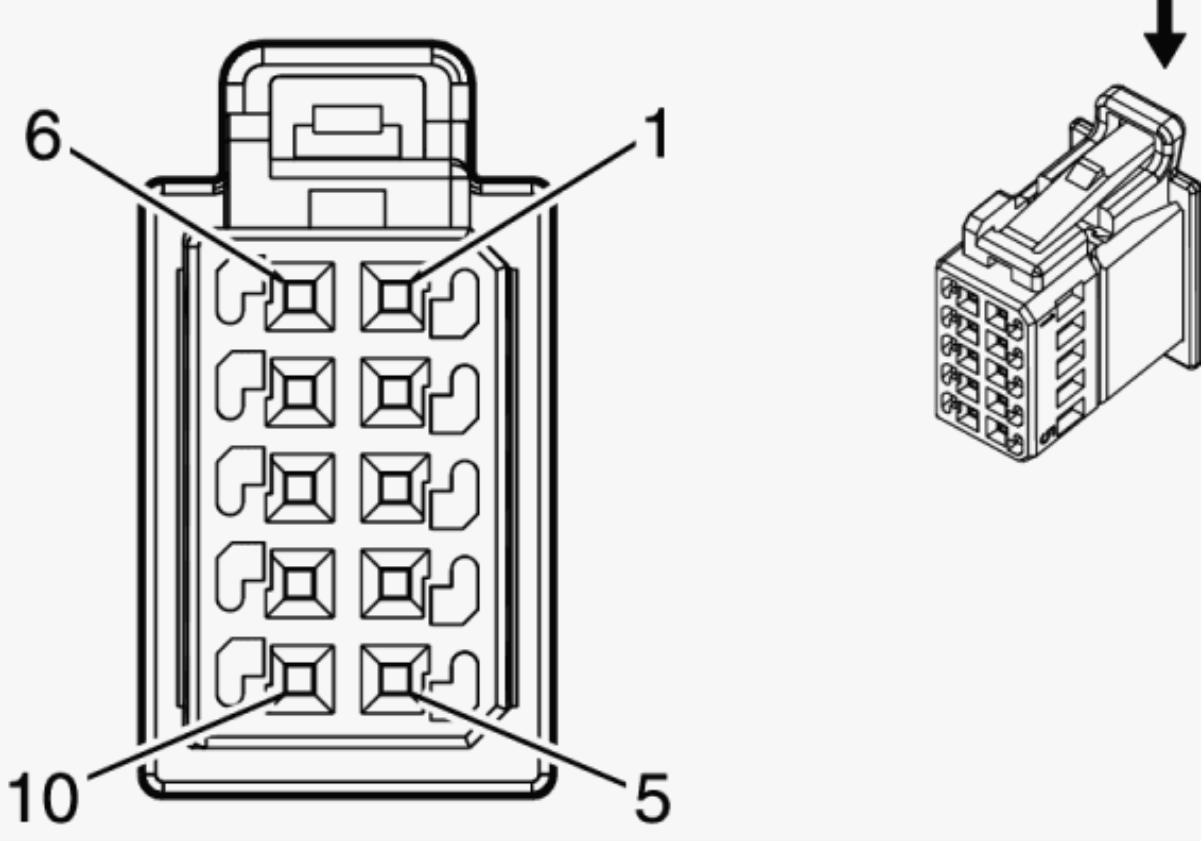
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/GY | 6135 | Local Interconnect Network Serial Data Bus 4 | I | AEQ |
| 2 | 0.35 | GY | 748 | Right Rear Door Ajar Switch Signal | I | AEQ |
| 3 - 6 | - | - | - | Not Occupied | - | - |
| 7 | 2.5 | BK | 2050 | Ground | II | AEQ |
| 8 | 2.5 | RD/YE | 3740 | Battery Positive Voltage | II | AEQ |
| 9 | 2.5 | BU/GY | 670 | Power Window Motor Right Rear Up Control | II | AEQ |
| 10 | 2.5 | GN/BK | 671 | Power Window Motor Right Rear Down Control | II | AEQ |

## S82 WINDSHIELD WIPER/WASHER SWITCH




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13582767
- Service Connector: 19330677
- Description: 10-Way F 0.64 Micro-Quadlock Series (BK)

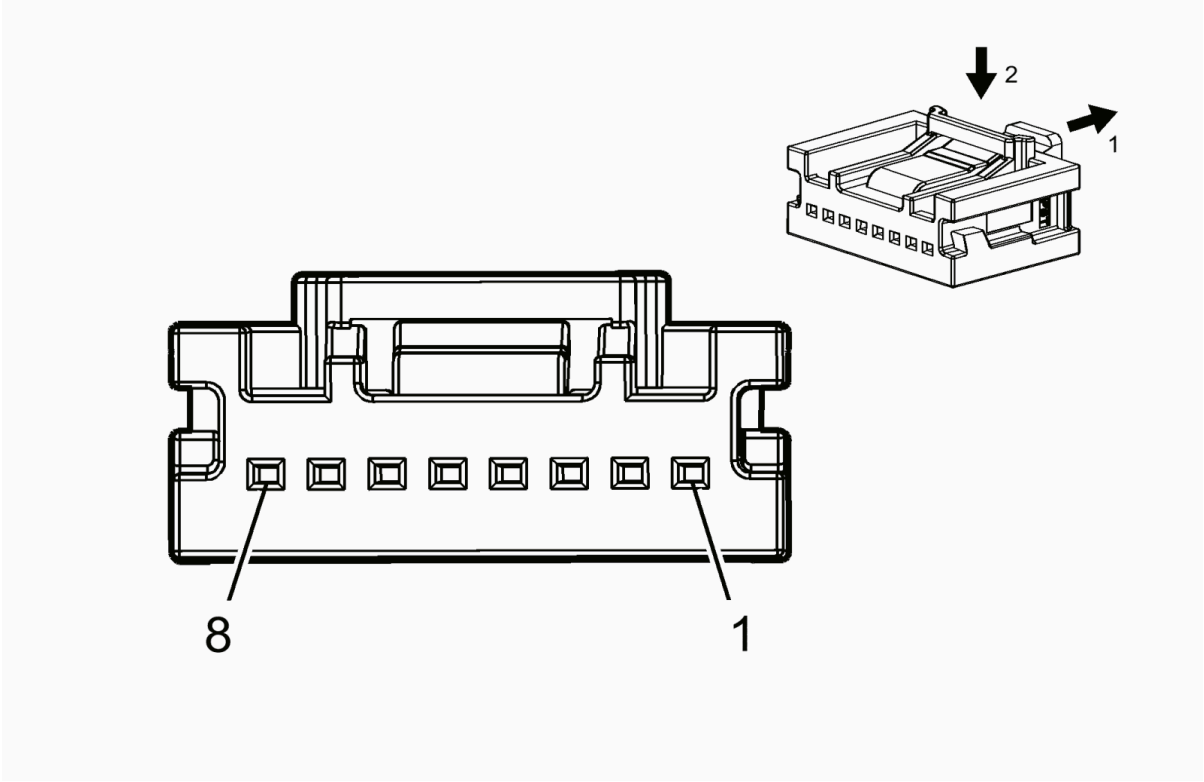
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**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19352073 | J-35616-64B (LT BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/GY | 6009 | Windshield Wiper Switch Low Reference | I | - |
| 2 | 0.35 | GY | 1715 | Windshield Wiper Switch High Signal | I | - |
| 3 | 0.35 | YE/BU | 1714 | Windshield Wiper Switch Low Signal | I | - |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.35 | BN/BU | 391 | Rear Window Wiper Switch Signal | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | WH/BK | 94 | Windshield Washer Switch Signal | I | - |
| 8 - 10 | - | - | - | Not Occupied | - | - |

## S107 PARKING ASSIST ON/OFF SWITCH (UFQ+EPH)




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 34791-5181
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F Mini 50 Series (GY)

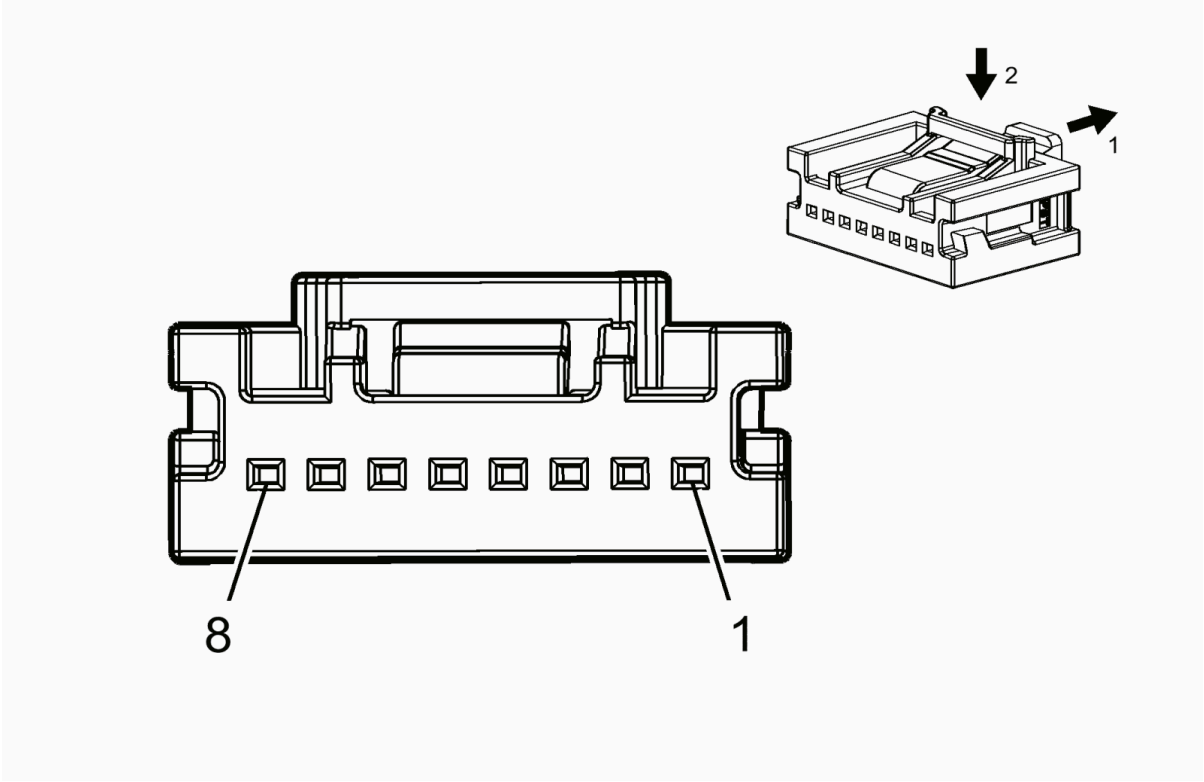
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | EPH+UFQ |
| 2 | 0.35 | BU/BN | 3161 | Parallel Park Assist Disable Switch Signal | I | EPH+UFQ |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GY/GN | 2555 | Rear Park Assist Disable Signal | I | EPH+UFQ |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | I | EPH+UFQ |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | GN/BN | 5852 | Rear Park Assist LED Disable Signal | I | EPH+UFQ |
| 8 | 0.35 | BK | 2250 | Ground | I | EPH+UFQ |

## S107 PARKING ASSIST ON/OFF SWITCH (UFQ-EPH)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 34791-5181
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F Mini 50 Series (GY)

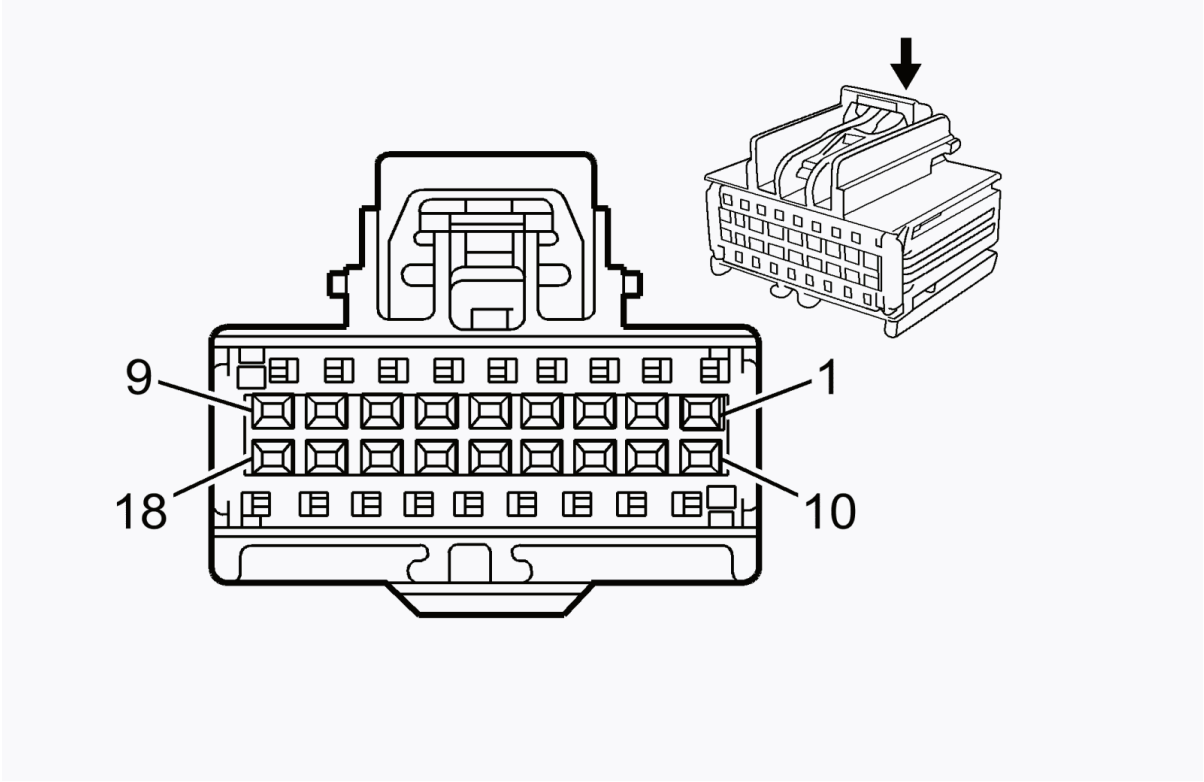
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 2 | 0.35 | BU/BN | 3161 | Parallel Park Assist Disable Switch Signal | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GY/GN | 2555 | Rear Park Assist Disable Signal | I | - |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | GN/BN | 5852 | Rear Park Assist LED Disable Signal | I | - |
| 8 | 0.35 | BK | 2250 | Ground | I | - |

## S126 DRIVE MODE SELECT SWITCH (EPH)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 7283-4548-60
- Service Connector: Service by Harness - See Part Catalog
- Description: 18-Way F 0.64 Kaizen Series (GN)

**Terminal Part Information**

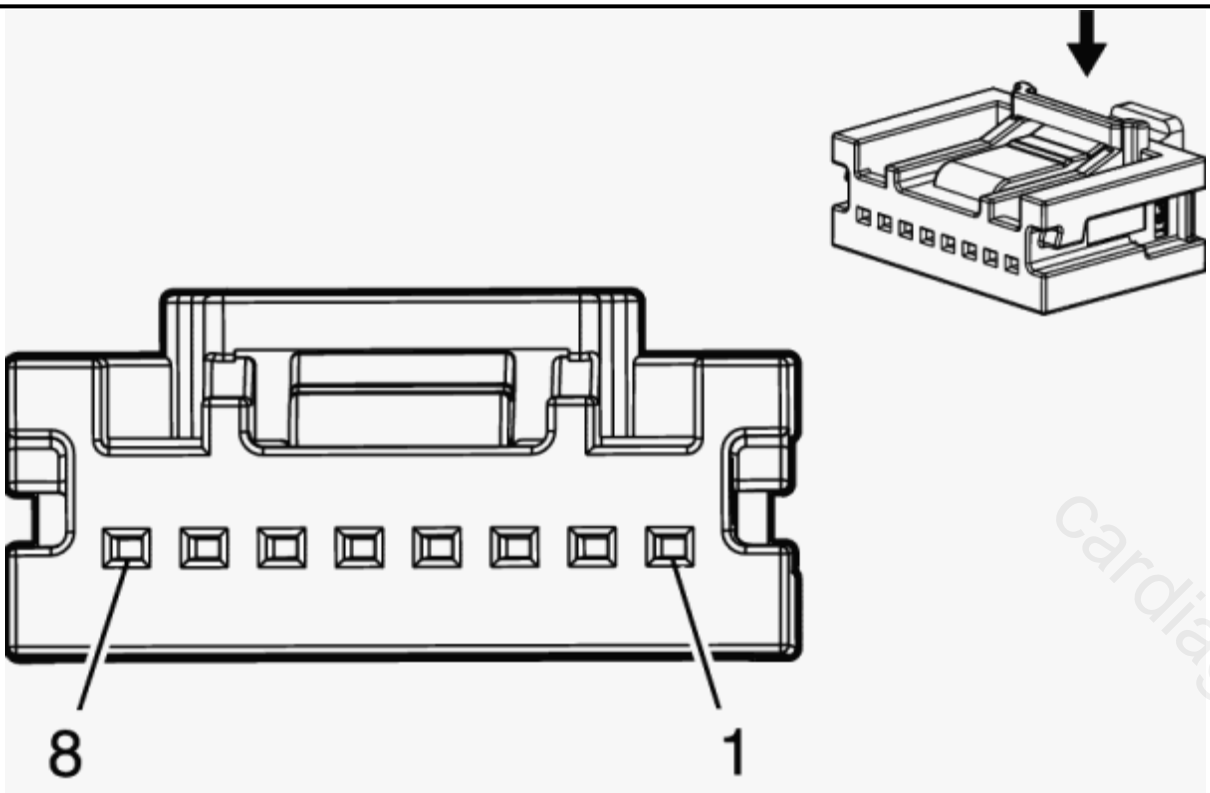
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH | 3152 | Lane Departure Warning Indicator Control | I | EPH+UHX |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | YE/BU | 2912 | Driver Mode 2 Indicator Control | I | EPH |
| 5 | 0.35 | BK | 2250 | Ground | I | EPH |
| 6 | 0.35 | WH/GN | 2911 | Driver Mode 1 Indicator Control | I | EPH+V92 |
| 7 | 0.35 | WH/VT | 4108 | Driver Mode Switch Signal | I | EPH |
| 8 | 0.35 | WH | 6816 | Indicator Dimming Control | I | - |
| 9 | 0.35 | GY | 4109 | Driver Mode Switch 5V Reference | I | EPH |
| 10 | 0.35 | BK | 2250 | Ground | I | EPH+JHD |
| 11 | 0.35 | BU/YE | 6844 | ABS/TCS Hill Descent Control Switch Signal | I | EPH+JHD |
| 12 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 13 | 0.35 | GY/WH | 3153 | Lane Departure Warning Disable Switch Signal | I | EPH+UHX |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 14 | 0.35 | GY/GN | 1561 | AWD Indicator Control | I | EPH+F48 |
| 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.35 | VT/YE | 2663 | Driver Mode 5 Indicator Control | I | EPH+F48 |
| 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | BN/VT | 2914 | Driver Mode 4 Indicator Control | I | - |

## S126 DRIVE MODE SELECT SWITCH (-EPH)




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 34791-5180
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F Mini 50 Series (BK)

**Terminal Part Information**

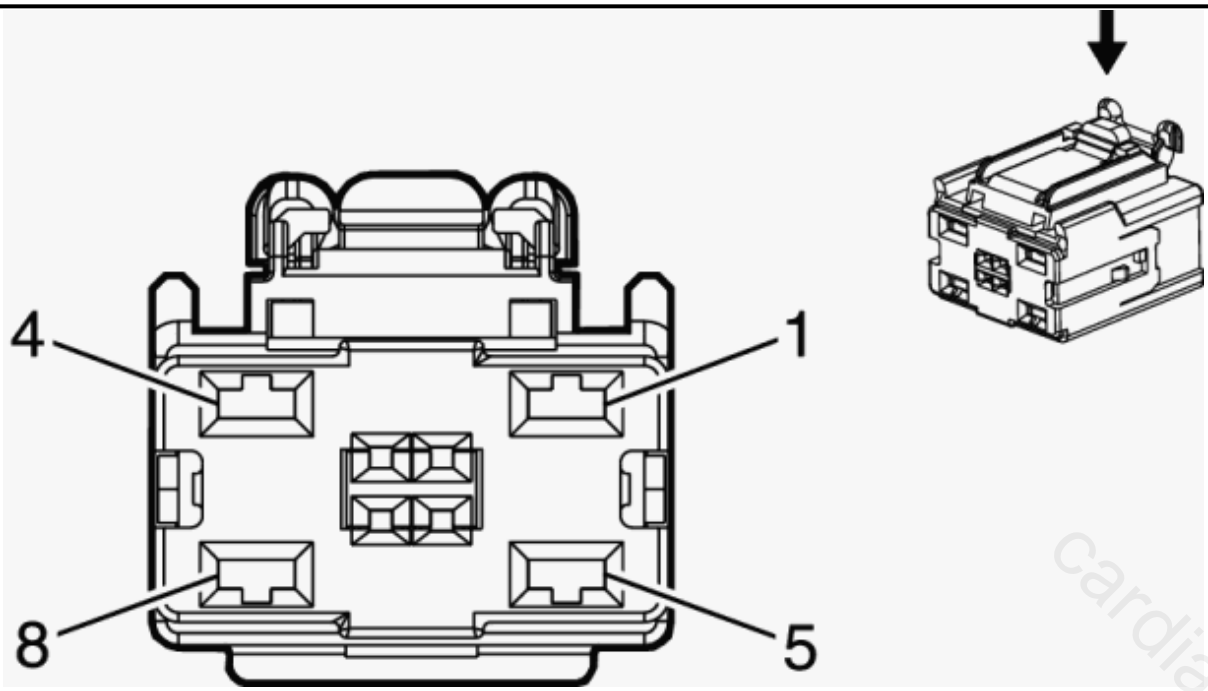
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | EL-35616-58 (BK) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | JHD/F48/V92-EPH |
| 2 | 0.35<br>0.35 | BU/YE<br>BU/GY | 6844<br>553 | ABS/TCS Hill Descent Control Switch Signal<br>Shift Select Switch Performance Signal | I<br>I | JHD-EPH<br>V92-EPH |
| 3 | 0.35 | GY | 4109 | Driver Mode Switch 5V Reference | I | F48-EPH |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 4 | 0.35 | WH/VT | 4108 | Driver Mode Switch Signal | I | - |
| 5 | 0.35 | WH | 6816 | Indicator Dimming Control | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 0.35 | GY/GN | 1561 | AWD Indicator Control | I | F48-EPH |
| 8 | 0.35 | BK | 2250 | Ground | I | JHD/F48/V92-EPH |

## T1 ACCESSORY DC/AC POWER INVERTER MODULE (KI6)




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13591332
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64, 2.8 Series (BK)

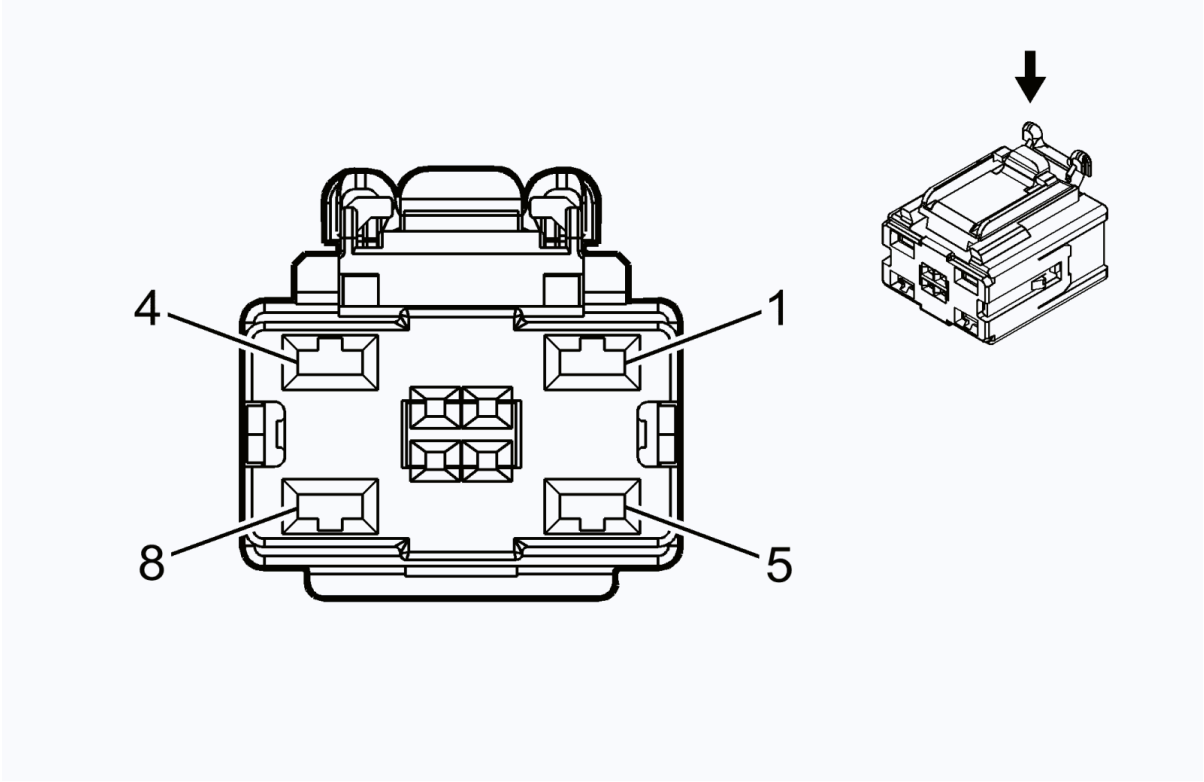
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | RD | 5684 | 120 V AC Phase B | I | KI6 |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 1.5 | RD/WH | 2040 | Battery Positive Voltage | I | KI6 |
| 5 | 0.75 | BK | 5683 | 120 V AC Phase A | I | KI6 |
| 6 | 0.35 | BU/BN | 6807 | DC To AC Inverter Control | II | KI6 |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 1.5 | BK | 2250 | Ground | I | KI6 |

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## T1 ACCESSORY DC/AC POWER INVERTER MODULE (KI7)




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13591333
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64, 2.8 Series (GY)

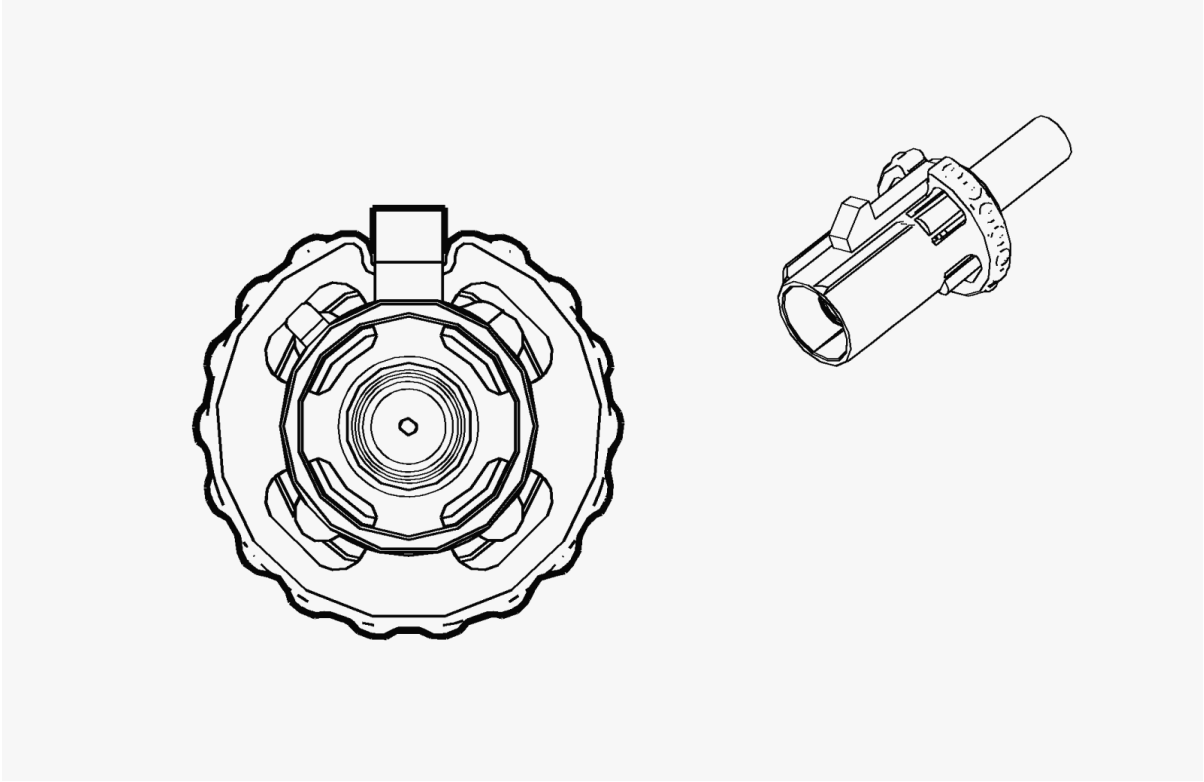
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 6865 | 230 V AC Phase B | I | KI7 |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 1.5 | RD/WH | 2040 | Battery Positive Voltage | I | KI7 |
| 5 | 0.75 | BN | 686 | 230 V AC Phase A | I | KI7 |
| 6 | 0.35 | BU/BN | 6807 | DC To AC Inverter Control | II | KI7 |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 1.5 | BK | 2250 | Ground | I | KI7 |

## T2RR ANTENNA - ROOF REAR (IOB/IO5/IO6-U2Q)

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Connector Part Information

- Harness Type: Antenna Jumper COAX
- OEM Connector: 13581674
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way M Coax Type (BK)

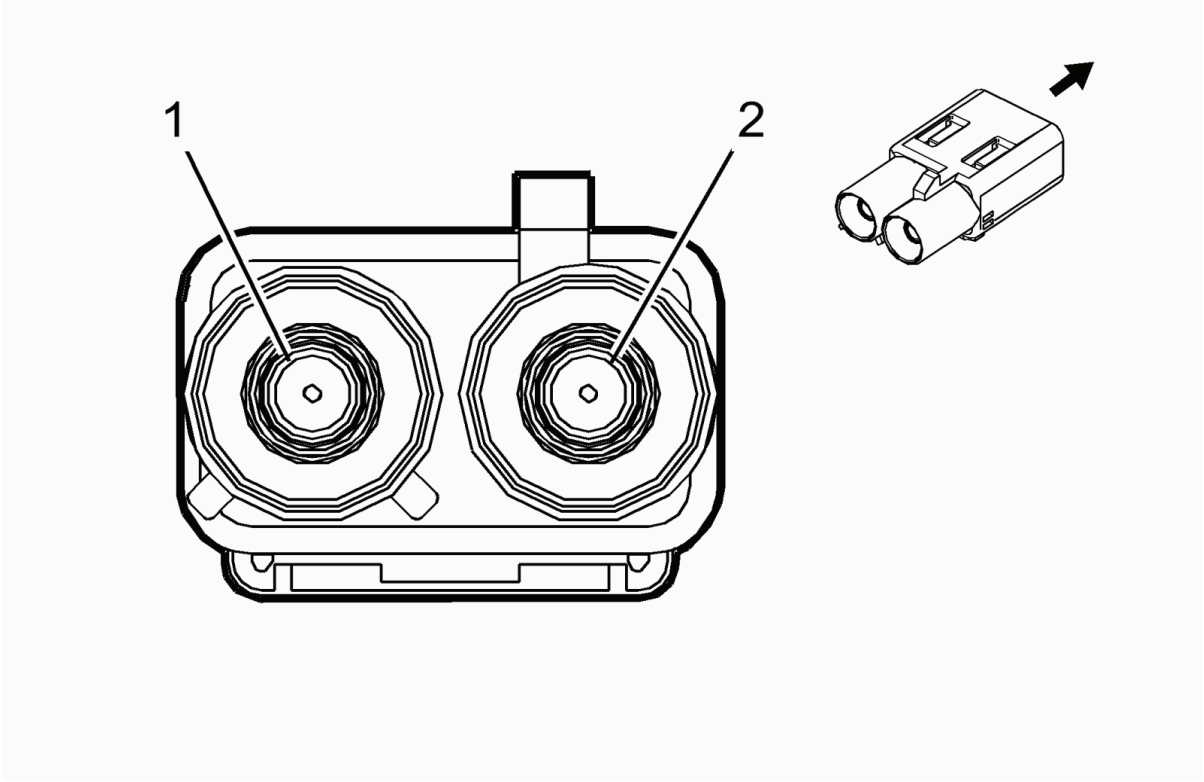
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |

## T2RR ANTENNA - ROOF REAR X2 (U2K)

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Connector Part Information

- Harness Type: Antenna Jumper COAX
- OEM Connector: 13581974
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way M Coax Type (CU)

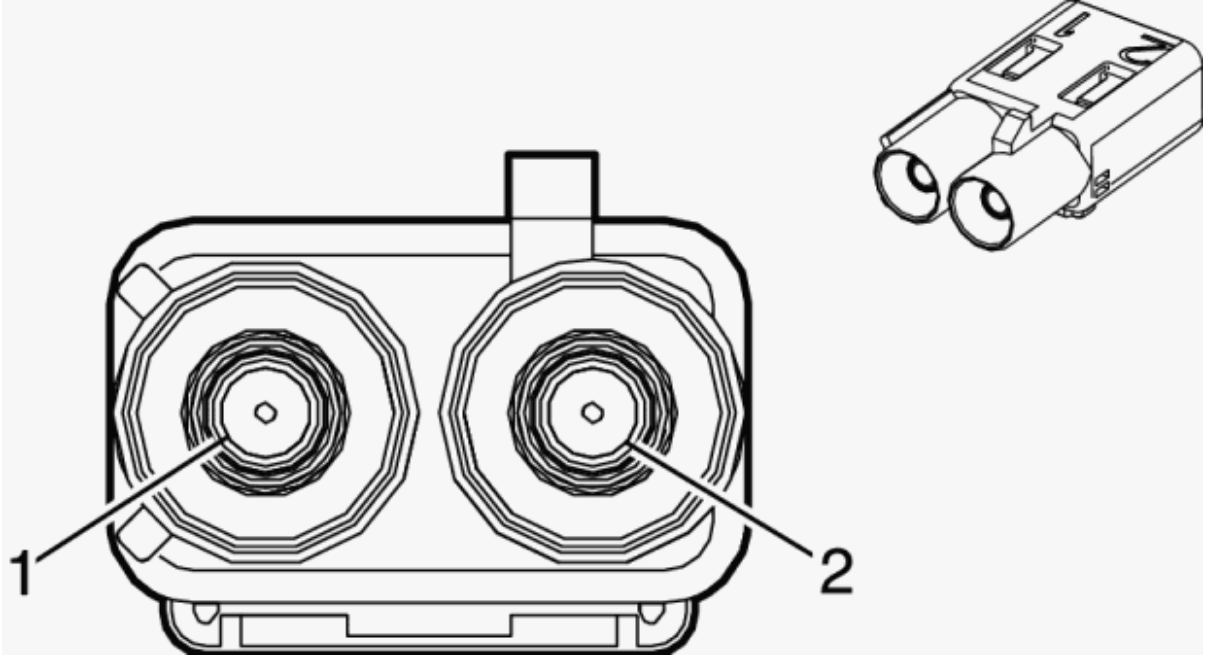
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | Coax | - | (XM+/-HD) Coaxial Antenna XM Signal | I | - |
| 2 | - | Coax | - | (XM+/-HD) Coaxial Antenna XM Signal | I | - |

## T2RR ANTENNA - ROOF REAR X1 (UE1)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13583909
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way M Coax Type (VT)

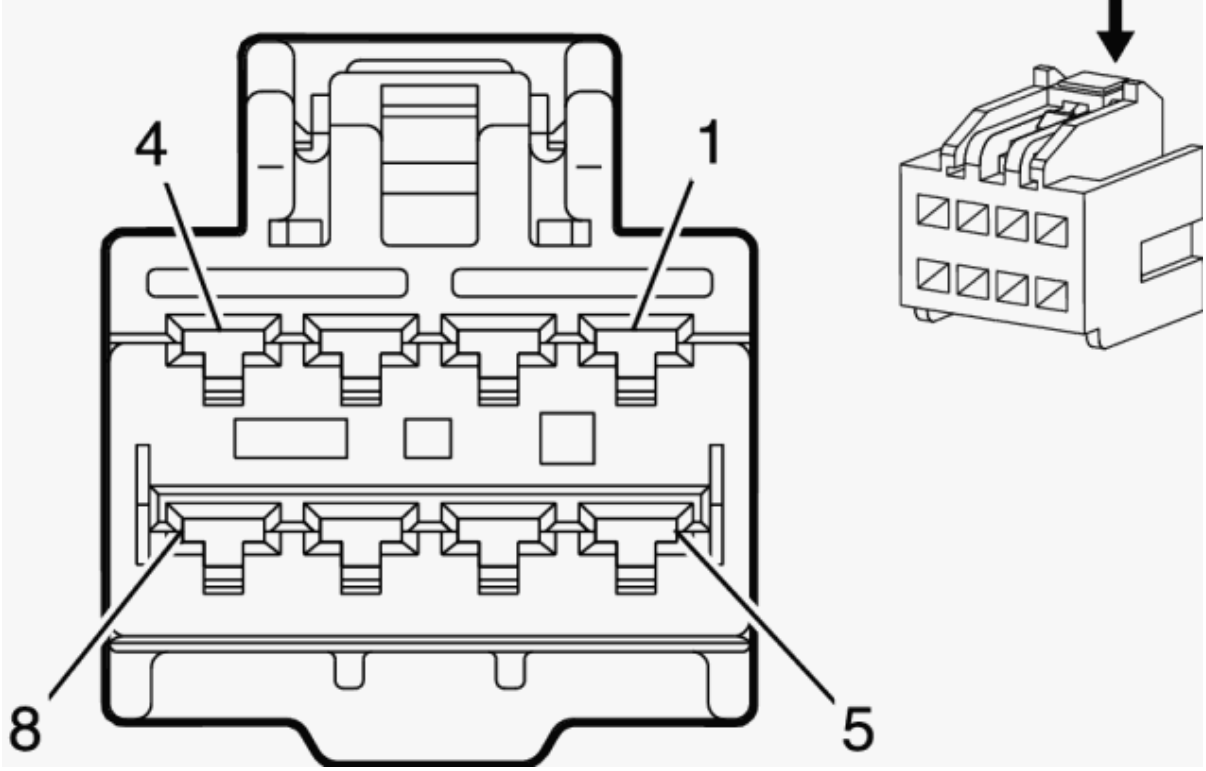
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |
| 2 | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |

## T3 AUDIO AMPLIFIER X1 (UQA)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15134093
- Service Connector: 13580111
- Description: 8-Way F 2.8 Series (BK)

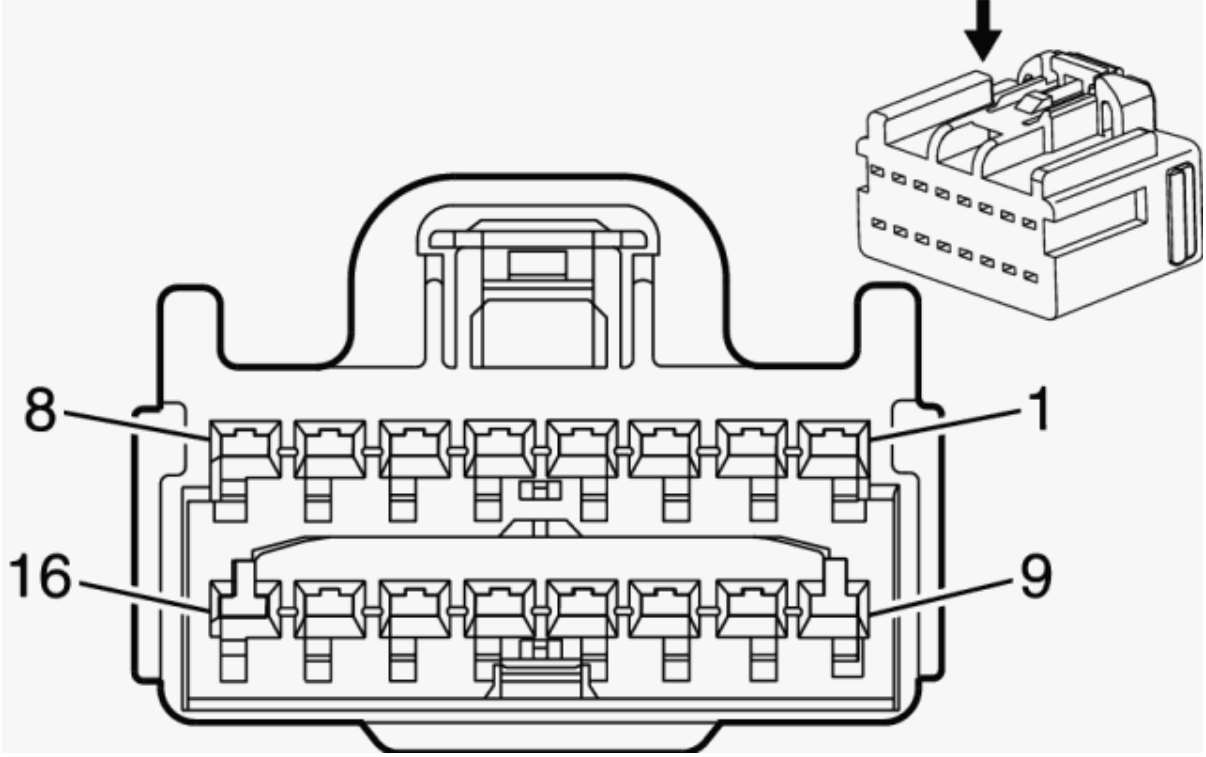
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1.5 | YE | 200 | Right Front Speaker Control (+) 1 | I | - |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 1.5<br>1.5 | BU<br>GN/YE | 201<br>7066 | Left Front Speaker Control (+) 1<br>Entertainment Remote Enable Signal | I<br>I | LHD<br>UQA |
| 4 | 2<br>2.5 | RD/VT<br>RD/VT | 5340<br>5340 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>I | (UZ6+NKC+IOB)/(UQA+IO5/IO6)<br>IOS/IOT/IOU+UQA |
| 5 | 1.5 | YE/BK | 117 | Right Front Speaker Signal (-) 1 | I | - |
| 6 | - | - | - | Not Occupied | - | - |
| 7 | 1.5 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | I | - |
| 8 | 2.5 | BK | 1750 | Ground | I | - |

## T3 AUDIO AMPLIFIER X2 (UQA)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 89047090
- Service Connector: 89047090
- Description: 16-Way F 1.5 Kaizen Series (GN)

**Terminal Part Information**

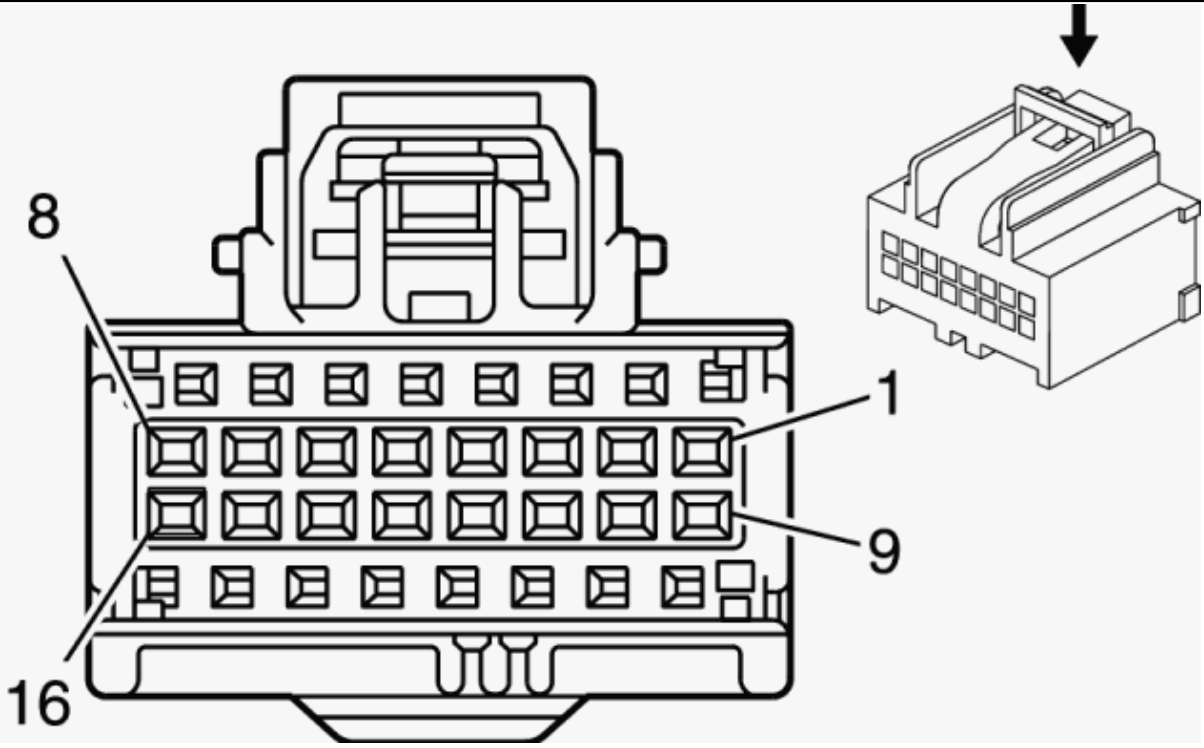
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575850 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | No Tool Required | Not Available | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BU | 201 | Left Front Speaker Control (+) 1 | II | - |
| 2 | 0.75 | VT/BN | 1952 | Right Front Tweeter Speaker (-) Low Reference | I | - |
| 3 | 0.75<br>0.75 | YE/WH<br>YE/BU | 1860<br>1856 | Front Center Speaker Control (+)<br>Left Front Tweeter Speaker Control (+) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 4 | 0.75<br>0.75 | BN/GN<br>WH | 1852<br>46 | Right Front Tweeter Speaker Control (+)<br>Right Rear Speaker Control (+) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 5 | 0.75<br>0.75 | YE/BU<br>GN | 1856<br>199 | Left Front Tweeter Speaker Control (+)<br>Left Rear Speaker Control (+) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 6 | 0.75 | WH | 46 | Right Rear Speaker Control (+) | I | UQA+IO5/IO6 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 7 | 0.75<br>0.75 | GN<br>YE/WH | 199<br>1860 | Left Rear Speaker Control (+)<br>Front Center Speaker Control (+) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 8 | - | - | - | Not Occupied | - | - |
| 9 | 0.75 | BN/BU | 118 | Left Front Speaker Signal (-) 1 | II | - |
| 10 | 0.75 | BN/GN | 1852 | Right Front Tweeter Speaker Control (+) | I | UQA+IOS/IOT/IOU |
| 11 | 0.75<br>0.75 | BU/YE<br>YE/GY | 1960<br>1956 | Front Center Speaker (-) Low Reference<br>Left Front Tweeter Speaker (-) Low Reference | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 12 | 0.75<br>0.75 | VT/BN<br>BU/BK | 1952<br>115 | Right Front Tweeter Speaker (-) Low Reference<br>Right Rear Speaker Signal (-) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 13 | 0.75<br>0.75 | YE/GY<br>GN/BK | 1956<br>116 | Left Front Tweeter Speaker (-) Low Reference<br>Left Rear Speaker Signal (-) | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 14 | 0.75 | BU/BK | 115 | Right Rear Speaker Signal (-) | I | UQA+IO5/IO6 |
| 15 | 0.75<br>0.75 | GN/BK<br>BU/YE | 116<br>1960 | Left Rear Speaker Signal (-)<br>Front Center Speaker (-) Low Reference | I<br>I | UQA+IO5/IO6<br>UQA+IOS/IOT/IOU |
| 16 | - | - | - | Not Occupied | - | - |

## T3 AUDIO AMPLIFIER X3 (UQA)




Connector Part Information

- Harness Type: Body

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- OEM Connector: 15136073
- Service Connector: 15136073
- Description: 16-Way F 0.64 Kaizen Series (BK)

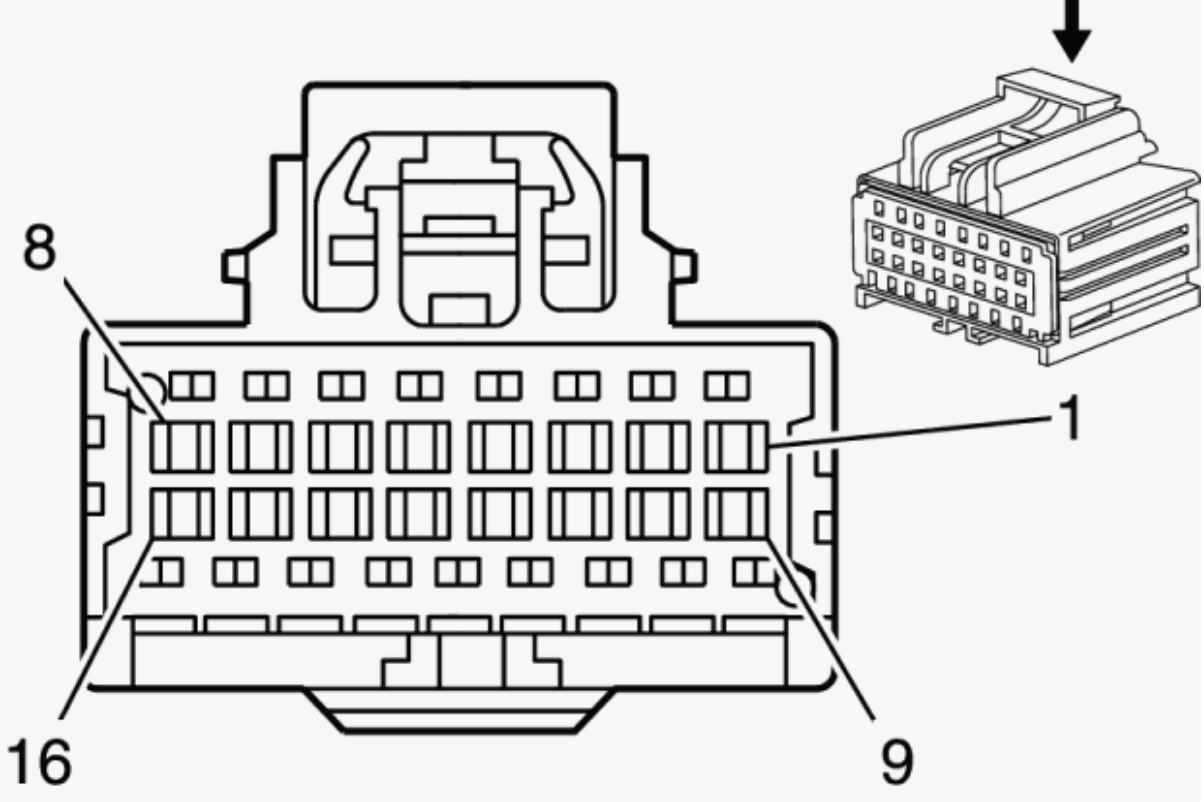
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |
| II | 19300629 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35<br>0.75 | GY/GN<br>GY/GN | 1102<br>1102 | Low Speed GMLAN Serial Data #2<br>Low Speed GMLAN Serial Data #2 | I<br>II | IOT/IOU/IOS+UQA<br>UQA+IO5/IO6-NKC |
| 2 | 0.35 | VT/BU | 6091 | Crankshaft Position Sensor Replicated Signal | I | - |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | GN/BN | 3005 | Noise Reduction Microphone 1 Signal | I | - |
| 5 | 0.35 | BU/YE | 3006 | Noise Reduction Microphone 2 Signal | I | - |
| 6 | 0.35 | GY/BU | 3007 | Noise Reduction Microphone 3 Signal | I | - |
| 7 | 0.35 | VT/BU | 1775 | Noise Reduction Microphone #4 Signal | I | - |
| 8 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | GN/BK | 3008 | Noise Reduction Microphone 1 Low Reference | I | - |
| 13 | 0.35 | BU/BK | 3009 | Noise Reduction Microphone 2 Low Reference | I | - |
| 14 | 0.35 | GY/BN | 3010 | Noise Reduction Microphone 3 Low Reference | I | - |
| 15 | 0.35 | WH/GN | 1776 | Noise Reduction Microphone #4 Return | I | - |
| 16 | - | - | - | Not Occupied | - | - |

## T3 AUDIO AMPLIFIER X4 (UQA)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 15136074
- Service Connector: 15136074
- Description: 16-Way F 0.64 Kaizen Series (BN)

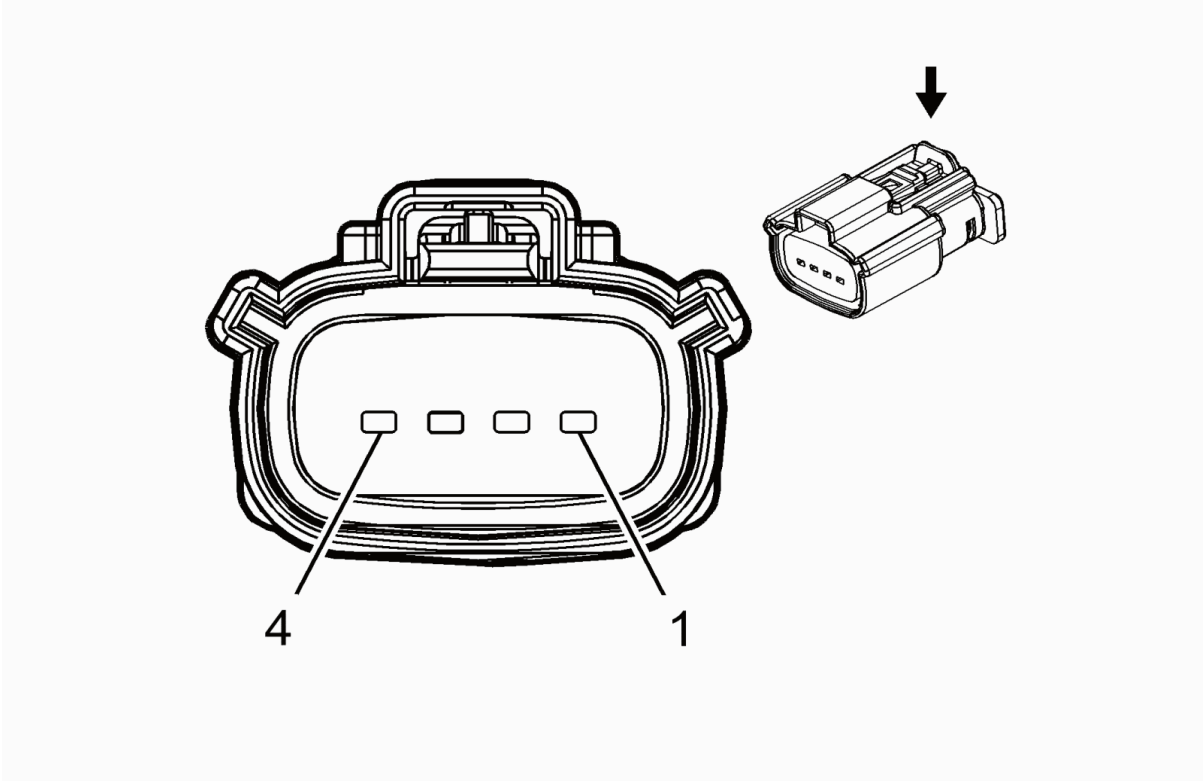
cardiagn.com

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.35<br>0.35 | WH/GN<br>GY/BK | 3997<br>7215 | MOST Serial Data (-)<br>Ethernet Bus 6 (+) | I<br>I | UQA+IO5/IO6<br>UQA+IOT/IOU/IOS |
| 4 | 0.35<br>0.35 | GY/VT<br>BN/BK | 3998<br>7214 | MOST Serial Data (+)<br>Ethernet Bus 6 (-) | I<br>I | UQA+IO5/IO6<br>UQA+IOT/IOU/IOS |
| 5 | 0.35 | WH/GN | 3997 | MOST Serial Data (-) | I | UQA+IO5/IO6 |
| 6 | 0.35 | GY/VT | 3998 | MOST Serial Data (+) | I | UQA+IO5/IO6 |
| 7 - 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | WH/VT | 3999 | MOST Control | I | UQA+IO5/IO6 |
| 15 - 16 | - | - | - | Not Occupied | - | - |

## T8A IGNITION COIL 1 (LTG)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13577579
- Service Connector: 19367730
- Description: 4-Way F 150 MX Series, Sealed (BK)

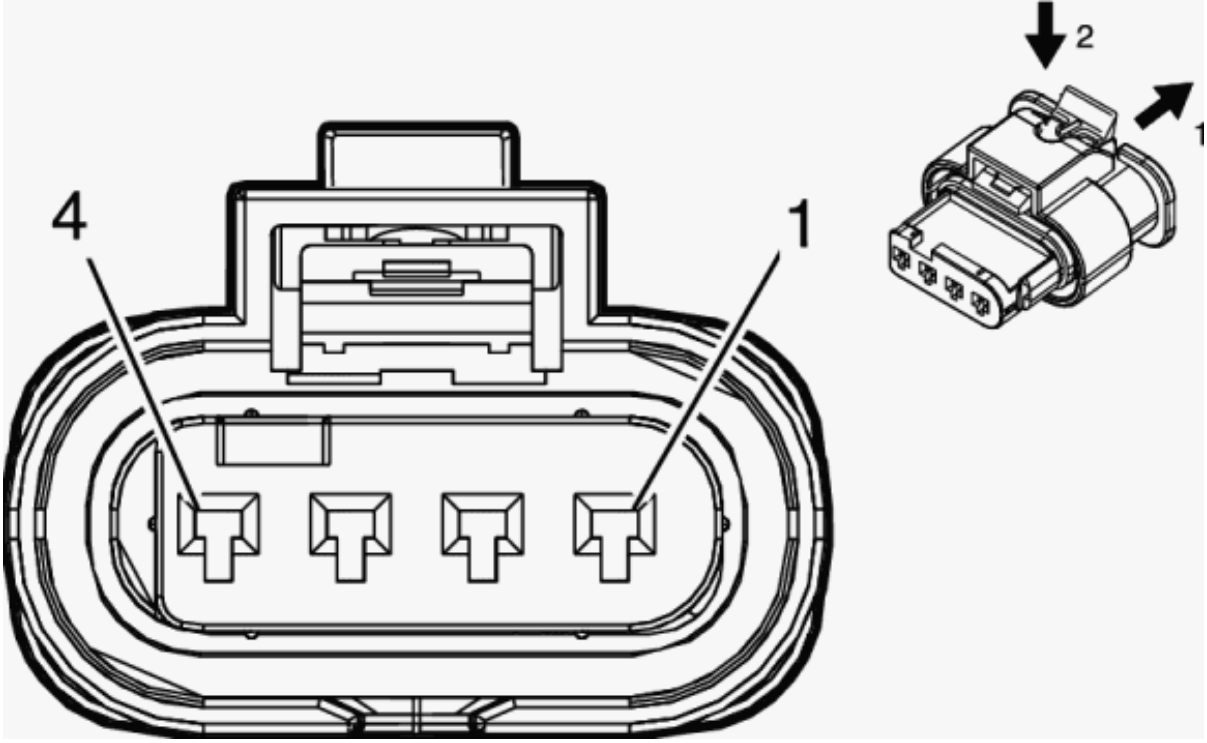
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | II | LTG |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LTG |
| 3 | 0.5 | BU/VT | 2121 | Ignition Control 1 | I | - |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | - |

## T8A IGNITION COIL 1 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594672
- Service Connector: 19352069
- Description: 4-Way F 1.2 MCON Series (BK)

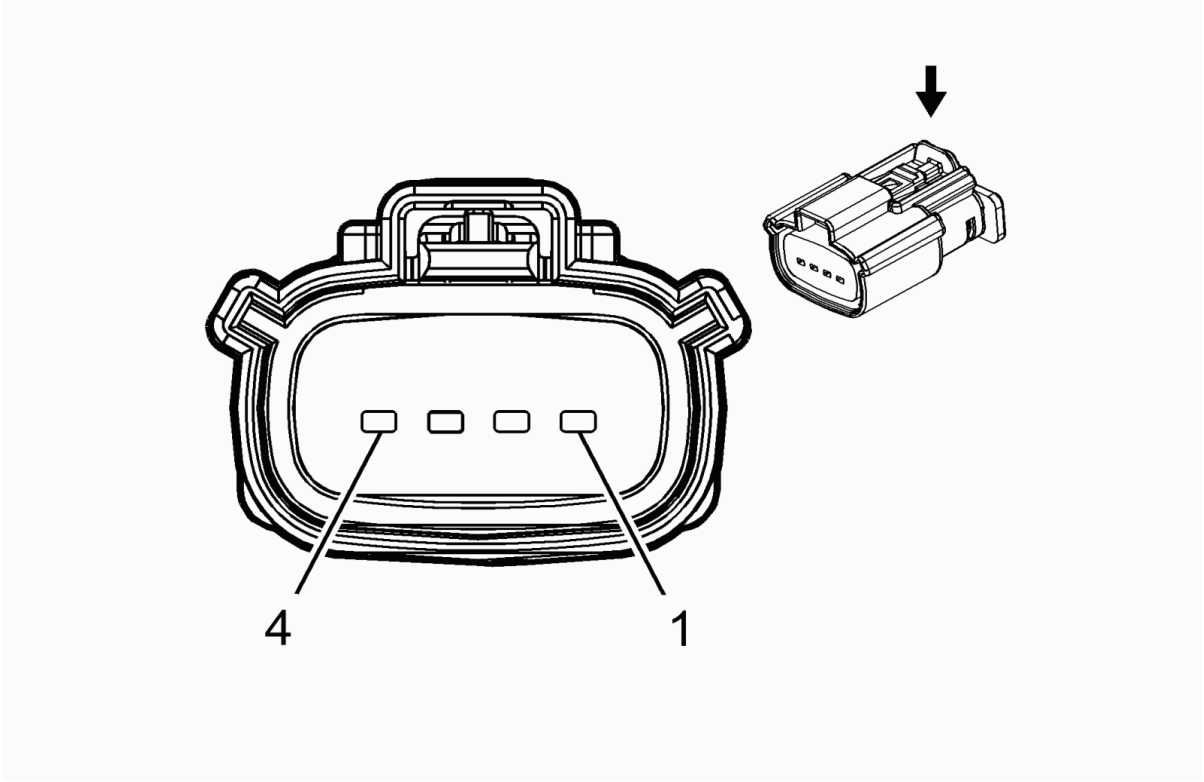
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | LYX |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LYX |
| 3 | 0.5 | BU/VT | 2121 | Ignition Control 1 | I | - |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | I | - |

## T8B IGNITION COIL 2 (LTG)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13577579
- Service Connector: 19367730
- Description: 4-Way F 150 MX Series, Sealed (BK)

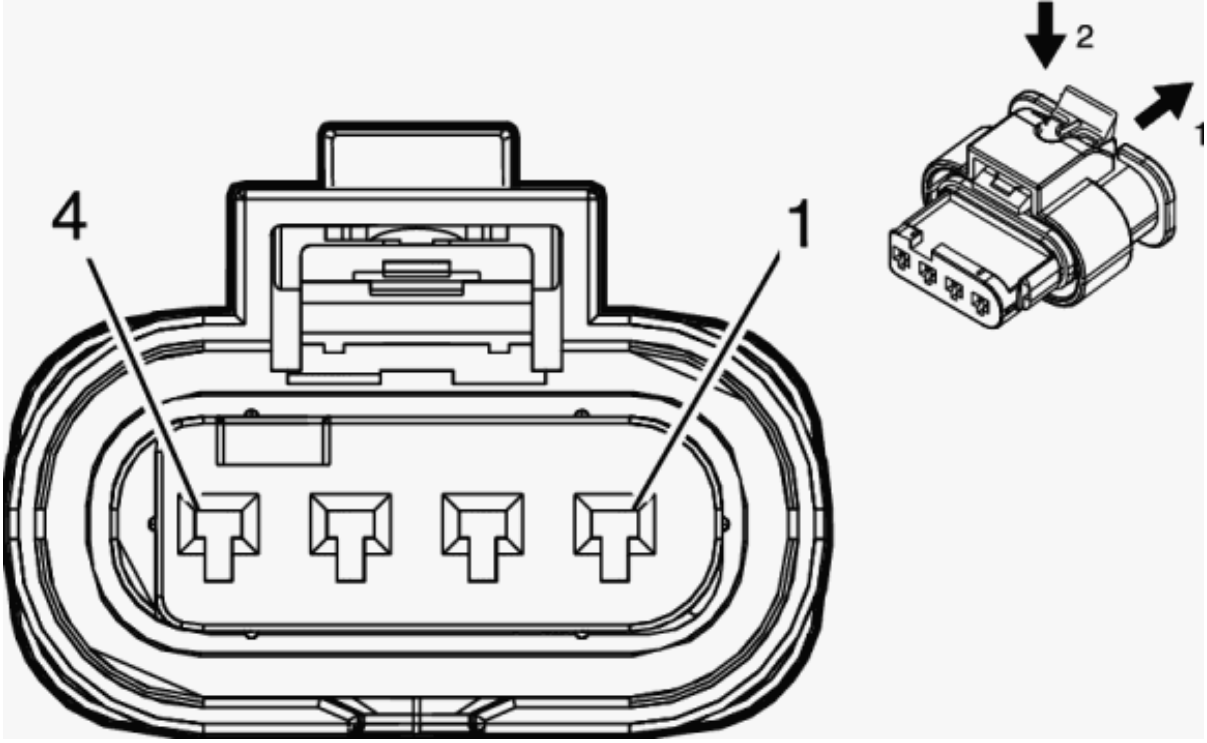
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | II | LTG |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LTG |
| 3 | 0.5 | BU/WH | 2122 | Ignition Control 2 | I | - |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | - |

## T8B IGNITION COIL 2 (LYX)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594672
- Service Connector: 19352069
- Description: 4-Way F 1.2 MCON Series (BK)

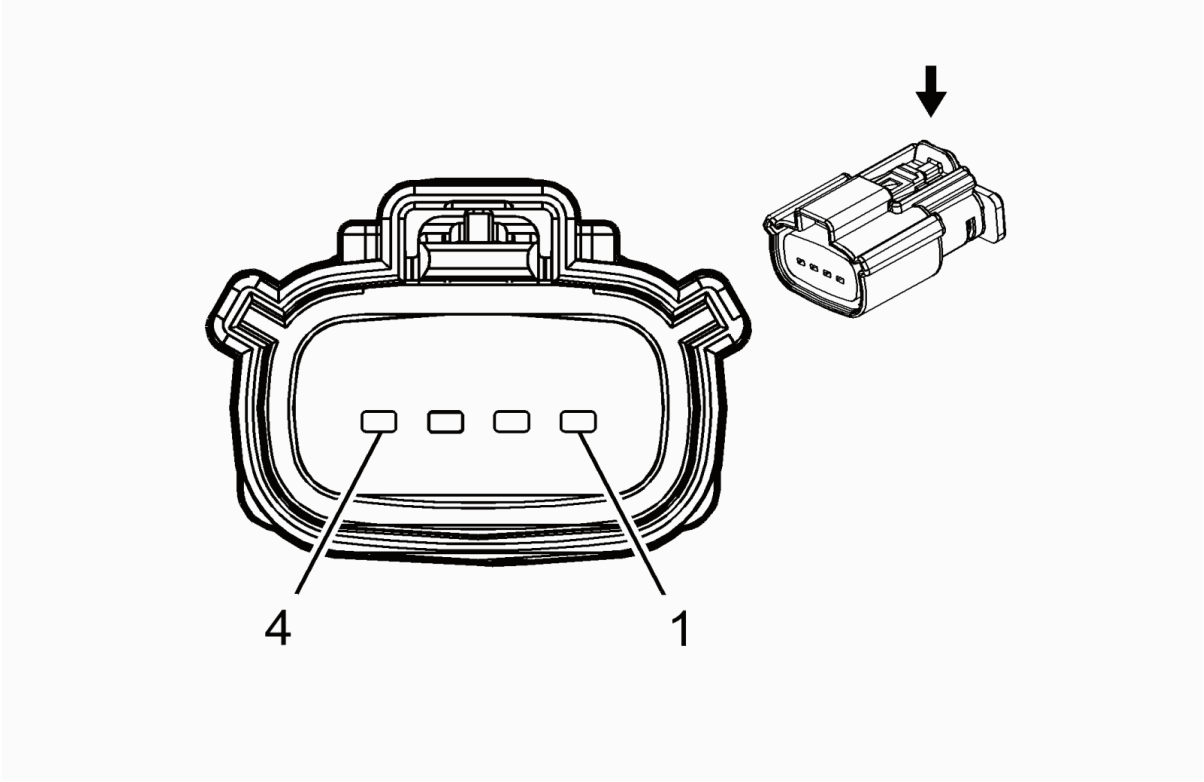
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | LYX |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LYX |
| 3 | 0.5 | BU/WH | 2122 | Ignition Control 2 | I | LYX |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | I | - |

## T8C IGNITION COIL 3 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13577579
- Service Connector: 19367730
- Description: 4-Way F 150 MX Series, Sealed (BK)

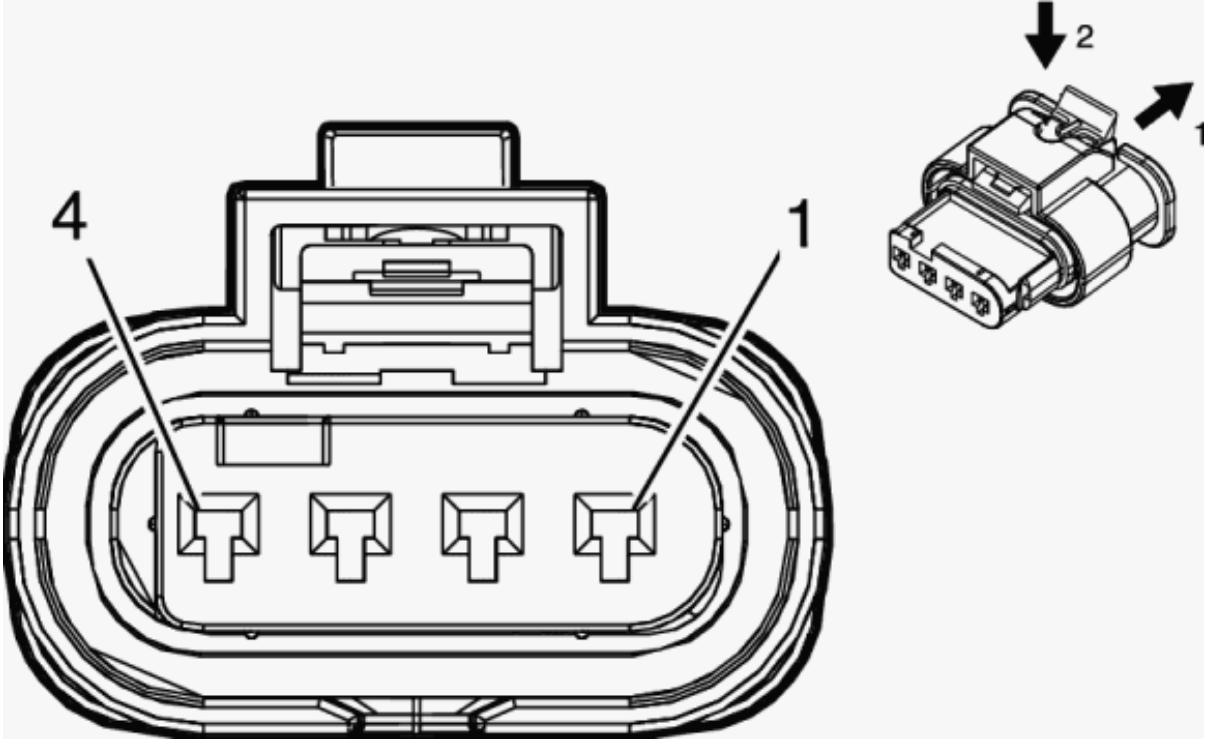
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | II | LTG |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LTG |
| 3 | 0.5 | GN/BU | 2123 | Ignition Control 3 | I | - |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | - |

## T8C IGNITION COIL 3 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594672
- Service Connector: 19352069
- Description: 4-Way F 1.2 MCON Series (BK)

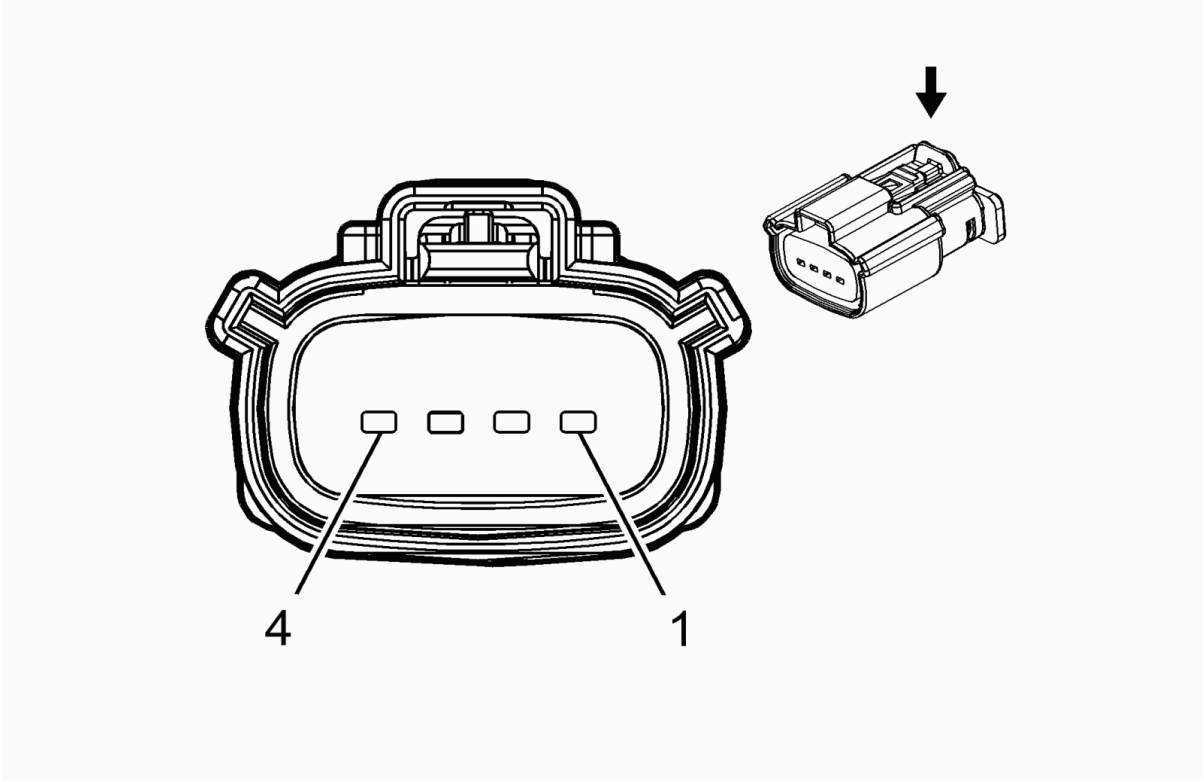
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | LYX |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LYX |
| 3 | 0.5 | GN/BU | 2123 | Ignition Control 3 | I | LYX |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | I | LYX |

## T8D IGNITION COIL 4 (LTG)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13577579
- Service Connector: 19367730
- Description: 4-Way F 150 MX Series, Sealed (BK)

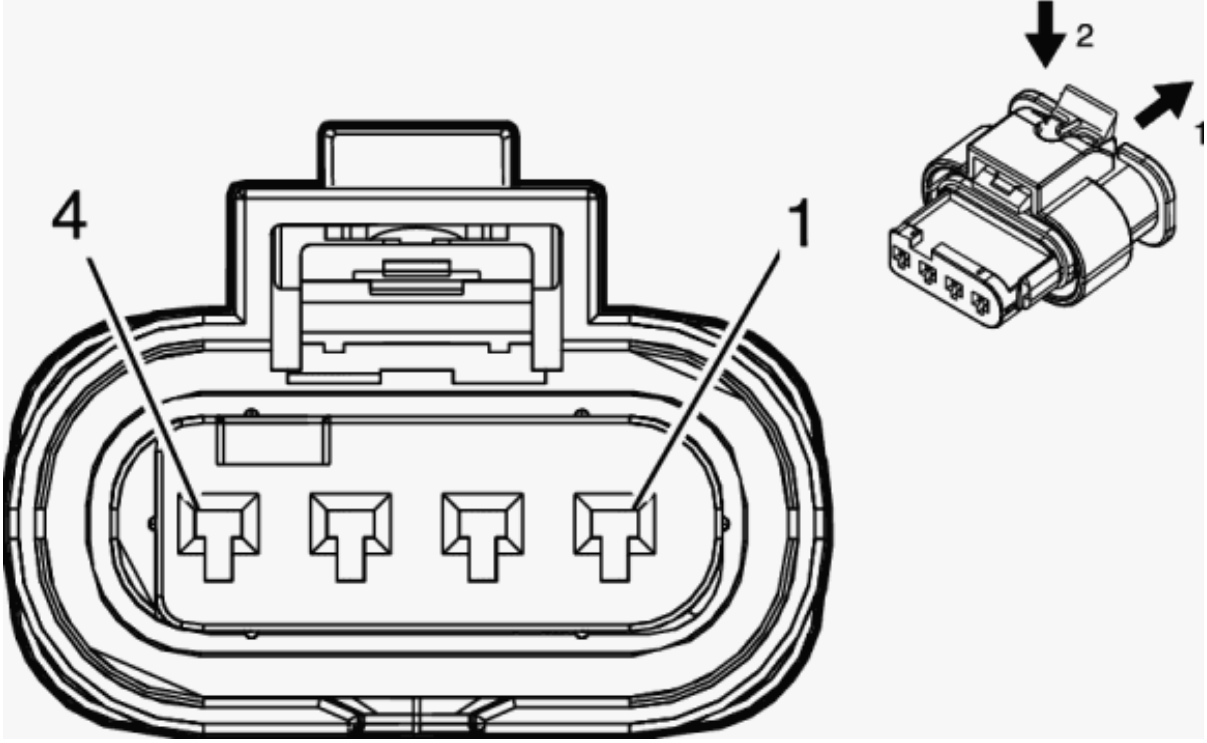
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | II | LTG |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LTG |
| 3 | 0.5 | YE/BU | 2124 | Ignition Control 4 | I | - |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | II | - |

## T8D IGNITION COIL 4 (LYX)

cardiagn.com




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13594672
- Service Connector: 19352069
- Description: 4-Way F 1.2 MCON Series (BK)

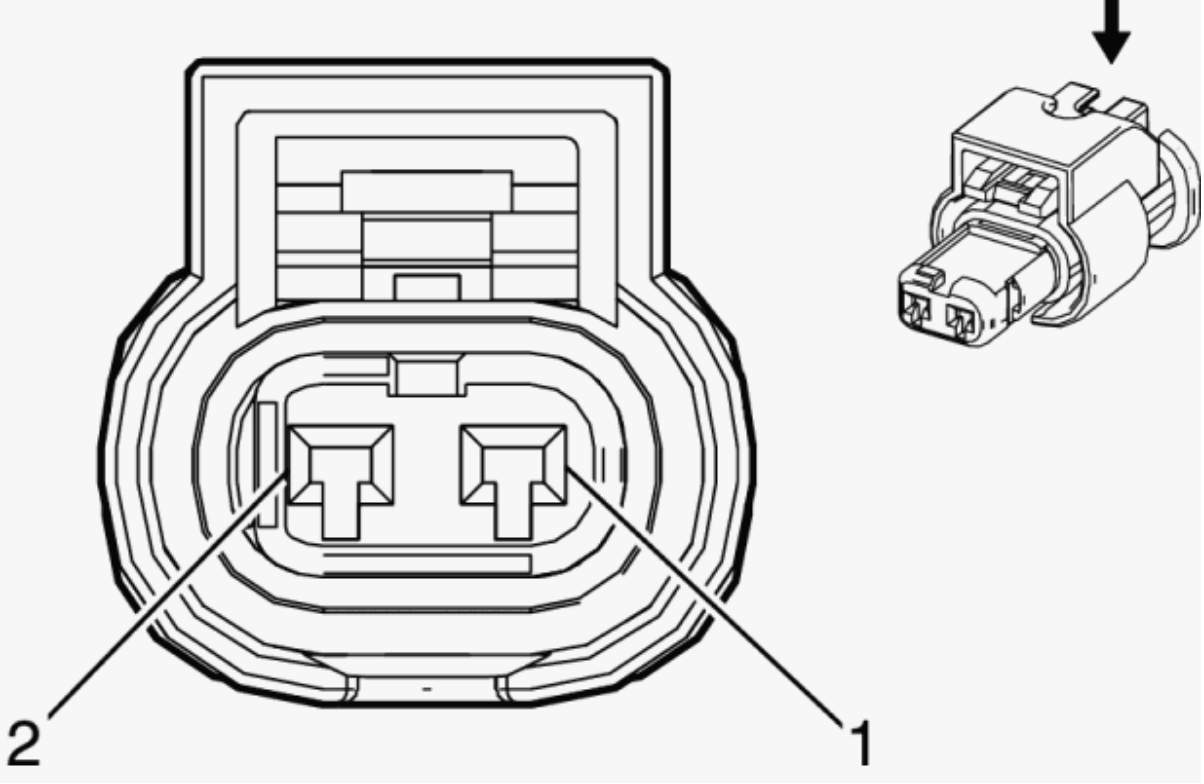
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 450 | Ground | I | LYX |
| 2 | 0.5 | BK/BU | 2129 | Ignition Control Low Reference Bank 1 | I | LYX |
| 3 | 0.5 | YE/BU | 2124 | Ignition Control 4 | I | LYX |
| 4 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply 2 | I | LYX |

## T10E KEYLESS ENTRY ANTENNA - REAR COMPARTMENT

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Connector Part Information

- Harness Type: Body
- OEM Connector: 2-1823608-5
- Service Connector: 19299928
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

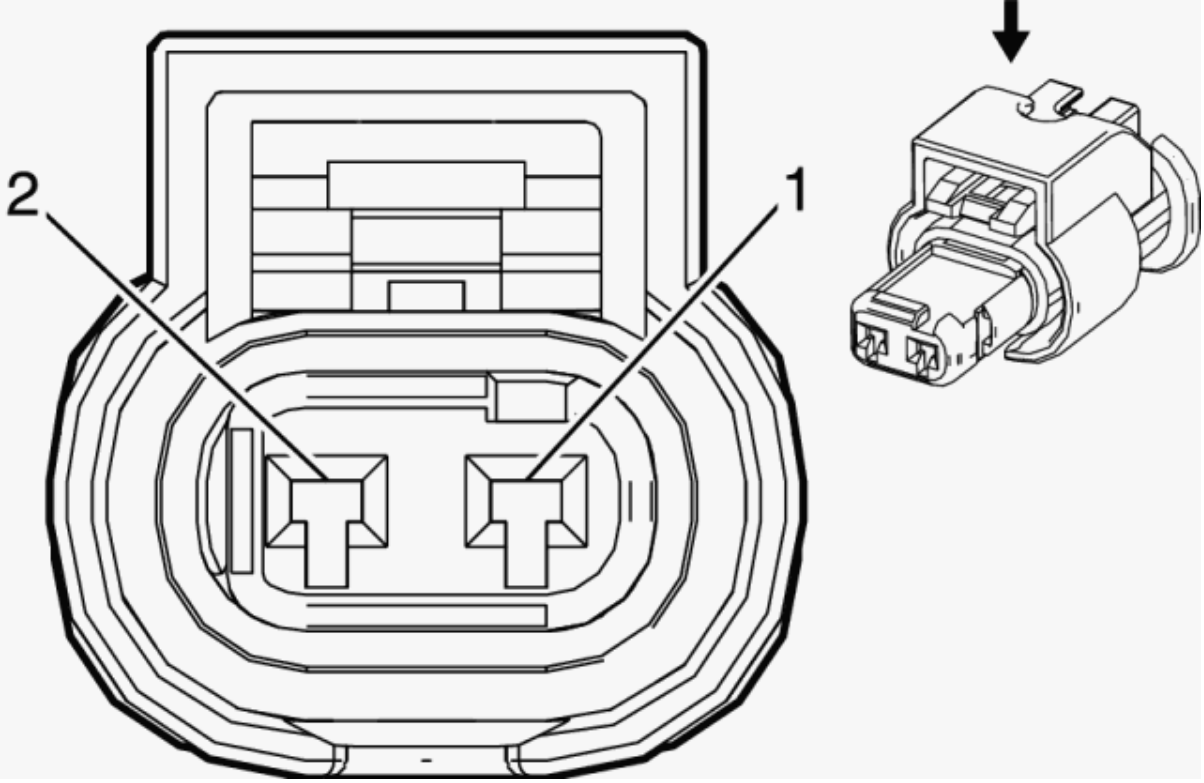
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/GN | 3556 | Passive Start Interior Antenna 3 Signal Hi | I | - |
| 2 | 0.35 | GN | 3557 | Passive Start Interior Antenna 3 Signal Lo | I | - |

## T10G KEYLESS ENTRY ANTENNA - REAR FASCIA

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13586143
- Service Connector: 19329415
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

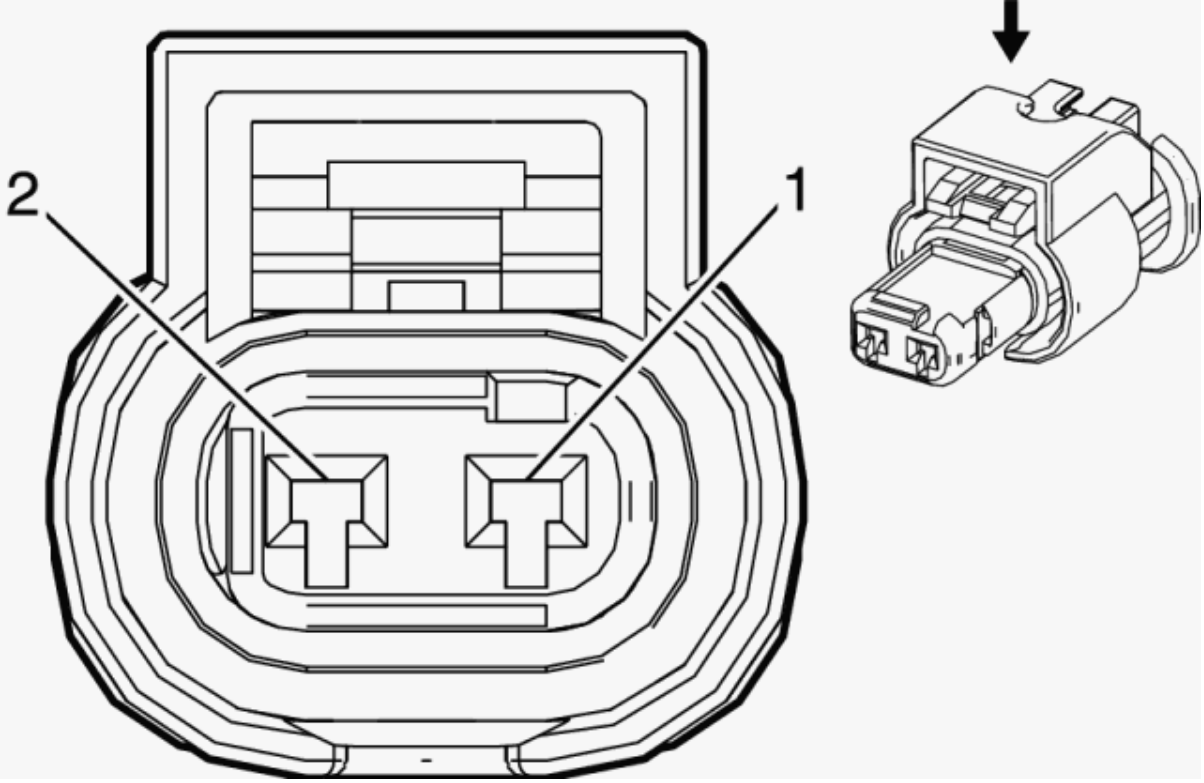
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/GN | 3568 | Passive Entry Rear Closure Antenna Signal Hi | I | - |
| 2 | 0.35 | GN/GY | 3569 | Passive Entry Rear Closure Antenna Signal Lo | I | - |

## T10J KEYLESS ENTRY ANTENNA - CENTER CONSOLE FRONT

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13586143
- Service Connector: 19329415
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

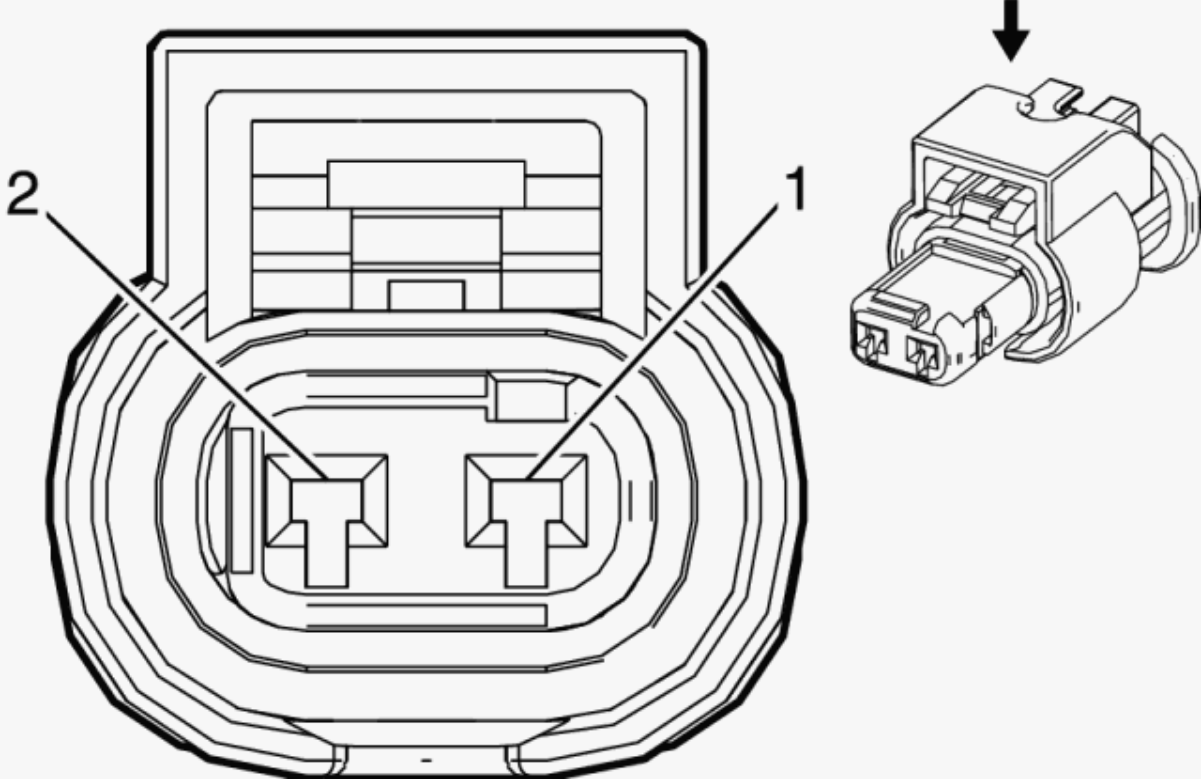
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BN/BK | 3552 | Passive Start Interior Antenna 1 Signal Hi | I | - |
| 2 | 0.35 | WH | 3553 | Passive Start Interior Antenna 1 Signal Lo | I | - |

## T10K KEYLESS ENTRY ANTENNA - CENTER CONSOLE REAR

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13586143
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCP Series, Sealed (BK)

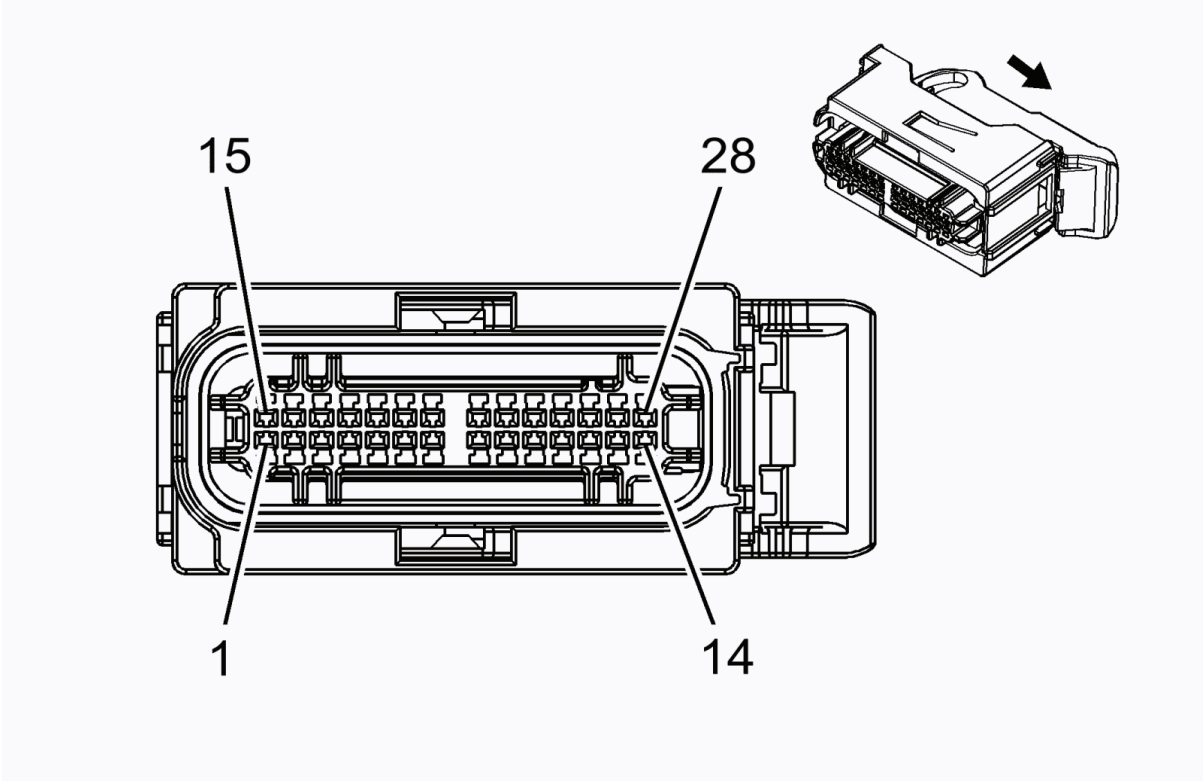
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU | 3554 | Passive Start Interior Antenna 2 Signal Hi | I | - |
| 2 | 0.35 | GY/BK | 3555 | Passive Start Interior Antenna 2 Signal Lo | I | - |

## T12 AUTOMATIC TRANSMISSION ASSEMBLY X1 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13589513
- Service Connector: 19354062
- Description: 28-Way F 1.2 MCON-CB Series, Sealed (BK)

**Terminal Part Information**

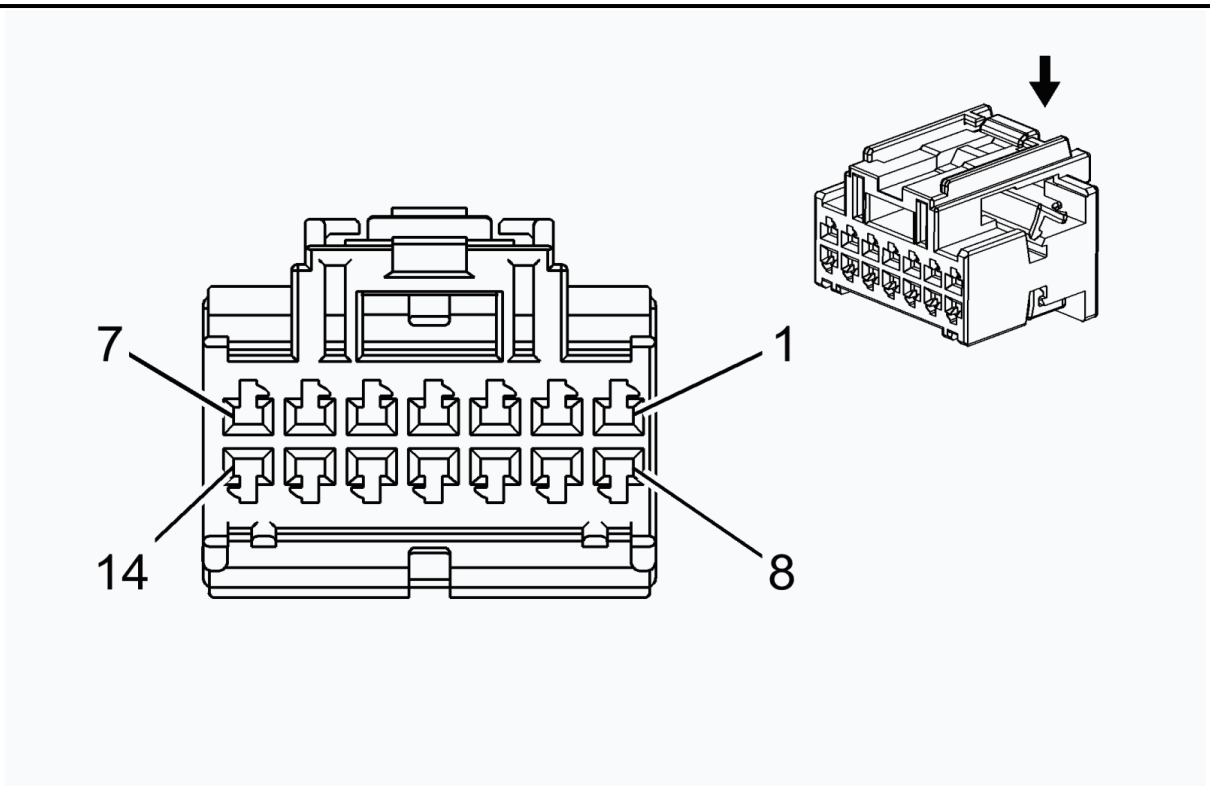
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19331733 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | YE/GN | 4170 | Transmission Position Sensor B 9V Reference | I | M3H/M3U |
| 2 | 0.5 | WH | 1971 | Transmission Oil Level Sensor Signal | I | - |
| 3 | 0.5 | GY/BK | 5501 | TCC/Clutch Select Solenoid Control | I | - |
| 4 | 0.5 | WH/BU | 4507 | Transmission Clutch H Control | I | - |
| 5 | 0.5 | WH | 4508 | Transmission Clutch G Control | I | - |
| 6 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | - |
| 7 | 0.5 | YE/BU | 4171 | Transmission Position Sensor A 9V Reference | I | - |
| 8 | 0.5 | WH/BU | 5726 | Ignition Mode Switch Mode Control Backup | I | LTG+M3D |
| 9 | 0.5 | GN/YE | 5724 | Ignition Mode Switch Mode Control | I | M3D |
| 10 | 0.5<br>0.5 | BK/GY<br>VT/BK | 3927<br>7553 | IMS Mode Switch Low Reference<br>Park Lock Solenoid Control | I<br>I | LTG+M3D<br>M3H/M3U |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 11 | 0.5 | YE/BU | 4171 | Transmission Position Sensor A 9V Reference | I | LTG+M3D |
| 12 | 0.5 | YE/BN | 6404 | Clutch E Control | I | - |
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.5 | BU | 6401 | Clutch B Control | I | - |
| 15 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | - |
| 16 | 0.5 | VT/WH | 6319 | ETRS Out of Park Switch 2 Signal | I | - |
| 17 | 0.5 | WH/YE | 6317 | ETRS Out of Park Switch Signal | I | M3H/M3U |
| 18 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.5 | WH/BK | 3705 | ETRS Switch Analog Signal 2 | I | M3H/M3U |
| 21 | 0.5 | BN | 3706 | ETRS Switch Analog Signal 1 | I | M3H/M3U |
| 22 | 0.5 | BK/BN | 586 | Transmission Oil Temperature Sensor Low Reference | I | - |
| 23 | 0.5 | BN/WH | 585 | Transmission Oil Temperature Sensor Signal | I | - |
| 24 | 0.5 | BN | 6400 | Clutch A Control | I | - |
| 25 | 0.5 | VT | 4509 | Transmission Clutch F Control | I | - |
| 26 | 0.5 | GY | 6402 | Clutch C Control | I | - |
| 27 | 0.5 | GY/GN | 6403 | Clutch D Control | I | - |
| 28 | 0.5 | GY/BN | 6388 | Transmission High Side Driver 2 Signal | I | - |

## T12 AUTOMATIC TRANSMISSION ASSEMBLY X2 (M3D/M3H/M3U)




Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203464-2

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- Service Connector: Service by Harness - See Part Catalog
- Description: 14-Way F 1.2 MCON Series (BN)

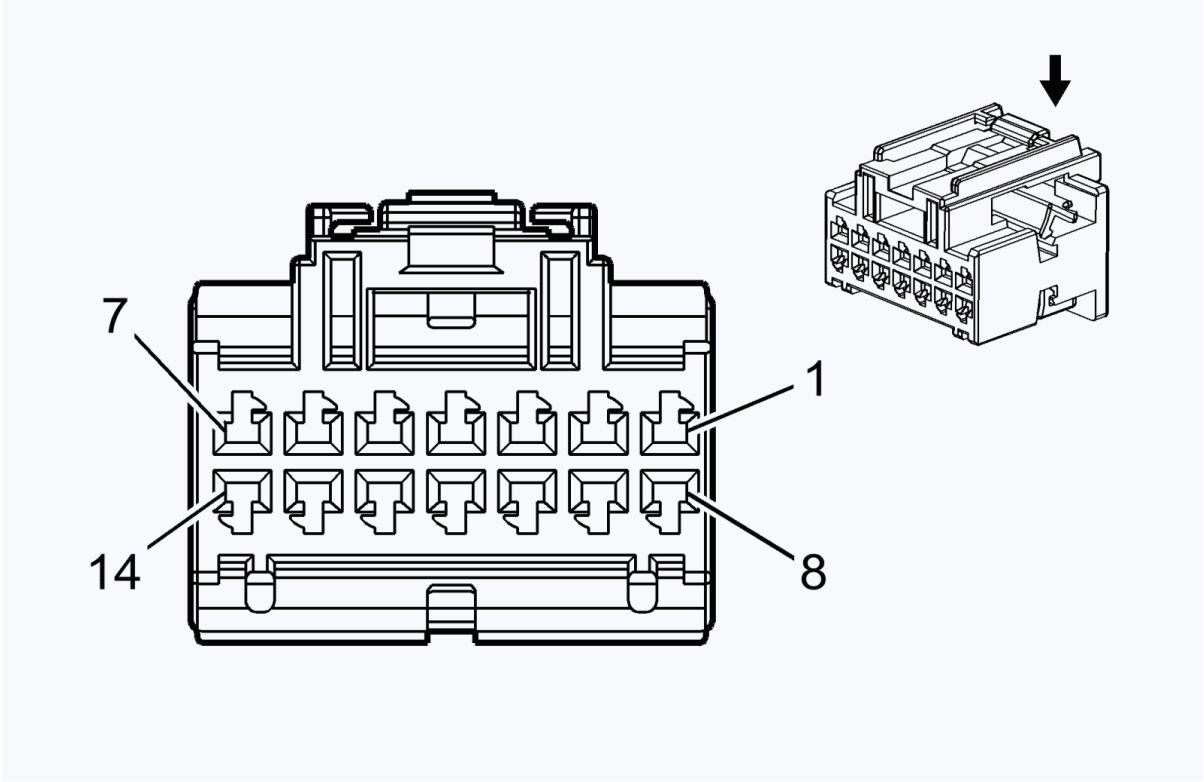
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BK | 4171 | Transmission Position Sensor A 9V Reference | I | M3H/M3U |
| 2 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | - |
| 3 | 0.5 | WH | 4508 | Transmission Clutch G Control | I | - |
| 4 | 0.5 | WH/BU | 4507 | Transmission Clutch H Control | I | - |
| 5 | 0.5 | GY/BK | 5501 | TCC/Clutch Select Solenoid Control | I | - |
| 6 | 0.5 | WH | 1971 | Transmission Oil Level Sensor Signal | I | - |
| 7 | 0.5 | YE/GN | 4170 | Transmission Position Sensor B 9V Reference | I | - |
| 8 | 0.5 | BN | 3706 | ETRS Switch Analog Signal 1 | I | M3H/M3U |
| 9 | 0.5 | YE/BU | 3705 | ETRS Switch Analog Signal 2 | I | M3H/M3U |
| 10 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | VT/YE | 6317 | ETRS Out of Park Switch Signal | I | M3H/M3U |
| 13 | 0.5 | WH/YE | 6319 | ETRS Out of Park Switch 2 Signal | I | M3H/M3U |
| 14 | 0.5 | GN/GY | 6387 | Transmission High Side Driver 1 Signal Driver | I | - |

## T12 AUTOMATIC TRANSMISSION ASSEMBLY X3 (M3D/M3H/M3U)

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Connector Part Information

- Harness Type: Transmission
- OEM Connector: 2203464-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 14-Way F 1.2 MCON Series (BN)

**Terminal Part Information**

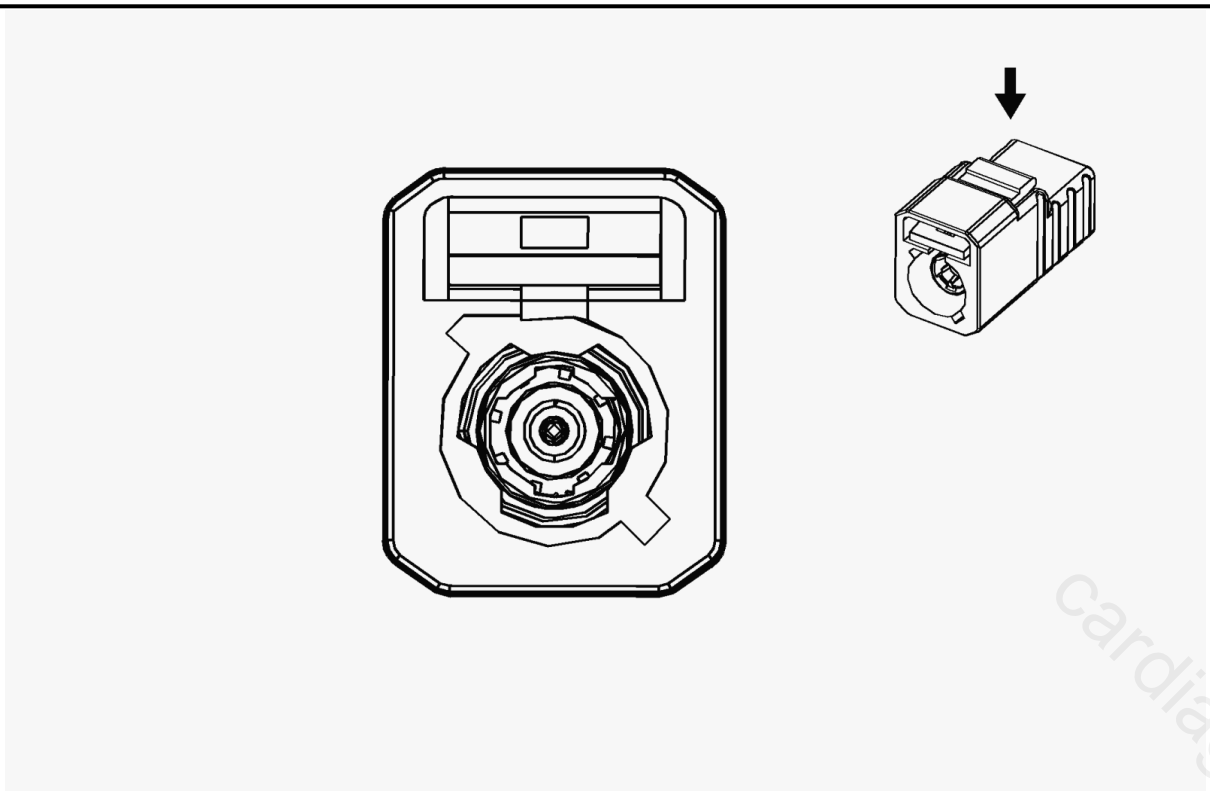
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK/BN | 586 | Transmission Oil Temperature Sensor Low Reference | I | - |
| 2 | 0.5 | BN/WH | 585 | Transmission Oil Temperature Sensor Signal | I | - |
| 3 | 0.5 | BN | 6400 | Clutch A Control | I | - |
| 4 | 0.5 | VT | 4509 | Transmission Clutch F Control | I | - |
| 5 | 0.5 | GY | 6402 | Clutch C Control | I | - |
| 6 | 0.5 | GY/GN | 6403 | Clutch D Control | I | - |
| 7 | 0.5 | VT | 6388 | Transmission High Side Driver 2 Signal | I | - |
| 8 | 0.5 | WH/BU | 5726 | Ignition Mode Switch Mode Control Backup | I | LTG+M3D |
| 9 | 0.5 | GN/YE | 5724 | Ignition Mode Switch Mode Control | I | M3D |
| 10 | 0.5<br>0.5 | BK/GY<br>VT/BK | 3927<br>7553 | IMS Mode Switch Low Reference<br>Park Lock Solenoid Control | I<br>I | LTG+M3D<br>M3H/M3U+EPH |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 11 | 0.5 | YE/BU | 4171 | Transmission Position Sensor A 9V Reference | I | LTG+M3D |
| 12 | 0.5 | YE/BN | 6404 | Clutch E Control | I | - |
| 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.5 | BU | 6401 | Clutch B Control | I | - |

## T15 NAVIGATION ANTENNA SIGNAL SPLITTER X1 (IO6)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13585423
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (GY)

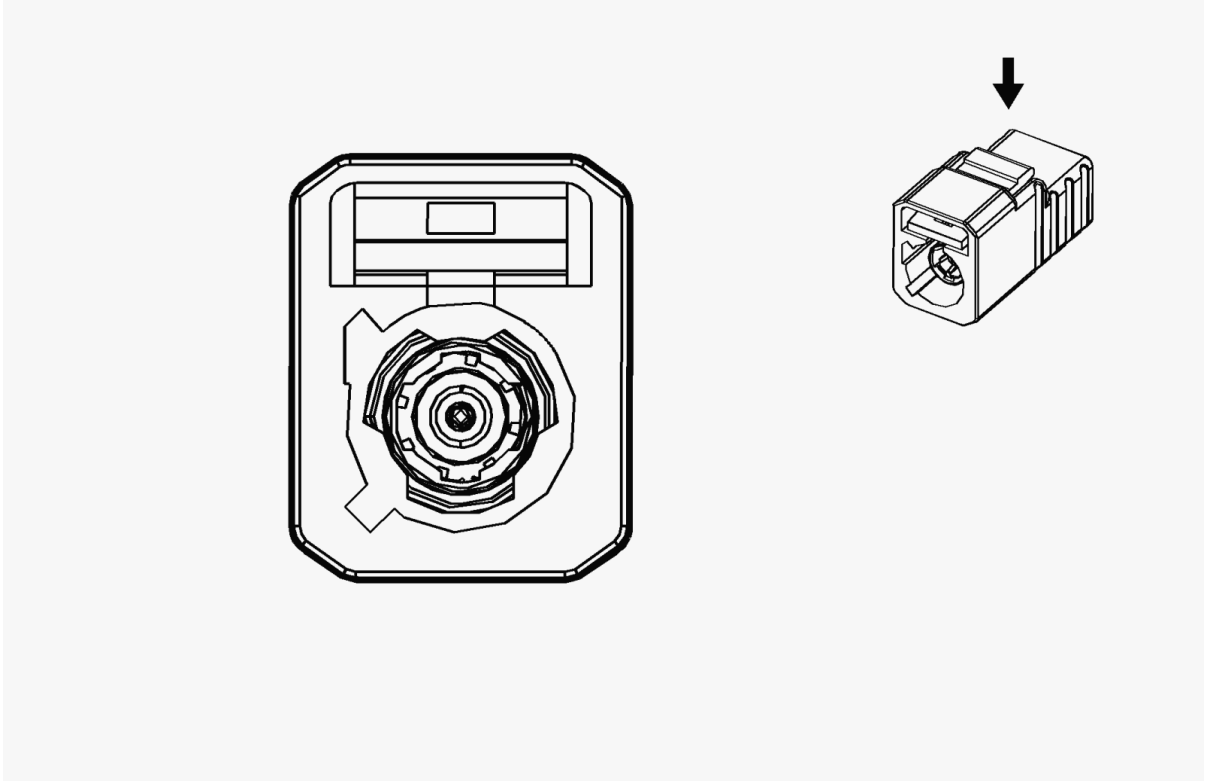
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |

## T15 NAVIGATION ANTENNA SIGNAL SPLITTER X2 (IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581697
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (VT)

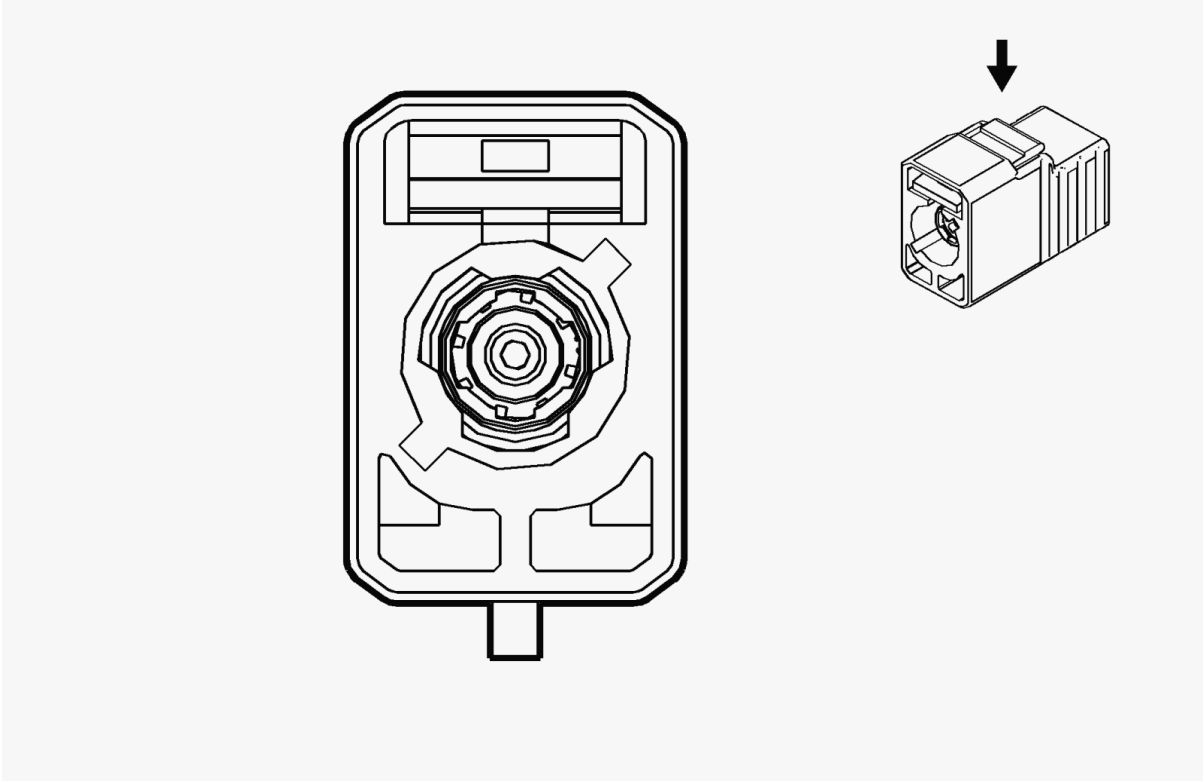
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS/Cell) Coaxial Antenna Cell/GPS combined Signal | I | - |

## T15 NAVIGATION ANTENNA SIGNAL SPLITTER X3 (IO6)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581689
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F Coax Type (BU)

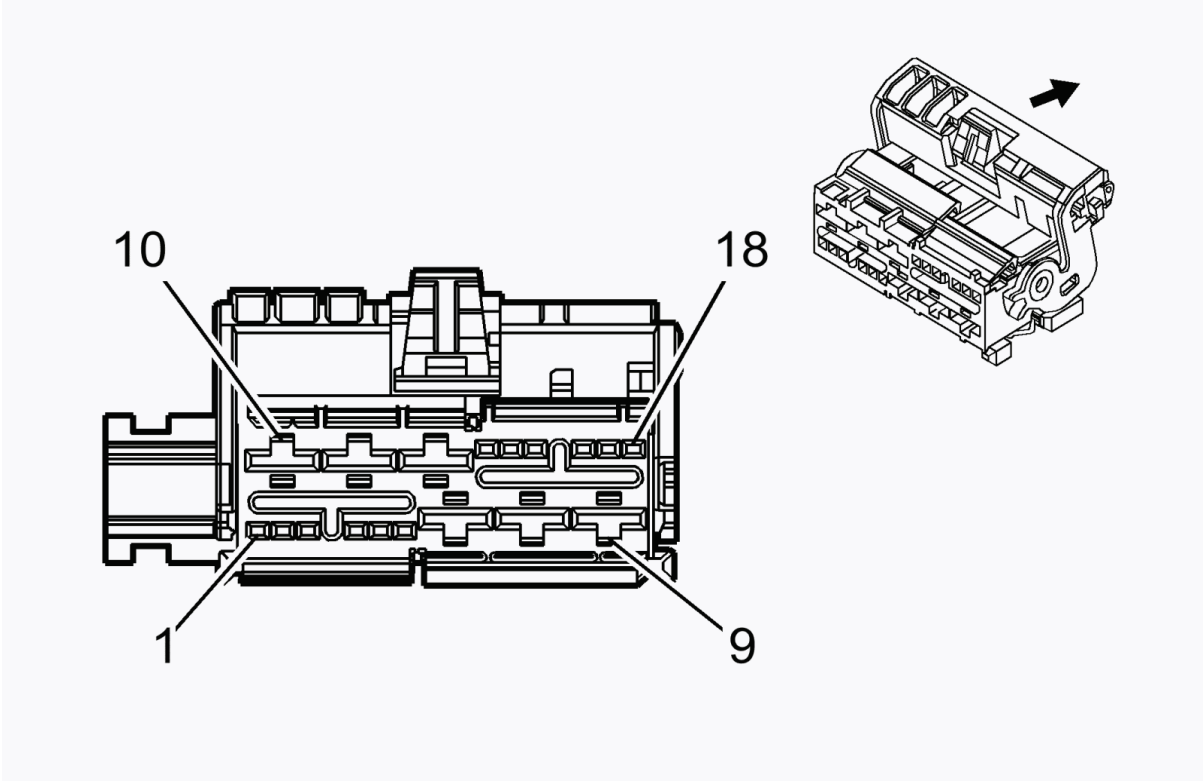
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | Coax | - | (GPS only) Coaxial Antenna GPS Signal | I | - |

## T19 POWER SUPPLY TRANSFORMER (KL9)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13592017
- Service Connector: 19330678
- Description: 18-Way F 0.64 MTS, 6.3 MCP Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13327123 | J-35616-64B (LT BU) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| II | 13575870 | J-35616-64B (LT BU) | J-38125-12A | SNAC3-A021T-M0.64 | Delphi 20 | J | J |
| III | 13578912 | J-35616-14 (GN) | J-38125-553 | 12191819 | Delphi 8 | E | 1 |
| IV | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| V | 19333325 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VI | 19367600 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | B | G |
| VII | 19367600 | J-35616-40 (BU) | J-38125-556 | Not Available | Not Available | Not Available | Not Available |

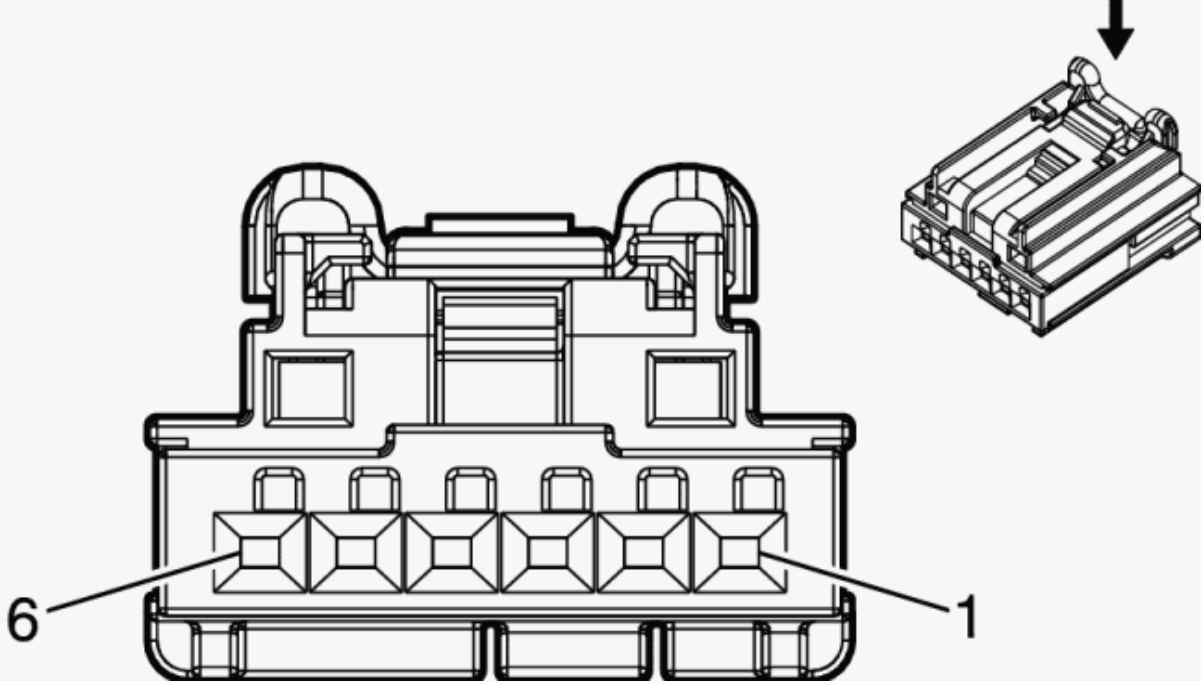
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35<br>0.35 | VT/YE<br>VT/YE | 5985<br>5985 | Accessory Wakeup Serial Data<br>Accessory Wakeup Serial Data | II<br>I | KL9+LTG+Z88<br>KL9+LVL/LWW |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 5 | 0.35 | YE/VT | 4325 | Starter Pinion Solenoid Relay Control | I | - |
| 6 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | I | - |
| 7 | 4 | BK | 2350 | Ground | VI | KL9 |
| 8 | 4 | RD/BU | 1542 | Battery Positive Voltage | VI | - |
| 9 | 6 | RD/GN | 2173 | 12V Regulated Supply Voltage 2 | VII | KL9 |
| 10 | 6 | GY/BN | 3761 | Infotainment Regulated Control | VII | KL9 |
| 11 | 6 | RD/GY | 1342 | Battery Positive Voltage | VII | - |
| 12 | 6 | BK | 2350 | Ground | VII | KL9 |
| 13 | 0.35<br>0.35<br>0.35 | WH<br>WH<br>WH | 7494<br>7494<br>7494 | High Speed GMLAN Serial Data (-)3<br>High Speed GMLAN Serial Data (-)3<br>High Speed GMLAN Serial Data (-)3 | II<br>I<br>IV | EPH+LTG<br>LVL/LH7<br>LYX/LTG |
| 14 | 0.35<br>0.35 | WH<br>WH | 7494<br>7494 | High Speed GMLAN Serial Data (-)3<br>High Speed GMLAN Serial Data (-)3 | II<br>I | EPH+LTG<br>LVL/LH7 |
| 15 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3 | II<br>I | EPH+LTG<br>LVL/LH7 |
| 16 | 0.35<br>0.35<br>0.35 | BU/BK<br>BU/BK<br>BU/BK | 7493<br>7493<br>7493 | High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3 | II<br>I<br>IV | EPH+LTG<br>LVL/LH7<br>LYX/LTG |
| 17 | 0.35<br>0.35 | WH<br>WH | 7494<br>7494 | High Speed GMLAN Serial Data (-)3<br>High Speed GMLAN Serial Data (-)3 | I<br>V | LVL/LH7<br>LYX/LTG |
| 18 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3 | III<br>I | LVL/LH7<br>LYX/LTG |

## T22 MOBILE DEVICE WIRELESS CHARGER MODULE (K4C+EPH)

ecdiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 2035363-4
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Generation Y Series (BK)

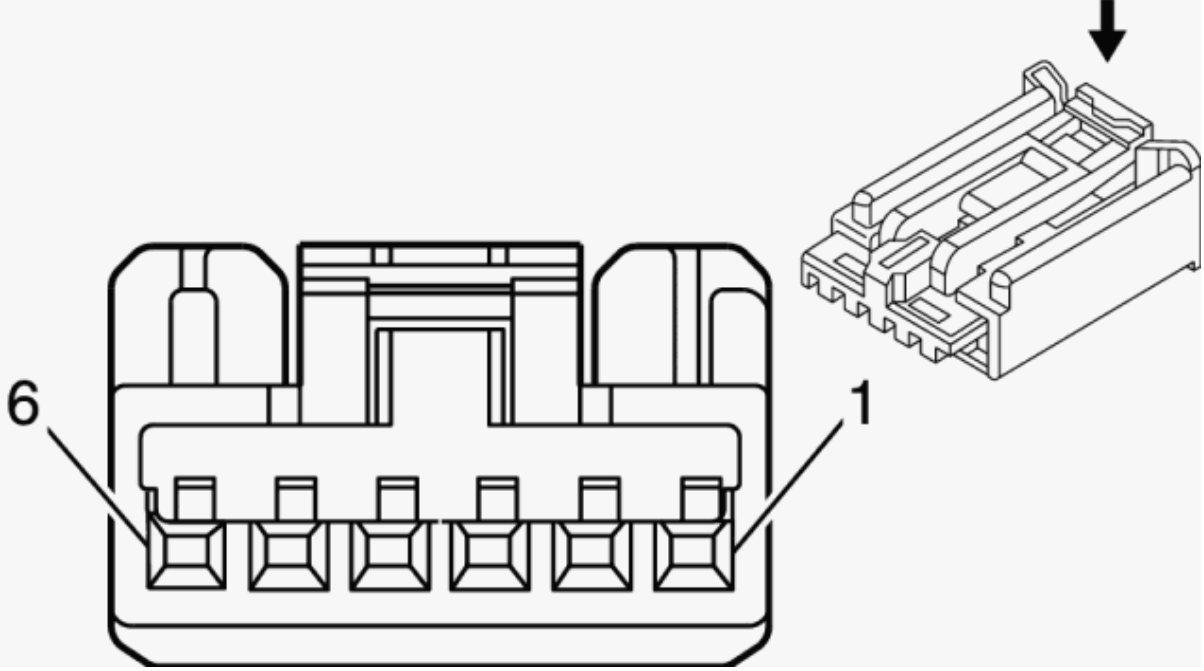
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 4601 | Retained Accessory Power Fused Control | I | - |
| 2 | 0.35 | BK | 1650 | Ground | I | EPH+K4C |
| 3 | 0.35 | GN | 4512 | Wireless Charging System Charge Indicator Control | I | EPH+K4C |
| 4 - 6 | - | - | - | Not Occupied | - | - |

## T22 MOBILE DEVICE WIRELESS CHARGER MODULE (K4C-EPH)

cardiagn.com




Connector Part Information

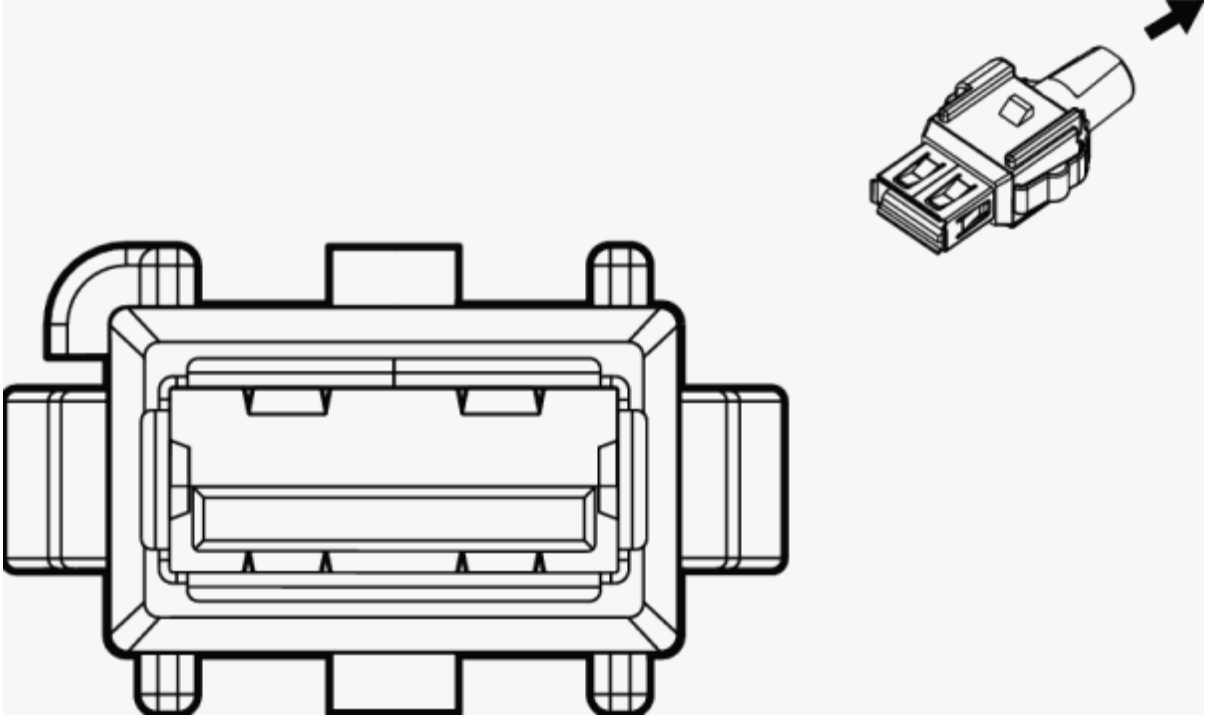
- Harness Type: Instrument Panel
- OEM Connector: 19115612
- Service Connector: 19178090
- Description: 6-Way F 0.64 Series (NA)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 4601 | Retained Accessory Power Fused Control | I | K4C+USS-EPH |
| 2 | 0.35 | BK | 1650 | Ground | I | K4C-EPH |
| 3 | 0.35 | GN | 4512 | Wireless Charging System Charge Indicator Control | I | K4C-EPH |
| 4 - 6 | - | - | - | Not Occupied | - | - |

## X22 USB DRIVE DATA CONNECTOR (UDD+IOS/IOT/IOU)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13578986
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: USB Type (BK)

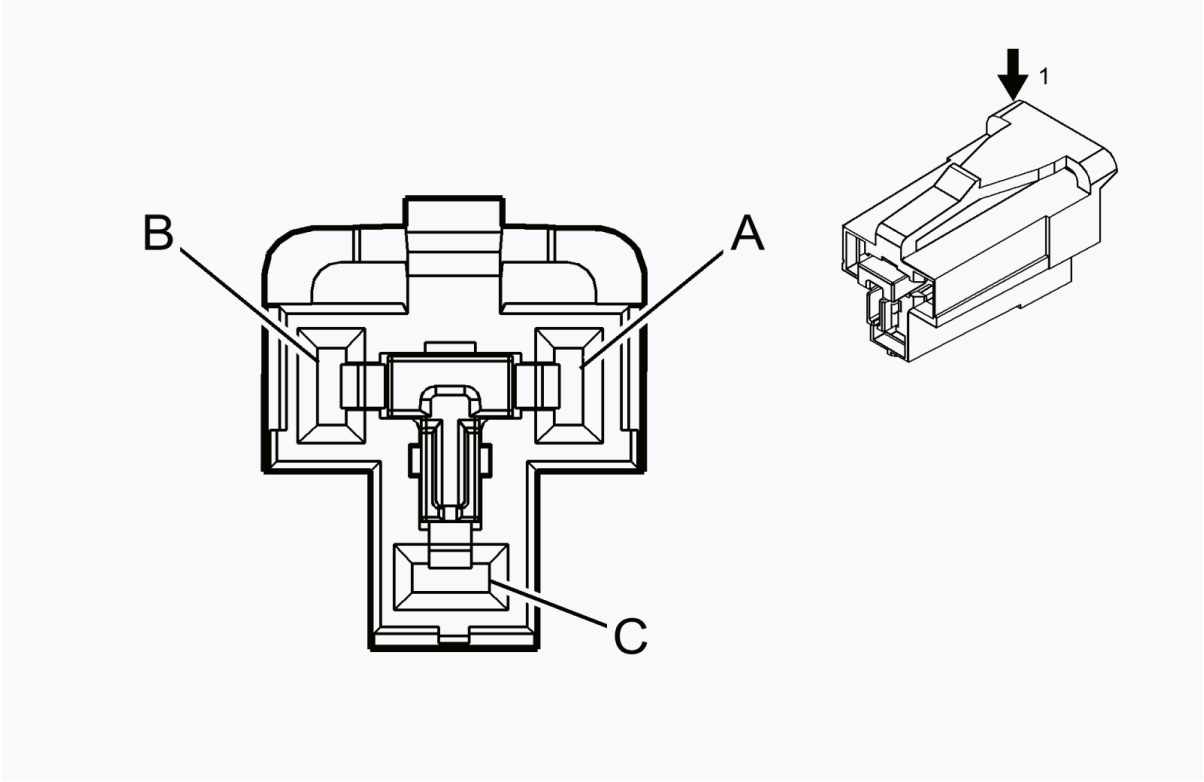
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X80C ACCESSORY POWER RECEPTACLE - CARGO

cardiagn.com




Connector Part Information

- Harness Type: Body
- OEM Connector: 13855150
- Service Connector: 19355447
- Description: 3-Way F 2.8 APEX Series (GY)

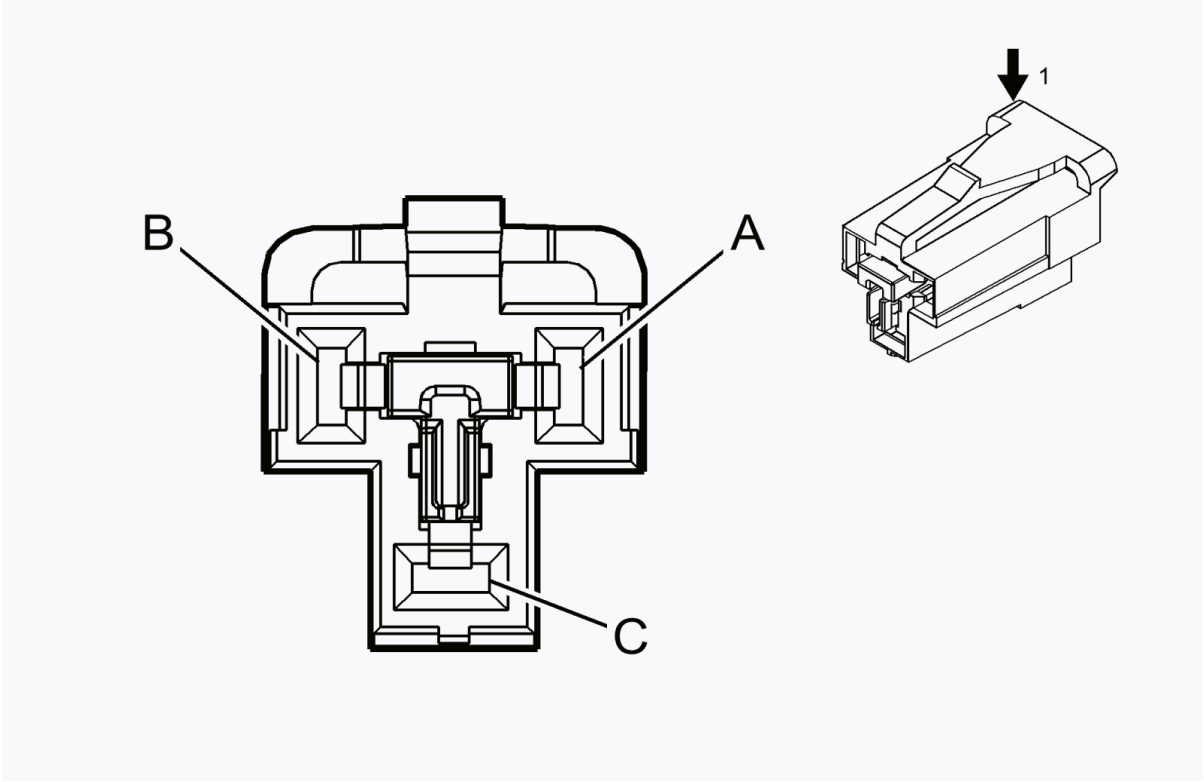
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | RD/VT | 3340 | Battery Positive Voltage | I | - |
| B | - | - | - | Not Occupied | - | - |
| C | 1.5 | BK | 1950 | Ground | I | - |

## X80G ACCESSORY POWER RECEPTACLE - INSTRUMENT PANEL (KC5)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13855150
- Service Connector: 19355447
- Description: 3-Way F 2.8 APEX Series (GY)

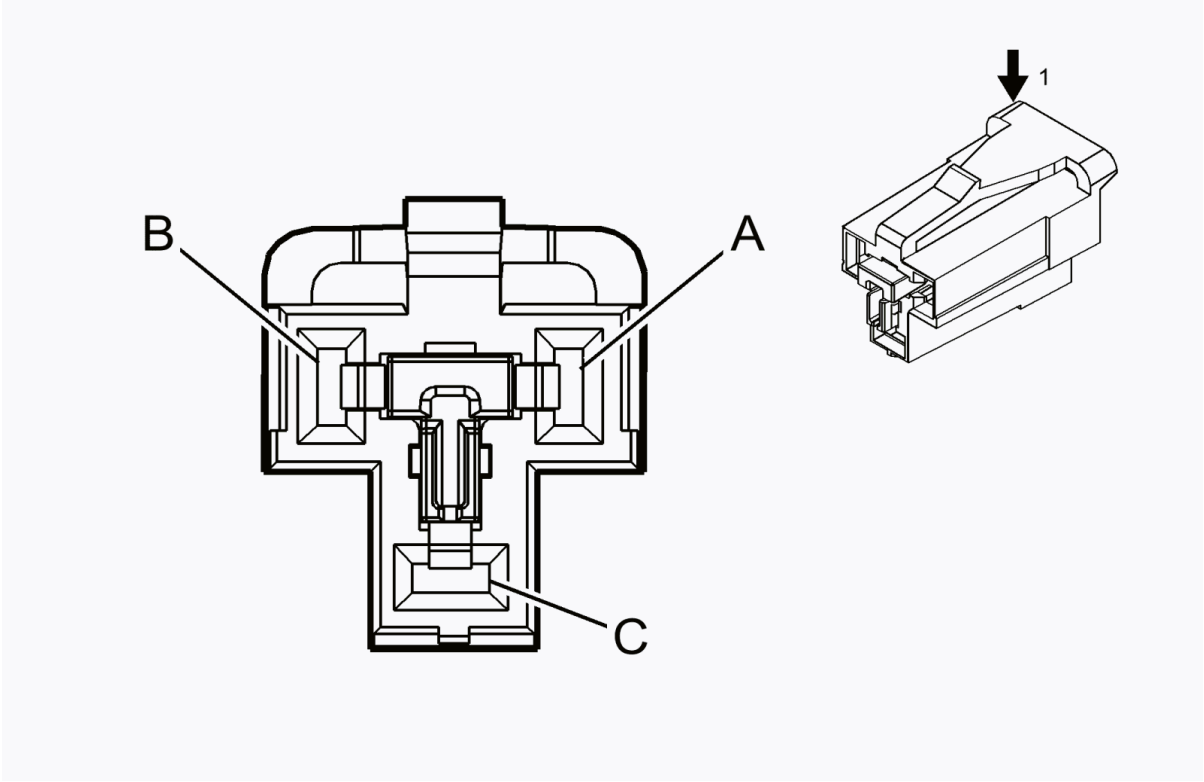
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT | 1301 | Retained Accessory Power Fuse Control | I | - |
| B | - | - | - | Not Occupied | - | - |
| C | 1.5 | BK | 2250 | Ground | I | - |

## X80L ACCESSORY POWER RECEPTACLE - CENTER CONSOLE REAR (KPA)

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13855150
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 2.8 APEX Series (GY)

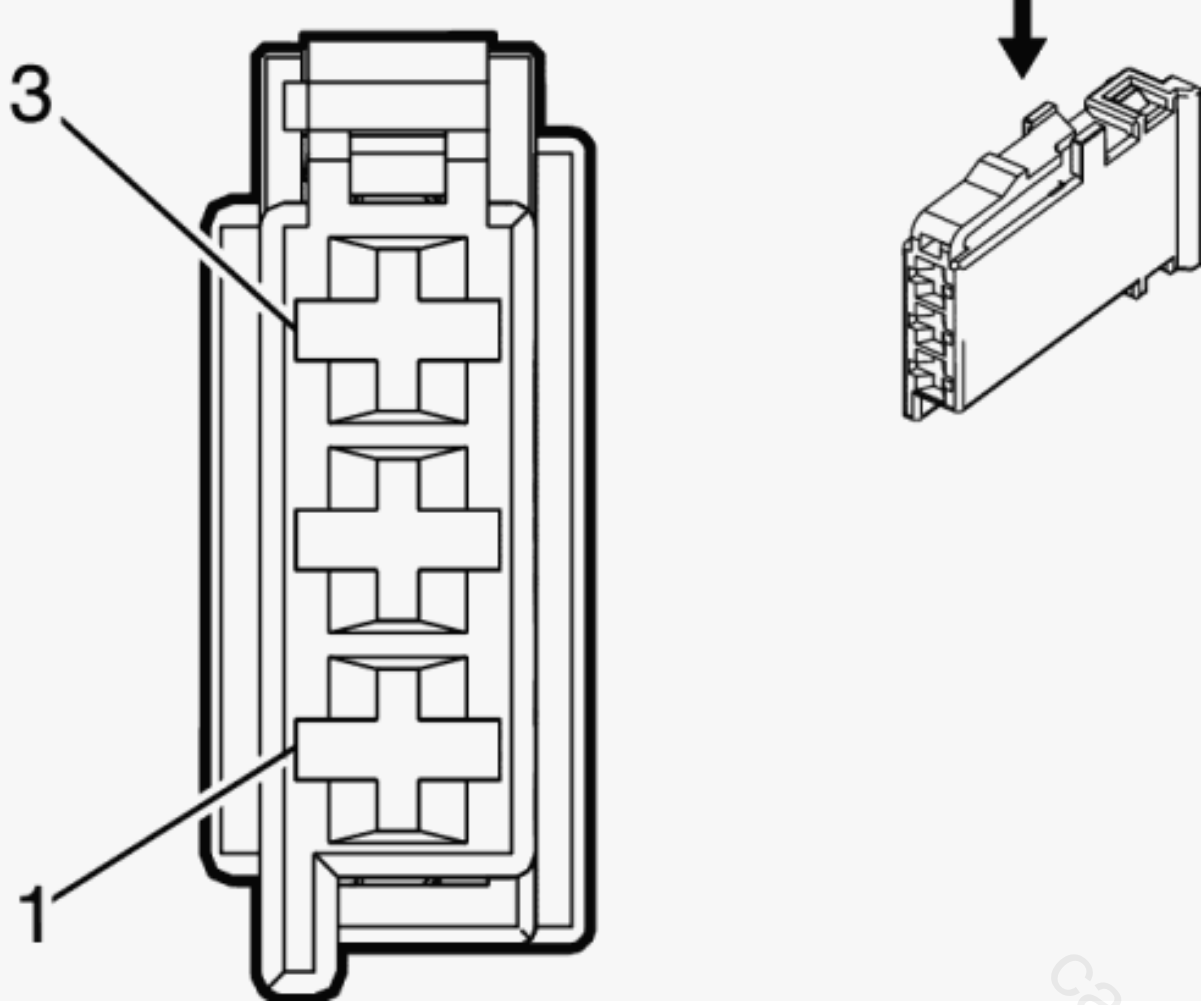
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 1.5 | VT | 1701 | Retained Accessory Power Ignition | I | - |
| B | - | - | - | Not Occupied | - | - |
| C | 1.5 | BK | 2250 | Ground | I | - |

## X81 ACCESSORY POWER RECEPTACLE - 110V AC X1 (KI6)

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 24427883
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.6 Micro-Timer Series (BK)

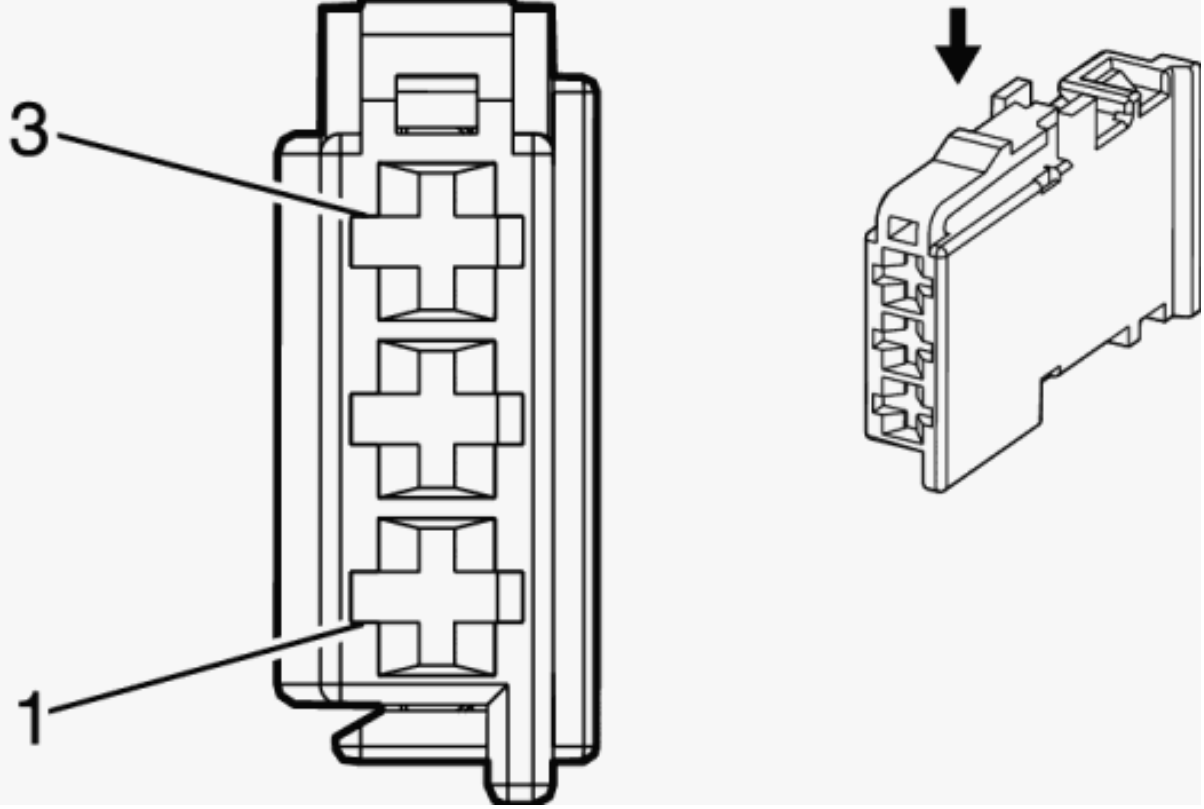
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 4083 | RAP Relay 2 Coil Control | I | KI6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.75 | BK | 5683 | 120 V AC Phase A | I | KI6 |

## X81 ACCESSORY POWER RECEPTACLE - 110V AC X2 (KI6)

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13279746
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.6 Timer Series, Sealed (GY)

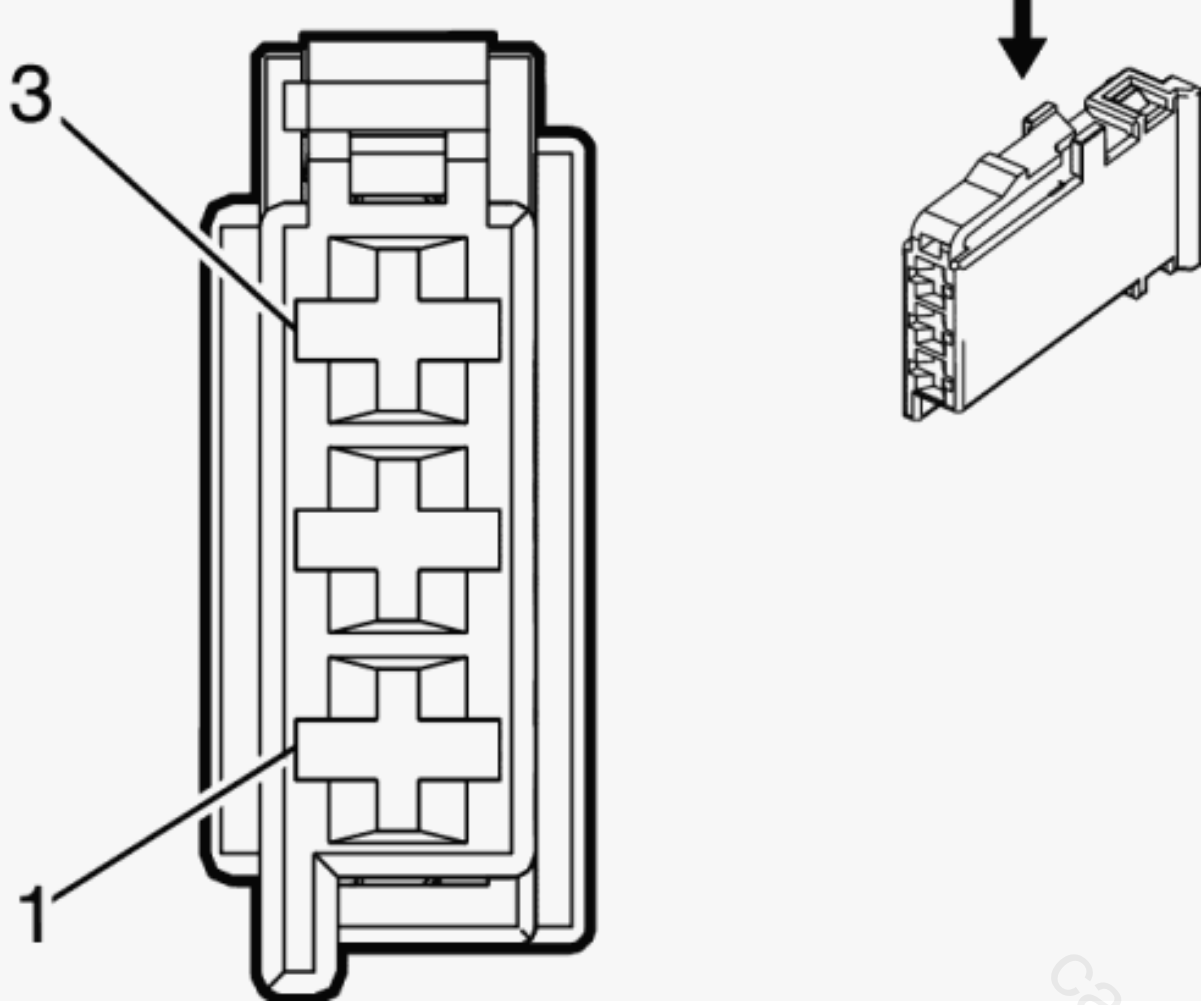
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/BN | 6807 | DC To AC Inverter Control | I | KI6 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.75 | RD | 5684 | 120 V AC Phase B | I | KI6 |

## X81B ACCESSORY POWER RECEPTACLE - 220V AC X1 (KI7)

cardiagn.com




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 24427883
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.6 Micro-Timer Series (BK)

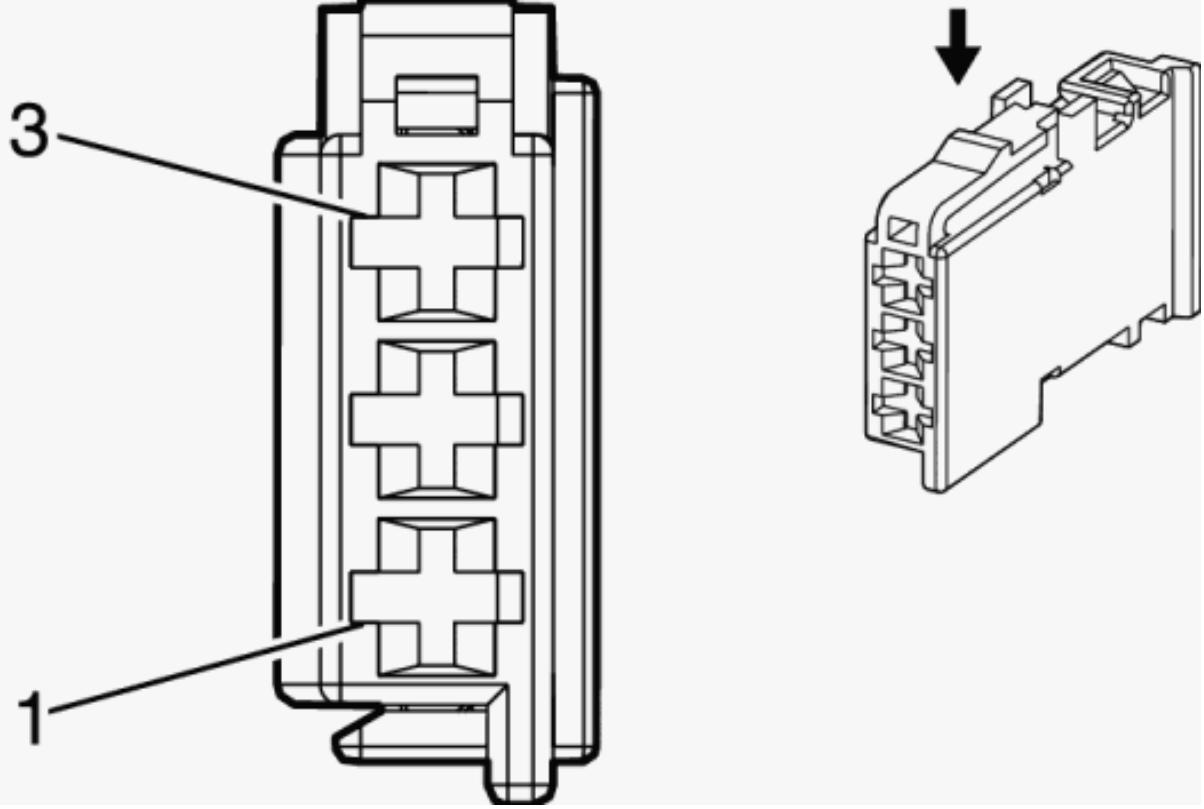
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT | 4083 | RAP Relay 2 Coil Control | I | KI7 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.75 | BN | 686 | 230 V AC Phase A | I | KI7 |

## X81B ACCESSORY POWER RECEPTACLE - 220V AC X2 (KI7)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13279746
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.6 Timer Series, Sealed (GY)

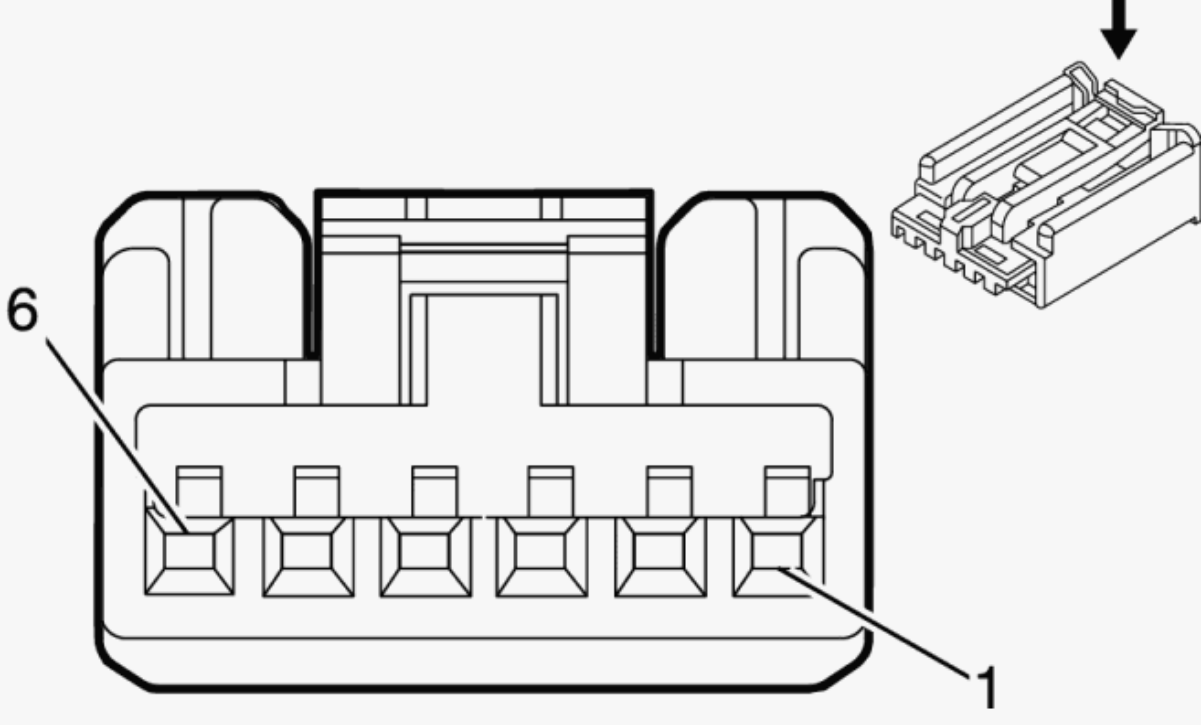
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | BU/BN | 6807 | DC To AC Inverter Control | I | KI7 |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.75 | BU | 6865 | 230 V AC Phase B | I | KI7 |

## X83 AUXILIARY AUDIO INPUT X1 (IO5/IO6+UST)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: AIT2PB-06-1AK
- Service Connector: 19367517
- Description: 6-Way F 0.64 Kaizen Series (BK)

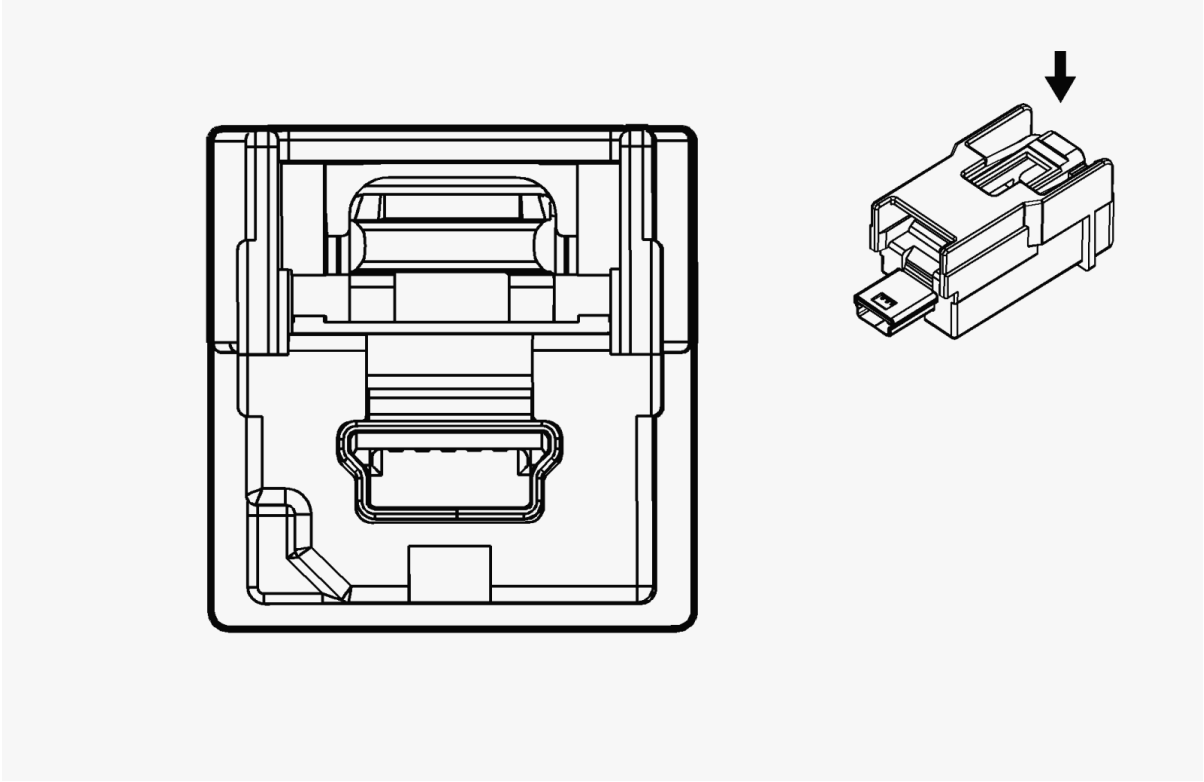
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK | 1750 | Ground | I | (UST+IO5)/(UST+IO6) |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | (UST+IO5)/(UST+IO6) |

## X83 AUXILIARY AUDIO INPUT X2 (IO5/IO6+UST)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 111014-9301
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

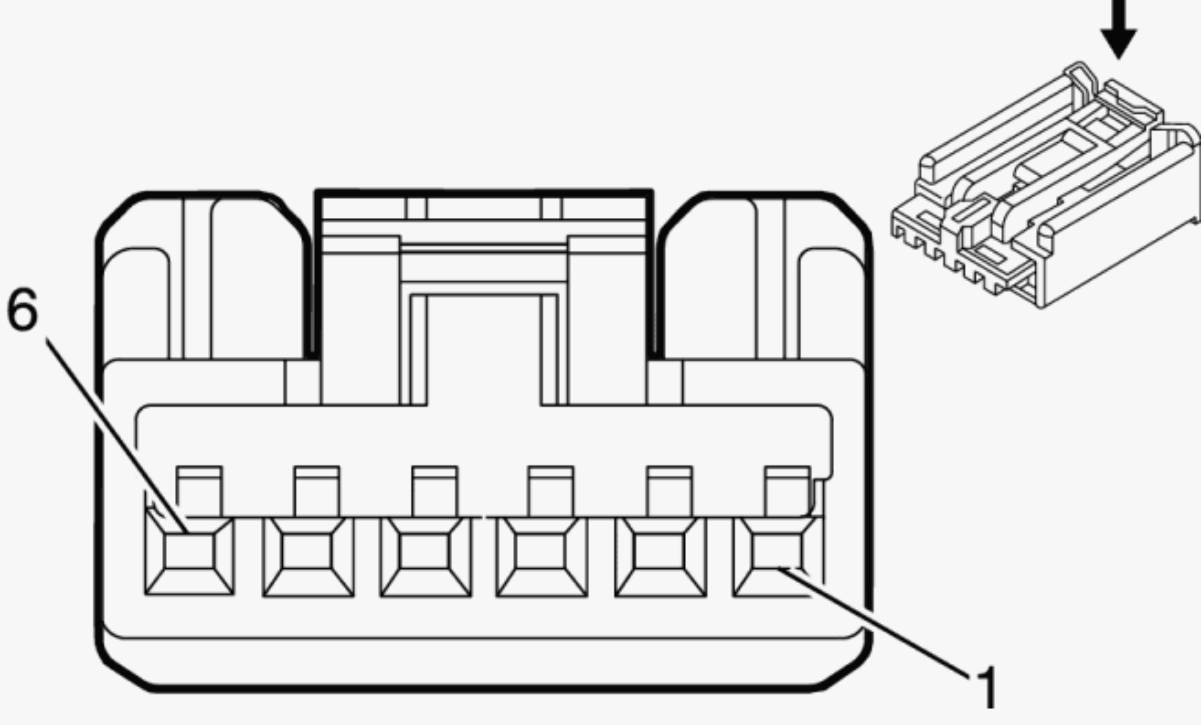
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X83 AUXILIARY AUDIO INPUT X1 (IOB+USR)

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: AIT2PB-06-1AK
- Service Connector: 19367517
- Description: 6-Way F 0.64 Kaizen Series (BK)

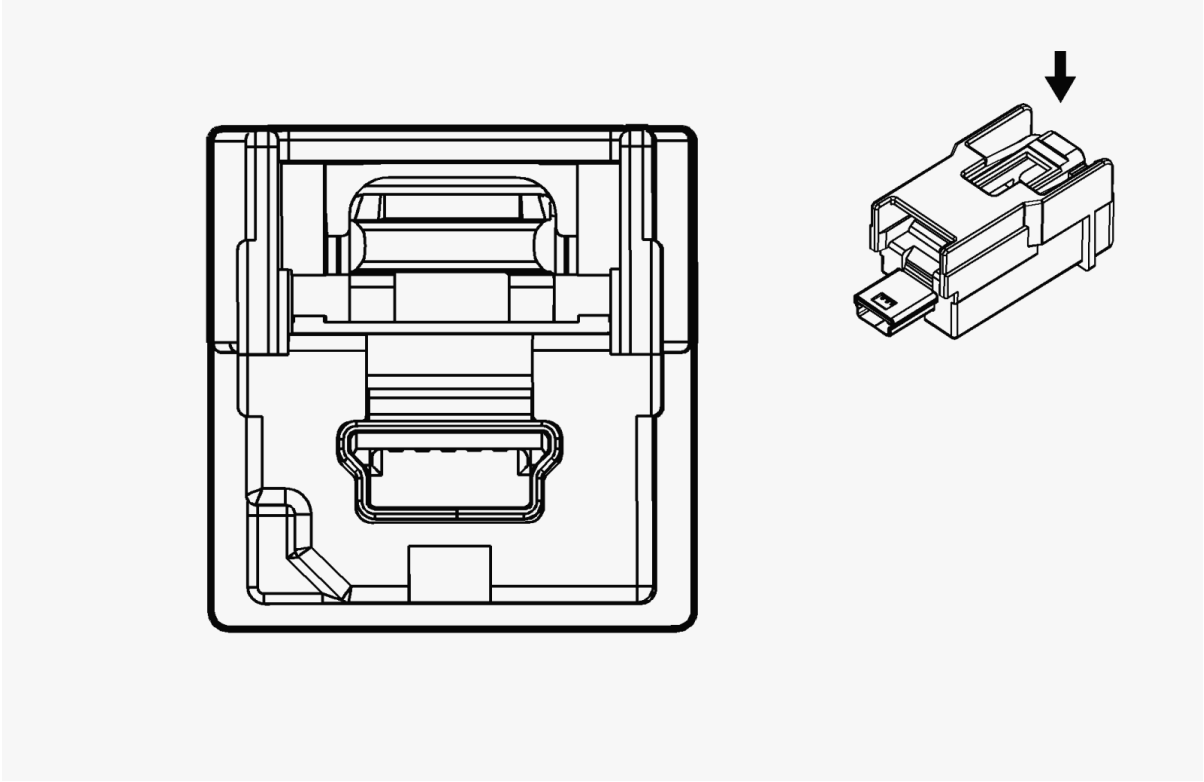
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 5839 | Left Auxiliary Audio Signal 2 | I | - |
| 2 | 0.35 | GN | 5841 | Right Auxiliary Audio Signal 2 | I | - |
| 3 | 0.35 | VT | 5843 | Auxiliary Audio Common Signal | I | - |
| 4 | 0.35 | BK | 1750 | Ground | I | - |
| 5 | 0.13 | BU | 2060 | Auxiliary Detection Signal | I | - |
| 6 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | - |

## X83 AUXILIARY AUDIO INPUT X2 (IOB+USR)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 111014-9301
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

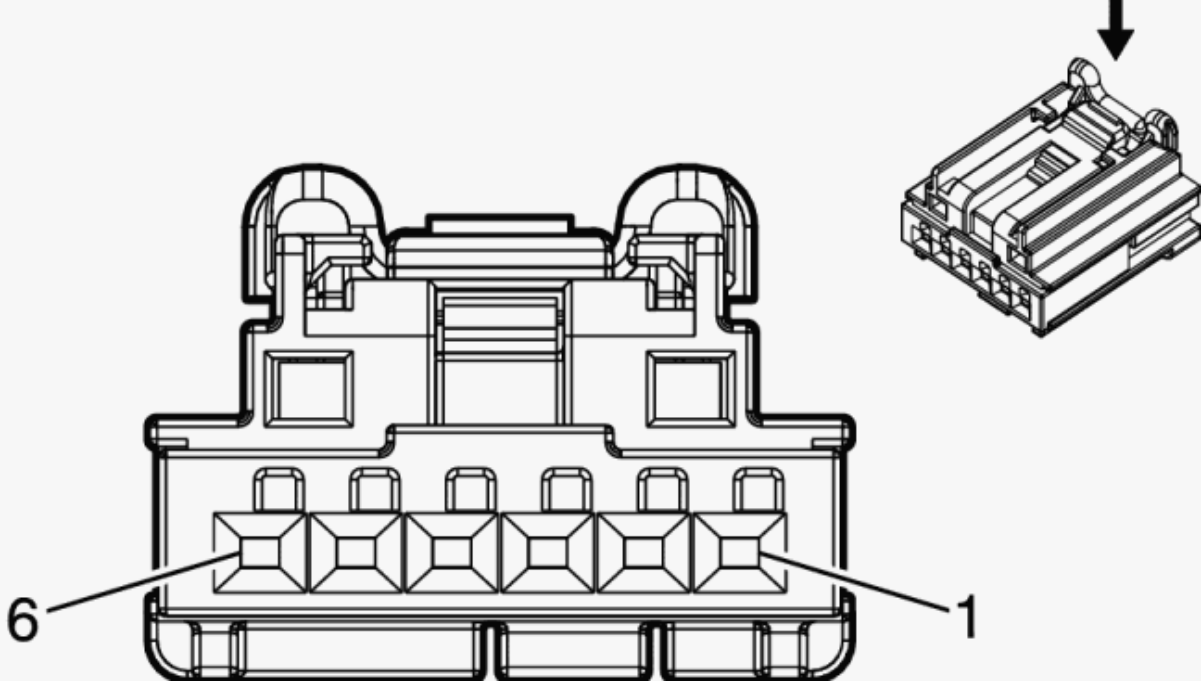
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X83 AUXILIARY AUDIO INPUT X1 (Z88)

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Connector Part Information

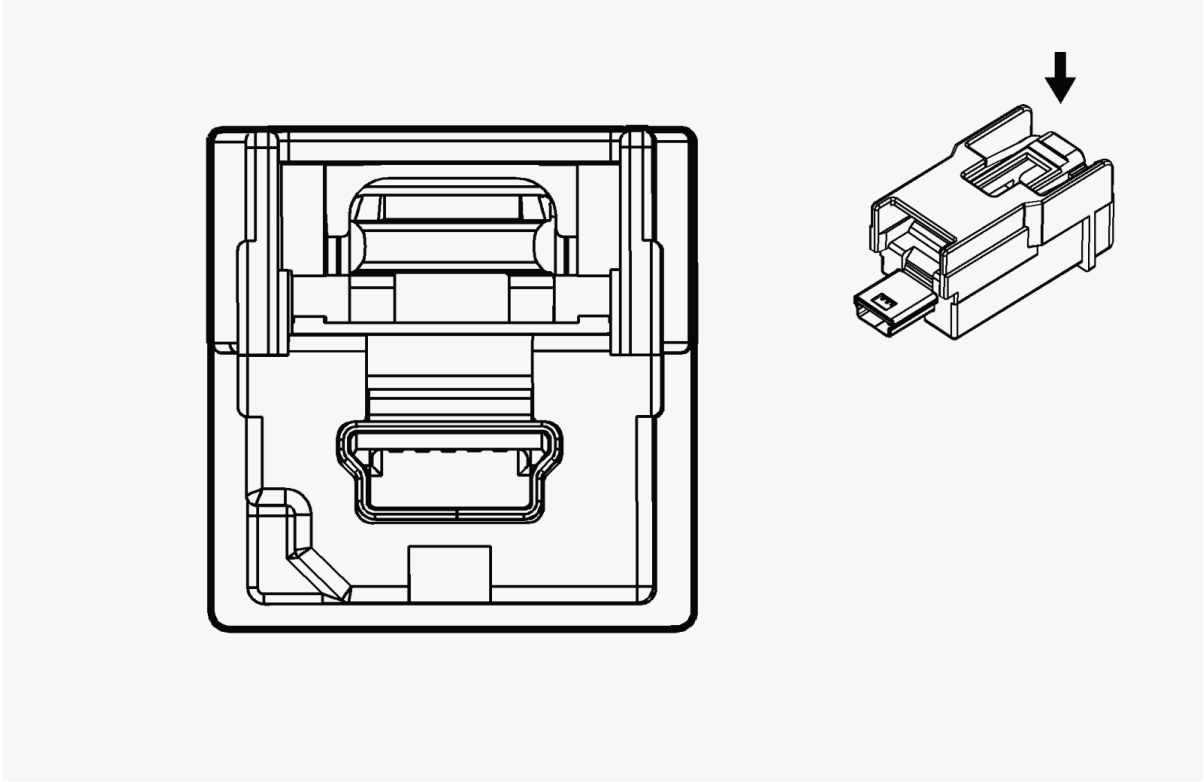
- Harness Type: Instrument Panel
- OEM Connector: 13583825
- Service Connector: 19332786
- Description: 6-Way F 0.64 Generation Y Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | - |
| 2 | 0.35 | YE | 6817 | LED Backlight Dimming Control | I | - |
| 3 | 0.35 | BK | 1750 | Ground | I | - |
| 4 - 6 | - | - | - | Not Occupied | - | - |

## X83 AUXILIARY AUDIO INPUT X2 (Z88)



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13576673
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

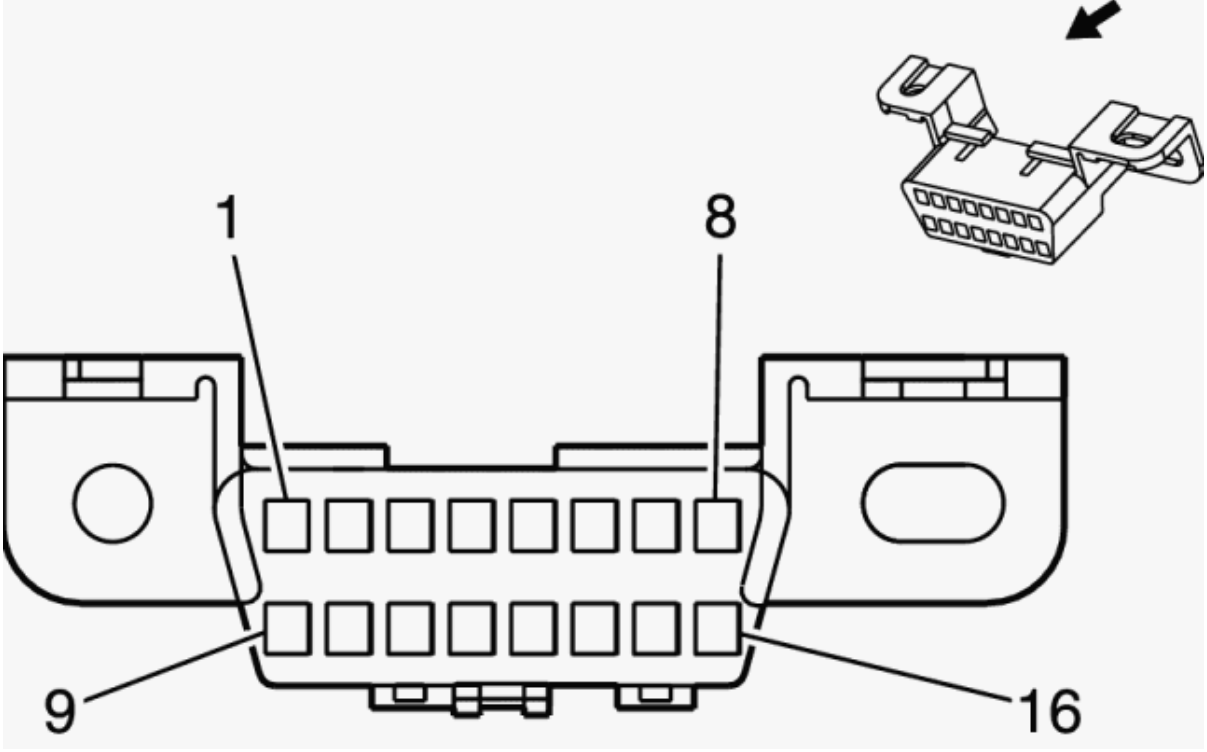
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X84 DATA LINK CONNECTOR

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 19177614
- Service Connector: 12110250
- Description: 16-Way F 150 Metri-Pack Series (BK)

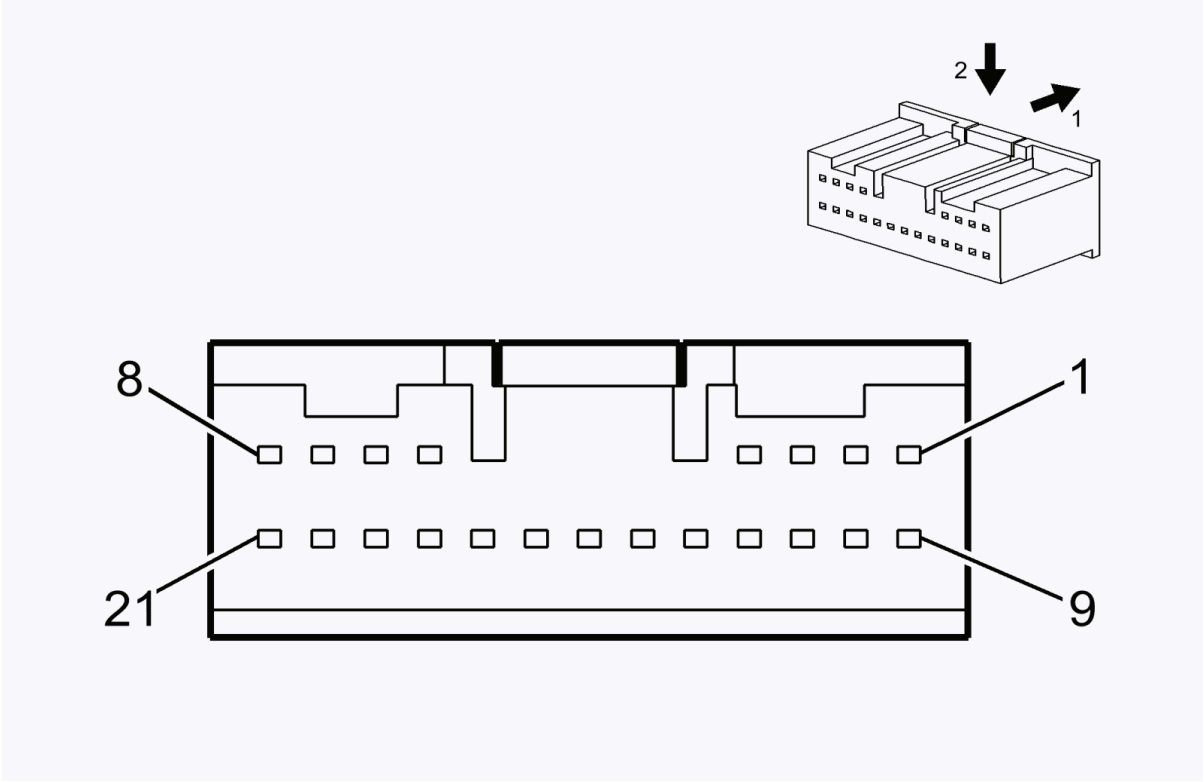
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13580059 | J-35616-14 (GN) | J-38125-12A | 12129484 | Delphi 19 | E | C |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | GN | 5060 | Low Speed GMLAN Serial Data | I | - |
| 2 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | BK | 1650 | Ground | I | - |
| 5 | 0.5 | BK | 1650 | Ground | I | - |
| 6 | 0.35 | BU | 2500 | High Speed GMLAN Serial Data (+) 1 | I | - |
| 7 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | BU/YE | 6105 | High Speed GMLAN Serial Data (+) 2 | I | - |
| 13 | 0.35 | WH | 6106 | High Speed GMLAN Serial Data (-) 2 | I | - |
| 14 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) 1 | I | - |
| 15 | - | - | - | Not Occupied | - | - |
| 16 | 0.5 | RD/VT | 2640 | Battery Positive Voltage | I | - |

## X85 STEERING WHEEL AIR BAG COIL X1

cardiagn.com




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: ATLCPB-21B-2AY
- Service Connector: 13510218
- Description: 21-Way F 0.64 Series, Sealed (YE)

**Terminal Part Information**

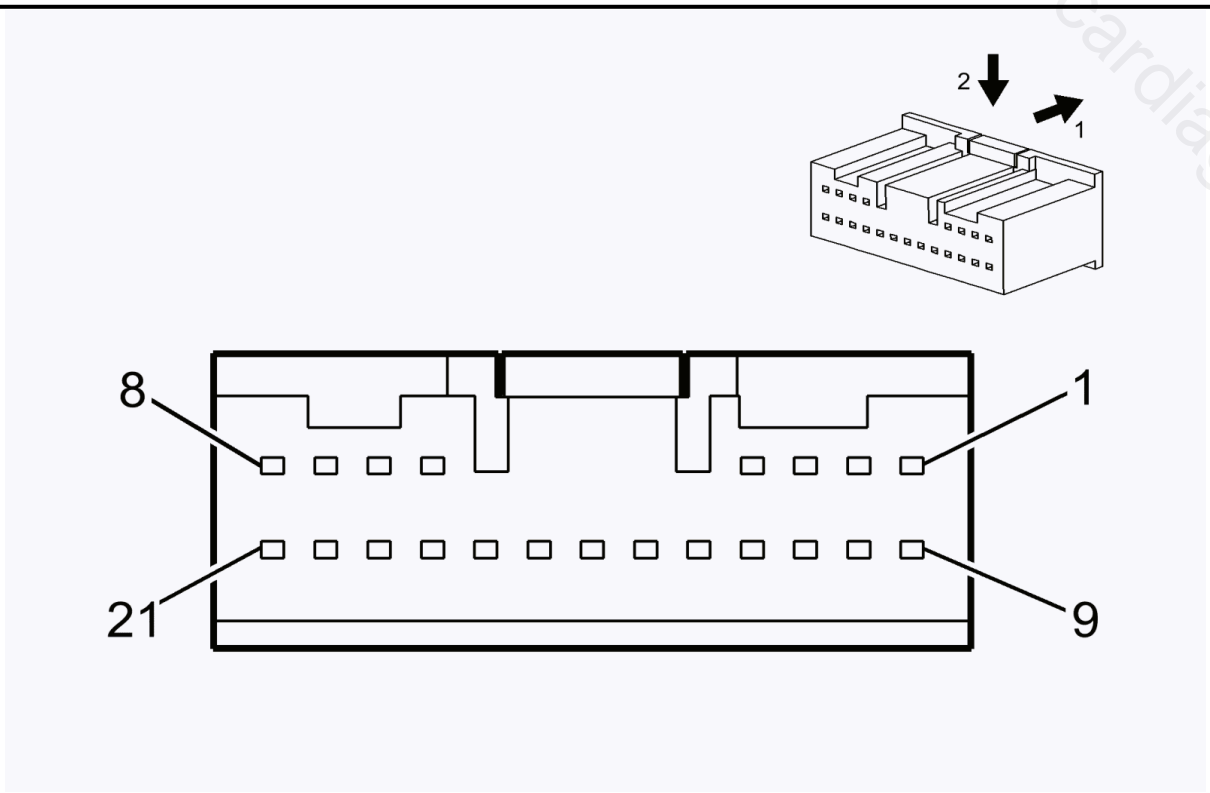
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575742 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03T-M064 | Yazaki 14 | P | P |
| II | 13575864 | J-35616-64B (LT BU) | J-38125-215A | SAIT-A03GF-M064 | Yazaki 27 | P | P |
| III | 13575867 | J-35616-64B (LT BU) | J-38125-215A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | OG/VT | 3021 | Steering Wheel Module Stage 1 High Control | II | - |
| 2 | 0.35<br>0.35 | VT/OG<br>BN/OG | 5020<br>3020 | Left Front Head Curtain Module Low Control<br>Steering Wheel Module Stage 1 Low Control | II<br>II | AJG/AYC<br>AY0 |
| 3 | 0.35 | WH/OG | 3022 | Steering Wheel Module Stage 2 Low Control | II | AY0 |
| 4 | 0.35 | OG/GN | 3023 | Steering Wheel Module Stage 2 High Control | II | AY0 |
| 5 | 0.35 | GN/WH | 3287 | Horn Switch Signal | I | - |
| 6 | 0.5 | BK | 1650 | Ground | I | - |
| 7 | - | - | - | Not Occupied | - | - |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 8 | 0.5 | BK | 1650 | Ground | I | UVD |
| 9 | 0.35 | GN/BK | 3894 | Local Interconnect Network Serial Data Bus 12 | I | - |
| 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | K34 |
| 12 | 0.35<br>0.35 | RD/BU<br>WH | 2540<br>3152 | Battery Positive Voltage<br>Lane Departure Warning Indicator Control | I<br>I | EPH<br>UHX-EPH |
| 13 | 0.13 | WH/RD | 1444 | 12V Reference | III | UEU/UHX |
| 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.35 | GY/GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | UHX/UEU |
| 16 - 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | -EPH |
| 19 - 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.5 | VT/BK | 739 | Run/Crank Ignition 1 Voltage | I | - |

## X85 STEERING WHEEL AIR BAG COIL X2




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Connector Part Information

- Harness Type: Steering Wheel
- OEM Connector: 13588548
- Service Connector: Service by Harness - See Part Catalog
- Description: 21-Way F 0.64 Series, Sealed (YE)

**Terminal Part Information**

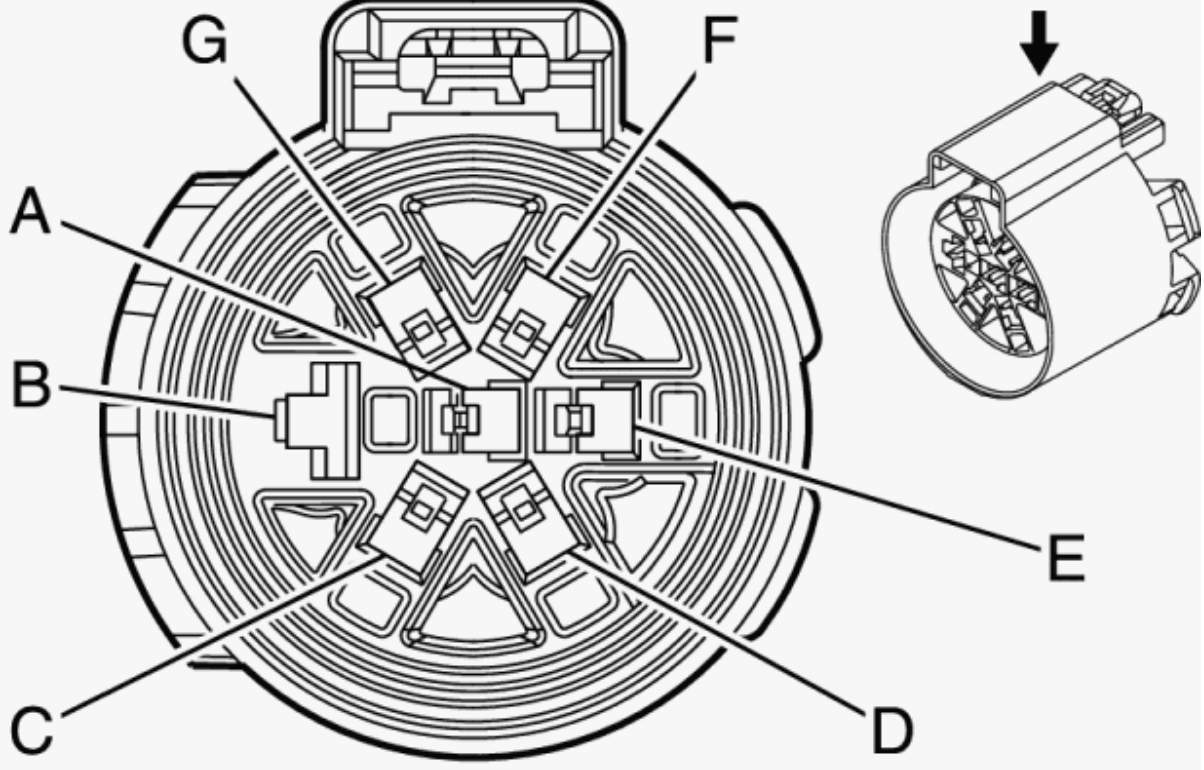
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 1650 | Ground | I | UVD |
| 2 | - | - | - | Not Occupied | - | - |
| 3 | 0.5 | BK | 1650 | Ground | I | - |
| 4 | 0.13 | GN/WH | 3287 | Horn Switch Signal | I | - |
| 5 | 0.5<br>0.5 | OG/GN<br>WH | 3023<br>3023 | Steering Wheel Module Stage 2 High Control<br>Steering Wheel Module Stage 2 High Control | I<br>I | AY0+X88<br>AY0+Z88 |
| 6 | 0.5<br>0.5 | WH/OG<br>PK | 3022<br>3022 | Steering Wheel Module Stage 2 Low Control<br>Steering Wheel Module Stage 2 Low Control | I<br>I | AY0+X88<br>AY0+Z88 |
| 7 | 0.5<br>0.5<br>0.5 | VT/OG<br>BN/OG<br>BN | 3020<br>3020<br>3020 | Steering Wheel Module Stage 1 Low Control<br>Steering Wheel Module Stage 1 Low Control<br>Steering Wheel Module Stage 1 Low Control | I<br>I<br>I | AJG<br>AY0+X88<br>AY0+Z88 |
| 8 | 0.5<br>0.5 | TN<br>OG/VT | 3021<br>3021 | Steering Wheel Module Stage 1 High Control<br>Steering Wheel Module Stage 1 High Control | I<br>I | AY0+Z88<br>AY0-Z88 |
| 9 | 0.5 | VT/BK | 739 | Run/Crank Ignition 1 Voltage | I | UVD |
| 10 - 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | I | -EPH |
| 13 - 14 | - | - | - | Not Occupied | - | - |
| 15 | 0.13 | GY/GN | 5737 | Adaptive Cruise Control Gap Up/Down Switch Signal | I | UHX/UEU |
| 16 | - | - | - | Not Occupied | - | - |
| 17 | 0.13 | WH/RD | 1444 | 12V Reference | I | UEU/UHX |
| 18 | 0.35<br>0.13 | BU<br>WH | 2540<br>3152 | Battery Positive Voltage<br>Lane Departure Warning Indicator Control | I<br>I | EPH<br>UHX-EPH |
| 19 | 0.13 | BN/GN | 1884 | Cruise Control Set/Coast/Resume/Accelerate Switch Signal | I | - |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.35 | GN/BK | 3894 | Local Interconnect Network Serial Data Bus 12 | I | - |

## X88 TRAILER CONNECTOR (V92)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13857223
- Service Connector: 13583927
- Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

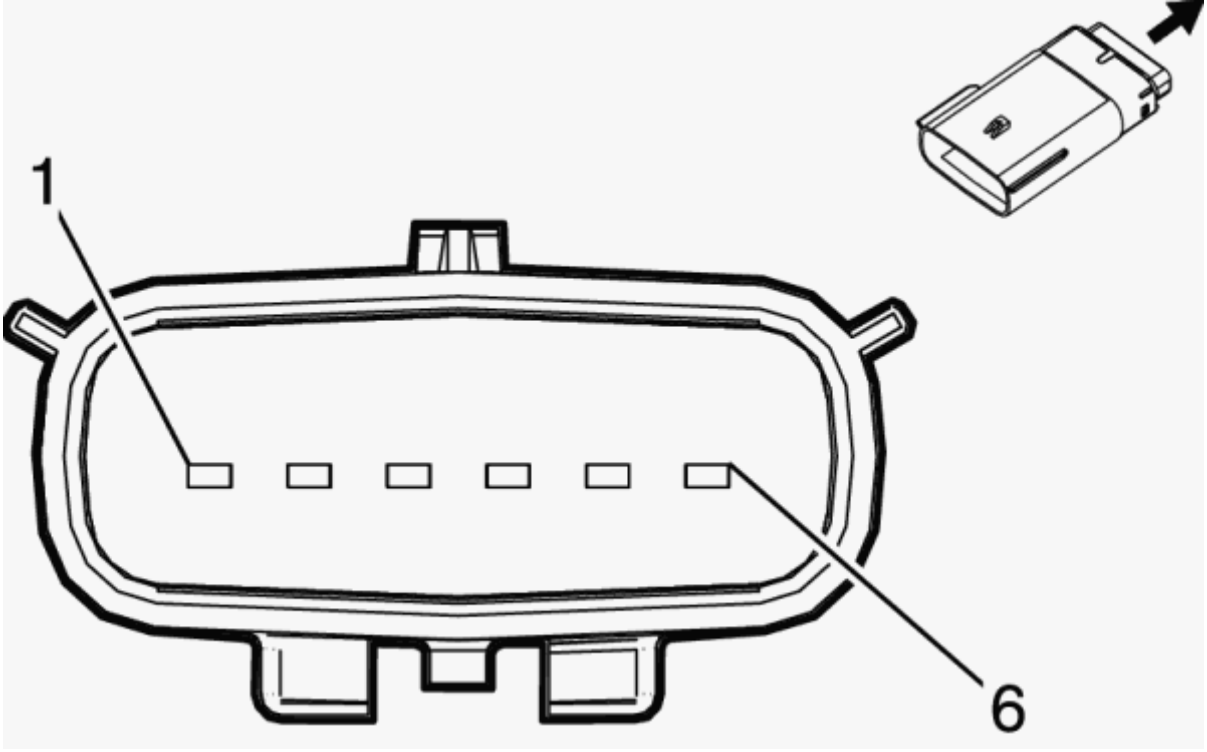
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 0.5 | WH/GN | 1624 | Trailer Backup Lamp Control | II | - |
| B | 5 | WH | 2350 | Ground | I | V92 |
| C | 2.5 | BU | 47 | Trailer Auxiliary Control | II | - |
| D | 0.5 | GN/VT | 1619 | Right Rear Trailer Stop/Turn Lamp Control | II | - |
| E | 3 | RD/GN | 742 | Battery Positive Voltage | II | - |
| F | 1 | GY/BN | 2109 | Trailer Park Lamp Control | II | - |
| G | 0.5 | YE/GY | 1618 | Left Rear Trailer Stop/Turn Lamp Control | II | - |

## X88 TRAILER CONNECTOR (-V92)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13504374
- Service Connector: 19368559
- Description: 6-Way M 1.5 MX Series, Sealed (BK)

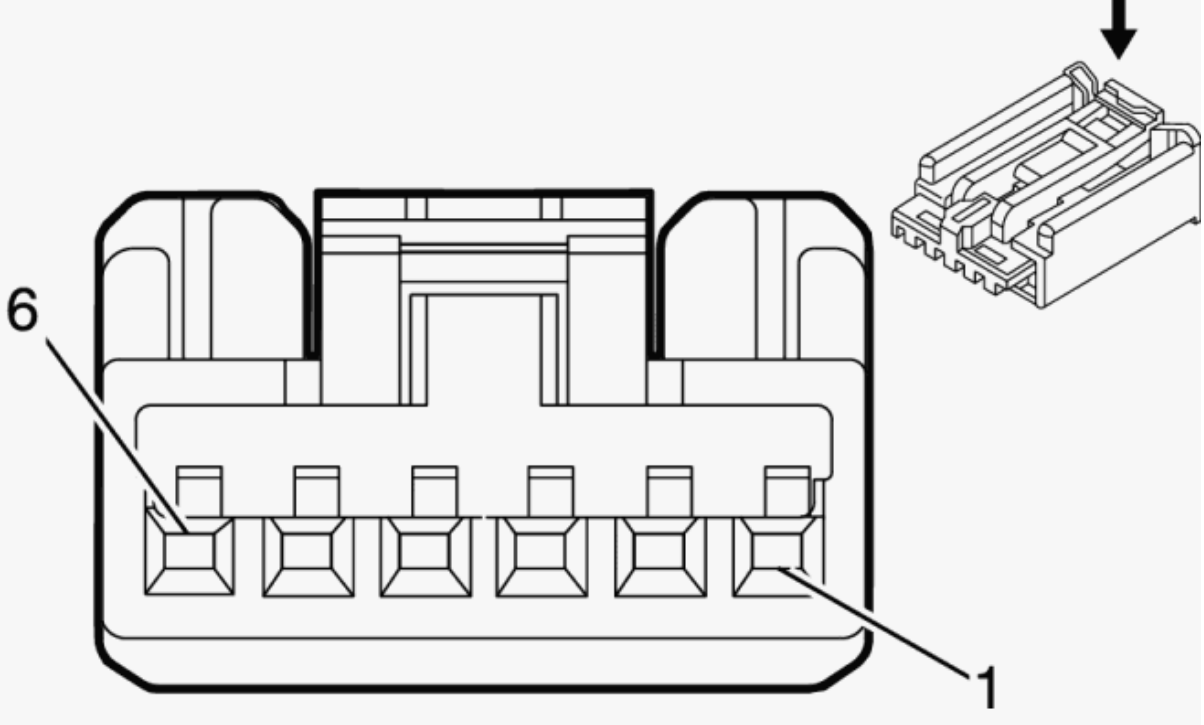
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 1 | GY/BN | 2109 | Trailer Park Lamp Control | I | - |
| 2 | 1 | WH | 2350 | Ground | I | MAH/MBC/MCX-V92 |
| 3 | 0.75 | BU/WH | 5186 | Left Trailer Turn Signal Lamp Control | I | MAH/MBC/MCX-V92 |
| 4 | 0.35 | BU/WH | 1334 | Left Rear Turn Signal Lamp Control | I | MAH/MBC/MCX-V92 |
| 5 | 0.35 | BU/VT | 1335 | Right Rear Turn Signal Lamp Control | I | - |
| 6 | 0.75 | YE/GY | 5187 | Right Trailer Turn Signal Lamp Control | I | MAH/MBC/MCX-V92 |

## X92 USB RECEPTACLE X1 (IOB+MCY)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: AIT2PB-06-1AK
- Service Connector: 19367517
- Description: 6-Way F 0.64 Kaizen Series (BK)

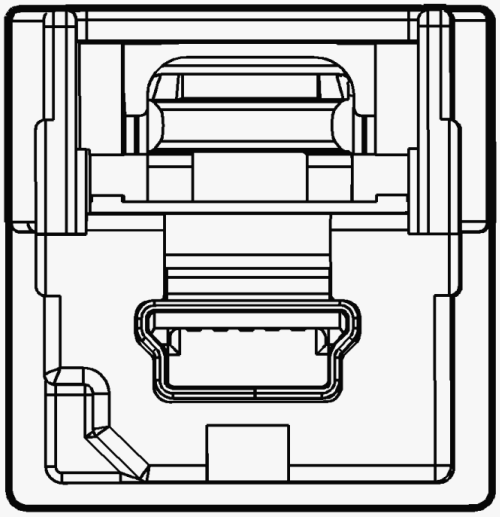
**Terminal Part Information**

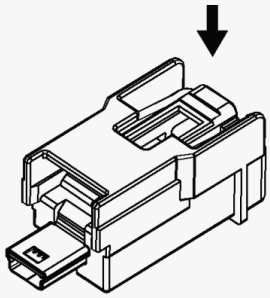
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK | 1750 | Ground | I | IOB+MCY |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | IOB+MCY |

## X92 USB RECEPTACLE X2 (IOB+MCY)

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Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 111014-9301
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

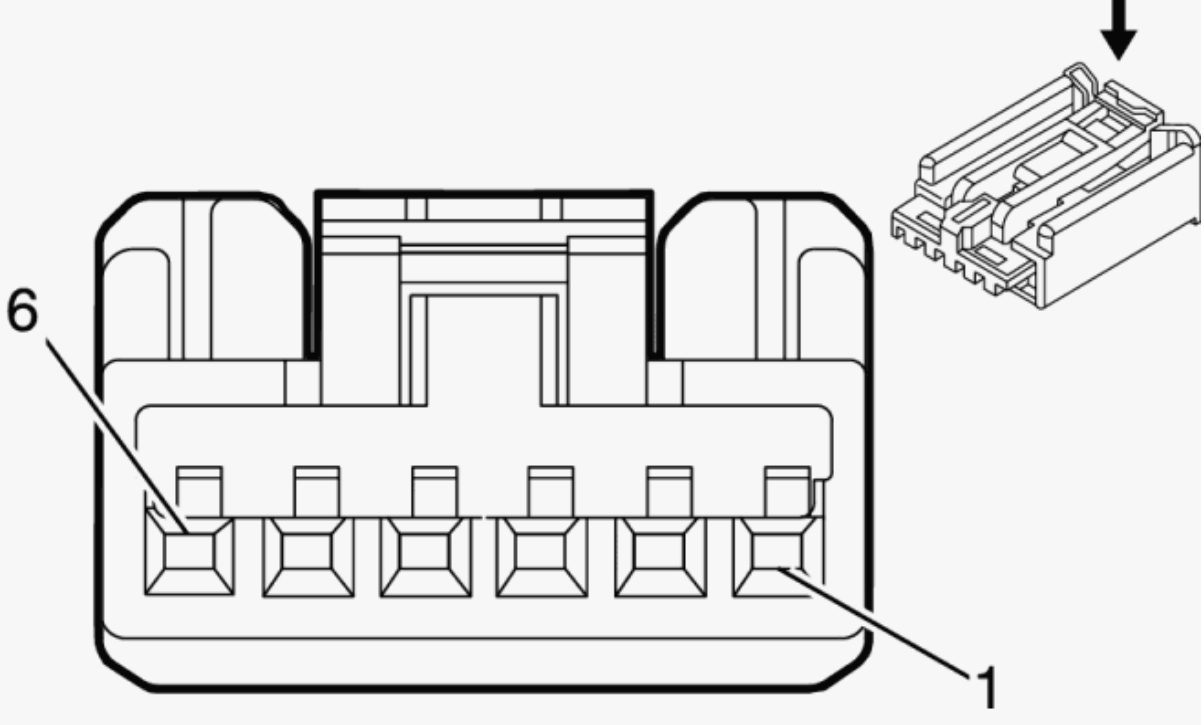
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X92 USB RECEPTACLE X1 (MYC+IO5/IO6)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 15269798
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Kaizen Series (BK)

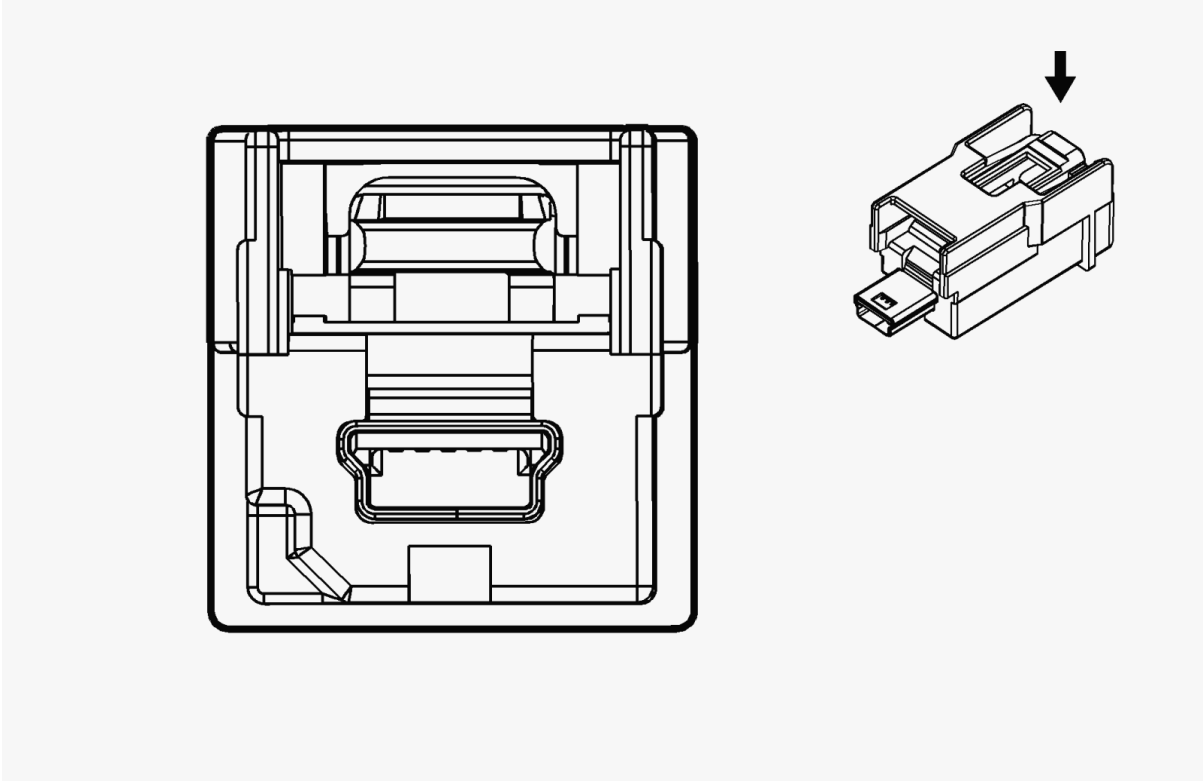
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | BK | 1750 | Ground | I | - |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | I | - |

## X92 USB RECEPTACLE X2 (MYC+IO5/IO6)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 111014-9501
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

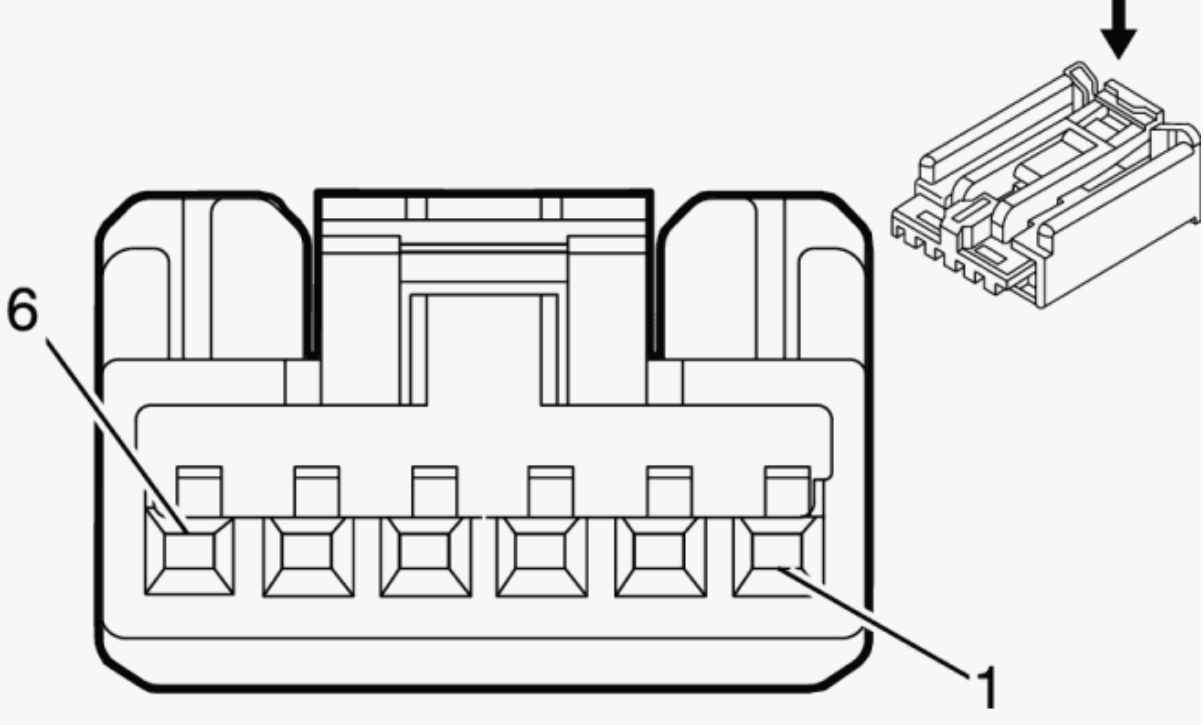
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X92 USB RECEPTACLE X1 (MCZ)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 15269798
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Kaizen Series (BK)

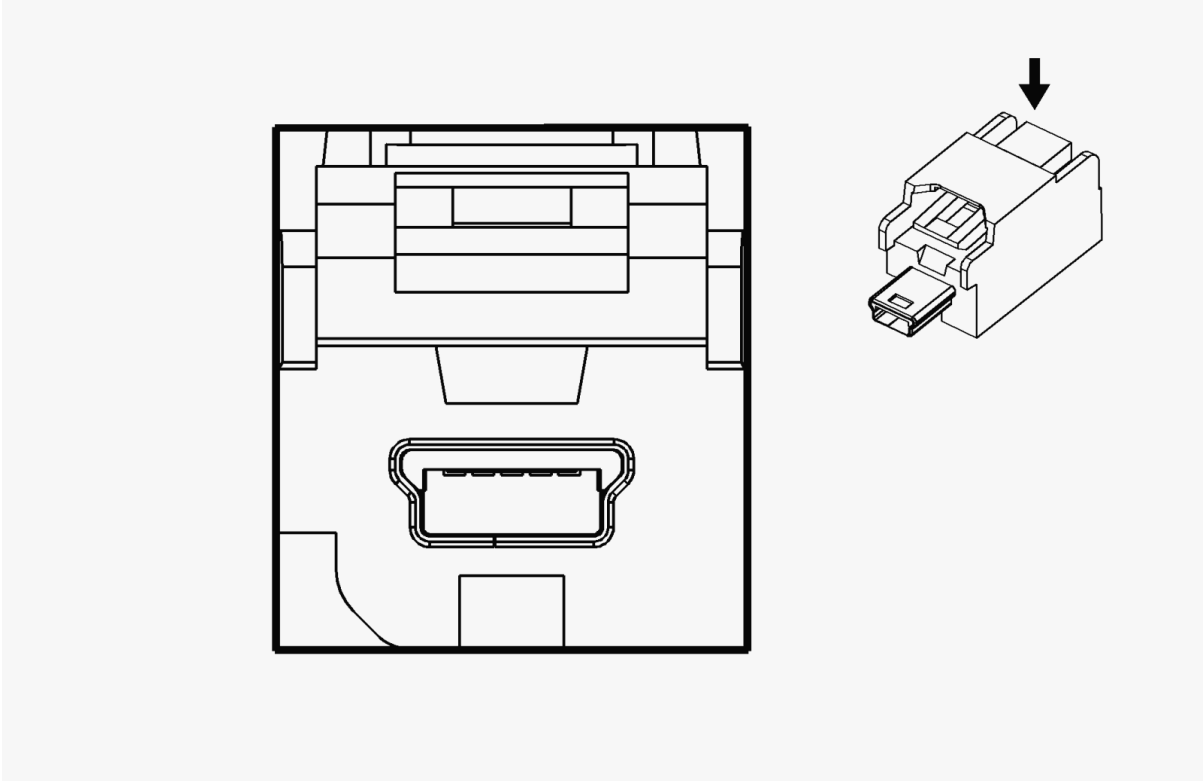
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | BK | 1750 | Ground | I | USS |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | RD/WH | 2240 | Battery Positive Voltage | I | USS |

## X92 USB RECEPTACLE X2 (MCZ)

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Connector Part Information

- Harness Type: Floor Console USB
- OEM Connector: 13584747
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

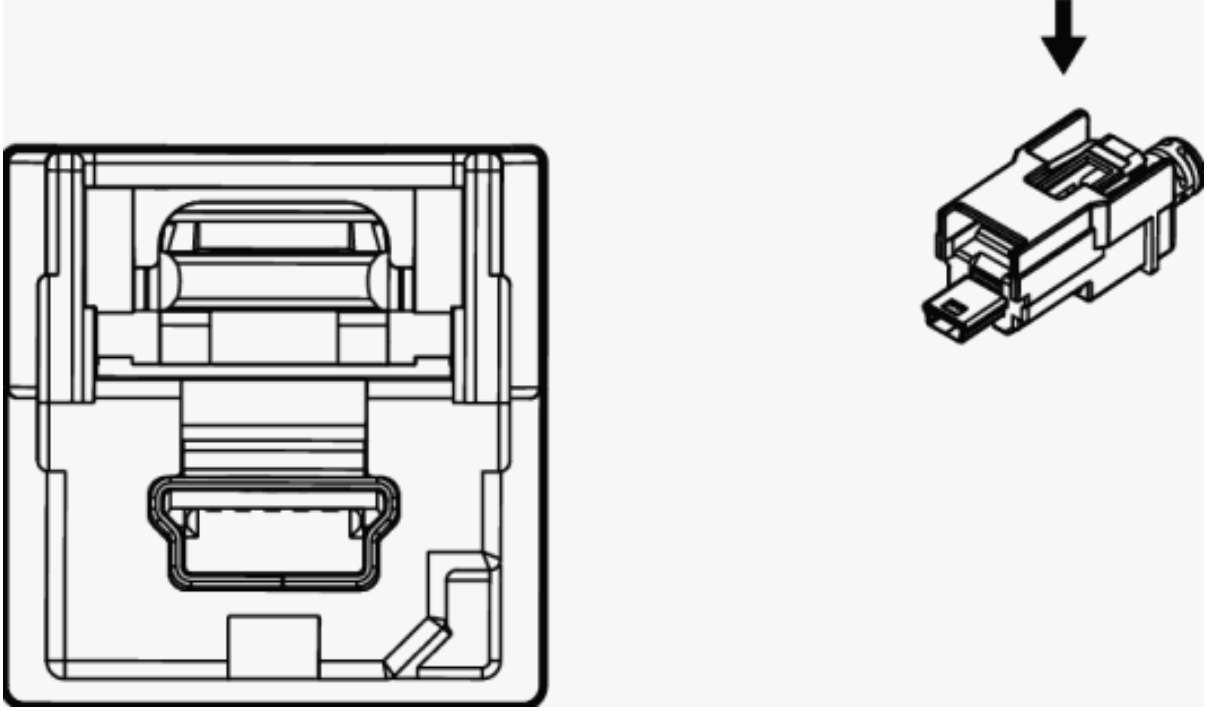
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X92 USB RECEPTACLE X3 (MCZ)

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Connector Part Information

- Harness Type: Floor Console USB
- OEM Connector: 13584746
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

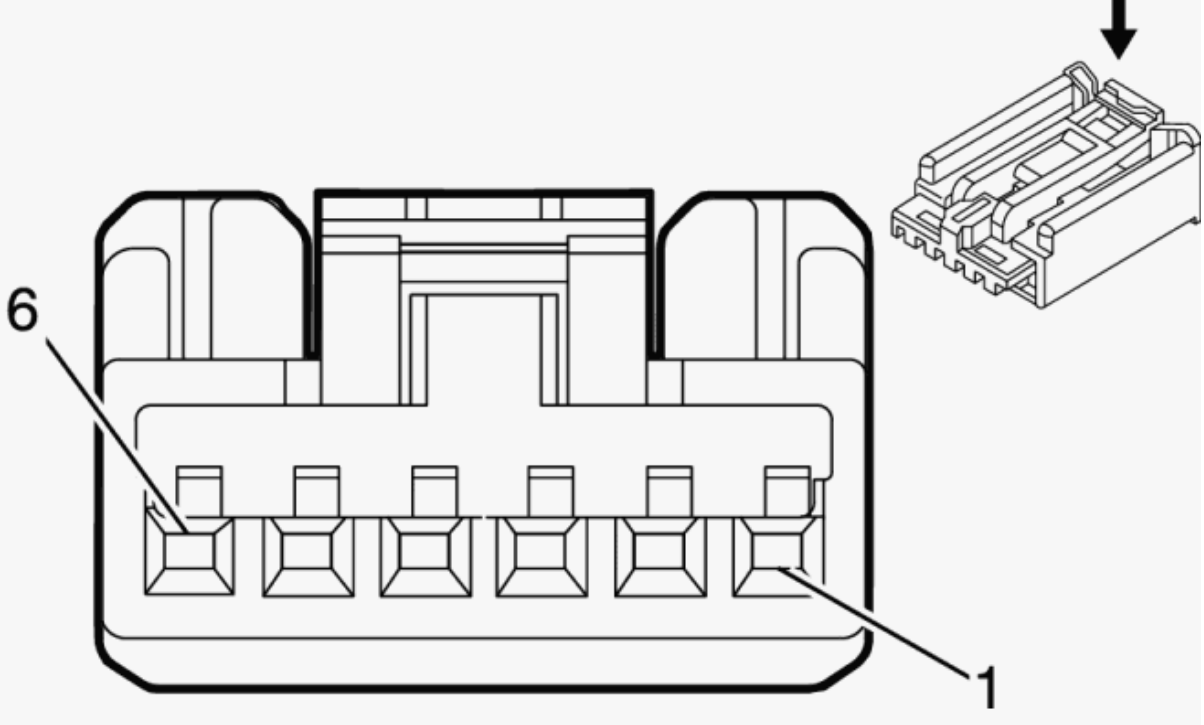
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| - | - | USB | - | USB Serial Data | I | - |

## X92C USB RECEPTACLE - CENTER CONSOLE REAR (USS)

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Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 15269798
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Kaizen Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.5 | BK | 2250 | Ground | I | USS |
| 5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | RD/WH | 5440 | Battery Positive Voltage | I | USS |

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2018 ELECTRICAL

Wiring Systems And Power Management - Component Locator - Door Component Views - Equinox & Terrain

# DOOR COMPONENT VIEWS

## DRIVER DOOR TRIM PANEL

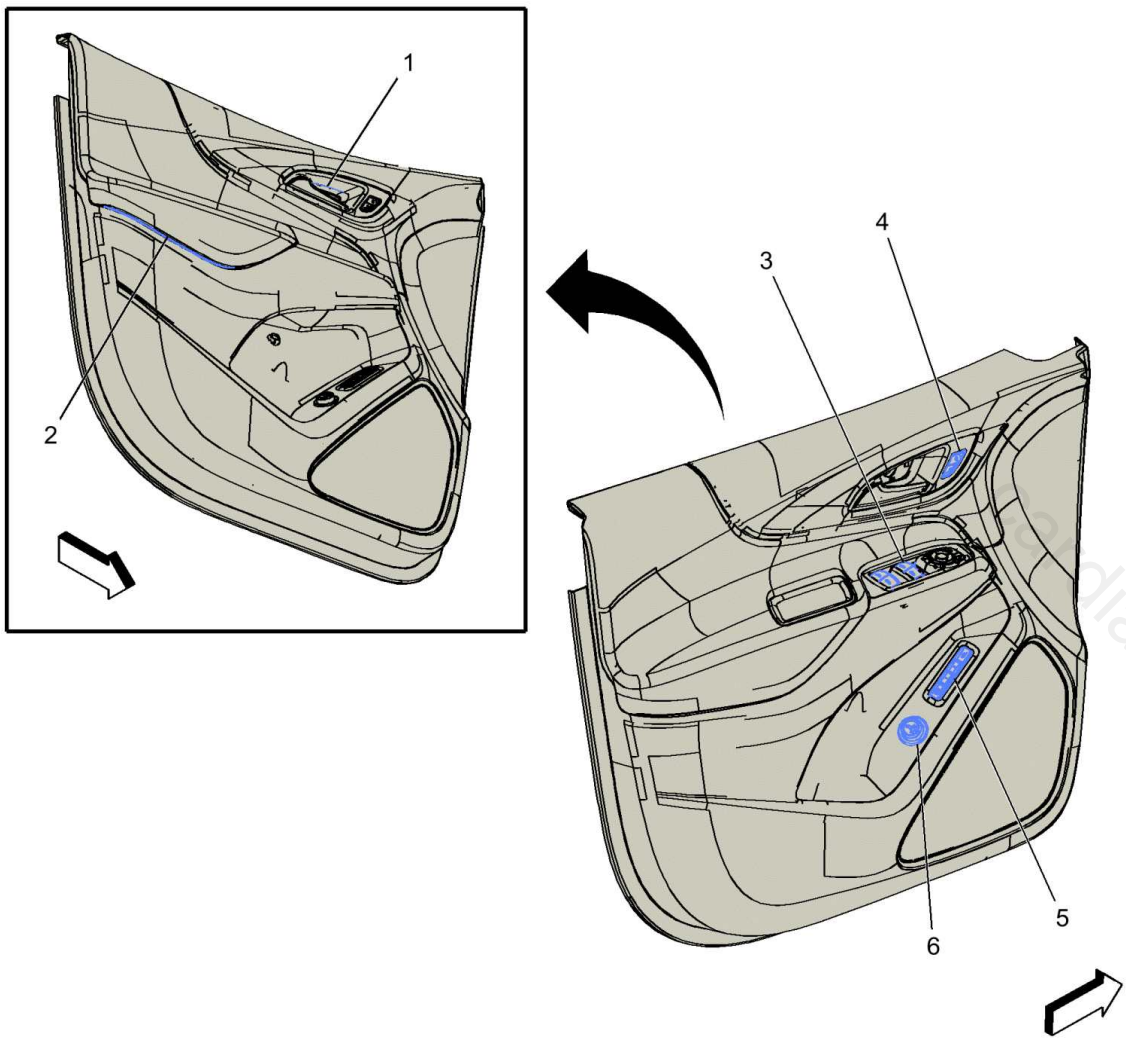



Fig. 1: Driver Door Trim Panel
Courtesy of GENERAL MOTORS COMPANY

| Items |
|---|
| 1. E1C Accent Lamp - Driver Door Handle E1C Accent Lamp - Driver Door Handle |
| 2. E1D Accent Lamp - Driver Door (TSQ) E1D Accent Lamp - Driver Door (X88+TSQ) E1D Accent Lamp - Driver Door (Z88+TSQ) |
| 3. S79D Window Switch - Driver S79D Window Switch - Driver |
| 4. S13D Door Lock Switch - Driver S13D Door Lock Switch - Driver |
| 5. S47D Seat Memory Switch - Driver (A45/A74) S47D Seat Memory Switch - Driver (A45/A74) |
| 6. S45B Liftgate Control Switch - Interior (TB5/TC2) S45B Liftgate Control Switch - Interior (TB5/TC2) |

## DRIVER DOOR

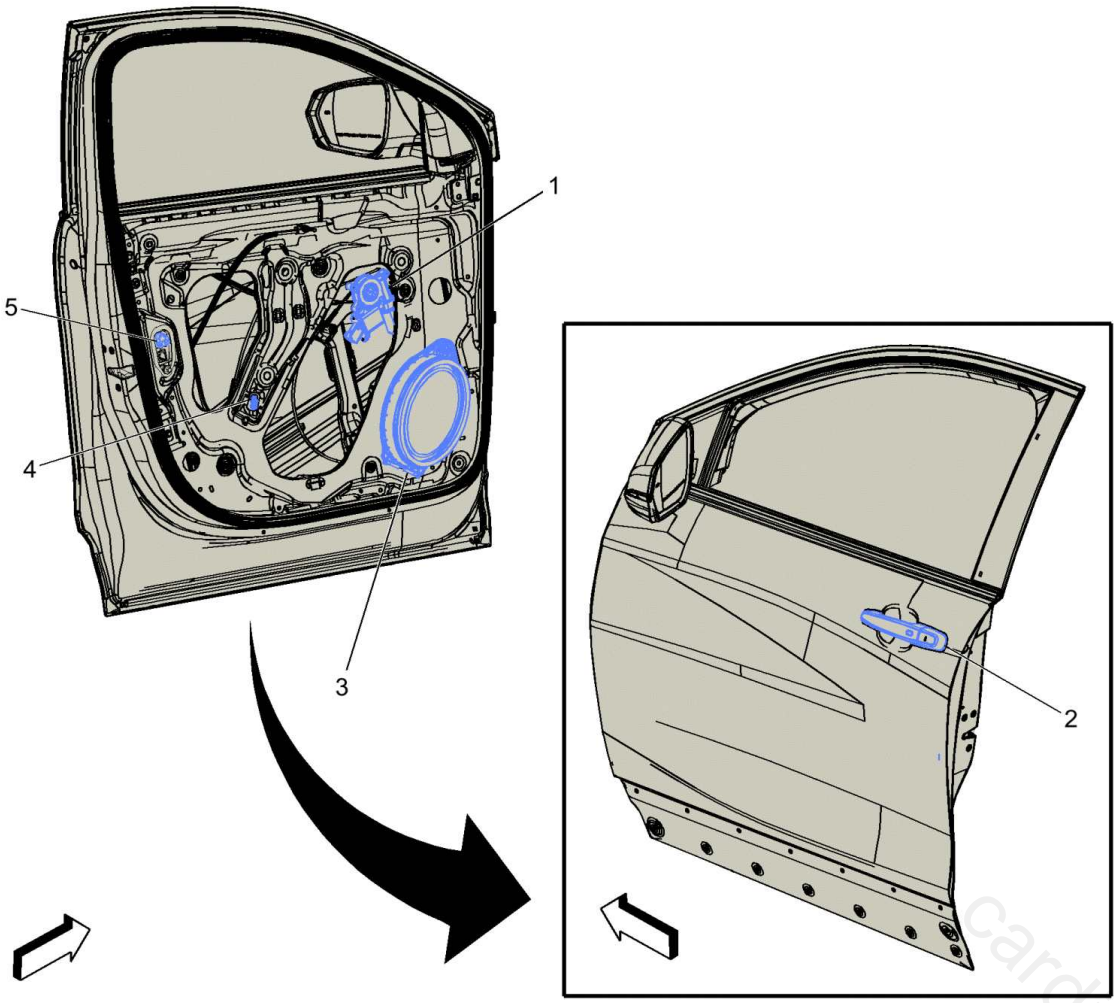



**Fig. 2: Driver Door**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. M35D Window Motor Module - Driver **M35D Window Motor Module - Driver** |
| 2. A24D Door Handle Assembly - Driver Exterior **A24D Door Handle Assembly - Driver Exterior** |
| 3. P19AG Speaker - Left Front Door **P19AG Speaker - Left Front Door (UQA)** **P19AG Speaker - Left Front Door (UZ6)** |
| 4. B63LF Side Impact Sensor - Left Front **B63LF Side Impact Sensor - Left Front** |
| 5. A23D Door Latch Assembly - Driver **A23D Door Latch Assembly - Driver** |

## PASSENGER DOOR TRIM PANEL

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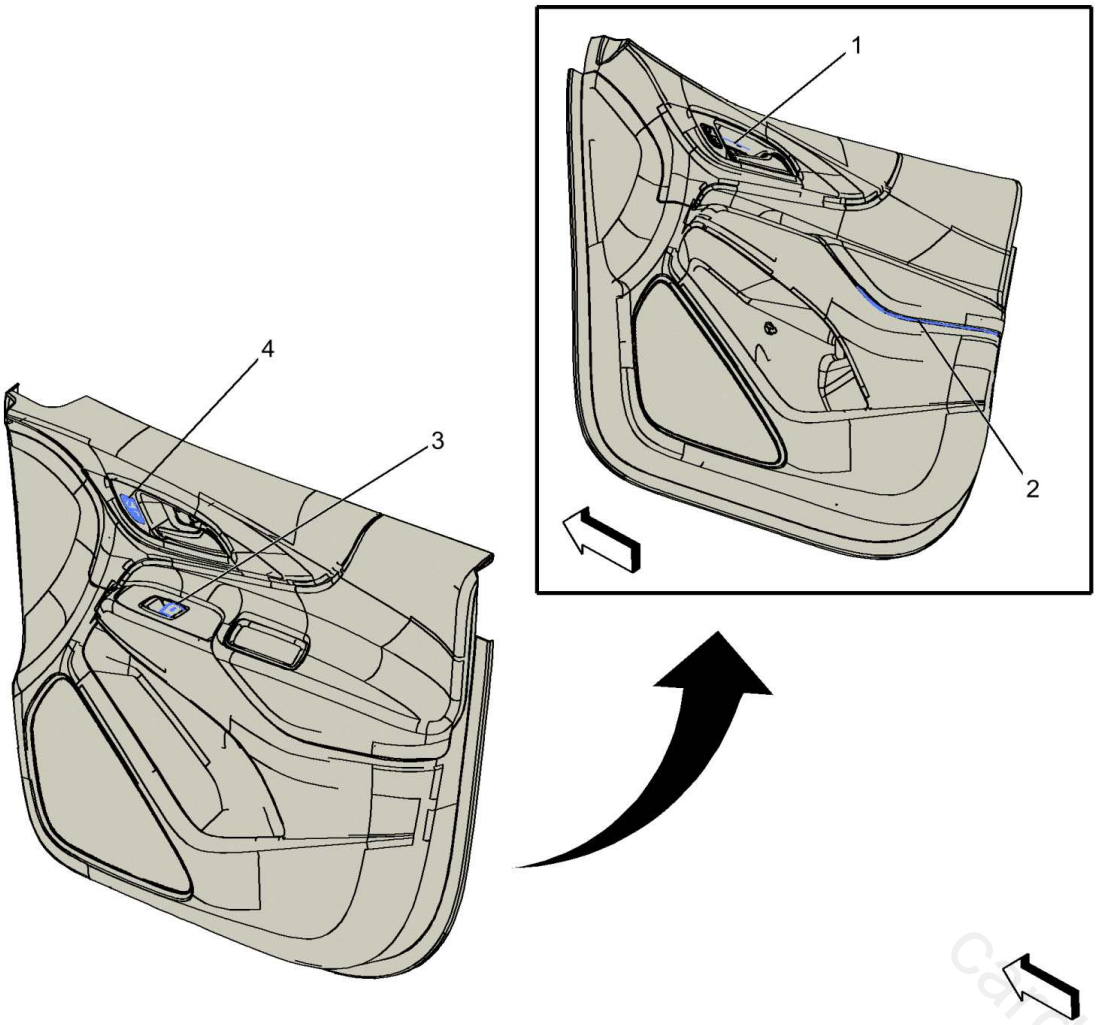



**Fig. 3: Passenger Door Trim Panel**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E1M Accent Lamp - Passenger Door Handle **E1M Accent Lamp - Passenger Door Handle** |
| 2. E1P Accent Lamp - Passenger Door (TSQ) **E1P Accent Lamp - Passenger Door (X88+TSQ)** **E1P Accent Lamp - Passenger Door (Z88+TSQ)** |
| 3. S79P Window Switch - Passenger **S79P Window Switch - Passenger** |
| 4. S13P Door Lock Switch - Passenger **S13P Door Lock Switch - Passenger** |

## PASSENGER DOOR

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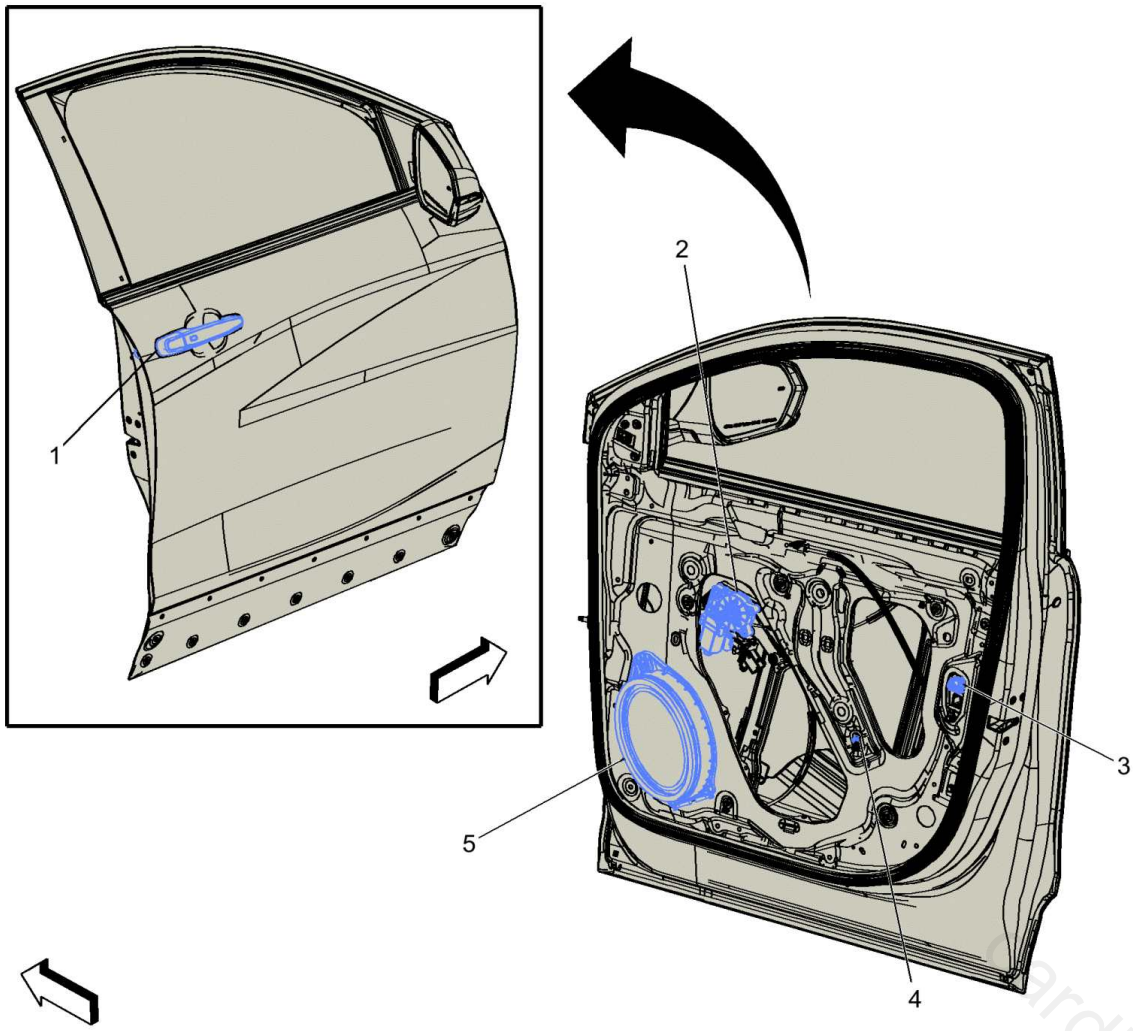



**Fig. 4: Passenger Door**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A24P Door Handle Assembly - Passenger Exterior **A24P Door Handle Assembly - Passenger Exterior** |
| 2. M74P Window Motor - Passenger **M74P Window Motor - Passenger** |
| 3. A23P Door Latch Assembly - Passenger **A23P Door Latch Assembly - Passenger** |
| 4. B63RF Side Impact Sensor - Right Front **B63RF Side Impact Sensor - Right Front** |
| 5. P19AH Speaker - Right Front Door **P19AH Speaker - Right Front Door (UQA)** **P19AH Speaker - Right Front Door (UZ6)** |

## LEFT REAR DOOR TRIM PANEL

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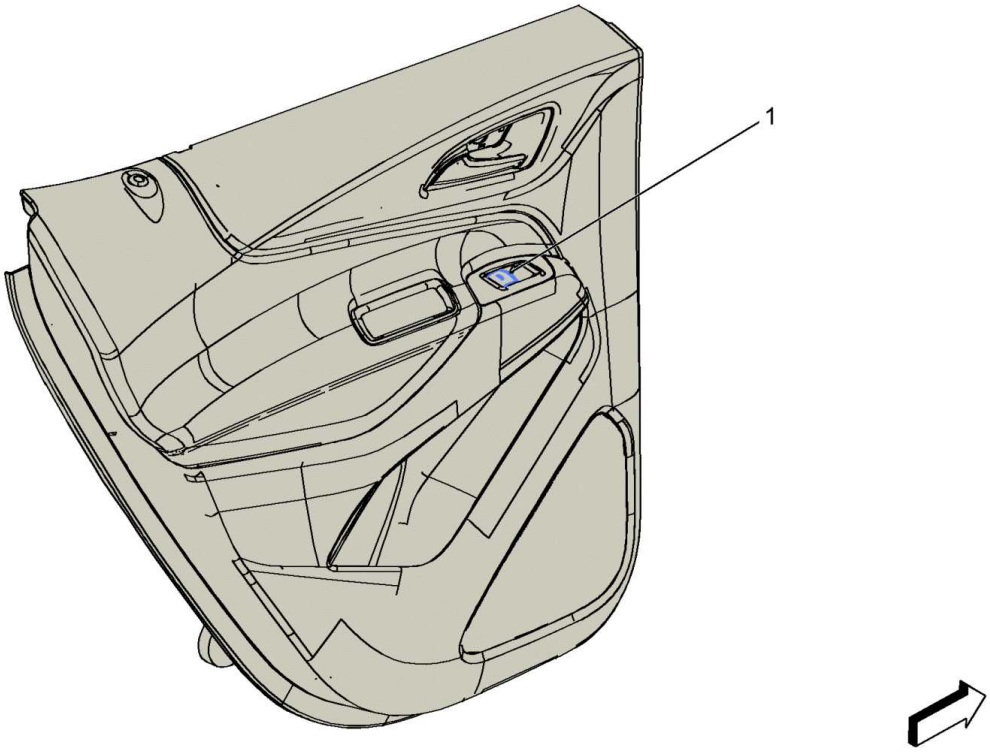



**Fig. 5: Left Rear Door Trim Panel**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S79LR Window Switch - Left Rear **S79LR Window Switch - Left Rear (X88)** **S79LR Window Switch - Left Rear (Z88)** |

**LEFT REAR DOOR**

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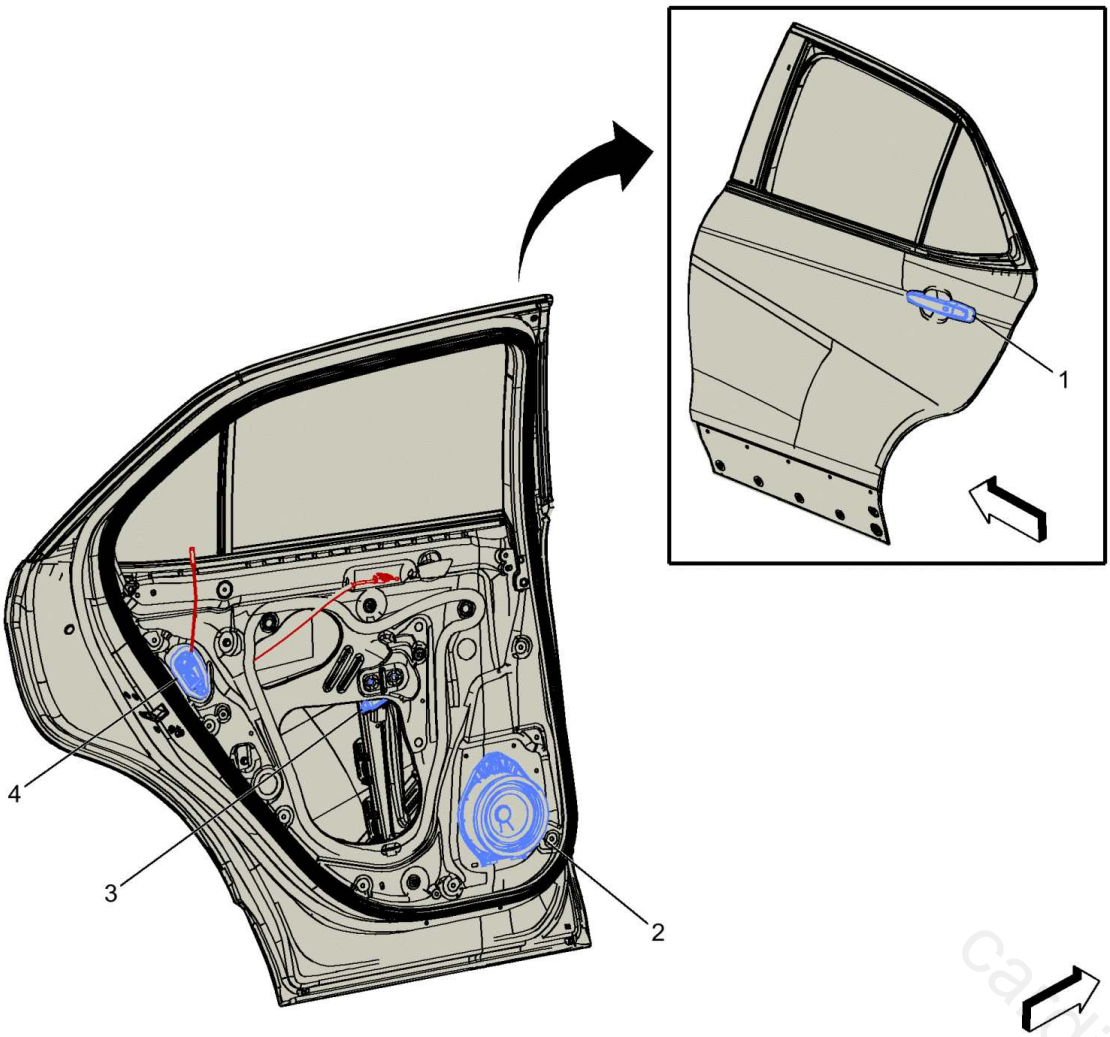



**Fig. 6: Left Rear Door**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A24LR Door Handle Assembly - Left Rear Exterior **A24LR Door Handle Assembly - Left Rear Exterior** |
| 2. P19AL Speaker - Left Rear Door **P19AL Speaker - Left Rear Door (UQA)** **P19AL Speaker - Left Rear Door (UZ6)** |
| 3. M74LR Window Motor - Left Rear **M74LR Window Motor - Left Rear** |
| 4. A23LR Door Latch Assembly - Left Rear **A23LR Door Latch Assembly - Left Rear** |

## RIGHT REAR DOOR TRIM PANEL

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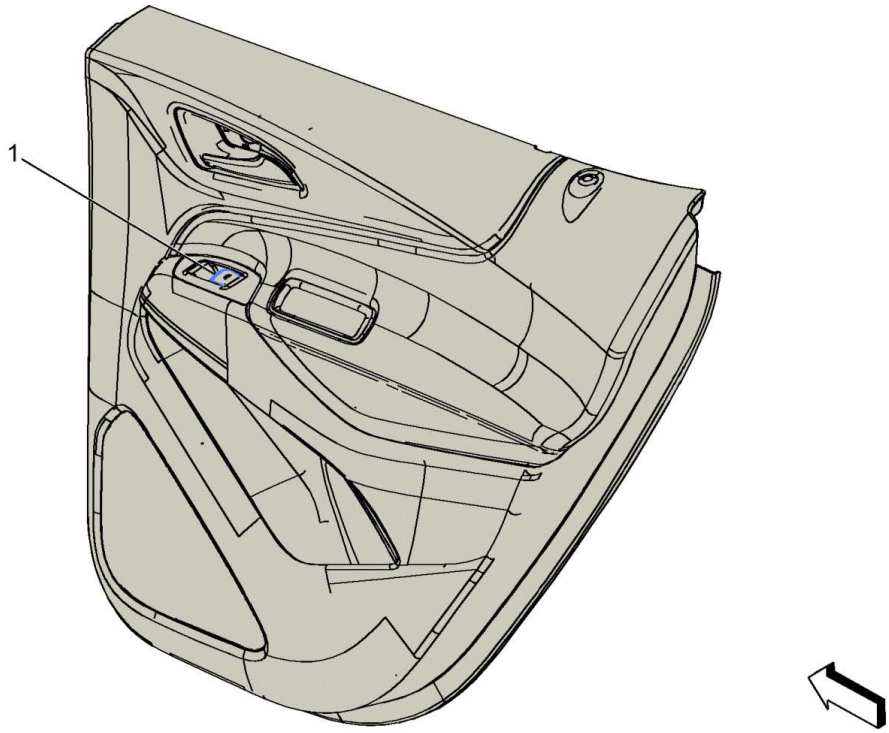



**Fig. 7: Right Rear Door Trim Panel**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S79RR Window Switch - Right Rear **S79RR Window Switch - Right Rear (X88)** **S79RR Window Switch - Right Rear (Z88)** |

## RIGHT REAR DOOR

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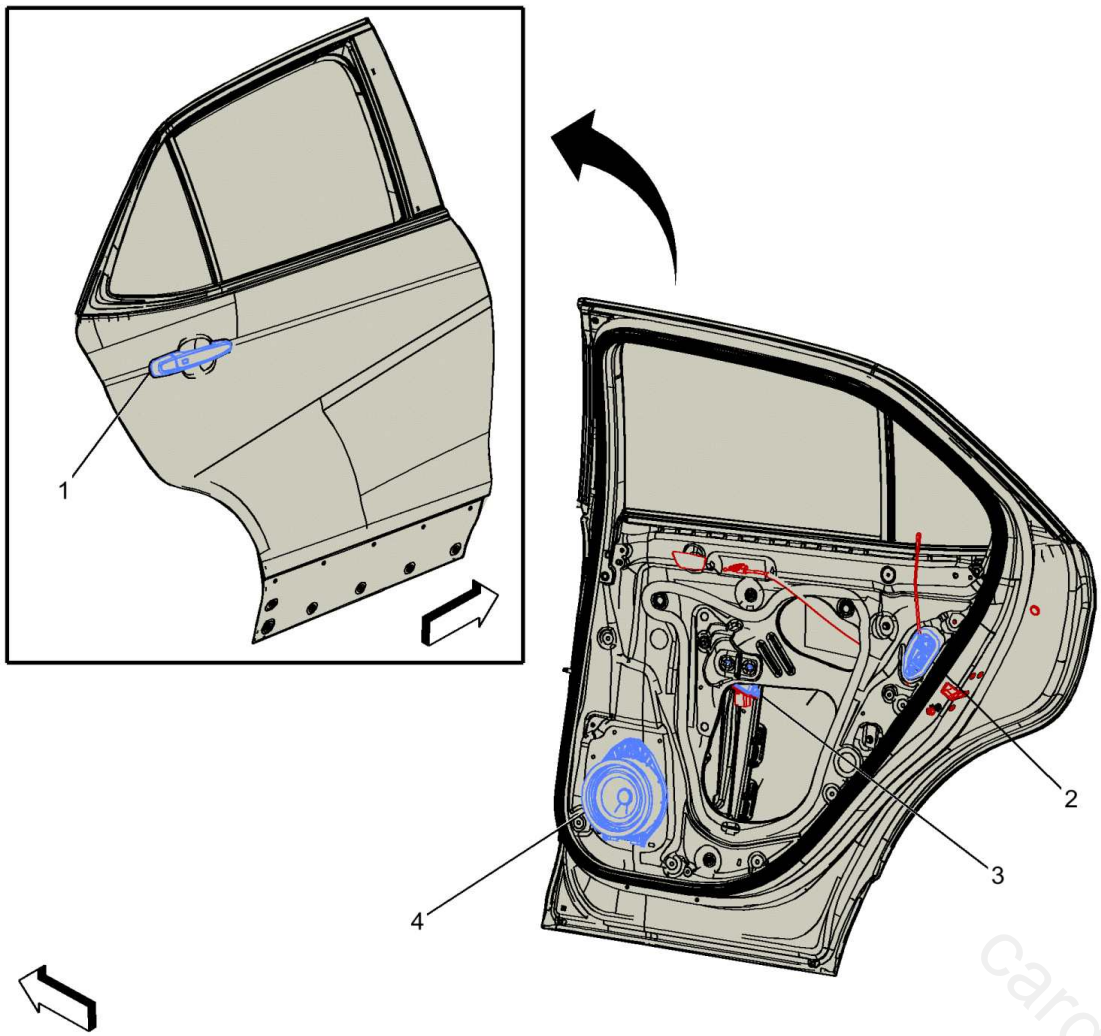



**Fig. 8: Right Rear Door**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A24RR Door Handle Assembly - Right Rear Exterior **A24RR Door Handle Assembly - Right Rear Exterior** |
| 2. A23RR Door Latch Assembly - Right Rear **A23RR Door Latch Assembly - Right Rear** |
| 3. M74RR Window Motor - Right Rear **M74RR Window Motor - Right Rear** |
| 4. P19AM Speaker - Right Rear Door **P19AM Speaker - Right Rear Door (UQA)** **P19AM Speaker - Right Rear Door (UZ6)** |

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# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Electrical Center Identification Views - Equinox & Terrain

# ELECTRICAL CENTER IDENTIFICATION VIEWS

## X50A FUSE BLOCK - UNDERHOOD LABEL (LH7/DIESEL)

| | | |
|---|---|---|
| F01 | START SOL | 30A |
| F02 | START SOL 2 | 40A |
| F03 | LAMBDA 1 | 15A |
| F04 | ECM | 25A |
| F05 | FLX FUEL | 10A |
| F06 | TCM | 20A |
| F07 | SPARE | |
| F08 | ECM | 10A |
| F09 | AC CLUTCH | 10A |
| F10 | CAN VENT | 10A |
| F11 | FUEL SYS | 20A |
| F12 | FSEAT HT2 | 15A |
| F13 | AFTB PMP | 7.5A |
| F14 | SPARE | |
| F15 | LAMBDA 2 | 15A |

| | | |
|---|---|---|
| F16 | ODD BANK | 7.5A |
| F17 | EVEN BANK | 15A |
| F18 | SCR MOD | 5A |
| F19 | NOX SOOT SEN | 10A |
| F20 | DC DC 2 | 40A |
| F21 | SHFT CTRL | 20A |
| F22 | ABS PUMP | 60A |
| F23 | WASHER FRONT | 15A |
| F24 | SPARE | |
| F25 | D FUEL HTR | 40A |
| F26 | SPARE | |
| F27 | ABS VAL | 30A |
| F28 | LD TRAILER | 30A |
| F29 | RR WDO DEFOG | 30A |
| F30 | MIRR DEF | 7.5A |

| | | |
|---|---|---|
| F31 | SPARE | |
| F32 | VARIABLE FUNCTIONS | 7.5A |
| F33 | SPARE | |
| F34 | HORN | 15A |
| F35 | VAC PMP | 20A |
| F36 | HIGH BEAM RH | 10A |
| F37 | HIGH BEAM LH | 10A |
| F38 | AHL AHL | 5A |
| F39 | FRT FOG | 15A |
| F40 | SPARE | |
| F41 | ESTAT TRCM | 10A |
| F42 | MHL | 10A |
| F43 | FUEL PMP | 20A |
| F44 | ISRVM | 10A |
| F45 | CDST VENT | 10A |
| F46 | DR SEAT VENT | 10A |
| F47 | NEC TERM | 20A |
| F48 | WIPER RR | 20A |
| F49 | SPARE | |
| F50 | HTD WHL | 10A |
| F51 | HDL R | 15A |
| F52 | ECM TCM | 7.5A |
| F53 | LIN WIPER 2 | 30A |
| F54 | FRT WIPER | 30A |
| F55 | WIPER | 30A |
| F56 | AUSTRAIL | 7.5A |
| F57 | HDL L | 15A |

| | |
|---|---|
| K01 | STARTER SOLENOID |
| K02 | A/C CONTROL |
| K03 | ECM |
| K04 | WIPER CNTRL |
| K05 | STARTER SOLENOID |
| K06 | FUEL HEATER |
| K07 | NOT USED |
| K08 | NOT USED |
| K09 | WIPER SPEED |
| K10 | NOT USED |
| K11 | NOT USED |
| K12 | HIGH BEAM |
| K13 | HEADLAMP/DRL |
| K14 | RUN/CRANK |
| K15 | RR WDO DEFOG |
| K16 | PCB RELAY - HORN |
| K17 | PCB RELAY - SCR |
| K18 | PCB RELAY - FOG LAMP |
| K19 | PCB RELAY - COOLANT PMP |
| K20 | NOT USED |
| K21 | PCB RELAY - WASHER RR |
| K22 | PCB RELAY - WASHER FRT |
| K23 | PCB RELAY - WIPER CONTROL |

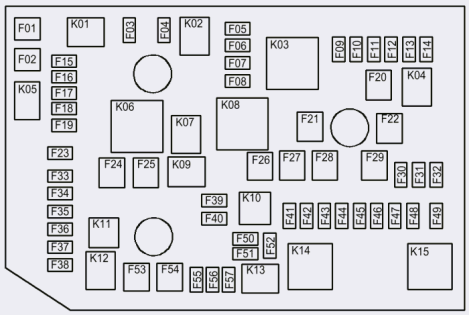


Fig. 1: X50A Fuse Block - Underhood Label (LH7/Diesel)
Courtesy of GENERAL MOTORS COMPANY

## X50A FUSE BLOCK - UNDERHOOD LABEL (LTG/LYX/GASOLINE)

| | | |
|---|---|---|
| F01 | START SOL | 30A |
| F02 | START SOL 2 | 40A |
| F03 | LAMBDA 1 | 15A |
| F04 | ECM | 25A |
| F05 | FLX FUEL | 10A |
| F06 | TCM | 20A |
| F07 | SPARE | |
| F08 | ECM | 10A |
| F09 | A/C CLUTCH | 10A |
| F10 | CAN VENT | 10A |
| F11 | FUEL SYS | 20A |
| F12 | FSEAT HT2 | 15A |
| F13 | AFTB PMP | 7.5A |
| F14 | SPARE | |
| F15 | LAMBDA 2 | 10A |

| | | |
|---|---|---|
| F16 | ODD BANK | 15A |
| F17 | EVEN BANK | 15A |
| F18 | SPARE | |
| F19 | SPARE | |
| F20 | DC DC 2 | 40A |
| F21 | SFT CTRL | 20A |
| F22 | ABS PUMP | 60A |
| F23 | WASHER FRONT | 15A |
| F24 | SPARE | |
| F25 | SPARE | |
| F26 | SPARE | |
| F27 | ABS VAL | 30A |
| F28 | LD TRAILER | 30A |
| F29 | RR WDO DEFOG | 30A |
| F30 | MIRR DEF | 7.5A |

| | | |
|---|---|---|
| F31 | SPARE | |
| F32 | VARIABLE FUNCTIONS | 7.5A |
| F33 | SPARE | |
| F34 | HORN | 15A |
| F35 | VAC PMP | 20A |
| F36 | HIGH BEAM RH | 10A |
| F37 | HIGH BEAM LH | 10A |
| F38 | AHL AHL | 5A |
| F39 | FRT FOG | 15A |
| F40 | SPARE | |
| F41 | ESTAT TRCM | 10A |
| F42 | MHL | 10A |
| F43 | FUEL PMP | 20A |
| F44 | ISRVM | 10A |
| F45 | CDST VENT | 10A |
| F46 | DR SEAT VENT | 10A |
| F47 | NEC TERM | 20A |
| F48 | WIPER RR | 20A |
| F49 | SPARE | |
| F50 | HTD WHL | 10A |
| F51 | HDL R | 15A |
| F52 | ECM TCM | 7.5A |
| F53 | LN WIPER 2 | 30A |
| F54 | FRT WIPER | 30A |
| F55 | WIPER | 30A |
| F56 | AUSTRAIL | 7.5A |
| F57 | HDL L | 15A |

| | |
|---|---|
| K01 | STARTER SOLENOID |
| K02 | A/C CLUTCH |
| K03 | ECM |
| K04 | WIPER CNTRL |
| K05 | STARTER SOLENOID |
| K06 | NOT USED |
| K07 | NOT USED |
| K08 | NOT USED |
| K09 | WIPER SPEED |
| K10 | NOT USED |
| K11 | NOT USED |
| K12 | HIGH BEAM |
| K13 | HEADLAMP/DRL |
| K14 | RUN/CRANK |
| K15 | RR WDO DEFOG |
| K16 | PCB RELAY - HORN |
| K17 | PCB RELAY - SCR |
| K18 | PCB RELAY - FOG LAMP |
| K19 | PCB RELAY - COOLANT PMP |
| K20 | NOT USED |
| K21 | PCB RELAY - WASHER RR |
| K22 | PCB RELAY - WASHER FRT |
| K23 | PCB RELAY - WIPER CONTROL |

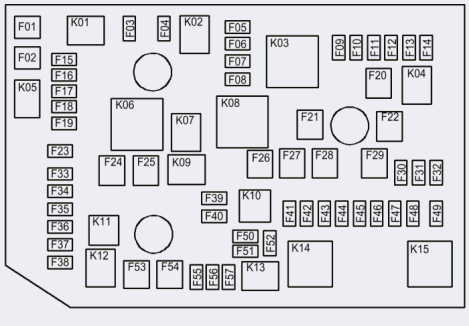


Fig. 2: X50A Fuse Block - Underhood Label (LTG/LYX/Gasoline)
Courtesy of GENERAL MOTORS COMPANY

## X50A FUSE BLOCK - UNDERHOOD TOP VIEW

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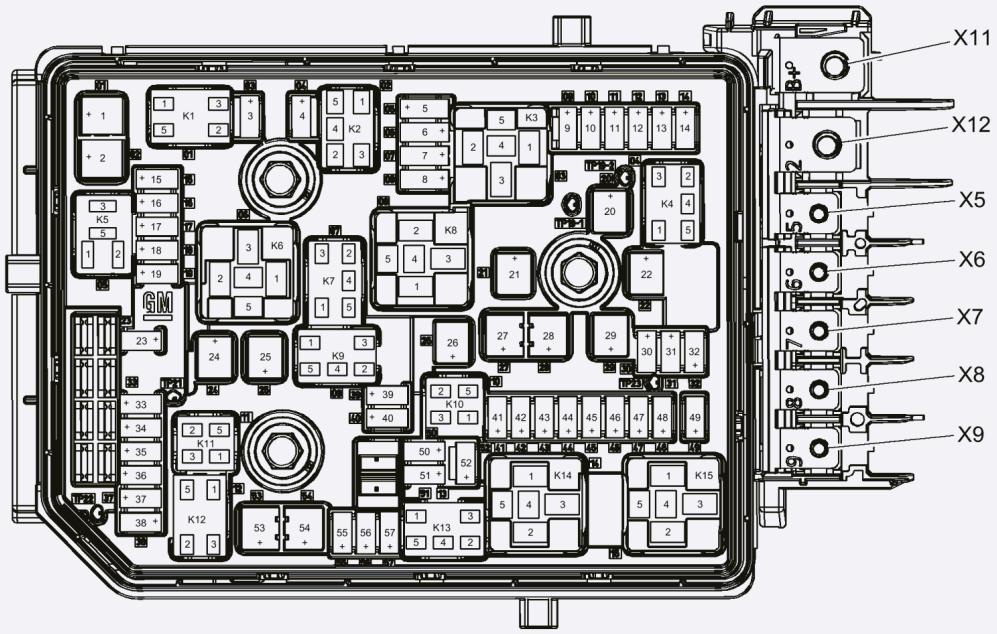



**Fig. 3: X50A Fuse Block - Underhood Top View**
**Courtesy of GENERAL MOTORS COMPANY**

**X50A Fuse Block - Underhood Usage**

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | STARTER 1 | F1UA Fuse | 30A | • KR27 Starter Relay |
| 2 | STARTER 2 | F2UA Fuse | 40A | • KR27C Starter Pinion Solenoid Actuator Relay (KL9) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 3 | NON/WALK | F3UA Fuse | 15A | • B52A Heated Oxygen Sensor 1 (LTG)<br>• B52A Heated Oxygen Sensor 1 (LYX)<br>• B280 Automatic Transmission Accumulator Solenoid Valve (LH7)<br>• E45 Positive Crankcase Ventilation Heater (LH7)<br>• K173 Transmission Range Control Module (EPH)<br>• KR27 Starter Relay<br>• M98 Intake Manifold Runner Valve Actuator (LH7)<br>• Q12 Evaporative Emission Purge Solenoid Valve (LTG)<br>• Q12 Evaporative Emission Purge Solenoid Valve (LYX)<br>• Q40 Turbocharger Bypass Solenoid Valve (LTG)<br>• Q40 Turbocharger Bypass Solenoid Valve (LYX)<br>• Q42 Turbocharger Wastegate Solenoid Valve (LTG)<br>• Q42 Turbocharger Wastegate Solenoid Valve (LYX)<br>• Q44 Engine Oil Pressure Control Solenoid Valve (LH7)<br>• Q44 Engine Oil Pressure Control Solenoid Valve (LTG)<br>• Q44 Engine Oil Pressure Control Solenoid Valve (LYX)<br>• Q45 Piston Cooling Oil Jet Solenoid Valve (LH7)<br>• Q84C Camshaft Position Actuator Park Lock Solenoid Valve - Intake (LYX) |
| 4 | ECM | F4UA Fuse | 25A | • K20 Engine Control Module |
| 5 | FLEX/FUEL | F5UA Fuse | 10A | • KR31 Coolant Pump Relay - Auxiliary<br>• M96 Active Grille Air Shutter Actuator (VTI) |
| 6 | TCM | F6UA Fuse | 20A | • Q8 Control Solenoid Valve Assembly (MHG/MNH/MNK) |
| 7 | EMPTY | F7UA Fuse | - | • Not Used |
| 8 | ECM | F8UA Fuse | 10A | • K20 Engine Control Module |
| 9 | AC | F9UA Fuse | 10A | • KR29 A/C Compressor Clutch Relay |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 10 | CNSTR/VENT/SOL | F10UA Fuse | 10A | • K115 Reductant Control Module (LH7)<br>• KR121B Reductant Control Module Relay 2 (LH7)<br>• Q13 Evaporative Emission Vent Solenoid Valve (LTG/LYX) |
| 11 | FUEL/PUMP | F11UA Fuse | 20A | • K111 Fuel Pump Driver Control Module |
| 12 | HTD/SEAT | F12UA Fuse | 15A | • K29F Seat Heating Control Module - Front (KA1) |
| 13 | ENG/COOL/PUMP | F13UA Fuse | 7.5A | • KR31 Coolant Pump Relay - Auxiliary |
| 14 | EMPTY | F14UA Fuse | - | • Not Used |
| 15 | 02 SNSR | F15UA Fuse | 10A | • B52B Heated Oxygen Sensor 2 (LTG/LYX)<br>• B75C Multifunction Intake Air Sensor (LTG/LYX)<br>• B280 Automatic Transmission Accumulator Solenoid Valve (LTG/LYX)<br>• K20 Engine Control Module (LTG/LYX) |
| 16 | IGN/COIL/ODD | F16UA Fuse | 15A | • K20 Engine Control Module (LTG/LYX)<br>• T8A Ignition Coil 1 (LTG/LYX)<br>• T8B Ignition Coil 2 (LTG/LYX)<br>• T8C Ignition Coil 3 (LTG/LYX)<br>• T8D Ignition Coil 4 (LTG/LYX) |
| 17 | IGN/COIL/EVEN | F17UA Fuse | 15A | • K20 Engine Control Module |
| 18 | SCR_MOD | F18UA Fuse | 5A | • K115 Reductant Control Module (LH7) |
| 19 | NOX_SOOT | F19UA Fuse | 10A | • A97 Transmission Range Selector Controls (EPH)<br>• B136 Exhaust Particulate Matter Sensor (LH7)<br>• B195A Nitrogen Oxides Sensor 1 (LH7)<br>• B195B Nitrogen Oxides Sensor 2 (LH7)<br>• K111 Fuel Pump Driver Control Module (LH7) |
| 20 | DC DC TRANS | F20UA Fuse | 40A | • T19 Power Supply Transformer (KL9) |
| 21 | SHFT_CTL | F21UA | 20A | • K173 Transmission Range Control Module (EPH) |
| 22 | ABS | F22UA Fuse | 60A | • K17 Electronic Brake Control Module |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 23 | WASH/PUMP | F23UA Fuse | 15A | • KR6 Rear Window Washer Pump Relay<br>• KR11 Windshield Washer Pump Relay |
| 24 | EMPTY | F24UA Fuse | - | • Not Used |
| 25 | Fuel Heater | F25UA Fuse | 40A | • KR22 Fuel Heater Relay (LH7) |
| 26 | EMPTY | F26UA Fuse | - | • Not Used |
| 27 | ABS | F27UA Fuse | 30A | • K17 Electronic Brake Control Module |
| 28 | LD_TRAILR | F28UA Fuse | 30A | • F14RA<br>• F18RA |
| 29 | RR/WDO/DEFOG | F29UA Fuse | 30A | • E18 Rear Defogger Grid |
| 30 | MIR/DEFOG | F30UA Fuse | 7.5A | • A9A Outside Rearview Mirror Glass - Driver<br>• A9B Outside Rearview Mirror Glass - Passenger |
| 31 | EMPTY | F31UA Fuse | - | • Not Used |
| 32 | VAR/FUNC | F32UA Fuse | 7.5A | • A97 Transmission Range Selector Controls (EPH)<br>• E40 Electrical Auxiliary Heater (C32)<br>• K33 HVAC Control Module<br>• K111 Fuel Pump Driver Control Module<br>• P16 Instrument Cluster<br>• P43 Collision Alert Indicators (UEU)<br>• T19 Power Supply Transformer (KL9) |
| 33 | EMPTY | F33UA Fuse | - | • Not Used |
| 34 | HORN | F34UA Fuse | 15A | • P13 Horn Assembly |
| 35 | EMPTY | F35UA Fuse | - | • Not Used |
| 36 | HI/BEAM/RT | F36UA Fuse | 10A | • E13RA Headlamp Assembly - Right<br>• M28R High Beam Solenoid Actuator - Right (T4A/T4F/T4L+X88) |
| 37 | HI/BEAM/LT | F37UA Fuse | 10A | • E13LA Headlamp Assembly - Left<br>• M28L High Beam Solenoid Actuator - Left (T4A/T4F/T4L+X88) |
| 38 | AHL | F38UA Fuse | 5A | • K26 Headlamp Control Module (TR7) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 39 | FOG/LMP/FRT | F39UA Fuse | 15A | • E29LF Fog Lamp - Left Front (T3U)<br>• E29RF Fog Lamp - Right Front (T3U) |
| 40 | EMPTY | F40UA Fuse | - | • Not Used |
| 41 | TRCM | F41UA Fuse | 10A | • K173 Transmission Range Control Module (EPH) |
| 42 | HDLP/POS | F42UA Fuse | 10A | • E13LA Headlamp Assembly - Left<br>• E13RA Headlamp Assembly - Right<br>• M29L Headlamp Leveling Actuator - Left (TR6/TR7)<br>• M29R Headlamp Leveling Actuator - Right (TR6/TR7)<br>• S30 Headlamp Switch (TR6) |
| 43 | EMPTY | F43UA Fuse | - | • Not Used |
| 44 | ISRVM | F44UA Fuse | 10A | • A10 Inside Rearview Mirror<br>• B87 Rearview Camera (Without UVC) |
| 45 | CDST_VENT | F45UA Fuse | 10A | • M73B Seat Blower Motor - Passenger Back (KU3)<br>• M73D Seat Blower Motor - Passenger Cushion (KU3) |
| 46 | DR/SEAT/VENT | F46UA Fuse | 10A | • M73A Seat Blower Motor - Driver Back (KU1)<br>• M73C Seat Blower Motor - Driver Cushion (KU1) |
| 47 | NEC_TERM | F47UA Fuse | 20A | • Not Used |
| 48 | RR/WPR | F48UA Fuse | 20A | • KR7 Rear Wiper Relay |
| 49 | EMPTY | F49UA Fuse | - | • Not Used |
| 50 | HTD_WHL | F50UA Fuse | 10A | • K32 Steering Wheel Heating Control Module (UVD)<br>• X85 Steering Wheel Air Bag Coil |
| 51 | DRL_LH | F51UA Fuse | 15A | • E13RA Headlamp Assembly - Right |
| 52 | ECM/TCM Fuse | F52UA Fuse | 7.5A | • K20 Engine Control Module<br>• K71 Transmission Control Module (M3D/M3H/M3U)<br>• Q8 Control Solenoid Valve Assembly (MHG/MNH/MNK) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 53 | EMPTY | F53UA Fuse | - | • Not Used |
| 54 | EMPTY | F54UA Fuse | - | • Not Used |
| 55 | FRT/WPR | F55UA Fuse | 30A | • KR12B Windshield Wiper Relay<br>• KR12C Windshield Wiper Speed Control Relay |
| 56 | EMPTY | F56UA Fuse | - | • Not Used |
| 57 | DRL/LT | F57UA Fuse | 15A | • E13LA Headlamp Assembly - Left |
| **Relays** | | | | |
| K1 | START/STOP | KR27 Starter Relay | - | • M64 Starter Motor |
| K2 | A/C CLUTCH | KR29 A/C Compressor Clutch Relay | - | • Q2 A/C Compressor Clutch |
| K3 | ECM | KR75 Engine Controls Ignition Relay | - | • F3UA<br>• F4UA<br>• F5UA<br>• F15UA<br>• F16UA<br>• F17UA<br>• KR22 Fuel Heater Relay (LH7)<br>• KR29 A/C Compressor Clutch Relay |
| K4 | WPR | KR12B Windshield Wiper Relay | - | • KR12C Windshield Wiper Speed Control Relay |
| K5 | START/SOL | KR27C Starter Pinion Solenoid Actuator Relay | - | • M64 Starter Motor |
| K6 | Fuel Heater | KR22 Fuel Heater Relay | - | • E11 Fuel Heater (LH7) |
| K7 | EMPTY | - | - | • Not Used |
| K8 | EMPTY | - | - | • Not Used |
| K9 | WPR/SPD | KR12C Windshield Wiper Speed Control Relay | - | • M75 Windshield Wiper Motor |
| K10 | EMPTY | - | - | • Not Used |
| K11 | EMPTY | - | - | • Not Used |
| K12 | HI/BEAM | KR48 Headlamp High Beam Relay | - | • F36UA<br>• F37UA |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| K13 | DRL | KR50 Headlamp Relay | - | • F51UA<br>• F57UA |
| K14 | RUN/CRANK | KR73 Ignition Main Relay | - | • F32UA<br>• F41UA<br>• F42UA<br>• F44UA<br>• F45UA<br>• F46UA<br>• F47UA<br>• F50UA<br>• F52UA<br>• F56UA |
| K15 | RR/WDO/MIR/DEFOG | KR5 Rear Defogger Relay | - | • F29UA<br>• F30UA |
| **NOTE:**<br>**Relays listed below are Printed Circuit Board (PCB) relays and are only serviceable by Printed Circuit Board (PCB) Assembly (if available) or Fuse Block Assembly. PCB Relays are not serviceable individually.** | | | | |
| K16 | HORN (PCB) | KR3 Horn Relay | - | • F34UA |
| K17 | SCR (PCB) | KR121B Reductant Control Module Relay 2 | - | • F18UA<br>• F19UA |
| K18 | FOG/LMP/FRT (PCB) | KR46 Front Fog Lamp Relay | - | • F39UA Fuse |
| K19 | COOL/PMP (PCB) | KR31 Coolant Pump Relay - Auxiliary | - | • G36 Auxiliary Heater Coolant Pump |
| K20 | EMPTY (PCB) | - | - | • Not Used |
| K21 | WASH/PUMP/RR (PCB) | KR6 Rear Window Washer Pump Relay | - | • G19 Rear Window Washer Pump |
| K22 | WASH/PUMP/FT (PCB) | KR11 Windshield Washer Pump Relay | - | • G24 Windshield Washer Pump |
| K23 | WPR/RR (PCB) | KR7 Rear Wiper Relay | - | • M45 Rear Wiper Motor |
| **Important: Items listed below are Wiper and Washer system diagnostic test points.** | | | | |
| TP21 | - | TP21 | - | • KR6 Rear Window Washer Pump Relay |
| TP22 | - | TP22 | - | • KR11 Windshield Washer Pump Relay |
| TP23 | - | TP23 | - | • KR7 Rear Wiper Relay |
| **Important: Items listed below are HVAC system diagnostic test points.** | | | | |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| TP19-1 | - | TP19-1 | - | • KR31 Coolant Pump Relay - Auxiliary |
| TP19-2 | - | TP19-2 | - | • KR31 Coolant Pump Relay - Auxiliary |

## X50A FUSE BLOCK - UNDERHOOD BOTTOM VIEW

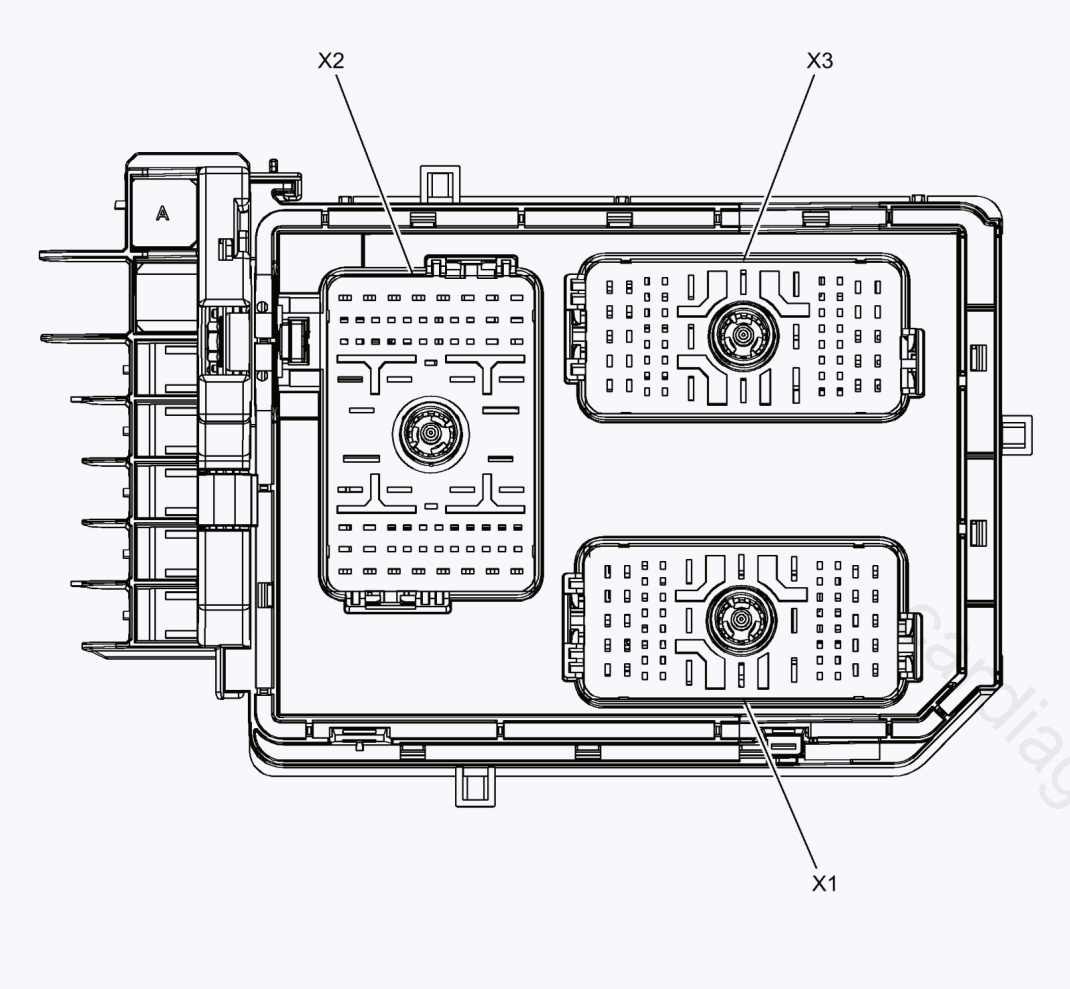



**Fig. 4: X50A Fuse Block - Underhood Bottom View**
**Courtesy of GENERAL MOTORS COMPANY**

## X50A FUSE BLOCK - UNDERHOOD SIDE VIEW

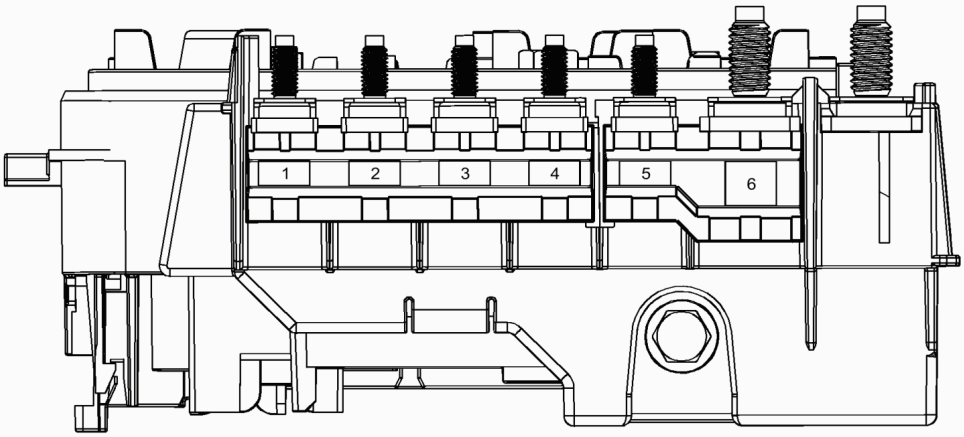


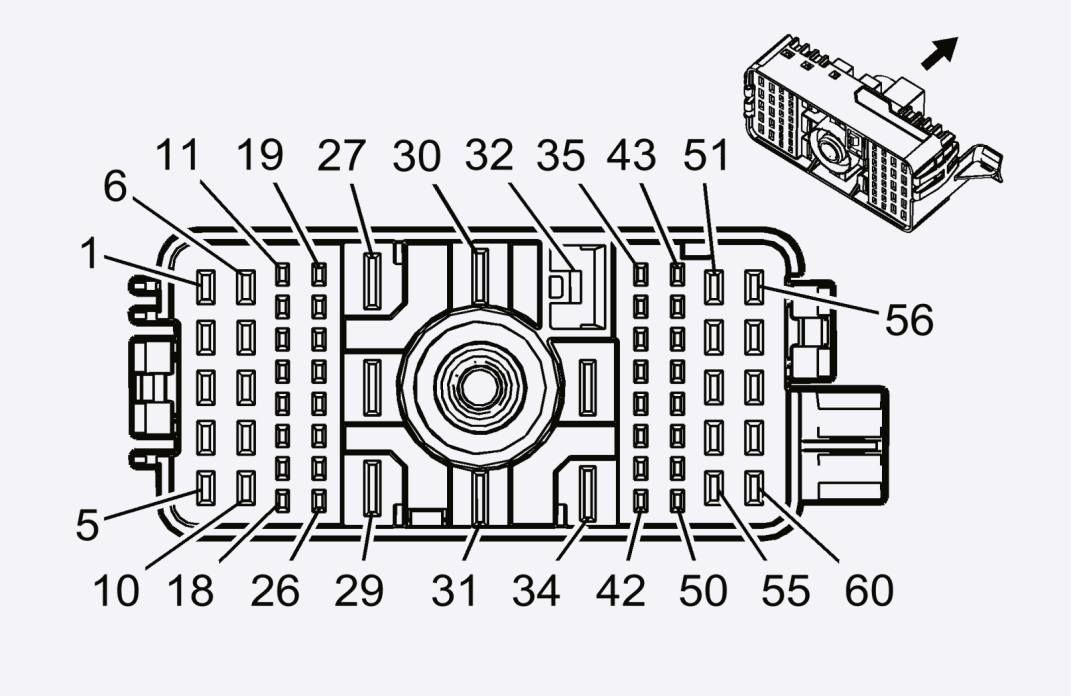

**Fig. 5: X50A Fuse Block - Underhood Side View**
**Courtesy of GENERAL MOTORS COMPANY**

**X50A Fuse Block - Underhood**

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | - | F1UB | 80A | • X53A Fuse Block - Rear Body |
| 2 | - | F2UB | 80A | • X53A Fuse Block - Rear Body |
| 3 | - | F3UB | 80A | • K43 Power Steering Control Module |
| 4 | - | F4UB | 80A | • G10 Cooling Fan Motor |
| 5 | - | F5UB | 80A | • K20 Engine Control Module (LH7) |
| 6 | - | F6UB | - | • Not Used |

## X50A FUSE BLOCK - UNDERHOOD X1

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13405620
- Service Connector: 19332381
- Description: 60-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579915 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | A | B |
| II | 13579915 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | C | A |
| III | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IV | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 19333302 | J-35616-42 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

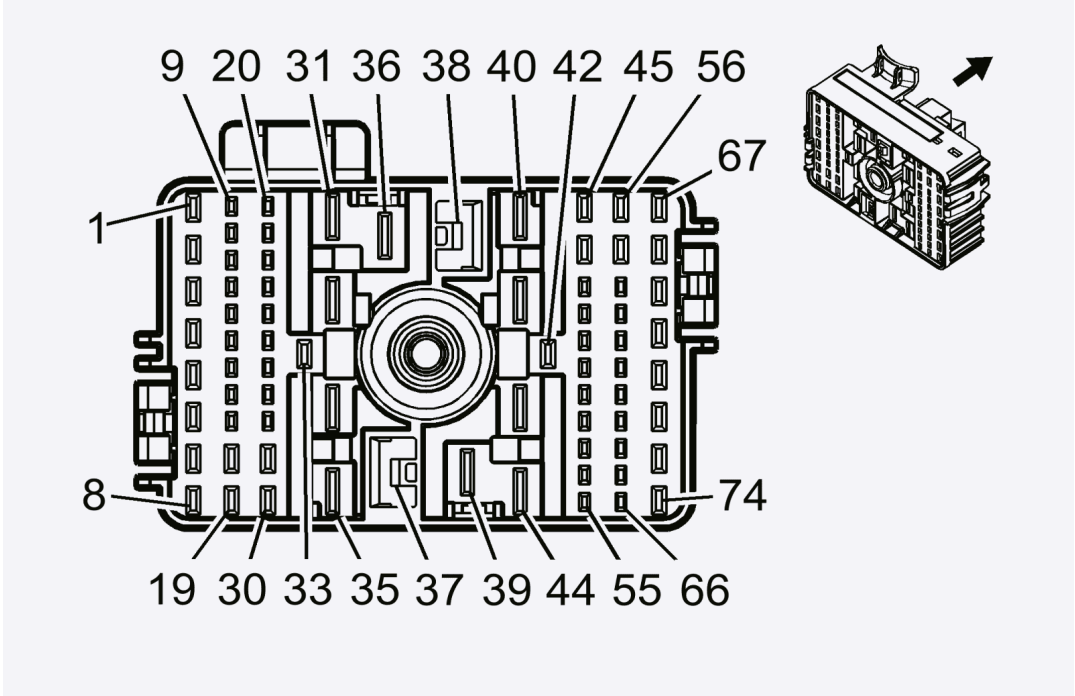
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | - | - | Not Occupied | - | - |
| 2 | 0.35<br>0.5 | YE/GY<br>YE/GY | 2226<br>2226 | Right Headlamp Control<br>Right Headlamp Control | V<br>IV | Z88+T4F<br>Z88+T4L+MAH/MBC/MCX/MAM |
| 3 | 0.5 | VT/BK | 739 | Run/Crank Ignition 1 Voltage | IV | UVD |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | BN/VT | 2234 | Front Fog Lamp Control | IV | - |
| 6 | 0.35<br>0.5 | YE<br>YE | 2227<br>2227 | Left Headlamp Control<br>Left Headlamp Control | V<br>IV | Z88+T4F<br>Z88+T4L+MAH/MBC/MCX/MAM |
| 7 | 0.35 | BN/YE | 189 | Headlamp Leveling Motor Control | V | TR7 |
| 8 | 0.35 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | V | - |
| 9 - 10 | - | - | - | Not Occupied | - | - |
| 11 | 0.35 | BN/YE | 189 | Headlamp Leveling Motor Control | III | - |
| 12 - 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | III | - |
| 15 - 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | RD/VT | 1242 | Battery Positive Voltage | III | T4L+TR7 |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 21 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | III | - |
| 22 - 23 | - | - | - | Not Occupied | - | - |
| 24 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | III | - |
| 25 - 26 | - | - | - | Not Occupied | - | - |
| 27 | 2 | RD/GY | 3540 | Battery Positive Voltage | I | - |
| 28 | 2 | RD/GY | 3540 | Battery Positive Voltage | I | - |
| 29 - 30 | - | - | - | Not Occupied | - | - |
| 31 | 1.5 | YE/BN | 95 | Windshield Wiper Motor Low Speed Control | II | - |
| 32 - 33 | - | - | - | Not Occupied | - | - |
| 34 | 1.5 | WH | 92 | Windshield Wiper Motor High Speed Control | II | - |
| 35 - 36 | - | - | - | Not Occupied | - | - |
| 37 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | III | - |
| 38 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | III | - |
| 39 | 0.35 | YE/BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | III | LH7 |
| 40 | 0.35 | GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | III | LH7 |
| 41 | 0.35 | BK | 1150 | Ground | III | - |
| 42 | 0.35<br>0.35 | BN<br>WH/YE | 3681<br>3202 | Charge Air Cooler Outlet Temperature Sensor Signal<br>Throttle Inlet Absolute Pressure Sensor Low Reference | III<br>III | LH7<br>LYX |
| 43 - 44 | - | - | - | Not Occupied | - | - |
| 45 | 0.35 | BK/GN | 580 | Engine Control Sensors Low Reference (2) | III | - |
| 46 - 48 | - | - | - | Not Occupied | - | - |
| 49 | 0.35 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | III | LYX |
| 50 | 0.35<br>0.35 | YE/BK<br>YE/WH | 3682<br>3200 | Charge Air Cooler Inlet Temperature Sensor Low Reference<br>Throttle Inlet Absolute Pressure Sensor Signal | III<br>III | LH7<br>LYX |
| 51 | - | - | - | Not Occupied | - | - |
| 52 | 0.5 | GY/VT | 228 | Windshield Washer Pump Control | IV | - |
| 53 | 2.5 | BK | 1150 | Ground | IV | - |
| 54 | 1.5 | BK | 1450 | Ground | IV | - |
| 55 | 0.5 | BU/VT | 392 | Rear Window Washer Pump Control | IV | - |
| 56 | 0.35 | WH | 711 | Left Headlamp High Beam Control | V | - |
| 57 | 0.35 | WH | 311 | Right Headlamp High Beam Control | V | - |
| 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.75 | BN/GY | 29 | Horn Control | IV | - |
| 60 | - | - | - | Not Occupied | - | - |

## X50A FUSE BLOCK - UNDERHOOD X2



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Connector Part Information

- Harness Type: Body
- OEM Connector: 13405621
- Service Connector: 19332382
- Description: 74-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)

**Terminal Part Information**

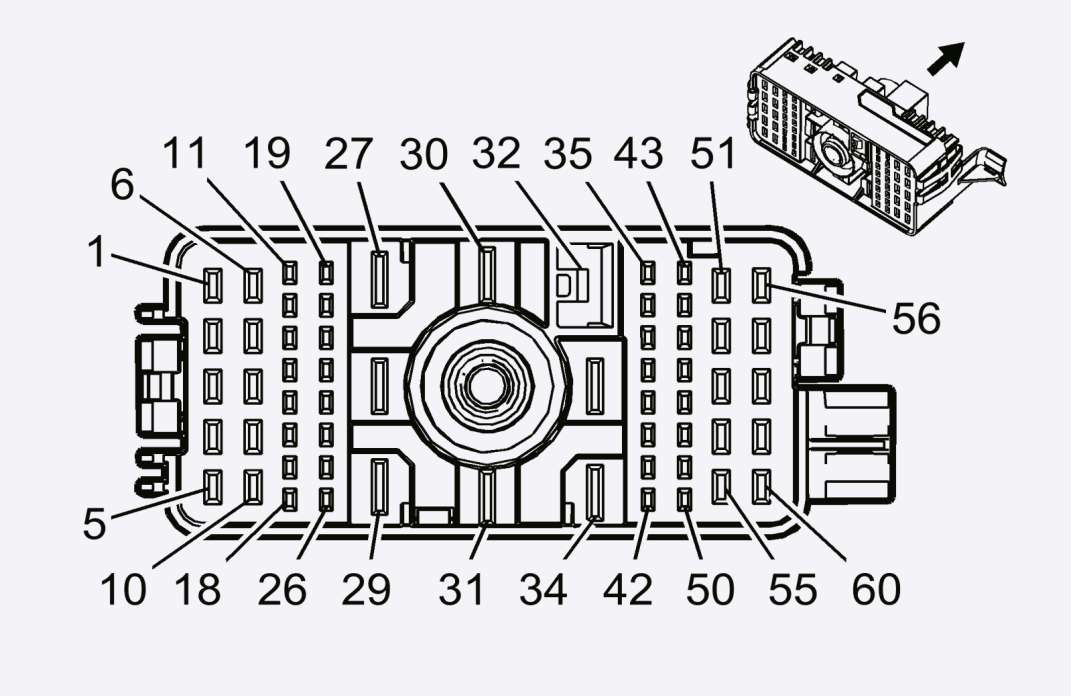
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13579915 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | A | B |
| II | 13579915 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | C | A |
| III | 13579921 | J-35616-40 (BU) | J-38125-556 | 1241406-1 | Lear 17 | F | 1 |
| IV | 13582297 | J-35616-64B (LT BU) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| V | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VII | 19333302 | J-35616-42 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VIII | 19369711 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/WH | 239 | Run/Crank Ignition 1 Voltage | VII | MHG+EPH |
| 2 | 0.35 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | VII | TR6 |
| 3 | - | - | - | Not Occupied | - | - |
| 4 | 0.35 | VT/GY | 139 | Run/Crank Ignition 1 Voltage | VII | - |
| 5 | 0.35 | VT/GY | 1039 | Run/Crank Ignition 1 Voltage | VII | KU3 |
| 6 | 0.35 | VT/BK | 339 | Run/Crank Ignition 1 Voltage | VII | KU1 |
| 7 | - | - | - | Not Occupied | - | - |
| 8 | 1 | RD/BN | 1742 | Battery Positive Voltage | VI | - |
| 9 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | V | KL9 |
| 10 | 0.35 | WH/BN | 544 | DRL Relay Control | V | - |
| 11 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | V | KL9 |
| 12 - 13 | - | - | - | Not Occupied | - | - |
| 14 | 0.35 | BN/YE | 2267 | Mirror Heating Element Control | V | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 15 | 0.35 | GN/VT | 5199 | Run/Crank Relay Coil Control | V | - |
| 16 | 0.35 | YE | 5420 | Rear Wiper Motor Relay Coil Control | V | - |
| 17 - 18 | - | - | - | Not Occupied | - | - |
| 19 | 1 | BU | 393 | Rear Window Wiper Motor Control | VI | - |
| 20 | 0.35 | BN/WH | 1317 | Fog Lamp Relay Control | V | T3U |
| 21 | 0.35 | BN/VT | 1969 | Headlamp High Beam Relay Control | V | - |
| 22 | 1.5 | RD/GY | 3540 | Battery Positive Voltage | VIII | - |
| 23 | 0.35 | WH/VT | 860 | Front Windshield Wiper Switch High Signal | V | - |
| 24 | 0.35 | VT/GN | 39 | Run/Crank Ignition 1 Voltage | V | - |
| 25 | 0.35 | BN/GY | 2268 | Windshield Washer Relay Control | V | - |
| 26 | 0.35 | BN/VT | 193 | Rear Defog Relay Control | V | - |
| 27 - 30 | - | - | - | Not Occupied | - | - |
| 31 | 2.5 | RD/WH | 342 | Battery Positive Voltage | I | - |
| 32 | 3 | RD/GY | 642 | Battery Positive Voltage | IV | MAH/MBC/MCX-V92 |
| 33 | - | - | - | Not Occupied | - | - |
| 34 | 2 | BN/VT | 293 | Rear Defog Element Control | I | - |
| 35 | - | - | - | Not Occupied | - | - |
| 36 | 1.5 | RD/GY | 2140 | Battery Positive Voltage | II | EPH+MHG |
| 37 - 39 | - | - | - | Not Occupied | - | - |
| 40 | 2.5 | BU/GN | 7071 | Heater Fuel Control | I | LH7 |
| 41 | 2 | GN | 6271 | Crankshaft 60X Sensor Signal | I | - |
| 42 | - | - | - | Not Occupied | - | - |
| 43 | 4 | RD/BU | 1542 | Battery Positive Voltage | III | KL9 |
| 44 | 2 | GN | 6271 | Crankshaft 60X Sensor Signal | I | - |
| 45 - 46 | - | - | - | Not Occupied | - | - |
| 47 | 0.35<br>0.35 | BK/YE<br>BK/GN | 6032<br>580 | Brake Vacuum Sensor Low Reference<br>Engine Control Sensors Low Reference (2) | V<br>V | KL9+LH7<br>KL9+LYX/LTG |
| 48 - 50 | - | - | - | Not Occupied | - | - |
| 51 | 0.35 | BN/WH | 28 | Horn Relay Control | V | - |
| 52 | 0.35 | GN/WH | 2270 | Rear Window Washer Relay Control | V | - |
| 53 - 55 | - | - | - | Not Occupied | - | - |
| 56 | 0.35<br>0.75 | VT/BU<br>VT/BU | 3674<br>3674 | NOx Sensor 1 Control<br>NOx Sensor 1 Control | VI<br>VI | X88<br>Z88 |
| 57 - 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.35 | VT/GN | 4320 | Selective Catalytic Reduction Power Module Wake-Up Signal | V | - |
| 60 | - | - | - | Not Occupied | - | - |
| 61 | 0.35 | RD/VT | 542 | Battery Positive Voltage | V | - |
| 62 - 63 | - | - | - | Not Occupied | - | - |
| 64 | 0.35 | GY | 91 | Windshield Wiper Motor Relay Coil Control | V | - |
| 65 | 0.35 | BK | 1550 | Ground | V | - |
| 66 | 0.35 | VT/BU | 5705 | Powertrain Main Relay Fused Control 6 | V | - |
| 67 | 0.35 | VT/BU | 5705 | Powertrain Main Relay Fused Control 6 | VII | - |
| 68 - 70 | - | - | - | Not Occupied | - | - |
| 71 | 0.35 | RD/VT | 542 | Battery Positive Voltage | VII | - |
| 72 | 2.5 | RD/BU | 3240 | Battery Positive Voltage | VI | - |
| 73 | 0.5 | RD/WH | 4740 | Battery Positive Voltage | VI | KA1/KU1/KU3 |
| 74 | - | - | - | Not Occupied | - | - |

## X50A FUSE BLOCK - UNDERHOOD X3

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Connector Part Information

- Harness Type: Engine
- OEM Connector: 13405622
- Service Connector: 19332383
- Description: 60-Way F 1.5 CTS, 2.8 CTS, 6.3 MCP, 9.5 YPT Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13505347 | J-35616-14 (GN) | J-38125-557 | 1241374-1 | Lear 17 | E | 2 |
| II | 13579915 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | A | B |
| III | 13582285 | J-35616-35 (VT) | J-38125-557 | 1241388-1 | Lear 17 | E | C |
| IV | 19332365 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| V | 19332366 | J-35616-35 (VT) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VI | 19333302 | J-35616-42 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

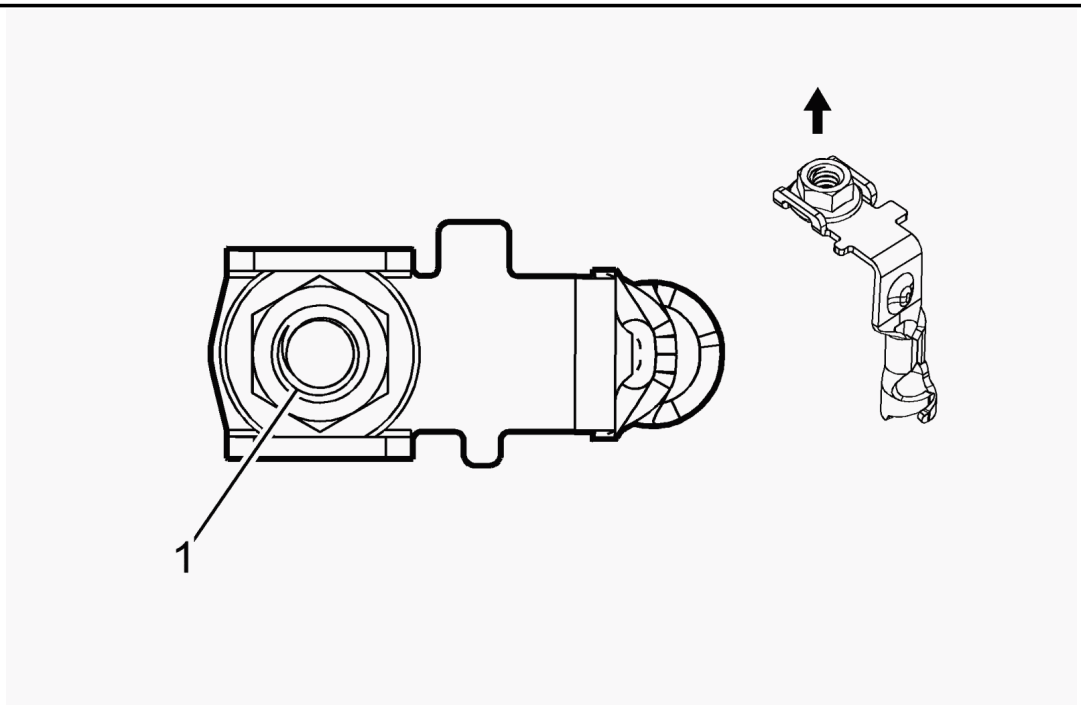
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | Not Occupied | - | - |
| 3 | 1<br>0.5 | RD/WH<br>RD/WH | 140<br>140 | Battery Positive Voltage<br>Battery Positive Voltage | V<br>III | LH7<br>LTG/LYX |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 1 | RD/VT | 340 | Battery Positive Voltage | V | - |
| 6 - 7 | - | - | - | Not Occupied | - | - |
| 8 | 0.5 | VT/GN | 439 | Run/Crank Ignition 1 Voltage | III | - |
| 9 | 2.5 | VT/BU | 3674 | NOx Sensor 1 Control | V | LH7+NDE |
| 10 | 0.5<br>0.35 | YE/BU<br>YE/BU | 5126<br>5126 | After Boil Heater Pump Control<br>After Boil Heater Pump Control | III<br>VI | LH7+Z88<br>LYX/LTG+MAH/MBC/MCX/EPH+X88 |
| 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.35 | WH/BK | 2366 | Cooling Fan Control Relay Speed Signal | IV | - |
| 13 - 16 | - | - | - | Not Occupied | - | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 17 | 0.35<br>0.35 | GY/BK<br>GY | 3865<br>5127 | Heater Loop Auxiliary Pump Relay Control<br>After Boil Heater Relay Control | IV<br>IV | LH7<br>LYX/LTG+MAH/MBC/MCX |
| 18 | 0.35 | YE | 5991 | Powertrain Relay Coil Control | IV | - |
| 19 | - | - | - | Not Occupied | - | - |
| 20 | 0.35 | YE/VT | 6030 | Brake Vacuum Sensor Signal | IV | - |
| 21 | 0.35 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | IV | - |
| 22 | 0.35<br>0.5 | BK/YE<br>BK/GN | 6032<br>580 | Brake Vacuum Sensor Low Reference<br>Engine Control Sensors Low Reference (2) | IV<br>IV | KL9+LH7<br>KL9+LYX |
| 23 | 0.35 | YE/RD | 6031 | Brake Vacuum Sensor 5V Reference | IV | - |
| 24 | - | - | - | Not Occupied | - | - |
| 25 | 0.35 | WH/GY | 459 | A/C Compressor Clutch Relay Control | IV | - |
| 26 - 30 | - | - | - | Not Occupied | - | - |
| 31 | 2.5<br>2 | VT/BU<br>VT/BU | 5290<br>5290 | Powertrain Main Relay Fused Supply 1<br>Powertrain Main Relay Fused Supply 1 | II<br>II | LH7<br>LYX/LTG |
| 32 | - | - | - | Not Occupied | - | - |
| 33 | 2.5 | YE/GN | 4358 | Starter Pinion Solenoid Voltage | II | - |
| 34 | 2.5 | YE | 6 | Starter Solenoid Crank Ignition Voltage | II | - |
| 35 | 0.5<br>0.5 | BN<br>WH/YE | 3681<br>3202 | Charge Air Cooler Outlet Temperature Sensor Signal<br>Throttle Inlet Absolute Pressure Sensor Low Reference | I<br>I | LH7<br>LYX |
| 36 | 0.5 | GN | 3683 | Charge Air Cooler Inlet Temperature Sensor Signal | IV | LH7 |
| 37 | 0.5 | YE/BU | 3680 | Charge Air Cooler Outlet Temperature Sensor Low Reference | I | LH7 |
| 38 | 0.35 | BU/GY | 636 | Outside Ambient Air Temperature Sensor Signal | IV | - |
| 39 | 0.35 | BN/RD | 2700 | A/C Pressure Sensor 5V Reference | IV | - |
| 40 | - | - | - | Not Occupied | - | - |
| 41 | 0.5<br>0.5 | BK/WH<br>BK | 151<br>450 | Signal Ground<br>Ground | IV<br>IV | KL9+LH7<br>KL9+LYX |
| 42 | 0.5<br>0.5 | VT/BU<br>BK | 5293<br>450 | Powertrain Main Relay Fused Supply 4<br>Ground | IV<br>IV | LYX+MGR-KL9<br>LYX+MM1-KL9 |
| 43 | 0.5<br>0.5 | YE/BK<br>YE/WH | 3682<br>3200 | Charge Air Cooler Inlet Temperature Sensor Low Reference<br>Throttle Inlet Absolute Pressure Sensor Signal | IV<br>IV | LH7<br>LYX |
| 44 | 0.5 | WH/RD | 3201 | Throttle Inlet Absolute Pressure Sensor 5V Reference | IV | LYX |
| 45 | 0.35<br>0.5 | BK/GN<br>BK/GN | 580<br>580 | Engine Control Sensors Low Reference (2)<br>Engine Control Sensors Low Reference (2) | IV<br>IV | LH7<br>LYX |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 46 | 0.35 | GN/BU | 3889 | DEF Power Module Relay Control | IV | LH7+NDE |
| 47 | 0.35<br>0.5 | BK/GN<br>BK/GN | 580<br>580 | Engine Control Sensors Low Reference (2)<br>Engine Control Sensors Low Reference (2) | IV<br>IV | LH7<br>LYX |
| 48 | 0.35 | BU | 3017 | Fuel Heater Relay Control 1 | IV | LH7 |
| 49 | 0.35 | YE/BK | 625 | Starter Enable Relay Control | IV | - |
| 50 | 0.35<br>0.35<br>0.35 | YE/VT<br>YE/BK<br>YE/BK | 4325<br>4325<br>625 | Starter Pinion Solenoid Relay Control<br>Starter Pinion Solenoid Relay Control<br>Starter Enable Relay Control | IV<br>IV<br>IV | KL9+LYX/LTG<br>LH7+KL9<br>LYX+MM1-KL9 |
| 51 | 1<br>0.5 | VT/BU<br>VT/BU | 5292<br>5292 | Powertrain Main Relay Fused Supply 3<br>Powertrain Main Relay Fused Supply 3 | V<br>III | LH7<br>LTG/LYX |
| 52 | 0.5<br>0.75 | VT/BU<br>VT/BU | 5291<br>5291 | Powertrain Main Relay Fused Supply 2<br>Powertrain Main Relay Fused Supply 2 | III<br>V | LH7<br>LTG/LYX |
| 53 | 0.5 | VT/BU | 5294 | Powertrain Main Relay Fused Supply 5 | III | - |
| 54 | 0.5 | VT/BU | 5293 | Powertrain Main Relay Fused Supply 4 | III | - |
| 55 - 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.75 | BN/GN | 59 | A/C Compressor Clutch Control | V | - |
| 60 | - | - | - | Not Occupied | - | - |

## X50A FUSE BLOCK - UNDERHOOD X5 (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13946621
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

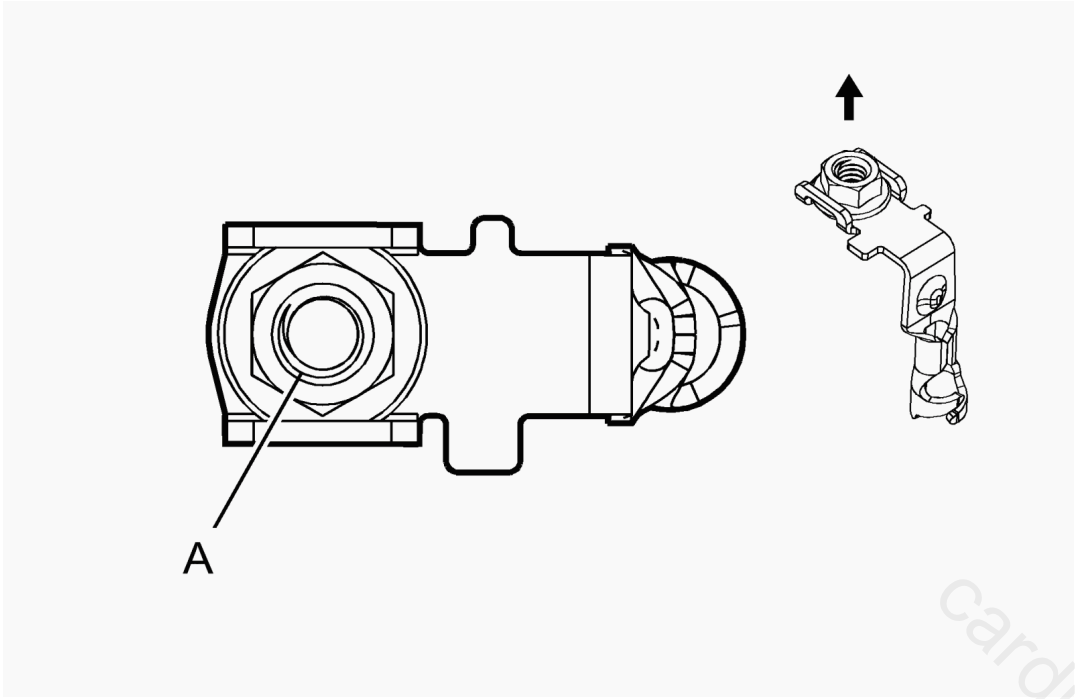
**Terminal Part Information**

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 6 | BN/BU | 104 | Glow Plug Control | I | - |

## X50A FUSE BLOCK - UNDERHOOD X6




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13946624
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

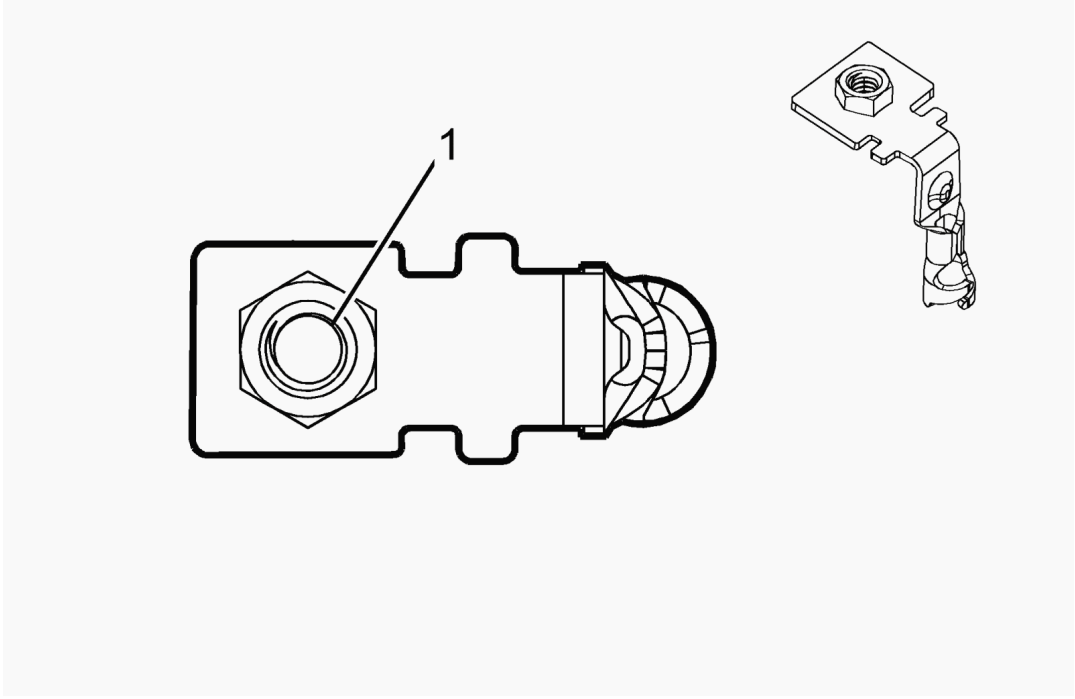
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 8 | RD/BU | 302 | Battery Positive Voltage | I | - |

## X50A FUSE BLOCK - UNDERHOOD X7

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Connector Part Information

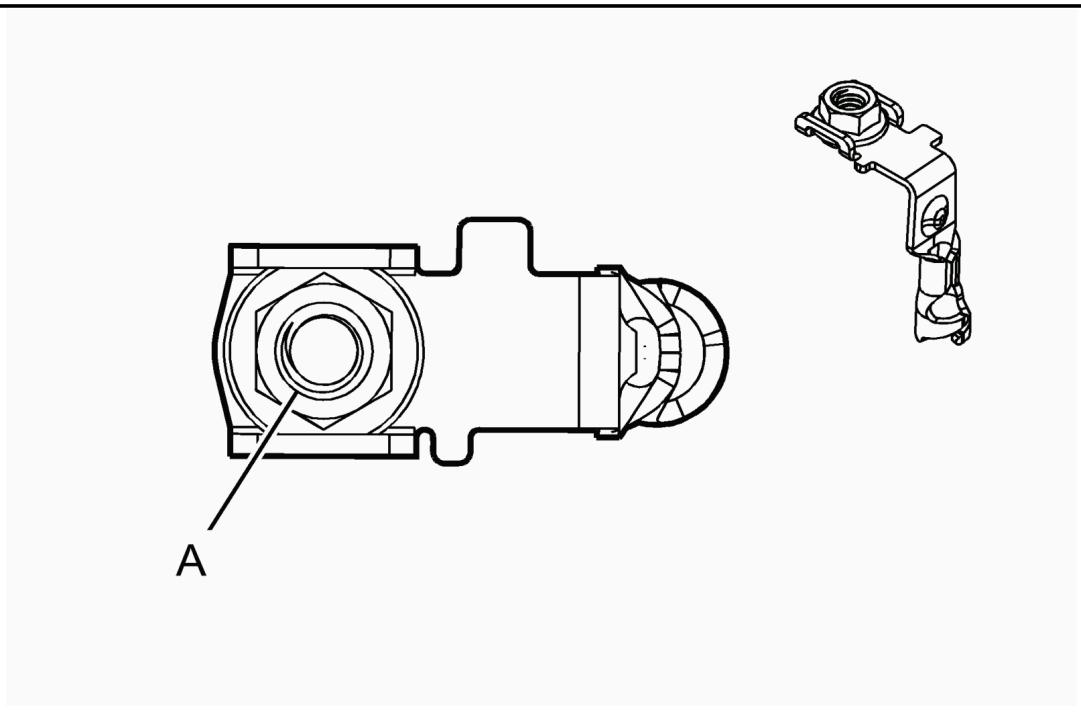
- Harness Type: Engine
- OEM Connector: 7209-5626-02
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | RD | 2840 | Battery Positive Voltage | I | - |

## X50A FUSE BLOCK - UNDERHOOD X8




Connector Part Information

- Harness Type: Body
- OEM Connector: 13946642

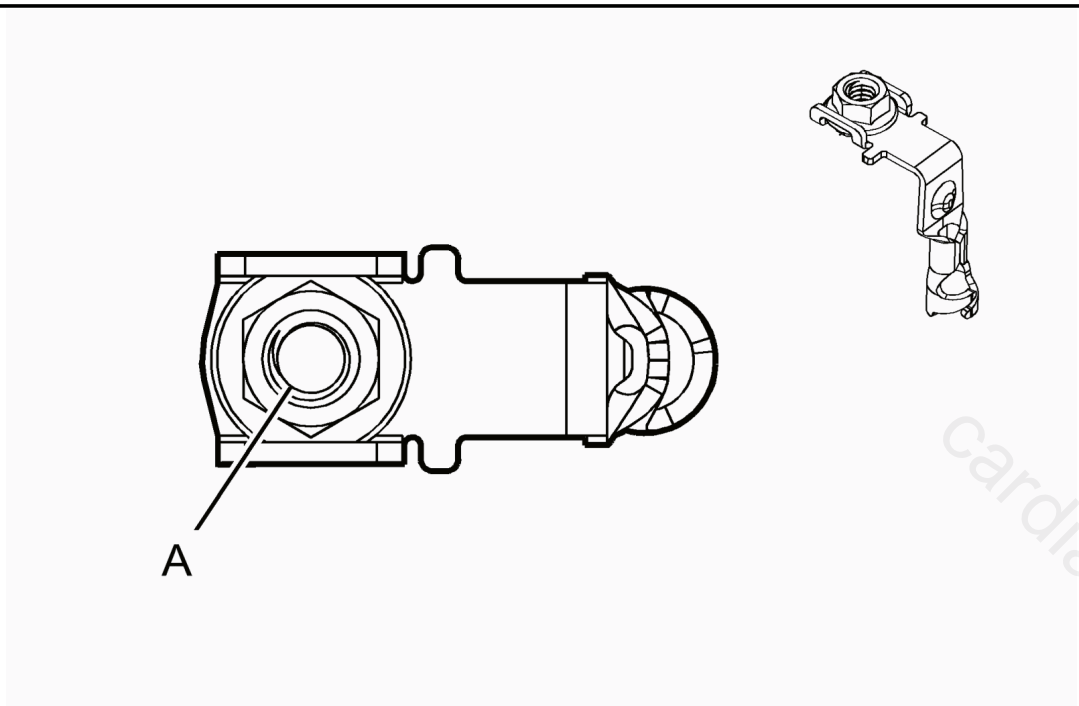
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 8 | RD/VT | 102 | Battery Positive Voltage | I | - |

## X50A FUSE BLOCK - UNDERHOOD X9




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Connector Part Information

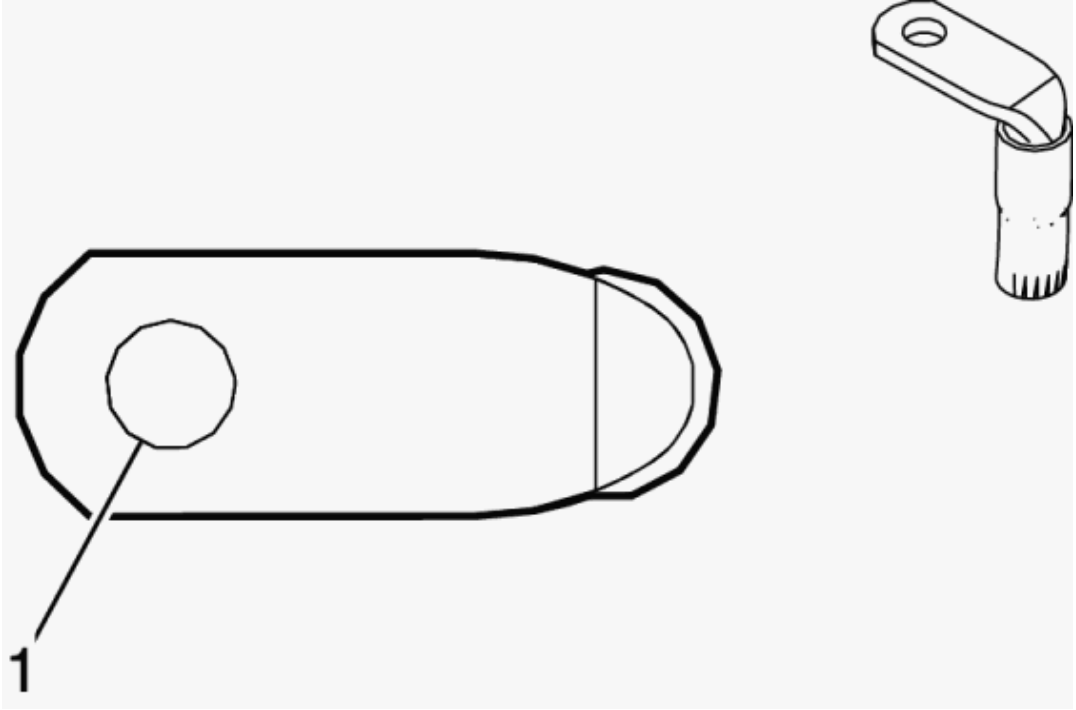
- Harness Type: Body
- OEM Connector: 13946646
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 8 | RD/GN | 502 | Battery Positive Voltage | I | V92/TB5/TC2/NDE |

## X50A FUSE BLOCK - UNDERHOOD X11




Connector Part Information

- Harness Type: Battery Positive
- OEM Connector: 13644223
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 35 | RD | 2 | Battery Positive Voltage | I | - |

**X50D FUSE BLOCK - BATTERY TOP VIEW**

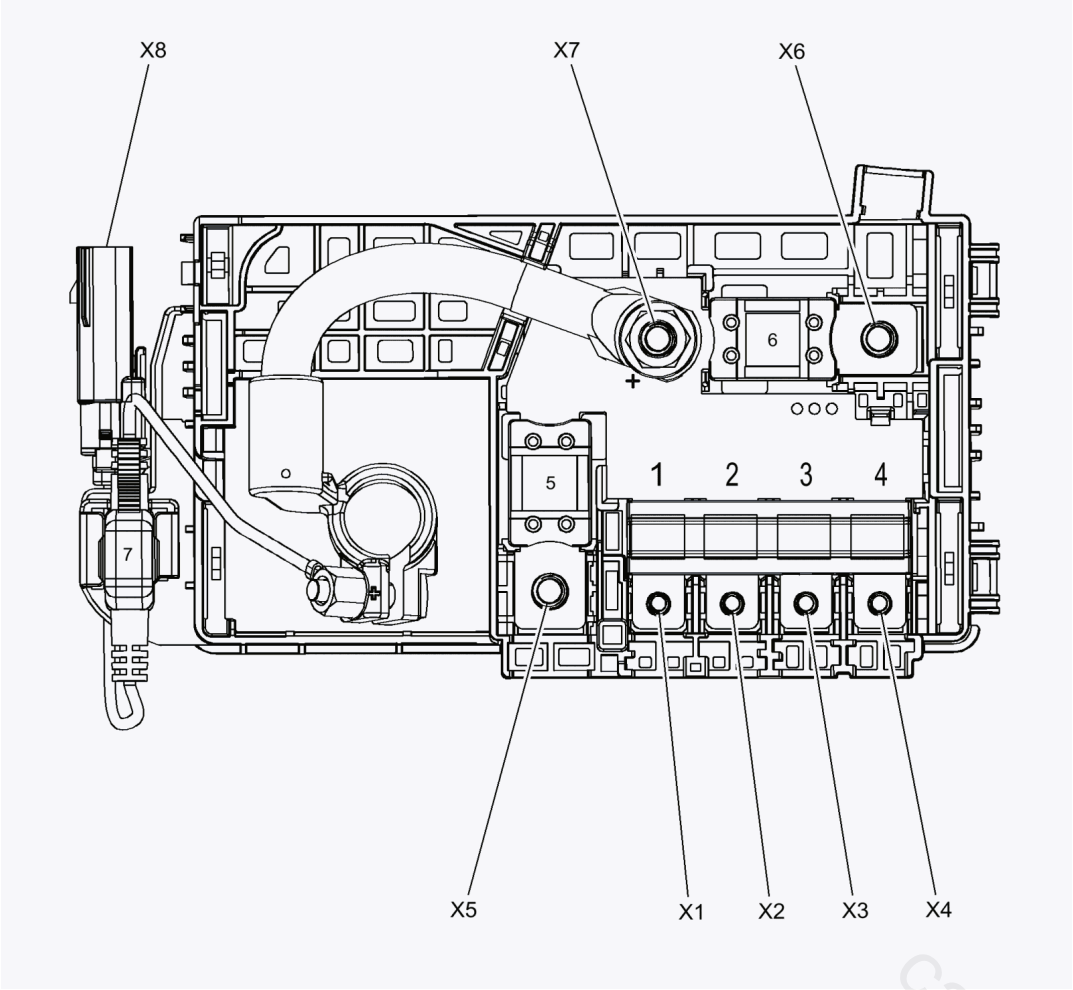


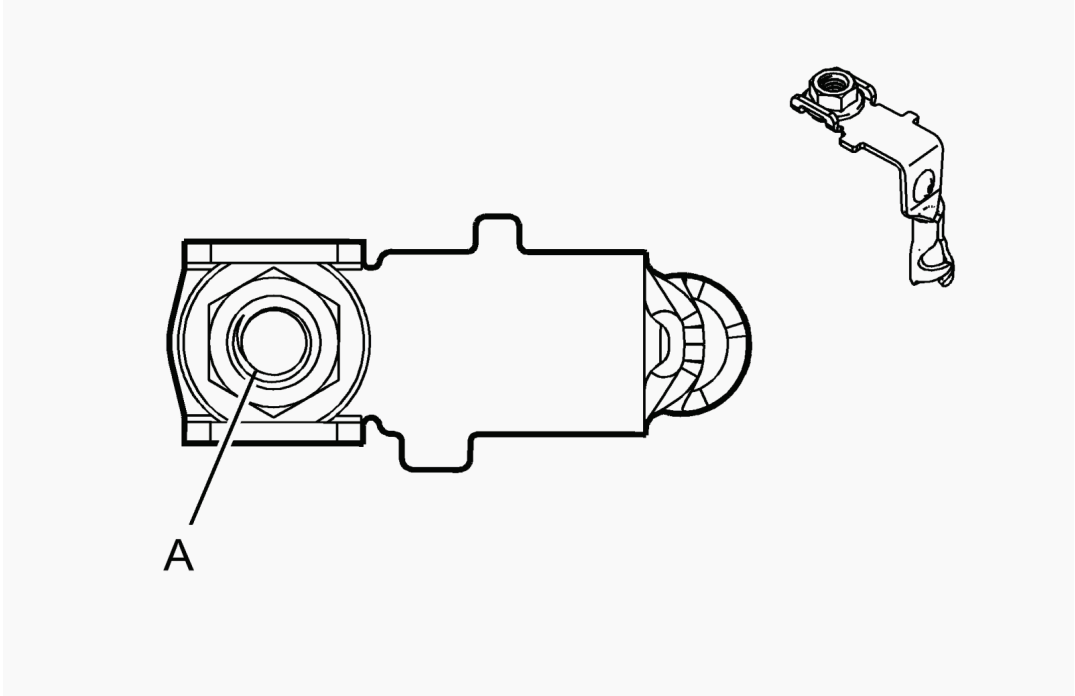

**Fig. 6: X50D Fuse Block - Battery Top View**
**Courtesy of GENERAL MOTORS COMPANY**

**X50D Fuse Block - Battery Usage**

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 1 | - | F1BA Fuse | 100A | • X51A Fuse Block - Instrument Panel |
| 2 | - | F2BA Fuse | 100A | • X51A Fuse Block - Instrument Panel |
| 3 | - | F3BA Fuse | 40A | • T19 Power Supply Transformer |
| 4 | - | F4BA Fuse | 100A | • E40 Electrical Auxiliary Heater (C32) |
| 5 | - | F5BA Fuse | 500A | • G13 Generator<br>• M64 Starter Motor |
| 6 | - | F6BA Fuse | 250A | • X50A Fuse Block - Underhood |
| 7 | - | F7BA Fuse | 5A | • B110 Battery Sensor Module (KL9) |

## X50D FUSE BLOCK - BATTERY X1

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Connector Part Information

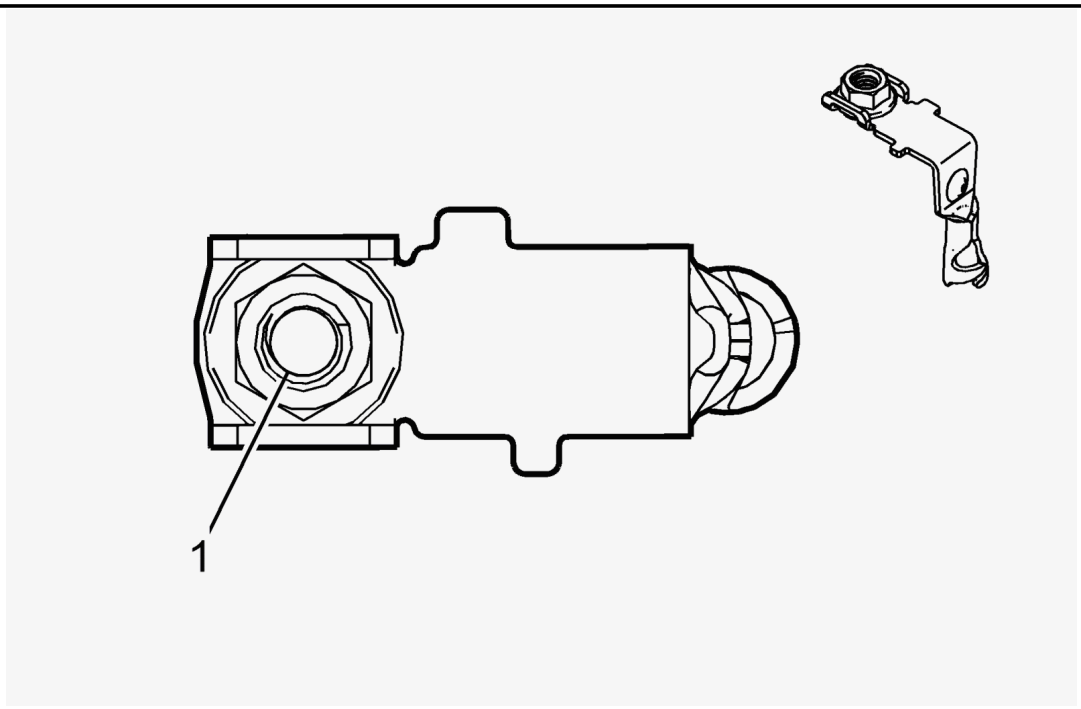
- Harness Type: Body
- OEM Connector: 13371976
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 10 | RD/GY | 142 | Battery Positive Voltage | I | - |

## X50D FUSE BLOCK - BATTERY X2




Connector Part Information

- Harness Type: Body
- OEM Connector: 13371977

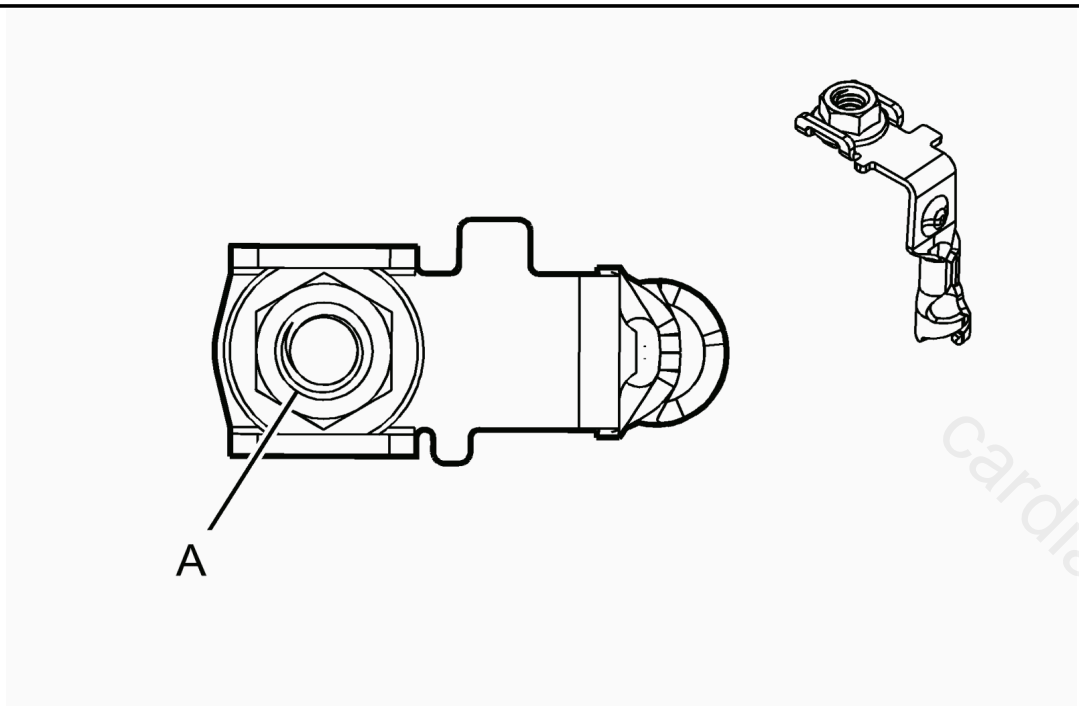
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | RD/BU | 42 | Battery Positive Voltage | I | - |

## X50D FUSE BLOCK - BATTERY X3 (KL9)




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Connector Part Information

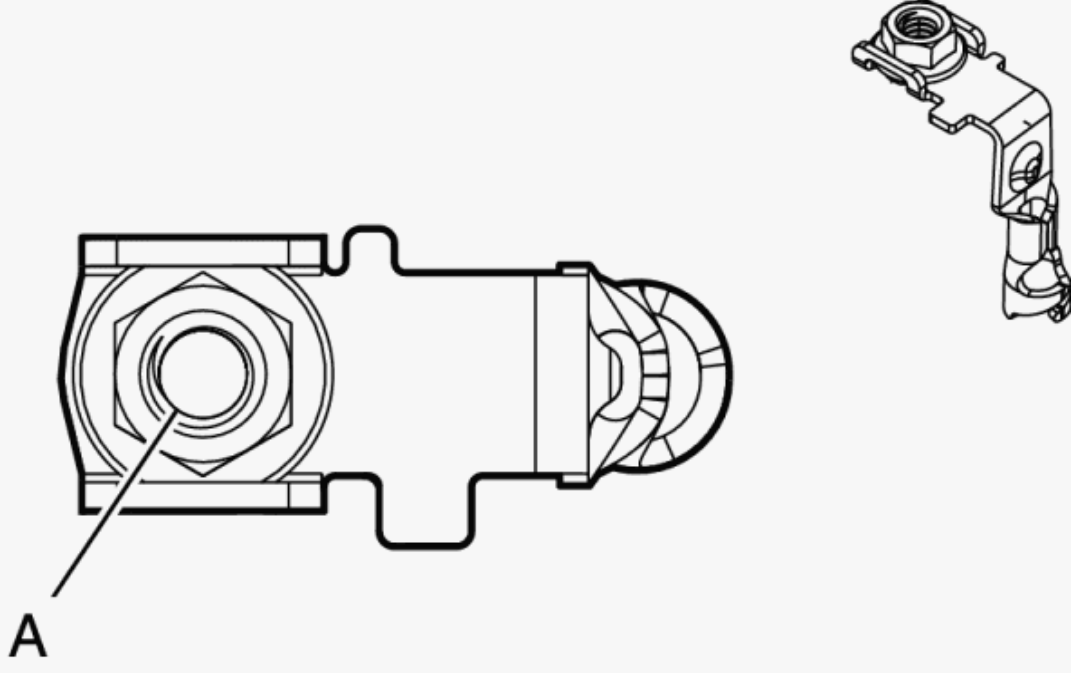
- Harness Type: Body
- OEM Connector: 13371979
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 6<br>4 | RD/GY<br>RD/GY | 1342<br>1342 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>I | KL9+X88<br>KL9+Z88 |

## X50D FUSE BLOCK - BATTERY X4 (C32)




Connector Part Information

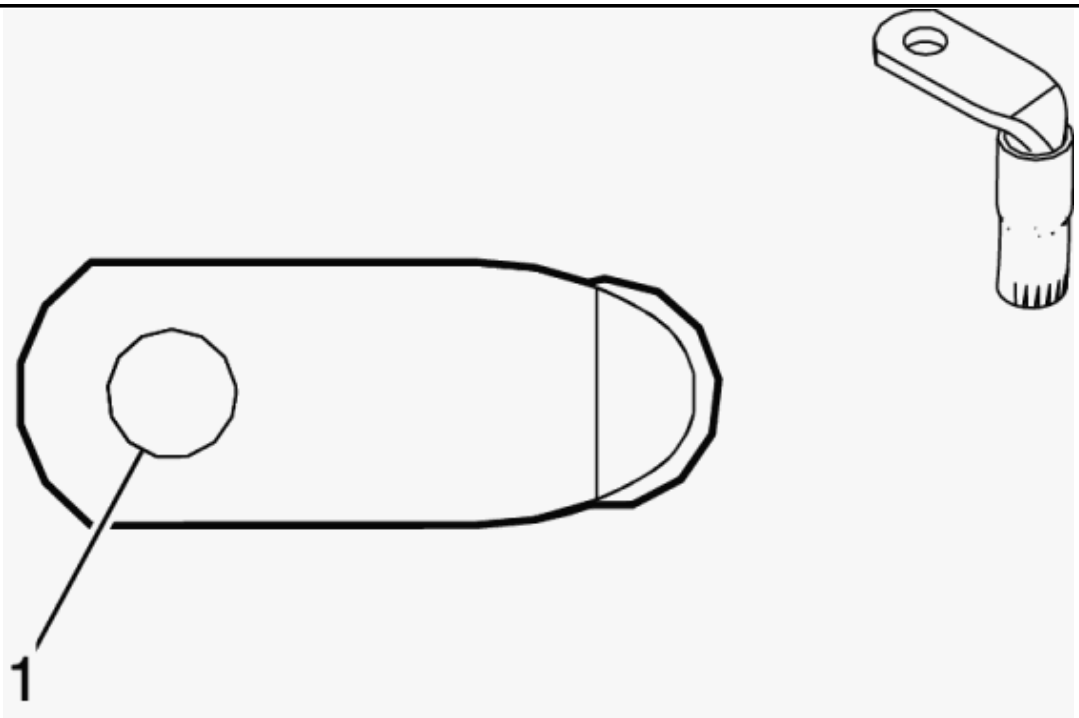
- Harness Type: Body
- OEM Connector: 13371978
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | 10 | RD/BN | 202 | Battery Positive Voltage | I | C32 |

## X50D FUSE BLOCK - BATTERY X5




Connector Part Information

- Harness Type: Starter - Battery Positive
- OEM Connector: 13644223

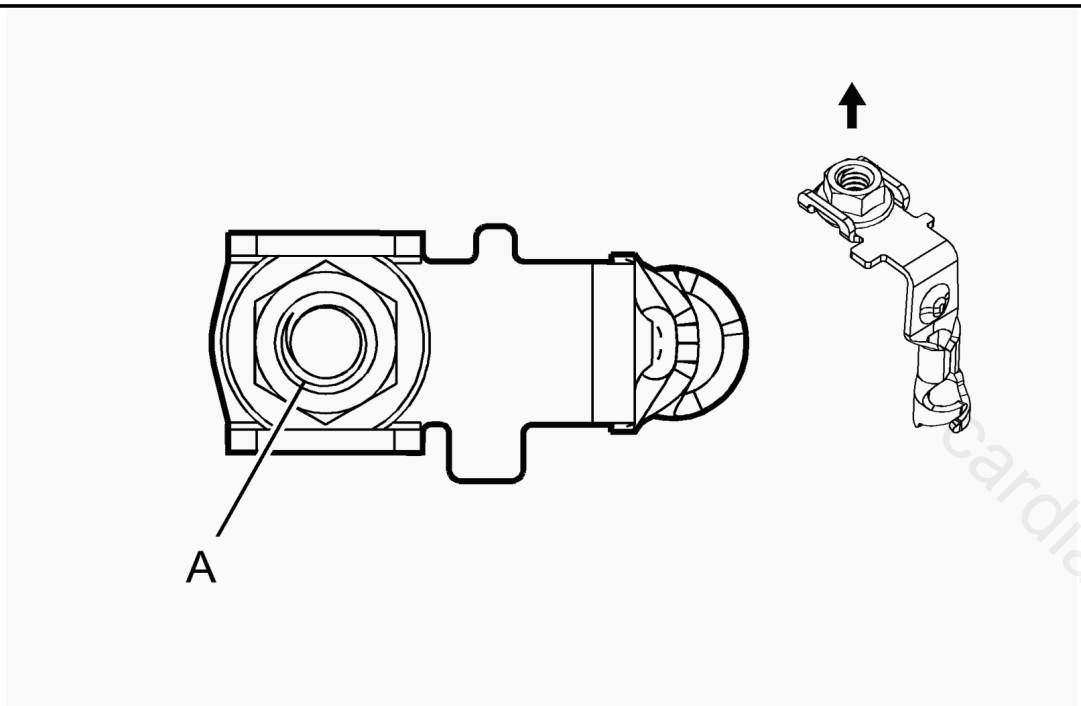
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 35 | RD | 2 | Battery Positive Voltage | I | - |

## X50D FUSE BLOCK - BATTERY X6




Connector Part Information

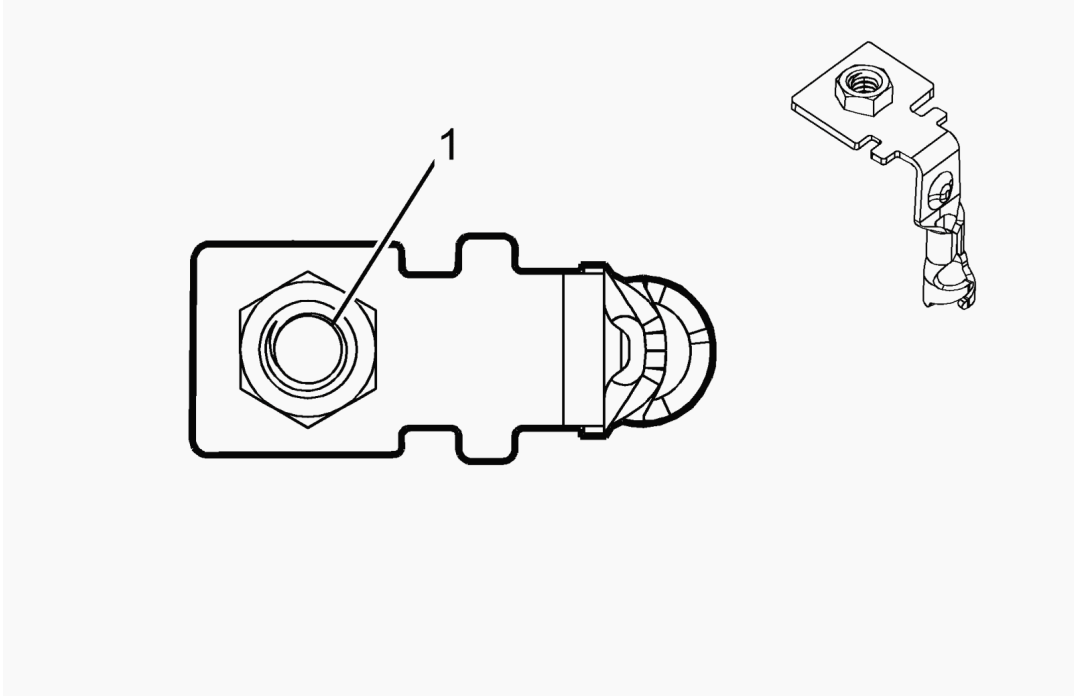
- Harness Type: Forward Lamp
- OEM Connector: 13946624
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A | - | RD | 2 | Battery Positive Voltage | I | - |

## X50D FUSE BLOCK - BATTERY X7




Connector Part Information

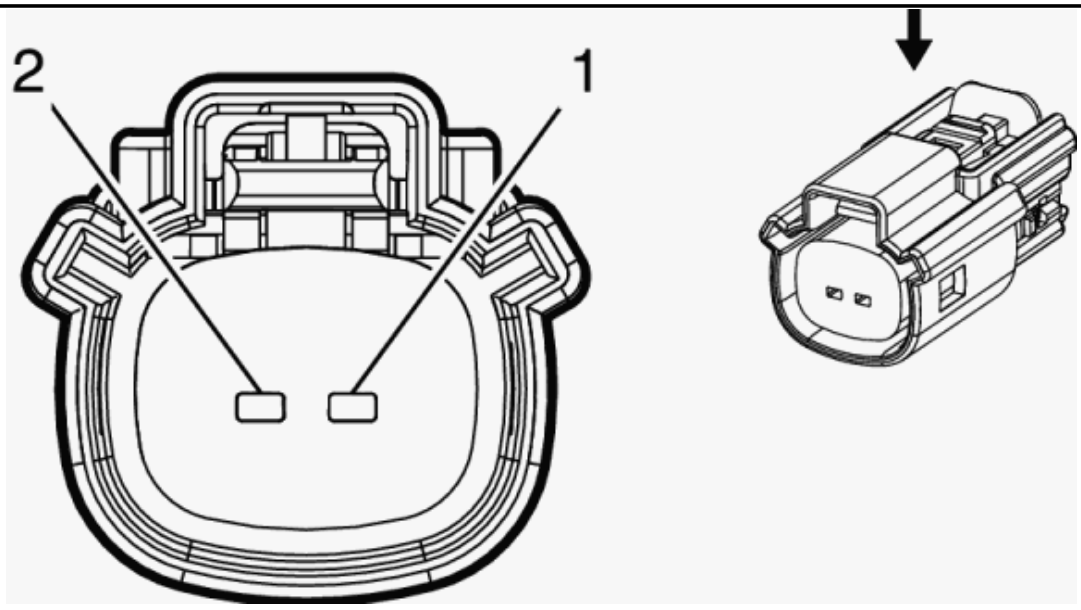
- Harness Type: Engine
- OEM Connector: 7209-5626-02
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way Ring Terminal

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | RD | 1 | Unfused Battery Positive Voltage | I | - |

## X50D FUSE BLOCK - BATTERY X8




Connector Part Information

- Harness Type: Body
- OEM Connector: 33471-0206
- Service Connector: 13577534
- Description: 2-Way F 1.5 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.75 | RD/BN<br>RD/WH | 2740<br>2740 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>I | KL9<br>LYX-KL9 |
| 2 | - | - | - | Not Occupied | - | - |

## X51A FUSE BLOCK - INSTRUMENT PANEL LABEL

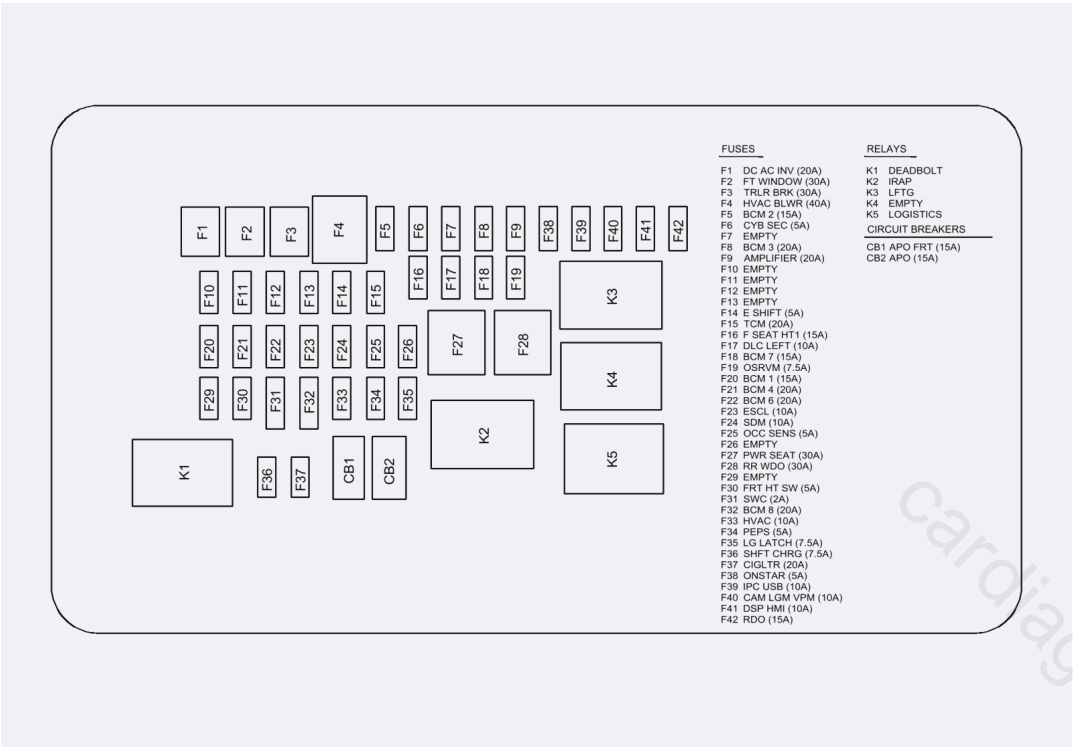



**Fig. 7: X51A Fuse Block - Instrument Panel Label**
**Courtesy of GENERAL MOTORS COMPANY**

## X51A FUSE BLOCK - INSTRUMENT PANEL TOP VIEW

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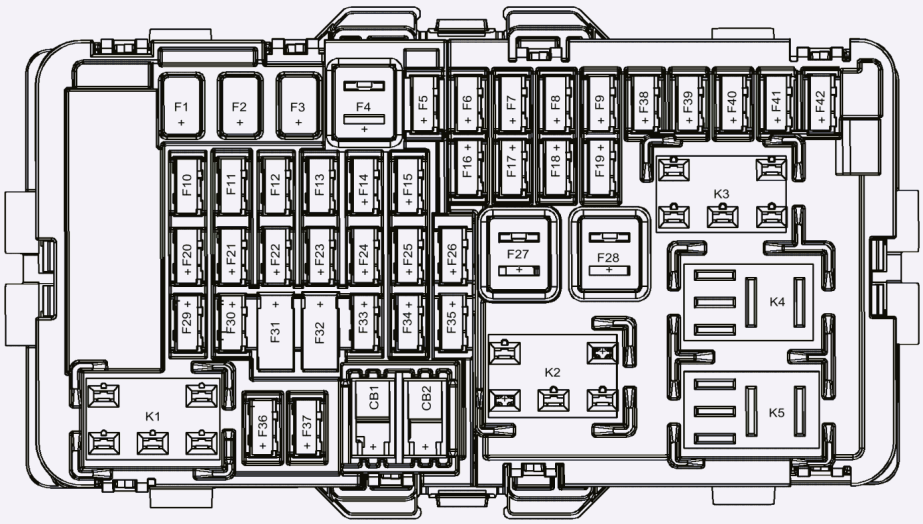



**Fig. 8: X51A Fuse Block - Instrument Panel Top View**
**Courtesy of GENERAL MOTORS COMPANY**

**X51A Fuse Block - Instrument Panel Fuse Usage**

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| F1 | DC AC INV | F1DA Fuse | 20A | • T1 Accessory DC/AC Power Inverter Module (KI6)<br>• T1 Accessory DC/AC Power Inverter Module (KI7) |
| F2 | FT WINDOW | F2DA Fuse | 30A | • M35D Window Motor Module - Driver (AXG)<br>• S79P Window Switch - Passenger (AXG) |
| F3 | TRLR BRK | F3DA Fuse | 30A | • W24 Blunt Cut - Trailer Brakes Provision (V92) |
| F4 | HVAC BLWR | F4DA Fuse | 40A | • M8 Blower Motor |
| F5 | BCM 2 | F5DA Fuse | 15A | • K9 Body Control Module |
| F6 | CYB SEC | F6DA Fuse | 5A | • K56 Serial Data Gateway Module |
| F7 | EMPTY | F7DA Fuse | 10A | • Not Used |
| F8 | BCM 3 | F8DA Fuse | 20A | • K9 Body Control Module |
| F9 | AMPLIFIER | F9DA Fuse | 20A | • T3 Audio Amplifier |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| F10 | EMPTY | F10DA Fuse | 30A | • Not Used |
| F11 | EMPTY | F11DA Fuse | 30A | • Not Used |
| F12 | EMPTY | F12DA Fuse | 30A | • Not Used |
| F13 | EMPTY | F13DA Fuse | 30A | • Not Used |
| F14 | E SHIFT | F14DA Fuse | 5A | • A97 Transmission Range Selector Controls (EPH) |
| F15 | TCM | F15DA Fuse | 20A | • K71 Transmission Control Module (M3D/M3H/M3U)<br>• Q8 Control Solenoid Valve Assembly (MHG/MNH/MNK) |
| F16 | F SEAT HT1 | F16DA Fuse | 15A | • K29F Seat Heating Control Module - Front (KA1) |
| F17 | DLC LEFT | F17DA Fuse | 10A | • X84 Data Link Connector |
| F18 | BCM 7 | F18DA Fuse | 15A | • K9 Body Control Module |
| F19 | OSRVM | F19DA Fuse | 7.5A | • B177 Rain/Ambient Light Sensor Module<br>• S79D Window Switch - Driver (AXG) |
| F20 | BCM 1 | F20DA Fuse | 15A | • K9 Body Control Module |
| F21 | BCM 4 | F21DA Fuse | 20A | • K9 Body Control Module |
| F22 | BCM 6 | F22DA Fuse | 20A | • K9 Body Control Module |
| F23 | ESCL | F23DA Fuse | 10A | • Not Used |
| F24 | SDM | F24DA Fuse | 10A | • K36 Inflatable Restraint Sensing and Diagnostic Module |
| F25 | OCC SENS | F25DA Fuse | 5A | • K85 Passenger Presence Module (AL0) |
| F26 | EMPTY | F26DA Fuse | 30A | • Not Used |
| F27 | PWR SEAT | F27DA Fuse | 30A | • K40 Seat Memory Control Module (A45/A74)<br>• S64D Seat Adjuster Switch - Driver (AG1) |
| F28 | RR WDO | F28DA Fuse | 30A | • S79LR Window Switch - Left Rear (AEQ)<br>• S79RR Window Switch - Right Rear (AEQ) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| F29 | EMPTY | F29DA Fuse | 10A | • Not Used |
| F30 | FRT HT SW | F30DA Fuse | 5A | • S32D Seat Heating Switch - Driver (Z88+KA1)<br>• S32P Seat Heating Switch - Passenger (Z88+KA1) |
| F31 | SWC | F31DA Fuse | 2A | • X85 Steering Wheel Air Bag Coil<br>• S70L Steering Wheel Controls Switch - Left<br>• S70R Steering Wheel Controls Switch - Right |
| F32 | BCM 8 | F32DA Fuse | 20A | • K9 Body Control Module |
| F33 | HVAC | F33DA Fuse | 10A | • B10B Ambient Light/Sunload Sensor (CJ2 - UE1)<br>• K33 HVAC Control Module |
| F34 | PEPS | F34DA Fuse | 5A | • K84 Keyless Entry Control Module |
| F35 | LG LATCH | F35DA Fuse | 7.5A | • KR95A Liftgate Unlatch Relay |
| F36 | SHFT CHRG | F36DA Fuse | 7.5A | • T22 Mobile Device Wireless Charger Module (K4C)<br>• X92 USB Receptacle (USS) |
| F37 | CIGLTR | F37DA Fuse | 20A | • E32 Cigarette Lighter Receptacle (SAO/U37)<br>• X80G Accessory Power Receptacle - Instrument Panel (KC5) |
| F38 | ONSTAR | F38DA Fuse | 5A | • K73 Telematics Communication Interface Control Module (UE1) |
| F39 | IPC USB | F39DA Fuse | 10A | • P16 Instrument Cluster<br>• X83 Auxiliary Audio Input (MCZ)<br>• X92 USB Receptacle |
| F40 | CAM LGM VPM | F40DA Fuse | 10A | • B174W Frontview Camera - Windshield (UEU/UHX)<br>• K39 Liftgate Control Module (TB5)<br>• K157 Video Processing Control Module (UVH)<br>• K171 Hands-Free Liftgate Sensor - Control Module (TC2) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| F41 | DSP HMI | F41DA Fuse | 10A | • A26 HVAC Controls<br>• A98 Front Overhead Console Assembly<br>• K74 Human Machine Interface Control Module (IO5/IO6)<br>• K182 Parking Assist Control Module (UD5/UD7)<br>• K188 Human Machine Interface Control Module Bypass Module (IO5/IO6 +MAH/MBC)<br>• P17 Info Display Module<br>• S25 Garage Door Opener (UG1) |
| F42 | RDO | F42DA Fuse | 15A | • A11 Radio |
| **Circuit Breakers** | | | | |
| CB1 | APO FRT | CB1DA | 15A | • Not Used |
| CB2 | APO | CB2DA | 15A | • X80L Accessory Power Receptacle - Center Console Rear (KPA) |
| **Relays** | | | | |
| K01 | DEADBOLT | - | - | • Not Used |
| K02 | IRAP | KR76 Retained Accessory Power Relay | - | • CB2DA<br>• F36DA<br>• F37DA |
| K03 | LFTG | KR95A Liftgate Unlatch Relay | - | • M30 Liftgate Latch (TB4) |
| K04 | EMPTY | - | - | • Not Used |
| K05 | LOGISTICS | KR104A Battery Saver Relay 1 | - | • F38DA<br>• F39DA<br>• F40DA<br>• F41DA<br>• F42DA |

## X51A FUSE BLOCK - INSTRUMENT PANEL WIRE ENTRY

-

Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 33172518
- Service Connector: Service by Component Assembly - See Part Catalog
- Description: -

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575523 | J-35616-42 (RD) | J-38125-11A | Not Required | Not Required | Not Required | Not Required |

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| II | 13575824 | J-35616-5 (PU) | J-38125-11A | Not Required | Not Required | Not Required | Not Required |
| III | 13580023 | J-35616-43 (RD) | J-38125-11A | Not Required | Not Required | Not Required | Not Required |
| IV | 19300649 | J-35616-4A (PU) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| V | 19301752 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VI | 19301752 | J-35616-4A (PU) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VII | 19301761 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VIII | 19301761 | J-35616-4A (PU) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| IX | 19367541 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| X | 19368518 | J-35616-43 (RD) | J-38125-11A | Not Required | Not Required | Not Required | Not Required |
| XI | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | 10 | RD/BU | 42 | Battery Positive Voltage | XI | - |
| 2 | 10 | RD/GY | 142 | Battery Positive Voltage | XI | - |
| 3 | 4 | RD/GY | 142 | Battery Positive Voltage | XI | - |
| 6 | 1.5 | RD/WH | 2040 | Battery Positive Voltage | II | - |
| 9 | 1 | RD/GY | 4840 | Battery Positive Voltage | VIII | - |
| 13 | 2.5 | RD/BN | 3640 | Battery Positive Voltage | II | - |
| 16 | 1 | RD/BU | 4540 | Battery Positive Voltage | VIII | - |
| 17 | 0.35<br>0.35 | RD/YE<br>RD/YE | 2340<br>2340 | Battery Positive Voltage<br>Battery Positive Voltage | IV<br>VII | D2UG+KA1<br>LTG |
| 20 | 1 | RD/WH | 4740 | Battery Positive Voltage | VIII | - |
| 21 | 0.35<br>0.35 | RD/BU<br>RD/BU | 2540<br>2540 | Battery Positive Voltage<br>Battery Positive Voltage | VII<br>IV | EPH<br>-EPH |
| 22 | 0.35<br>0.35 | VT<br>VT | 4601<br>4601 | Retained Accessory Power Fused Control<br>Retained Accessory Power Fused Control | VII<br>IV | K4C+USS<br>USS-K4C |
| 23 | 2.5 | RD/GN | 4042 | Battery Positive Voltage | II | - |
| 26 | 0.5 | RD/VT | 3340 | Battery Positive Voltage | IV | N06 |
| 27 | 1 | RD/BN | 4940 | Battery Positive Voltage | VIII | - |
| 28 | 1.5 | VT | 1301 | Retained Accessory Power Fuse Control | VI | - |
| 29 | 4 | RD/BU | 840 | Battery Positive Voltage | X | - |
| 30 | 0.35<br>0.35 | RD/BN<br>RD/BN | 440<br>440 | Battery Positive Voltage<br>Battery Positive Voltage | IV<br>VII | EPH<br>EPH+LYX/LTG |
| 31 | 2.5 | RD/GN | 2173 | 12V Regulated Supply Voltage 2 | VI | EPH |
| 32 | 0.35<br>0.35 | RD/BN<br>RD/BN | 2240<br>2240 | Battery Positive Voltage<br>Battery Positive Voltage | IV<br>VII | AJG/AYC<br>AY0 |
| 33 | 0.35<br>0.35 | RD/GN<br>RD/GN | 742<br>742 | Battery Positive Voltage<br>Battery Positive Voltage | VII<br>IV | UE1<br>-UE1-UE3 |
| 35 | 0.75 | RD/YE | 4340 | Battery Positive Voltage | VIII | - |
| 36 | 1.5 | RD/GN | 2173 | 12V Regulated Supply Voltage 2 | VI | KL9+MM1 |
| 37 | 2.5 | RD/GN | 2173 | 12V Regulated Supply Voltage 2 | VI | KL9+MM1 |
| 38 | 0.35 | RD/GN | 2440 | Battery Positive Voltage | IV | AL0 |
| 39 | 0.35 | RD/WH | 4042 | Battery Positive Voltage | IV | - |
| 40 | 1.5<br>1.5 | VT<br>VT | 1701<br>1701 | Retained Accessory Power Ignition<br>Retained Accessory Power Ignition | VI<br>V | KPA<br>LTG |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 41 | 0.35 | RD/GN | 3140 | Battery Positive Voltage | IV | - |
| 42 | 0.5<br>0.5 | RD/GY<br>RD/GY | 1740<br>1740 | Battery Positive Voltage<br>Battery Positive Voltage | IV<br>VII | KA1/KU1/KU3<br>LTG |
| 44 | 0.5<br>0.5 | RD/BU<br>RD/BU | 5240<br>5240 | Battery Positive Voltage<br>Battery Positive Voltage | VII<br>IV | -KL9<br>TB4 |
| 46 | 0.5 | RD/VT | 2640 | Battery Positive Voltage | IV | - |
| 47 | 2 | RD/BN | 2940 | Battery Positive Voltage | III | - |
| 48 | 0.35<br>0.35 | GY/GN<br>GY/GN | 4083<br>4083 | RAP Relay 2 Coil Control<br>RAP Relay 2 Coil Control | VII<br>IV | KI6/KI7<br>-KI6-KI7 |
| 49 | 1 | RD/GN | 4440 | Battery Positive Voltage | VIII | - |
| 50 | 1 | RD/BN | 4240 | Battery Positive Voltage | VIII | - |
| 51 | 2<br>2 | RD/VT<br>RD/VT | 5340<br>5340 | Battery Positive Voltage<br>Battery Positive Voltage | VI<br>VII | NKC+UZ6-IOR<br>UQA+IOT |
| 52 | 0.35 | RD/BN | 1440 | Battery Positive Voltage | IV | - |
| 53 | 2.5 | RD/YE | 3740 | Battery Positive Voltage | III | - |
| 54 | 2 | BK | 1650 | Ground | VI | - |
| 55 | 0.35<br>0.35 | RD/GY<br>RD/GY | 2140<br>2140 | Battery Positive Voltage<br>Battery Positive Voltage | VII<br>IV | LYX/LFV/LTG<br>UE3 |
| 56 | 0.35 | RD/BN | 2240 | Battery Positive Voltage | IV | - |
| 57 | 0.35 | RD/GN | 2440 | Battery Positive Voltage | IV | - |
| 58 | 0.35 | RD/BU | 2540 | Battery Positive Voltage | IV | - |
| 59 | 1<br>0.75<br>0.75 | RD/YE<br>RD/YE<br>RD/YE | 5040<br>5040<br>5040 | Battery Positive Voltage<br>Battery Positive Voltage<br>Battery Positive Voltage | VIII<br>VIII<br>VII | IO5/IO6<br>IOB<br>UKS |
| 60 | 0.35 | BK | 1650 | Ground | IV | TB4 |
| 61 | 0.5 | RD/BU | 5240 | Battery Positive Voltage | IV | - |
| 64 | 0.35 | GY/VT | 3264 | Logistic Mode Relay Close Control | I | - |
| 65 | 0.35 | BK | 1650 | Ground | I | - |
| 66 | 0.35 | VT/BU | 3263 | Logistic Mode Relay Open Control | I | - |
| 69 | 4 | GY/BN | 3761 | Infotainment Regulated Control | IX | - |
| 70 | 0.35<br>0.35 | BU/WH<br>BU/WH | 6128<br>6128 | Rear Closure Unlatch Motor Unlatch Control<br>Rear Closure Unlatch Motor Unlatch Control | VII<br>IV | T4A+MAH/MBC/MCX/MBI-D2UG<br>TB4 |
| 71 | 0.35 | GY/YE | 6188 | Lift Glass/Rear Compartment Lid Motor Release Control | IV | TB4 |
| 74 | 4 | RD/GY | 142 | Battery Positive Voltage | IX | - |
| 75 | 4 | GY/BN | 3761 | Infotainment Regulated Control | XI | - |

## X53A FUSE BLOCK - REAR BODY LABEL

-

Connector Part Information

- Harness Type: Body
- OEM Connector: 23277914
- Service Connector: Service by Component Assembly - See Part Catalog
- Description: Wire Entry Fuse Block

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13327158 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| II | 13327178 | J-35616-43 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| III | 13575490 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| IV | 13575491 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| V | 13575523 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VI | 13575771 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VII | 13575780 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VIII | 13575781 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| IX | 13586058 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| X | 19355423 | J-35616-22 (RD) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| XI | 19367541 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| XII | 19368322 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| XIII | 19368322 | J-35616-43 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| XIV | 19368417 | J-35616-22 (RD) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| XV | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A4 | 3 | GN/GY | 9 | Park Lamp Control | XII | YTH |
| A5 | 3 | GN/GY | 9 | Park Lamp Control | XII | YTH |
| A8 | 0.35 | RD/VT | 1940 | Battery Positive Voltage | III | F48+YTH |
| A9 | 0.35 | RD/GN | 1540 | Battery Positive Voltage | III | - |
| A10 | 1.5 | RD/VT | 3340 | Battery Positive Voltage | IV | KC8+YTH |
| A11 | 2.5 | RD/VT | 1640 | Battery Positive Voltage | II | F48+YTH |
| A16 | 0.35 | WH/YE | 1204 | Left Park Lamp Control | III | (YTH+MAH/MBC/MCX/MAO/MBI/D2UG/V9V)/(UGE+YTH) |
| A17 | 0.35 | VT | 1203 | Right Park Lamp Control | III | (YTH+MAH/MBC/MCX/MAO/MBI/D2UG/V9V)/(UGE+YTH) |
| A20 | 3 | RD/WH | 1340 | Battery Positive Voltage | XIII | NDE+YTH |
| A21 | 3 | RD/GN | 502 | Battery Positive Voltage | XIII | YTH+TB5/TC2 |
| A23 | 1.5 | RD/GN | 502 | Battery Positive Voltage | II | NDE+YTH |
| A24 | 2.5 | RD/GY | 3540 | Battery Positive Voltage | II | YTH+TB5/TC2 |
| A26 | 2 | RD/YE | 240 | Battery Positive Voltage | VIII | YTH+AG2/ADT |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A27 | 0.35 | RD/GN | 3840 | Battery Positive Voltage | III | (A45/A74+YTH)/(UEU/UHX+YTH-EPH)/(EPH+UKC+YTH) |
| A28 | 2 | RD/BU | 540 | Battery Positive Voltage | VIII | YTH+C3U/CF5 |
| A29 | 0.35 | RD/BN | 1140 | Battery Positive Voltage | III | UKC+YTH |
| A31 | 0.5 | RD/GN | 1840 | Battery Positive Voltage | VII | KA6+YTH |
| A32 | 1.5 | RD/YE | 740 | Battery Positive Voltage | IV | YTH-NDE-TB5-TC2-V92 |
| A33 | 0.5 | RD/BN | 5940 | Battery Positive Voltage | VII | KA6+YTH |
| B2 | 2.5 | BU | 3921 | DEF Heater Supply 1 | X | NDE+YTH |
| B4 | 0.75 | RD/GN | 502 | Battery Positive Voltage | IX | NDE+YTH |
| B6 | 0.35 | GN/BU | 3889 | DEF Power Module Relay Control | IX | NDE+YTH |
| B8 | 3 | RD/WH | 1340 | Battery Positive Voltage | XIV | NDE+YTH |
| C11 | 0.5<br>1.5 | RD/GN<br>RD/YE | 502<br>740 | Battery Positive Voltage<br>Battery Positive Voltage | I<br>VI | YTH+V92/TB5/TC2/NDE<br>YTH-NDE-TB5-TC2-V92 |
| C12 | 0.35 | BU | 45 | Park Lamp Relay Control | V | YTH+RHD/MVL/MAY/MBA/MAM/MJL/MAW/MQL/MDW-EPH |
| C13 | 3 | GN/GY | 9 | Park Lamp Control | XI | YTH |
| C15 | 1.5<br>1.5 | RD/GN<br>RD/YE | 502<br>740 | Battery Positive Voltage<br>Battery Positive Voltage | VI<br>VI | YTH+V92/TB5/TC2/NDE<br>YTH-NDE-TB5-TC2-V92 |
| X4 | 8 | RD/VT | 102 | Battery Positive Voltage | XV | YTH |

## X53A FUSE BLOCK - REAR BODY TOP VIEW

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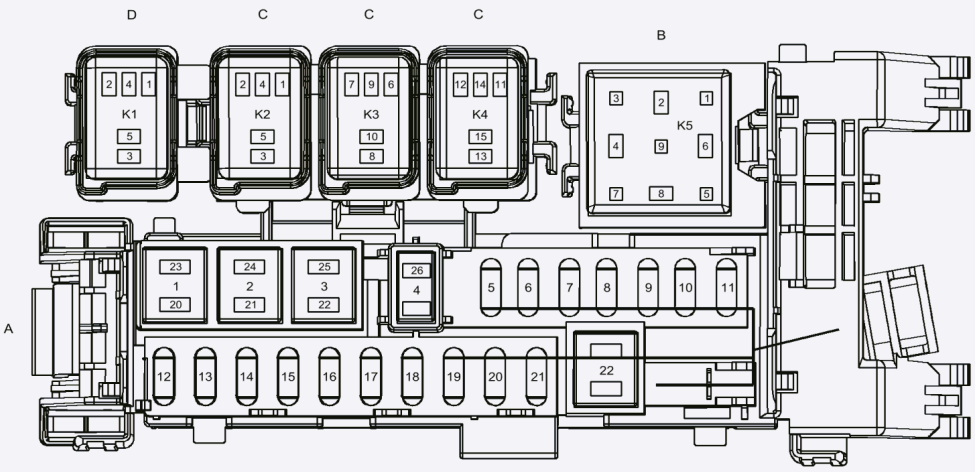



**Fig. 9: X53A Fuse Block - Rear Body Top View**
**Courtesy of GENERAL MOTORS COMPANY**

**X53A Fuse Block - Rear Body Usage**

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| **Fuses** | | | | |
| 1 | EXH FUEL HTR | F1RA Fuse | 30A | • KR121A Reductant Control Module Relay 1 (LH7) |
| 2 | L/GATE | F2RA Fuse | 30A | • K39 Liftgate Control Module (TB5) |
| 3 | TRLR AUX PWR | F3RA Fuse | 30A | • X88 Trailer Connector (V92) |
| 4 | PWR SEAT | F4RA Fuse | 25A | • S64P Seat Adjuster Switch - Passenger |
| 5 | MSM | F5RA Fuse | 10A | • K40D Seat Memory Control Module - Driver (A45) |
| 6 | S/ROOF | F6RA Fuse | 30A | • K61 Sunroof Control Module (C3U) |
| 7 | SBZA | F7RA Fuse | 7.5A | • B218L Side Object Sensor Module - Left (UKC)<br>• B218R Side Object Sensor Module - Right (UKC) |
| 8 | TRLR_BCK/UP | F8RA Fuse | 10A | • KR61 Trailer Backup Lamps Relay (V92) |

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| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 9 | RR HTD/SEAT 1 | F9RA Fuse | 15A | • K29R Seat Heating Control Module - Rear (KA6)<br>• S32LR Seat Heating Switch - Left Rear (KA6)<br>• S32RR Seat Heating Switch - Right Rear (KA6) |
| 10 | PRK | F10RA Fuse | 25A | • KR53 Park Lamps Relay |
| 11 | RR HTD/SEAT 2 | F11RA Fuse | 15A | • K29R Seat Heating Control Module - Rear (KA6) |
| 12 | EMPTY | F12RA Fuse | - | • Not Used |
| 13 | TRLR PRK | F13RA Fuse | 15A | • X88 Trailer Connector (V92) |
| 14 | RT TRLR TRN/SIG | F14RA Fuse | 10A | • X88 Trailer Connector (-V92)<br>• X88 Trailer Connector (V92) |
| 15 | LT PRK | F15RA Fuse | 10A | • E2LF Side Marker Lamp - Left Front<br>• E5LD Tail/Stop Lamp - Left Inner<br>• E5LE Tail/Stop Lamp - Left Outer<br>• E13LA Headlamp Assembly - Left<br>• E42L Tail Lamp Assembly - Left<br>• E43L Liftgate Tail Lamp Assembly - Left |
| 16 | RT PRK | F16RA Fuse | 10A | • E2RF Side Marker Lamp - Right Front<br>• E5RD Tail/Stop Lamp - Right Inner<br>• E5RE Tail/Stop Lamp - Right Outer<br>• E13RA Headlamp Assembly - Right<br>• E42R Tail Lamp Assembly - Right<br>• E43R Liftgate Tail Lamp Assembly - Right |
| 17 | EMPTY | F17RA Fuse | - | • Not Used |
| 18 | LT TRLR TRN/SIG | F18RA Fuse | 10A | • X88 Trailer Connector (-V92)<br>• X88 Trailer Connector (V92) |
| 19 | AWD | F19RA Fuse | 10A | • K47 Rear Differential Clutch Control Module (F48) |
| 20 | LUM | F20RA Fuse | 10A | • S65D Seat Lumbar Support Switch - Driver (AL9)<br>• S65P Seat Lumbar Support Switch - Passenger (AT9) |
| 21 | REAR APO | F21RA Fuse | 20A | • X80C Accessory Power Receptacle - Cargo (KC8) |

| No. | Device Label Name | Device Assigned Name | Rating | Description |
|---|---|---|---|---|
| 22 | REAR AWD | F22RA Fuse | 40A | • K47 Rear Differential Clutch Control Module (F48) |
| **Relays** | | | | |
| K1 | TRLR STOP/TRN | KR63R Trailer Stop/Turn Signal Lamp Relay - Right (V92) | - | • X88 Trailer Connector (V92) |
| K2 | TRLR_BCK/UP | Trailer Backup Lamps Relay (V92) | - | • X88 Trailer Connector (V92) |
| K3 | TRLR STOP/TRN | KR63L Trailer Stop/Turn Signal Lamp Relay - Left (V92) | - | • X88 Trailer Connector (V92) |
| K4 | PRK | KR53 Park Lamps Relay | - | • F13RA<br>• F15RA<br>• F16RA |
| K5 | DIESEL EXH FUEL TNK HTR | KR121A Reductant Control Module Relay 1 | - | • K115 Reductant Control Module (LH7) |

## X53A FUSE BLOCK - REAR BODY WIRE ENTRY

-

Connector Part Information

- Harness Type: Body
- OEM Connector: 23277914
- Service Connector: Service by Component Assembly - See Part Catalog
- Description: -

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13327178 | J-35616-43 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| II | 13575490 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| III | 13575491 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| IV | 13575523 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| V | 13575771 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VI | 13575780 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VII | 13575781 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| VIII | 13586058 | J-35616-42 (RD) | J-38125-11A | Not Required | Not Required | Not Required | Not Required |
| IX | 19355423 | J-35616-22 (RD) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| X | 19367541 | J-35616-42 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| XI | 19368322 | J-35616-35 (VT) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |
| XII | 19368322 | J-35616-43 (RD) | J-38125-215A | Not Required | Not Required | Not Required | Not Required |

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| XIII | 19368417 | J-35616-22 (RD) | J-38125-12A | Not Required | Not Required | Not Required | Not Required |
| XIV | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A4 | 3 | GN/GY | 9 | Park Lamp Control | XI | MY19+YTH |
| A5 | 3 | GN/GY | 9 | Park Lamp Control | XI | MY19+YTH |
| A8 | 0.35 | RD/VT | 1940 | Battery Positive Voltage | II | MY19+F48+YTH |
| A9 | 0.35 | RD/GN | 1540 | Battery Positive Voltage | II | - |
| A10 | 1.5 | RD/VT | 3340 | Battery Positive Voltage | I | MY19+KC8+YTH |
| A11 | 2.5 | RD/VT | 1640 | Battery Positive Voltage | I | MY19+KC8+YTH |
| A16 | 0.35 | WH/YE | 1204 | Left Park Lamp Control | II | (MY19+YTH+MAH/MBC/MCX/MAO/MBI/D2UG/V9V)/(MY19+UGE+YTH) |
| A17 | 0.35 | VT | 1203 | Right Park Lamp Control | II | (MY19+YTH+MAH/MBC/MCX/MAO/MBI/D2UG/V9V)/(MY19+UGE+YTH) |
| A20 | 3 | RD/WH | 1340 | Battery Positive Voltage | XII | MY19+NDE+YTH |
| A21 | 3 | RD/GN | 502 | Battery Positive Voltage | XII | MY19+YTH+TB5/TC2 |
| A23 | 1.5 | RD/GN | 502 | Battery Positive Voltage | I | MY19+NDE+YTH |
| A24 | 2.5 | RD/GY | 3540 | Battery Positive Voltage | I | MY19+YTH+TB5/TC2 |
| A26 | 2 | RD/YE | 240 | Battery Positive Voltage | VII | MY19+YTH+AG2/ADT |
| A27 | 0.35 | RD/GN | 3840 | Battery Positive Voltage | II | (MY19+A45/A74+YTH)/(MY19+UEU/UHX+YTH-EPH)/(MY19+EPH+UKC+YTH) |
| A28 | 2 | RD/BU | 540 | Battery Positive Voltage | VII | MY19+YTH+C3U/CF5 |
| A29 | 0.35 | RD/BN | 1140 | Battery Positive Voltage | II | MY19+UKC+YTH |
| A31 | 0.5 | RD/GN | 1840 | Battery Positive Voltage | VI | MY19+KA6+YTH |
| A32 | 1.5 | RD/YE | 740 | Battery Positive Voltage | III | MY19+YTH-NDE-TB5-TC2-V92 |

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| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| A33 | 0.5 | RD/BN | 5940 | Battery Positive Voltage | VI | MY19+KA6+YTH |
| B2 | 2.5 | BU | 3921 | DEF Heater Supply 1 | IX | MY19+NDE+YTH |
| B4 | 0.75 | RD/GN | 502 | Battery Positive Voltage | VIII | MY19+NDE+YTH |
| B6 | 0.35 | GN/BU | 3889 | DEF Power Module Relay Control | VIII | MY19+NDE+YTH |
| B8 | 3 | RD/WH | 1340 | Battery Positive Voltage | XIII | MY19+NDE+YTH |
| C11 | 0.5<br>1.5 | RD/GN<br>RD/YE | 502<br>740 | Battery Positive Voltage<br>Battery Positive Voltage | IV<br>V | MY19+YTH+V92/TB5/TC2/NDE<br>MY19+YTH-NDE-TB5-TC2-V92 |
| C12 | 0.35 | BU | 45 | Park Lamp Relay Control | IV | MY19+YTH+RHD/MVL/MAY/MBA/MAM/MJL/MAW/MQL/MDW-EPH |
| C13 | 3 | GN/GY | 9 | Park Lamp Control | X | MY19+YTH |
| C15 | 1.5<br>1.5 | RD/GN<br>RD/YE | 502<br>740 | Battery Positive Voltage<br>Battery Positive Voltage | V<br>V | MY19+YTH+V92/TB5/TC2/NDE<br>MY19+YTH-NDE-TB5-TC2-V92 |
| X4 | 8 | RD/VT | 102 | Battery Positive Voltage | XIV | MY19+YTH |

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Back To Article



## Wiring Systems And Power Management - Component Locator - Front Of Vehicle/Engine Compartment Component Views - Equinox & Terrain

# FRONT OF VEHICLE/ENGINE COMPARTMENT COMPONENT VIEWS

## BEHIND THE FRONT FASCIA

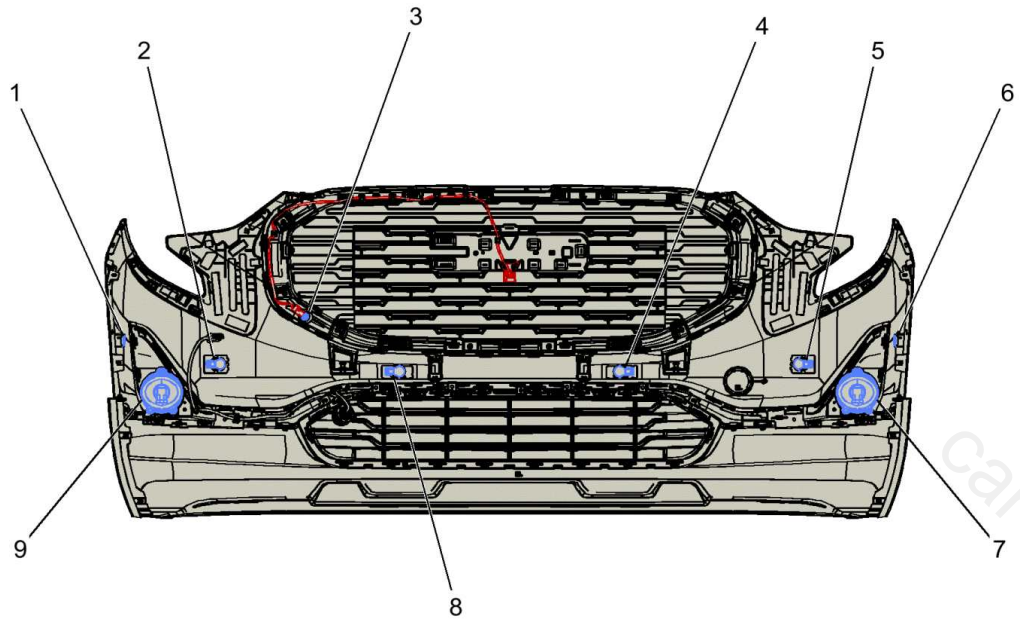



**Fig. 1: Behind The Front Fascia**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. B306K Parking Assist Sensor - Side Left Front (UFQ) **B306K Parking Assist Sensor - Side Left Front (UFQ)** |
| 2. B306A Parking Assist Sensor - Front Left Outer (UD5/UFQ) **B306A Parking Assist Sensor - Front Left Outer (UD5/UFQ)** |
| 3. B174G Frontview Camera - Grille (UVH) **B174G Frontview Camera - Grille (UVH)** |
| 4. B306C Parking Assist Sensor - Front Right Middle (UD5/UFQ) **B306C Parking Assist Sensor - Front Right Middle (UD5/UFQ)** |
| 5. B306D Parking Assist Sensor - Front Right Outer (UD5/UFQ) **B306D Parking Assist Sensor - Front Right Outer (UD5/UFQ)** |
| 6. B306L Parking Assist Sensor - Side Right Front (UFQ) **B306L Parking Assist Sensor - Side Right Front (UFQ)** |
| 7. E29RF Fog Lamp - Right Front (T3U) **E29RF Fog Lamp - Right Front (T3U)** |
| 8. B306B Parking Assist Sensor - Front Left Middle (UD5/UFQ) **B306B Parking Assist Sensor - Front Left Middle (UD5/UFQ)** |
| 9. E29LF Fog Lamp - Left Front (T3U) **E29LF Fog Lamp - Left Front (T3U)** |

## FRONT OF THE ENGINE COMPARTMENT AND TRANSMISSION (MNH)

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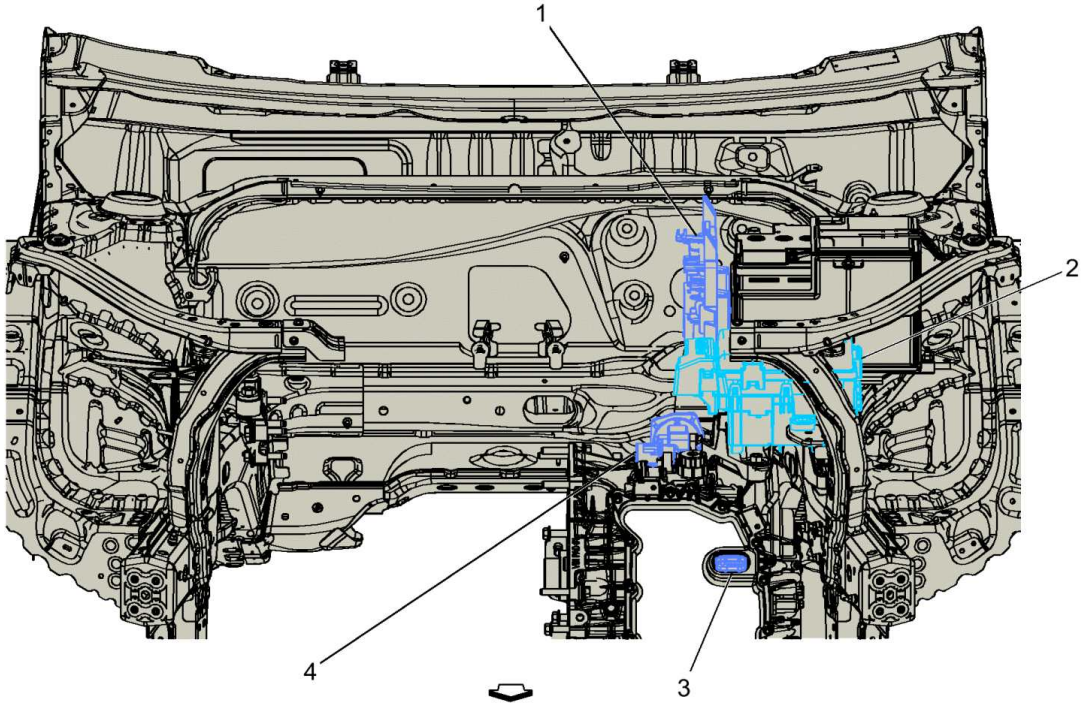



**Fig. 2: Front Of The Engine Compartment And Transmission (MNH)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K20 Engine Control Module **K20 Engine Control Module X1 (LH7)** **K20 Engine Control Module X1 (LTG)** **K20 Engine Control Module X1 (LYX)** **K20 Engine Control Module X2 (LH7)** **K20 Engine Control Module X2 (LTG)** **K20 Engine Control Module X2 (LYX)** **K20 Engine Control Module X3 (LH7)** **K20 Engine Control Module X3 (LTG)** **K20 Engine Control Module X3 (LYX)** |
| 2. X50A Fuse Block - Underhood **X50A Fuse Block - Underhood X1** **X50A Fuse Block - Underhood X11** **X50A Fuse Block - Underhood X2** **X50A Fuse Block - Underhood X3** **X50A Fuse Block - Underhood X5 (LH7)** **X50A Fuse Block - Underhood X6** **X50A Fuse Block - Underhood X7** **X50A Fuse Block - Underhood X8** **X50A Fuse Block - Underhood X9** |
| 3. Q8 Control Solenoid Valve Assembly **Q8 Control Solenoid Valve Assembly X1 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X2 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X3 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X4 (MHG/MNH/MNK)** |
| 4. B280 Automatic Transmission Accumulator Solenoid Valve (KL9) **B280 Automatic Transmission Accumulator Solenoid Valve (KL9+MHG/MNH)** |

## COOLING FAN

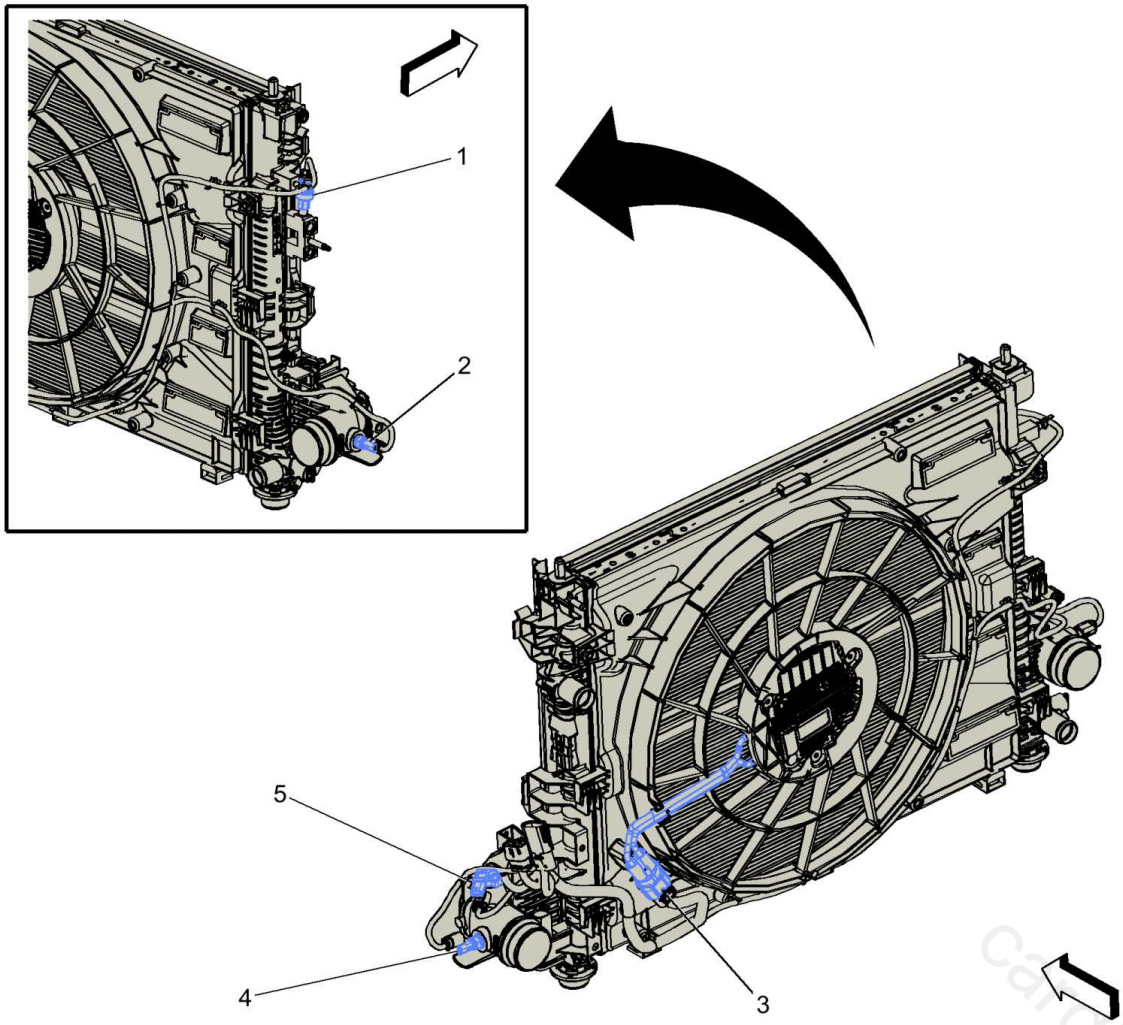



**Fig. 3: Cooling Fan**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B1 A/C Refrigerant Pressure Sensor **B1 A/C Refrigerant Pressure Sensor** |
| 2. B193A Charge Air Cooler Inlet Temperature Sensor (LH7) **B193A Charge Air Cooler Inlet Temperature Sensor (LH7)** |
| 3. G10 Cooling Fan Motor **G10 Cooling Fan Motor** |
| 4. B193B Charge Air Cooler Outlet Temperature Sensor (LH7) **B193B Charge Air Cooler Outlet Temperature Sensor (LH7)** |
| 5. B111 Turbocharger Boost Sensor (LYX) **B111 Turbocharger Boost Sensor (LYX)** |

**LEFT FRONT OF THE VEHICLE**

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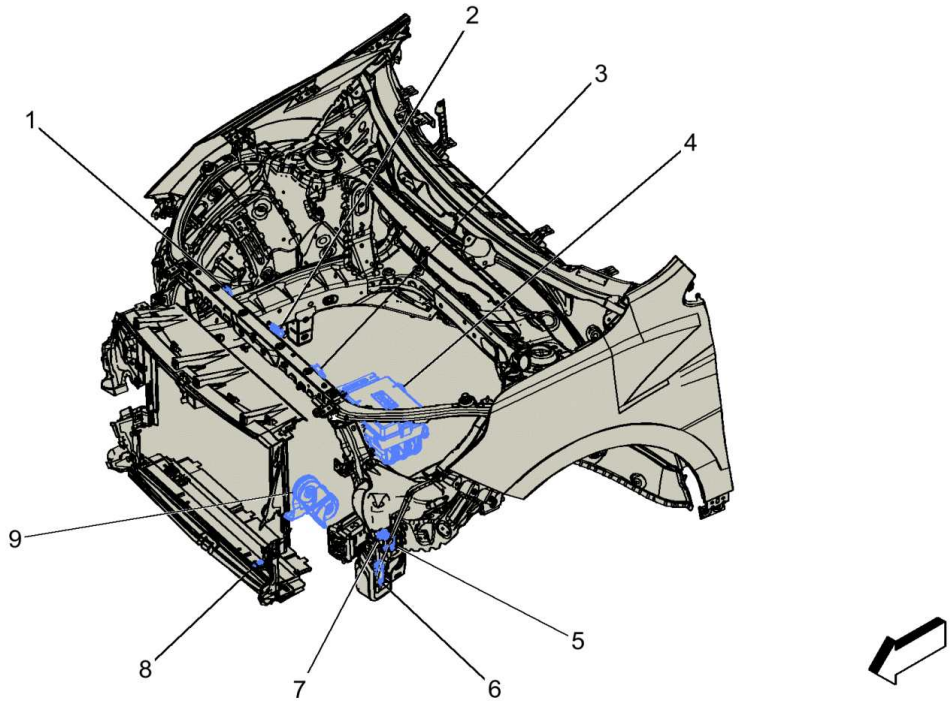



**Fig. 4: Left Front Of The Vehicle**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B59R Front Impact Sensor - Right **B59R Front Impact Sensor - Right** |
| 2. B55 Engine Hood Switch **B55 Engine Hood Switch** |
| 3. B59L Front Impact Sensor - Left **B59L Front Impact Sensor - Left** |
| 4. X50A Fuse Block - Underhood **X50A Fuse Block - Underhood X1** **X50A Fuse Block - Underhood X11** **X50A Fuse Block - Underhood X2** **X50A Fuse Block - Underhood X3** **X50A Fuse Block - Underhood X5 (LH7)** **X50A Fuse Block - Underhood X6** **X50A Fuse Block - Underhood X7** **X50A Fuse Block - Underhood X8** **X50A Fuse Block - Underhood X9** |
| 5. G19 Rear Window Washer Pump **G19 Rear Window Washer Pump** |
| 6. G24 Windshield Washer Pump **G24 Windshield Washer Pump** |
| 7. B118B Windshield Washer Fluid Level Switch **B118B Windshield Washer Fluid Level Switch** |
| 8. B9 Ambient Air Temperature Sensor **B9 Ambient Air Temperature Sensor** |
| 9. P13 Horn Assembly **P13 Horn Assembly** |

**LEFT SIDE OF THE ENGINE COMPARTMENT (1 OF 2)**

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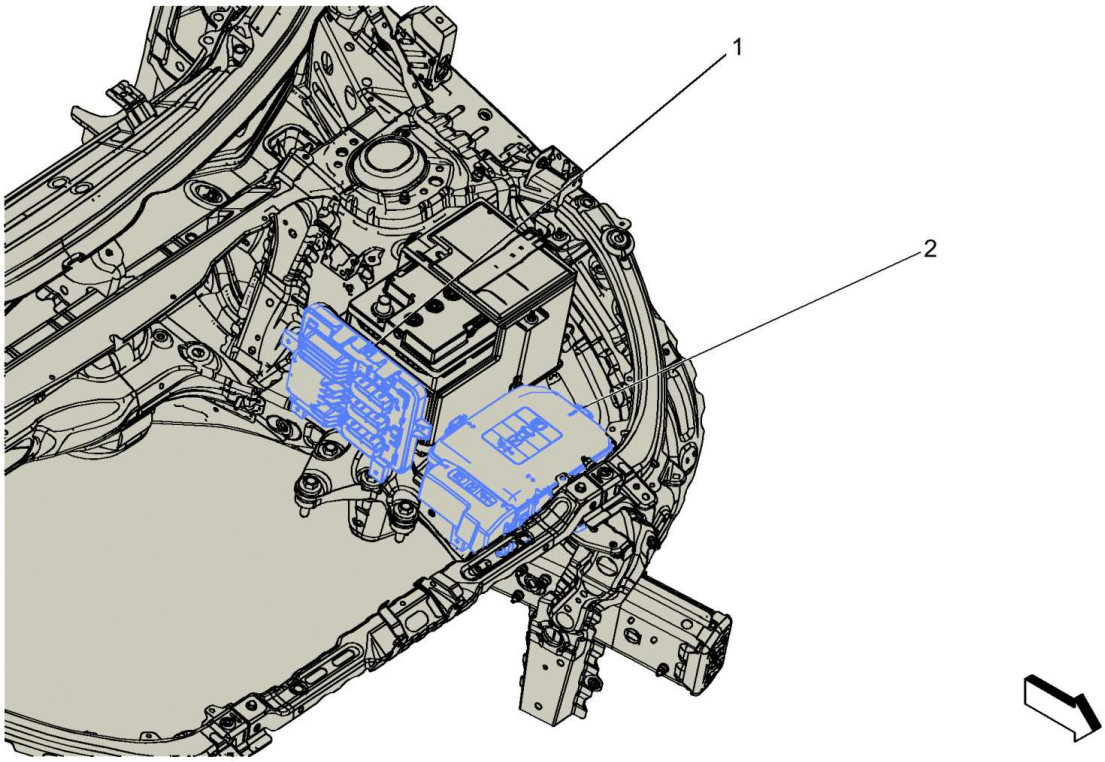



**Fig. 5: Left Side Of The Engine Compartment (1 Of 2)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K20 Engine Control Module K20 Engine Control Module X1 (LH7) K20 Engine Control Module X1 (LTG) K20 Engine Control Module X1 (LYX) K20 Engine Control Module X2 (LH7) K20 Engine Control Module X2 (LTG) K20 Engine Control Module X2 (LYX) K20 Engine Control Module X3 (LH7) K20 Engine Control Module X3 (LTG) K20 Engine Control Module X3 (LYX) |
| 2. X50A Fuse Block - Underhood X50A Fuse Block - Underhood X1 X50A Fuse Block - Underhood X11 X50A Fuse Block - Underhood X2 X50A Fuse Block - Underhood X3 X50A Fuse Block - Underhood X5 (LH7) X50A Fuse Block - Underhood X6 X50A Fuse Block - Underhood X7 X50A Fuse Block - Underhood X8 X50A Fuse Block - Underhood X9 |

**LEFT SIDE OF THE ENGINE COMPARTMENT (2 OF 2)**

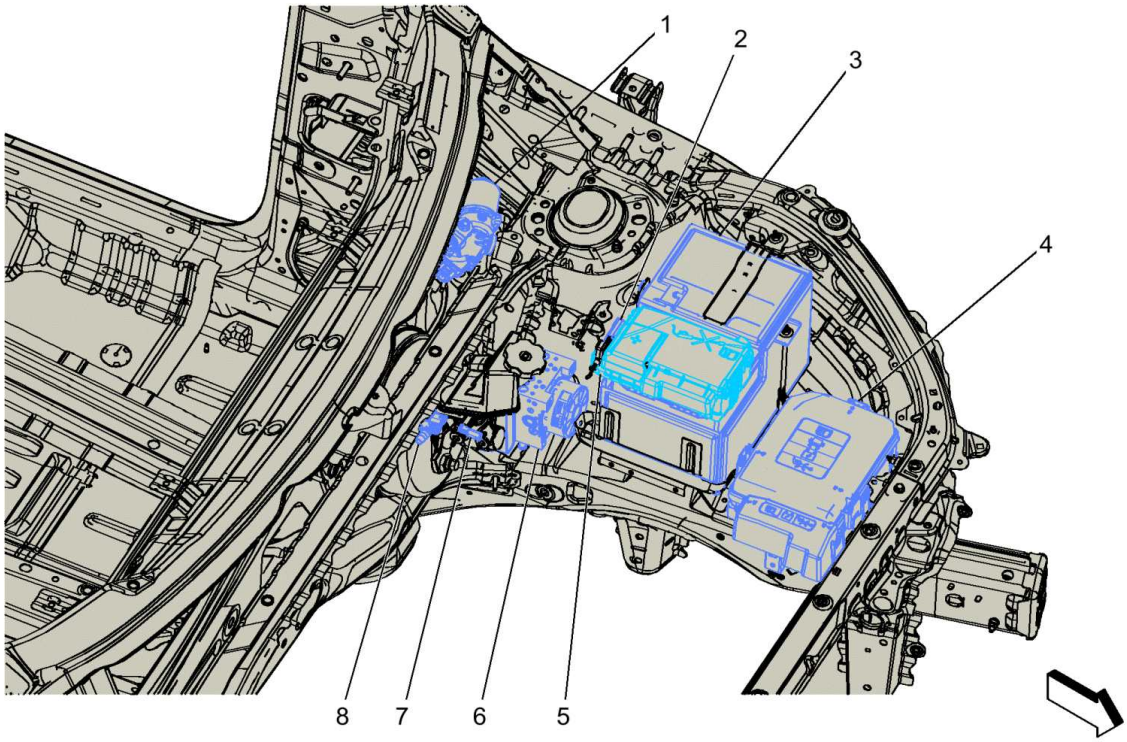



**Fig. 6: Left Side Of The Engine Compartment (2 Of 2)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. M75 Windshield Wiper Motor **M75 Windshield Wiper Motor** |
| 2. B110 Battery Sensor Module (KL9) **B110 Battery Sensor Module X1 (KL9)** **B110 Battery Sensor Module X2 (KL9)** |
| 3. C1 Battery |
| 4. X50A Fuse Block - Underhood **X50A Fuse Block - Underhood X1** **X50A Fuse Block - Underhood X11** **X50A Fuse Block - Underhood X2** **X50A Fuse Block - Underhood X3** **X50A Fuse Block - Underhood X5 (LH7)** **X50A Fuse Block - Underhood X6** **X50A Fuse Block - Underhood X7** **X50A Fuse Block - Underhood X8** **X50A Fuse Block - Underhood X9** |
| 5. X50D Fuse Block - Battery **X50D Fuse Block - Battery X1** **X50D Fuse Block - Battery X2** **X50D Fuse Block - Battery X3 (KL9)** **X50D Fuse Block - Battery X4 (C32)** **X50D Fuse Block - Battery X5** **X50D Fuse Block - Battery X6** **X50D Fuse Block - Battery X7** **X50D Fuse Block - Battery X8** |
| 6. K17 Electronic Brake Control Module **K17 Electronic Brake Control Module** |
| 7. B20 Brake Fluid Level Switch **B20 Brake Fluid Level Switch** |
| 8. B19B Brake Booster Vacuum Sensor **B19B Brake Booster Vacuum Sensor** |

**REAR OF THE ENGINE COMPARTMENT/POWER STEERING CONTROL MODULE**

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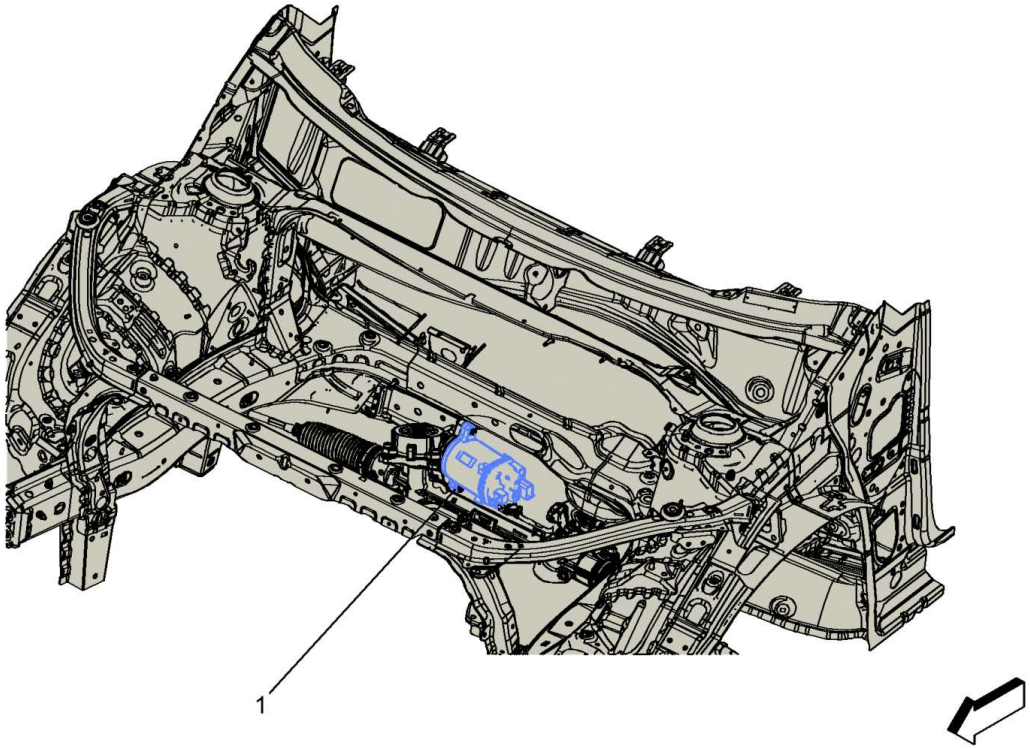



**Fig. 7: Rear Of The Engine Compartment/Power Steering Control Module**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K43 Power Steering Control Module **K43 Power Steering Control Module X1** **K43 Power Steering Control Module X2** |

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Back To Article



# GROUND VIEWS

## G100, AND G110

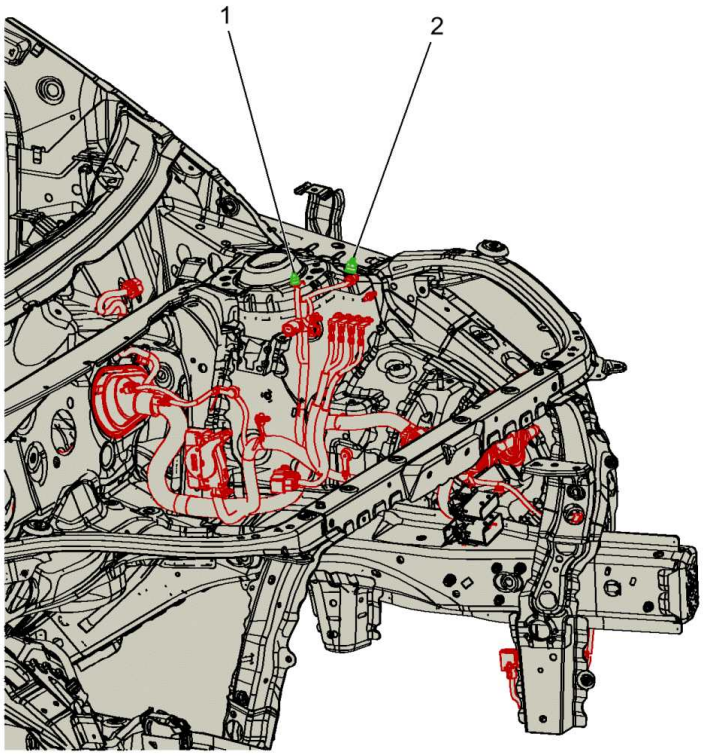



Fig. 1: G100, and G110
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. G110 Body Harness |
| 2. G100 Battery Negative Cable |

## G101 AND G102

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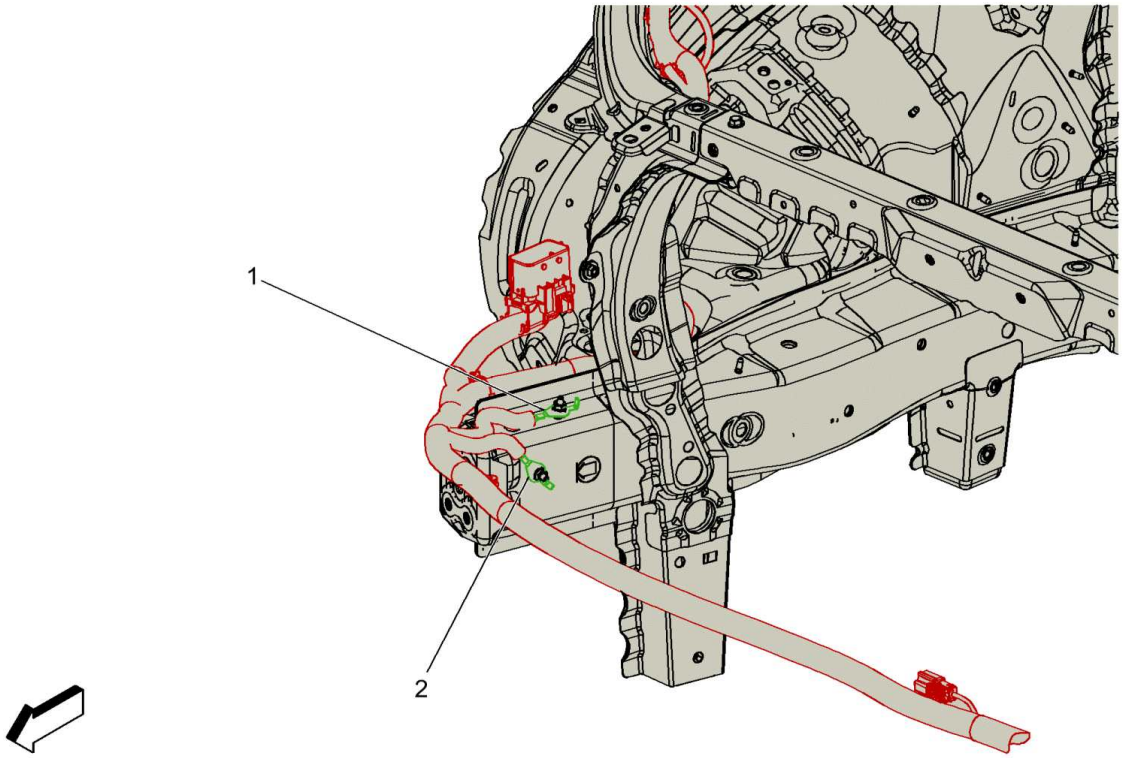



**Fig. 2: G101 and G102**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G101 Forward Lamp Harness |
| 2. G102 Forward Lamp Harness |

## G104 (LTG)

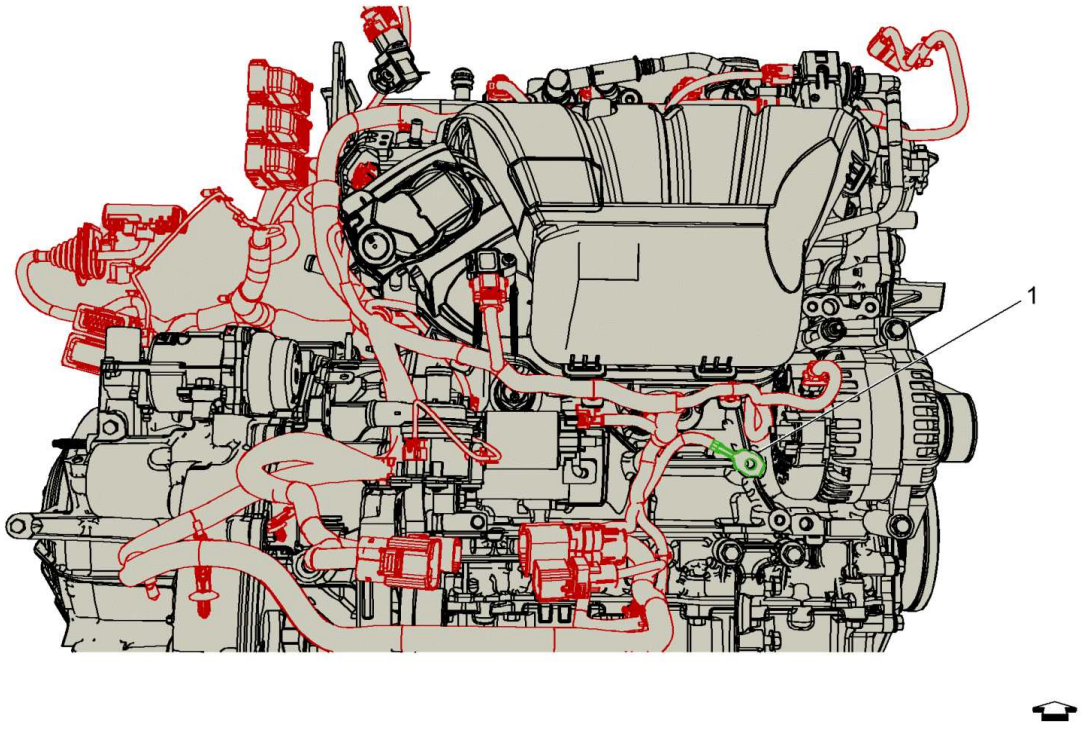



**Fig. 3: G104 (LTG)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. G104 Engine Harness |

## G105 (LTG)

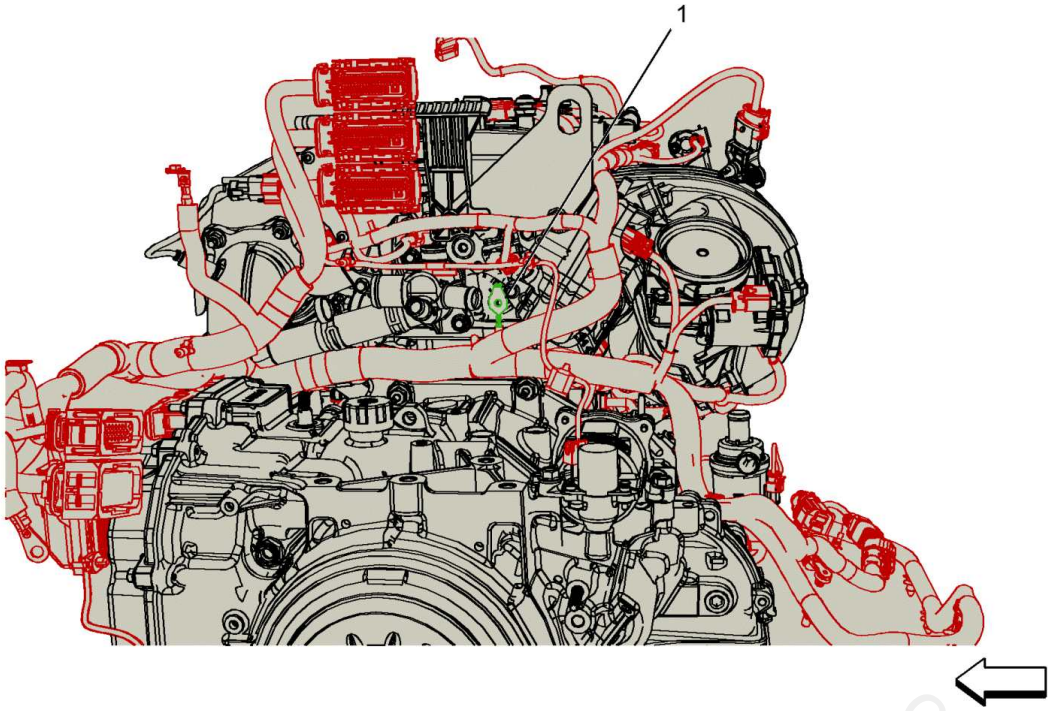
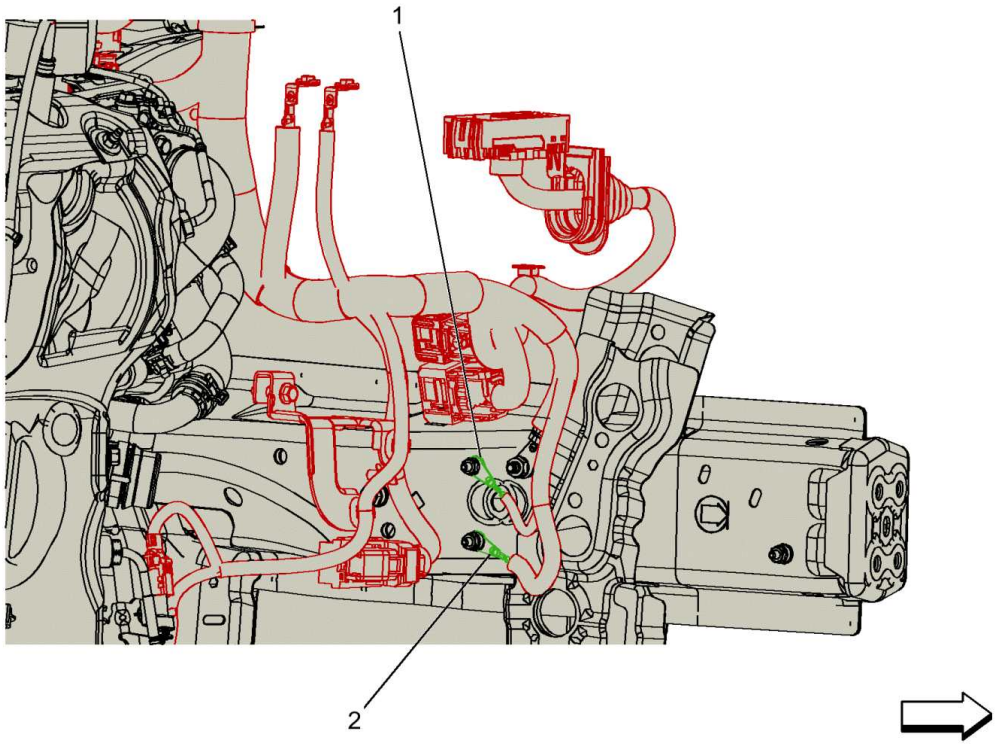



Fig. 4: G105 (LTG)
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G105 Engine Harness |

## G104 AND G105 (LH7)




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Fig. 5: G104 and G105 (LH7)
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. G104 Engine Harness |
| 2. G105 Engine Harness |

## G104, AND G105 (LYX)

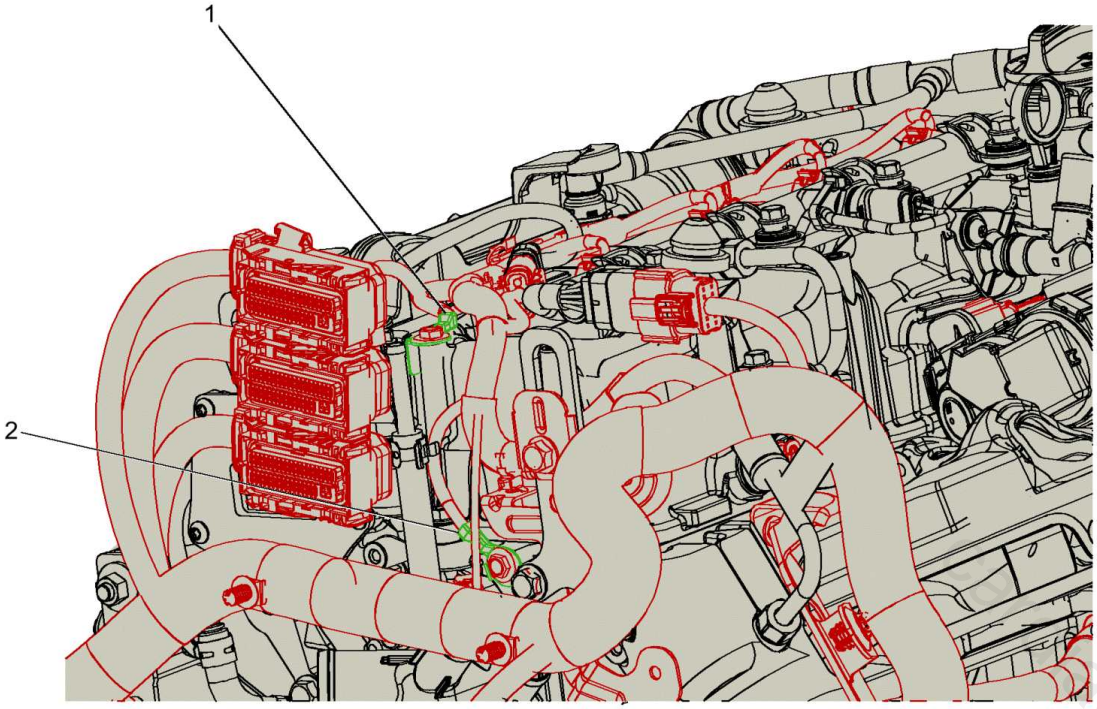



Fig. 6: G104, and G105 (LYX)
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. G104 Engine Harness |
| 2. G105 Engine Harness |

## G106

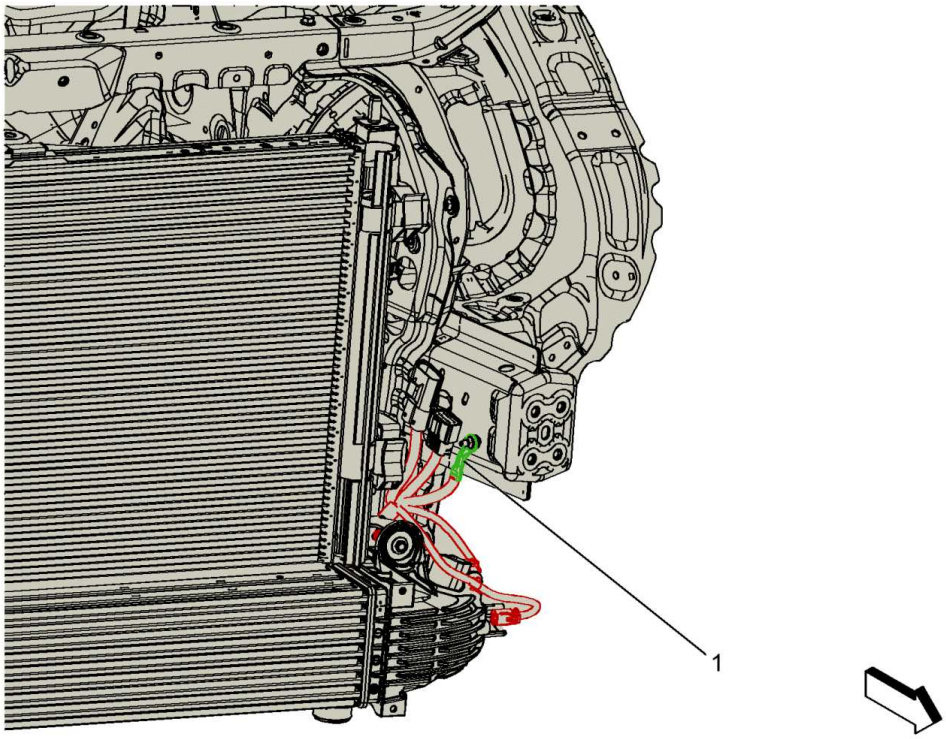



Fig. 7: G106
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. G106 Engine Cooling Fan Harness |

## G107, AND G108

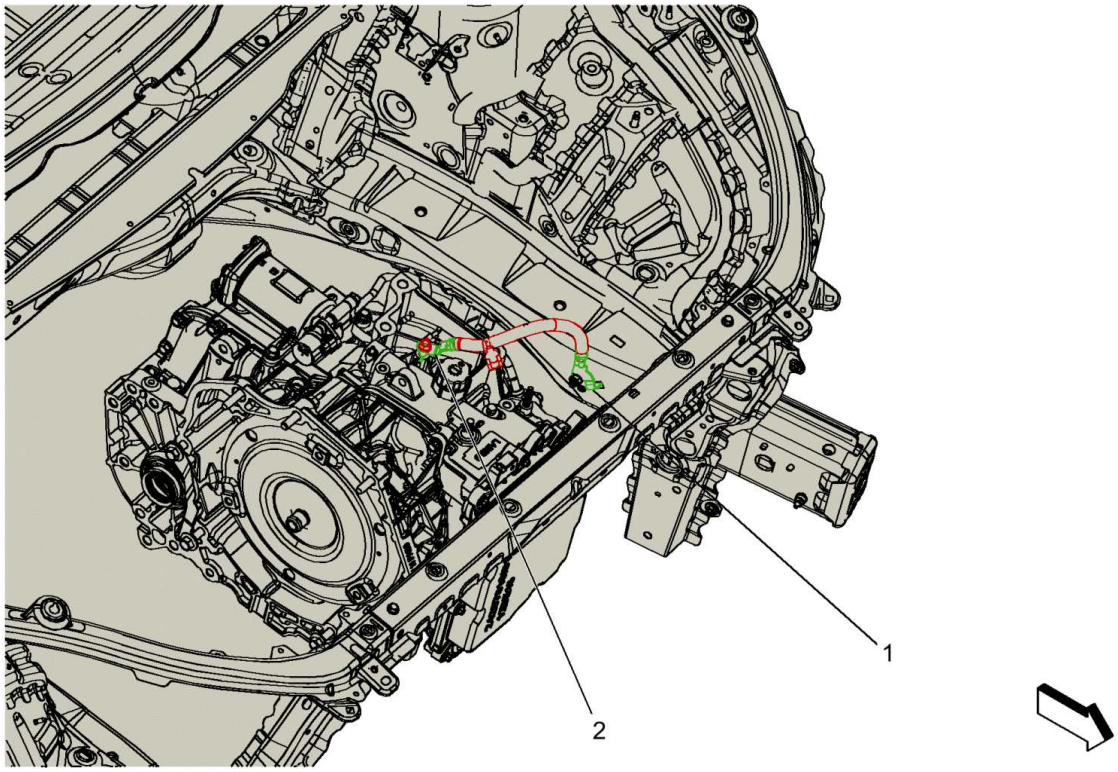



Fig. 8: G107, and G108
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. G107 Body -Transmission Cable |

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| Items |
| --- |
| 2. G108 Body -Transmission Cable |

**G112**

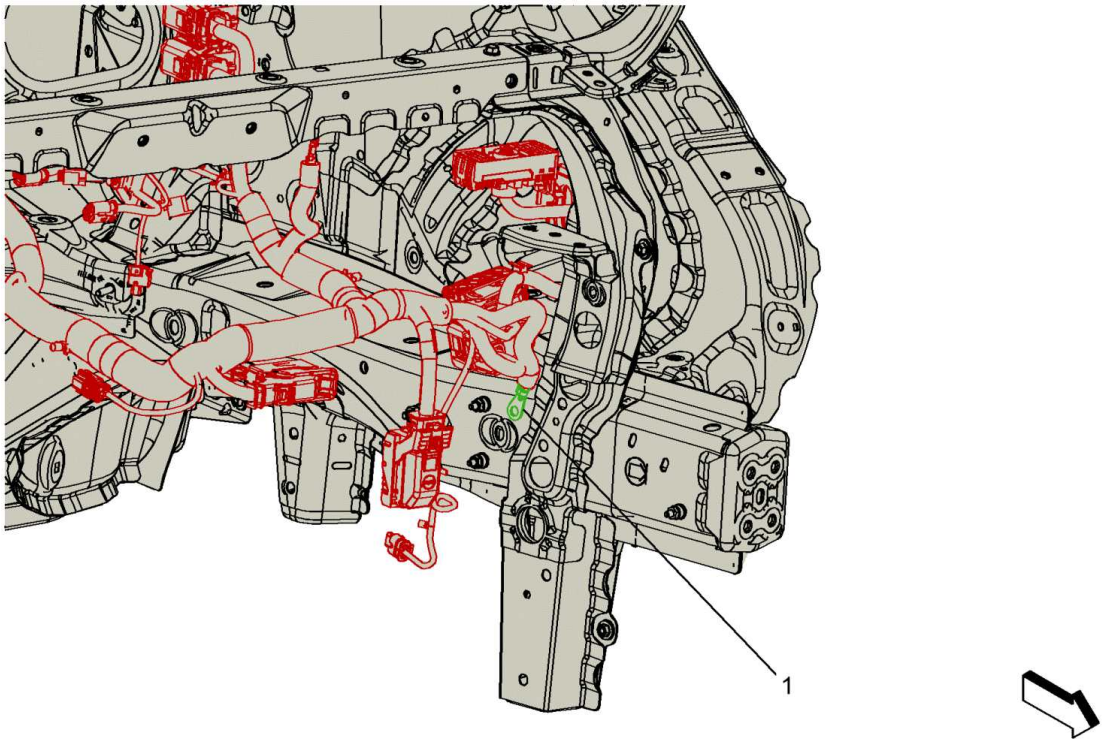
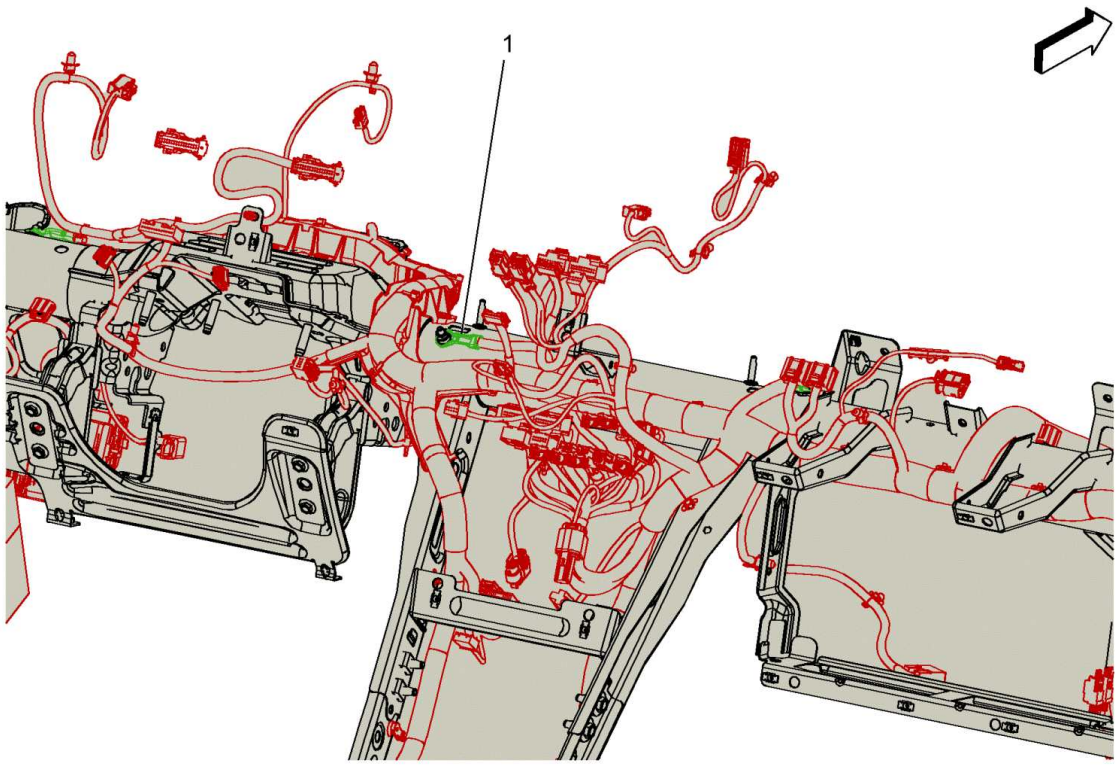



**Fig. 9: G112**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G112 Power Steering Harness |

**G200**




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Fig. 10: G200
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G200 Instrument Panel Harness |

## G201

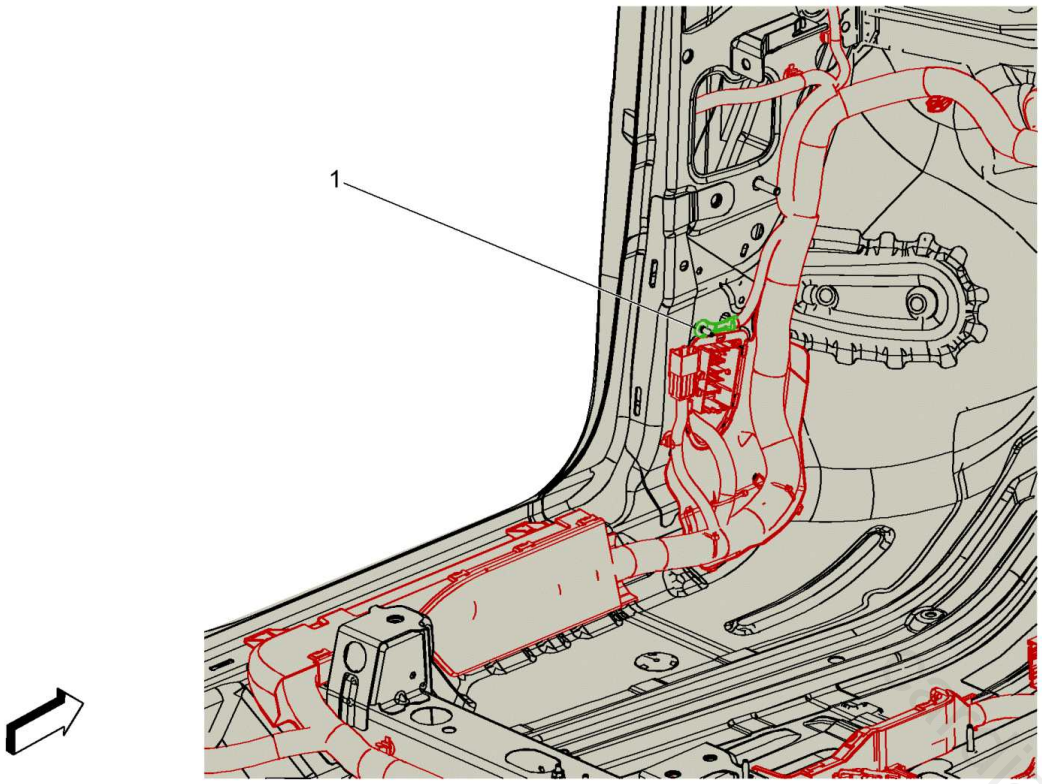



Fig. 11: G201
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G201 Instrument Panel Harness |

## G202

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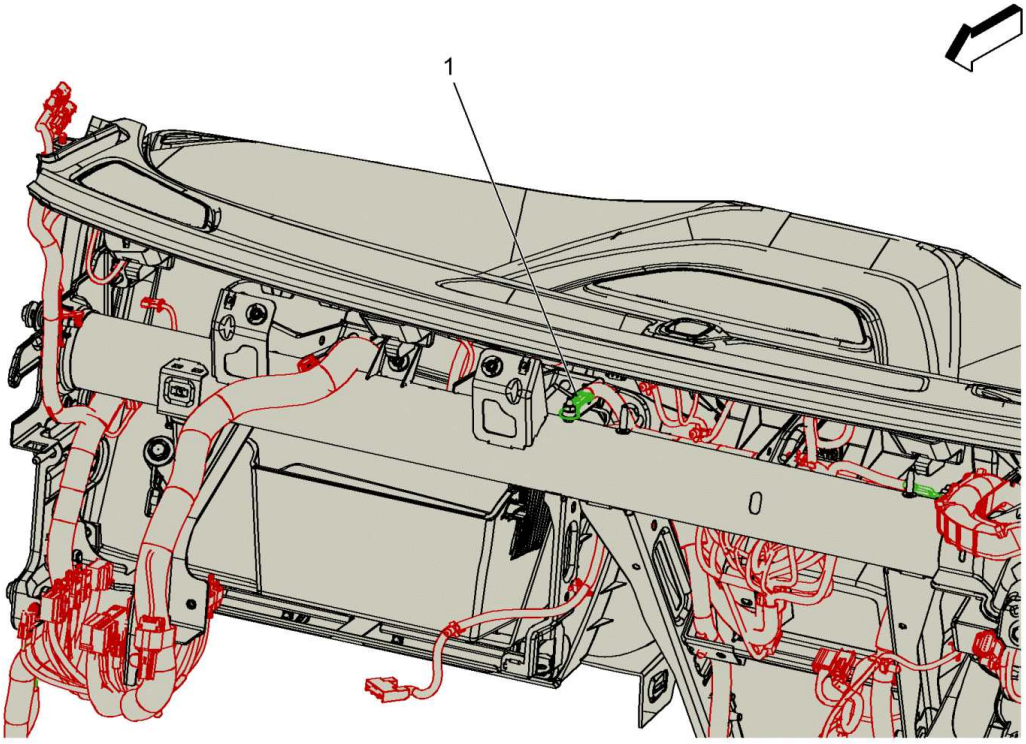



**Fig. 12: G202**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G202 Instrument Panel Harness |

**G203**

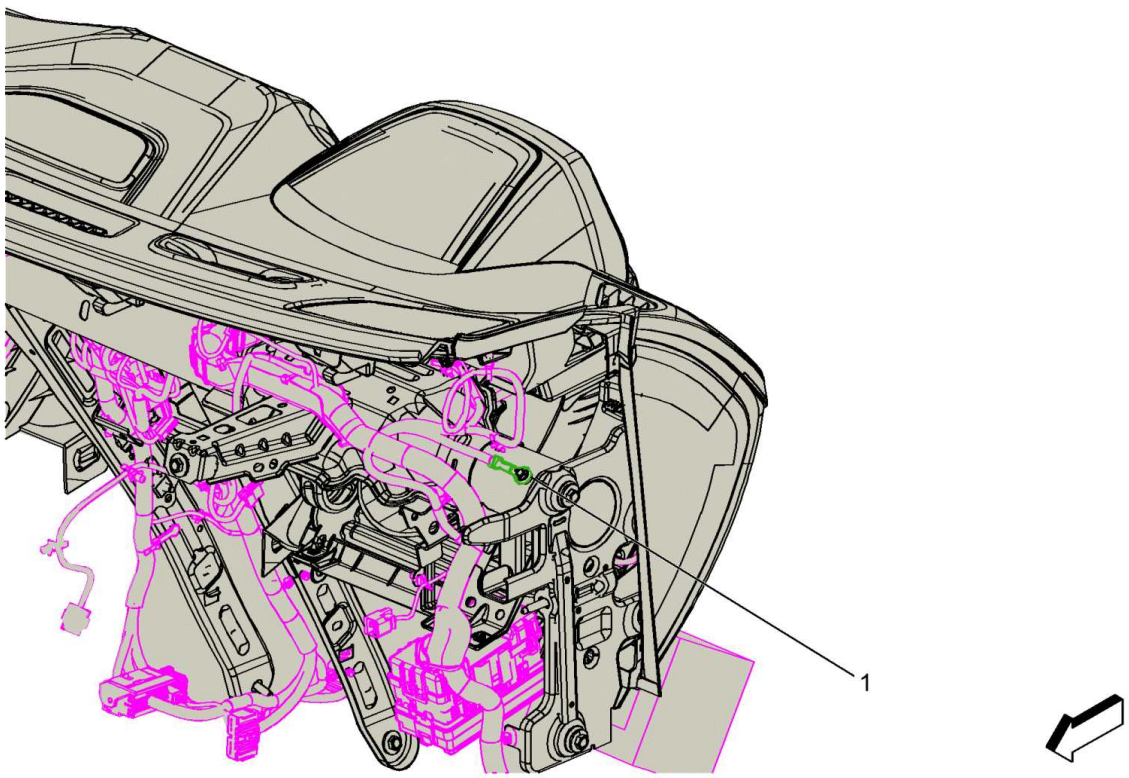



**Fig. 13: G203**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G203 Instrument Panel Harness |

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## G204

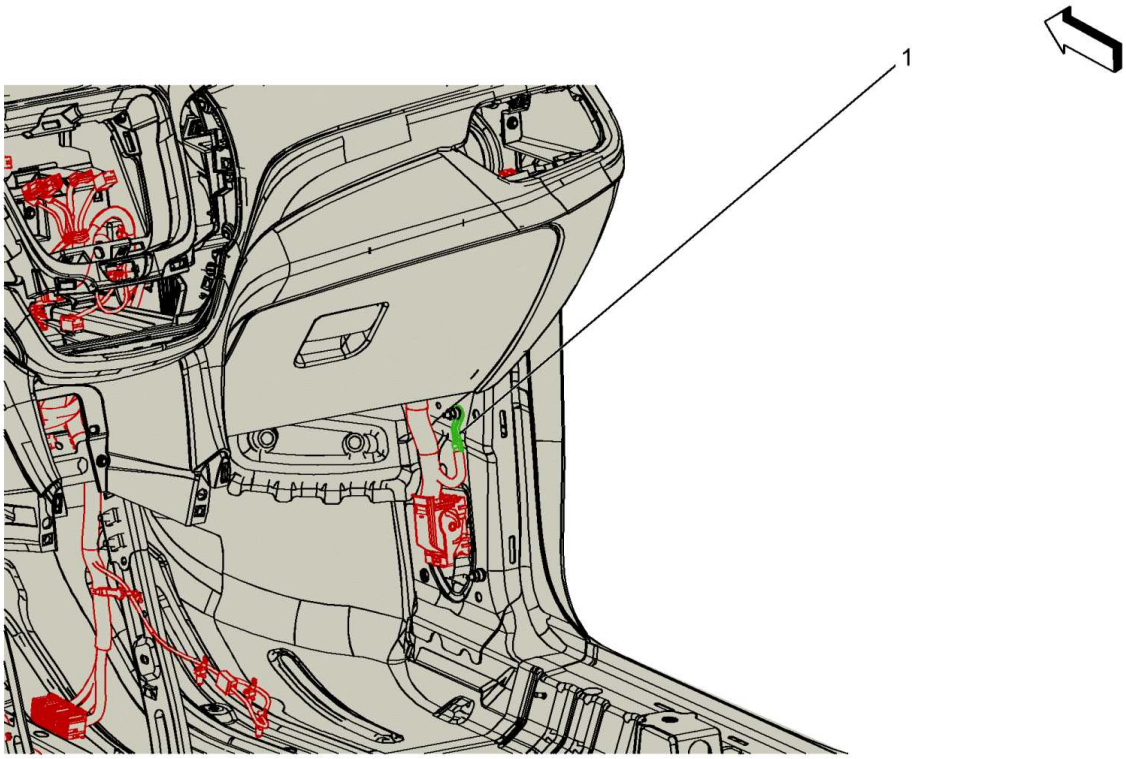



**Fig. 14: G204**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G204 Instrument Panel Harness |

## G205

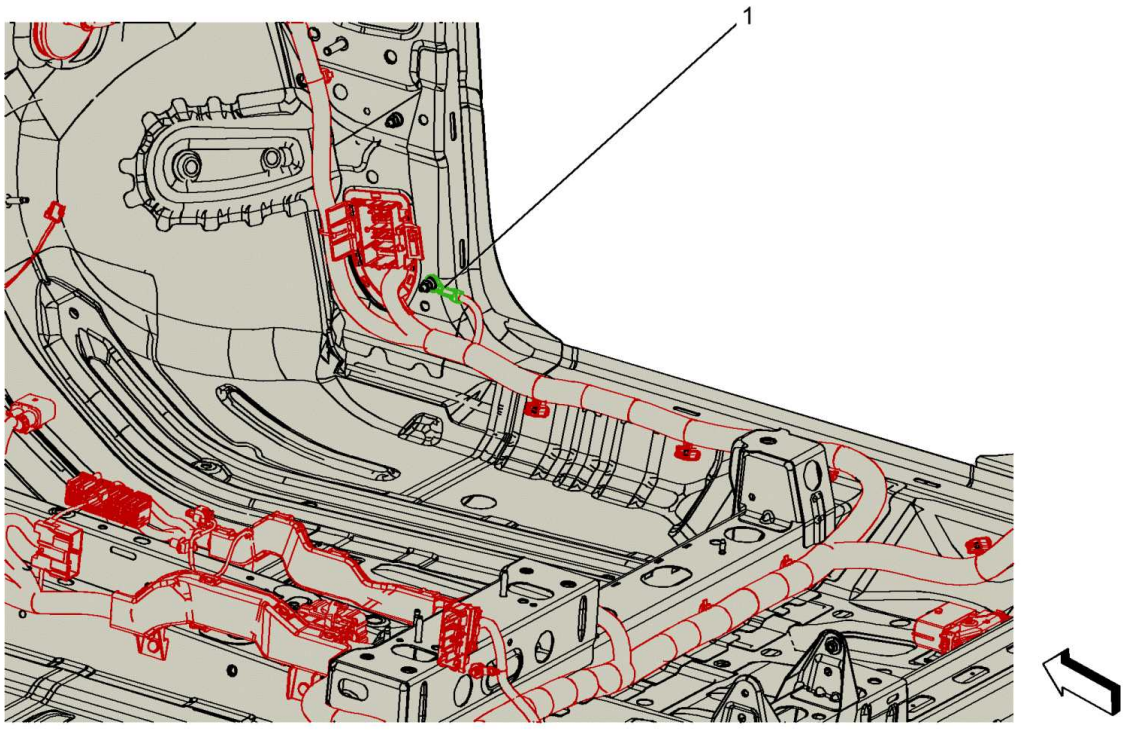



**Fig. 15: G205**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. G205 Body Harness |

## G302, AND G303

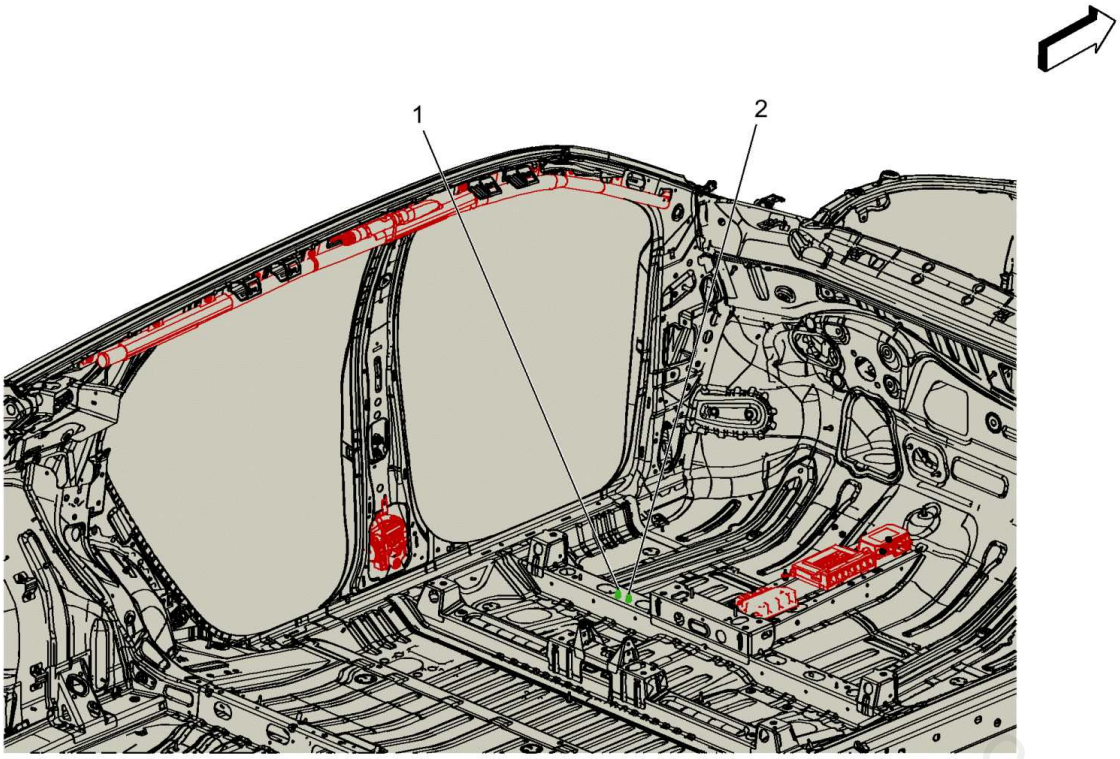



**Fig. 16: G302, and G303**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G302 Body Harness |
| 2. G303 Body Harness (C32) |

## G304

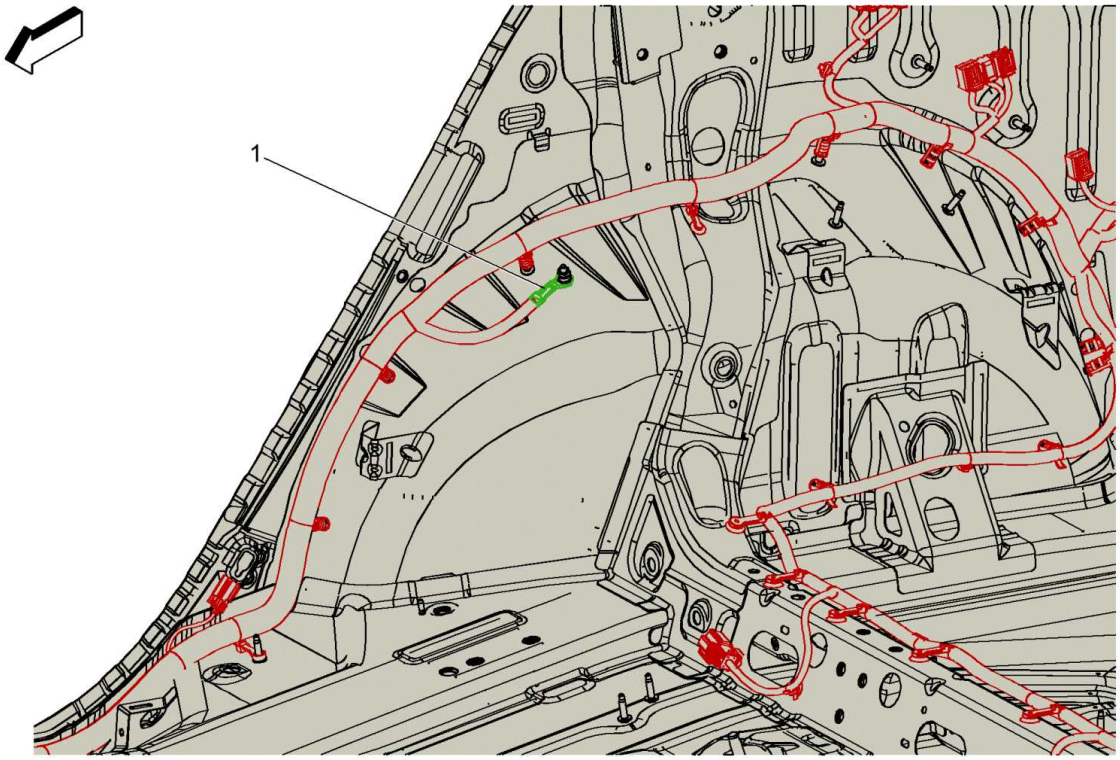


Fig. 17: G304
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G304 Body Harness |

## G305

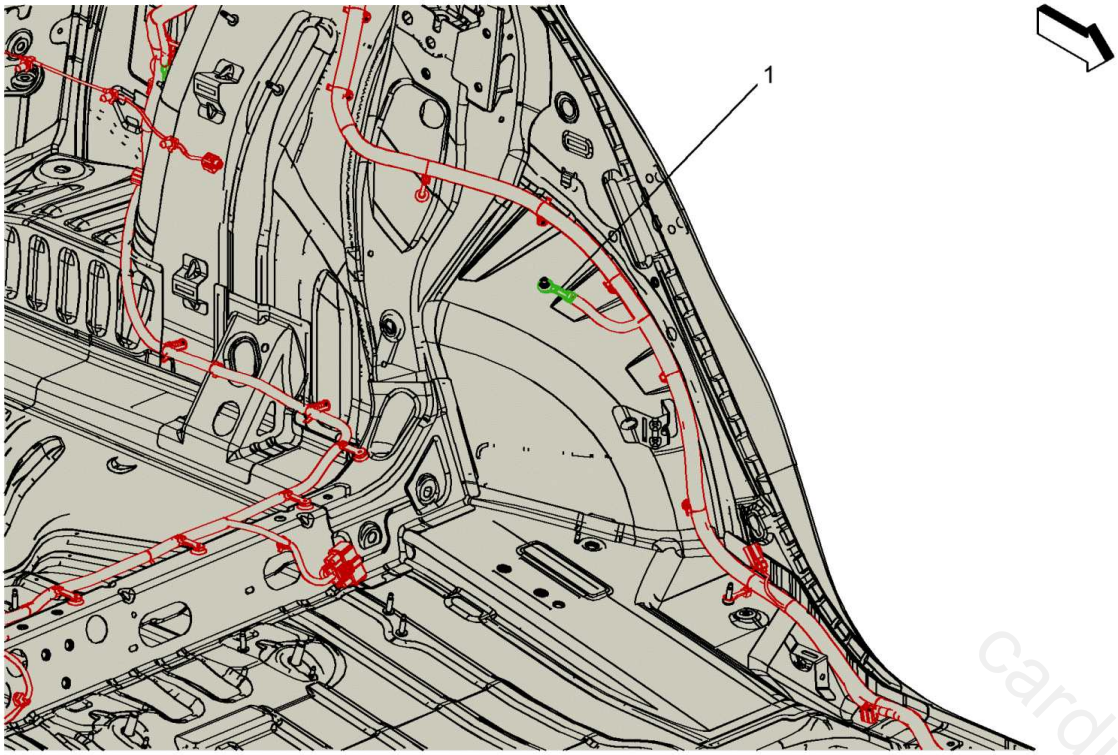



Fig. 18: G305
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G305 Body Harness |

## G400 (F48)

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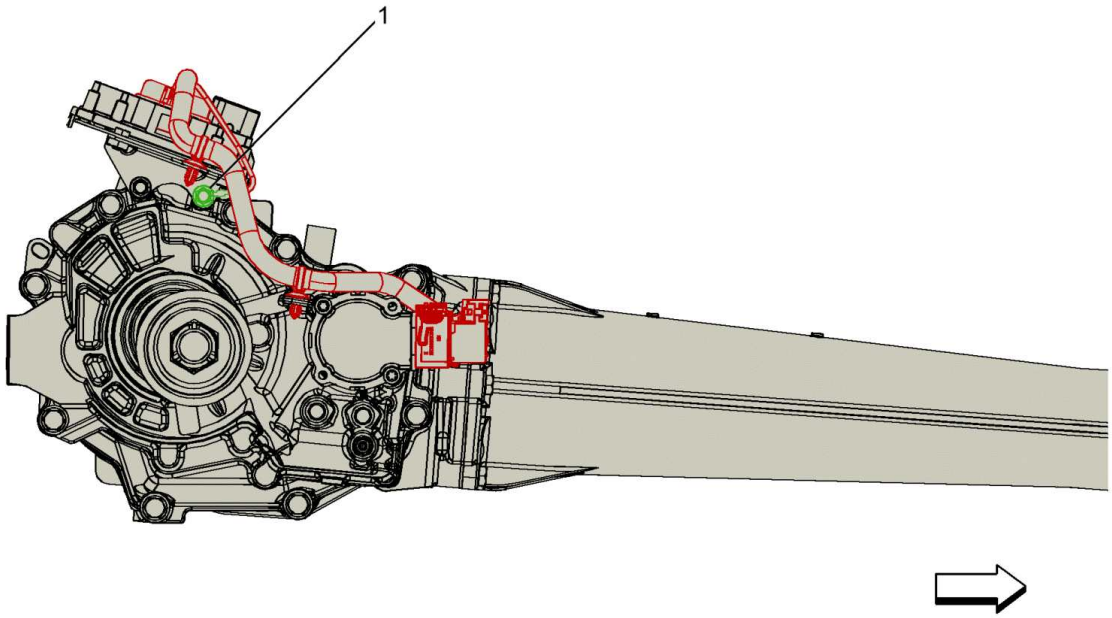



**Fig. 19: G400 (F48)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G400 Rear Differential Clutch Control Module Harness (F48) |

**G403**

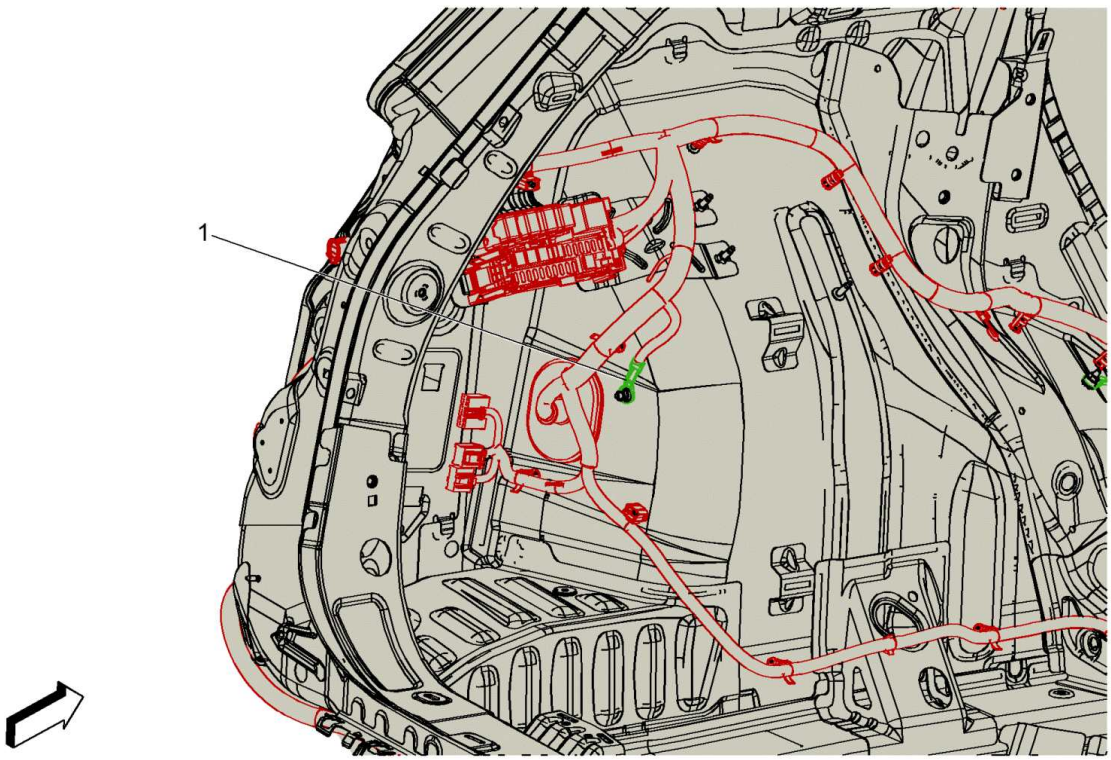



**Fig. 20: G403**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. G403 Body Harness |

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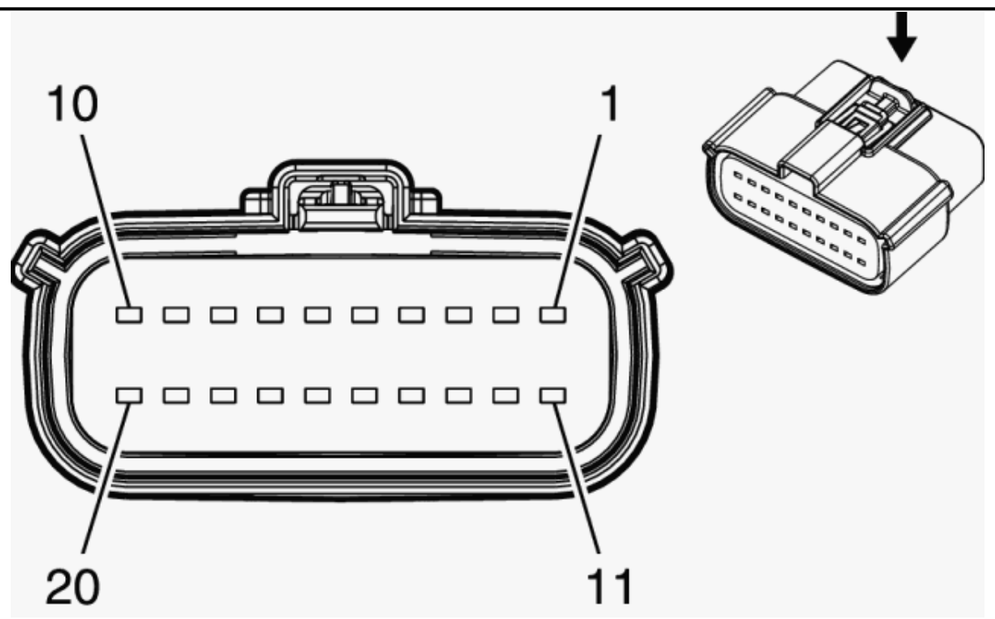
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# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Inline Harness Connector End Views (X100 - X120) - Equinox & Terrain

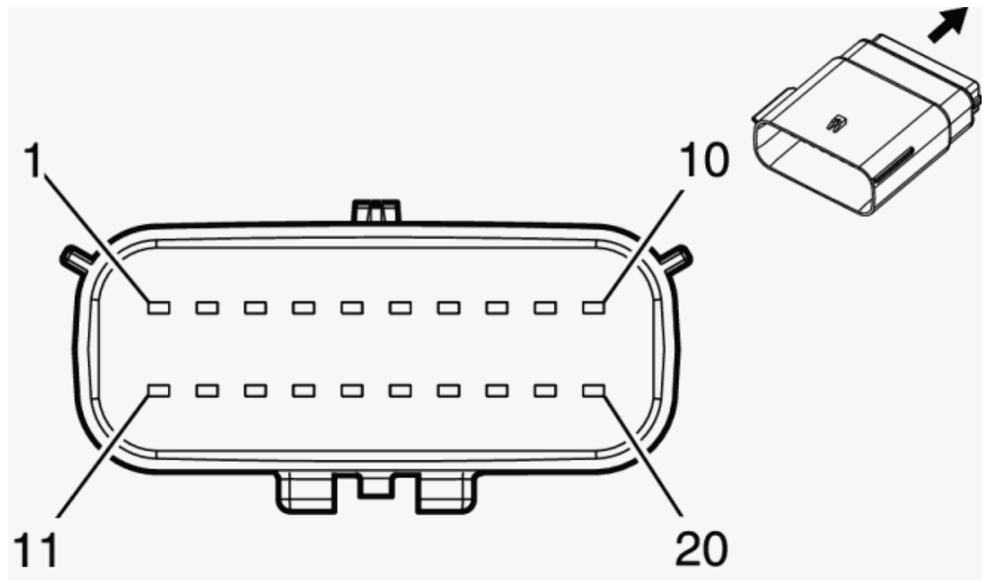
## INLINE HARNESS CONNECTOR END VIEWS

### X100 FRONT FASCIA HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Front Fascia
- OEM Connector: 13504367
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 1.5 Series, Sealed (BK)




Connector Part Information

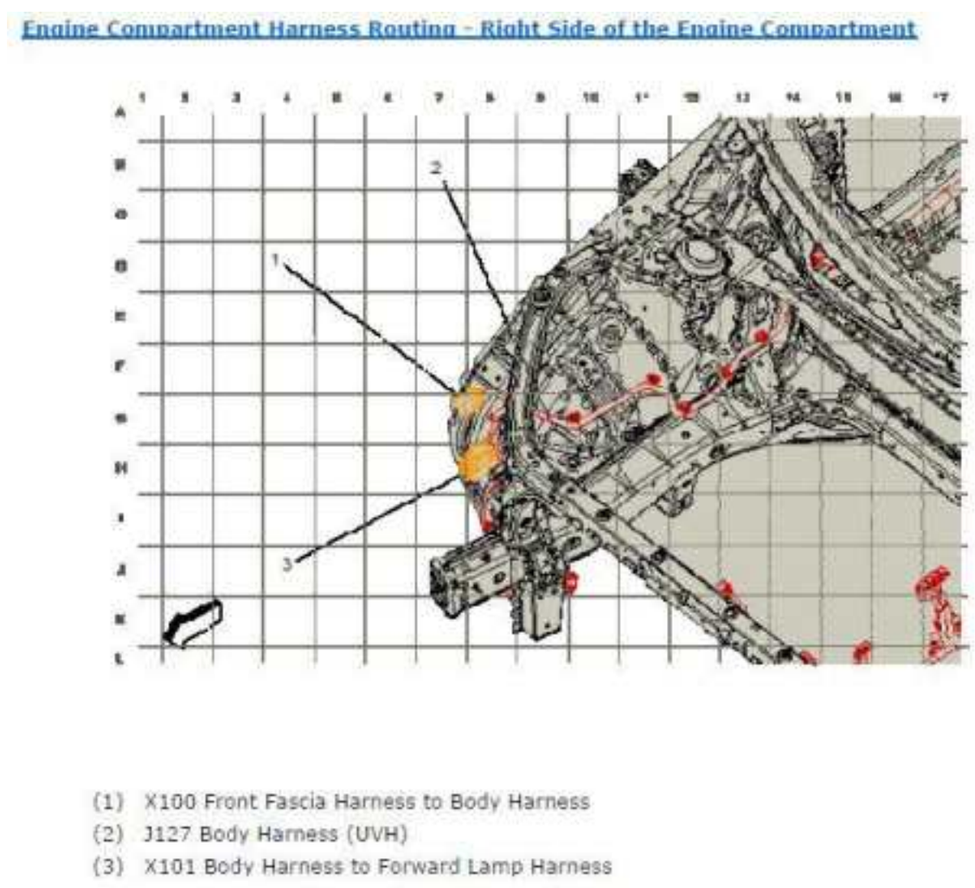
- Harness Type: Body
- OEM Connector: 13598210
- Service Connector: 19351705
- Description: 20-Way M 1.5 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 19119395 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/VT | 5213 | I | - | Front Parking Left/Right/Mid Sensor | 1 | 0.35 | YE/VT | 5213 | II | - |
| 2 | 0.35 | VT/WH | 5215 | I | UD5/UFQ | Front Parking Left Corner Sensor | 2 | 0.35 | VT/WH | 5215 | II | - |
| 3 | 0.35 | YE/GY | 5216 | I | UD5/UFQ | Front Parking Left Mid Sensor | 3 | 0.35 | YE/GY | 5216 | II | UD5/UFQ |
| 4 | 0.35 | VT/GY | 5218 | I | - | Front Parking Right Mid Sensor | 4 | 0.35 | VT/GY | 5218 | II | - |
| 5 | 0.35 | WH/GY | 5217 | I | UD5/UFQ | Front Parking Right Corner Sensor | 5 | 0.35 | WH/GY | 5217 | II | UD5/UFQ |
| 6 | 0.35 | BK/BU | 5214 | I | UD5/UFQ | Front Parking Sensor Low Reference | 6 | 0.35 | BK/BU | 5214 | II | UD5/UFQ |
| 7 | 0.35 | WH | 6974 | I | UVH | Camera Low Reference | 7 | 0.35 | WH | 6974 | II | UVH |
| 8 | 0.35 | GY/YE | 6972 | I | UVH | Camera Signal 2 + | 8 | 0.35 | GY/YE | 6972 | II | UVH |
| 9 | 0.35 | WH/BU | 6973 | I | UVH | Camera Signal 2 | 9 | 0.35 | WH/BU | 6973 | II | UVH |
| 10 | 0.35 | GN/YE | 6840 | I | UVH | Auxiliary Device 2 Switched Voltage | 10 | 0.35 | GN/YE | 6840 | II | UVH |
| 11 | 0.35 | BK/WH | 1351 | I | UVH | Signal Ground | 11 | 0.35 | BK/WH | 1351 | II | UVH |
| 12 | 0.5 | BN/VT | 2234 | I | - | Front Fog Lamp Control | 12 | 0.5 | BN/VT | 2234 | II | - |
| 13 | - | - | - | - | - | Not Occupied | 13 | - | - | - | - | - |
| 14 | 0.35 | GY | 3154 | I | UFQ | Left Front Supplemental Object Sensor Signal | 14 | 0.35 | GY | 3154 | II | UFQ |
| 15 | 0.35 | GN | 3155 | I | UFQ | Right Front Supplemental Object Sensor Signal | 15 | 0.35 | GN | 3155 | II | UFQ |
| 16 | - | - | - | - | - | Not Occupied | 16 | - | - | - | - | - |
| 17 | 1<br>0.35<br>0.5 | BK<br>BK<br>BK | 2050<br>2050<br>2050 | I<br>I<br>I | T3U<br>-T3U<br>X88-T3U | Ground<br>Ground<br>Ground | 17 | 1<br>1 | BK<br>BK | 2050<br>2050 | III<br>III | T3U<br>X88-T3U |
| 18 | 1<br>0.5 | BK<br>BK | 1550<br>1550 | I<br>I | T3U<br>-T3U | Ground<br>Ground | 18 | 1 | BK | 1550 | III | - |
| 19 | 0.5 | BU/WH | 1314 | I | - | Left Front Turn Signal Lamp Control | 19 | 0.5 | BU/WH | 1314 | II | - |
| 20 | 0.35 | GN/VT | 1315 | I | - | Right Front Turn Signal Lamp Control | 20 | 0.5 | GN/VT | 1315 | II | - |

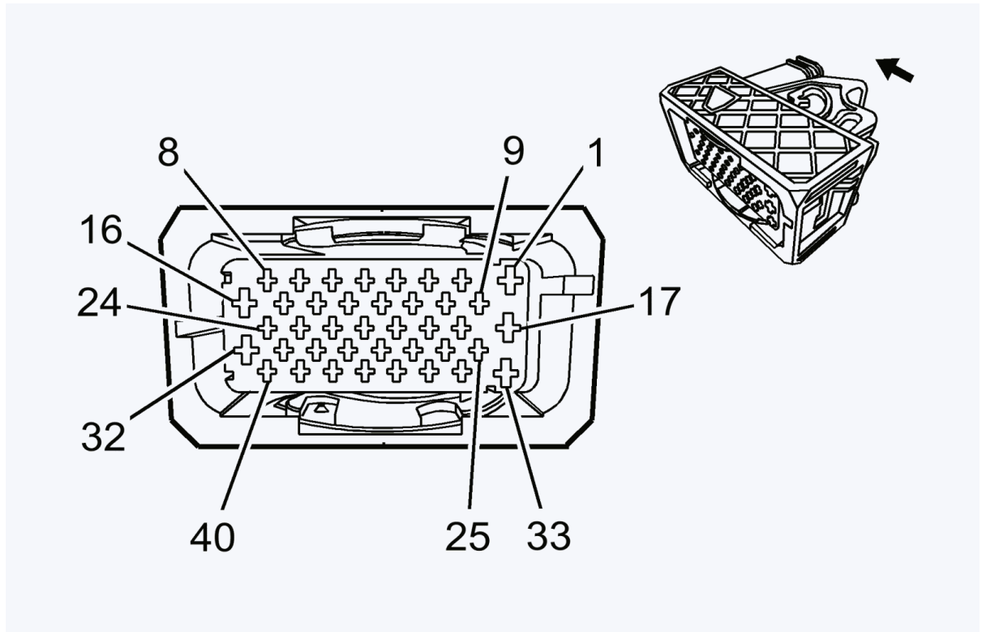
### X101 BODY HARNESS TO FORWARD LAMP HARNESS




(1) X100 Front Fascia Harness to Body Harness
(2) J127 Body Harness (UVH)
(3) X101 Body Harness to Forward Lamp Harness

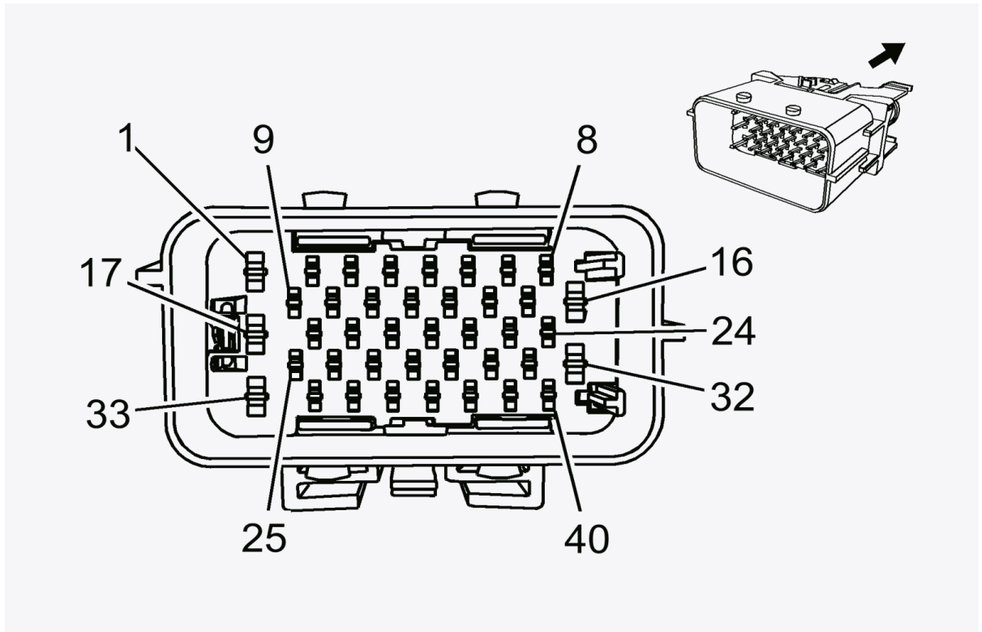
Fig. 1: X101 Body Harness To Forward Lamp Harness Component Location (3)
Courtesy of GENERAL MOTORS COMPANY

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Connector Part Information

- Harness Type: Body
- OEM Connector: 13589781
- Service Connector: 13576550
- Description: 40-Way F 1.5, 2.8 Series, Sealed (GY)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13313280
- Service Connector: 13576553
- Description: 40-Way M 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

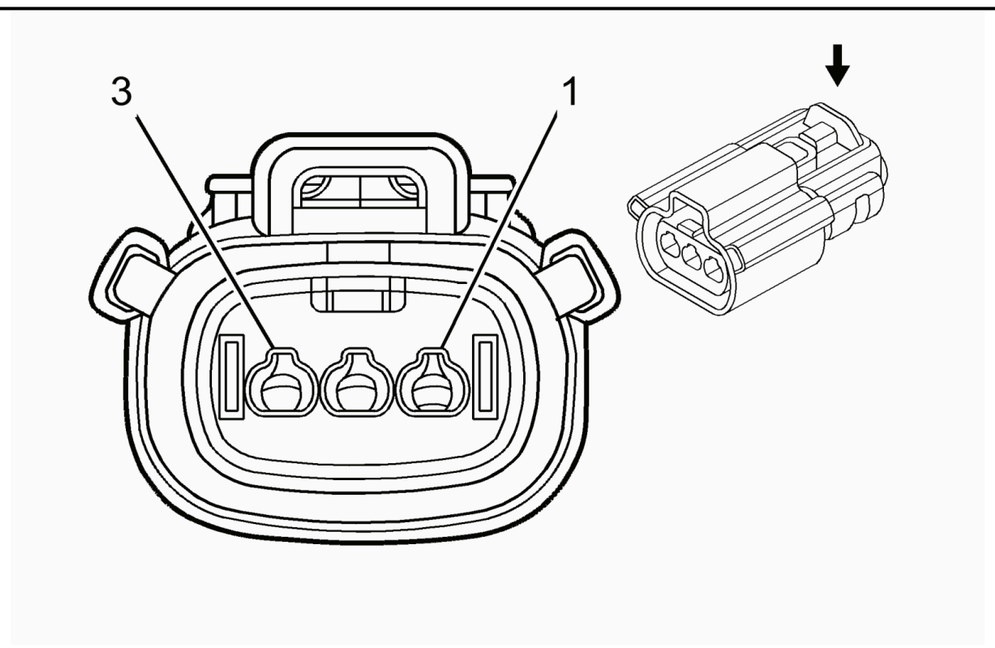
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13576369 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 13580829 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| III | 13580830 | J-35616-35 (VT) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IV | 19353105 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| V | 19353105 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VI | 19368143 | J-35616-14 (GN) | J-38125-560 | 60000641 | AFL 21 | 2 | 5 |
| VII | 13575380 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VIII | 13576397 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| IX | 13578882 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| X | 13581368 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| XI | 19355817 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| XII | 19368136 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1450 | V | - | Ground | 1 | 1.5 | BK | 1450 | XI | - |
| 2 | 0.35 | OG/GN | 1409 | I | - | Right Front Discriminating Sensor Signal | 2 | 0.5 | OG/GN | 1409 | VII | - |
| 3 | 0.35 | BK/OG | 5600 | I | - | Right Front Discriminating Sensor Low Reference | 3 | 0.5 | BK/OG | 5600 | VII | - |
| 4 | 0.35 | YE | 5530 | I | KL9 | Hood Open Switch Signal | 4 | 0.35 | YE | 5530 | IX | KL9 |
| 5 | 0.35 | BN/GN | 4064 | I | - | Hood Status B Signal | 5 | 0.35 | BN/GN | 4064 | IX | - |
| 6 | 0.35 | RD/VT | 1242 | I | T4L+TR7 | Battery Positive Voltage | 6 | 0.35 | RD/VT | 1242 | IX | T4L+TR7 |
| 7 | 0.35 | BK | 1050 | I | T4L+TR7 | Ground | 7 | 1 | BK | 1050 | XII | T4L+TR7 |
| 8 | 0.35 | WH/YE | 1204 | I | - | Left Park Lamp Control | 8 | 0.35<br>0.35<br>0.35<br>0.35<br>0.35<br>0.35<br>0.35<br>0.35 | WH/YE<br>WH/YE<br>WH/YE<br>WH/YE<br>WH/YE<br>WH/YE<br>WH/YE<br>WH/YE | 1204<br>1204<br>1204<br>1204<br>1204<br>1204<br>1204<br>1204 | IX<br>IX<br>IX<br>IX<br>IX<br>VIII<br>VIII<br>VIII | T4A+MAH/MBC/MCX/MBI-Z88<br>T4F+MAH/MBC/MCX/MBI-Z88<br>T4L+MAH/MBC/MCX-X88<br>Z88+T4F<br>Z88+T4L+MAH/MBC/MCX/MAM<br>T4A+MAH/MBC/MCX/MBI+Z88<br>T4F+MAH/MBC/MCX/MBI+Z88<br>T4L+MAH/MBC/MCX-Z88 |
| 9 | - | - | - | - | - | Headlamp Leveling Motor Control | 9 | 0.35 | BN/YE | 189 | IX | - |
| 10 | 0.35 | VT/BU | 5705 | I | - | Powertrain Main Relay Fused Control 6 | 10 | 0.35 | VT/BU | 5705 | IX | - |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.5 | VT/BK | 739 | I | UVD | Run/Crank Ignition 1 Voltage | 12 | 0.5 | VT/BK | 739 | VII | - |
| 13 | 0.35 | WH/RD | 7524 | I | T4L+TR7 | Front Axle Level Sensor 5V Reference | 13 | 0.35 | WH/RD | 7524 | IX | T4L+TR7 |
| 14 | - | - | - | - | - | Front Axle Level Sensor Signal | 14 | 0.35 | BN/WH | 7525 | IX | T4L+TR7 |
| 15 | 0.35 | BK/GY | 7526 | I | T4L+TR7 | Front Axle Level Sensor Low Reference | 15 | 0.35 | BK/GY | 7526 | IX | T4L+TR7 |
| 16 | 0.5 | BN/VT | 2234 | III | - | Front Fog Lamp Control | 16 | 0.5 | BN/VT | 2234 | X | - |
| 17 | 1.5 | YE/BN | 95 | II | Z88 | Windshield Wiper Motor Low Speed Control | 17 | 1.5 | YE/BN | 95 | XI | - |
| 18 | 0.35 | VT/GY | 709 | I | - | Left Park Lamp Control<br>Left Park Lamp Control | 18 | 0.35<br>0.35 | VT/GY<br>VT/GY | 709<br>709 | IX<br>VIII | Z88+T4F<br>T4L+TR7-MAH-MCX-MBC |
| 19 | - | - | - | - | - | Right Park Lamp Control | 19 | 0.35 | GY/BN | 309 | IX | - |
| 20 | - | - | - | - | - | Right Park Lamp Control | 20 | 0.35 | VT | 1203 | IX | - |
| 21 | - | - | - | - | - | Not Occupied | 21 | - | - | - | - | - |
| 22 | 0.35 | BN/YE | 189 | I | TR6 | Headlamp Leveling Motor Control | 22 | 0.35 | BN/YE | 189 | IX | TR6 |
| 23 | 0.5 | BU/WH | 1314 | I | - | Left Front Turn Signal Lamp Control | 23 | 0.35<br>0.5 | BU/WH<br>BU/WH | 1314<br>1314 | IX<br>VII | Z88+T4F<br>Z88+T4L+MAH/MBC/MCX/MAM |
| 24 | 0.5 | GN/VT | 1315 | I | - | Right Front Turn Signal Lamp Control | 24 | 0.35<br>0.5 | GN/VT<br>GN/VT | 1315<br>1315 | IX<br>VII | Z88+T4F<br>Z88+T4L+MAH/MBC/MCX/MAM |
| 25 | 1.5 | YE | 312 | VI | - | Right Headlamp Low Beam Control | 25 | 1.5 | YE | 312 | XII | - |
| 26 | 1.5 | YE | 712 | VI | - | Left Headlamp Low Beam Control | 26 | 1.5 | YE | 712 | XII | - |
| 27 | 0.35 | VT | 185 | I | - | Low Washer Fluid Indicator Control | 27 | 0.35 | VT | 185 | VIII | - |
| 28 - 31 | - | - | - | - | - | Not Occupied | 28 - 31 | - | - | - | - | - |
| 32 | 1.5 | RD/GY | 3540 | II | Z88 | Battery Positive Voltage | 32 | 2 | RD/GY | 3540 | XI | - |
| 33 | 1.5 | WH | 92 | IV | - | Windshield Wiper Motor High Speed Control | 33 | 1.5 | WH | 92 | XI | - |
| 34 | - | - | - | - | - | Not Occupied | 34 | - | - | - | - | - |
| 35 | 0.35 | GN/VT | 4621 | I | KL9+VTI | Local Interconnect Network Serial Data Bus 21 | 35 | 0.35 | GN/VT | 4621 | VIII | VTI |

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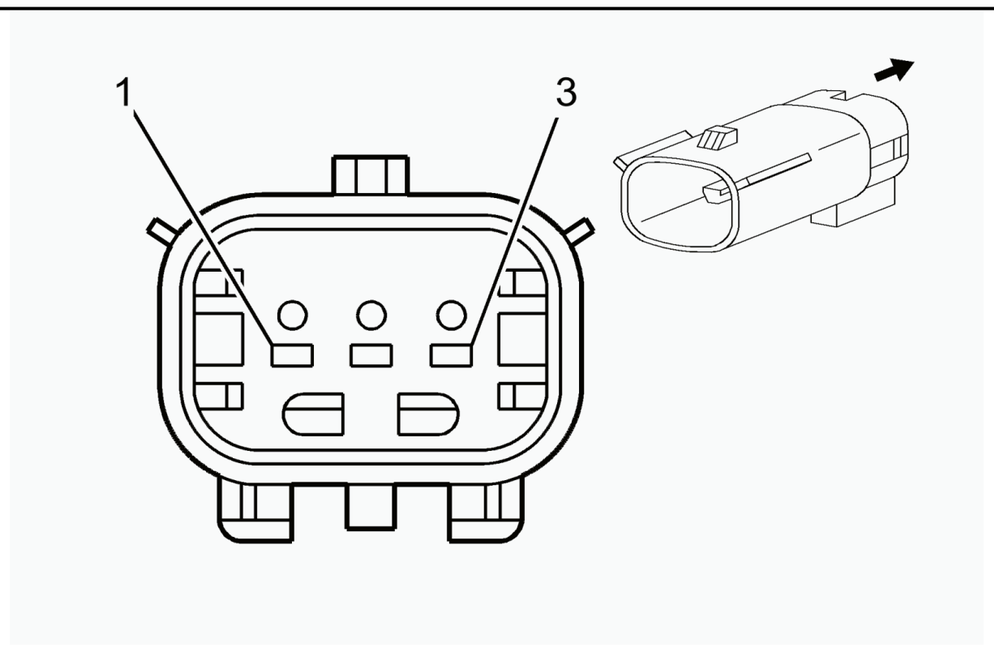
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | 0.35 | GN/BN | 7529 | I | T4L+TR7 | Local Interconnect Network Serial Data Bus 7<br>Local Interconnect Network Serial Data Bus 7 | 36 | 0.35<br>0.35 | GN/BN<br>GN/BN | 7529<br>7529 | VIII<br>VIII | T4L+TR7-MAH-MCX-MBC<br>T4L+TR7 |
| 37 | - | - | - | - | - | Local Interconnect Network Serial Data Bus 8 | 37 | 0.35 | GN/WH | 7530 | IX | T4L+TR7-MAH-MCX-MBC |
| 38 | 0.35 | OG/YE | 354 | I | AY0 | Left Front Discriminating Sensor Signal | 38 | 0.35 | OG/YE | 354 | IX | AY0 |
| 39 | 0.35 | BK/OG | 5045 | I | AY0 | Left Front Discriminating Sensor Low Reference | 39 | 0.35 | BK/OG | 5045 | IX | AY0 |
| 40 | - | - | - | - | - | Not Occupied | 40 | - | - | - | - | - |

## X102 FORWARD LAMP HARNESS TO FORWARD LAMP EXTENSION HARNESS




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503225
- Service Connector: 19301648
- Description: 3-Way F 150 MX Series, Sealed (BK)




Connector Part Information

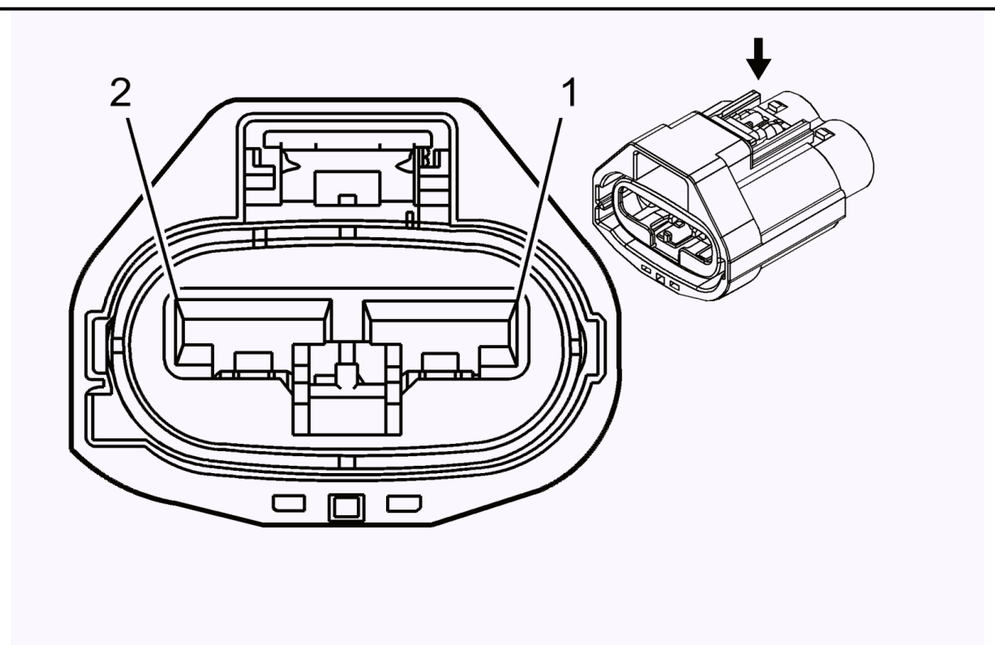
- Harness Type: Forward Lamp Extension
- OEM Connector: 13503931
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way M 150 MX Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

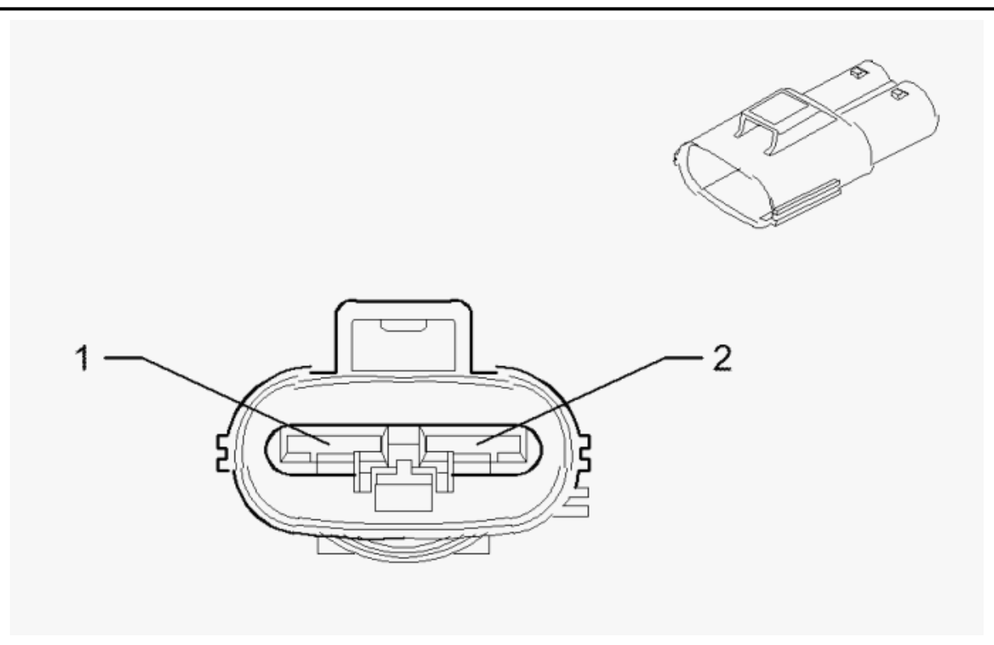
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | VT/BU | 5705 | I | VTI | Powertrain Main Relay Fused Control 6 | 1 | 0.35 | VT/BU | 5705 | II | VTI |
| 2 | 0.35 | GN/VT | 4621 | I | VTI | Local Interconnect Network Serial Data Bus 21 | 2 | 0.35 | GN/VT | 4621 | II | VTI |
| 3 | 0.35 | BK | 1150 | I | VTI | Ground | 3 | 0.35 | BK | 1150 | II | VTI |

## X103 FORWARD LAMP HARNESS TO COOLING FAN HARNESS




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 7283-3214-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 375 Series, Sealed (BK)




Connector Part Information

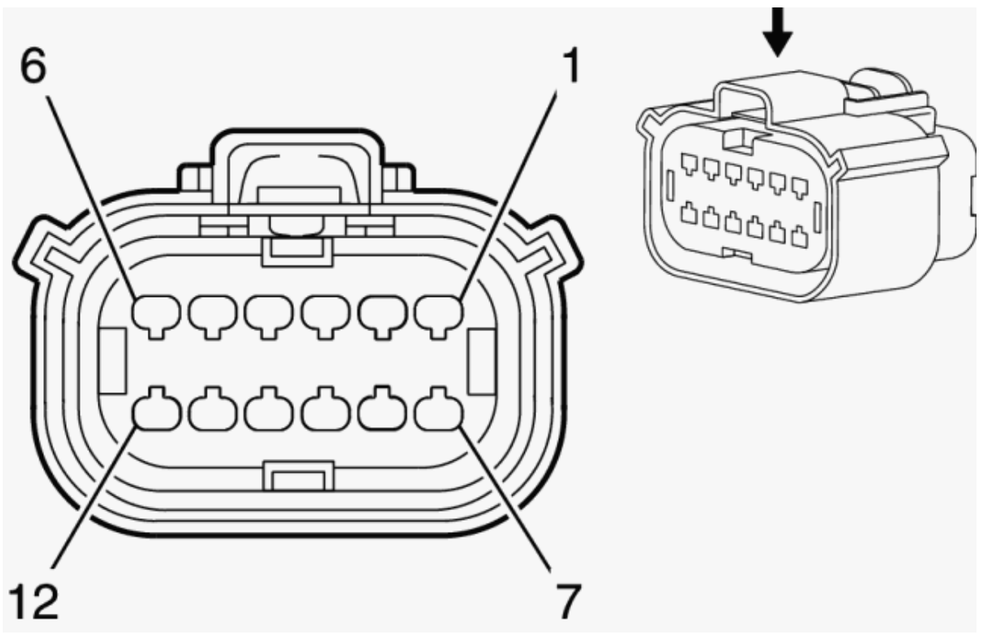
- Harness Type: Cooling Fan
- OEM Connector: 7286-1076-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 9.5 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-21 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

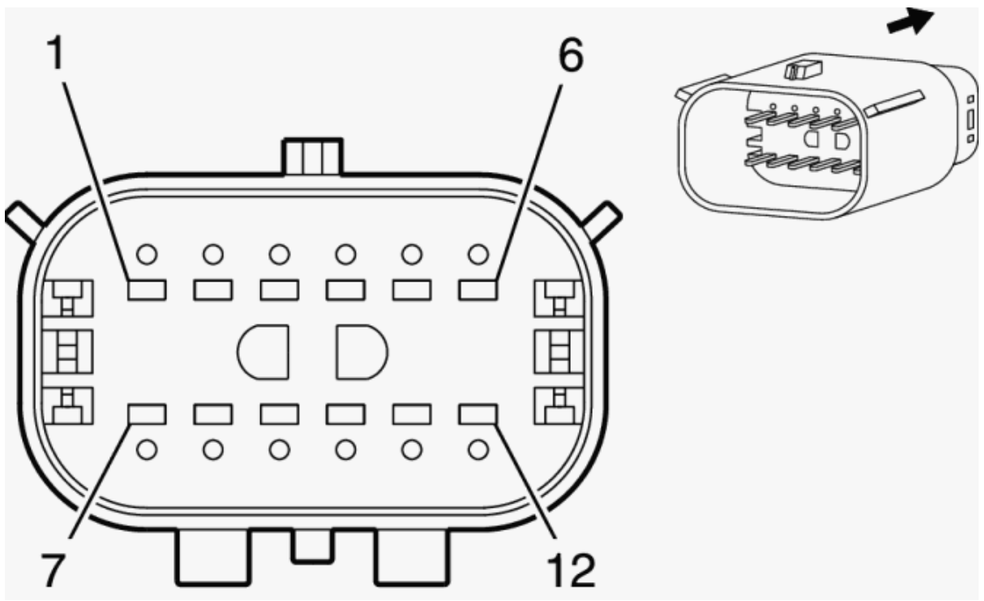
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8 | RD/BU | 302 | I | - | Battery Positive Voltage | 1 | 8 | RD/BU | 302 | II | - |
| 2 | - | - | - | - | - | Not Occupied | 2 | - | - | - | - | - |

## X104 COOLING FAN HARNESS TO FORWARD LAMP HARNESS




Connector Part Information

- Harness Type: Cooling Fan
- OEM Connector: 13503526
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F 1.5 Series, Sealed (BK)




Connector Part Information

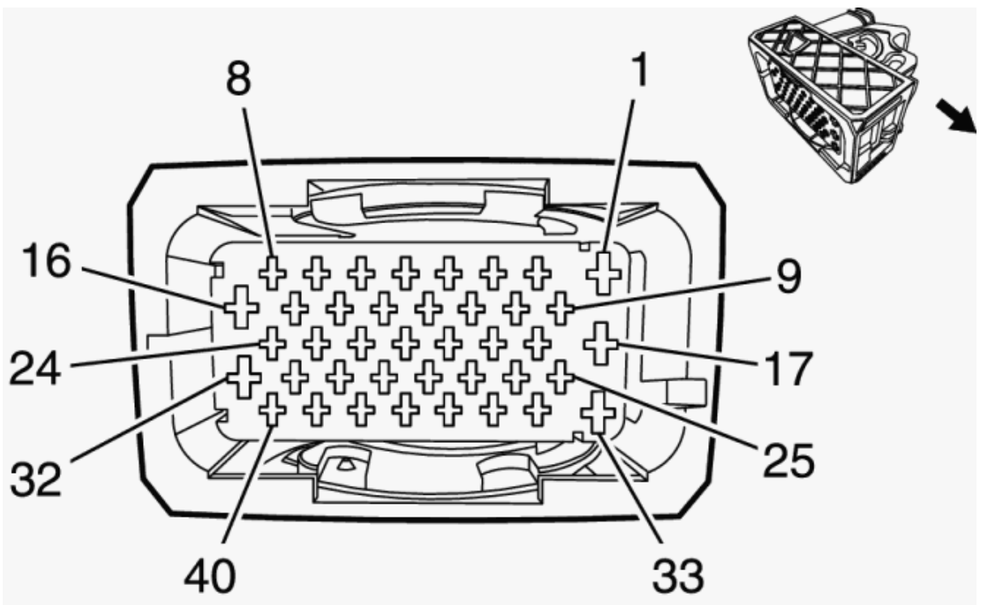
- Harness Type: Forward Lamp
- OEM Connector: 13503540
- Service Connector: 19369242
- Description: 12-Way M 150 MX Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 19119395 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

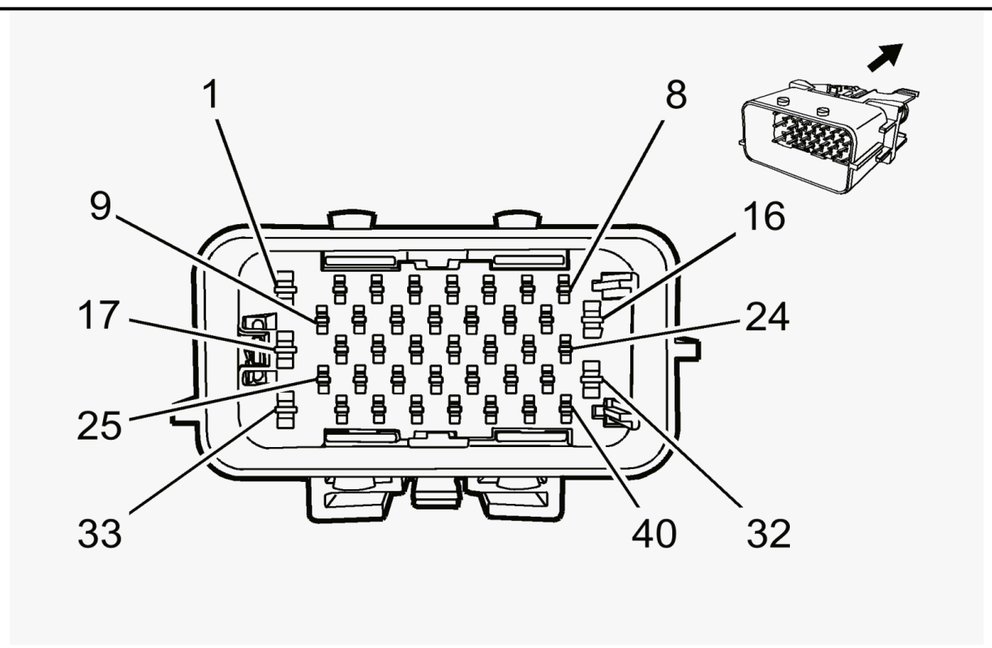
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/BK | 2366 | I | - | Cooling Fan Control Relay Speed Signal | 1 | 0.35 | WH/BK | 2366 | II | - |
| 2 - 5 | - | - | - | - | - | Not Occupied | 2 - 5 | - | - | - | - | - |
| 6 | 0.35<br>0.35 | YE/BK<br>WH/RD | 3682<br>3201 | I<br>I | LH7<br>LYX | Charge Air Cooler Inlet Temperature Sensor Low Reference<br>Throttle Inlet Absolute Pressure Sensor 5V Reference | 6 | 0.35<br>0.35 | YE/BK<br>WH/RD | 3682<br>3201 | II<br>II | LH7<br>LYX |
| 7 | 0.35<br>0.35 | GN<br>WH/YE | 3683<br>3202 | I<br>I | LH7<br>LYX | Charge Air Cooler Inlet Temperature Sensor Signal<br>Throttle Inlet Absolute Pressure Sensor Low Reference | 7 | 0.35<br>0.35 | GN<br>WH/YE | 3683<br>3202 | II<br>II | LH7<br>LYX |
| 8 | 0.35<br>0.35 | YE/BU<br>YE/WH | 3680<br>3200 | I<br>I | LH7<br>LYX | Charge Air Cooler Outlet Temperature Sensor Low Reference<br>Throttle Inlet Absolute Pressure Sensor Signal | 8 | 0.35<br>0.35 | YE/BU<br>YE/WH | 3680<br>3200 | II<br>II | LH7<br>LYX |
| 9 | 0.35 | BN | 3681 | I | LH7 | Charge Air Cooler Outlet Temperature Sensor Signal | 9 | 0.35 | BN | 3681 | II | LH7 |
| 10 | 0.35 | BK/GN | 580 | I | - | Engine Control Sensors Low Reference (2) | 10 | 0.35 | BK/GN | 580 | II | - |
| 11 | 0.35 | BN/RD | 2700 | I | - | A/C Pressure Sensor 5V Reference | 11 | 0.35 | BN/RD | 2700 | II | - |
| 12 | 0.35 | GN | 380 | I | - | A/C Refrigerant Pressure Sensor Signal | 12 | 0.35 | GN | 380 | II | - |

## X106 ENGINE HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13589782
- Service Connector: 13576549
- Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13257307
- Service Connector: 13576552
- Description: 40-Way M 1.5, 2.8 Series, Sealed (BK)

**Terminal Part Information**

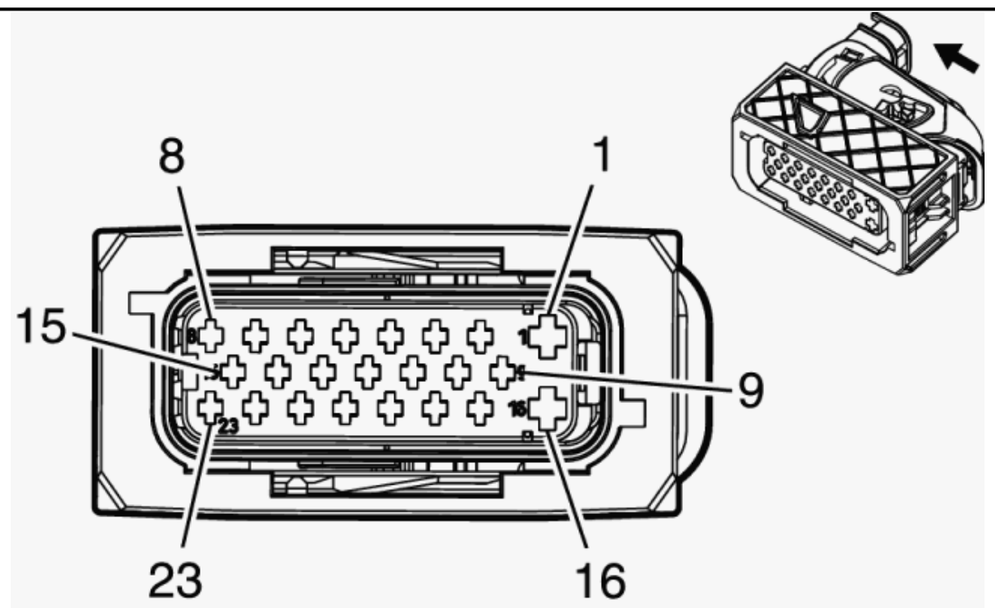
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575429 | J-35616-14 (GN) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| II | 13576369 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| III | 13580829 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IV | 13580830 | J-35616-35 (VT) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| V | 19353105 | J-35616-4A (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VI | 13576397 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| VII | 13578882 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VIII | 13581368 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IX | 19355817 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | RD/GN | 2173 | V | - | 12V Regulated Supply Voltage 2 | 1 | 1.5 | RD/GN | 2173 | IX | - |
| 2 | 0.35 | GN/VT | 4621 | II | - | Local Interconnect Network Serial Data Bus 21 | 2 | 0.35<br>0.35 | GN/VT<br>GN/VT | 4621<br>4621 | VI<br>VII | KL9+VTI<br>KL9-VTI |

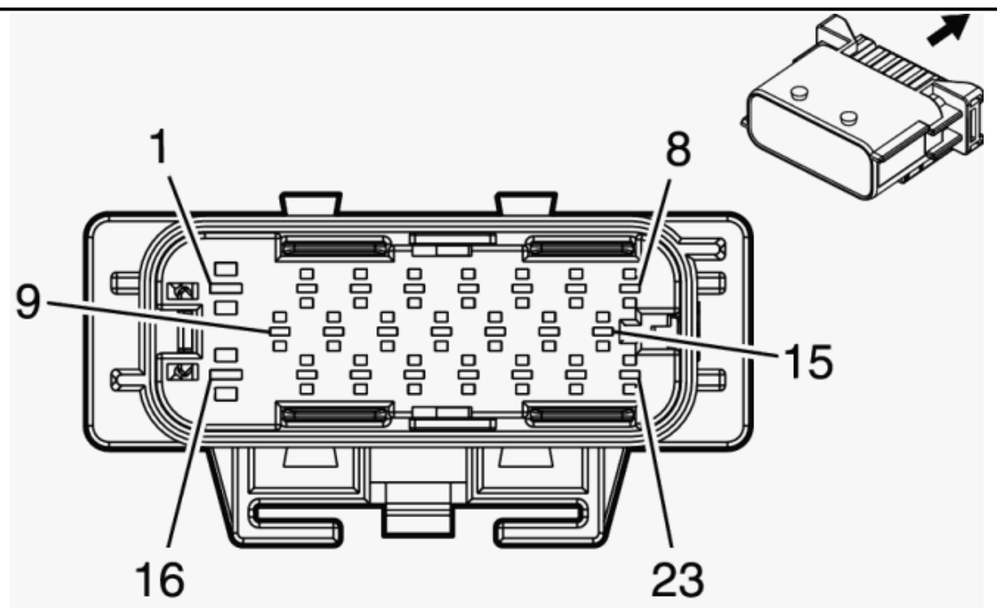
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| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 0.35 | BU | 2500 | II | - | High Speed GMLAN Serial Data (+) 1 | 3 | 0.35<br>0.35 | BU<br>BU | 2500<br>2500 | VII<br>VI | Z88<br>X88 |
| 4 | 0.35 | WH | 2501 | II | - | High Speed GMLAN Serial Data (-) 1 | 4 | 0.35<br>0.35 | WH<br>WH | 2501<br>2501 | VII<br>VI | Z88<br>X88 |
| 5 | 0.5 | BU/BK | 7493 | II | - | High Speed GMLAN Serial Data (+)3 | 5 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | VII<br>VI | LYX/LTG<br>LVL/LH7/LWW |
| 6 | 0.5 | WH | 7494 | II | - | High Speed GMLAN Serial Data (-)3 | 6 | 0.35<br>0.35<br>0.35<br>0.35<br>0.35 | WH<br>WH<br>WH<br>WH<br>WH | 7494<br>7494<br>7494<br>7494<br>7494 | VI<br>VII<br>VI<br>VI<br>VII | LVL/LH7/LWW+KL9-EPH<br>LYX/LTG-KL9-EPH<br>LYX/LTG+EPH<br>LH7+EPH<br>LYX/LTG+KL9-EPH |
| 7 | 0.35 | WH/RD | 5381 | II | - | Brake Position Sensor 5V Reference | 7 | 0.35 | WH/RD | 5381 | VI | - |
| 8 | 0.35 | BK/YE | 5382 | II | - | Brake Position Sensor Low Reference | 8 | 0.35 | BK/YE | 5382 | VI | - |
| 9 | 0.35 | WH/GN | 5380 | II | - | Brake Position Sensor Signal | 9 | 0.35 | WH/GN | 5380 | VI | - |
| 10 | 0.35 | BK/BU | 1271 | II | - | Accelerator Pedal Position Low Reference 1 | 10 | 0.35 | BK/BU | 1271 | VI | - |
| 11 | 0.35 | BK/VT | 1272 | II | - | Accelerator Pedal Position Low Reference 2 | 11 | 0.35 | BK/VT | 1272 | VI | - |
| 12 | 0.35 | YE/WH | 1161 | II | - | Accelerator Pedal Position Signal 1 | 12 | 0.35 | YE/WH | 1161 | VI | - |
| 13 | 0.35 | GN/WH | 1162 | II | - | Accelerator Pedal Position Signal 2 | 13 | 0.35 | GN/WH | 1162 | VI | - |
| 14 | 0.35 | WH/RD | 1164 | II | - | Accelerator Pedal Position 5V Reference 1 | 14 | 0.35 | WH/RD | 1164 | VI | - |
| 15 | 0.35 | BN/RD | 1274 | II | - | Accelerator Pedal Position 5V Reference 2 | 15 | 0.35 | BN/RD | 1274 | VI | - |
| 16 | 2.5 | BN/GN | 3945 | III | F48 | All Wheel Drive Power Transfer Motor Control B | 16 | 2.5 | BN/GN | 3945 | IX | F48 |
| 17 | 2.5 | VT/BN | 3944 | III | - | All Wheel Drive Power Transfer Motor Control A | 17 | 2.5 | VT/BN | 3944 | IX | - |
| 18 | 0.35 | BN/WH | 419 | II | - | Check Engine Indicator Control | 18 | 0.35 | BN/WH | 419 | VI | - |
| 19 | 0.35 | WH/BU | 6311 | II | - | Cruise/ETC/TCC Brake Signal | 19 | 0.35 | WH/BU | 6311 | VI | - |
| 20 | 0.35 | YE | 5530 | II | - | Hood Open Switch Signal | 20 | 0.35 | YE | 5530 | VI | - |
| 21 | 0.35 | BU/WH | 1937 | II | - | Secondary Fuel Level Sensor Signal | 21 | 0.35 | BU/WH | 1937 | VI | - |
| 22 | 0.5 | BK/GN | 580 | II | - | Engine Control Sensors Low Reference (2) | 22 | 0.35 | BK/GN | 580 | VI | - |
| 23 | 0.35 | BU/VT | 1589 | II | - | Primary Fuel Level Sensor Signal | 23 | 0.35 | BU/VT | 1589 | VI | - |
| 24 | 0.35 | BN/RD | 7445 | II | - | Fuel Line Pressure Sensor 5V Reference | 24 | 0.35 | BN/RD | 7445 | VI | - |
| 25 | 0.35 | BU/WH | 7446 | II | - | Fuel Line Pressure Sensor Signal | 25 | 0.35 | BU/WH | 7446 | VI | - |
| 26 | 0.5 | BK/GN | 580 | II | - | Engine Control Sensors Low Reference (2) | 26 | 0.35 | BK/GN | 580 | VI | - |
| 27 | 0.75 | BU/BN | 7573 | I | - | Electric Variable Displacement Supply | 27 | 0.35<br>0.35 | BU/BN<br>BU/BN | 7573<br>7573 | VII<br>VI | Z88<br>X88 |
| 28 | 0.75 | BU/YE | 7574 | I | - | Electric Variable Displacement Control | 28 | 0.35 | BU/YE | 7574 | VI | - |
| 29 | 0.35 | WH/VT | 4108 | II | - | Driver Mode Switch Signal | 29 | 0.35 | WH/VT | 4108 | VI | - |
| 30 | 0.35 | GY | 4109 | II | - | Driver Mode Switch 5V Reference | 30 | 0.35 | GY | 4109 | VI | - |
| 31 | 0.35 | YE/RD | 2709 | II | - | Fuel Tank Pressure Sensor 5V Reference | 31 | 0.35 | YE/RD | 2709 | VII | - |
| 32 | 0.35 | WH | 1310 | IV | - | EVAP Canister Vent Solenoid Control | 32 | 0.35 | WH | 1310 | VIII | NTB/NUB |
| 33 | 0.35<br>0.35 | GN/GY<br>GY | 465<br>5660 | IV<br>IV | LVL/LH7/LWW<br>LYX/LTG | Fuel Pump Primary Relay Control<br>Fuel Pump Controller Data Out Signal | 33 | 0.35<br>0.35 | GN/GY<br>GY | 465<br>5660 | VIII<br>VIII | LVL/LH7/LWW<br>LYX/LTG |
| 34 | 0.35<br>0.35 | GN/BN<br>BU/WH | 507<br>890 | II<br>II | LH7<br>LTG+NTB/NUB | Wait To Start Indicator Control<br>Fuel Tank Pressure Sensor Signal | 34 | 0.35<br>0.35 | GN/BN<br>BU/WH | 507<br>890 | VII<br>VI | LH7<br>LTG+NTB/NUB |
| 35 | - | - | - | - | - | Not Occupied | 35 | - | - | - | - | - |
| 36 | 0.5<br>0.35 | VT/BU<br>VT/BU | 6091<br>6091 | II<br>II | NKC+LTG<br>NKC+LVL/LH7/LWW | Crankshaft Position Sensor Replicated Signal<br>Crankshaft Position Sensor Replicated Signal | 36 | 0.35<br>0.35 | VT/BU<br>VT/BU | 6091<br>6091 | VI<br>VII | LTG<br>LVL/LH7/LWW |
| 37 | 0.5 | VT/YE | 5985 | II | MM1 | Accessory Wakeup Serial Data | 37 | 0.35<br>0.35 | VT/YE<br>VT/YE | 5985<br>5985 | VII<br>VI | LVL/LH7/LWW<br>LYX/LTG |
| 38 | 0.35<br>0.5 | BU/BN<br>BU/BN | 4498<br>4498 | II<br>II | LTG/LYX+EPH<br>LVL/LH7+NDE | High Speed GMLAN Serial Data (+) 7<br>High Speed GMLAN Serial Data (+) 7 | 38 | 0.35<br>0.35<br>0.35<br>0.35 | BU/BN<br>BU/BN<br>BU/BN<br>BU/BN | 4498<br>4498<br>4498<br>4498 | VII<br>VII<br>VI<br>VI | LTG/LYX+EPH<br>LH7+NDE-EPH<br>LVL+NDE<br>LH7+NDE+EPH |
| 39 | 0.35<br>0.5 | WH<br>WH | 4499<br>4499 | II<br>II | LTG/LYX+EPH<br>LVL/LH7+NDE | High Speed GMLAN Serial Data (-) 7<br>High Speed GMLAN Serial Data (-) 7 | 39 | 0.35<br>0.35 | WH<br>WH | 4499<br>4499 | VII<br>VI | LTG/LYX+EPH<br>NDE |
| 40 | 0.35 | YE/VT | 4325 | II | - | Starter Pinion Solenoid Relay Control | 40 | 0.35 | YE/VT | 4325 | VI | - |

## X107 ENGINE HARNESS TO BODY HARNESS




Connector Part Information




Connector Part Information

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- Harness Type: Engine
- OEM Connector: 13583382
- Service Connector: 19300480
- Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

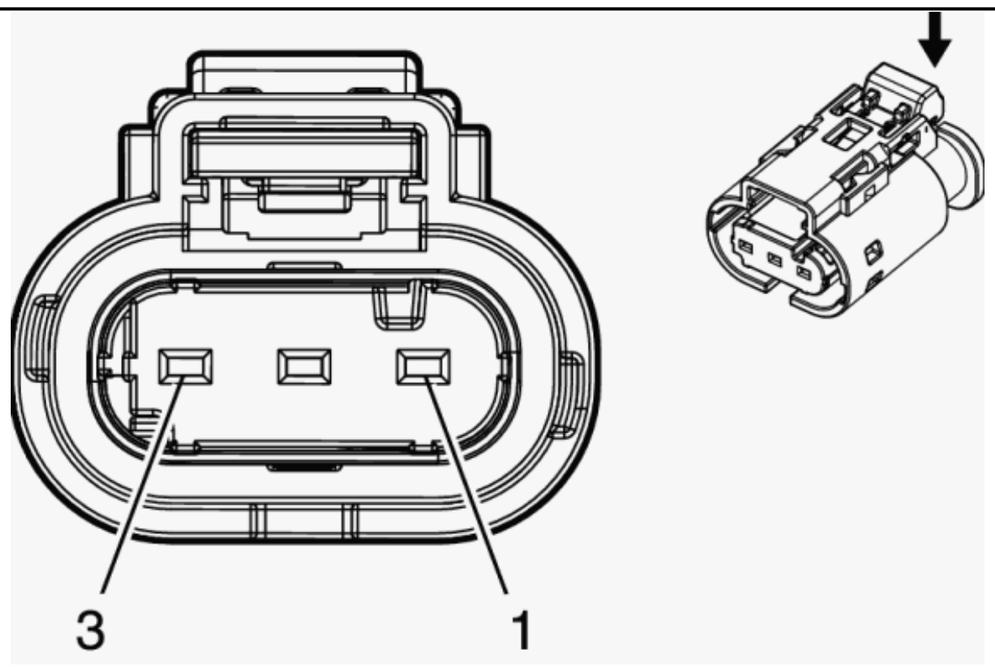
- Harness Type: Body
- OEM Connector: 13674783
- Service Connector: 19303858
- Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13576369 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 13575425 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| III | 13576397 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| IV | 13578882 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |

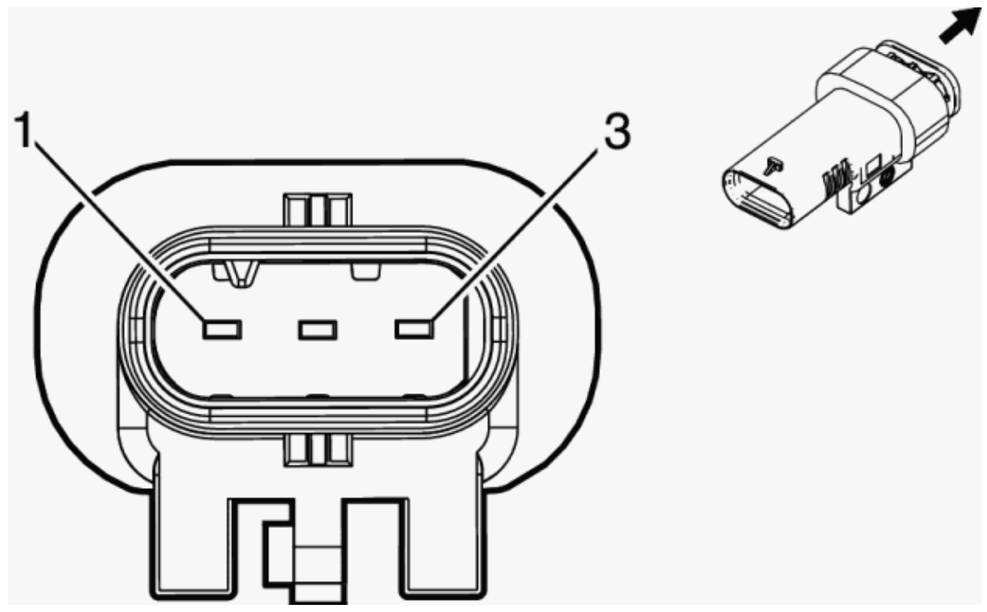
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | - | 1 | 0.75 | BK | 9002 | II | - |
| 2 | 0.35 | GN/BU | 3889 | I | LH7+NDE | DEF Power Module Relay Control | 2 | 0.35<br>0.35 | GN/BU<br>GN/BU | 3889<br>3889 | III<br>IV | NDE<br>Z88 |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |
| 4 | - | - | - | - | - | - | 4 | 0.35 | BK | 9001 | III | - |
| 5 | 0.5 | BU/YE | 6105 | I | - | High Speed GMLAN Serial Data (+) 2 | 5 | 0.35 | BU/YE | 6105 | IV | Z88 |
| 6 | 0.5 | WH | 6106 | I | - | High Speed GMLAN Serial Data (-) 2 | 6 | 0.35 | WH | 6106 | IV | Z88 |
| 7 | - | - | - | - | - | Serial Data Communication Enable | 7 | 0.35 | WH/BU | 5986 | IV | Z88 |
| 8 | - | - | - | - | - | - | 8 | 0.35 | BK | 9000 | III | - |
| 9 | - | - | - | - | - | High Speed GMLAN Serial Data (+) 2 | 9 | 0.35 | BU/YE | 6105 | IV | Z88 |
| 10 | 0.35 | WH | 6106 | I | - | High Speed GMLAN Serial Data (-) 2<br>High Speed GMLAN Serial Data (-) 2 | 10 | 0.35<br>0.35 | WH<br>WH | 6106<br>6106 | IV<br>III | Z88<br>LHD |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.5 | VT/BU | 5293 | I | MHG+EPH | Powertrain Main Relay Fused Supply 4 | 12 | 0.35 | VT/BU | 5293 | IV | MHG+EPH |
| 13 | 0.5 | GN/BN | 3848 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensor Signal<br>All Wheel Drive Power Transfer Unit Position Sensor Signal | 13 | 0.35<br>0.35 | GN/BN<br>GN/BN | 3848<br>3848 | III<br>III | F48+X88<br>F48 |
| 14 | 0.5 | WH/RD | 3847 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensor Voltage Reference<br>All Wheel Drive Power Transfer Unit Position Sensor Voltage Reference | 14 | 0.35<br>0.35 | WH/RD<br>WH/RD | 3847<br>3847 | IV<br>III | F48+Z88<br>F48 |
| 15 | 0.5 | BK/VT | 3846 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensor Low Reference<br>All Wheel Drive Power Transfer Unit Position Sensor Low Reference | 15 | 0.35<br>0.35 | BK/VT<br>BK/VT | 3846<br>3846 | IV<br>III | F48+Z88<br>F48 |
| 16 | - | - | - | - | - | - | 16 | 0.75 | BK | 9002 | II | - |
| 17 - 18 | - | - | - | - | - | Not Occupied | 17 - 18 | - | - | - | - | - |
| 19 | - | - | - | - | - | - | 19 | 0.35 | BK | 9001 | III | - |
| 20 - 22 | - | - | - | - | - | Not Occupied | 20 - 22 | - | - | - | - | - |
| 23 | - | - | - | - | - | - | 23 | 0.35 | BK | 9000 | III | - |

## X108 ENGINE HARNESS TO CRANKSHAFT POSITION SENSOR JUMPER HARNESS (LH7)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13576813
- Service Connector: 19301824
- Description: 3-Way F 1.2 Series, Sealed (BK)




Connector Part Information

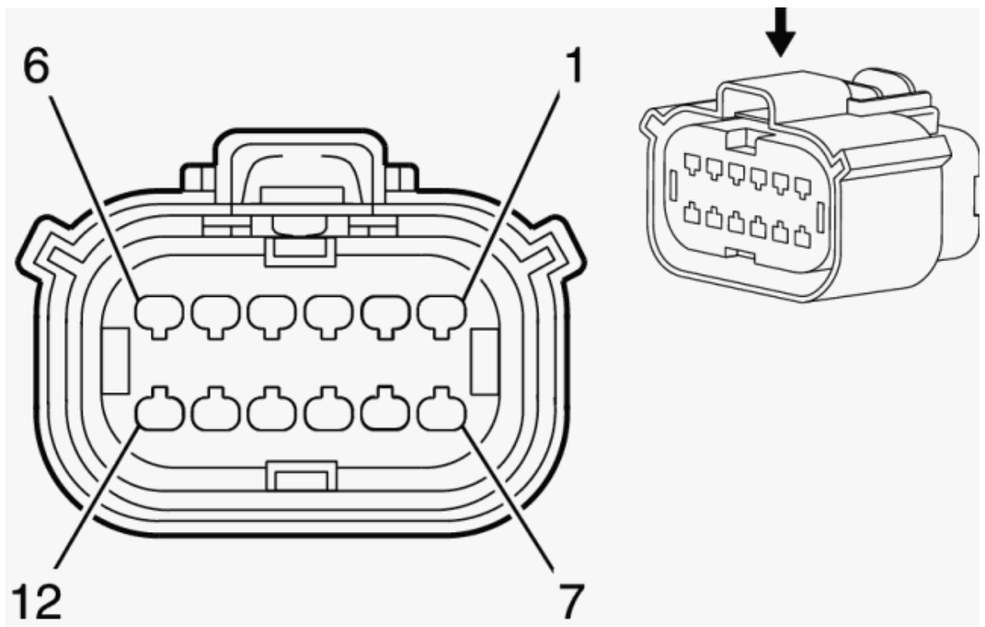
- Harness Type: Crankshaft Position Sensor Jumper
- OEM Connector: 13576789
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way M 1.2 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

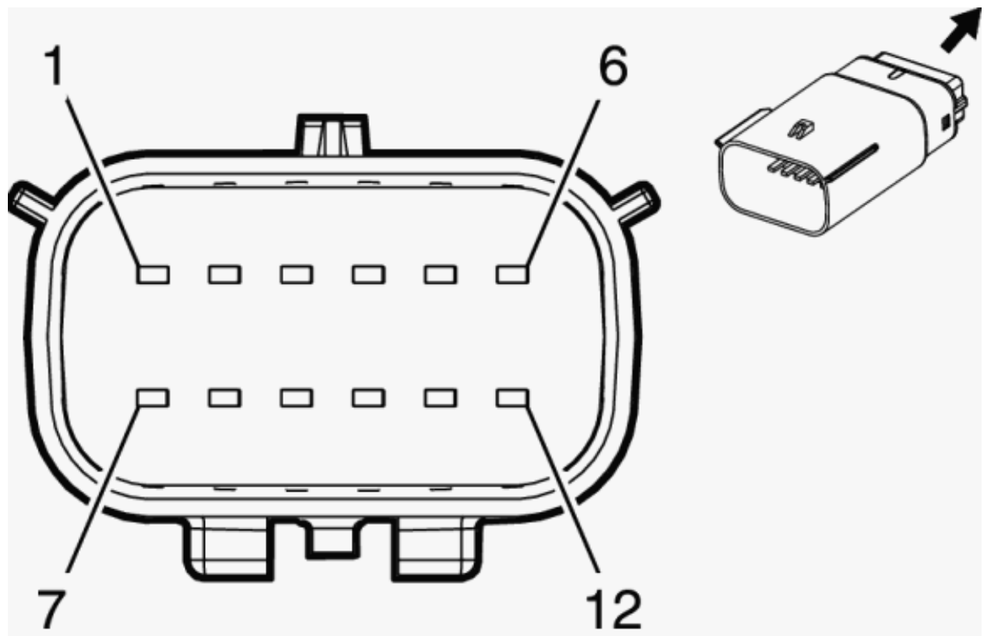
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | VT/BU | 6270 | I | LH7 | Crankshaft 60X Sensor 5V Reference | 1 | 0.5 | VT/BU | 6270 | II | LH7 |
| 2 | 0.5 | BK/VT | 6272 | I | - | Crankshaft 60X Sensor Low Reference | 2 | 0.5 | BK/VT | 6272 | II | LH7 |
| 3 | 0.5 | GN | 6271 | I | LH7 | Crankshaft 60X Sensor Signal | 3 | 0.5 | GN | 6271 | II | LH7 |

## X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4A+TR6)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503526
- Service Connector: 13503528
- Description: 12-Way F 1.5 Series, Sealed (BK)




Connector Part Information

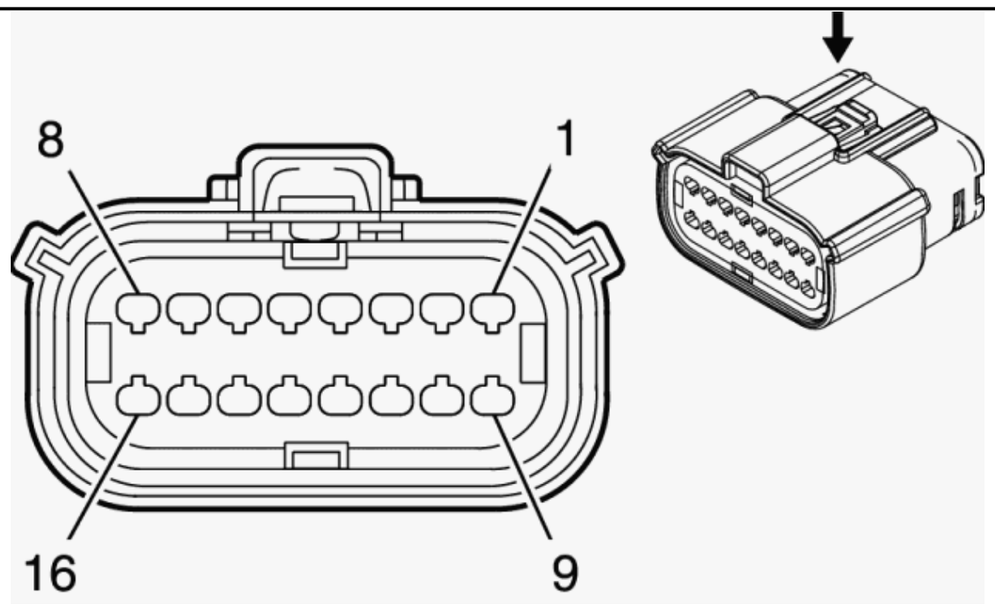
- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

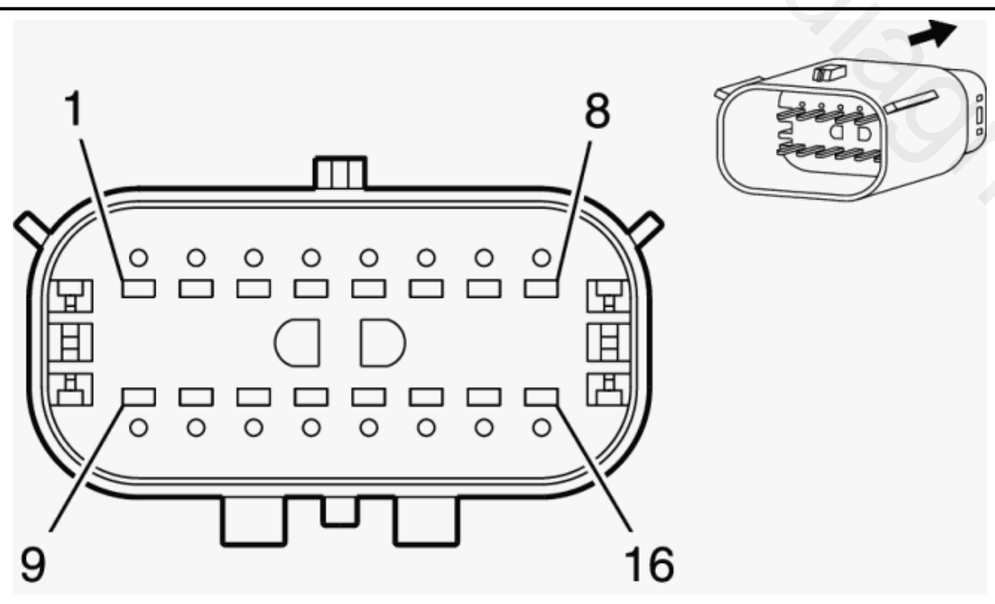
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | - | Ground | 1 | 1.5 | BK | 1150 | III | - |
| 2 | 1.5 | YE | 712 | I | - | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | - |
| 3 | 0.35 | WH | 711 | II | - | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | - |
| 4 | 0.35 | VT/GY | 709 | II | - | Left Park Lamp Control | 4 | 0.35 | VT/GY | 709 | III | - |
| 5 | 0.35 | BK | 1150 | II | - | Ground | 5 | 0.35 | BK | 1150 | III | - |
| 6 | 0.35<br>0.35 | VT/GN<br>WH/YE | 439<br>1204 | II<br>II | T4A+TR6-MAH-MBI-MBC-MCX<br>T4A-TR6 | Run/Crank Ignition 1 Voltage<br>Left Park Lamp Control | 6 | 0.35<br>0.35 | VT/GN<br>WH/YE | 439<br>1204 | III<br>III | T4A+TR6-MAH-MBI-MBC-MCX<br>T4A-TR6 |
| 7 | - | - | - | - | - | Not Occupied | 7 | - | - | - | - | - |
| 8 | 0.35 | BK | 1150 | II | T4A+TR6-MAH-MBI-MBC-MCX | Ground | 8 | 0.35 | BK | 1150 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 9 - 12 | - | - | - | - | - | Not Occupied | 9 - 12 | - | - | - | - | - |

## X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4F+TR6)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503529
- Service Connector: 13584788
- Description: 16-Way F 1.5 Series, Sealed (BK)




Connector Part Information

- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M

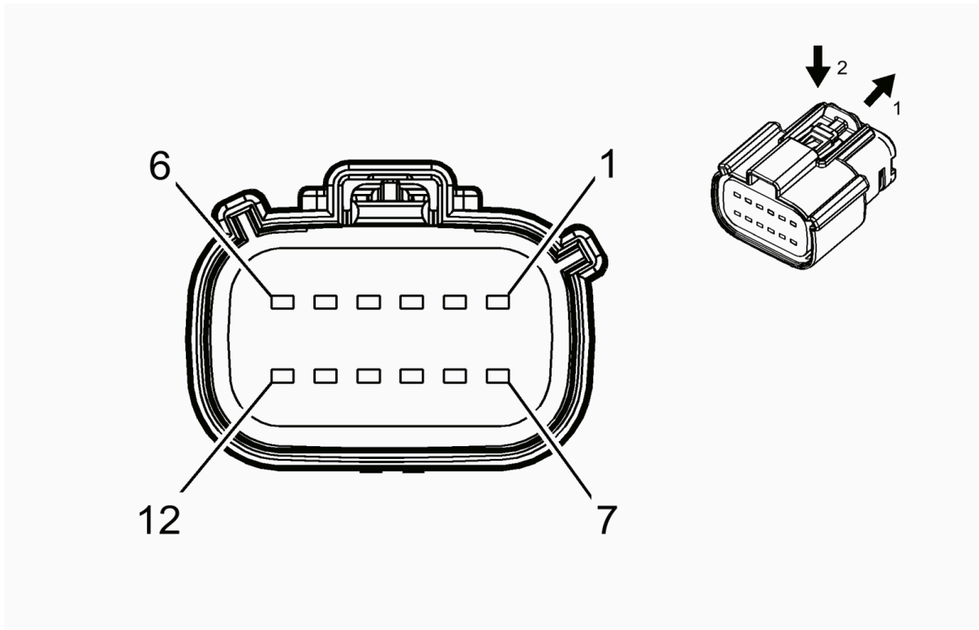
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | - | Ground | 1 | 1.5 | BK | 1150 | III | - |
| 2 | 1.5 | YE | 712 | I | - | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | - |
| 3 | 0.35 | WH | 711 | II | - | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | - |
| 4 | 0.35 | VT/GY | 709 | II | - | Left Park Lamp Control | 4 | 0.35 | VT/GY | 709 | III | - |
| 5 | 0.35 | BK | 1150 | II | - | Ground | 5 | 0.35 | BK | 1150 | III | - |
| 6 | 0.35 | VT/GN | 439 | II | - | Run/Crank Ignition 1 Voltage | 6 | 0.35 | VT/GN | 439 | III | - |
| 7 | 0.35 | BN/YE | 189 | II | - | Headlamp Leveling Motor Control | 7 | 0.35 | BN/YE | 189 | III | - |
| 8 | 0.35 | BK | 1150 | II | - | Ground | 8 | 0.35 | BK | 1150 | III | - |
| 9 - 16 | - | - | - | - | - | Not Occupied | 9 - 16 | - | - | - | - | - |

## X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4F+X88)

-




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 33472-1289
- Service Connector: 19355457
- Description: 12-Way F 150 MX Series, Sealed (D-GY)

Connector Part Information

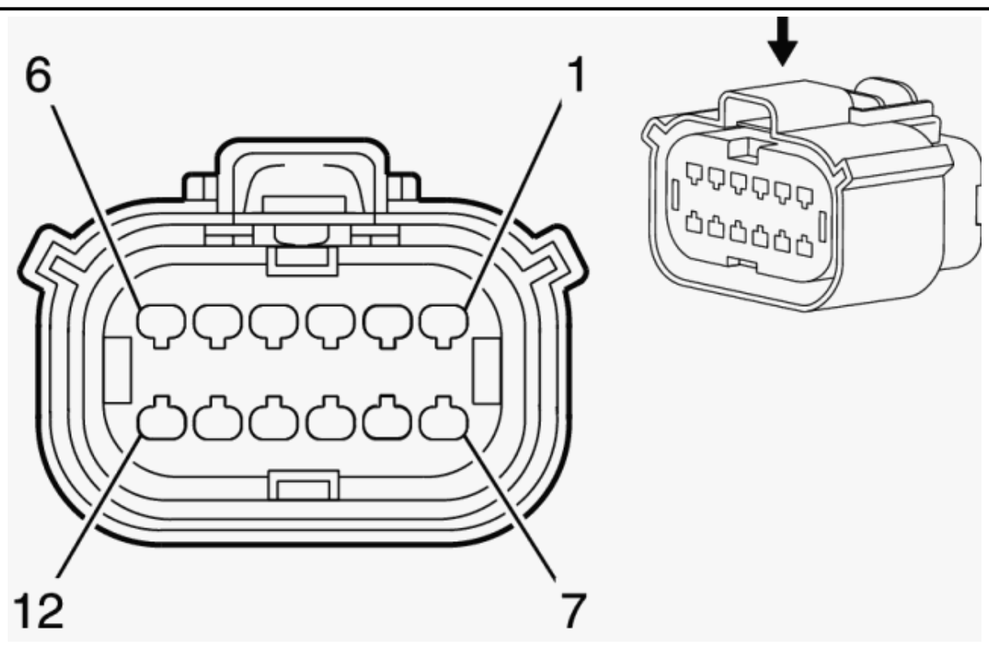
- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

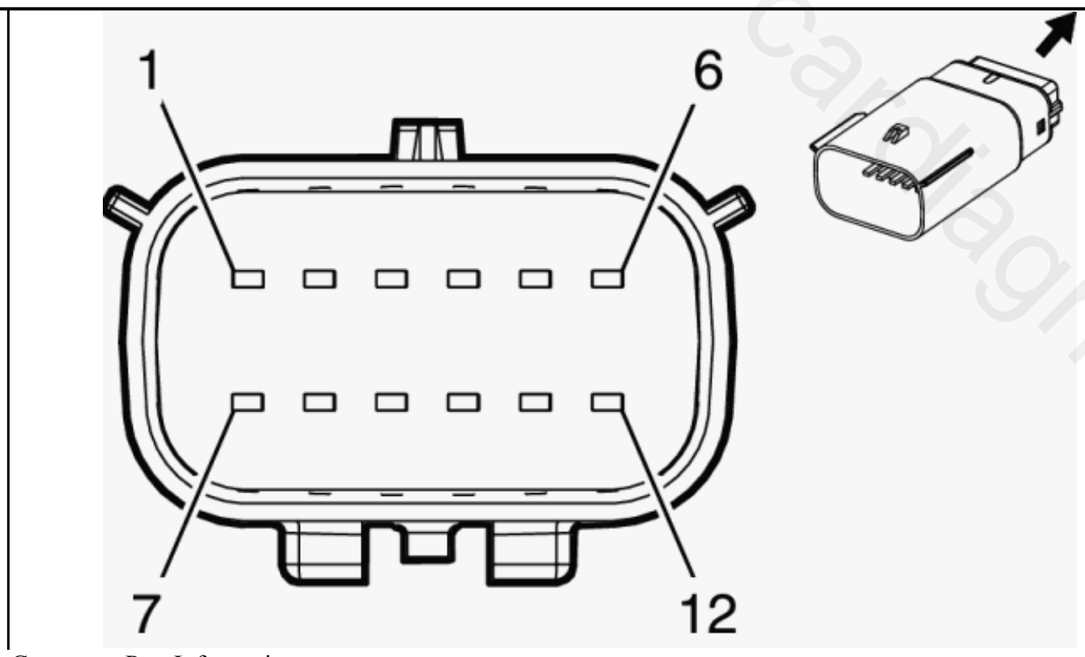
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | - | Ground | 1 | 1.5 | BK | 1150 | III | - |
| 2 | 1.5 | YE | 712 | I | - | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | - |
| 3 | 0.35 | WH | 711 | II | - | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | - |
| 4 | 0.35 | VT/GY | 709 | II | - | Left Park Lamp Control | 4 | 0.35 | VT/GY | 709 | III | - |
| 5 | 0.35 | BK | 1150 | II | - | Ground | 5 | 0.35 | BK | 1150 | III | - |
| 6 | 0.35 | WH/YE | 1204 | II | - | Left Park Lamp Control | 6 | 0.35 | WH/YE | 1204 | III | - |
| 7 - 12 | - | - | - | - | - | Not Occupied | 7 - 12 | - | - | - | - | - |

## X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4F+Z88)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503526
- Service Connector: 13503528
- Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

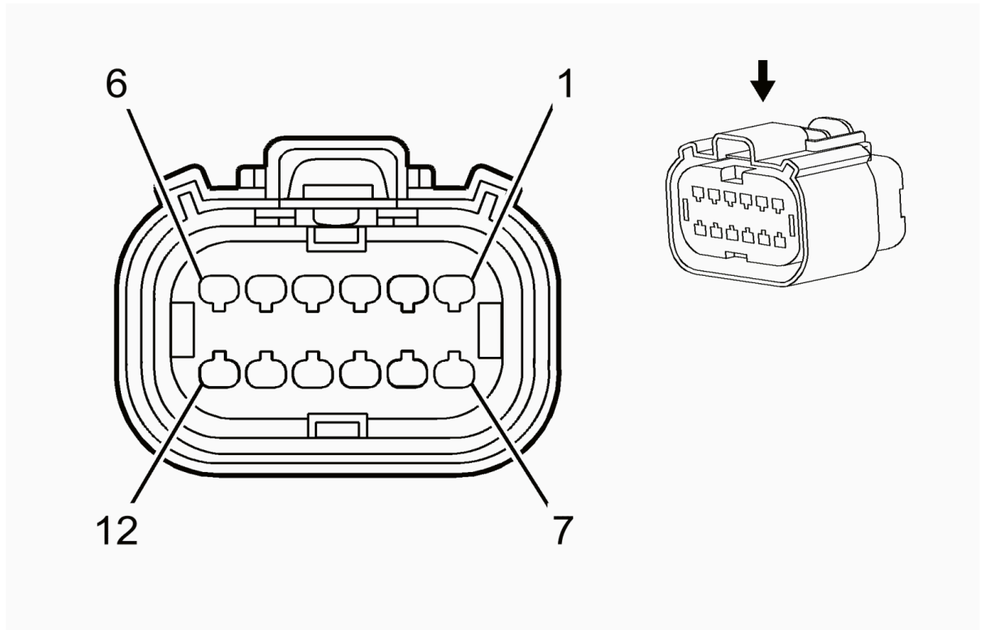
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | Z88+T4F | Ground | 1 | 1.5 | BK | 1150 | III | Z88+T4F |
| 2 | 1.5 | YE | 712 | I | Z88+T4F | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | Z88+T4F |
| 3 | 0.35 | WH | 711 | II | Z88+T4F | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | Z88+T4F |
| 4 | 0.35 | BK | 1150 | II | Z88+T4F | Ground | 4 | 0.35 | BK | 1150 | III | Z88+T4F |
| 5 | 0.35 | YE | 2227 | II | Z88+T4F | Left Headlamp Control | 5 | 0.35 | YE | 2227 | III | Z88+T4F |
| 6 | 0.35 | BU/WH | 1314 | II | Z88+T4F | Left Front Turn Signal Lamp Control | 6 | 0.35 | BU/WH | 1314 | III | Z88+T4F |
| 7 | 0.35 | VT/GY | 709 | II | - | Left Park Lamp Control | 7 | 0.35 | VT/GY | 709 | III | Z88+T4F |
| 8 - 11 | - | - | - | - | - | Not Occupied | 8 - 11 | - | - | - | - | - |
| 12 | 0.35 | WH/YE | 1204 | II | Z88+T4F | Left Park Lamp Control | 12 | 0.35 | WH/YE | 1204 | III | Z88+T4F |

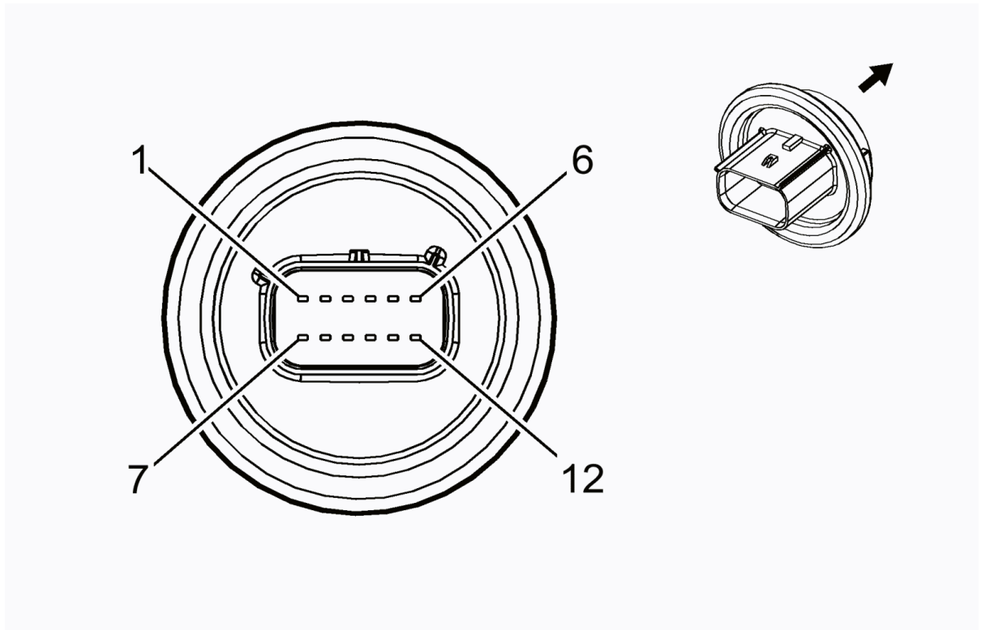
## X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4L+TR7)

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13586052
- Service Connector: 19333239
- Description: 12-Way F 150 MX Series, Sealed (D-GY)




Connector Part Information

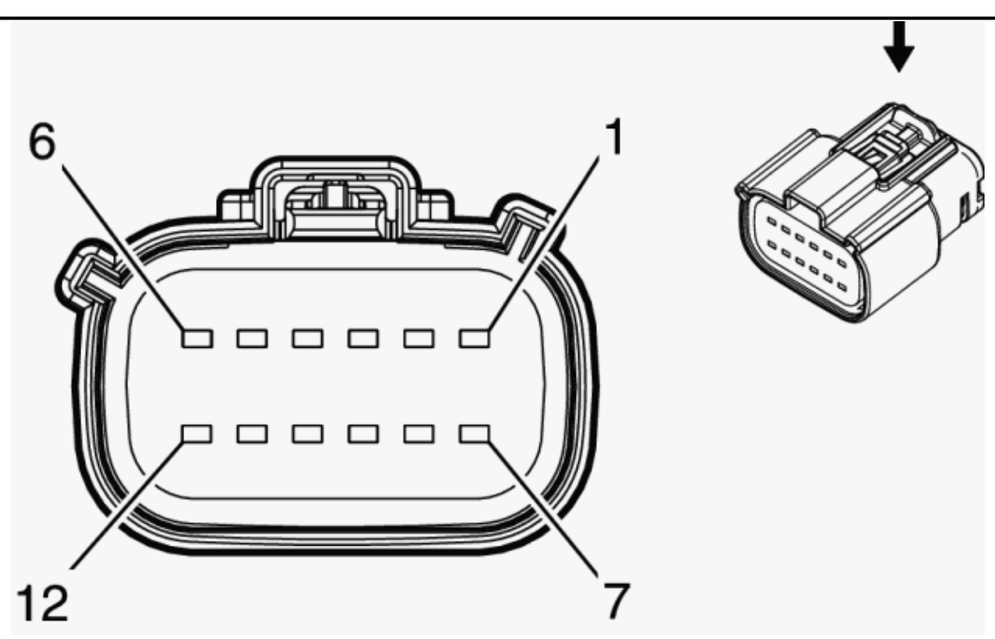
- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

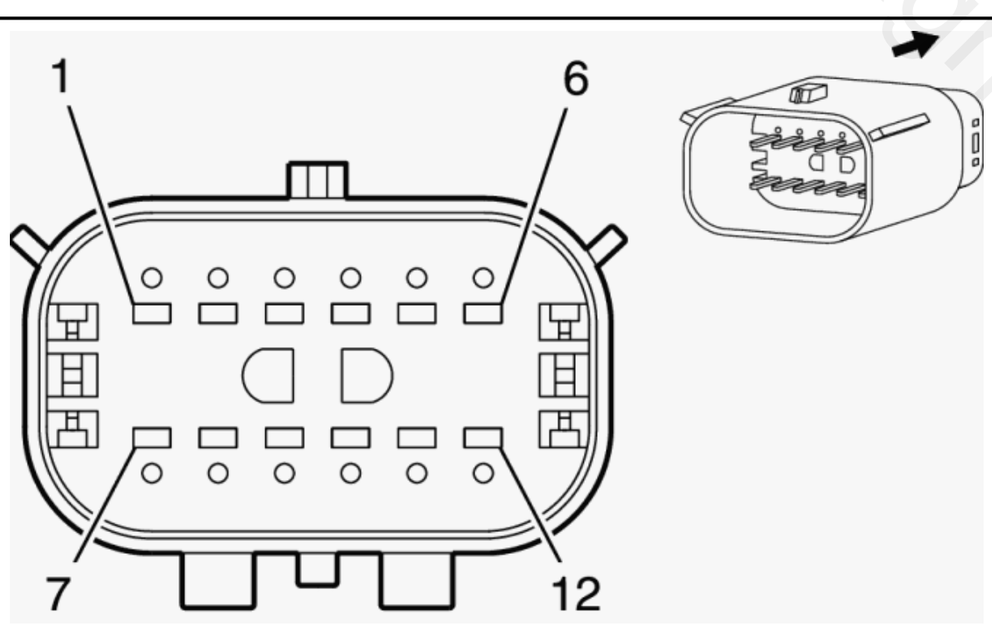
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | T4L+TR7-MAH-MCX-MBC | Ground | 1 | 1.5 | BK | 1150 | III | T4L+TR7-MAH-MCX-MBC |
| 2 | 1.5 | YE | 712 | I | - | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | T4L+TR7-MAH-MCX-MBC |
| 3 | 0.35 | WH | 711 | II | - | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | T4L+TR7-MAH-MCX-MBC |
| 4 | 0.35 | VT/GY | 709 | II | - | Left Park Lamp Control | 4 | 0.35 | VT/GY | 709 | III | T4L+TR7-MAH-MCX-MBC |
| 5 | 0.35 | BK | 1150 | II | T4L+TR7-MAH-MCX-MBC | Ground | 5 | 0.35 | BK | 1150 | III | T4L+TR7-MAH-MCX-MBC |
| 6 | 0.35 | BN/YE | 189 | II | - | Headlamp Leveling Motor Control | 6 | 0.35 | BN/YE | 189 | III | T4L+TR7-MAH-MCX-MBC |
| 7 | 0.35 | GN/BN | 7529 | II | - | Local Interconnect Network Serial Data Bus 7 | 7 | 0.35 | GN/BN | 7529 | III | T4L+TR7-MAH-MCX-MBC |
| 8 | 0.35 | BK | 1150 | II | T4L+TR7-MAH-MCX-MBC | Ground | 8 | 0.35 | BK | 1150 | III | T4L+TR7-MAH-MCX-MBC |
| 9 - 12 | - | - | - | - | - | Not Occupied | 9 - 12 | - | - | - | - | - |

**X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4L+X88)**




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503527
- Service Connector: 19300601
- Description: 12-Way F 1.5 Series, Sealed (L-GY)




Connector Part Information

- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

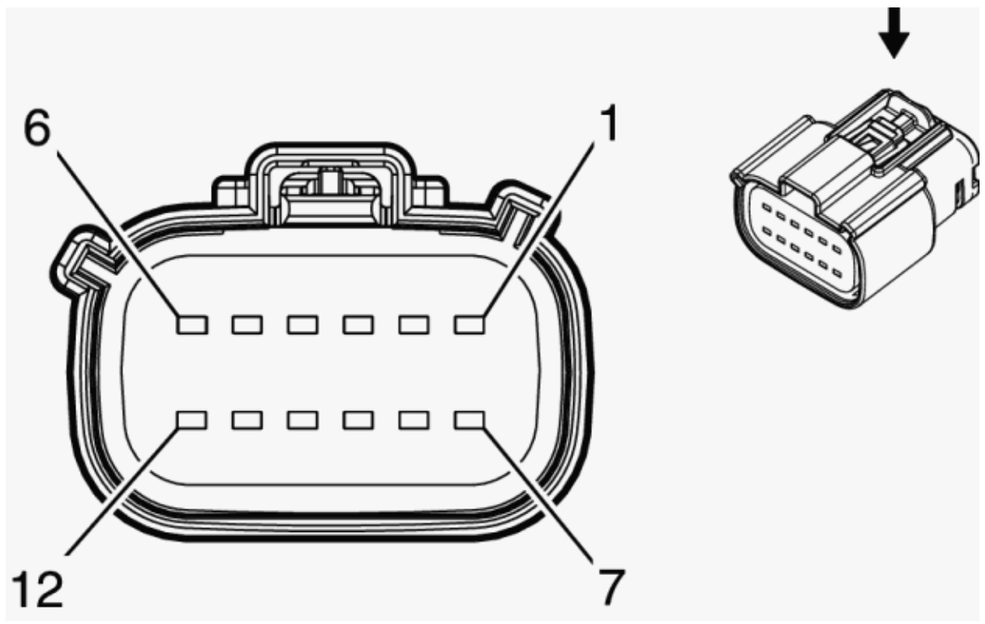
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | T4L+MAH/MBC/MCX-Z88 | Ground | 1 | 1.5 | BK | 1150 | III | T4L+MAH/MBC/MCX-Z88 |
| 2 | 1.5 | YE | 712 | I | T4L+MAH/MBC/MCX-Z88 | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | T4L+MAH/MBC/MCX-Z88 |
| 3 | 0.35 | WH | 711 | II | T4L+MAH/MBC/MCX-Z88 | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | T4L+MAH/MBC/MCX-Z88 |
| 4 | 0.35 | VT/GY | 709 | II | T4L+MAH/MBC/MCX-Z88 | Left Park Lamp Control | 4 | 0.35 | VT/GY | 709 | III | T4L+MAH/MBC/MCX-Z88 |
| 5 | 0.35 | BK | 1150 | II | T4L+MAH/MBC/MCX-Z88 | Ground | 5 | 0.35 | BK | 1150 | III | T4L+MAH/MBC/MCX-Z88 |
| 6 | 0.35 | WH/YE | 1204 | II | T4L+MAH/MBC/MCX-Z88 | Left Park Lamp Control | 6 | 0.35 | WH/YE | 1204 | III | T4L+MAH/MBC/MCX-Z88 |
| 7 - 12 | - | - | - | - | - | Not Occupied | 7 - 12 | - | - | - | - | - |

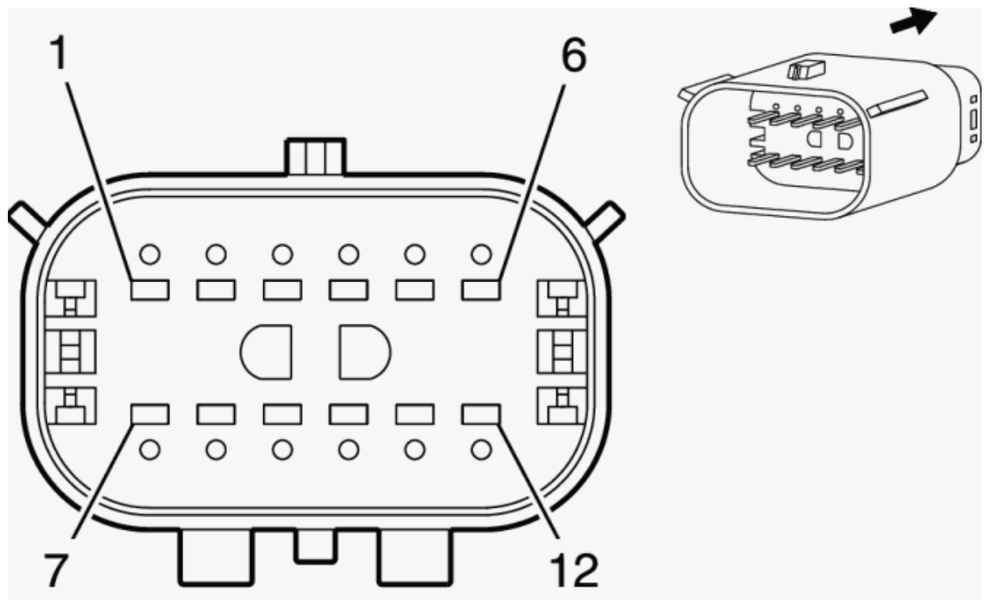
**X110 FORWARD LAMP HARNESS TO LEFT HEADLAMP HARNESS (T4L+Z88)**

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 33472-1207
- Service Connector: 19300601
- Description: 12-Way F 150 MX Series, Sealed (L-GY)




Connector Part Information

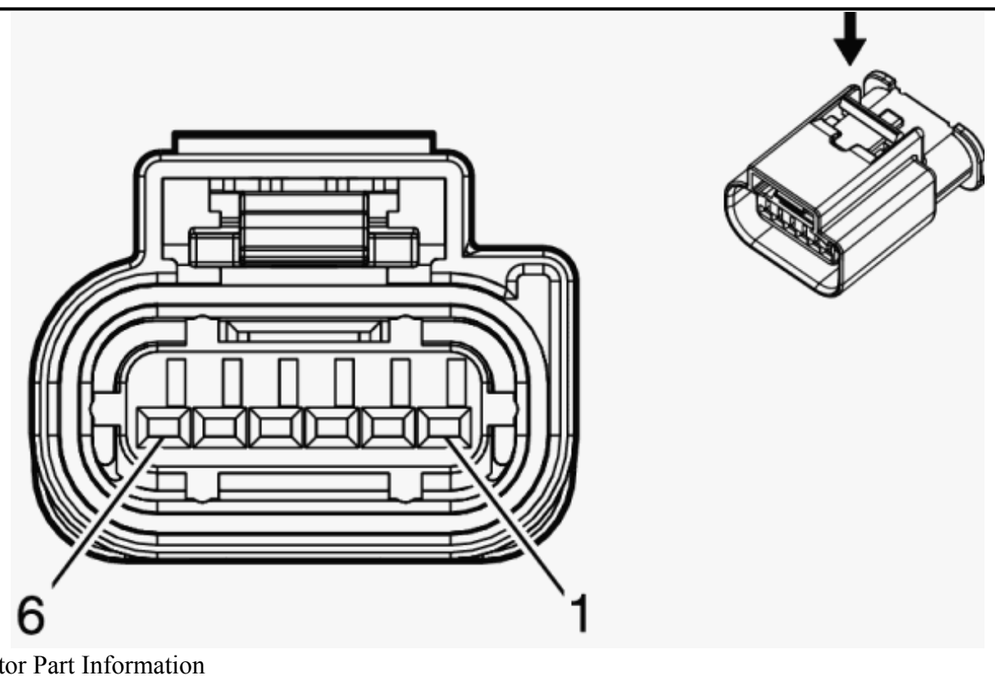
- Harness Type: Left Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

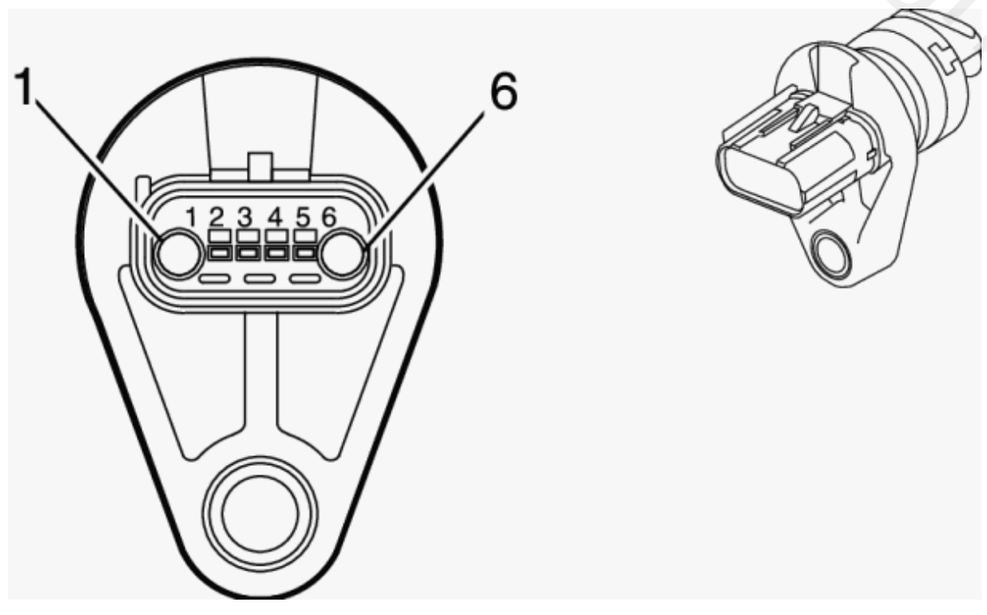
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1150 | I | Z88+T4L+MAH/MBC/MCX/MAM | Ground | 1 | 1.5 | BK | 1150 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 2 | 1.5 | YE | 712 | I | Z88+T4L+MAH/MBC/MCX/MAM | Left Headlamp Low Beam Control | 2 | 1.5 | YE | 712 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 3 | 0.35 | WH | 711 | II | Z88+T4L+MAH/MBC/MCX/MAM | Left Headlamp High Beam Control | 3 | 0.35 | WH | 711 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 4 | 0.35 | BK | 1150 | II | Z88+T4L+MAH/MBC/MCX/MAM | Ground | 4 | 0.35 | BK | 1150 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 5 | 0.5 | YE | 2227 | II | Z88+T4L+MAH/MBC/MCX/MAM | Left Headlamp Control | 5 | 0.5 | YE | 2227 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 6 | 0.5 | BU/WH | 1314 | II | Z88+T4L+MAH/MBC/MCX/MAM | Left Front Turn Signal Lamp Control | 6 | 0.5 | BU/WH | 1314 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 7 | 0.35 | VT/GY | 709 | II | Z88+T4L+MAH/MBC/MCX/MAM | Left Park Lamp Control | 7 | 0.35 | VT/GY | 709 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 8 - 11 | - | - | - | - | - | Not Occupied | 8 - 11 | - | - | - | - | - |
| 12 | 0.35 | WH/YE | 1204 | II | Z88+T4L+MAH/MBC/MCX/MAM | Left Park Lamp Control | 12 | 0.35 | WH/YE | 1204 | III | Z88+T4L+MAH/MBC/MCX/MAM |

## X111 ENGINE HARNESS TO ENGINE OIL PRESSURE CONTROL SOLENOID VALVE HARNESS (LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 13507091
- Service Connector: 19352811
- Description: 6-Way F 1.2 MCON Series, Sealed (BK)




Connector Part Information

- Harness Type: Engine Oil Pressure Control Solenoid Valve
- OEM Connector: 12657979
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M 1.2 Series, Sealed (BK)

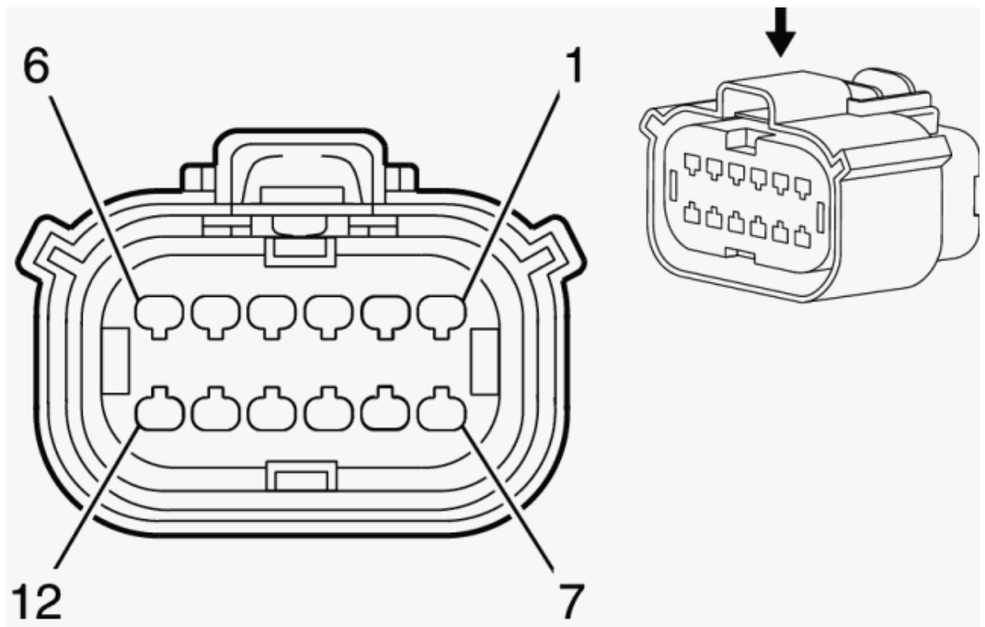
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-13 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 3 | - | - | - | - | - | Not Occupied | 1 - 3 | - | - | - | - | - |
| 4 | 0.5 | BU | 179 | I | - | Oil Pump Command Signal | 4 | 0.5 | BU | 179 | II | - |
| 5 | 0.5 | VT/BU | 5293 | I | - | Powertrain Main Relay Fused Supply 4 | 5 | 0.5 | VT/BU | 5293 | II | - |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |

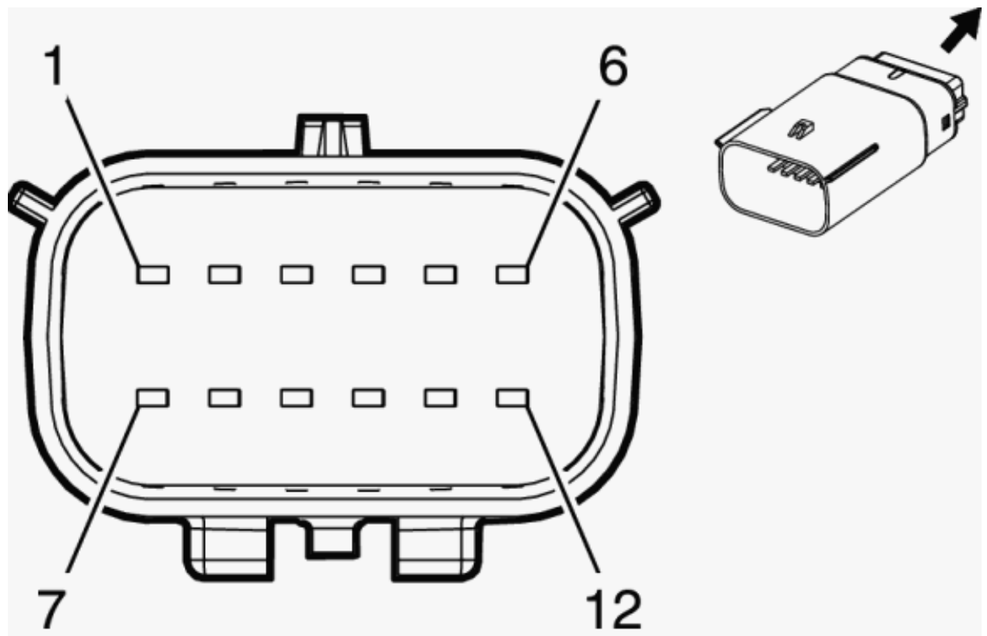
## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4A+TR6)

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Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503526
- Service Connector: 13503528
- Description: 12-Way F 1.5 Series, Sealed (BK)




Connector Part Information

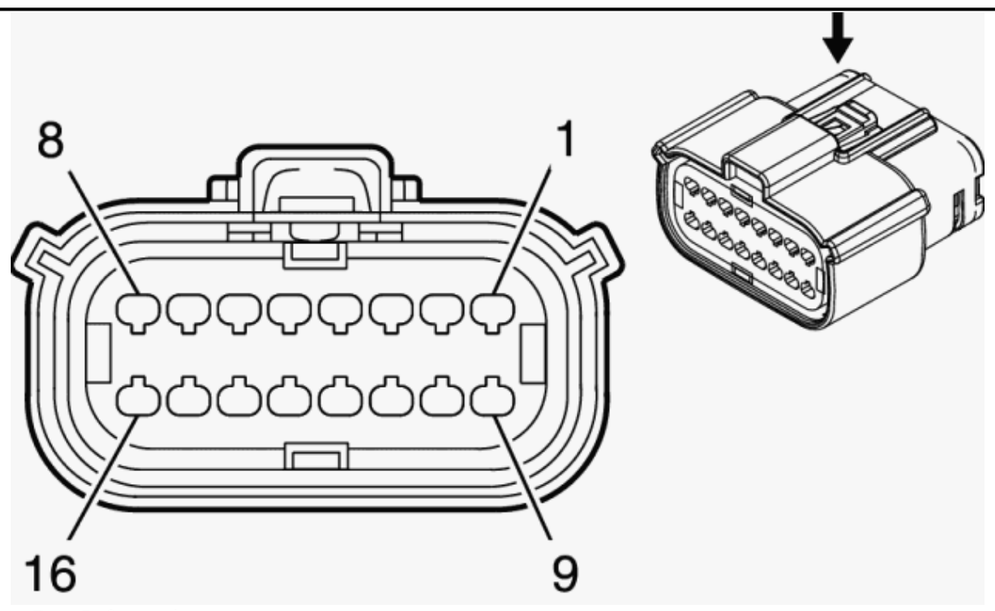
- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

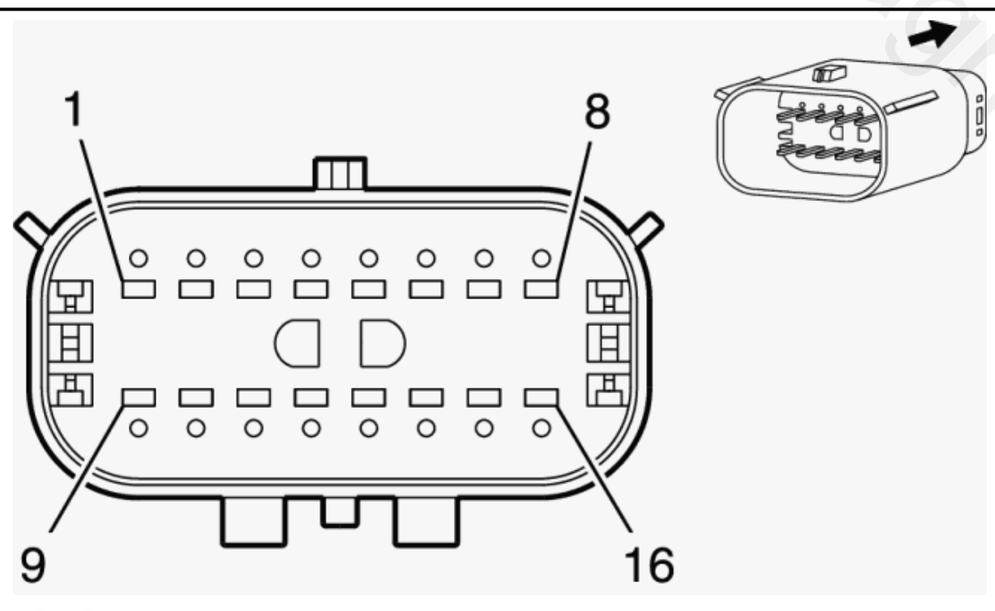
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | - | Ground | 1 | 1.5 | BK | 1050 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 2 | 1.5 | YE | 312 | I | - | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 3 | 0.35 | WH | 311 | II | - | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 4 | 0.35 | GY/BN | 309 | II | - | Right Park Lamp Control | 4 | 0.35 | GY/BN | 309 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 5 | 0.35 | BK | 1050 | II | - | Ground | 5 | 0.35 | BK | 1050 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 6 | 0.35 | VT/GN | 439 | II | T4A+TR6-MAH-MBI-MBC-MCX | Run/Crank Ignition 1 Voltage | 6 | 0.35 | VT/GN | 439 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 7 | 0.35 | BN/YE | 189 | II | T4A+TR6-MAH-MBI-MBC-MCX | Headlamp Leveling Motor Control | 7 | 0.35 | BN/YE | 189 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 8 | 0.35 | BK | 1050 | II | T4A+TR6-MAH-MBI-MBC-MCX | Ground | 8 | 0.35 | BK | 1050 | III | T4A+TR6-MAH-MBI-MBC-MCX |
| 9 - 12 | - | - | - | - | - | Not Occupied | 9 - 12 | - | - | - | - | - |

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4F+TR6)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503529
- Service Connector: 13584788
- Description: 16-Way F 1.5 Series, Sealed (BK)




Connector Part Information

- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M

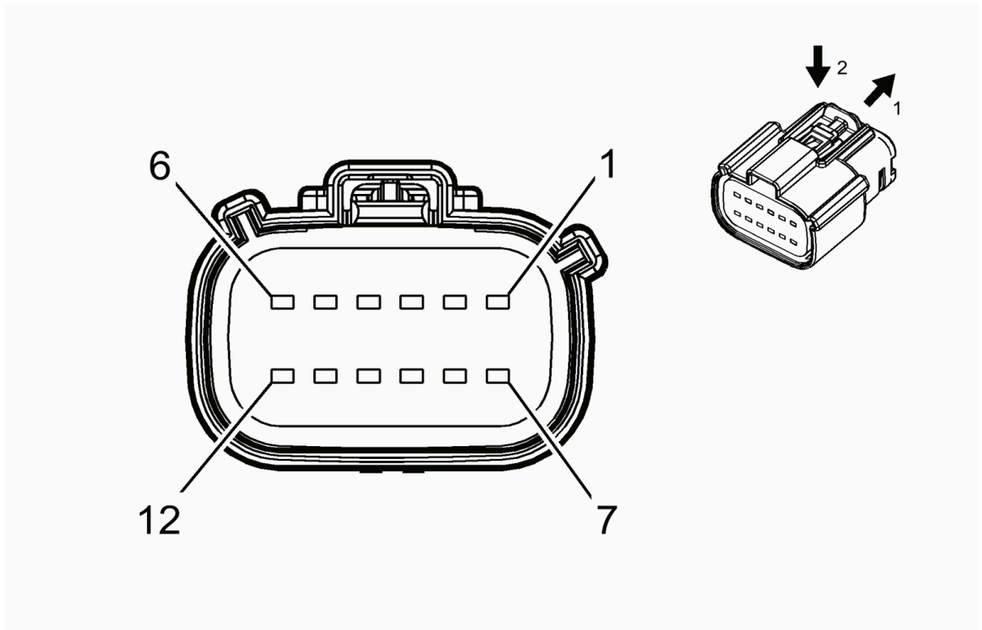
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | - | Ground | 1 | 1.5 | BK | 1050 | III | - |
| 2 | 1.5 | YE | 312 | I | - | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | - |
| 3 | 0.35 | WH | 311 | II | - | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | - |
| 4 | 0.35 | GY/BN | 309 | II | - | Right Park Lamp Control | 4 | 0.35 | GY/BN | 309 | III | - |
| 5 | 0.35 | BK | 1050 | II | - | Ground | 5 | 0.35 | BK | 1050 | III | - |
| 6 | 0.35 | VT/GN | 439 | II | - | Run/Crank Ignition 1 Voltage | 6 | 0.35 | VT/GN | 439 | III | - |
| 7 | 0.35 | BN/YE | 189 | II | - | Headlamp Leveling Motor Control | 7 | 0.35 | BN/YE | 189 | III | - |
| 8 | 0.35 | BK | 1050 | II | - | Ground | 8 | 0.35 | BK | 1050 | III | - |
| 9 - 16 | - | - | - | - | - | Not Occupied | 9 - 16 | - | - | - | - | - |

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4F+X88)

-




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 33472-1289
- Service Connector: 19355457
- Description: 12-Way F 150 MX Series, Sealed (D-GY)

Connector Part Information

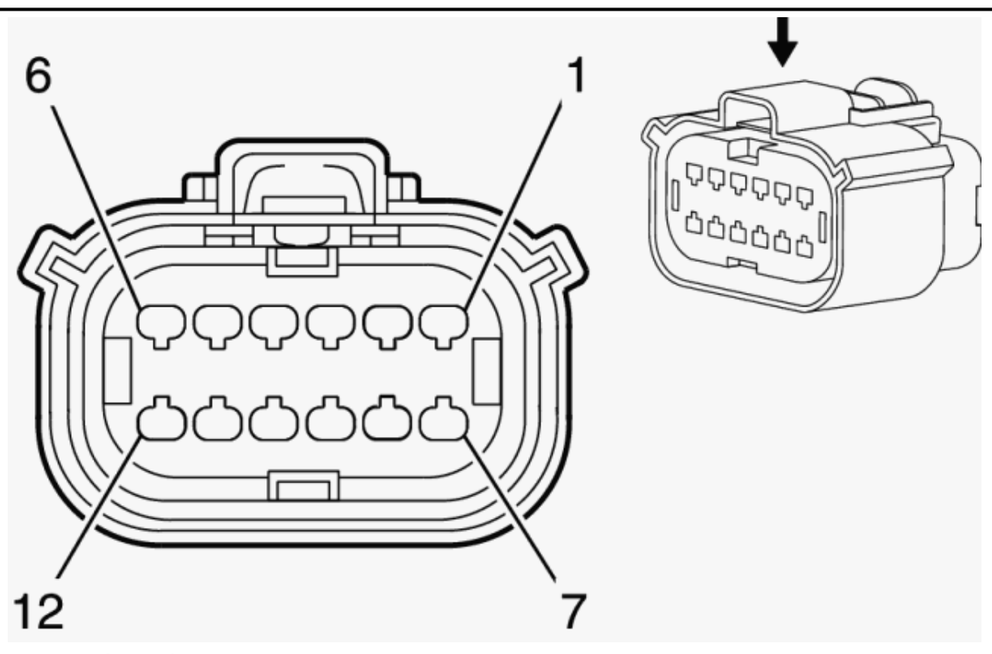
- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

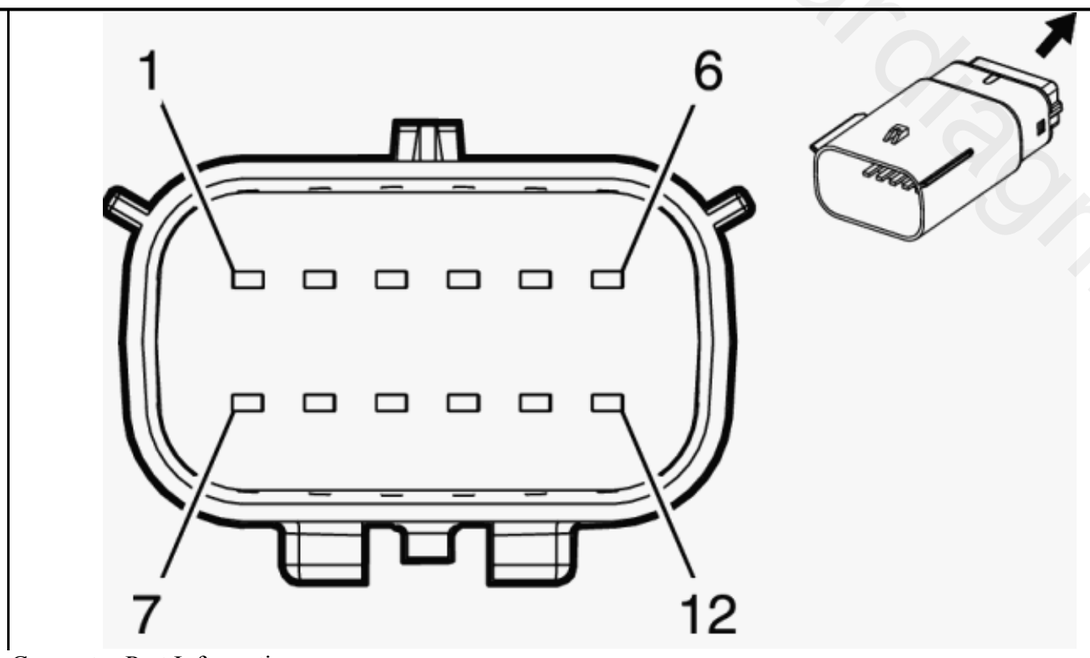
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | T4F+MAH/MBC/MCX/MBI-Z88 | Ground | 1 | 1.5 | BK | 1050 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 2 | 1.5 | YE | 312 | I | T4F+MAH/MBC/MCX/MBI-Z88 | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 3 | 0.35 | WH | 311 | II | T4F+MAH/MBC/MCX/MBI-Z88 | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 4 | 0.35 | GY/BN | 309 | II | T4F+MAH/MBC/MCX/MBI-Z88 | Right Park Lamp Control | 4 | 0.35 | GY/BN | 309 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 5 | 0.35 | BK | 1050 | II | T4F+MAH/MBC/MCX/MBI-Z88 | Ground | 5 | 0.35 | BK | 1050 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 6 | 0.35 | VT | 1203 | II | T4F+MAH/MBC/MCX/MBI-Z88 | Right Park Lamp Control | 6 | 0.35 | VT | 1203 | III | T4F+MAH/MBC/MCX/MBI-Z88 |
| 7 - 12 | - | - | - | - | - | Not Occupied | 7 - 12 | - | - | - | - | - |

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4F+Z88)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503526
- Service Connector: 13503528
- Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

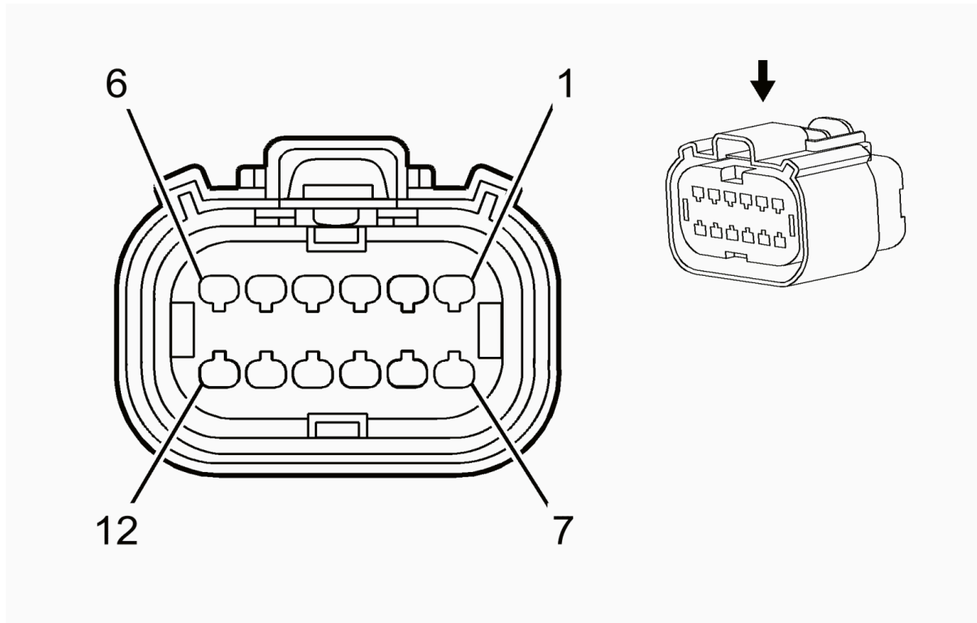
- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

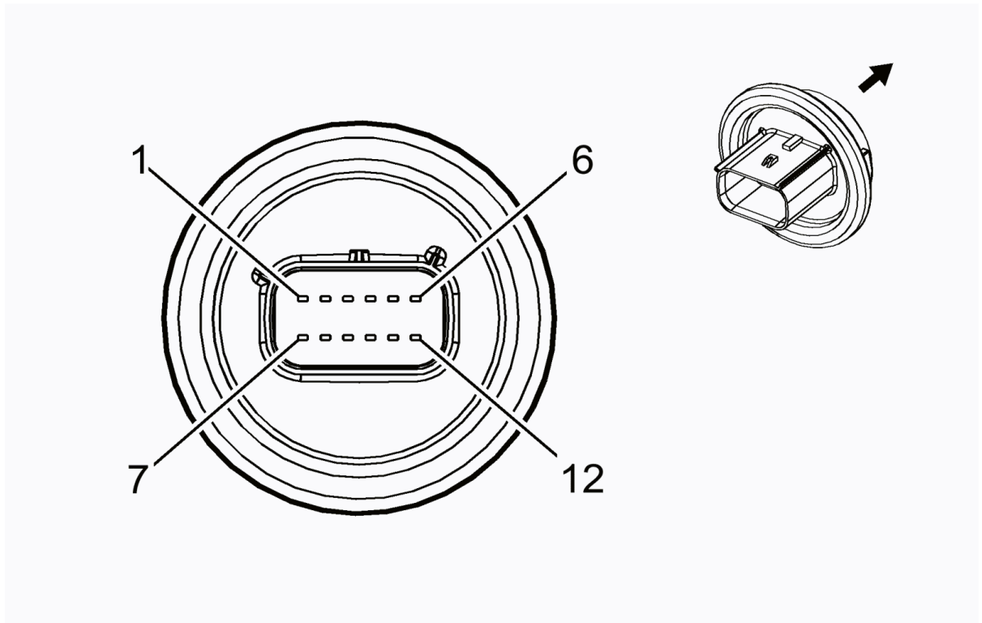
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | Z88+T4F | Ground | 1 | 1.5 | BK | 1050 | III | Z88+T4F |
| 2 | 1.5 | YE | 312 | I | Z88+T4F | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | Z88+T4F |
| 3 | 0.35 | WH | 311 | II | Z88+T4F | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | Z88+T4F |
| 4 | 0.35 | BK | 1050 | II | Z88+T4F | Ground | 4 | 0.35 | BK | 1050 | III | Z88+T4F |
| 5 | 0.35 | YE/GY | 2226 | II | Z88+T4F | Right Headlamp Control | 5 | 0.35 | YE/GY | 2226 | III | Z88+T4F |
| 6 | 0.35 | GN/VT | 1315 | II | - | Right Front Turn Signal Lamp Control | 6 | 0.35 | GN/VT | 1315 | III | Z88+T4F |
| 7 | 0.35 | GY/BN | 309 | II | Z88+T4F | Right Park Lamp Control | 7 | 0.35 | GY/BN | 309 | III | Z88+T4F |
| 8 - 11 | - | - | - | - | - | Not Occupied | 8 - 11 | - | - | - | - | - |
| 12 | 0.35 | VT | 1203 | II | - | Right Park Lamp Control | 12 | 0.35 | VT | 1203 | III | Z88+T4F |

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4L+TR7)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13586052
- Service Connector: 19333239
- Description: 12-Way F 150 MX Series, Sealed (D-GY)




Connector Part Information

- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | II | T4L+TR7-MAH-MCX-MBC | Ground | 1 | 1.5 | BK | 1050 | III | - |
| 2 | 1.5 | YE | 312 | I | T4L+TR7-MAH-MCX-MBC | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | - |
| 3 | 0.35 | WH | 311 | II | T4L+TR7-MAH-MCX-MBC | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | - |
| 4 | 0.35 | GY/BN | 309 | II | T4L+TR7-MAH-MCX-MBC | Right Park Lamp Control | 4 | 0.35 | GY/BN | 309 | III | - |
| 5 | 0.35 | BK | 1050 | II | T4L+TR7-MAH-MCX-MBC | Ground | 5 | 0.35 | BK | 1050 | III | - |
| 6 | 0.35 | BN/YE | 189 | II | T4L+TR7-MAH-MCX-MBC | Headlamp Leveling Motor Control | 6 | 0.35 | BN/YE | 189 | III | - |
| 7 | 0.35 | GN/WH | 7530 | II | T4L+TR7-MAH-MCX-MBC | Local Interconnect Network Serial Data Bus 8 | 7 | 0.35 | GN/WH | 7530 | III | - |
| 8 | 0.35 | BK | 1050 | II | T4L+TR7-MAH-MCX-MBC | Ground | 8 | 0.35 | BK | 1050 | III | - |
| 9 - 12 | - | - | - | - | - | Not Occupied | 9 - 12 | - | - | - | - | - |

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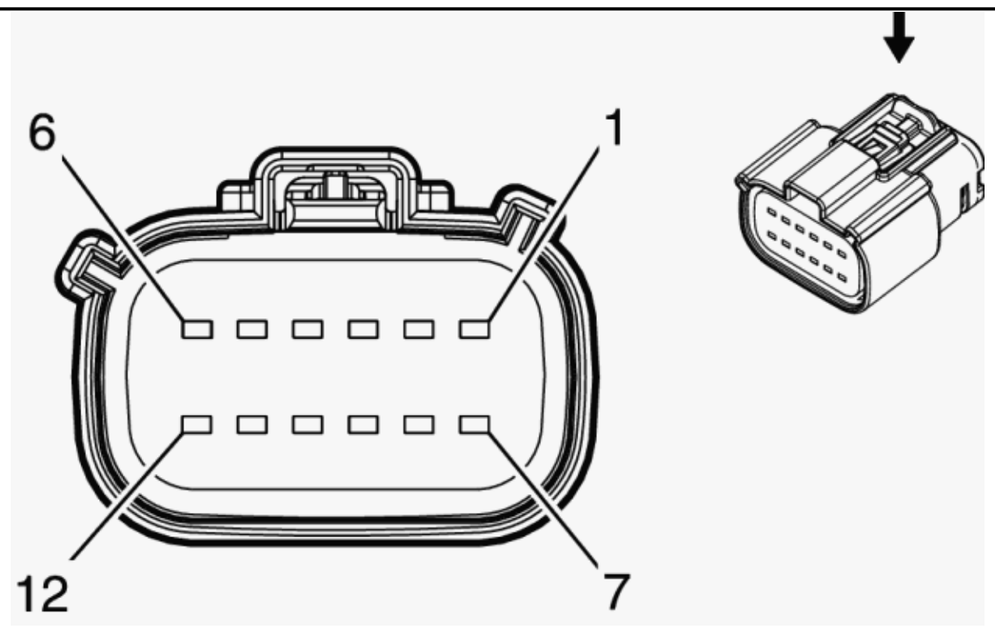
Article GUID: A00932106

2018 ELECTRICAL

Wiring Systems And Power Management - Component Locator - Inline Harness Connector End Views (X120 - X207) - Equinox & Terrain

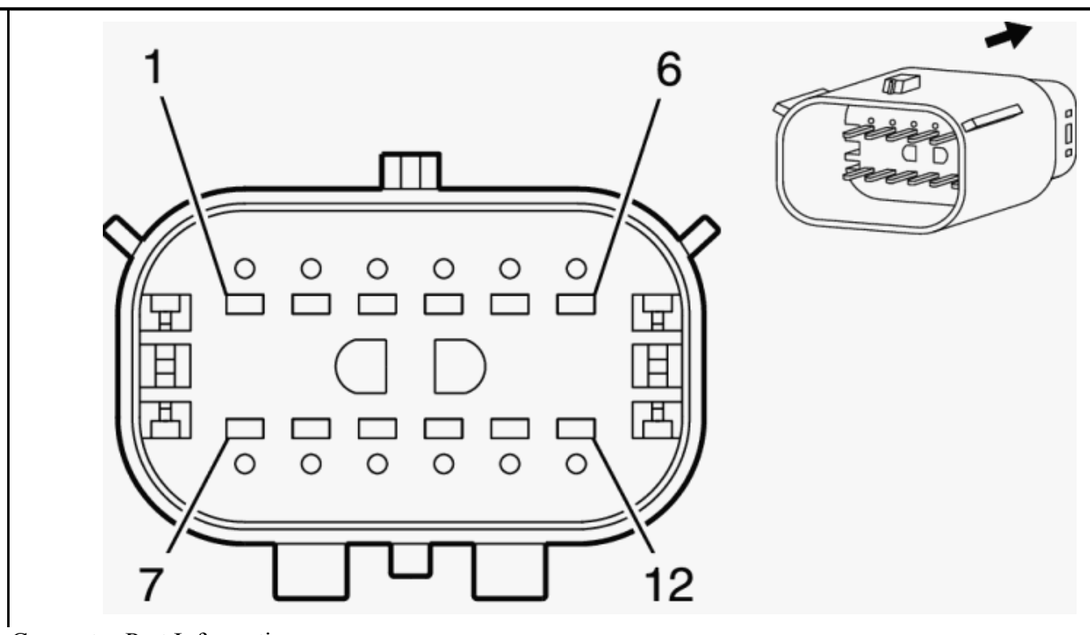
# INLINE HARNESS CONNECTOR END VIEWS

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4L+X88)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503527
- Service Connector: 19300601
- Description: 12-Way F 1.5 Series, Sealed (L-GY)




Connector Part Information

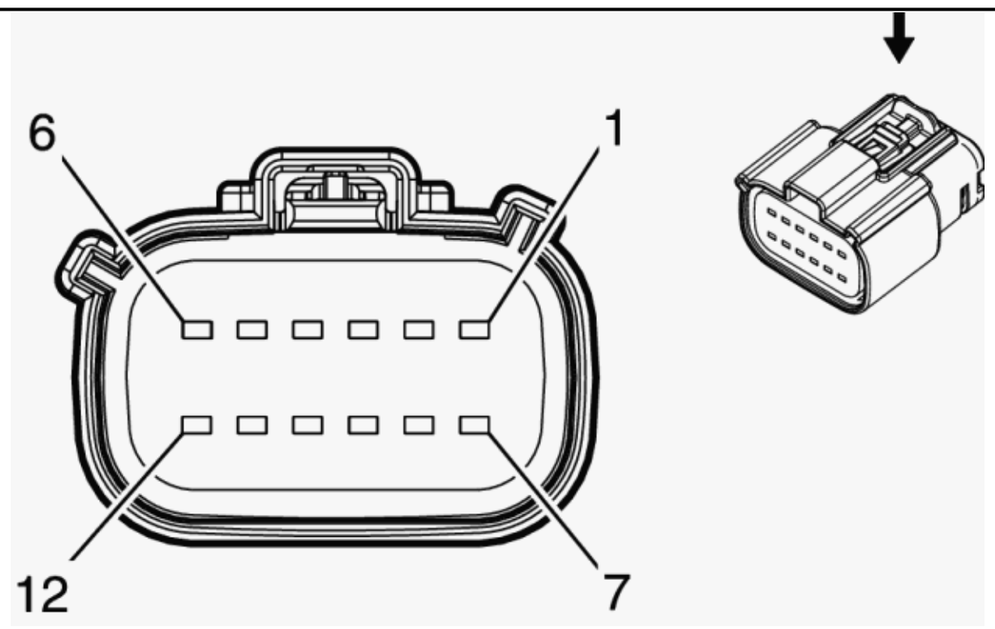
- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

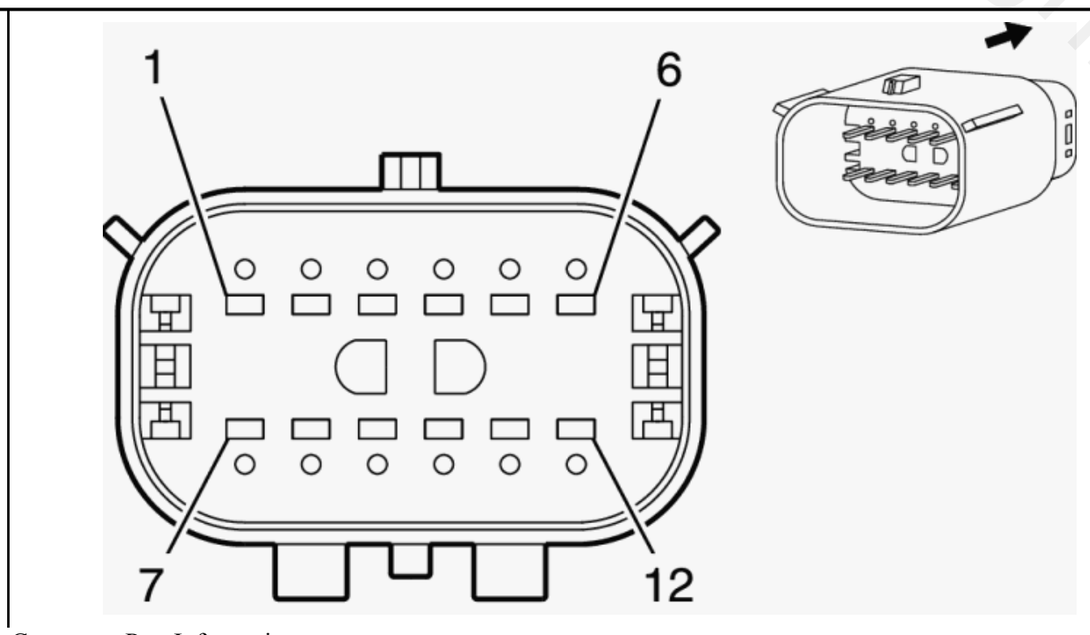
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | T4L+MAH/MBC/MCX-Z88 | Ground | 1 | 1.5 | BK | 1050 | III | T4L+MAH/MBC/MCX-Z88 |
| 2 | 1.5 | YE | 312 | I | T4L+MAH/MBC/MCX-Z88 | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | T4L+MAH/MBC/MCX-Z88 |
| 3 | 0.35 | WH | 311 | II | T4L+MAH/MBC/MCX-Z88 | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | T4L+MAH/MBC/MCX-Z88 |
| 4 | 0.35 | GY/BN | 309 | II | T4L+MAH/MBC/MCX-Z88 | Right Park Lamp Control | 4 | 0.35 | GY/BN | 309 | III | T4L+MAH/MBC/MCX-Z88 |
| 5 | 0.35 | BK | 1050 | II | T4L+MAH/MBC/MCX-Z88 | Ground | 5 | 0.35 | BK | 1050 | III | T4L+MAH/MBC/MCX-Z88 |
| 6 | 0.35 | VT | 1203 | II | T4L+MAH/MBC/MCX-Z88 | Right Park Lamp Control | 6 | 0.35 | VT | 1203 | III | T4L+MAH/MBC/MCX-Z88 |
| 7 - 12 | - | - | - | - | - | Not Occupied | 7 - 12 | - | - | - | - | - |

## X120 FORWARD LAMP HARNESS TO RIGHT HEADLAMP HARNESS (T4L+Z88)




Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 13503527
- Service Connector: 19300601
- Description: 12-Way F 1.5 Series, Sealed (L-GY)




Connector Part Information

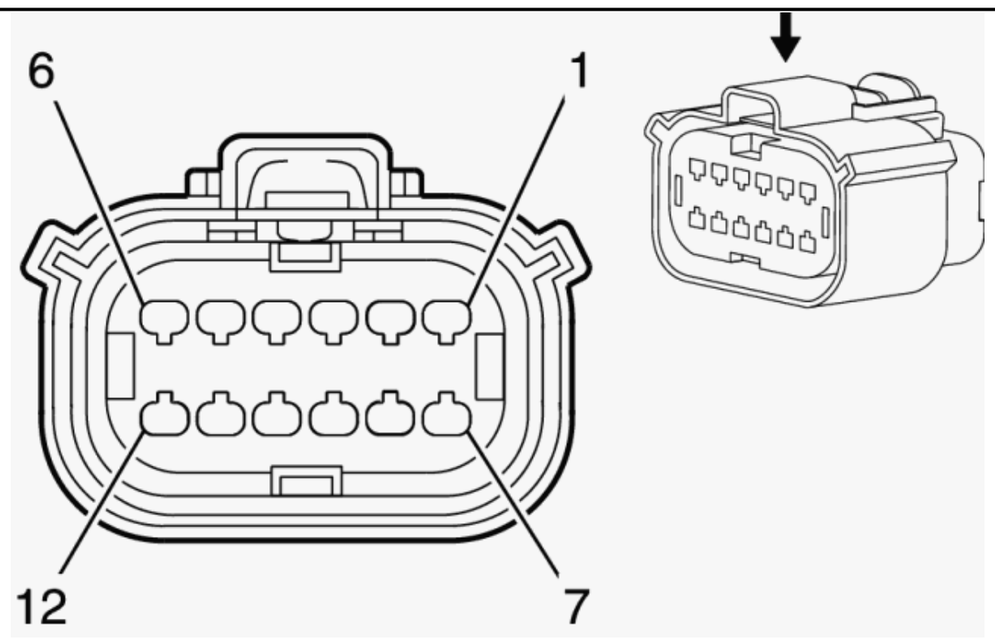
- Harness Type: Right Headlamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19300432 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

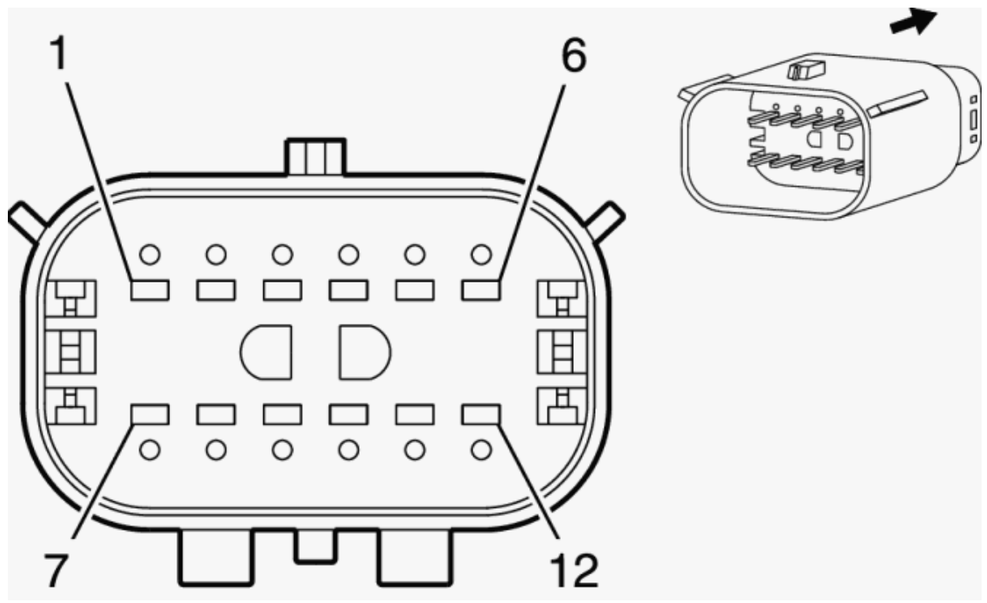
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | BK | 1050 | I | Z88+T4L+MAH/MBC/MCX/MAM | Ground | 1 | 1.5 | BK | 1050 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 2 | 1.5 | YE | 312 | I | Z88+T4L+MAH/MBC/MCX/MAM | Right Headlamp Low Beam Control | 2 | 1.5 | YE | 312 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 3 | 0.35 | WH | 311 | II | Z88+T4L+MAH/MBC/MCX/MAM | Right Headlamp High Beam Control | 3 | 0.35 | WH | 311 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 4 | 0.35 | BK | 1050 | II | Z88+T4L+MAH/MBC/MCX/MAM | Ground | 4 | 0.35 | BK | 1050 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 5 | 0.5 | YE/GY | 2226 | II | Z88+T4L+MAH/MBC/MCX/MAM | Right Headlamp Control | 5 | 0.5 | YE/GY | 2226 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 6 | 0.5 | GN/VT | 1315 | II | Z88+T4L+MAH/MBC/MCX/MAM | Right Front Turn Signal Lamp Control | 6 | 0.5 | GN/VT | 1315 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 7 | 0.35 | GY/BN | 309 | II | Z88+T4L+MAH/MBC/MCX/MAM | Right Park Lamp Control | 7 | 0.35 | GY/BN | 309 | III | Z88+T4L+MAH/MBC/MCX/MAM |
| 8 - 11 | - | - | - | - | - | Not Occupied | 8 - 11 | - | - | - | - | - |
| 12 | 0.35 | VT | 1203 | II | Z88+T4L+MAH/MBC/MCX/MAM | Right Park Lamp Control | 12 | 0.35 | VT | 1203 | III | Z88+T4L+MAH/MBC/MCX/MAM |

## X160 ENGINE HARNESS TO FUEL INJECTOR HARNESS (LTG)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 19150019
- Service Connector: 19150019
- Description: 12-Way F 1.5 Series, Sealed (BK)




Connector Part Information

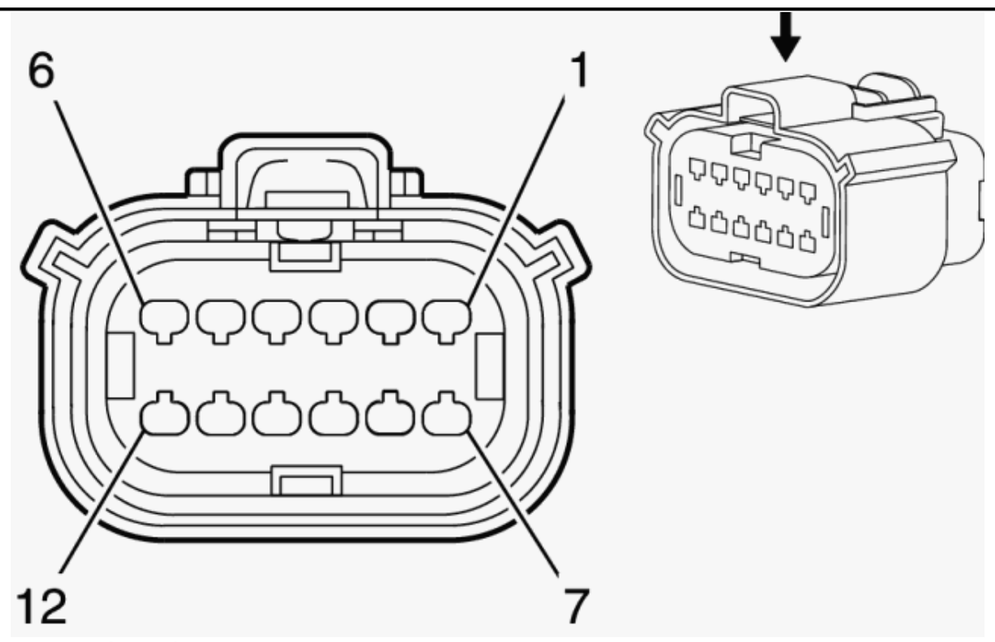
- Harness Type: Fuel Injector
- OEM Connector: 33482-1206
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 150 MX Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575808 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

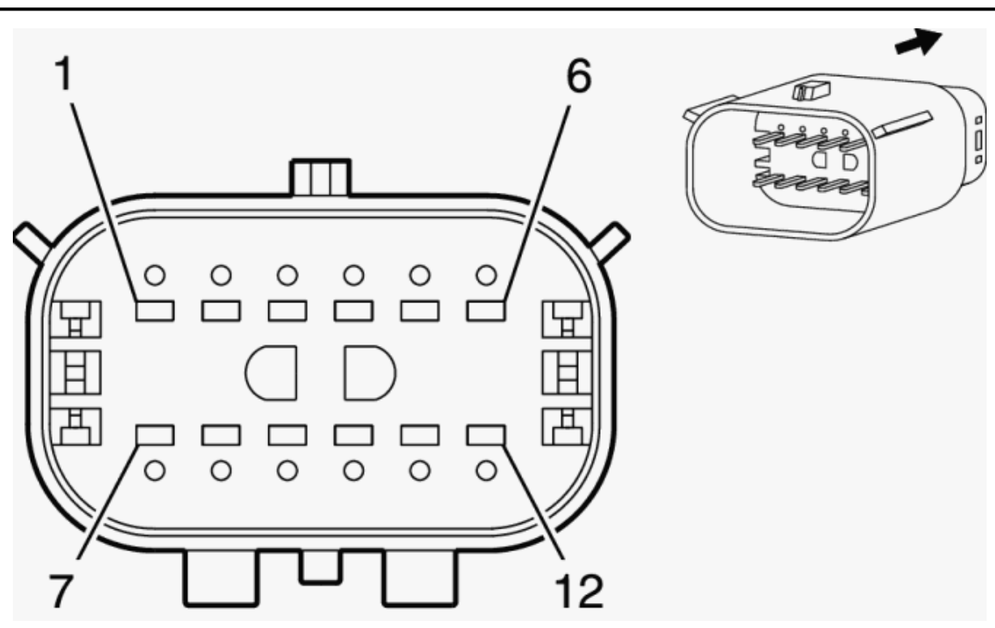
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BN | 4801 | I | LTG | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | 1 | 0.75 | BN | 4801 | III | LTG |
| 2 | 0.75 | BU | 4802 | I | LTG | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | 2 | 0.75 | BU | 4802 | III | LTG |
| 3 | 0.75 | GN | 4803 | I | LTG | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | 3 | 0.75 | GN | 4803 | III | LTG |
| 4 | 0.75 | GY/BU | 4804 | I | LTG | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | 4 | 0.75 | GY/BU | 4804 | III | LTG |
| 5 | 0.5 | BK/GN | 2919 | II | LTG | Fuel Rail Pressure Sensor Low Reference | 5 | 0.5 | BK/GN | 2919 | III | LTG |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |
| 7 | 0.75 | BN/WH | 4901 | I | LTG | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | 7 | 0.75 | BN/WH | 4901 | III | LTG |
| 8 | 0.75 | BU/GY | 4902 | I | LTG | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | 8 | 0.75 | BU/GY | 4902 | III | LTG |
| 9 | 0.75 | GN/GY | 4903 | I | LTG | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | 9 | 0.75 | GN/GY | 4903 | III | LTG |
| 10 | 0.75 | BU/WH | 4904 | I | LTG | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | 10 | 0.75 | BU/WH | 4904 | III | LTG |
| 11 | 0.5 | BN/RD | 2917 | II | LTG | Fuel Rail Pressure Sensor 5V Reference | 11 | 0.5 | BN/RD | 2917 | III | LTG |
| 12 | 0.5 | BU/WH | 2918 | II | LTG | Fuel Rail Pressure Sensor Signal | 12 | 0.5 | BU/WH | 2918 | III | LTG |

## X160 ENGINE HARNESS TO FUEL INJECTOR HARNESS (LYX)




Connector Part Information

- Harness Type: Engine
- OEM Connector: 19150019
- Service Connector: 19150019
- Description: 12-Way F 1.5 Series, Sealed (BK)




Connector Part Information

- Harness Type: Fuel Injector
- OEM Connector: 33482-1206
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 150 MX Series, Sealed (BK)

**Terminal Part Information**

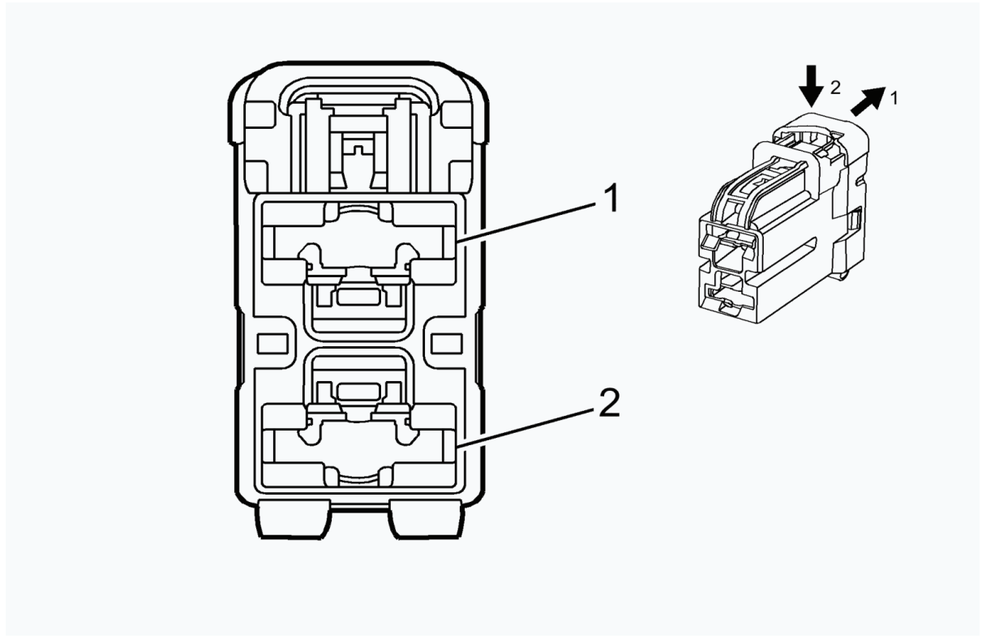
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575808 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | Not Required | J-35616-14 (GN) | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| III | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | GY/BU | 4804 | I | LYX | Direct Fuel Injector (DFI) High Voltage Control Cylinder 4 | 1 | 0.75 | GY/BU | 4804 | III | LYX |

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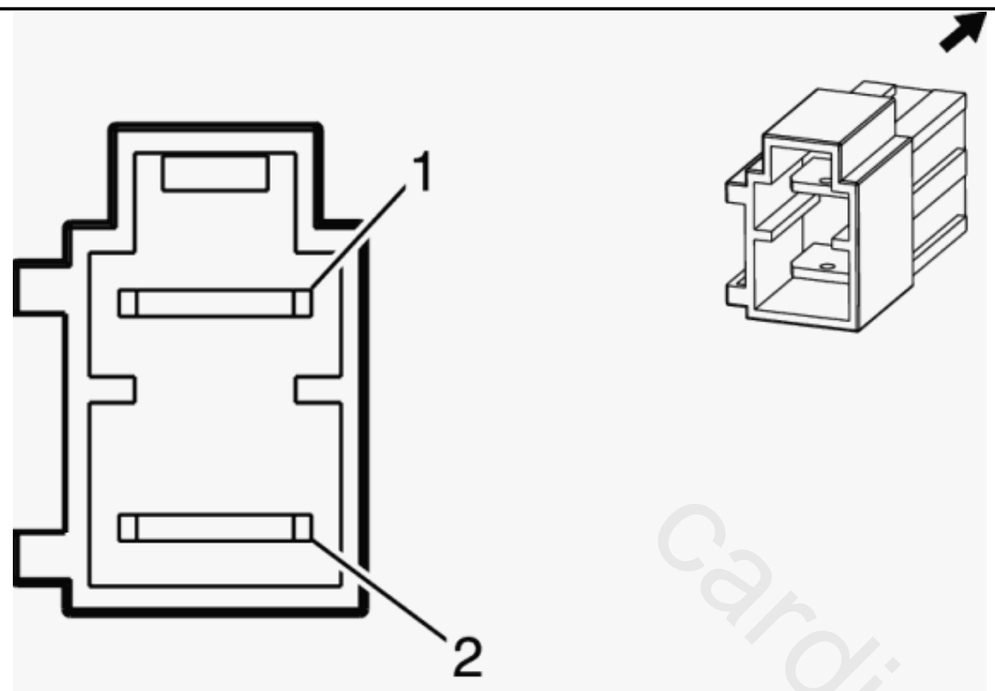
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.75 | BN | 4801 | I | LYX | Direct Fuel Injector (DFI) High Voltage Control Cylinder 1 | 2 | 0.75 | BN | 4801 | III | LYX |
| 3 | 0.75 | BN/WH | 4901 | I | LYX | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1 | 3 | 0.75 | BN/WH | 4901 | III | LYX |
| 4 | 0.75 | BU | 4802 | I | LYX | Direct Fuel Injector (DFI) High Voltage Control Cylinder 2 | 4 | 0.75 | BU | 4802 | III | LYX |
| 5 | 0.75 | BU/GY | 4902 | I | LYX | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2 | 5 | 0.75 | BU/GY | 4902 | III | LYX |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |
| 7 | 0.75 | BU/WH | 4904 | I | LYX | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4 | 7 | 0.75 | BU/WH | 4904 | III | LYX |
| 8 | 0.5 | BN/RD | 2917 | II | LYX | Fuel Rail Pressure Sensor 5V Reference | 8 | 0.5 | BN/RD | 2917 | III | LYX |
| 9 | 0.75 | GN | 4803 | I | LYX | Direct Fuel Injector (DFI) High Voltage Control Cylinder 3 | 9 | 0.75 | GN | 4803 | III | LYX |
| 10 | 0.75 | GN/GY | 4903 | I | LYX | Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3 | 10 | 0.75 | GN/GY | 4903 | III | LYX |
| 11 | 0.5 | BK/GN | 2919 | II | LYX | Fuel Rail Pressure Sensor Low Reference | 11 | 0.5 | BK/GN | 2919 | III | LYX |
| 12 | 0.5 | BU/WH | 2918 | II | LYX | Fuel Rail Pressure Sensor Signal | 12 | 0.5 | BU/WH | 2918 | III | LYX |

## X200 INSTRUMENT PANEL HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13512002
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 9.5 Series (BK)




Connector Part Information

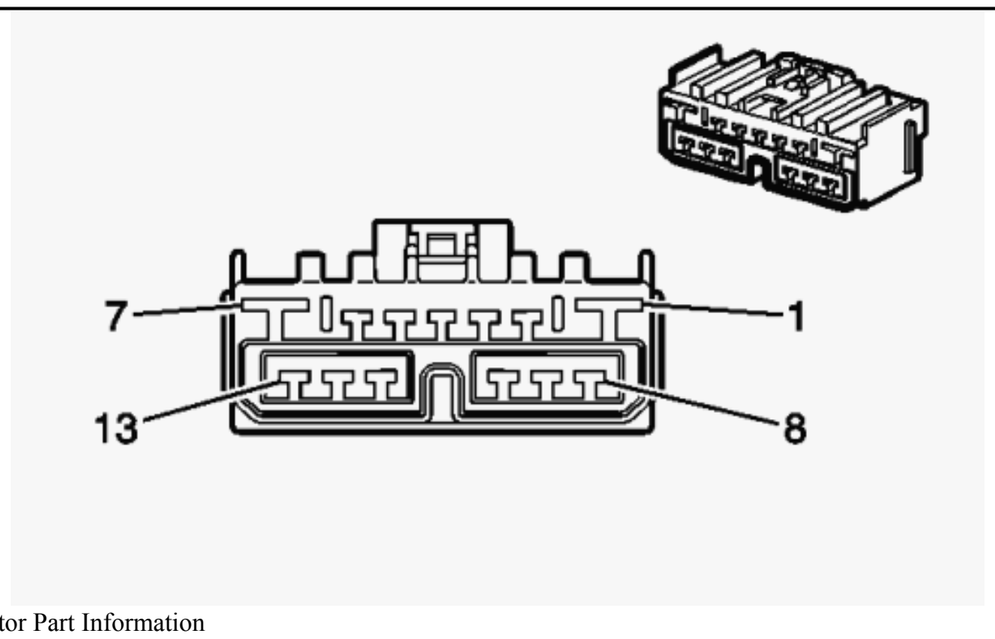
- Harness Type: Body
- OEM Connector: 13581073
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 375 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-21 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

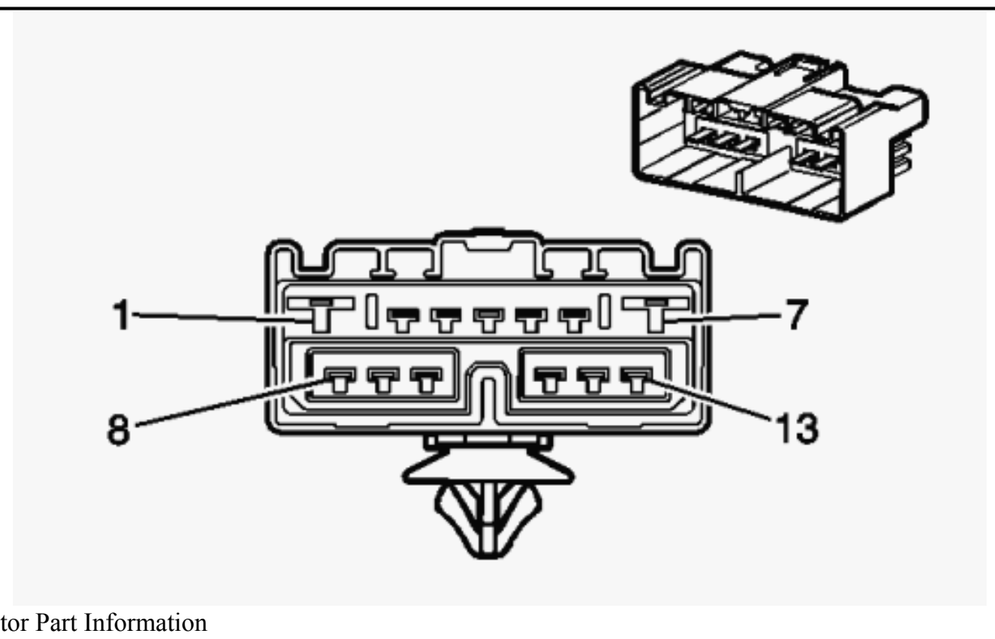
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | RD/GY | 142 | I | - | Battery Positive Voltage | 1 | 10 | RD/GY | 142 | II | - |
| 2 | 10 | RD/BU | 42 | I | - | Battery Positive Voltage | 2 | 10 | RD/BU | 42 | II | - |

## X201 INSTRUMENT PANEL HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581066
- Service Connector: 13587884
- Description: 13-Way F 2.8, 6.3 Series (L-GY)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13581067
- Service Connector: 19330682
- Description: 13-Way M Hybrid Series (L-GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575839 | J-35616-35 (VT) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| II | 13575839 | J-35616-35 (VT) | J-38125-11A | 7116-4111-02 | Yazaki 9 | C | A |
| III | 13578928 | J-35616-42 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IV | 19368264 | J-35616-35 (VT) | J-38125-11A | 7116-4112-02 | Yazaki 9 | C | D |
| V | 19368887 | J-35616-42 (RD) | J-38125-11A | 7116-4122-02 | Yazaki 10 | D | G |
| VI | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| VII | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4111-02 | Yazaki 9 | C | A |
| VIII | 13575824 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IX | 13578908 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | C | D |

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| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| X | 19368518 | J-35616-43 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/GN | 2173 | III | KL9 | 12V Regulated Supply Voltage 2 | 1 | 6 | RD/GN | 2173 | X | KL9 |
| 2 | 0.35 | GY/GN | 1102 | I | - | Low Speed GMLAN Serial Data #2<br>Low Speed GMLAN Serial Data #2 | 2 | 0.35<br>0.75 | GY/GN<br>GY/GN | 1102<br>1102 | VI<br>VIII | NKC+IO5/IO6+UQA<br>UQA+IO5/IO6-NKC |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |
| 4 | 2.5<br>1 | RD/GN<br>RD/WH | 2173<br>4740 | IV<br>II | KL9<br>-KL9 | 12V Regulated Supply Voltage 2<br>Battery Positive Voltage | 4 | 2.5<br>1 | RD/GN<br>RD/WH | 2173<br>4740 | IX<br>VII | KL9<br>-KL9 |
| 5 - 6 | - | - | - | - | - | Not Occupied | 5 - 6 | - | - | - | - | - |
| 7 | 4 | GY/BN | 3761 | V | KL9 | Infotainment Regulated Control | 7 | 6 | GY/BN | 3761 | X | KL9 |
| 8 - 9 | - | - | - | - | - | Not Occupied | 8 - 9 | - | - | - | - | - |
| 10 | 1 | RD/BN | 4240 | II | - | Battery Positive Voltage | 10 | 1 | RD/GY | 4840 | VII | - |
| 11 | 2<br>2.5 | RD/VT<br>RD/VT | 5340<br>5340 | IV<br>IV | NKC+UZ6-IOR<br>UQA+IOT/IOU/IOS | Battery Positive Voltage<br>Battery Positive Voltage | 11 | 2<br>2.5 | RD/VT<br>RD/VT | 5340<br>5340 | IX<br>IX | NKC+UZ6-IOR<br>UQA+IOT/IOU/IOS |
| 12 | 2.5 | BK | 1750 | IV | - | Ground | 12 | 2.5 | BK | 1750 | IX | - |
| 13 | - | - | - | - | - | Not Occupied | 13 | - | - | - | - | - |

## X202 INSTRUMENT PANEL HARNESS TO BODY HARNESS

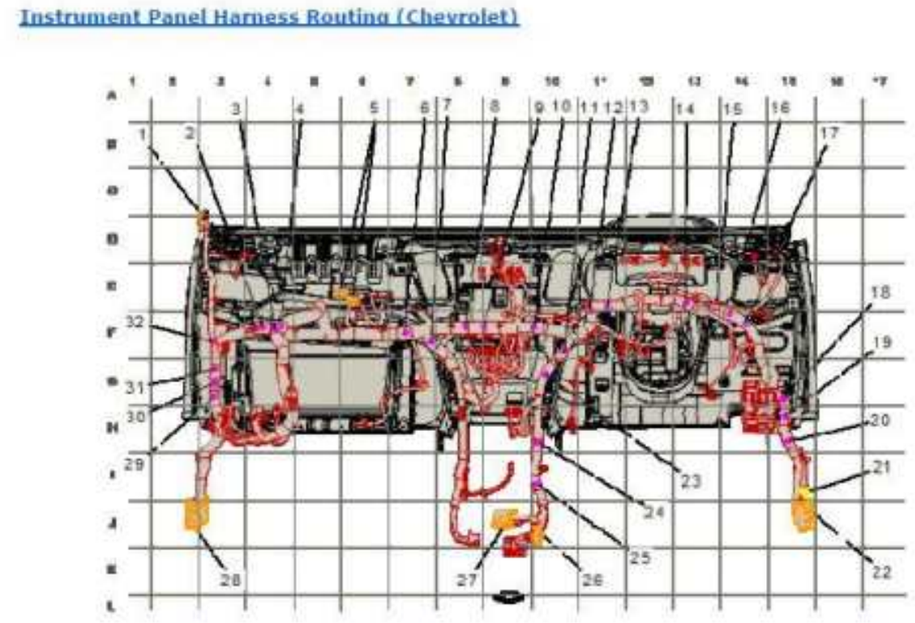
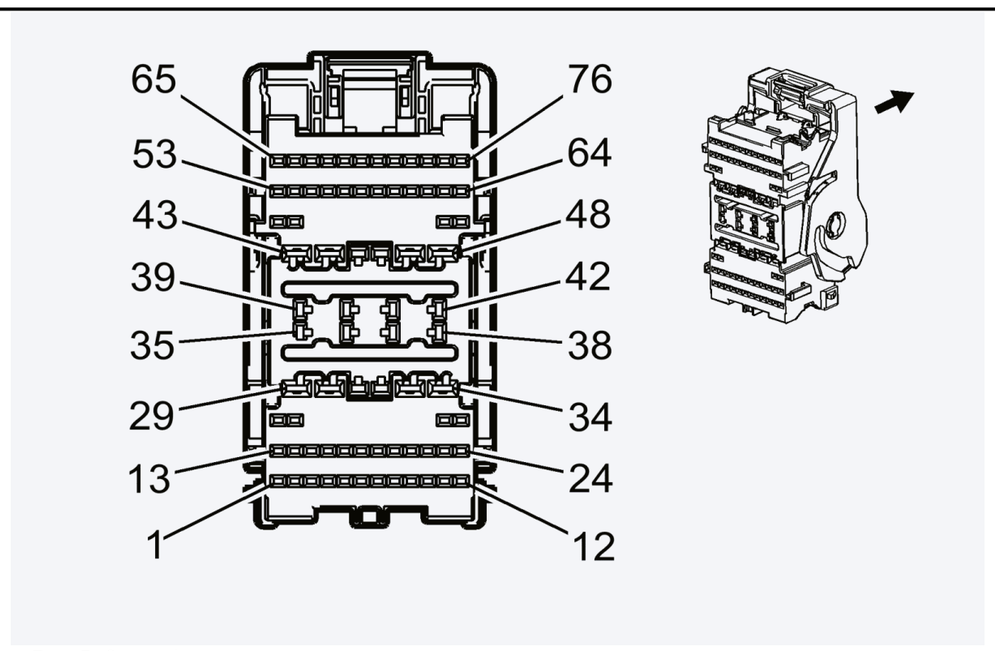
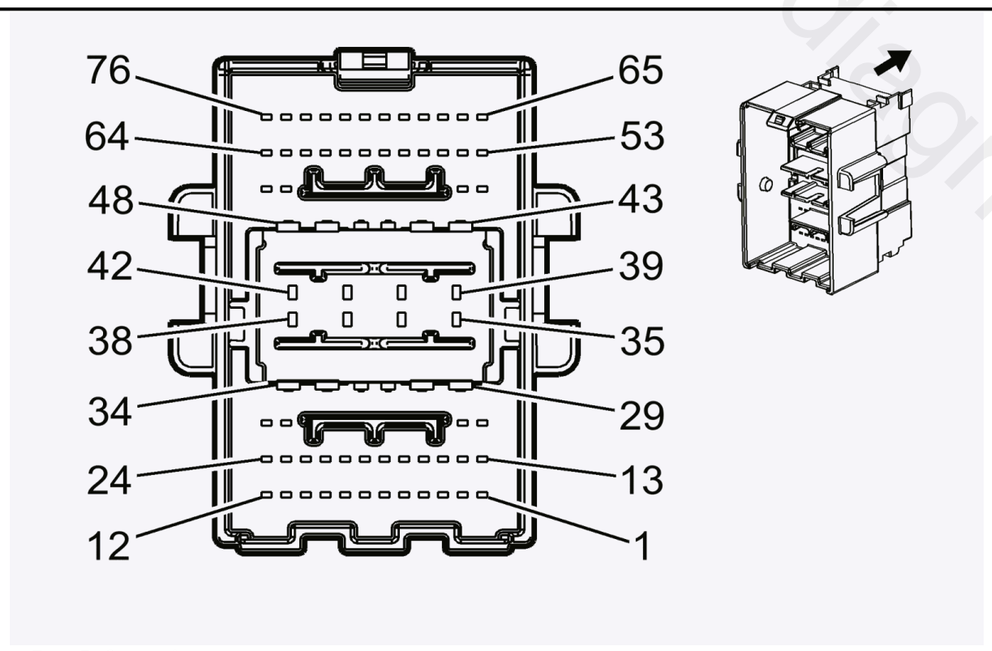



**Fig. 1: X202 Instrument Panel Harness To Body Harness Component Location (22)**
**Courtesy of GENERAL MOTORS COMPANY**




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13592940
- Service Connector: 19330680
- Description: 76-Way F 1.2, 1.5, 2.8 YESC Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 6098-8295
- Service Connector: 19355187
- Description: 76-Way M 1.2 MCON-CB, 1.5, 2.8 YESC Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13578891 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 13578893 | J-35616-4A (PU) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| III | 13582232 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| IV | 13582289 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 13587516 | J-35616-4A (PU) | J-38125-11A | 7116-4112-02 | Yazaki 9 | C | D |
| VI | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| VII | 19333323 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| VIII | 19352420 | J-35616-16 (LT GN) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IX | 19367551 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| X | 13575818 | J-35616-3 (GY) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| XI | 13575821 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| XII | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | C | D |
| XIII | 19330704 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XIV | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XV | 19352422 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XVI | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Available | Not Available | Not Available | Not Available |
| XVII | Pending | Pending | Pending | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | GY | 4109 | VI | F48/EPH | Driver Mode Switch 5V Reference | 1 | 0.35 | GY | 4109 | XIV | F48/EPH |
| 2 | 0.35 | RD/BU | 2540 | IV | UD7/UD5/UFQ | Battery Positive Voltage | 2 | 0.35 | RD/YE | 5040 | XIV | UD7/UD5/UFQ |
| 3 | 0.35 | VT | 185 | VI | Y67 | Low Washer Fluid Indicator Control | 3 | 0.35 | VT | 185 | XIV | Y67 |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.13<br>0.13 | BU/VT<br>BU/VT | 1134<br>1134 | VIII<br>VII | EPH+J71<br>J71-EPH | Park Brake Switch Signal<br>Park Brake Switch Signal | 4 | 0.35 | BU/VT | 1134 | XIV | J71 |
| 5 | 0.13 | BN/WH | 419 | VIII | NTB/NUB/LH7 | Check Engine Indicator Control | 5 | 0.35 | BN/WH | 419 | XIV | NTB/NUB/LH7 |
| 6 | 0.35 | WH/VT | 4108 | VII | F48/EPH | Driver Mode Switch Signal | 6 | 0.35 | WH/VT | 4108 | XIV | F48/EPH |
| 7 | 0.13<br>0.13 | GY/RD<br>GY/RD | 7684<br>7684 | VIII<br>VII | EPH+J71<br>J71-EPH | Park Brake Apply Switch Voltage Reference<br>Park Brake Apply Switch Voltage Reference | 7 | 0.35 | GY/RD | 7684 | XIV | J71 |
| 8 | 0.13<br>0.13 | BN<br>BN | 6107<br>6107 | VII<br>VII | EPH+J71<br>J71-EPH | Park Brake Apply Switch Signal<br>Park Brake Apply Switch Signal | 8 | 0.35 | BN | 6107 | XIV | J71 |
| 9 | 0.13<br>0.13 | BU/BK<br>BU/BK | 6108<br>6108 | VII<br>VII | EPH-J71<br>J71-EPH | Park Brake Release Switch Signal<br>Park Brake Release Switch Signal | 9 | 0.35 | BU/BK | 6108 | XIV | J71 |
| 10 | 0.13<br>0.13 | YE/RD<br>YE/RD | 7683<br>7683 | VII<br>VIII | EPH+J71<br>J71-EPH | Park Brake Release Switch Voltage Reference<br>Park Brake Release Switch Voltage Reference | 10 | 0.35 | YE/RD | 7683 | XIV | J71 |
| 11 | 0.75<br>0.75<br>0.75 | GN/BK<br>GN/BK<br>GN/BK | 116<br>116<br>116 | IX<br>IX<br>IX | IOB+UZ6-NKC<br>IOR+UZ6<br>UZ6-IOB-NKC | Left Rear Speaker Signal (-)<br>Left Rear Speaker Signal (-)<br>Left Rear Speaker Signal (-) | 11 | 0.75<br>0.75<br>0.75 | GN/BK<br>GN/BK<br>GN/BK | 116<br>116<br>116 | XIII<br>XIII<br>XIII | IOB+UZ6-NKC<br>IOR+UZ6<br>UZ6-IOB-NKC |
| 12 | 0.75<br>0.75<br>0.75 | GN<br>GN<br>GN | 199<br>199<br>199 | IX<br>IX<br>IX | IOB+UZ6-NKC<br>IOR+UZ6<br>UZ6-IOB-NKC | Left Rear Speaker Control (+)<br>Left Rear Speaker Control (+)<br>Left Rear Speaker Control (+) | 12 | 0.75<br>0.75<br>0.75 | GN<br>GN<br>GN | 199<br>199<br>199 | XIV<br>XIV<br>XIV | IOB+UZ6-NKC<br>IOR+UZ6<br>UZ6-IOB-NKC |
| 13 | 0.35 | BU/YE | 6105 | VI | - | High Speed GMLAN Serial Data (+) 2 | 13 | 0.35<br>0.35 | BU/YE<br>BU/YE | 6105<br>6105 | XIV<br>XIV | -UFQ<br>UFQ |
| 14 | 0.35 | WH | 6106 | IV | - | High Speed GMLAN Serial Data (-) 2<br>High Speed GMLAN Serial Data (-) 2 | 14 | 0.35<br>0.35 | WH<br>WH | 6106<br>6106 | XIV<br>XIV | UFQ<br>-UFQ |
| 15 | 0.35 | GN/GY | 6135 | VII | AER/AEQ | Local Interconnect Network Serial Data Bus 4 | 15 | 0.35 | GN/GY | 6135 | XIV | AER/AEQ |
| 16 | 0.13 | VT/BK | 7553 | VIII | MM1-EPH | Park Lock Solenoid Control | 16 | 0.13 | VT/BK | 7553 | XV | MM1-EPH |
| 17 | 0.35 | BU | 2307 | VIII | AL0/C99 | Passenger Air Bag On Indicator Control | 17 | 0.13 | BU | 2307 | XV | AL0/C99 |
| 18 | 0.75<br>0.75<br>0.75<br>0.75 | BN/BU<br>BN/BU<br>BN/BU<br>BN/BU | 118<br>118<br>118<br>118 | IX<br>IX<br>VI<br>VI | IOB+UZ6-NKC<br>IOR+UZ6<br>NKC+UZ6-IOR<br>UZ6-IOB-NKC | Left Front Speaker Signal (-) 1<br>Left Front Speaker Signal (-) 1<br>Left Front Speaker Signal (-) 1<br>Left Front Speaker Signal (-) 1 | 18 | 0.75<br>0.75<br>0.75<br>0.75 | BN/BU<br>BN/BU<br>BN/BU<br>BN/BU | 118<br>118<br>118<br>118 | XIV<br>XIII<br>XIII<br>XIII | IOB+UZ6-NKC<br>IOR+UZ6<br>NKC+UZ6-IOR<br>UZ6-IOB-NKC |
| 19 | 0.75<br>0.75<br>0.75<br>0.75 | BU<br>BU<br>BU<br>BU | 201<br>201<br>201<br>201 | IV<br>IX<br>IX<br>IV | IOB+UZ6-NKC<br>IOR+UZ6<br>NKC+UZ6-IOR<br>UZ6-IOB-NKC | Left Front Speaker Control (+) 1<br>Left Front Speaker Control (+) 1<br>Left Front Speaker Control (+) 1<br>Left Front Speaker Control (+) 1 | 19 | 0.75<br>0.75<br>0.75<br>0.75 | BU<br>BU<br>BU<br>BU | 201<br>201<br>201<br>201 | XIII<br>XIV<br>XIII<br>XIII | IOB+UZ6-NKC<br>IOR+UZ6<br>NKC+UZ6-IOR<br>UZ6-IOB-NKC |
| 20 | 0.35<br>0.35<br>0.35 | BU/BK<br>BU/BK<br>BK/OG | 7493<br>7493<br>5156 | VII<br>VII<br>III | EPH+LH7<br>EPH+LYX/LTG<br>SBK+AJG/AYC | High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3<br>Left Rear Seat Belt Pretensioner Low Reference | 20 | 0.35<br>0.35<br>0.35 | BU/BK<br>BU/BK<br>BK | 7493<br>7493<br>5156 | XVI<br>XVI<br>XVI | EPH+LH7<br>EPH+LYX/LTG<br>SBK+AJG/AYC |
| 21 | 0.35<br>0.35 | WH<br>WH | 7494<br>7494 | VII<br>VII | EPH+LH7<br>EPH+LYX/LTG | High Speed GMLAN Serial Data (-)3<br>High Speed GMLAN Serial Data (-)3 | 21 | 0.35<br>0.35 | WH<br>OG/WH | 7494<br>5155 | XIV<br>XVI | EPH+LH7<br>EPH+LYX/LTG |
| 22 | 0.35 | WH/VT | 5905 | VI | MM1-EPH | Key Capture/Column Lock Shift Position Signal | 22 | 0.13 | WH/VT | 5905 | XV | MM1-EPH |
| 23 | 0.35<br>0.35 | WH/GN<br>YE | 5380<br>6111 | VII<br>VI | MM1<br>MM3 | Brake Position Sensor Signal<br>Clutch Apply Sensor Signal | 23 | 0.35 | WH/GN | 5380 | XIV | - |
| 24 | 0.35<br>0.35 | BK/YE<br>BK/GY | 5382<br>6110 | VII<br>VI | MM1<br>MM3 | Brake Position Sensor Low Reference<br>Clutch Apply Sensor Low Reference | 24 | 0.35 | BK/YE | 5382 | XIV | - |
| 25 | 0.35<br>0.35 | WH/RD<br>GY/RD | 5381<br>6109 | VII<br>VI | MM1<br>MM3 | Brake Position Sensor 5V Reference<br>Clutch Apply Sensor 5V Reference | 25 | 0.35 | WH/RD | 5381 | XIV | - |
| 26 | 0.13<br>0.13 | YE<br>YE | 1492<br>1492 | VII<br>VIII | EPH+J71<br>J71-EPH | Park Brake Switch Supply Voltage<br>Park Brake Switch Supply Voltage | 26 | 0.35 | YE | 1492 | XIV | J71 |
| 27 | 0.35 | BU/WH | 6128 | IV | TB4 | Rear Closure Unlatch Motor Unlatch Control | 27 | 0.35 | BU/WH | 6128 | XIV | TB4 |
| 28 | 0.35 | RD/BN | 1440 | VII | - | Battery Positive Voltage | 28 | 0.35<br>0.35 | RD/BN<br>RD/BN | 1440<br>1440 | XIV<br>XIV | -CE1<br>CE1 |
| 29 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | II<br>II | EPH+LH7<br>EPH+LYX/LTG | High Speed GMLAN Serial Data (+)3<br>High Speed GMLAN Serial Data (+)3 | 29 | 0.35<br>0.35 | BU/BK<br>BU/BK | 7493<br>7493 | XI<br>XI | EPH+LH7<br>EPH+LYX/LTG |
| 30 | 0.35 | WH | 7494 | II | - | High Speed GMLAN Serial Data (-)3 | 30 | 0.35 | WH | 7494 | XI | - |
| 31 | 0.35 | RD/BU | 2540 | I | - | Battery Positive Voltage | 31 | 0.35 | RD/BU | 2540 | X | - |

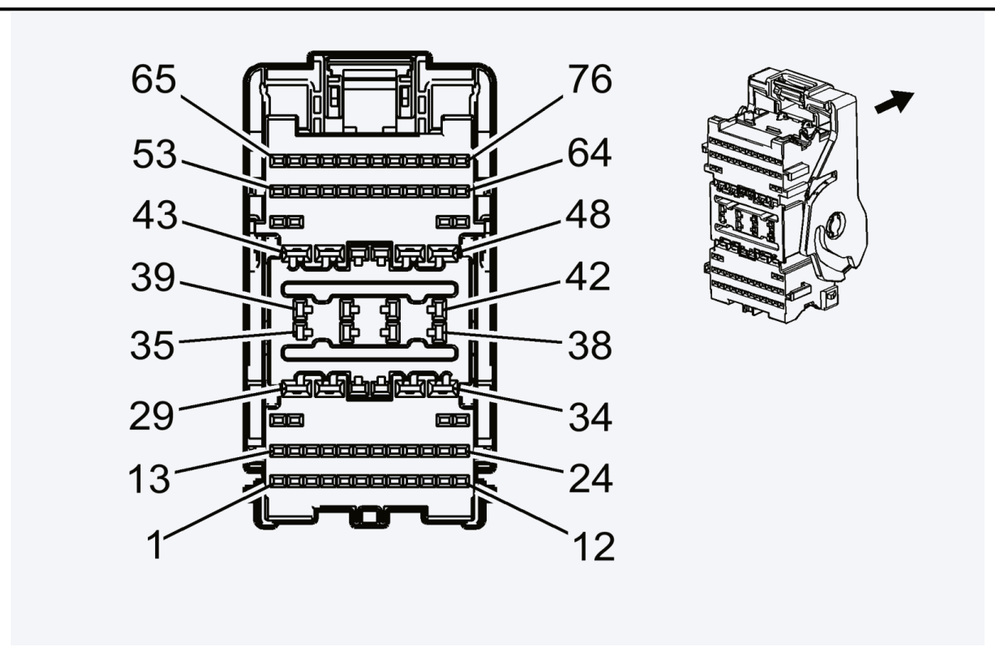
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| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 0.35<br>0.35 | GY/VT<br>GY/VT | 755<br>755 | VIII<br>I | IO5/IO6+MAH/MBC<br>MM1 | RAP Relay Coil Control<br>RAP Relay Coil Control | 32 | 0.35 | GY/VT | 755 | X | MM1-EPH |
| 33 | - | - | - | - | - | Not Occupied | 33 | - | - | - | - | - |
| 34 | 2.5<br>2.5 | RD/YE<br>RD/YE | 3740<br>3740 | V<br>V | AER/AEQ+MAH/MBC/MCX/EPH/MAO/MBI<br>AER/AEQ+MVL/MAY/MBA/MAM/MJL/MAW/MQL/MDW-EPH | Battery Positive Voltage<br>Battery Positive Voltage | 34 | 2.5 | RD/YE | 3740 | XII | AER/AEQ |
| 35 | 0.35 | BN/YE | 780 | I | - | Driver Door Lock Switch Lock Signal | 35 | 0.35 | BN/YE | 780 | X | - |
| 36 | 0.35 | BN/WH | 781 | I | - | Driver Door Lock Switch Unlock Signal | 36 | 0.35 | BN/WH | 781 | X | - |
| 37 | - | - | - | - | - | Not Occupied | 37 | - | - | - | - | - |
| 38 | 0.35 | BU/BN | 4498 | I | EPH+LH7 | High Speed GMLAN Serial Data (+) 7 | 38 | 0.35 | BU/BN | 4498 | X | EPH+LH7+NDE |
| 39 | 0.35 | BU/VT | 193 | VIII | - | Rear Defog Relay Control | 39 | 0.35 | BN/VT | 193 | X | - |
| 40 | 0.35 | BU/YE | 7574 | I | - | Electric Variable Displacement Control | 40 | 0.35 | BU/YE | 7574 | X | - |
| 41 | 0.35 | BU/BN | 7573 | I | - | Electric Variable Displacement Supply | 41 | 0.35 | BU/BN | 7573 | X | - |
| 42 | 0.35 | WH | 4499 | I | EPH+LH7 | High Speed GMLAN Serial Data (-) 7 | 42 | 0.35 | WH | 4499 | X | EPH+LH7+NDE |
| 43 | 2.5 | RD/BN | 3640 | V | AXG/AEF/AED | Battery Positive Voltage | 43 | 2.5 | RD/BN | 3640 | XII | AXG/AEF/AED |
| 44 | 2 | RD/BN | 2940 | V | (AG1/A45/A74)/(UEU/UHX-EPH)/(EPH+UKC) | Battery Positive Voltage | 44 | 2 | RD/BN | 2940 | XII | (AG1/A45/A74)/(UEU/UHX-EPH)/(EPH+UKC) |
| 45 | 0.35<br>0.35 | BU/BN<br>BU/BN | 4498<br>4498 | I<br>I | EPH+LH7<br>EPH+LTG/LYX | High Speed GMLAN Serial Data (+) 7<br>High Speed GMLAN Serial Data (+) 7 | 45 | 0.35<br>0.35 | BU/BN<br>BU/BN | 4498<br>4498 | X<br>X | EPH+LH7<br>EPH+LTG/LYX |
| 46 | 0.35 | WH | 4499 | I | - | High Speed GMLAN Serial Data (-) 7 | 46 | 0.35 | WH | 4499 | X | - |
| 47 - 48 | - | - | - | - | - | Not Occupied | 47 - 48 | - | - | - | - | - |
| 49 | 0.35 | WH/RD | 1164 | VI | - | Accelerator Pedal Position 5V Reference 1 | 49 | 0.35 | WH/RD | 1164 | XIV | - |
| 50 | 0.35 | YE/WH | 1161 | VI | - | Accelerator Pedal Position Signal 1 | 50 | 0.35 | YE/WH | 1161 | XIV | - |
| 51 | 0.35 | BK/VT | 1272 | VI | - | Accelerator Pedal Position Low Reference 2 | 51 | 0.35 | BK/VT | 1272 | XIV | - |
| 52 | 0.35 | BN/RD | 1274 | VI | - | Accelerator Pedal Position 5V Reference 2 | 52 | 0.35 | BN/RD | 1274 | XIV | - |
| 53 | 0.35 | GN/WH | 1162 | VI | - | Accelerator Pedal Position Signal 2 | 53 | 0.35 | GN/WH | 1162 | XIV | - |
| 54 | 0.35 | BK/BU | 1271 | VI | - | Accelerator Pedal Position Low Reference 1 | 54 | 0.35 | BK/BU | 1271 | XIV | - |
| 55 | 0.35<br>0.35 | VT/WH<br>GY/GN | 5234<br>1561 | VIII<br>VII | AL0/UHH/UHG<br>F48 | Passenger Seat Belt Indicator Control<br>AWD Indicator Control | 55 | 0.13<br>0.35 | VT/WH<br>GY/GN | 5234<br>1561 | XIV<br>XIV | AL0/UHH/UHG<br>F48 |
| 56 | 0.35 | GY/YE | 6188 | VI | TB4 | Lift Glass/Rear Compartment Lid Motor Release Control | 56 | 0.35 | GY/YE | 6188 | XIV | TB4 |
| 57 | 0.35 | GN/BN | 507 | VII | LH7 | Wait To Start Indicator Control | 57 | 0.35 | GN/BN | 507 | XIV | LH7 |
| 58 | 0.35 | OG/WH | 5157 | III | SBK+AJG/AYC | Right Rear Seat Belt Pretensioner Control | 58 | 0.35 | OG/WH | 5157 | XVI | SBK+AJG/AYC |
| 59 | 0.35 | BK/OG | 5158 | III | SBK+AJG/AYX | Right Rear Seat Belt Pretensioner Low Reference | 59 | 0.35 | BK | 5158 | XVI | SBK+AJG/AYX |
| 60 | 0.13<br>0.13<br>0.35 | YE/VT<br>YE/VT<br>YE/VT | 2516<br>2516<br>2516 | IV<br>VII<br>IV | UE1+IOB/IO5/IO6<br>UE1+IOR/IOS/IOT/IOU<br>UE3 | Keypad Green LED Control<br>Keypad Green LED Control<br>Keypad Green LED Control | 60 | 0.13 | YE/VT | 2516 | XV | UE1/UE3 |
| 61 | - | - | - | - | - | Not Occupied | 61 | - | - | - | - | - |
| 62 | 0.35 | WH | 6816 | VI | - | Indicator Dimming Control | 62 | 0.35 | WH | 6816 | XIV | - |
| 63 | 0.35 | BN/VT | 2914 | VII | EPH | Driver Mode 4 Indicator Control | 63 | 0.35 | BN/VT | 2914 | XIV | EPH |
| 64 | 0.35 | GY/WH | 3153 | VII | EPH+UEU/UHX | Lane Departure Warning Disable Switch Signal | 64 | 0.35 | GY/WH | 3153 | XIV | EPH+UEU/UHX |
| 65 | 0.35 | GY/VT | 3264 | VI | -KL9 | Logistic Mode Relay Close Control | 65 | 0.13 | GY/VT | 3264 | XIV | -KL9 |
| 66 | 0.5 | VT/BK | 739 | VI | UVD | Run/Crank Ignition 1 Voltage | 66 | 0.5 | VT/BK | 739 | XIII | UVD |
| 67 | 0.35 | VT/BU | 3674 | VII | LH7+EPH | NOx Sensor 1 Control | 67 | 0.35 | VT/BU | 3674 | XIV | LH7+EPH |
| 68 | 0.35 | WH | 3152 | IV | UEU/UHX | Lane Departure Warning Indicator Control<br>Lane Departure Warning Indicator Control | 68 | 0.13<br>0.35 | WH<br>WH | 3152<br>3152 | XIV<br>XVII | -<br>UEU/UHX |
| 69 | 0.35 | VT/GN | 439 | VI | TR6 | Run/Crank Ignition 1 Voltage | 69 | 0.35 | VT/GN | 439 | XIV | TR6 |
| 70 | 0.13<br>0.13<br>0.35 | BN/WH<br>BN/WH<br>BN/WH | 2517<br>2517<br>2517 | VIII<br>VII<br>IV | UE1+IOB/IO5/IO6<br>UE1+IOR/IOS/IOT/IOU<br>UE3 | Keypad Red LED Control<br>Keypad Red LED Control<br>Keypad Red LED Control | 70 | 0.13 | BN/WH | 2517 | XV | UE1/UE3 |
| 71 | 0.35 | GN | 2308 | VIII | AL0/C99 | Passenger Air Bag Off Indicator Control | 71 | 0.13 | GN | 2308 | XV | ALO/C99 |
| 72 | 0.35 | BK/BN | 654 | IV | IOB-UE1-UE3 | Cellular Telephone Microphone Low Reference | 72 | 0.35 | BK/BN | 654 | XIV | - |
| 73 | 0.35 | BU | 655 | IV | - | Cellular Telephone Microphone Signal | 73 | 0.35 | BU | 655 | XIV | - |

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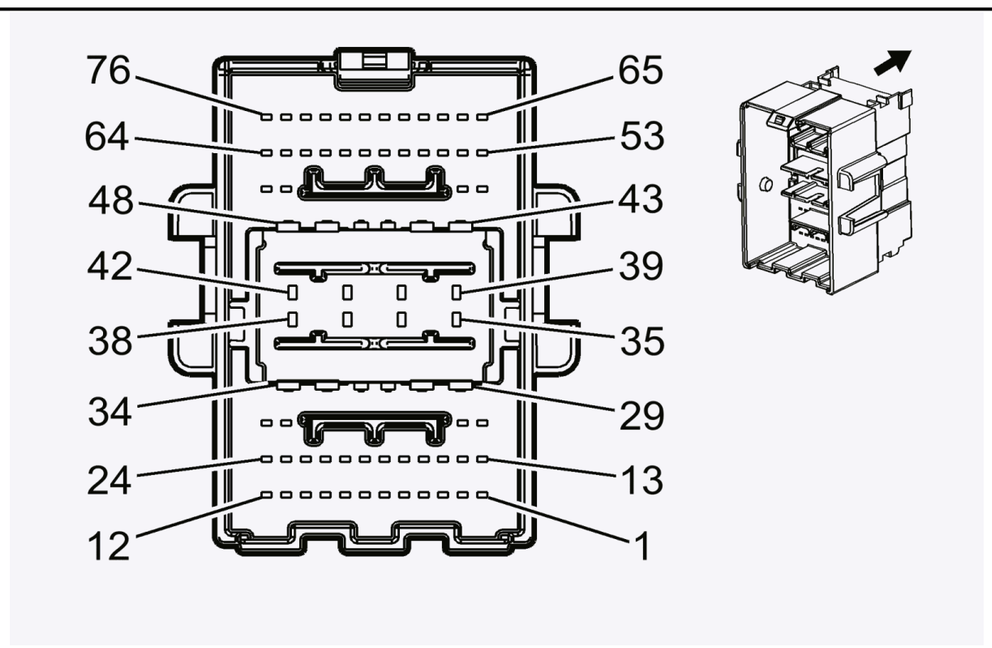
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 74 | 0.13 | BU/BN | 3161 | VIII | UFQ | Parallel Park Assist Disable Switch Signal | 74 | 0.13 | BU/BN | 3161 | XV | UFQ |
| 75 | 0.13<br>0.35 | GN/BK<br>GN/BK | 2515<br>2515 | IV<br>VII | UE1+IOB/IO5/IO6<br>UE1+IOR/IOS/IOT/IOU | Keypad Control<br>Keypad Control | 75 | 0.13 | GN/BK | 2515 | XV | UE1/UI3 |
| 76 | 0.13<br>0.13 | GN/WH<br>GN/WH | 2514<br>2514 | IV<br>VII | UE1+IOB/IO5/IO6<br>UE1+IOR/IOS/IOT/IOU | Keypad Signal<br>Keypad Signal | 76 | 0.13 | GN/WH | 2514 | XIV | UE1/UE3 |

## X203 INSTRUMENT PANEL HARNESS TO BODY HARNESS (X88)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13592940
- Service Connector: 19330680
- Description: 76-Way F 1.2, 1.5, 2.8 YESC Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13511573
- Service Connector: 19355187
- Description: 76-Way M 1.2 MCON-CB, 1.5, 2.8 YESC Series (BK)

**Terminal Part Information**

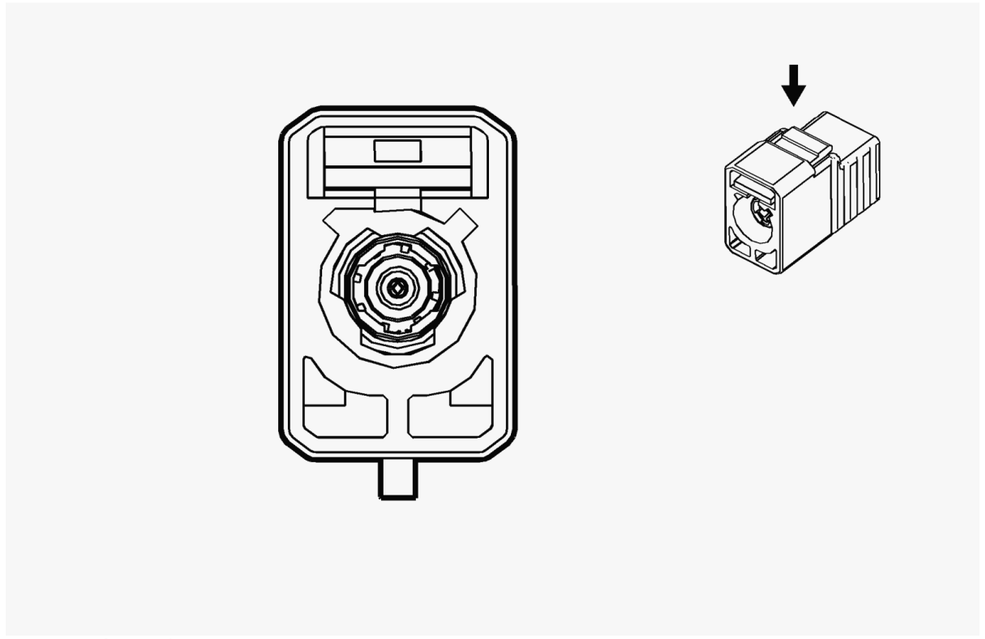
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575850 | J-35616-14 (GN) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| II | 13578891 | J-35616-2A (GY) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| III | 13578893 | J-35616-4A (PU) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| IV | 13582289 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 13582322 | J-35616-4A (PU) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| VI | 13587516 | J-35616-4A (PU) | J-38125-11A | 7116-4112-02 | Yazaki 9 | C | D |
| VII | 13587516 | J-35616-4A (PU) | J-38125-11A | 7116-4112-02 | Yazaki 9 | Not Available | Not Available |
| VIII | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| IX | 19352420 | J-35616-16 (LT GN) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| X | 13575818 | J-35616-3 (GY) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| XI | 13575821 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| XII | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4110-02 | Yazaki 9 | E | C |
| XIII | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | C | D |
| XIV | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | Not Available | Not Available |
| XV | 19330704 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XVI | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XVII | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| XVIII | 19352422 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35<br>0.5 | VT/BU<br>WH/BU | 3263<br>3691 | VIII<br>VIII | -KL9<br>V92-MBB | Logistic Mode Relay Open Control<br>Trailer Brake Apply Signal | 2 | 0.13<br>0.5 | VT/BU<br>WH/BU | 3263<br>3691 | XVI<br>XVII | -KL9<br>V92-MBB |
| 3 | 0.13 | VT/BK | 3 | IX | - | Run/Crank Ignition 1 Voltage | 3 | 0.13 | VT/BK | 3 | XVI | - |
| 4 | 0.13 | VT/YE | 4 | IX | - | Accessory Ignition Voltage | 4 | 0.13 | VT/YE | 4 | XVI | - |
| 5 | 0.75 | GN | 199 | VIII | UZ6+NKC | Left Rear Speaker Control (+) | 5 | 0.75<br>0.75 | GN<br>GN | 199<br>199 | XV<br>XV | IO5/IO6+UZ6+NKC<br>IOB+UZ6+NKC |
| 6 | 0.75 | GN/BK | 116 | VIII | UZ6+NKC | Left Rear Speaker Signal (-) | 6 | 0.75 | GN/BK | 116 | XV | UZ6+NKC |
| 7 | 0.75 | YE | 200 | VIII | UZ6 | Right Front Speaker Control (+) 1 | 7 | 0.75<br>0.75<br>0.75<br>0.75 | YE<br>YE<br>YE<br>YE | 200<br>200<br>200<br>200 | XV<br>XV<br>XV<br>XV | IOB+NKC+UZ6<br>IOB+UZ6-NKC<br>NKC+UZ6+IO5/IO6<br>UZ6-IOB-NKC |
| 8 | 0.75<br>0.75 | YE/BK<br>YE/BK | 117<br>117 | VIII<br>VIII | NKC+UZ6<br>UZ6 | Right Front Speaker Signal (-) 1<br>Right Front Speaker Signal (-) 1<br>Right Front Speaker Signal (-) 1 | 8 | 0.75<br>0.75<br>0.75<br>0.75 | YE/BK<br>YE/BK<br>YE/BK<br>YE/BK | 117<br>117<br>117<br>117 | XV<br>XV<br>XV<br>XV | IOB+UZ6-NKC<br>NKC+UZ6+IO5/IO6<br>IOB+NKC+UZ6<br>UZ6-IOB-NKC |
| 9 | 0.75<br>0.75 | WH<br>WH | 46<br>46 | VIII<br>VIII | NKC+UZ6<br>UZ6 | Right Rear Speaker Control (+)<br>Right Rear Speaker Control (+)<br>Right Rear Speaker Control (+) | 9 | 0.75<br>0.75<br>0.75 | WH<br>WH<br>WH | 46<br>46<br>46 | XV<br>XV<br>XV | IOB+NKC+UZ6<br>NKC+UZ6+IO5/IO6<br>IOB+UZ6-NKC |
| 10 | 0.75<br>0.75 | BU/BK<br>BU/BK | 115<br>115 | VIII<br>VIII | NKC+UZ6<br>UZ6 | Right Rear Speaker Signal (-)<br>Right Rear Speaker Signal (-) | 10 | 0.75<br>0.75<br>0.75 | BU/BK<br>BU/BK<br>BU/BK | 115<br>115<br>115 | XV<br>XV<br>XV | NKC+UZ6<br>IOB+UZ6-NKC<br>UZ6-IOB-NKC |
| 11 | 0.35<br>0.13 | GN/YE<br>GN/YE | 7066<br>7066 | IV<br>IV | IOB+NKC+UZ6<br>NKC+UZ6+IO5/IO6 | Entertainment Remote Enable Signal<br>Entertainment Remote Enable Signal | 11 | 0.35<br>0.35 | GN/YE<br>GN/YE | 7066<br>7066 | XVI<br>XVI | IOB+NKC+UZ6<br>NKC+UZ6+IO5/IO6 |
| 12 | 0.35 | WH/VT | 3999 | VIII | UQA+IO5/IO6 | MOST Control | 12 | 0.35 | WH/VT | 3999 | XVI | UQA+IO5/IO6 |
| 13 | 0.35 | WH/YE | 7557 | VIII | - | LED Ambient Lighting Control 1 | 13 | 0.35 | WH/YE | 7557 | XVI | - |
| 14 | 0.35 | GN/BU | 6133 | VIII | MM1-EPH | Local Interconnect Network Serial Data Bus 2 | 14 | 0.35<br>0.35 | GN/BU<br>GN/BU | 6133<br>6133 | XVI<br>XVI | KA1+MM1-EPH<br>MM1-EPH-KA1 |
| 15 | 0.35 | VT | 3195 | VIII | C32 | Auxiliary Heater Control | 15 | 0.35 | VT | 3195 | XVI | C32 |
| 16 | 0.5 | WH/BN | 6815 | VIII | - | Inadvertent Power Control | 16 | 0.5 | WH/BN | 6815 | XV | - |
| 17 | 0.13 | BU/WH | 3275 | IX | - | Remote Function Actuator Receive Signal | 17 | 0.13 | BU/WH | 3275 | XVIII | - |
| 18 | 0.5 | BK | 2450 | VIII | - | Ground | 18 | 0.5 | BK | 2450 | XVI | - |
| 19 | 0.35 | BN/YE | 189 | VIII | TR6 | Headlamp Leveling Motor Control | 19 | 0.35 | BN/YE | 189 | XVI | TR6 |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | - | - | - | - | - | Not Occupied | 20 | - | - | - | - | - |
| 21 | 0.35 | GN/WH | 1324 | VIII | IO5/IO6+MAH/MBC | Backup Lamp Control | 21 | 0.5 | GN/WH | 1324 | XVI | - |
| 22 | - | - | - | - | - | Not Occupied | 22 | - | - | - | - | - |
| 23 | 0.13 | BK/BU | 7566 | IX | ASV-CE1 | Humidity/Windscreen Temp Sensor Low Reference<br>Humidity/Windscreen Temp Sensor Low Reference | 23 | 0.35<br>0.35 | BK/BU<br>BK/BU | 7566<br>7566 | XVI<br>XVI | ASV-CE1-UEU<br>ASV+UEU-CE1 |
| 24 | 0.13 | GY/GN | 7565 | IX | ASV-CE1 | Windscreen Temp Sensor Signal<br>Windscreen Temp Sensor Signal | 24 | 0.35<br>0.35 | GY/GN<br>GY/GN | 7565<br>7565 | XVI<br>XVI | ASV+UEU-CE1<br>ASV-CE1-UEU |
| 25 | 0.13 | GY/BU | 7564 | IX | ASV-CE1 | Humidity Sensor Signal<br>Humidity Sensor Signal | 25 | 0.35<br>0.35 | GY/BU<br>GY/BU | 7564<br>7564 | XVI<br>XVI | ASV+UEU-CE1<br>ASV-CE1-UEU |
| 26 | 0.13 | YE/BU | 3197 | IX | ASV-CE1 | Humidity Temperature Sensor Signal<br>Humidity Temperature Sensor Signal | 26 | 0.35<br>0.35 | YE/BU<br>YE/BU | 3197<br>3197 | XVI<br>XVI | ASV-CE1-UEU<br>ASV+UEU-CE1 |
| 27 | 0.13 | YE/RD | 597 | IX | ASV-CE1 | 5V Reference<br>5V Reference | 27 | 0.35<br>0.35 | YE/RD<br>YE/RD | 597<br>597 | XVI<br>XVI | ASV-CE1-UEU<br>ASV+UEU-CE1 |
| 28 | 0.35 | GY/WH | 3272 | VIII | - | Remote Function Actuator Control | 28 | 0.35 | GY/WH | 3272 | XVI | - |
| 29 | - | - | - | - | - | Not Occupied | 29 | - | - | - | - | - |
| 30 | 0.5 | RD/GY | 1740 | V | KA1/KU1/KU3 | Battery Positive Voltage | 30 | 0.5 | RD/GY | 1740 | XII | KA1/KU1/KU3 |
| 31 | 0.75 | YE/WH | 1860 | I | UQA+IO5/IO6 | Front Center Speaker Control (+) | 31 | 0.75 | YE/WH | 1860 | X | UQA+IO5/IO6 |
| 32 | 0.75 | BU/YE | 1960 | I | UQA+IO5/IO6 | Front Center Speaker (-) Low Reference | 32 | 0.75 | BU/YE | 1960 | X | UQA+IO5/IO6 |
| 33 | 0.35 | YE/GN | 3274 | III | - | Remote Function Actuator Transmit Signal | 33 | 0.35 | YE/GN | 3274 | XI | - |
| 34 | 0.5 | RD/GN | 1840 | V | KA6 | Battery Positive Voltage | 34 | 0.5 | RD/GN | 1840 | XII | KA6 |
| 35 | 0.35 | WH | 6816 | II | - | Indicator Dimming Control | 35 | 0.35 | WH | 6816 | X | - |
| 36 | - | - | - | - | - | Not Occupied | 36 | - | - | - | - | - |
| 37 | 0.75 | YE/BU | 1856 | I | UQA+IO5/IO6 | Left Front Tweeter Speaker Control (+) | 37 | 0.75 | YE/BU | 1856 | X | UQA+IO5/IO6 |
| 38 | 0.75 | YE/GY | 1956 | I | UQA+IO5/IO6 | Left Front Tweeter Speaker (-) Low Reference | 38 | 0.75 | YE/GY | 1956 | X | UQA+IO5/IO6 |
| 39 | 0.35 | RD/GN | 2440 | II | UEU/UHX/TC2/TB4/TB5/UVH | Battery Positive Voltage<br>Battery Positive Voltage | 39 | 0.35<br>0.35<br>0.35 | RD/GN<br>RD/GN<br>RD/GN | 2440<br>2440<br>2440 | X<br>X<br>X | (TC2/UVH)/(UEU/UHX+TB5/UVH)/(TB5+UVH)<br>TB5-TC2-UEU-UVH<br>UEU/UHX-TB5-TC2-UVH |
| 40 | 0.75<br>0.75 | YE/BK<br>VT/BN | 117<br>1952 | I<br>I | NKC+UZ6-IOR<br>UQA+IO5/IO6 | Right Front Speaker Signal (-) 1<br>Right Front Tweeter Speaker (-) Low Reference | 40 | 0.75<br>0.75 | YE/BK<br>VT/BN | 117<br>1952 | X<br>X | NKC+UZ6-IOR<br>UQA+IO5/IO6 |
| 41 | 0.75<br>0.75 | YE<br>BN/GN | 200<br>1852 | I<br>I | NKC+UZ6-IOR<br>UQA+IO5/IO6 | Right Front Speaker Control (+) 1<br>Right Front Tweeter Speaker Control (+) | 41 | 0.75<br>0.75 | YE<br>BN/GN | 200<br>1852 | X<br>X | NKC+UZ6-IOR<br>UQA+IO5/IO6 |
| 42 | - | - | - | - | - | Not Occupied | 42 | - | - | - | - | - |
| 43 | 2.5 | BU | 47 | VI | V92 | Trailer Auxiliary Control | 43 | 2.5 | BU | 47 | XIII | V92 |
| 44 | 0.35 | RD/WH | 4042 | III | - | Battery Positive Voltage | 44 | 0.35 | RD/WH | 4042 | XI | - |
| 45 | 0.35 | BU | 2500 | I | - | High Speed GMLAN Serial Data (+) 1 | 45 | 0.35 | BU | 2500 | X | - |
| 46 | 0.35 | WH | 2501 | I | - | High Speed GMLAN Serial Data (-) 1 | 46 | 0.35 | WH | 2501 | X | - |
| 47 | - | - | - | - | - | Not Occupied | 47 | - | - | - | - | - |
| 48 | 1.5 | RD/GN | 2173 | VII | KL9 | 12V Regulated Supply Voltage 2 | 48 | 1.5 | RD/GN | 2173 | XIV | KL9 |
| 49 | 0.35 | WH/GN | 3997 | VIII | UQA+IO5/IO6 | MOST Serial Data (-) | 49 | 0.35 | WH/GN | 3997 | XVI | UQA+IO5/IO6 |
| 50 | 0.35 | GY/VT | 3998 | VIII | UQA+IO5/IO6 | MOST Serial Data (+) | 50 | 0.35 | GY/VT | 3998 | XVI | UQA+IO5/IO6 |
| 51 | 0.35 | WH/GN | 3997 | VIII | UQA+IO5/IO6 | MOST Serial Data (-) | 51 | 0.35 | WH/GN | 3997 | XVI | UQA+IO5/IO6 |
| 52 | 0.35 | GY/VT | 3998 | VIII | UQA+IO5/IO6 | MOST Serial Data (+) | 52 | 0.35 | GY/VT | 3998 | XVI | UQA+IO5/IO6 |
| 53 | 0.35 | BU | 3554 | VIII | - | Passive Start Interior Antenna 2 Signal Hi | 53 | 0.35 | BU | 3554 | XVI | - |
| 54 | 0.35 | GY/BK | 3555 | VIII | - | Passive Start Interior Antenna 2 Signal Lo | 54 | 0.35 | GY/BK | 3555 | XVI | - |
| 55 | 0.35 | GY/GN | 1561 | VIII | F48 | AWD Indicator Control | 55 | 0.35 | GY/GN | 1561 | XVI | F48 |
| 56 | 0.75 | BU | 201 | VIII | NKC+UZ6 | Left Front Speaker Control (+) 1 | 56 | 0.75 | BU | 201 | XV | NKC+UZ6 |
| 57 - 58 | - | - | - | - | - | Not Occupied | 57 - 58 | - | - | - | - | - |
| 59 | 0.13 | BK/GY | 3559 | IX | - | Passive Start Switch 2 Low Reference | 59 | 0.13 | BK/GY | 3559 | XVIII | - |
| 60 | 0.75 | BN/BU | 118 | VIII | NKC+UZ6 | Left Front Speaker Signal (-) 1 | 60 | 0.75<br>0.75 | BN/BU<br>BN/BU | 118<br>118 | XV<br>XV | IOB+NKC+UZ6<br>NKC+UZ6+IO5/IO6 |
| 61 | 0.35 | RD/GN | 2440 | VIII | AL0 | Battery Positive Voltage | 61 | 0.35 | RD/GN | 2440 | XVI | AL0 |
| 62 | 0.35 | BU/GY | 3935 | VIII | T4L+TR7 | High Speed GMLAN Serial Data (+) 8 | 62 | 0.35 | BU/GY | 3935 | XVI | T4L+TR7 |
| 63 | 0.35 | WH/GY | 3936 | VIII | T4L+TR7 | High Speed GMLAN Serial Data (-) 8 | 63 | 0.35 | WH/GY | 3936 | XVI | T4L+TR7 |
| 64 | 0.35 | WH/BU | 5986 | VIII | UVH/IOR/UVC+IOS+/IOT/IOU | Serial Data Communication Enable | 64 | 0.35 | WH/BU | 5986 | XVI | UVH/IOR/UVC+IOS+/IOT/IOU |
| 65 | 0.35 | BARE | 6974 | VIII | UVH/UVC | Camera Low Reference<br>Camera Low Reference | 65 | 0.35<br>0.35 | BARE<br>BARE | 6974<br>6974 | XVI<br>XVI | UVH<br>UVC |
| 66 | 0.35 | GY/YE | 6972 | VIII | UVH/UVC | Camera Signal 2 +<br>Camera Signal 2 + | 66 | 0.35<br>0.35 | GY/YE<br>GY/YE | 6972<br>6972 | XVI<br>XVI | UVH<br>UVC |
| 67 | 0.35 | WH/BU | 6973 | VIII | UVH/UVC | Camera Signal 2<br>Camera Signal 2 | 67 | 0.35<br>0.35 | WH/BU<br>WH/BU | 6973<br>6973 | XVI<br>XVI | UVH<br>UVC |
| 68 | 0.13 | GN/BN | 5852 | IX | UD5/UFQ | Rear Park Assist LED Disable Signal | 68 | 0.13 | GN/BN | 5852 | XVIII | UD5/UFQ |
| 69 | 0.13 | GY/GN | 2555 | IX | UD5/UFQ | Rear Park Assist Disable Signal | 69 | 0.13 | GY/GN | 2555 | XVI | UD5/UFQ |
| 70 - 71 | - | - | - | - | - | Not Occupied | 70 - 71 | - | - | - | - | - |
| 72 | 0.35 | GY/GN | 4083 | VIII | - | RAP Relay 2 Coil Control | 72 | 0.13 | GY/GN | 4083 | XVI | - |
| 73 | 0.35 | GY/GN | 1102 | VIII | UVH | Low Speed GMLAN Serial Data #2 | 73 | 0.35 | GY/GN | 1102 | XVI | UVH |
| 74 | - | - | - | - | - | Not Occupied | 74 | - | - | - | - | - |
| 75 | 0.13 | GN/BK | 3558 | IX | - | Passive Start Switch Signal 2 | 75 | 0.13 | GN/BK | 3558 | XVI | - |
| 76 | - | - | - | - | - | Not Occupied | 76 | - | - | - | - | - |

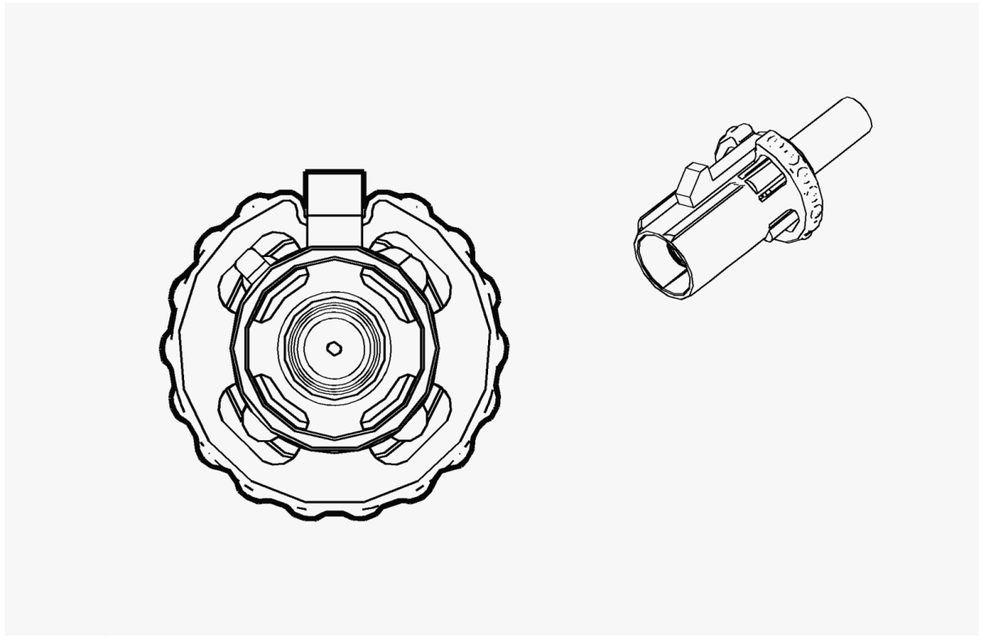
## X205 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS (-UE1-U2K-U2Q)

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Connector Part Information

- Harness Type: Antenna Jumper COAX
- OEM Connector: Not Available
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F



Connector Part Information

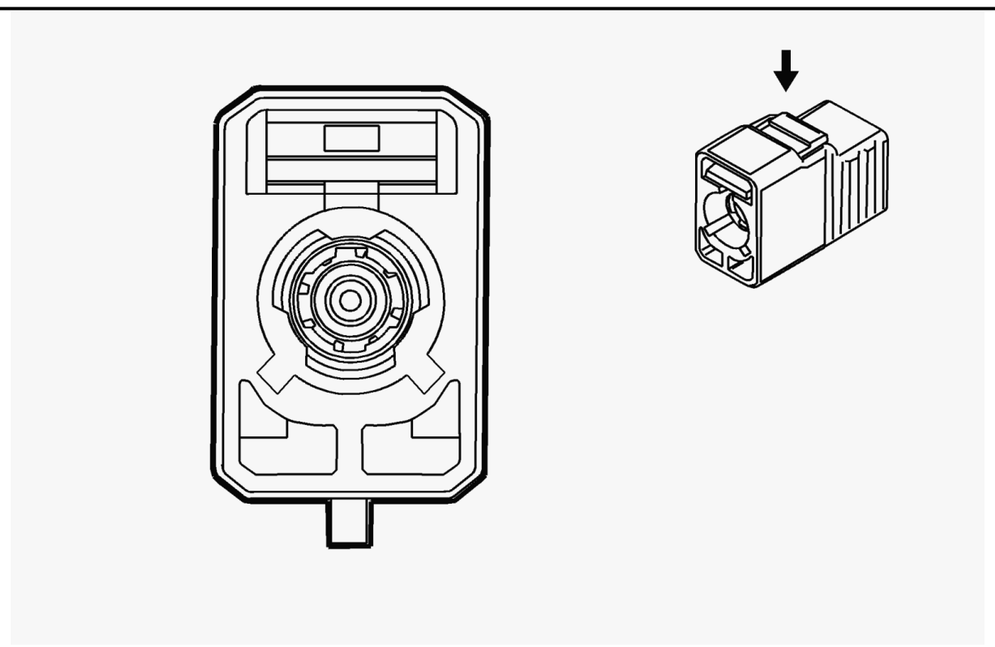
- Harness Type: Instrument Panel COAX
- OEM Connector: 13581674
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way M Coax Type (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

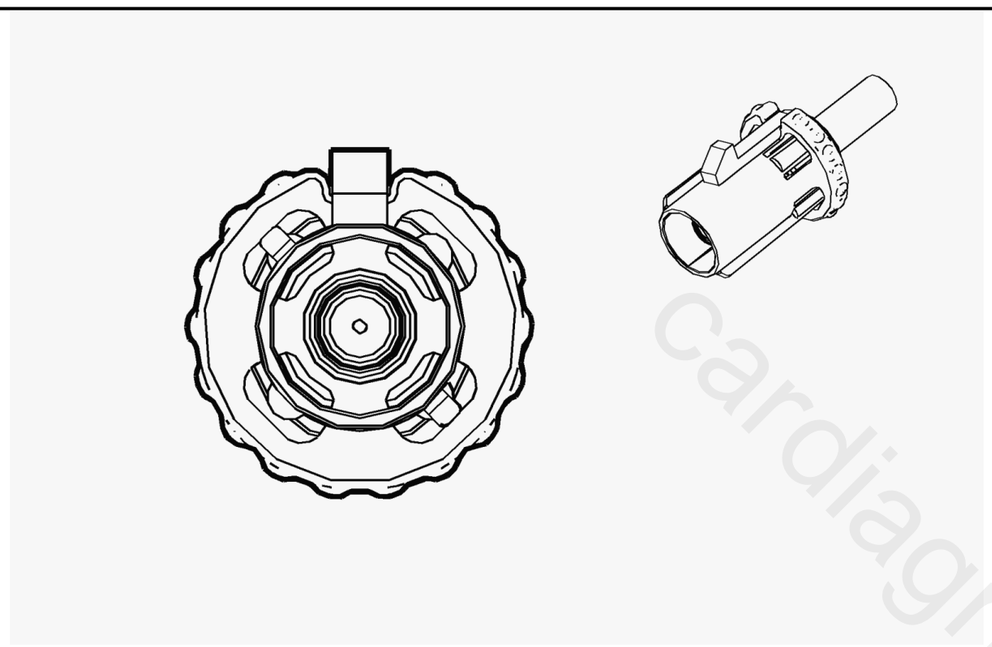
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | Coax | - | I | - | (AM/FM) Antenna RF Signal | - | - | Coax | - | I | - |

## X205 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS ((UKS)/(IO6-U2Q-UE1))



Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: Not Available
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F



Connector Part Information

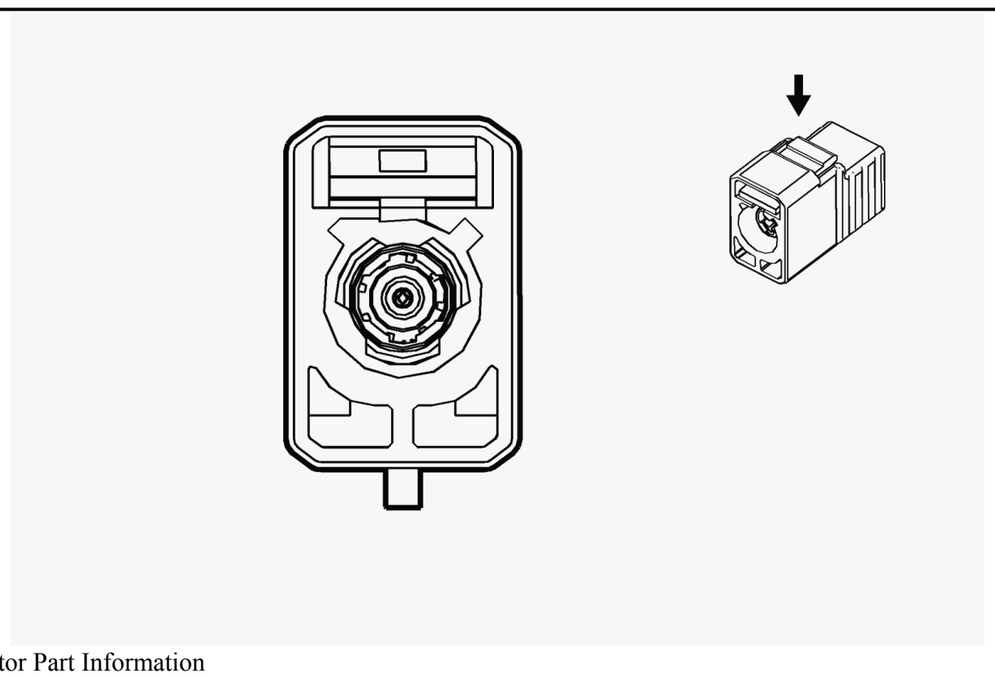
- Harness Type: Instrument Panel
- OEM Connector: 13581676
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way M Coax Type (BU)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

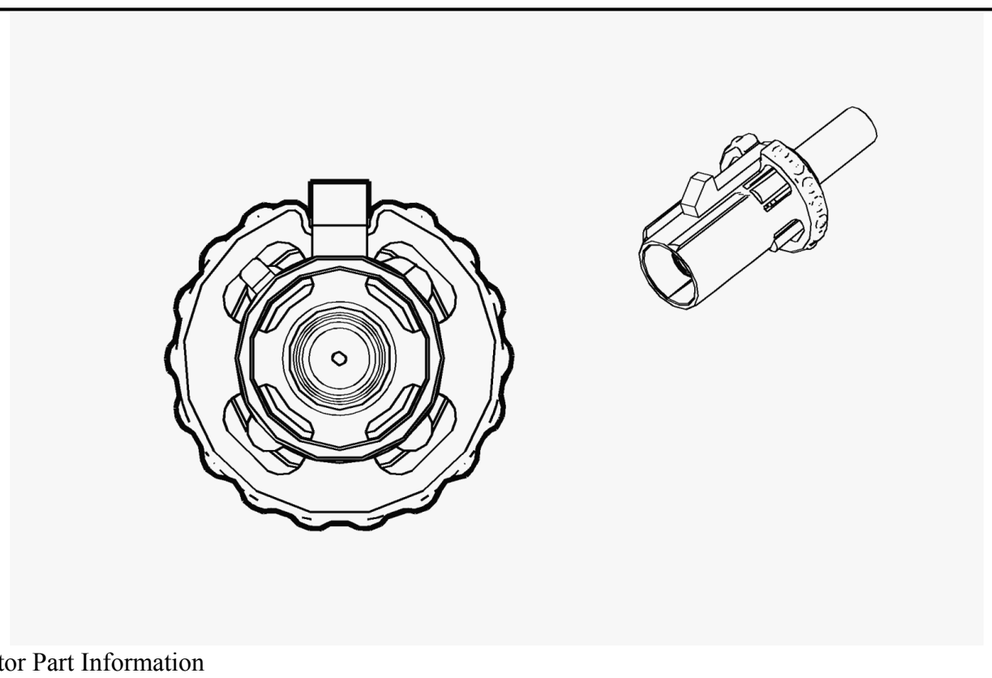
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | Coax | - | I | - | (GPS only) Coaxial Antenna GPS Signal | - | - | Coax | - | I | - |

## X205 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS ((IOR+UE1+MAH/MVC/MCX-U2K)/(IOR+MAM))



Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: Not Available
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581674
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way M Coax Type (BK)

**Terminal Part Information**

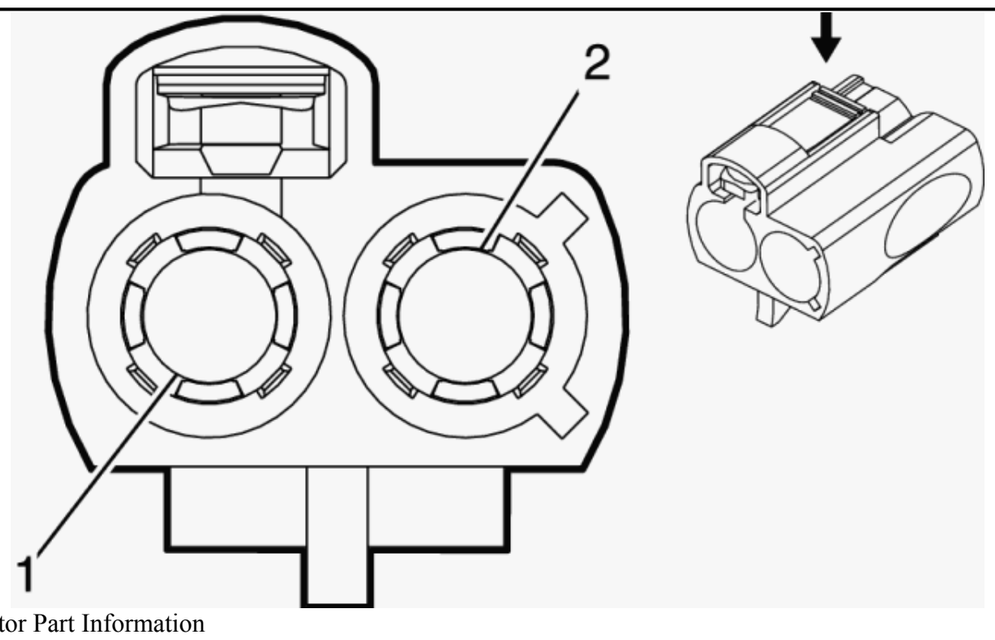
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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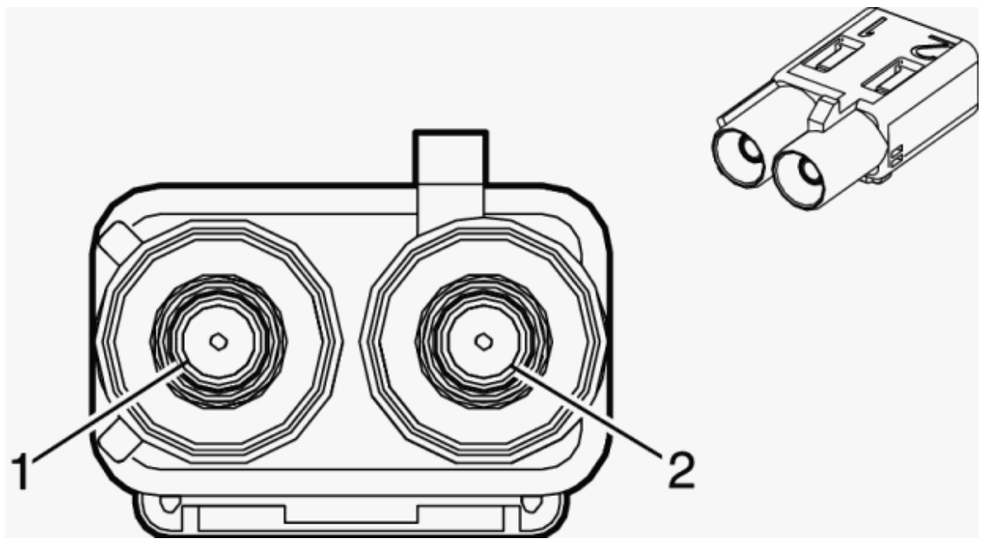
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | Coax | - | I | - | (AM/FM) Antenna RF Signal | - | - | Coax | - | I | - |

## X205 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS (UE1)




Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: 13583911
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way F Coax Type (VT)




Connector Part Information

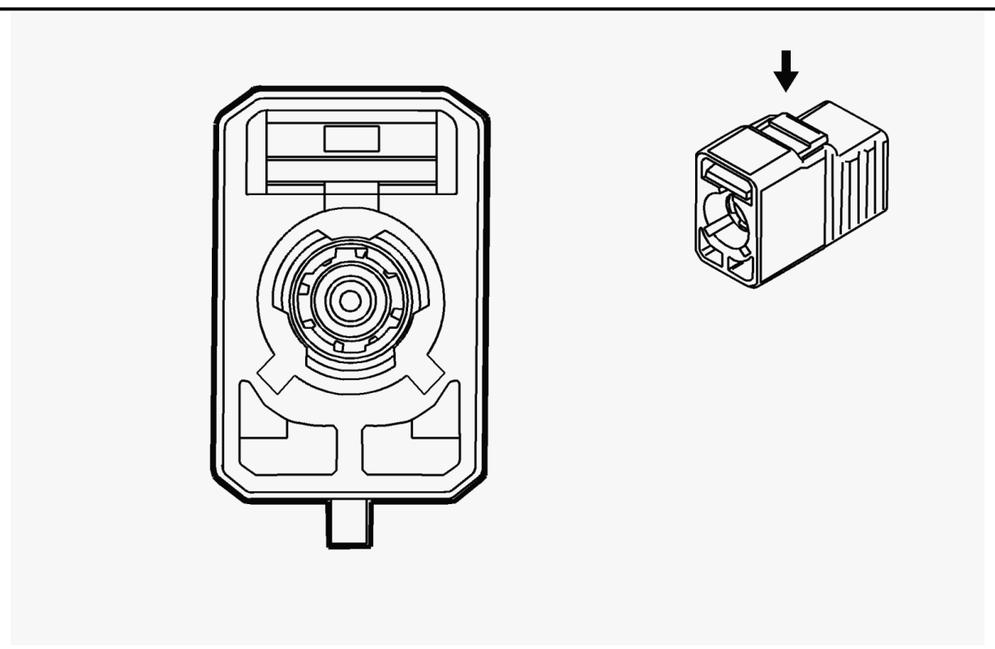
- Harness Type: Instrument Panel
- OEM Connector: 13583909
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way M Coax Type (VT)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

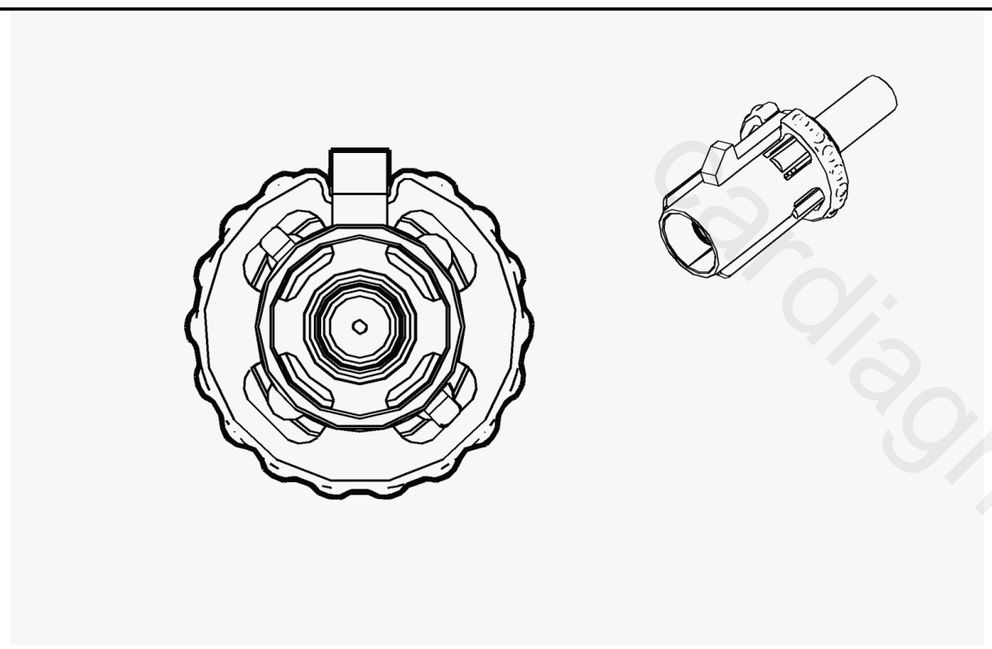
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | Coax | - | (Cell only) Coaxial Antenna Cell Phone Signal | I | - |
| 2 | - | Coax | - | (Cell only) Coaxial Antenna Cell Phone Signa | I | - |

## X205 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS (-UE1)



Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: Not Available
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way F



Connector Part Information

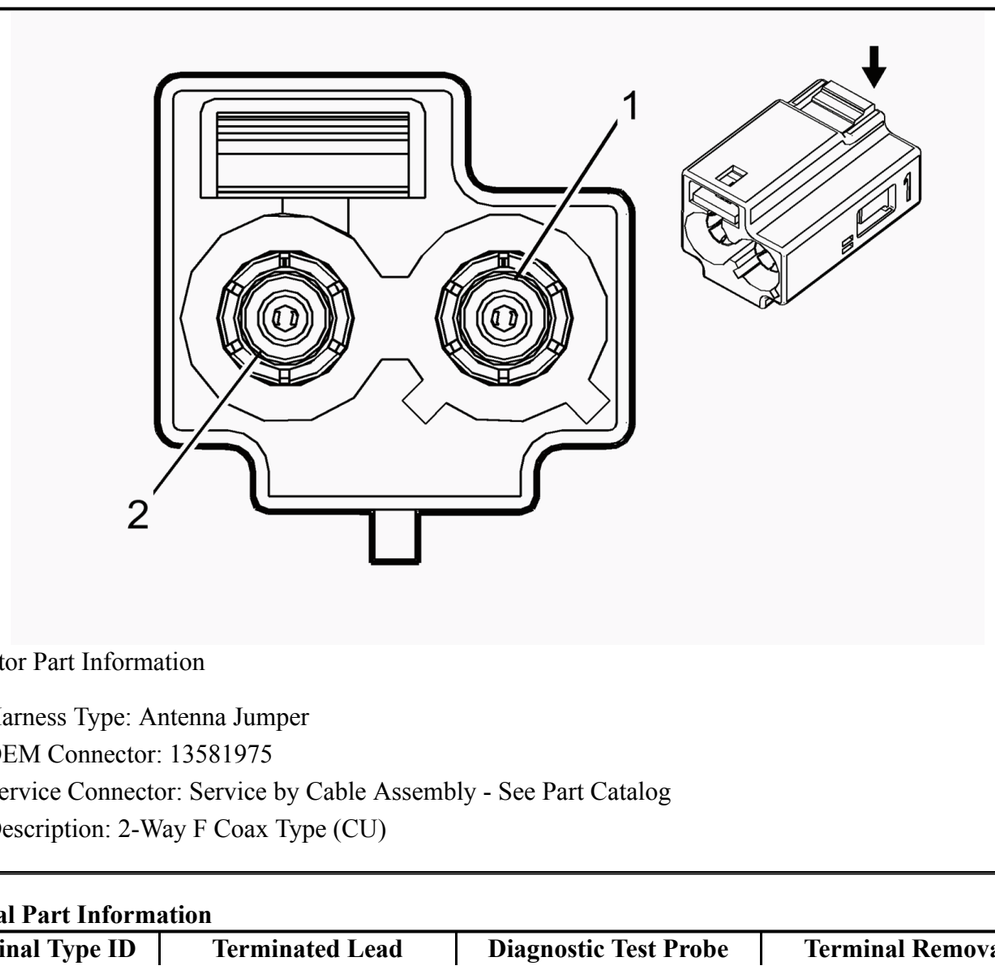
- Harness Type: Instrument Panel
- OEM Connector: 13581676
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 1-Way M Coax Type (BU)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

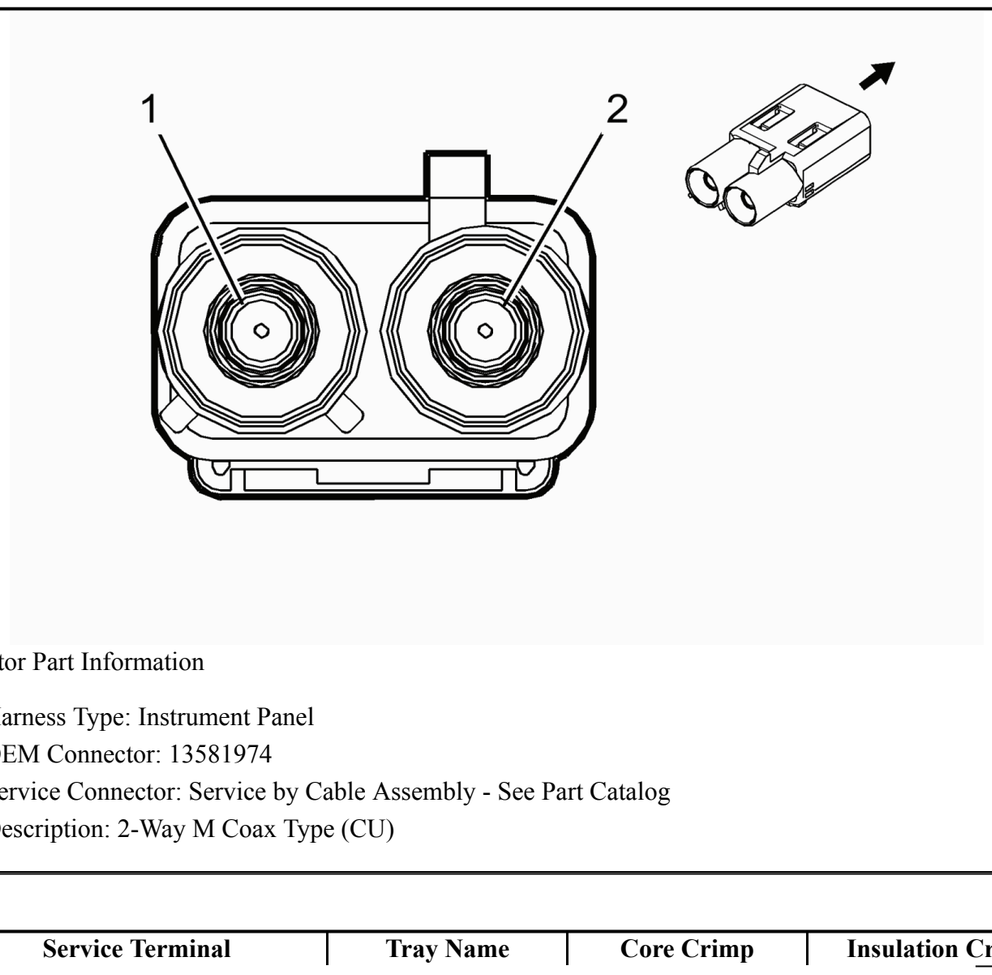
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | Coax | - | I | - | (GPS only) Coaxial Antenna GPS Signal | - | - | Coax | - | I | - |

## X206 ANTENNA JUMPER HARNESS TO INSTRUMENT PANEL HARNESS (UE1)




Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: 13581975
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way F Coax Type (CU)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13581974
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 2-Way M Coax Type (CU)

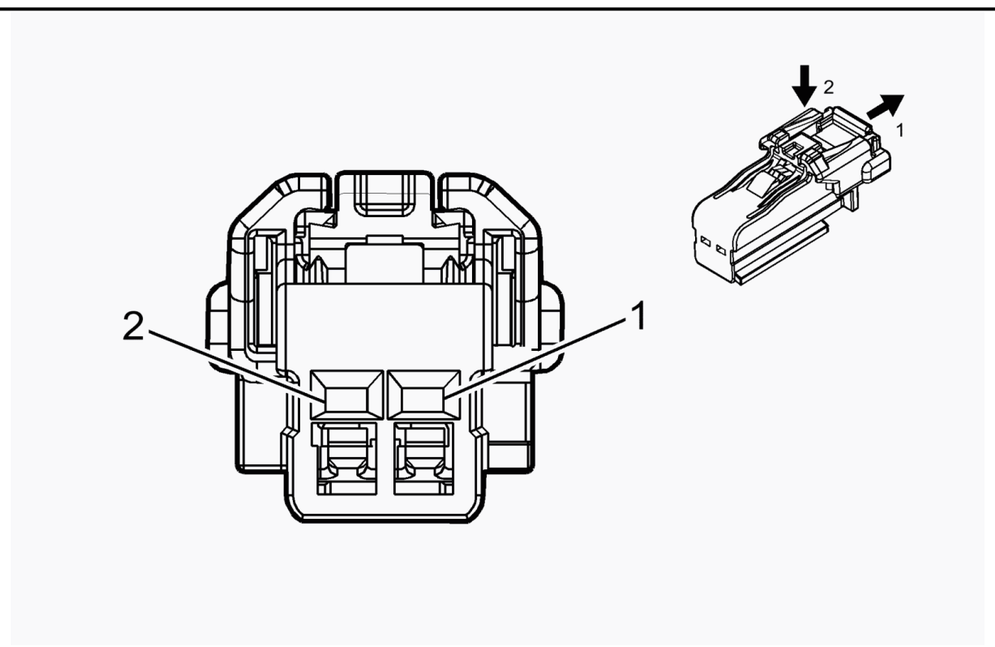
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

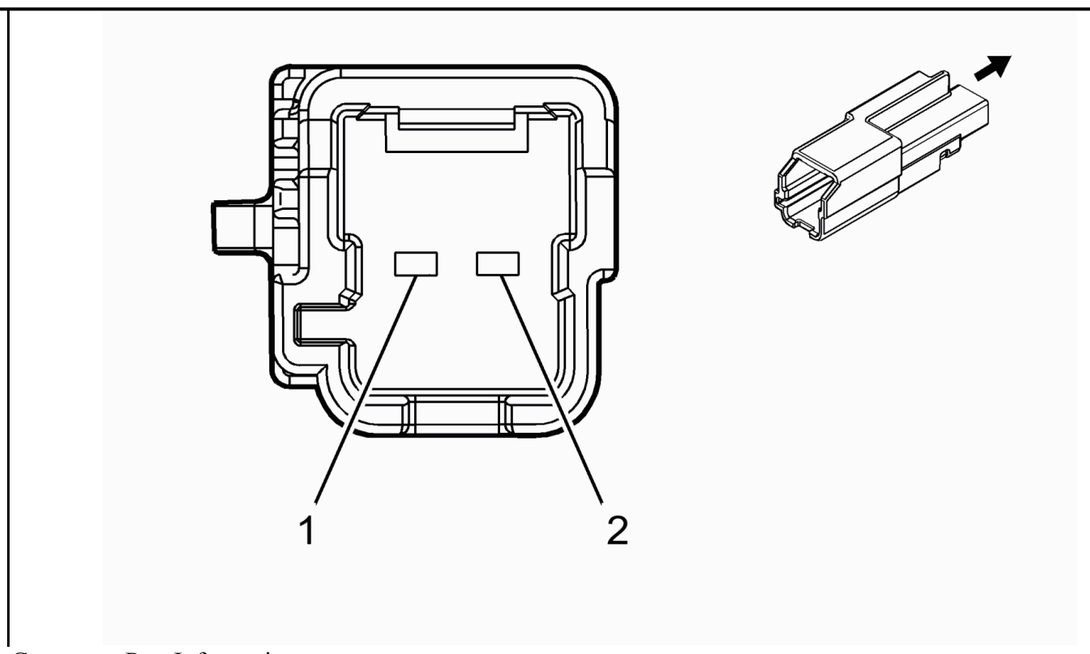
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|---|---|---|---|---|---|---|
| 1 | - | Coax | - | (AM/FM) Antenna RF Signal | I | - |
| 2 | - | Coax | - | (AM/FM) Antenna RF Signal | I | - |

## X207 INSTRUMENT PANEL HARNESS TO BODY HARNESS (UQA+IOS/IOT/IOU)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13591365
- Service Connector: 19369632
- Description: 2-Way F 1.2 Series (GY)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13591362
- Service Connector: 19332377
- Description: 2-Way M 1.2 Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | GY/BK | 7215 | I | UQA+IOT/IOU/IOS | Ethernet Bus 6 (+) | 1 | 0.35 | GY/BK | 7215 | II | UQA+IOT/IOU/IOS |
| 2 | 0.35 | BN/BK | 7214 | I | UQA+IOT/IOU/IOS | Ethernet Bus 6 (-) | 2 | 0.35 | BN/BK | 7214 | II | UQA+IOT/IOU/IOS |

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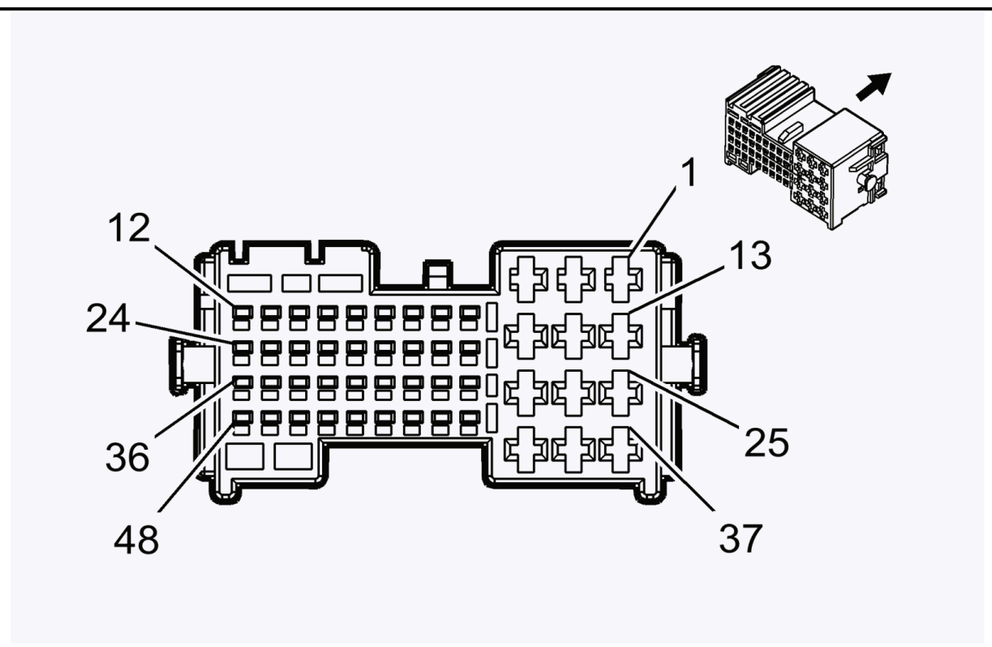
Article GUID: A00932107

# 2018 ELECTRICAL

## Wiring Systems And Power Management - Component Locator - Inline Harness Connector End Views (X208 - X420) - Equinox & Terrain

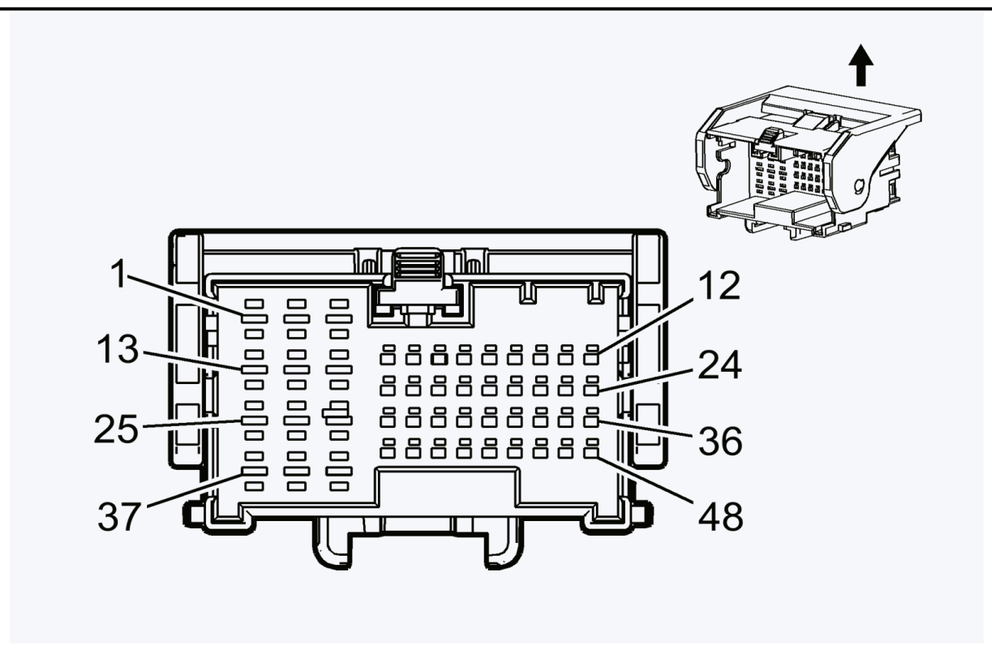
## INLINE HARNESS CONNECTOR END VIEWS

### X208 FLOOR CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS




Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13582059
- Service Connector: Service by Harness - See Part Catalog
- Description: 48-Way F 1.2 MCON, 2.8 MCP Series (GY)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13582055
- Service Connector: 19329738
- Description: 48-Way M 1.2 MCON, 2.8 JPT Series (GY)

**Terminal Part Information**

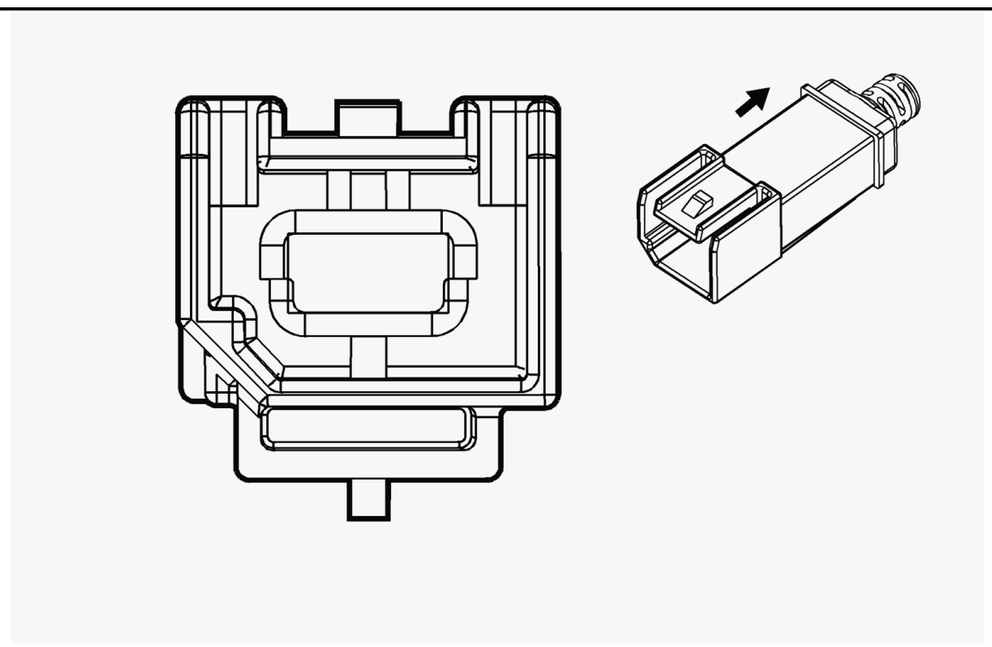
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13575529 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| IV | 13575574 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| V | 19329749 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VI | 19355424 | J-35616-13 (BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 1750 | II | - | Ground | 1 | 0.35 | BK | 1750 | III | - |
| 2 | 0.35 | RD/BN | 2240 | II | - | Battery Positive Voltage | 2 | 0.35 | RD/BN | 2240 | III | - |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |
| 4 | 0.13 | BU/BK | 6108 | I | - | Park Brake Release Switch Signal | 4 | 0.13 | BU/BK | 6108 | VI | (-EPH) |
| 5 | 0.13 | YE/RD | 7683 | I | - | Park Brake Release Switch Voltage Reference | 5 | 0.13 | YE/RD | 7683 | VI | (-EPH) |
| 6 | 0.13 | YE | 1492 | I | - | Park Brake Switch Supply Voltage | 6 | 0.13 | YE | 1492 | VI | (-EPH) |
| 7 | 0.35 | YE | 6817 | I | - | LED Backlight Dimming Control | 7 | 0.35 | YE | 6817 | V | - |
| 8 | 0.35 | RD/GY | 2840 | I | - | Battery Positive Voltage | 8 | 0.5 | RD/GN | 1840 | V | KA6 |
| 9 | 0.35 | GN/WH | 4115 | I | - | Local Interconnect Network Serial Data Bus 15 | 9 | 0.35 | GN/WH | 4115 | V | - |
| 10 | 0.35 | GY/GN | 1561 | I | F48 | AWD Indicator Control | 10 | 0.35 | GY/GN | 1561 | V | F48 |
| 11 | 0.35 | GY | 4109 | I | F48/EPH | Driver Mode Switch 5V Reference | 11 | 0.35 | GY | 4109 | V | F48/EPH |
| 12 | 0.13 | BU/VT | 1134 | I | - | Park Brake Switch Signal | 12 | 0.13 | BU/VT | 1134 | VI | (-EPH) |
| 13 | 0.35<br>0.35 | WH/GN<br>BU/GY | 2911<br>553 | II<br>II | EPH+V92<br>LHD-EPH+V92 | Driver Mode 1 Indicator Control<br>Shift Select Switch Performance Signal | 13 | 0.35<br>0.35 | WH/GN<br>BU/GY | 2911<br>553 | III<br>III | EPH+V92<br>V92-EPH |
| 14 - 15 | - | - | - | - | - | Not Occupied | 14 - 15 | - | - | - | - | - |
| 16 | 0.35 | RD/YE | 2340 | I | Z88+KA1 | Battery Positive Voltage | 16 | 0.35 | RD/YE | 2340 | V | Z88+KA1 |
| 17 | 0.35 | GY/GN | 2555 | I | UD5/UFQ | Rear Park Assist Disable Signal | 17 | 0.13 | GY/GN | 2555 | VI | UD5/UFQ |
| 18 | 0.35 | GN/BN | 5852 | I | UD5/UFQ-EPH | Rear Park Assist LED Disable Signal | 18 | 0.13 | GN/BN | 5852 | V | UD5/UFQ |
| 19 | 0.35 | WH/YE | 7557 | I | - | LED Ambient Lighting Control 1 | 19 | 0.35 | WH/YE | 7557 | V | - |
| 20 | 0.35<br>0.35 | BN<br>VT | 6107<br>4601 | I<br>I | (-EPH)<br>EPH+K4C | Park Brake Apply Switch Signal<br>Retained Accessory Power Fused Control | 20 | 0.35 | VT | 4601 | V | EPH+K4C+USS |
| 21 | 0.35 | YE/BU | 2912 | I | EPH | Driver Mode 2 Indicator Control | 21 | 0.35 | YE/BU | 2912 | V | EPH |
| 22 | 0.35 | BN/VT | 2914 | I | - | Driver Mode 4 Indicator Control | 22 | 0.35 | BN/VT | 2914 | V | - |
| 23 | 0.35 | VT/YE | 2663 | I | EPH+F48 | Driver Mode 5 Indicator Control | 23 | 0.35 | VT/YE | 2663 | V | - |
| 24 | 0.35 | GY/VT | 755 | I | - | RAP Relay Coil Control | 24 | 0.35 | GY/VT | 755 | V | - |
| 25 | - | - | - | - | - | Not Occupied | 25 | - | - | - | - | - |
| 26 | 1.5 | BK | 2250 | II | KI6/KI7 | Ground | 26 | 1.5 | BK | 2250 | IV | KI6/KI7 |
| 27 | - | - | - | - | - | Not Occupied | 27 | - | - | - | - | - |
| 28 | 0.35 | BU/YE | 6844 | I | - | ABS/TCS Hill Descent Control Switch Signal | 28 | 0.35 | BU/YE | 6844 | V | - |
| 29 | 0.35 | WH | 6816 | I | - | Indicator Dimming Control | 29 | 0.35 | WH | 6816 | V | - |
| 30 | 0.13 | GY/RD | 7684 | I | - | Park Brake Apply Switch Voltage Reference | 30 | 0.13 | GY/RD | 7684 | VI | (-EPH) |
| 31 | 0.35 | GY/BK | 3276 | I | - | Vehicle Anti-Theft System Immobilizer Control | 31 | 0.35 | GY/BK | 3276 | V | - |
| 32 | 0.35 | GN/VT | 7533 | I | - | Local Interconnect Network Serial Data Bus 11 | 32 | 0.35 | GN/VT | 7533 | V | - |
| 33 | 0.35 | GN/GY | 3277 | I | - | Vehicle Anti-Theft System Immobilizer Low Reference | 33 | 0.35 | GN/GY | 3277 | V | - |

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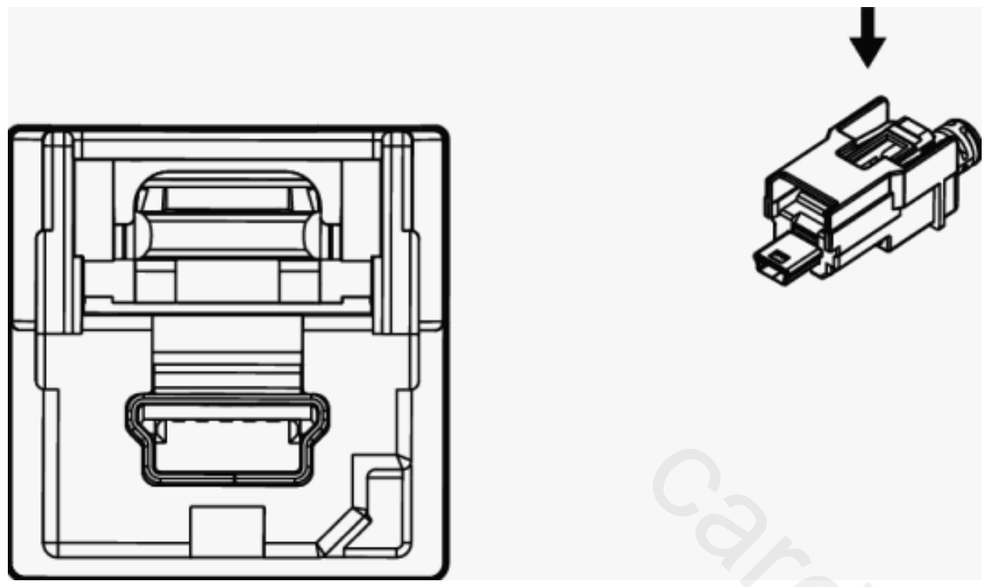
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | 0.35 | BU | 3554 | I | - | Passive Start Interior Antenna 2 Signal Hi | 34 | 0.35 | BU | 3554 | V | - |
| 35 | 0.35 | GY/BK | 3555 | I | - | Passive Start Interior Antenna 2 Signal Lo | 35 | 0.35 | GY/BK | 3555 | V | - |
| 36 | 0.5 | WH/BN | 6815 | I | - | Inadvertent Power Control | 36 | 0.5 | WH/BN | 6815 | V | - |
| 37 | 1.5 | VT | 1701 | II | - | Retained Accessory Power Ignition | 37 | 1.5 | VT | 1701 | IV | KPA |
| 38 | 1.5 | BK | 2250 | II | - | Ground | 38 | 1.5 | BK | 2250 | IV | - |
| 39 | 1.5 | RD/WH | 2040 | II | - | Battery Positive Voltage | 39 | 1.5 | RD/WH | 2040 | IV | KI6/KI7 |
| 40 | 0.35 | VT | 4083 | I | - | RAP Relay 2 Coil Control | 40 | 0.35 | GY/GN | 4083 | V | - |
| 41 | 0.35 | WH/VT | 4108 | I | - | Driver Mode Switch Signal | 41 | 0.35 | WH/VT | 4108 | V | F48/EPH |
| 42 | 0.5 | RD/WH | 5440 | I | USS | Battery Positive Voltage | 42 | 0.35 | VT | 4601 | V | - |
| 43 | 0.35 | GN | 4512 | I | EPH+K4C | Wireless Charging System Charge Indicator Control | 43 | 0.35 | GN | 4512 | V | EPH+K4C |
| 44 | 0.35 | GN/BU | 6133 | I | - | Local Interconnect Network Serial Data Bus 2 | 44 | 0.35 | GN/BU | 6133 | V | -EPH |
| 45 | 0.35 | GY/WH | 3153 | I | EPH+UEU/UHX | Lane Departure Warning Disable Switch Signal | 45 | 0.35 | GY/WH | 3153 | V | EPH+UEU/UHX |
| 46 | 0.35 | WH | 3152 | I | EPH+UEU/UHX | Lane Departure Warning Indicator Control | 46 | 0.35 | WH | 3152 | IV | EPH+UEU/UHX |
| 47 | 0.35 | BU/BN | 3161 | I | UFQ-EPH | Parallel Park Assist Disable Switch Signal | 47 | 0.13 | BU/BN | 3161 | VI | UFQ-EPH |
| 48 | 0.35 | BK | 1650 | I | EPH+K4C | Ground | 48 | 0.35 | BK | 1650 | V | EPH+K4C |

## X209 INSTRUMENT PANEL HARNESS TO FLOOR CONSOLE HARNESS



Connector Part Information

- Harness Type: Antenna Jumper
- OEM Connector: 13578976
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way F 2.0 Mini-B USB Type (BK)



Connector Part Information

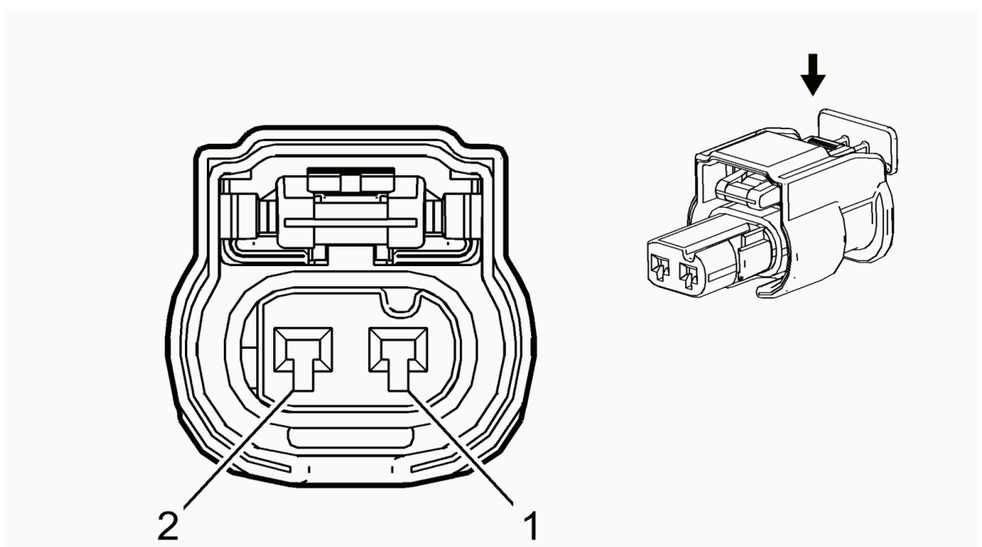
- Harness Type: Floor Console
- OEM Connector: 13576672
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

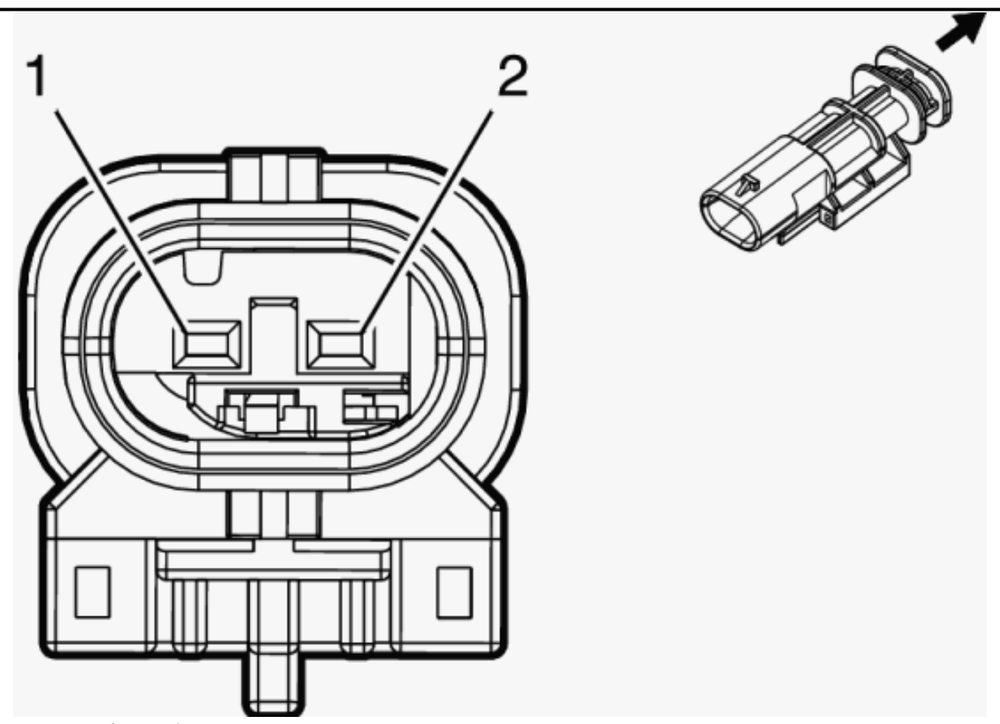
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | USB | - | I | - | USB Serial Data | - | - | USB | - | I | - |

## X212 INSTRUMENT PANEL HARNESS TO PASSENGER AIR BAG HARNESS (AJG)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13509963
- Service Connector: 19356430
- Description: 2-Way F 1.2 MCON Series, Sealed (YE)




Connector Part Information

- Harness Type: Passenger Air Bag
- OEM Connector: 13581182
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 MCON Series (YE)

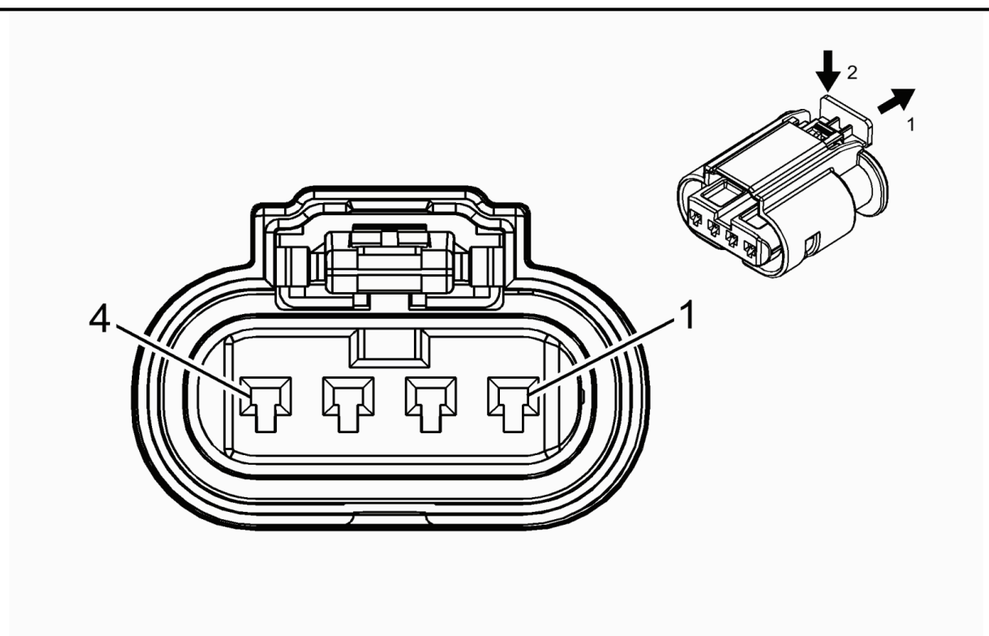
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/OG | 3025 | I | - | Passenger IP Module Stage 1 High Control | 1 | 0.35 | YE/OG | 3025 | II | - |
| 2 | 0.35 | OG/WH | 3024 | I | - | Passenger IP Module Stage 1 Low Control | 2 | 0.35 | OG/WH | 3024 | II | - |

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## X212 INSTRUMENT PANEL HARNESS TO PASSENGER AIR BAG HARNESS (AY0)




Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13506524
- Service Connector: 19352842
- Description: 4-Way F 1.2 MCON-LL Series, Sealed (YE)

-

Connector Part Information

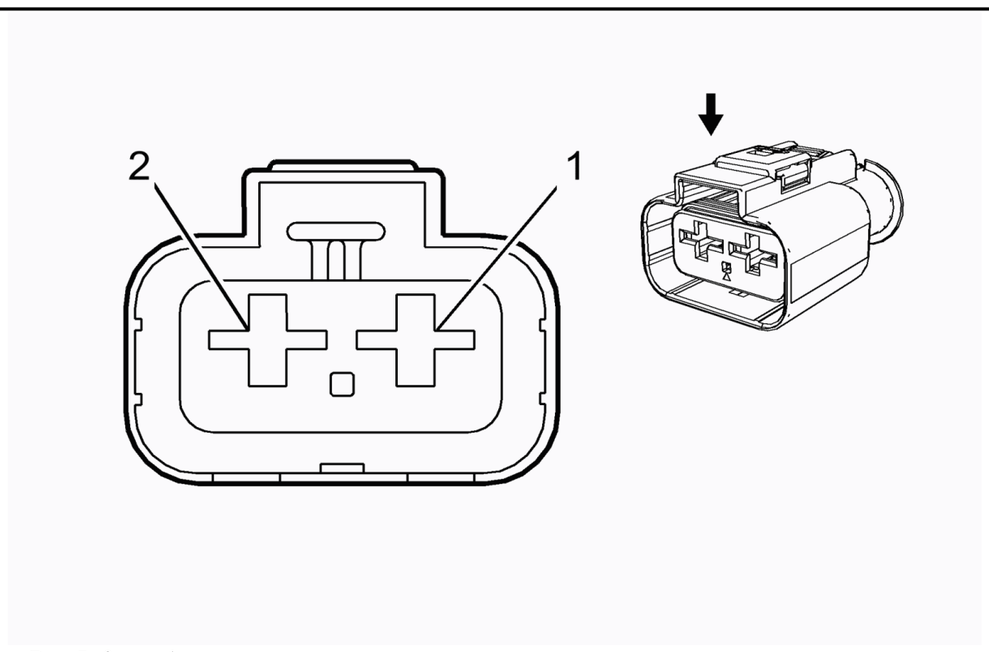
- Harness Type: Passenger Air Bag
- OEM Connector: X212
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

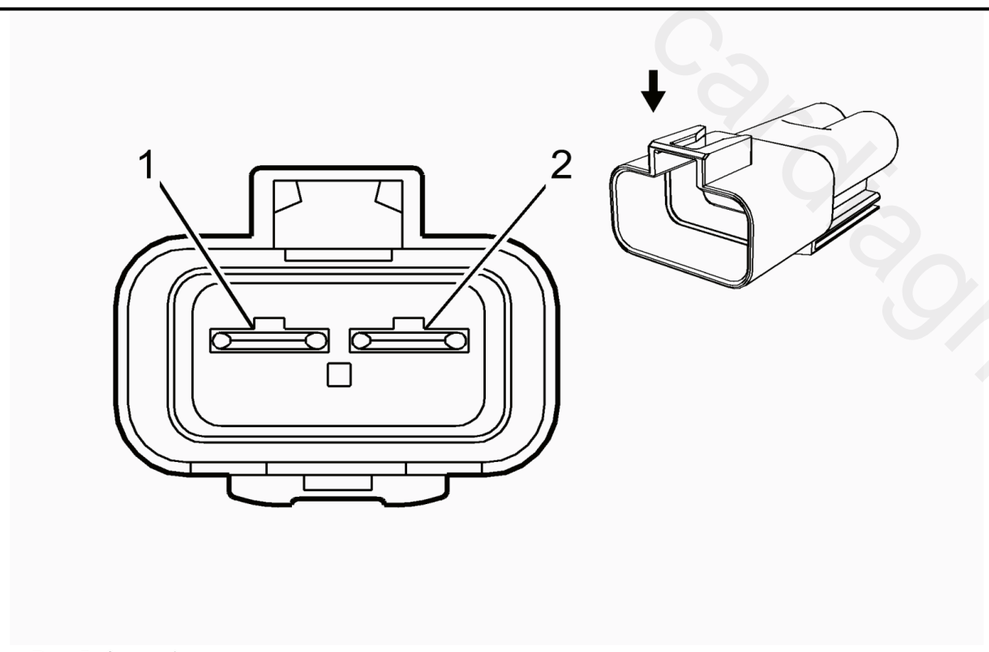
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | YE/OG | 3025 | I | AY0 | Passenger IP Module Stage 1 High Control | 1 | 0.35 | YE/OG | 3025 | II | AY0 |
| 2 | 0.35 | OG/WH | 3024 | I | AY0 | Passenger IP Module Stage 1 Low Control | 2 | 0.35 | OG/WH | 3024 | II | AY0 |
| 3 | 0.35 | GY/OG | 3027 | I | AY0 | Passenger IP Module Stage 2 High Control | 3 | 0.35 | GY/OG | 3027 | II | AY0 |
| 4 | 0.35 | OG/VT | 3026 | I | - | Passenger IP Module Stage 2 Low Control | 4 | 0.35 | OG/VT | 3026 | II | - |

## X213 BODY HARNESS TO AUXILIARY HEATER HARNESS (C32)




Connector Part Information

- Harness Type: Body
- OEM Connector: 24452452
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 9.5 Series, Sealed (BK)




Connector Part Information

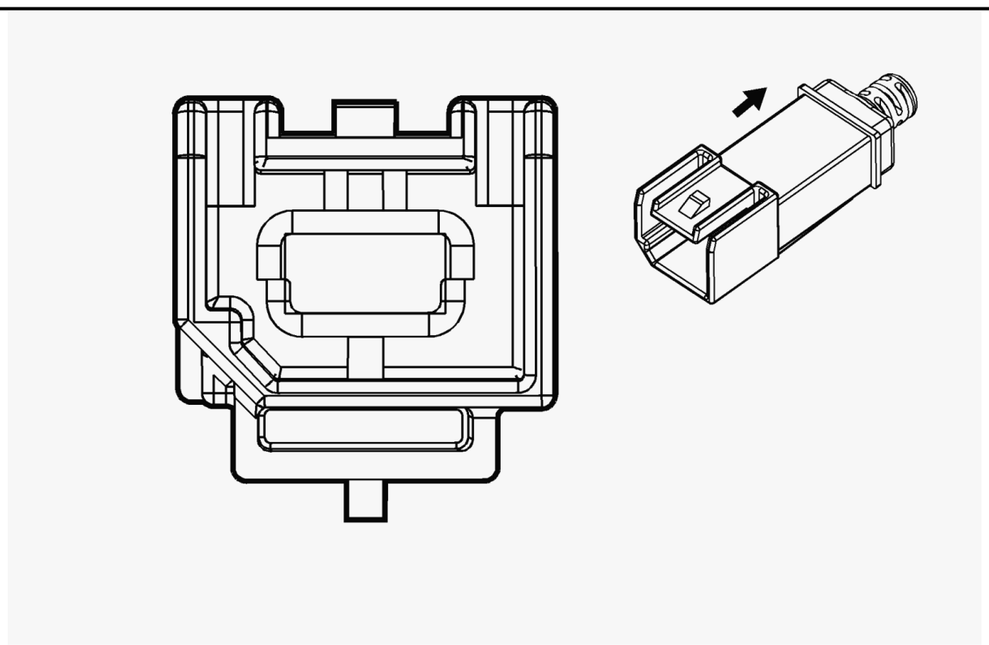
- Harness Type: Auxiliary Heater
- OEM Connector: 10756640
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 9.5 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-22 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-21 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

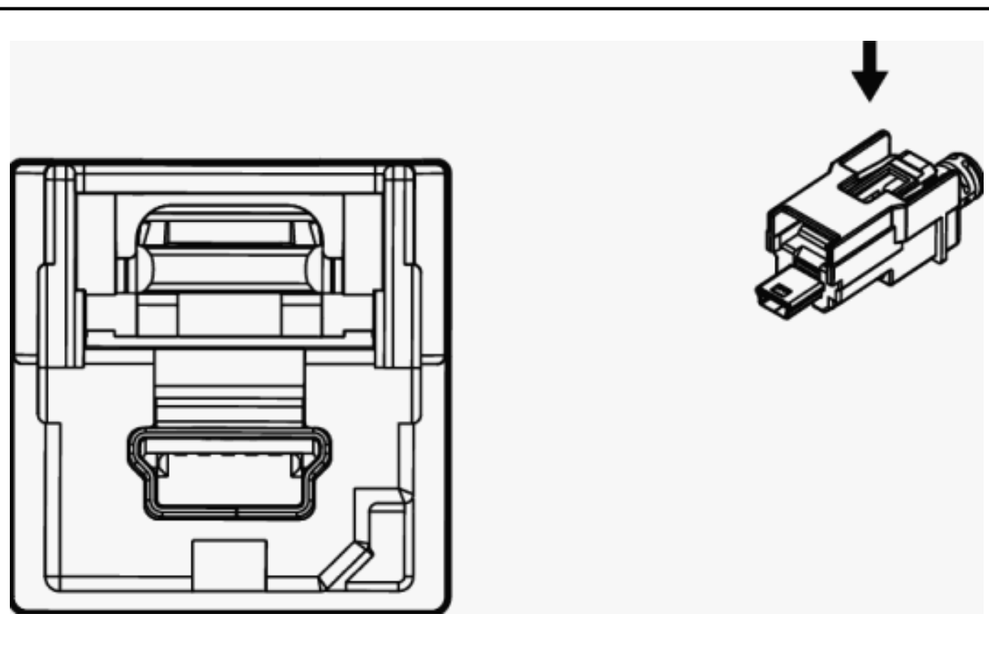
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10 | RD/BN | 202 | I | C32 | Battery Positive Voltage | 1 | 10 | RD | 1 | II | C32 |
| 2 | 10 | BK | 1350 | I | C32 | Ground | 2 | 10 | BK | 1350 | II | C32 |

## X214 INSTRUMENT PANEL HARNESS TO FLOOR CONSOLE HARNESS (MCZ)



Connector Part Information

- Harness Type: Instrument Panel USB
- OEM Connector: 13578976



Connector Part Information

- Harness Type: Floor Console USB
- OEM Connector: 13576672

- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way F 2.0 Mini-B USB Type (BK)

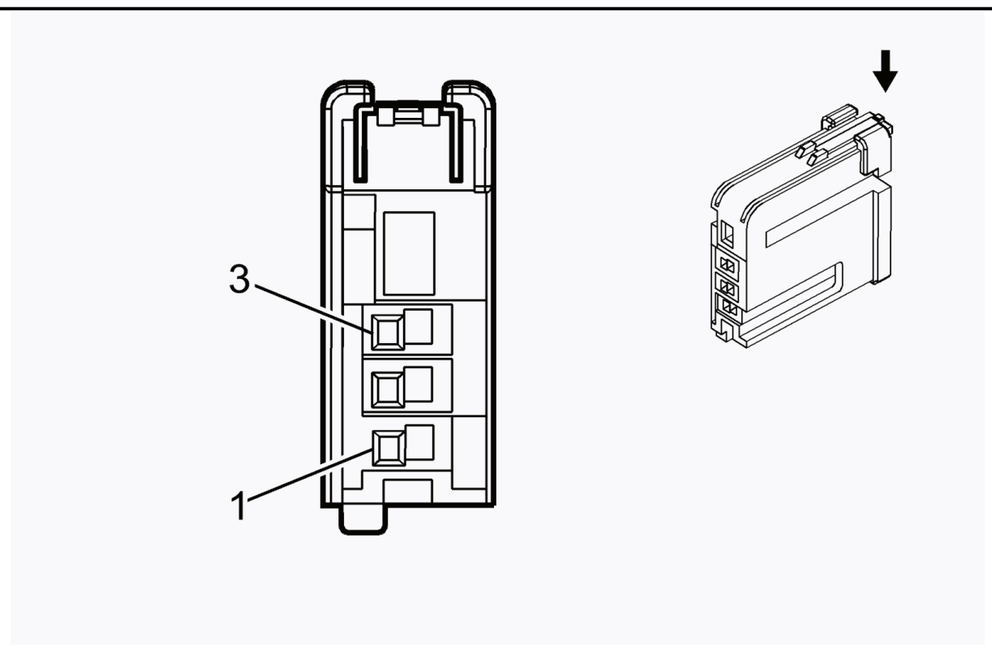
- Service Connector: Service by Cable Assembly - See Part Catalog
- Description: 5-Way M 2.0 Mini-B USB Type (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | No Tool Required | No Tool Required | Not Required | Not Required | Not Required | Not Required |

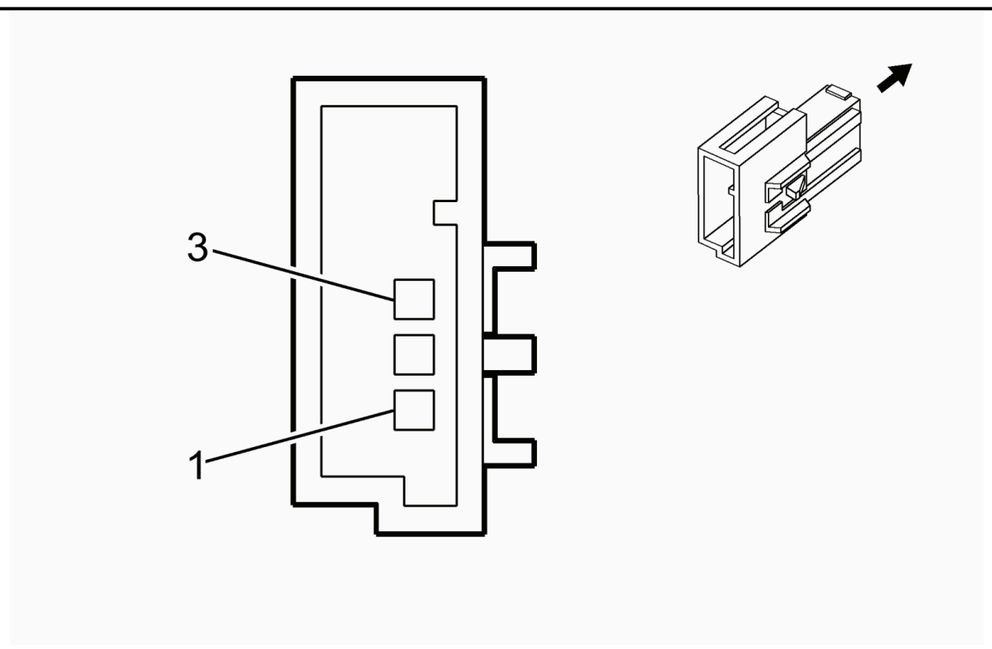
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | USB | - | I | - | USB Serial Data | - | - | USB | - | I | - |

## X300 RAIN/AMBIENT LIGHT SENSOR MODULE HARNESS TO BODY HARNESS (CE1)




Connector Part Information

- Harness Type: Rain/Ambient Light Sensor Module
- OEM Connector: 19153430
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series (BK)




Connector Part Information

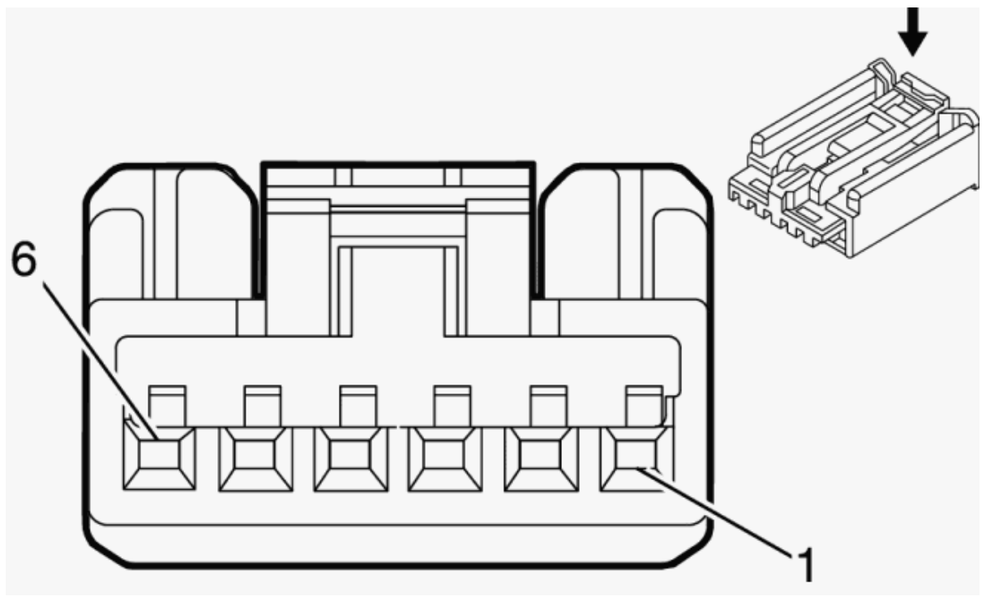
- Harness Type: Body
- OEM Connector: 19153431
- Service Connector: 19367729
- Description: 3-Way M 0.64 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

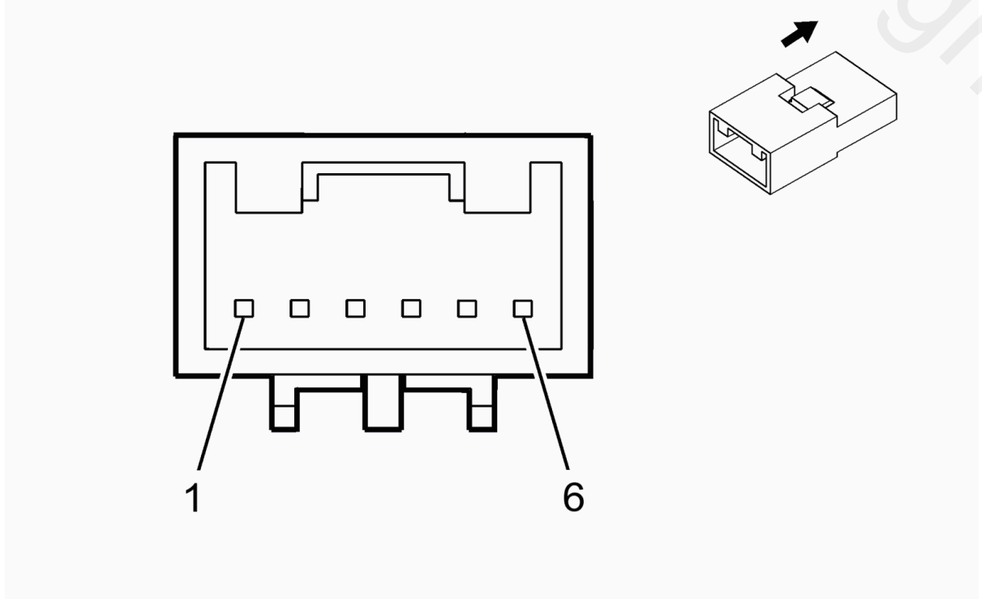
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/VT | 1940 | I | ASV+CE1+UEU | Battery Positive Voltage | 1 | 0.35 | RD/BN | 1440 | II | - |
| 2 | 0.35 | GN/BN | 6132 | I | - | Local Interconnect Network Serial Data Bus 1 | 2 | 0.35 | GN/BN | 6132 | II | - |
| 3 | 0.35 | BK | 850 | I | ASV+CE1+UEU | Ground | 3 | 0.35 | BK | 1550 | II | - |

## X301 HUMIDITY SENSOR HARNESS TO BODY HARNESS (ASV-CE1)




Connector Part Information

- Harness Type: Humidiity Sensor
- OEM Connector: 15268798
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 19153436
- Service Connector: 19299681
- Description: 6-Way M 0.64 Kaizen Series (BK)

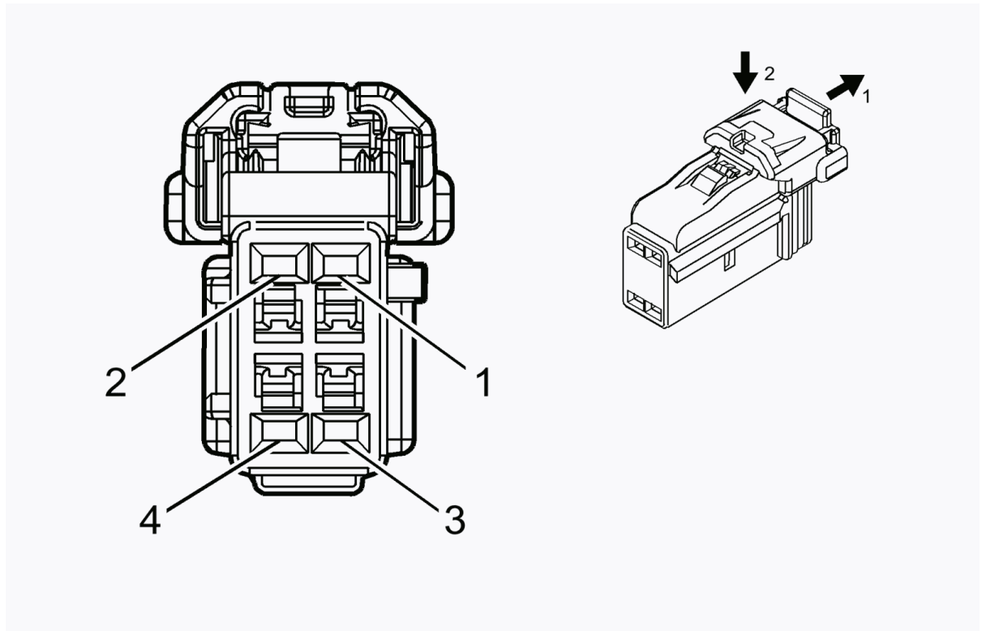
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | RD | 597 | I | - | 5V Reference | 1 | 0.35 | YE/RD | 597 | II | ASV-CE1 |
| 2 | 0.35 | BU | 7564 | I | - | Humidity Sensor Signal | 2 | 0.35<br>0.35 | GY/BU<br>GY/BU | 7564<br>7564 | II<br>II | ASV+UEU-CE1<br>ASV-UEU-CE1 |
| 3 | 0.35 | BK | 7566 | I | - | Humidity/Windscreen Temp Sensor Low Reference | 3 | 0.35 | BK/BU | 7566 | II | ASV-CE1 |
| 4 | 0.35 | GN | 7565 | I | - | Windscreen Temp Sensor Signal | 4 | 0.35 | GY/GN | 7565 | II | ASV-CE1 |
| 5 | 0.35 | YE | 3197 | I | - | Humidity Temperature Sensor Signal | 5 | 0.35<br>0.35 | YE/BU<br>YE/BU | 3197<br>3197 | II<br>II | ASV+UEU-CE1<br>ASV-UEU-CE1 |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |

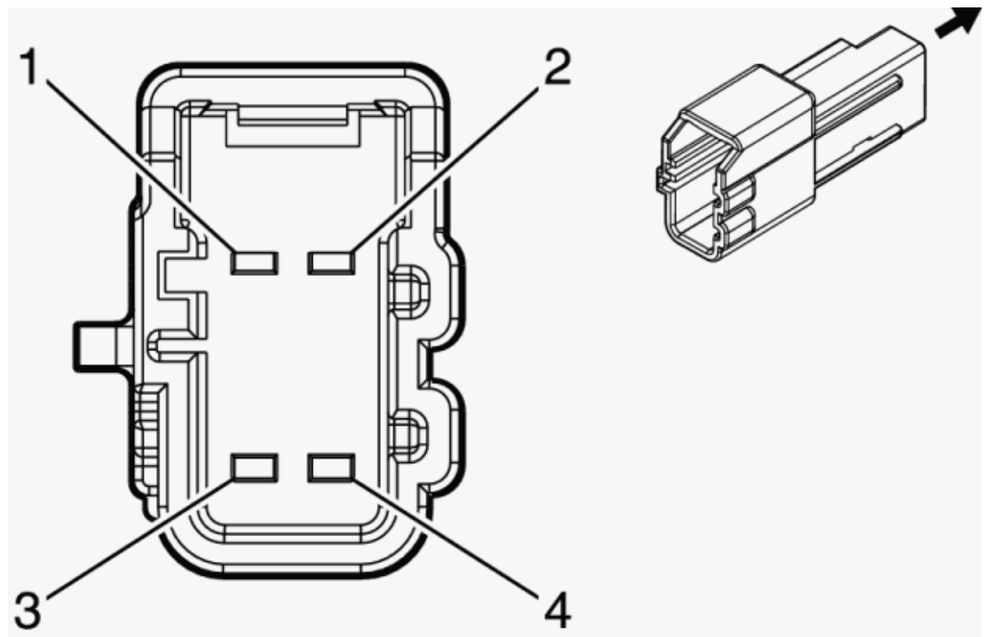
## X303 HEADLINER HARNESS TO GARAGE DOOR OPENER HARNESS

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Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13517405
- Service Connector: 19369633
- Description: 4-Way F 1.2 Series (BK)




Connector Part Information

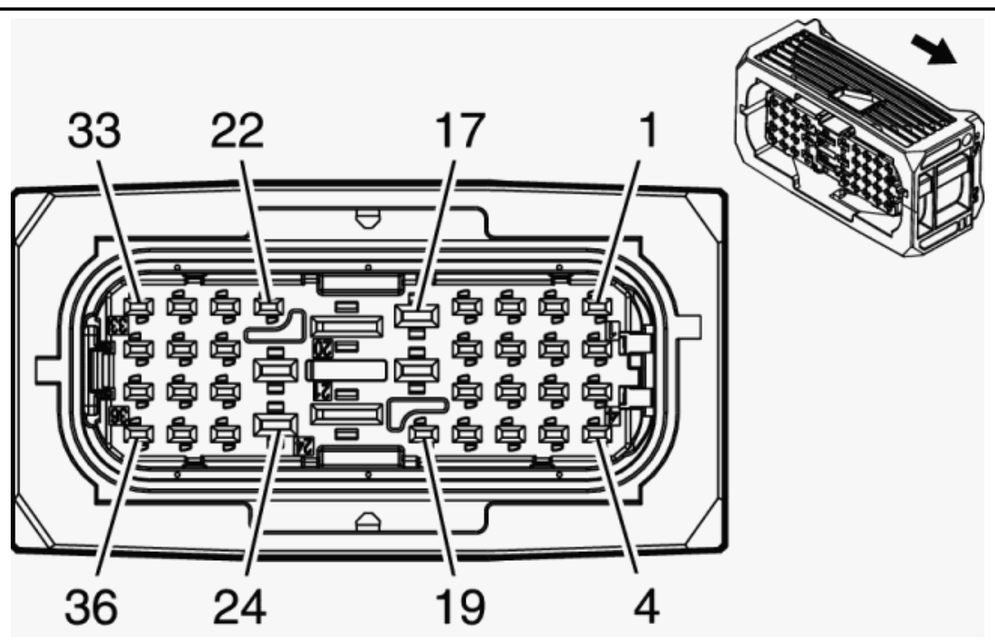
- Harness Type: Garage Door Opener
- OEM Connector: 13595572
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 1.2 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

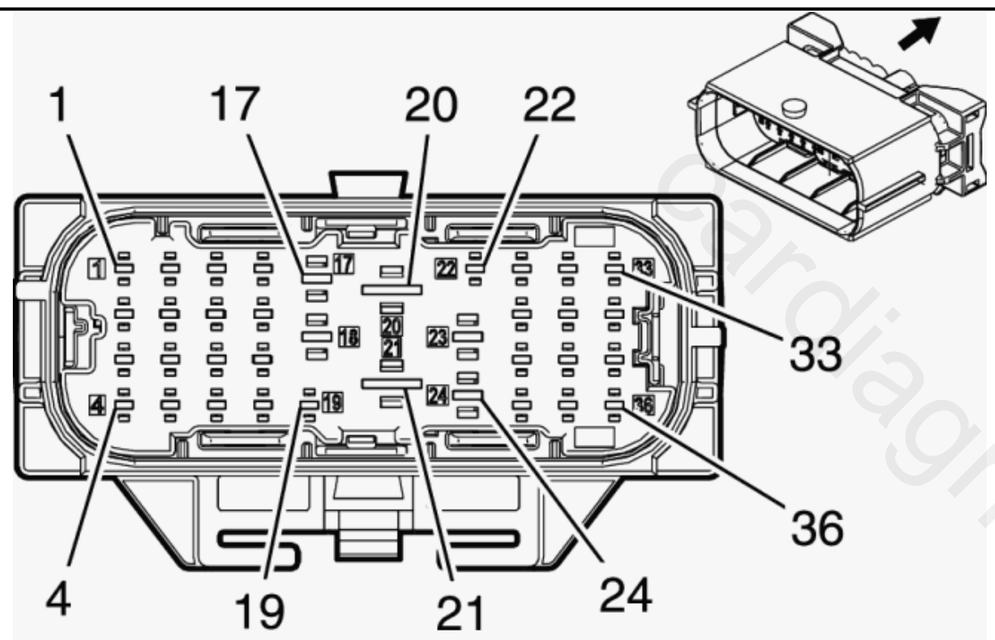
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | RD/BU | 2540 | I | UG1 | Battery Positive Voltage | 1 | 0.35 | RD | 2540 | II | UG1 |
| 2 | 0.35 | YE | 6817 | I | UG1 | LED Backlight Dimming Control | 2 | 0.35 | YE | 6817 | II | UG1 |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |
| 4 | 0.35 | BK | 2050 | I | UG1 | Ground | 4 | 0.35 | BK | 2050 | II | UG1 |

## X310 DRIVER SEAT HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 13929980
- Service Connector: Service by Harness - See Part Catalog
- Description: 36-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13583076
- Service Connector: 19330685
- Description: 36-Way M 1.5, 2.8, 5.8 Series, Sealed (BK)

**Terminal Part Information**

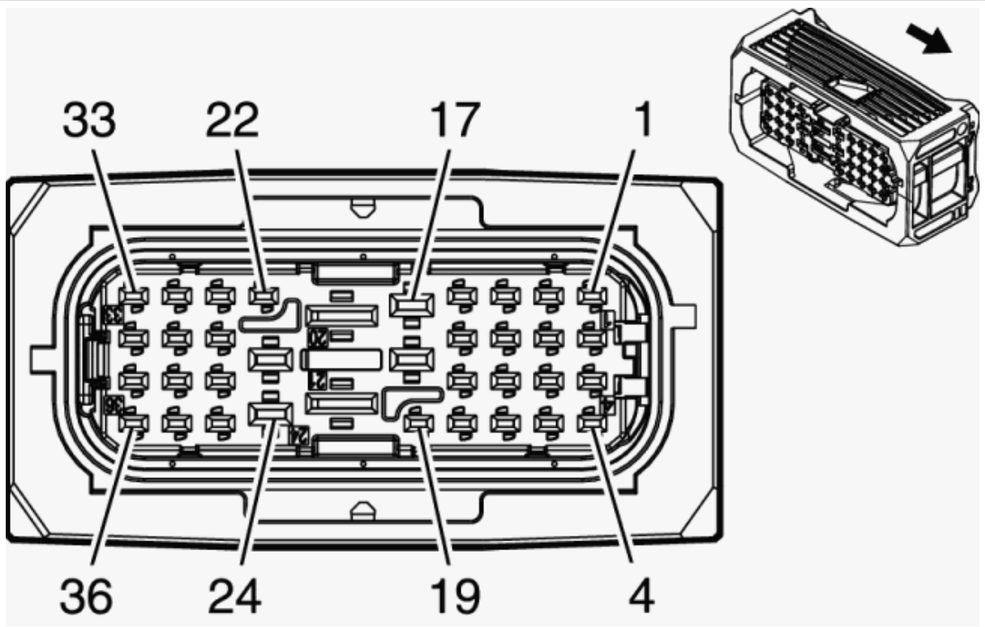
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | 13575233 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 13575425 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VII | 13576397 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| VIII | 13578882 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IX | 13581368 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| X | 19119926 | J-35616-43 (RD) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35 | VT/BK | 339 | I | KU1 | Run/Crank Ignition 1 Voltage | 2 | 0.35 | VT/BK | 339 | VII | KU1 |
| 3 | 0.35 | GN/VT | 5906 | I | KU1 | Driver Seat Vent Motor Control 1 | 3 | 0.35 | GN/VT | 5906 | VII | KU1 |
| 4 - 5 | - | - | - | - | - | Not Occupied | 4 - 5 | - | - | - | - | - |
| 6 | 0.35 | BU | 2425 | I | KA1 | Driver Heated Back NTC Signal | 6 | 0.35 | BU | 2425 | VII | KA1/KU1/KU3 |
| 7 - 8 | - | - | - | - | - | Not Occupied | 7 - 8 | - | - | - | - | - |
| 9 | 0.35 | GN/WH | 7530 | I | A45/A74 | Local Interconnect Network Serial Data Bus 8 | 9 | 0.35 | GN/WH | 7530 | VII | A45/A74 |
| 10 | 0.35 | BU/GN | 614 | I | A45/A74 | Memory Seat Switch Set Signal | 10 | 0.35 | BU/GN | 614 | VII | A45/A74 |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.35 | WH | 615 | I | A45/A74 | Memory Seat Switch Signal 1 | 12 | 0.35 | WH | 615 | VII | A45/A74 |
| 13 | 0.35 | GN | 5060 | I | - | Low Speed GMLAN Serial Data | 13 | 0.35 | GN | 5060 | VII | - |
| 14 | - | - | - | - | - | Not Occupied | 14 | - | - | - | - | - |
| 15 | 0.35 | BK/YE | 2080 | I | KA1 | Driver Heated Seat NTC Low Reference | 15 | 0.35 | BK/YE | 2080 | VIII | KA1/KU1/KU3 |
| 16 | 0.35 | YE/GY | 2079 | I | - | Driver Heated Seat NTC Signal | 16 | 0.35 | YE/GY | 2079 | VII | - |

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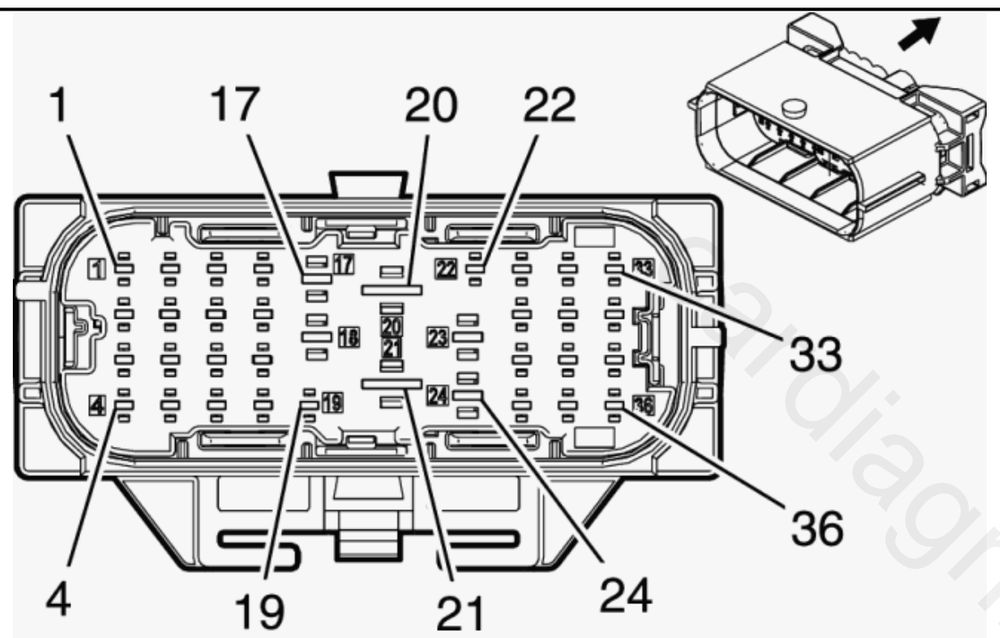
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 0.75 | BN/VT | 2077 | II | - | Driver Heated Seat Element Control | 17 | 0.75 | BN/VT | 2077 | VI | - |
| 18 | 0.75 | BN/BK | 2078 | II | - | Driver Heated Seat Element Low Reference | 18 | 0.75 | BN/BK | 2078 | VI | - |
| 19 | 0.5 | RD/GN | 3840 | I | - | Battery Positive Voltage | 19 | 0.35 | RD/GN | 3840 | VIII | - |
| 20 | 2 | RD/BN | 2940 | III | - | Battery Positive Voltage | 20 | 2 | RD/BN | 2940 | X | - |
| 21 | 2.5 | BK | 2350 | III | A47/AL9/A45/KU1/UEU/UHX/EPH+UKC | Ground | 21 | 2.5 | BK | 2350 | X | - |
| 22 | - | - | - | - | - | Not Occupied | 22 | - | - | - | - | - |
| 23 | 0.35 | RD/GN | 1540 | IV | AL9 | Battery Positive Voltage | 23 | 0.35 | RD/GN | 1540 | IX | AL9-AT9 |
| 24 | 0.75 | BN | 2432 | II | EPH+KA1-KU1-KU3 | Driver Heated Back Element Control | 24 | 0.75 | BN | 2432 | VI | EPH+KA1-KU1-KU3 |
| 25 | - | - | - | - | - | Not Occupied | 25 | - | - | - | - | - |
| 26 | 0.35 | BK/VT | 2426 | I | - | Driver Heated Back NTC Low Reference | 26 | 0.35 | BK/VT | 2426 | VII | - |
| 27 | 0.35 | BK/OG | 1363 | I | - | Driver Seat Belt Switch Low Reference | 27 | 0.35 | BK/OG | 1363 | VII | - |
| 28 | 0.5 | OG/BN | 238 | I | - | Driver Seat Belt Switch Signal | 28 | 0.35 | OG/BN | 238 | VIII | - |
| 29 | 0.5 | OG/YE | 3481 | I | - | Driver Seat Belt Anchor Pretensioner High Control | 29 | 0.35 | OG/YE | 3481 | V | - |
| 30 | 0.5 | VT/OG | 3482 | I | - | Driver Seat Belt Anchor Pretensioner Low Control | 30 | 0.35 | YE/OG | 3482 | V | - |
| 31 - 32 | - | - | - | - | - | Not Occupied | 31 - 32 | - | - | - | - | - |
| 33 | 0.5 | OG/BU | 3068 | I | - | Driver Side Impact Module High Control | 33 | 0.35 | OG/BU | 3068 | V | - |
| 34 | 0.5 | BK/OG | 3069 | I | - | Driver Side Impact Module Low Control | 34 | 0.35 | GN/OG | 3069 | V | - |
| 35 - 36 | - | - | - | - | - | Not Occupied | 35 - 36 | - | - | - | - | - |

## X320 PASSENGER SEAT HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 13929980
- Service Connector: Service by Harness - See Part Catalog
- Description: 36-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13930004
- Service Connector: 19330685
- Description: 36-Way M 1.5, 2.8, 5.8 Series, Sealed (BK)

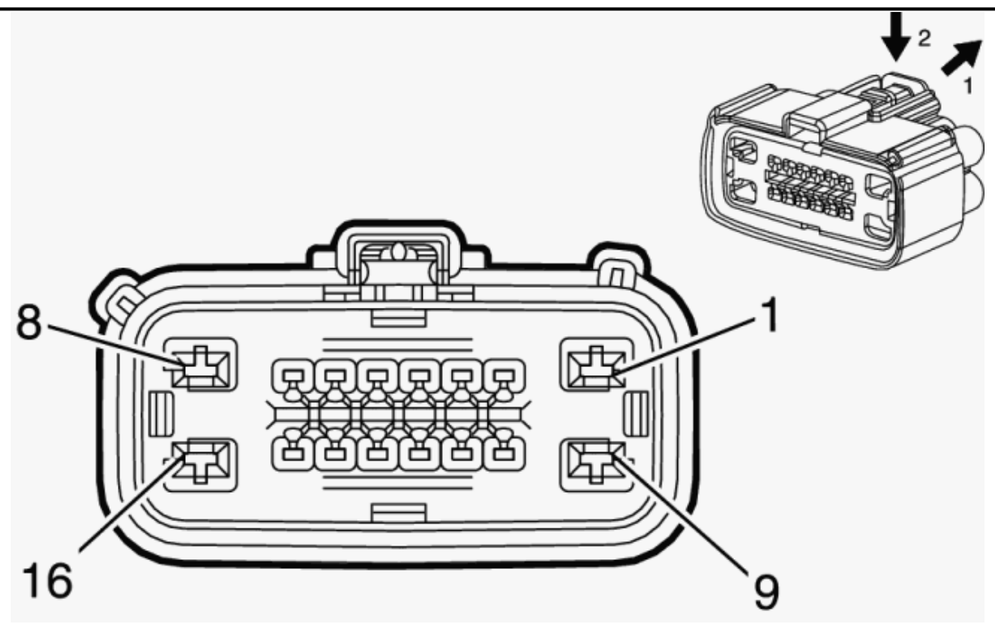
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-40 (BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 13575233 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| V | 13575380 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| VI | 13575425 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| VII | 13576397 | J-35616-34 (YE) | J-38125-560 | 964265-2 | Lear 28 | E | 2 |
| VIII | 13578882 | J-35616-3 (GY) | J-38125-560 | Not Available | Not Available | Not Available | Not Available |
| IX | 13581368 | J-35616-5 (PU) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |
| X | 19119926 | J-35616-43 (RD) | J-38125-36 | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35 | VT/GY | 1039 | I | KU3 | Run/Crank Ignition 1 Voltage | 2 | 0.35 | VT/GY | 1039 | VII | KU3 |
| 3 | 0.35 | GN/VT | 5906 | I | KU1 | Driver Seat Vent Motor Control 1 | 3 | 0.35 | GN/VT | 5906 | VII | - |
| 4 | 0.35 | RD/GN | 1540 | I | AT9 | Battery Positive Voltage | 4 | 0.35 | RD/GN | 1540 | VII | - |
| 5 | 0.35 | BK/YE | 2080 | I | KA1 | Driver Heated Seat NTC Low Reference | 5 | 0.35 | BK/YE | 2080 | VII | KA1/KU1/KU3 |
| 6 | 0.35 | BU | 2425 | I | KA1 | Driver Heated Back NTC Signal | 6 | 0.35 | BU | 2425 | VII | KA1/KU1/KU3 |
| 7 - 8 | - | - | - | - | - | Not Occupied | 7 - 8 | - | - | - | - | - |
| 9 | 0.35 | GN/BU | 6133 | I | KA1/KU1/KU3 | Local Interconnect Network Serial Data Bus 2 | 9 | 0.35 | GN/BU | 6133 | VII | MM1+KA1-EPH/KA1+KA6 |
| 10 | - | - | - | - | - | Not Occupied | 10 | - | - | - | - | - |
| 11 | 0.35 | GY/OG | 3946 | I | AL0 | Automatic Locking Retractor Switch Low Reference | 11 | 0.35 | GY/OG | 3946 | VII | AL0 |
| 12 | 0.35 | OG/BN | 3947 | I | AL0 | Automatic Locking Retractor Switch Signal | 12 | 0.35 | OG/BN | 3947 | VII | AL0 |
| 13 | 0.35 | GN | 5060 | I | AL0 | Low Speed GMLAN Serial Data | 13 | 0.35 | GN | 5060 | VII | AL0 |
| 14 | 0.35 | RD/GN | 2440 | I | AL0 | Battery Positive Voltage | 14 | 0.35 | RD/GN | 2440 | VII | - |
| 15 | 0.35 | BK | 2450 | I | AL0 | Ground | 15 | 0.35 | BK | 2450 | VII | AL0 |
| 16 | 0.35 | YE/GY | 2079 | I | KA1 | Driver Heated Seat NTC Signal | 16 | 0.35 | YE/GY | 2079 | VII | KA1/KU1/KU3 |

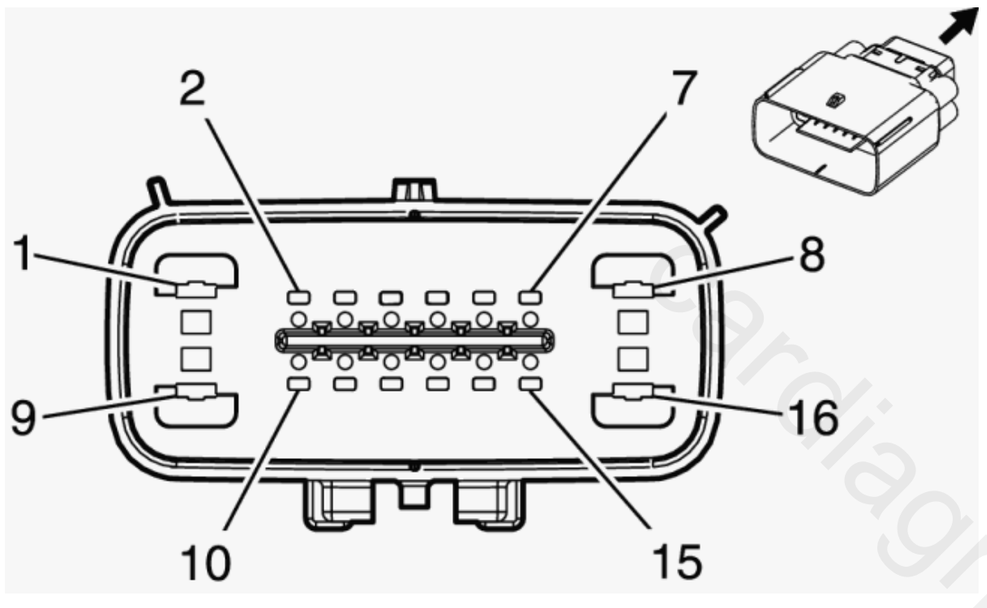
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 0.75 | BN/VT | 2077 | II | - | Driver Heated Seat Element Control | 17 | 0.75 | BN/VT | 2077 | VI | - |
| 18 | 0.75 | BN/BK | 2078 | II | - | Driver Heated Seat Element Low Reference | 18 | 0.75 | BN/BK | 2078 | VI | - |
| 19 | - | - | - | - | - | Not Occupied | 19 | - | - | - | - | - |
| 20 | 2.5 | RD/YE | 240 | III | ADT/AG2 | Battery Positive Voltage | 20 | 2 | RD/YE | 240 | X | ADT/AG2 |
| 21 | 2.5 | BK | 1950 | III | KA1 | Ground | 21 | 2.5 | BK | 1950 | X | AT9/AG2/KA1/KU3/ADT |
| 22 | - | - | - | - | - | Not Occupied | 22 | - | - | - | - | - |
| 23 | 0.5 | RD/GY | 1740 | II | KA1/KU1/KU3 | Battery Positive Voltage | 23 | 0.5 | RD/GY | 1740 | IX | KA1/KU1/KU3 |
| 24 | 0.5 | RD/WH | 4740 | II | - | Battery Positive Voltage | 24 | 0.5 | RD/WH | 4740 | IX | KA1/KU1/KU3 |
| 25 | 0.75 | BN | 2432 | I | EPH+KA1-KU1-KU3 | Driver Heated Back Element Control | 25 | 0.75 | BN | 2432 | V | EPH+KA1-KU1-KU3 |
| 26 | - | - | - | - | - | Driver Heated Back NTC Low Reference | 26 | 0.35 | BK/VT | 2426 | VII | EPH+KA1-KU1-KU3 |
| 27 | 0.35 | BK/OG | 1361 | I | UHH | Passenger Seat Belt Switch Low Reference<br>Passenger Seat Belt Switch Low Reference | 27 | 0.35<br>0.35<br>0.35 | BK/OG<br>BK/OG<br>BK/OG | 1361<br>1361<br>1361 | VII<br>VII<br>VIII | UH5<br>-UH5<br>UHH |
| 28 | 0.35 | OG/VT | 1362 | I | UHH | Passenger Seat Belt Switch Signal | 28 | 0.35<br>0.35 | OG/VT<br>OG/VT | 1362<br>1362 | VII<br>VIII | UHH+AJC/AYC<br>UHH+AY0 |
| 29 | 0.5 | OG/BN | 3479 | I | - | Passenger Seat Belt Anchor Pretensioner High Control | 29 | 0.35 | OG/BN | 3479 | IV | AJG/AYC-MAO |
| 30 | 0.5 | GY/OG | 3480 | I | - | Passenger Seat Belt Anchor Pretensioner Low Control | 30 | 0.35 | GY/OG | 3480 | IV | - |
| 31 | 0.5 | OG/BN | 7571 | I | - | Passenger Seat Belt Reminder Signal | 31 | 0.35 | OG/BN | 7571 | VII | - |
| 32 | - | - | - | - | - | Not Occupied | 32 | - | - | - | - | - |
| 33 | 0.5 | OG/GY | 3066 | I | - | Passenger Side Impact Module High Control | 33 | 0.35 | OG/GY | 3066 | IV | - |
| 34 | 0.5 | BU/OG | 3067 | I | - | Passenger Side Impact Module Low Control | 34 | 0.35 | BN/OG | 3067 | IV | - |
| 35 - 36 | - | - | - | - | - | Not Occupied | 35 - 36 | - | - | - | - | - |

## X330 BODY HARNESS TO LEFT REAR SEAT HARNESS (KA6)




Connector Part Information

- Harness Type: Body
- OEM Connector: 34985-2329
- Service Connector: 19356492
- Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)




Connector Part Information

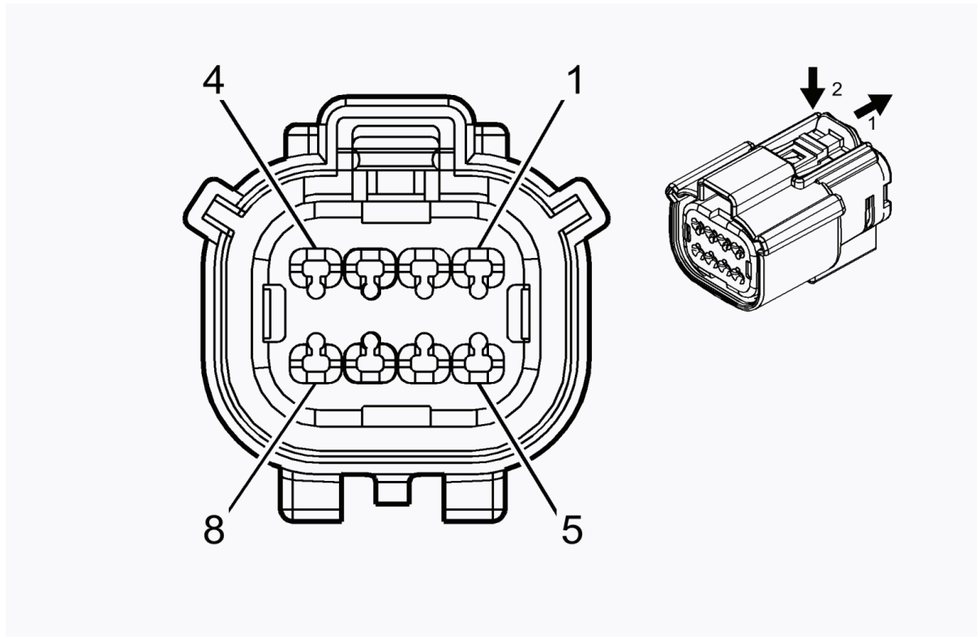
- Harness Type: Left Rear Seat
- OEM Connector: 34986-2015
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 150 MX Series, Sealed (L-GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575808 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| II | 13576376 | J-35616-35 (VT) | J-38125-12A | 1326030-6 | Lear 17 | E | C |
| III | 13576376 | J-35616-35 (VT) | J-38125-12A | 1326030-8 | Lear 17 | A | 4 |
| IV | 19300432 | J-35616-2A (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| V | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| VI | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

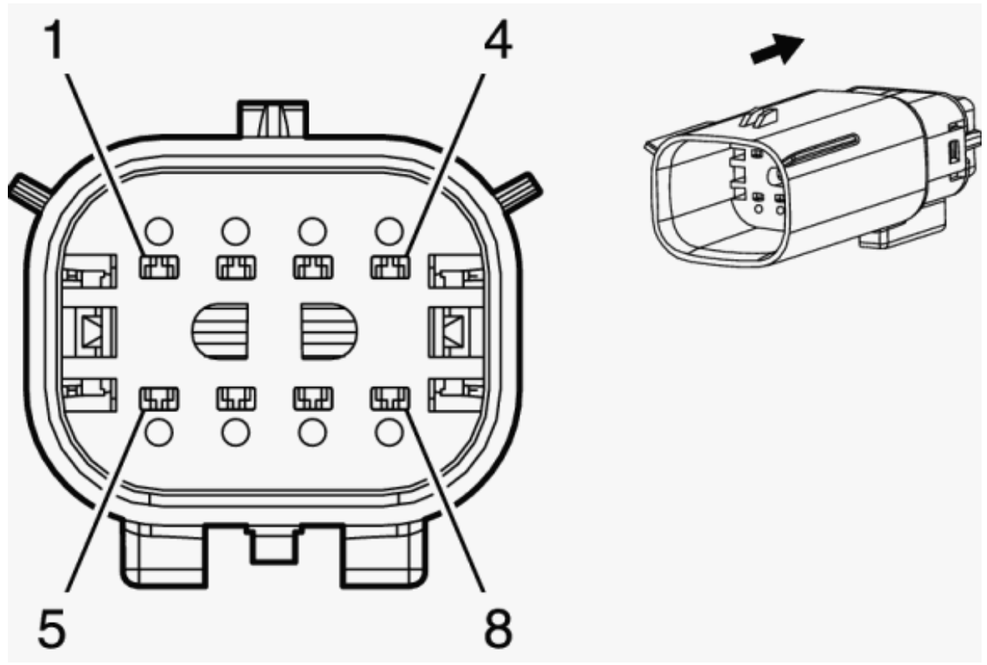
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | RD/GN | 1840 | III | KA6 | Battery Positive Voltage | 1 | 0.75 | RD/GN | 1840 | VI | KA6 |
| 2 - 3 | - | - | - | - | - | Not Occupied | 2 - 3 | - | - | - | - | - |
| 4 | 0.35 | YE | 7049 | IV | KA6 | Right Rear Seat Back NTC Signal | 4 | 0.5 | YE | 7049 | V | KA6 |
| 5 | 0.75 | GN/BN | 2296 | I | KA6 | Right Rear Heated Seat Cushion Element Control | 5 | 0.75 | GN/BN | 2296 | VI | KA6 |
| 6 | 0.35 | YE/WH | 7053 | IV | KA6 | Right Rear Cushion NTC Signal | 6 | 0.5 | YE/WH | 7053 | V | KA6 |
| 7 | 0.35 | WH/BK | 7054 | IV | KA6 | Right Rear Cushion NTC Low Reference | 7 | 0.5 | WH/BK | 7054 | V | KA6 |
| 8 | 0.5 | RD/BN | 5940 | III | KA6 | Battery Positive Voltage | 8 | 0.75 | RD/BN | 5940 | VI | KA6 |
| 9 | 1 | BK | 2350 | III | KA6 | Ground | 9 | 1 | BK | 2350 | VI | KA6 |
| 10 | 0.75 | YE/BK | 7052 | I | KA6 | Right Rear Seat Back NTC Low Reference | 10 | 0.5 | YE/BK | 7052 | V | KA6 |
| 11 - 13 | - | - | - | - | - | Not Occupied | 11 - 13 | - | - | - | - | - |
| 14 | 0.35 | GN/BU | 6133 | IV | KA6 | Local Interconnect Network Serial Data Bus 2 | 14 | 0.5 | GN/BU | 6133 | V | KA6 |
| 15 | 0.75 | BU/VT | 2455 | I | KA6 | Right Rear Heated Seat Element Control | 15 | 0.75 | BU/VT | 2455 | VI | KA6 |
| 16 | 0.75 | GN/BK | 2297 | II | KA6 | Right Rear Heated Seat Cushion Element Low Reference | 16 | 0.75 | VT/BK | 2297 | VI | KA6 |

## X340 BODY HARNESS TO RIGHT REAR SEAT HARNESS (KA6)




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-0933
- Service Connector: 19356429
- Description: 8-Way F 150 MX Series, Sealed (BK)




Connector Part Information

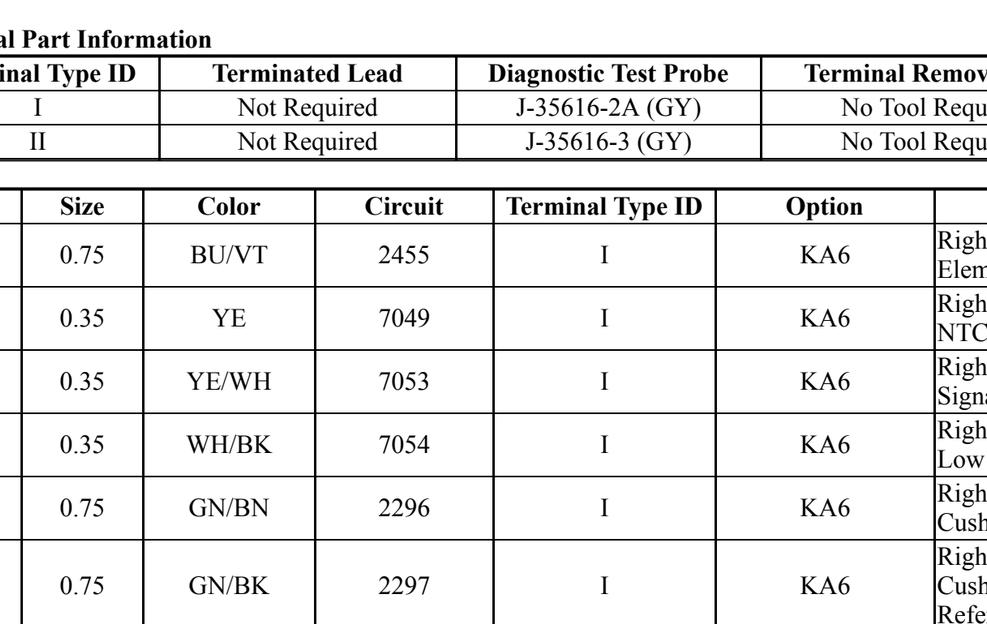
- Harness Type: Right Rear Seat
- OEM Connector: 33482-0827
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M 150 MX Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

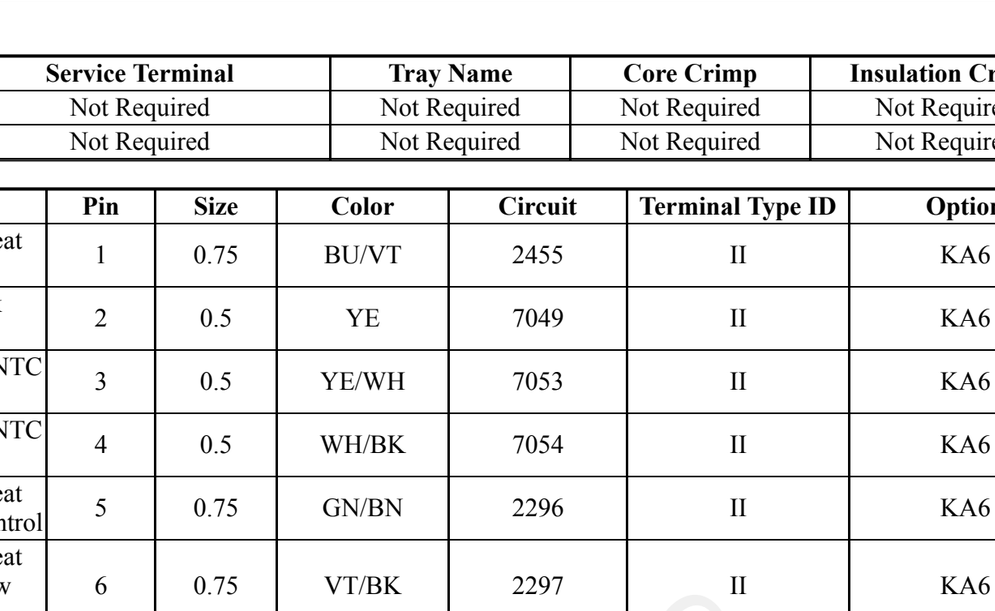
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BU/VT | 2455 | I | KA6 | Right Rear Heated Seat Element Control | 1 | 0.75 | BU/VT | 2455 | II | KA6 |
| 2 | 0.35 | YE | 7049 | I | KA6 | Right Rear Seat Back NTC Signal | 2 | 0.5 | YE | 7049 | II | KA6 |
| 3 | 0.35 | YE/WH | 7053 | I | KA6 | Right Rear Cushion NTC Signal | 3 | 0.5 | YE/WH | 7053 | II | KA6 |
| 4 | 0.35 | WH/BK | 7054 | I | KA6 | Right Rear Cushion NTC Low Reference | 4 | 0.5 | WH/BK | 7054 | II | KA6 |
| 5 | 0.75 | GN/BN | 2296 | I | KA6 | Right Rear Heated Seat Cushion Element Control | 5 | 0.75 | GN/BN | 2296 | II | KA6 |
| 6 | 0.75 | GN/BK | 2297 | I | KA6 | Right Rear Heated Seat Cushion Element Low Reference | 6 | 0.75 | VT/BK | 2297 | II | KA6 |
| 7 | 0.75 | YE/BK | 7052 | I | KA6 | Right Rear Seat Back NTC Low Reference | 7 | 0.5 | YE/BK | 7052 | II | KA6 |
| 8 | - | - | - | - | - | Not Occupied | 8 | - | - | - | - | - |

**X350 FUEL TANK HARNESS TO BODY HARNESS**




Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 13599855
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)




Connector Part Information

- Harness Type: Body
- OEM Connector: 34986-1602
- Service Connector: 19352214
- Description: 16-Way M 150 MX Series, Sealed (L-GY)

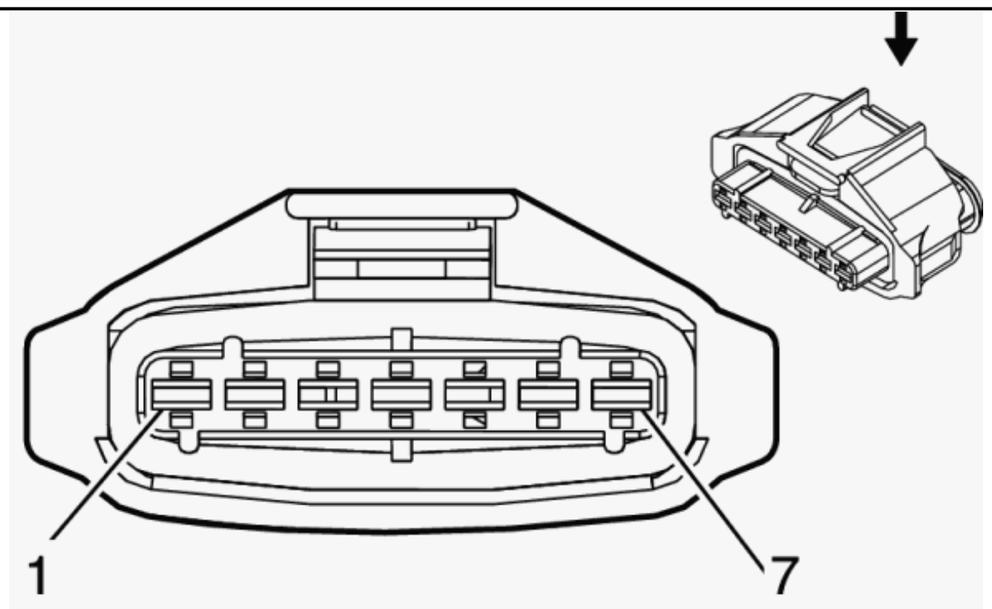
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-14 (GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 19119395 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |
| V | 19366658 | J-35616-5 (PU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5<br>2.5 | RD/BU<br>GY | 3240<br>120 | III<br>III | LVL/LH7/LWW<br>LYX/LTG | Battery Positive Voltage<br>Fuel Pump Control | 1 | 2.5<br>2.5 | RD/BU<br>GY | 3240<br>120 | V<br>V | LVL/LH7/LWW<br>LYX/LTG |
| 2 | 0.35 | WH | 1310 | II | NTB/NUB | EVAP Canister Vent Solenoid Control | 2 | 0.35 | WH | 1310 | IV | NTB/NUB |
| 3 | 0.35 | RD/VT | 542 | II | NTB/NUB | Battery Positive Voltage | 3 | 0.35 | RD/VT | 542 | IV | NTB/NUB |
| 4 | 0.35<br>0.5 | VT/GN<br>BK/GN | 39<br>580 | II<br>I | LVL/LH7/LWW<br>LYX/LTG | Run/Crank Ignition 1 Voltage<br>Engine Control Sensors Low Reference (2) | 4 | 0.35<br>0.35 | VT/GN<br>BK/GN | 39<br>580 | IV<br>IV | LVL/LH7/LWW<br>LYX/LTG |
| 5 | 0.5<br>0.5 | BU/VT<br>VT | 1589<br>3674 | I<br>I | LYX/LTG<br>NDE | Primary Fuel Level Sensor Signal<br>NOx Sensor 1 Control | 5 | 0.35<br>0.35 | BU/VT<br>VT/BU | 1589<br>3674 | IV<br>IV | LYX/LTG<br>LVL/LH7/LWW |
| 6 | 0.35<br>0.5 | GN/GY<br>BU/WH | 465<br>7446 | II<br>I | LVL/LH7/LWW<br>LYX/LTG | Fuel Pump Primary Relay Control<br>Fuel Line Pressure Sensor Signal | 6 | 0.35<br>0.35 | GN/GY<br>BU/WH | 465<br>7446 | IV<br>IV | LVL/LH7/LWW<br>LYX/LTG |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.35 | BK/GN | 580 | II | LYX/LTG | Engine Control Sensors Low Reference (2) | 7 | 0.35 | BK/GN | 580 | IV | LYX/LTG |
| 8 | 2.5 | BK | 1950 | III | - | Ground | 8 | 2.5 | BK | 1950 | V | - |
| 9 | 2.5<br>2.5 | BK<br>BK/GN | 1950<br>1580 | III<br>III | LVL/LH7/LWW<br>LYX/LTG | Ground<br>Fuel Pump Low Reference | 9 | 2.5<br>2.5 | BK<br>BK/GN | 1950<br>1580 | V<br>V | LVL/LH7/LWW<br>LYX/LTG |
| 10 | 0.35<br>0.5 | BU/BN<br>BN/RD | 4498<br>7445 | I<br>I | LVL/LH7/LWW<br>LYX/LTG | High Speed GMLAN Serial Data (+) 7<br>Fuel Line Pressure Sensor 5V Reference | 10 | 0.5<br>0.35 | BU/BN<br>BN/RD | 4498<br>7445 | IV<br>IV | LH7+NDE<br>LYX/LTG |
| 11 | 0.35<br>0.5 | WH<br>BU/WH | 4499<br>890 | I<br>I | LVL/LH7/LWW<br>LYX/LTG+NTB/NUB | High Speed GMLAN Serial Data (-) 7<br>Fuel Tank Pressure Sensor Signal | 11 | 0.5<br>0.35 | WH<br>BU/WH | 4499<br>890 | IV<br>IV | LH7+NDE<br>LYX/LTG+NTB/NUB |
| 12 | 0.35 | BK/GN | 580 | II | LYX/LTG+NTB/NUB | Engine Control Sensors Low Reference (2) | 12 | 0.35 | BK/GN | 580 | IV | LYX/LTG+NTB/NUB |
| 13 | 0.35 | YE/RD | 2709 | II | LYX/LTG+NTB/NUB | Fuel Tank Pressure Sensor 5V Reference | 13 | 0.35 | YE/RD | 2709 | IV | LYX/LTG+NTB/NUB |
| 14 | 0.35 | BK/GN | 580 | II | LTG/LYX+F48 | Engine Control Sensors Low Reference (2) | 14 | 0.35 | BK/GN | 580 | IV | LTG/LYX+F48 |
| 15 | 0.35 | BU/WH | 1937 | II | LTG/LYX+F48 | Secondary Fuel Level Sensor Signal | 15 | 0.35 | BU/WH | 1937 | IV | LTG/LYX+F48 |
| 16 | 2.5 | BU/GN | 7071 | III | LH7 | Heater Fuel Control | 16 | 2.5 | BU/GN | 7071 | V | LH7 |

## X351 FUEL TANK HARNESS TO PARTICULATE FILTER HARNESS (LH7)




Connector Part Information

- Harness Type: Fuel Tank
- OEM Connector: 1928403222
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

-

Connector Part Information

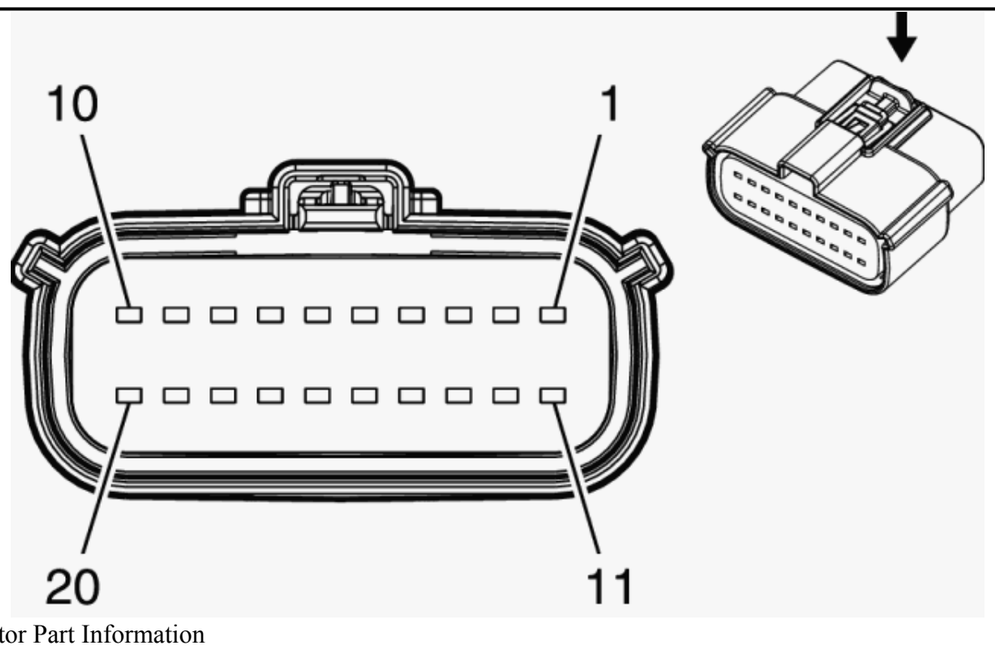
- Harness Type: Particulate Filter
- OEM Connector: 13115604
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | Not Available | No Tool Required | Not Required | Not Required | Not Required | Not Required |

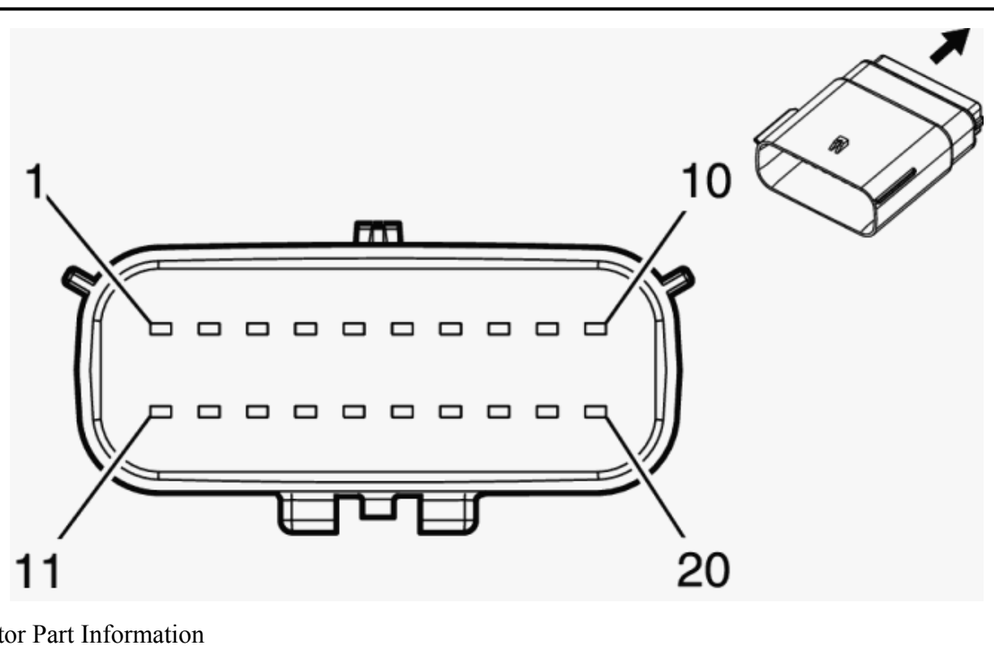
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | BK/VT | 412 | I | - | Fuel Filter Temperature Sensor Low Reference | 1 | 0.35 | BK/VT | 412 | II | - |
| 2 | 0.35 | BK/VT | 455 | I | - | Fuel Filter Temperature Signal | 2 | 0.35 | BK/VT | 455 | II | - |
| 3 | 0.35 | BU/YE | 6861 | I | - | Water In Fuel Sensor Signal | 3 | 0.35 | BU/YE | 6861 | II | - |
| 4 | 0.35 | BK/BU | 6863 | I | - | Water In Fuel Sensor Low Reference | 4 | 0.35 | BK/BU | 6863 | II | - |
| 5 | 0.35 | WH/RD | 6862 | I | - | Water In Fuel Sensor 5V Reference | 5 | 0.35 | WH/RD | 6862 | II | - |
| 6 | 2.5 | VT/GN | 355 | I | - | Fuel Filter Heater Voltage | 6 | 2.5 | VT/GN | 355 | II | - |
| 7 | 2.5 | BK | 1950 | I | - | Ground | 7 | 2.5 | BK | 1950 | II | - |

## X400 REAR FASCIA HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Rear Fascia
- OEM Connector: 13504367
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 1.5 Series, Sealed (BK)




Connector Part Information

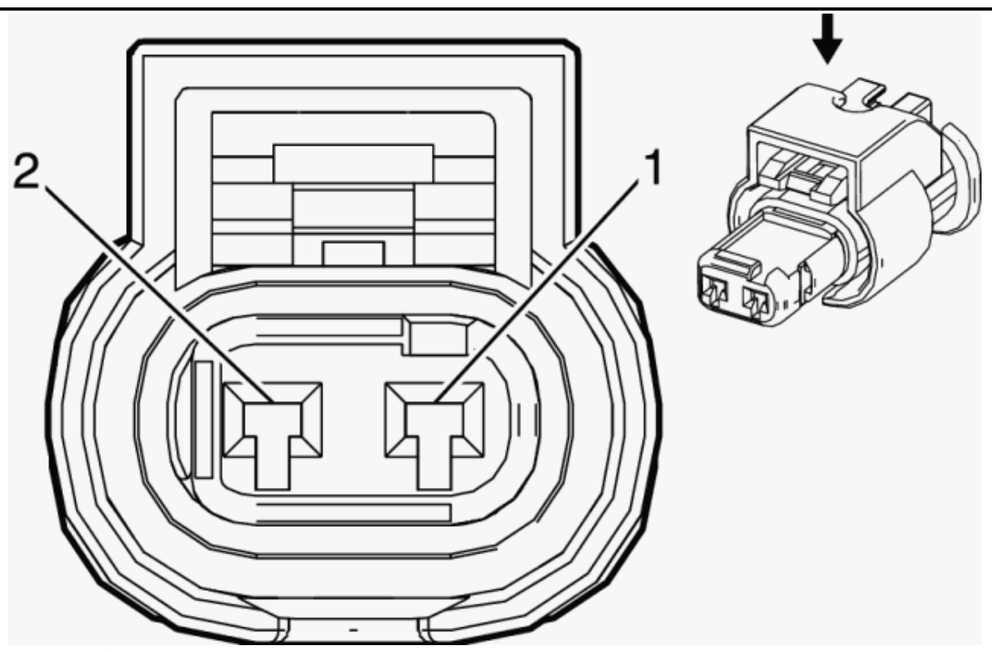
- Harness Type: Body
- OEM Connector: 13598210
- Service Connector: 19351705
- Description: 20-Way M 1.5 Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 19119395 | J-35616-3 (GY) | J-38125-217 | Not Available | Not Available | Not Available | Not Available |

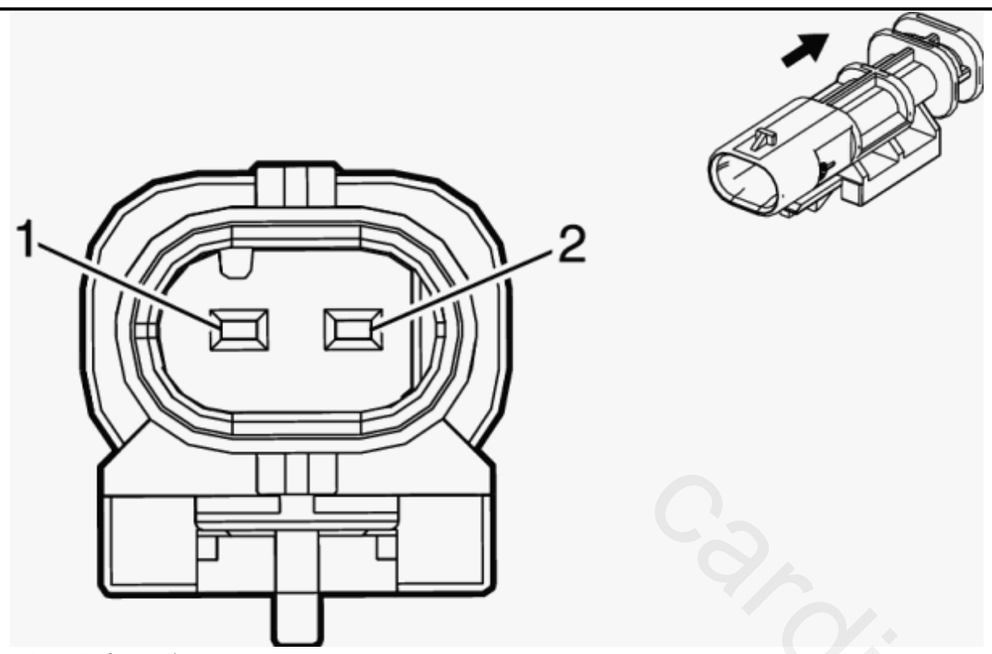
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5<br>0.75 | BK<br>BK | 2550<br>2550 | I<br>I | TC2-T79-UKC<br>UKC | Ground<br>Ground | 1 | 0.75 | BK | 2550 | II | TC2/UKC/T79 |
| 2 | 0.35 | YE | 2375 | I | UD5/UD7/UFQ | Left Rear Corner Object Sensor Signal | 2 | 0.35 | YE | 2375 | II | UD5/UD7/UFQ |
| 3 | 0.35 | GN/BN | 4118 | I | TC2 | Local Interconnect Network Serial Data Bus 18 | 3 | 0.35 | GN/BN | 4118 | II | TC2 |
| 4 | 0.35 | BN/WH | 2374 | I | - | Object Sensor Control | 4 | 0.35 | BN/WH | 2374 | II | UD5/UD7/UFQ |
| 5 | 0.35 | RD/BN | 1140 | I | UKC | Battery Positive Voltage | 5 | 0.35 | RD/BN | 1140 | II | - |
| 6 | 0.35 | YE/BU | 2376 | I | UD5/UD7/UFQ | Left Rear Middle Object Sensor Signal | 6 | 0.35 | YE/BU | 2376 | II | UD5/UD7/UFQ |
| 7 | 0.35 | YE/WH | 2377 | I | UD5/UD7/UFQ | Right Rear Middle Object Sensor Signal | 7 | 0.35 | YE/WH | 2377 | II | UD5/UD7/UFQ |
| 8 | 0.35 | YE/VT | 2378 | I | UD5/UD7/UFQ | Right Rear Corner Object Sensor Signal | 8 | 0.35 | YE/VT | 2378 | II | UD5/UD7/UFQ |
| 9 | 0.35 | BK/GY | 2379 | I | - | Object Sensor Low Reference | 9 | 0.35 | BK/GY | 2379 | II | UD5/UD7/UFQ |
| 10 - 11 | - | - | - | - | - | Not Occupied | 10 - 11 | - | - | - | - | - |
| 12 | 0.35 | GN | 5060 | I | UKC | Low Speed GMLAN Serial Data | 12 | 0.35 | GN | 5060 | II | UKC |
| 13 | 0.35 | GY | 1761 | I | UKC | Right Side Object Detection LED Control | 13 | 0.35 | GY | 1761 | II | UKC+LHD |
| 14 | 0.35 | GY/YE | 1760 | I | UKC | Left Side Object Detection LED Control | 14 | 0.35 | GY/YE | 1760 | II | UKC+LHD |
| 15 - 17 | - | - | - | - | - | Not Occupied | 15 - 17 | - | - | - | - | - |
| 18 | 0.5 | YE/GY | 122 | I | T79 | Rear Fog Lamp Control | 18 | 0.5 | YE/GY | 122 | II | T79 |
| 19 | 0.5 | RD/GN | 2440 | I | TC2 | Battery Positive Voltage | 19 | 0.35 | RD/GN | 2440 | II | TC2 |
| 20 | - | - | - | - | - | Not Occupied | 20 | - | - | - | - | - |

## X401 BODY HARNESS TO CENTER HIGH MOUNT STOP LAMP HARNESS




Connector Part Information

- Harness Type: Body
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F




Connector Part Information

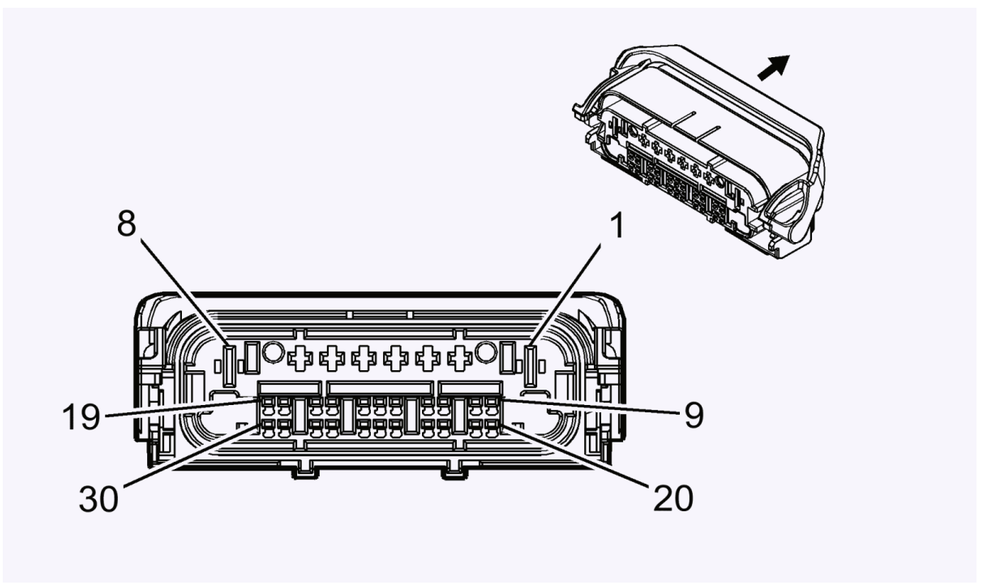
- Harness Type: Center High Mount Stop Lamp
- OEM Connector: 13591337
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

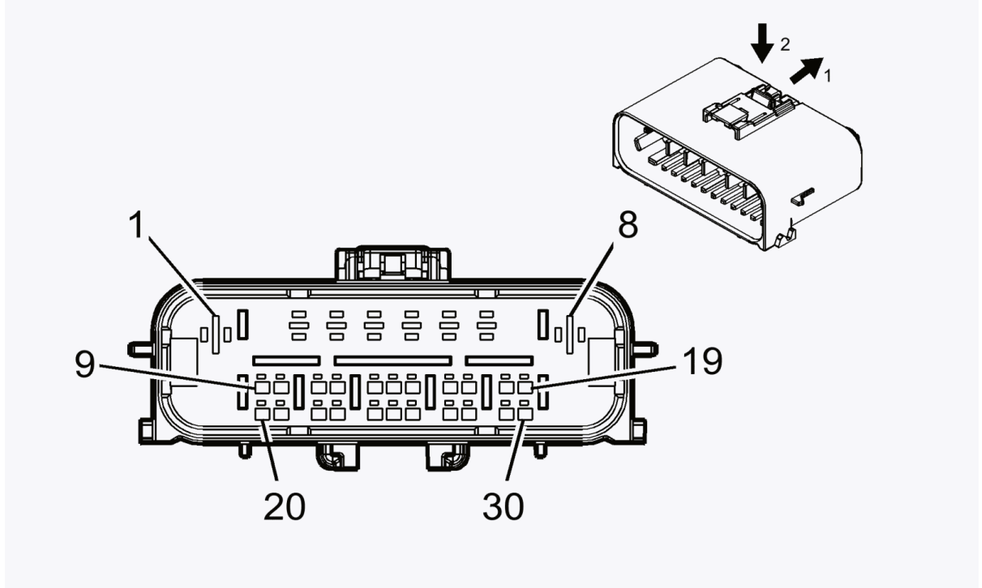
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | I | EPH | Ground | 1 | 0.35 | BK | 2550 | II | EPH |
| 2 | 0.35 | VT/WH | 5065 | I | EPH | Stop Lamp Relay Coil Control | 2 | 0.35 | VT/WH | 5065 | II | EPH |

## X402 BODY HARNESS TO AXLE HARNESS




Connector Part Information

- Harness Type: Body
- OEM Connector: 13598277
- Service Connector: 19355456
- Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series (BK)




Connector Part Information

- Harness Type: Rear Axle
- OEM Connector: 13515618
- Service Connector: Service by Harness - See Part Catalog
- Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series (BK)

**Terminal Part Information**

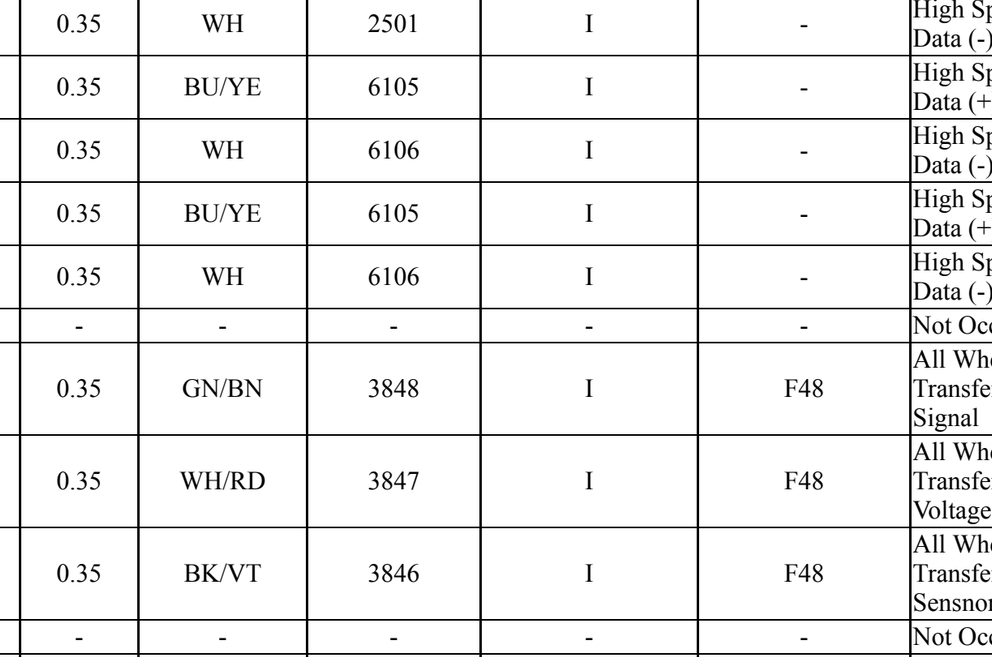
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13582289 | J-35616-16 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| II | 19119592 | J-35616-4A (PU) | J-38125-557 | Not Available | Not Available | Not Available | Not Available |
| III | 19301757 | J-35616-40 (BU) | J-38125-556 | 1241408-1 | Lear 28 | A | B |
| IV | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | Not Required | J-35616-43 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| VI | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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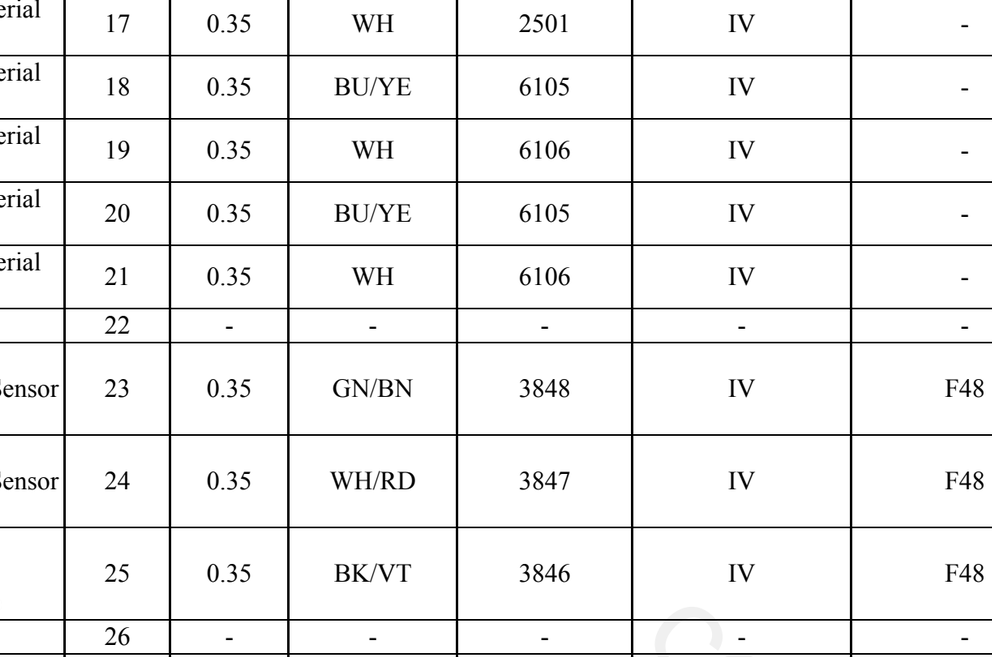
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | BN/GN | 3945 | III | F48 | All Wheel Drive Power Transfer Motor Control B | 1 | 3 | BN/GN | 3945 | V | F48 |
| 2 | 2.5 | GY | 4368 | II | - | Park Brake Motor Low Reference Right Rear | 2 | 2.5 | GY | 4368 | VI | - |
| 3 | 2.5 | BK | 2550 | II | F48 | Ground | 3 | 2.5 | BK | 2550 | VI | F48 |
| 4 | 2.5 | RD/VT | 1640 | II | - | Battery Positive Voltage | 4 | 2.5 | RD/VT | 1640 | VI | - |
| 5 | 2.5 | WH | 2001 | II | - | Park Brake Motor Apply Left Rear Control | 5 | 2.5 | WH | 2001 | VI | - |
| 6 | 2.5 | GY/BK | 4369 | II | - | Park Brake Motor Low Reference Left Rear | 6 | 2.5 | GY/BK | 4369 | VI | - |
| 7 | 2.5 | GN/VT | 1988 | III | - | Park Brake Motor Apply Right Rear Control | 7 | 2.5 | GN/VT | 1988 | VI | - |
| 8 | 2.5 | VT/BN | 3944 | III | - | All Wheel Drive Power Transfer Motor Control A | 8 | 3 | VT/BN | 3944 | V | - |
| 9 | - | - | - | - | - | Not Occupied | 9 | - | - | - | - | - |
| 10 | 0.35 | GY/GN | 1561 | I | F48 | AWD Indicator Control | 10 | 0.35 | GY/GN | 1561 | IV | F48 |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.35 | GY/YE | 7128 | I | - | Wheel Speed Sensor Control Right Rear | 12 | 0.35 | GY/YE | 7128 | IV | - |
| 13 | 0.35 | VT | 882 | I | - | Wheel Speed Sensor Signal Right Rear | 13 | 0.35 | VT | 882 | IV | - |
| 14 | - | - | - | - | - | Not Occupied | 14 | - | - | - | - | - |
| 15 | 0.35 | WH/BU | 5986 | I | F48 | Serial Data Communication Enable | 15 | 0.35 | WH/BU | 5986 | IV | F48 |
| 16 | 0.35 | BU | 2500 | I | - | High Speed GMLAN Serial Data (+) 1 | 16 | 0.35 | BU | 2500 | IV | - |
| 17 | 0.35 | WH | 2501 | I | - | High Speed GMLAN Serial Data (-) 1 | 17 | 0.35 | WH | 2501 | IV | - |
| 18 | 0.35 | BU/YE | 6105 | I | - | High Speed GMLAN Serial Data (+) 2 | 18 | 0.35 | BU/YE | 6105 | IV | - |
| 19 | 0.35 | WH | 6106 | I | - | High Speed GMLAN Serial Data (-) 2 | 19 | 0.35 | WH | 6106 | IV | - |
| 20 | 0.35 | BU/YE | 6105 | I | - | High Speed GMLAN Serial Data (+) 2 | 20 | 0.35 | BU/YE | 6105 | IV | - |
| 21 | 0.35 | WH | 6106 | I | - | High Speed GMLAN Serial Data (-) 2 | 21 | 0.35 | WH | 6106 | IV | - |
| 22 | - | - | - | - | - | Not Occupied | 22 | - | - | - | - | - |
| 23 | 0.35 | GN/BN | 3848 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensor Signal | 23 | 0.35 | GN/BN | 3848 | IV | F48 |
| 24 | 0.35 | WH/RD | 3847 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensor Voltage Reference | 24 | 0.35 | WH/RD | 3847 | IV | F48 |
| 25 | 0.35 | BK/VT | 3846 | I | F48 | All Wheel Drive Power Transfer Unit Position Sensnor Low Reference | 25 | 0.35 | BK/VT | 3846 | IV | F48 |
| 26 | - | - | - | - | - | Not Occupied | 26 | - | - | - | - | - |
| 27 | 0.35 | RD/VT | 1940 | I | F48 | Battery Positive Voltage | 27 | 0.35 | RD/VT | 1940 | IV | - |
| 28 | 0.35 | GY/BK | 7127 | I | - | Wheel Speed Sensor Control Left Rear | 28 | 0.35 | GY/BK | 7127 | IV | - |
| 29 | 0.35 | BU | 884 | I | - | Wheel Speed Sensor Signal Left Rear | 29 | 0.35 | BU | 884 | IV | - |
| 30 | - | - | - | - | - | Not Occupied | 30 | - | - | - | - | - |

## X403 HEADLINER HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 13517413
- Service Connector: 13517413
- Description: 16-Way F 1.2 Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13597330
- Service Connector: 13597330
- Description: 16-Way M 1.2 Series (BK)

**Terminal Part Information**

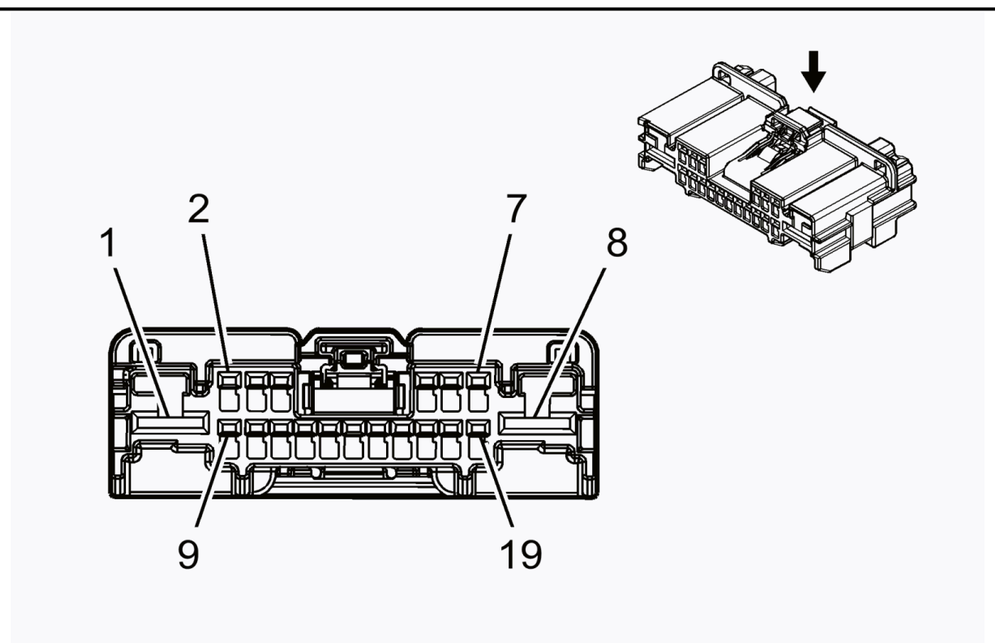
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 19352420 | J-35616-16 (LT GN) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| II | 19367551 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| III | 13582297 | J-35616-17 (LT GN) | J-38125-22 | Not Available | Not Available | Not Available | Not Available |
| IV | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | GN/BK | 3008 | II | NKC-CF5 | Noise Reduction Microphone 1 Low Reference | 1 | 0.35 | GN/BK | 3008 | IV | - |
| 2 | 0.35 | GN/BN | 3005 | II | NKC-CF5 | Noise Reduction Microphone 1 Signal | 2 | 0.35 | GN/BN | 3005 | IV | - |
| 3 | 0.35 | BU/BK | 3009 | II | NKC-CF5 | Noise Reduction Microphone 2 Low Reference | 3 | 0.35 | BU/BK | 3009 | IV | - |
| 4 | 0.35 | BU/YE | 3006 | II | NKC-CF5 | Noise Reduction Microphone 2 Signal | 4 | 0.35 | BU/YE | 3006 | III | - |
| 5 | 0.35 | GY/BN | 3010 | II | NKC-CF5 | Noise Reduction Microphone 3 Low Reference | 5 | 0.35 | GY/BN | 3010 | IV | - |
| 6 | 0.35 | GY/BU | 3007 | II | NKC-CF5 | Noise Reduction Microphone 3 Signal | 6 | 0.35 | GY/BU | 3007 | IV | - |

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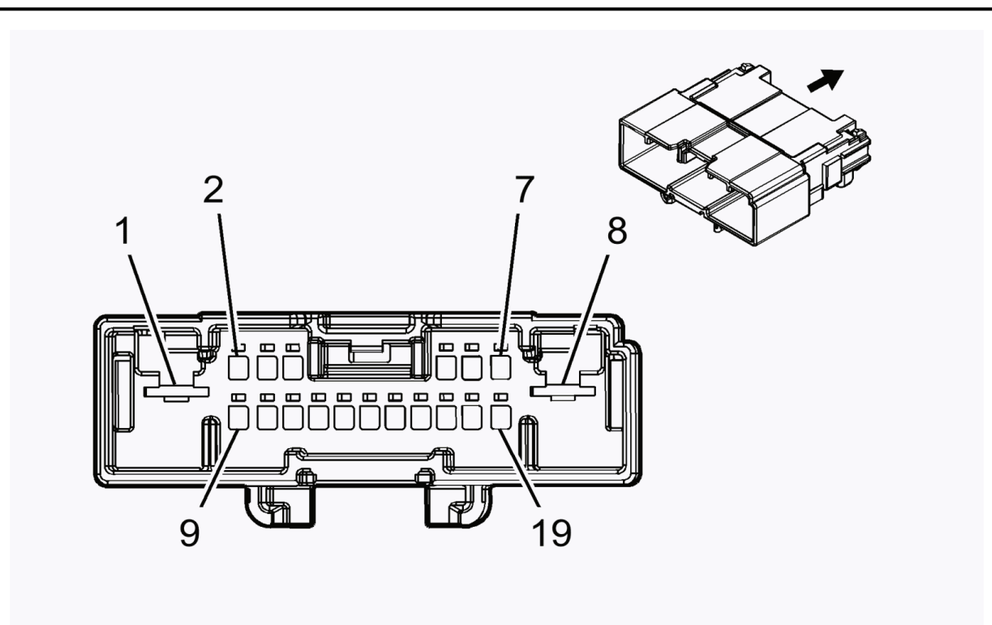
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 0.35 | WH/GN | 1776 | II | NKC-CF5 | Noise Reduction Microphone #4 Return | 7 | 0.35 | WH/GN | 1776 | IV | - |
| 8 | 0.35 | VT/BU | 1775 | II | NKC-CF5 | Noise Reduction Microphone #4 Signal | 8 | 0.35 | VT/BU | 1775 | IV | - |
| 9 | 0.13 | GN | 2308 | I | AL0/C99 | Passenger Air Bag Off Indicator Control | 9 | 0.13 | GN | 2308 | V | AL0/C99 |
| 10 | 0.35 | GN/BK | 2515 | II | UE1/UE3 | Keypad Control | 10 | 0.13 | GN/BK | 2515 | IV | UE1/UE3 |
| 11 | 0.35 | GN/WH | 2514 | II | UE1/UE3 | Keypad Signal | 11 | 0.13 | GN/WH | 2514 | IV | UE1/UE3 |
| 12 | 0.35 | YE/VT | 2516 | II | UE1/UE3 | Keypad Green LED Control | 12 | 0.13 | YE/VT | 2516 | V | UE1/UE3 |
| 13 | 0.35 | BN/WH | 2517 | II | UE1/UE3 | Keypad Red LED Control | 13 | 0.13 | BN/WH | 2517 | V | UE1/UE3 |
| 14 | 0.35 | WH/YE | 7557 | II | - | LED Ambient Lighting Control 1 | 14 | 0.35 | WH/YE | 7557 | IV | - |
| 15 | 0.13 | BU | 2307 | I | AL0/C99 | Passenger Air Bag On Indicator Control | 15 | 0.13 | BU | 2307 | V | AL0/C99 |
| 16 | 0.13 | VT/WH | 5234 | I | AL0/UHH/UHG | Passenger Seat Belt Indicator Control | 16 | 0.13 | VT/WH | 5234 | IV | AL0/UHH/UHG |

## X404 HEADLINER HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Headliner
- OEM Connector: 6098-8089
- Service Connector: 13597287
- Description: 19-Way F 1.2, 6.3 Series (GY)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13597289
- Service Connector: 13597289
- Description: 19-Way M 1.2, 6.3 Series (GY)

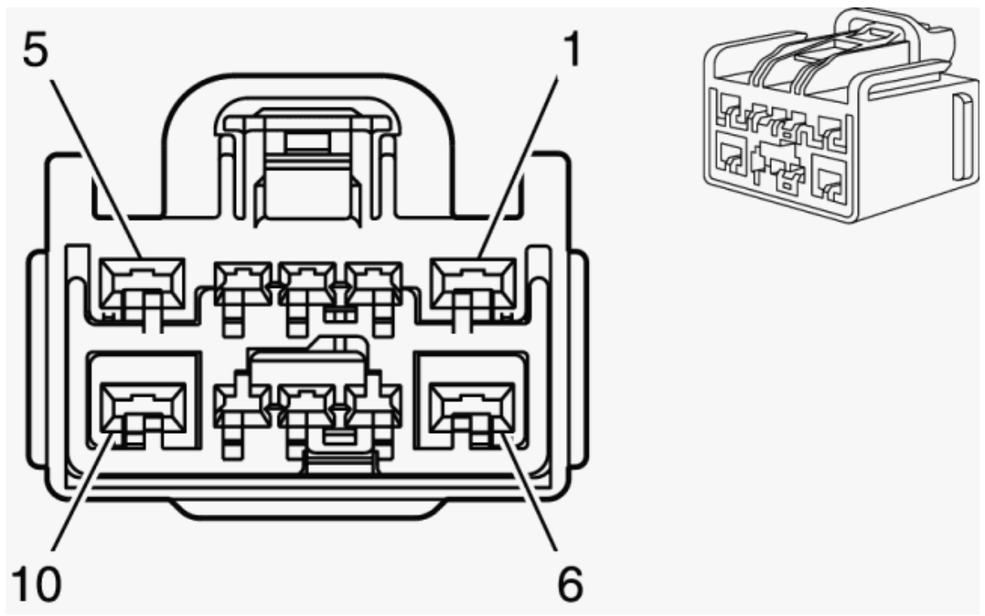
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575833 | J-35616-42 (RD) | J-38125-11A | 7116-4120-02 | Yazaki 9 | E | B |
| II | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| III | 13575825 | J-35616-43 (RD) | J-38125-11A | 7114-4120-02 | Yazaki 9 | E | A |
| IV | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2050 | I | - | Ground | 1 | 0.75 | BK | 2050 | III | - |
| 2 | 0.35 | BU/GY | 3032 | II | C3U | Front Sunshade Switch Signal | 2 | 0.35 | BU/GY | 3032 | IV | C3U |
| 3 | 0.35 | BU/VT | 5027 | II | C3U | Sunroof Switch Data 1 Signal | 3 | 0.35 | BU/VT | 5027 | IV | C3U |
| 4 | 0.35 | BK/GY | 128 | II | C3U | Sunroof Switch Low Reference | 4 | 0.35 | BK/GY | 128 | IV | C3U |
| 5 | 0.13 | WH | 6816 | II | - | Indicator Dimming Control | 5 | 0.35 | WH | 6816 | IV | - |
| 6 | 0.5 | GY | 157 | II | - | Interior Lamp Control | 6 | 0.5 | GY | 157 | V | - |
| 7 | 0.35 | BU/GY | 4672 | II | - | Dome Lamp Off Indicator Control | 7 | 0.35 | BU/GY | 4672 | IV | - |
| 8 | - | - | - | - | - | Not Occupied | 8 | - | - | - | - | - |
| 9 | 0.35 | BK/BU | 5307 | II | C3U | Front Sunshade Switch Low Reference | 9 | 0.35 | BK/BU | 5307 | IV | C3U |
| 10 | 0.35 | RD/BU | 2540 | II | - | Battery Positive Voltage | 10 | 0.35 | RD/BU | 2540 | IV | - |
| 11 | 0.35 | BU | 655 | II | - | Cellular Telephone Microphone Signal | 11 | 0.35 | BU | 655 | IV | - |
| 12 | 0.35 | BK/BN | 654 | II | - | Cellular Telephone Microphone Low Reference | 12 | 0.35 | BK/BN | 654 | IV | - |
| 13 | 0.5 | WH/BN | 6815 | II | - | Inadvertent Power Control | 13 | 0.5 | WH/BN | 6815 | V | - |
| 14 | 0.13 | GY/GN | 328 | II | - | Interior Lamp Defeat Switch Signal | 14 | 0.13 | GY/GN | 328 | IV | - |
| 15 | 0.13 | GY | 156 | II | - | Courtesy Lamp Switch Signal | 15 | 0.13 | GY | 156 | IV | - |
| 16 | 0.35 | YE | 6817 | II | - | LED Backlight Dimming Control | 16 | 0.35 | YE | 6817 | IV | - |
| 17 | 0.35 | GN/GY | 737 | II | - | Rear Compartment Lid Lamp Control | 17 | 0.35 | GN/GY | 737 | IV | - |
| 18 | 0.35 | VT/YE | 7043 | II | IOS/IOT/IOU | Microphone (+) Signal | 18 | 0.35 | VT/YE | 7043 | IV | IOS/IOT/IOU |
| 19 | 0.35 | BU/BK | 7044 | II | IOS/IOT/IOU | Microphone (-) Low Reference | 19 | 0.35 | BU/BK | 7044 | IV | IOS/IOT/IOU |

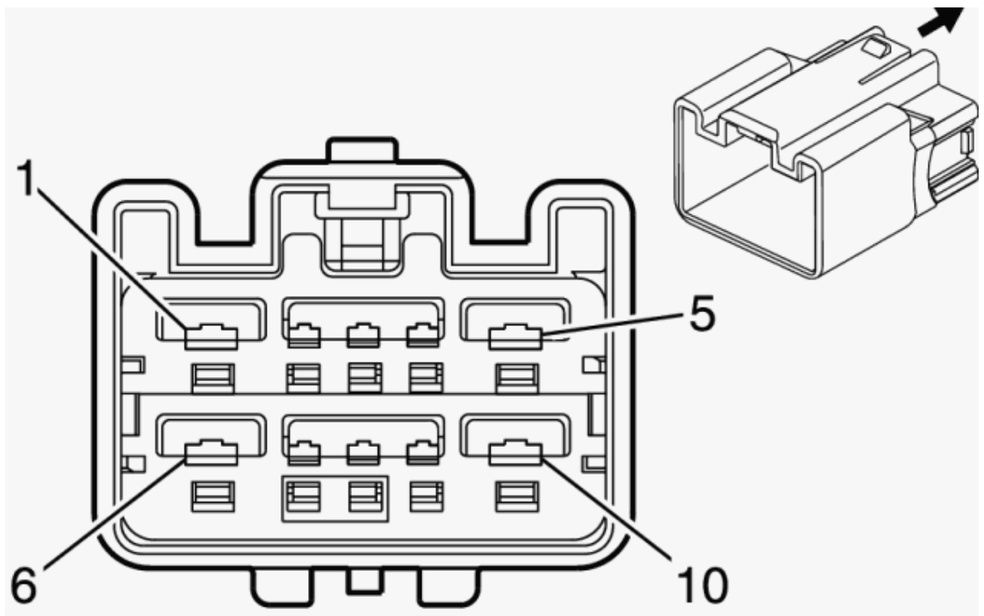
## X405 SUNROOF HARNESS TO BODY HARNESS (C3U)

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Connector Part Information

- Harness Type: Sunroof
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 19167677




Connector Part Information

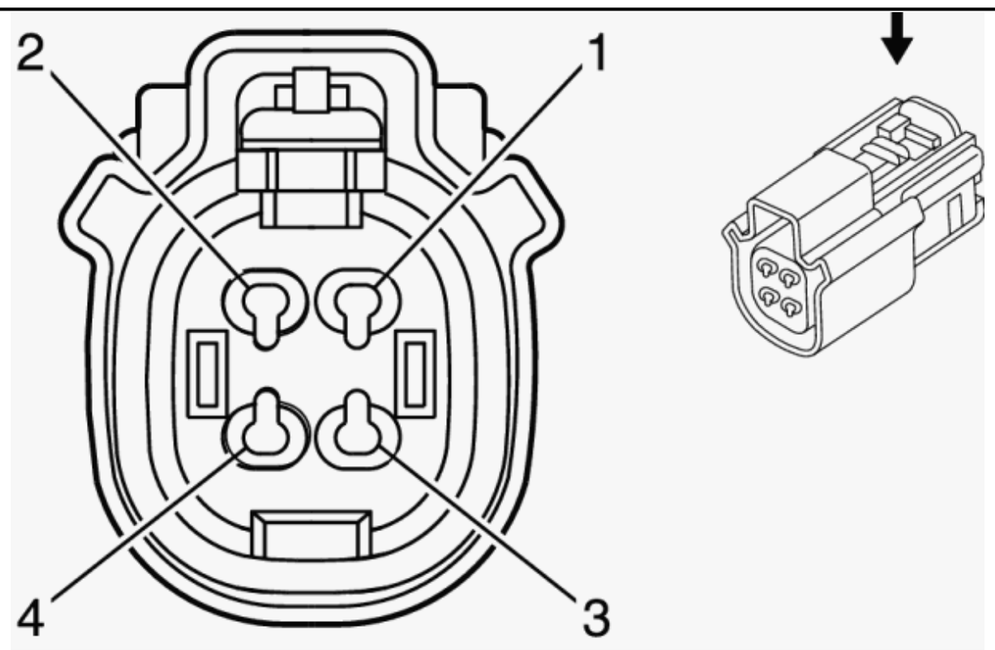
- Harness Type: Body
- OEM Connector: 89047070
- Service Connector: 89047070
- Description: 10-Way M YESC Kaizen Series (L-GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | 13575818 | J-35616-3 (GY) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| III | 13578908 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | C | D |

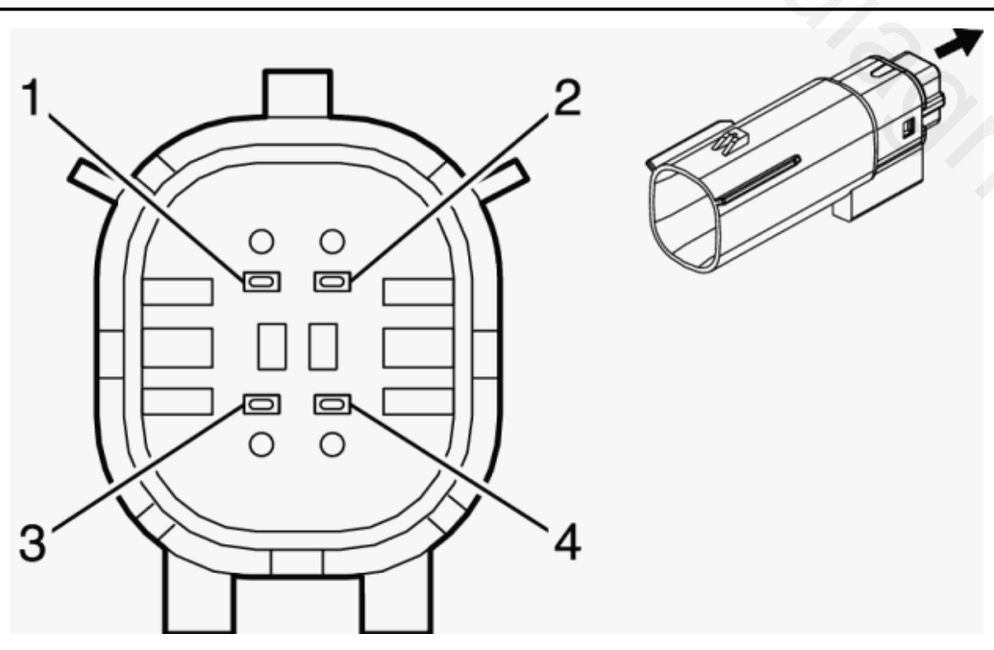
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | RD/WH | 540 | I | C3U | Battery Positive Voltage | 1 | 2 | RD/BU | 540 | III | C3U |
| 2 | - | - | - | - | - | Not Occupied | 2 | - | - | - | - | - |
| 3 | 0.35 | PK | 5027 | I | C3U | Sunroof Switch Data 1 Signal | 3 | 0.35 | BU/VT | 5027 | II | - |
| 4 | 0.35 | BU/GY | 3032 | I | C3U | Front Sunshade Switch Signal | 4 | 0.35 | BU/GY | 3032 | II | C3U |
| 5 | 2.5 | BK | 1550 | I | C3U | Ground | 5 | 2.5 | BK | 1550 | III | C3U |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |
| 7 | 0.35 | BN | 6132 | I | - | Local Interconnect Network Serial Data Bus 1 | 7 | 0.35 | GN/BN | 6132 | II | - |
| 8 | 0.35 | VT/WH | 128 | I | C3U | Sunroof Switch Low Reference | 8 | 0.35 | BK/GY | 128 | II | C3U |
| 9 | 0.35 | VT/WH | 128 | I | C3U | Sunroof Switch Low Reference | 9 | 0.35 | BK/BU | 5307 | II | C3U |
| 10 | - | - | - | - | - | Not Occupied | 10 | - | - | - | - | - |

## X410 TAIL LAMP HARNESS TO TAIL LAMP HARNESS (Z88-V9V)




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-4051
- Service Connector: 19355453
- Description: 4-Way F 150 MX Series, Sealed (BK)




Connector Part Information

- Harness Type: Tail Lamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M

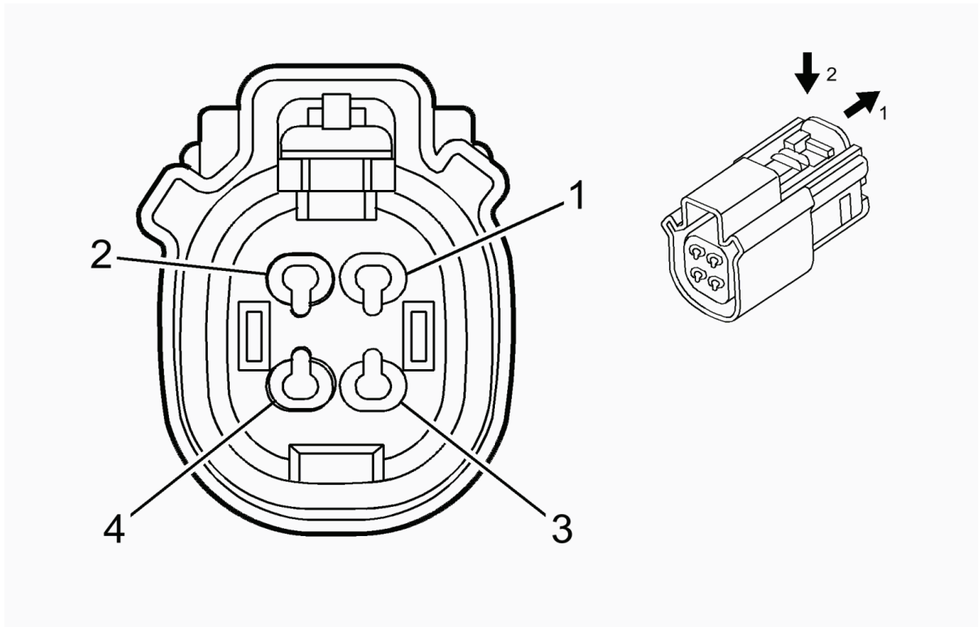
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 2550 | I | - | Ground | 1 | 0.75 | BK | 2550 | II | - |
| 2 | 0.5 | WH/YE | 1204 | I | - | Left Park Lamp Control | 2 | 0.5 | WH/YE | 1204 | II | - |
| 3 | 0.5 | GY/YE | 7542 | I | - | Left Rear Stop Lamp Control | 3 | 0.5 | GY/YE | 7542 | II | - |
| 4 | - | - | - | - | - | Not Occupied | 4 | - | - | - | - | - |

## X410 TAIL LAMP HARNESS TO TAIL LAMP HARNESS (Z88+V9V)

-




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-4055
- Service Connector: 19368970
- Description: 4-Way F 150 MX Series, Sealed (GY)

Connector Part Information

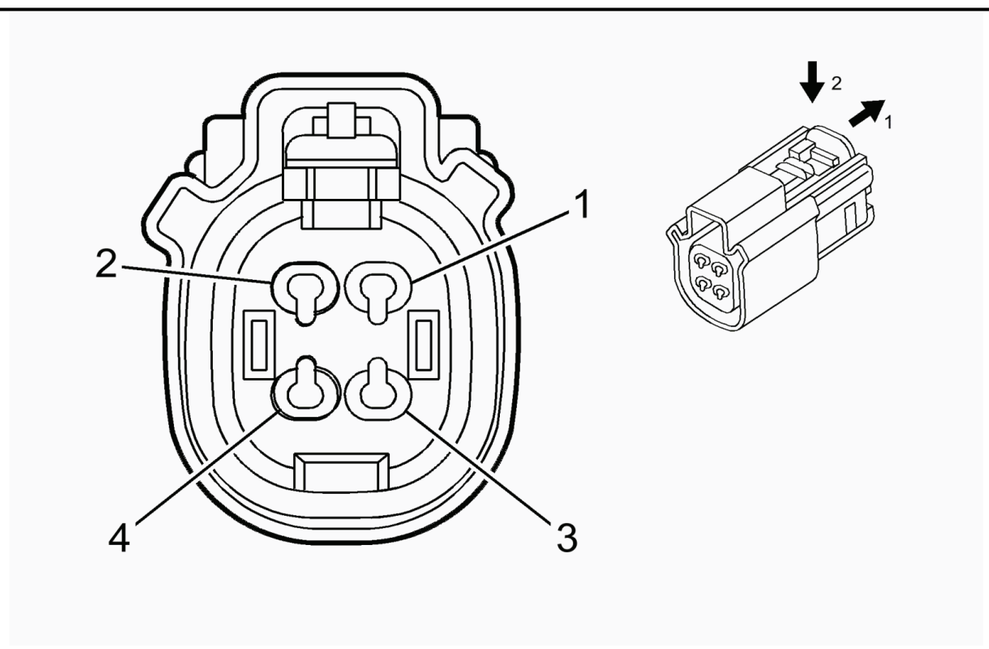
- Harness Type: Tail Lamp
- OEM Connector: X410
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.5 | WH/YE | 1204 | I | V9V | Left Park Lamp Control | 2 | 0.5 | WH/YE | 1204 | II | V9V |
| 3 | 0.5 | GY/YE | 7542 | I | V9V | Left Rear Stop Lamp Control | 3 | 0.5 | GY/YE | 7542 | II | V9V |
| 4 | 0.75 | BK | 2550 | I | V9V | Ground | 4 | 0.75 | BK | 2550 | II | V9V |

## X420 TAIL LAMP HARNESS TO TAIL LAMP HARNESS (Z88+V9V)




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-4055
- Service Connector: 19368970
- Description: 4-Way F 150 MX Series, Sealed (GY)

Connector Part Information

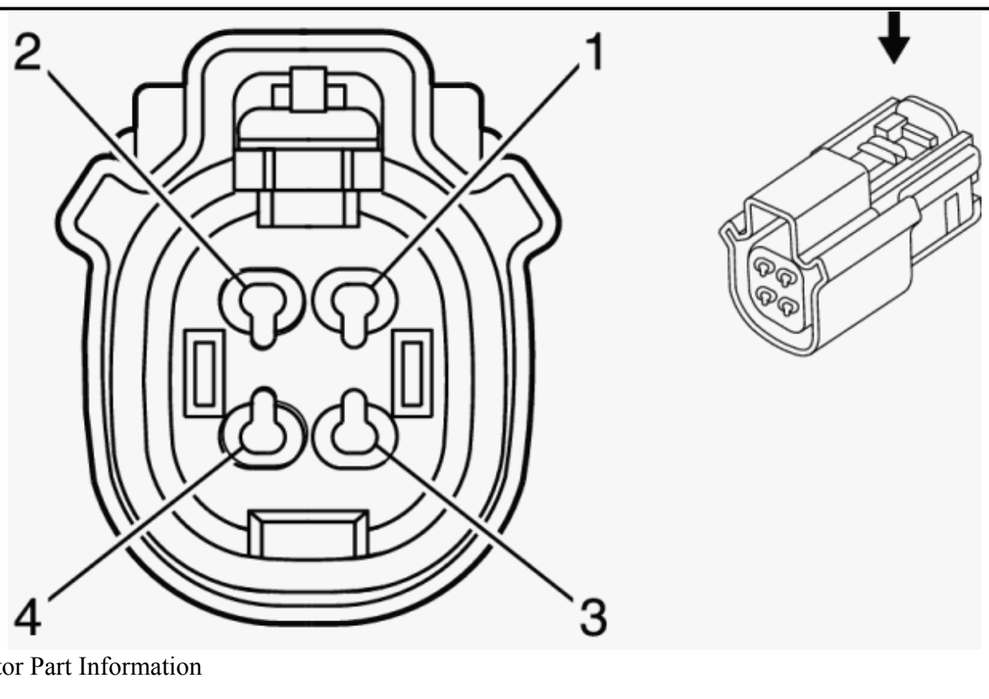
- Harness Type: Tail Lamp
- OEM Connector: X420
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M

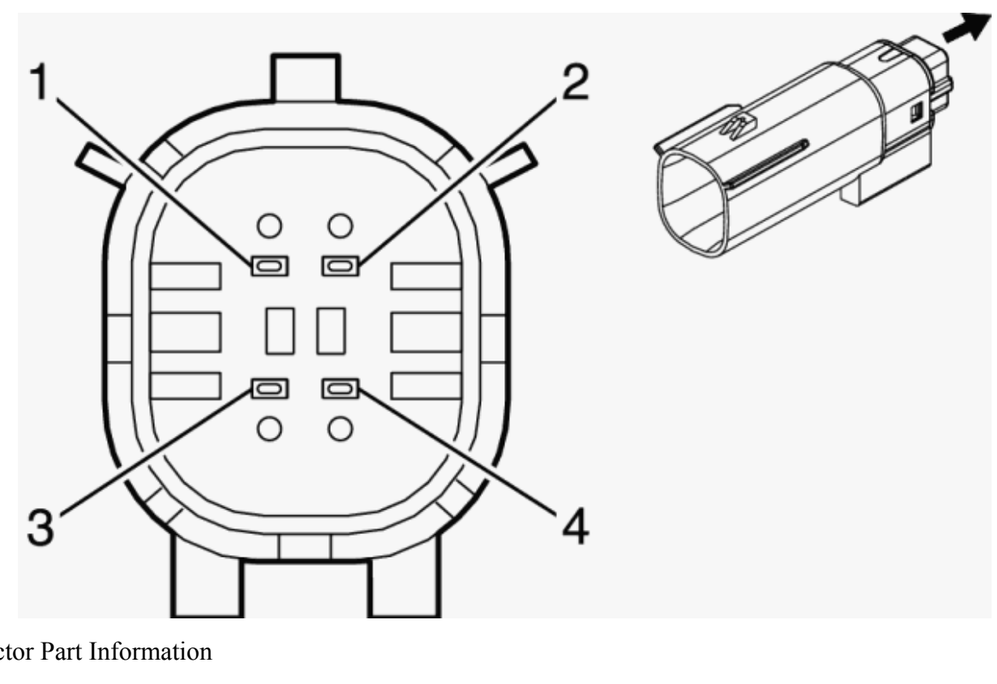
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.5 | VT | 1203 | I | V9V | Right Park Lamp Control | 2 | 0.5 | VT | 1203 | II | V9V |
| 3 | 0.5 | WH/YE | 7541 | I | V9V | Right Rear Stop Lamp Control | 3 | 0.5 | WH/YE | 7541 | II | V9V |
| 4 | 0.75 | BK | 1950 | I | V9V | Ground | 4 | 0.75 | BK | 1950 | II | V9V |

## X420 TAIL LAMP HARNESS TO TAIL LAMP HARNESS (Z88-V9V)




Connector Part Information

- Harness Type: Body
- OEM Connector: 33472-0451
- Service Connector: 19355453

Connector Part Information

- Harness Type: Tail Lamp
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog

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- Description: 4-Way F 150 MX Series, Sealed (BK)
- Description: 4-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-2A (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-3 (GY) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.75 | BK | 1950 | I | - | Ground | 1 | 0.75 | BK | 1950 | II | - |
| 2 | 0.5 | VT | 1203 | I | - | Right Park Lamp Control | 2 | 0.5 | VT | 1203 | II | - |
| 3 | 0.5 | WH/YE | 7541 | I | - | Right Rear Stop Lamp Control | 3 | 0.5 | WH/YE | 7541 | II | - |
| 4 | - | - | - | - | - | Not Occupied | 4 | - | - | - | - | - |

Article GUID: A00932108

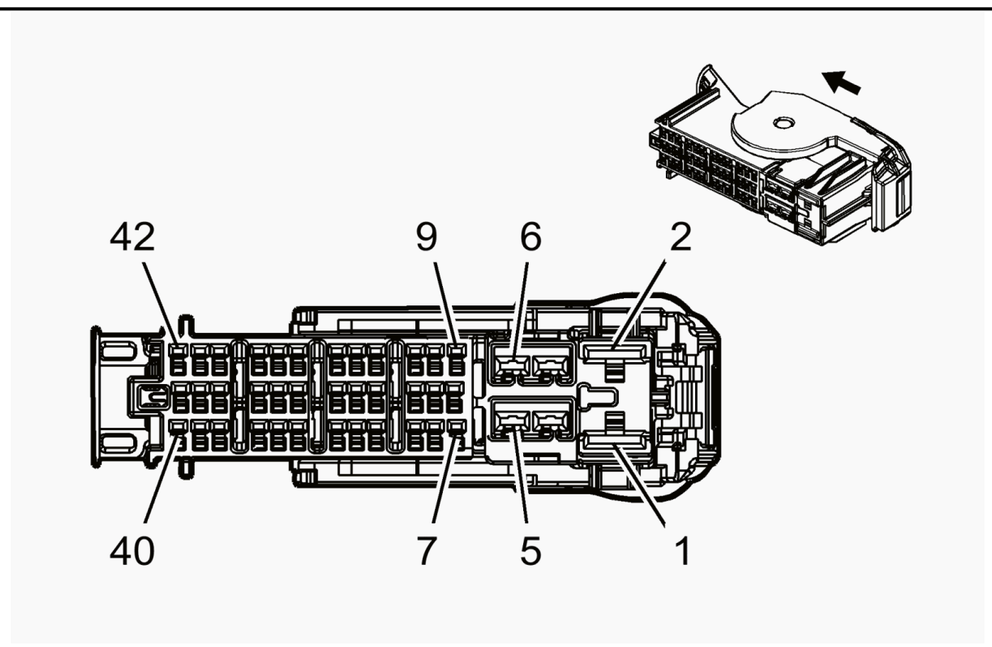
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Wiring Systems And Power Management - Component Locator - Inline Harness Connector End Views (X500 - X903) - Equinox & Terrain

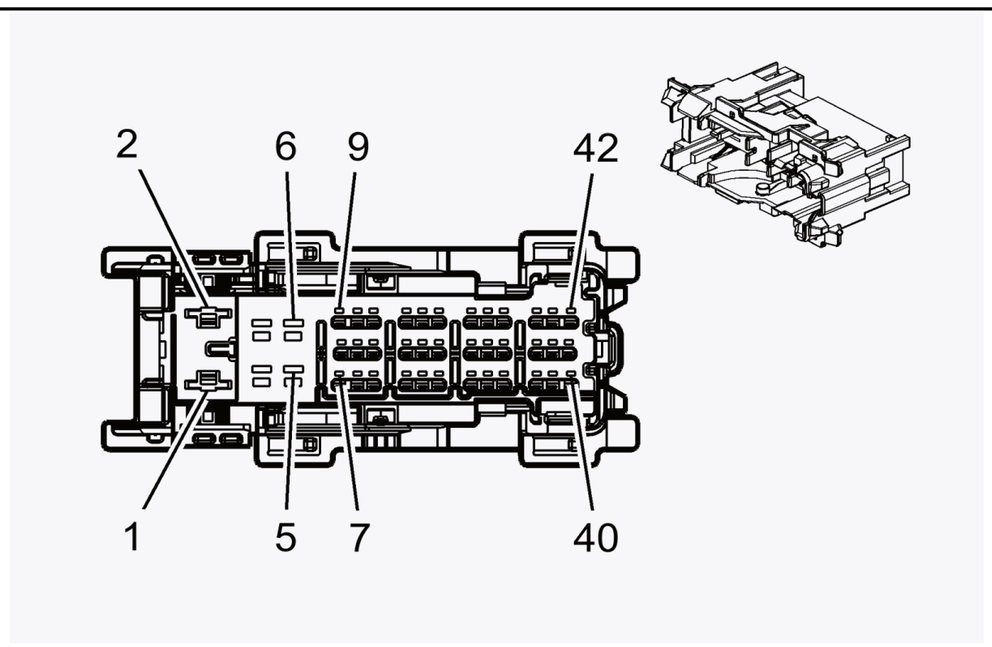
# INLINE HARNESS CONNECTOR END VIEWS

## X500 DRIVER DOOR HARNESS TO BODY HARNESS (Z88+AXG)




Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 6098-8187
- Service Connector: Service by Harness - See Part Catalog
- Description: 42-Way F 1.2 MCON, 2.8, 6.3 YESC Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 13519773
- Service Connector: 13519773
- Description: 42-Way M 1.2 MCON, 2.8, 6.3 YESC Series (BK)

**Terminal Part Information**

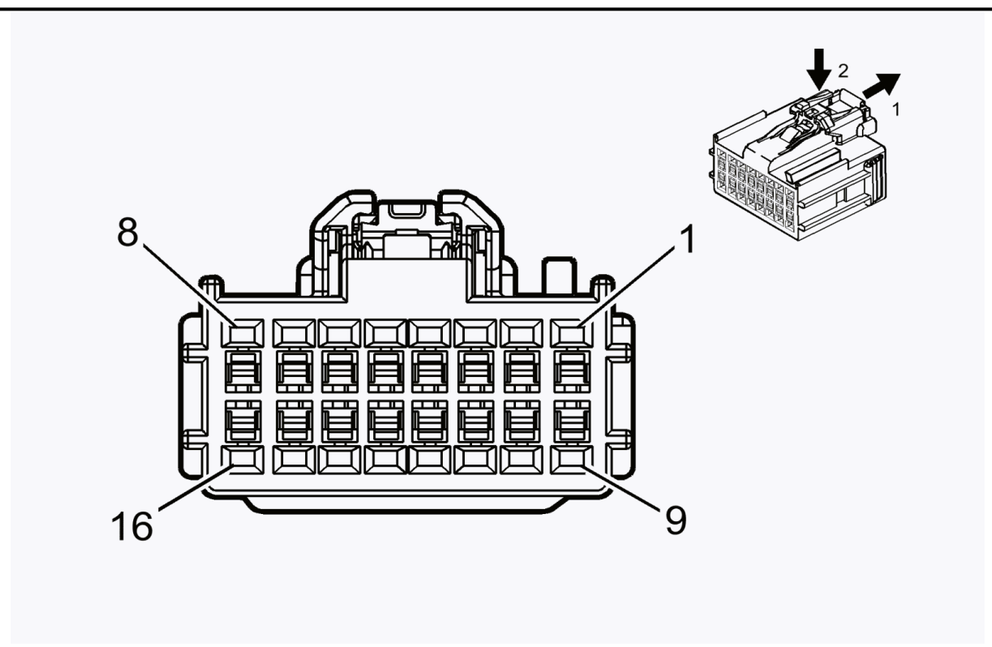
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| V | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4111-02 | Yazaki 9 | C | A |
| VI | 13575824 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VII | 13578908 | J-35616-5 (PU) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VIII | 13580023 | J-35616-43 (RD) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| IX | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| X | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/BN | 3640 | III | AXG | Battery Positive Voltage | 1 | 2.5 | RD/BN | 3640 | VIII | - |
| 2 | 2.5 | BK | 1550 | III | - | Ground | 2 | 2.5 | BK | 2550 | VIII | - |
| 3 | 1.5<br>0.75 | BU<br>BU | 201<br>201 | II<br>II | UQA<br>UZ6 | Left Front Speaker Control (+) 1<br>Left Front Speaker Control (+) 1 | 3 | 1.5<br>0.75 | BU<br>BU | 201<br>201 | VI<br>VI | UQA+IOS/IOT/IOU<br>UZ6 |
| 4 | 1.5<br>0.75 | BN/BU<br>BN/BU | 118<br>118 | II<br>IV | UQA<br>UZ6 | Left Front Speaker Signal (-) 1<br>Left Front Speaker Signal (-) 1 | 4 | 1.5<br>0.75 | BN/BU<br>BN/BU | 118<br>118 | VII<br>VI | UQA+IOS/IOT/IOU<br>UZ6 |
| 5 | 0.75 | BU/WH | 195 | II | - | Door Lock Control | 5 | 1 | BU/WH | 195 | V | - |
| 6 | 0.75 | BN/YE | 294 | II | - | Door Lock Actuator Unlock Control | 6 | 0.75 | BN/YE | 294 | VI | - |
| 7 | 0.35 | GY/YE | 1760 | I | UKC | Left Side Object Detection LED Control | 7 | 0.35 | GY/YE | 1760 | IX | UKC |
| 8 | 0.35 | WH | 3398 | I | - | Passenger Mirror Motor Common Control | 8 | 0.35 | WH | 3398 | IX | - |
| 9 | 0.35 | YE/VT | 3397 | I | - | Passenger Mirror Motor Up (+) Down (-) Control | 9 | 0.35 | YE/VT | 3397 | IX | - |
| 10 | 0.35 | GN/BK | 3396 | I | - | Passenger Mirror Motor Right (+) Left (-) Control | 10 | 0.35 | GN/BK | 3396 | IX | - |
| 11 - 12 | - | - | - | - | - | Not Occupied | 11 - 12 | - | - | - | - | - |
| 13 | 0.35 | BN/YE | 2267 | I | - | Mirror Heating Element Control | 13 | 0.35 | BN/YE | 2267 | IX | - |
| 14 | - | - | - | - | - | Not Occupied | 14 | - | - | - | - | - |
| 15 | 0.35 | RD/BN | 1440 | I | - | Battery Positive Voltage | 15 | 0.35 | RD/BN | 1440 | IX | - |
| 16 | 0.35 | BU/GN | 614 | I | A45/A74 | Memory Seat Switch Set Signal | 16 | 0.35 | BU/GN | 614 | IX | A45/A74 |
| 17 | 0.35 | VT | 3560 | I | - | Passive Entry Driver Door Antenna Signal Hi | 17 | 0.35 | VT | 3560 | IX | - |
| 18 | 0.35 | VT/GY | 3561 | I | - | Passive Entry Driver Door Antenna Signal Lo | 18 | 0.35 | VT/GY | 3561 | IX | - |
| 19 | 0.35 | BK | 1550 | I | A45/A74 | Ground | 19 | 0.35 | BK | 1550 | IX | A45/A74 |
| 20 | 0.35 | YE/WH | 1690 | I | DD8+DWL | Automatic Day/Night Mirror Signal | 20 | 0.35 | YE/WH | 1690 | IX | - |
| 21 | 0.35 | GN/YE | 6134 | I | AXG | Local Interconnect Network Serial Data Bus 3 | 21 | 0.35 | GN/YE | 6134 | IX | - |
| 22 | 0.35 | BK/GN | 4664 | I | UVH | Left Side Camera Return | 22 | 0.35 | BK/GN | 4664 | IX | UVH |
| 23 | 0.35 | WH/YE | 3574 | I | - | Driver Door Open Switch Signal | 23 | 0.35 | WH/YE | 3574 | IX | - |
| 24 | 0.35 | OG/GN | 2132 | I | AJG/AY0 | Left Front Side Impact Sensing Module Signal | 24 | 0.35 | OG/GN | 2132 | IX | AJG/AY0 |
| 25 | 0.35 | BK/OG | 6628 | I | AJG/AY0 | Left Front Side Impact Sensing Module Low Reference | 25 | 0.35 | BK/OG | 6628 | IX | AJG/AY0 |
| 26 | 0.35 | YE | 6817 | I | - | LED Backlight Dimming Control | 26 | 0.35 | YE | 6817 | IX | - |
| 27 | 0.35 | GN | 6112 | I | TB5/TC2 | Power Lift Gate On/Off Switch Signal | 27 | 0.35 | GN | 6112 | IX | TB5/TC2 |

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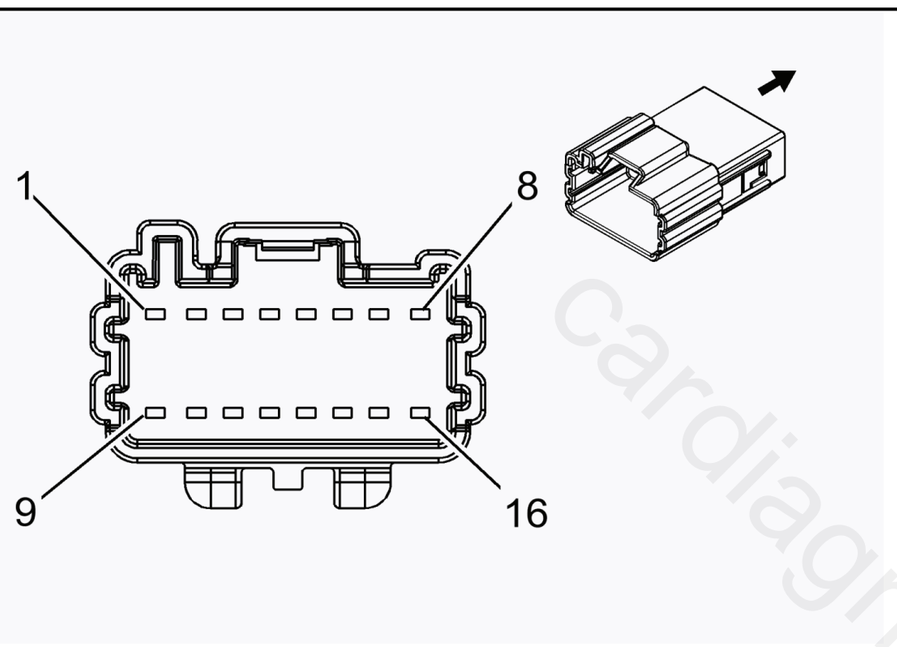
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 0.35 | BN/YE | 780 | I | - | Driver Door Lock Switch Lock Signal | 28 | 0.35 | BN/YE | 780 | IX | - |
| 29 | 0.35 | BARE | 2624 | I | UVH | Left Side Vision Camera Video Drain Wire | 29 | 0.35 | BARE | 2624 | IX | UVH |
| 30 | 0.35 | GN/WH | 3570 | I | - | Driver Door Handle Switch Signal | 30 | 0.35 | GN/WH | 3570 | IX | - |
| 31 | 0.35 | VT/GN | 4663 | I | UVH | Left Side Camera Control | 31 | 0.35 | VT/GN | 4663 | IX | UVH |
| 32 | 0.35 | WH/GN | 2628 | I | UVH | Left Side Vision Camera Video Signal (+) | 32 | 0.35 | WH/GN | 2628 | IX | UVH |
| 33 | 0.35 | GY/GN | 2625 | I | UVH | Left Side Vision Camera Video Signal (-) | 33 | 0.35 | GY/GN | 2625 | IX | UVH |
| 34 | 0.35 | WH/YE | 7557 | I | - | LED Ambient Lighting Control 1 | 34 | 0.35 | WH/YE | 7557 | IX | - |
| 35 | 0.35 | WH | 615 | I | A45/A74 | Memory Seat Switch Signal 1 | 35 | 0.35 | WH | 615 | IX | A45/A74 |
| 36 | 0.5 | BU/WH | 1314 | I | DWK/DWL/DWW/DLF | Left Front Turn Signal Lamp Control | 36 | 0.5 | BU/WH | 1314 | X | DWK/DWL/DWW/DLF |
| 37 | 0.35 | BK/YE | 1691 | I | DD8+DWL | Automatic Day/Night Mirror Low Reference | 37 | 0.35 | BK/YE | 1691 | IX | - |
| 38 | 0.35 | GN/WH | 7530 | I | - | Local Interconnect Network Serial Data Bus 8 | 38 | 0.35 | GN/WH | 7530 | IX | A45/A74 |
| 39 | 0.35 | GY/BK | 6113 | I | TB5/TC2 | Rear Lift Gate Open/Close Switch Signal | 39 | 0.35 | GY/BK | 6113 | IX | TB5/TC2 |
| 40 | - | - | - | - | - | Not Occupied | 40 | - | - | - | - | - |
| 41 | 0.35 | BN/WH | 781 | I | - | Driver Door Lock Switch Unlock Signal | 41 | 0.35 | BN/WH | 781 | IX | - |
| 42 | 0.35 | WH | 6816 | I | - | Indicator Dimming Control | 42 | 0.35 | WH | 6816 | IX | - |

## X505 DRIVER DOOR HARNESS TO DRIVER DOOR TRIM PANEL HARNESS




Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 13517413
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 1.2 Series (BK)




Connector Part Information

- Harness Type: Driver Door Trim Panel
- OEM Connector: 13597330
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 1.2 Series (BK)

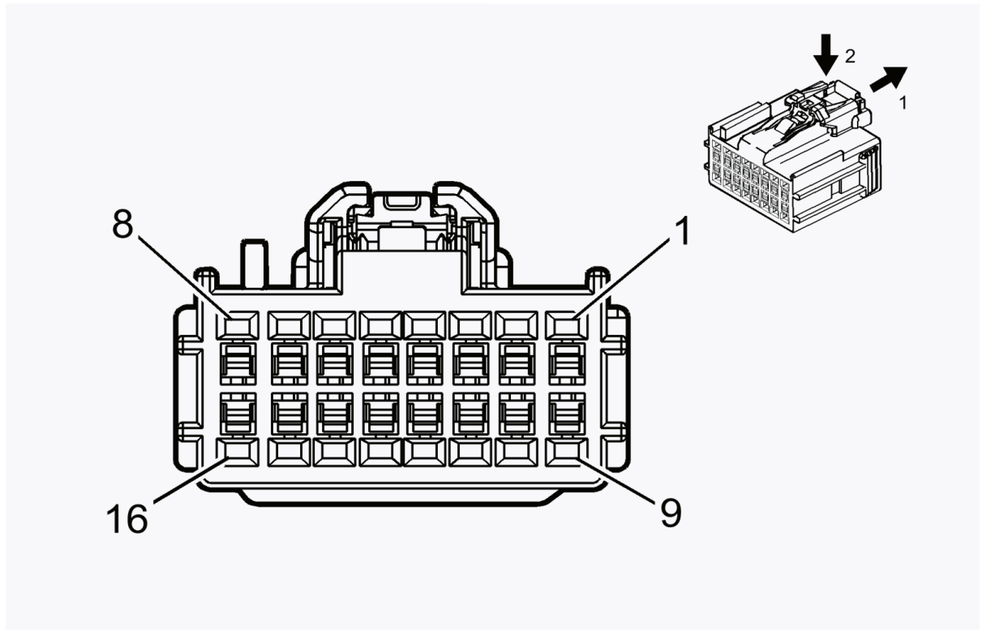
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35 | RD/BN | 1440 | I | - | Battery Positive Voltage | 2 | 0.35 | RD/BN | 1440 | II | AXG |
| 3 | 0.35 | BK | 1550 | I | - | Ground | 3 | 0.35 | BK | 1550 | II | - |
| 4 | 0.35 | YE | 6817 | I | - | LED Backlight Dimming Control<br>LED Backlight Dimming Control | 4 | 0.35<br>0.35 | YE<br>YE | 6817<br>6817 | II<br>II | A45/A74/TB5/TC2<br>-A45-A74-TB5-TC2 |
| 5 | 0.35 | BN/YE | 780 | I | - | Driver Door Lock Switch Lock Signal | 5 | 0.35 | BN/YE | 780 | II | - |
| 6 | 0.35 | BN/WH | 781 | I | - | Driver Door Lock Switch Unlock Signal | 6 | 0.35 | BN/WH | 781 | II | - |
| 7 | 0.35 | GN | 3381 | I | AXG | Power Window Switch Driver Express Signal | 7 | 0.35 | GN | 3381 | II | AXG |
| 8 | 0.35 | WH | 6816 | I | - | Indicator Dimming Control | 8 | 0.35 | WH | 6816 | II | - |
| 9 | - | - | - | - | - | Not Occupied | 9 | - | - | - | - | - |
| 10 | 0.35 | GY | 3380 | I | AXG | Power Window Switch Driver Down Signal | 10 | 0.35 | GY | 3380 | II | AXG |
| 11 | 0.35 | GN/WH | 3379 | I | AXG | Power Window Switch Driver Up Signal | 11 | 0.35 | GN/WH | 3379 | II | AXG |
| 12 | 0.35 | GN/YE | 6134 | I | AXG | Local Interconnect Network Serial Data Bus 3 | 12 | 0.35 | GN/YE | 6134 | II | AXG |
| 13 | 0.35 | WH/VT | 3270 | I | - | Driver Door Lock Motor Status Signal | 13 | 0.35 | WH/VT | 3270 | II | AXG |
| 14 | 0.35 | BU/VT | 1124 | I | - | Door Lock Key Switch Unlock Signal | 14 | 0.35 | BU/VT | 1124 | II | AXG |
| 15 | 0.35 | WH/VT | 3270 | I | - | Driver Door Lock Motor Status Signal | 15 | 0.35 | WH/VT | 3270 | II | - |
| 16 | - | - | - | - | - | Not Occupied | 16 | - | - | - | - | - |

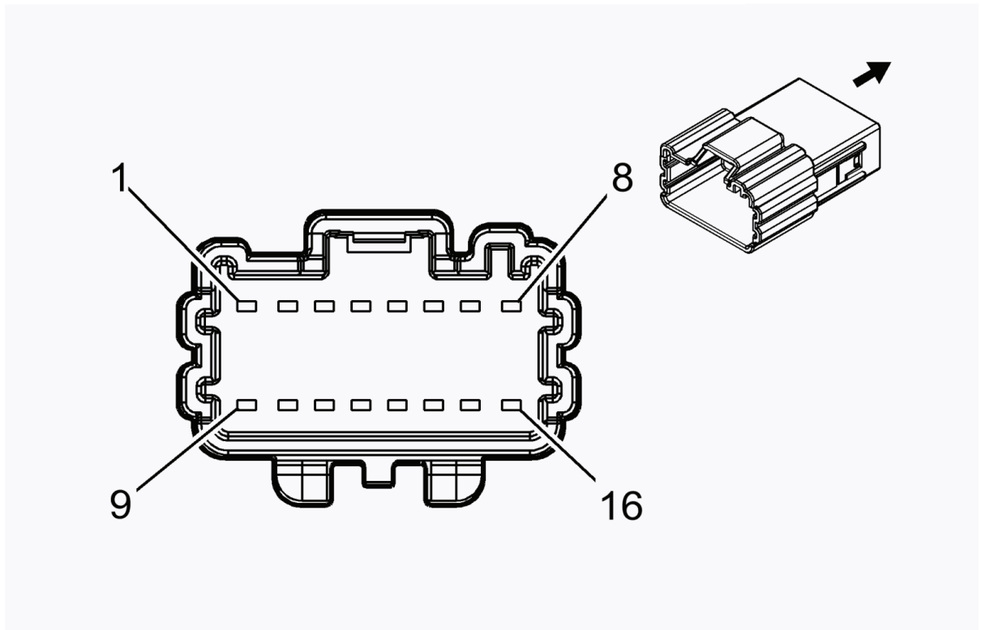
## X506 DRIVER DOOR HARNESS TO DRIVER DOOR TRIM PANEL HARNESS

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Connector Part Information

- Harness Type: Driver Door
- OEM Connector: 13517414
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 1.2 Series (GY)




Connector Part Information

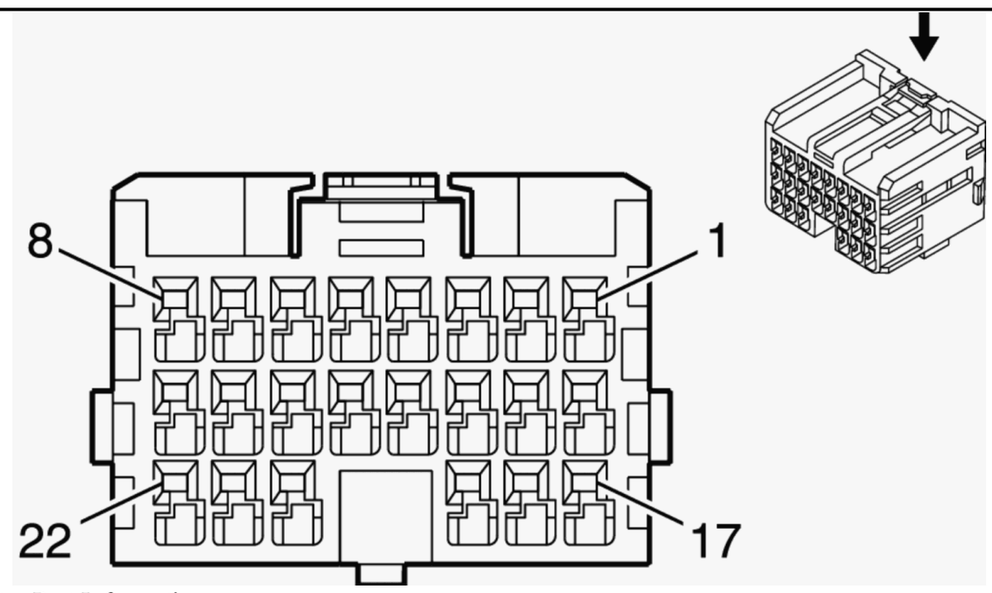
- Harness Type: Driver Door Trim Panel
- OEM Connector: 13597331
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 1.2 Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | WH/YE | 7557 | I | - | LED Ambient Lighting Control 1 | 1 | 0.35 | WH/YE | 7557 | II | - |
| 2 | 0.35 | BK | 1550 | I | A45/A74 | Ground | 2 | 0.35 | BK | 1550 | II | A45/A74 |
| 3 | 0.35 | BU/GN | 614 | I | - | Memory Seat Switch Set Signal | 3 | 0.35 | BU/GN | 614 | II | A45/DWL |
| 4 | 0.35 | WH | 615 | I | - | Memory Seat Switch Signal 1 | 4 | 0.35 | WH | 615 | II | A45/A74 |
| 5 | 0.35 | GN/WH | 7530 | I | A45/DWL | Local Interconnect Network Serial Data Bus 8 | 5 | 0.35 | GN/WH | 7530 | II | A45/DWL |
| 6 | 0.35 | BN/BK | 3389 | I | DLF/DWK/DWM/DWW/A45/DWL | Driver Mirror Motor Right (+) Left (-) Control | 6 | 0.35<br>0.35 | BN/BK<br>BN/BK | 3389<br>3389 | II<br>II | A45/DWL<br>DLF/DWK/DWM/DWW |
| 7 | 0.35 | VT/BU | 3390 | I | DLF/DWK/DWM/DWW | Driver Mirror Motor Up (+) Down (-) Control | 7 | 0.35 | VT/BU | 3390 | II | DLF/DWK/DWM/DWW |
| 8 | 0.35 | GN | 6112 | I | TB5/TC2 | Power Lift Gate On/Off Switch Signal | 8 | 0.35 | GN | 6112 | II | TB5/TC2 |
| 9 | 0.35 | GY/BK | 6113 | I | TB5/TC2 | Rear Lift Gate Open/Close Switch Signal | 9 | 0.35 | GY/BK | 6113 | II | TB5/TC2 |
| 10 | 0.35 | YE/BN | 3391 | I | DLF/DWK/DWM/DWW/A45/DWL | Driver Mirror Motor Common Control | 10 | 0.35<br>0.35 | YE/BN<br>YE/BN | 3391<br>3391 | II<br>II | A45/DWL<br>DLF/DWK/DWM/DWW |
| 11 | 0.35 | VT/YE | 3409 | I | DWW | Mirror Motor Fold Out Control | 11 | 0.35 | VT/YE | 3409 | II | DWW |
| 12 | 0.35 | WH/BN | 3410 | I | DWW | Mirror Motor Fold In Control<br>Mirror Motor Fold In Control | 12 | 0.35 | WH/BN | 3410 | II | DWW |
| 13 | 0.35<br>0.35 | WH/YE<br>GN/BK | 3395<br>3396 | I<br>I | A45/DWL<br>DLF/DWK/DWM/DWW | Driver Mirror Position Sensor Left (-) Right (+) Signal<br>Passenger Mirror Motor Right (+) Left (-) Control | 13 | 0.35<br>0.35 | WH/YE<br>GN/BK | 3395<br>3396 | II<br>II | A45/DWL<br>DLF/DWK/DWM/DWW |
| 14 | 0.35<br>0.35 | BK/BN<br>YE/VT | 3393<br>3397 | I<br>I | A45/DWL<br>DLF/DWK/DWM/DWW | Driver Mirror Position Sensor Low Reference<br>Passenger Mirror Motor Up (+) Down (-) Control | 14 | 0.35<br>0.35 | BK/BN<br>YE/VT | 3393<br>3397 | II<br>II | A45/DWL<br>DLF/DWK/DWM/DWW |
| 15 | 0.35<br>0.35 | VT/RD<br>WH | 3392<br>3398 | I<br>I | A45/DWL<br>DLF/DWK/DWM/DWW | Driver Mirror Position Sensor 5V Reference<br>Passenger Mirror Motor Common Control | 15 | 0.35<br>0.35 | VT/RD<br>WH | 3392<br>3398 | II<br>II | A45/DWL<br>DLF/DWK/DWM/DWW |
| 16 | 0.35 | GY/BN | 3394 | I | A45/DWL | Driver Mirror Position Sensor Up (+) Down (-) Signal | 16 | 0.35 | GY/BN | 3394 | II | A45/DWL |

## X510 DRIVER DOOR HARNESS TO DRIVER OUTSIDE REARVIEW MIRROR HARNESS




Connector Part Information

- Harness Type: Driver Door
- OEM Connector: ARVPB-22C22-3AK
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way F 0.64 Series (BK)

Connector Part Information

-

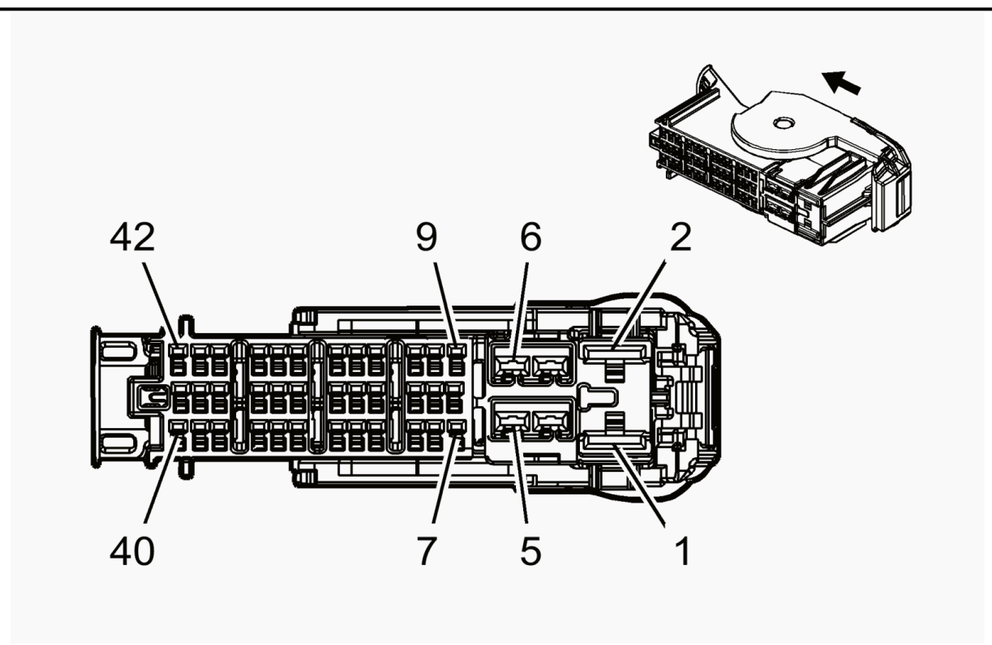
- Harness Type: Driver Outside Rearview Mirror
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way M

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

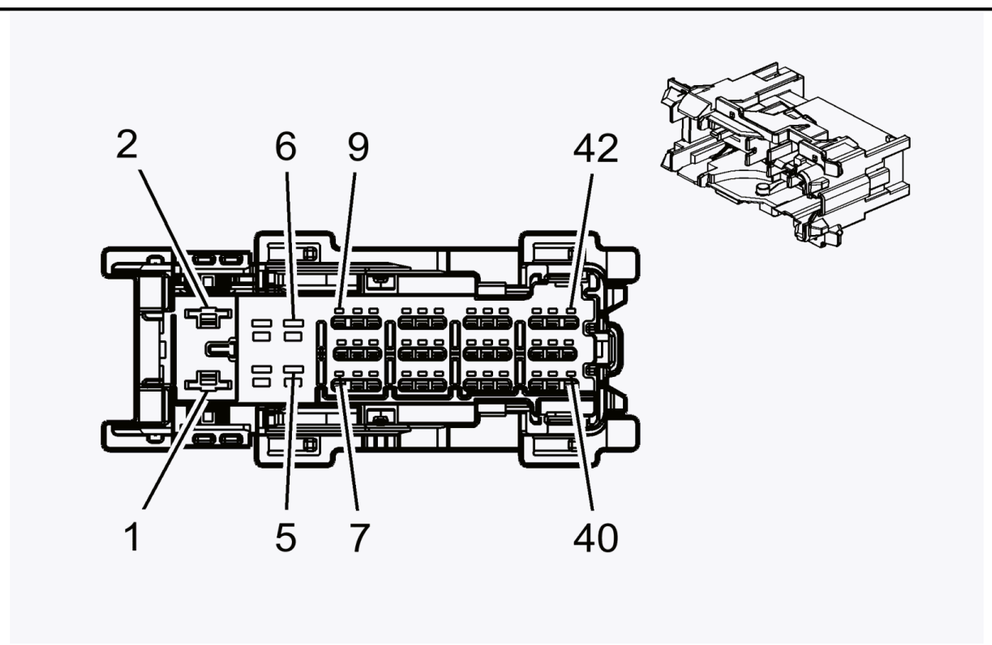
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35 | YE/WH | 1690 | I | - | Automatic Day/Night Mirror Signal | 2 | 0.35 | YE/WH | 1690 | II | DD8+DWL |
| 3 | 0.35 | WH/GN | 2628 | I | UVH | Left Side Vision Camera Video Signal (+) | 3 | 0.35 | WH/GN | 2628 | II | UVH |
| 4 | 0.35 | BK/BN | 3393 | I | - | Driver Mirror Position Sensor Low Reference | 4 | 0.35 | BK/BN | 3393 | II | A45/DWL |
| 5 | 0.35 | VT/YE | 3409 | I | DWW | Mirror Motor Fold Out Control | 5 | 0.5 | VT/YE | 3409 | II | DWW |
| 6 | 0.35 | BK/GN | 4664 | I | UVH | Left Side Camera Return | 6 | 0.35 | BK/GN | 4664 | II | UVH |
| 7 | 0.35 | BK | 1550 | I | - | Ground | 7 | 0.35 | BK | 1550 | II | UKC |
| 8 | 0.35 | VT/GN | 4663 | I | - | Left Side Camera Control | 8 | 0.35 | VT/GN | 4663 | II | UVH |
| 9 | 0.35 | WH/YE | 3395 | I | - | Driver Mirror Position Sensor Left (-) Right (+) Signal | 9 | 0.35 | WH/YE | 3395 | II | A45/DWL |
| 10 | 0.35 | BN/YE | 2267 | I | - | Mirror Heating Element Control | 10 | 0.35 | BK | 2267 | II | - |
| 11 | 0.35 | VT/BU | 3390 | I | - | Driver Mirror Motor Up (+) Down (-) Control | 11 | 0.35 | VT/BU | 3390 | II | - |
| 12 | 0.35 | BARE | 2624 | I | UVH | Left Side Vision Camera Video Drain Wire | 12 | 0.35 | SR | 2624 | II | UVH |
| 13 | 0.35 | BN/BK | 3389 | I | - | Driver Mirror Motor Right (+) Left (-) Control | 13 | 0.35 | BN/BK | 3389 | II | - |
| 14 | 0.35 | BK | 1550 | I | - | Ground | 14 | 0.35 | BK | 1550 | II | - |
| 15 | 0.35 | YE/BN | 3391 | I | - | Driver Mirror Motor Common Control | 15 | 0.35 | YE/BN | 3391 | II | - |
| 16 | 0.35 | GY/GN | 2625 | I | UVH | Left Side Vision Camera Video Signal (-) | 16 | 0.35 | GY/GN | 2625 | II | UVH |
| 17 | 0.5 | BU/WH | 1314 | I | - | Left Front Turn Signal Lamp Control | 17 | 0.5 | BU/WH | 1314 | II | DWK/DWL/DLF |
| 18 | 0.35 | GY/BN | 3394 | I | - | Driver Mirror Position Sensor Up (+) Down (-) Signal | 18 | 0.35 | GY/BN | 3394 | II | A45/DWL |
| 19 | 0.35 | GY/YE | 1760 | I | - | Left Side Object Detection LED Control | 19 | 0.35 | GY/YE | 1760 | II | UKC |
| 20 | 0.35 | BK/YE | 1691 | I | DD8+DWL | Automatic Day/Night Mirror Low Reference | 20 | 0.35 | BK/YE | 1691 | II | DD8+DWL |
| 21 | 0.35<br>0.35 | VT/RD<br>VT/RD | 3392<br>3392 | I<br>I | A45/DWL<br>A45+DWL | Driver Mirror Position Sensor 5V Reference<br>Driver Mirror Position Sensor 5V Reference | 21 | 0.35 | VT/RD | 3392 | II | A45/DWL |
| 22 | 0.35 | WH/BN | 3410 | I | DWW | Mirror Motor Fold In Control | 22 | 0.5 | WH/BN | 3410 | II | DWW |

## X600 PASSENGER DOOR HARNESS TO BODY HARNESS ((Z88/X88)+AED/A45)




Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 13509583
- Service Connector: Service by Harness - See Part Catalog
- Description: 42-Way F 1.2 MCON, 2.8, 6.3 YESC Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: Not Available
- Service Connector: 13519773
- Description: 42-Way M 1.2 MCON, 2.8, 6.3 YESC Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-42 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4111-02 | Yazaki 9 | Not Available | Not Available |
| V | 13575823 | J-35616-5 (PU) | J-38125-11A | 7114-4112-02 | Yazaki 9 | Not Available | Not Available |
| VI | 13575824 | J-35616-5 (PU) | J-38125-11A | 7114-4111-02 | Yazaki 9 | Not Available | Not Available |
| VII | 13580023 | J-35616-43 (RD) | J-38125-11A | 7114-4121-02 | Yazaki 9 | Not Available | Not Available |
| VIII | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| IX | 19352074 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| X | 19369715 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

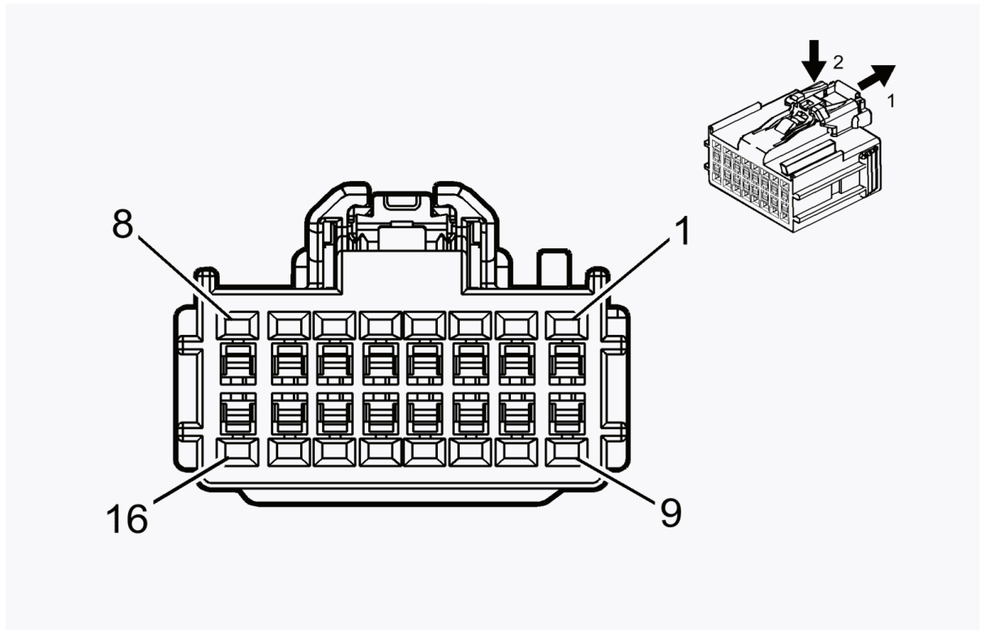
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/BN | 3640 | III | AED/A45 | Battery Positive Voltage | 1 | 2.5 | RD/BN | 3640 | VII | AEF/AED |
| 2 | 2.5 | BK | 2050 | III | LHD | Ground | 2 | 2.5 | BK | 2050 | VII | LHD |

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| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 1.5<br>0.75 | YE<br>YE | 200<br>200 | II<br>II | UQA<br>UZ6 | Right Front Speaker Control (+) 1<br>Right Front Speaker Control (+) 1<br>Right Front Speaker Control (+) 1 | 3 | 0.75<br>0.75<br>1.5<br>1.5<br>0.75 | YE<br>YE<br>YE<br>YE<br>YE | 200<br>200<br>200<br>200<br>200 | IV<br>V<br>VI<br>VI<br>IV | NKC+UZ6-IOR<br>IOB+UZ6-NKC<br>UZ6-IOB-NKC<br>UQA<br>IOR+UZ6 |
| 4 | 1.5<br>0.75 | YE/BK<br>YE/BK | 117<br>117 | II<br>II | UQA<br>UZ6 | Right Front Speaker Signal (-) 1<br>Right Front Speaker Signal (-) 1<br>Right Front Speaker Signal (-) 1 | 4 | 0.75<br>0.75<br>1.5<br>1.5<br>0.75 | YE/BK<br>YE/BK<br>YE/BK<br>YE/BK<br>YE/BK | 117<br>117<br>117<br>117<br>117 | IV<br>IV<br>VI<br>VI<br>V | IOR+UZ6<br>NKC+UZ6-IOR<br>UZ6-IOB-NKC<br>UQA<br>IOB+UZ6-NKC |
| 5 - 6 | - | - | - | - | - | Not Occupied | 5 - 6 | - | - | - | - | - |
| 7 | 0.35 | GY | 1761 | I | UKC+LHD | Right Side Object Detection LED Control | 7 | 0.35 | GY | 1761 | VIII | UKC+LHD |
| 8 | 0.35 | WH | 3398 | I | DLF/DWK/DWM/DWW | Passenger Mirror Motor Common Control | 8 | 0.35 | WH | 3398 | VIII | DLF/DWK/DWM/DWW |
| 9 | 0.35 | YE/VT | 3397 | I | DLF/DWK/DWM/DWW | Passenger Mirror Motor Up (+) Down (-) Control | 9 | 0.35 | YE/VT | 3397 | VIII | DLF/DWK/DWM/DWW |
| 10 | 0.35 | GN/BK | 3396 | I | DLF/DWK/DWM/DWW | Passenger Mirror Motor Right (+) Left (-) Control | 10 | 0.35 | GN/BK | 3396 | VIII | DLF/DWK/DWM/DWW |
| 11 | 0.35 | VT/YE | 3409 | I | DWW | Mirror Motor Fold Out Control | 11 | 0.35 | PU/YE | 3409 | VIII | DWW |
| 12 | 0.35 | WH/BN | 3410 | I | DWW | Mirror Motor Fold In Control | 12 | 0.35 | WH/BN | 3410 | VIII | DWW |
| 13 | 0.35 | BN/YE | 2267 | I | - | Mirror Heating Element Control | 13 | 0.35 | BN/YE | 2267 | VIII | - |
| 14 - 15 | - | - | - | - | - | Not Occupied | 14 - 15 | - | - | - | - | - |
| 16 | 0.35 | BN/VT | 245 | I | - | Passenger Door Lock Switch Unlock Control | 16 | 0.35 | BN/VT | 245 | VIII | - |
| 17 | 0.35 | GN/YE | 3562 | I | - | Passive Entry Passenger Door Antenna Signal Hi | 17 | 0.35 | GN/YE | 3562 | VIII | - |
| 18 | 0.35 | GN/BK | 3563 | I | - | Passive Entry Passenger Door Antenna Signal Lo | 18 | 0.35 | GN/BK | 3563 | VIII | - |
| 19 - 20 | - | - | - | - | - | Not Occupied | 19 - 20 | - | - | - | - | - |
| 21 | 0.35 | GN/YE | 6134 | I | AED/A45 | Local Interconnect Network Serial Data Bus 3 | 21 | 0.35 | GN/YE | 6134 | VIII | AEF/AED |
| 22 | 0.35 | BK/BU | 4667 | I | UVH | Right Side Camera Return | 22 | 0.35 | BK/BU | 4667 | VIII | UVH |
| 23 | - | - | - | - | - | Not Occupied | 23 | - | - | - | - | - |
| 24 | 0.35 | BN/OG | 2134 | I | AJG/AY0 | Right Front Side Impact Sensing Module Signal | 24 | 0.35 | BN/OG | 2134 | VIII | AJG/AY0 |
| 25 | 0.35 | BK/OG | 6629 | I | AJG/AY0 | Right Front Side Impact Sensing Module Low Reference | 25 | 0.35 | BK/OG | 6629 | VIII | AJG/AY0 |
| 26 | 0.35 | YE | 6817 | I | - | LED Backlight Dimming Control | 26 | 0.35 | YE | 6817 | VIII | - |
| 27 | - | - | - | - | - | Not Occupied | 27 | - | - | - | - | - |
| 28 | 0.35 | YE/VT | 244 | I | - | Passenger Door Lock Switch Lock Control | 28 | 0.35 | YE/VT | 244 | VIII | - |
| 29 | 0.35 | BARE | 2623 | I | UVH | Right Side Vision Camera Video Drain Wire | 29 | 0.35 | BARE | 2623 | VIII | UVH |
| 30 | 0.35 | VT/WH | 3571 | I | - | Passenger Door Handle Switch Signal | 30 | 0.35 | VT/WH | 3571 | VIII | - |
| 31 | 0.35 | VT/BU | 4666 | I | UVH | Right Side Camera Control | 31 | 0.35 | VT/BU | 4666 | VIII | UVH |
| 32 | 0.35 | WH/BU | 2627 | I | UVH | Right Side Vision Camera Video Signal (+) | 32 | 0.35 | WH/BU | 2627 | VIII | UVH |
| 33 | 0.35 | GY/BU | 2626 | I | UVH | Right Side Vision Camera Video Signal (-) | 33 | 0.35 | GY/BU | 2626 | VIII | UVH |
| 34 | 0.35 | WH/YE | 7557 | I | - | LED Ambient Lighting Control 1 | 34 | 0.35 | WH/YE | 7557 | VIII | - |
| 35 | - | - | - | - | - | Not Occupied | 35 | - | - | - | - | - |
| 36 | 0.5 | GN/VT | 1315 | I | DWK/DWL/DWW/DLF | Right Front Turn Signal Lamp Control | 36 | 0.5 | GN/VT | 1315 | IX | DWK/DWL/DWM/DWW-DLF |
| 37 | - | - | - | - | - | Not Occupied | 37 | - | - | - | - | - |
| 38 | 0.35 | GN/WH | 7530 | I | A45/DWL | Local Interconnect Network Serial Data Bus 8 | 38 | 0.35 | GN/WH | 7530 | VIII | A45/A74 |
| 39 | - | - | - | - | - | Not Occupied | 39 | - | - | - | - | - |
| 40 | 0.75 | GY | 295 | I | LHD | Door Lock Actuator Lock Control | 40 | 0.75 | GY | 295 | VIII | LHD |
| 41 | 0.75 | BN/YE | 294 | I | LHD | Door Lock Actuator Unlock Control | 41 | 0.75 | BN/YE | 294 | X | LHD |
| 42 | 0.35 | WH | 6816 | I | - | Indicator Dimming Control | 42 | 0.35 | WH | 6816 | VIII | - |

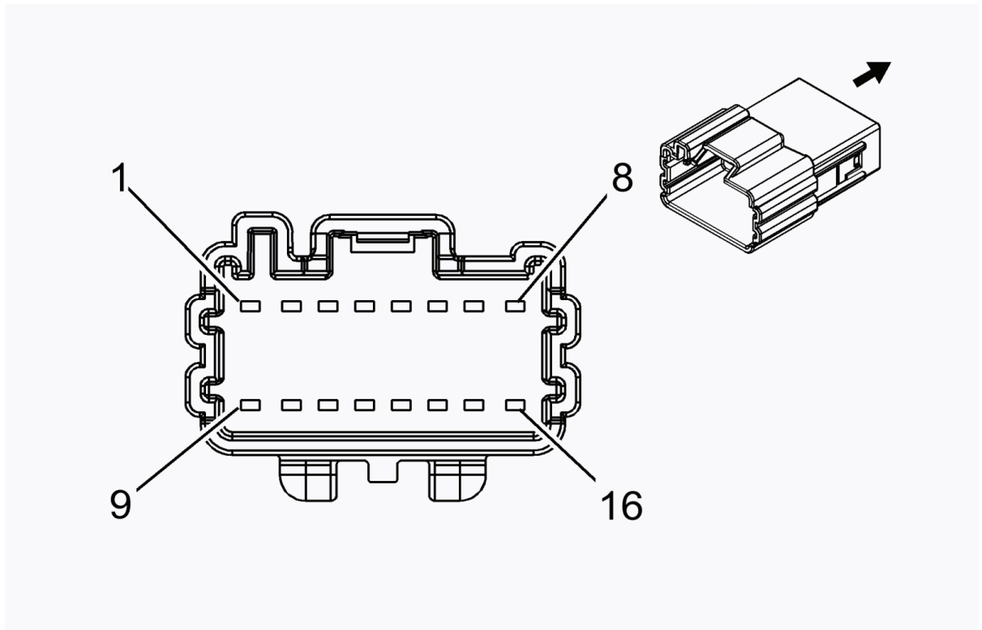
## X605 PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM PANEL HARNESS

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Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 13517413
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 1.2 Series (BK)




Connector Part Information

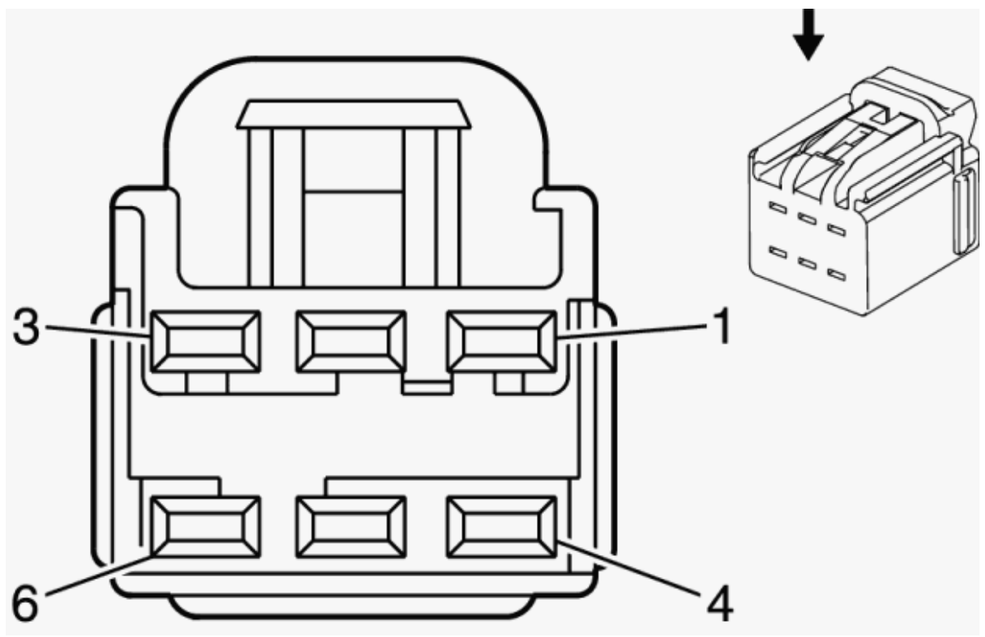
- Harness Type: Passenger Door Trim Panel
- OEM Connector: 13597330
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 1.2 Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

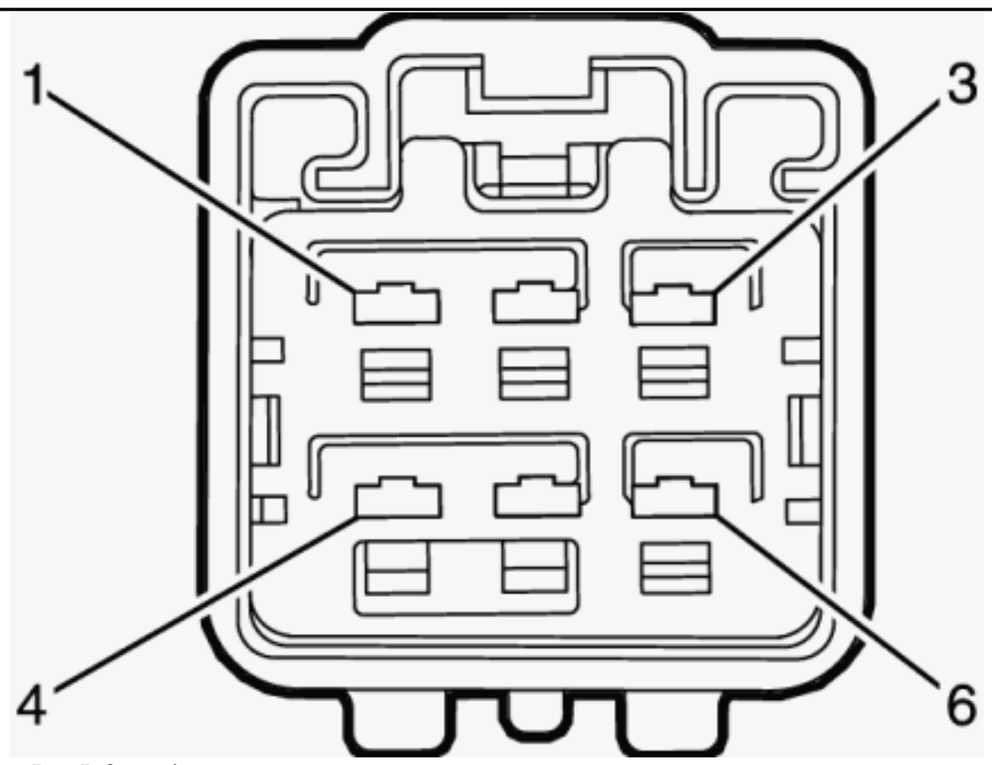
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | BK | 2050 | I | LHD | Ground | 1 | 0.5 | BK | 2050 | II | LHD |
| 2 | 0.35 | GY | 746 | I | AED | Right Front Door Ajar Switch Signal | 2 | 0.35 | GY | 746 | II | AED |
| 3 | 0.35 | GN/WH | 7530 | I | A45/DWL | Local Interconnect Network Serial Data Bus 8 | 3 | 0.35 | GN/WH | 7530 | II | A45/DWL |
| 4 | 0.35 | YE | 6817 | I | - | LED Backlight Dimming Control | 4 | 0.35 | YE | 6817 | II | - |
| 5 | 0.35 | YE/VT | 244 | I | - | Passenger Door Lock Switch Lock Control | 5 | 0.35 | YE/VT | 244 | II | - |
| 6 | 0.35 | BN/VT | 245 | I | - | Passenger Door Lock Switch Unlock Control | 6 | 0.35 | BN/VT | 245 | II | - |
| 7 | 0.35 | GN/YE | 6134 | I | AED/A45 | Local Interconnect Network Serial Data Bus 3 | 7 | 0.35 | GN/YE | 6134 | II | AED/A45 |
| 8 | 0.35 | BU/YE | 3401 | I | A45/DWL | Passenger Mirror Position Sensor Up (+) Down (-) Signal | 8 | 0.35 | BU/YE | 3401 | II | A45/DWL |
| 9 | 0.35 | YE/VT | 3397 | I | - | Passenger Mirror Motor Up (+) Down (-) Control | 9 | 0.35 | YE/VT | 3397 | II | - |
| 10 | 0.35 | WH/YE | 7557 | I | - | LED Ambient Lighting Control 1 | 10 | 0.35 | WH/YE | 7557 | II | - |
| 11 | 0.35 | VT | 4009 | I | LHD | Passenger Door Lock Status | 11 | 0.35 | VT | 4009 | II | - |
| 12 | 0.35 | GN/BK | 3396 | I | - | Passenger Mirror Motor Right (+) Left (-) Control | 12 | 0.35 | GN/BK | 3396 | II | - |
| 13 | 0.35 | YE/RD | 3399 | I | - | Passenger Mirror Position Sensor 5V Reference | 13 | 0.35 | YE/RD | 3399 | II | - |
| 14 | 0.35 | VT/WH | 3403 | I | - | Passenger Mirror Position Sensor Left (-) Right (+) Signal | 14 | 0.35 | VT/WH | 3403 | II | - |
| 15 | 0.35 | BK/GN | 3400 | I | - | Passenger Mirror Position Sensor Low Reference | 15 | 0.35 | BK/GN | 3400 | II | - |
| 16 | 0.35 | WH | 6816 | I | - | Indicator Dimming Control | 16 | 0.35 | WH | 6816 | II | - |

## X606 PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM PANEL HARNESS




Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: 7283-5913-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 2.8 Kaizen Series (L-GY)




Connector Part Information

- Harness Type: Passenger Door Trim Panel
- OEM Connector: 7282-6466-40
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M YESC Kaizen Series (L-GY)

**Terminal Part Information**

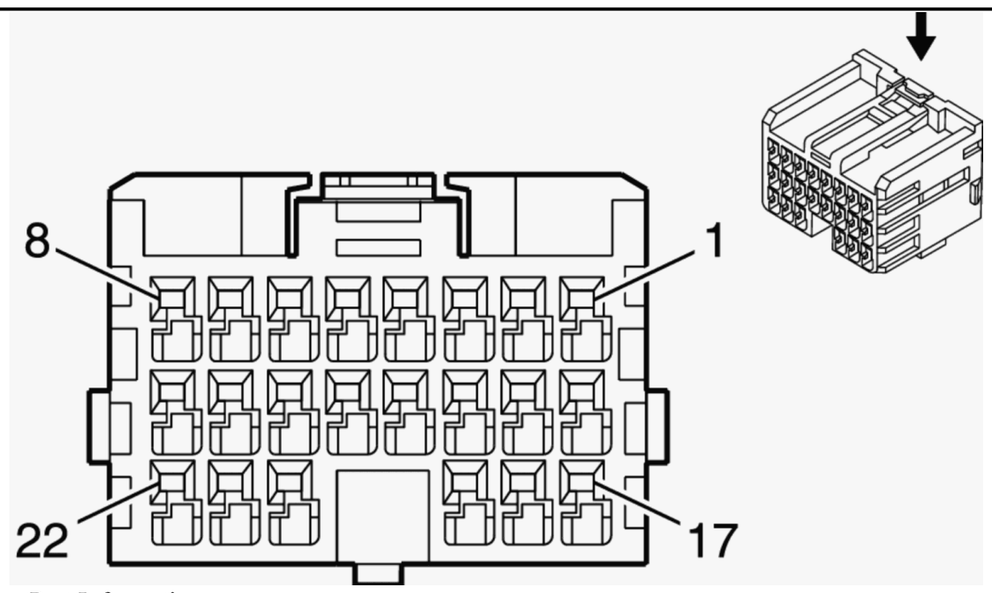
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/BN | 3640 | I | AED/A45 | Battery Positive Voltage | 1 | 2.5 | RD/BN | 3640 | III | AED/A45 |
| 2 | 2.5 | BK | 2050 | I | AED/A45 | Ground | 2 | 2.5 | BK | 2050 | III | AED/A45 |
| 3 | 2.5 | GN/GY | 3387 | I | AED/A45 | Power Window Motor Passenger Up Control | 3 | 2.5 | GN/GY | 3387 | III | AED/A45 |
| 4 | 2.5 | YE/BU | 3388 | I | AED/A45 | Power Window Motor Passenger Down Control | 4 | 2.5 | YE/BU | 3388 | III | AED/A45 |
| 5 | 0.35<br>0.35 | WH<br>WH | 3398<br>3398 | II<br>I | A45/DWL<br>A45+DWL | Passenger Mirror Motor Common Control<br>Passenger Mirror Motor Common Control | 5 | 0.35 | WH | 3398 | III | A45/DWL |
| 6 | - | - | - | - | - | Not Occupied | 6 | - | - | - | - | - |

## X610 PASSENGER DOOR HARNESS TO PASSENGER OUTSIDE REARVIEW MIRROR HARNESS




-

Connector Part Information

- Harness Type: Passenger Door
- OEM Connector: ARVPB-22C22-3AK
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way F 0.64 Series (BK)

Connector Part Information

- Harness Type: Passenger Outside Rearview Mirror
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way M

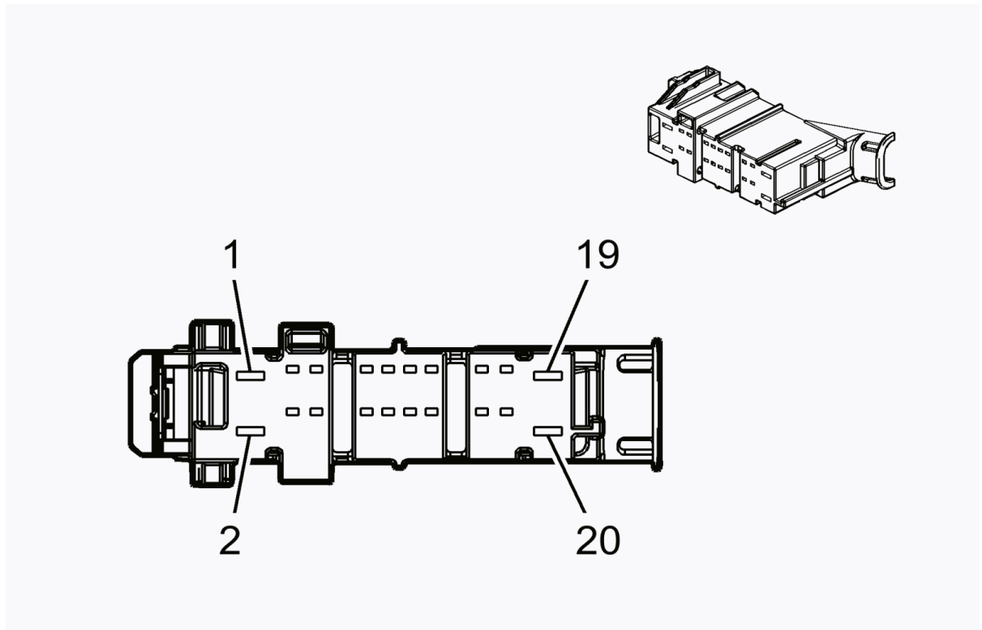
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 - 2 | - | - | - | - | - | Not Occupied | 1 - 2 | - | - | - | - | - |
| 3 | 0.35 | WH/BU | 2627 | I | UVH | Right Side Vision Camera Video Signal (+) | 3 | 0.35 | WH/BU | 2627 | II | UVH |
| 4 | 0.35 | BK/GN | 3400 | I | - | Passenger Mirror Position Sensor Low Reference | 4 | 0.35 | BK/GN | 3400 | II | A45/DWL |
| 5 | 0.35 | VT/YE | 3409 | I | - | Mirror Motor Fold Out Control | 5 | 0.35 | VT/YE | 3409 | II | DWW |
| 6 | 0.35 | BK/BU | 4667 | I | UVH | Right Side Camera Return | 6 | 0.35 | BK/BU | 4667 | II | UVH |
| 7 | 0.35 | BK | 2050 | I | UKC | Ground | 7 | 0.35 | BK | 2050 | II | UKC |
| 8 | 0.35 | VT/BU | 4666 | I | - | Right Side Camera Control | 8 | 0.35 | VT/BU | 4666 | II | UVH |
| 9 | 0.35 | VT/WH | 3403 | I | - | Passenger Mirror Position Sensor Left (-) Right (+) Signal | 9 | 0.35 | VT/WH | 3403 | II | A45/DWL |
| 10 | 0.35 | BN/YE | 2267 | I | - | Mirror Heating Element Control | 10 | 0.35 | BK | 2267 | II | - |
| 11 | 0.35 | YE/VT | 3397 | I | - | Passenger Mirror Motor Up (+) Down (-) Control | 11 | 0.35 | YE/VT | 3397 | II | - |
| 12 | 0.35 | BARE | 2623 | I | UVH | Right Side Vision Camera Video Drain Wire | 12 | 0.35 | SR | 2623 | II | UVH |
| 13 | 0.35 | GN/BK | 3396 | I | - | Passenger Mirror Motor Right (+) Left (-) Control | 13 | 0.35 | GN/BK | 3396 | II | - |
| 14 | 0.35 | BK | 2050 | I | - | Ground | 14 | 0.35 | BK | 2050 | II | - |
| 15 | 0.35 | WH | 3398 | I | - | Passenger Mirror Motor Common Control | 15 | 0.35 | WH | 3398 | II | - |
| 16 | 0.35 | GY/BU | 2626 | I | UVH | Right Side Vision Camera Video Signal (-) | 16 | 0.35 | GY/BU | 2626 | II | UVH |
| 17 | 0.5 | GN/VT | 1315 | I | - | Right Front Turn Signal Lamp Control | 17 | 0.5 | GN/VT | 1315 | II | DWK/DWL/DLF |
| 18 | 0.35 | BU/YE | 3401 | I | - | Passenger Mirror Position Sensor Up (+) Down (-) Signal | 18 | 0.35 | BU/YE | 3401 | II | A45/DWL |
| 19 | 0.35 | GY | 1761 | I | UKC | Right Side Object Detection LED Control | 19 | 0.35 | GY | 1761 | II | UKC |
| 20 | - | - | - | - | - | Not Occupied | 20 | - | - | - | - | - |
| 21 | 0.35 | YE/RD | 3399 | I | - | Passenger Mirror Position Sensor 5V Reference | 21 | 0.35 | YE/RD | 3399 | II | A45/DWL |
| 22 | 0.35 | WH/BN | 3410 | I | DWW | Mirror Motor Fold In Control | 22 | 0.35 | WH/BN | 3410 | II | DWW |

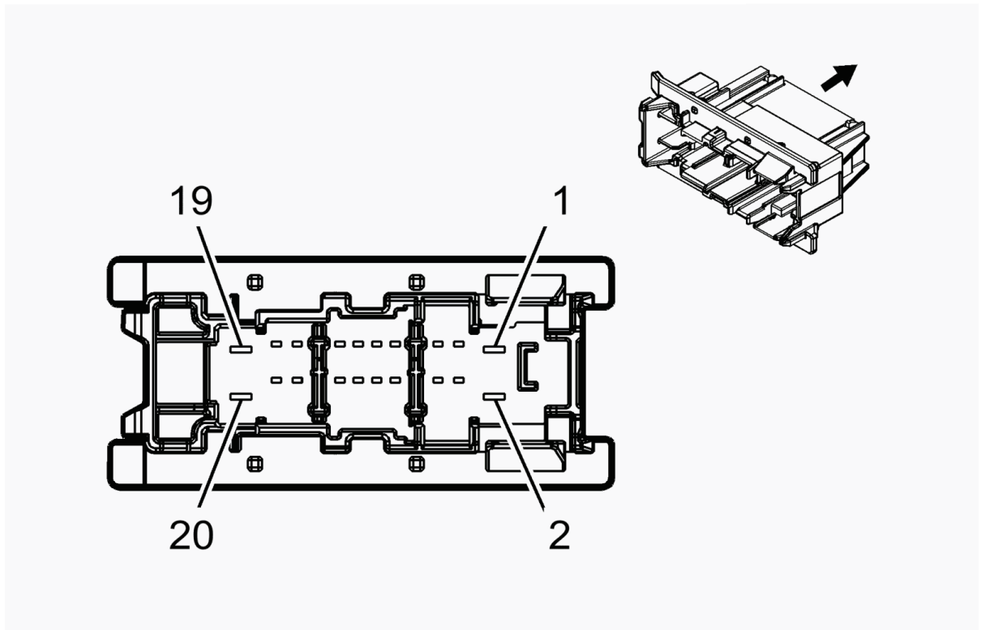
## X700 LEFT REAR DOOR HARNESS TO BODY HARNESS

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Connector Part Information

- Harness Type: Left Rear Door
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)




Connector Part Information

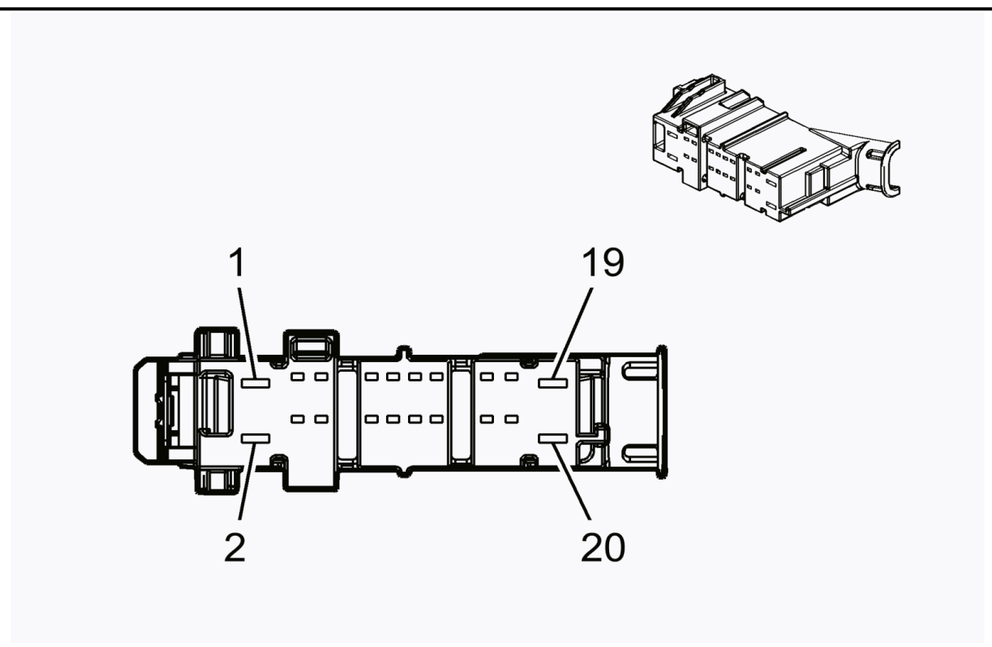
- Harness Type: Body
- OEM Connector: Not Available
- Service Connector: 13509580
- Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | 13587567 | J-35616-34 (YE) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| IV | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| V | 19352075 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

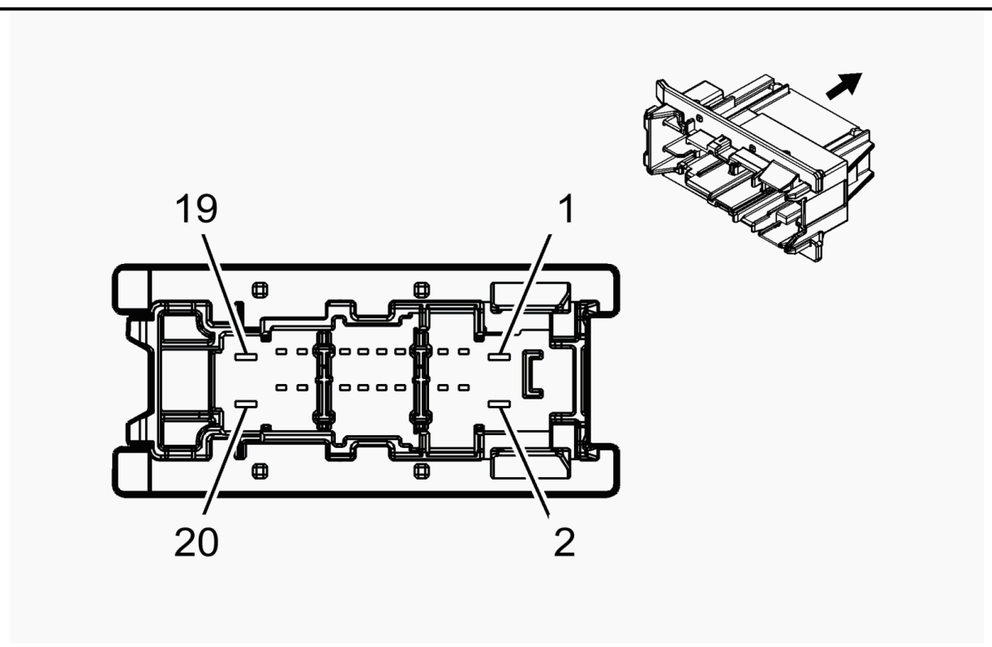
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | RD/YE | 3740 | II | AEQ | Battery Positive Voltage | 1 | 2.5 | RD/YE | 3740 | III | AER/AEQ |
| 2 | 2.5 | BK | 1550 | II | AER/AEQ | Ground | 2 | 2.5 | BK | 1550 | III | AER/AEQ |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |
| 4 | 0.75<br>0.75 | GN/BK<br>GN/BK | 116<br>116 | I<br>I | UQA<br>UZ6 | Left Rear Speaker Signal (-)<br>Left Rear Speaker Signal (-) | 4 | 0.75<br>0.75 | GN/BK<br>GN/BK | 116<br>116 | V<br>V | UQA<br>UZ6 |
| 5 | 0.75<br>0.75 | GN<br>GN | 199<br>199 | I<br>I | UQA<br>UZ6 | Left Rear Speaker Control (+)<br>Left Rear Speaker Control (+) | 5 | 0.75<br>0.75 | GN<br>GN | 199<br>199 | V<br>V | UQA<br>UZ6 |
| 6 - 7 | - | - | - | - | - | Not Occupied | 6 - 7 | - | - | - | - | - |
| 8 | 0.75 | BN/YE | 294 | I | - | Door Lock Actuator Unlock Control | 8 | 0.75 | BN/YE | 294 | V | - |
| 9 | - | - | - | - | - | Not Occupied | 9 | - | - | - | - | - |
| 10 | 0.35 | GN/GY | 6135 | I | - | Local Interconnect Network Serial Data Bus 4 | 10 | 0.35 | GN/GY | 6135 | IV | AER/AEQ |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.35 | BN/YE | 6157 | I | - | Left Rear Door Handle Switch Signal | 12 | 0.35 | BN/YE | 6157 | IV | - |
| 13 | 0.75 | GY | 295 | I | - | Door Lock Actuator Lock Control | 13 | 0.75 | GY | 295 | V | - |
| 14 - 20 | - | - | - | - | - | Not Occupied | 14 - 20 | - | - | - | - | - |

## X800 RIGHT REAR DOOR HARNESS TO BODY HARNESS




Connector Part Information

- Harness Type: Right Rear Door
- OEM Connector: 6098-8196
- Service Connector: Service by Harness - See Part Catalog
- Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)




Connector Part Information

- Harness Type: Body
- OEM Connector: 6098-8192
- Service Connector: 13509580
- Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

**Terminal Part Information**

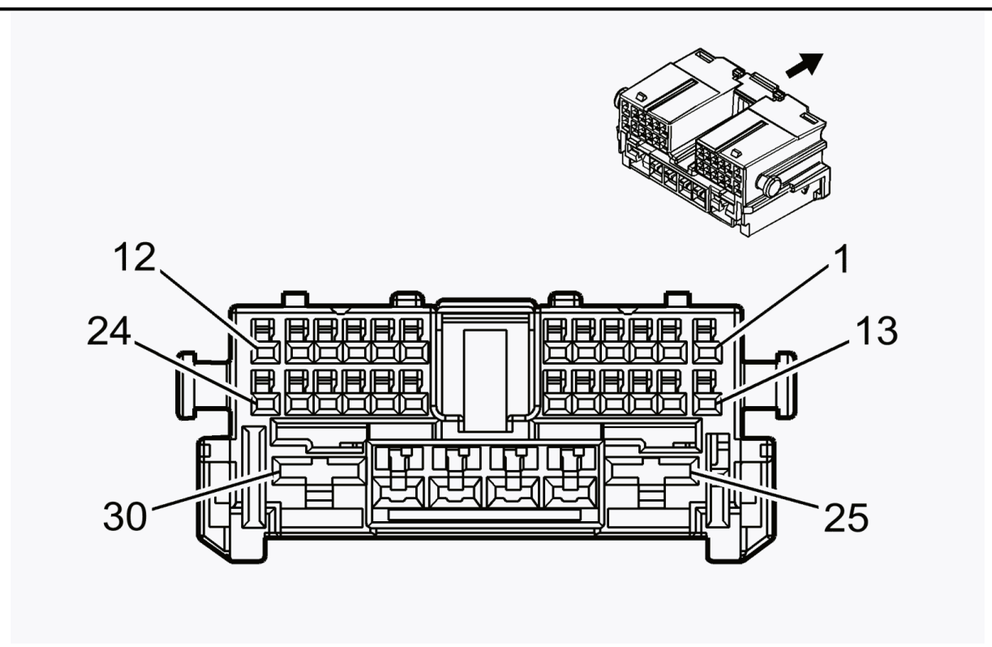
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| III | Not Required | J-35616-4A (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IV | 13587567 | J-35616-34 (YE) | J-38125-553 | Not Available | Not Available | Not Available | Not Available |
| V | 19333325 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |
| VI | 19369715 | J-35616-17 (LT GN) | J-38125-12A | Not Available | Not Available | Not Available | Not Available |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5<br>2.5 | RD/YE<br>RD/YE | 3740<br>3740 | III<br>II | AEQ<br>AER | Battery Positive Voltage<br>Battery Positive Voltage | 1 | 2.5 | RD/YE | 3740 | IV | - |
| 2 | 2.5 | BK | 2050 | II | - | Ground | 2 | 2.5 | BK | 2050 | IV | - |
| 3 | - | - | - | - | - | Not Occupied | 3 | - | - | - | - | - |

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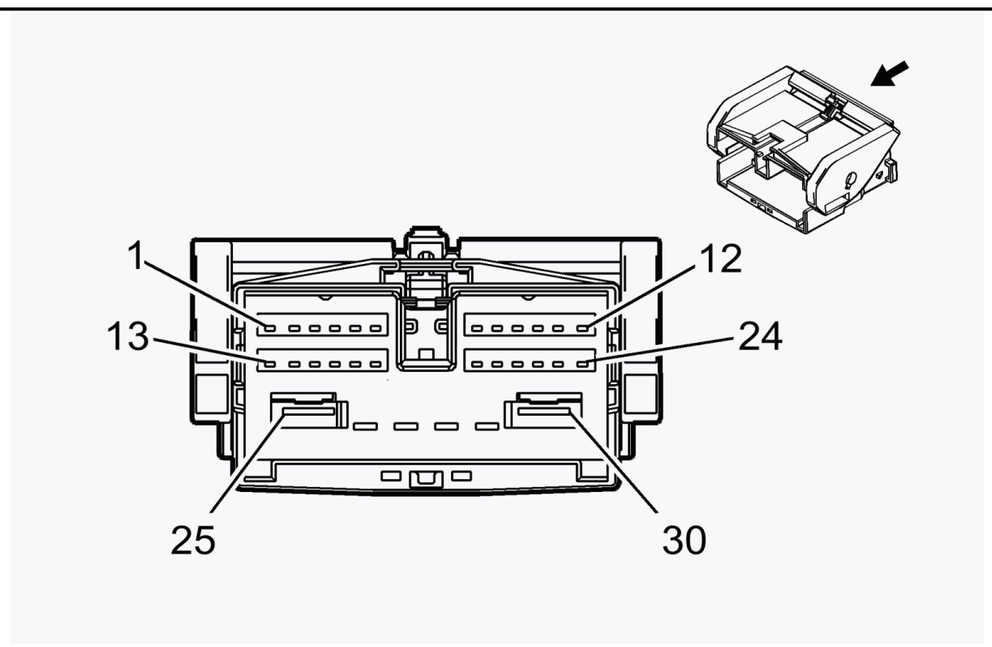
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.75<br>0.75 | BU/BK<br>BU/BK | 115<br>115 | I<br>I | UQA<br>UZ6 | Right Rear Speaker Signal (-)<br>Right Rear Speaker Signal (-) | 4 | 0.75 | BU/BK | 115 | VI | - |
| 5 | 0.75<br>0.75 | WH<br>WH | 46<br>46 | I<br>I | UQA<br>UZ6 | Right Rear Speaker Control (+)<br>Right Rear Speaker Control (+) | 5 | 0.75 | WH | 46 | VI | - |
| 6 - 7 | - | - | - | - | - | Not Occupied | 6 - 7 | - | - | - | - | - |
| 8 | 0.75 | BN/YE | 294 | I | - | Door Lock Actuator Unlock Control | 8 | 0.75 | BN/YE | 294 | VI | - |
| 9 | - | - | - | - | - | Not Occupied | 9 | - | - | - | - | - |
| 10 | 0.35 | GN/GY | 6135 | I | - | Local Interconnect Network Serial Data Bus 4 | 10 | 0.35 | GN/GY | 6135 | V | AER/AEQ |
| 11 | - | - | - | - | - | Not Occupied | 11 | - | - | - | - | - |
| 12 | 0.35 | YE/GY | 6158 | I | - | Right Rear Door Handle Switch Signal | 12 | 0.35 | YE/GY | 6158 | V | - |
| 13 | 0.75 | GY | 295 | I | - | Door Lock Actuator Lock Control | 13 | 0.75 | GY | 295 | VI | - |
| 14 - 20 | - | - | - | - | - | Not Occupied | 14 - 20 | - | - | - | - | - |

## X900 BODY HARNESS TO LIFTGATE HARNESS




Connector Part Information

- Harness Type: Body
- OEM Connector: 13590709
- Service Connector: 13590709
- Description: 30-Way F 1.2 MCON, 2.8, 6.3 YESC Series (BK)




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13590710
- Service Connector: Service by Harness - See Part Catalog
- Description: 30-Way M 1.2 MCON, 2.8, 6.3 YESC Series (BK)

**Terminal Part Information**

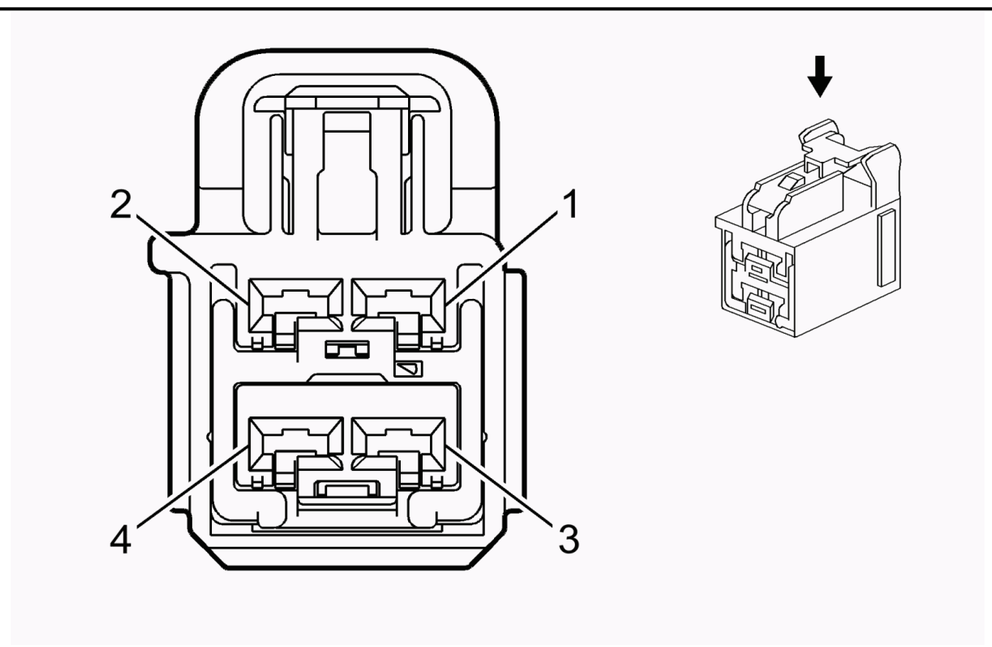
| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | 13575839 | J-35616-35 (VT) | J-38125-11A | 7116-4110-02 | Yazaki 9 | E | C |
| II | 13575839 | J-35616-35 (VT) | J-38125-11A | 7116-4111-02 | Yazaki 9 | C | A |
| III | 13578928 | J-35616-42 (RD) | J-38125-11A | 7116-4121-02 | Yazaki 10 | C | B |
| IV | 19300649 | J-35616-16 (LT GN) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| V | 19300649 | J-35616-16 (LT GN) | J-38125-21 | Not Available | Not Available | Not Available | Not Available |
| VI | 19368264 | J-35616-35 (VT) | J-38125-11A | Not Available | Not Available | Not Available | Not Available |
| VII | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| VIII | Not Required | J-35616-43 (RD) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| IX | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | GN/WH | 1324 | V | - | Backup Lamp Control | 1 | 0.5 | GN/WH | 1324 | VII | - |
| 2 | 0.35<br>0.35 | VT/GY<br>VT/BN | 139<br>4669 | V<br>V | UVC<br>UVH | Run/Crank Ignition 1 Voltage<br>Rear Camera Control | 2 | 0.35<br>0.35 | VT/GY<br>VT/BN | 139<br>4669 | VII<br>VII | UVC<br>UVH |
| 3 | 0.35 | BU/WH | 6128 | V | TB4 | Rear Closure Unlatch Motor Unlatch Control | 3 | 0.35 | BU/WH | 6128 | VII | TB4 |
| 4 | 0.35 | VT/GY | 1303 | V | TB4 | Lift Gate Ajar Switch Signal 1 | 4 | 0.35 | VT/GY | 1303 | VII | TB4 |
| 5 | 0.5 | YE/BU | 5797 | V | TB5/TC2 | Rear Closure Handle Switch Open Signal | 5 | 0.5 | YE/BU | 5797 | VII | TB5/TC2 |
| 6 | 0.35 | GN/YE | 6846 | V | - | Rear License Lamp Control | 6 | 0.35 | GN/YE | 6846 | VII | - |
| 7 | 0.35 | WH/BU | 6973 | V | - | Camera Signal 2 | 7 | 0.35 | WH/BU | 6973 | VII | - |
| 8 | 0.35 | GY/YE | 6972 | V | - | Camera Signal 2 + | 8 | 0.35 | GY/YE | 6972 | VII | - |
| 9 | 0.35 | GN/BK | 4659 | V | TB5/TC2 | Rear Closure Open | 9 | 0.35 | GN/BK | 4659 | VII | TB5/TC2 |
| 10 | 0.35 | BU/BK | 4665 | V | TB5/TC2 | Rear Closure Ajar Switch Signal 2 | 10 | 0.35 | BU/BK | 4665 | VII | TB5/TC2 |
| 11 | 0.35 | GY | 4668 | V | TB5/TC2 | Rear Closure Ajar Switch Signal 3 | 11 | 0.35 | GY | 4668 | VII | TB5/TC2 |
| 12 | 0.35 | GY/VT | 4678 | V | TB5/TC2 | Rear Closure Ajar Switch Signal 1 | 12 | 0.35 | GY/VT | 4678 | VII | TB5/TC2 |
| 13 | - | - | - | - | - | Not Occupied | 13 | - | - | - | - | - |
| 14 | 0.35 | BU/YE | 4679 | V | TB5/TC2 | Rear Closure Motor Release Control 2 | 14 | 0.35 | BU/YE | 4679 | VII | TB5/TC2 |
| 15 | 0.35 | GY/BK | 4654 | V | TB5/TC2 | Rear Closure Object Sensor Signal | 15 | 0.35 | GY/BK | 4654 | VII | TB5/TC2 |
| 16 | 0.35 | BK/VT | 4656 | V | TB5/TC2 | Rear Closure Object Sensor Low Reference | 16 | 0.35 | BK/VT | 4656 | VII | TB5/TC2 |
| 17 | 0.35<br>0.35 | BK<br>BK/YE | 2550<br>4670 | V<br>V | UVC<br>UVH | Ground<br>Rear Camera Return | 17 | 0.35<br>0.35 | BK<br>BK/YE | 2550<br>4670 | VII<br>VII | UVC<br>UVH |
| 18 | 0.35 | GY/WH | 3034 | V | TB5/TC2 | Lift Gate Shut Face Switch LED Control | 18 | 0.35 | GY/WH | 3034 | VII | TB5/TC2 |
| 19 | 0.35 | BARE | 6974 | V | - | Camera Low Reference | 19 | 0.35 | BARE | 6974 | VII | - |
| 20 | 0.35 | GN | 3033 | V | TB5/TC2 | Lift Gate Shut Face Switch Signal | 20 | 0.35 | GN | 3033 | VII | TB5/TC2 |
| 21 - 23 | - | - | - | - | - | Not Occupied | 21 - 23 | - | - | - | - | - |
| 24 | 1 | BK/VT | 4656 | IV | - | Rear Closure Object Sensor Low Reference | 24 | 1 | BK/VT | 4656 | VII | - |
| 25 | 2 | BK | 2550 | III | - | Ground | 25 | 2 | BK | 2550 | VIII | - |
| 26 | 1.5 | BK | 2550 | VI | - | Ground | 26 | 1.5 | BK | 2550 | IX | - |
| 27 | 1 | RD/BN | 1742 | II | - | Battery Positive Voltage | 27 | 1 | RD/BN | 1742 | IX | - |
| 28 | 0.5 | YE/GY | 122 | I | - | Rear Fog Lamp Control | 28 | 0.5 | YE/GY | 122 | IX | - |
| 29 | 1 | BU | 393 | II | - | Rear Window Wiper Motor Control | 29 | 1 | BU | 393 | IX | - |

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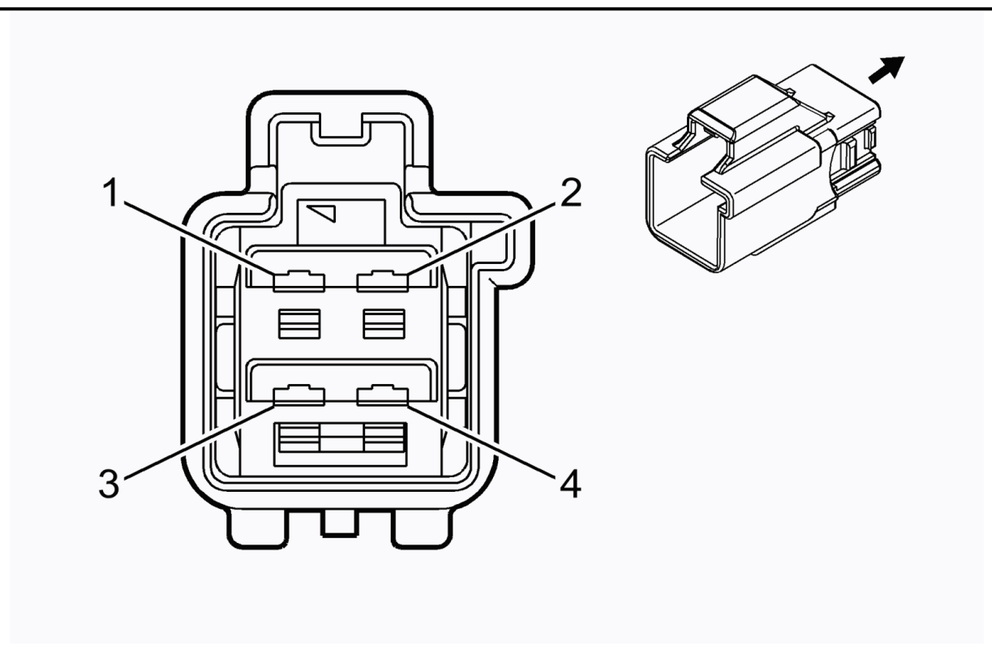
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 2 | BN/VT | 293 | III | - | Rear Defog Element Control | 30 | 2 | BN/VT | 293 | VIII | - |

## X901 BODY HARNESS TO LIFTGATE HARNESS




Connector Part Information

- Harness Type: Body
- OEM Connector: 13581041
- Service Connector: 19368658
- Description: 4-Way F YESC Kaizen Series (L-GY)




Connector Part Information

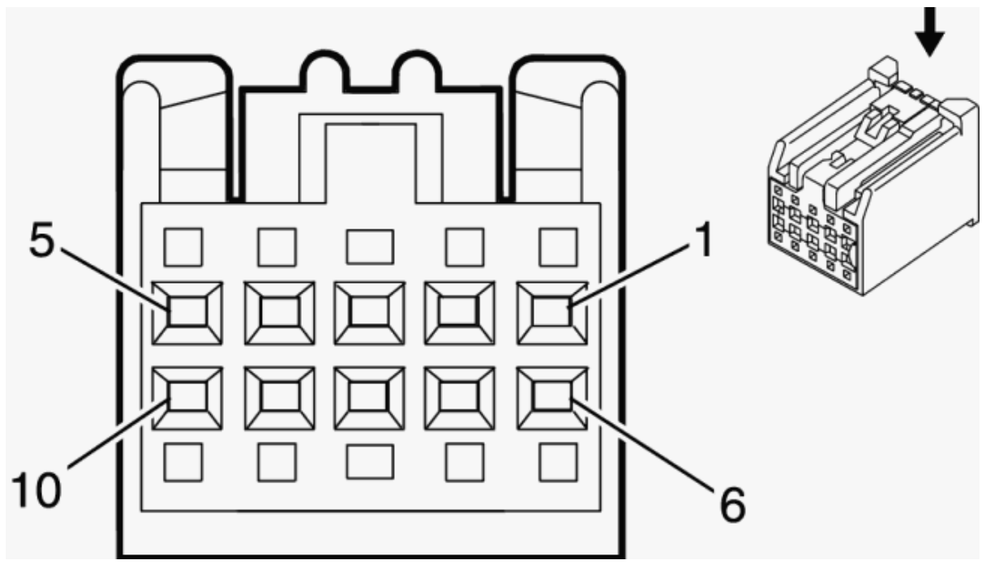
- Harness Type: Liftgate
- OEM Connector: 13581042
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M 2.8 YESC Series (GY)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-35 (VT) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-5 (PU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

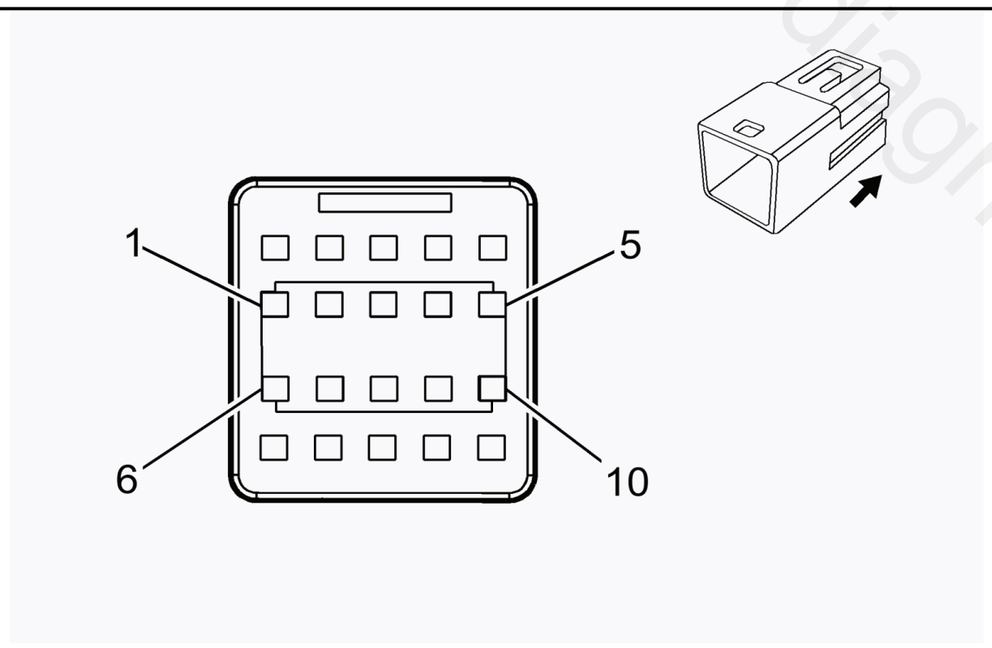
| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.5 | WH/YE | 1204 | I | - | Left Park Lamp Control | 1 | 0.5 | WH/YE | 1204 | II | - |
| 2 | 0.5 | VT | 1203 | I | - | Right Park Lamp Control | 2 | 0.5 | VT | 1203 | II | - |
| 3 | 1 | BN | 4681 | I | TB5/TC2 | Rear Closure Cinch Latch Motor Open Control | 3 | 1 | BN | 4681 | II | TB5/TC2 |
| 4 | 1 | BU/GY | 4682 | I | TB5/TC2 | Rear Closure Cinch Latch Motor Close Control | 4 | 1 | BU/GY | 4682 | II | TB5/TC2 |

## X902 LICENSE LAMP HARNESS TO LIFTGATE HARNESS (Z88)




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 13577390
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Kaizen Series (BK)




Connector Part Information

- Harness Type: Liftgate
- OEM Connector: 19177677
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way M 0.64 Kaizen Series (BK)

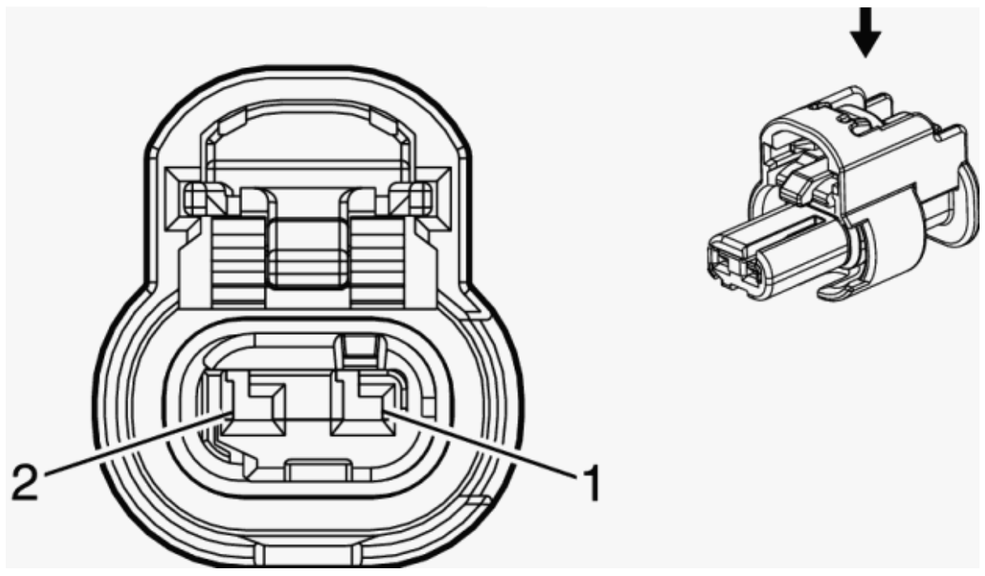
**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-64B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-65B (LT BU) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | - | - | - | - | Not Occupied | 1 | - | - | - | - | - |
| 2 | 0.35 | GN/YE | 6846 | I | Z88 | Rear License Lamp Control | 2 | 0.35 | GN/YE | 6846 | II | Z88 |
| 3 | 0.35 | VT/GY | 139 | I | Z88+UVC | Run/Crank Ignition 1 Voltage | 3 | 0.35 | VT/GY | 139 | II | Z88+UVC/UVH |
| 4 | 0.35<br>0.35 | BK/WH<br>BK/YE | 2550<br>4670 | I<br>I | Z88+UVC<br>Z88+UVH | Ground<br>Rear Camera Return | 4 | 0.35 | BK | 2550 | II | Z88+UVC/UVH |
| 5 | 0.35 | BARE | 6974 | I | - | Camera Low Reference | 5 | 0.35 | BARE | 6974 | II | Z88+UVC/UVH |
| 6 | 0.35 | GY/YE | 6972 | I | - | Camera Signal 2 + | 6 | 0.35 | GY/YE | 6972 | II | Z88+UVC/UVH |
| 7 | 0.35 | WH/BU | 6973 | I | - | Camera Signal 2 | 7 | 0.35 | WH/BU | 6973 | II | Z88+UVC/UVH |
| 8 - 9 | - | - | - | - | - | Not Occupied | 8 - 9 | - | - | - | - | - |
| 10 | 0.35 | BK | 2550 | I | Z88 | Ground | 10 | 0.35 | BK | 2550 | II | Z88 |

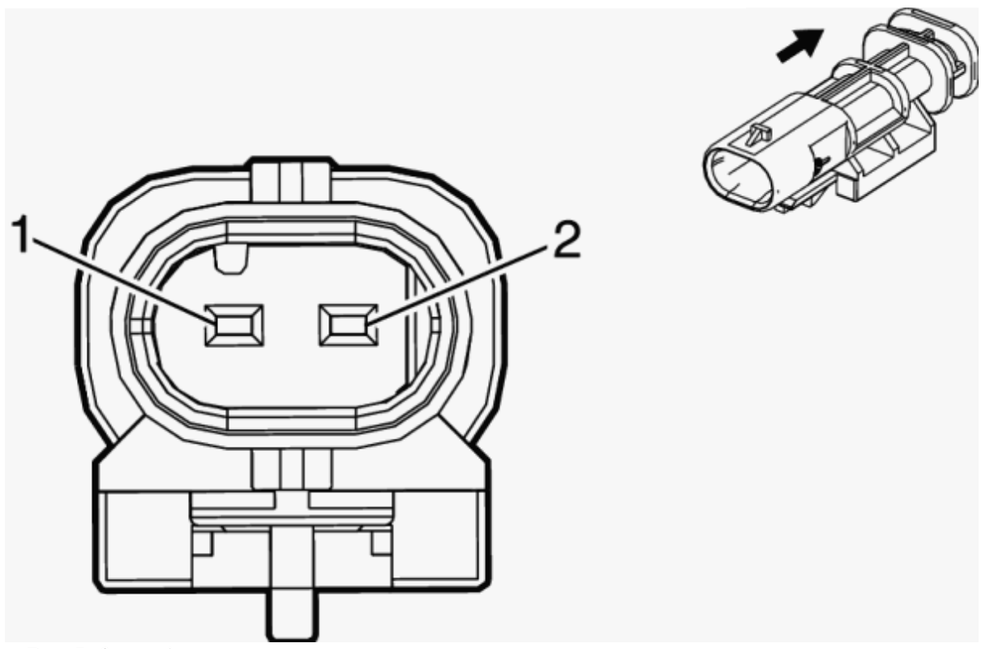
## X903 BODY HARNESS TO CENTER HIGH MOUNT STOP LAMP HARNESS (Z88)

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Connector Part Information

- Harness Type: Body
- OEM Connector: 1-2296694-1
- Service Connector: 19366858
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)




Connector Part Information

- Harness Type: Center High Mount Stop Lamp
- OEM Connector: 13591337
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

**Terminal Part Information**

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray Name | Core Crimp | Insulation Crimp |
|---|---|---|---|---|---|---|---|
| I | Not Required | J-35616-16 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |
| II | Not Required | J-35616-17 (LT GN) | No Tool Required | Not Required | Not Required | Not Required | Not Required |

| Pin | Size | Color | Circuit | Terminal Type ID | Option | Function | Pin | Size | Color | Circuit | Terminal Type ID | Option |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.35 | BK | 2550 | I | EPH | Ground | 1 | 0.35 | BK | 2550 | II | EPH |
| 2 | 0.35 | VT/WH | 5065 | I | EPH | Stop Lamp Relay Coil Control | 2 | 0.35 | VT/WH | 5065 | II | EPH |

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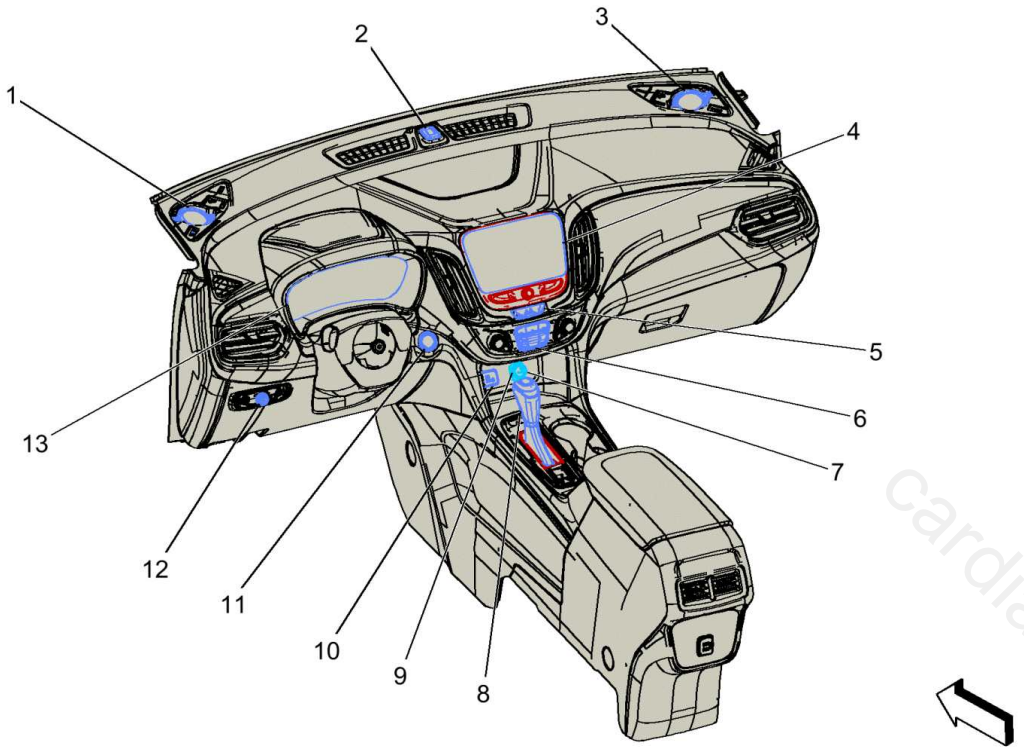
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# INSTRUMENT PANEL/CENTER CONSOLE COMPONENT VIEWS

## INSTRUMENT PANEL AND SHIFT LEVER




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**Fig. 1: Instrument Panel and Shift Lever**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. P19J Speaker - Left Instrument Panel P19J Speaker - Left Instrument Panel (UQA) P19J Speaker - Left Instrument Panel (UZ6) |
| 2. B10B Ambient Light/Sunload Sensor B10B Ambient Light/Sunload Sensor |
| 3. P19W Speaker - Right Instrument Panel P19W Speaker - Right Instrument Panel (IOR+UZ6) P19W Speaker - Right Instrument Panel (NKC+UZ6) P19W Speaker - Right Instrument Panel (UQA) P19W Speaker - Right Instrument Panel (UZ6) |
| 4. P17 Info Display Module P17 Info Display Module X1 (IOB) P17 Info Display Module X1 (IOR) P17 Info Display Module X1 (IOS/IOT/IOU/IO5/IO6) P17 Info Display Module X2 (IOB/IO5/IO6) P17 Info Display Module X2 (IOR) P17 Info Display Module X2 (IOS/IOT/IOU) |
| 5. S26 Hazard Warning Switch S26 Hazard Warning Switch |
| 6. A26 HVAC Controls A26 HVAC Controls |
| 7. X80G Accessory Power Receptacle - Instrument Panel X80G Accessory Power Receptacle - Instrument Panel (KC5) |
| 8. S3 Transmission Shift Lever (Without EPH) S3 Transmission Shift Lever (-EPH) |
| 9. E32 Cigarette Lighter Receptacle (SAO/U37) E32 Cigarette Lighter Receptacle (SAO/U37) |
| 10. X83 Auxiliary Audio Input X83 Auxiliary Audio Input X1 (IO5/IO6+UST) X83 Auxiliary Audio Input X1 (IOB+USR) X83 Auxiliary Audio Input X1 (Z88) X83 Auxiliary Audio Input X2 (IO5/IO6+UST) X83 Auxiliary Audio Input X2 (IOB+USR) X83 Auxiliary Audio Input X2 (Z88) |
| 11. P19K Speaker - Left Instrument Panel P19K Speaker - Left Instrument Panel (UQA) P19K Speaker - Left Instrument Panel (UZ6) |
| 12. P19V Speaker - Right Instrument Panel P19V Speaker - Right Instrument Panel (IOR+UZ6) P19V Speaker - Right Instrument Panel (NKC+UZ6) P19V Speaker - Right Instrument Panel (UQA) P19V Speaker - Right Instrument Panel (UZ6) |
| 13. P19L Speaker - Left Instrument Panel P19L Speaker - Left Instrument Panel (UQA) P19L Speaker - Left Instrument Panel (UZ6) |

| Items |
| --- |
| 11. S38 Ignition Mode Switch S38 Ignition Mode Switch (X88) S38 Ignition Mode Switch (Z88) |
| 12. S30 Headlamp Switch S30 Headlamp Switch |
| 13. P16 Instrument Cluster P16 Instrument Cluster X1 P16 Instrument Cluster X3 |

## MIDDLE OF THE INSTRUMENT PANEL/ACCENT LIGHTING

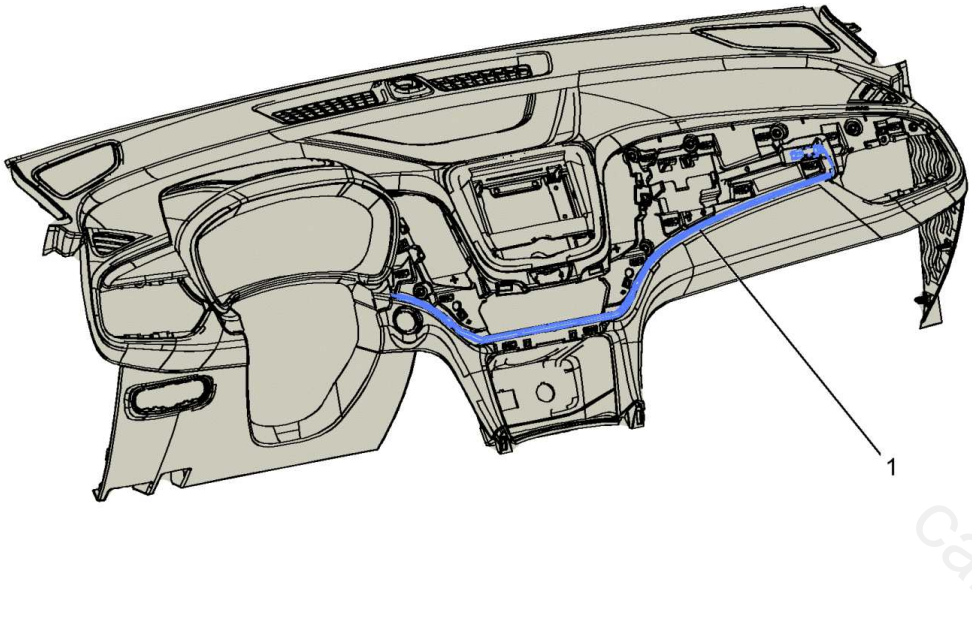



Fig. 2: Middle of Instrument Panel/Accent Lighting
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E1H Accent Lamp - Right Instrument Panel (TSQ) E1H Accent Lamp - Right Instrument Panel (TSQ) |

## LEFT SIDE OF THE INSTRUMENT PANEL

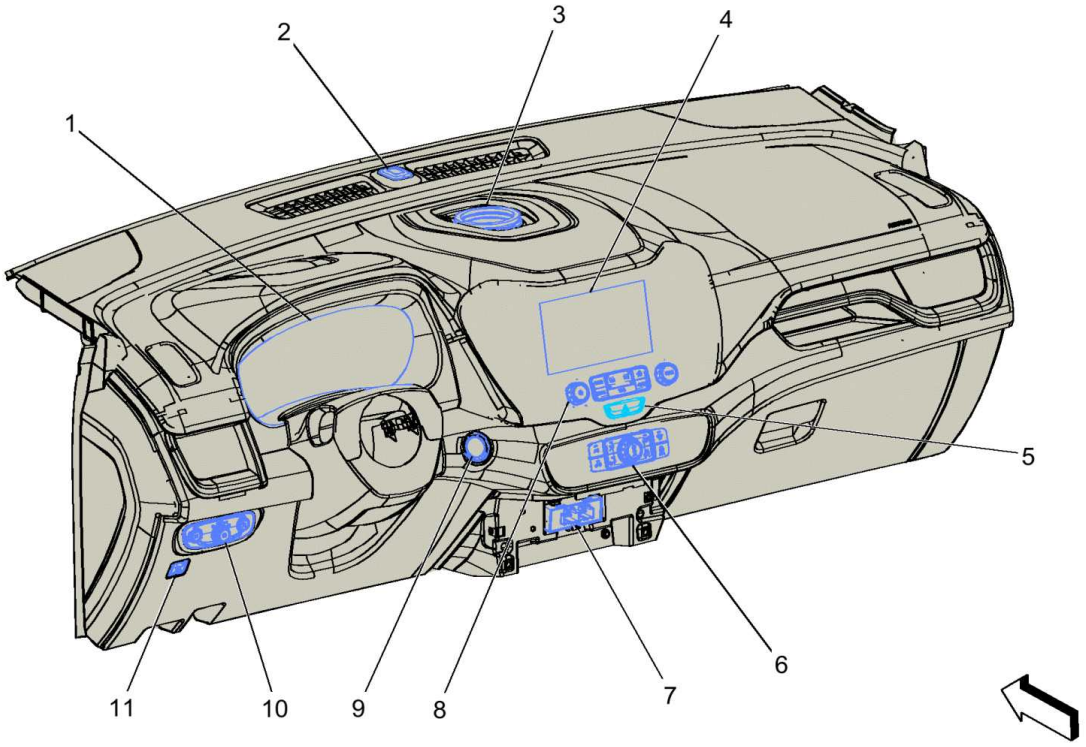



**Fig. 3: Left Side of Instrument Panel**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. P16 Instrument Cluster **P16 Instrument Cluster X1** **P16 Instrument Cluster X3** |
| 2. B10B Ambient Light/Sunload Sensor **B10B Ambient Light/Sunload Sensor** |
| 3. P19B Speaker - Center Instrument Panel (UQA) **P19B Speaker - Center Instrument Panel (UQA)** |
| 4. P17 Info Display Module **P17 Info Display Module X1 (IOB)** **P17 Info Display Module X1 (IOR)** **P17 Info Display Module X1 (IOS/IOT/IOU/IO5/IO6)** **P17 Info Display Module X2 (IOB/IO5/IO6)** **P17 Info Display Module X2 (IOR)** **P17 Info Display Module X2 (IOS/IOT/IOU)** |
| 5. S26 Hazard Warning Switch **S26 Hazard Warning Switch** |
| 6. A26 HVAC Controls **A26 HVAC Controls** |
| 7. K56 Serial Data Gateway Module **K56 Serial Data Gateway Module X1** **K56 Serial Data Gateway Module X2** |
| 8. A22 Radio Controls (IOB or IOR) **A22 Radio Controls (IOB/IOR)** |
| 9. S38 Ignition Mode Switch **S38 Ignition Mode Switch (X88)** **S38 Ignition Mode Switch (Z88)** |
| 10. S30 Headlamp Switch **S30 Headlamp Switch** |
| 11. B80 Park Brake Switch **B80 Park Brake Switch (-EPH)** **B80 Park Brake Switch (EPH)** |

## RIGHT SIDE OF THE INSTRUMENT PANEL/ACCENT LIGHTING

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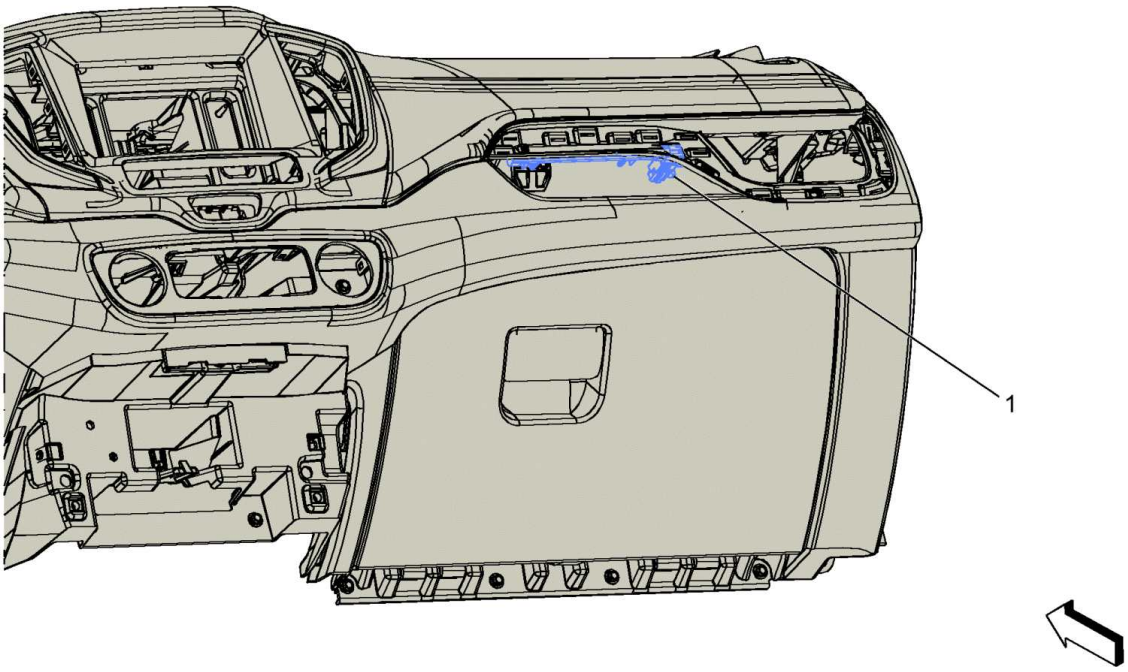



Fig. 4: Right Side of Instrument Panel/Accent Lighting
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E1H Accent Lamp - Right Instrument Panel (TSQ) E1H Accent Lamp - Right Instrument Panel (TSQ) |

## BEHIND THE INSTRUMENT PANEL (CHEVROLET)

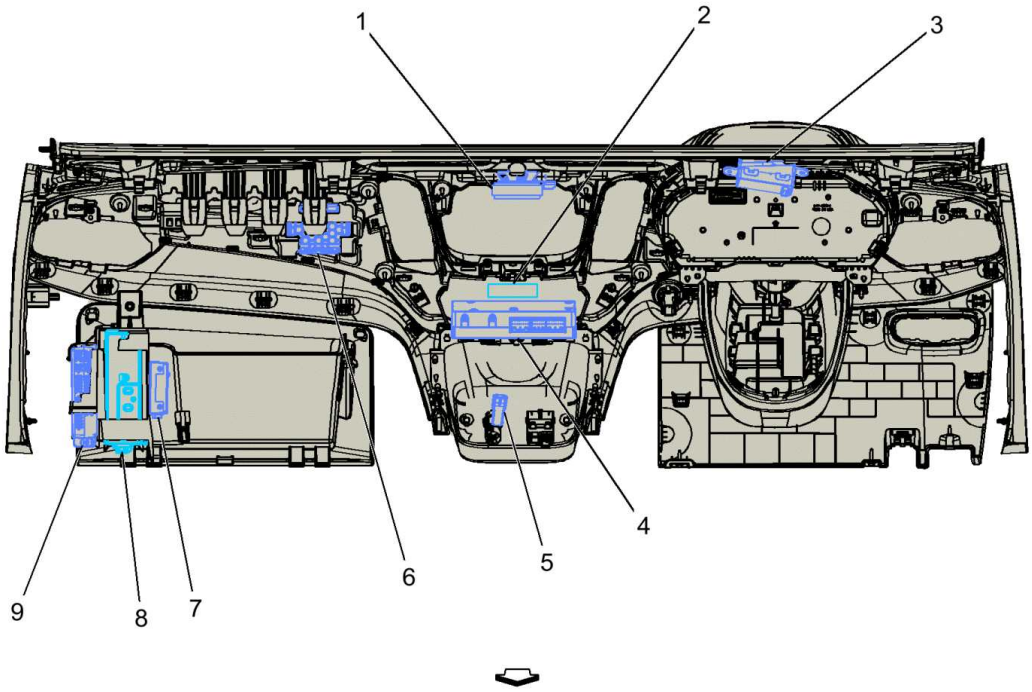



Fig. 5: Behind Instrument Panel (Chevrolet)
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. P19B Speaker - Center Instrument Panel (UQA) **P19B Speaker - Center Instrument Panel (UQA)** |
| 2. C3 Telematics Communication Interface Control Module Battery (UE1) **C3 Telematics Communication Interface Control Module Battery (UE1+IOB/IO5/IO6)** |
| 3. P43 Collision Alert Indicators (UEU) **P43 Collision Alert Indicators (UEU)** |
| 4. K73 Telematics Communication Interface Control Module (UE1) **K73 Telematics Communication Interface Control Module X1 (UE1+IOB/IO5/IO6)** **K73 Telematics Communication Interface Control Module X1 (UE1+IOR/IOS/IOT/IOU)** **K73 Telematics Communication Interface Control Module X2 (UE1+IOB/IO5/IO6)** **K73 Telematics Communication Interface Control Module X5 (UE1)** **K73 Telematics Communication Interface Control Module X7 (UE1)** |
| 5. R6F Terminating Resistor - High Speed Extension Bus 2 **R6F Terminating Resistor - High Speed Extension Bus 2** |
| 6. K56 Serial Data Gateway Module **K56 Serial Data Gateway Module X1** **K56 Serial Data Gateway Module X2** |
| 7. K188 Human Machine Interface Control Module Bypass Module (IO5/IO6 with MAH or MBC) **K188 Human Machine Interface Control Module Bypass Module X1 (IO5/IO6+MAH/MBC)** **K188 Human Machine Interface Control Module Bypass Module X2 (IO5/IO6+MAH/MBC)** **K188 Human Machine Interface Control Module Bypass Module X3 (IO5/IO6+MAH/MBC)** |
| 8. A11 Radio **A11 Radio X1 (IO5/IO6)** **A11 Radio X1 (IOB)** **A11 Radio X1 (IOR)** **A11 Radio X1 (IOS/IOT/IOU)** **A11 Radio X2 (IO5/IO6)** **A11 Radio X2 (IOB)** **A11 Radio X2 (IOR)** **A11 Radio X2 (IOS/IOT/IOU)** **A11 Radio X3 (IO5/IO6)** **A11 Radio X3 (IOB+MCY)** **A11 Radio X3 (IOR)** **A11 Radio X3 (IOS/IOT/IOU)** **A11 Radio X4 (IO5/IO6)** **A11 Radio X4 (IOB)** **A11 Radio X4 (IOR)** **A11 Radio X4 (IOS/IOT/IOU+U2K)** **A11 Radio X4 (IOS/IOT/IOU-UE1)** **A11 Radio X5 (IO5/IO6+U2K)** **A11 Radio X5 (IOB+U2K)** **A11 Radio X5 (IOR)** **A11 Radio X5 (IOS/IOT/IOU+U2K)** **A11 Radio X6 (IOR+UE1)** **A11 Radio X6 (IOS/IOT/IOU)** **A11 Radio X7 (IOB)** **A11 Radio X7 (IOS/IOT/IOU)** |
| 9. K74 Human Machine Interface Control Module **K74 Human Machine Interface Control Module X1 (IO5/IO6)** **K74 Human Machine Interface Control Module X2 (IO5/IO6)** **K74 Human Machine Interface Control Module X3 (IO5/IO6)** **K74 Human Machine Interface Control Module X4 (IO5/IO6)** **K74 Human Machine Interface Control Module X5 (IO5/IO6)** **K74 Human Machine Interface Control Module X7 (IO6)** |

## BEHIND THE INSTRUMENT PANEL (GMC)

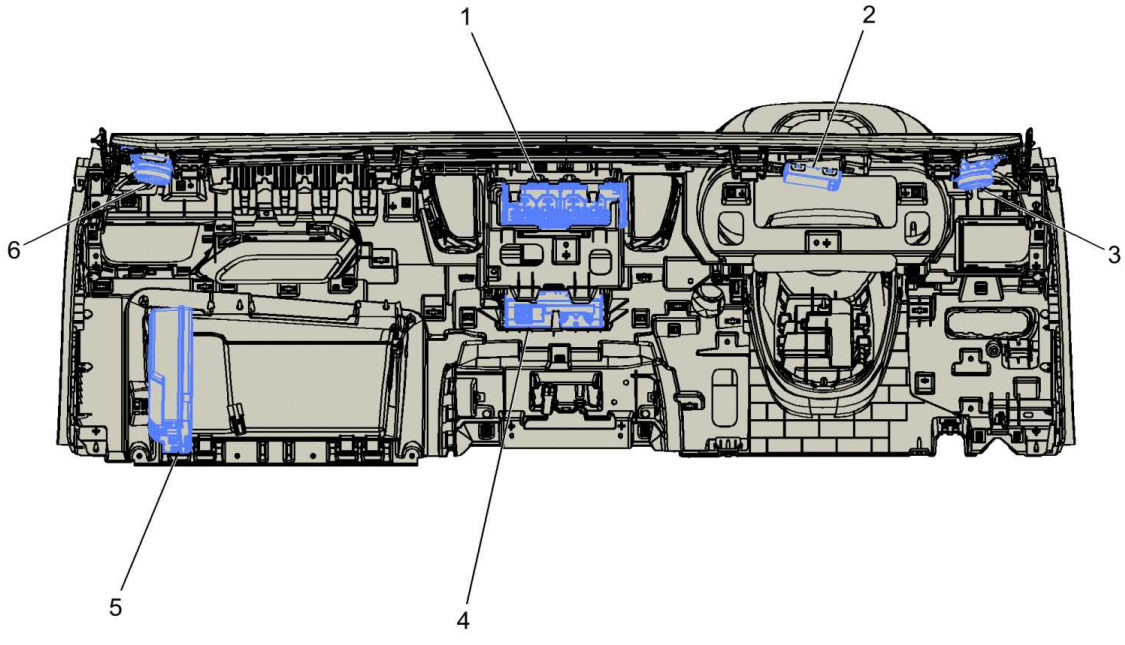


Fig. 6: Behind Instrument Panel (GMC)
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. K33 HVAC Control Module K33 HVAC Control Module X1 K33 HVAC Control Module X2 K33 HVAC Control Module X3 K33 HVAC Control Module X4 (CJ2) |
| 2. P43 Collision Alert Indicators (UEU) P43 Collision Alert Indicators (UEU) |
| 3. P19J Speaker - Left Instrument Panel P19J Speaker - Left Instrument Panel (UQA) P19J Speaker - Left Instrument Panel (UZ6) |
| 4. K73 Telematics Communication Interface Control Module (UE1) K73 Telematics Communication Interface Control Module X1 (UE1+IOB/IO5/IO6) K73 Telematics Communication Interface Control Module X1 (UE1+IOR/IOS/IOT/IOU) K73 Telematics Communication Interface Control Module X2 (UE1+IOB/IO5/IO6) K73 Telematics Communication Interface Control Module X5 (UE1) K73 Telematics Communication Interface Control Module X7 (UE1) |
| 5. A11 Radio A11 Radio X1 (IO5/IO6) A11 Radio X1 (IOB) A11 Radio X1 (IOR) A11 Radio X1 (IOS/IOT/IOU) A11 Radio X2 (IO5/IO6) A11 Radio X2 (IOB) A11 Radio X2 (IOR) A11 Radio X2 (IOS/IOT/IOU) A11 Radio X3 (IO5/IO6) A11 Radio X3 (IOB+MCY) A11 Radio X3 (IOR) A11 Radio X3 (IOS/IOT/IOU) A11 Radio X4 (IO5/IO6) A11 Radio X4 (IOB) A11 Radio X4 (IOR) A11 Radio X4 (IOS/IOT/IOU+U2K) A11 Radio X4 (IOS/IOT/IOU-UE1) A11 Radio X5 (IO5/IO6+U2K) A11 Radio X5 (IOB+U2K) A11 Radio X5 (IOR) A11 Radio X5 (IOS/IOT/IOU+U2K) A11 Radio X6 (IOR+UE1) A11 Radio X6 (IOS/IOT/IOU) A11 Radio X7 (IOB) A11 Radio X7 (IOS/IOT/IOU) |
| 6. P19W Speaker - Right Instrument Panel P19W Speaker - Right Instrument Panel (IOR+UZ6) P19W Speaker - Right Instrument Panel (NKC+UZ6) P19W Speaker - Right Instrument Panel (UQA) P19W Speaker - Right Instrument Panel (UZ6) |

## LOWER LEFT OF THE INSTRUMENT PANEL/DATA LINK CONNECTOR

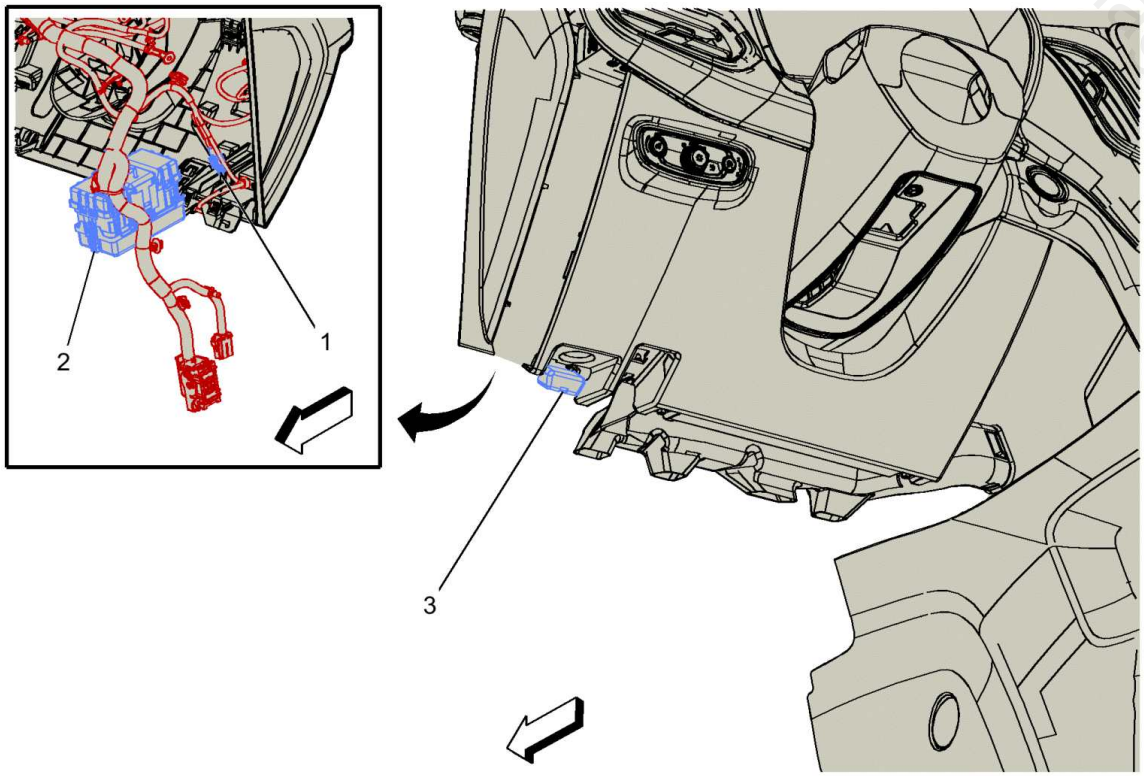



Fig. 7: Lower Left of Instrument Panel/Data Link Connector
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. X22 USB Drive Data Connector (UDD+IOS/IOT/IOU) X22 USB Drive Data Connector (UDD+IOS/IOT/IOU) |
| 2. X51A Fuse Block - Instrument Panel X51A Fuse Block - Instrument Panel |
| 3. X84 Data Link Connector X84 Data Link Connector |

## STEERING WHEEL (GMC WITH UVD) 1 OF 2

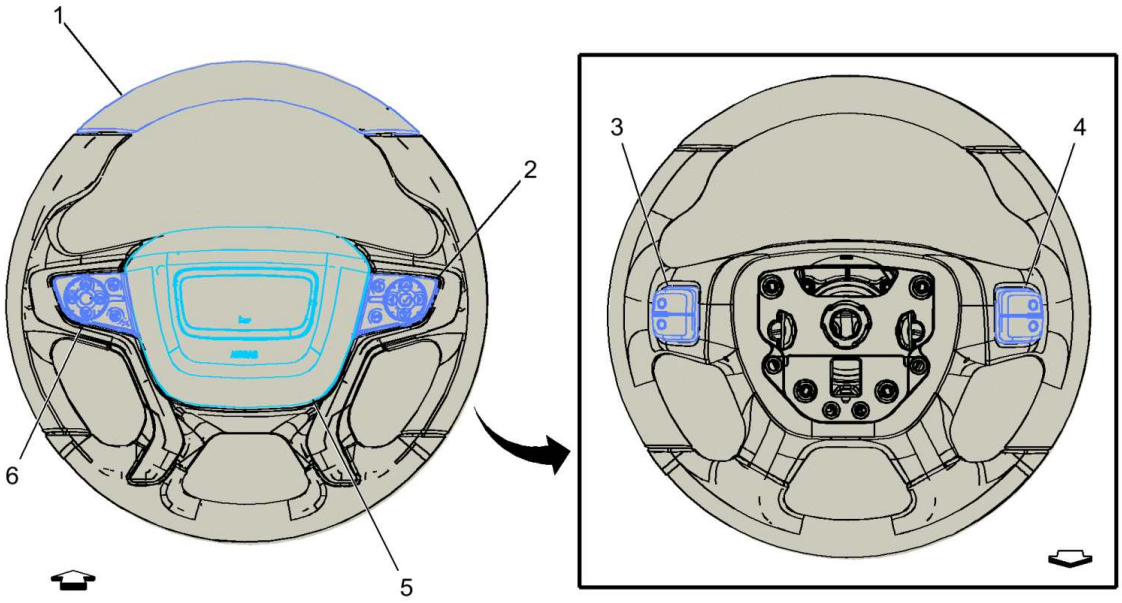



**Fig. 8: Steering Wheel (GMC with UVD) 1 of 2**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K32 Steering Wheel Heating Control Module (UVD) **K32 Steering Wheel Heating Control Module (UVD)** |
| 2. S70R Steering Wheel Controls Switch - Right **S70R Steering Wheel Controls Switch - Right (EPH)** **S70R Steering Wheel Controls Switch - Right (-EPH)** |
| 3. S70F Steering Wheel Controls Switch - Radio Volume **S70F Steering Wheel Controls Switch - Radio Volume** |
| 4. S70E Steering Wheel Controls Switch - Radio Presets **S70E Steering Wheel Controls Switch - Radio Presets** |
| 5. F107 Steering Wheel Air Bag **F107 Steering Wheel Air Bag (AJG)** **F107 Steering Wheel Air Bag X1 (AY0)** **F107 Steering Wheel Air Bag X2 (AY0)** |
| 6. S70L Steering Wheel Controls Switch - Left **S70L Steering Wheel Controls Switch - Left (-EPH)** **S70L Steering Wheel Controls Switch - Left (EPH)** |

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## STEERING WHEEL (GMC WITH UVD) 2 OF 2

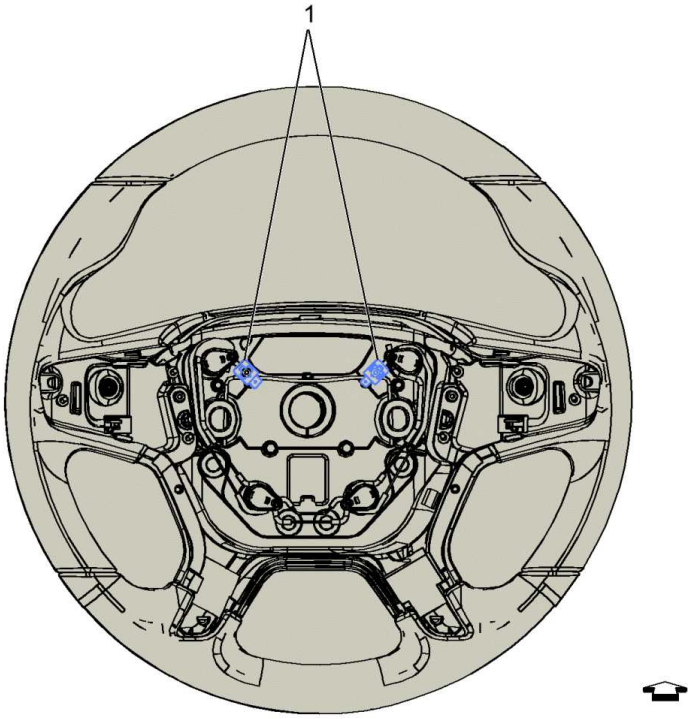



Fig. 9: Steering Wheel (GMC with UVD) 2 of 2
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S33 Horn Switch S33 Horn Switch X1 S33 Horn Switch X2 |

## STEERING WHEEL (CHEVROLET) 1 OF 2

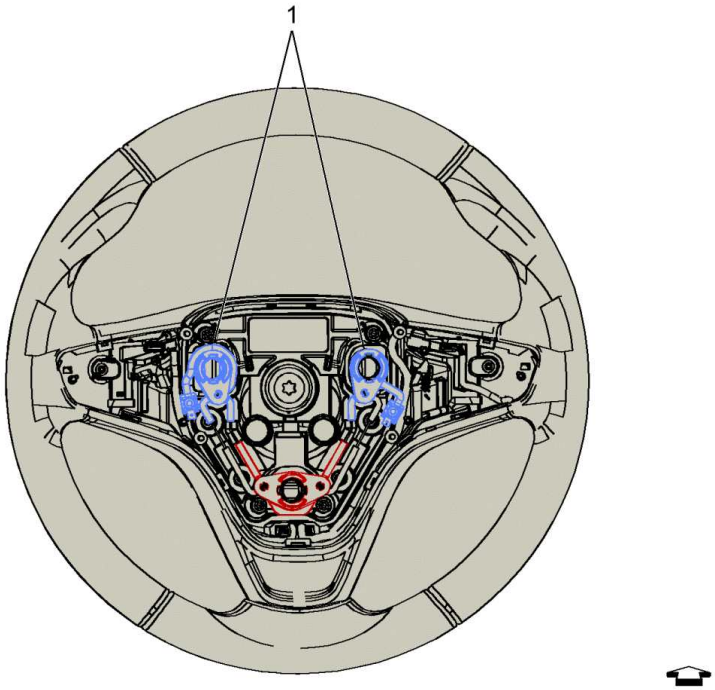



Fig. 10: Steering Wheel (Chevrolet) 1 of 2
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S33 Horn Switch S33 Horn Switch X1 S33 Horn Switch X2 |

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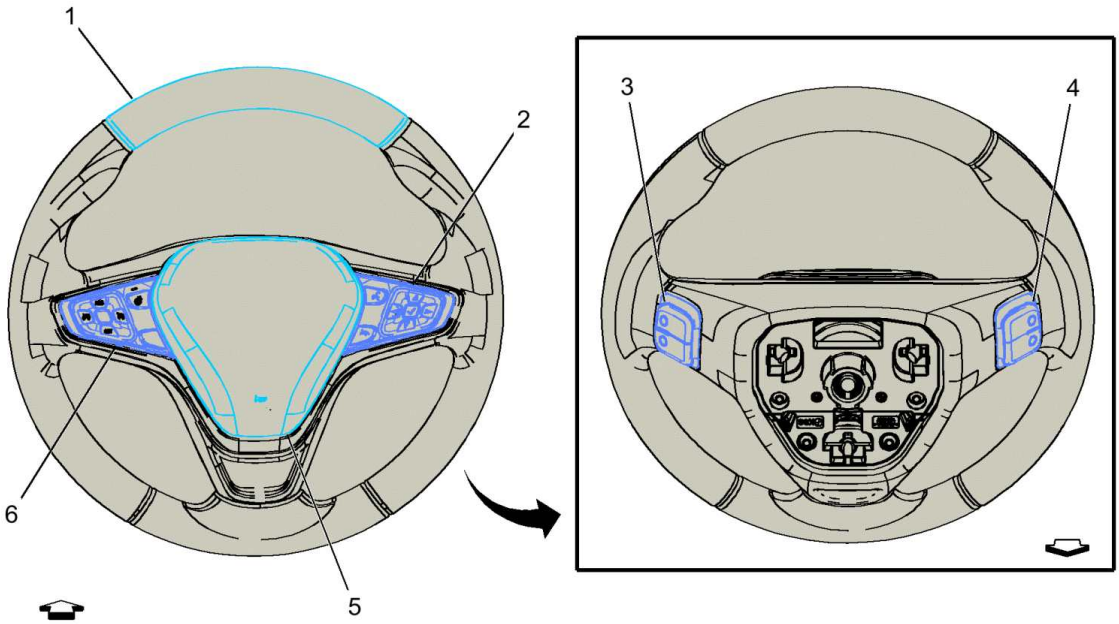



Fig. 11: Steering Wheel (Chevrolet) 2 of 2
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K32 Steering Wheel Heating Control Module (UVD) K32 Steering Wheel Heating Control Module (UVD) |
| 2. S70R Steering Wheel Controls Switch - Right S70R Steering Wheel Controls Switch - Right (EPH) S70R Steering Wheel Controls Switch - Right (-EPH) |
| 3. S70F Steering Wheel Controls Switch - Radio Volume S70F Steering Wheel Controls Switch - Radio Volume |
| 4. S70E Steering Wheel Controls Switch - Radio Presets S70E Steering Wheel Controls Switch - Radio Presets |
| 5. F107 Steering Wheel Air Bag F107 Steering Wheel Air Bag (AJG) F107 Steering Wheel Air Bag X1 (AY0) F107 Steering Wheel Air Bag X2 (AY0) |
| 6. S70L Steering Wheel Controls Switch - Left S70L Steering Wheel Controls Switch - Left (-EPH) S70L Steering Wheel Controls Switch - Left (EPH) |

## STEERING WHEEL CONTROLS

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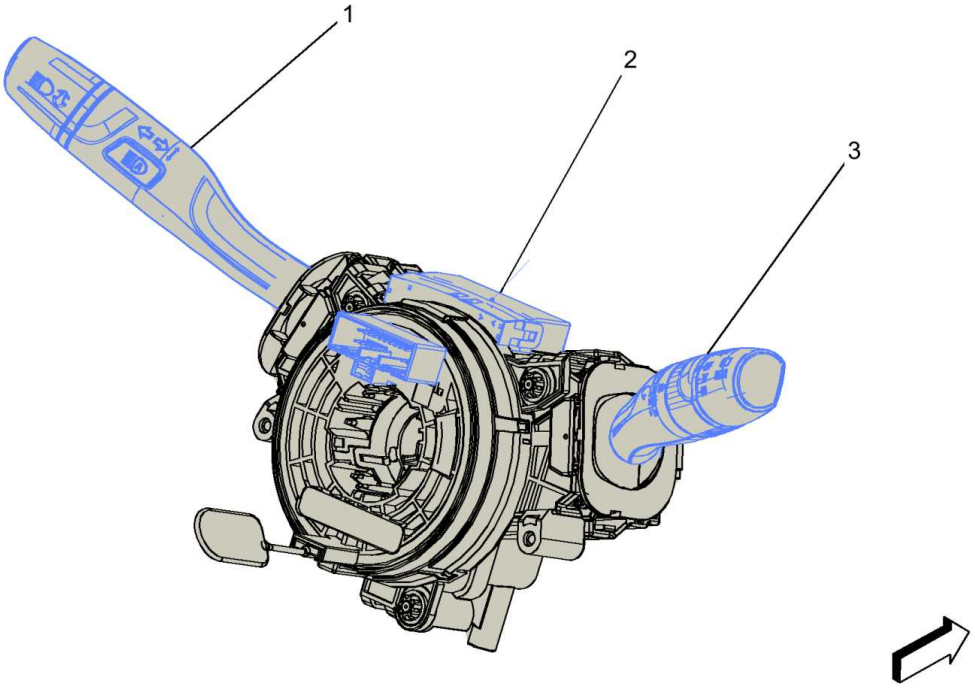



**Fig. 12: Steering Wheel Controls**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S78 Turn Signal/Multifunction Switch **S78 Turn Signal/Multifunction Switch** |
| 2. X85 Steering Wheel Air Bag Coil **X85 Steering Wheel Air Bag Coil X1** **X85 Steering Wheel Air Bag Coil X2** |
| 3. S82 Windshield Wiper/Washer Switch **S82 Windshield Wiper/Washer Switch** |

## HVAC ASSEMBLY

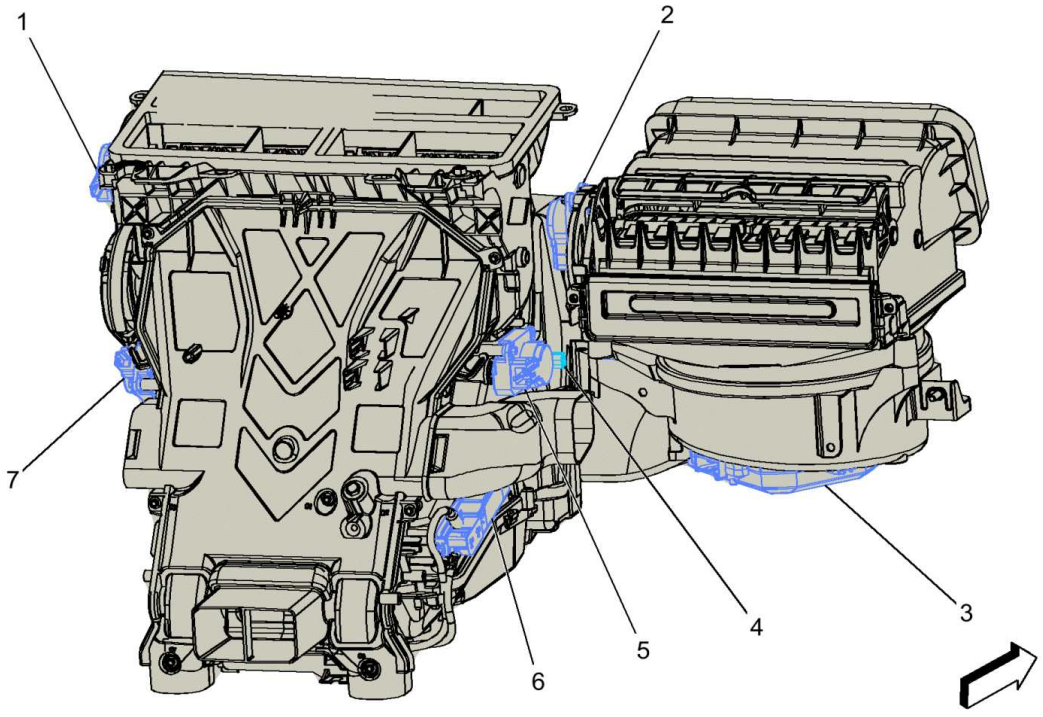



**Fig. 13: HVAC Assembly**
**Courtesy of GENERAL MOTORS COMPANY**

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| Items |
| --- |
| 1. M37 Mode Door Actuator **M37 Mode Door Actuator** |
| 2. M46 Air Recirculation Door Actuator **M46 Air Recirculation Door Actuator** |
| 3. M8 Blower Motor **M8 Blower Motor** |
| 4. B39 A/C Evaporator Temperature Sensor **B39 AC Evaporator Temperature Sensor** |
| 5. M6R Air Temperature Door Actuator - Right (CJ2) **M6R Air Temperature Door Actuator - Right (CJ2)** |
| 6. E40 Electrical Auxiliary Heater (C32) **E40 Electrical Auxiliary Heater X1 (C32)** **E40 Electrical Auxiliary Heater X2 (C32)** **E40 Electrical Auxiliary Heater X3 (C32)** |
| 7. M6L Air Temperature Door Actuator - Left (CJ2/C4P) **M6L Air Temperature Door Actuator - Left (CJ2/C4P)** |

## TOP AND REAR OF THE CENTER CONSOLE (CHEVROLET)

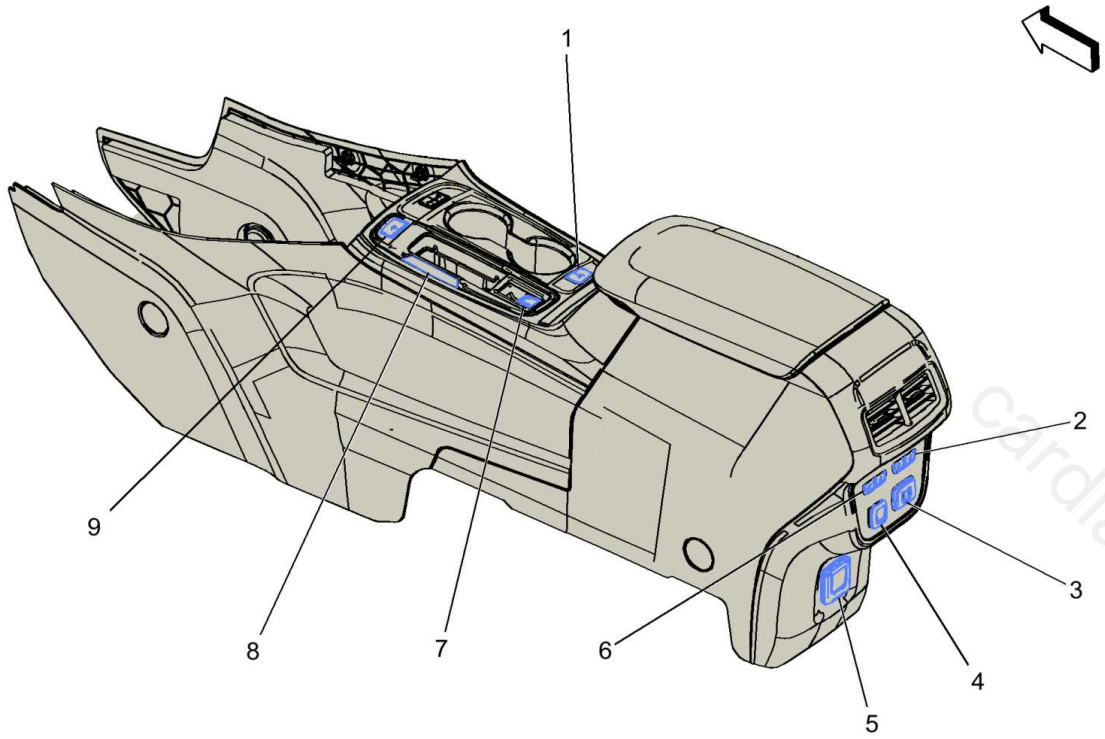



**Fig. 14: Top and Rear of Center Console (Chevrolet)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. S107 Parking Assist On/Off Switch **S107 Parking Assist On/Off Switch (UFQ+EPH)** **S107 Parking Assist On/Off Switch (UFQ-EPH)** |
| 2. S32RR Seat Heating Switch - Right Rear (KA6) **S32RR Seat Heating Switch - Right Rear (KA6)** |
| 3. X92C USB Receptacle - Center Console Rear (USS) **X92C USB Receptacle - Center Console Rear (USS)** |
| 4. X80L Accessory Power Receptacle - Center Console Rear (KPA) **X80L Accessory Power Receptacle - Center Console Rear (KPA)** |
| 5. X81 Accessory Power Receptacle - 110V AC (KI6) **X81 Accessory Power Receptacle - 110V AC X1 (KI6)** **X81 Accessory Power Receptacle - 110V AC X2 (KI6)** |
| 6. S32LR Seat Heating Switch - Left Rear (KA6) **S32LR Seat Heating Switch - Left Rear (KA6)** |
| 7. B80 Park Brake Switch **B80 Park Brake Switch (-EPH)** **B80 Park Brake Switch (EPH)** |
| 8. P2 Transmission Shift Lever Position Indicator **P2 Transmission Shift Lever Position Indicator** |
| 9. S126 Drive Mode Select Switch **S126 Drive Mode Select Switch (-EPH)** **S126 Drive Mode Select Switch (EPH)** |

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## TOP AND REAR OF THE CENTER CONSOLE (GMC)

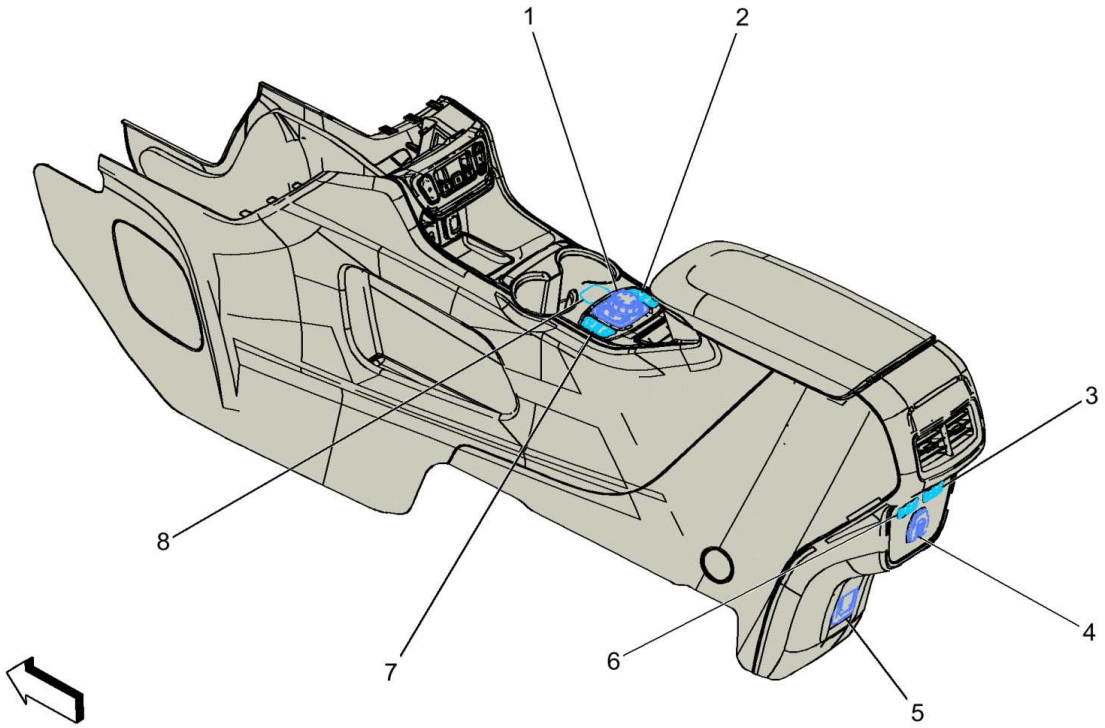



**Fig. 15: Top and Rear of Center Console (GMC)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. S126 Drive Mode Select Switch **S126 Drive Mode Select Switch (-EPH)** |
| 2. S32P Seat Heating Switch - Passenger (KA1) **S32P Seat Heating Switch - Passenger (Z88+KA1)** |
| 3. S32RR Seat Heating Switch - Right Rear (KA6) **S32RR Seat Heating Switch - Right Rear (KA6)** |
| 4. X80L Accessory Power Receptacle - Center Console Rear (KPA) **X80L Accessory Power Receptacle - Center Console Rear (KPA)** |
| 5. X81 Accessory Power Receptacle - 110V AC (KI6) **X81 Accessory Power Receptacle - 110V AC X1 (KI6)** **X81 Accessory Power Receptacle - 110V AC X2 (KI6)** |
| 6. S32LR Seat Heating Switch - Left Rear (KA6) **S32LR Seat Heating Switch - Left Rear (KA6)** |
| 7. S32D Seat Heating Switch - Driver (KA1) **S32D Seat Heating Switch - Driver (Z88+KA1)** |
| 8. S107 Parking Assist On/Off Switch **S107 Parking Assist On/Off Switch (UFQ+EPH)** **S107 Parking Assist On/Off Switch (UFQ-EPH)** |

## FRONT OF THE CENTER CONSOLE (GMC)

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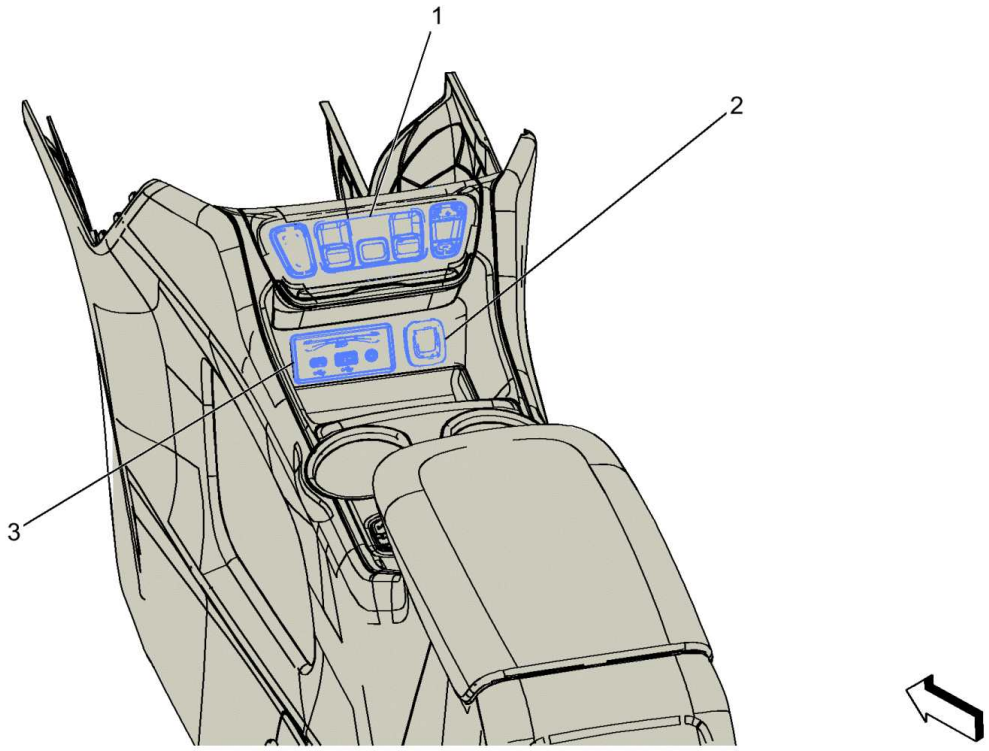
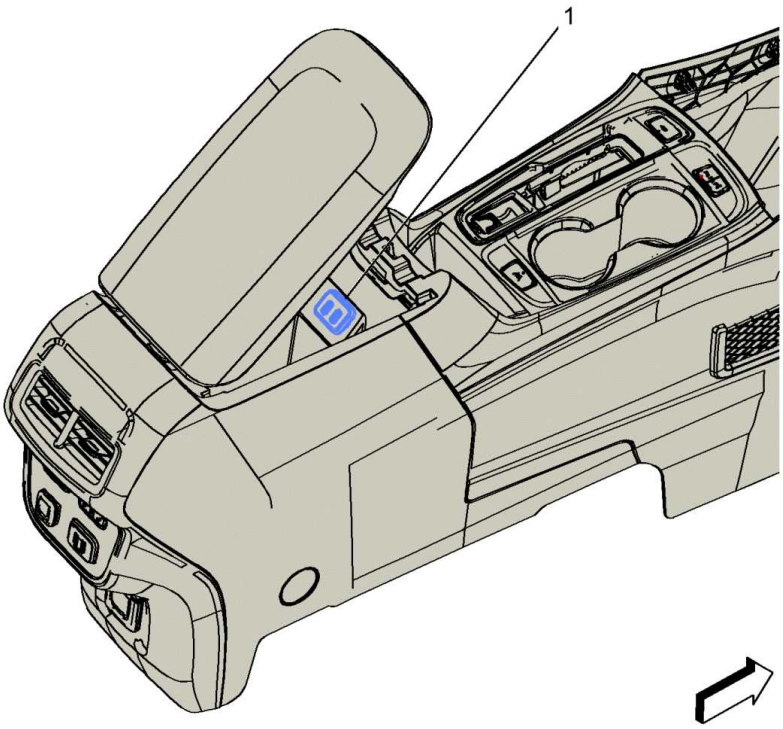



**Fig. 16: Center Console - Front (GMC)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A97 Transmission Range Selector Controls (EPH) **A97 Transmission Range Selector Controls (EPH)** |
| 2. E32 Cigarette Lighter Receptacle (SAO/U37) **E32 Cigarette Lighter Receptacle (SAO/U37)** |
| 3. X83 Auxiliary Audio Input **X83 Auxiliary Audio Input X1 (IO5/IO6+UST)** **X83 Auxiliary Audio Input X1 (IOB+USR)** **X83 Auxiliary Audio Input X1 (Z88)** **X83 Auxiliary Audio Input X2 (IO5/IO6+UST)** **X83 Auxiliary Audio Input X2 (IOB+USR)** **X83 Auxiliary Audio Input X2 (Z88)** |

**FRONT OF THE CENTER CONSOLE STORAGE COMPARTMENT**

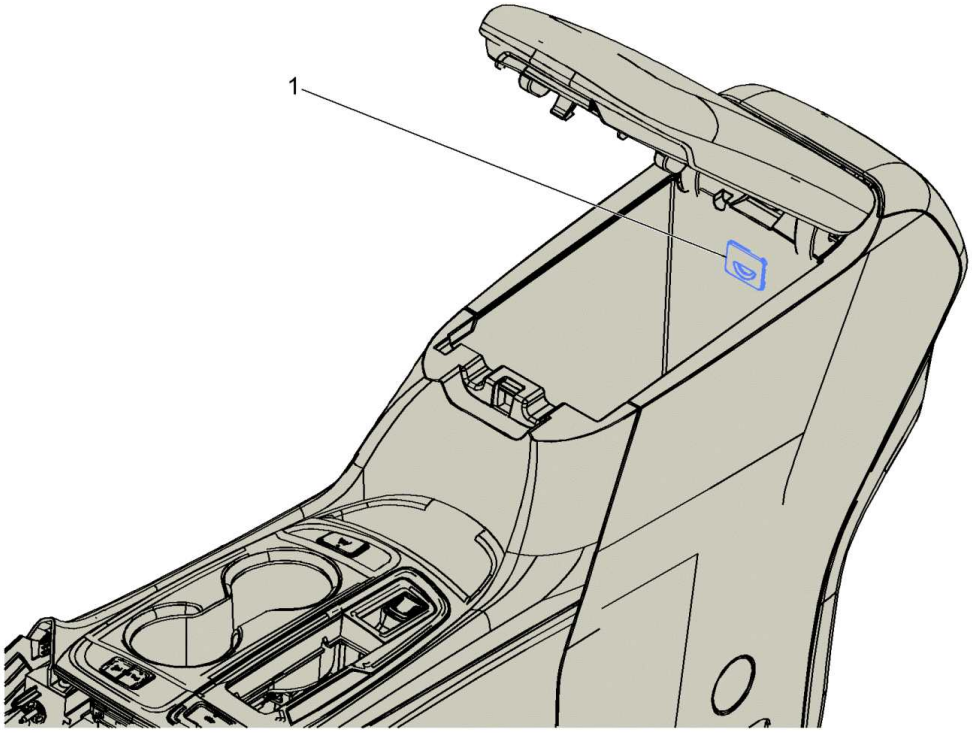



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Fig. 17: Center Console Storage Compartment - Front
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. X92 USB Receptacle X92 USB Receptacle X1 (IOB+MCY) X92 USB Receptacle X1 (MYC+IO5/IO6) X92 USB Receptacle X1 (MCZ) X92 USB Receptacle X2 (IOB+MCY) X92 USB Receptacle X2 (MYC+IO5/IO6) X92 USB Receptacle X2 (MCZ) X92 USB Receptacle X3 (MCZ) |

**REAR OF THE CENTER CONSOLE STORAGE COMPARTMENT**




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Fig. 18: Center Console Storage Compartment - Rear
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. E28 Center Console Compartment Lamp E28 Center Console Compartment Lamp |

**UNDERNEATH THE CENTER CONSOLE**

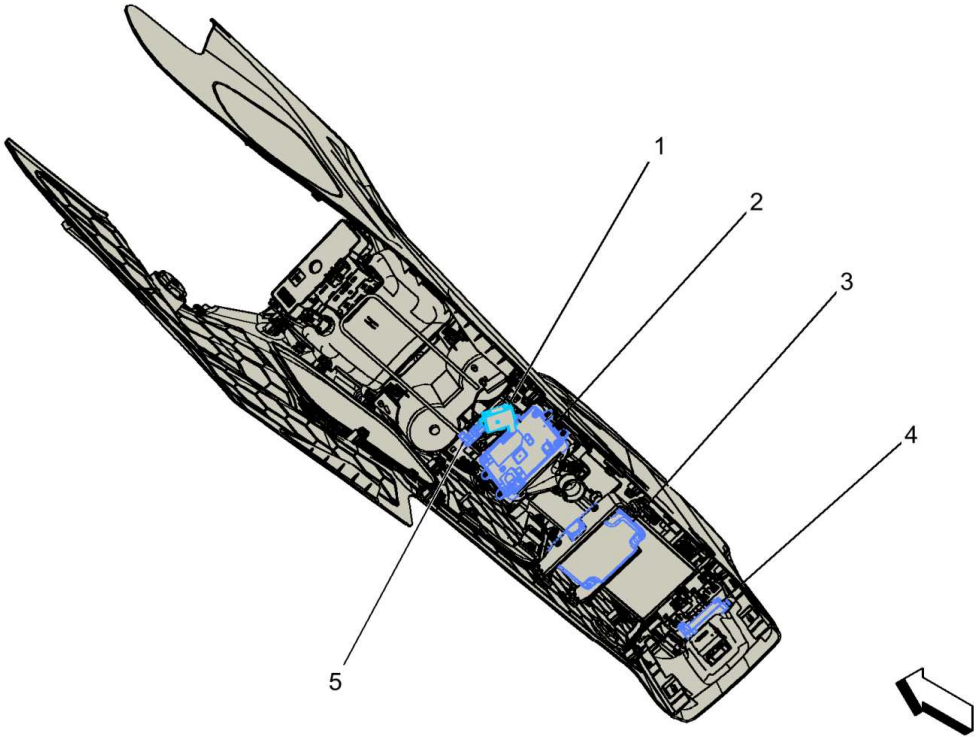



**Fig. 19: Underneath Center Console**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K89 Immobilizer Control Module **K89 Immobilizer Control Module** |
| 2. T22 Mobile Device Wireless Charger Module (K4C) **T22 Mobile Device Wireless Charger Module (K4C+EPH)** **T22 Mobile Device Wireless Charger Module (K4C-EPH)** |
| 3. T1 Accessory DC/AC Power Inverter Module (KI6/KI7) **T1 Accessory DC/AC Power Inverter Module (KI6)** **T1 Accessory DC/AC Power Inverter Module (KI7)** |
| 4. T10K Keyless Entry Antenna - Center Console Rear **T10K Keyless Entry Antenna - Center Console Rear** |
| 5. E1AC Accent Lamp - Center Console Cupholder **E1AC Accent Lamp - Center Console Cupholder** |

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Back To Article



# LUGGAGE COMPARTMENT/REAR OF VEHICLE COMPONENT VIEWS

## FRONT LUGGAGE COMPARTMENT

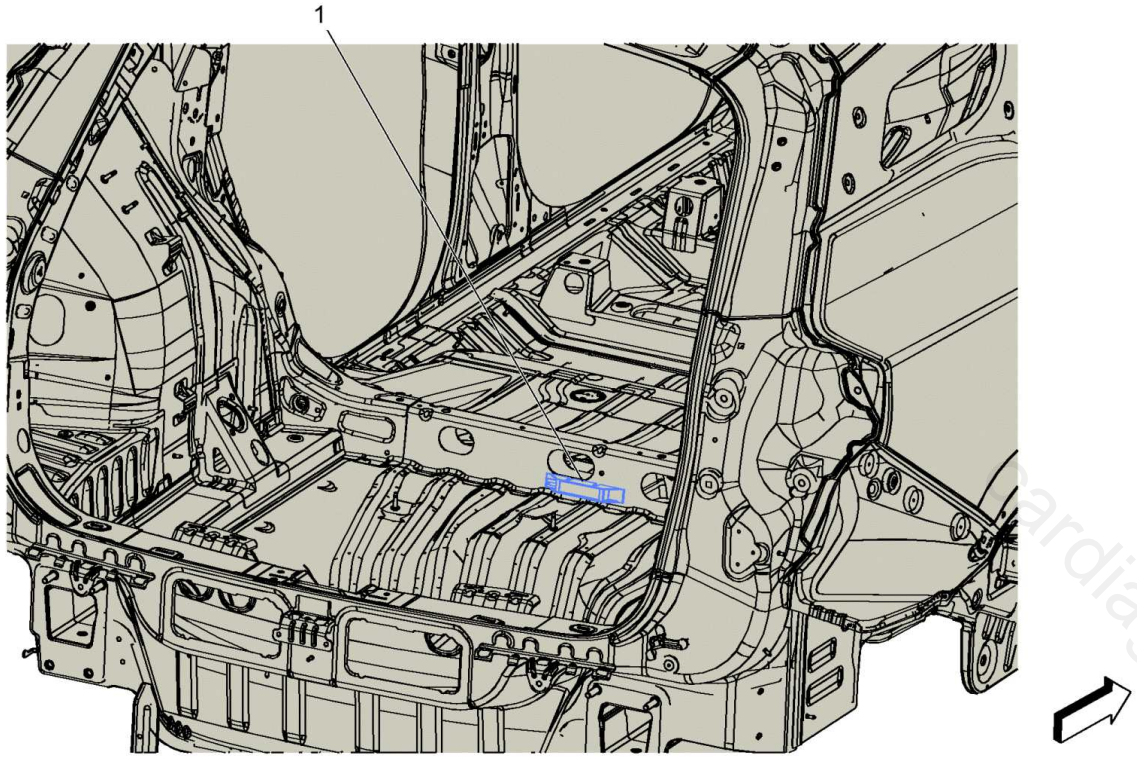



Fig. 1: Front Luggage Compartment
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. T10E Keyless Entry Antenna - Rear Compartment T10E Keyless Entry Antenna - Rear Compartment |

## LEFT SIDE OF THE LUGGAGE COMPARTMENT

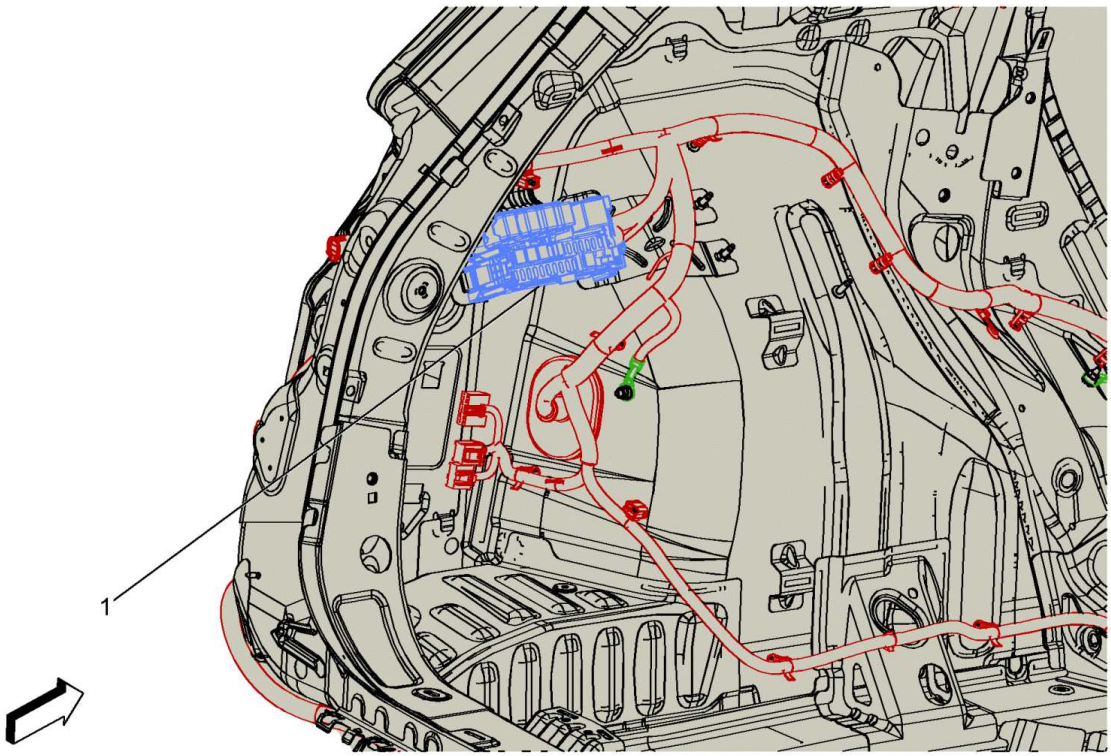



Fig. 2: Left Side Of The Luggage Compartment
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. X53A Fuse Block - Rear Body X53A Fuse Block - Rear Body Wire Entry |

## UPPER RIGHT REAR OF THE LUGGAGE COMPARTMENT

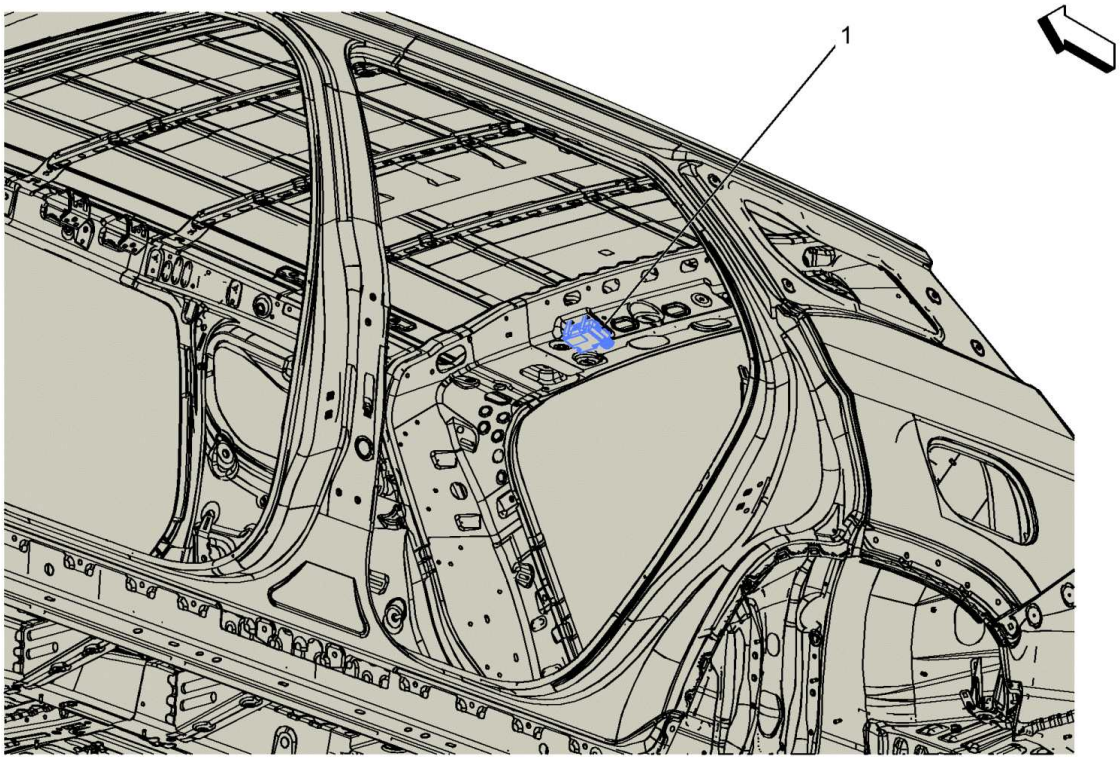



Fig. 3: Upper Right Rear Of The Luggage Compartment
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K77 Remote Control Door Lock Receiver K77 Remote Control Door Lock Receiver |

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## LEFT REAR OF THE VEHICLE

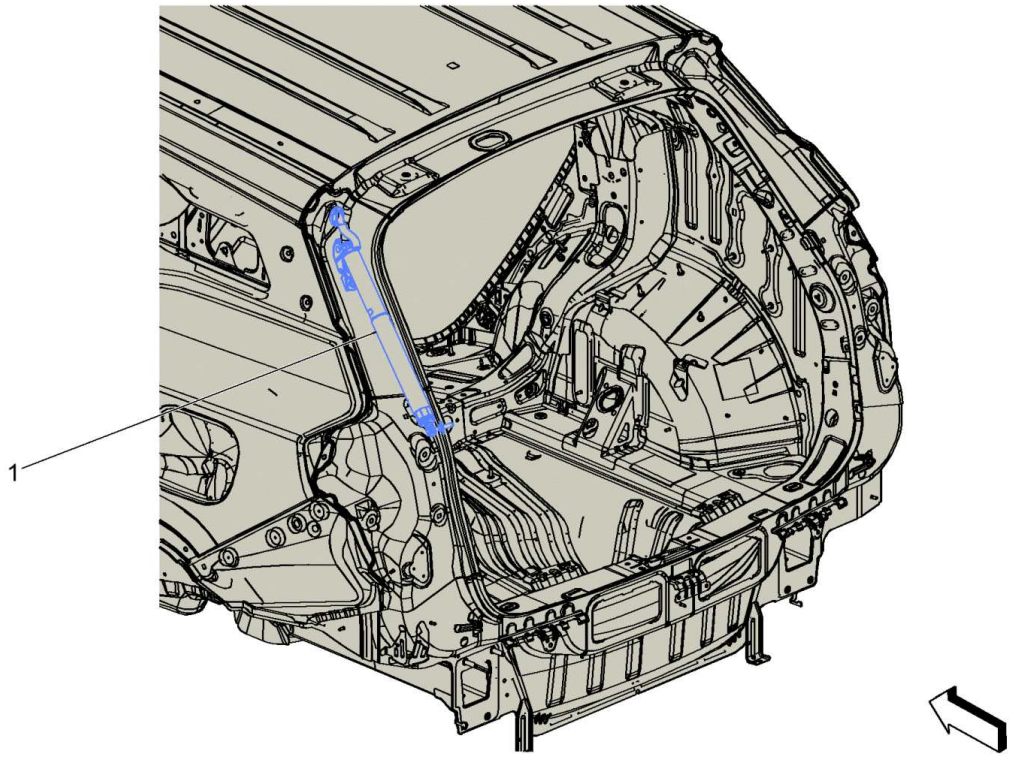



**Fig. 4: Left Rear Of The Vehicle**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. M17 Liftgate Motor Assembly (TB5/TC2) **M17 Liftgate Motor Assembly (TB5/TC2)** |

## REAR OF THE VEHICLE/BEHIND THE FASCIA

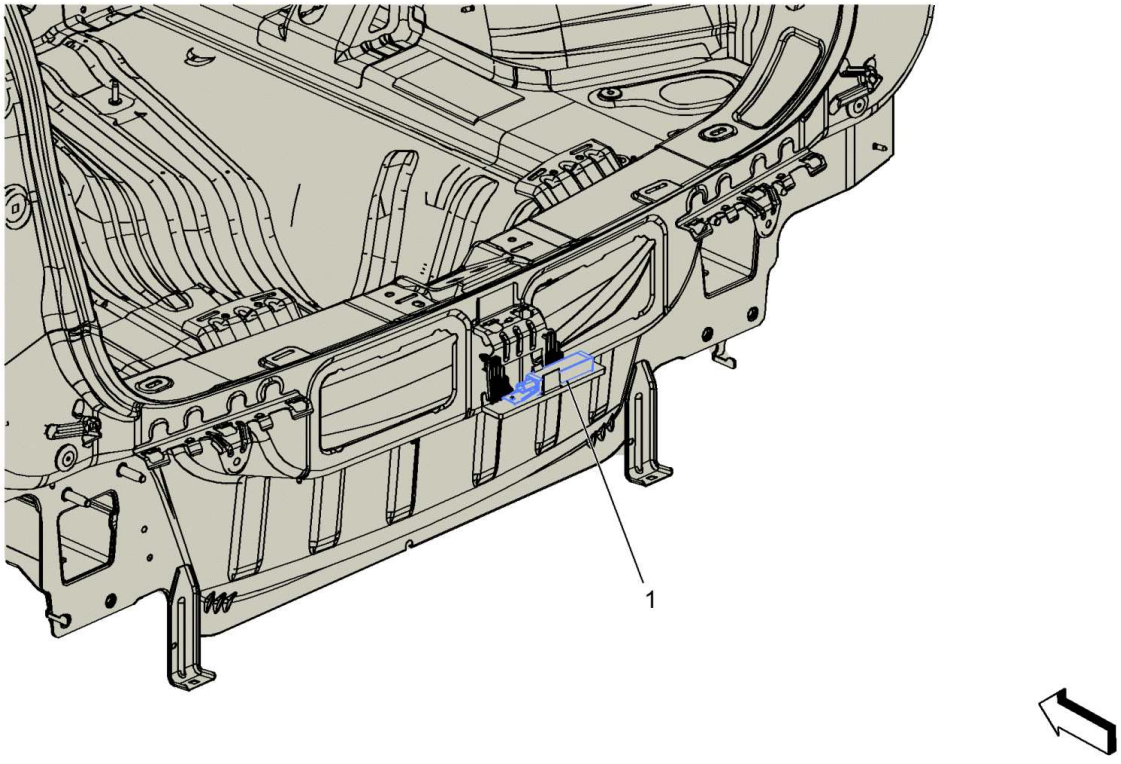



**Fig. 5: Rear Of The Vehicle/Behind The Fascia**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. T10G Keyless Entry Antenna - Rear Fascia T10G Keyless Entry Antenna - Rear Fascia |

## REAR LUGGAGE COMPARTMENT/INSIDE OF THE LIFTGATE

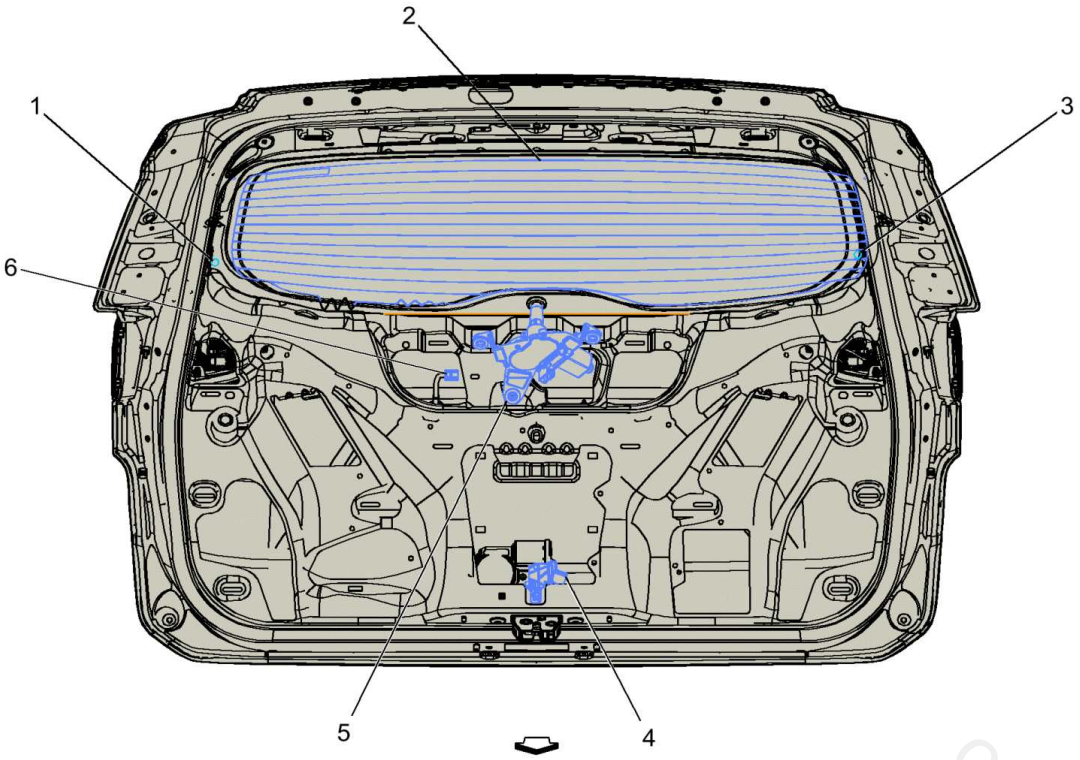



Fig. 6: Rear Luggage Compartment/Inside Of The Liftgate
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B71R Liftgate Object Sensor - Right (TB5/TC2) B71R Liftgate Object Sensor - Right (TB5/TC2) |
| 2. E18 Rear Defogger Grid E18 Rear Defogger Grid X1 E18 Rear Defogger Grid X2 |
| 3. B71L Liftgate Object Sensor - Left (TB5/TC2) B71L Liftgate Object Sensor - Left (TB5/TC2) |
| 4. M30 Liftgate Latch (TB4) M30 Liftgate Latch (TB4) |
| 5. M45 Rear Wiper Motor M45 Rear Wiper Motor |
| 6. E7R License Plate Lamp - Right E7R License Plate Lamp - Right (X88) E7R License Plate Lamp - Right (Z88) |

## REAR OF THE VEHICLE/LIFTGATE

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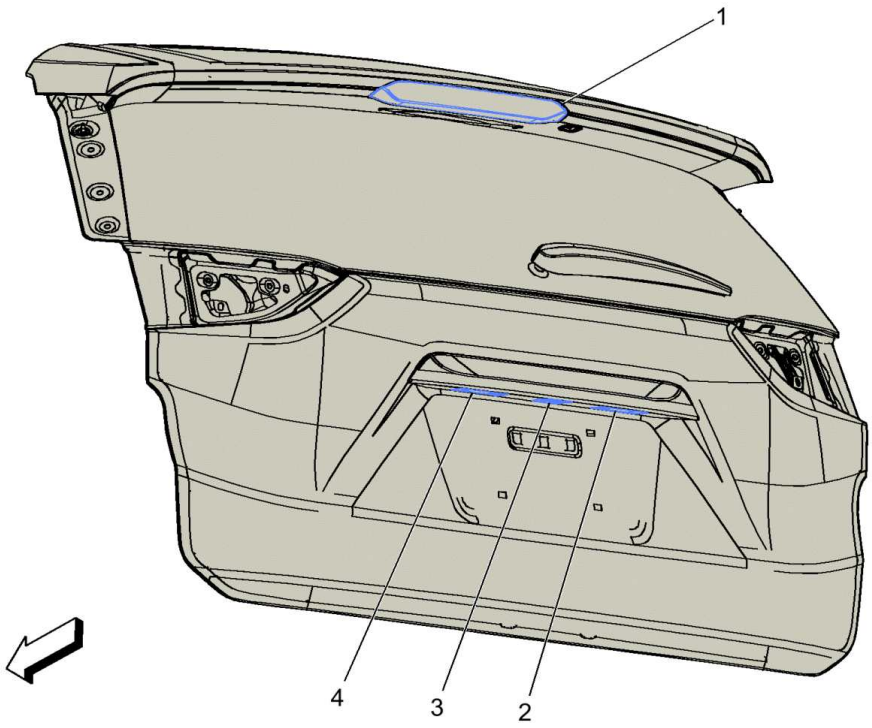



**Fig. 7: Rear Of The Vehicle/Liftgate**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E6 Center High Mounted Stop Lamp **E6 Center High Mounted Stop Lamp (-EPH)** **E6 Center High Mounted Stop Lamp (EPH)** |
| 2. E7R License Plate Lamp - Right **E7R License Plate Lamp - Right (X88)** **E7R License Plate Lamp - Right (Z88)** |
| 3. B87 Rearview Camera (UVC/UVH) **B87 Rearview Camera (UVC+X88)** **B87 Rearview Camera (UVC+Z88)** **B87 Rearview Camera (UVH+X88)** **B87 Rearview Camera (UVH+Z88)** |
| 4. E7L License Plate Lamp - Left **E7L License Plate Lamp - Left (X88)** **E7L License Plate Lamp - Left (Z88)** |

**REAR OF THE VEHICLE/FASCIA**

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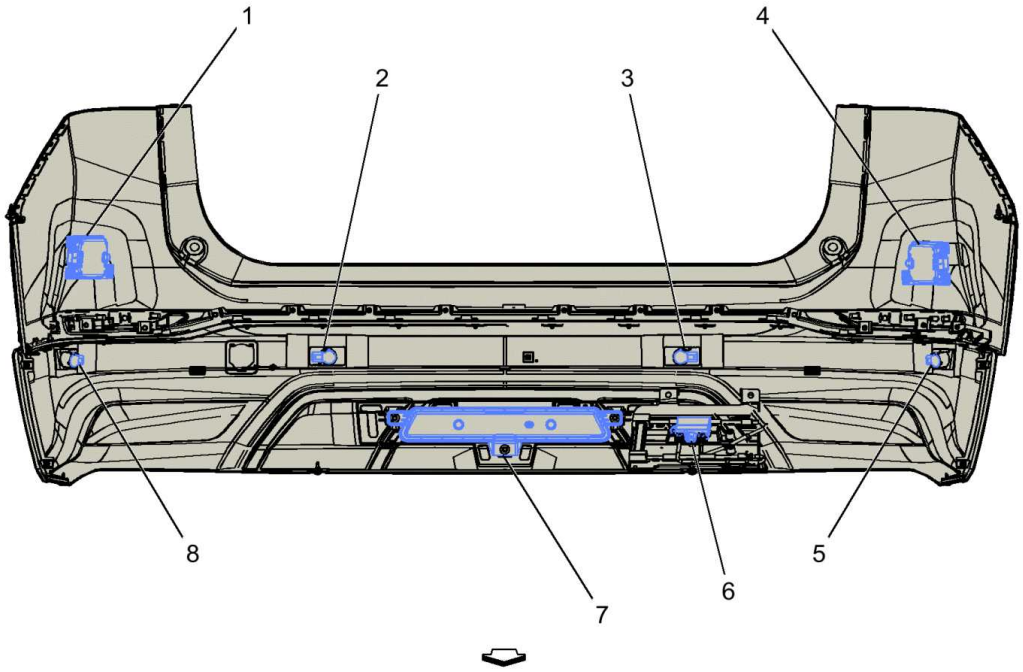



**Fig. 8: Rear Of The Vehicle/Fascia**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B218R Side Object Sensor Module - Right (UKC) **B218R Side Object Sensor Module - Right (UKC)** |
| 2. B306G Parking Assist Sensor - Rear Right Middle (UD5/UD7/UFQ) **B306G Parking Assist Sensor - Rear Right Middle (UD5/UD7/UFQ)** |
| 3. B306F Parking Assist Sensor - Rear Left Middle (UD5/UD7/UFQ) **B306F Parking Assist Sensor - Rear Left Middle (UD5/UD7/UFQ)** |
| 4. B218L Side Object Sensor Module - Left (UKC) **B218L Side Object Sensor Module - Left (UKC)** |
| 5. B306E Parking Assist Sensor - Rear Left Outer (UD5/UD7/UFQ) **B306E Parking Assist Sensor - Rear Left Outer (UD5/UD7/UFQ)** |
| 6. K171 Hands-Free Liftgate Sensor Control Module (TC2) **K171 Hands-Free Liftgate Sensor Control Module X1 (TC2)** **K171 Hands-Free Liftgate Sensor Control Module X2 (TC2)** **K171 Hands-Free Liftgate Sensor Control Module X3 (TC2)** |
| 7. E29R Fog Lamp - Rear (T79) **E29R Fog Lamp - Rear (T79)** |
| 8. B306H Parking Assist Sensor - Rear Right Outer (UD5/UD7/UFQ) **B306H Parking Assist Sensor - Rear Right Outer (UD5/UD7/UFQ)** |

**REAR OF THE VEHICLE/TRAILER CONNECTOR (V92)**

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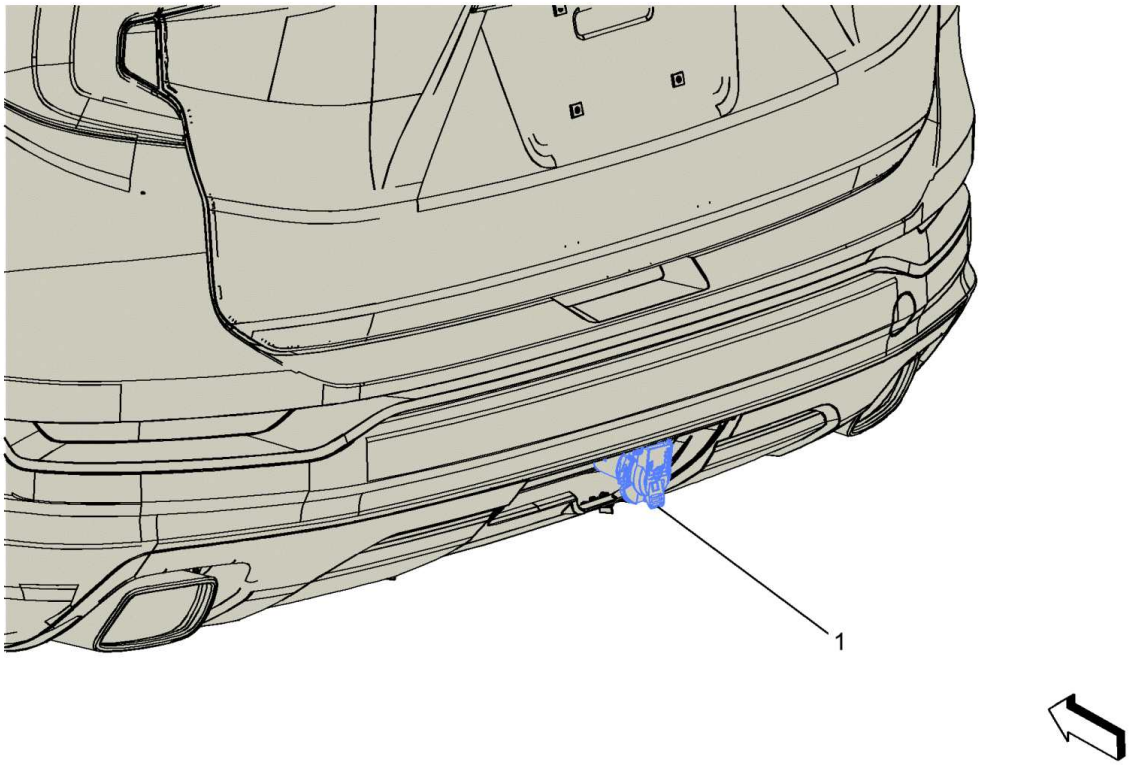



**Fig. 9: Rear Of The Vehicle/Trailer Connector (V92)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. X88 Trailer Connector X88 Trailer Connector (-V92) X88 Trailer Connector (V92) |

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# MASTER ELECTRICAL COMPONENT LIST

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| A3L | Sunshade - Left | - | In the passenger compartment, on the headliner above the left side of the windshield | • Headliner (C3U)<br>• Headliner (except C3U) | A3L Sunshade - Left |
| A3R | Sunshade - Right | - | In the passenger compartment, on the headliner above the right side of the windshield | • Headliner (C3U)<br>• Headliner (except C3U) | A3R Sunshade - Right |
| A7 | Fuel Pump and Level Sensor Assembly | - | Under the vehicle, inside the fuel tank | • Fuel Tank<br>• Underbody | • A7 Fuel Pump and Level Sensor Assembly (LH7+F48)<br>• A7 Fuel Pump and Level Sensor Assembly (LH7+F48)<br>• A7 Fuel Pump and Level Sensor Assembly (LTG/LYX)<br>• A7 Fuel Pump and Level Sensor Assembly (LTG/LYX+NTB/NUB) |
| A9A | Outside Rearview Mirror - Driver | - | On the left side of the vehicle, upper front of the driver door | - | - |
| A9B | Outside Rearview Mirror - Passenger | - | On the right side of the vehicle, upper front of the passenger door | - | - |
| A10 | Inside Rearview Mirror | DD8 | In the passenger compartment, upper center of the windshield | Inside Rearview Mirror | A10 Inside Rearview Mirror (DD8) |
| A11 | Radio | - | In the passenger compartment, right side of the instrument panel, behind the instrument storage panel | • Behind the Instrument Panel (Chevrolet)<br>• Behind the Instrument Panel (GMC) | • A11 Radio X1 (IO5/IO6)<br>• A11 Radio X1 (IOB)<br>• A11 Radio X1 (IOR)<br>• A11 Radio X1 (IOS/IOT/IOU)<br>• A11 Radio X2 (IO5/IO6)<br>• A11 Radio X2 (IOB)<br>• A11 Radio X2 (IOR)<br>• A11 Radio X2 (IOS/IOT/IOU)<br>• A11 Radio X3 (IO5/IO6)<br>• A11 Radio X3 (IOB+MCY)<br>• A11 Radio X3 (IOR)<br>• A11 Radio X3 (IOS/IOT/IOU)<br>• A11 Radio X4 (IO5/IO6)<br>• A11 Radio X4 (IOB)<br>• A11 Radio X4 (IOR)<br>• A11 Radio X4 (IOS/IOT/IOU+U2K)<br>• A11 Radio X4 (IOS/IOT/IOU-UE1)<br>• A11 Radio X5 (IO5/IO6+U2K)<br>• A11 Radio X5 (IOB+U2K)<br>• A11 Radio X5 (IOR)<br>• A11 Radio X5 (IOS/IOT/IOU+U2K)<br>• A11 Radio X6 (IOR+UE1)<br>• A11 Radio X6 (IOS/IOT/IOU)<br>• A11 Radio X7 (IOB)<br>• A11 Radio X7 (IOS/IOT/IOU) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| A22 | Radio Controls | IOB or IOR | In the passenger compartment, center of instrument panel, below the center display | Left Side of the Instrument Panel | A22 Radio Controls (IOB/IOR) |
| A23C | Liftgate Latch Assembly | TB5/TC2 | On the bottom center of the liftgate | - | A23C Liftgate Latch Assembly (TB5/TC2) |
| A23D | Door Latch Assembly - Driver | - | Rear of the left front door | Driver Door | A23D Door Latch Assembly - Driver |
| A23LR | Door Latch Assembly - Left Rear | - | Rear of the left rear door | Left Rear Door | A23LR Door Latch Assembly - Left Rear |
| A23P | Door Latch Assembly - Passenger | - | Rear of the right front door | Passenger Door | A23P Door Latch Assembly - Passenger |
| A23RR | Door Latch Assembly - Right Rear | - | Rear of the right rear door | Right Rear Door | A23RR Door Latch Assembly - Right Rear |
| A24D | Door Handle Assembly - Driver Exterior | - | Top outside rear of the left front door | Driver Door | A24D Door Handle Assembly - Driver Exterior |
| A24LR | Door Handle Assembly - Left Rear Exterior | - | Top outside rear of the left rear door | Left Rear Door | A24LR Door Handle Assembly - Left Rear Exterior |
| A24P | Door Handle Assembly - Passenger Exterior | - | Top outside rear of the right front door | Passenger Door | A24P Door Handle Assembly - Passenger Exterior |
| A24RR | Door Handle Assembly - Right Rear Exterior | - | Top outside rear of the right rear door | Right Rear Door | A24RR Door Handle Assembly - Right Rear Exterior |
| A26 | HVAC Controls | - | In the passenger compartment, in the center of the instrument panel, forward of the shifter | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | A26 HVAC Controls |
| A39 | Reductant Fluid Reservoir Assembly | LH7 | Under the vehicle, right rear, inside reductant tank | - | A39 Reductant Fluid Reservoir Assembly (LH7) |
| A97 | Transmission Range Selector Controls | EPH | In the passenger compartment, in the front of the floor console | Front of the Center Console (GMC) | A97 Transmission Range Selector Controls (EPH) |
| A98 | Front Overhead Console Assembly | - | In the passenger compartment, in the overhead console | • Headliner (C3U)<br>• Headliner (except C3U) | A98 Front Overhead Console Assembly |
| B1 | A/C Refrigerant Pressure Sensor | - | In the engine compartment, mounted on the A/C line, near the top right side of the radiator | Cooling Fan | B1 A/C Refrigerant Pressure Sensor |
| B5LF | Wheel Speed Sensor - Left Front | - | Under the vehicle, mounted between the left front steering knuckle and the brake rotor | Left Front Wheelwell | B5LF Wheel Speed Sensor - Left Front |
| B5LR | Wheel Speed Sensor - Left Rear | - | Under the vehicle, mounted between the left rear suspension knuckle and the brake rotor | Rear Chassis | B5LR Wheel Speed Sensor - Left Rear |
| B5RF | Wheel Speed Sensor - Right Front | - | Under the vehicle, mounted between the right front steering knuckle and the brake rotor | Right Front Wheelwell | B5RF Wheel Speed Sensor - Right Front |
| B5RR | Wheel Speed Sensor - Right Rear | - | Under the vehicle, mounted between the right rear suspension knuckle and the brake rotor | Rear Chassis | B5RR Wheel Speed Sensor - Right Rear |
| B9 | Ambient Air Temperature Sensor | - | Front of the vehicle, Behind the lower grill, to the left of the center of the vehicle | Left Front of the Vehicle | B9 Ambient Air Temperature Sensor |
| B10B | Ambient Light/Sunload Sensor | - | In the passenger compartment, on the top center of the instrument panel, in front of the defroster deflector, near the windshield | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | B10B Ambient Light/Sunload Sensor |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B12A | Transmission Fluid Pressure Switch | MHG/MNH/MNK | In the engine compartment, inside the automatic transmission | - | - |
| B13 | Transmission Fluid Temperature Sensor | MHG/MNH/MNK | In the engine compartment, inside the automatic transmission | - | - |
| B14A | Transmission Output Shaft Speed Sensor | - | In the engine compartment, inside the automatic transmission | - | • B14A Transmission Output Shaft Speed Sensor (M3D/M3H/M3U) B14A Transmission Output Shaft Speed Sensor (M3D/M3H/M3U)<br>• B14A Transmission Output Shaft Speed Sensor (M3D/M3H/M3U) B14A Transmission Output Shaft Speed Sensor (M3D/M3H/M3U) |
| B14C | Transmission Input Shaft Speed Sensor | - | In the engine compartment, inside the automatic transmission | Left Front of the Transmission/Input Speed Sensor (MHG/MNH/MNK) | - |
| B14D | Transmission Intermediate Shaft Speed Sensor | M3D/M3H/M3U | In the engine compartment, inside the automatic transmission | - | - |
| B14E | Transmission Input/Intermediate Shaft Speed Sensor | M3D/M3H/M3U | In the engine compartment, inside the automatic transmission | Left Front of the Transmission (MHG/MNH/MNK) | B14E Transmission Input/Intermediate Shaft Speed Sensor (M3D/M3H/M3U) |
| B15 | Transmission Internal Mode Switch | M3D | In the engine compartment, inside the automatic transmission | - | B15 Transmission Internal Mode Switch (M3D) |
| B18 | Battery Current Sensor | Without KL9 | In the engine compartment, on the battery ground cable | - | B18 Battery Current Sensor (-KL9) |
| B19B | Brake Booster Vacuum Sensor | - | In the left rear of the engine compartment, on the right front side of the brake booster, on the vacuum line tee | Left Side of the Engine Compartment (2 of 2) | B19B Brake Booster Vacuum Sensor |
| B20 | Brake Fluid Level Switch | - | In the engine compartment, mounted to the bottom left side of the master cylinder reservoir | Left Side of the Engine Compartment (2 of 2) | B20 Brake Fluid Level Switch |
| B22 | Brake Pedal Position Sensor | - | In the passenger compartment, attached to the top of the brake pedal assembly | Left Front of the Passenger Compartment (2 of 2) | B22 Brake Pedal Position Sensor |
| B23 | Camshaft Position Sensor | LH7 | In the engine compartment, right rear of engine, above alternator | Right Rear of the Engine (LH7) | B23 Camshaft Position Sensor (LH7) |
| B23E | Camshaft Position Sensor - Exhaust | LTG/LYX | In the engine compartment, on the left front of the cylinder head | Top of the Engine (LYX) | • B23E Camshaft Position Sensor - Exhaust (LTG)<br>• B23E Camshaft Position Sensor - Exhaust (LYX) |
| B23F | Camshaft Position Sensor - Intake | LTG/LYX | In the engine compartment, on the left rear of the cylinder head | Rear of the Engine (LYX) | • B23F Camshaft Position Sensor - Intake (LTG)<br>• B23F Camshaft Position Sensor - Intake (LYX) |
| B24LF | Mobile Telephone Microphone - Left Front | - | In the passenger compartment, on the front center of the headliner, in the left side of the overhead console | • Headliner (C3U)<br>• Headliner (except C3U) | B24LF Mobile Telephone Microphone - Left Front |
| B24RF | Mobile Telephone Microphone - Right Front | IOS/IOT/IOU | In the passenger compartment, on the front center of the headliner, in the right side of the overhead console | Headliner (except C3U) | B24RF Mobile Telephone Microphone - Right Front (IOS/IOT/IOU) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B26 | Crankshaft Position Sensor | - | • (LH7) In the engine compartment, left front of the engine above the flywheel<br>• (LTG) In the engine compartment, left rear of the engine above the oil pan<br>• (LYX) In the engine compartment, left rear of the engine above the oil pan | • Left Front of the Engine/Crankshaft Position Sensor (LH7)<br>• Rear of the Engine (LTG)<br>• Rear of the Engine (LYX) | • B26 Crankshaft Position Sensor (LH7)<br>• B26 Crankshaft Position Sensor (LTG)<br>• B26 Crankshaft Position Sensor (LYX) |
| B27D | Door Handle Switch - Driver Exterior | - | Top outside rear of the left front door, part of the outside door handle assembly - driver | - | - |
| B27LR | Door Handle Switch - Left Rear Exterior | - | Top outside rear of the left rear door part of the outside door handle assembly - left rear | - | - |
| B27P | Door Handle Switch - Passenger Exterior | - | Top outside rear of the right front door, part of the outside door handle assembly - passenger | - | - |
| B27RR | Door Handle Switch - Right Rear Exterior | - | Top outside rear of the right rear door, part of the outside door handle assembly - right rear | - | - |
| B34 | Engine Coolant Temperature Sensor | - | • (LH7) In the engine compartment, on the left side of the engine near the cylinder head<br>• (LTG) In the engine compartment, on the left side of the engine near the cylinder head<br>• (LYX) In the engine compartment, on the left side of the engine near the cylinder head | • Rear of the Engine (LH7)<br>• Top of the Engine (LYX) | • B34 Engine Coolant Temperature Sensor (LH7/LYX)<br>• B34 Engine Coolant Temperature Sensor (LTG) |
| B35 | Engine Oil Level Switch | - | • (LH7) In the engine compartment, in the bottom front of the engine oil pan<br>• (LTG) Under the vehicle, in the bottom rear of the engine oil pan | • Front of the Engine (LH7)<br>• Left Rear of the Engine (LTG) | • B35 Engine Oil Level Switch (LH7)<br>• B35 Engine Oil Level Switch (LTG) |
| B37B | Engine Oil Pressure Sensor | - | • (LH7/LTG) In the engine compartment, near the center rear of the engine block<br>• (LYX) In the engine compartment, left rear of the engine block, just right of the flywheel | • Rear of the Engine (LH7)<br>• Rear of the Engine (LTG)<br>• Rear of the Engine (LYX) | • B37B Engine Oil Pressure Sensor (LH7/LYX)<br>• B37B Engine Oil Pressure Sensor (LTG) |
| B39 | A/C Evaporator Temperature Sensor | - | In the passenger compartment, under the instrument panel, to the left of the instrument panel compartment, just forward of the center console | HVAC Assembly | B39 AC Evaporator Temperature Sensor |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B46 | Fuel Level Sensor | - | Under the rear of the vehicle, in the fuel tank, part of the fuel pump and level sensor assembly | - | - |
| B46A | Fuel Level Sensor - Primary | F48 | Under the rear of the vehicle, inside the fuel tank | - | - |
| B46B | Fuel Level Sensor - Secondary | F48 | Under the rear of the vehicle, inside the fuel tank | - | - |
| B47 | Fuel Pressure Sensor | - | Under the vehicle, at the front of the fuel tank, connected to the fuel line | • Fuel Tank<br>• Underbody | B47 Fuel Pressure Sensor |
| B47B | Fuel Rail Pressure Sensor | LH7 | In the engine compartment, on top of the engine, mounted to the fuel injector rail | Top of the Engine (LH7) | B47B Fuel Rail Pressure Sensor (LH7) |
| B51F | Suspension Height Sensor - Front | TR7 | In the left front wheel well near the strut | Left Front Wheelwell | B51F Suspension Height Sensor - Front (TR7) |
| B51R | Suspension Height Sensor - Rear | TR7 | In the left rear wheel well on the outboard side of the frame rail | Left Rear Wheelwell | B51R Suspension Height Sensor - Rear (TR7) |
| B52A | Heated Oxygen Sensor 1 | LTG/LYX | In the left front of the engine compartment, on the exhaust system, above the catalytic converter | • Right Front of the Engine (LTG)<br>• Top of the Engine (LYX) | • B52A Heated Oxygen Sensor 1 (LTG)<br>• B52A Heated Oxygen Sensor 1 (LYX) |
| B52B | Heated Oxygen Sensor 2 | - | • (LTG) Under the vehicle, at the front of the engine, in the exhaust system, on the right side of the exhaust<br>• (LYX) Under the vehicle, at the front of the engine, in the exhaust system, under the catalytic converter, on the right side of the exhaust<br>• (LYX with MNK) Under the vehicle, at the front of the engine, in the exhaust system, under the catalytic converter, on the left side of the exhaust | • Front of the Engine/Heated Oxygen Sensor (LYX+MNK)<br>• Right Front of the Engine (LTG)<br>• Right Front of the Engine (LYX) | • B52B Heated Oxygen Sensor 2 (LTG)<br>• B52B Heated Oxygen Sensor 2 (LYX) |
| B55 | Engine Hood Switch | - | In the engine compartment, part of the hood latch, behind the center of the front fascia | Left Front of the Vehicle | B55 Engine Hood Switch |
| B59L | Front Impact Sensor - Left | - | In the engine compartment, mounted to the radiator core support, near the upper left corner of the radiator | Left Front of the Vehicle | B59L Front Impact Sensor - Left |
| B59R | Front Impact Sensor - Right | - | In the engine compartment, mounted to the radiator core support, near the upper right corner of the radiator | Left Front of the Vehicle | B59R Front Impact Sensor - Right |
| B60 | Passenger Presence Sensor | UHH without AL0 | In the passenger compartment, under the passenger seat | - | B60 Passenger Presence Sensor (UHH-AL0) |
| B61P | Seat Belt Tension Sensor - Passenger | AL0 | In the passenger compartment, at the bottom of the right B-Pillar at the front of the seat belt retractor assembly | Right Side of the Passenger Compartment | B61P Seat Belt Tension Sensor - Passenger (AL0) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B63LF | Side Impact Sensor - Left Front | - | In the passenger compartment, near the front of the left B-Pillar base | Driver Door | B63LF Side Impact Sensor - Left Front |
| B63LR | Side Impact Sensor - Left Rear | - | In the left side of the passenger compartment, at the floor at the rear of the left rear door | Left Rear of the Passenger Compartment | B63LR Side Impact Sensor - Left Rear |
| B63RF | Side Impact Sensor - Right Front | - | In the passenger compartment, near the front of the right B-Pillar base | Passenger Door | B63RF Side Impact Sensor - Right Front |
| B63RR | Side Impact Sensor - Right Rear | - | In the right side of the passenger compartment, at the floor at the rear of the right rear door | Right Rear of the Passenger Compartment | B63RR Side Impact Sensor - Right Rear |
| B65 | Intake Manifold Pressure and Air Temperature Sensor | - | • (LH7) In the engine compartment, top rear of the engine in the intake manifold<br>• (LYX) In the engine compartment, top rear of the engine in the intake manifold | • Top of the Engine (LH7)<br>• Top of the Engine (LYX) | B65 Intake Manifold Pressure and Air Temperature Sensor (LH7/LYX) |
| B68A | Knock Sensor 1 | LTG/LYX | Under the vehicle, on the left side of the engine block, above and to the right of the crankshaft position sensor | • Rear of the Engine (LTG)<br>• Rear of the Engine (LYX) | B68A Knock Sensor 1 (LTG/LYX) |
| B68B | Knock Sensor 2 | LTG/LYX | Under the vehicle, on the right side of the engine block behind the generator | • Rear of the Engine (LTG)<br>• Rear of the Engine (LYX) | B68B Knock Sensor 2 (LTG/LYX) |
| B70 | Liftgate Close Switch | TB5/TC2 | Rear of the vehicle, lower center of the liftgate mounted on the liftgate pull cup | - | B70 Liftgate Close Switch (TB5/TC2) |
| B71L | Liftgate Object Sensor - Left | TB5/TC2 | On the lower left side of the liftgate at the bottom of the trim panel | Rear Luggage Compartment/Inside of the Liftgate | B71L Liftgate Object Sensor - Left (TB5/TC2) |
| B71R | Liftgate Object Sensor - Right | TB5/TC2 | On the lower right side of the liftgate at the bottom of the trim panel | Rear Luggage Compartment/Inside of the Liftgate | B71R Liftgate Object Sensor - Right (TB5/TC2) |
| B74 | Manifold Absolute Pressure Sensor | LTG | In the engine compartment, left rear of the engine, just below the throttle body | • Left Rear of the Engine (LTG)<br>• Rear of the Engine (LTG) | B74 Manifold Absolute Pressure Sensor (LTG) |
| B75C | Multifunction Intake Air Sensor | - | In the engine compartment, on the right side, attached to the left front of the air cleaner assembly | • Left Rear of the Engine (LTG)<br>• Top of the Engine (LYX) | B75C Multifunction Intake Air Sensor |
| B77LF | Radio Volume Compensator Interior Noise Microphone - Left Front | NKC | In the passenger compartment, in the front left side of the headliner above the left front door | Headliner (except C3U) | B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC) |
| B77LR | Radio Volume Compensator Interior Noise Microphone - Left Rear | NKC | In the passenger compartment, in the left side of the headliner above the left rear door | Headliner (except C3U) | B77LR Radio Volume Compensator Interior Noise Microphone - Left Rear (NKC) |
| B77RF | Radio Volume Compensator Interior Noise Microphone - Right Front | NKC | In the passenger compartment, in the front right side of the headliner above the right front door | Headliner (except C3U) | B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC) |
| B77RR | Radio Volume Compensator Interior Noise Microphone - Right Rear | NKC | In the passenger compartment, in the right side of the headliner above the right rear door | Headliner (except C3U) | B77RR Radio Volume Compensator Interior Noise Microphone - Right Rear (NKC) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B80 | Park Brake Switch | - | • (EPH) In the passenger compartment, on the lower left side of the instrument panel<br>• (Without EPH) In the passenger compartment, on the left side of the center console to the rear of the shifter | • Left Side of the Instrument Panel<br>• Top and Rear of the Center Console (Chevrolet) | • B80 Park Brake Switch (EPH)<br>• B80 Park Brake Switch (-EPH) |
| B81B | Park Position Switch | Without EPH | In the passenger compartment, inside the center console, in the right front of the transmission shift lever assembly | - | - |
| B87 | Rearview Camera | UVC/UVH | Rear of the vehicle, on the center of the liftgate, above the license plate | Rear of the Vehicle/Liftgate | • B87 Rearview Camera (UVC+X88)<br>• B87 Rearview Camera (UVC+Z88)<br>• B87 Rearview Camera (UVH+X88)<br>• B87 Rearview Camera (UVH+Z88) |
| B88D | Seat Belt Switch - Driver | - | In the passenger compartment, in the driver seat belt buckle | - | - |
| B88LR | Seat Belt Switch - Left Rear | UH5 | In the passenger compartment, part of the left rear seat belt buckle | - | - |
| B88MR | Seat Belt Switch - Rear Middle | UH5 | In the passenger compartment, part of the rear middle seat belt buckle | - | - |
| B88P | Seat Belt Switch - Passenger | - | In the passenger compartment, in the passenger seat belt buckle | - | - |
| B88RR | Seat Belt Switch - Right Rear | UH5 | In the passenger compartment, part of the right rear seat belt buckle | - | - |
| B107 | Accelerator Pedal Position Sensor | - | In the passenger compartment, under left side of instrument panel, to the right of the brake pedal | Left Front of the Passenger Compartment (2 of 2) | B107 Accelerator Pedal Position Sensor |
| B110 | Battery Sensor Module | KL9 | In the left side of the engine compartment, near the battery at the negative battery cable | Left Side of the Engine Compartment (2 of 2) | • B110 Battery Sensor Module X1 (KL9)<br>• B110 Battery Sensor Module X2 (KL9) |
| B111 | Turbocharger Boost Sensor | LYX | In the engine compartment, lower left of the radiator assembly | Cooling Fan | B111 Turbocharger Boost Sensor (LYX) |
| B111B | Turbocharger Boost/Intake Air Temperature Sensor | LTG | In the engine compartment, left rear of the engine, above the generator | - | B111B Turbocharger Boost/Intake Air Temperature Sensor (LTG) |
| B112 | Turbocharger Vane Position Sensor | LH7 | In the engine compartment, right front of the engine, under the turbocharger | Left Front of the Engine (LH7) | B112 Turbocharger Vane Position Sensor (LH7) |
| B116 | Water in Fuel Sensor | LH7 | Under the left rear of the vehicle, part of the reductant fluid reservoir | - | B116 Water in Fuel Sensor (LH7) |
| B118B | Windshield Washer Fluid Level Switch | - | In the left front of the engine compartment, attached to the bottom of the windshield washer solvent container | Left Front of the Vehicle | B118B Windshield Washer Fluid Level Switch |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B130A | Exhaust Gas Recirculation Temperature Sensor 1 | LH7 | In the engine compartment, on the front of the engine near the A/C compressor | Left Front of the Engine (LH7) | B130A Exhaust Gas Recirculation Temperature Sensor 1 (LH7) |
| B130B | Exhaust Gas Recirculation Temperature Sensor 2 | LH7 | In the engine compartment, on the rear of the engine near the throttle body inlet | Left Front of the Engine (LH7) | B130B Exhaust Gas Recirculation Temperature Sensor 2 (LH7) |
| B131A | Exhaust Temperature Sensor 1 | LH7 | In the engine compartment, on the front of the engine near the exhaust manifold | Left Front of the Engine (LH7) | B131A Exhaust Temperature Sensor 1 (LH7) |
| B131B | Exhaust Temperature Sensor 2 | LH7 | In the engine compartment, on the front of the engine near the exhaust manifold | Left Front of the Engine (LH7) | B131B Exhaust Temperature Sensor 2 (LH7) |
| B131C | Exhaust Temperature Sensor 3 | LH7 | In the engine compartment, on the front of the engine near the exhaust manifold | Right Rear of the Engine (LH7) | B131C Exhaust Temperature Sensor 3 (LH7) |
| B136 | Exhaust Particulate Matter Sensor | LH7 | In the engine compartment, lower front of the engine, near particulate matter filter | Left Front of the Engine (LH7) | B136 Exhaust Particulate Matter Sensor (LH7) |
| B150 | Fuel Tank Pressure Sensor | LTG/LYX | Under the rear of the vehicle at the fuel tank | Fuel Tank | B150 Fuel Tank Pressure Sensor (LTG/LYX+NTB/NUB) |
| B153D | Seat Belt Buckle - Driver | - | In the passenger compartment, at the right rear side of the driver seat | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | B153D Seat Belt Buckle - Driver |
| B153LR | Seat Belt Buckle - Left Rear | UH5 | On the left side of the left rear passenger seat | - | B153LR Seat Belt Buckle - Left Rear (UH5) |
| B153P | Seat Belt Buckle - Passenger | - | In the passenger compartment, at the left rear side of the passenger seat | • Passenger Seat (1 of 4)<br>• Passenger Seat (4 of 4) | B153P Seat Belt Buckle - Passenger |
| B153RM | Seat Belt Buckle - Rear Middle | UH5 | On the middle of the rear passenger seat | - | B153RM Seat Belt Buckle - Rear Middle (UH5) |
| B153RR | Seat Belt Buckle - Right Rear | UH5 | On the right side of the right rear passenger seat | - | B153RR Seat Belt Buckle - Right Rear (UH5) |
| B154 | Diesel Particulate Filter Exhaust Differential Pressure Sensor | LH7 | Left side of engine, below throttle body | Left Front of the Engine (LH7) | B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (LH7) |
| B160 | Windshield Temperature and Inside Moisture Sensor | ASV | In the passenger compartment, at the top center of the windshield | Inside Rearview Mirror | B160 Windshield Temperature and Inside Moisture Sensor (ASV) |
| B174G | Frontview Camera - Grille | UVH | On the front of the vehicle, left of center on the grille | Behind the Front Fascia | B174G Frontview Camera - Grille (UVH) |
| B174W | Frontview Camera - Windshield | UEU/UHX | In the passenger compartment, at the top center of the windshield | Inside Rearview Mirror | K109 Frontview Camera Module (UEU/UHX) |
| B177 | Rain/Ambient Light Sensor Module | CE1 | In the passenger compartment, forward of the overhead console assembly | Rain/Ambient Light Sensor Module (CE1) | B177 Rain/Ambient Light Sensor Module (CE1) |
| B193A | Charge Air Cooler Inlet Temperature Sensor | LH7 | In the engine compartment, on the inlet to the turbocharger housing | Cooling Fan | B193A Charge Air Cooler Inlet Temperature Sensor (LH7) |
| B193B | Charge Air Cooler Outlet Temperature Sensor | LH7 | In the engine compartment, on the outlet from the turbocharger housing | Cooling Fan | B193B Charge Air Cooler Outlet Temperature Sensor (LH7) |
| B194 | Reductant Pressure Sensor | LH7 | Under the left rear of the vehicle, in the reductant tank | - | - |
| B195A | Nitrogen Oxides Sensor 1 | LH7 | In the engine compartment, in turbocharger outlet | Left Front of the Engine (LH7) | B195A Nitrogen Oxides Sensor 1 (LH7) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B195B | Nitrogen Oxides Sensor 2 | LH7 | In the exhaust pipe downstream of the selective catalytic converter | - | B195B Nitrogen Oxides Sensor 2 (LH7) |
| B203 | Radiator Coolant Temperature Sensor | LH7 | In the engine compartment, back of engine, near the starter | Right Rear of the Engine (LH7) | B203 Radiator Coolant Temperature Sensor (LH7) |
| B213A | Reductant Level Sensor 1 | LH7 | Under the vehicle, left rear, inside reductant tank | - | - |
| B214 | Reductant Temperature Sensor | LH7 | Under the vehicle, left rear, inside reductant tank | - | - |
| B218L | Side Object Sensor Module - Left | UKC | Rear of the vehicle, behind the left side of the rear bumper fascia just rear of the left rear wheel well | Rear of the Vehicle/Fascia | B218L Side Object Sensor Module - Left (UKC) |
| B218R | Side Object Sensor Module - Right | UKC | Rear of the vehicle, behind the right side of the rear bumper fascia just rear of the right rear wheel well | Rear of the Vehicle/Fascia | B218R Side Object Sensor Module - Right (UKC) |
| B225L | Sideview Camera - Left | UVH | On the left side of the vehicle, mounted on the left outside rearview mirror | - | - |
| B225R | Sideview Camera - Right | UVH | On the right side of the vehicle, mounted on the right outside rearview mirror | - | - |
| B267 | Piston Cooling Oil Pressure Switch | LH7 | In the engine compartment, back of engine, below the starter | Rear of the Engine (LH7) | B267 Piston Cooling Oil Pressure Switch (LH7) |
| B275A | Hands-Free Liftgate Sensor - Upper | TC2 | Under the rear of the vehicle, at the bottom of the rear fascia attached to the upper portion of the sensor bracket | - | - |
| B275B | Hands-Free Liftgate Sensor - Lower | TC2 | Under the rear of the vehicle, at the bottom of the rear fascia attached to the lower portion of the sensor bracket | - | - |
| B280 | Automatic Transmission Accumulator Solenoid Valve | KL9 | In the left side of the engine compartment, on the top rear of the transmission | • Front of the Engine Compartment and Transmission (MNH)<br>• Left Front of the Transmission (MHG/MNH/MNK) | • B280 Automatic Transmission Accumulator Solenoid Valve (KL9+M3D/M3H/M3U)<br>• B280 Automatic Transmission Accumulator Solenoid Valve (KL9+MHG/MNH) |
| B295 | Reductant Quality Sensor | LH7 | Under the vehicle, left rear, inside reductant tank | - | B295 Reductant Quality Sensor (LH7) |
| B306A | Parking Assist Sensor - Front Left Outer | UD5/UFQ | On the front fascia, on the left side of the vehicle above the fog light | Behind the Front Fascia | B306A Parking Assist Sensor - Front Left Outer (UD5/UFQ) |
| B306B | Parking Assist Sensor - Front Left Middle | UD5/UFQ | On the front fascia, just to the left of the center of the vehicle, between the upper and lower grill | Behind the Front Fascia | B306B Parking Assist Sensor - Front Left Middle (UD5/UFQ) |
| B306C | Parking Assist Sensor - Front Right Middle | UD5/UFQ | On the front fascia, just to the right of the center of the vehicle, between the upper and lower grill | Behind the Front Fascia | B306C Parking Assist Sensor - Front Right Middle (UD5/UFQ) |
| B306D | Parking Assist Sensor - Front Right Outer | UD5/UFQ | On the front fascia, on the right side of the vehicle above the fog light | Behind the Front Fascia | B306D Parking Assist Sensor - Front Right Outer (UD5/UFQ) |
| B306E | Parking Assist Sensor - Rear Left Outer | UD5/UD7/UFQ | On the rear fascia, on the left side of the vehicle | Rear of the Vehicle/Fascia | B306E Parking Assist Sensor - Rear Left Outer (UD5/UD7/UFQ) |
| B306F | Parking Assist Sensor - Rear Left Middle | UD5/UD7/UFQ | On the rear fascia, just to the left of the license plate | Rear of the Vehicle/Fascia | B306F Parking Assist Sensor - Rear Left Middle (UD5/UD7/UFQ) |
| B306G | Parking Assist Sensor - Rear Right Middle | UD5/UD7/UFQ | On the rear fascia, just to the right of the license plate | Rear of the Vehicle/Fascia | B306G Parking Assist Sensor - Rear Right Middle (UD5/UD7/UFQ) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| B306H | Parking Assist Sensor - Rear Right Outer | UD5/UD7/UFQ | On the rear fascia, on the right side of the vehicle | Rear of the Vehicle/Fascia | B306H Parking Assist Sensor - Rear Right Outer (UD5/UD7/UFQ) |
| B306K | Parking Assist Sensor - Side Left Front | UFQ | On the left front of the vehicle, behind the front fascia just forward of the wheel well | Behind the Front Fascia | B306K Parking Assist Sensor - Side Left Front (UFQ) |
| B306L | Parking Assist Sensor - Side Right Front | UFQ | On the right front of the vehicle, behind the front fascia just forward of the wheel well | Behind the Front Fascia | B306L Parking Assist Sensor - Side Right Front (UFQ) |
| B310 | Fuel Pressure/Temperature Sensor | LTG/LYX | Outside the vehicle, on the top left of engine | Top of the Engine (LTG) 2 of 2 | B310 Fuel Pressure/Temperature Sensor (LTG/LYX) |
| B315A | Transmission Range Control Valve 1 Position Switch | M3H/M3U | In the engine compartment, inside the automatic transmission | - | B315A Transmission Range Control Valve 1 Position Switch (M3H/M3U) |
| B315B | Transmission Range Control Valve 2 Position Switch | M3H/M3U | In the engine compartment, inside the automatic transmission | - | B315B Transmission Range Control Valve 2 Position Switch (M3H/M3U) |
| B316 | Transmission Park Valve Position Switch | M3H/M3U | In the engine compartment, inside the automatic transmission | - | B316 Transmission Park Valve Position Switch (M3H/M3U) |
| C1 | Battery | - | In the left side of the engine compartment | Left Side of the Engine Compartment (2 of 2) | - |
| C3 | Telematics Communication Interface Control Module Battery | UE1 | In the passenger compartment, on the lower center of the instrument panel forward of the radio controls | Behind the Instrument Panel (Chevrolet) | C3 Telematics Communication Interface Control Module Battery (UE1+IOB/IO5/IO6) |
| E1AC | Accent Lamp - Center Console Cupholder | - | In the passenger compartment, in the center console at the cupholder | Underneath the Center Console | E1AC Accent Lamp - Center Console Cupholder |
| E1C | Accent Lamp - Driver Door Handle | - | In the passenger compartment, on the driver door trim panel at the door handle | Driver Door Trim Panel | E1C Accent Lamp - Driver Door Handle |
| E1D | Accent Lamp - Driver Door | TSQ | On the driver door trim panel, under the door handle | Driver Door Trim Panel | • E1D Accent Lamp - Driver Door (X88+TSQ)<br>• E1D Accent Lamp - Driver Door (Z88+TSQ) |
| E1H | Accent Lamp - Right Instrument Panel | TSQ | In the passenger compartment, on the upper right side of the instrument panel | • Middle of the Instrument Panel/Accent Lighting<br>• Right Side of the Instrument Panel/Accent Lighting | E1H Accent Lamp - Right Instrument Panel (TSQ) |
| E1M | Accent Lamp - Passenger Door Handle | - | In the passenger compartment, on the passenger door trim panel at the door handle | Passenger Door Trim Panel | E1M Accent Lamp - Passenger Door Handle |
| E1P | Accent Lamp - Passenger Door | TSQ | On the passenger door trim panel, under the door handle | Passenger Door Trim Panel | • E1P Accent Lamp - Passenger Door (X88+TSQ)<br>• E1P Accent Lamp - Passenger Door (Z88+TSQ) |
| E2LF | Side Marker Lamp - Left Front | - | On the left front of the vehicle, inside the left headlamp assembly | - | - |
| E2LR | Side Marker Lamp - Left Rear | - | On the left rear of the vehicle, inside the left tail lamp assembly | - | - |
| E2RF | Side Marker Lamp - Right Front | - | On the right front of the vehicle, inside the right headlamp assembly | - | - |
| E2RR | Side Marker Lamp - Right Rear | - | On the right rear of the vehicle, inside the right tail lamp assembly | - | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| E4AC | Park/Daytime Running Lamp - Left | - | On the left front of the vehicle inside the left headlamp assembly | - | - |
| E4AD | Park/Daytime Running Lamp - Right | - | On the right front of the vehicle inside the right headlamp assembly | - | - |
| E4E | Headlamp - Left High Beam | - | Outside the vehicle, part of the left headlamp assembly | - | - |
| E4F | Headlamp - Right High Beam | - | Outside the vehicle, part of the right headlamp assembly | - | - |
| E4G | Headlamp - Left Low Beam | - | On the left front of the vehicle inside the left headlamp assembly | - | - |
| E4H | Headlamp - Right Low Beam | - | On the right front of the vehicle inside the right headlamp assembly | - | - |
| E4LF | Turn Signal Lamp - Left Front | - | On the left front of the vehicle inside the left headlamp assembly | - | • E4LF Turn Signal Lamp - Left Front (X88+T3U)<br>• E4LF Turn Signal Lamp - Left Front (X88-T3U/MAM) |
| E4LR | Turn Signal Lamp - Left Rear | - | On the left rear of the vehicle, inside the left tail lamp assembly | - | - |
| E4RF | Turn Signal Lamp - Right Front | - | On the right front of the vehicle inside the right headlamp assembly | - | • E4RF Turn Signal Lamp - Right Front (X88+T3U)<br>• E4RF Turn Signal Lamp - Right Front (X88-T3U/MAM) |
| E4RR | Turn Signal Lamp - Right Rear | - | On the right rear of the vehicle, inside the right tail lamp assembly | - | - |
| E4Y | Turn Signal Repeater Lamp - Left | - | On the bottom front side of the left outside rearview mirror | - | - |
| E4Z | Turn Signal Repeater Lamp - Right | - | On the bottom front side of the right outside rearview mirror | - | - |
| E5A | Backup Lamp - Left | - | On the left rear of the vehicle, inside the left liftgate tail lamp assembly | - | - |
| E5B | Backup Lamp - Right | - | On the right rear of the vehicle, inside the right liftgate tail lamp assembly | - | - |
| E5LD | Tail/Stop Lamp - Left Inner | - | On the left rear of the vehicle, inside the left liftgate tail lamp assembly | - | - |
| E5LE | Tail/Stop Lamp - Left Outer | - | On the left rear of the vehicle, inside the left tail lamp assembly | - | - |
| E5RD | Tail/Stop Lamp - Right Inner | - | On the right rear of the vehicle, inside the right liftgate tail lamp assembly | - | - |
| E5RE | Tail/Stop Lamp - Right Outer | - | On the right rear of the vehicle, inside the right tail lamp assembly | - | - |
| E6 | Center High Mounted Stop Lamp | - | Rear of the vehicle, at the top of the liftgate, in the center of the rear spoiler | Rear of the Vehicle/Liftgate | • E6 Center High Mounted Stop Lamp (EPH)<br>• E6 Center High Mounted Stop Lamp (-EPH) |
| E7L | License Plate Lamp - Left | - | • (X88) Rear of the vehicle, above the left side of the license plate<br>• (Z88) Rear of the vehicle, above the left side of the license plate | Rear of the Vehicle/Liftgate | • E7L License Plate Lamp - Left (X88)<br>• E7L License Plate Lamp - Left (Z88) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| E7R | License Plate Lamp - Right | - | • (X88) Rear of the vehicle, above the right side of the license plate<br>• (Z88) Rear of the vehicle, above the right side of the license plate | • Rear Luggage Compartment/Inside of the Liftgate<br>• Rear of the Vehicle/Liftgate | • E7R License Plate Lamp - Right (X88)<br>• E7R License Plate Lamp - Right (Z88) |
| E8S | Rear Compartment Courtesy Lamp | - | In the passenger compartment, on the center rear of the headliner near the liftgate | • Headliner (C3U)<br>• Headliner (except C3U) | E8S Rear Compartment Courtesy Lamp |
| E11 | Fuel Heater | LH7 | On the underbody, along the inboard side of the left frame rail, mounted to the fuel filter assembly | - | E11 Fuel Heater (LH7) |
| E12A | Glow Plug 1 | LH7 | In the engine compartment, at the top left side of the engine at cylinder 1 | Right Rear of the Engine (LH7) | E12A Glow Plug 1 (LH7) |
| E12B | Glow Plug 2 | LH7 | In the engine compartment, at the top left side of the engine at cylinder 2 | Right Rear of the Engine (LH7) | E12B Glow Plug 2 (LH7) |
| E12C | Glow Plug 3 | LH7 | In the engine compartment, at the top left side of the engine at cylinder 3 | Right Rear of the Engine (LH7) | E12C Glow Plug 3 (LH7) |
| E12D | Glow Plug 4 | LH7 | In the engine compartment, at the top left side of the engine at cylinder 4 | Right Rear of the Engine (LH7) | E12D Glow Plug 4 (LH7) |
| E13L | Headlamp - Left | - | Outside the vehicle, part of the left headlamp assembly | - | - |
| E13LA | Headlamp Assembly - Left | - | On the left front of the vehicle | - | - |
| E13R | Headlamp - Right | - | Outside the vehicle, part of the right headlamp assembly | - | - |
| E13RA | Headlamp Assembly - Right | - | On the right front of the vehicle | - | - |
| E14A | Seat Heating Element - Driver Back | KA1 | In the passenger compartment, in the driver seat back | • Driver Seat (1 of 3)<br>• Driver Seat (2 of 3) | E14A Seat Heating Element - Driver Back (KA1) |
| E14B | Seat Heating Element - Driver Cushion | KA1 | In the passenger compartment, in the driver seat cushion | • Driver Seat (1 of 3)<br>• Driver Seat (2 of 3) | E14B Seat Heating Element - Driver Cushion (KA1) |
| E14C | Seat Heating Element - Passenger Back | KA1 | In the passenger compartment, in the passenger seat back | • Passenger Seat (1 of 4)<br>• Passenger Seat (4 of 4) | E14C Seat Heating Element - Passenger Back (KA1) |
| E14D | Seat Heating Element - Passenger Cushion | KA1 | In the passenger compartment, in the passenger seat cushion | • Passenger Seat (2 of 4)<br>• Passenger Seat (4 of 4) | E14D Seat Heating Element - Passenger Cushion (KA1) |
| E14E | Seat Heating Element - Left Rear Back | KA6 | In the passenger compartment, in the left rear seat back | Left Rear Seat | E14E Seat Heating Element - Left Rear Back (KA6) |
| E14F | Seat Heating Element - Left Rear Cushion | KA6 | In the passenger compartment, in the left rear seat cushion | Left Rear Seat | E14F Seat Heating Element - Left Rear Cushion (KA6) |
| E14G | Seat Heating Element - Right Rear Back | KA6 | In the passenger compartment, in the right rear seat back | Right Rear Seat | E14G Seat Heating Element - Right Rear Back (KA6) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| E14H | Seat Heating Element - Right Rear Cushion | KA6 | In the passenger compartment, in the right rear seat cushion | Right Rear Seat | E14H Seat Heating Element - Right Rear Cushion (KA6) |
| E15 | Steering Wheel Heater | UVD | In the left front of the passenger compartment, within the steering wheel rim | - | E15 Steering Wheel Heater (UVD) |
| E17D | Outside Rearview Mirror Glass - Driver | - | On the outside of the drivers door, part of the outside rearview mirror - driver | - | - |
| E17P | Outside Rearview Mirror Glass - Passenger | - | On the outside of the passenger door, part of the outside rearview mirror - passenger | - | - |
| E18 | Rear Defogger Grid | - | In the passenger compartment, mounted on the rear window glass | Rear Luggage Compartment/Inside of the Liftgate | • E18 Rear Defogger Grid X1<br>• E18 Rear Defogger Grid X2 |
| E28 | Center Console Compartment Lamp | - | In the passenger compartment, in the center console compartment | Rear of the Center Console Storage Compartment | E28 Center Console Compartment Lamp |
| E29LF | Fog Lamp - Left Front | T3U | Lower left front of the vehicle, below the left headlamp assembly | Behind the Front Fascia | E29LF Fog Lamp - Left Front (T3U) |
| E29R | Fog Lamp - Rear | T79 | Rear of the vehicle, center of rear fascia | Rear of the Vehicle/Fascia | E29R Fog Lamp - Rear (T79) |
| E29RF | Fog Lamp - Right Front | T3U | Lower right front of the vehicle, below the right headlamp assembly | Behind the Front Fascia | E29RF Fog Lamp - Right Front (T3U) |
| E31L | Sunshade Mirror Lamp - Left | - | In the passenger compartment, at the left front of the headliner, part of the sunshade | - | - |
| E31R | Sunshade Mirror Lamp - Right | - | In the passenger compartment, at the right front of the headliner, part of the sunshade | - | - |
| E32 | Cigarette Lighter Receptacle | SAO/U37 | In the passenger compartment, replaces the accessory power receptacle - instrument panel | • Front of the Center Console (GMC)<br>• Instrument Panel and Shift Lever | E32 Cigarette Lighter Receptacle (SAO/U37) |
| E37LR | Dome/Reading Lamps - Left Rear | - | In the passenger compartment, above the left rear door in the headliner at the grab handle | • Headliner (C3U)<br>• Headliner (except C3U) | E37LR Dome/Reading Lamps - Left Rear |
| E37RR | Dome/Reading Lamps - Right Rear | - | In the passenger compartment, above the right rear door in the headliner at the grab handle | • Headliner (C3U)<br>• Headliner (except C3U) | E37RR Dome/Reading Lamps - Right Rear |
| E40 | Electrical Auxiliary Heater | C32 | In the passenger compartment, below the instrument panel, left of the blower motor, attached to the HVAC assembly | HVAC Assembly | • E40 Electrical Auxiliary Heater X1 (C32)<br>• E40 Electrical Auxiliary Heater X2 (C32)<br>• E40 Electrical Auxiliary Heater X3 (C32) |
| E42L | Tail Lamp Assembly - Left | - | Rear of the vehicle, on the left side | - | • E42L Tail Lamp Assembly - Left (X88+UGE)<br>• E42L Tail Lamp Assembly - Left X1 (X88-UGE)<br>• E42L Tail Lamp Assembly - Left X2 (X88-UGE) |

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|---|---|---|---|---|---|
| E42R | Tail Lamp Assembly - Right | - | Rear of the vehicle, on the right side | - | • E42R Tail Lamp Assembly - Right (X88+UGE)<br>• E42R Tail Lamp Assembly - Right X1 (X88-UGE)<br>• E42R Tail Lamp Assembly - Right X2 (X88-UGE) |
| E43L | Liftgate Tail Lamp Assembly - Left | - | Rear of the vehicle, on the left side of the liftgate | - | • E43L Liftgate Tail Lamp Assembly - Left (X88-UGE)<br>• E43L Liftgate Tail Lamp Assembly - Left (Z88+V9V)<br>• E43L Liftgate Tail Lamp Assembly - Left (Z88-9V9)<br>• E43L Liftgate Tail Lamp Assembly - Left X1 (X88+UGE)<br>• E43L Liftgate Tail Lamp Assembly - Left X2 (X88+UGE) |
| E43R | Liftgate Tail Lamp Assembly - Right | - | Rear of the vehicle, on the right side of the liftgate | - | • E43R Liftgate Tail Lamp Assembly - Right (X88-UGE)<br>• E43R Liftgate Tail Lamp Assembly - Right (Z88+V9V)<br>• E43R Liftgate Tail Lamp Assembly - Right (Z88-V9V)<br>• E43R Liftgate Tail Lamp Assembly - Right X1 (X88+UGE)<br>• E43R Liftgate Tail Lamp Assembly - Right X2 (X88+UGE) |
| E45 | Positive Crankcase Ventilation Heater | LH7 | In the engine compartment, center, forward of the engine | Left Front of the Engine (LH7) | E45 Positive Crankcase Ventilation Heater (LH7) |
| E52 | Reductant Line Heater | LH7 | Under the left rear of the vehicle, part of the reductant fluid reservoir | - | E52 Reductant Line Heater (LH7) |
| E53 | Reductant Tank Heater | LH7 | Under the left rear of the vehicle, part of the reductant fluid reservoir | - | - |
| E67L | Multifunction LED - Left Headlamp | T4F or T4L with Z88 | Outside the vehicle, part of the left headlamp assembly | - | - |
| E67R | Multifunction LED - Right Headlamp | T4F or T4L with Z88 | Outside the vehicle, part of the right headlamp assembly | - | - |
| F101 | Passenger Instrument Panel Air Bag | - | In the passenger compartment, right side of the instrument panel, under the instrument panel upper trim panel | - | • F101 Passenger Instrument Panel Air Bag (AJG)<br>• F101 Passenger Instrument Panel Air Bag X1 (AY0)<br>• F101 Passenger Instrument Panel Air Bag X2 (AY0) |
| F105L | Roof Rail Air Bag - Left | AY0 | In the passenger compartment, on the left side, above the door opening, under the headliner | Left Front of the Passenger Compartment (1 of 2) | F105L Roof Rail Air Bag - Left (AY0) |
| F105R | Roof Rail Air Bag - Right | AY0 | In the passenger compartment, on the right side, above the door opening, under the headliner | Right Side of the Passenger Compartment | F105R Roof Rail Air Bag - Right (AY0) |
| F106D | Seat Side Air Bag - Driver | - | In the passenger compartment, mounted on the left side of the drivers seat back | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | F106D Seat Side Air Bag - Driver |

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|---|---|---|---|---|---|
| F106P | Seat Side Air Bag - Passenger | - | In the passenger compartment, mounted on the right side of the passenger seat back | • Passenger Seat (1 of 4)<br>• Passenger Seat (4 of 4) | F106P Seat Side Air Bag - Passenger |
| F107 | Steering Wheel Air Bag | - | In the passenger compartment, center of the steering wheel | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | • F107 Steering Wheel Air Bag (AJG)<br>• F107 Steering Wheel Air Bag X1 (AY0)<br>• F107 Steering Wheel Air Bag X2 (AY0) |
| F112D | Seat Belt Retractor Pretensioner - Driver | - | In the passenger compartment, at the base of the left B-Pillar, part of the driver seat belt retractor | Left Front of the Passenger Compartment (1 of 2) | F112D Seat Belt Retractor Pretensioner - Driver |
| F112P | Seat Belt Retractor Pretensioner - Passenger | - | In the passenger compartment, at the base of the right B-Pillar, part of the passenger seat belt retractor | Right Side of the Passenger Compartment | F112P Seat Belt Retractor Pretensioner - Passenger |
| F113D | Seat Belt Anchor Pretensioner - Driver | - | In the passenger compartment, attached to the right side of the right driver seat rail | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | F113D Seat Belt Anchor Pretensioner - Driver |
| F113P | Seat Belt Anchor Pretensioner - Passenger | - | In the passenger compartment, attached to the left side of the left passenger seat rail | • Passenger Seat (1 of 4)<br>• Passenger Seat (4 of 4) | F113P Seat Belt Anchor Pretensioner - Passenger |
| G1 | A/C Compressor | - | In the engine compartment, mounted on the lower right front of the engine | Front of the Engine (LH7) | - |
| G10 | Cooling Fan Motor | - | Front of the engine compartment, to the rear of the radiator, mounted to the cooling fan shroud | Cooling Fan | G10 Cooling Fan Motor |
| G12 | Fuel Pump | - | Under the rear of the vehicle inside the fuel tank, part of the fuel pump and level sensor assembly | - | - |
| G13 | Generator | - | In the engine compartment, mounted on the lower right rear of the engine | • Right Front of the Engine (LTG)<br>• Right Rear of the Engine (LH7)<br>• Top of the Engine (LYX) | • G13 Generator X1<br>• G13 Generator X2 (LH7/LTG)<br>• G13 Generator X2 (LYX) |
| G18 | High Pressure Fuel Pump | LTG/LYX | In the engine compartment, on the left rear of the engine above the transmission | • Left Rear of the Engine (LTG)<br>• Rear of the Engine (LYX) | G18 High Pressure Fuel Pump (LTG/LYX) |
| G19 | Rear Window Washer Pump | - | In the left front of the engine compartment, mounted on the left side of the washer fluid reservoir | Left Front of the Vehicle | G19 Rear Window Washer Pump |
| G24 | Windshield Washer Pump | - | In the left front of the engine compartment, mounted on the left side of the washer fluid reservoir | Left Front of the Vehicle | G24 Windshield Washer Pump |
| G33 | Reductant Pump | LH7 | Under the left rear of the vehicle, part of the reductant fluid reservoir assembly | - | - |
| G36 | Auxiliary Heater Coolant Pump | KL9 | In the engine compartment, on the left rear of the engine | Left Front of the Engine (LH7) | G36 Auxiliary Heater Coolant Pump (KL9) |

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|---|---|---|---|---|---|
| G46L | Cooling Fan - Left Headlamp | T4L with Z88 | Outside the vehicle, part of the left headlamp assembly | - | - |
| G46R | Cooling Fan - Right Headlamp | T4L with Z88 | Outside the vehicle, part of the right headlamp assembly | - | - |
| K9 | Body Control Module | - | In the passenger compartment, below the center of the instrument panel, mounted on the floor, forward of the inflatable restraint sensing and diagnostic module | • Left Front of the Passenger Compartment (1 of 2)<br>• Under the Center Console/Inflatable Restraint and Body Control Module | • K9 Body Control Module X1<br>• K9 Body Control Module X2<br>• K9 Body Control Module X3<br>• K9 Body Control Module X4<br>• K9 Body Control Module X5<br>• K9 Body Control Module X6<br>• K9 Body Control Module X7 |
| K17 | Electronic Brake Control Module | - | In the left rear of the engine compartment, mounted to the right of the strut tower | Left Side of the Engine Compartment (2 of 2) | K17 Electronic Brake Control Module |
| K20 | Engine Control Module | - | In the left side of the engine compartment, at the right side of the battery | • Front of the Engine Compartment and Transmission (MNH)<br>• Left Side of the Engine Compartment (1 of 2) | • K20 Engine Control Module X1 (LH7)<br>• K20 Engine Control Module X1 (LTG)<br>• K20 Engine Control Module X1 (LYX)<br>• K20 Engine Control Module X2 (LH7)<br>• K20 Engine Control Module X2 (LTG)<br>• K20 Engine Control Module X2 (LYX)<br>• K20 Engine Control Module X3 (LH7)<br>• K20 Engine Control Module X3 (LTG)<br>• K20 Engine Control Module X3 (LYX) |
| K26 | Headlamp Control Module | TR7 | In the passenger compartment, under the trim panel below the right rear side window on the wheel well | Right Rear of the Passenger Compartment | K26 Headlamp Control Module (TR7) |
| K26L | Headlamp Control Module - Left | T4L | Outside the vehicle, part of the left headlamp assembly | - | - |
| K26R | Headlamp Control Module - Right | T4L | Outside the vehicle, part of the right headlamp assembly | - | - |
| K29F | Seat Heating Control Module - Front | KA1 | In the passenger compartment, beneath the front of the passenger seat | • Passenger Seat (2 of 4)<br>• Passenger Seat (4 of 4) | • K29F Seat Heating Control Module - Front X1 (KA1)<br>• K29F Seat Heating Control Module - Front X2 (KA1) |
| K29R | Seat Heating Control Module - Rear | KA6 | In the passenger compartment, under the left side of the rear seat | Left Rear Seat | • K29R Seat Heating Control Module - Rear X1 (KA6)<br>• K29R Seat Heating Control Module - Rear X2 (KA6) |
| K32 | Steering Wheel Heating Control Module | UVD | In the passenger compartment, in the steering wheel behind the drivers air bag | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | K32 Steering Wheel Heating Control Module (UVD) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| K33 | HVAC Control Module | - | In the passenger compartment, behind the top center of the instrument panel | Behind the Instrument Panel (GMC) | • K33 HVAC Control Module X1<br>• K33 HVAC Control Module X2<br>• K33 HVAC Control Module X3<br>• K33 HVAC Control Module X4 (CJ2) |
| K36 | Inflatable Restraint Sensing and Diagnostic Module | - | In the passenger compartment, beneath the center console to the rear of the body control module | • Left Front of the Passenger Compartment (1 of 2)<br>• Under the Center Console/Inflatable Restraint and Body Control Module | • K36 Inflatable Restraint Sensing and Diagnostic Module X1<br>• K36 Inflatable Restraint Sensing and Diagnostic Module X2 |
| K39 | Liftgate Control Module | TB5/TC2 | In the luggage compartment, behind the left rear trim panel | Left Rear of the Passenger Compartment | • K39 Liftgate Control Module X1 (TB5/TC2)<br>• K39 Liftgate Control Module X2 (TB5/TC2)<br>• K39 Liftgate Control Module X3 (TB5/TC2) |
| K40D | Seat Memory Control Module - Driver | A45/A74 | In the passenger compartment, under the driver seat | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | • K40D Seat Memory Control Module - Driver X1 (A45/A74)<br>• K40D Seat Memory Control Module - Driver X2 (A45/A74)<br>• K40D Seat Memory Control Module - Driver X3 (A45/A74)<br>• K40D Seat Memory Control Module - Driver X5 (A45/A74)<br>• K40D Seat Memory Control Module - Driver X6 (A45/A74) |
| K43 | Power Steering Control Module | - | In the vehicle underbody, near lower rear, near center, mounted to power steering motor on steering gear | Rear of the Engine Compartment/Power Steering Control Module | • K43 Power Steering Control Module X1<br>• K43 Power Steering Control Module X2 |
| K47 | Rear Differential Clutch Control Module | F48 | Under the rear of the vehicle, on top of the rear differential | Rear Chassis | • K47 Rear Differential Clutch Control Module X1 (F48)<br>• K47 Rear Differential Clutch Control Module X2 (F48) |
| K56 | Serial Data Gateway Module | - | In the passenger compartment, center of instrument panel below the HVAC controls | • Behind the Instrument Panel (Chevrolet)<br>• Left Side of the Instrument Panel | • K56 Serial Data Gateway Module X1<br>• K56 Serial Data Gateway Module X2 |
| K61 | Sunroof Control Module | C3U | In the passenger compartment, above the headliner to the rear of the sunroof, to the left of the sunroof sunshade motor module | - | K61 Sunroof Control Module (C3U) |
| K62 | Sunroof Sunshade Motor Module | C3U | In the passenger compartment, above the headliner to the rear of the sunroof, to the right of the sunroof control module | - | K62 Sunroof Sunshade Motor Module (C3U) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| K71 | Transmission Control Module | - | • (MHG/MNH/MNK) Under the vehicle, inside the automatic transmission, part of the control solenoid valve assembly<br>• (M3D/M3H/M3U) In the engine compartment, on the front of the automatic transmission | Right Front of the Transmission (M3D/M3H/M3U) | K71 Transmission Control Module (M3D/M3H/M3U) |
| K73 | Telematics Communication Interface Control Module | UE1 | In the passenger compartment, in the center of he instrument panel, forward of the center console behind the instrument panel lower trim plate | • Behind the Instrument Panel (Chevrolet)<br>• Behind the Instrument Panel (GMC) | • K73 Telematics Communication Interface Control Module X1 (UE1+IOB/IO5/IO6)<br>• K73 Telematics Communication Interface Control Module X1 (UE1+IOR/IOS/IOT/IOU)<br>• K73 Telematics Communication Interface Control Module X2 (UE1+IOB/IO5/IO6)<br>• K73 Telematics Communication Interface Control Module X5 (UE1)<br>• K73 Telematics Communication Interface Control Module X7 (UE1) |
| K74 | Human Machine Interface Control Module | - | In the passenger compartment, under the right side of the instrument panel | Behind the Instrument Panel (Chevrolet) | • K74 Human Machine Interface Control Module X1 (IO5/IO6)<br>• K74 Human Machine Interface Control Module X2 (IO5/IO6)<br>• K74 Human Machine Interface Control Module X3 (IO5/IO6)<br>• K74 Human Machine Interface Control Module X4 (IO5/IO6)<br>• K74 Human Machine Interface Control Module X5 (IO5/IO6)<br>• K74 Human Machine Interface Control Module X7 (IO6) |
| K77 | Remote Control Door Lock Receiver | - | In the passenger compartment, under the right rear of the headliner, just forward of the liftgate | Upper Right Rear of the Luggage Compartment | K77 Remote Control Door Lock Receiver |
| K84 | Keyless Entry Control Module | - | In the passenger compartment, behind the lower right rear trim panel, rear of the wheel well | Right Rear of the Passenger Compartment | • K84 Keyless Entry Control Module X1<br>• K84 Keyless Entry Control Module X2 |
| K85 | Passenger Presence Module | AL0 | In the passenger compartment, under the passenger seat | • Passenger Seat (2 of 4)<br>• Passenger Seat (3 of 4) | K85 Passenger Presence Module (AL0) |
| K89 | Immobilizer Control Module | - | In the passenger compartment, under the center console | Underneath the Center Console | K89 Immobilizer Control Module |
| K108 | Active Noise Cancellation Module | NKC and UZ6 without IOR | In the passenger compartment, below the center of the instrument panel, mounted on the floor, forward of the body control module | Front of the Passenger Compartment | • K108 Active Noise Cancellation Module X1 (NKC+UZ6-IOR)<br>• K108 Active Noise Cancellation Module X2 (NKC+UZ6-IOR)<br>• K108 Active Noise Cancellation Module X3 (NKC+UZ6-IOR) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| K111 | Fuel Pump Driver Control Module | - | Under the vehicle, near the left side, just forward of the fuel tank | Underbody | • K111 Fuel Pump Driver Control Module (LH7)<br>• K111 Fuel Pump Driver Control Module (LTG/LYX+X88)<br>• K111 Fuel Pump Driver Control Module (LTG/LYX+Z88) |
| K115 | Reductant Control Module | LH7 | Under the left rear of the vehicle, attached to the reductant fluid reservoir | Left Rear Underbody | • K115 Reductant Control Module X1 (LH7)<br>• K115 Reductant Control Module X2 (LH7) |
| K157 | Video Processing Control Module | UVH | In the passenger compartment, in the luggage area on the right side under trim panel above the wheel well | Right Rear of the Passenger Compartment | • K157 Video Processing Control Module X1 (UVH)<br>• K157 Video Processing Control Module X2 (UVH)<br>• K157 Video Processing Control Module X3 (UVH) |
| K166L | Multifunction LED Control Module - Left Headlamp | T4L | Outside the vehicle, part of the left headlamp assembly | - | - |
| K166R | Multifunction LED Control Module - Right Headlamp | T4L | Outside the vehicle, part of the right headlamp assembly | - | - |
| K171 | Hands-Free Liftgate Sensor Control Module | TC2 | Under the vehicle, at the bottom of the left side of the rear fascia | Rear of the Vehicle/Fascia | • K171 Hands-Free Liftgate Sensor Control Module X1 (TC2)<br>• K171 Hands-Free Liftgate Sensor Control Module X2 (TC2)<br>• K171 Hands-Free Liftgate Sensor Control Module X3 (TC2) |
| K173 | Transmission Range Control Module | LH7 with EPH | In the engine compartment, on top and toward the rear of the automatic transmission | Left Front of the Transmission/Transmission Range Control Module (EPH) | K173 Transmission Range Control Module (LH7+EPH) |
| K182 | Parking Assist Control Module | UD5/UD7/UFQ | In the passenger compartment, in the luggage area on the right side under trim panel above the wheel well | Right Rear of the Passenger Compartment | • K182 Parking Assist Control Module X1 (UD5/UD7/UFQ)<br>• K182 Parking Assist Control Module X2 (UD5/UD7/UFQ)<br>• K182 Parking Assist Control Module X3 (UD5/UFQ) |
| K188 | Human Machine Interface Control Module Bypass Module | IO5/IO6 with MAH or MBC | In the passenger compartment, under the right side of the instrument panel, under the right side of the instrument panel compartment | Behind the Instrument Panel (Chevrolet) | • K188 Human Machine Interface Control Module Bypass Module X1 (IO5/IO6+MAH/MBC)<br>• K188 Human Machine Interface Control Module Bypass Module X2 (IO5/IO6+MAH/MBC)<br>• K188 Human Machine Interface Control Module Bypass Module X3 (IO5/IO6+MAH/MBC) |
| M6 | Air Temperature Door Actuator | C67 | In the passenger compartment, under the left side of the instrument panel, mounted on the left side of the HVAC module above the accelerator pedal | - | M6 Air Temperature Door Actuator (C67) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| M6L | Air Temperature Door Actuator - Left | CJ2/C4P | In the passenger compartment, under the left side of the instrument panel, mounted on the left side of the HVAC module above the accelerator pedal | HVAC Assembly | M6L Air Temperature Door Actuator - Left (CJ2/C4P) |
| M6R | Air Temperature Door Actuator - Right | CJ2 | In the passenger compartment, under the right side of the instrument panel, mounted on the HVAC module at the left side of the instrument panel compartment | HVAC Assembly | M6R Air Temperature Door Actuator - Right (CJ2) |
| M7 | Transmission Shift Lock Control Solenoid Actuator | - | In the passenger compartment, in the center console, next to the cup holder, part of the transmission Shift lever | - | - |
| M8 | Blower Motor | - | In the passenger compartment, under the right side of the instrument panel behind the insulator panel above the footwell | HVAC Assembly | M8 Blower Motor |
| M17 | Liftgate Motor Assembly | TB5/TC2 | Rear of the vehicle, mounted between the left side of the liftgate and the upper left corner of the vehicle | Left Rear of the Vehicle | M17 Liftgate Motor Assembly (TB5/TC2) |
| M28L | High Beam Solenoid Actuator - Left | T4F | On the left front of the vehicle inside the left headlamp assembly | - | - |
| M28R | High Beam Solenoid Actuator - Right | T4F | On the right front of the vehicle inside the right headlamp assembly | - | - |
| M29L | Headlamp Leveling Actuator - Left | TR6/TR7 | On the left front of the vehicle inside the left headlamp assembly | - | - |
| M29R | Headlamp Leveling Actuator - Right | TR6/TR7 | On the right front of the vehicle inside the right headlamp assembly | - | - |
| M30 | Liftgate Latch | TB4 | Rear of the vehicle, mounted on the center bottom of the liftgate | Rear Luggage Compartment/Inside of the Liftgate | M30 Liftgate Latch (TB4) |
| M32 | Differential Clutch Pump | F48 | Under the rear of the vehicle, on the rear differential | Rear Chassis | M32 Differential Clutch Pump (F48) |
| M35D | Window Motor Module - Driver | - | Inside the left front door, above the speaker, behind the trim panel | Driver Door | M35D Window Motor Module - Driver |
| M37 | Mode Door Actuator | - | In the passenger compartment, under the left side of the instrument panel, above the brake pedal assembly to the right of the steering column | HVAC Assembly | M37 Mode Door Actuator |
| M45 | Rear Wiper Motor | - | In the passenger compartment, mounted behind the center of the liftgate trim panel just under the rear window | Rear Luggage Compartment/Inside of the Liftgate | M45 Rear Wiper Motor |
| M46 | Air Recirculation Door Actuator | - | In the passenger compartment, under the top right side of the instrument panel on the right side of the air inlet housing | HVAC Assembly | M46 Air Recirculation Door Actuator |
| M50D | Seat Front Vertical Motor - Driver | A45/AG1 | In the passenger compartment, under the front of the driver seat, next to the left seat track | Driver Seat (1 of 3) | M50D Seat Front Vertical Motor - Driver (A45/AG1) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| M50P | Seat Front Vertical Motor - Passenger | ADT/AG2 | In the passenger compartment, under the front of the passenger seat, next to the left seat track | • Passenger Seat (1 of 4)<br>• Passenger Seat (2 of 4)<br>• Passenger Seat (4 of 4) | M50P Seat Front Vertical Motor - Passenger (ADT/AG2) |
| M51D | Seat Horizontal Motor - Driver | A45/AG1 | In the passenger compartment, under the center of the driver seat, between the seat tracks | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | M51D Seat Horizontal Motor - Driver (A45/AG1) |
| M51P | Seat Horizontal Motor - Passenger | ADT/AG2 | In the passenger compartment, under the center of the passenger seat, between the seat tracks | • Passenger Seat (1 of 4)<br>• Passenger Seat (2 of 4)<br>• Passenger Seat (4 of 4) | M51P Seat Horizontal Motor - Passenger (ADT/AG2) |
| M53D | Seat Lumbar Support Motor - Driver | AL9 | In the passenger compartment, on the driver seat, inside the lower left side of the seat back | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | • M53D Seat Lumbar Support Motor - Driver (AL9+X88)<br>• M53D Seat Lumbar Support Motor - Driver (AL9+Z88) |
| M53P | Seat Lumbar Support Motor - Passenger | AT9 | In the passenger compartment, on the passenger seat, inside the lower right side of the seat back | • Passenger Seat (2 of 4)<br>• Passenger Seat (3 of 4) | • M53P Seat Lumbar Support Motor - Passenger (AT9+X88)<br>• M53P Seat Lumbar Support Motor - Passenger (AT9+Z88) |
| M55D | Seat Rear Vertical Motor - Driver | A45/AG1 | In the passenger compartment, under the right side rear of the driver seat cushion, outside the upper seat rail | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | M55D Seat Rear Vertical Motor - Driver (A45/AG1) |
| M55P | Seat Rear Vertical Motor - Passenger | ADT/AG2 | In the passenger compartment, under the left side rear of the passenger seat cushion, outside the upper seat rail | • Passenger Seat (1 of 4)<br>• Passenger Seat (4 of 4) | M55P Seat Rear Vertical Motor - Passenger (ADT/AG2) |
| M56D | Seat Recline Motor - Driver | A45/AG1 | In the passenger compartment, on the driver seat, inside the lower left side of the seat back | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | M56D Seat Recline Motor - Driver (A45/AG1) |
| M56P | Seat Recline Motor - Passenger | AG2 | In the passenger compartment, on the passenger seat, inside the lower right side of the seat back | Passenger Seat (2 of 4) | M56P Seat Recline Motor - Passenger (AG2) |
| M64 | Starter Motor | - | Under the vehicle, at the left rear of the engine to the left of the generator | • Rear of the Engine (LH7)<br>• Rear of the Engine (LYX) | • M64 Starter Motor X1 (KL9)<br>• M64 Starter Motor X1 (-KL9)<br>• M64 Starter Motor X2 |
| M73A | Seat Blower Motor - Driver Back | KU1 | In the passenger compartment, in the upper rear of the drivers seat back under the cover | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | M73A Seat Blower Motor - Driver Back (KU1) |
| M73B | Seat Blower Motor - Passenger Back | KU3 | In the passenger compartment, in the upper rear of the passenger seat back under the cover | • Passenger Seat (2 of 4)<br>• Passenger Seat (3 of 4) | M73B Seat Blower Motor - Passenger Back (KU3) |
| M73C | Seat Blower Motor - Driver Cushion | KU1 | In the passenger compartment, under the center rear of the driver seat | Driver Seat (3 of 3) | M73C Seat Blower Motor - Driver Cushion (KU1) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| M73D | Seat Blower Motor - Passenger Cushion | KU3 | In the passenger compartment, under the center rear of the passenger seat | • Passenger Seat (2 of 4)<br>• Passenger Seat (3 of 4) | M73D Seat Blower Motor - Passenger Cushion (KU3) |
| M74LR | Window Motor - Left Rear | - | Inside the left rear door, near the center behind the trim panel | Left Rear Door | M74LR Window Motor - Left Rear |
| M74P | Window Motor - Passenger | - | Inside the right front door, above the speaker, behind the trim panel | Passenger Door | M74P Window Motor - Passenger |
| M74RR | Window Motor - Right Rear | - | Inside the right rear door, near the center behind the trim panel | Right Rear Door | M74RR Window Motor - Right Rear |
| M75 | Windshield Wiper Motor | - | In the engine compartment, in the plenum chamber, at the left front of the windshield | Left Side of the Engine Compartment (2 of 2) | M75 Windshield Wiper Motor |
| M77D | Outside Rearview Mirror Motor - Driver | - | On the left side of the vehicle, upper front of the driver door | - | - |
| M77P | Outside Rearview Mirror Motor - Passenger | - | On the Right side of the vehicle, upper front of the passenger door | - | - |
| M78D | Outside Rearview Mirror Folding Motor - Driver | DWW | On the left side of the vehicle, upper front of the driver door | - | - |
| M78P | Outside Rearview Mirror Folding Motor - Passenger | DWW | On the Right side of the vehicle, upper front of the passenger door | - | - |
| M96A | Active Grille Air Shutter 1 Actuator | VTI | In the engine compartment, in front of the radiator | - | M96A Active Grille Air Shutter 1 Actuator (VTI) |
| M98 | Intake Manifold Runner Valve Actuator | LH7 | In the engine compartment, right rear of the engine, under the intake manifold, near generator | Right Rear of the Engine (LH7) | M98 Intake Manifold Runner Valve Actuator (LH7) |
| M104L | Park Brake Actuator - Left | - | Under the vehicle, at the left rear brake caliper | Rear Chassis | M104L Park Brake Actuator - Left |
| M104R | Park Brake Actuator - Right | - | Under the vehicle, at the right rear brake caliper | Rear Chassis | M104R Park Brake Actuator - Right |
| M115 | Power Transfer Unit Shift Actuator | F48 | Under the vehicle, rear of the engine, mounted on the power transfer unit, above and to the right of the rear drive shaft | • Left Rear of the Engine (LTG)<br>• Power Transfer Unit Shift Actuator (F48)<br>• Right Rear of the Engine (LH7)<br>• Right Rear of the Transmission (MHG/MNH/MNK) | • M115 Power Transfer Unit Shift Actuator X1 (F48)<br>• M115 Power Transfer Unit Shift Actuator X2 (F48) |
| M123 | Transmission Park Valve Lock Solenoid Actuator | M3H/M3U | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | M123 Transmission Park Valve Lock Solenoid Actuator (M3H/M3U) |
| P2 | Transmission Shift Lever Position Indicator | - | In the passenger compartment, under the center console, on the top rear of the shifter assembly | Top and Rear of the Center Console (Chevrolet) | P2 Transmission Shift Lever Position Indicator |
| P12A | Horn - High Note | - | Front of vehicle, behind the left side of the front fascia, part of the horn assembly | - | - |
| P12B | Horn - Low Note | - | Front of vehicle, behind the left side of the front fascia, part of the horn assembly | - | - |
| P13 | Horn Assembly | - | Front of vehicle, behind the left side of the front fascia, near the headlamp assembly | Left Front of the Vehicle | P13 Horn Assembly |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| P16 | Instrument Cluster | - | In the passenger compartment, left side of the instrument panel, above the steering column | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | • P16 Instrument Cluster X1<br>• P16 Instrument Cluster X3 |
| P17 | Info Display Module | - | In the passenger compartment, center of the instrument panel, top of the center stack | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | • P17 Info Display Module X1 (IOB)<br>• P17 Info Display Module X1 (IOR)<br>• P17 Info Display Module X1 (IOS/IOT/IOU/IO5/IO6)<br>• P17 Info Display Module X2 (IOB/IO5/IO6)<br>• P17 Info Display Module X2 (IOR)<br>• P17 Info Display Module X2 (IOS/IOT/IOU) |
| P19AG | Speaker - Left Front Door | - | In the passenger compartment, at the lower front of the left front door | Driver Door | • P19AG Speaker - Left Front Door (UQA)<br>• P19AG Speaker - Left Front Door (UZ6) |
| P19AH | Speaker - Right Front Door | - | In the passenger compartment, at the lower front of the right front door | Passenger Door | • P19AH Speaker - Right Front Door (UQA)<br>• P19AH Speaker - Right Front Door (UZ6) |
| P19AL | Speaker - Left Rear Door | - | In the passenger compartment, at the lower front of the left rear door | Left Rear Door | • P19AL Speaker - Left Rear Door (UQA)<br>• P19AL Speaker - Left Rear Door (UZ6) |
| P19AM | Speaker - Right Rear Door | - | In the passenger compartment, at the lower front of the right rear door | Right Rear Door | • P19AM Speaker - Right Rear Door (UQA)<br>• P19AM Speaker - Right Rear Door (UZ6) |
| P19B | Speaker - Center Instrument Panel | UQA | In the passenger compartment, on the top center of the instrument panel | • Behind the Instrument Panel (Chevrolet)<br>• Left Side of the Instrument Panel | P19B Speaker - Center Instrument Panel (UQA) |
| P19J | Speaker - Left Instrument Panel | - | In the passenger compartment, on the top left of the instrument panel | • Behind the Instrument Panel (GMC)<br>• Instrument Panel and Shift Lever | • P19J Speaker - Left Instrument Panel (UQA)<br>• P19J Speaker - Left Instrument Panel (UZ6) |
| P19W | Speaker - Right Instrument Panel | - | In the passenger compartment, on the top right of the instrument panel | • Instrument Panel and Shift Lever<br>• Behind the Instrument Panel (GMC) | • P19W Speaker - Right Instrument Panel (IOR+UZ6)<br>• P19W Speaker - Right Instrument Panel (NKC+UZ6)<br>• P19W Speaker - Right Instrument Panel (UQA)<br>• P19W Speaker - Right Instrument Panel (UZ6) |
| P34D | Side Object Detection Indicator - Driver | UKC | On the front of the drivers door, on the outside rearview mirror glass | - | - |
| P34P | Side Object Detection Indicator - Passenger | UKC | On the front of the passenger door, on the outside rearview mirror glass | - | - |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| P43 | Collision Alert Indicators | UEU | In the passenger compartment, at the top left side of the instrument panel near the windshield forward of the instrument cluster | • Behind the Instrument Panel (Chevrolet)<br>• Behind the Instrument Panel (GMC) | P43 Collision Alert Indicators (UEU) |
| P45LR | Seat Haptic Movement Motor - Driver Left Rear | UEU | In the passenger compartment, under the left rear of the driver seat cushion cover | Driver Seat (3 of 3) | P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU) |
| P45RR | Seat Haptic Movement Motor - Driver Right Rear | UEU | In the passenger compartment, under the right rear of the driver seat cushion cover | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU) |
| Q2 | A/C Compressor Clutch | - | In the engine compartment, on the lower right front of the engine, near the A/C compressor pulley | • Front of the Engine (LH7)<br>• Right Front of the Engine (LTG)<br>• Right Front of the Engine (LYX) | Q2 A/C Compressor Clutch |
| Q5 | Brake Pressure Modulator | - | In the left side of the engine compartment, to the right of the shock tower attached to the electronic brake control module | - | - |
| Q6E | Camshaft Position Actuator Solenoid Valve - Exhaust | LTG/LYX | In the engine compartment near the top right front of the engine, to the front of the oil fill cap | • Right Front of the Engine (LTG)<br>• Top of the Engine (LYX) | • Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LTG)<br>• Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LYX) |
| Q6F | Camshaft Position Actuator Solenoid Valve - Intake | LTG/LYX | In the engine compartment near the top right rear of the engine, to the rear of the oil fill cap | • Rear of the Engine (LYX)<br>• Right Front of the Engine (LTG) | Q6F Camshaft Position Actuator Solenoid Valve - Intake (LTG/LYX) |
| Q8 | Control Solenoid Valve Assembly | - | In the left side of the engine compartment at the front of the automatic transmission | • Front of the Engine Compartment and Transmission (MNH)<br>• Left Front of the Transmission (MHG/MNH/MNK) | • Q8 Control Solenoid Valve Assembly X1 (MHG/MNH/MNK)<br>• Q8 Control Solenoid Valve Assembly X2 (MHG/MNH/MNK)<br>• Q8 Control Solenoid Valve Assembly X3 (MHG/MNH/MNK)<br>• Q8 Control Solenoid Valve Assembly X4 (MHG/MNH/MNK) |
| Q12 | Evaporative Emission Purge Solenoid Valve | LTG/LYX | In the engine compartment, right rear of the engine, near the intake manifold | Rear of the Engine (LYX) | Q12 Evaporative Emission Purge Solenoid Valve (LTG/LYX) |
| Q13 | Evaporative Emission Vent Solenoid Valve | LTG/LYX | Under the rear of the vehicle, near the fuel tank | Fuel Tank | Q13 Evaporative Emission Vent Solenoid Valve (LTG/LYX) |
| Q14 | Exhaust Gas Recirculation Valve | LH7 | In the engine compartment, top left of the engine, in front of throttle body | Top of the Engine (LH7) | Q14 Exhaust Gas Recirculation Valve (LH7) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| Q17A | Fuel Injector 1 | - | • (LH7) In the engine compartment, on the rear of the cylinder head, under the number 1 intake port on the right side of the engine<br>• (LTG) In the engine compartment, on the rear of the cylinder head, under the number 1 intake port on the right side of the engine<br>• (LYX) In the engine compartment, on the rear of the cylinder head, under the number 1 intake port on the right side of the engine | • Top of the Engine (LH7)<br>• Top of the Engine (LTG) 2 of 2 | • Q17A Fuel Injector 1 (LH7)<br>• Q17A Fuel Injector 1 (LTG)<br>• Q17A Fuel Injector 1 (LYX) |
| Q17B | Fuel Injector 2 | - | • (LH7) In the engine compartment, on the rear of the cylinder head, under the number 2 intake port on the right center side of the engine<br>• (LTG) In the engine compartment, on the rear of the cylinder head, under the number 2 intake port on the right center side of the engine<br>• (LYX) In the engine compartment, on the rear of the cylinder head, under the number 2 intake port on the right center side of the engine | • Top of the Engine (LH7)<br>• Top of the Engine (LTG) 2 of 2 | • Q17B Fuel Injector 2 (LH7)<br>• Q17B Fuel Injector 2 (LTG)<br>• Q17B Fuel Injector 2 (LYX) |
| Q17C | Fuel Injector 3 | - | • (LH7) In the engine compartment, on the rear of the cylinder head, under the number 3 intake port on the left center side of the engine<br>• (LTG) In the engine compartment, on the rear of the cylinder head, under the number 3 intake port on the left center side of the engine<br>• (LYX) In the engine compartment, on the rear of the cylinder head, under the number 3 intake port on the left center side of the engine | • Top of the Engine (LH7)<br>• Top of the Engine (LTG) 2 of 2 | • Q17C Fuel Injector 3 (LH7)<br>• Q17C Fuel Injector 3 (LTG)<br>• Q17C Fuel Injector 3 (LYX) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| Q17D | Fuel Injector 4 | - | • (LH7) In the engine compartment, on the rear of the cylinder head, under the number 4 intake port on the left side of the engine<br>• (LTG) In the engine compartment, on the rear of the cylinder head, under the number 4 intake port on the left side of the engine<br>• (LYX) In the engine compartment, on the rear of the cylinder head, under the number 4 intake port on the left side of the engine | • Top of the Engine (LH7)<br>• Top of the Engine (LTG) 2 of 2 | • Q17D Fuel Injector 4 (LH7)<br>• Q17D Fuel Injector 4 (LTG)<br>• Q17D Fuel Injector 4 (LYX) |
| Q18A | Fuel Pressure Regulator 1 | LH7 | In the engine compartment, left rear of engine, on the fuel rail above the starter | Right Rear of the Engine (LH7) | Q18A Fuel Pressure Regulator 1 (LH7) |
| Q18B | Fuel Pressure Regulator 2 | LH7 | In the engine compartment, top left rear of the engine, at end of the fuel rail | Top of the Engine (LH7) | Q18B Fuel Pressure Regulator 2 (LH7) |
| Q20 | Intake Air Flow Valve | LH7 | In the engine compartment, left rear of the engine, mounted on the left side of the intake manifold | Left Front of the Engine (LH7) | Q20 Intake Air Flow Valve (LH7) |
| Q27A | Pressure Control Solenoid Valve 1 | MHG/MNH/MNK | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q27B | Pressure Control Solenoid Valve 2 | MHG/MNH/MNK | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q27C | Pressure Control Solenoid Valve 3 | MHG/MNH/MNK | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q27D | Pressure Control Solenoid Valve 4 | MHG/MNH/MNK | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q27E | Pressure Control Solenoid Valve 5 | MHG/MNH/MNK | In the engine compartment inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q32A | Shift Solenoid Valve 1 | MHG/MNH/MNK | In the engine compartment, inside the automatic transmission, part of the control solenoid valve assembly | - | - |
| Q38 | Throttle Body | - | In the engine compartment, left rear of the engine, mounted on the left side of the intake manifold | • Left Rear of the Engine (LTG)<br>• Top of the Engine (LYX) | Q38 Throttle Body (LTG/LYX) |
| Q39A | Torque Converter Clutch Pressure Control Solenoid Valve | MHG/MNH/MNK | In the engine compartment, inside the automatic transmission, part of the control solenoid valve assembly | - | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| Q40 | Turbocharger Bypass Solenoid Valve | LTG/LYX | In the engine compartment, at the right front of the engine, at the bottom right side of the turbocharger | • Right Front of the Engine (LTG)<br>• Right Front of the Engine (LYX) | Q40 Turbocharger Bypass Solenoid Valve (LTG/LYX) |
| Q41 | Turbocharger Vane Position Control Solenoid Valve | LH7 | In the engine compartment, left rear of the engine, above the starter motor | Right Rear of the Engine (LH7) | Q41 Turbocharger Vane Position Control Solenoid Valve (LH7) |
| Q42 | Turbocharger Wastegate Solenoid Valve | LTG/LYX | In the engine compartment, at the right front of the engine, at the front side of the turbocharger | • Right Front of the Engine (LTG)<br>• Right Front of the Engine (LYX) | • Q42 Turbocharger Wastegate Solenoid Valve (LTG)<br>• Q42 Turbocharger Wastegate Solenoid Valve (LYX) |
| Q44 | Engine Oil Pressure Control Solenoid Valve | - | • (LH7) In the engine compartment, bottom rear of the engine, below the starter motor<br>• (LTG) In the engine compartment, bottom rear of the engine, near the oil pump inside the oil pan<br>• (LYX) In the engine compartment, bottom of the engine, near the oil pump inside the oil pan | • Bottom of Engine (LYX)<br>• Rear of the Engine (LTG)<br>• Right Rear of the Engine (LH7) | • Q44 Engine Oil Pressure Control Solenoid Valve (LH7)<br>• Q44 Engine Oil Pressure Control Solenoid Valve (LTG)<br>• Q44 Engine Oil Pressure Control Solenoid Valve (LYX) |
| Q45 | Piston Cooling Oil Jet Solenoid Valve | LH7 | In the engine compartment, rear of engine, near the alternator | Rear of the Engine (LH7) | Q45 Piston Cooling Oil Jet Solenoid Valve (LH7) |
| Q46 | A/C Compressor Solenoid Valve | - | In the engine compartment, on the lower right front of the engine mounted on the A/C compressor | • Front of the Engine (LH7)<br>• Right Front of the Engine (LTG)<br>• Right Front of the Engine (LYX) | Q46 A/C Compressor Solenoid Valve |
| Q47 | Exhaust Gas Recirculation Cooler Bypass Solenoid Valve | LH7 | In the engine compartment, left side of engine, above the bell housing | Left Front of the Engine (LH7) | Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve (LH7) |
| Q61 | Reductant Injector | LH7 | Under the vehicle, rear of engine, in exhaust behind the starter motor | Right Rear of the Engine (LH7) | Q61 Reductant Injector (LH7) |
| Q77A | Transmission Control Solenoid Valve 1 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77A Transmission Control Solenoid Valve 1 (M3D/M3H/M3U) |
| Q77B | Transmission Control Solenoid Valve 2 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77B Transmission Control Solenoid Valve 2 (M3D/M3H/M3U) |
| Q77C | Transmission Control Solenoid Valve 3 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77C Transmission Control Solenoid Valve 3 (M3D/M3H/M3U) |
| Q77D | Transmission Control Solenoid Valve 4 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77D Transmission Control Solenoid Valve 4 (M3D/M3H/M3U) |
| Q77E | Transmission Control Solenoid Valve 5 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77E Transmission Control Solenoid Valve 5 (M3D/M3H/M3U) |
| Q77F | Transmission Control Solenoid Valve 6 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77F Transmission Control Solenoid Valve 6 (M3D/M3H/M3U) |
| Q77G | Transmission Control Solenoid Valve 7 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77G Transmission Control Solenoid Valve 7 (M3D/M3H/M3U) |
| Q77H | Transmission Control Solenoid Valve 8 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77H Transmission Control Solenoid Valve 8 (M3D/M3H/M3U) |
| Q77J | Transmission Control Solenoid Valve 9 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77J Transmission Control Solenoid Valve 9 (M3D/M3H/M3U) |
| Q77K | Transmission Control Solenoid Valve 10 | M3D/M3H/M3U | Internal to automatic transmission assembly | - | Q77K Transmission Control Solenoid Valve 10 (M3D/M3H/M3U) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| Q84C | Camshaft Position Actuator Park Lock Solenoid Valve - Intake | LYX | On the right rear of the engine, above the generator | Top of the Engine (LYX) | Q84C Camshaft Position Actuator Park Lock Solenoid Valve - Intake (LYX) |
| R6A | Terminating Resistor - High Speed Bus | - | Outside the vehicle, left of the rear differential assembly | Rear Chassis | R6A Terminating Resistor - High Speed Bus |
| R6E | Terminating Resistor - High Speed Extension Bus 1 | TR7 | In the passenger compartment, behind the lower right rear trim panel, rear of the wheel well | - | R6E Terminating Resistor - High Speed Extension Bus 1 (TR7) |
| R6F | Terminating Resistor - High Speed Extension Bus 2 | - | In the passenger compartment, under the instrument panel forward of the floor console | Behind the Instrument Panel (Chevrolet) | R6F Terminating Resistor - High Speed Extension Bus 2 |
| S2A | Transmission Manual Shift Switch - Up/Down | - | • (EPH) In the passenger compartment, front of the floor console<br>• (Without EPH) In the passenger compartment, part of the shift lever | - | - |
| S3 | Transmission Shift Lever | Without EPH | In the passenger compartment, in the floor console, next to the cup holder | Instrument Panel and Shift Lever | S3 Transmission Shift Lever (-EPH) |
| S13D | Door Lock Switch - Driver | - | In the passenger compartment, on the driver door trim panel forward of the door release handle | Driver Door Trim Panel | S13D Door Lock Switch - Driver |
| S13P | Door Lock Switch - Passenger | - | In the passenger compartment, on the passenger door trim panel forward of the door release handle | Passenger Door Trim Panel | S13P Door Lock Switch - Passenger |
| S25 | Garage Door Opener | UG1 | In the passenger compartment, on the center front of the overhead console | - | S25 Garage Door Opener (UG1) |
| S26 | Hazard Warning Switch | - | In the passenger compartment, on the instrument panel to the right of the instrument cluster | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | S26 Hazard Warning Switch |
| S30 | Headlamp Switch | - | In the passenger compartment, on the left side of the instrument panel under the air vent | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | S30 Headlamp Switch |
| S32D | Seat Heating Switch - Driver | Z88+KA1 | In the passenger compartment, in the floor console, next to the cup holder | Top and Rear of the Center Console (GMC) | S32D Seat Heating Switch - Driver (Z88+KA1) |
| S32LR | Seat Heating Switch - Left Rear | KA6 | In the passenger compartment, in the rear of the floor console | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | S32LR Seat Heating Switch - Left Rear (KA6) |
| S32P | Seat Heating Switch - Passenger | Z88+KA1 | In the passenger compartment, in the floor console, next to the cup holder | Top and Rear of the Center Console (GMC) | S32P Seat Heating Switch - Passenger (Z88+KA1) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| S32RR | Seat Heating Switch - Right Rear | KA6 | In the passenger compartment, in the rear of the floor console | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | S32RR Seat Heating Switch - Right Rear (KA6) |
| S33 | Horn Switch | - | In the passenger compartment, on the steering wheel under the air bag | • Steering Wheel (Chevrolet) 1 of 2<br>• Steering Wheel (GMC with UVD) 2 of 2 | • S33 Horn Switch X1<br>• S33 Horn Switch X2 |
| S38 | Ignition Mode Switch | - | In the passenger compartment, left side of the instrument panel just to the right of the steering column | • Instrument Panel and Shift Lever<br>• Left Side of the Instrument Panel | • S38 Ignition Mode Switch (X88)<br>• S38 Ignition Mode Switch (Z88) |
| S45B | Liftgate Control Switch - Interior | TB5/TC2 | In the passenger compartment, on the left front door trim panel forward of the pocket | Driver Door Trim Panel | S45B Liftgate Control Switch - Interior (TB5/TC2) |
| S46B | Liftgate Unlatch Switch | - | Rear of the vehicle, in the center of the liftgate, above the license plate | - | S46B Liftgate Unlatch Switch |
| S47D | Seat Memory Switch - Driver | A45/A74 | In the passenger compartment, on the driver door trim panel | Driver Door Trim Panel | S47D Seat Memory Switch - Driver (A45/A74) |
| S64D | Seat Adjuster Switch - Driver | AG1 | In the passenger compartment, on the left driver seat cushion trim panel | • Driver Seat (1 of 3)<br>• Driver Seat (3 of 3) | S64D Seat Adjuster Switch - Driver (AG1) |
| S64P | Seat Adjuster Switch - Passenger | AG2 | In the passenger compartment, on the right passenger seat cushion trim panel | Passenger Seat (4 of 4) | • S64P Seat Adjuster Switch - Passenger (AG2+X88)<br>• S64P Seat Adjuster Switch - Passenger (AG2+Z88) |
| S65D | Seat Lumbar Support Switch - Driver | AL9 | In the passenger compartment, on the left driver seat cushion trim panel | Driver Seat (3 of 3) | S65D Seat Lumbar Support Switch - Driver (AL9) |
| S65P | Seat Lumbar Support Switch - Passenger | AT9 | In the passenger compartment, on the right passenger seat cushion trim panel | Passenger Seat (4 of 4) | S65P Seat Lumbar Support Switch - Passenger (AT9) |
| S70E | Steering Wheel Controls Switch - Radio Presets | - | In the passenger compartment, on the steering wheel | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | S70E Steering Wheel Controls Switch - Radio Presets |
| S70F | Steering Wheel Controls Switch - Radio Volume | - | In the passenger compartment, on the steering wheel | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | S70F Steering Wheel Controls Switch - Radio Volume |
| S70L | Steering Wheel Controls Switch - Left | - | In the passenger compartment, on the left side of the steering wheel | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | • S70L Steering Wheel Controls Switch - Left (EPH)<br>• S70L Steering Wheel Controls Switch - Left (-EPH) |
| S70R | Steering Wheel Controls Switch - Right | - | In the passenger compartment, on the right side of the steering wheel | • Steering Wheel (Chevrolet) 2 of 2<br>• Steering Wheel (GMC with UVD) 1 of 2 | • S70R Steering Wheel Controls Switch - Right (EPH)<br>• S70R Steering Wheel Controls Switch - Right (-EPH) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| S78 | Turn Signal/Multifunction Switch | - | In the passenger compartment, on the left side of the steering column | Steering Wheel Controls | S78 Turn Signal/Multifunction Switch |
| S79D | Window Switch - Driver | - | In the passenger compartment, mounted to the front of the arm rest, on the driver door trim panel | Driver Door Trim Panel | S79D Window Switch - Driver |
| S79LR | Window Switch - Left Rear | - | In the passenger compartment, on the left rear door trim panel on the forward portion of the arm rest | Left Rear Door Trim Panel | • S79LR Window Switch - Left Rear (X88)<br>• S79LR Window Switch - Left Rear (Z88) |
| S79P | Window Switch - Passenger | - | In the passenger compartment, mounted to the front of the arm rest, on the passenger door trim panel | Passenger Door Trim Panel | S79P Window Switch - Passenger |
| S79RR | Window Switch - Right Rear | - | In the passenger compartment, on the right rear door trim panel on the forward portion of the arm rest | Right Rear Door Trim Panel | • S79RR Window Switch - Right Rear (X88)<br>• S79RR Window Switch - Right Rear (Z88) |
| S82 | Windshield Wiper/Washer Switch | - | In the passenger compartment, on the right side of the steering column | Steering Wheel Controls | S82 Windshield Wiper/Washer Switch |
| S107 | Parking Assist On/Off Switch | UFQ | In the passenger compartment, on the floor console, next to the cup holder | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | • S107 Parking Assist On/Off Switch (UFQ+EPH)<br>• S107 Parking Assist On/Off Switch (UFQ-EPH) |
| S126 | Drive Mode Select Switch | - | In the passenger compartment, on the floor console | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | • S126 Drive Mode Select Switch (EPH)<br>• S126 Drive Mode Select Switch (-EPH) |
| T1 | Accessory DC/AC Power Inverter Module | KI6/KI7 | In the passenger compartment, behind the left rear trim panel above the left rear wheel well | Underneath the Center Console | • T1 Accessory DC/AC Power Inverter Module (KI6)<br>• T1 Accessory DC/AC Power Inverter Module (KI7) |
| T2RR | Antenna - Roof Rear | - | Top of the vehicle at the center rear of the roof | Rear Roof Antenna | • T2RR Antenna - Roof Rear (IOB/IO5/IO6-U2Q)<br>• T2RR Antenna - Roof Rear X1 (UE1)<br>• T2RR Antenna - Roof Rear X2 (U2K) |
| T3 | Audio Amplifier | UQA | In the passenger compartment, below the center of the instrument panel, mounted on the floor, forward of the body control module | Front of the Passenger Compartment | • T3 Audio Amplifier X1 (UQA)<br>• T3 Audio Amplifier X2 (UQA)<br>• T3 Audio Amplifier X3 (UQA)<br>• T3 Audio Amplifier X4 (UQA) |
| T7L | Headlamp Ballast - Left | T4F | On the left front of the vehicle inside the left headlamp assembly | - | - |
| T7R | Headlamp Ballast - Right | T4F | On the right front of the vehicle inside the right headlamp assembly | - | - |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| T8A | Ignition Coil 1 | LTG/LYX | In the engine compartment, at the top center of the engine, on the right side, over cylinder number 1 | • Top of the Engine (LTG) 1 of 2<br>• Top of the Engine (LYX) | • T8A Ignition Coil 1 (LTG)<br>• T8A Ignition Coil 1 (LYX) |
| T8B | Ignition Coil 2 | LTG/LYX | In the engine compartment, at the top center of the engine, on the right side, over cylinder number 2 | • Top of the Engine (LTG) 1 of 2<br>• Top of the Engine (LYX) | • T8B Ignition Coil 2 (LTG)<br>• T8B Ignition Coil 2 (LYX) |
| T8C | Ignition Coil 3 | LTG/LYX | In the engine compartment, at the top center of the engine, on the left side, over cylinder number 3 | • Top of the Engine (LTG) 1 of 2<br>• Top of the Engine (LYX) | • T8C Ignition Coil 3 (LTG)<br>• T8C Ignition Coil 3 (LYX) |
| T8D | Ignition Coil 4 | LTG/LYX | In the engine compartment, at the top center of the engine, on the left side, over cylinder number 4 | • Top of the Engine (LTG) 1 of 2<br>• Top of the Engine (LYX) | • T8D Ignition Coil 4 (LTG)<br>• T8D Ignition Coil 4 (LYX) |
| T10E | Keyless Entry Antenna - Rear Compartment | - | In the rear compartment, under the floor stowage trim compartment, center of vehicle, forward of the spare tire | Front Luggage Compartment | T10E Keyless Entry Antenna - Rear Compartment |
| T10G | Keyless Entry Antenna - Rear Fascia | - | Rear of the vehicle, under the rear fascia below the center of the liftgate | Rear of the Vehicle/Behind the Fascia | T10G Keyless Entry Antenna - Rear Fascia |
| T10J | Keyless Entry Antenna - Center Console Front | - | In the passenger compartment, behind the right side floor console extension panel below the center of the instrument panel | Under the Center Console/Keyless Entry Antenna | T10J Keyless Entry Antenna - Center Console Front |
| T10K | Keyless Entry Antenna - Center Console Rear | - | In the passenger compartment, at the rear of the floor console, mounted at the bottom of the floor console rear trim panel | Underneath the Center Console | T10K Keyless Entry Antenna - Center Console Rear |
| T10M | Keyless Entry Antenna - Driver Door Handle | - | At the rear of the driver door attached to the outside door handle assembly | - | - |
| T10N | Keyless Entry Antenna - Passenger Door Handle | - | At the rear of the passenger door attached to the outside door handle assembly | - | - |
| T12 | Automatic Transmission Assembly | - | In the engine compartment, attached to the left side of the engine | - | • T12 Automatic Transmission Assembly X1 (M3D/M3H/M3U)<br>• T12 Automatic Transmission Assembly X2 (M3D/M3H/M3U)<br>• T12 Automatic Transmission Assembly X3 (M3D/M3H/M3U) |
| T15 | Navigation Antenna Signal Splitter | IO6 | In the passenger compartment, lower center of the instrument panel, near the telematics communication interface control module | - | • T15 Navigation Antenna Signal Splitter X1 (IO6)<br>• T15 Navigation Antenna Signal Splitter X2 (IO6)<br>• T15 Navigation Antenna Signal Splitter X3 (IO6) |
| T19 | Power Supply Transformer | KL9 | In the passenger compartment, lower center of the instrument panel, on the floor forward of the body control module | Left Front of the Passenger Compartment (1 of 2) | T19 Power Supply Transformer (KL9) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| T22 | Mobile Device Wireless Charger Module | K4C | In the passenger compartment, on the floor console | Underneath the Center Console | • T22 Mobile Device Wireless Charger Module (K4C+EPH)<br>• T22 Mobile Device Wireless Charger Module (K4C-EPH) |
| W24 | Blunt Cut - Trailer Brakes Provision | - | In the passenger compartment, right side of the instrument panel, near the radio | - | - |
| X22 | USB Drive Data Connector | UDD+IOS/IOT/IOU | In the passenger compartment, under the left side of the instrument panel, below the steering column, near the data link connector | Lower Left of the Instrument Panel/Data Link Connector | X22 USB Drive Data Connector (UDD+IOS/IOT/IOU) |
| X50A | Fuse Block - Underhood | - | In the left side of the engine compartment, forward of the battery | • Front of the Engine Compartment and Transmission (MNH)<br>• Left Front of the Vehicle<br>• Left Side of the Engine Compartment (1 of 2)<br>• Left Side of the Engine Compartment (2 of 2) | Electrical Center Identification Views |
| X50D | Fuse Block - Battery | - | In the left side of the engine compartment, on top of the battery | Left Side of the Engine Compartment (2 of 2) | Electrical Center Identification Views |
| X51A | Fuse Block - Instrument Panel | - | In the passenger compartment, on the left side of the instrument panel, left of the steering column | Lower Left of the Instrument Panel/Data Link Connector | Electrical Center Identification Views |
| X53A | Fuse Block - Rear Body | - | In the passenger compartment, on the left side of the rear compartment | Left Side of the Luggage Compartment | Electrical Center Identification Views |
| X80C | Accessory Power Receptacle - Cargo | - | On the right side of the rear compartment | - | X80C Accessory Power Receptacle - Cargo |
| X80G | Accessory Power Receptacle - Instrument Panel | - | In the passenger compartment, center of the instrument panel | Instrument Panel and Shift Lever | X80G Accessory Power Receptacle - Instrument Panel (KC5) |
| X80L | Accessory Power Receptacle - Center Console Rear | KPA | In the passenger compartment, on the rear of the floor console | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | X80L Accessory Power Receptacle - Center Console Rear (KPA) |
| X81 | Accessory Power Receptacle - 110V AC | KI6 | In the passenger compartment, at the bottom rear of the floor console | • Top and Rear of the Center Console (Chevrolet)<br>• Top and Rear of the Center Console (GMC) | • X81 Accessory Power Receptacle - 110V AC X1 (KI6)<br>• X81 Accessory Power Receptacle - 110V AC X2 (KI6) |
| X81B | Accessory Power Receptacle - 220V AC | KI7 | In the passenger compartment, at the bottom rear of the floor console | - | • X81B Accessory Power Receptacle - 220V AC X1 (KI7)<br>• X81B Accessory Power Receptacle - 220V AC X2 (KI7) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X83 | Auxiliary Audio Input | - | In the passenger compartment, inside the center console compartment | • Front of the Center Console (GMC)<br>• Instrument Panel and Shift Lever | • X83 Auxiliary Audio Input X1 (IO5/IO6+UST)<br>• X83 Auxiliary Audio Input X1 (IOB+USR)<br>• X83 Auxiliary Audio Input X1 (Z88)<br>• X83 Auxiliary Audio Input X2 (IO5/IO6+UST)<br>• X83 Auxiliary Audio Input X2 (IOB+USR)<br>• X83 Auxiliary Audio Input X2 (Z88) |
| X84 | Data Link Connector | - | In the passenger compartment, under the left side of the instrument panel, below the steering column | Lower Left of the Instrument Panel/Data Link Connector | X84 Data Link Connector |
| X85 | Steering Wheel Air Bag Coil | - | In the passenger compartment, on the steering column forward of the steering wheel | Steering Wheel Controls | • X85 Steering Wheel Air Bag Coil X1<br>• X85 Steering Wheel Air Bag Coil X2 |
| X88 | Trailer Connector | - | Under the center rear of the vehicle | • Rear of the Vehicle/Trailer Connector (V92)<br>• Rear Underbody/Trailer Connector (without V92) | • X88 Trailer Connector (V92)<br>• X88 Trailer Connector (-V92) |
| X92 | USB Receptacle | - | In the passenger compartment, in the floor console storage compartment | Front of the Center Console Storage Compartment | • X92 USB Receptacle X1 (IOB+MCY)<br>• X92 USB Receptacle X1 (MYC+IO5/IO6)<br>• X92 USB Receptacle X1 (MCZ)<br>• X92 USB Receptacle X2 (IOB+MCY)<br>• X92 USB Receptacle X2 (MYC+IO5/IO6)<br>• X92 USB Receptacle X2 (MCZ)<br>• X92 USB Receptacle X3 (MCZ) |
| X92C | USB Receptacle - Center Console Rear | USS | In the passenger compartment, at the rear of the floor console | Top and Rear of the Center Console (Chevrolet) | X92C USB Receptacle - Center Console Rear (USS) |
| X100 | Front Fascia Harness to Body Harness | - | Outside of the vehicle, right front of engine compartment near right headlamp assembly | • Engine Compartment Harness Routing - Right Side of the Engine Compartment<br>• Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | X100 Front Fascia Harness to Body Harness |
| X101 | Body Harness to Forward Lamp Harness | - | Outside of the vehicle, right front of engine compartment near right headlamp assembly | • Engine Compartment Harness Routing - Right Side of the Engine Compartment<br>• Forward Lamp Harness Routing | X101 Body Harness to Forward Lamp Harness |
| X102 | Forward Lamp Harness to Forward Lamp Extension Harness | - | Outside of the vehicle, front of engine compartment behind grille | Forward Lamp Harness Routing | X102 Forward Lamp Harness to Forward Lamp Extension Harness |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X103 | Forward Lamp Harness to Cooling Fan Harness | - | Outside of the vehicle, left front of engine compartment, left of the radiator | • Cooling Fan Harness Routing<br>• Forward Lamp Harness Routing | X103 Forward Lamp Harness to Cooling Fan Harness |
| X104 | Cooling Fan Harness to Forward Lamp Harness | - | Outside of the vehicle, left front of engine compartment, left of the radiator | • Cooling Fan Harness Routing<br>• Forward Lamp Harness Routing | X104 Cooling Fan Harness to Forward Lamp Harness |
| X106 | Engine Harness to Body Harness | - | In the engine compartment, on top of the left frame rail near the front of the wheel well | • Engine Compartment Harness Routing - Left Side of the Engine Compartment<br>• Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | X106 Engine Harness to Body Harness |
| X107 | Engine Harness to Body Harness | - | In the engine compartment, on top of the left frame rail near the front of the wheel well | • Engine Compartment Harness Routing - Left Side of the Engine Compartment<br>• Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | X107 Engine Harness to Body Harness |
| X108 | Engine Harness to Crankshaft Position Sensor Jumper Harness | LH7 | In the engine compartment, at the front left side of the engine | • Crankshaft Position Sensor Jumper Harness Routing (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LH7) | X108 Engine Harness to Crankshaft Position Sensor Jumper Harness (LH7) |
| X110 | Forward Lamp Harness to Left Headlamp Harness | - | In the left side of the engine compartment, at the rear of the left headlamp assembly | Forward Lamp Harness Routing | • X110 Forward Lamp Harness to Left Headlamp Harness (T4A+TR6)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4F+TR6)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4F+X88)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4F+Z88)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4L+TR7)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4L+X88)<br>• X110 Forward Lamp Harness to Left Headlamp Harness (T4L+Z88) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X111 | Engine Oil Pressure Control Solenoid Valve Harness | LYX | In the engine compartment, bottom rear of the engine, above the oil drain plug | • Engine Harness Routing - Left Rear of Engine (LYX)<br>• Engine Harness Routing - Right Front of Engine (LYX+F48) | X111 Engine Harness to Engine Oil Pressure Control Solenoid Valve Harness (LYX) |
| X120 | Forward Lamp Harness to Right Headlamp Harness | - | In the right side of the engine compartment, at the rear of the right headlamp assembly | Forward Lamp Harness Routing | • X120 Forward Lamp Harness to Right Headlamp Harness (T4A+TR6)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4F+TR6)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4F+X88)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4F+Z88)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4L+TR7)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4L+X88)<br>• X120 Forward Lamp Harness to Right Headlamp Harness (T4L+Z88) |
| X160 | Engine Harness to Fuel Injector Harness | LTG/LYX | In the engine compartment, at the top right rear of the engine | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG)<br>• Fuel Injector Harness Routing - Rear of Engine (LTG) | • X160 Engine Harness to Fuel Injector Harness (LTG)<br>• X160 Engine Harness to Fuel Injector Harness (LYX) |
| X200 | Instrument Panel Harness to Body Harness | - | In the passenger compartment, under the left side of the instrument panel, behind the left front kick panel | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | X200 Instrument Panel Harness to Body Harness |
| X201 | Instrument Panel Harness to Body Harness | - | In the passenger compartment, under the left front of the floor console | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | X201 Instrument Panel Harness to Body Harness |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X202 | Instrument Panel Harness to Body Harness | - | In the passenger compartment, under the left side of the instrument panel, behind the left front kick panel | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | X202 Instrument Panel Harness to Body Harness |
| X203 | Instrument Panel Harness to Body Harness | - | In the passenger compartment, under the right side of the instrument panel, behind the right front kick panel | • Body Harness Routing - Right Front of the Passenger Compartment<br>• Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | X203 Instrument Panel Harness to Body Harness (X88) |
| X205 | Antenna Jumper Harness to Instrument Panel Harness | - | In the passenger compartment, above the right side of the instrument panel, behind the A-Pillar trim | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC)<br>• Rear Roof Antenna Cable Routing | • X205 Antenna Jumper Harness to Instrument Panel Harness (-UE1-U2K-U2Q)<br>• X205 Antenna Jumper Harness to Instrument Panel Harness ((UKS)/(IO6-U2Q-UE1))<br>• X205 Antenna Jumper Harness to Instrument Panel Harness ((IOR+UE1+MAH/MVC/MCX-U2K)/(IOR+MAM))<br>• X205 Antenna Jumper Harness to Instrument Panel Harness (UE1)<br>• X205 Antenna Jumper Harness to Instrument Panel Harness (-UE1) |
| X206 | Antenna Jumper Harness to Instrument Panel Harness | UE1 | In the passenger compartment, above the right side of the instrument panel, behind the A-Pillar trim | Rear Roof Antenna Cable Routing | X206 Antenna Jumper Harness to Instrument Panel Harness (UE1) |
| X207 | Instrument Panel Harness to Body Harness | IOS/IOT/IOU | In the passenger compartment, under the floor console | Instrument Panel Harness Routing (GMC) | X207 Instrument Panel Harness to Body Harness (UQA+IOS/IOT/IOU) |
| X208 | Floor Console Harness to Instrument Panel harness | - | In the passenger compartment, under the floor console | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC)<br>• Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | X208 Floor Console Harness to Instrument Panel harness |
| X209 | Instrument Panel Harness to Floor Console Harness | MCZ | In the passenger compartment, under the floor console | Console Harness Routing (Chevrolet) | X209 Instrument Panel Harness to Floor Console Harness |
| X212 | Instrument Panel Harness to Passenger Air Bag Extension Harness | - | In the passenger compartment, under the right side of the instrument panel, above the instrument panel storage compartment | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | • X212 Instrument Panel Harness to Passenger Air Bag Harness (AJG)<br>• X212 Instrument Panel Harness to Passenger Air Bag Harness (AY0) |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X213 | Body Harness to Auxiliary Heater Harness | C32 | In the passenger compartment, under the center of the instrument panel, attached to the bottom of the HVAC assembly | • Body Harness Routing - Left Front of the Passenger Compartment<br>• HVAC Harness Routing | X213 Body Harness to Auxiliary Heater Harness (C32) |
| X214 | Instrument Panel Harness to Floor Console Harness | MCZ | In the passenger compartment, under the floor console | - | X214 Instrument Panel Harness to Floor Console Harness (MCZ) |
| X300 | Rain/Ambient Light Sensor Module Harness to Body Harness | - | In the passenger compartment, above the overhead console | Rain/Ambient Light Sensor Module Harness Routing (CE1) | X300 Rain/Ambient Light Sensor Module Harness to Body Harness (CE1) |
| X301 | Humidity Sensor Harness to Body Harness | ASV without CE1 | In the passenger compartment, at the top center of the windshield | Inside Rear View Mirror Harness Routing | X301 Humidity Sensor Harness to Body Harness (ASV-CE1) |
| X303 | Headliner Harness to Garage Door Opener Harness | - | In the passenger compartment, above the overhead console | Headliner Harness Routing | X303 Headliner Harness to Garage Door Opener Harness |
| X310 | Driver Seat Harness to Body Harness | - | In the passenger compartment, under the center of the driver seat | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | X310 Driver Seat Harness to Body Harness |
| X320 | Passenger Seat Harness to Body Harness | - | In the passenger compartment, under the center of the passenger seat | • Body Harness Routing - Right Front of the Passenger Compartment<br>• Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | X320 Passenger Seat Harness to Body Harness |
| X330 | Body Harness to Left Rear Seat Harness | - | In the passenger compartment, under the left rear seat | • Body Harness Routing - Right Rear of the Passenger Compartment<br>• Left Rear Seat Harness Routing | X330 Body Harness to Left Rear Seat Harness (KA6) |
| X340 | Body Harness to Right Rear Seat Harness | - | In the passenger compartment, under the right rear seat | • Body Harness Routing - Right Rear of the Passenger Compartment<br>• Right Rear Seat Harness Routing | X340 Body Harness to Right Rear Seat Harness (KA6) |
| X350 | Fuel Tank Harness to Body Harness | - | Under the vehicle, near the left side, just forward of the fuel tank | • Body Harness Routing - Underbody<br>• Fuel Tank Harness Routing (except LH7)<br>• Fuel Tank Harness Routing (LH7) | X350 Fuel Tank Harness to Body Harness |
| X351 | Fuel Tank Harness to Reductant Fluid Reservoir Assembly Harness | LH7 | Under the vehicle, near the left side, just forward of the reductant fluid reservoir | Fuel Tank Harness Routing (LH7) | X351 Fuel Tank Harness to Particulate Filter Harness (LH7) |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X400 | Rear Fascia Harness to Body Harness | - | Rear of the vehicle under the rear fascia, below the right lower corner of the liftgate | • Body Harness Routing - Right Rear Underbody<br>• Rear Fascia Harness Routing | X400 Rear Fascia Harness to Body Harness |
| X402 | Body Harness to Axle Harness | - | Under the vehicle, on the right side, near the fuel tank | • Body Harness Routing - Right Rear Underbody<br>• Rear Chassis Harness Routing | X402 Body Harness to Axle Harness |
| X403 | Headliner Harness to Body Harness | - | In the passenger compartment, right rear, behind the liftgate trim panel | • Body Harness Routing - Right Rear of the Passenger Compartment<br>• Headliner Harness Routing | X403 Headliner Harness to Body Harness |
| X404 | Headliner Harness to Body Harness | - | In the passenger compartment, right rear, behind the liftgate trim panel | • Body Harness Routing - Right Rear of the Passenger Compartment<br>• Headliner Harness Routing | X404 Headliner Harness to Body Harness |
| X405 | Sunroof Harness to Body Harness | C3U | In the passenger compartment, rear of the vehicle behind near the headliner | Body Harness Routing - Right Rear of the Passenger Compartment | X405 Sunroof Harness to Body Harness (C3U) |
| X410 | Body Harness to Tail Lamp Harness | - | In the passenger compartment, forward of the left tail lamp | Body Harness Routing - Left Rear Underbody | • X410 Tail Lamp Harness to Tail Lamp Harness (Z88+V9V)<br>• X410 Tail Lamp Harness to Tail Lamp Harness (Z88-V9V) |
| X420 | Body Harness to Tail Lamp Harness | - | In the passenger compartment, forward of the right tail lamp | Body Harness Routing - Right Rear Underbody | • X420 Tail Lamp Harness to Tail Lamp Harness (Z88+V9V)<br>• X420 Tail Lamp Harness to Tail Lamp Harness (Z88-V9V) |
| X500 | Driver Door Harness to Body Harness | - | In the passenger compartment, between the vehicle and the front center of the driver door | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC) | X500 Driver Door Harness to Body Harness (Z88+AXG) |
| X505 | Driver Door Harness to Driver Door Trim Panel Harness | - | In the passenger compartment, between the driver door trim panel the driver door | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC)<br>• Driver Door Trim Panel Harness Routing (Chevrolet)<br>• Driver Door Trim Panel Harness Routing (GMC) | X505 Driver Door Harness to Driver Door Trim Panel Harness |

| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X506 | Driver Door Harness to Driver Door Trim Panel Harness | - | In the passenger compartment, between the driver door trim panel the driver door | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC)<br>• Driver Door Trim Panel Harness Routing (Chevrolet)<br>• Driver Door Trim Panel Harness Routing (GMC) | X506 Driver Door Harness to Driver Door Trim Panel Harness |
| X510 | Driver Door Harness to Driver Outside Rearview Mirror Harness | - | Behind the driver door trim panel, at the front of the door, just below the outside rearview mirror | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC) | X510 Driver Door Harness to Driver Outside Rearview Mirror Harness |
| X600 | Passenger Door Harness to Body Harness | - | In the passenger compartment, between the vehicle and the front center of the passenger door | • Body Harness Routing - Right Front of the Passenger Compartment<br>• Passenger Door Harness Routing | X600 Passenger Door Harness to Body Harness ((Z88/X88)+AED/A45) |
| X605 | Passenger Door Harness to Passenger Door Trim Panel Harness | - | In the passenger compartment, between the passenger door trim panel the passenger door | • Passenger Door Harness Routing<br>• Passenger Door Trim Panel Harness Routing (Chevrolet)<br>• Passenger Door Trim Panel Harness Routing (GMC) | X605 Passenger Door Harness to Passenger Door Trim Panel Harness |
| X606 | Passenger Door Harness to Passenger Door Trim Panel Harness | - | In the passenger compartment, between the passenger door trim panel the passenger door | • Passenger Door Harness Routing<br>• Passenger Door Trim Panel Harness Routing (Chevrolet)<br>• Passenger Door Trim Panel Harness Routing (GMC) | X606 Passenger Door Harness to Passenger Door Trim Panel Harness |
| X610 | Passenger Door Harness to Passenger Outside Rearview Mirror Harness | - | Behind the passenger door trim panel, at the front of the door, just below the outside rearview mirror | Passenger Door Harness Routing | X610 Passenger Door Harness to Passenger Outside Rearview Mirror Harness |
| X700 | Left Rear Door Harness to Body Harness | - | In the passenger compartment, between the B-Pillar and the front center of the left rear door | • Body Harness Routing - Left Front of the Passenger Compartment<br>• Left Rear Door Harness Routing | X700 Left Rear Door Harness to Body Harness |
| X800 | Right Rear Door Harness to Body Harness | - | In the passenger compartment, between the B-Pillar and the front center of the right rear door | • Body Harness Routing - Right Front of the Passenger Compartment<br>• Right Rear Door Harness Routing | X800 Right Rear Door Harness to Body Harness |
| X900 | Body Harness to Liftgate Harness | - | In the passenger compartment, near the top center of the liftgate | • Liftgate Harness Routing (Chevrolet)<br>• Liftgate Harness Routing (GMC) | X900 Body Harness to Liftgate Harness |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| X901 | Body Harness to Liftgate Harness | - | Behind the liftgate trim panel, above the rear window towards the left side of vehicle | • Liftgate Harness Routing (Chevrolet)<br>• Liftgate Harness Routing (GMC) | X901 Body Harness to Liftgate Harness |
| X902 | License Lamp Harness to Liftgate Harness | Z88 | Behind the liftgate trim panel, below the rear window, towards the left side | • License Lamp Harness Routing (GMC)<br>• Liftgate Harness Routing (GMC) | X902 License Lamp Harness to Liftgate Harness (Z88) |
| X903 | Body Harness to Center High Mount Stop Lamp Harness | Z88 | In the passenger compartment, near the top left side of the liftgate | - | X903 Body Harness to Center High Mount Stop Lamp Harness (Z88) |
| G100 | Battery Negative Cable | - | In the left side of the engine compartment, just rear of the battery | G100, and G110 | - |
| G101 | Forward Lamp Harness | - | Right front of the vehicle, on top of the right frame rail under the right headlamp assembly | G101 and G102 | - |
| G102 | Forward Lamp Harness | - | Right front of the vehicle, on top of the right frame rail under the right headlamp assembly | G101 and G102 | - |
| G104 | Engine Harness | - | • (LH7) Left front of the vehicle, on the inside of the left frame rail under the left headlamp assembly<br>• (LTG) In the engine compartment, on the rear of the engine block to the left of the generator<br>• (LYX) In the engine compartment, Top left of the engine block | • G104 (LTG)<br>• G104 and G105 (LH7)<br>• G104, and G105 (LYX) | - |
| G105 | Engine Harness | - | • (LH7) Left front of the vehicle, on the inside of the left frame rail under the left headlamp assembly<br>• (LTG) In the engine compartment, on the left side of the engine, above the transmission<br>• (LYX) In the engine compartment, on the left side of the engine, above the transmission | • G104 and G105 (LH7)<br>• G104, and G105 (LYX)<br>• G105 (LTG) | - |
| G106 | Engine Cooling Fan Harness | - | Left front of the vehicle, on the inside of the left frame rail under the left headlamp assembly | G106 | - |
| G107 | Body - Transmission Cable | - | In the engine compartment, on the left frame rail | G107, and G108 | - |
| G108 | Body -Transmission Cable | - | In the engine compartment, on top left of the transmission, near the left frame rail | G107, and G108 | - |
| G110 | Body Harness | - | In the left side of the engine compartment, at the forward top right of the shock tower | G100, and G110 | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| G112 | Power Steering Harness | - | In the left side of the engine compartment, at the forward top left of the shock tower | G112 | - |
| G200 | Instrument Panel Harness | - | In the passenger compartment, behind the center of the instrument panel, at the top of the instrument panel support rail, just to the left of center | G200 | - |
| G201 | Instrument Panel Harness | - | In the passenger compartment, on the left side of the floor, behind the trim panel, forward of the driver seat | G201 | - |
| G202 | Instrument Panel Harness | - | In the passenger compartment, behind the center of the instrument panel, at the top front of the instrument panel support rail, just to the right of center | G202 | - |
| G203 | Instrument Panel Harness | - | In the passenger compartment, behind the center of the instrument panel, at the top of the instrument panel support rail, left of steering column | G203 | - |
| G204 | Instrument Panel Harness | - | In the passenger compartment, on the right side of the floor, under the trim panel, forward of the passenger seat | G204 | - |
| G205 | Body Harness | - | In the passenger compartment, on the right side of the floor, under the trim panel, forward of the passenger seat | G205 | - |
| G302 | Body Harness | - | In the passenger compartment, on the left side of the floor, under the front of the driver seat | G302, and G303 | - |
| G303 | Body Harness | C32 | In the passenger compartment, on the left side of the floor, under the front of the driver seat | G302, and G303 | - |
| G304 | Body Harness | - | In the passenger compartment, under the right rear trim panel, mounted at the lower front of the wheel well | G304 | - |
| G305 | Body Harness | - | In the passenger compartment, under the left rear trim panel, mounted at the lower front of the wheel well | G305 | - |
| G400 | Rear Differential Clutch Control Module Harness | F48 | Under the rear of the vehicle, above the rear differential, attached to the rear Differential clutch control module bracket | G400 (F48) | - |
| G403 | Body Harness | - | In the passenger compartment, under the trim panel to the rear of the left rear wheel well, mounted at the lower rear of the wheel well | G403 | - |
| J100 | Front Fascia Harness | T3U | Behind the front fascia, approximately 13.5 cm (5.31 in) from the breakout to the right front fog lamp, towards the right outer front object sensor | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J101 | Front Fascia Harness | T3U | Behind the front fascia, approximately 22 cm (8.66 in) from the breakout to the right middle front object sensor, towards the left middle front object sensor | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |
| J102 | Front Fascia Harness | - | • (T3U+X88) Behind the front fascia, approximately 11.5 cm (4.53 in) from the breakout to the right middle front object sensor, towards the left middle front object sensor<br>• (T3U+Z88) Behind the front fascia, approximately 6.5 cm (2.56 in) from the breakout to the right outer front object sensor, towards the right front fog lamp | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |
| J103 | Front Fascia Harness | - | • (UD5 or UFQ+X88) Behind the front fascia, approximately 24 cm (9.45 in) from the breakout to the left middle front object sensor, towards the right middle front object sensor<br>• (UD5 or UFQ+Z88) Behind the front fascia, approximately 28.5 cm (11 in) from the breakout to the left middle front object sensor, towards the right middle front object sensor | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |
| J104 | Front Fascia Harness | - | • (UD5 or UFQ+X88) Behind the front fascia, approximately 16.5 cm (6.5 in) from the breakout to the left middle front object sensor, towards the left outer front object sensor<br>• (UD5 or UFQ+Z88) Behind the front fascia, approximately 16.5 cm (6.5 in) from the breakout to the left outer front object sensor, towards the left middle front object sensor | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J105 | Front Fascia Harness | - | • (UVH+X88) Behind the front fascia, approximately 11.5 cm (4.53 in) from the breakout to the left middle front object sensor, towards the right middle front object sensor<br>• (UVH+Z88) Behind the front fascia, approximately 65 cm (256 in) from the breakout to the left outer front object sensor, towards the left front fog lamp | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |
| J106 | Front Fascia Harness | - | • (UVH+X88) Behind the front fascia, approximately 11.5 cm (4.53 in) from the breakout to the right outer front object sensor, towards the right middle front object sensor<br>• (UVH+Z88) Behind the front fascia, approximately 18 cm (7.1 in) from the breakout to the right outer front object sensor, towards the right middle front object sensor | • Front Fascia Harness Routing (Chevrolet)<br>• Front Fascia Harness Routing (GMC) | - |
| J107 | Forward Lamp Harness | TR6 or TR7 | In the engine compartment, approximately 17.5 cm (6.9 in) from the breakout to G101 and G102, towards the active grille air shutter | Forward Lamp Harness Routing | - |
| J108 | Forward Lamp Harness | - | In the engine compartment, approximately 6.5 cm (2.56 in) from the breakout to active grille air shutter, towards the horn assembly | Forward Lamp Harness Routing | - |
| J109 | Forward Lamp Harness | TR6 | In the engine compartment, approximately 7.5 cm (3 in) from the breakout to horn assembly, towards the windshield washer pump | Forward Lamp Harness Routing | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J110 | Engine Harness | - | • (LH7) In the engine compartment, left side of the engine, above the engine control module, approximately 22 cm (8.66 in) from the breakout to the engine control module towards the rear of vehicle<br>• (LTG) In the engine compartment, approximately 18.5 cm (7.28 in) from the breakout for underhood fuse block connector X7 towards the underhood fuse block<br>• (LYX) In the engine compartment, left rear of engine, approximately 14.5 cm (5.71 in) from the breakout to the auxiliary coolant heater pump, away from breakout for the power steering control module | • Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Rear of Engine (LYX) | - |
| J111 | Engine Harness | - | • (LH7) In the engine compartment, approximately 5 cm (2 in) from the breakout for the underhood fuse block connector X5, towards the underhood fuse block<br>• (LTG) In the left side of the engine compartment, top left front of the transmission, approximately 2.5 cm (1 in) from the breakout to the transmission control module, towards the underhood fuse block<br>• (LYX) In the engine compartment, approximately 12 cm (4.72 in) from the grommet for underhood fuse block connector X3 | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J112 | Engine Harness | - | • (LH7) In the engine compartment, left side of the engine, above the engine control module, approximately 14 cm (5.51 in) from the breakout to the engine control module, towards the rear of vehicle<br>• (LTG) In the engine compartment, approximately 25 cm (9.84 in) from the grommet for underhood fuse block connector X3<br>• (LYX) In the engine compartment, approximately 21 cm (8.27 in) from the grommet for underhood fuse block connector X3 | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J113 | Engine Harness | - | • (LH7) In the engine compartment, approximately 6 cm (2.36 in) from the breakout to the A/C compressor clutch, towards the exhaust particulate matter sensor<br>• (LTG) In the engine compartment, approximately 6 cm (2.36 in) from the breakout for ground connection G105, towards camshaft intake position sensor<br>• (LYX) In the engine compartment, top rear of engine, approximately 4 cm (1.57 in) from the breakout to the ignition coil 4, towards the ignition coil 3 | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J114 | Engine Harness | - | • (LH7) In the right side of the engine compartment, approximately 6 cm (2.36 in) from the breakout to the glow plug 2, towards the multifunction air intake sensor connector X3<br>• (LTG) In the engine compartment, top rear of engine, approximately 23 cm (9.1 in) from the breakout to the ignition coil 1, towards the camshaft exhaust position actuator solenoid valve<br>• (LYX) In the engine compartment, right side of the engine, approximately 4 cm (1.57 in) from the breakout to the turbocharger wastegate solenoid valve, towards the camshaft exhaust position actuator solenoid valve | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J115 | Engine Harness | - | • (LH7) In the left side of the engine compartment, top left front of the transmission, approximately 8 cm (3.15 in) into the breakout to the control solenoid valve assembly, towards the control solenoid valve assembly<br>• (LTG) In the engine compartment, approximately 9.5 cm (3.74 in) from the breakout for the underhood fuse block connector X7, towards the underhood fuse block<br>• (LYX) In the right side of the engine compartment, top left front of the transmission, approximately 5.5 cm (2.17 in) into the breakout to the control solenoid valve assembly, towards the control solenoid valve assembly | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LH7)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J116 | Engine Harness | - | • (LTG) In the engine compartment, top rear of engine, approximately 4.5 cm (1.77 in) from the breakout to the ignition coil 1, towards the ignition coil 2<br>• (LYX) In the engine compartment, top left of engine, approximately 12 cm (4.72 in) from the breakout for ground connection G105, towards rear of engine | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J117 | Engine Harness | - | • (LTG) In the engine compartment, approximately 9.5 cm (3.74 in) from the grommet for underhood fuse block connector X3<br>• (LYX with M3H or M3U) In the engine compartment, in front of the transmission, approximately 5 cm (2 in) into the breakout to the transmission control module, towards the transmission control module | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J118 | Engine Harness | - | • (LTG) In the engine compartment, approximately 5 cm (2 in) from the breakout for the camshaft intake position sensor, towards ground connection G105<br>• (LYX with M3U) In the engine compartment, approximately 3.5 cm (1.38 in) from the breakout for the engine control module connector X3, towards automatic transmission | Engine Harness Routing - Left Front of Engine (LYX) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J119 | Engine Harness | - | • (LTG) In the engine compartment, top rear of engine, approximately 2.5 cm (1 in) from the breakout to the ignition coil 3, towards ignition coil 2<br>• (LYX) In the engine compartment, approximately 14 cm (5.51 in) from the breakout for the engine control module connectors, towards rear of transmission | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J120 | Engine Harness | - | • (LTG) In the engine compartment, approximately 8.5 cm (3.35 in) from the breakout for the connector X111, towards ground connection G105<br>• (LYX) In the engine compartment, left rear of engine, approximately 3.5 cm (5.71 in) from the breakout to the starter motor, towards the knock sensor 1 | Engine Harness Routing - Left Rear of Engine (LYX) | - |
| J121 | Engine Harness | - | • (LTG) In the left side of the engine compartment, top left front of the transmission, approximately 5 cm (2 in) into the breakout to the transmission control module, towards the transmission control module<br>• (LYX) In the engine compartment, approximately 10 cm (3.94 in) from the breakout for the engine control module connectors, towards rear of transmission | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J122 | Engine Harness | - | • (LTG) In the engine compartment, approximately 3.5 cm (1.4 in) from the breakout for the underhood fuse block connector X7, towards the underhood fuse block<br>• (LYX) In the engine compartment, approximately 15 cm (5.91 in) from the grommet for underhood fuse block connector X3 | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J123 | Engine Harness | - | • (LTG) In the engine compartment, approximately 23 cm (9.1 in) from the breakout for the underhood fuse block connector X7, towards the underhood fuse block<br>• (LYX with M3H or M3U) In the engine compartment, approximately 18 cm (7.1 in) from the breakout for the engine control module connectors, towards rear of transmission | • Engine Harness Routing - Left Front of Engine (LYX)<br>• Engine Harness Routing - Left Front of the Engine (LTG) | - |
| J124 | Engine Harness | LH7 | In the engine compartment, right side of the engine, approximately 5 cm (2 in) into the breakout to the exhaust particulate matter sensor, towards the exhaust particulate matter sensor | Engine Harness Routing - Left Front of the Engine (LH7) | - |
| J125 | Engine Harness | LH7 | In the engine compartment, left side of the engine, approximately 7.5 cm (3 in) from the breakout for the underhood fuse block connector X7, towards the engine control module | Engine Harness Routing - Left Front of the Engine (LH7) | - |
| J126 | Body Harness | - | In the left rear of the engine compartment, approximately 6 cm (2.4 in) from the breakout to the windshield wiper motor, towards electronic brake control module | Engine Compartment Harness Routing - Left Side of the Engine Compartment | - |
| J127 | Body Harness | UVH | In the right front of the engine compartment, approximately 5 cm (2 in) from the breakout to connector X100, towards the body grommet | Engine Compartment Harness Routing - Right Side of the Engine Compartment | - |
| J128 | Body Harness | KL9 with VTI | In the left rear of the engine compartment, approximately 7 cm (2.4 in) from the breakout to ground connection G110, towards the frame rail | Engine Compartment Harness Routing - Left Side of the Engine Compartment | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J129 | Body Harness | - | In the left rear of the engine compartment, approximately 10 cm (3.94 in) from the underhood fuse block connector X2, towards the body grommet | - | - |
| J130 | Left Headlamp Harness | - | Front of the vehicle inside the left headlamp assembly | - | - |
| J131 | Right Headlamp Harness | - | Front of the vehicle inside the right headlamp assembly | - | - |
| J132 | Left Headlamp Harness | - | Front of the vehicle inside the left headlamp assembly | - | - |
| J133 | Right Headlamp Harness | - | Front of the vehicle inside the right headlamp assembly | - | - |
| J145 | Left Headlamp Harness | T4L with Z88 | Front of the vehicle inside the left headlamp assembly | - | - |
| J146 | Right Headlamp Harness | T4L with Z88 | Front of the vehicle inside the right headlamp assembly | - | - |
| J175 | Transmission Harness | M3D/M3H/M3U | Internal to automatic transmission assembly | - | - |
| J176 | Transmission Harness | M3D/M3H/M3U | Internal to automatic transmission assembly | - | - |
| J177 | Transmission Harness | M3H/M3U | Internal to automatic transmission assembly | - | - |
| J178 | Transmission Harness | M3D/M3H/M3U | Internal to automatic transmission assembly | - | - |
| J200 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 2.5 cm (1 in) from the breakout to connector X202, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J201 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 12 cm (4.7 in) from the breakout to connector X202, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J202 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 16 cm (6.3 in) from the breakout to connector X202, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J203 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 9 cm (3.5 in) from the breakout to G203, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J204 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 4 cm (1.6 in) from the breakout to G203, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J205 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 15 cm (5.91 in) from the breakout to G203, towards the instrument cluster breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J206 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 3 cm (1.2 in) from the breakout to the collision alert indicators, towards the instrument panel fuse block breakout | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J207 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 6 cm (2.4 in) from the breakout to the brake pedal position sensor, towards the HVAC controls | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J208 | Instrument Panel Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 15.5 cm (6.1 in) from the breakout to the brake pedal position sensor, towards the HVAC controls | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC)<br>• Instrument Panel Harness Routing (GMC) | - |
| J209 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 3.5 cm (1.4 in) from the breakout to the HVAC controls towards the auxiliary audio input breakouts | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J210 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 9.5 cm (3.7 in) from the breakout to the HVAC controls towards the auxiliary audio input breakouts | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J211 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 18 cm (7.1 in) from the breakout to the auxiliary audio inputs towards connector X201 | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J212 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 31 cm (12.2 in) from the breakout to the auxiliary audio inputs towards connector X201 | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J213 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 3.5 cm (1.4 in) from the breakout to G200, towards the instrument cluster | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J214 | Instrument Panel Harness | IO5/IO6 with MAH/MBC | Inside the passenger compartment, behind the center of the instrument panel, approximately 12 cm (4.7 in) from the breakout to G202, towards G200 | Instrument Panel Harness Routing (Chevrolet) | - |
| J215 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 8.5 cm (3.3 in) from the breakout to G202, towards G200 | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J216 | Instrument Panel Harness | KL9 | Inside the passenger compartment, behind the center of the instrument panel, approximately 3.5 cm (1.4 in) from the breakout to the blower motor, towards connector X212 | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J217 | Instrument Panel Harness | - | Inside the passenger compartment, behind the center of the instrument panel, approximately 3.5 cm (1.4 in) from the breakout to G202, towards the breakout to the hazard warning switch | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J218 | Instrument Panel Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, approximately 22 cm (8.7 in) from the first breakout to the right instrument panel speaker breakout, towards the instrument panel storage | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J219 | Instrument Panel Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, approximately 18.5 cm (7.3 in) from the first breakout to the right instrument panel speaker breakout, towards the instrument panel storage | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J220 | Instrument Panel Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, approximately 17 cm (2.8 in) from the breakout to connector X205, towards the instrument panel storage | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J221 | Instrument Panel Harness | IO5/IO6 with UZ6 and UDD | Inside the passenger compartment, behind the right side of the instrument panel, approximately 28 cm (11 in) from the breakout to G202, towards the right instrument panel speaker | Instrument Panel Harness Routing (Chevrolet) | - |
| J222 | Instrument Panel Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, approximately 25 cm (9.8 in) from the breakout to G202, towards the right instrument panel speaker | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J223 | Instrument Panel Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, approximately 22 cm (8.7 in) from the breakout to G202, towards the right instrument panel speaker | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J224 | Instrument Panel Harness | CJ2 without UE1 | Inside the passenger compartment, behind the right side of the instrument panel, approximately 13 cm (5.1 in) from the breakout to high speed terminating resistor, towards the instrument panel storage | • Instrument Panel Harness Routing (Chevrolet)<br>• Instrument Panel Harness Routing (GMC) | - |
| J225 | Instrument Panel Harness | Z88 with EPH | Inside the passenger compartment, behind the center of the instrument panel, approximately 8 cm (3.2 in) from the breakout to the serial data gateway module, towards G200 | Instrument Panel Harness Routing (GMC) | - |
| J226 | Body Harness | - | Inside the passenger compartment, behind the left side of the instrument panel, approximately 28.5 cm (11.2 in) from the body grommet, towards the left A-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J227 | Body Harness | - | Inside the passenger compartment, under the left side of the instrument panel, approximately 7 cm (2.8 in) from the breakout to G201, towards connector X202 | - | - |
| J228 | Body Harness | - | Inside the passenger compartment, under the left side of the instrument panel, approximately 17 cm (6.7 in) from the breakout to G201, towards connector X202 | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J229 | Steering Wheel Harness | - | Inside the passenger compartment, on the steering wheel harness | - | - |
| J230 | Steering Wheel Harness | - | Inside the passenger compartment, on the steering wheel harness | - | - |
| J231 | HVAC Harness | - | Inside the passenger compartment, behind the right side of the instrument panel, on the HVAC harness | - | - |
| J232 | Steering Wheel Harness | UVD | Inside the passenger compartment, on the steering wheel harness | - | - |
| J300 | Body Harness | UZ6 | Inside the passenger compartment, at the floor near the front of the front passenger door, approximately 5.5 cm (3.75 in) from the breakout to G205, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J301 | Body Harness | UZ6 | Inside the passenger compartment, at the floor near the front of the front passenger door, approximately 11 cm (4.3 in) from the breakout to G205, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J302 | Body Harness | UZ6 | Inside the passenger compartment, at the floor near the front of the driver door, approximately 12 cm (4.7 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J303 | Body Harness | UZ6 | Inside the passenger compartment, at the floor near the front of the driver door, approximately 17 cm (6.7 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J304 | Body Harness | UGE | Inside the passenger compartment, at the floor near the front of the driver door, approximately 22 cm (8.66 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J305 | Body Harness | - | Inside the passenger compartment, at the floor near the middle of the driver door, approximately 27 cm (10.6 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J306 | Body Harness | - | Inside the passenger compartment, at the floor near the middle of the driver door, approximately 33.5 cm (13.2 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J307 | Body Harness | - | Inside the passenger compartment, at the floor near the middle of the driver door, approximately 38.5 cm (15.2 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J308 | Body Harness | - | Inside the passenger compartment, at the floor near the middle of the driver door, approximately 43.5 cm (17.1 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J309 | Body Harness | - | Inside the passenger compartment, at the floor near the middle of the driver door, approximately 48.5 cm (19.1 in) from the breakout to connector X202, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J310 | Body Harness | - | Inside the passenger compartment, at the floor near the right side of the floor console, approximately 14 cm (5.51 in) from the breakout to front center console keyless entry antenna, towards the inflatable restraint and diagnostic module | - | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J312 | Body Harness | - | Inside the passenger compartment, at the floor near the front of the driver seat, approximately 16.5 cm (6.5 in) from the breakout to G302, towards the left B-Pillar | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J313 | Body Harness | CE1 | Inside the passenger compartment, at the floor near the front of the driver seat, approximately 3.5 cm (1.38 in) from the breakout to G302, towards the floor console | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J314 | Body Harness | - | Inside the passenger compartment, at the floor near the front of the driver seat, approximately 8.5 cm (3.35 in) from the breakout to G302, towards the floor console | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J315 | Body Harness | - | Inside the passenger compartment, at the floor under the floor console, approximately 5 cm (1.97 in) from the breakout to the inflatable restraint sensing and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J316 | Body Harness | - | Inside the passenger compartment, at the floor under the floor console, approximately 8.5 cm (3.35 in) from the breakout to the inflatable restraint sensing and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J317 | Body Harness | A45 or A74 | Inside the passenger compartment, at the floor under the floor console, approximately 14 cm (5.51 in) from the breakout to the inflatable restraint sensing and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J318 | Body Harness | - | Inside the passenger compartment, at the floor under the floor console, approximately 29.5 cm (11.6 in) from the breakout to the inflatable restraint sensing and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J319 | Body Harness | - | Inside the passenger compartment, at the floor under the floor console, approximately 33.5 cm (13.2 in) from the breakout to the inflatable restraint sensing and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J320 | Body Harness | - | Inside the passenger compartment, at the floor under the floor console, approximately 39 cm (15.5 in) from the breakout to the inflatable restraint and diagnostic module, towards the front passenger seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J321 | Body Harness | - | Inside the passenger compartment, at the floor near the front of the front passenger seat, approximately 7.5 cm (2.95 in) from the breakout to the body control module, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J322 | Body Harness | - | Inside the passenger compartment, at the floor near the front of the front passenger seat, approximately 12 cm (4.72 in) from the breakout to the body control module, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J323 | Body Harness | - | Inside the passenger compartment, at the floor near the front of the front passenger seat, approximately 23 cm (9.1 in) from the breakout to the body control module, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J324 | Body Harness | AL0 | Inside the passenger compartment, at the floor near the front of the front passenger seat, approximately 28.5 cm (11.2 in) from the breakout to the body control module, towards the right B-Pillar | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J325 | Body Harness | - | Inside the passenger compartment, at the floor near the right rear of the driver seat, approximately 28.5 cm (11.2 in) from the breakout to connector X310, towards the front of the driver seat | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J326 | Body Harness | - | Inside the passenger compartment, at the floor beneath the driver seat, approximately 12 cm (4.72 in) from the floor grommet, towards G302 | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J327 | Body Harness | - | Outside the vehicle, beneath the driver seat, approximately 10.5 cm (4.13 in) from the floor grommet, towards the fuel pump driver control module | Body Harness Routing - Underbody | - |
| J328 | Body Harness | LH7 | Inside the passenger compartment, at the floor near the right rear of the driver seat, approximately 9 cm (3.54 in) from the breakout to connector X310, towards the front of the driver seat | Body Harness Routing - Left Front of the Passenger Compartment | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J329 | Body Harness | - | Inside the passenger compartment, at the floor near the right rear of the passenger seat, approximately 10 cm (3.94 in) from the breakout to connector X320, towards the front of the passenger seat | Body Harness Routing - Right Front of the Passenger Compartment | - |
| J330 | Body Harness | - | Inside the passenger compartment, at the floor near the right rear of the driver seat, approximately 7.5 cm (3 in) from the breakout to connector X310, towards connector X700 | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J331 | Body Harness | - | Inside the passenger compartment, at the floor near the right rear of the driver seat, approximately 20.5 cm (8.1 in) from the breakout to connector X310, towards connector X700 | Body Harness Routing - Left Front of the Passenger Compartment | - |
| J332 | Body Harness | - | Inside the passenger compartment, at the floor near the center of the right rear door, approximately 16 cm (6.3 in) from the breakout to connector X800, towards the right rear side impact sensor | Body Harness Routing - Right Rear of the Passenger Compartment | - |
| J337 | Floor Console Harness | KA1/KA6 | Inside the passenger compartment, under the floor console, approximately 25.5 cm (10 in) from the breakout to connector X208, towards the storage compartment | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC) | - |
| J338 | Floor Console Harness | UZ6 | Inside the passenger compartment, under the floor console, approximately 15 cm (5.91 in) from the breakout to the parking assist on/off switch, towards the storage compartment | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC) | - |
| J339 | Floor Console Harness | - | Inside the passenger compartment, under the floor console, approximately 29 cm (11.4 in) from the breakout to the parking assist on/off switch, towards the storage compartment | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC) | - |
| J340 | Floor Console Harness | KA6 | Inside the passenger compartment, under the floor console, approximately 10.5 cm (4.1 in) from the breakout to the power inverter module, towards rear of floor console | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC) | - |
| J341 | Floor Console Harness | - | Inside the passenger compartment, under the floor console, approximately 16 cm (6.3 in) from the breakout to the power inverter module, towards rear of floor console | • Console Harness Routing (Chevrolet)<br>• Console Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J343 | Floor Console Harness | KA1 with Z88 | Inside the passenger compartment, under the floor console, approximately 22 cm (8.7 in) from the breakout to connector X209, towards the storage compartment | Console Harness Routing (GMC) | - |
| J345 | Headliner Harness | UG1 | Inside the passenger compartment, on the headliner harness, approximately 10.5 cm (4.1 in) from the breakout to the left sunshade mirror, towards the cellular phone microphone | Headliner Harness Routing | - |
| J346 | Headliner Harness | UG1 | Inside the passenger compartment, on the headliner harness, approximately 6.5 cm (2.6 in) from the breakout to the left sunshade mirror, towards the cellular phone microphone | Headliner Harness Routing | - |
| J347 | Headliner Harness | - | Inside the passenger compartment, on the headliner harness, approximately 33 cm (13 in) from the breakout to the left dome lamp, towards the left sunshade | Headliner Harness Routing | - |
| J348 | Headliner Harness | - | Inside the passenger compartment, on the headliner harness, approximately 16.5 cm (6.5 in) from the breakout to the left dome lamp, towards the left sunshade | Headliner Harness Routing | - |
| J349 | Headliner Harness | - | Inside the passenger compartment, on the headliner harness, approximately 20.5 cm (8.1 in) from the breakout to the right front radio volume compensator interior noise microphone, towards the left sunshade | Headliner Harness Routing | - |
| J350 | Sunroof Harness | C3U | Inside the passenger compartment, on the sunroof harness | - | - |
| J351 | Driver Sear Harness | KU1 | Inside the passenger compartment, under the driver seat, approximately 5.5 cm (2.2 in) from the breakout to connector X310, towards the seat belt buckle | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J352 | Driver Sear Harness | - | Inside the passenger compartment, under the driver seat, approximately 3 cm (1.2 in) from the breakout to connector X310, towards the seat belt buckle | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J353 | Driver Sear Harness | A45 or A74 | Inside the passenger compartment, under the driver seat, approximately 7.5 cm (3 in) from the breakout to connector X310, towards the driver seat memory control module | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J354 | Driver Sear Harness | KU1 | Inside the passenger compartment, under the driver seat, approximately 2 cm (1 in) from the breakout to connector X310, towards the driver seat belt anchor pretensioner | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J355 | Driver Sear Harness | KU1 | Inside the passenger compartment, under the driver seat, approximately 5.5 cm (2.2 in) from the breakout to connector X310, towards the driver seat belt anchor pretensioner | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J356 | Driver Sear Harness | KA1 | Inside the passenger compartment, under the driver seat, approximately 8 cm (3.2 in) from the breakout to connector X310, towards the driver seat belt anchor pretensioner | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J357 | Driver Sear Harness | AG1 | Inside the passenger compartment, under the driver seat, approximately 10.5 cm (4.1 in) from the breakout to connector X310, towards the driver seat belt anchor pretensioner | Driver Seat Harness Routing (1 of 2) | - |
| J358 | Driver Sear Harness | KA1 | Inside the passenger compartment, under the driver seat, approximately 6 cm (2.4 in) from the breakout to the driver seat belt anchor pretensioner, towards the driver back seat heating element | • Driver Seat Harness Routing (1 of 2)<br>• Driver Seat Harness Routing (2 of 2) | - |
| J359 | Passenger Seat Harness | - | Inside the passenger compartment, under the passenger seat, approximately 4.5 cm (1.8 in) from the breakout to the passenger seat belt anchor pretensioner, towards the passenger seat front vertical motor | • Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | - |
| J360 | Passenger Seat Harness | KU3 | Inside the passenger compartment, under the passenger seat, approximately 3 cm (1.2 in) from the breakout to connector X320, towards the seat side air bag | • Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | - |
| J361 | Passenger Seat Harness | KU3 | Inside the passenger compartment, under the passenger seat, approximately 2.5 cm (1 in) from the breakout to the passenger cushion seat heating element, towards the seat belt buckle | • Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | - |
| J362 | Passenger Seat Harness | KA1 | Inside the passenger compartment, under the passenger seat, approximately 5 cm (1.97 in) from the breakout to the passenger cushion seat heating element, towards the seat belt buckle | • Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J363 | Passenger Seat Harness | KU3 | Inside the passenger compartment, under the passenger seat, approximately 2.5 cm (1 in) from the breakout to the passenger seat belt buckle, towards the passenger cushion seat heating element | • Passenger Seat Harness Routing (1 of 2)<br>• Passenger Seat Harness Routing (2 of 2) | - |
| J364 | Passenger Seat Harness | UHH without AL0 | Inside the passenger compartment, under the passenger seat, approximately 3 cm (1.2 in) into breakout to the passenger seat belt buckle | - | - |
| J365 | Left Rear Seat Harness | KA6 | Inside the passenger compartment, under the left rear seat, approximately 6.5 cm (2.6 in) from the breakouts to the seat heating element control module | Left Rear Seat Harness Routing | - |
| J366 | Left Rear Seat Harness | KA6 | Inside the passenger compartment, under the left rear seat, approximately 11.5 cm (4.5 in) from the connector for the left rear back seat heating element | Left Rear Seat Harness Routing | - |
| J367 | Right Rear Seat Harness | KA6 | Inside the passenger compartment, under the right rear seat, approximately 11.5 cm (4.5 in) from the connector for the right rear cushion seat heating element | Right Rear Seat Harness Routing | - |
| J400 | Body Harness | - | In the luggage compartment, near the rear body fuse block, approximately 9 cm (3.54 in) from the connector to the rear body fuse block | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J401 | Body Harness | - | In the luggage compartment, near the rear body fuse block, approximately 7.5 cm (3 in) from the connector to the rear body fuse block | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J402 | Body Harness | - | In the luggage compartment, near the rear body fuse block, approximately 6 cm (2.36 in) from the connector to the rear body fuse block | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J403 | Body Harness | - | In the luggage compartment, near the rear body fuse block, approximately 4.5 cm (1.8 in) from the connector to the rear body fuse block | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J404 | Body Harness | - | In the luggage compartment, near the rear body fuse block, approximately 5.5 cm (2.17 in) from the breakout to the rear body fuse block, towards rear of vehicle | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J405 | Body Harness | UH5 | In the luggage compartment, at the floor behind the center rear seat, approximately 5 cm (1.97 in) from the breakout to the middle rear seat belt buckle, towards the left rear seat belt buckle | - | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J406 | Body Harness | - | In the luggage compartment, at the floor behind the center rear seat, approximately 15.5 cm (6.1 in) from the breakout to connector X340, towards the connector X330 | • Body Harness Routing - Left Rear of the Passenger Compartment<br>• Body Harness Routing - Right Rear of the Passenger Compartment | - |
| J407 | Body Harness | - | In the luggage compartment, at the right side of the left rear wheel well, approximately 38.5 cm (11 in) from the breakout to the rear body fuse block, towards G305 | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J408 | Body Harness | X88 | In the luggage compartment, at the left rear of the storage compartment, approximately 8.5 cm (3.35 in) from the breakout to the liftgate control module, towards the rear body fuse block | - | - |
| J409 | Body Harness | CE1/C3U+X88 | In the luggage compartment, at the right side of the left rear wheel well, approximately 28 cm (11 in) from the breakout to the rear body fuse block, towards G305 | Body Harness Routing - Left Rear of the Passenger Compartment | - |
| J410 | Rear Fascia Harness | UD5 | Rear of the vehicle, behind the rear fascia, approximately 18 cm (7.1 in) from the breakout to the left outer rear object sensor, towards the left middle rear object sensor | Rear Fascia Harness Routing | - |
| J411 | Rear Fascia Harness | - | Rear of the vehicle, behind the rear fascia, approximately 13 cm (5.12 in) from the breakout to the left middle rear object sensor, towards the right middle rear object sensor | Rear Fascia Harness Routing | - |
| J412 | Rear Fascia Harness | UKC | Rear of the vehicle, behind the rear fascia, approximately 34 cm (13.4 in) from the breakout to the left middle rear object sensor, towards the right middle rear object sensor | Rear Fascia Harness Routing | - |
| J413 | Rear Fascia Harness | UD5 | Rear of the vehicle, behind the rear fascia, approximately 14.5 cm (5.71 in) from the breakout to the right middle rear object sensor, towards the right outer rear object sensor | Rear Fascia Harness Routing | - |
| J414 | Left Tail Lamp Harness | - | On the left rear of the vehicle, inside the left tail lamp assembly | Fuel Tank Harness Routing (LH7) | - |
| J415 | Right Tail Lamp Harness | - | On the right rear of the vehicle, inside the right tail lamp assembly | Fuel Tank Harness Routing (LH7) | - |
| J416 | Fuel Tank Harness | F48 | Outside the vehicle, on the fuel tank harness | - | - |
| J417 | Fuel Tank Harness | F48 | Outside the vehicle, on the fuel tank harness | - | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J500 | Driver Door Harness | - | • (X88) In the driver door, behind the trim panel, approximately 20 cm (7.9 in) from the breakout to the driver window motor module, towards connector X510<br>• (Z88) In the driver door, behind the trim panel, approximately 195 cm (7.7 in) from the breakout to the driver window motor module, towards connector X500 | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC) | - |
| J501 | Driver Door Harness | - | In the driver door, behind the trim panel, approximately 9 cm (3.54 in) from the breakout to the driver window motor module, towards connector X500 | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC) | - |
| J502 | Driver Door Harness | - | In the driver door, behind the trim panel, approximately 6.5 cm (2.56 in) into the breakout to the driver window motor module, towards the driver window motor module | • Driver Door Harness Routing (Chevrolet)<br>• Driver Door Harness Routing (GMC) | - |
| J503 | Driver Door Harness | DWW | In the driver door, behind the trim panel, approximately 5.5 cm (2.16 in) from the breakout to the driver window motor module, towards connector X510 | Driver Door Harness Routing (Chevrolet) | - |
| J504 | Driver Door Harness | DWW | In the driver door, behind the trim panel, approximately 19.5 cm (7.7 in) from the breakout to the driver window motor module, towards connector X500 | Driver Door Harness Routing (Chevrolet) | - |
| J505 | Driver Door Trim Harness | - | • (X88) In the driver door, behind the trim panel, approximately 8.5 cm (3.35 in) from the breakout to the door handle flood lamp, towards the driver door lock switch<br>• (Z88) In the driver door, behind the trim panel, approximately 4.5 cm (1.77 in) from the breakout to the driver window switch, towards the driver door lock switch | • Driver Door Trim Panel Harness Routing (Chevrolet)<br>• Driver Door Trim Panel Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J506 | Driver Door Trim Harness | - | • (X88) In the driver door, behind the trim panel, approximately 8 cm (2 in) from X505, towards the driver seat memory switch<br>• (Z88) In the driver door, behind the trim panel, approximately 5 cm (2 in) from the breakout to X505, towards the interior liftgate control switch | • Driver Door Trim Panel Harness Routing (Chevrolet)<br>• Driver Door Trim Panel Harness Routing (GMC) | - |
| J507 | Driver Door Trim Harness | - | • (X88) In the driver door, behind the trim panel, approximately 5 cm (2 in) from the breakout to the driver door lock switch, towards connector X505<br>• (Z88) In the driver door, behind the trim panel, approximately 9.5 cm (3.75 in) from the breakout to the interior liftgate control switch, towards connector X505 | • Driver Door Trim Panel Harness Routing (Chevrolet)<br>• Driver Door Trim Panel Harness Routing (GMC) | - |
| J509 | Driver Outside Rearview Mirror Harness | - | Outside front of the driver door, inside the driver outside rearview mirror | - | - |
| J600 | Passenger Door Harness | - | In the passenger door, behind the trim panel, approximately 9 cm (3.54 in) from the breakout to the passenger window motor, towards connector X600 | Passenger Door Harness Routing | - |
| J601 | Passenger Door Harness | - | In the passenger door, behind the trim panel, approximately 19.5 cm (7.7 in) from the breakout to the passenger window motor, towards connector X600 | Passenger Door Harness Routing | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J602 | Passenger Door Trim Harness | - | • (X88) In the passenger door, behind the trim panel, approximately 10 cm (3.94 in) from the breakout to the passenger door lock switch, towards the passenger window switch<br>• (Z88) In the passenger door, behind the trim panel, approximately 4.5 cm (1.77 in) from the breakout to the passenger window switch, towards the passenger door lock switch | • Passenger Door Trim Panel Harness Routing (Chevrolet)<br>• Passenger Door Trim Panel Harness Routing (GMC) | - |
| J603 | Passenger Door Trim Harness | - | • (X88) In the passenger door, behind the trim panel, approximately 3 cm (1.18 in) into the breakout to door handle flood lamp, towards the door handle flood lamp<br>• (Z88) In the passenger door, behind the trim panel, approximately 26 cm (10.2 in) from the breakout to connector X605, towards the passenger door handle flood switch | • Passenger Door Trim Panel Harness Routing (Chevrolet)<br>• Passenger Door Trim Panel Harness Routing (GMC) | - |
| J605 | Passenger Outside Rearview Mirror Harness | - | Outside front of the passenger door, inside the passenger outside rearview mirror | - | - |
| J609 | Passenger Outside Rearview Mirror Harness | - | Outside front of the passenger door, inside the passenger outside rearview mirror | - | - |
| J700 | Left Rear Door Harness | - | In the left rear door, behind the trim panel, approximately 12.5 cm (4.92 in) from the breakout to connector X700, towards the left rear window switch | Left Rear Door Harness Routing | - |
| J800 | Right Rear Door Harness | - | In the right rear door, behind the trim panel, approximately 12.5 cm (4.92 in) from the breakout to connector X800, towards the right rear window switch | Right Rear Door Harness Routing | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J900 | Liftgate Harness | - | • (X88) In the liftgate, behind the trim panel, approximately 25.5 cm (10 in) from connector X901, towards the left side of the vehicle<br>• (Z88) In the liftgate, behind the trim panel, approximately 10 cm (3.94 in) from connector X901, towards the left side of the vehicle | • Liftgate Harness Routing (Chevrolet)<br>• Liftgate Harness Routing (GMC) | - |
| J901 | Liftgate Harness | - | • (X88) In the liftgate, behind the trim panel, approximately 12 cm (4.72 in) from the breakout to the left liftgate tail lamp assembly, towards the rear defogger grid connector X1<br>• (Z88) In the liftgate, behind the trim panel, approximately 33 cm (13 in) from the connector for the left license plate lamp | • License Lamp Harness Routing (GMC)<br>• Liftgate Harness Routing (Chevrolet) | - |
| J902 | Liftgate Harness | - | In the liftgate, behind the trim panel, approximately 14.5 cm (5.71 in) from the breakout to the left liftgate tail lamp assembly, towards the rearview camera | Liftgate Harness Routing (Chevrolet) | - |
| J903 | Liftgate Harness | - | • (X88) In the liftgate, behind the trim panel, approximately 6 cm (2.36 in) from the breakout to the rearview camera, towards the left liftgate tail lamp assembly<br>• (Z88) In the liftgate, behind the trim panel, approximately 5 cm (1.97 in) from the breakout to connector X902, towards the liftgate close switch | • Liftgate Harness Routing (Chevrolet)<br>• Liftgate Harness Routing (GMC) | - |

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| Code | Name | Option | Location | Locator View | Connector End View |
|---|---|---|---|---|---|
| J904 | License Lamp Harness | - | • (Z88) In the liftgate, behind the trim panel, approximately 22.5 cm (9 in) from the connector for the left license plate lamp<br>• (X88) In the liftgate, behind the trim panel, approximately 5 cm (2 in) from the breakout to the right license plate lamp, towards the liftgate close switch | • License Lamp Harness Routing (GMC)<br>• Liftgate Harness Routing (Chevrolet) | - |
| J905 | Liftgate Harness | - | • (X88) In the liftgate, behind the trim panel, approximately 5 cm (2 in) from the breakout to the right liftgate object sensor, towards the right liftgate tail lamp assembly<br>• (Z88) In the liftgate, behind the trim panel, approximately 10 cm (3.94 in) from the breakout to connector X902, towards the liftgate latch | • Liftgate Harness Routing (Chevrolet)<br>• Liftgate Harness Routing (GMC) | - |
| J907 | Left Liftgate Tail Lamp Harness | Z88 | Rear of the vehicle, inside the left liftgate tail lamp assembly | - | - |
| J908 | License Lamp Harness | Z88 | In the liftgate, behind the trim panel, approximately 10 cm (3.94 in) from the connector for the rearview camera | License Lamp Harness Routing (GMC) | - |
| J909 | Right Liftgate Tail Lamp Harness | Z88 | Rear of the vehicle, inside the right liftgate tail lamp assembly | - | - |

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# PASSENGER COMPARTMENT/ROOF COMPONENT VIEWS

## FRONT OF THE PASSENGER COMPARTMENT

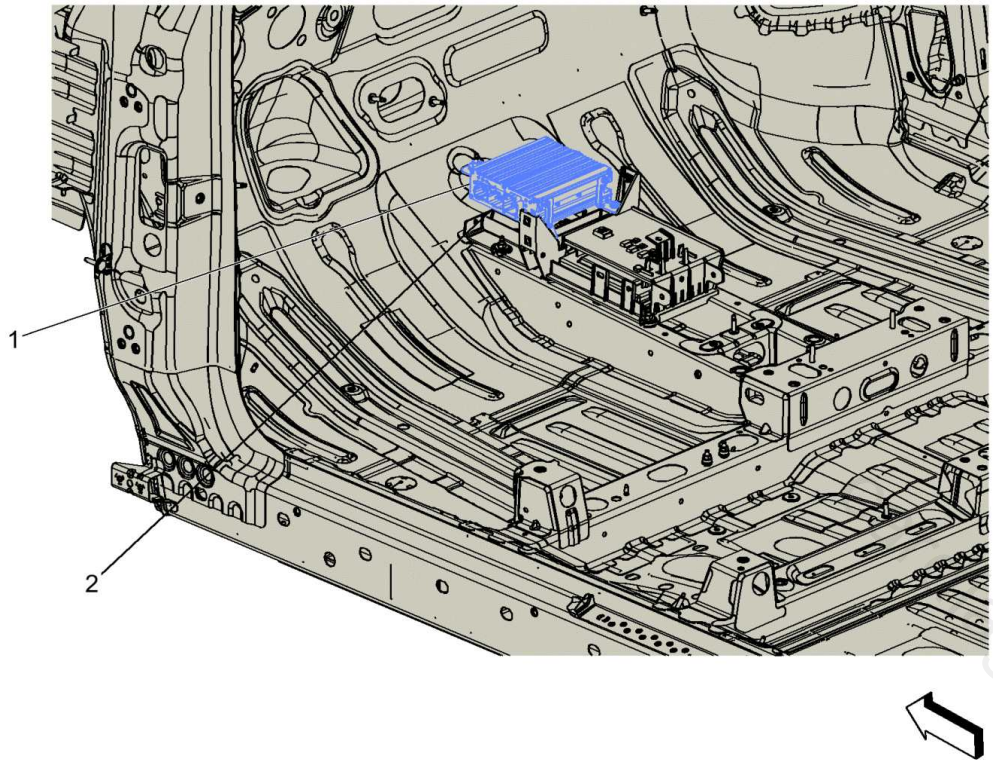



Fig. 1: Passenger Compartment - Front
Courtesy of GENERAL MOTORS COMPANY

| Items |
|---|
| 1. T3 Audio Amplifier (UQA) T3 Audio Amplifier X1 (UQA) T3 Audio Amplifier X2 (UQA) T3 Audio Amplifier X3 (UQA) T3 Audio Amplifier X4 (UQA) |
| 2. K108 Active Noise Cancellation Module K108 Active Noise Cancellation Module X1 (NKC+UZ6-IOR) K108 Active Noise Cancellation Module X2 (NKC+UZ6-IOR) K108 Active Noise Cancellation Module X3 (NKC+UZ6-IOR) |

## LEFT FRONT OF THE PASSENGER COMPARTMENT (1 OF 2)

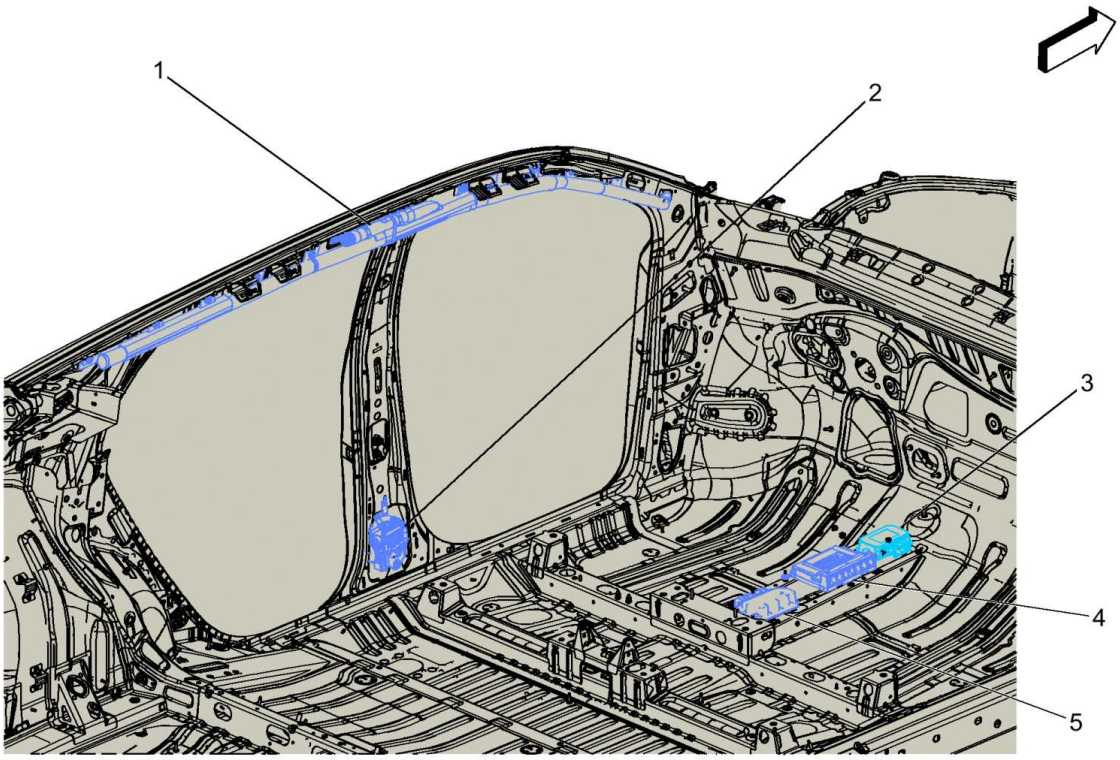



**Fig. 2: Passenger Compartment - Left Front (1 of 2)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. F105L Roof Rail Air Bag - Left (AY0) **F105L Roof Rail Air Bag - Left (AY0)** |
| 2. F112D Seat Belt Retractor Pretensioner - Driver **F112D Seat Belt Retractor Pretensioner - Driver** |
| 3. T19 Power Supply Transformer (KL9) **T19 Power Supply Transformer (KL9)** |
| 4. K9 Body Control Module **K9 Body Control Module X1** **K9 Body Control Module X2** **K9 Body Control Module X3** **K9 Body Control Module X4** **K9 Body Control Module X5** **K9 Body Control Module X6** **K9 Body Control Module X7** |
| 5. K36 Inflatable Restraint Sensing and Diagnostic Module **K36 Inflatable Restraint Sensing and Diagnostic Module X1** **K36 Inflatable Restraint Sensing and Diagnostic Module X2** |

**LEFT FRONT OF THE PASSENGER COMPARTMENT (2 OF 2)**

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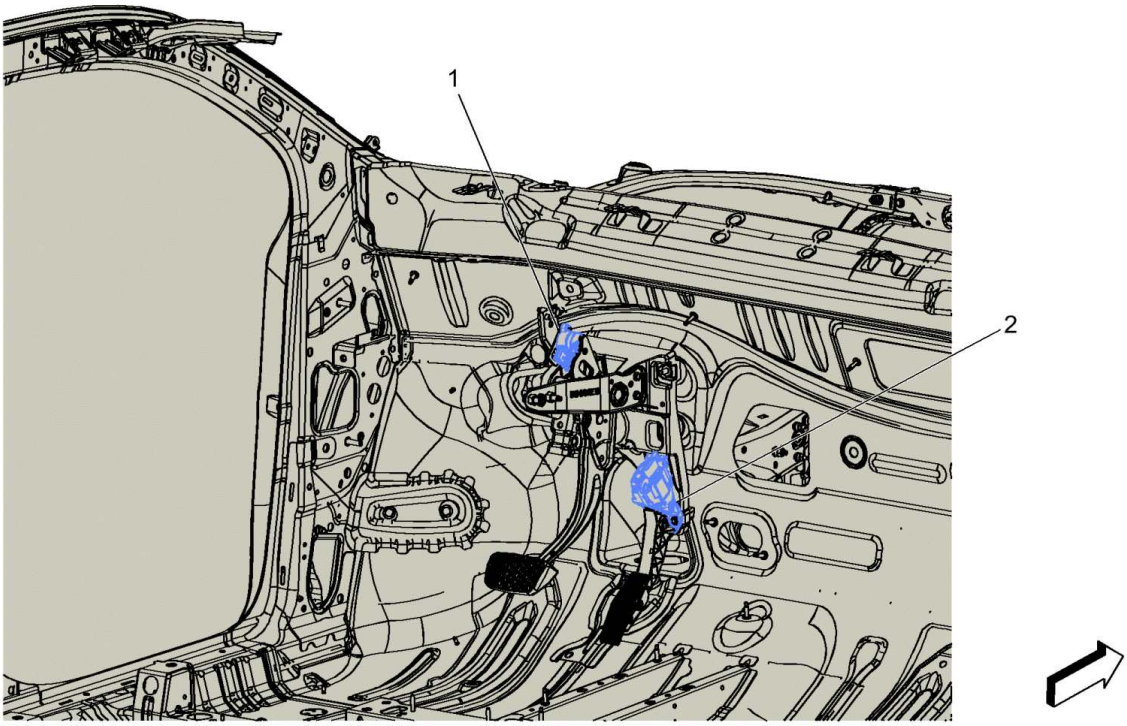



Fig. 3: Passenger Compartment - Left Front (2 of 2)
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B22 Brake Pedal Position Sensor B22 Brake Pedal Position Sensor |
| 2. B107 Accelerator Pedal Position Sensor B107 Accelerator Pedal Position Sensor |

## INSIDE REARVIEW MIRROR

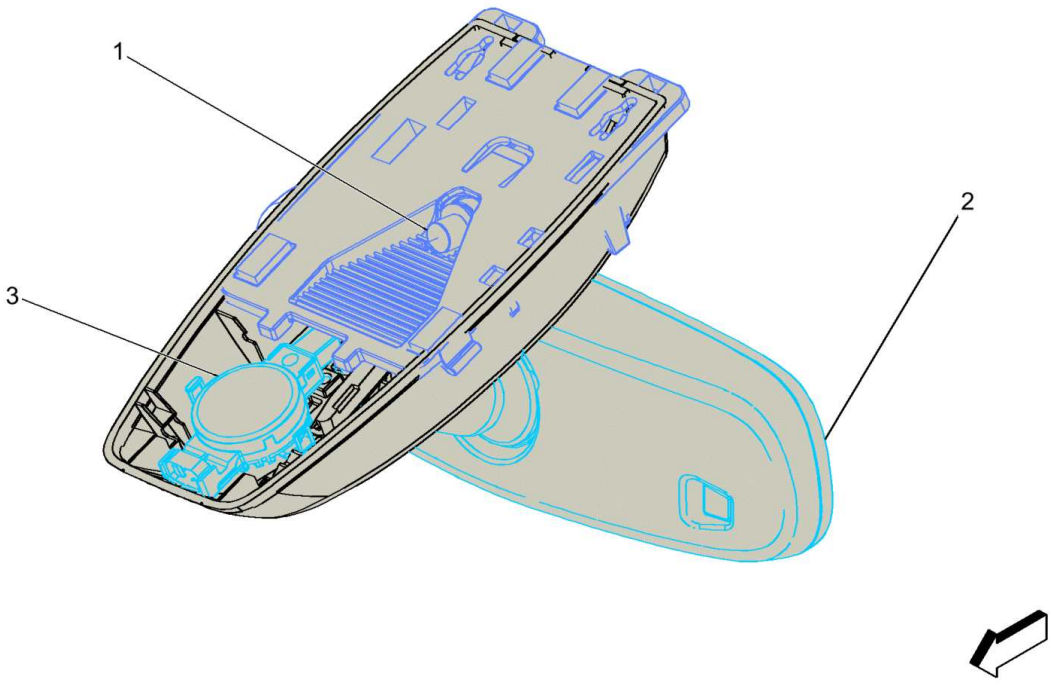



Fig. 4: Inside Rearview Mirror
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. B174W Frontview Camera - Windshield (UEU/UHX)<br>2. A10 Inside Rearview Mirror (DD8) **A10 Inside Rearview Mirror (DD8)**<br>3. B160 Windshield Temperature and Inside Moisture Sensor (ASV) **B160 Windshield Temperature and Inside Moisture Sensor (ASV)** |

## RAIN/AMBIENT LIGHT SENSOR MODULE (CE1)

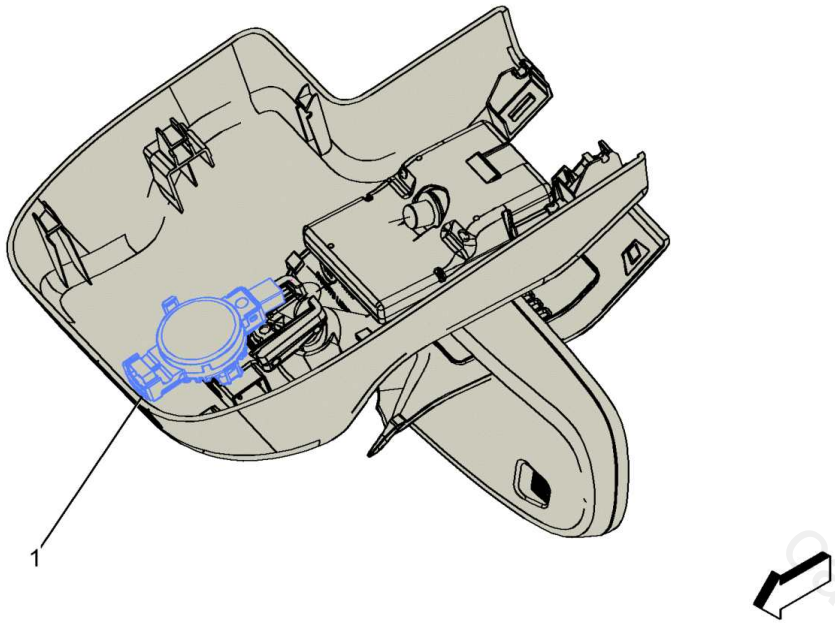



**Fig. 5: Rain/Ambient Light Sensor Module (CE1)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B177 Rain/Ambient Light Sensor Module (CE1) **B177 Rain/Ambient Light Sensor Module (CE1)** |

## UNDER THE CENTER CONSOLE/KEYLESS ENTRY ANTENNA

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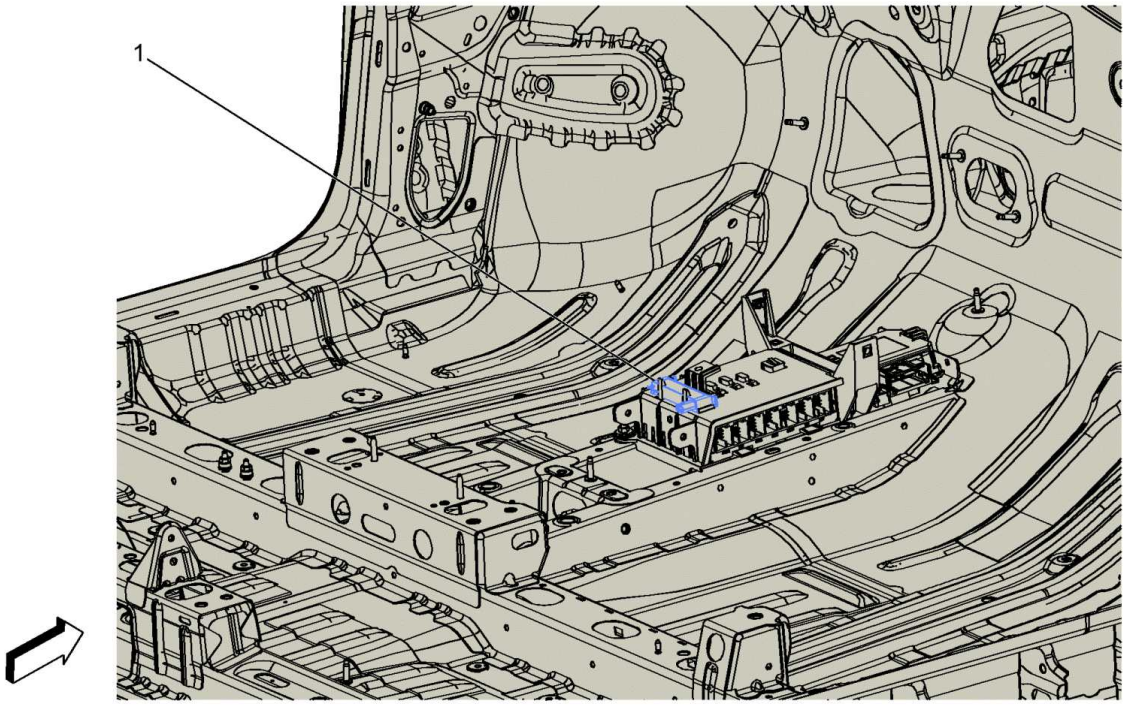



**Fig. 6: Under Center Console/Keyless Entry Antenna**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. T10J Keyless Entry Antenna - Center Console Front **T10J Keyless Entry Antenna - Center Console Front** |

## UNDER THE CENTER CONSOLE/INFLATABLE RESTRAINT AND BODY CONTROL MODULE

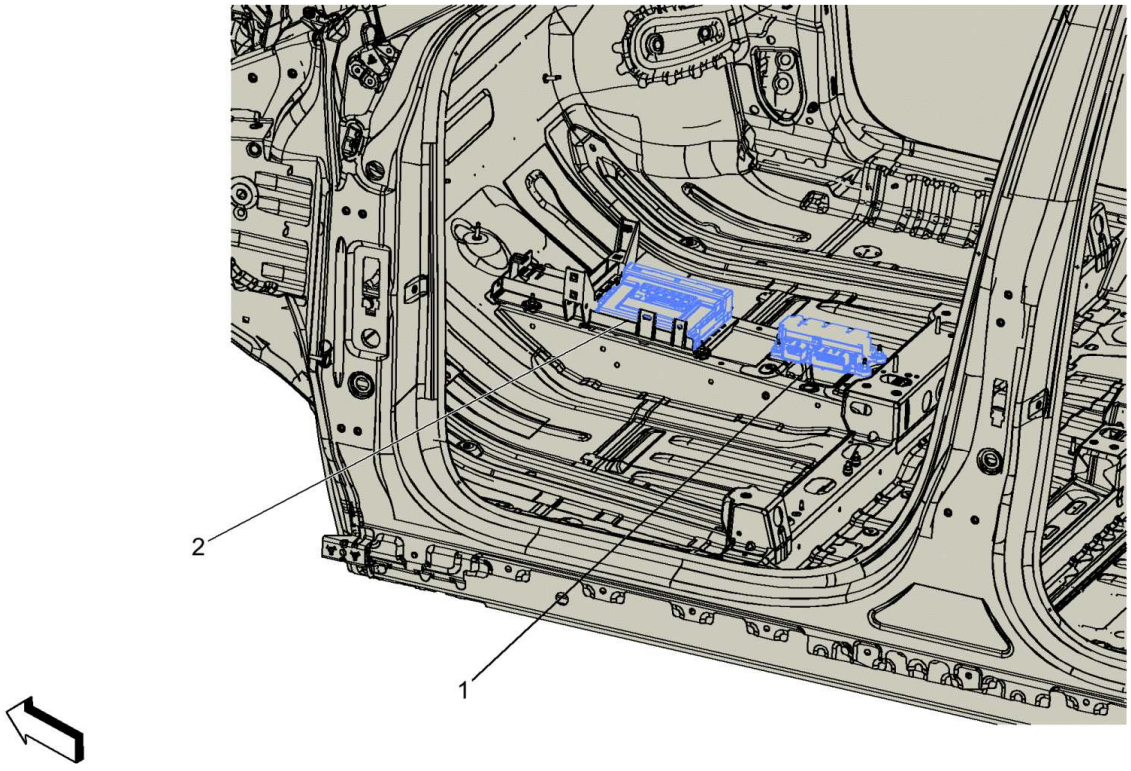



**Fig. 7: Under Center Console/Inflatable Restraint and Body Control Module**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K36 Inflatable Restraint Sensing and Diagnostic Module K36 Inflatable Restraint Sensing and Diagnostic Module X1 K36 Inflatable Restraint Sensing and Diagnostic Module X2 |
| 2. K9 Body Control Module K9 Body Control Module X1 K9 Body Control Module X2 K9 Body Control Module X3 K9 Body Control Module X4 K9 Body Control Module X5 K9 Body Control Module X6 K9 Body Control Module X7 |

## RIGHT SIDE OF THE PASSENGER COMPARTMENT

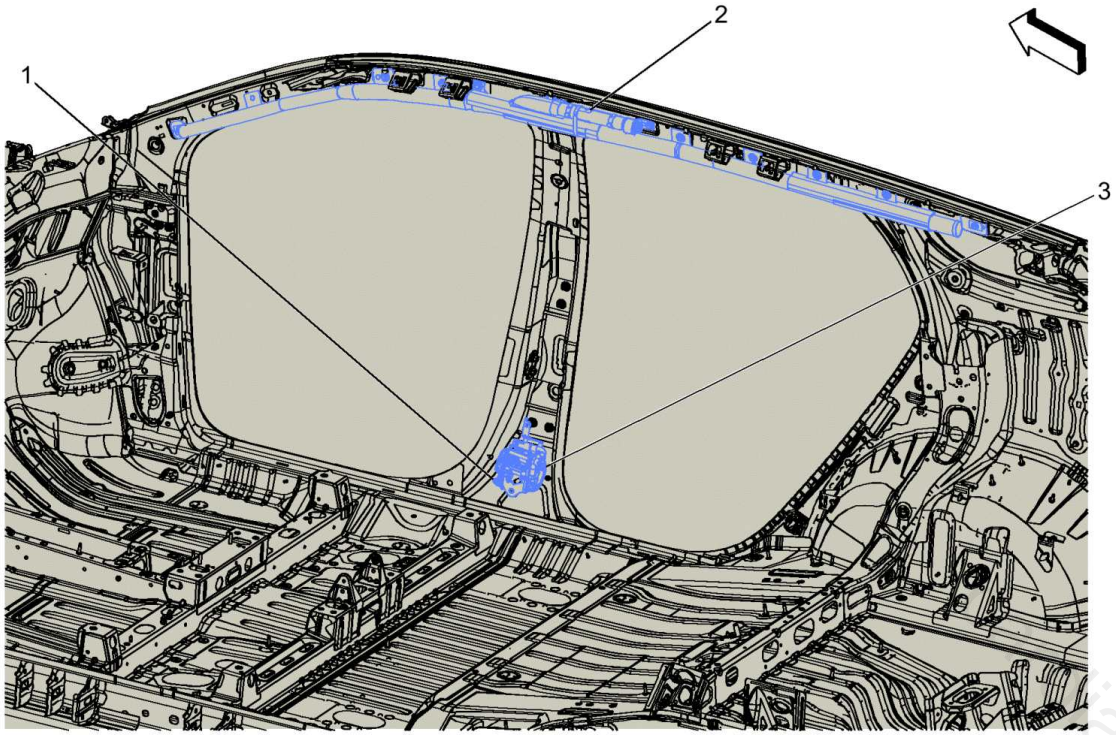



Fig. 8: Right Side of Passenger Compartment
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B61P Seat Belt Tension Sensor - Passenger (AL0) B61P Seat Belt Tension Sensor - Passenger (AL0) |
| 2. F105R Roof Rail Air Bag - Right (AY0) F105R Roof Rail Air Bag - Right (AY0) |
| 3. F112P Seat Belt Retractor Pretensioner - Passenger F112P Seat Belt Retractor Pretensioner - Passenger |

## DRIVER SEAT (1 OF 3)

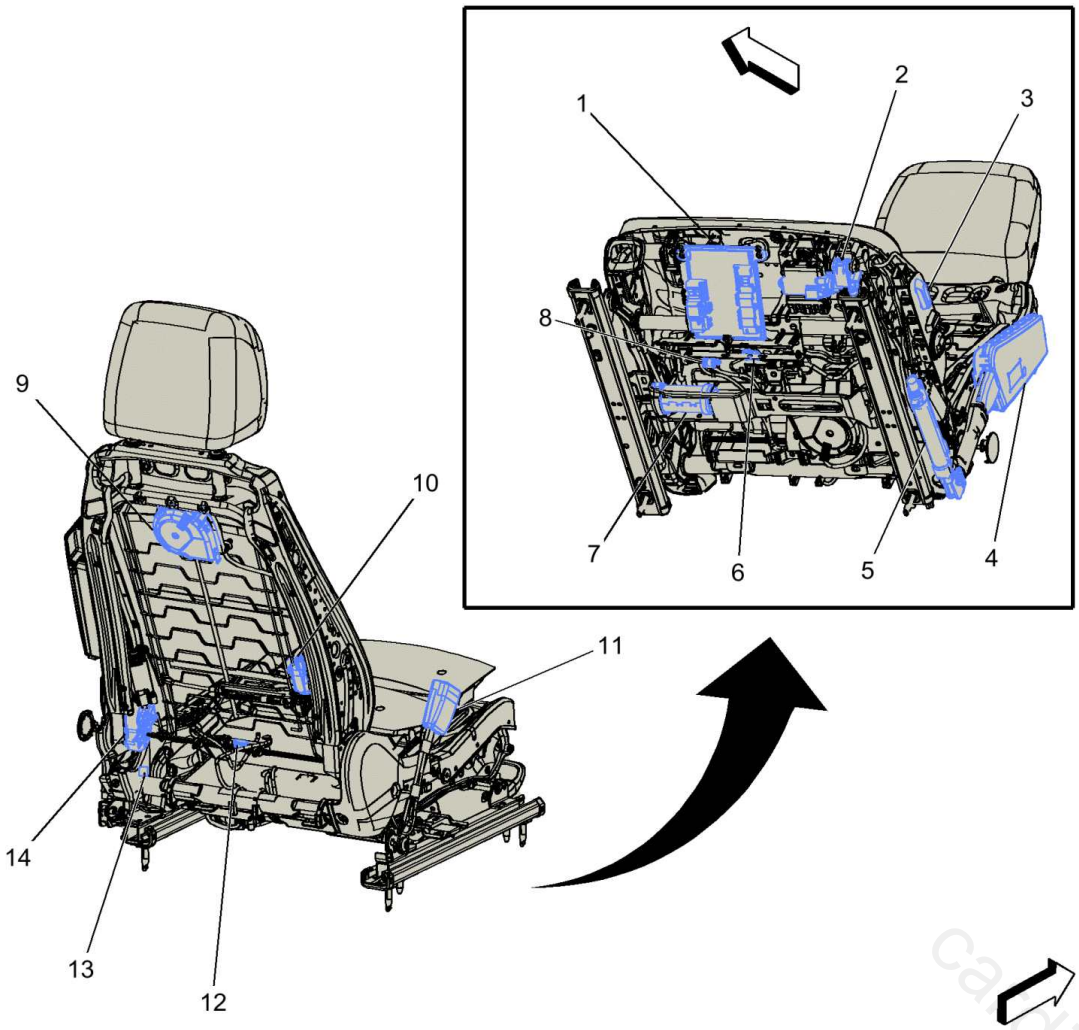



**Fig. 9: Identifying Driver Seat (1 of 3)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K40D Seat Memory Control Module - Driver (A45/A74) **K40D Seat Memory Control Module - Driver X1 (A45/A74)** **K40D Seat Memory Control Module - Driver X2 (A45/A74)** **K40D Seat Memory Control Module - Driver X3 (A45/A74)** **K40D Seat Memory Control Module - Driver X5 (A45/A74)** **K40D Seat Memory Control Module - Driver X6 (A45/A74)** |
| 2. M50D Seat Front Vertical Motor - Driver (A45/AG1) **M50D Seat Front Vertical Motor - Driver (A45/AG1)** |
| 3. S64D Seat Adjuster Switch - Driver (AG1) **S64D Seat Adjuster Switch - Driver (AG1)** |
| 4. F106D Seat Side Air Bag - Driver **F106D Seat Side Air Bag - Driver** |
| 5. F113D Seat Belt Anchor Pretensioner - Driver **F113D Seat Belt Anchor Pretensioner - Driver** |
| 6. E14B Seat Heating Element - Driver Cushion (KA1) **E14B Seat Heating Element - Driver Cushion (KA1)** |
| 7. M51D Seat Horizontal Motor - Driver (A45/AG1) **M51D Seat Horizontal Motor - Driver (A45/AG1)** |
| 8. P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU) **P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU)** |
| 9. M73A Seat Blower Motor - Driver Back (KU1) **M73A Seat Blower Motor - Driver Back (KU1)** |
| 10. M53D Seat Lumbar Support Motor - Driver (AL9) **M53D Seat Lumbar Support Motor - Driver (AL9+X88)** **M53D Seat Lumbar Support Motor - Driver (AL9+Z88)** |
| 11. B153D Seat Belt Buckle - Driver **B153D Seat Belt Buckle - Driver** |
| 12. E14A Seat Heating Element - Driver Back (KA1) **E14A Seat Heating Element - Driver Back (KA1)** |
| 13. M55D Seat Rear Vertical Motor - Driver (A45/AG1) **M55D Seat Rear Vertical Motor - Driver (A45/AG1)** |

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| Items |
| --- |
| 14. M56D Seat Recline Motor - Driver (A45/AG1) **M56D Seat Recline Motor - Driver (A45/AG1)** |

**DRIVER SEAT (2 OF 3)**

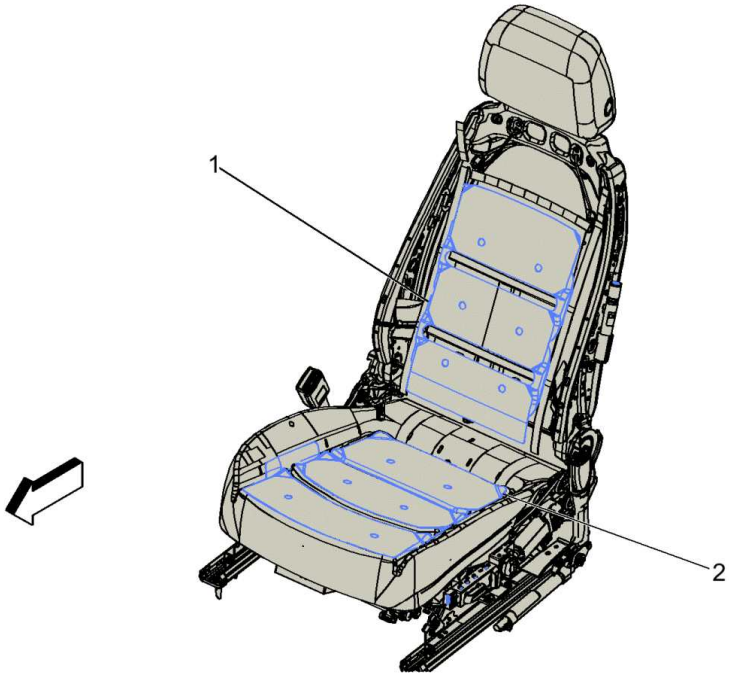



**Fig. 10: Identifying Driver Seat (2 of 3)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E14A Seat Heating Element - Driver Back (KA1) **E14A Seat Heating Element - Driver Back (KA1)** |
| 2. E14B Seat Heating Element - Driver Cushion (KA1) **E14B Seat Heating Element - Driver Cushion (KA1)** |

**DRIVER SEAT (3 OF 3)**

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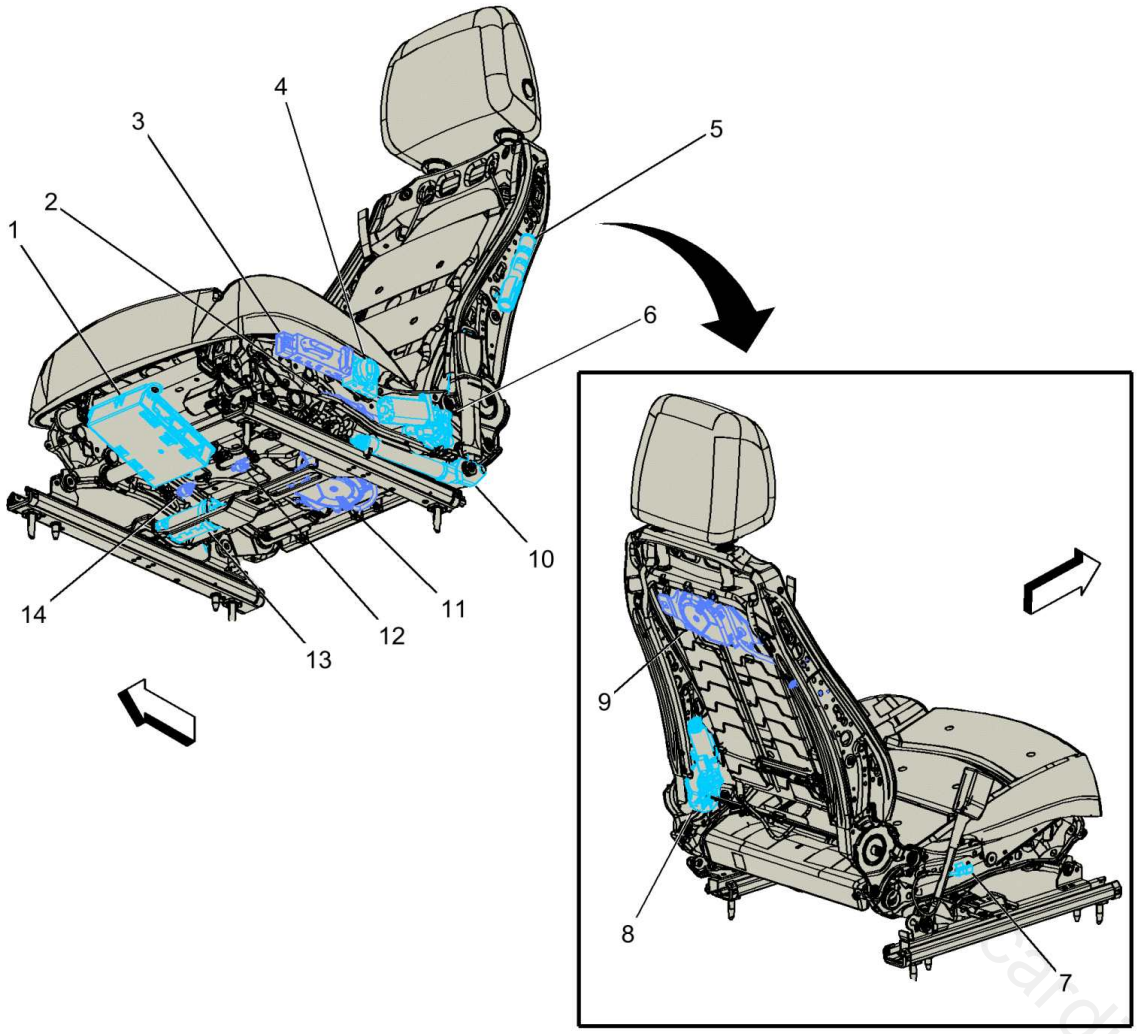



**Fig. 11: Identifying Driver Seat (3 of 3)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. K40D Seat Memory Control Module - Driver (A45/A74) **K40D Seat Memory Control Module - Driver X1 (A45/A74)** **K40D Seat Memory Control Module - Driver X2 (A45/A74)** **K40D Seat Memory Control Module - Driver X3 (A45/A74)** **K40D Seat Memory Control Module - Driver X5 (A45/A74)** **K40D Seat Memory Control Module - Driver X6 (A45/A74)** |
| 2. M53D Seat Lumbar Support Motor - Driver (AL9) **M53D Seat Lumbar Support Motor - Driver (AL9+X88)** **M53D Seat Lumbar Support Motor - Driver (AL9+Z88)** |
| 3. S64D Seat Adjuster Switch - Driver (AG1) **S64D Seat Adjuster Switch - Driver (AG1)** |
| 4. S65D Seat Lumbar Support Switch - Driver (AL9) **S65D Seat Lumbar Support Switch - Driver (AL9)** |
| 5. F106D Seat Side Air Bag - Driver **F106D Seat Side Air Bag - Driver** |
| 6. M56D Seat Recline Motor - Driver (A45/AG1) **M56D Seat Recline Motor - Driver (A45/AG1)** |
| 7. B153D Seat Belt Buckle - Driver **B153D Seat Belt Buckle - Driver** |
| 8. M55D Seat Rear Vertical Motor - Driver (A45/AG1) **M55D Seat Rear Vertical Motor - Driver (A45/AG1)** |
| 9. M73A Seat Blower Motor - Driver Back (KU1) **M73A Seat Blower Motor - Driver Back (KU1)** |
| 10. F113D Seat Belt Anchor Pretensioner - Driver **F113D Seat Belt Anchor Pretensioner - Driver** |
| 11. M73C Seat Blower Motor - Driver Cushion (KU1) **M73C Seat Blower Motor - Driver Cushion (KU1)** |
| 12. P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU) **P45LR Seat Haptic Movement Motor - Driver Left Rear (UEU)** |
| 13. M51D Seat Horizontal Motor - Driver (A45/AG1) **M51D Seat Horizontal Motor - Driver (A45/AG1)** |

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| Items |
| --- |
| 14. P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU) **P45RR Seat Haptic Movement Motor - Driver Right Rear (UEU)** |

## PASSENGER SEAT (1 OF 4)

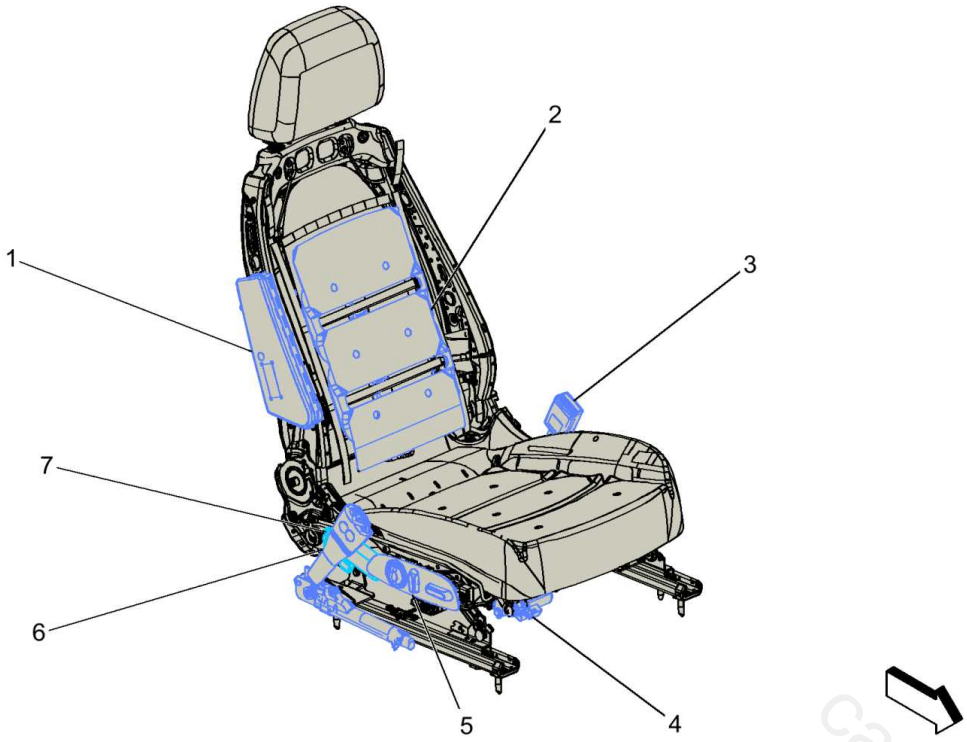



**Fig. 12: Identifying Passenger Seat (1 of 4)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. F106P Seat Side Air Bag - Passenger **F106P Seat Side Air Bag - Passenger** |
| 2. E14C Seat Heating Element - Passenger Back (KA1) **E14C Seat Heating Element - Passenger Back (KA1)** |
| 3. B153P Seat Belt Buckle - Passenger **B153P Seat Belt Buckle - Passenger** |
| 4. M50P Seat Front Vertical Motor - Passenger (ADT/AG2) **M50P Seat Front Vertical Motor - Passenger (ADT/AG2)** |
| 5. M51P Seat Horizontal Motor - Passenger (ADT/AG2) **M51P Seat Horizontal Motor - Passenger (ADT/AG2)** |
| 6. F113P Seat Belt Anchor Pretensioner - Passenger **F113P Seat Belt Anchor Pretensioner - Passenger** |
| 7. M55P Seat Rear Vertical Motor - Passenger (ADT/AG2) **M55P Seat Rear Vertical Motor - Passenger (ADT/AG2)** |

## PASSENGER SEAT (2 OF 4)

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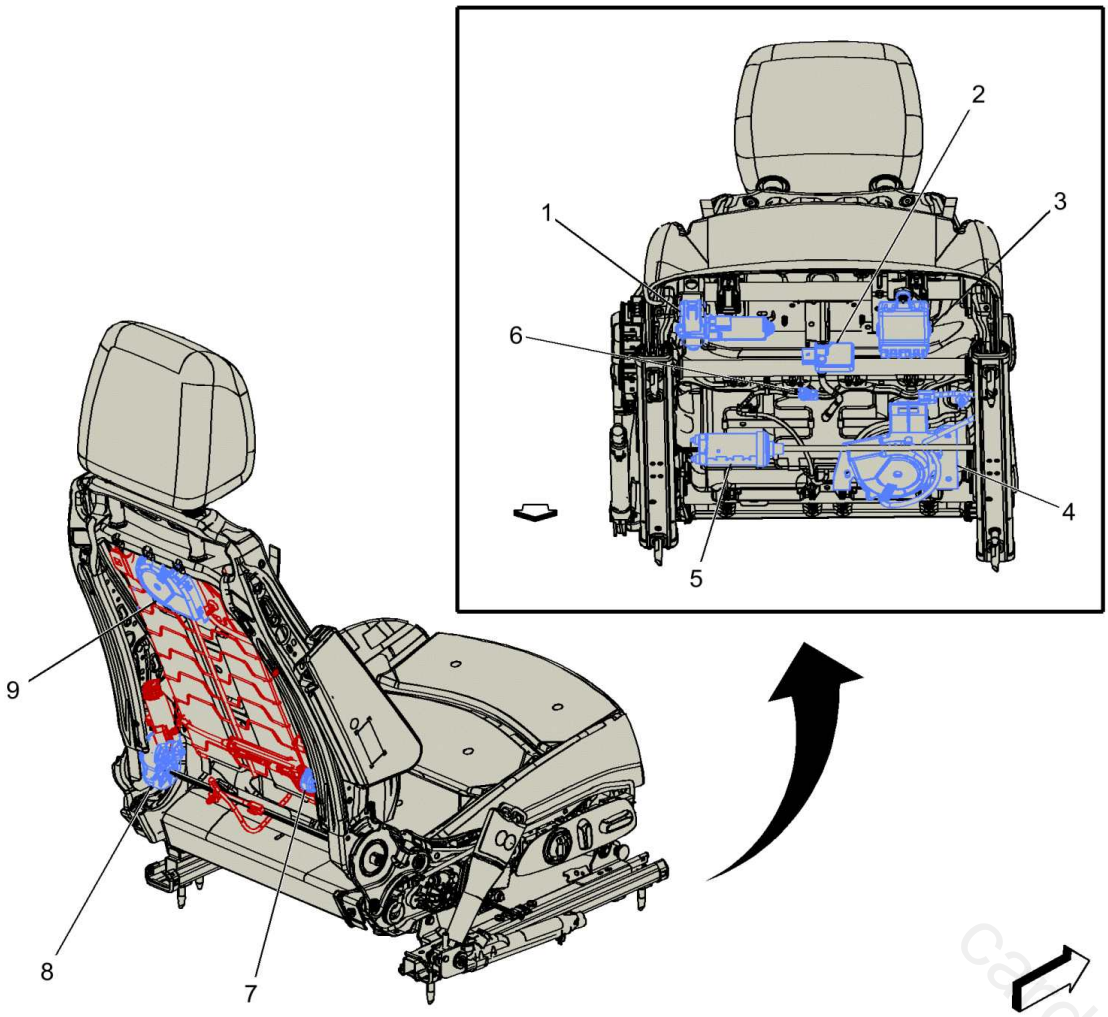



**Fig. 13: Identifying Passenger Seat (2 of 4)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. M50P Seat Front Vertical Motor - Passenger (ADT/AG2) **M50P Seat Front Vertical Motor - Passenger (ADT/AG2)** |
| 2. K85 Passenger Presence Module (AL0) **K85 Passenger Presence Module (AL0)** |
| 3. K29F Seat Heating Control Module - Front (KA1) **K29F Seat Heating Control Module - Front X1 (KA1)** **K29F Seat Heating Control Module - Front X2 (KA1)** |
| 4. M73D Seat Blower Motor - Passenger Cushion (KU3) **M73D Seat Blower Motor - Passenger Cushion (KU3)** |
| 5. M51P Seat Horizontal Motor - Passenger (ADT/AG2) **M51P Seat Horizontal Motor - Passenger (ADT/AG2)** |
| 6. E14D Seat Heating Element - Passenger Cushion (KA1) **E14D Seat Heating Element - Passenger Cushion (KA1)** |
| 7. M53P Seat Lumbar Support Motor - Passenger (AT9) **M53P Seat Lumbar Support Motor - Passenger (AT9+X88)** **M53P Seat Lumbar Support Motor - Passenger (AT9+Z88)** |
| 8. M56P Seat Recline Motor - Passenger (AG2) **M56P Seat Recline Motor - Passenger (AG2)** |
| 9. M73B Seat Blower Motor - Passenger Back (KU3) **M73B Seat Blower Motor - Passenger Back (KU3)** |

**PASSENGER SEAT (3 OF 4)**

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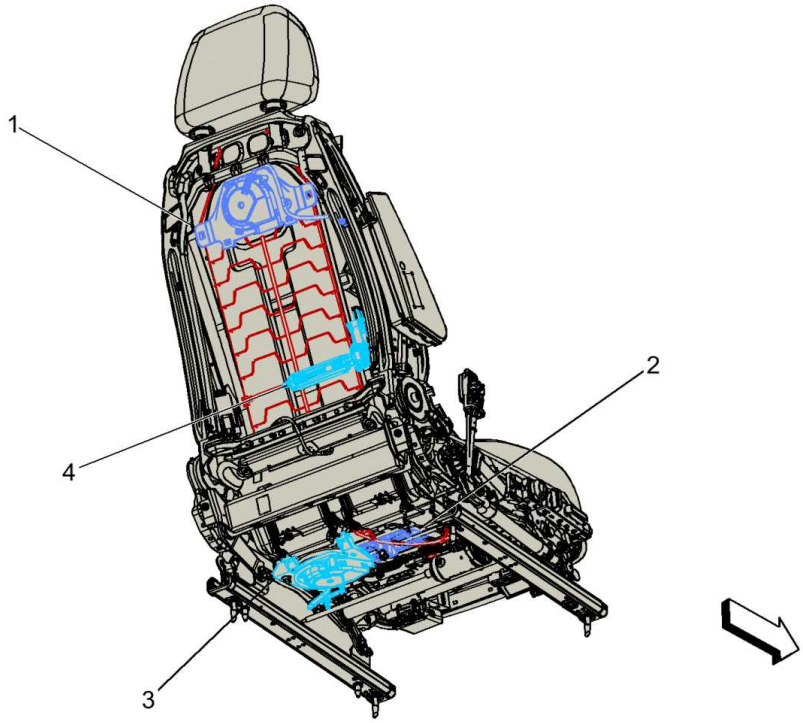



**Fig. 14: Identifying Passenger Seat (3 of 4)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. M73B Seat Blower Motor - Passenger Back (KU3) **M73B Seat Blower Motor - Passenger Back (KU3)** |
| 2. K85 Passenger Presence Module (AL0) **K85 Passenger Presence Module (AL0)** |
| 3. M73D Seat Blower Motor - Passenger Cushion (KU3) **M73D Seat Blower Motor - Passenger Cushion (KU3)** |
| 4. M53P Seat Lumbar Support Motor - Passenger (AT9) **M53P Seat Lumbar Support Motor - Passenger (AT9+X88)** **M53P Seat Lumbar Support Motor - Passenger (AT9+Z88)** |

**PASSENGER SEAT (4 OF 4)**

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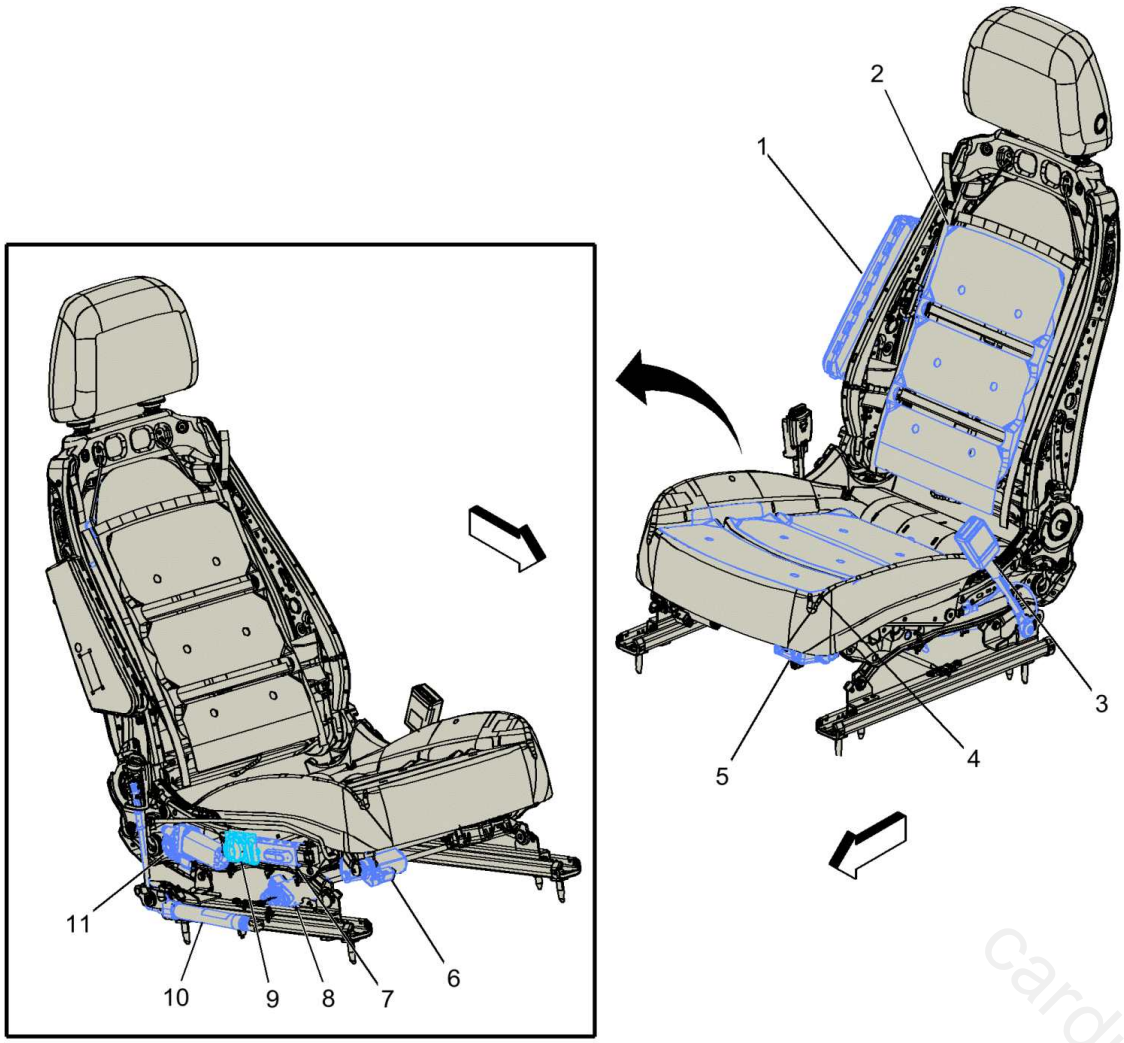



**Fig. 15: Identifying Passenger Seat (4 of 4)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. F106P Seat Side Air Bag - Passenger **F106P Seat Side Air Bag - Passenger** |
| 2. E14C Seat Heating Element - Passenger Back (KA1) **E14C Seat Heating Element - Passenger Back (KA1)** |
| 3. B153P Seat Belt Buckle - Passenger **B153P Seat Belt Buckle - Passenger** |
| 4. E14D Seat Heating Element - Passenger Cushion (KA1) **E14D Seat Heating Element - Passenger Cushion (KA1)** |
| 5. K29F Seat Heating Control Module - Front (KA1) **K29F Seat Heating Control Module - Front X1 (KA1)** **K29F Seat Heating Control Module - Front X2 (KA1)** |
| 6. M50P Seat Front Vertical Motor - Passenger (ADT/AG2) **M50P Seat Front Vertical Motor - Passenger (ADT/AG2)** |
| 7. S64P Seat Adjuster Switch - Passenger (AG2) **S64P Seat Adjuster Switch - Passenger (AG2+X88)** **S64P Seat Adjuster Switch - Passenger (AG2+Z88)** |
| 8. M51P Seat Horizontal Motor - Passenger (ADT/AG2) **M51P Seat Horizontal Motor - Passenger (ADT/AG2)** |
| 9. S65P Seat Lumbar Support Switch - Passenger (AT9) **S65P Seat Lumbar Support Switch - Passenger (AT9)** |
| 10. F113P Seat Belt Anchor Pretensioner - Passenger **F113P Seat Belt Anchor Pretensioner - Passenger** |
| 11. M55P Seat Rear Vertical Motor - Passenger (ADT/AG2) **M55P Seat Rear Vertical Motor - Passenger (ADT/AG2)** |

**LEFT REAR SEAT**

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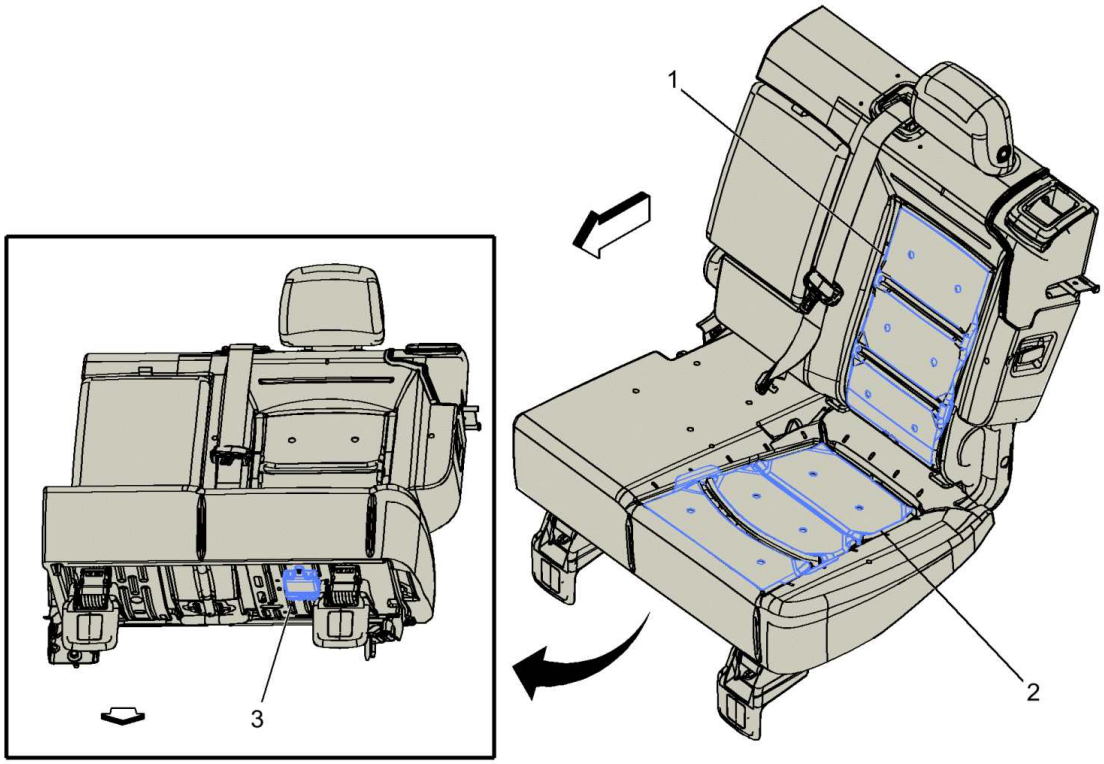
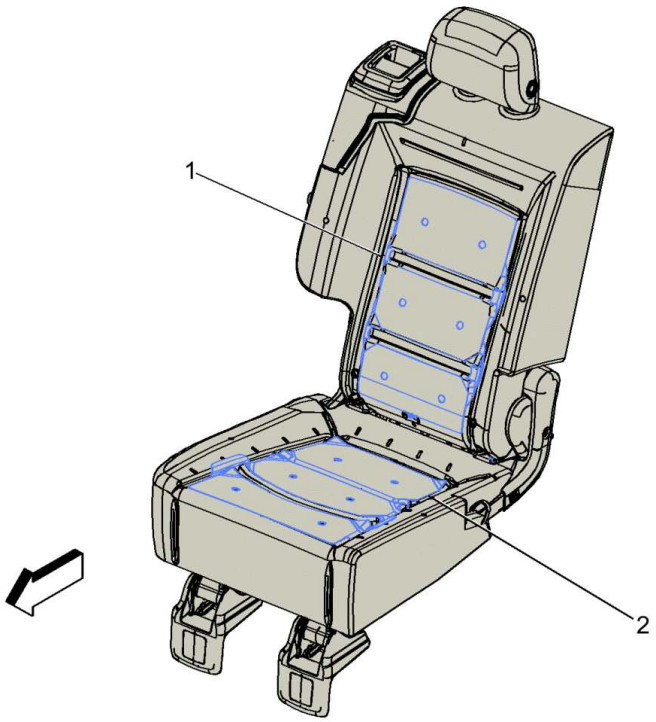



**Fig. 16: Identifying Left Rear Seat**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E14E Seat Heating Element - Left Rear Back (KA6) **E14E Seat Heating Element - Left Rear Back (KA6)** |
| 2. E14F Seat Heating Element - Left Rear Cushion (KA6) **E14F Seat Heating Element - Left Rear Cushion (KA6)** |
| 3. K29R Seat Heating Control Module - Rear (KA6) **K29R Seat Heating Control Module - Rear X1 (KA6)** **K29R Seat Heating Control Module - Rear X2 (KA6)** |

## RIGHT REAR SEAT




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Fig. 17: Right Rear Seat
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. E14G Seat Heating Element - Right Rear Back (KA6) **E14G Seat Heating Element - Right Rear Back (KA6)** |
| 2. E14H Seat Heating Element - Right Rear Cushion (KA6) **E14H Seat Heating Element - Right Rear Cushion (KA6)** |

## HEADLINER (C3U)

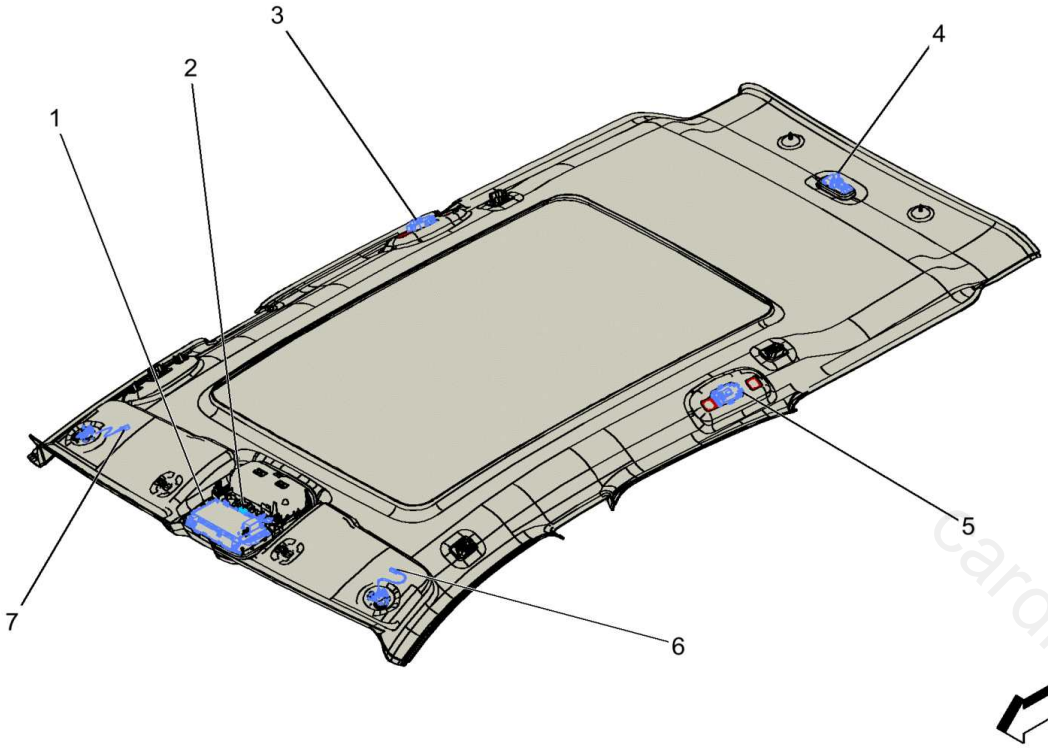



Fig. 18: Identifying Headliner (C3U)
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A98 Front Overhead Console Assembly **A98 Front Overhead Console Assembly** |
| 2. B24LF Mobile Telephone Microphone - Left Front **B24LF Mobile Telephone Microphone - Left Front** |
| 3. E37RR Dome/Reading Lamps - Right Rear **E37RR Dome/Reading Lamps - Right Rear** |
| 4. E8S Rear Compartment Courtesy Lamp **E8S Rear Compartment Courtesy Lamp** |
| 5. E37LR Dome/Reading Lamps - Left Rear **E37LR Dome/Reading Lamps - Left Rear** |
| 6. A3L Sunshade - Left **A3L Sunshade - Left** |
| 7. A3R Sunshade - Right **A3R Sunshade - Right** |

## HEADLINER (EXCEPT C3U)

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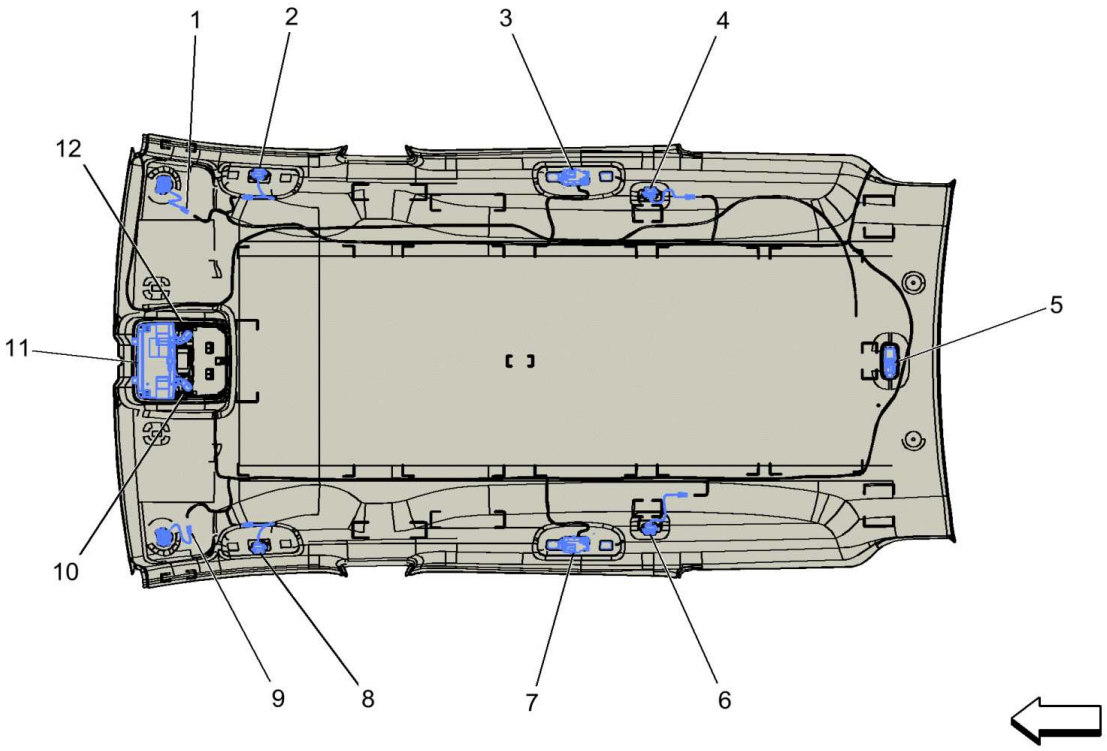



**Fig. 19: Identifying Headliner (except C3U)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. A3R Sunshade - Right **A3R Sunshade - Right** |
| 2. B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC) **B77RF Radio Volume Compensator Interior Noise Microphone - Right Front (NKC)** |
| 3. E37RR Dome/Reading Lamps - Right Rear **E37RR Dome/Reading Lamps - Right Rear** |
| 4. B77RR Radio Volume Compensator Interior Noise Microphone - Right Rear (NKC) **B77RR Radio Volume Compensator Interior Noise Microphone - Right Rear (NKC)** |
| 5. E8S Rear Compartment Courtesy Lamp **E8S Rear Compartment Courtesy Lamp** |
| 6. B77LR Radio Volume Compensator Interior Noise Microphone - Left Rear (NKC) **B77LR Radio Volume Compensator Interior Noise Microphone - Left Rear (NKC)** |
| 7. E37LR Dome/Reading Lamps - Left Rear **E37LR Dome/Reading Lamps - Left Rear** |
| 8. B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC) **B77LF Radio Volume Compensator Interior Noise Microphone - Left Front (NKC)** |
| 9. A3L Sunshade - Left **A3L Sunshade - Left** |
| 10. B24LF Mobile Telephone Microphone - Left Front **B24LF Mobile Telephone Microphone - Left Front** |
| 11. A98 Front Overhead Console Assembly **A98 Front Overhead Console Assembly** |
| 12. B24RF Mobile Telephone Microphone - Right Front (IOS/IOT/IOU) **B24RF Mobile Telephone Microphone - Right Front (IOS/IOT/IOU)** |

## REAR ROOF ANTENNA

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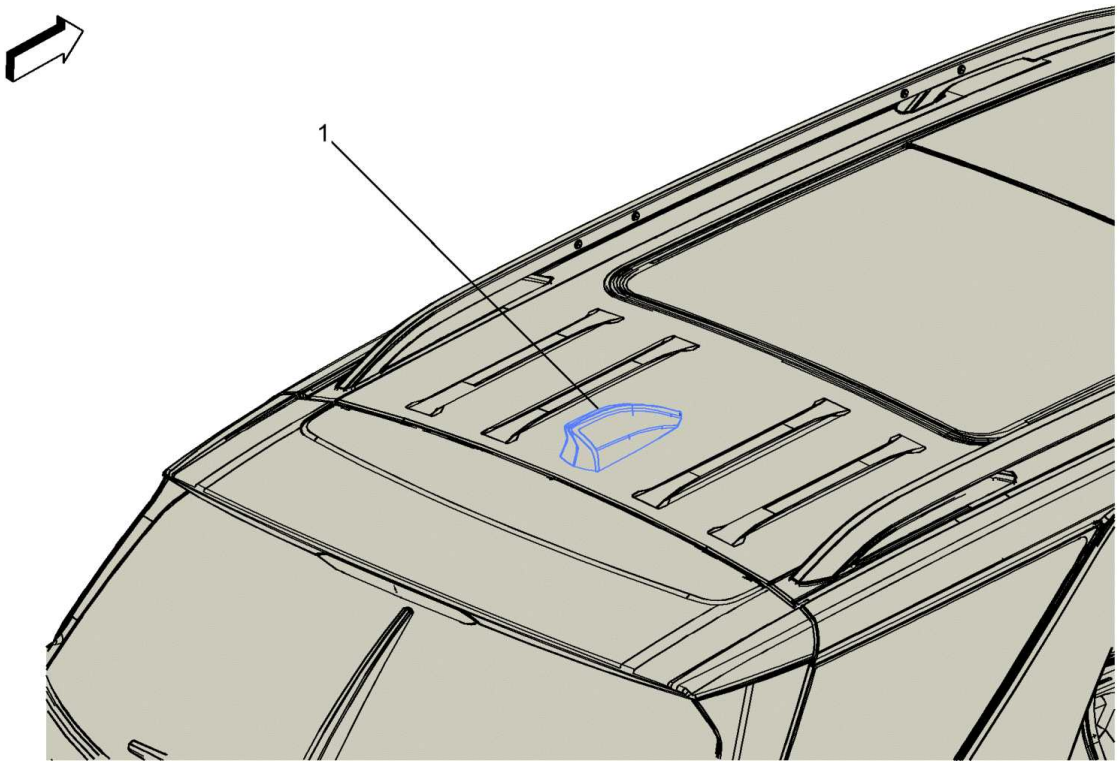



**Fig. 20: Rear Roof Antenna**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. T2RR Antenna - Roof Rear **T2RR Antenna - Roof Rear (IOB/IO5/IO6-U2Q)** **T2RR Antenna - Roof Rear X1 (UE1)** **T2RR Antenna - Roof Rear X2 (U2K)** |

**LEFT REAR OF THE PASSENGER COMPARTMENT**

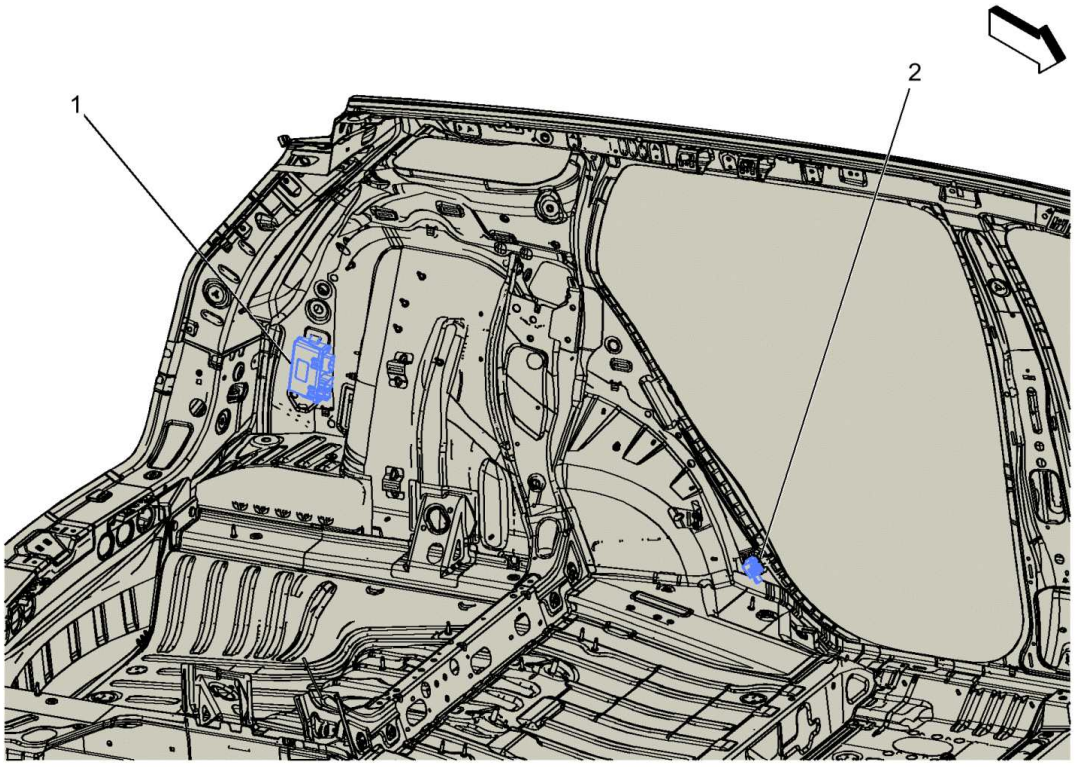



**Fig. 21: Passenger Compartment - Left Rear**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |

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| Items |
| --- |
| 1. K39 Liftgate Control Module (TB5/TC2) K39 Liftgate Control Module X1 (TB5/TC2) K39 Liftgate Control Module X2 (TB5/TC2) K39 Liftgate Control Module X3 (TB5/TC2) |
| 2. B63LR Side Impact Sensor - Left Rear B63LR Side Impact Sensor - Left Rear |

## RIGHT REAR OF THE PASSENGER COMPARTMENT

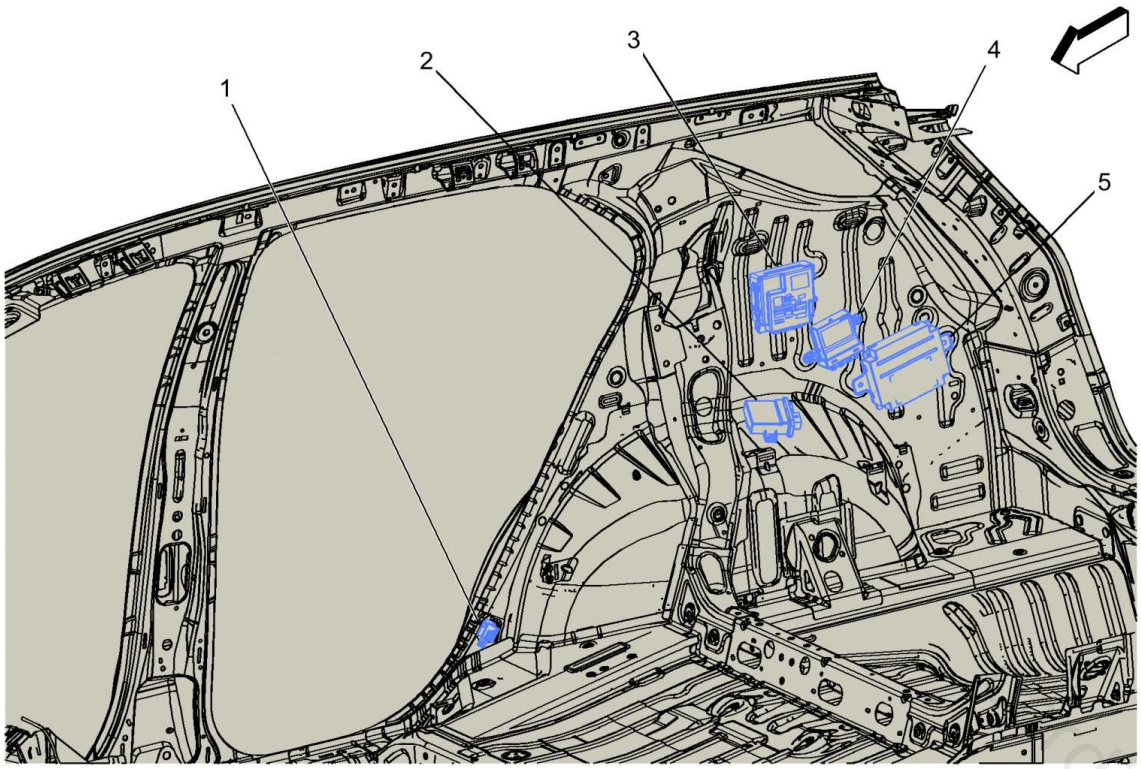



Fig. 22: Passenger Compartment - Right Rear
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B63RR Side Impact Sensor - Right Rear B63RR Side Impact Sensor - Right Rear |
| 2. K26 Headlamp Control Module (TR7) K26 Headlamp Control Module (TR7) |
| 3. K84 Keyless Entry Control Module K84 Keyless Entry Control Module X1 K84 Keyless Entry Control Module X2 |
| 4. K182 Parking Assist Control Module (UD5/UD7/UFQ) K182 Parking Assist Control Module X1 (UD5/UD7/UFQ) K182 Parking Assist Control Module X2 (UD5/UD7/UFQ) K182 Parking Assist Control Module X3 (UD5/UFQ) |
| 5. K157 Video Processing Control Module (UVH) K157 Video Processing Control Module X1 (UVH) K157 Video Processing Control Module X2 (UVH) K157 Video Processing Control Module X3 (UVH) |

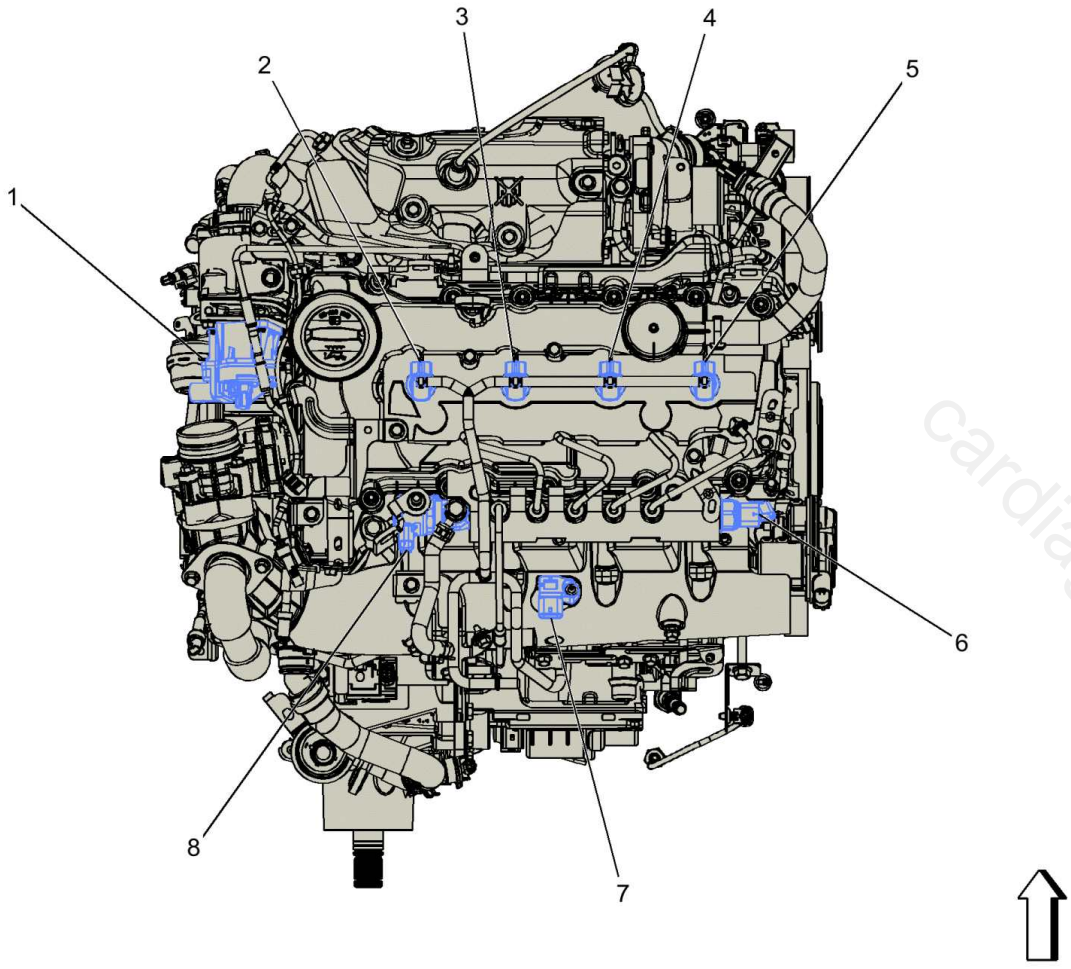
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# POWERTRAIN COMPONENT VIEWS

## TOP OF THE ENGINE (LH7)




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Fig. 1: Top Of The Engine (LH7)
Courtesy of GENERAL MOTORS COMPANY

| Items |
|---|
| 1. Q14 Exhaust Gas Recirculation Valve (LH7) Q14 Exhaust Gas Recirculation Valve (LH7) |
| 2. Q17D Fuel Injector 4 Q17D Fuel Injector 4 (LH7) |
| 3. Q17C Fuel Injector 3 Q17C Fuel Injector 3 (LH7) |
| 4. Q17B Fuel Injector 2 Q17B Fuel Injector 2 (LH7) |
| 5. Q17A Fuel Injector 1 Q17A Fuel Injector 1 (LH7) |
| 6. B47B Fuel Rail Pressure Sensor (LH7) B47B Fuel Rail Pressure Sensor (LH7) |
| 7. B65 Intake Manifold Pressure and Air Temperature Sensor B65 Intake Manifold Pressure and Air Temperature Sensor (LH7/LYX) |
| 8. Q18B Fuel Pressure Regulator 2 (LH7) Q18B Fuel Pressure Regulator 2 (LH7) |

## TOP OF THE ENGINE (LTG) 1 OF 2

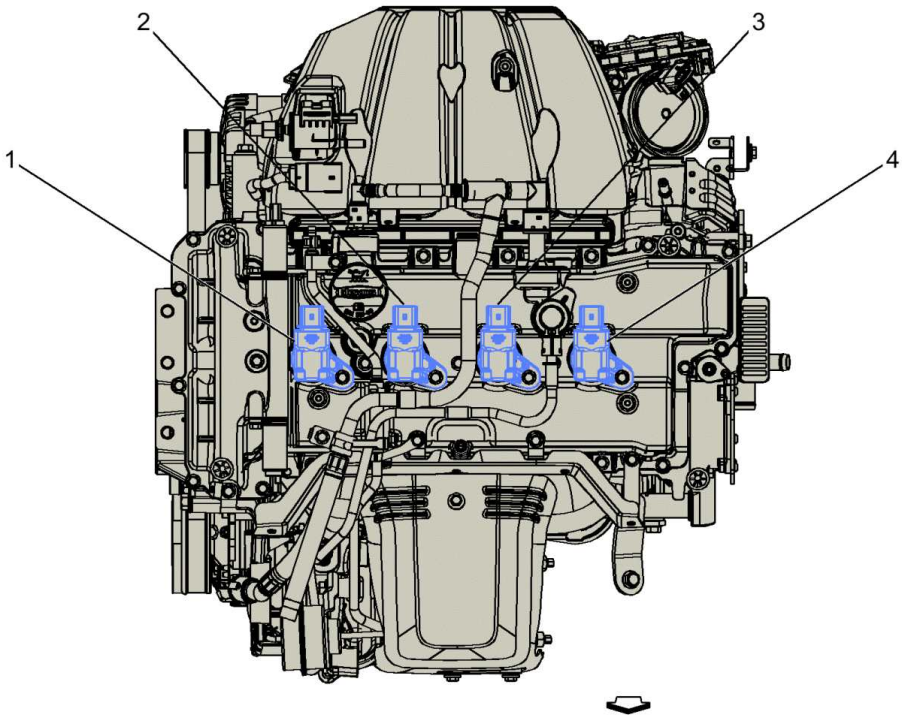



Fig. 2: Top Of The Engine (LTG) 1 Of 2
Courtesy of GENERAL MOTORS COMPANY

| Items |
|---|
| 1. T8A Ignition Coil 1 (LTG/LYX) T8A Ignition Coil 1 (LTG) |
| 2. T8B Ignition Coil 2 (LTG/LYX) T8B Ignition Coil 2 (LTG) |
| 3. T8C Ignition Coil 3 (LTG/LYX) T8C Ignition Coil 3 (LTG) |
| 4. T8D Ignition Coil 4 (LTG/LYX) T8D Ignition Coil 4 (LTG) |

## TOP OF THE ENGINE (LTG) 2 OF 2

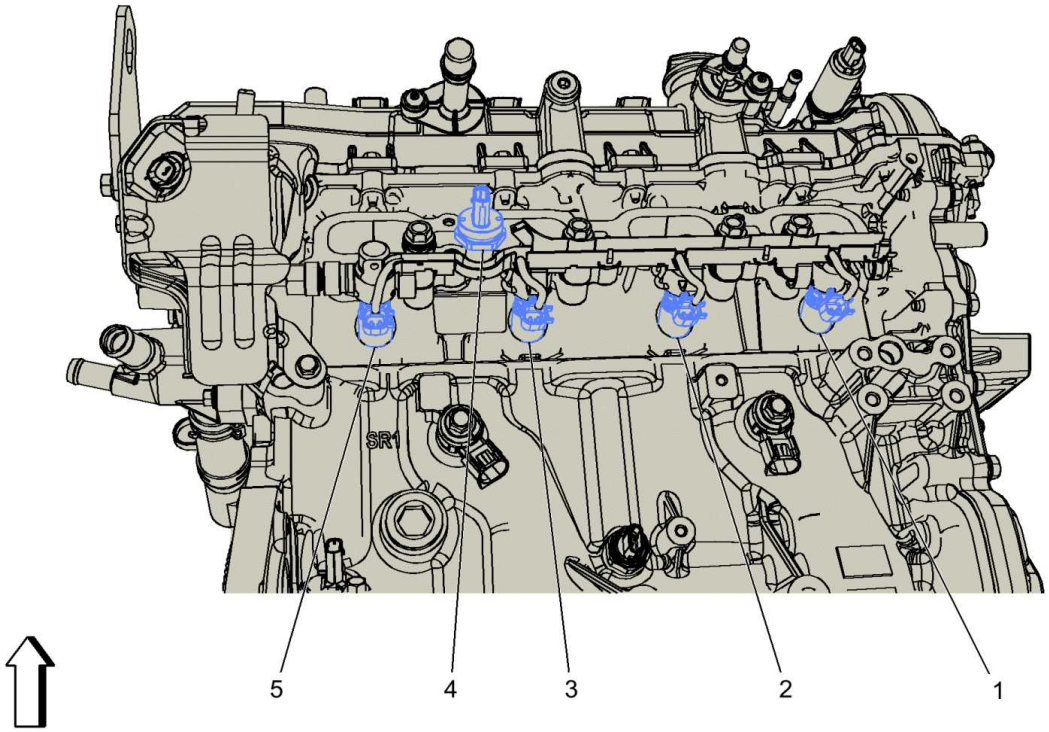



Fig. 3: Top Of The Engine (LTG) 2 Of 2
Courtesy of GENERAL MOTORS COMPANY

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| Items |
| --- |
| 1. Q17D Fuel Injector 4 Q17D Fuel Injector 4 (LTG) |
| 2. Q17C Fuel Injector 3 Q17C Fuel Injector 3 (LTG) |
| 3. Q17B Fuel Injector 2 Q17B Fuel Injector 2 (LTG) |
| 4. B310 Fuel Pressure/Temperature Sensor (LTG/LYX) B310 Fuel Pressure/Temperature Sensor (LTG/LYX) |
| 5. Q17A Fuel Injector 1 Q17A Fuel Injector 1 (LTG) |

**TOP OF THE ENGINE (LYX)**

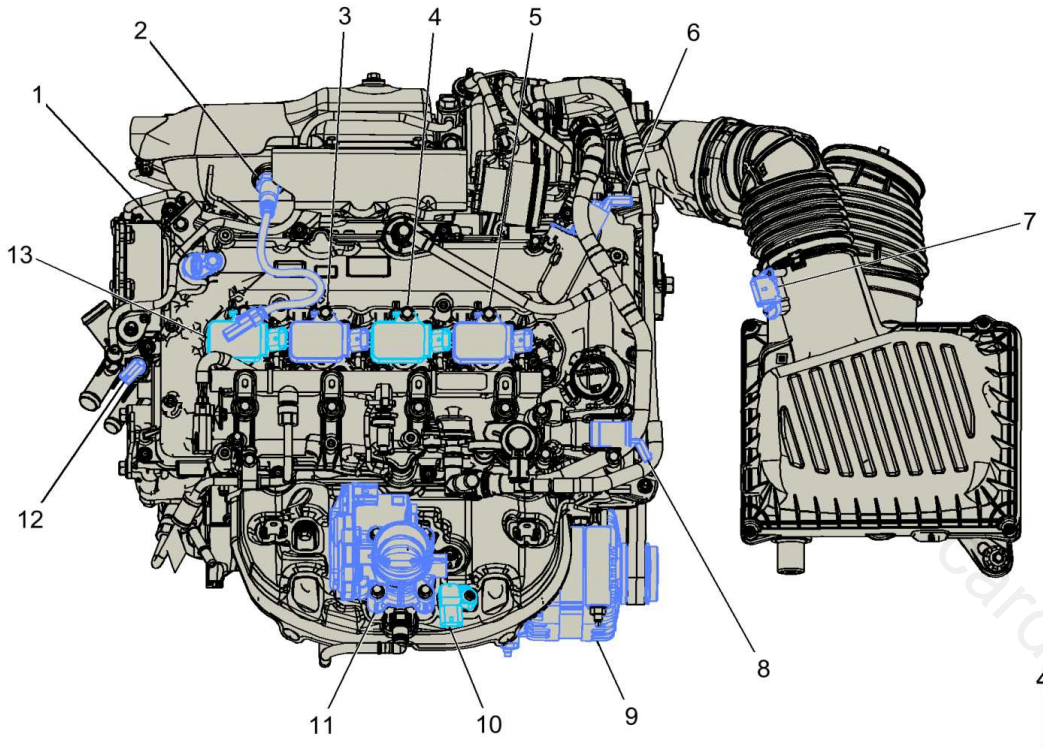



**Fig. 4: Top Of The Engine (LYX)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B23E Camshaft Position Sensor - Exhaust (LTG/LYX) B23E Camshaft Position Sensor - Exhaust (LYX) |
| 2. B52A Heated Oxygen Sensor 1 (LTG/LYX) B52A Heated Oxygen Sensor 1 (LYX) |
| 3. T8C Ignition Coil 3 (LTG/LYX) T8C Ignition Coil 3 (LYX) |
| 4. T8B Ignition Coil 2 (LTG/LYX) T8B Ignition Coil 2 (LYX) |
| 5. T8A Ignition Coil 1 (LTG/LYX) T8A Ignition Coil 1 (LYX) |
| 6. Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LTG/LYX) Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LYX) |
| 7. B75C Multifunction Intake Air Sensor B75C Multifunction Intake Air Sensor |
| 8. Q84C Camshaft Position Actuator Park Lock Solenoid Valve - Intake (LYX) Q84C Camshaft Position Actuator Park Lock Solenoid Valve - Intake (LYX) |
| 9. G13 Generator G13 Generator X1 G13 Generator X2 (LYX) |
| 10. B65 Intake Manifold Pressure and Air Temperature Sensor B65 Intake Manifold Pressure and Air Temperature Sensor (LH7/LYX) |
| 11. Q38 Throttle Body Q38 Throttle Body (LTG/LYX) |
| 12. B34 Engine Coolant Temperature Sensor B34 Engine Coolant Temperature Sensor (LH7/LYX) |
| 13. T8D Ignition Coil 4 (LTG/LYX) T8D Ignition Coil 4 (LYX) |

**LEFT FRONT OF THE ENGINE/CRANKSHAFT POSITION SENSOR (LH7)**

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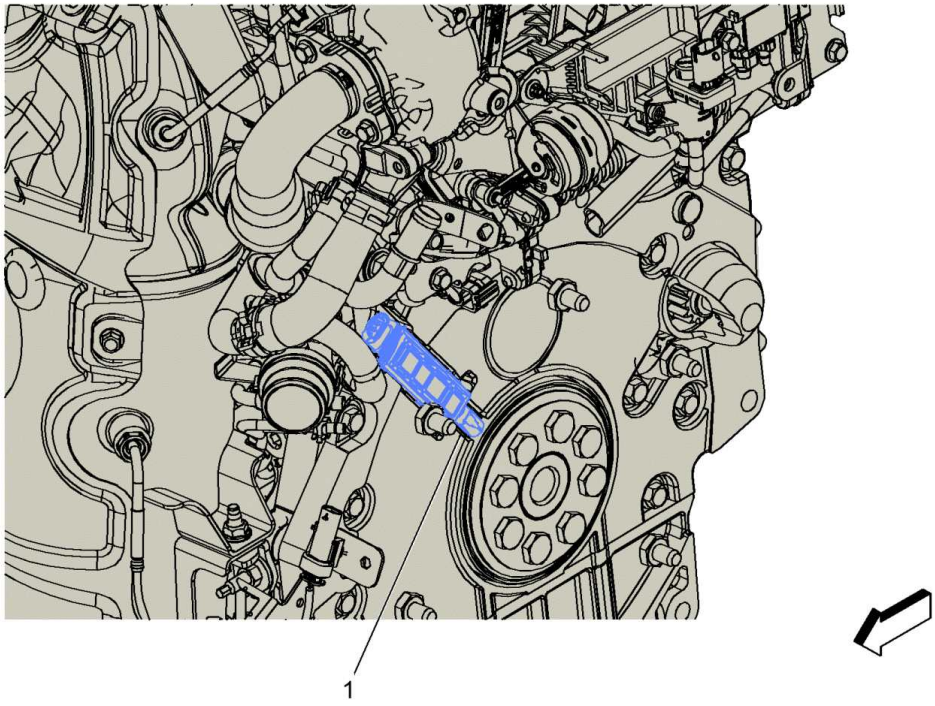



**Fig. 5: Left Front Of The Engine/Crankshaft Position Sensor (LH7)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B26 Crankshaft Position Sensor **B26 Crankshaft Position Sensor (LH7)** |

## RIGHT FRONT OF THE ENGINE (LTG)

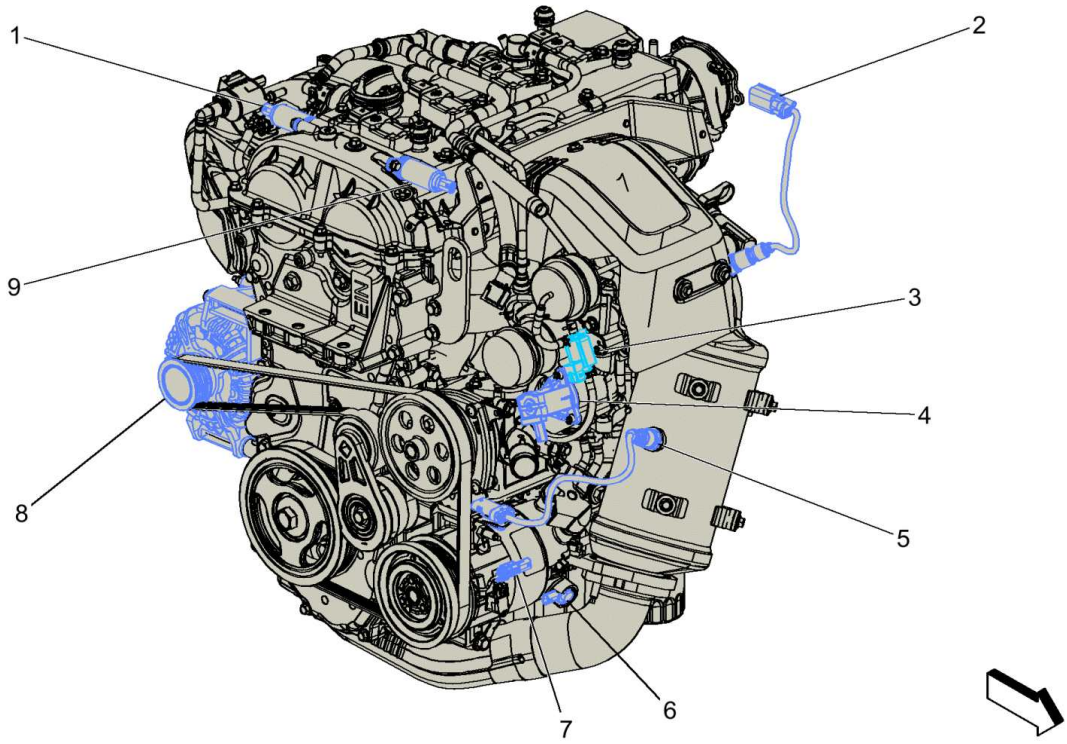


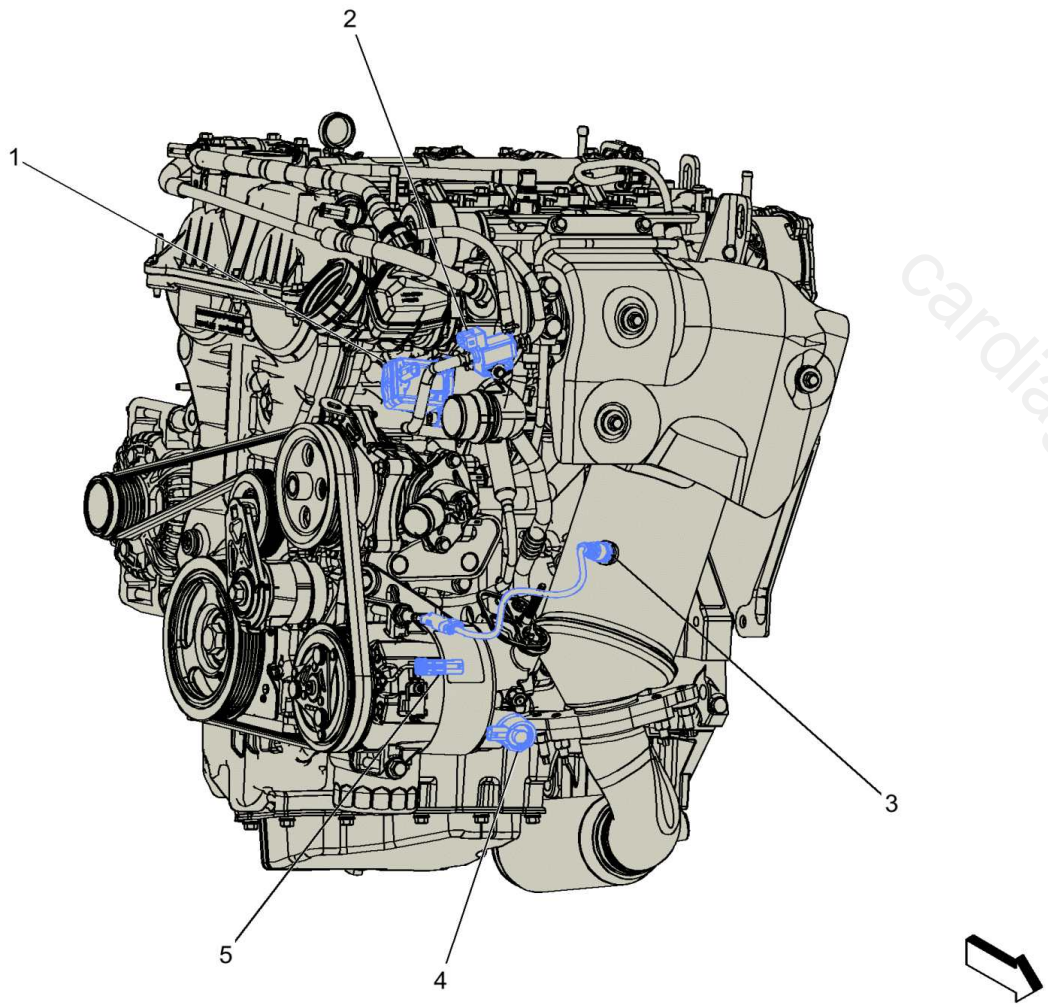

**Fig. 6: Right Front Of The Engine (LTG)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| |

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| Items |
| --- |
| 1. Q6F Camshaft Position Actuator Solenoid Valve - Intake (LTG/LYX) **Q6F Camshaft Position Actuator Solenoid Valve - Intake (LTG/LYX)** |
| 2. B52A Heated Oxygen Sensor 1 (LTG/LYX) **B52A Heated Oxygen Sensor 1 (LTG)** |
| 3. Q42 Turbocharger Wastegate Solenoid Valve (LTG/LYX) **Q42 Turbocharger Wastegate Solenoid Valve (LTG)** |
| 4. Q40 Turbocharger Bypass Solenoid Valve (LTG/LYX) **Q40 Turbocharger Bypass Solenoid Valve (LTG/LYX)** |
| 5. B52B Heated Oxygen Sensor 2 **B52B Heated Oxygen Sensor 2 (LTG)** |
| 6. Q46 A/C Compressor Solenoid Valve **Q46 A/C Compressor Solenoid Valve** |
| 7. Q2 A/C Compressor Clutch **Q2 A/C Compressor Clutch** |
| 8. G13 Generator **G13 Generator X1** **G13 Generator X2 (LH7/LTG)** |
| 9. Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LTG/LYX) **Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (LTG)** |

**RIGHT FRONT OF THE ENGINE (LYX)**




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**Fig. 7: Right Front Of The Engine (LYX)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. Q40 Turbocharger Bypass Solenoid Valve (LTG/LYX) **Q40 Turbocharger Bypass Solenoid Valve (LTG/LYX)** |
| 2. Q42 Turbocharger Wastegate Solenoid Valve (LTG/LYX) **Q42 Turbocharger Wastegate Solenoid Valve (LYX)** |
| 3. B52B Heated Oxygen Sensor 2 **B52B Heated Oxygen Sensor 2 (LYX)** |
| 4. Q46 A/C Compressor Solenoid Valve **Q46 A/C Compressor Solenoid Valve** |
| 5. Q2 A/C Compressor Clutch **Q2 A/C Compressor Clutch** |

## FRONT OF THE ENGINE/HEATED OXYGEN SENSOR (LYX+MNK)

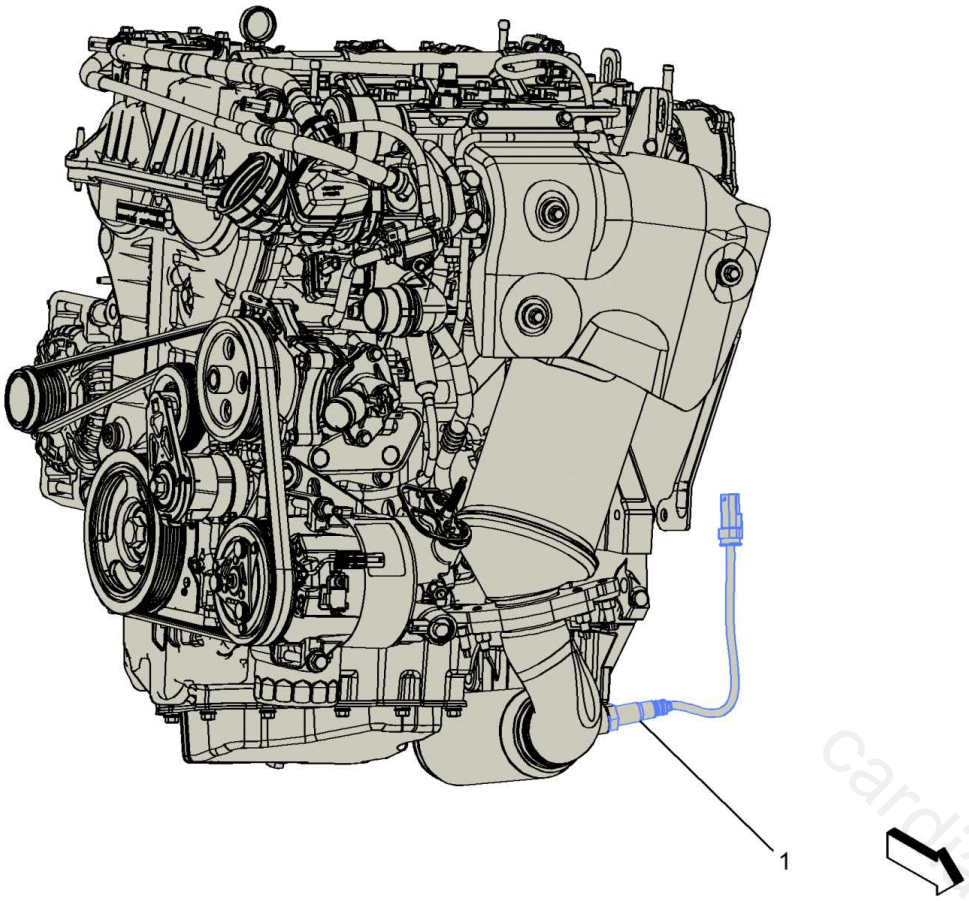



**Fig. 8: Front Of The Engine/Heated Oxygen Sensor (LYX+MNK)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B52B Heated Oxygen Sensor 2 **B52B Heated Oxygen Sensor 2 (LYX)** |

## FRONT OF THE ENGINE (LH7)

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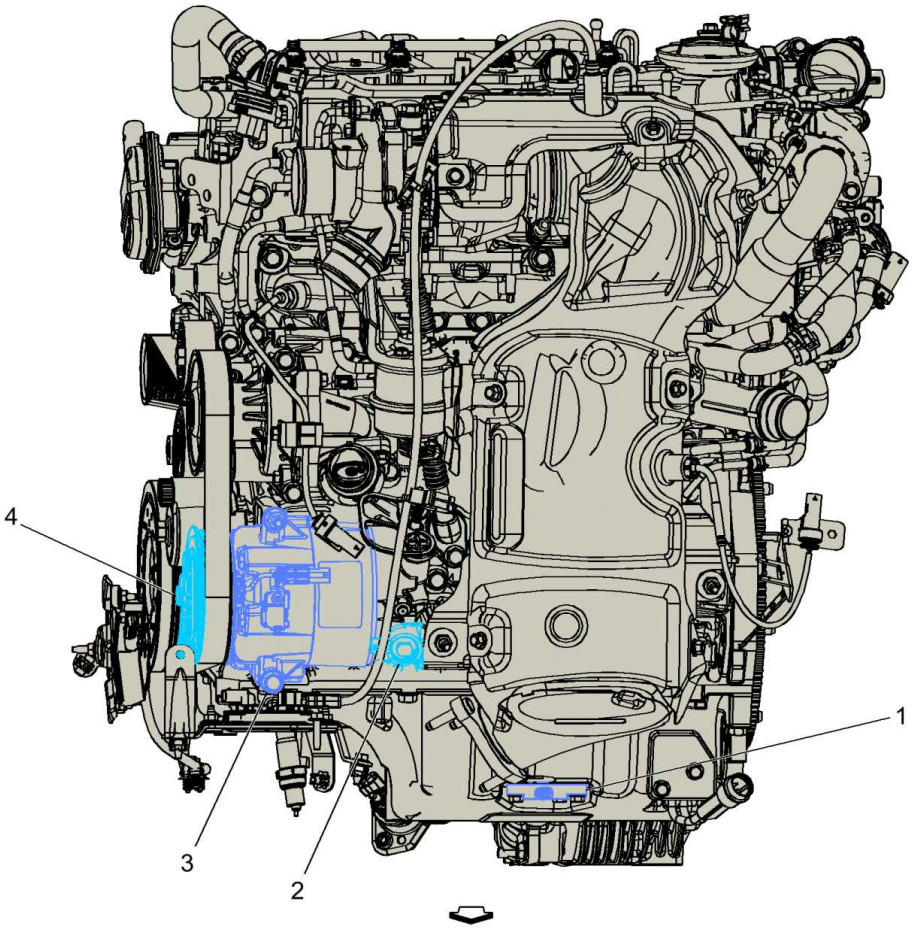



**Fig. 9: Front Of The Engine (LH7)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. B35 Engine Oil Level Switch **B35 Engine Oil Level Switch (LH7)** |
| 2. Q46 A/C Compressor Solenoid Valve **Q46 A/C Compressor Solenoid Valve** |
| 3. G1 A/C Compressor |
| 4. Q2 A/C Compressor Clutch **Q2 A/C Compressor Clutch** |

## REAR OF THE ENGINE (LH7)

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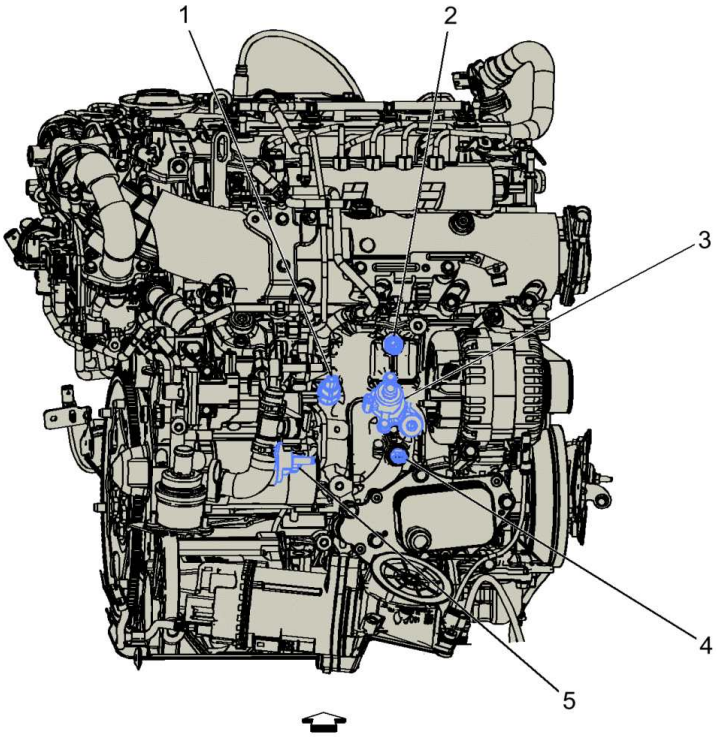



**Fig. 10: Rear Of The Engine (LH7)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B267 Piston Cooling Oil Pressure Switch (LH7) **B267 Piston Cooling Oil Pressure Switch (LH7)** |
| 2. B34 Engine Coolant Temperature Sensor **B34 Engine Coolant Temperature Sensor (LH7/LYX)** |
| 3. Q45 Piston Cooling Oil Jet Solenoid Valve (LH7) **Q45 Piston Cooling Oil Jet Solenoid Valve (LH7)** |
| 4. B37B Engine Oil Pressure Sensor **B37B Engine Oil Pressure Sensor (LH7/LYX)** |
| 5. M64 Starter Motor **M64 Starter Motor X1 (-KL9)** **M64 Starter Motor X1 (KL9)** **M64 Starter Motor X2** |

## REAR OF THE ENGINE (LTG)

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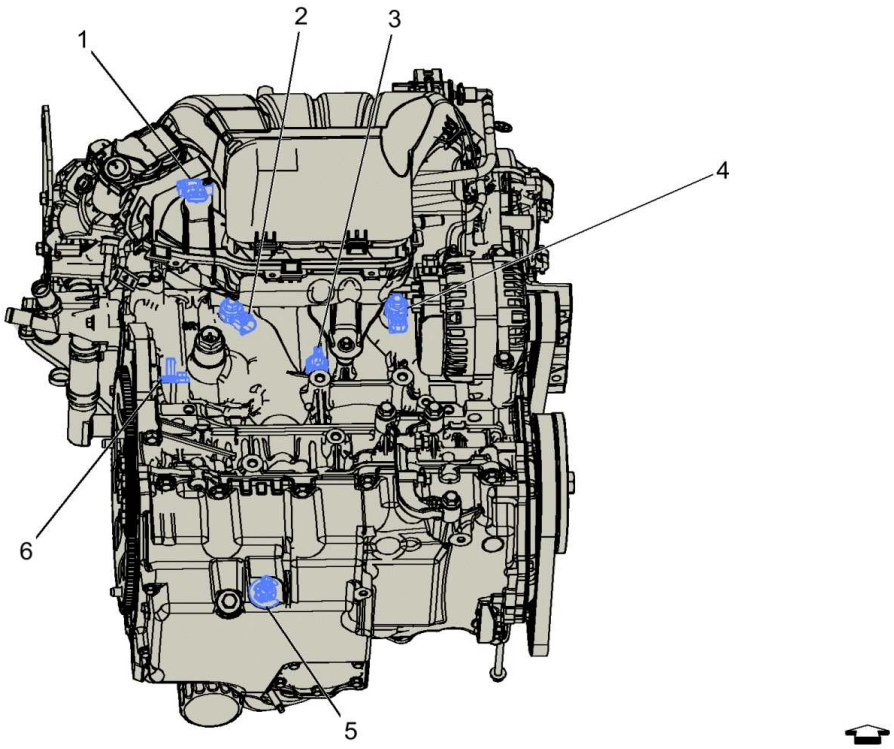



**Fig. 11: Rear Of The Engine (LTG)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. B74 Manifold Absolute Pressure Sensor (LTG) **B74 Manifold Absolute Pressure Sensor (LTG)** |
| 2. B68B Knock Sensor 2 (LTG/LYX) **B68B Knock Sensor 2 (LTG/LYX)** |
| 3. B37B Engine Oil Pressure Sensor **B37B Engine Oil Pressure Sensor (LTG)** |
| 4. B68A Knock Sensor 1 (LTG/LYX) **B68A Knock Sensor 1 (LTG/LYX)** |
| 5. Q44 Engine Oil Pressure Control Solenoid Valve **Q44 Engine Oil Pressure Control Solenoid Valve (LTG)** |
| 6. B26 Crankshaft Position Sensor **B26 Crankshaft Position Sensor (LTG)** |

## REAR OF THE ENGINE (LYX)

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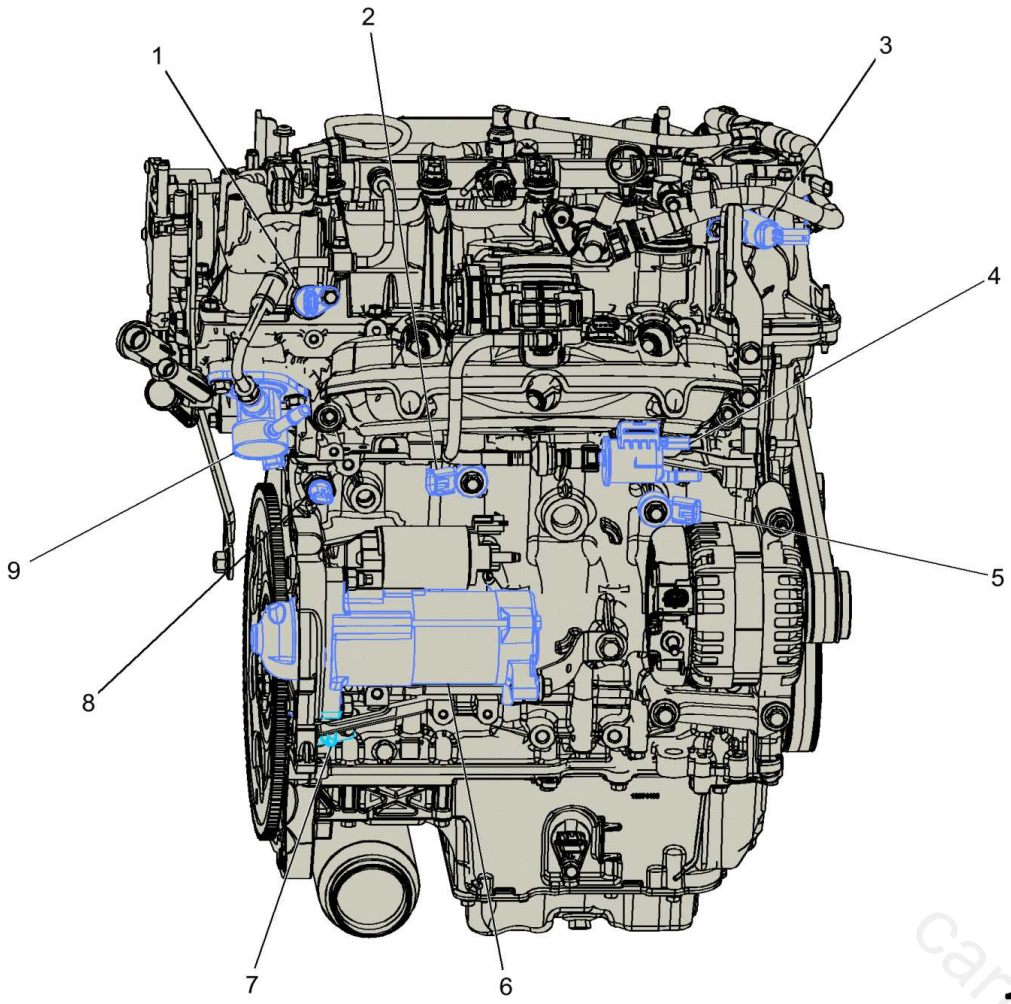



**Fig. 12: Rear Of The Engine (LYX)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. B23F Camshaft Position Sensor - Intake (LTG/LYX) **B23F Camshaft Position Sensor - Intake (LYX)** |
| 2. B68B Knock Sensor 2 (LTG/LYX) **B68B Knock Sensor 2 (LTG/LYX)** |
| 3. Q6F Camshaft Position Actuator Solenoid Valve - Intake (LTG/LYX) **Q6F Camshaft Position Actuator Solenoid Valve - Intake (LTG/LYX)** |
| 4. Q12 Evaporative Emission Purge Solenoid Valve (LTG/LYX) **Q12 Evaporative Emission Purge Solenoid Valve (LTG/LYX)** |
| 5. B68A Knock Sensor 1 (LTG/LYX) **B68A Knock Sensor 1 (LTG/LYX)** |
| 6. M64 Starter Motor **M64 Starter Motor X1 (-KL9)** **M64 Starter Motor X1 (KL9)** **M64 Starter Motor X2** |
| 7. B26 Crankshaft Position Sensor **B26 Crankshaft Position Sensor (LYX)** |
| 8. B37B Engine Oil Pressure Sensor **B37B Engine Oil Pressure Sensor (LH7/LYX)** |
| 9. G18 High Pressure Fuel Pump (LTG/LYX) **G18 High Pressure Fuel Pump (LTG/LYX)** |

**LEFT FRONT OF THE ENGINE (LH7)**

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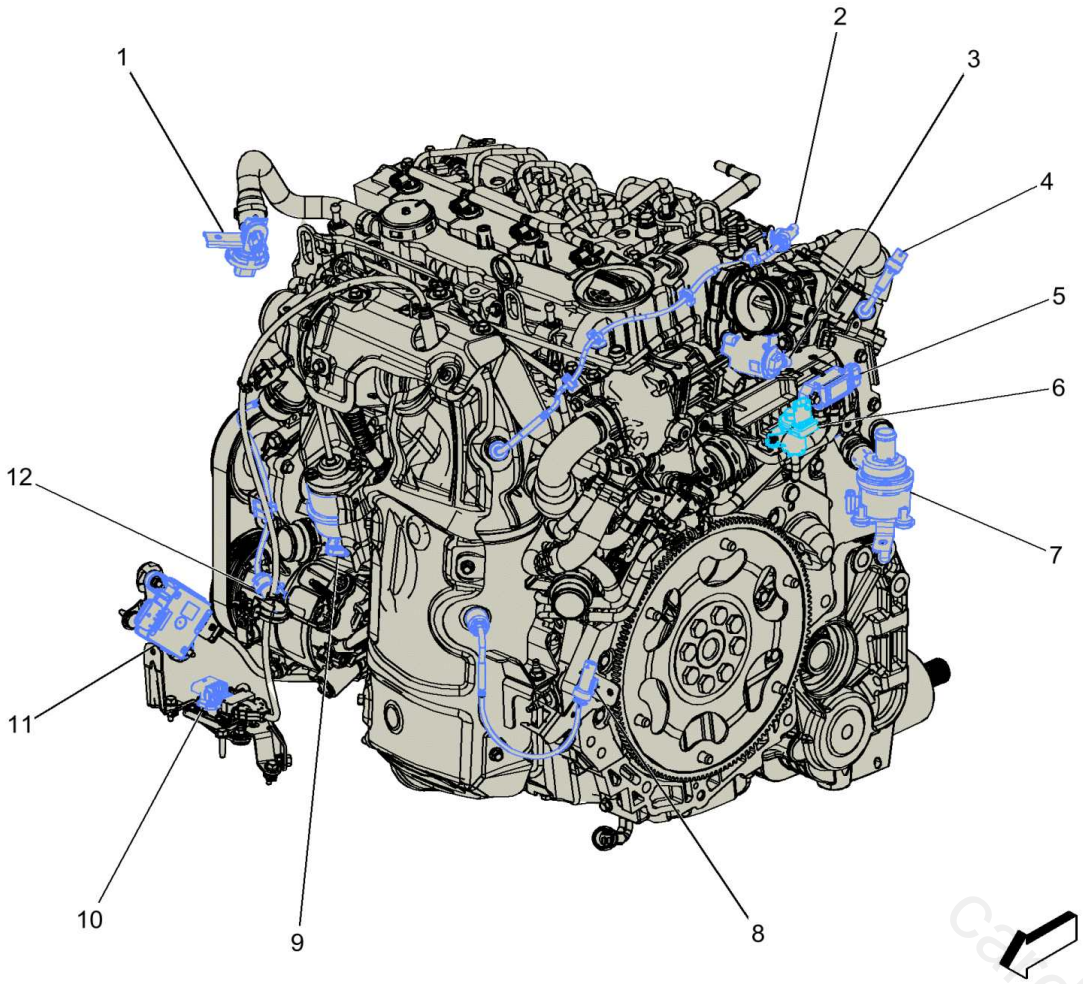



**Fig. 13: Left Front Of The Engine (LH7)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. E45 Positive Crankcase Ventilation Heater (LH7) **E45 Positive Crankcase Ventilation Heater (LH7)** |
| 2. B131A Exhaust Temperature Sensor 1 (LH7) **B131A Exhaust Temperature Sensor 1 (LH7)** |
| 3. Q20 Intake Air Flow Valve **Q20 Intake Air Flow Valve (LH7)** |
| 4. B130B Exhaust Gas Recirculation Temperature Sensor 2 (LH7) **B130B Exhaust Gas Recirculation Temperature Sensor 2 (LH7)** |
| 5. B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (LH7) **B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (LH7)** |
| 6. Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve (LH7) **Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve (LH7)** |
| 7. G36 Auxiliary Heater Coolant Pump (KL9) **G36 Auxiliary Heater Coolant Pump (KL9)** |
| 8. B131B Exhaust Temperature Sensor 2 (LH7) **B131B Exhaust Temperature Sensor 2 (LH7)** |
| 9. B112 Turbocharger Vane Position Sensor (LH7) **B112 Turbocharger Vane Position Sensor (LH7)** |
| 10. B195A Nitrogen Oxides Sensor 1 (LH7) **B195A Nitrogen Oxides Sensor 1 (LH7)** |
| 11. B136 Exhaust Particulate Matter Sensor (LH7) **B136 Exhaust Particulate Matter Sensor (LH7)** |
| 12. B130A Exhaust Gas Recirculation Temperature Sensor 1 (LH7) **B130A Exhaust Gas Recirculation Temperature Sensor 1 (LH7)** |

## RIGHT REAR OF THE ENGINE (LH7)

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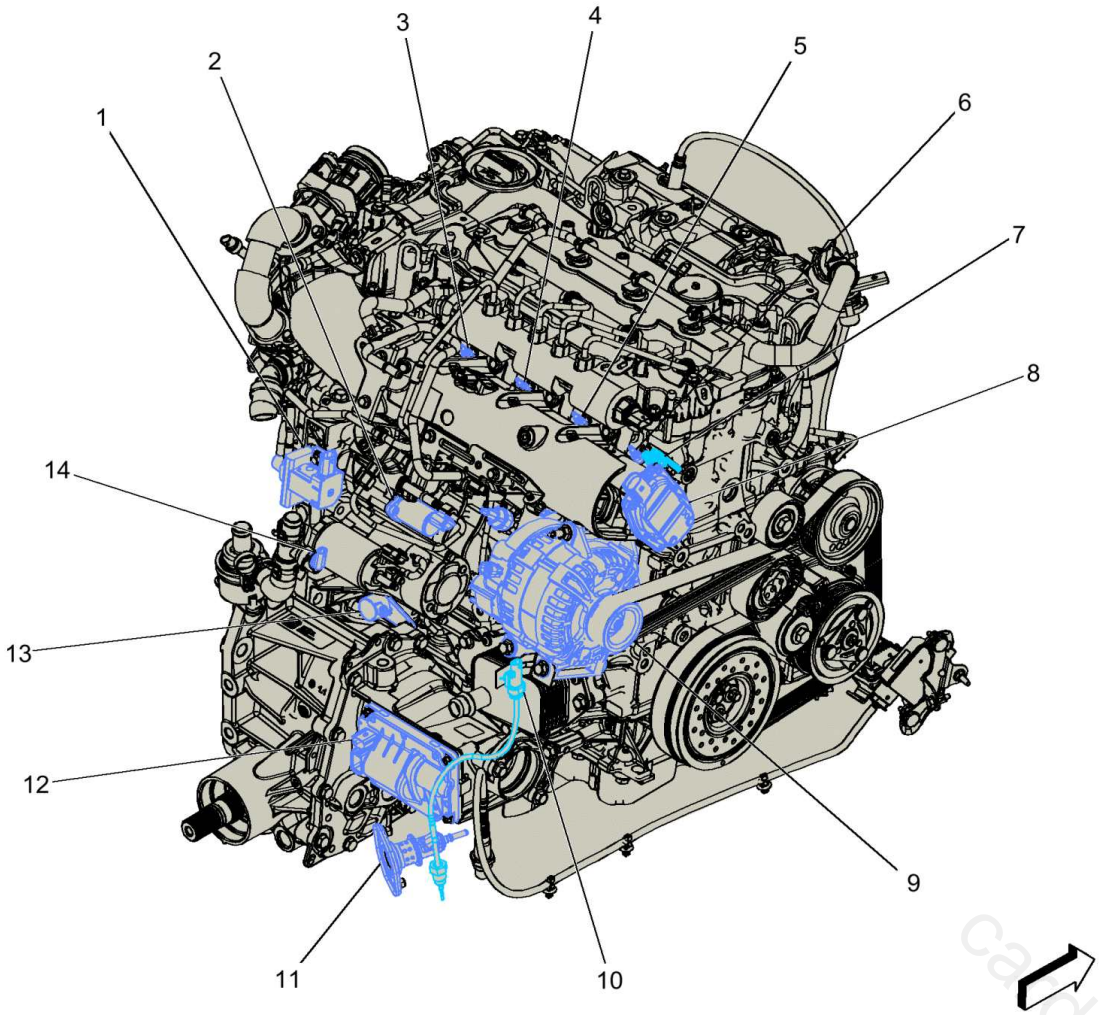



**Fig. 14: Right Rear Of The Engine (LH7)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. Q41 Turbocharger Vane Position Control Solenoid Valve (LH7) **Q41 Turbocharger Vane Position Control Solenoid Valve (LH7)** |
| 2. Q18A Fuel Pressure Regulator 1 (LH7) **Q18A Fuel Pressure Regulator 1 (LH7)** |
| 3. E12D Glow Plug 4 (LH7) **E12D Glow Plug 4 (LH7)** |
| 4. E12C Glow Plug 3 (LH7) **E12C Glow Plug 3 (LH7)** |
| 5. E12B Glow Plug 2 (LH7) **E12B Glow Plug 2 (LH7)** |
| 6. E12A Glow Plug 1 (LH7) **E12A Glow Plug 1 (LH7)** |
| 7. B23 Camshaft Position Sensor (LH7) **B23 Camshaft Position Sensor (LH7)** |
| 8. M98 Intake Manifold Runner Valve Actuator (LH7) **M98 Intake Manifold Runner Valve Actuator (LH7)** |
| 9. G13 Generator **G13 Generator X1** **G13 Generator X2 (LH7/LTG)** |
| 10. B131C Exhaust Temperature Sensor 3 (LH7) **B131C Exhaust Temperature Sensor 3 (LH7)** |
| 11. Q61 Reductant Injector (LH7) **Q61 Reductant Injector (LH7)** |
| 12. M115 Power Transfer Unit Shift Actuator (F48) **M115 Power Transfer Unit Shift Actuator X1 (F48)** **M115 Power Transfer Unit Shift Actuator X2 (F48)** |
| 13. Q44 Engine Oil Pressure Control Solenoid Valve **Q44 Engine Oil Pressure Control Solenoid Valve (LH7)** |
| 14. B203 Engine Coolant Radiator Temperature Sensor (LH7) **B203 Radiator Coolant Temperature Sensor (LH7)** |

## LEFT REAR OF THE ENGINE (LTG)

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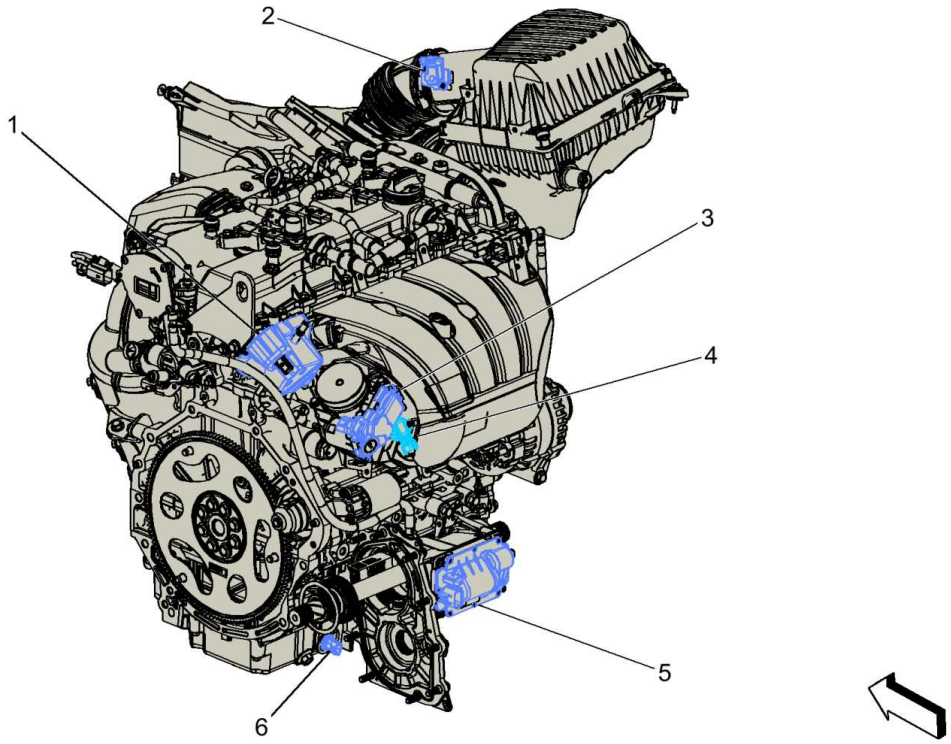



**Fig. 15: Left Rear Of The Engine (LTG)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. G18 High Pressure Fuel Pump (LTG/LYX) **G18 High Pressure Fuel Pump (LTG/LYX)** |
| 2. B75C Multifunction Intake Air Sensor **B75C Multifunction Intake Air Sensor** |
| 3. Q38 Throttle Body **Q38 Throttle Body (LTG/LYX)** |
| 4. B74 Manifold Absolute Pressure Sensor (LTG) **B74 Manifold Absolute Pressure Sensor (LTG)** |
| 5. M115 Power Transfer Unit Shift Actuator (F48) **M115 Power Transfer Unit Shift Actuator X1 (F48)** **M115 Power Transfer Unit Shift Actuator X2 (F48)** |
| 6. B35 Engine Oil Level Switch **B35 Engine Oil Level Switch (LTG)** |

**BOTTOM OF ENGINE (LYX)**

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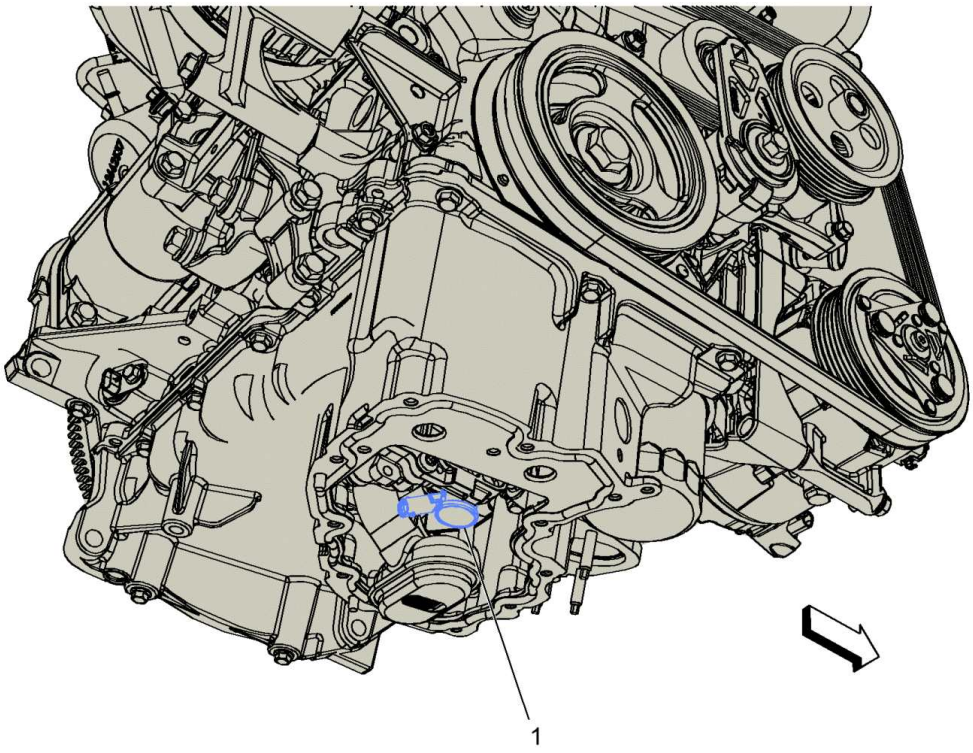



**Fig. 16: Bottom Of Engine (LYX)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. Q44 Engine Oil Pressure Control Solenoid Valve **Q44 Engine Oil Pressure Control Solenoid Valve (LYX)** |

**RIGHT FRONT OF THE TRANSMISSION (M3D/M3H/M3U)**

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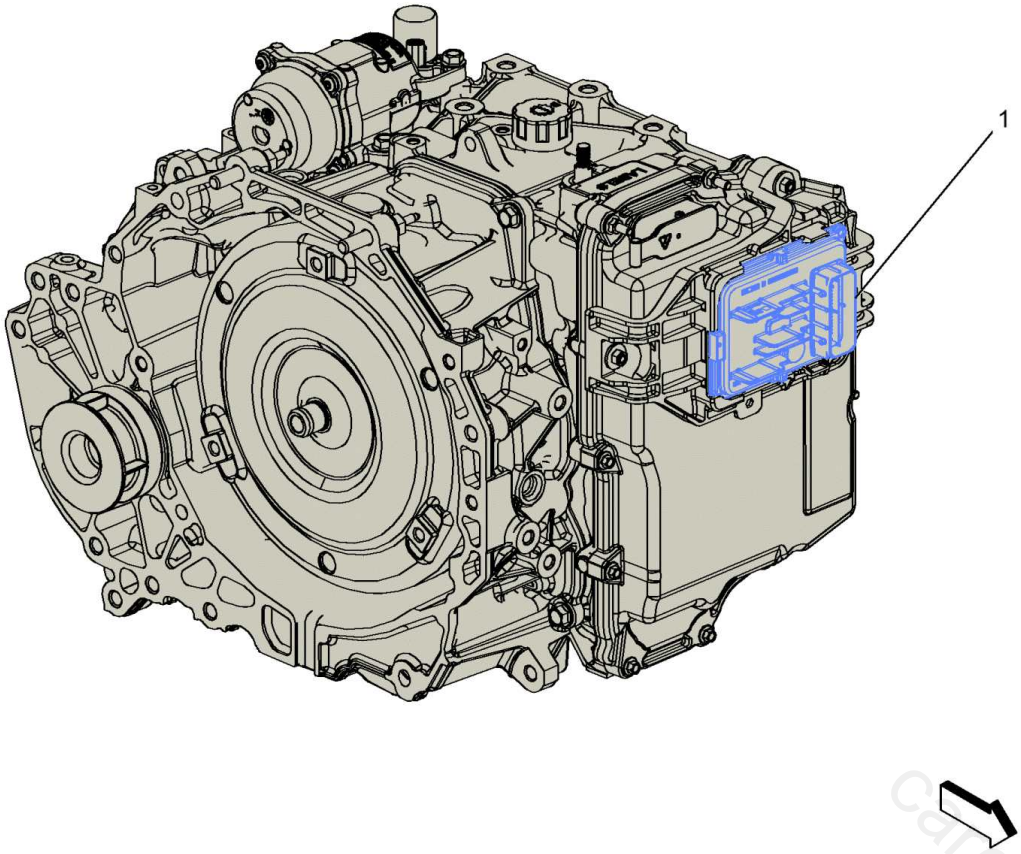



**Fig. 17: Right Front Of The Transmission (M3D/M3H/M3U)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K71 Transmission Control Module **K71 Transmission Control Module (M3D/M3H/M3U)** |

## RIGHT REAR OF THE TRANSMISSION (MHG/MNH/MNK)

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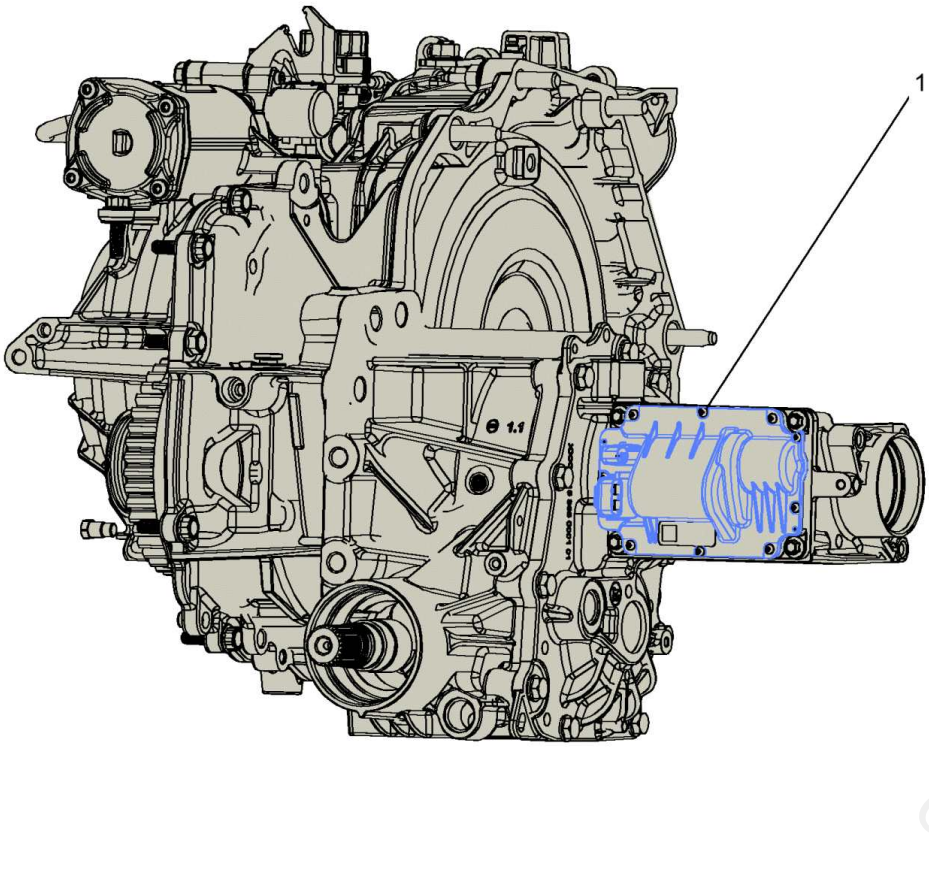



**Fig. 18: Right Rear Of The Transmission (MHG/MNH/MNK)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. M115 Power Transfer Unit Shift Actuator (F48) **M115 Power Transfer Unit Shift Actuator X1 (F48)** **M115 Power Transfer Unit Shift Actuator X2 (F48)** |

## LEFT FRONT OF THE TRANSMISSION/INPUT SPEED SENSOR (MHG/MNH/MNK)

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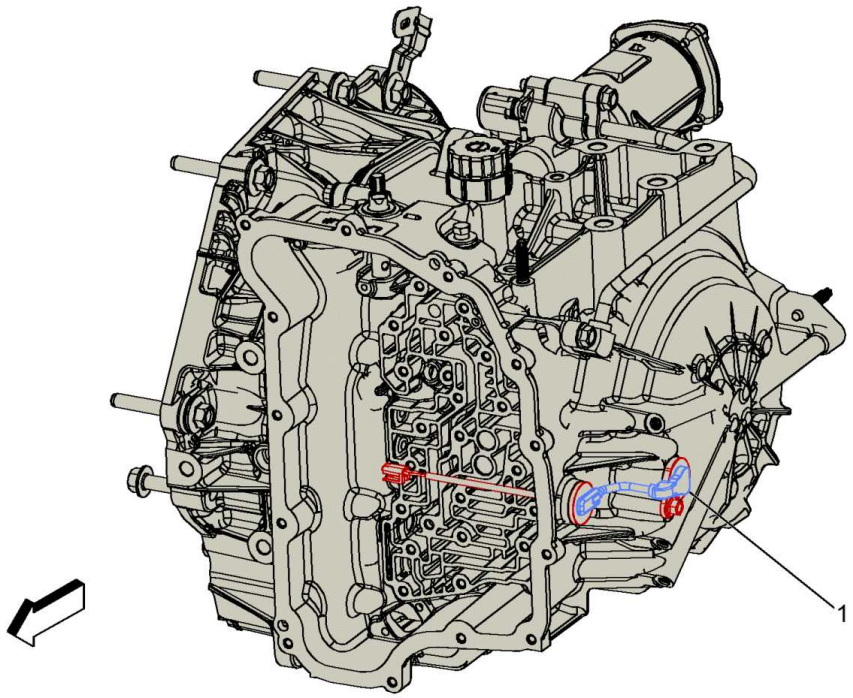



**Fig. 19: Left Front Of The Transmission/Input Speed Sensor (MHG/MNH/MNK)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B14C Transmission Input Shaft Speed Sensor |

## LEFT FRONT OF THE TRANSMISSION (MHG/MNH/MNK)

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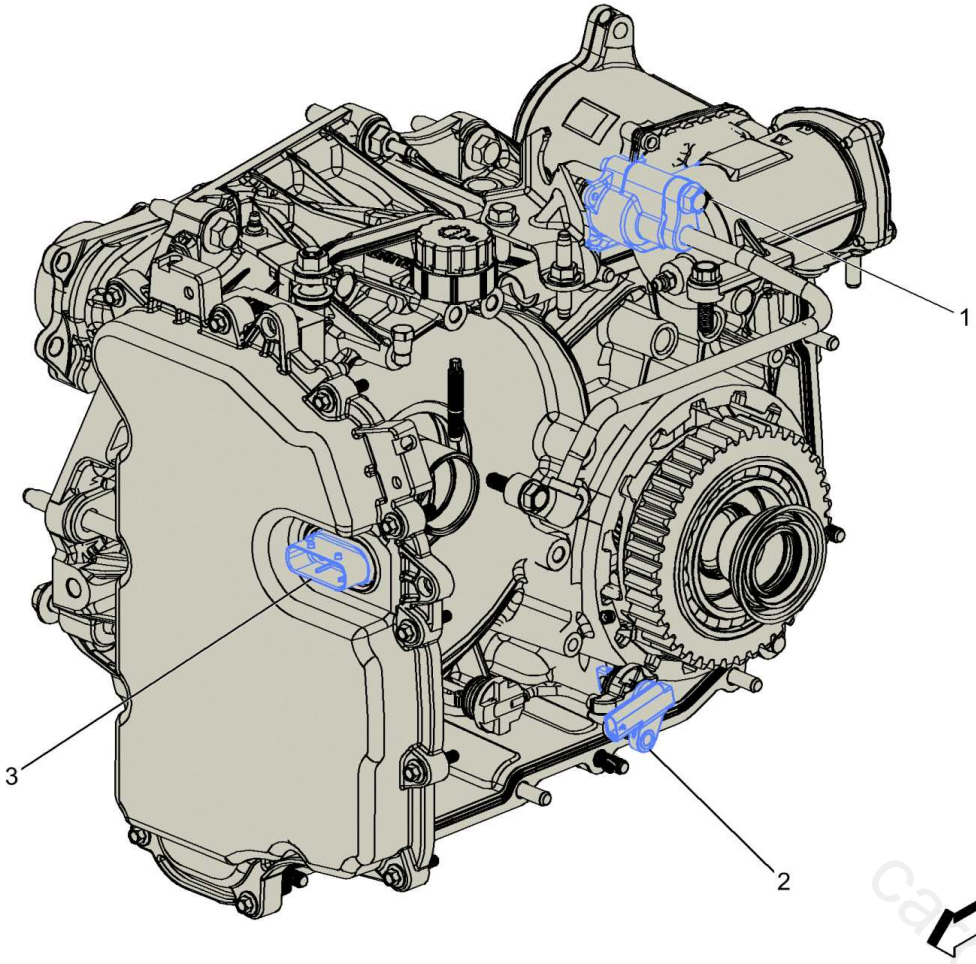



**Fig. 20: Left Front Of The Transmission (MHG/MNH/MNK)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B280 Automatic Transmission Accumulator Solenoid Valve (KL9) **B280 Automatic Transmission Accumulator Solenoid Valve (KL9+MHG/MNH)** |
| 2. B14E Transmission Input/Intermediate Shaft Speed Sensor (M3D/M3H/M3U) |
| 3. Q8 Control Solenoid Valve Assembly **Q8 Control Solenoid Valve Assembly X1 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X2 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X3 (MHG/MNH/MNK)** **Q8 Control Solenoid Valve Assembly X4 (MHG/MNH/MNK)** |

**LEFT FRONT OF THE TRANSMISSION/TRANSMISSION RANGE CONTROL MODULE (EPH)**

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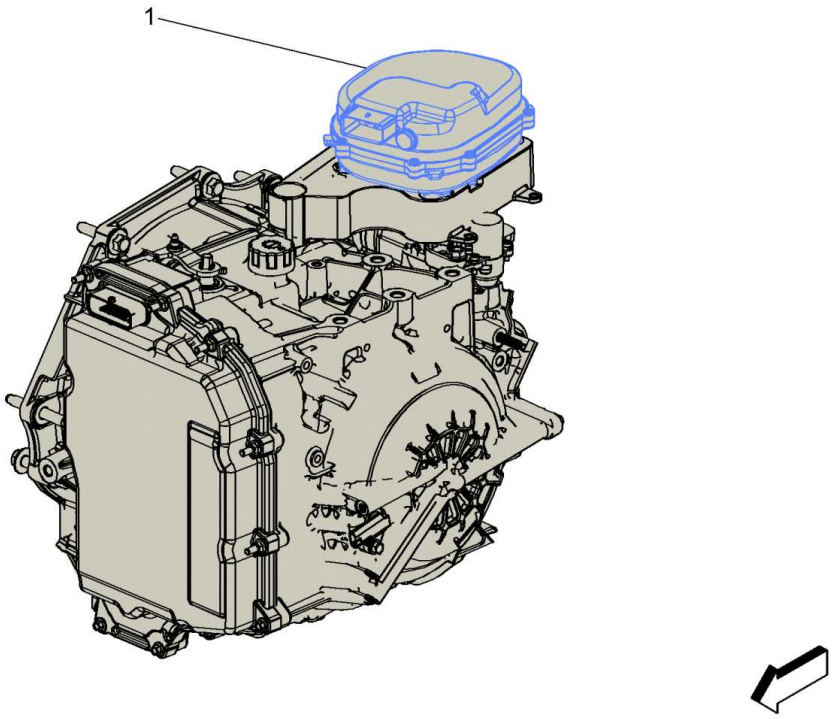



Fig. 21: Left Front Of The Transmission/Transmission Range Control Module (EPH)
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. K173 Transmission Range Control Module (EPH) K173 Transmission Range Control Module (LH7+EPH) |

## POWER TRANSFER UNIT SHIFT ACTUATOR (F48)

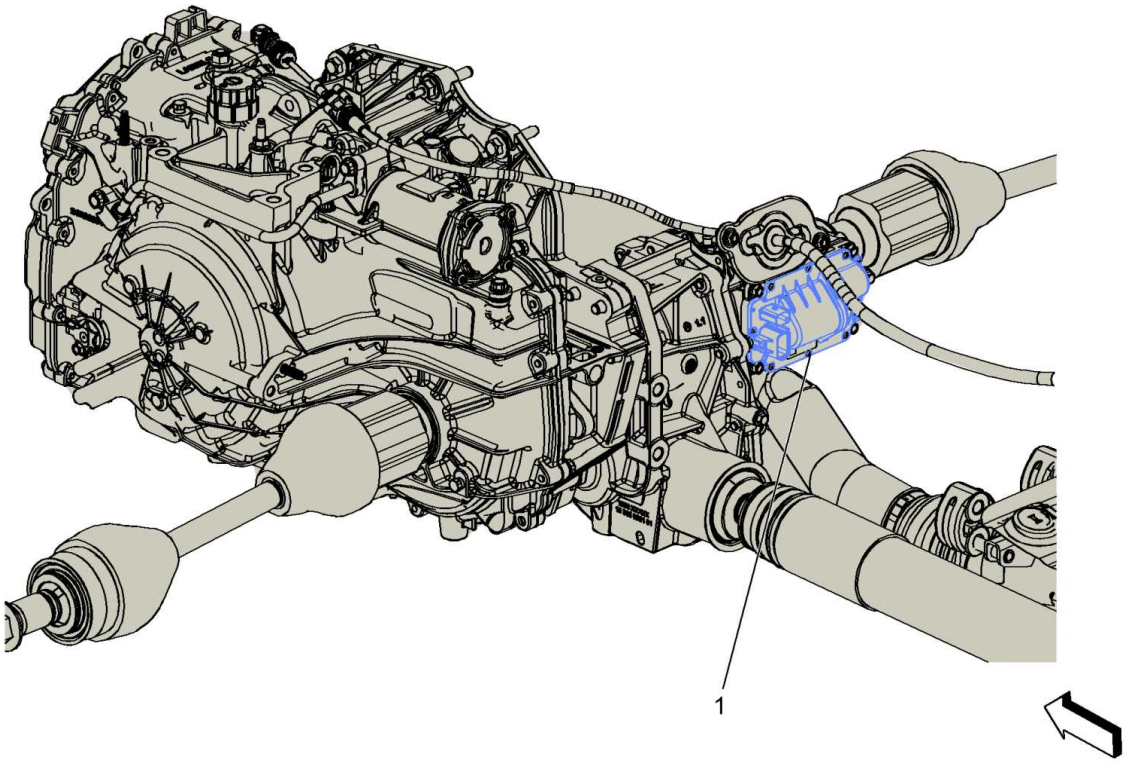



Fig. 22: Power Transfer Unit Shift Actuator (F48)
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |

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| Items |
| --- |
| 1. M115 Power Transfer Unit Shift Actuator (F48) **M115 Power Transfer Unit Shift Actuator X1 (F48)** **M115 Power Transfer Unit Shift Actuator X2 (F48)** |

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# WHEELS/VEHICLE UNDERBODY COMPONENT VIEWS

## LEFT FRONT WHEELWELL

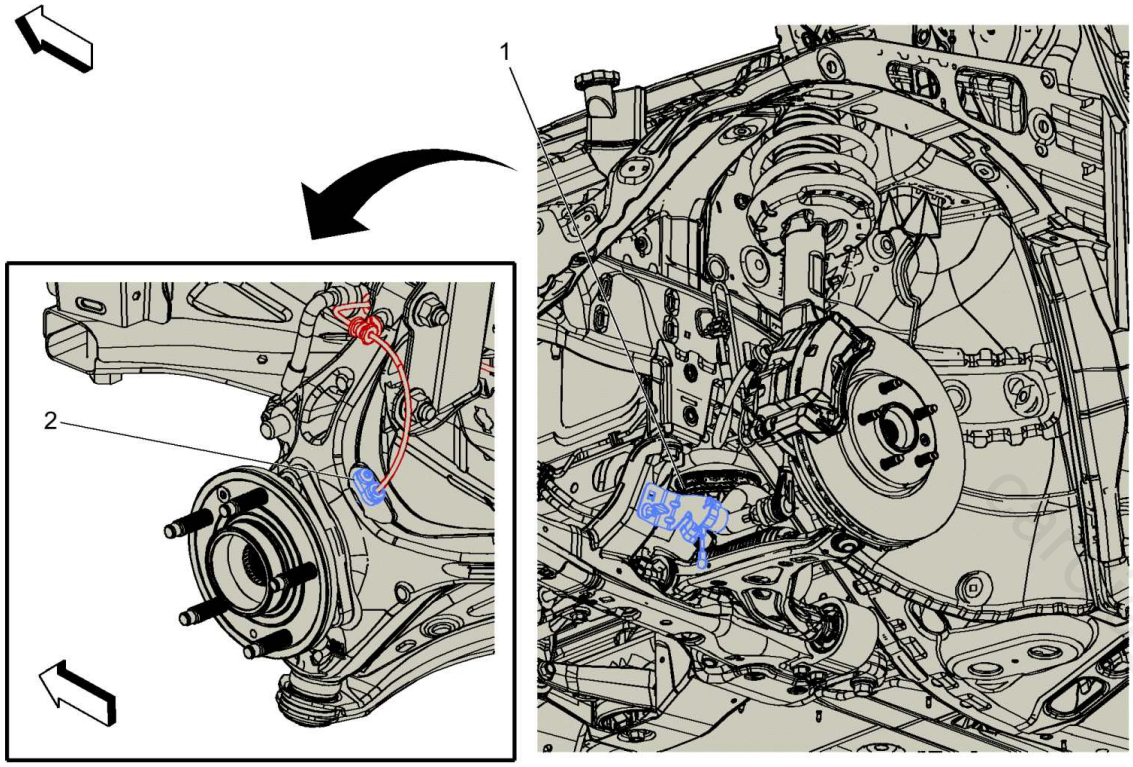



Fig. 1: Left Front Wheelwell
Courtesy of GENERAL MOTORS COMPANY

| Items |
| --- |
| 1. B51F Suspension Height Sensor - Front (TR7) B51F Suspension Height Sensor - Front (TR7) |
| 2. B5LF Wheel Speed Sensor - Left Front B5LF Wheel Speed Sensor - Left Front |

## LEFT REAR WHEELWELL

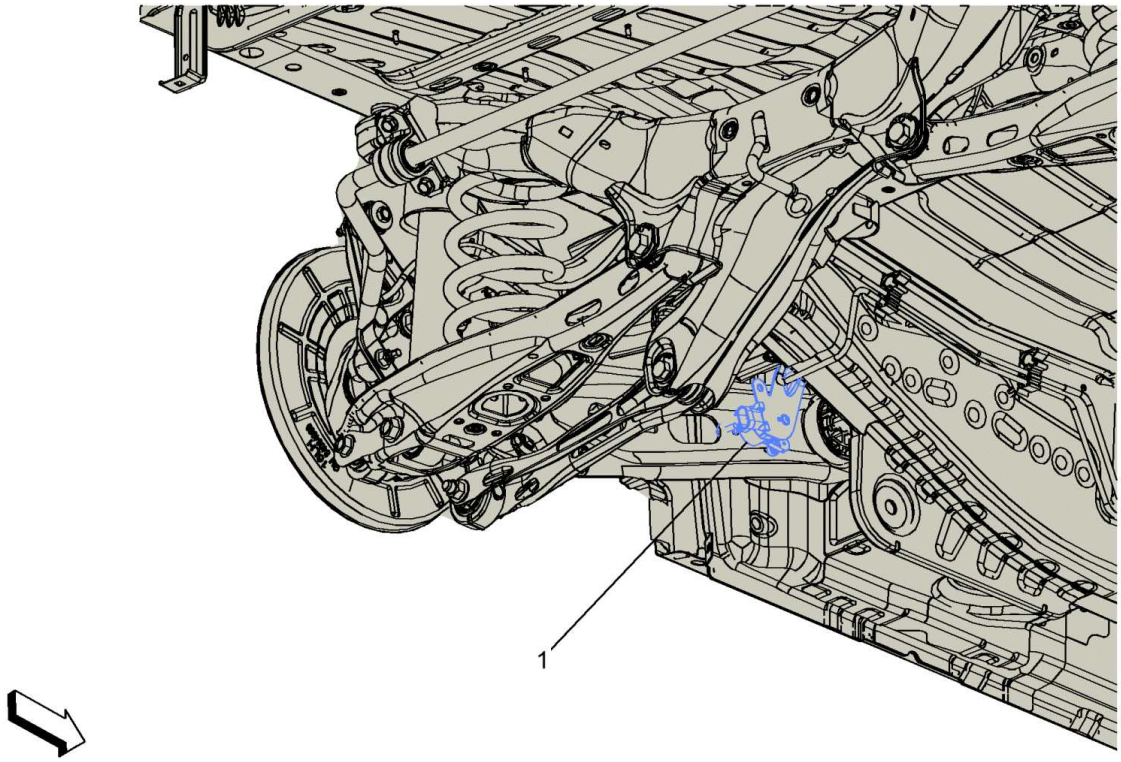



**Fig. 2: Left Rear Wheelwell**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B51R Suspension Height Sensor - Rear (TR7) **B51R Suspension Height Sensor - Rear (TR7)** |

## RIGHT FRONT WHEELWELL

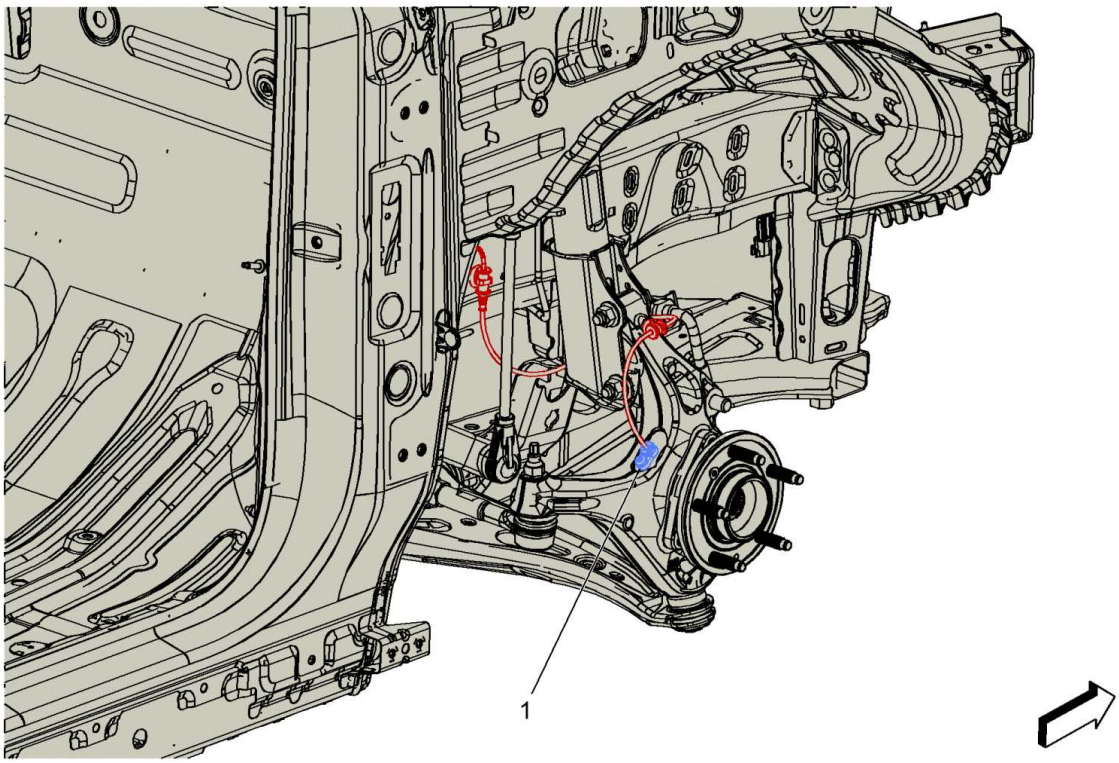



**Fig. 3: Right Front Wheelwell**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B5RF Wheel Speed Sensor - Right Front **B5RF Wheel Speed Sensor - Right Front** |

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## LEFT REAR UNDERBODY

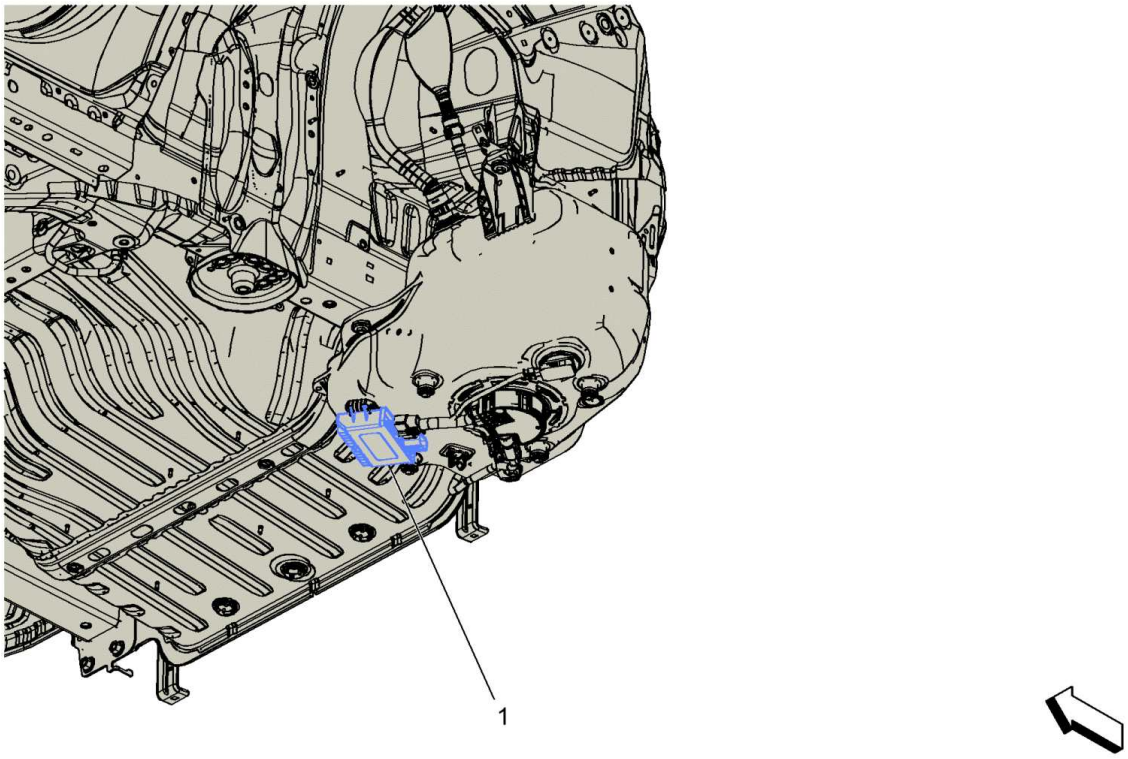



**Fig. 4: Left Rear Underbody**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. K115 Reductant Control Module (LH7) K115 Reductant Control Module X1 (LH7) K115 Reductant Control Module X2 (LH7) |

## UNDERBODY

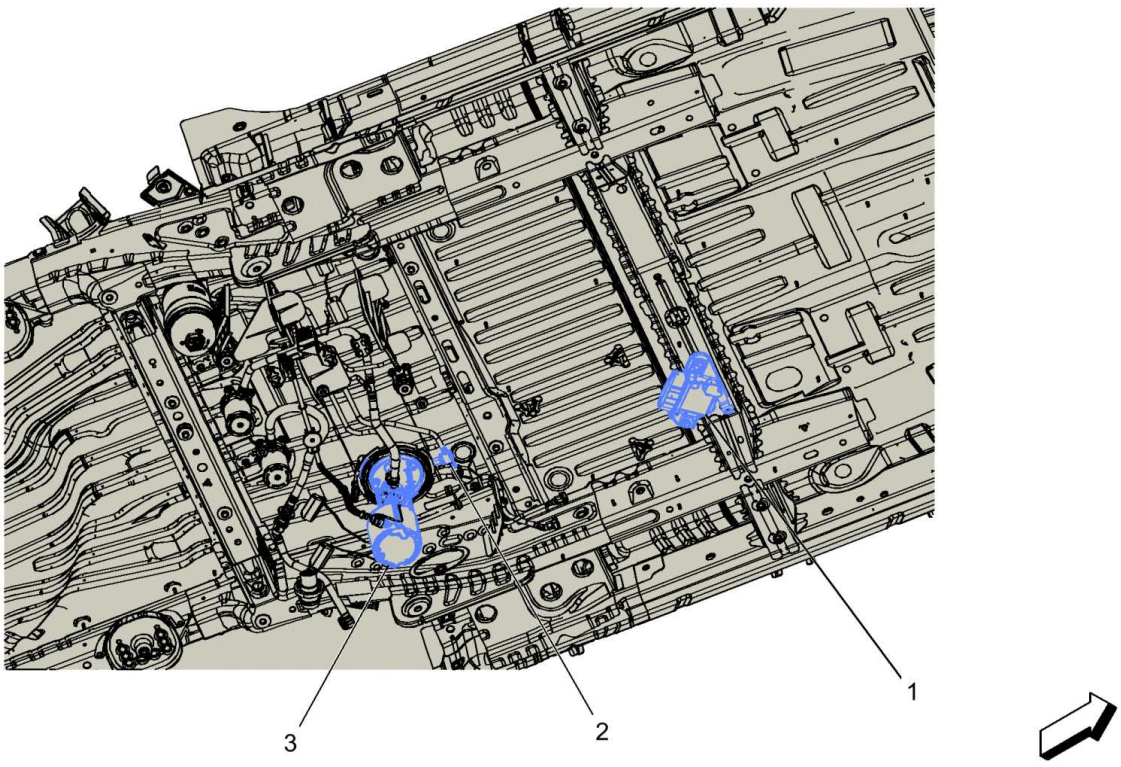



**Fig. 5: Underbody**
**Courtesy of GENERAL MOTORS COMPANY**

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| Items |
| --- |
| 1. K111 Fuel Pump Driver Control Module **K111 Fuel Pump Driver Control Module (LH7)** **K111 Fuel Pump Driver Control Module (LTG/LYX+X88)** **K111 Fuel Pump Driver Control Module (LTG/LYX+Z88)** |
| 2. B47 Fuel Pressure Sensor **B47 Fuel Pressure Sensor** |
| 3. A7 Fuel Pump and Level Sensor Assembly **A7 Fuel Pump and Level Sensor Assembly (LH7+F48)** **A7 Fuel Pump and Level Sensor Assembly (LH7+F48)** **A7 Fuel Pump and Level Sensor Assembly (LTG/LYX)** **A7 Fuel Pump and Level Sensor Assembly (LTG/LYX+NTB/NUB)** |

**FUEL TANK**

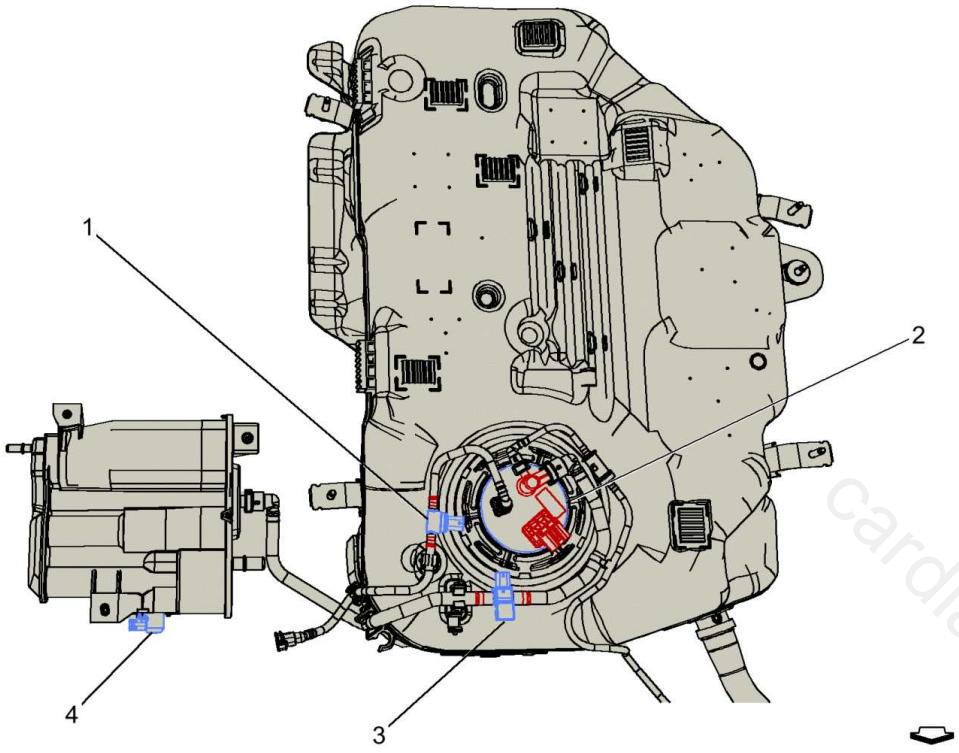



**Fig. 6: Fuel Tank**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. B47 Fuel Pressure Sensor **B47 Fuel Pressure Sensor** |
| 2. A7 Fuel Pump and Level Sensor Assembly **A7 Fuel Pump and Level Sensor Assembly (LH7+F48)** **A7 Fuel Pump and Level Sensor Assembly (LH7+F48)** **A7 Fuel Pump and Level Sensor Assembly (LTG/LYX)** **A7 Fuel Pump and Level Sensor Assembly (LTG/LYX+NTB/NUB)** |
| 3. B150 Fuel Tank Pressure Sensor (LTG/LYX) **B150 Fuel Tank Pressure Sensor (LTG/LYX+NTB/NUB)** |
| 4. Q13 Evaporative Emission Vent Solenoid Valve (LTG/LYX) **Q13 Evaporative Emission Vent Solenoid Valve (LTG/LYX)** |

**REAR CHASSIS**

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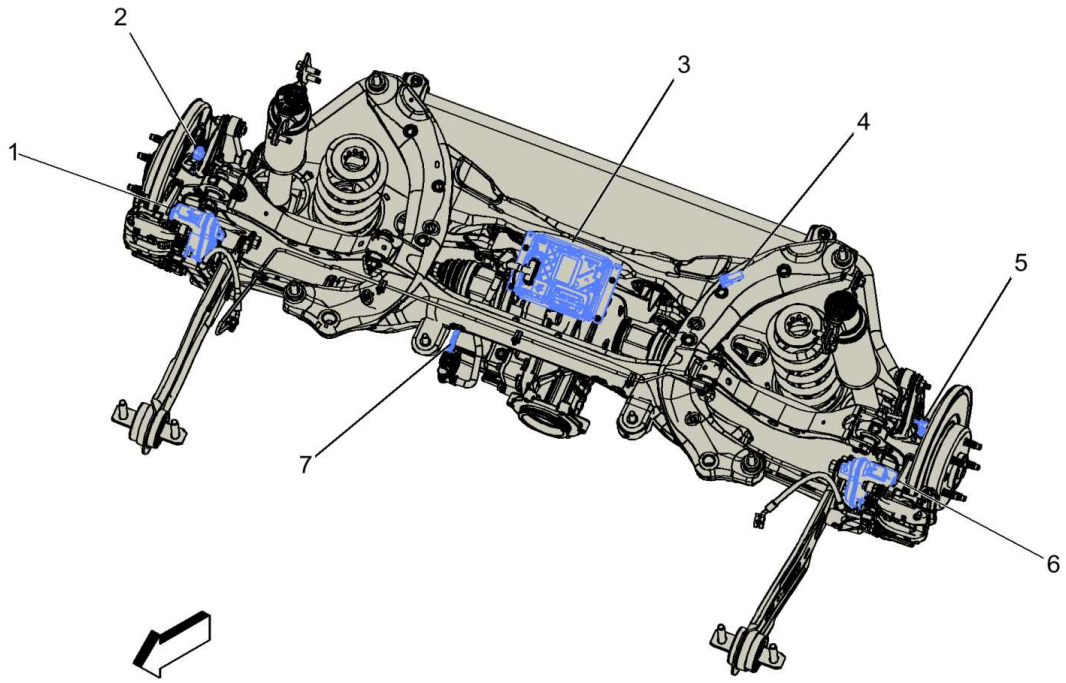



**Fig. 7: Rear Chassis**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
|---|
| 1. B5RR Wheel Speed Sensor - Right Rear **B5RR Wheel Speed Sensor - Right Rear** |
| 2. M104R Park Brake Actuator - Right **M104R Park Brake Actuator - Right** |
| 3. K47 Rear Differential Clutch Control Module (F48) **K47 Rear Differential Clutch Control Module X1 (F48)** **K47 Rear Differential Clutch Control Module X2 (F48)** |
| 4. R6A Terminating Resistor - High Speed Bus **R6A Terminating Resistor - High Speed Bus** |
| 5. M104L Park Brake Actuator - Left **M104L Park Brake Actuator - Left** |
| 6. B5LR Wheel Speed Sensor - Left Rear **B5LR Wheel Speed Sensor - Left Rear** |
| 7. M32 Differential Clutch Pump (F48) **M32 Differential Clutch Pump (F48)** |

## REAR UNDERBODY/TRAILER CONNECTOR (WITHOUT V92)

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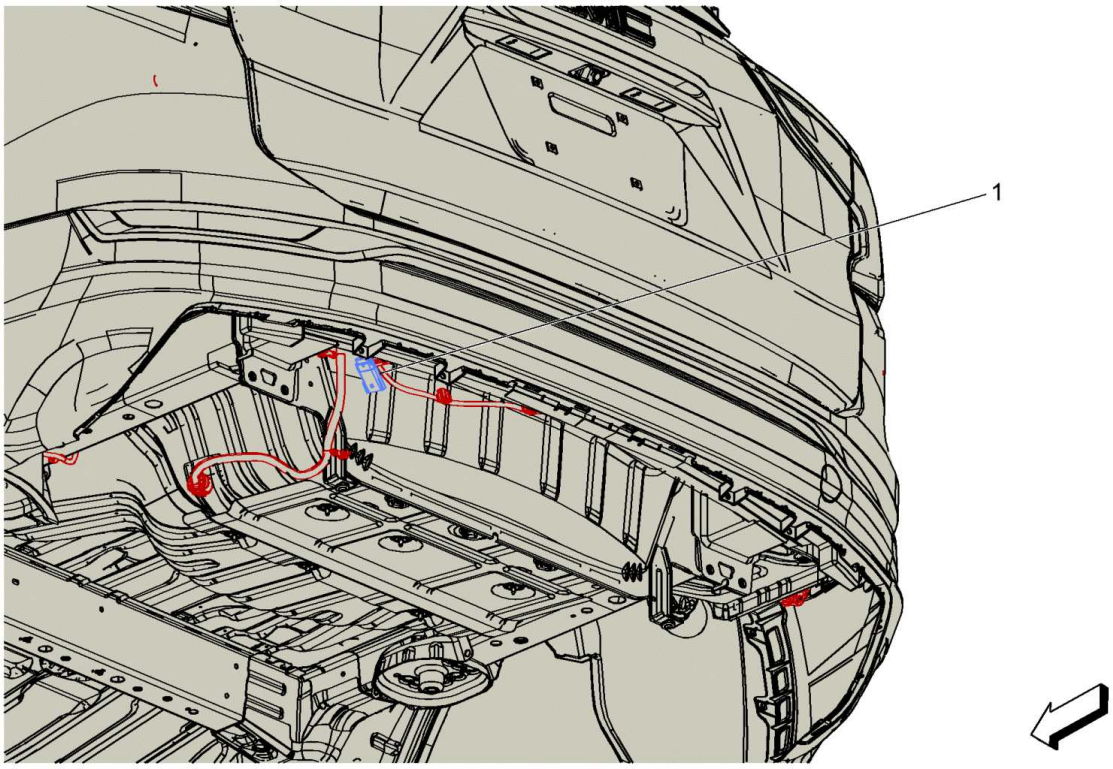



**Fig. 8: Rear Underbody/Trailer Connector (without V92)**
**Courtesy of GENERAL MOTORS COMPANY**

| Items |
| --- |
| 1. X88 Trailer Connector X88 Trailer Connector (-V92) X88 Trailer Connector (V92) |

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# 2018 ELECTRICAL

## Wiring Systems And Power Management - Description And Operation - Equinox & Terrain

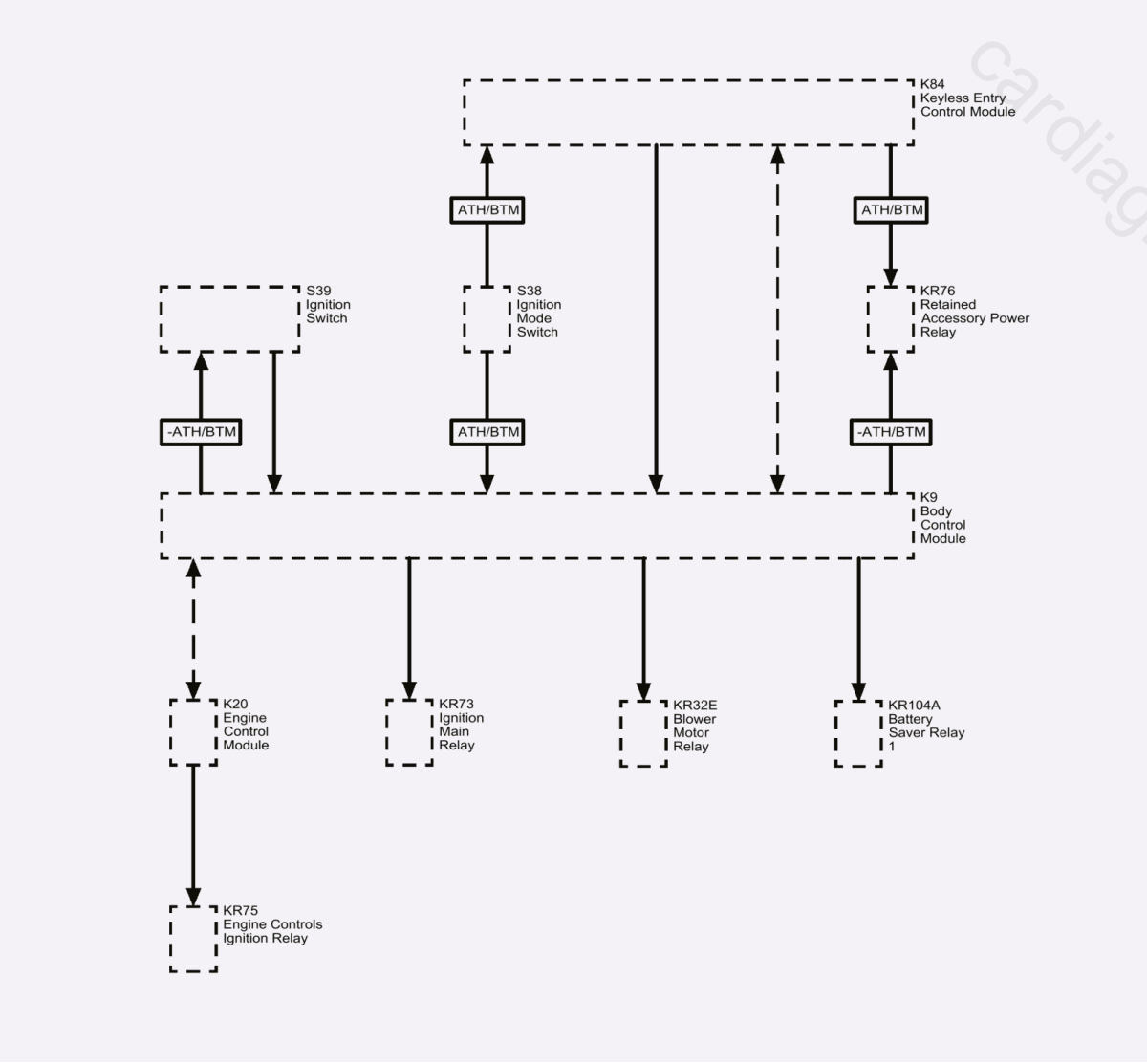
# DESCRIPTION AND OPERATION

## ELECTRONIC PARK LOCK DESCRIPTION AND OPERATION

If the vehicle is equipped with automatic transmission and a floor mounted console gear shift, it has an electronic park lock system. The electronic park lock system purpose is to prevent the ignition from being switched to the OFF position when the transmission is in any position other than PARK and the vehicle may still be moving. The electronic park lock system incorporates the park position switch that located in the A/T shift lock control switch. When the transmission shift selector is in PARK, the park position switch closes and the BCM allows the ignition to be turned OFF.

If the vehicle is not in PARK, the ignition will return to ACC/ACCESSORY and display the message SHIFT TO PARK in the Driver Information Center. When the vehicle is shifted into PARK, the ignition system will switch to OFF.

## POWER MODE DESCRIPTION AND OPERATION




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Fig. 1: Power Mode Description and Operation Block Diagram
Courtesy of GENERAL MOTORS COMPANY

| Callout | Component Name |
| --- | --- |
| | |

| Callout | Component Name |
|---|---|
| ATH | LOCK CONTROL, ENTRY: REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS |
| BTM | SWITCH: ENGINE START, KEYLESS |
| ATH | LOCK CONTROL, ENTRY: REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS |
| BTM | SWITCH: ENGINE START, KEYLESS |
| ATH | LOCK CONTROL, ENTRY: REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS |
| BTM | SWITCH: ENGINE START, KEYLESS |
| ATH | LOCK CONTROL, ENTRY: REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS |
| BTM | SWITCH: ENGINE START, KEYLESS |
| ATH | LOCK CONTROL, ENTRY: REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS |
| BTM | SWITCH: ENGINE START, KEYLESS |
| K9 | K9 Body Control Module |
| S39 | S39 Ignition Switch |
| K20 | K20 Engine Control Module |
| KR75 | KR75 Engine Controls Ignition Relay |
| KR73 | KR73 Ignition Main Relay |
| KR104A | KR104A Battery Saver Relay 1 |
| S38 | S38 Ignition Mode Switch |
| KR76 | KR76 Retained Accessory Power Relay |
| K84 | K84 Keyless Entry Control Module |
| KR32E | KR32E Blower Motor Relay |

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### Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition mode switch is a low current switch with a discrete ignition signal to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run/Start) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition mode switch signals to identify the operators desired power mode. The Power Mode Parameter table below illustrates the correct state of these input parameters in correspondence to the ignition mode switch with the transmitter to vehicle range:

**Power Mode Parameters (Without BTM)**

| Ignition Switch Position | Power Mode Transmitted | Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit) | Ignition Accessory/Run (Accessory Voltage Circuit) | Ignition Run/Crank (Ignition 1 Voltage Circuit) |
|---|---|---|---|---|
| Off Key Out | Off | Key Out / ACC | Inactive | Inactive |
| Off Key IN | Off | Key In / Off | Inactive | Inactive |
| Accessory | Accessory | Key Out / ACC | Active | Inactive |
| Run | Run | Run | Active | Active |
| Start | Crank Request | Crank | Inactive | Active |

**Power Mode Parameters (With BTM)**

| Power Mode | Power Mode Transmitted | Push Button Ignition Switch (Power Button Switch Circuit Input to the BCM) | Push Button Ignition Switch Voltage Push Button Ignition Switch Voltage Input to the BCM | Key in Cylinder Switch/Key Fob in Vehicle (Transmitter in Range to the BCM Signal) |
|---|---|---|---|---|
| Transmitter in Range | Off | Inactive | 9 V | Yes |
| Transmitter out of Range | Off | Inactive | 9 V | No |
| Vehicle On Power Mode, then Press the Power Button Switch (Foot on or off the Brake Pedal) Transmitter in Vehicle | Off | Active (pushed) / Inactive (not pushed) | 5-6 V (pressed) | Yes |
| Vehicle Off Power Mode, then Press the Power Button Switch with foot off the Brake Pedal; Transmitter in Vehicle | Accessory Mode | Active (pushed) / Inactive (not pushed) | 5-6 V (pressed) | Yes |
| Vehicle Off Power Mode, then Press the Power Button Switch with foot on the Brake Pedal; Transmitter in Vehicle | Vehicle in Run/Start Mode (Ignition ON engine running.) | Active (pushed) / Inactive (not pushed) | 5-6 V (pressed) | Yes |
| Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 5 s with foot OFF the Brake Pedal; Transmitter in Vehicle | Vehicle in Run/Start Mode (Ignition ON without the engine running) | Active (pushed) / Inactive (not pushed) | 5-6 V (pressed) | Yes |
| Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 10 s with foot OFF the Brake Pedal; Transmitter in Vehicle | Vehicle In Service Mode (Ignition ON without the engine running) | Active (pushed) / Inactive (not pushed) | 5-6 V (pressed) | Yes |

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### Relay Controlled Power Mode (Without BTM)

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition key is removed. Refer to **Retained Accessory Power Description and Operation** for more information on the retained accessory power function.

### Relay Controlled Power Mode (With BTM)

The BCM uses discrete push button switch inputs, transmitter in range status, current power mode state, and brake pedal position state to distinguish the correct power mode (Off, Accessory Mode, Vehicle in Run/Start Mode). The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition key is removed. Refer to **Retained Accessory Power Description and Operation** for more information on the retained accessory power function.

### Push Button Start (If Equipped)

The ignition mode switch has 2 LEDs that indicate the vehicle power mode. When the vehicle is in the OFF mode, both LED's will be OFF. Momentarily pressing the ignition mode switch button once (brake pedal not applied), will enter the vehicle into accessory mode and the amber LED (ACC) will illuminate. The accessory mode has a 10 min time out to reduce battery drain. With the ignition OFF (brake pedal not applied) then pressing and holding the push button start switch for 5 s will place the vehicle in run/start mode (Ignition ON without the engine running). The vehicle will stay powered up for 3 hours and the green LED (Run/Start) will illuminate. After being in run/start mode (ignition ON without the engine running) for 1.5 hours, the vehicle will look to see if the transmitter is still present. If the transmitter is not present in the vehicle, it will power down instead of staying powered up for the full 3 hours. With the ignition OFF, (brake pedal not applied) then pressing and holding the push button start switch for at least 10 s will place the vehicle into Vehicle In Service Mode (Ignition ON without the engine running) and the green LED (Run/Start) will illuminate. Vehicle In Service Mode is used for service and diagnostics not requiring the operation of the gas engine. The vehicle will stay in Vehicle In Service mode until the vehicle is manually turned OFF.

With the ignition OFF (brake pedal applied), pressing the ignition mode switch button once, the vehicle will enter run/start mode and the green LED (Run/Start) will illuminate. This will start the engine. If the vehicle is left in PARK with the engine running and the transmitter out of the vehicle, the vehicle will automatically turn off after 1.5 hours. If the vehicle is left in PARK with the engine running and the transmitter in the vehicle, the vehicle will automatically turn OFF after 3 hours. The timer will stop when the vehicle is shifted out of PARK and the timer will reset after the vehicle is placed back in PARK with the engine running.

Both LED's have the voltage supplied from the body control module (BCM). The ignition mode switch sends the ignition mode switch status to the passive entry passive start module (PEPS) and to the BCM. The PEPS module sends a redundant signal to the BCM with the ignition mode switch status.

### Battery Saver Mode (Transport Mode) (If Equipped)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling the Remote Function Actuator or content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 s. The mode is disengaged by repeating the previous process. The DIC (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a DIC, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

Battery saver mode incorporates a latching relay that when enabled disconnects some modules from their ignition power or memory power sources. When battery saver mode is enabled and the vehicle is switched OFF, the BCM sends a momentary command to unlatch the relay disconnecting power up to 1 min after RAP is inactive. Every time the vehicle is switched ON the BCM will send a momentary command to latch the battery saver relay. This allows the use of all features when the ignition is ON. The BCM will send another command to unlatch the relay once the vehicle is switched OFF and RAP is inactive.

### BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

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## RETAINED ACCESSORY POWER DESCRIPTION AND OPERATION

### Retained Accessory Power

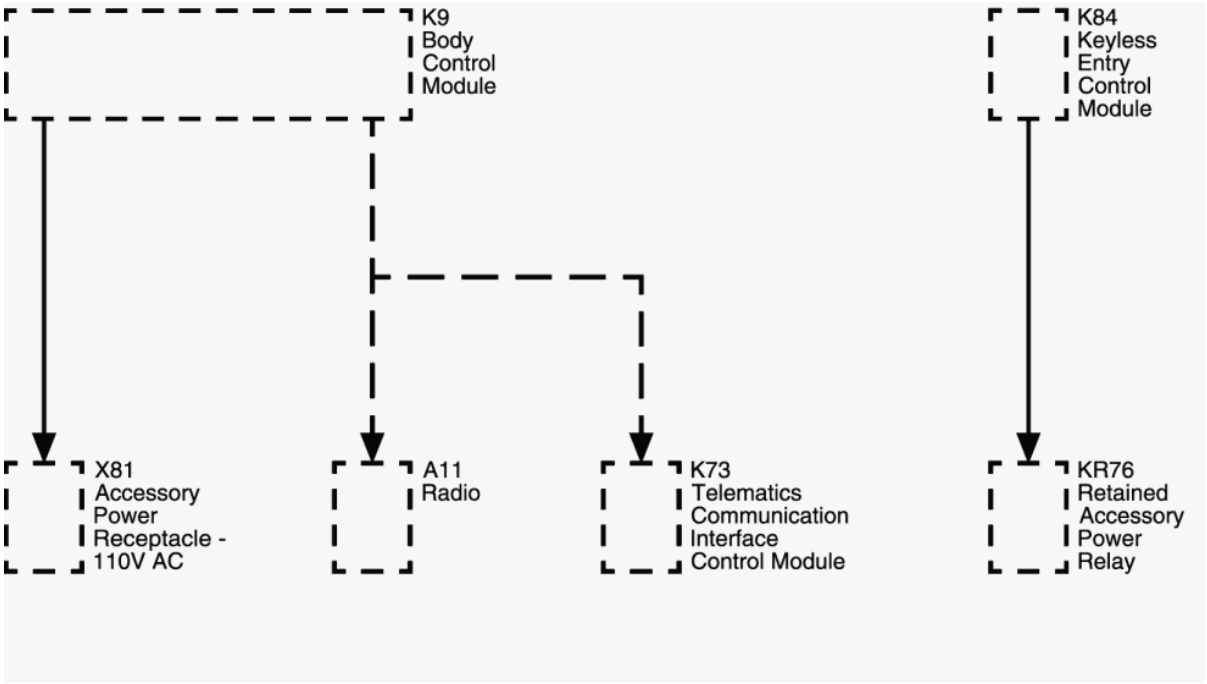



**Fig. 2: Retained Accessory Power Block Diagram**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| K9 | K9 Body Control Module |
| X81 | X81 Accessory Power Receptacle - 110V AC |

| Callout | Component Name |
|---|---|
| A11 | A11 Radio |
| K73 | K73 Telematics Communication Interface Control Module |
| K84 | K84 Keyless Entry Control Module |
| KR76 | KR76 Retained Accessory Power Relay |

The body control module (BCM) monitors the ignition position, battery condition, and each door ajar/open switch status to determine whether the retained accessory power should be initiated or terminated. Retained accessory power is controlled by two different methods; retained accessory power relay coil control circuit and serial data. Some modules receive a retained accessory power message from the BCM over the serial data circuits. Serial data controlled retained accessory power is deactivated as required by their modules retained accessory power mode operation. Other subsystems are activated directly by the BCM or by the BCM through a relay. Components and systems that are active in retained accessory power are also activated anytime the ignition is any position other than OFF regardless of the door switch signals.

### Retained Accessory Power Relay Coil Control Circuit.

The BCM keeps the device or relay energized during all power modes, except Off-Awake and Crank. The device or relay is also energized for approximately 10 min after shutting the ignition OFF providing no door is opened.

Relay controlled retained accessory power will end when one of the following conditions is met:

- The BCM receives an input from any door ajar or open switch indicating the opening of any door after the ignition key is out of the ignition.

  **NOTE:** **If the BCM is receiving any door ajar or open signal from those switches when the ignition key is turned OFF, retained accessory power will not initiate.**

- The BCM internal timer for the retained accessory power expires after approximately 10 min.
- The BCM detects a decrease in battery capacity below a prescribed limit.

Systems powered by the retained accessory power relay coil control circuit during the retained accessory power mode are as follows:

**NOTE:** **The vehicle may not be equipped with all components as listed below.**

-
- Accessory Power Receptacle
- Transmission Shift Lever Position Indicator (w/floor mounted console gear shift)

### Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

Radio

Radio retained accessory power activation/termination is the same as relay operation with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

Vehicle Communication Interface Module (VCIM) (OnstarÂ®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call when the ignition key is turned off the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

### Interruptible Retained Accessory Power

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The keyless entry control module controls components in the same manner as BCM relay controlled retained accessory power with one exception; interruptible retained accessory power is deactivated during transmitter authentication. The keyless entry control module will deactivate components that may cause radio frequency (RF) interference when the ignition mode switch is pressed which may result in "NO REMOTE DETECTED" displayed on the driver information center.

Systems powered by the interruptible retained accessory power relay coil control circuit during the retained accessory power mode are as follows:

**NOTE:** **The vehicle may not be equipped with all components as listed below.**

- 
- Mobile Device Wireless Charger Module
- USB Receptacle

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# DIAGNOSTIC INFORMATION AND PROCEDURES

## DTC B000A: PARK SWITCH - SHIFT LEVER POSITION NOT PLAUSIBLE

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptors

**DTC B000A**

Park Switch - Shift Lever Position Not Plausible

For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| In Park Switch Signal | B000A 00 | B000A 00 | B000A 00 | - |

### Circuit/System Description

When the transmission shift selector is in Park, the park position switch closes and pull the signal circuit low.

### Conditions for Running the DTC

- The system voltage is between 9 - 16 V.
- The ignition is in the RUN position.

### Conditions for Setting the DTC

The DTC will set only when the module requests the output and there is a short to ground in the control circuit.

**B000A 00**

Shift lever position has changed and the park switch status has not changed.

### Action Taken When the DTC Sets

**B000A 00**

No action taken.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

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### Reference Information

Schematic Reference

Ignition Lock Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

1. Ignition ON.
2. Verify the scan tool Body Control Module In Park Switch Status parameter changes between On and Off when shifting the S3 Transmission Shift Lever in and out of Park.
    - **If the parameter does not change**

      Refer to Circuit/System Testing.

    - **Go to next step: If the parameter changes**
3. All OK.

### Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the S3 Transmission Shift Lever. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 2 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON.
4. Verify the scan tool Body Control Module In Park Switch Status parameter is Off.
    - **If not Off**
    1. Ignition OFF, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the signal circuit terminal 6 and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance, replace the K9 Body Control Module.
    - **Go to next step: If Off**
5. Install a 3 A fused jumper wire between the signal circuit terminal 6 and the ground circuit terminal 2.

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6. Verify the scan tool Body Control Module In Park Switch Status parameter is On.
    - **If not On**
    1. Ignition OFF, remove the jumper wire, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the signal circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V
    3. Test for less than 2 Ω in the signal circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **Go to next step: If On**
7. Test or replace the S3 Transmission Shift Lever.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Transmission Control Replacement**
- Refer to **Control Module References** for body control module replacement, programming, and setup.

## DTC B097B: POWER MODE START SWITCH CIRCUIT

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

**NOTE:** **This procedure may also diagnose malfunctions that are not detected by a DTC.**

### DTC B097B

Power Mode Start Switch Circuit

**Symptom Byte Information: Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Signal terminal 3 | B097B 02* | B097B 05 | B097B 05*, 08* | - |
| Signal terminal 6 | B097B 02** | B097B 04** | B097B 04** | - |
| Low Reference | - | B097B 05*, 08* | - | - |
| Ground | - | B097B 04** | - | - |
| * K84 Keyless Entry Control Module<br>** K9 Body Control Module | | | | |

#### Circuit/System Description

| Circuit | Description |
|---|---|
| Signal terminal 3 | When the switch is closed it will pull the signal voltage low. |
| | |

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| Circuit | Description |
|---|---|
| Signal terminal 6 | When the switch is closed it will pull the signal voltage low. |
| Low Reference | Grounded through the control module. |
| Ground | Chassis Ground |

| Component | Description |
|---|---|
| K9 Body Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| K84 Keyless Entry Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| S38 Ignition Mode Switch | The switch has a resistance ladder and is wired to both the body control module and keyless entry control modules |

The ignition mode switch contains two individual switches that provide redundant switch inputs to the body control module and the keyless entry control module. The body control module supplies the ignition mode switch a constant B+ signal. The body control module monitors this signal to determine if the switch is released or pressed. When the ignition mode switch is not pressed, voltage on the signal circuit is pulled down through two resistors in the switch. When the ignition mode switch is pressed, voltage on the signal circuit is pulled down through only one resistor, changing the voltage seen at the body control module and indicating that the ignition mode switch is pressed. The keyless entry control module monitors voltage on the switch in the same manner as the body control module, but monitors the other individual switch in the ignition mode switch.

### Conditions for Running the DTC

Control Module voltage is between 9 - 16 V

### Conditions for Setting the DTC

**B097B 00**

- The voltage seen at the body control module monitored switch does not match the voltage seen at the keyless entry control module monitored switch.
- The above condition(s) must occur for greater than 1 s.

**B097B 02**

- The control module detects a short to ground.
- The above condition(s) must occur for greater than 1 s.

**B097B 04**

- The control module detects an open circuit.
- The above condition(s) must occur for greater than 1 s.

**B097B 05**

- The control module detects an open circuit.
- The above condition(s) must occur for greater than 1 s.

**B097B 08**

- The control module detects a change in the ignition mode without observing a switch press.
- The above condition(s) must occur 4 times.

**B097B 61**

- The control module detects a continuously closed switch.
- The above condition(s) must occur for greater than 60 s.

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### Actions Taken When the DTC Sets

**B097B 00, 04, 05, 08, 61**

No action is taken.

**B097B 02**

The concerned output is switched off.

### Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

A history DTC will clear after 40 consecutive malfunction-free ignition cycles.

### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

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- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References**

### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Verify DTC B097B 61 is not set.
    - **If the DTC is set**

      Test or replace the component: S38 Ignition Mode Switch

    - **Go to next step: If the DTC is not set**
3. Refer to Circuit/System Testing

### Circuit/System Testing

> **NOTE:** **It may take up to 2 min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.**

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch

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3. Test for less than 10 Ω between the test points: Ground circuit terminal @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Test for less than 2 Ω between the test points: Ground circuit terminal @ Component harness & Ground Connection
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
4. Test for less than 10 Ω between the test points: Low Reference terminal 7 @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Disconnect the electrical connector: X1 @ K84 Keyless Entry Control Module
    2. Test for less than 2 Ω between the test points: Low Reference terminal 7 @ Component harness & Terminal 12 @ K84 Keyless Entry Control Module
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K84 Keyless Entry Control Module
    - **Go to next step: If less than 10 Ω**
5. Connect the electrical connector: S38 Ignition Mode Switch
6. Ignition - On/Vehicle - In Service Mode
7. Disconnect the electrical connector: S38 Ignition Mode Switch
8. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = Greater than 11 V
    - **If less than 11 V**
    1. Ignition/Vehicle - Off
    2. Disconnect the electrical connector: X2 @ K9 Body Control Module
    3. Test for infinite resistance between the test points: Signal circuit terminal 17 @ Control module harness & Ground
        - If less than infinite resistance - Repair the short to ground on the circuit.
        - If infinite resistance - Replace the component: K9 Body Control Module
        - **Go to next step: If greater than 11 V**
9. Connect a 3 A fused jumper wire between the test points: Signal circuit terminal 6 & Ground
10. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = Less than 1 V
    - **If 1 V or greater**
    1. Disconnect the electrical connector: X2 @ K9 Body Control Module
    2. Test for less than 1 V between the test points: Signal circuit terminal 17 @ Control module harness & Ground
        - If 1 V or greater - Repair the short to voltage on the circuit.
        - If less than 1 V
    3. Test for less than 2 Ω between the test points: Signal circuit terminal 6 @ Component harness & Terminal 17 @ K9 Body Control Module
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K9 Body Control Module
    - **Go to next step: If less than 1 V**
11. Connect the electrical connector: S38 Ignition Mode Switch
12. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = 8 to 10 V
    - **If not between 8 and 10 V**

      Replace the component: S38 Ignition Mode Switch
    - **Go to next step: If between 8 and 10 V**
13. Press and hold the switch: S38 Ignition Mode Switch

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14. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = 4 to 7 V
    - **If not between 4 and 7 V**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 4 and 7 V**
15. Disconnect the electrical connector: X1 @ K84 Keyless Entry Control Module
16. Test for infinite resistance between the test points: Signal circuit terminal 11 @ Control module harness & Ground
    - **If less than infinite resistance**

      Repair the short to ground on the circuit.

    - **Go to next step: If infinite resistance**
17. Test for less than 1 V between the test points: Signal circuit terminal 11 @ Control module harness & Ground
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
18. Test for 4.5 to 5.5 kΩ between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Low Reference terminal 12 @ K84 Keyless Entry Control Module
    - **If not between 4.5 and 5.5 kΩ**
    1. Ignition/Vehicle - Off
    2. Disconnect the electrical connector: S38 Ignition Mode Switch
    3. Test for less than 2 Ω between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Signal circuit terminal 3 @ S38 Ignition Mode Switch
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: S38 Ignition Mode Switch
    - **Go to next step: If between 4.5 and 5.5 kΩ**
19. Press and hold the switch: S38 Ignition Mode Switch
20. Test for 1 to 1.5 kΩ between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Low Reference terminal 12 @ K84 Keyless Entry Control Module
    - **If not between 1 and 1.5 kΩ**

      Test or replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 1 and 1.5 kΩ**
21. Replace the component: K84 Keyless Entry Control Module

### Component Testing

1. Ignition/Vehicle - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for 4.5 to 5.5 kΩ between the test points:
    - Signal circuit terminal 6 & Ground circuit terminal 4
    - Signal circuit terminal 3 & Low Reference terminal 7
    - **If not between 4.5 and 5.5 kΩ**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 4.5 and 5.5 kΩ**
4. Press and hold the switch: S38 Ignition Mode Switch
5. Test for 1 to 1.5 kΩ between the test points:
    - Signal circuit terminal 6 & Ground circuit terminal 4

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- Signal circuit terminal 3 & Low Reference terminal 7
- **If not between 1 and 1.5 kΩ**

  Replace the component: S38 Ignition Mode Switch

- **Go to next step: If between 1 and 1.5 kΩ**

6. All OK.

#### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming and setup, refer to **Control Module References**

## DTC B097C: POWER MODE START INDICATOR CIRCUIT

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

### DTC B097C

Power Mode Start Indicator Circuit

**Symptom Byte Information: Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Control Circuit | B097C 02* | 1 | 2 | - |
| Ground | - | 1 | - | - |
| 1. Ignition mode switch indicator always OFF<br>2. Ignition mode switch indicator always ON | | | | |

#### Circuit/System Description

| Circuit | Description |
|---|---|
| Control terminal 5 | The output circuit varies between ground and 12 V. |
| Ground | Chassis Ground |

| Component | Description |
|---|---|
| K9 Body Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| S38 Ignition Mode Switch | The ignition mode switch has two LEDs that indicate the vehicle power mode. |

The ignition mode switch has two LEDs that indicate the vehicle power mode. When the vehicle is in the off mode, both LEDs will be off. Pressing the ignition mode switch button once (without the brake pedal applied), the vehicle enters the accessory mode and the amber LED (Accessory) will illuminate. The accessory mode has a 10 min time-out to reduce battery drain. Pressing and holding the push button start switch (without the brake pedal applied) for 5 s will place the vehicle in run/start mode (without the vehicle running) and the green LED (Run/Start) will illuminate. With the ignition off (with the brake pedal applied), pressing the ignition mode switch button once, the vehicle will enter run/start mode and the green LED (run/start) will illuminate. This will start the engine.

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#### Conditions for Running the DTC

- Control Module voltage is between 9 - 16 V

#### Conditions for Setting the DTC

**B097C 02**

- The control module detects a short to ground.
- The above condition(s) must occur for greater than 1 s.

#### Actions Taken When the DTC Sets

The concerned output is switched off.

#### Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

A history DTC will clear after 40 consecutive malfunction-free ignition cycles.

#### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References**

#### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Perform the scan tool control function: Run/Crank Power Mode Indicator Command

   Verify the indicator status:

   Run/Crank Power Mode Indicator Command - OFF = LED Off.

   Run/Crank Power Mode Indicator Command - ON = LED On.

   - **If not the specified state**

     Refer to Circuit/System Testing

   - **Go to next step: If the specified state**

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3. All OK.

### Circuit/System Testing

**NOTE:** **It may take up to 2 min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.**

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for less than 10 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Test for less than 2 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground Connection
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
4. Connect the electrical connector: S38 Ignition Mode Switch
5. Ignition - On/Vehicle - In Service Mode
6. Disconnect the electrical connector: S38 Ignition Mode Switch
7. Perform the scan tool control function: Run/Crank Power Mode Indicator Command - OFF
8. Test for less than 1 V between the test points: Control circuit terminal 5 @ Component harness & Ground
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
9. Perform the scan tool control function: Run/Crank Power Mode Indicator Command - ON
10. Test for greater than 3 V between the test points: Control circuit terminal 5 @ Component harness & Ground
    - **If 3 V or less**
    1. Disconnect the electrical connector: K9 Body Control Module
    2. Test for infinite resistance between the test points: Control circuit terminal @ Control module harness & Ground
        - If less than infinite resistance - Repair the short to ground on the circuit.
        - If less than infinite resistance
    1. Test for less than 2 Ω between the test points: Control circuit terminal @ Control module harness & Control circuit terminal @ Component harness
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K9 Body Control Module
    - **Go to next step: If 3 V or greater**
11. Replace the component: S38 Ignition Mode Switch

### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming, and setup refer to: **Control Module References**

## DTC B1370: CONTROL MODULE IGNITION ON AND START CIRCUIT

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.

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- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptors

## DTC B1370

Control Module Ignition On and Start Circuit

For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Instrument Cluster Ignition (Instrument Cluster terminal 8) | B1370 06 | B1370 06 | B1370 01 | - |

### Circuit/System Description

The vehicle power mode master is the body control module (BCM). The BCM monitors switch inputs and will activate relays and other direct outputs of the power mode master as needed according to the calculated power mode.

The instrument cluster has a switched voltage input and may operate in a default mode if the power mode master serial data message does not match what the individual module can see from its own connections.

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### Conditions for Running the DTC

**B1370 01**

Ignition Mode is in Accessory position.

**B1370 06**

Ignition Mode is in Accessory, Run, or Crank positions.

### Conditions for Setting the DTC

**B1370 01**

Ignition circuit is shorted to voltage.

**B1370 06**

- Ignition circuit is open.
- Ignition circuit is shorted to ground.

### Action Taken When the DTC Sets

The Instrument Cluster still functions except the malfunction indicator lamp is always off.

### Conditions for Clearing the DTC

- The condition responsible for setting the DTC no longer exists.
- A history DTC will clear once 50 consecutive malfunction-free ignition cycles have occurred.

### Reference Information

Schematic Reference

**Instrument Cluster Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

- **Instrument Cluster Description and Operation**
- **Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

1. Verify that DTC B144B is not set.
   - **If DTC B144B is set**

     Refer to **Diagnostic Trouble Code (DTC) List - Vehicle** .

   - **Go to next step: If DTC B144B is not set**
2. Refer to Circuit/System Testing.

### Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the P16 Instrument Cluster.
2. Verify that a test lamp does not illuminate between the ignition circuit terminal 8 and ground.
   - **If the test lamp illuminates**

     Repair the short to voltage on the ignition circuit.

   - **Go to next step: If the test lamp does not illuminate**
3. Ignition ON.
4. Verify that a test lamp illuminates between the ignition terminal 8 and ground.
   - **If the test lamp does not illuminate and the Ignition fuse is good**
   1. Ignition OFF, remove the test lamp.
   2. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, refer to **Power Mode Mismatch**.
   - **If the test lamp does not illuminate and the Ignition fuse is open**
   1. Ignition OFF, remove the test lamp.
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance, replace the P16 Instrument Cluster.
   - **Go to next step: If the test lamp illuminates**
5. Replace the P16 Instrument Cluster.

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

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- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B1370, B1380 OR B1441: CONTROL MODULE IGNITION CIRCUITS

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptors

#### DTC B1370

Control Module Ignition ON and Start Circuit

#### DTC B1380

Control Module Ignition Accessory Circuit

#### DTC B1441

Control Module Ignition Off, Run, and Crank Circuit

For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| B+ terminal 2 | B1370 04, B1380 04 | B1370 04, B1380 04 | - | - |
| Ignition Terminal 1 | B1370 04, B1380 04 | B1370 04 | B1370 01 | - |
| Ignition Terminal 3 | B1370 04, B1380 04 | B1380 04 | B1380 01 | - |
| Ignition Terminal 4 | B1370 04, B1380 04, B1441 04 | B1441 04 | B1441 01 | - |
| 5 V Reference | - | 1 | - | - |
| 1. Vehicle will not change power mode | | | | |

### Circuit/System Description

The vehicle power mode master is the body control module (BCM). The ignition switch is a low current switch with multiple discrete circuits to the BCM. The BCM logic uses the ignition switch positions to identify the operator's desired power mode and activate specific discrete signals, and serial data messages for the operation of different subsystems as necessary. Other modules which have switched voltage inputs may operate in a default mode if the power mode master serial data message does not match what the individual module can detect from its own connections.

The power mode master will activate relays and other direct outputs of the power mode master as needed according to the calculated power mode. Some relays controlled by the BCM are switched ignition voltage outputs that are pass through circuits within the BCM directly from the ignition switch. If these circuits short to ground, the B+ circuit fuse to the ignition switch will open.

### Conditions for Running the DTC

**B1370 01, B1370 04**

Ignition switch is in the RUN or CRANK positions.

**B1380 01, B1380 04**

Ignition switch is in the RUN or ACCESSORY positions.

**B1441 01, B1441 04**

Ignition switch is in the CRANK position.

### Conditions for Setting the DTC

**B1370 01**

Ignition circuit is shorted to voltage.

**B1370 04**

- Ignition circuit is open.
- Ignition, accessory, or off/run/crank circuit shorted to ground.
- B+ circuit of the ignition switch is open or shorted to ground.
- Ignition relay control circuit open, including relay coil and ground.

**B1380 01**

Ignition, accessory circuit is shorted to voltage.

**B1380 04**

- Ignition, accessory circuit is open.
- Ignition, accessory, or off/run/crank circuit shorted to ground.
- B+ circuit of the ignition switch is open or shorted to ground.

**B1441 01**

Ignition, off/run/crank signal circuit is shorted to voltage.

**B1441 04**

Ignition, off/run/crank signal circuit is open.

### Actions Taken When the DTC Sets

- The BCM operates in a fail-safe power mode dependent on the last valid power mode detected and the state of the engine run flag data on the serial data communications circuits.
- The other modules on the vehicle operate in a fail-safe power mode dependent on the last valid power mode transmitted by the BCM and the state of the engine run flag on the serial data communications circuits.

### Conditions for Clearing the DTC

- The condition responsible for setting the DTC no longer exists.
- A history DTC will clear once 50 consecutive malfunction-free ignition cycles have occurred.

### Diagnostic Aids

An open in the ignition switch B+ circuit or circuit fuse will cause the key in ignition warning chime to be inoperative.

### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

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Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

1. Ignition ON.
2. Verify DTC U1814 is not set.
   - **If DTC is set**

     Refer to **Diagnostic Trouble Code (DTC) List - Vehicle** .

   - **Go to next step: If DTC is not set**
3. Verify the scan tool power mode parameters change when cycling the S39 Ignition Switch between OFF, ACCESSORY, ON, and CRANK.
   - **If the power mode parameters do not change**

     Refer to Circuit/System Testing.

   - **Go to next step: If the power mode parameters change**
4. All OK.

### Circuit/System Testing

1. Ignition OFF, disconnect the S39 Ignition Switch.
2. Verify a test lamp illuminates between the B+ circuit terminal 2 and ground.
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Remove the test lamp.
   2. Test for less than 2 Ω in the B+ circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, verify the fuse is not open and there is voltage at the fuse.
   - **If the test lamp does not illuminate and the circuit fuse is open**
   1. Remove the test lamp.
   2. Test for infinite resistance between the B+ circuit and ground.
      - If less than infinite resistance, repair the short to ground on one of the following circuits listed below:

        **NOTE:** **To help isolate a short to ground, it may be necessary to disconnect modules that are connected to the following circuits:**

        -
        - B+ circuit terminal 2

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- Ignition circuit terminal 1
- Ignition circuit terminal 3
- Ignition circuit terminal 4

- **Go to next step: If the test lamp illuminates**

3. Connect the S39 Ignition Switch.
4. Ignition ON, disconnect the harness connector at the S39 Ignition Switch while the ignition is ON.
5. Test for 4.8 - 5.2 V between the 5 V reference circuit terminal 6 and ground.
    - **If less than 4.8 V**
    1. Connect the S39 Ignition Switch.
    2. Ignition OFF, disconnect the X3 harness connector at the K9 Body Control Module and S39 Ignition Switch.
    3. Test for infinite resistance between the 5 V reference circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    4. Test for less than 2 Ω in the 5 V reference circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If greater than 5.2 V**
    1. Connect the S39 Ignition Switch.
    2. Ignition OFF, disconnect the X3 harness connector at the K9 Body Control Module.
    3. Ignition ON, disconnect the harness connector at the S39 Ignition Switch while the ignition is ON.
    4. Test for less than 1 V between the 5 V reference circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If between 4.8 - 5.2 V**
6. Connect the harness connector at the S39 Ignition Switch.
7. Ignition OFF.
8. Disconnect the X3 harness connector at the K9 Body Control Module, ignition ON.
9. Verify a test lamp illuminates between each of the ignition circuits listed below and ground:
    - Ignition circuit terminal 5
    - Ignition circuit terminal 6
    - **If the test lamp does not illuminate and the circuit fuse is good**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the S39 Ignition Switch.
    2. Test for less than 2 Ω in the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, verify the fuse is not open and there is voltage at the fuse.
    - **If the test lamp does not illuminate and the circuit fuse is open**
    1. Ignition OFF, remove the test lamp.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp illuminates**
10. Ignition OFF with the key in.
11. Verify a test lamp illuminates between ignition circuit terminal 15 and ground.
    - **If the test lamp does not illuminate and the circuit fuse is good**
    1. Ignition OFF with the key out, remove the test lamp.
    2. Test for less than 2 Ω in the ignition circuit end to end.

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- If 2 Ω or greater, repair the open/high resistance in the circuit.
- If less than 2 Ω, verify the fuse is not open and there is voltage at the fuse.

- **If the test lamp does not illuminate and the circuit fuse is open**

1. Ignition OFF with the key out remove the test lamp.
2. Test for infinite resistance between the ignition circuit terminal 15 and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, replace the K9 Body Control Module.

- **Go to next step: If the test lamp illuminates**

12. Connect the X3 harness connector at the K9 Body Control Module, ignition ON.
13. Disconnect the harness connector at the S39 Ignition Switch.
14. Test for less than 1 V between each of the ignition circuits listed below and ground.
    - Ignition circuit terminal 1
    - Ignition circuit terminal 3
    - Ignition circuit terminal 4
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
15. Test or replace the S39 Ignition Switch.

### Component Testing

1. Ignition OFF, disconnect the harness connector at the S39 Ignition Switch.
2. Using the Resistance Test below, verify the resistance between the terminals listed below match for each S39 Ignition Switch position.
    - **If any reading is other than specified**

      Replace the S39 Ignition Switch.

    - **Go to next step: If the readings match**
3. All OK.

**Resistance Test**

| Ignition Switch Position | Terminals 1 and 2 | Terminals 2 and 3 | Terminals 2 and 4 | Terminals 2 and 6 | Terminals 4 and 6 |
|---|---|---|---|---|---|
| OFF Key Out | Infinite | Infinite | Infinite | Infinite | Infinite |
| OFF Key In | Infinite | Infinite | <5.0 Ω | Infinite | Infinite |
| ACCESSORY | Infinite | <5.0 Ω | Infinite | Infinite | Infinite |
| ON/RUN | <5.0 Ω | <5.0 Ω | Infinite | Infinite | <5.0 Ω |
| CRANK | <5.0 Ω | Infinite | Infinite | Infinite | 1275 - 1325 Ω |

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Ignition and Start Switch Replacement (Equinox)** **Ignition and Start Switch Replacement (Terrain)**
- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B1445: CONTROL MODULE VOLTAGE OUTPUT CIRCUIT

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

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### DTC Descriptor

## DTC B1445

Control Module Voltage Output Circuit

For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Coil Control | B1445 02 | B1445 04 | B1445 01 | - |

### Circuit/System Description

The body control module (BCM) controls the retained accessory power relay through the control circuit by applying voltage to the retained accessory power relay coil control circuit. The retained accessory power relay is energized when the ignition switch is in the ACCESSORY or the ON position.

### Conditions for Running the DTC

- The system voltage is between 9 - 16 V.
- The DTC can only set when the output is actively being requested by the module.

### Conditions for Setting the DTC

The DTC will set only when the module requests the output and there is a short to ground in the ignition voltage circuit.

### Action Taken When the DTC Sets

The module output driver will be shut down and not supply voltage to the circuit.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

### Reference Information

Schematic Reference

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Retained Accessory Power Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

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### Circuit/System Verification

1. Ignition ON.
2. Verify the KR76 Retained Accessory Power Relay clicks ON and OFF when commanding the Accessory/Retained Accessory Power Relay On and Off with a scan tool.
    - **If the KR76 Retained Accessory Power Relay does not click ON and OFF**

      Refer to Circuit/System Testing.

    - **Go to next step: If the KR76 Retained Accessory Power Relay clicks ON and OFF**
3. All OK.

### Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the KR76 Retained Accessory Power Relay. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 11 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON, connect a test lamp between the control circuit terminal 13 and ground circuit terminal 11.
4. Verify the test lamp turns ON and OFF when commanding the Accessory/Retained Accessory Power Relay On and Off with a scan tool.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
5. Test or replace the KR76 Retained Accessory Power Relay.

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Relay Replacement (Attached to Wire Harness)** **Relay Replacement (Within an Electrical Center)**
- Refer to **Control Module References** for body control module replacement, programming and setup.

## DTC B1448: ACCESSORY POWER RELAY CIRCUIT SHORT TO GROUND

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### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptor

## DTC B1448 02

Accessory Power Relay Circuit Short to Ground

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Coil Control | B1448 02 | 1 | 1 | - |
| 1. Retained Accessory Power Malfunction | | | | |

### Circuit/System Description

The body control module (BCM) controls the retained accessory power relay through the control circuit by applying voltage to the retained accessory power relay coil control circuit. The retained accessory power relay is energized when the ignition switch is in the ACCESSORY or the ON position.

### Conditions for Running the DTC

- The system voltage is between 9 - 16 V.
- The DTC can only set when the output is actively being requested by the module.

### Conditions for Setting the DTC

The DTC will set only when the module requests the output and there is a short to ground in the ignition voltage circuit.

### Action Taken When the DTC Sets

The module output driver will be shut down and not supply voltage to the circuit.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

### Reference Information

Schematic Reference

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Retained Accessory Power Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**

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- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

#### Circuit/System Verification

1. Ignition ON.
2. Verify the KR76 retained accessory power relay turns ON and OFF when commanding the accessory/retained accessory power relay ON and OFF with a scan tool.
    - **If the KR76 retained accessory power relay does not turn ON and OFF**

      Refer to Circuit/System Testing below

    - **Go to next step: If the KR76 retained accessory power relay turns ON and OFF**
3. All OK.

#### Circuit/System Testing

1. Ignition OFF, disconnect the KR76 retained accessory power relay, ignition ON.
2. Connect a test lamp between the control circuit terminal 86 and ground.
3. Verify the test lamp turns ON and OFF when commanding the accessory/retained accessory power relay ON and OFF with a scan tool.
    - **If the test lamp is always OFF**
    1. Ignition OFF, disconnect the harness connector at the K9 body control module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 body control module.
    - **If the test lamp is always ON**
    1. Ignition OFF, disconnect the harness connector at the K9 body control module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 body control module.
    - **Go to next step: If the test lamp turns ON and OFF**
4. Test or replace the KR76 retained accessory power relay.

#### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

- Refer to Relay Replacement (Attached to Wire Harness) Relay Replacement (Within an Electrical Center)
- Refer to Control Module References for the appropriate module replacement, programming and setup.

## DTC B144A: RUN POWER RELAY CIRCUIT

#### Diagnostic Instructions

- Perform the Diagnostic System Check - Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Refer to Diagnostic Procedure Instructions to provide an overview of each diagnostic category.

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### DTC Descriptor

## DTC B144A

RUN Power Relay Circuit

For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Coil Control | B144A 02 | - | - | - |

### Circuit/System Description

The body control module (BCM) feeds the ignition circuit by applying voltage when the ignition is in the ON position.

### Conditions for Running the DTC

- The system voltage is between 9 - 16 V.
- The DTC can only run when the output is activated.

### Conditions for Setting the DTC

**B144A 02**

A short to ground is detected on the ignition run relay coil control circuit.

### Action Taken When the DTC Sets

**B144A 02**

The module output driver will be shut down and not supply voltage to the ignition run relay control circuit.

### Conditions for Clearing the DTC

- The current DTC will clear when the module request for the output is removed or the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

### Reference Information

Schematic Reference

- **HVAC Wiring Schematics**
- Power Moding Wiring Schematics

Connector End View Reference

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- **Connector Repairs**

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- Relay Replacement (Attached to Wire Harness) Relay Replacement (Within an Electrical Center)
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

### Circuit/System Verification

1. Ignition ON.
2. Verify the HVAC control module scan tool Ignition Signal parameter is 12.6-15 V.
   - **If not between 12.6 - 15 V**

     Refer to Circuit/System Testing - Diagnostic A.

   - **Go to next step: If between 12.6 - 15 V**

   **NOTE:** **The vehicle may not be equipped with the ignition relay below.**

3.
4. Verify the KR32E Blower Motor Relay turns ON and OFF when commanding the Auxiliary Ignition Run Relay On and Off with a scan tool.
   - **If the KR32E Blower Motor Relay does not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic B.

   - **Go to next step: If the KR32E Blower Motor Relay turns ON and OFF**
5. All OK.

### Circuit/System Testing

#### Diagnostic A

1. Ignition OFF and all vehicle systems OFF, disconnect the X2 harness connector at the K33 HVAC Control Module.
2. Connect a test lamp between the ignition circuit terminals listed below and ground, Ignition ON.
   - K33 HVAC Control Module - Ignition circuit terminal 2 (With C67 or C4P)
   - K33 HVAC Control Module - Ignition circuit terminal 9 (With CJ2, C41 or C60)
3. Verify the test lamp turns ON and OFF when commanding the Auxiliary Ignition Run Relay On and Off with a scan tool.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance
   3. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, replace the K9 Body Control Module.
   - **If the test lamp is always ON**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
   2. Test for less than 1 V between the ignition circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V, replace the K9 Body Control Module.

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- **Go to next step: If the test lamp turns ON and OFF**

4. Replace the K33 HVAC Control Module.

#### Diagnostic B

1. Ignition OFF and all vehicle systems OFF, disconnect the KR32E Blower Motor Relay. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 1 and ground.
   - **If 10 Ω or greater**
   1. Ignition OFF.
   2. Test for less than 2 Ω in the ground circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, repair the open/high resistance in the ground connection.
   - **Go to next step: If less than 10 Ω**
3. Ignition ON, connect a test lamp between the control circuit terminal 2 and ground circuit terminal 1.
4. Verify the test lamp turns ON and OFF when commanding the Auxiliary Ignition Run Relay On and Off with a scan tool.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module and K33 HVAC Control Module.
   2. Test for infinite resistance between the control circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance
   3. Test for less than 2 Ω in the control circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, replace the appropriate K9 Body Control Module or K33 HVAC Control Module.
   - **If the test lamp is always ON**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
   2. Test for less than 1 V between the control circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V, replace the K9 Body Control Module.
   - **Go to next step: If the test lamp turns ON and OFF**
5. Test or replace the appropriate KR32E Blower Motor Relay.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B144B: RUN/CRANK POWER RELAY CIRCUIT

#### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptors

### DTC B144B

Run/Crank Power Relay Circuit

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For symptom byte information, refer to **Symptom Byte List**

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Coil Control | B144B 02 | B144B 04 | B144B 01 | - |

### Circuit/System Description

The body control module (BCM) controls the ignition main (underhood) and ignition main (rear body) relays through the control circuit by applying voltage to the ignition run/crank relay coil control circuit. The ignition main (underhood) and ignition main (rear body) relays are energized when the ignition switch is in the RUN or the CRANK position, or when a remote start is requested

### Conditions for Running the DTC

System voltage greater than 9 V.

### Conditions for Setting the DTC

**B144B 01**

The ignition output is not active and a short to battery is detected 3 consecutive times on the ignition voltage circuit.

**B144B 02**

A short to ground is detected on the ignition main relay coil control circuit.

**B144B 04**

The ignition output is not active and an open is detected 20 consecutive times on the ignition voltage circuit.

### Action Taken When the DTC Sets

**B144B 01, B144B 04**

No action is taken.

**B144B 02**

The ignition main (underhood) and ignition main (rear body) relays are deactivated when the fault is set. After 100 ms, the ignition main (underhood) and ignition main (rear body) relays will be activated. If the fault is still set, the relays will be deactivated. The ignition main (underhood) and ignition main (rear body) relays will again be activated after 100 ms. If this also results in a fault, the ignition main (underhood) and ignition main (rear body) relays will be deactivated until a new ignition request is received.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present and an ignition request is received.
- A history DTC will clear after 40 malfunction-free ignition cycles.

### Diagnostic Aids

A short to voltage on the ignition run/crank relay coil control will cause the engine to remain running after the mode is changed to OFF.

### Reference Information

Schematic Reference

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Power Moding Wiring Schematics

Connector End View Reference

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- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

**NOTE:** **The vehicle may not be equipped with all components as listed below. Use wiring schematics to determine which ignition relay supplies the ignition feed for the appropriate devices. Use the connector end view to identify the ignition circuit terminal for each of those devices.**

1. Ignition ON.
2. Verify the appropriate devices controlled by the KR73 Ignition Main Relay (underhood) and the KR73 Ignition Main Relay (rear body) turn ON and OFF when commanding the Run/Crank relay On and Off with a scan tool.
    - **If the appropriate devices controlled by the KR73 Ignition Main Relay (underhood) or KR73 Ignition Main Relay (rear body) do not turn ON and OFF**

      Refer to Circuit/System Testing.

    - **Go to next step: If the appropriate devices controlled by the KR73 Ignition Main Relay (underhood) and KR73 Ignition Main Relay (rear body) turn ON and OFF**
3. All OK.

### Circuit/System Testing

#### Without ATH/BTM

1. Ignition OFF, disconnect the KR73 Ignition Main Relay (underhood) and the KR73 Ignition Main Relay (rear body), It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuits listed below and ground.
    - KR73 Ignition Main Relay (underhood) - Ground circuit terminal 85
    - KR73 Ignition Main Relay (rear body) - Ground circuit terminal 2
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON, connect a test lamp between the control circuits listed below and ground.

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- KR73 Ignition Main Relay (underhood) - Control circuit terminal 86
- KR73 Ignition Main Relay (rear body) - Control circuit terminal 1

4. Verify the test lamp turns ON and OFF when commanding the Run/Crank relay On and Off with a scan tool.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
5. Test or replace the appropriate KR73 Ignition Main Relay (underhood) or the KR73 Ignition Main Relay (rear body).

#### With ATH/BTM

1. Ignition ON, disconnect the X2 harness connector at the K84 Keyless Entry Control Module.
2. Verify a test lamp illuminates between the B+ circuit terminal 1 and ground.
    - **If the test lamp does not illuminate and the circuit fuse is good**
    1. Ignition OFF, remove the test lamp.
    2. Test for less than 2 Ω in the B+ circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, verify the fuse is good and there is voltage at the fuse.
    - **If the test lamp does not illuminate and the circuit fuse is open**
    1. Ignition OFF, remove the test lamp.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance, replace the K84 Keyless Entry Control Module.
    - **Go to next step: If the test lamp illuminates**
3. Ignition OFF, connect the X2 harness connector at the K84 Keyless Entry Control Module and disconnect the X3 harness connector at the K9 Body Control Module.
4. Test for less than 1 V between the ignition circuit terminal 6 and ground.
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
5. Ignition ON.
6. Verify a test lamp illuminates between the ignition circuit terminal 6 and ground.
    - **If the test lamp does not illuminate**
    1. Ignition OFF, remove the test lamp.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.

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- If infinite resistance.

3. Test for less than 2 Ω in the ignition circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K84 Keyless Entry Control Module.
- **Go to next step: If the test lamp illuminates**

7. Ignition OFF, remove the test lamp, connect the X3 harness connector at the K9 Body Control Module.
8. Ignition OFF, disconnect the KR73 Ignition Main Relay (underhood) and the KR73 Ignition Main Relay (rear body). It may take up to 2 min for all vehicle systems to power down.
9. Test for less than 10 Ω between the ground circuits listed below and ground.
    - KR73 Ignition Main Relay (underhood) - Ground circuit terminal 85
    - KR73 Ignition Main Relay (rear body) - Ground circuit terminal 2
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
10. Ignition ON, connect a test lamp between the control circuits listed below and ground.
    - KR73 Ignition Main Relay (underhood) - Control circuit terminal 86
    - KR73 Ignition Main Relay (rear body) - Control circuit terminal 1
11. Verify the test lamp turns ON and OFF when commanding the Run/Crank relay On and Off with a scan tool.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
12. Test or replace the KR73 Ignition Main Relay (underhood) or the KR73 Ignition Main Relay (rear body).

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B144D: DEVICE VOLTAGE OUTPUT 2 CIRCUIT

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.

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- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptor

## DTC B144D

Device Voltage Output 2 Circuit

For symptom byte information refer to **Symptom Byte List**

### Diagnostic Fault Information

| Device Voltage Output 2 Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Control | B144D 0B | B144D 04 | - | - |

### Circuit/System Description

The DC/DC converter provides continuous power to certain devices during a stop start event to achieve uninterrupted performance during engine cranking. The output voltage is kept at a constant level during engine cranking.

### Conditions for Running the DTC

Engine not running.

The system voltage is greater than 12 V.

### Conditions for Setting the DTC

**B144D 0B**

The output is active and the current level is above 20 A for greater than 5 s.

**B144D 04**

The output active and no current is detected for greater than 5 s.

### Action Taken When the DTC Sets

**B144D 0B**

The output will be shut down and not supply voltage to the circuit.

**B144D 04**

No action is taken.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 40, without a repeat of the malfunction.

### Reference Information

Schematic Reference

**Starting and Charging Wiring Schematics**

Power Distribution Wiring Schematics

Connector End View Reference

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- **Connector Repairs**
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- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

**NOTE:** **Use wiring schematics to determine which devices are powered up on the T19 Power Supply Transformer control circuit terminal 9 X1.**

1. Ignition ON.
2. Verify that the appropriate devices controlled by the T19 Power Supply Transformer control circuit terminal 9 X1 turn ON when cycling the ignition ON.
   - **If the devices do not turn ON**

     Refer to Circuit/System Testing.

   - **Go to next step: If the devices turn ON**
3. All OK.

### Circuit/System Testing

1. Ignition ON.
2. Verify that a test lamp illuminates between each of the B+ circuits listed below and ground.
   - X51A Fuse Block - Instrument Panel - Fuse F10DA
   - X51A Fuse Block - Instrument Panel - Fuse F15DA
   - **If the test lamp does not illuminate**
   1. Ignition OFF, remove the test lamp, remove fuses, disconnect the harness connector at the T19 Power Supply Transformer.
   2. Test for infinite resistance between the B+ circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance.
   3. Test for less than 2 Ω in the B+ circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, replace the T19 Power Supply Transformer.
   - **Go to next step: If the test lamp illuminates**
3. Ignition OFF, Disconnect the harness connector at the appropriate device powered by the T19 Power Supply Transformer B+ supply circuit terminal 9 X1, ignition ON.
4. Verify that a test lamp illuminates between each of the B+ circuits listed below and ground.
   - K9 Body Control Module - B+ circuit terminal 4 X1
   - K71 Transmission Control Module - B+ circuit terminal 1 X1
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Ignition OFF, remove the test lamp.
   2. Test for less than 2 Ω in the B+ circuit end to end.

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- If 2 Ω or greater, repair the open/high resistance in the circuit.
- If less than 2 Ω, verify the fuse is not open and there is voltage at the fuse.

- **If the test lamp does not illuminate and the circuit fuse is open**

1. Ignition OFF remove the test lamp.
2. Test for infinite resistance between the B+ circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, test or replace the appropriate device powered by the T19 Power Supply Transformer B+ supply circuit terminal 9 X1.

- **Go to next step: If the test lamp illuminates**

5. Test or replace the appropriate device powered by the T19 Power Supply Transformer B+ supply circuit terminal 9 X1.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B1451: ACCESSORY POWER CIRCUIT

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

**NOTE:** **This procedure may also diagnose malfunctions that are not detected by a DTC.**

### DTC B1451

Accessory Power Circuit

**Symptom Byte Information:** **Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| B+ circuit terminal 2 X1 | - | B1451 04 | - | - |
| Ignition terminal 5 X3 | B1451 02 | B1451 04 | B1451 01 | - |

#### Circuit/System Description

| Circuit | Description |
|---|---|
| K84 Keyless Entry Control Module B+ circuit terminal 2 X1 | Supplied from a fuse. |
| K9 Body Control Module Ignition terminal 5 X3 | When the ignition is turned on or in accessory, the keyless entry control module sends a 12 V signal to the body control module. |

| Component | Description |
|---|---|
| K9 Body Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| | |

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| Component | Description |
|---|---|
| K84 Keyless Entry Control Module | The control module contains a microprocessor used to process input data to control outputs. |

The keyless entry control module provides as a backup control for the ignition power circuit, by applying voltage to the ignition power circuit. The ignition power circuit is energized when the vehicle power mode is in ACCESSORY mode or Ignition ON mode.

### Conditions for Running the DTC

**B1451 01**

- Vehicle power mode is Ignition OFF
- Module is awake
- System voltage between 6 and 16 V

**B1451 04**

- Vehicle power mode is Ignition OFF
- Module is awake
- System voltage between 6 and 16 V

**B1451 02**

- Vehicle power mode is ACCESSORY or Ignition ON mode
- Module is awake
- The DTC is only run when the output is active
- System voltage between 6 and 16 V

### Conditions for Setting the DTC

**B1451 01, 04**

- Ignition output is not active and a short to battery is detected 3 consecutive times.

**B1451 02**

- Ignition output is active and a short to ground is detected 3 consecutive times.

### Conditions for Setting the DTC

**B1451 01, 04**

Ignition output is not active and a short to battery is detected 3 consecutive times.

**B1451 02**

Ignition output is active and a short to ground is detected 3 consecutive times.

### Actions Taken When the DTC Sets

**B1451 01, 04**

No action is taken.

**B1451 02**

The concerned output is switched off.

### Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

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A history DTC will clear after 40 consecutive malfunction-free ignition cycles.

### Diagnostic Aids

- A short to voltage in the ignition control circuit will keep the vehicle modules awake, which can drain the vehicle's battery.
- A short to ground in the extension of this circuit through the body control module can back feed to the keyless entry control module. Check for a short to ground on the ignition circuit on the other side of the ignition pass thru, in the body control module, before replacing the body control module.

### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

Connector End View Reference

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Scan Tool Reference

**Control Module References**

### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Verify DTC B1451 and one or more of the DTCs B1380, U1814 is set.
   - **If DTC B1451 and one or more of the DTCs B1380, U1814 is set**

     Refer to the following: **Diagnostic Trouble Code (DTC) List - Vehicle**

   - **Go to next step: If DTC B1451 is set but none of the DTCs B1380, U1814 is set**
3. Refer to Circuit/System Testing below

### Circuit/System Testing

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: X3 @ K9 Body Control Module
3. Test for less than 1 V between the test points: Ignition circuit terminal 5 @ K9 Body Control Module & Ground
   - If 1 V or greater - Repair the short to voltage on the circuit.
   - If less than 1 V
4. Ignition - On/Vehicle - In Service Mode
5. Verify a test lamp turns On between the test points: Ignition circuit terminal 5 @ K9 Body Control Module & Ground
   - **If the test lamp is always Off**

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1. Ignition/Vehicle - Off & Remove - Test lamp
2. Disconnect the electrical connector: X1 @ K84 Keyless Entry Control Module
3. Test for infinite resistance between the test points: Ignition circuit terminal 5 @ K84 Keyless Entry Control Module & Ground
    - If less than infinite resistance - Repair the short to ground on the circuit.
    - If infinite resistance
4. Test for less than 2 Ω between the test points: Ignition circuit terminal 5 @ K84 Keyless Entry Control Module & Ignition circuit terminal 5 @ K9 Body Control Module
    - If 2 Ω or greater - Repair the open/high resistance in the circuit.
    - If less than 2 Ω - Replace the component: K84 Keyless Entry Control Module

- **Go to next step: If the test lamp turns On**

6. Replace the component: K9 Body Control Module

#### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming and setup, refer to **Control Module References**

## DTC B147E OR B147F: BATTERY SAVER RELAY SET/RESET SECONDARY CIRCUIT

#### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptors

### DTC B147E

Battery Saver Relay Set Secondary Circuit

### DTC B147F

Battery Saver Relay Reset Secondary Circuit

For symptom byte information, refer to **Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Set Relay Coil Control | B147E 02 | B147E 04 | B147E 01 | - |
| Reset Relay Coil Control | B147F 02 | B147F 04 | B147F 01 | - |

#### Circuit/System Description

The battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When the vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode (transport mode), such as disabling the keyless entry or content theft features.

The battery saver mode (transport mode) incorporates a latching relay that when enabled disconnects some modules from their ignition power or memory power sources. Battery saver mode (transport mode) is initiated by turning on the hazard flashers and then turning the ignition key into the crank position or pushing the push button start switch (if equipped) for greater than 15 s. The mode is disengaged by repeating the previous process. After battery saver mode (transport mode) has been

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enabled, the body control module (BCM) may not send the command to unlatch the relay until after the ignition has been switched to the off position for up to 1 min. In battery saver mode (transport mode) the BCM will send a command to latch the relay for operation of those modules while the ignition is in the run position and then again unlatching the relay after the ignition is turned off. The driver information center (if equipped) will display Transport Mode is On when the transport mode is enabled and Transport Mode is Off when the transport mode is disabled. For vehicles not equipped with a driver information center, the battery in driver information center light will constantly flash on the instrument cluster when transport mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

#### Conditions for Running the DTC

- The system voltage is between 9 - 16 V.
- The DTC can only run when the output is activated.

#### Conditions for Setting the DTC

The BCM detects a short to ground in the battery saver relay set/reset circuits.

#### Action Taken When the DTC Sets

The module output driver will be shut down and not supply voltage to the battery saver relay set/reset circuits.

#### Conditions for Clearing the DTC

- The current DTC will clear when the module request for the output is removed or the malfunction is no longer present.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

#### Reference Information

Schematic Reference

- **Body Control System Wiring Schematics**
- Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Relay Replacement (Attached to Wire Harness)** **Relay Replacement (Within an Electrical Center)**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

#### Circuit/System Verification

1. Enable battery saver mode (transport mode) in the vehicle.

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2. Verify the KR104A Battery Saver Relay 1 clicks open and closed when cycling the ignition between ON and OFF.
    - **If the KR104A Battery Saver Relay 1 does not click open and closed**

      Refer to Circuit/System Testing.

    - **Go to next step: If the KR104A Battery Saver Relay 1 clicks open and closed**
3. All OK.

### Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the KR104A Battery Saver Relay 1. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 6 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON.
4. Verify a test lamp illuminates between the B+ circuit terminal 3 and ground.
    - **If the test lamp does not illuminate**
    1. Ignition OFF, remove test lamp, disconnect the harness connector at the T19 Power Supply Transformer.
    2. Test for infinite resistance between the B+ circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance.
    3. Test for less than 2 Ω in the B+ circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the T19 Power Supply Transformer.
    - **Go to next step: If the test lamp illuminates**
5. Enable battery saver mode (transport mode).
6. Ignition OFF.
7. Connect a test lamp between the control circuit terminal 1 and ground.
8. Verify the test lamp momentarily flashes ON and OFF when turning the ignition ON.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**

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9. Connect a test lamp between the control circuit terminal 2 and ground.
10. Verify the test lamp momentarily flashes ON and OFF after turning the ignition OFF.

**NOTE:** **It may take up to 1 min after the ignition is switched OFF and retained accessory power is disabled before the K9 Body Control Module sends a command to unlatch the relay.**

- **If the test lamp is always OFF**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
2. Test for infinite resistance between the control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance
3. Test for less than 2 Ω in the control circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K9 Body Control Module.

- **If the test lamp is always ON**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
2. Test for less than 1 V between the control circuit and ground.
    - If 1 V or greater, repair the short to voltage on the circuit.
    - If less than 1 V, replace the K9 Body Control Module.

- **Go to next step: If the test lamp turns ON and OFF**

11. Verify that a test lamp does not illuminate between the ignition circuit terminal 5 and ground.
    - **If the test lamp illuminates**

      Repair the short to voltage on the ignition circuit

    - **Go to next step: If the test lamp does not illuminate**
12. Ignition ON, connect a 30 A fused jumper wire between the B+ circuit terminal 3 and the ignition circuit terminal 5.
13. Verify the device is activated.
    - **If the device does not activate**

    1. Ignition OFF, disconnect the harness connector at the device.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the device.

    - **Go to next step: If the device activates**
14. Test or replace the KR104A Battery Saver Relay 1.

## Component Testing

### Relay Test

1. Ignition OFF, disconnect the KR104A Battery Saver Relay 1.
2. Test for 70 - 150 Ω between terminals the following terminals.
    - 1 and 6
    - 2 and 6
    - **If less than 70 or greater than 150 Ω**

      Replace the relay.

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- **Go to next step: If between 70 - 150 Ω**

3. Install a 3 A fused jumper wire between relay terminal 1 and 12 V. Install a jumper wire between relay terminal 6 and ground.
4. Test for infinite resistance between the following terminals:
    - 3 and 6
    - 3 and 5
    - 3 and 1
    - 3 and 2
    - 1 and 5
    - 2 and 5
    - **If less than infinite resistance**

      Replace the relay.

    - **Go to next step: If infinite resistance**
5. Install a 3 A fused jumper wire between relay terminal 1 and 12 V. Install a jumper wire between relay terminal 6 and ground.
6. Test for less than 5.0 Ω between terminals 3 and 5.
    - **If 5.0 Ω or greater**

      Replace the relay.

    - **Go to next step: If less than 5.0 Ω**
7. All OK

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC B305E: INTERRUPTIBLE RAP RELAY CIRCUIT

#### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptor

### DTC B305E

Interruptible RAP Relay Circuit

For symptom byte information, refer to **Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Coil Control | B305E 02 | B305E 05 | B305E 01, B305E 05 | - |

#### Circuit/System Description

The keyless entry control module controls the retained accessory power relay through the control circuit by applying voltage to the interruptible retained accessory power relay coil control circuit. The retained accessory power relay is energized when the ignition is in the ACCESSORY or the ON position. The

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relay is also energized for approximately 10 min after shutting the ignition OFF, providing no door is opened.

### Conditions for Running the DTC

- System voltage is greater than 6 V.
- The DTC can only set when the output is actively being requested by the module.

### Conditions for Setting the DTC

**B305E 01**

The ignition output is not active and a short to battery is detected 3 consecutive times on the ignition voltage circuit.

**B305E 02**

The ignition output is active and a short to ground is detected on the ignition voltage circuit.

**B305E 05**

The ignition output is active and an open or short to battery is detected on the ignition voltage circuit.

### Action Taken When the DTC Sets

**B305E 01, B305E 05**

No action is taken.

**B305E 02**

The module output driver will be shut down and not supply voltage to the circuit.

### Conditions for Clearing the DTC

- The current DTC will clear when the malfunction is no longer present and the ignition output is active.
- A history DTC clears when the module ignition cycle counter reaches the reset threshold of 50, without a repeat of the malfunction.

### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Retained Accessory Power Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

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### Circuit/System Verification

1. Ignition ON.
2. Verify the KR76 Retained Accessory Power Relay clicks ON and OFF when cycling the ignition between ON and OFF.
    - **If the KR76 Retained Accessory Power Relay does not click ON and OFF**

      Refer to Circuit/System Testing - Diagnostic A.

    - **Go to next step: If the KR76 Retained Accessory Power Relay clicks ON and OFF**
3. All OK.

### Circuit/System Testing

1. Ignition OFF/Vehicle OFF and all vehicle systems OFF, disconnect the KR76 Retained Accessory Power Relay. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 85 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF/Vehicle OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON/Vehicle in Service Mode, connect a test lamp between the control circuit terminal 86 and ground circuit terminal 85.
4. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
    - **If the test lamp is always OFF**
    1. Ignition OFF/Vehicle OFF, remove the test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K84 Keyless Entry Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF/Vehicle OFF, remove the test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module, ignition ON/Vehicle in Service Mode.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K84 Keyless Entry Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
5. Test or replace the KR76 Retained Accessory Power Relay.

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Relay Replacement (Attached to Wire Harness)** **Relay Replacement (Within an Electrical Center)**
- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC P156D: DC/DC CONVERTER IGNITION SWITCH RUN/START POSITION SIGNAL MESSAGE COUNTER INCORRECT

### Diagnostic Instructions

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- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptor

## DTC P156D

DC/DC Converter Ignition Switch Run/Start Position Signal Message Counter Incorrect

#### Circuit/System Description

The DC/DC converter provides continuous power to certain devices during a stop start event to achieve uninterrupted performance during engine cranking. The ECM monitors the ignition status of the DC/DC converter during start stop events.

#### Conditions for Running the DTC

- The ignition is ON.
- Ignition voltage is greater than 11 V.

#### Conditions for Setting the DTC

The engine control module detects a corrupted data message from the DC/DC converter. Communication of the Alive Rolling Count from the DC/DC Converter over CAN bus is incorrect for at least 10 counts for greater than a 3 s period.

#### Action Taken When the DTC Sets

DTC P156D is a Type B DTC.

#### Conditions for Clearing the DTC

DTC P156D is a Type B DTC.

#### Reference Information

Schematic Reference

**Starting and Charging Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Stop/Start System Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

#### Circuit/System Testing

1. Verify that no other DTCs are set except for DTC P156D.
    - **If any other DTCs are set**

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Refer to **Diagnostic Trouble Code (DTC) List - Vehicle** .

- **Go to next step: If only DTC P156D is set**

2. Replace the T19 Power Supply Transformer.
3. Verify the DTC does not set while operating the vehicle within the Conditions for Running the DTC.
    - **If DTC sets**

      Replace the K20 Engine Control Module.

    - **Go to next step: If DTC does not set**
4. All OK.

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

Refer to **Control Module References** for control module replacement, programming and setup.

## DTC P16E8: ENGINE CONTROLS IGNITION RELAY SIGNAL MESSAGE COUNTER INCORRECT

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptors

### DTC P16E8

Engine Controls Ignition Relay Signal Message Counter Incorrect

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Engine Controls Ignition | P16E8 | P16E8 | - | - |
| Run/Crank ignition 1 | P17B3 | P17B3 | P17B4 | - |

### Circuit/System Description

The transmission range control module monitors and compares the voltage of the engine controls ignition voltage circuit to the run/crank ignition 1 voltage circuit.

### Conditions for Running the DTC

Ignition 1 voltage is greater than 6 V for.5 s.

### Conditions for Setting the DTC

The transmission range control module detects that the ignition state of the engine controls ignition circuit and the run/crank ignition 1 circuit do not match.

### Action Taken When the DTC Sets

DTC P16E8 is a Type B DTC.

### Conditions for Clearing the DTC

DTC P16E8 is a Type B DTC.

### Reference Information

Schematic Reference

**Electronic Transmission Range Selector Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Description and Operation

- **Electronic Transmission Range Selector Description**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

1. Verify that DTC P17B3 or P13B4 is not set.
   - **If DTC P17B3 or P13B4 is set**

     Refer to **DTC P17B3 or P17B4**.

   - **Go to next step: If DTC P17B3 or P13B4 is not set**
2. Refer to Circuit/System Testing.

### Circuit/System Testing

1. Ignition OFF/Vehicle OFF, and all vehicle systems OFF, disconnect the harness connector at the K173 Transmission Range Control Module. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between ground circuit terminal 8 and ground.
   - **If 10 Ω or greater**
   1. Test for less than 2 Ω in the ground circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, repair the open/high resistance in the ground connection.
   - **Go to next step: If less than 10 Ω**
3. Test for less than 1 V between the ignition circuit terminal 1 and ground.
   - **If 1 V or greater**

     Repair the short to voltage on the circuit.

   - **Go to next step: If less than 1 V**
4. Ignition ON/Vehicle in Service Mode.
5. Verify a test lamp illuminates between terminal 1 and ground.
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Ignition OFF/Vehicle OFF.
   2. Test for less than 2 Ω in the ignition circuit end to end.

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- If 2 Ω or greater, repair the open/high resistance in the circuit.
- If less than 2 Ω, refer to **Power Mode Mismatch**.

- **If the test lamp does not illuminate and the circuit fuse is open**

1. Ignition OFF/Vehicle OFF.
2. Test for infinite resistance between the ignition circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.

- **Go to next step: If the test lamp illuminates**

6. Replace the K173 Transmission Range Control Module.

#### Repair Instructions

- Perform the **Diagnostic Repair Verification** after completing the repair.
- Refer to **Control Module References** for control module replacement, programming and setup.

## DTC P17B3 OR P17B4: TRANSMISSION RANGE CONTROL MODULE IGNITION 1 SWITCH CIRCUIT LOW/HIGH VOLTAGE

#### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptors

### DTC P17B3

Transmission Range Control Module Ignition 1 Switch Circuit Low Voltage

### DTC P17B4

Transmission Range Control Module Ignition 1 Switch Circuit High Voltage

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Ignition | P17B3 | P17B3 | P17B4 | - |
| Ground | - | P17B3 | - | - |

#### Circuit/System Description

The transmission range control module samples the system voltage on the Ignition 1 voltage circuit every 0.25 s. Lower than normal voltage may be inadequate to operate properly.

#### Conditions for Running the DTC

**P17B3**

The ignition voltage signal is valid, with the ignition turned ON.

**P17B4**

The ignition voltage signal is valid, with the Ignition turned OFF.

#### Conditions for Setting the DTC

**P17B3**

The transmission range control module detects 6 V or less on the ignition voltage circuit, with the ignition turned ON.

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**P17B4**

The transmission range control module detects greater than 6 V or greater on the ignition voltage circuit, with the ignition turned OFF.

### Action Taken When the DTC Sets

DTCs P17B3 and P17B4 are Type B DTCs.

### Conditions for Clearing the DTC

DTCs P17B3 and P17B4 are Type B DTCs.

### Reference Information

Schematic Reference

**Electronic Transmission Range Selector Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Description and Operation

**Electronic Transmission Range Selector Description**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Testing

1. Ignition OFF/Vehicle OFF, and all vehicle systems OFF, disconnect the X1 harness connector at the K173 Transmission Range Control Module. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between ground circuit terminal 8 and ground.
    - **If 10 Ω or greater**
    1. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON/Vehicle in Service Mode, verify a test lamp illuminates between B+ circuit terminal 16 and ground.
    - **If the test lamp does not illuminate and the circuit fuse is good**
    1. Ignition OFF/Vehicle OFF.
    2. Test for less than 2 Ω in the B+ circuit end to end
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, verify the fuse is good and there is voltage at the fuse.

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- **If the test lamp does not illuminate and the circuit fuse is open**

1. Ignition OFF/Vehicle OFF.
2. Test for infinite resistance between the B+ circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.

- **Go to next step: If the test lamp illuminates**

4. Test for less than 1 V between the ignition circuit terminal 2 and ground.
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
5. Ignition ON/Vehicle in Service Mode.
6. Verify a test lamp illuminates between terminal 2 and ground.
    - **If the test lamp does not illuminate and the circuit fuse is good**

    1. Ignition OFF/Vehicle OFF.
    2. Test for less than 2 Ω in the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, refer to **Power Mode Mismatch**.

    - **If the test lamp does not illuminate and the circuit fuse is open**

    1. Ignition OFF/Vehicle OFF.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.

    - **Go to next step: If the test lamp illuminates**
7. Replace the K173 Transmission Range Control Module.

### Repair Instructions

- Perform the **Diagnostic Repair Verification** after completing the repair.
- Refer to **Control Module References** for control module replacement, programming, and setup.

## DTC P17B5: TRANSMISSION RANGE CONTROL MODULE IGNITION SWITCH ACCESSORY POSITION CIRCUIT LOW VOLTAGE

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### DTC Descriptor

### DTC P17B5

Transmission Range Control Module Ignition Switch Accessory Position Circuit Low Voltage

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Ignition | P17B5, U1814, U2099 | P17B5 | - | - |

### Circuit/System Description

The transmission range control module continuously monitors the voltage on the Ignition Accessory/Run circuit from the body control module (BCM). When the ignition is in the ACCESSORY

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or RUN position, the BCM sends a 12 V wake up signal to the control module. This wake up signal allows the control module to power up and start functioning before the engine is started.

#### Conditions for Running the DTC

The ignition is in the ACCESSORY or RUN position.

#### Conditions for Setting the DTC

The control module detects the Ignition Accessory/Run circuit is less than 6 V for 1 min.

#### Action Taken When the DTC Sets

DTC P17B5 is a Type C DTC.

#### Conditions for Clearing the DTC

DTC P17B5 is a Type C DTC.

#### Reference Information

Schematic Reference

**Data Communication Wiring Schematics**

Connector End View Reference

- **COMPONENT CONNECTOR END VIEWS - INDEX**
- **INLINE HARNESS CONNECTOR END VIEWS - INDEX**

Description and Operation

**Data Link Communications Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

**Control Module References** for scan tool information

#### Circuit/System Verification

1. Verify DTC U1814 or U2099 is not set.
   - **If any of the DTCs are set**

     Refer to **Diagnostic Trouble Code (DTC) List - Vehicle** .

   - **Go to next step: If none of the DTCs are set**
2. Refer to Circuit/System Testing.

#### Circuit/System Testing

1. Ignition OFF/Vehicle OFF, disconnect the harness X1 connector at the K173 Transmission Range Control Module.
2. Ignition ON/Vehicle in Service Mode.

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3. Verify a test lamp illuminates between the ignition circuit terminal 3 and ground.
    - **If the test lamp does not illuminate.**
    1. Ignition OFF/Vehicle OFF remove the test lamp, disconnect the X4 connector at the K9 Body Control Module.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground in the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω on the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp illuminates**
4. Replace the K173 Transmission Range Control Module.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

Refer to **Control Module References** for control module replacement, programming and setup.

## DTC P2534 OR P2535: IGNITION ON/START SWITCH CIRCUIT LOW/HIGH VOLTAGE

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

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#### DTC Descriptor

### DTC P2534

Ignition On/Start Switch Circuit Low Voltage

### DTC P2535

Ignition On/Start Switch Circuit High Voltage

**Symptom Byte Information: Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Ignition circuit | P2534 | P2534 | P2535 | - |

#### Circuit/System Description

| Circuit | Description |
|---|---|
| Ignition circuit | The output circuit varies between ground and 12 V. |

The body control module (BCM) controls the ignition main relay through the control circuit by applying voltage to the circuit. The control module samples the system voltage on the Ignition 1 voltage circuit from the ignition main relay every 0.1 s.

#### Conditions for Running the DTC

**P2534**

- The control module ignition voltage signal is valid, with the ignition ON.

**P2535**

- The control module ignition voltage signal is valid, with the ignition OFF.

### Conditions for Setting the DTC

**P2534**

- The control module detects 6 V or less on the ignition voltage circuit, with the ignition turned ON.

**P2535**

- The control module detects greater than 6 V or greater on the ignition voltage circuit, with the ignition turned OFF.

### Actions Taken When the DTC Sets

**P2534, P2535**

- DTCs P2534 and P2535 are Type A DTCs.

### Conditions for Clearing the DTC

**P2534, P2535**

- DTCs P2534 and P2535 are Type A DTCs.

### Reference Information

Schematic Reference

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

**Control Module References**

### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Verify DTC B144B is not set.
    - **If DTC B144B is set**

      Refer to **Diagnostic Trouble Code (DTC) List - Vehicle**

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- **Go to next step: DTC B144B = Not set**

3. Refer to: Circuit/System Testing

#### Circuit/System Testing

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: Appropriate control module.
3. Test for less than 1 V between the test points: Ignition circuit terminal @ Component harness & Ground
   - **If 1 V or greater**

     Repair the short to voltage on the circuit.

   - **Go to next step: If less than 1 V**
4. Ignition - On/Vehicle - In Service Mode
5. Verify a test lamp turns On between the test points: Ignition circuit terminal @ Component harness & Ground
   - **If the test lamp does not turn On and the circuit fuse is OK**
   1. Ignition/Vehicle - Off
   2. Test for less than 2 Ω between the test points: Ignition circuit terminal @ Component harness & Fuse
      - If 2 Ω or greater - Repair the open/high resistance in the circuit.
      - If less than 2 Ω - Refer to **Power Mode Mismatch**
   - **If the test lamp does not turn On and the circuit fuse is open**
   1. Ignition/Vehicle - Off
   2. Test for infinite resistance between the test points: Ignition circuit terminal @ Component harness & Ground
      - If less than infinite resistance - Repair the short to ground on the circuit.
   - **Go to next step: If the test lamp turns On**
6. Replace the component: Appropriate control module.

#### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming and setup, refer to **Control Module References**

## DTC P2537: IGNITION ACCESSORY SWITCH CIRCUIT LOW VOLTAGE

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

### DTC P2537

Ignition Accessory Switch Circuit Low Voltage

**Symptom Byte Information: Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|

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| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Ignition circuit | P2537, U1814, U2099 | P2537 | - | - |

### Circuit/System Description

| Circuit | Description |
|---|---|
| Ignition circuit | The output circuit varies between ground and 12 V. |

The control module continuously monitors the voltage on the Ignition Accessory/Run circuit from the body control module (BCM). When the ignition is in the ACCESSORY or RUN position, the BCM sends a 12 V wake up signal to the control module. This wake up signal allows the control module to power up and start functioning before the engine is started.

### Conditions for Running the DTC

The ignition is in the ACCESSORY or RUN position.

### Conditions for Setting the DTC

The control module detects the Ignition Accessory/Run circuit is less than 6 V for 1 min.

### Actions Taken When the DTC Sets

DTC P2537 is a Type B DTC.

### Conditions for Clearing the DTC

DTC P2537 is a Type B DTC.

### Reference Information

Schematic Reference

**Data Communication Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Data Link Communications Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

**Control Module References**

### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode

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2. Verify DTC P2537 and one or more of the DTCs U1814, U2099 is set.
    - **If DTC P2537 and one or more of the DTCs U1814, U2099 is set**

      Refer to the following: **Diagnostic Trouble Code (DTC) List - Vehicle**

    - **Go to next step: If DTC P2537 is set but none of the DTCs U1814, U2099 is set**
3. Refer to Circuit/System Testing below

#### Circuit/System Testing

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: Appropriate control module.
3. Ignition - On/Vehicle - In Service Mode
4. Verify a test lamp turns On between the test points: accessory wake up serial data circuit terminal @ Component harness & Ground
    - **If the test lamp does not turn On**
    1. Ignition/Vehicle - Off
    2. Test for less than 2 Ω between the test points: accessory wake up serial data circuit terminal @ Component harness & Component harness & accessory wake up serial data circuit terminal @ K9 Body Control Module
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K9 Body Control Module
    - **Go to next step: If the test lamp turns On**
5. Replace the component: Appropriate control module.

#### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming and setup, refer to **Control Module References**

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## DTC P305B OR P305C: DC/DC CONVERTER IGNITION ON/START SWITCH CIRCUIT HIGH/LOW VOLTAGE

#### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

#### DTC Descriptors

### DTC P305B

DC/DC Converter Ignition On/Start Switch Circuit High Voltage

### DTC P305C

DC/DC Converter Ignition On/Start Switch Circuit Low Voltage

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Ignition | P305C | P305C | P305B | - |

#### Circuit/System Description

The body control module (BCM) controls the ignition main relay through the control circuit by applying voltage to the circuit. The power supply transformer samples the system voltage on the Ignition 1

voltage circuit from the ignition main relay. If the power supply transformer detects a fault in the circuit it will request the ECM to set the DTC and illuminate the MIL.

### Conditions for Running the DTC

**P305B**

The control module ignition voltage signal is valid, with the ignition OFF.

**P305C**

The control module ignition voltage signal is valid, with the ignition ON.

### Conditions for Setting the DTC

**P305B**

The control module detects greater than 6 V or greater on the ignition voltage circuit, with the ignition turned OFF.

**P305C**

The control module detects 6 V or less on the ignition voltage circuit, with the ignition turned ON.

### Action Taken When the DTC Sets

DTCs P305B and P305C are Type B DTCs.

### Conditions for Clearing the DTC

DTCs P305B and P305C are Type B DTCs.

### Diagnostic Aids

A short to voltage in the ignition circuit will keep the vehicle modules awake, which can drain the vehicle's battery.

### Reference Information

Schematic Reference

Power Distribution Wiring Schematics

**Starting and Charging Wiring Schematics**

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Description and Operation

**Power Mode Description and Operation**

DTC Type Reference

**Powertrain Diagnostic Trouble Code (DTC) Type Definitions**

Scan Tool Reference

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Control Module References for scan tool information

### Circuit/System Verification

1. Engine running.
2. Verify DTC B144B is not set.
   - **If the DTC is set**

     Refer to DTC B144B.

   - **Go to next step: If the DTC is not set**
3. Refer to Circuit/System Testing.

### Circuit/System Testing

1. Ignition OFF, and all vehicle systems OFF, disconnect the X1 harness connector at the T19 Power Supply Transformer.
2. Test for less than 1 V between the ignition circuit terminal 6 and ground.
   - **If 1 V or greater**

     Repair the short to voltage on the circuit.

   - **Go to next step: If less than 1 V**
3. Ignition ON.
4. Verify a test lamp illuminates between the ignition circuit terminal 6 and ground.
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Ignition OFF remove the test lamp.
   2. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, refer to Power Mode Mismatch.
   - **If the test lamp does not illuminate and the circuit fuse is open**
   1. Ignition OFF remove the test lamp
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
   - **Go to next step: If the test lamp illuminates**
5. Replace the T19 Power Supply Transformer.

### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair.

Refer to Control Module References for control module replacement, programming, and setup.

## SYMPTOMS - WIRING SYSTEMS

**NOTE:** **The following steps must be completed before using the symptom tables.**

1. Perform the Diagnostic System Check - Vehicle before using the symptom tables in order to verify that all of the following are true:
   - There are no DTCs set.
   - The control modules can communicate via the serial data links.
2. Review the system operation in order to familiarize yourself with the system functions. Refer to the following:
   - Electronic Park Lock Description and Operation
   - Power Mode Description and Operation
   - Retained Accessory Power Description and Operation

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### Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the systems. Refer to **Checking Aftermarket Accessories**.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

### Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to **Testing for Intermittent Conditions and Poor Connections**.

### Symptom List

Refer to a symptom diagnostic procedure from the following list in order to diagnose the symptom:

- **Ignition Can/Cannot Be Turned Off with Transmission in Any Gear**
- **Ignition Mode Switch Indicator Malfunction**
- **Power Mode Mismatch**
- **Retained Accessory Power Malfunction**
- **Vehicle Will Not Change Power Mode**

## IGNITION CAN/CANNOT BE TURNED OFF WITH TRANSMISSION IN ANY GEAR

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category

### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Signal | 2 | 1 | - | - |
| Ground | - | 1 | - | - |
| 1. Ignition will not turn to OFF with vehicle in park<br>2. Ignition will turn to OFF with vehicle out of park | | | | |

### Circuit/System Description

If the vehicle is equipped with automatic transmission and a floor mounted console gear shift, it has an electronic park lock system. The electronic park lock system purpose is to prevent the ignition from being switched to the OFF position when the transmission is in any position other than Park and the vehicle may still be moving. The electronic park lock system incorporates the park position switch that located in the A/T shift lock control switch. When the transmission shift selector is in Park, the park position switch closes and the BCM allows the ignition to be turned OFF.

If the vehicle is not in Park, the ignition will return to ACC/ACCESSORY and display the message SHIFT TO PARK in the Driver Information Center. When the vehicle is shifted into Park, the ignition system will switch to OFF.

### Diagnostic Aids

Verify that the transmission shift selector indicator matches the position of the gear shift lever while selecting between the Park, Reverse, Drive and Low positions.

### Reference Information

Schematic Reference

Ignition Lock Wiring Schematics

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Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Electronic Park Lock Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

### Circuit/System Verification

1. Ignition ON.
2. Verify the scan tool Body Control Module In Park Switch Status parameter changes between On and Off when shifting the S3 Transmission Shift Lever in and out of Park.
    - **If the parameter does not change**

      Refer to Circuit/System Testing.

    - **Go to next step: If the parameter changes**
3. All OK.

### Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the S3 Transmission Shift Lever. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 2 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON.
4. Verify the scan tool Body Control Module In Park Switch Status parameter is Off.
    - **If not Off**
    1. Ignition OFF, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the signal circuit terminal 6 and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance, replace the K9 Body Control Module.
    - **Go to next step: If Off**
5. Install a 3 A fused jumper wire between the signal circuit terminal 6 and the ground circuit terminal 2.
6. Verify the scan tool Body Control Module In Park Switch Status parameter is On.
    - **If not On**
    1. Ignition OFF, remove the jumper wire, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the signal circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V

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3. Test for less than 2 Ω in the signal circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K9 Body Control Module.
- **Go to next step: If On**

7. Test or replace the S3 Transmission Shift Lever.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

Refer to **Control Module References**

## IGNITION MODE SWITCH INDICATOR MALFUNCTION

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

### DTC B097C

Power Mode Start Indicator Circuit

**Symptom Byte Information: Symptom Byte List**

#### Diagnostic Fault Information

| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Control terminal 5 | B097C 02* | 1 | 2 | - |
| Control terminal 2 | 1 | 1 | 2 | - |
| Ground | - | 1 | - | - |
| 1. Ignition mode switch indicator always OFF<br>2. Ignition mode switch indicator always ON | | | | |

#### Circuit/System Description

| Circuit | Description |
|---|---|
| Control terminal 5 | The output circuit varies between ground and 12 V. |
| Control terminal 2 | The output circuit varies between ground and 12 V. |
| Ground | Chassis Ground |

| Component | Description |
|---|---|
| K9 Body Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| S38 Ignition Mode Switch | The ignition mode switch has two LEDs that indicate the vehicle power mode. |

The ignition mode switch has two LEDs that indicate the vehicle power mode. When the vehicle is in the off mode, both LEDs will be off. Pressing the ignition mode switch button once (without the brake pedal applied), the vehicle enters the accessory mode and the amber LED (Accessory) will illuminate. The accessory mode has a 10 min time-out to reduce battery drain. Pressing and holding the push button start switch (without the brake pedal applied) for 5 s will place the vehicle in run/start mode (without the vehicle running) and the green LED (Run/Start) will illuminate. With the ignition off (with the brake pedal applied), pressing the ignition mode switch button once, the vehicle will enter run/start mode and the green LED (run/start) will illuminate. This will start the engine.

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#### Conditions for Running the DTC

- Control Module voltage is between 9 - 16 V

#### Conditions for Setting the DTC

**B097C 02**

- The control module detects a short to ground.
- The above condition(s) must occur for greater than 1 s.

#### Actions Taken When the DTC Sets

The concerned output is switched off.

#### Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

A history DTC will clear after 40 consecutive malfunction-free ignition cycles.

#### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References**

#### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Perform the scan tool control function: Run/Crank Power Mode Indicator Command

   Verify the indicator status:

   Run/Crank Power Mode Indicator Command - OFF = LED Off.

   Run/Crank Power Mode Indicator Command - ON = LED On.

   - **If not the specified state**

     Refer to Circuit/System Testing - Run/Start Power Mode Indicator Malfunction

   - **Go to next step: If the specified state**

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3. Perform the scan tool control function: Accessory Power Mode Indicator Command

   Verify the indicator status:

   Accessory Power Mode Indicator Command - OFF = LED Off.

   Accessory Power Mode Indicator Command - ON = LED On.

   - **If not the specified state**

     Refer to Circuit/System Testing - Accessory Power Mode Indicator

   - **Go to next step: If the specified state**
4. All OK.

### Circuit/System Testing

#### Run/Start Power Mode Indicator Malfunction

**NOTE:** **It may take up to 2 min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.**

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for less than 10 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground
   - **If 10 Ω or greater**
   1. Test for less than 2 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground Connection
      - If 2 Ω or greater - Repair the open/high resistance in the circuit.
      - If less than 2 Ω - Repair the open/high resistance in the ground connection.
   - **Go to next step: If less than 10 Ω**
4. Connect the electrical connector: S38 Ignition Mode Switch
5. Ignition - On/Vehicle - In Service Mode
6. Disconnect the electrical connector: S38 Ignition Mode Switch
7. Perform the scan tool control function: Run/Crank Power Mode Indicator Command - OFF
8. Test for less than 1 V between the test points: Control circuit terminal 5 @ Component harness & Ground
   - **If 1 V or greater**

     Repair the short to voltage on the circuit.

   - **Go to next step: If less than 1 V**
9. Perform the scan tool control function: Run/Crank Power Mode Indicator Command - ON
10. Test for greater than 3 V between the test points: Control circuit terminal 5 @ Component harness & Ground
    - **If 3 V or less**
    1. Disconnect the electrical connector: K9 Body Control Module
    2. Test for infinite resistance between the test points: Control circuit terminal @ Control module harness & Ground
       - If less than infinite resistance - Repair the short to ground on the circuit.
       - If less than infinite resistance
    1. Test for less than 2 Ω between the test points: Control circuit terminal @ Control module harness & Control circuit terminal @ Component harness
       - If 2 Ω or greater - Repair the open/high resistance in the circuit.
       - If less than 2 Ω - Replace the component: K9 Body Control Module

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- **Go to next step: If 3 V or greater**

11. Replace the component: S38 Ignition Mode Switch

### Accessory Power Mode Indicator Malfunction

**NOTE:** **It may take up to 2 min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.**

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for less than 10 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Test for less than 2 Ω between the test points: Ground circuit terminal 4 @ Component harness & Ground Connection
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
4. Connect the electrical connector: S38 Ignition Mode Switch
5. Ignition - On/Vehicle - In Service Mode
6. Disconnect the electrical connector: S38 Ignition Mode Switch
7. Perform the scan tool control function: Accessory Power Mode Indicator Command - OFF
8. Test for less than 1 V between the test points: Control circuit terminal 2 @ Component harness & Ground
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
9. Perform the scan tool control function: Accessory Power Mode Indicator Command - ON
10. Test for greater than 3 V between the test points: Control circuit terminal 2 @ Component harness & Ground
    - **If 3 V or less**
    1. Disconnect the electrical connector: K9 Body Control Module
    2. Test for infinite resistance between the test points: Control circuit terminal @ Control module harness & Ground
        - If less than infinite resistance - Repair the short to ground on the circuit.
        - If less than infinite resistance
    1. Test for less than 2 Ω between the test points: Control circuit terminal @ Control module harness & Control circuit terminal @ Component harness
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K9 Body Control Module
    - **Go to next step: If 3 V or greater**
11. Replace the component: S38 Ignition Mode Switch

### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming and setup, refer to **Control Module References**

## POWER MODE MISMATCH

### Diagnostic Instructions

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- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### Circuit/System Description

The body control module (BCM) controls the ignition main relay, and steering wheel heater relays by applying voltage to their individual relay control circuits. The ignition main relay is energized when the ignition is in the ON or the CRANK position. The steering wheel heater relay is energized when the ignition switch is in the ACCESSORY or the ON position.

The BCM also controls the battery saver relays through individual circuits by applying voltage to the battery saver set and reset circuits. The battery saver relays are a latching relay that when enabled disconnect some modules from their ignition power or memory power sources.

The keyless entry control module controls the retained accessory power relay 1 and retained accessory power relay 2 by applying voltage to their individual relay control circuits. The retained accessory power relays are energized during all power modes, except OFF-awake, and CRANK. The relays are also energized for approximately 10 min after shutting the ignition OFF, providing no door is opened.

The engine control module (ECM) controls the engine controls the ignition relay by applying voltage to the engine controls relay control circuit.

### Diagnostic Aids

A short to voltage on the ignition main relay coil control will cause the engine to remain running after the mode is changed to OFF.

### Reference Information

Schematic Reference

- Power Distribution Wiring Schematics
- Power Moding Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Electrical Center Identification View Reference

**Electrical Center Identification Views**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

**NOTE:** **The vehicle may not be equipped with all components as listed below. Use wiring schematics to determine which ignition relay supplies the**

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**ignition feed for the appropriate devices. Use the connector end view to identify the ignition circuit terminal for each of those devices.**

1. Ignition ON.
2. Verify that the appropriate devices controlled by the KR73 Ignition Main Relay turn ON and OFF when commanding the Run/Crank Relay On and Off with a scan tool.
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic A.
   - **Go to next step: If the devices turn ON and OFF**
3. Verify that the appropriate devices controlled by the KR148 Steering Wheel Heater Relay turns ON and OFF when switching the ignition between ON and OFF.
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic B.
   - **Go to next step: If the devices turn ON and OFF**
4. Verify the appropriate devices controlled by the K84 Keyless Entry Control Module's ignition circuit terminal 7 X1 turn ON and OFF when switching the ignition between ON and OFF.
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic C.
   - **Go to next step: If the devices turn ON and OFF**
5. Verify that the appropriate devices controlled by the KR75 Engine Controls Ignition Relay turns ON and OFF when switching the ignition between ON and OFF.
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic D.
   - **Go to next step: If the devices turn ON and OFF**
6. Verify that the appropriate devices controlled by the KR104A Battery Saver Relay 1 turn ON and OFF after enabling battery saver mode (Transport Mode).
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic E.
   - **Go to next step: If the devices turn ON and OFF**
7. Verify that the appropriate devices controlled by the KR104B Battery Saver Relay 2 turn ON and OFF after enabling battery saver mode (Transport Mode).
   - **If the devices do not turn ON and OFF**

     Refer to Circuit/System Testing - Diagnostic F.
   - **Go to next step: If the devices turn ON and OFF**
8. All OK.

### Circuit/System Testing

#### Diagnostic A

1. Ignition OFF and all vehicle systems OFF, disconnect the KR73 Ignition Main Relay. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 2 and ground.
   - **If 10 Ω or greater**
   1. Ignition OFF.
   2. Test for less than 2 Ω in the ground circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.

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- If less than 2 Ω, repair the open/high resistance in the ground connection.
- **Go to next step: If less than 10 Ω**

3. Ignition ON.
4. Verify a test lamp illuminates between the B+ circuit terminal 3 and ground.
   - **If the test lamp does not illuminate**

     Replace the X50A Fuse Block - Underhood

   - **Go to next step: If the test lamp illuminates**
5. Connect a test lamp between the control circuit terminal 1 and the ground circuit terminal 2.
6. Verify the test lamp turns ON and OFF when commanding the Run/Crank Relay On and Off with a scan tool.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
   2. Test for infinite resistance between the control circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance
   3. Test for less than 2 Ω in the control circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, replace the K9 Body Control Module.
   - **If the test lamp is always ON**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
   2. Test for less than 1 V between the control circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V, replace the K9 Body Control Module.
   - **Go to next step: If the test lamp turns ON and OFF**
7. Verify that a test lamp does not illuminate between the ignition circuits listed below and ground.
   - Ignition circuit terminal 4
   - Ignition circuit terminal 5
   - **If the test lamp illuminates**

     Repair the short to voltage on the ignition circuit.

   - **Go to next step: If the test lamp does not illuminate**
8. Ignition ON, connect a 40 A fused jumper wire between the B+ circuit terminal 3 and the ignition circuits listed below.
   - Ignition circuit terminal 4
   - Ignition circuit terminal 5
9. Verify the appropriate device is activated.
   - **If the device does not activate**
   1. Ignition OFF, disconnect the harness connector at the device.
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance
   3. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, replace the device.
   - **Go to next step: If the device activates**
10. Test or replace the KR73 Ignition Main Relay.

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1. Ignition OFF and all vehicle systems OFF, disconnect the KR148 Steering Wheel Heater Relay. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 1 and ground.
    - **If 10 Ω or greater**
    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
3. Ignition ON.
4. Verify a test lamp illuminates between the B+ circuit terminal 5 and ground.
    - **If the test lamp does not illuminate**

      Replace the X53A Fuse Block - Rear Body

    - **Go to next step: If the test lamp illuminates**
5. Connect a test lamp between the control circuit terminal 2 and the ground circuit terminal 1.
6. Verify the test lamp turns ON and OFF when switching the ignition between ON and OFF.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
7. Verify that a test lamp does not illuminate between the ignition circuit terminal 3 and ground.
    - **If the test lamp illuminates**

      Repair the short to voltage on the ignition circuit

    - **Go to next step: If the test lamp does not illuminate**
8. Ignition ON, connect a 10 A fused jumper wire between the B+ circuit terminal 5 and the ignition control circuit terminal 3.
9. Verify device is activated.
    - **If the device is not activated**
    1. Ignition OFF, disconnect the harness connector at the device.
    2. Test for infinite resistance between the ignition circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.

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- If less than 2 Ω, replace the device.
- **Go to next step: If the device activates**

10. Test or replace the KR148 Steering Wheel Heater Relay.

### Diagnostic C

1. Ignition OFF and all vehicle systems OFF, disconnect the X81 Accessory Power Receptacle - 110V AC and P2 Transmission Shift Lever Position Indicator.
2. Connect a test lamp between the ignition circuits listed below and ground.

**NOTE:** **The vehicle may not be equipped with all components as listed below. Use wiring schematics to determine which devices are controlled directly by the K84 Keyless Entry Control Module's ignition circuit terminal 7 X1. Use the connector end view to identify the ignition circuit terminal for each of those devices.**

- P2 Transmission Shift Lever Position Indicator - Control circuit terminal 4
- X81 Accessory Power Receptacle - 110V AC - Control circuit terminal 1 X1
- X51A Fuse Block - Instrument Panel - Fuse F4DA
- X51A Fuse Block - Instrument Panel - Fuse F30DA
- X51A Fuse Block - Instrument Panel - Circuit Breaker F8DA

3. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module and X51A Fuse Block - Instrument Panel.
   2. Test for infinite resistance between the control circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance.
   3. Test for less than 2 Ω in the control circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω.
   4. Replace the K84 Keyless Entry Control Module.
   5. Connect the harness connector at the X51A Fuse Block - Instrument Panel.
   6. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
      - If the test lamp is always OFF, replace the X51A Fuse Block - Instrument Panel.
      - If the test lamp turns ON and OFF.
   7. All OK.
   - **If the test lamp is always ON**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module, ignition ON.
   2. Test for less than 1 V between the control circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V, replace the K84 Keyless Entry Control Module.
   - **Go to next step: If the test lamp turns ON and OFF**
4. Disconnect the harness connector at the appropriate X80 Accessory Power Receptacle and X92 USB Receptacle.
5. Ignition OFF.
6. Verify that a test lamp does not illuminate between each of the ignition circuits listed below and ground.
   - X92 USB Receptacle - Ignition circuit terminal
   - X80L Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - X80F Accessory Power Receptacle - Front - Ignition circuit terminal

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- X8H Accessory Power Receptacle - Center Console - Ignition circuit terminal
- **If the test lamp illuminates**

  Repair the short to voltage on the ignition circuit.

- **Go to next step: If the test lamp does not illuminate**

7. Ignition ON.
8. Verify that a test lamp illuminates between each of the ignition circuits listed below and ground.
   - X92 USB Receptacle - Ignition circuit terminal
   - X80L Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - X80F Accessory Power Receptacle - Front - Ignition circuit terminal
   - X8H Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Ignition OFF, remove the test lamp.
   2. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, test or replace the X51A Fuse Block - Instrument Panel.
   - **If the test lamp does not illuminate and the circuit fuse is open**
   1. Ignition OFF.
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance, test or replace the appropriate X80 Accessory Power Receptacle or X92 USB Receptacle.
   - **Go to next step: If the test lamp illuminates**
9. Test or replace the appropriate X80 Accessory Power Receptacle or X92 USB Receptacle.

### Diagnostic D

1. Ignition OFF and all vehicle systems OFF, disconnect the KR75 Engine Controls Ignition Relay, ignition ON.
2. Verify a test lamp illuminates between the B+ circuit terminal 1 and ground.
   - **If the test lamp does not illuminate**

     Replace the X50A Fuse Block - Underhood

   - **Go to next step: If the test lamp illuminates**
3. Verify a test lamp illuminates between the B+ circuit terminal 3 and ground.
   - **If the test lamp does not illuminate**

     Replace the X50A Fuse Block - Underhood

   - **Go to next step: If the test lamp illuminates**
4. Connect a test lamp between the B+ circuit terminal 1 and the control circuit terminal 2.
5. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K20 Engine Control Module, ignition ON.
   2. Test for less than 1 V between the control circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V
   3. Ignition OFF.
   4. Test for less than 2 Ω in the control circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.

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- If less than 2 Ω, replace the K20 Engine Control Module.

- **If the test lamp is always ON**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K20 Engine Control Module.
2. Test for infinite resistance between the control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, replace the K20 Engine Control Module.

- **Go to next step: If the test lamp turns ON and OFF**

6. Verify a test lamp does not illuminate between the ignition circuit terminal 5 and ground.
    - **If the test lamp illuminates**

      Repair the short to voltage on the circuit.

    - **Go to next step: If the test lamp does not illuminate**
7. Ignition ON, connect a 40 A fused jumper wire between the B+ circuit terminal 3 and the ignition circuit terminal 5.
8. Verify device is activated.
    - **If the device is not activated**

    1. Ignition OFF, disconnect the harness connector at the device.
    2. Test for infinite resistance between the ignition circuit terminal 5 and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the ignition circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the device.

    - **Go to next step: If the device activates**
9. Test or replace the KR75 Engine Controls Ignition Relay.

### Diagnostic E

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the X51A Fuse Block - Instrument Panel.
2. Ignition ON.
3. Verify a test lamp illuminates between the B+ circuit terminal 55 and ground.
    - **If the test lamp does not illuminate**

    1. Test for infinite resistance between the B+ circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance.
    2. Test for less than 2 Ω in the B+ circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the T19 Power Supply Transformer.

    - **Go to next step: If the test lamp illuminates**
4. Connect the X51A Fuse Block - Instrument Panel.
5. Enable battery saver mode (transport mode).
6. Ignition OFF and all vehicle systems OFF, disconnect the in-line harness connector X200.
7. Connect a test lamp between the control circuit terminal 38 and ground.
8. Verify the test lamp momentarily flashes ON and OFF when turning the ignition ON.
    - **If the test lamp is always OFF**

    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module and KR104B Battery Saver Relay 2.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.

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- If infinite resistance

3. Test for less than 2 Ω in the control circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K9 Body Control Module.

- **If the test lamp is always ON**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
2. Test for less than 1 V between the control circuit and ground.
    - If 1 V or greater, repair the short to voltage on the circuit.
    - If less than 1 V, replace the K9 Body Control Module.

- **Go to next step: If the test lamp turns ON and OFF**

9. Connect a test lamp between the control circuit terminal 58 and ground.
10. Verify the test lamp momentarily flashes ON and OFF after turning the ignition OFF.

**NOTE:** **It may take up to 1 min after the ignition is switched OFF and retained accessory power is disabled before the K9 Body Control Module sends a command to unlatch the relay.**

- **If the test lamp is always OFF**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module and KR104B Battery Saver Relay 2.
2. Test for infinite resistance between the control circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance
3. Test for less than 2 Ω in the control circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the K9 Body Control Module.

- **If the test lamp is always ON**

1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
2. Test for less than 1 V between the control circuit and ground.
    - If 1 V or greater, repair the short to voltage on the circuit.
    - If less than 1 V, replace the K9 Body Control Module.

- **Go to next step: If the test lamp turns ON and OFF**

11. Connect the in-line harness connector X200.
12. Disconnect the harness connector at the appropriate devices powered by the T19 Power Supply Transformer B+ supply circuit terminal 10 X1.
13. Ignition ON.
14. Verify that a test lamp illuminates between each of the B+ circuits listed below and ground.

**NOTE:** **The vehicle may not be equipped with all components as listed below. Use wiring schematics to determine which components are supplied their B+ feed by the KR104A Battery Saver Relay 1. Use the connector end view to identify the B+ circuit terminal for each of those components.**

- K9 Body Control Module - B+ circuit terminal 1 X2
- K41 Front and Rear Parking Assist Control Module - B+ circuit terminal 1 X1
- S25 Garage Door Opener - B+ circuit terminal 1
- A26 HVAC Controls - B+ circuit terminal 1
- S136 Infotainment Control Touchpad - B+ circuit terminal 1
- K48 Infotainment Faceplate Control Module - B+ circuit terminal 1 X1

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- K74 Human Machine Interface Control Module - B+ circuit terminal 7 X1
- K73 Telematics Communication Interface Control Module - B+ circuit terminal 15 X1
- P16 Instrument Cluster - B+ circuit terminal 7
- X83 Auxiliary Audio Input - B+ circuit terminal 6 X1
- P6 Clock - B+ circuit terminal 1
- C2 Remote CD Changer - B+ circuit terminal 10
- P29 Head-Up Display B+ circuit terminal 6 X1
- A11 Radio - B+ circuit terminal 1 X1
- **If the test lamp does not illuminate and the circuit fuse is good**

1. Ignition OFF, remove the test lamp.
2. Test for less than 2 Ω in the B+ circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the X51A Fuse Block - Instrument Panel.

- **If the test lamp does not illuminate and the circuit fuse is open**

1. Ignition OFF.
2. Test for infinite resistance between the Ignition circuit and ground.
    - If less than infinite resistance, repair the short to ground on the circuit.
    - If infinite resistance, test or replace the appropriate device powered by the T19 Power Supply Transformer B+ supply circuit terminal 10 X1.

- **Go to next step: If the test lamp illuminates**

15. Test or replace the appropriate device powered by the T19 Power Supply Transformer B+ supply circuit terminal 10 X1.

### Diagnostic F

1. Ignition OFF and all vehicle systems OFF, disconnect the KR104B Battery Saver Relay 2. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal 6 and ground.
    - **If 10 Ω or greater**

    1. Ignition OFF.
    2. Test for less than 2 Ω in the ground circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, repair the open/high resistance in the ground connection.

    - **Go to next step: If less than 10 Ω**

3. Ignition ON.
4. Verify a test lamp illuminates between the B+ circuit terminal 3 and ground.
    - **If the test lamp does not illuminate and the circuit fuse is good**

    1. Ignition OFF, remove the test lamp.
    2. Test for less than 2 Ω in the B+ circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, verify the fuse is not open and there is voltage at the fuse.

    - **If the test lamp does not illuminate and the circuit fuse is open**

    1. Ignition OFF, remove the test lamp.
    2. Test for infinite resistance between the B+ circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance, replace the KR104B Battery Saver Relay 2.

    - **Go to next step: If the test lamp illuminates**

5. Enable battery saver mode (transport mode).
6. Ignition OFF.
7. Connect a test lamp between the control circuit terminal 1 and ground.

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8. Verify the test lamp momentarily flashes ON and OFF when turning the ignition ON.
    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module and X51A Fuse Block - Instrument Panel.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
9. Connect a test lamp between the control circuit terminal 2 and ground.
10. Verify the test lamp momentarily flashes ON and OFF after turning the ignition OFF.

    **NOTE:** **It may take up to 1 min after the ignition is switched OFF and retained accessory power is disabled before the K9 Body Control Module sends a command to unlatch the relay.**

    - **If the test lamp is always OFF**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module and X51A Fuse Block - Instrument Panel.
    2. Test for infinite resistance between the control circuit and ground.
        - If less than infinite resistance, repair the short to ground on the circuit.
        - If infinite resistance
    3. Test for less than 2 Ω in the control circuit end to end.
        - If 2 Ω or greater, repair the open/high resistance in the circuit.
        - If less than 2 Ω, replace the K9 Body Control Module.
    - **If the test lamp is always ON**
    1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K9 Body Control Module, ignition ON.
    2. Test for less than 1 V between the control circuit and ground.
        - If 1 V or greater, repair the short to voltage on the circuit.
        - If less than 1 V, replace the K9 Body Control Module.
    - **Go to next step: If the test lamp turns ON and OFF**
11. Verify that a test lamp does not illuminate between the ignition circuit terminal 5 and ground.
    - **If the test lamp illuminates**

      Repair the short to voltage on the ignition circuit

    - **Go to next step: If the test lamp does not illuminate**
12. Ignition ON, connect a 40 A fused jumper wire between the B+ circuit terminal 3 and the ignition circuit terminal 5.
13. Verify device is activated.
    - **If the device does not activate**
    1. Ignition OFF, disconnect the harness connector at the device.
    2. Test for infinite resistance between the ignition circuit and ground.

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- If less than infinite resistance, repair the short to ground on the circuit.
- If infinite resistance

3. Test for less than 2 Ω in the ignition circuit end to end.
    - If 2 Ω or greater, repair the open/high resistance in the circuit.
    - If less than 2 Ω, replace the device.
- **Go to next step: If the device activates**

14. Test or replace the KR104B Battery Saver Relay 2.

### Component Testing

#### Relay Test

1. Ignition OFF, disconnect the appropriate relay.
2. Test for 70 - 150 Ω between terminals (85 or 1) and (86 or 2).
    - **If less than 70 or greater than 150 Ω**

      Replace the relay.

    - **Go to next step: If between 70 - 150 Ω**
3. Test for infinite resistance between the terminals listed below:
    - (30 or 3) and (86 or 2)
    - (30 or 3) and (87 or 5)
    - (30 or 3) and (85 or 1)
    - (85 or 1) and (87 or 5)
    - (86 or 2) and (87 or 5)
    - **If less than infinite resistance**

      Replace the relay.

    - **Go to next step: If infinite resistance**
4. Install a 3 A fused jumper wire between relay terminal (85 or 1) and 12 V. Install a jumper wire between relay terminal (86 or 2) and ground.
5. Test for less than 5.0 Ω between terminals (30 or 3) and (87 or 5).
    - **If 5.0 Ω or greater**

      Replace the relay.

    - **Go to next step: If less than 5.0 Ω**
6. All OK

### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Relay Replacement (Attached to Wire Harness)** **Relay Replacement (Within an Electrical Center)**
- Refer to **Control Module References** for the appropriate control module replacement, programming and setup

## RETAINED ACCESSORY POWER MALFUNCTION

### Diagnostic Instructions

- Perform the **Diagnostic System Check - Vehicle** prior to using this diagnostic procedure.
- Review **Strategy Based Diagnosis** for an overview of the diagnostic approach.
- Refer to **Diagnostic Procedure Instructions** to provide an overview of each diagnostic category.

### Diagnostic Fault Information

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| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Relay Switch B+ | 1 | 1 | 1 | - |
| Relay Switch Ignition | 1 | 1 | 1, 2 | - |
| Relay Coil Control | B305E 02 | B305E 05 | B305E 01, B305E 05 | - |
| Relay Coil Ground | - | B305E 05 | - | - |
| 1. Retained accessory power malfunction<br>2. Retained accessory power relay always ON | | | | |

### Circuit/System Description

The keyless entry control module controls certain components and the retained accessory power relay by applying voltage to the interruptible retained accessory power relay coil control circuit. The components and retained accessory power relay are energized when the ignition is in the ACCESSORY or ON position. The components and relay are also energized for approximately 10 min after shutting the ignition OFF, providing no door is opened.

The keyless entry control module will deactivate the interruptible retained accessory power relay coil control circuit during transmitter authentication. The purpose is to deactivate components that may cause radio frequency (RF) interference when the ignition mode switch is pressed and may result in a "NO REMOTE DETECTED" message displayed on the driver information center.

### Reference Information

Schematic Reference

- Power Distribution Wiring Schematics
- Power Moding Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Retained Accessory Power Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Relay Replacement (Attached to Wire Harness)** **Relay Replacement (Within an Electrical Center)**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References** for scan tool information

### Circuit/System Verification

1. Ignition ON.
2. Verify the appropriate devices controlled by the K84 Keyless Entry Control Module's ignition circuit terminal 7 X1 turn ON and OFF when switching the ignition between ON and OFF.
    - **If the devices do not turn ON and OFF**

      Refer to Circuit/System Testing.

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- **Go to next step: If the devices turn ON and OFF**

3. All OK.

### Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the X81 Accessory Power Receptacle - 110V AC and P2 Transmission Shift Lever Position Indicator.
2. Connect a test lamp between the ignition circuits listed below and ground.

> **NOTE:** **The vehicle may not be equipped with all components as listed below. Use wiring schematics to determine which devices are controlled directly by the K84 Keyless Entry Control Module's ignition circuit terminal 7 X1. Use the connector end view to identify the ignition circuit terminal for each of those devices.**

   - P2 Transmission Shift Lever Position Indicator - Control circuit terminal 4
   - X81 Accessory Power Receptacle - 110V AC - Control circuit terminal 1 X1
   - X51A Fuse Block - Instrument Panel - Fuse F4DA
   - X51A Fuse Block - Instrument Panel - Fuse F30DA
   - X51A Fuse Block - Instrument Panel - Circuit Breaker F8DA
3. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
   - **If the test lamp is always OFF**
   1. Ignition OFF, remove test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module and X51A Fuse Block - Instrument Panel.
   2. Test for infinite resistance between the control circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance.
   3. Test for less than 2 Ω in the control circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω.
   4. Replace the K84 Keyless Entry Control Module.
   5. Connect the harness connector at the X51A Fuse Block - Instrument Panel.
   6. Verify the test lamp turns ON and OFF when cycling the ignition between ON and OFF.
      - If the test lamp is always OFF, replace the X51A Fuse Block - Instrument Panel.
      - If the test lamp turns ON and OFF.
   7. All OK.
   - **If the test lamp is always ON**
   1. Ignition OFF, remove the test lamp, disconnect the harness connector at the K84 Keyless Entry Control Module, ignition ON.
   2. Test for less than 1 V between the control circuit and ground.
      - If 1 V or greater, repair the short to voltage on the circuit.
      - If less than 1 V, replace the K84 Keyless Entry Control Module.
   - **Go to next step: If the test lamp turns ON and OFF**
4. Disconnect the harness connector at the appropriate X80 Accessory Power Receptacle and X92 USB Receptacle.
5. Ignition OFF.
6. Verify that a test lamp does not illuminate between each of the ignition circuits listed below and ground.
   - X92 USB Receptacle - Ignition circuit terminal
   - X80L Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - X80F Accessory Power Receptacle - Front - Ignition circuit terminal
   - X8H Accessory Power Receptacle - Center Console - Ignition circuit terminal

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- **If the test lamp illuminates**

  Repair the short to voltage on the ignition circuit.

- **Go to next step: If the test lamp does not illuminate**

7. Ignition ON.
8. Verify that a test lamp illuminates between each of the ignition circuits listed below and ground.
   - X92 USB Receptacle - Ignition circuit terminal
   - X80L Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - X80F Accessory Power Receptacle - Front - Ignition circuit terminal
   - X8H Accessory Power Receptacle - Center Console - Ignition circuit terminal
   - **If the test lamp does not illuminate and the circuit fuse is good**
   1. Ignition OFF, remove the test lamp.
   2. Test for less than 2 Ω in the ignition circuit end to end.
      - If 2 Ω or greater, repair the open/high resistance in the circuit.
      - If less than 2 Ω, test or replace the X51A Fuse Block - Instrument Panel.
   - **If the test lamp does not illuminate and the circuit fuse is open**
   1. Ignition OFF.
   2. Test for infinite resistance between the ignition circuit and ground.
      - If less than infinite resistance, repair the short to ground on the circuit.
      - If infinite resistance, test or replace the appropriate X80 Accessory Power Receptacle or X92 USB Receptacle.
   - **Go to next step: If the test lamp illuminates**
9. Test or replace the appropriate X80 Accessory Power Receptacle or X92 USB Receptacle.

#### Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- Refer to **Transmission Control Replacement**
- Refer to **Accessory Power Receptacle Replacement**
- Refer to **Control Module References** for the keyless entry control module replacement, programming and setup.

## VEHICLE WILL NOT CHANGE POWER MODE

#### Diagnostic Instructions

- Perform the Diagnostic System Check prior to using this diagnostic procedure: **Diagnostic System Check - Vehicle**
- Review the description of Strategy Based Diagnosis: **Strategy Based Diagnosis**
- An overview of each diagnostic category can be found here: **Diagnostic Procedure Instructions**

#### DTC Descriptor

**NOTE:** **This procedure may also diagnose malfunctions that are not detected by a DTC.**

### DTC B097B

Power Mode Start Switch Circuit

**Symptom Byte Information:** **Symptom Byte List**

#### Diagnostic Fault Information

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| Circuit | Short to Ground | Open/High Resistance | Short to Voltage | Signal Performance |
|---|---|---|---|---|
| Signal terminal 3 | B097B 02* | B097B 05* | B097B 05*, 08* | - |
| Signal terminal 6 | B097B 02** | B097B 04** | B097B 04** | - |
| Low Reference | - | B097B 05*, 08* | - | - |
| Ground | - | B097B 04** | - | - |
| * K84 Keyless Entry Control Module<br>** K9 Body Control Module | | | | |

### Circuit/System Description

| Circuit | Description |
|---|---|
| Signal terminal 3 | When the switch is closed it will pull the signal voltage low. |
| Signal terminal 6 | When the switch is closed it will pull the signal voltage low. |
| Low Reference | Grounded through the control module. |
| Ground | Chassis Ground |

| Component | Description |
|---|---|
| K9 Body Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| K84 Keyless Entry Control Module | The control module contains a microprocessor used to process input data to control outputs. |
| S38 Ignition Mode Switch | The switch has a resistance ladder and is wired to both the body control module and keyless entry control modules |

The ignition mode switch contains two individual switches that provide redundant switch inputs to the body control module and the keyless entry control module. The body control module supplies the ignition mode switch a constant B+ signal. The body control module monitors this signal to determine if the switch is released or pressed. When the ignition mode switch is not pressed, voltage on the signal circuit is pulled down through two resistors in the switch. When the ignition mode switch is pressed, voltage on the signal circuit is pulled down through only one resistor, changing the voltage seen at the body control module and indicating that the ignition mode switch is pressed. The keyless entry control module monitors voltage on the switch in the same manner as the body control module, but monitors the other individual switch in the ignition mode switch.

### Conditions for Running the DTC

Control Module voltage is between 9 - 16 V

### Conditions for Setting the DTC

**B097B 00**

- The voltage seen at the body control module monitored switch does not match the voltage seen at the keyless entry control module monitored switch.
- The above condition(s) must occur for greater than 1 s.

**B097B 02**

- The control module detects a short to ground.
- The above condition(s) must occur for greater than 1 s.

**B097B 04**

- The control module detects an open circuit.
- The above condition(s) must occur for greater than 1 s.

**B097B 05**

- The control module detects an open circuit.
- The above condition(s) must occur for greater than 1 s.

**B097B 08**

- The control module detects a change in the ignition mode without observing a switch press.
- The above condition(s) must occur 4 times.

**B097B 61**

- The control module detects a continuously closed switch.
- The above condition(s) must occur for greater than 60 s.

### Actions Taken When the DTC Sets

**B097B 00, 04, 05, 08, 61**

No action is taken.

**B097B 02**

The concerned output is switched off.

### Conditions for Clearing the DTC

The conditions for setting the DTC no longer exist.

A history DTC will clear after 40 consecutive malfunction-free ignition cycles.

### Reference Information

Schematic Reference

Power Moding Wiring Schematics

Power Distribution Wiring Schematics

Connector End View Reference

**COMPONENT CONNECTOR END VIEWS - INDEX**

Description and Operation

**Power Mode Description and Operation**

Electrical Information Reference

- **Circuit Testing**
- **Connector Repairs**
- **Testing for Intermittent Conditions and Poor Connections**
- **Wiring Repairs**

Scan Tool Reference

**Control Module References**

### Circuit/System Verification

1. Ignition - On/Vehicle - In Service Mode
2. Verify DTC B2097B 61 is not set.
    - **If the DTC is set**

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Test or replace the component: S38 Ignition Mode Switch

- **Go to next step: If the DTC is not set**

3. Refer to Circuit/System Testing below

### Circuit/System Testing

**NOTE:** **It may take up to 2 min for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.**

1. Ignition/Vehicle & All vehicle systems - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for less than 10 Ω between the test points: Ground circuit terminal @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Test for less than 2 Ω between the test points: Ground circuit terminal @ Component harness & Ground Connection
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Repair the open/high resistance in the ground connection.
    - **Go to next step: If less than 10 Ω**
4. Test for less than 10 Ω between the test points: Low Reference terminal 7 @ Component harness & Ground
    - **If 10 Ω or greater**
    1. Disconnect the electrical connector: X1 @ K84 Keyless Entry Control Module
    2. Test for less than 2 Ω between the test points: Low Reference terminal 7 @ Component harness & Terminal 12 @ K84 Keyless Entry Control Module
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: K84 Keyless Entry Control Module
    - **Go to next step: If less than 10 Ω**
5. Connect the electrical connector: S38 Ignition Mode Switch
6. Ignition - On/Vehicle - In Service Mode
7. Disconnect the electrical connector: S38 Ignition Mode Switch
8. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = Greater than 11 V
    - **If less than 11 V**
    1. Ignition/Vehicle - Off
    2. Disconnect the electrical connector: X2 @ K9 Body Control Module
    3. Test for infinite resistance between the test points: Signal circuit terminal 17 @ Control module harness & Ground
        - If less than infinite resistance - Repair the short to ground on the circuit.
        - If infinite resistance - Replace the component: K9 Body Control Module
        - **Go to next step: If greater than 11 V**
9. Connect a 3 A fused jumper wire between the test points: Signal circuit terminal 6 & Ground
10. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = Less than 1 V
    - **If 1 V or greater**
    1. Disconnect the electrical connector: X2 @ K9 Body Control Module
    2. Test for less than 1 V between the test points: Signal circuit terminal 17 @ Control module harness & Ground
        - If 1 V or greater - Repair the short to voltage on the circuit.
        - If less than 1 V

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3. Test for less than 2 Ω between the test points: Signal circuit terminal 6 @ Component harness & Terminal 17 @ K9 Body Control Module
    - If 2 Ω or greater - Repair the open/high resistance in the circuit.
    - If less than 2 Ω - Replace the component: K9 Body Control Module
- **Go to next step: If less than 1 V**

11. Connect the electrical connector: S38 Ignition Mode Switch
12. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = 8 to 10 V
    - **If not between 8 and 10 V**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 8 and 10 V**
13. Press and hold the switch: S38 Ignition Mode Switch
14. Verify the scan tool parameter: K9 Body Control Module Push Button Ignition Switch = 4 to 7 V
    - **If not between 4 and 7 V**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 4 and 7 V**
15. Disconnect the electrical connector: X1 @ K84 Keyless Entry Control Module
16. Test for infinite resistance between the test points: Signal circuit terminal 11 @ Control module harness & Ground
    - **If less than infinite resistance**

      Repair the short to ground on the circuit.

    - **Go to next step: If infinite resistance**
17. Test for less than 1 V between the test points: Signal circuit terminal 11 @ Control module harness & Ground
    - **If 1 V or greater**

      Repair the short to voltage on the circuit.

    - **Go to next step: If less than 1 V**
18. Test for 4.5 to 5.5 kΩ between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Low Reference terminal 12 @ K84 Keyless Entry Control Module
    - **If not between 4.5 and 5.5 kΩ**
    1. Ignition/Vehicle - Off
    2. Disconnect the electrical connector: S38 Ignition Mode Switch
    3. Test for less than 2 Ω between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Signal circuit terminal 3 @ S38 Ignition Mode Switch
        - If 2 Ω or greater - Repair the open/high resistance in the circuit.
        - If less than 2 Ω - Replace the component: S38 Ignition Mode Switch
    - **Go to next step: If between 4.5 and 5.5 kΩ**
19. Press and hold the switch: S38 Ignition Mode Switch
20. Test for 1 to 1.5 kΩ between the test points: Signal circuit terminal 11 @ K84 Keyless Entry Control Module & Low Reference terminal 12 @ K84 Keyless Entry Control Module
    - **If not between 1 and 1.5 kΩ**

      Test or replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 1 and 1.5 kΩ**
21. Replace the component: K84 Keyless Entry Control Module

**Component Testing**

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1. Ignition/Vehicle - Off
2. Disconnect the electrical connector: S38 Ignition Mode Switch
3. Test for 4.5 to 5.5 kΩ between the test points:
    - Signal circuit terminal 6 & Ground circuit terminal 4
    - Signal circuit terminal 3 & Low Reference terminal 7
    - **If not between 4.5 and 5.5 kΩ**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 4.5 and 5.5 kΩ**
4. Press and hold the switch: S38 Ignition Mode Switch
5. Test for 1 to 1.5 kΩ between the test points:
    - Signal circuit terminal 6 & Ground circuit terminal 4
    - Signal circuit terminal 3 & Low Reference terminal 7
    - **If not between 1 and 1.5 kΩ**

      Replace the component: S38 Ignition Mode Switch

    - **Go to next step: If between 1 and 1.5 kΩ**
6. All OK.

### Repair Instructions

Perform the Diagnostic Repair Verification after completing the repair: **Diagnostic Repair Verification**

- For control module replacement, programming, and setup refer to: **Control Module References**

## GENERAL ELECTRICAL DIAGNOSIS

### Basic Knowledge Required

Without a basic knowledge of electricity, it will be difficult to use the diagnostic procedures contained in the service information. You should understand the basic theory of electricity, and know the meaning of voltage (V), current (A), and resistance (Ω). You should also be able to read and understand a wiring diagram, as well as understand what happens in a circuit with an open or a shorted wire.

## CHECKING AFTERMARKET ACCESSORIES

**WARNING:** **Refer to SIR Warning .**

Do not connect aftermarket accessories into the SIR circuits, all such circuits are indicated on circuit diagrams with the SIR symbol.

Always check for aftermarket accessories (non-OEM) as the first step in diagnosing electrical problems. If the vehicle is so equipped, disconnect the system to verify that these add-on accessories are not the cause of the problems.

Possible causes of vehicle problems related to aftermarket accessories include:

- Power feeds connected to points other than the battery
- Antenna location
- Transceiver wiring located too close to vehicle electronic modules or wiring
- Poor shielding or poor connectors on antenna feed line
- Check for recent service bulletins detailing installation guidelines for aftermarket accessories.

## CIRCUIT TESTING

The Circuit Testing section contains the following diagnostic testing information. Using this information along with the diagnostic procedures will identify the cause of the electrical malfunction.

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- Using Connector Test Adapters
- Probing Electrical Connectors
- Troubleshooting with a Digital Multimeter
- Troubleshooting with a Test Lamp
- Using Fused Jumper Wires
- Measuring Voltage
- Measuring Voltage Drop
- Measuring Frequency
- Testing Ground and Low Reference Circuits
- Testing for Continuity
- Testing for Short to Ground
- Testing for a Short to Voltage
- Testing for Intermittent Conditions and Poor Connections
- Inducing Intermittent Fault Conditions
- Testing for Electrical Intermittents
- Scan Tool Snapshot Procedure
- Circuit Protection - Fuses
- Circuit Protection - Circuit Breakers
- Circuit Protection - Fusible Links


## USING CONNECTOR TEST ADAPTERS

**Special Tools**

- **EL-35616** Terminal Test Probe Kit
- **EL-38125-550** Terminal Release Tool Kit

For equivalent regional tools, refer to Special Tools .

**CAUTION:** **Do not insert test equipment probes (DMM etc.) into any connector or fuse block terminal. The diameter of the test probes will deform most terminals. A deformed terminal will cause a poor connection, which will result in a system failure. Always use the EL-35616 GM Approved Terminal Test Probe Kit in order to front probe terminals. Do not use paper clips or other substitutes to probe terminals.**

**When using the EL-35616 GM Approved Terminal Test Probe Kit, ensure the terminal test adapter choice is the correct size for the connector terminal. Do not visually choose the terminal test adapter because some connector terminal cavities may appear larger than the actual terminal in the cavity. Using a larger terminal test adapter will damage the terminal. Refer to the EL-35616 GM Approved Terminal Test Probe Kit label on the inside of the EL-35616 GM Approved Terminal Test Probe Kit for the correct adapter along with the connector end view.**

## PROBING ELECTRICAL CONNECTORS

### Special Tools

**EL-35616** Terminal Test Probe Kit

For equivalent regional tools, refer to Special Tools .

**NOTE:** **Always be sure to reinstall the connector position assurance (CPA) and terminal position assurance (TPA) when reconnecting connectors or replacing terminals.**

### Front probe

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Disconnect the connector and probe the terminals from the mating side (front) of the connector.

**CAUTION:** **Refer to Test Probe Caution .**

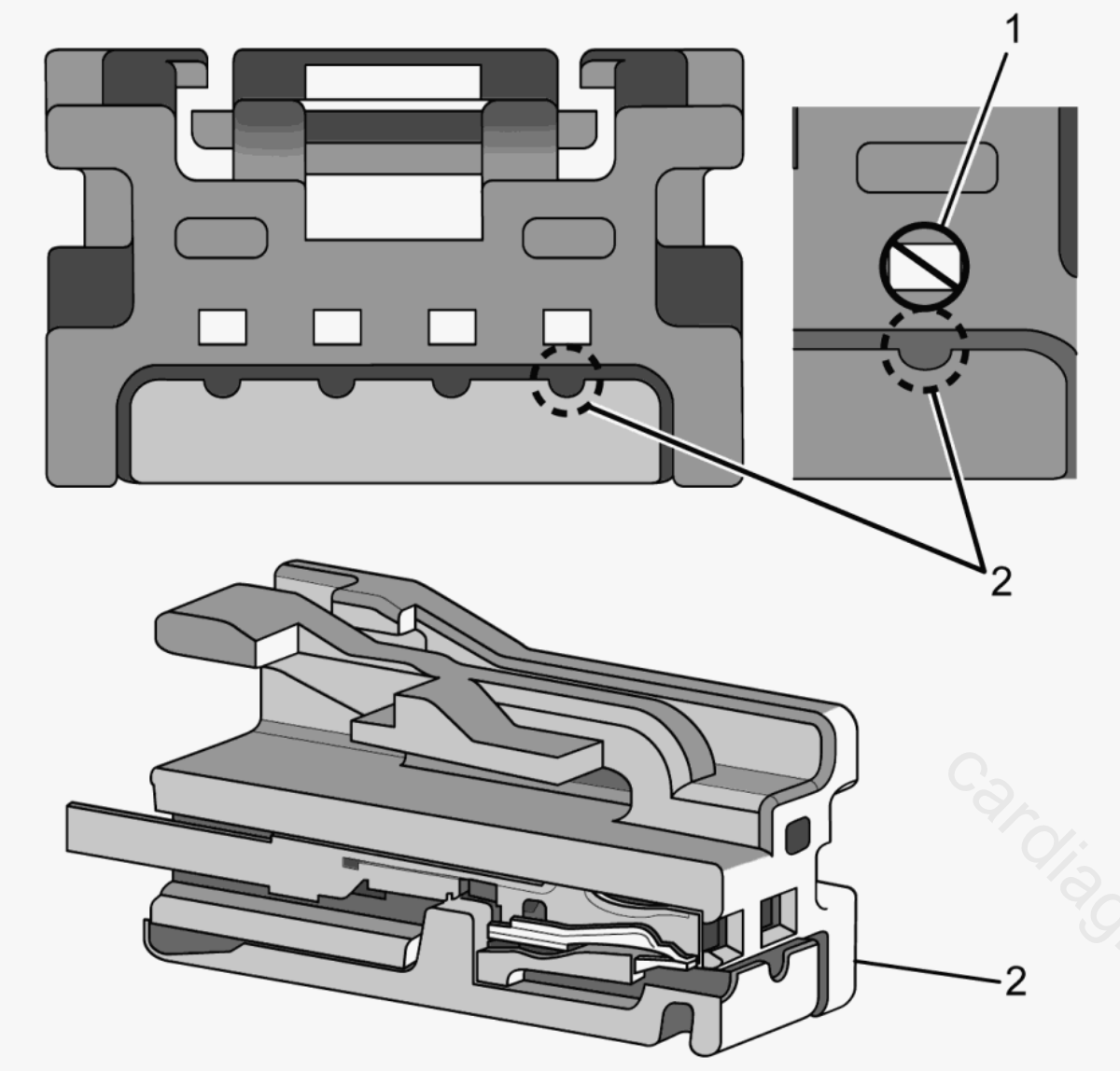



**Fig. 1: Female Terminal And Connector Test Point**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Connectors with 0.50 terminals should not be probed within the female terminal (1). Damage may occur to the terminal and result in improper diagnosis. There is a test point on the connector (2) next to the terminal where testing should be performed.**

**NOTE:** **When probing female 0.64 terminals, it is important to use the correct adapter. There have been some revisions to the test adapter for 0.64 terminals. The proper adapter for 0.64 terminals is the J-35616-64B which has a gold terminal and a black wire between the base and tip. Failure to use the proper test adapter may result in damage to the terminal being tested and improper diagnosis.**

**NOTE:** **The proper adapter for probing the terminals for fuses, relays, or diodes in an electrical center is J-35616-35. Using any other tool or adapter may damage the terminal being tested.**

Refer to the following table as a guide in selecting the correct test adapter for front probing connectors:

| Test Adapter | Description |
|---|---|
| J-35616-2A | 150 Male Probe Adapter (gray) |
| J-35616-3 | 150 Female Probe Adapter (gray) |

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| Test Adapter | Description |
|---|---|
| J-35616-4A | 280 Male Probe Adapter (purple) |
| J-35616-5 | 280 Female Probe Adapter (purple) |
| J-35616-6 | 100W Male (round) Probe Adapter (brown) |
| J-35616-7 | 100W Female (round) Probe Adapter (brown) |
| J-35616-8 | Weather Pack Male Probe Adapter (orange) |
| J-35616-9 | Weather Pack Female Probe Adapter (orange) |
| J-35616-10 | 100W Male (round) Probe Adapter (green) |
| J-35616-11 | 100W Female (round) Probe Adapter (green) |
| J-35616-12 | 130 Male Probe Adapter (blue) |
| J-35616-13 | 130 Female Probe Adapter (blue) |
| J-35616-14 | 150 Male Probe Adapter (green) |
| J-35616-16 | 100 Male Probe Adapter (lt green) |
| J-35616-17 | 100 Female Probe Adapter (lt green) |
| J-35616-18 | 220 Male Probe Adapter (black) |
| J-35616-19 | 220 Female Probe Adapter (black) |
| J-35616-21 | 950 Female Probe Adapter (red) |
| J-35616-22 | 950 Male Probe Adapter (red) |
| J-35616-31 | 500 Male Probe Adapter (orange) |
| J-35616-32 | 500 Female Probe Adapter (orange) |
| J-35616-33 | 160/180 Male Probe Adapter (yellow) |
| J-35616-34 | 160/180 Female Probe Adapter (yellow) |
| J-35616-35 | 280 Male Probe Adapter (violet) |
| J-35616-40 | 480 Male Probe Adapter (dk blue) |
| J-35616-41 | 480 Female Probe Adapter (dk blue) |
| J-35616-42 | 630 Male Probe Adapter (red) |
| J-35616-43 | 630 Female Probe Adapter (red) |
| J-35616-44 | 800 Male Probe Adapter (yellow) |
| J-35616-45 | 800 Female Probe Adapter (yellow) |
| J-35616-54 | 280 Male (round) Probe Adapter (tan) |
| J-35616-55 | 280 Female (round) Probe Adapter (tan) |
| J-35616-64B | 0.64 Male Probe Adapter (lt blue) |
| J-35616-65B | 0.64 Female Probe Adapter (lt blue) |
| J-35616-66 | 150 Male (round) Probe Adapter (yellow) |
| J-35616-67 | 150 Female (round) Probe Adapter (yellow) |

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### Backprobe

**NOTE:**

- **Backprobe connector terminals only when specifically required in diagnostic procedures.**
- **Do not backprobe a sealed (Weather PackÃ‚Â®) connector, less than a 280 series Metri-Pack connector, a Micro-Pack connector, or a flat wire connector.**
- **Backprobing can be a source of damage to connector terminals. Use care in order to avoid deforming the terminal, either by forcing the test probe too far into the cavity or by using too large of a test probe.**
- **After backprobing any connector, inspect for terminal damage. If terminal damage is suspected, test for proper terminal contact.**

Do not disconnect the connector and probe the terminals from the harness side (back) of the connector.

## TROUBLESHOOTING WITH A DIGITAL MULTIMETER

## Special Tools

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

### Digital Multimeter (DMM) Basic Requirements

Service information is validated using digital multimeters that meet or exceed the following requirements. Using a multimeter that does not meet these basic requirements may give inaccurate readings which could lead to an incorrect diagnosis.

**Display and Settings**

1. Four digits displayed
2. Voltage, current, resistance, frequency, diode test settings, and min-max function
3. Display positive and negative values

**Voltage**

1. Have at least 10 MΩ input impedance
2. Test a DC voltage range of 0.1 - 1000 V.
3. Test an AC voltage range of 0.1 - 1000 V.

**Current**

1. Test a DC current range of 0.1 µA - 10 A.
2. Test an AC current range of 0.1 µA - 10 A.

**Resistance**

Test a resistance range of 0.1 Ω - 40 MΩ and displays infinite for a value greater than 40 MΩ (O.L. (Over-load))

**Frequency**

Test for a frequency range of 0.5 Hz - 199 kHz

**Diode Test**

1. Apply at least 1 mA when performing the diode bias test
2. Display the break over voltage drop (0 - 3 V) of a forward biased diode
3. Display infinite (O.L. (Over-load)) when a diode is reverse biased

**Min-Max Readings**

1. Can update at a 25 ms sample rate
2. Saves and displays minimum and maximum values

**NOTE:** **Circuits which include any solid state control modules, such as the engine control module (ECM), should only be tested with a 10 MΩ or higher impedance digital multimeter such as the EL-39200.**

The DMM instruction manual is a good source of information and should be read thoroughly upon receipt of the DMM as well as kept on hand for future reference.

A DMM should be used instead of a test lamp in order to test for voltage in high impedance circuits. While a test lamp shows whether voltage is present if the impedance is low enough, a DMM indicates how much voltage is present. In other words, if there is not enough current, the test lamp will not illuminate even though voltage is present.

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The ohmmeter function on a DMM shows how much resistance exists between 2 points along a circuit. Low resistance in a circuit means good continuity.

**NOTE:** **Disconnect the power feed from the suspect circuit when measuring resistance with a DMM. This prevents incorrect readings. DMMs apply such a small voltage to measure resistance that the presence of voltages can upset a resistance reading.**

Diodes and solid state components in a circuit can cause a DMM to display a false reading. To find out if a component is affecting a measurement take a reading once, then reverse the leads and take a second reading. If the readings differ the solid state component is affecting the measurement.

Following are examples of the various methods of connecting the DMM to the circuit to be tested:

- Probe both ends of the connector and either hold the leads in place while manipulating the connector or tape the leads to the harness for continuous monitoring while you perform other operations or test driving. Refer to **Probing Electrical Connectors**.
- Disconnect the harness at both ends of the suspected circuit where it connects either to a component or to other harnesses.
- If the system that is being diagnosed has a specified pinout or breakout box, it may be used in order to simplify connecting the DMM to the circuit or for testing multiple circuits quickly.

## TROUBLESHOOTING WITH A TEST LAMP

**Special Tools**

**EL-35616-210** Test Light - Probe Kit

**NOTE:** **Always use the proper replacement bulb (*6614F* Test Light Bulb (not LED)).**

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

A test lamp can simply and quickly test a low impedance circuit for voltage. A Digital Multimeter (DMM) should be used instead of a test lamp in order to test for voltage in high impedance circuits. While a test lamp shows whether voltage is present if the impedance is low enough, a DMM indicates how much voltage is present. In other words, if there is not enough current, the test lamp will not illuminate even though voltage is present.

The **EL-35616-210** kit is Micro-Pack compatible and includes a 12 V test lamp.

To properly operate this tool use the following procedures.

When testing for voltage:

1. Attach one lead to ground.
2. Touch the other lead to various points along the circuit where voltage should be present.
3. When the bulb illuminates, there is voltage at the point being tested.

When testing for ground:

1. Attach one lead to battery positive voltage.
2. Touch the other lead to various points along the circuit where ground should be present.
3. When the bulb illuminates, there is ground at the point being tested.

## USING FUSED JUMPER WIRES

**Special Tools**

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**EL 35616-20F** Fused Jumper Wire

For equivalent regional tools, refer to **Special Tools** .

**NOTE:** **A fused jumper may not protect solid state components from being damaged.**

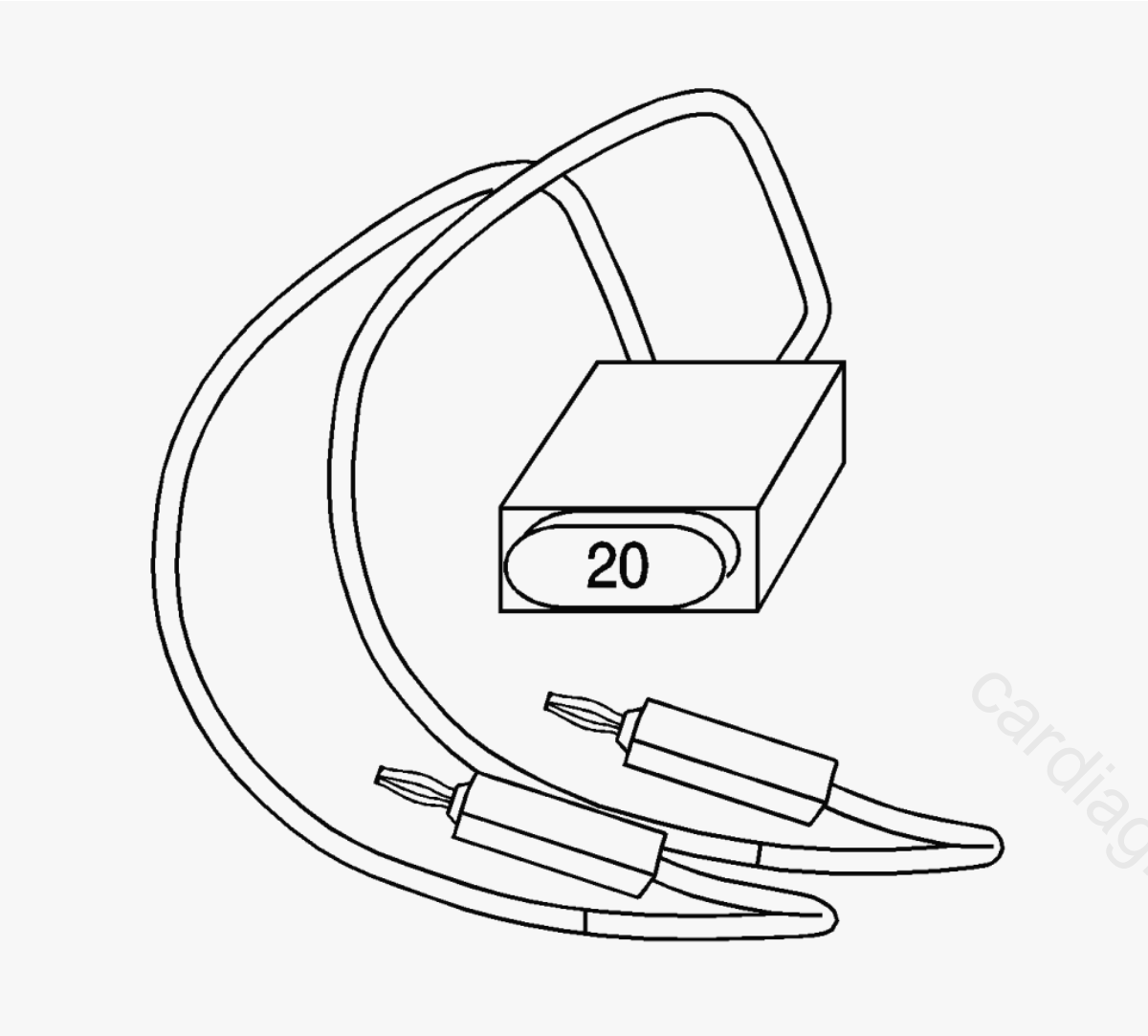



**Fig. 2: Fused Jumper Wire**
**Courtesy of GENERAL MOTORS COMPANY**

The **EL 35616-20F** Fused Jumper Wire includes banana jack connectors that provide adaptation to most connectors without damage. This fused jumper wire is supplied with a 20 A fuse which may not be suitable for some circuits. Do not use a fuse with a higher rating than the fuse that protects the circuit being tested.

## MEASURING VOLTAGE

**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

The following procedure measures the voltage at a selected point in a circuit.

1. Disconnect the electrical harness connector for the circuit being tested, if necessary.
2. Enable the circuit and/or system being tested. Use the following methods:
   - Turn ON the ignition, with the engine OFF.
   - Turn ON the engine.

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- Turn ON the circuit and/or system with a scan tool in Output Controls.
- Turn ON the switch for the circuit and/or system being tested.

3. Select the V (AC) or V (DC) position on the Digital Multimeter (DMM).
4. Connect the positive lead of the DMM to the point of the circuit to be tested.
5. Connect the negative lead of the DMM to a good ground.
6. The DMM displays the voltage measured at that point.

## MEASURING VOLTAGE DROP

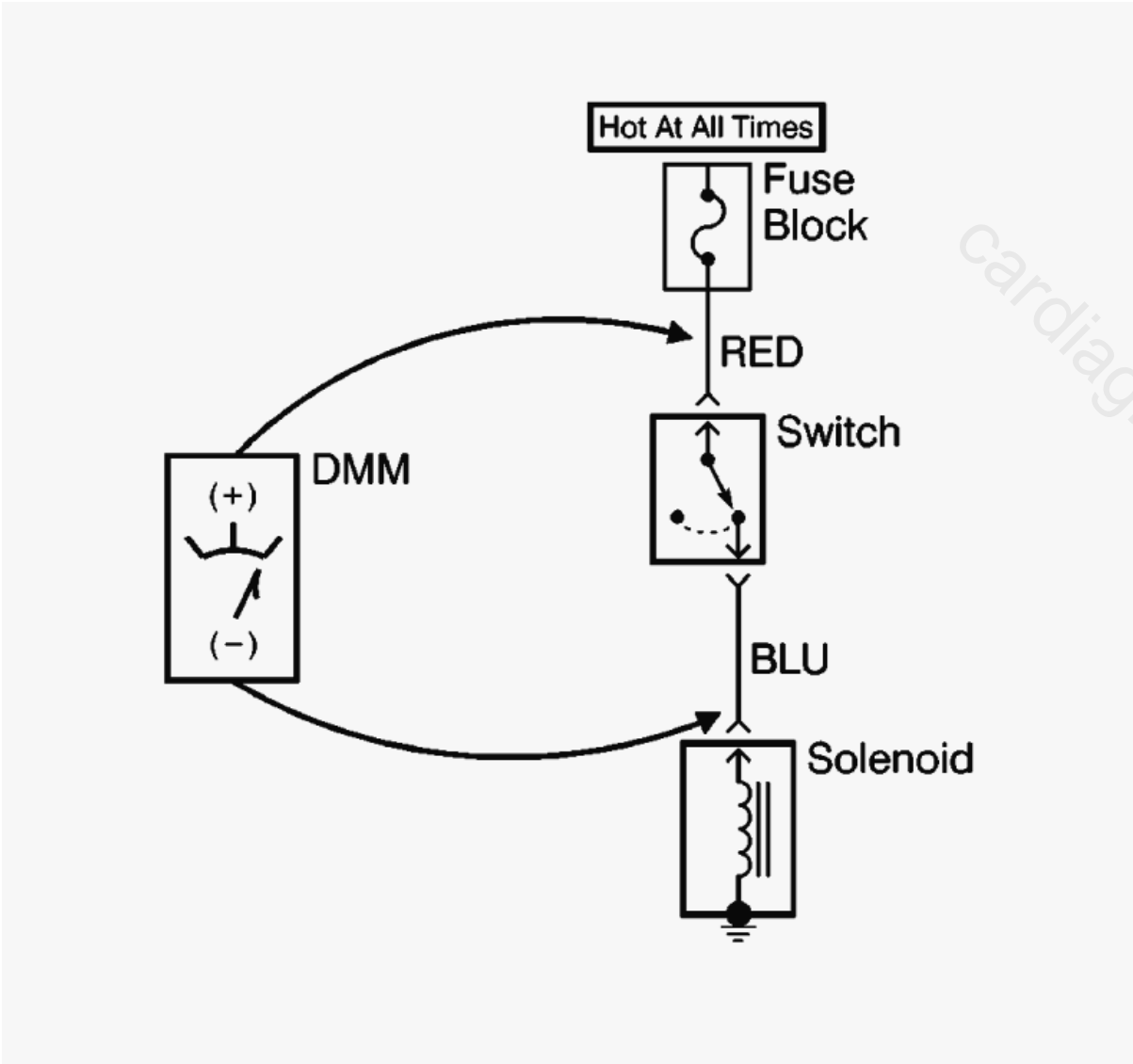
**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

The following procedure determines the difference in voltage potential between 2 points.




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**Fig. 3: Measuring Voltage Drop**
**Courtesy of GENERAL MOTORS COMPANY**

1. Set the Digital Multimeter (DMM) to the V (DC) position.
2. Connect the positive lead of the DMM to one point of the circuit to be tested.
3. Connect the negative lead of the DMM to the other point of the circuit.
4. Operate the circuit.
5. The DMM displays the difference in voltage between the 2 points.

## MEASURING FREQUENCY

**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

The following procedure determines the frequency of a signal.

**NOTE:** **Connecting the Digital Multimeter (DMM) to the circuit before pressing the Hz button will allow the DMM to autorange to an appropriate range.**

1. Apply power to the circuit.
2. Set the DMM to the V (AC) position.
3. Connect the positive lead of the DMM to the circuit to be tested.
4. Connect the negative lead of the DMM to a good ground.
5. Set to Hz on the DMM.
6. The DMM will display the frequency measured.

## TESTING GROUND AND LOW REFERENCE CIRCUITS

Because a test lamp can light with up to 200 Ω in a ground or low reference circuit they are not recommended to be used for this type of test. A low impedance test lamp can light and indicate the circuit is good when there is as much as 20 - 30 Ω present, while a high impedance test lamp can light with up to 200 Ω present in the circuit. This is why the Digital Multi-Meter (DMM) is used when validating a ground or low reference circuit continuity.

When using the DMM there are many vehicle conditions that can affect the ground and low reference continuity testing. If these conditions are not met, a ground or low reference circuit test can fail on a good circuit. This may cause longer diagnosis time and incorrect component replacement.

Any current flow through a ground or low reference circuit, while being tested, will skew the DMM continuity reading, or display a reading higher than when there is no current flowing. Performing a ground or low reference circuit continuity test, in reference to the vehicles battery negative terminal, will have the highest risk of failing a good ground or low reference circuit test than any other ground reference point. The best ground test points would be a control module housing (if the control modules housing is metal and grounded), under dash metal frame work, engine block, or body ground studs (other than where the negative battery cable is attached).

A typical DMM ground or low reference circuit continuity reading can be as high as 100 Ω with the ignition ON, and drop to 15 - 25 Ω after the ignition is turned OFF. The reading will drop below 10 Ω after 30 - 40 seconds, then below 5 Ω after 60 seconds. Once the vehicle completely goes to sleep (generally 3-10 minutes) the reading will drop below 0.3 Ω.

The following list of conditions may need to be met to ensure a valid continuity reading on a ground or low reference circuit:

- Ignition OFF
- Key out of the ignition switch (when not equipped with keyless entry and remote start)
- Retained Accessory Power (RAP) OFF (open and close the driver door after ignition OFF)
- Battery charger set at a 2 A or less charge rate
- Scan tool not communicating with any vehicle control module (in some cases it may need to be disconnected from the DLC)
- All entry doors closed
- Headlamps OFF (auto headlamps disabled)
- Any delay lighting OFF

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- HVAC after blow OFF
- Any accessory that can work when the ignition is OFF
- Wait up to 60 seconds (after all other listed conditions are met)

Activating the DOOR LOCK function with a key fob can greatly reduce the time to achieve a valid ground or low reference continuity test result.

## TESTING FOR CONTINUITY

**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

The following procedures verify good continuity in a circuit.

### With a Digital Multimeter (DMM)

1. Set the DMM to the Ω position.
2. Disconnect the power feed (i.e. fuse, control module) from the suspect circuit.
3. Disconnect the load.
4. Select the MIN MAX function on the DMM.
5. Connect one lead of the DMM to one end of the circuit to be tested.
6. Connect the other lead of the DMM to the other end of the circuit.
7. If the DMM displays low or no resistance, the circuit has good continuity.

### With a Test Lamp

**NOTE:** **Only use the test lamp procedure on low impedance power and ground circuits.**

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Connect one lead of the test lamp to one end of the circuit to be tested.
4. Connect the other lead of the test lamp to battery positive voltage.
5. Connect the other end of the circuit to ground.
6. If the test lamp illuminates (full intensity), then the circuit has good continuity.

## TESTING FOR SHORT TO GROUND

**CAUTION:** **Refer to Test Probe Caution .**

The following procedures test for a short to ground in a circuit.

### With a Digital Multimeter (DMM)

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Set the rotary dial of the DMM to the Ω position.
4. Connect one lead of the DMM to one end of the circuit to be tested.
5. Connect the other lead of the DMM to a good ground.
6. If the DMM does NOT display infinite resistance (OL), there is a short to ground in the circuit.

### With a Test Lamp

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1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Connect one lead of the test lamp to battery positive voltage.
4. Connect the other lead of the test lamp to one end of the circuit to be tested.
5. If the test lamp illuminates, there is a short to ground in the circuit.

### Fuse Powering Several Loads

1. Review the system schematic and locate the fuse that is open.
2. Open the first connector or switch leading from the fuse to each load.
3. Connect a DMM across the fuse terminals (be sure that the fuse is powered).
    - When the DMM displays voltage the short is in the wiring leading to the first connector or switch.
    - If the DMM does not display voltage refer to the next step.
4. Close each connector or switch until the DMM displays voltage in order to find which circuit is shorted.

## TESTING FOR A SHORT TO VOLTAGE

**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**CAUTION:** **Refer to Test Probe Caution .**

The following procedure tests for a short to voltage in a circuit.

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Set the Digital Multimeter (DMM) to the V (DC) position.
4. Connect the positive lead of the DMM to one end of the circuit to be tested.
5. Connect the negative lead of the DMM to a good ground.
6. Turn ON the ignition and operate all accessories.
7. If the voltage measured is greater than 1 V, there is a short to voltage in the circuit.

## TESTING FOR INTERMITTENT CONDITIONS AND POOR CONNECTIONS

**Special Tools**

**EL-35616** Terminal Test Probe Kit

For equivalent regional tools, refer to **Special Tools** .

When the condition is not currently present, but is indicated in DTC history, the cause may be intermittent. An intermittent may also be the cause when there is a customer complaint, but the symptom cannot be duplicated. Refer to the Symptom Table of the system that is suspect of causing the condition before trying to locate an intermittent condition.

Most intermittent conditions are caused by faulty electrical connections or wiring. Inspect for the following items:

- Loose, corroded, or painted terminal stud/fastener
- Wiring broken inside the insulation
- Poor connection between the male and female terminal at a connector
- A terminal not seated all the way into the connector body

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- Poor terminal to wire connection - Some conditions which fall under this description are poor crimps, poor solder joints, crimping over the wire insulation rather than the wire itself, and corrosion in the wire to terminal contact area, etc.
- Pierced or damaged insulation can allow moisture to enter the wiring causing corrosion. The conductor can corrode inside the insulation, with little visible evidence. Look for swollen and stiff sections of wire in the suspect circuits.
- Wiring which has been pinched, cut, or its insulation rubbed through may cause an intermittent open or short as the bare area touches other wiring or parts of the vehicle.
- Wiring that comes in contact with hot or exhaust components
- Refer to **Inducing Intermittent Fault Conditions** in order to duplicate the conditions required, in order to verify the customer concern.
- Refer to **Testing for Electrical Intermittents** for test procedures to detect intermittent open, high resistance, short to ground, and short to voltage conditions.
- Refer to **Scan Tool Snapshot Procedure** for advanced intermittent diagnosis and Vehicle Data Recorder operation.

#### Testing for Terminal Fretting

Some intermittent conditions can be caused by wire terminal fretting corrosion. Fretting corrosion is a build-up of insulating, oxidized wear debris that can form when there is a small motion between electrical contacts. The oxidized wear debris can pile up enough at the electrical contact spots that the electrical resistance across the connection increases. Movement between the contacting surfaces as small as 10 to 100 microns can cause fretting. To put this in perspective, a sheet of paper is about 100 microns thick, so fretting motion is small and hard to see. Vibration and thermal expansion/contraction are the main sources that create fretting motion. Since vehicles vibrate and can experience large temperature swings, they are a good source for fretting motion. Tin, copper, nickel, and iron surfaces are all susceptible to fretting corrosion. Fretting corrosion can be difficult to see but it looks like small, dark smudges on the terminals contact surface.

To correct a fretting condition disconnect the suspect connector and add dielectric grease/lubricant (Nyogel 760G or equivalent, meeting GM specification 9986087) to both sides of the connector terminals. Then reconnect the connector and wipe away any excess lubricant. This will correct the additional terminal contact resistance due to the terminal fretting corrosion.

#### Testing for Proper Terminal Contact

It is important to test terminal contact at the component and any inline connectors before replacing a suspect component. Mating terminals must be inspected to ensure good terminal contact. A poor connection between the male and female terminal at a connector may be the result of contamination or deformation.

Contamination may be caused by the connector halves being improperly connected. A missing or damaged connector seal, damage to the connector itself, or exposing the terminals to moisture and dirt can also cause contamination. Contamination, usually in the underhood or underbody connectors, leads to terminal corrosion, causing an open circuit or intermittently open circuit.

Deformation is caused by probing the mating side of a connector terminal without the proper adapter. Always use the **EL-35616** kit when probing connectors. Other causes of terminal deformation are improperly joining the connector halves, or repeatedly separating and joining the connector halves. Deformation, usually to the female terminal contact tang, can result in poor terminal contact causing an open or intermittently open circuit.

#### Testing for Proper Terminal Contact in Bussed Electrical Centers

It is very important to use the correct test adapter when testing for proper terminal contact of fuses and relays in a bussed electrical center. Use the **EL-35616** kit to test for proper terminal contact. Failure to use the **EL-35616** kit can result in improper diagnosis of the bussed electrical center.

Follow the procedure below in order to test terminal contact:

1. Separate the connector halves.

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2. Visually inspect the connector halves for contamination. Contamination may result in a white or green build-up within the connector body or between terminals. This causes high terminal resistance, intermittent contact, or an open circuit. An underhood or underbody connector that shows signs of contamination should be replaced in its entirety: terminals, seals, and connector body.
3. Using an equivalent male terminal/terminated lead, verify that the retention force is significantly different between a known good terminal and the suspect terminal. Replace the female terminal in question.

#### Flat Wire Connectors

There are no serviceable parts for flat wire connectors on the harness side or the component side.

Follow the procedure below in order to test terminal contact:

1. Remove the component in question.
2. Visually inspect each side of the connector for signs of contamination. Avoid touching either side of the connector as oil from your skin may be a source of contamination as well.
3. Visually inspect the terminal bearing surfaces of the flat wire circuits for splits, cracks, or other imperfections that could cause poor terminal contact. Visually inspect the component side connector to ensure that all of the terminals are uniform and free of damage or deformation.
4. Insert the appropriate adapter into the flat wire harness connector in order to test the circuit in question.

### Control Module/Component Voltage and Grounds

Poor voltage or ground connections can cause widely varying symptoms.

- Test all control module voltage supply circuits. Many vehicles have multiple circuits supplying voltage to a control module. Other components in the system may have separate voltage supply circuits that may also need to be tested. Inspect connections at the module/component connectors, fuses, and any intermediate connections between the voltage source and the module/component. A test lamp or a DMM may indicate that voltage is present, but neither tests the ability of the circuit to carry sufficient current. Operate the component to test the ability of the circuit to carry sufficient current. Refer to **Circuit Testing** and Power Distribution Wiring Schematics .
- Test all control module ground and system ground circuits. The control module may have multiple ground circuits. Other components in the system may have separate grounds that may also need to be tested. Inspect grounds for clean and tight connections at the grounding point (screw or stud). Inspect the connections at the component and in splice packs, where applicable. Operate the component to test the ability of the circuit to carry sufficient current. Refer to **Circuit Testing**, and Ground Distribution Wiring Schematics .

### Temperature Sensitivity

- An intermittent condition may occur when a component/connection reaches normal operating temperature. The condition may occur only when the component/connection is cold, or only when the component/connection is hot.
- Freeze Frame, Failure Records, Snapshot, or Vehicle Data Recorder data may help with this type of intermittent condition, where applicable.
- If the intermittent is related to heat, review the data for a relationship with the following:
  - High ambient temperatures
  - Underhood/engine generated heat
  - Circuit generated heat due to a poor connection, or high electrical load
  - Higher than normal load conditions, towing, etc.
- If the intermittent is related to cold, review the data for the following:
  - Low ambient temperatures - In extremely low temperatures, ice may form in a connection or component. Inspect for water intrusion.
  - The condition only occurs on a cold start.
  - The condition goes away when the vehicle warms up.

- Information from the customer may help to determine if the trouble follows a pattern that is temperature related.
- If temperature is suspected of causing an intermittent fault condition, attempt to duplicate the condition. Refer to **Inducing Intermittent Fault Conditions** in order to duplicate the conditions required.

### Electromagnetic Interference and Electrical Noise

Some electrical components/circuits are sensitive to electromagnetic interference or other types of electrical noise. Inspect for the following conditions:

- A mis-routed harness that is too close to high voltage/high current devices such as secondary ignition components, motors, generator etc. - These components may induce electrical noise on a circuit that could interfere with normal circuit operation.
- Electrical system interference caused by a malfunctioning relay, or a control module driven solenoid or switch - These conditions can cause a sharp electrical surge. Normally, the condition will occur when the malfunctioning component is operating.
- Installation of non-factory or aftermarket add on accessories such as lights, 2-way radios, amplifiers, electric motors, remote starters, alarm systems, cell phones, etc. - These accessories may create interference in other circuits while operating and the interference would disappear when the accessory is not operating. Refer to **Checking Aftermarket Accessories**.
- Test for an open diode across the A/C compressor clutch and for other open diodes. Some relays may contain a clamping diode.
- The generator may be allowing AC noise into the electrical system.

### Incorrect Control Module

- There are only a few situations where reprogramming a control module is appropriate:
  - A new service control module is installed.
  - A control module from another vehicle is installed.
  - Revised software/calibration files have been released for this vehicle.

**NOTE:** **DO NOT re-program the control module with the SAME software/calibration files that are already present in the control module. This is not an effective repair for any type of concern.**

- Verify that the control module contains the correct software/calibration. If incorrect programming is found, reprogram the control module with the most current software/calibration. Refer to **Control Module References** for replacement, setup, and programming.

## INDUCING INTERMITTENT FAULT CONDITIONS

**Special Tools**

**J-25070** Heat Gun

For equivalent regional tools, refer to **Special Tools** .

Many intermittent open or shorted circuits are affected by harness/connector movement that is caused by vibration, engine torque, bumps/rough pavement, etc. In order to duplicate the customer's concern, it may be necessary to manipulate the wiring harness if the malfunction appears to be vibration related. Manipulation of a circuit can consist of a wide variety of actions, including:

- Wiggling the harness
- Disconnecting a connector and reconnecting
- Stressing the mechanical connection of a connector
- Pulling on the harness or wire in order to identify a separation/break inside the insulation
- Relocating a harness or wires

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All these actions should be performed with some goal in mind. For instance, with a scan tool connected, wiggling the wires may uncover a faulty input to the control module. The snapshot option would be appropriate here. Refer to **Scan Tool Snapshot Procedure**. Another option is, with the component commanded ON and OFF by the scan tool, to move related connectors and wiring and observe the component operation. With the engine running, move related connectors and wiring while monitoring engine operation. If harness or connector movement affects the data displayed, component/system operation, or engine operation, inspect and repair the harness/connections as necessary.

You may need to load the vehicle in order to duplicate the concern. This may require the use of weights, floor jacks, jackstands, frame machines, etc. In these cases you are attempting to duplicate the concern by manipulating the suspension or frame. This method is useful in finding harnesses that are too short and their connectors pull apart enough to cause a poor connection. A DMM set to the Min/Max mode and connected to the suspect circuit while testing can yield desirable results. Refer to **Testing for Electrical Intermittents**.

Certainly, using the senses of sight, smell, and hearing while manipulating the circuit can provide good results as well.

There may be instances where circuit manipulation alone will not meet the required criteria for the fault condition to appear. In such cases it may be necessary to expose the suspect circuit to other conditions while manipulating the harness. Such conditions would include high moisture conditions, along with exceptionally high or low temperatures. The following discusses how to expose the circuit to these kinds of conditions.

### High Temperature Conditions

If the complaint tends to be heat related, you can simulate the condition using the **J-25070** heat gun.

Using the heat gun, you can heat up the suspected area or component. Manipulate the harnesses under high temperature conditions while monitoring the scan tool or DMM to locate the fault condition.

The high temperature condition may be achieved simply by test driving the vehicle at normal operating temperature. If a heat gun is unavailable, consider this option to enhance your diagnosis. This option does not allow for the same control, however.

### Low Temperature Conditions

Depending on the nature of the fault condition, placing a fan in front of the vehicle while the vehicle is in the shade can have the desired effect.

If this is unsuccessful, use local cooling treatments such as ice or a venturi type nozzle (one that provides hot or cold air). This type of tool is capable of producing air stream temperatures down to -18Ã‚Â°C (0Ã‚Â°F) from one end and +71Ã‚Â°C (160Ã‚Â°F) from the other. This is ideally suited for localized cooling needs. In addition, circuit cooling spray can be used to cool down a component or circuit.

Once the vehicle, component, or harness has been sufficiently cooled, manipulate the harness or components in an effort to duplicate the concern.

### Duplicating Failure Conditions

- If none of the previous tests are successful, attempt to duplicate and/or capture the failure conditions.
- Freeze Frame/Failure Records data, where applicable, contains the conditions that were present when the DTC set.
    1. Review and record Freeze Frame/Failure Records data.
    2. Clear the DTCs using the scan tool.
    3. Turn the key to OFF and wait 15 seconds.
    4. Operate the vehicle under the same conditions that were noted in Freeze Frame/Failure Records data, as closely as possible. The vehicle must also be operating within the Conditions for Running the DTC. Refer to Conditions for Running the DTC in the supporting text if a DTC is being diagnosed.

5. Monitor DTC Status for the DTC being tested. The scan tool will indicate Ran, when the enabling conditions have been satisfied long enough for the DTC to run. The scan tool will also indicate whether the DTC passed or failed.

- An alternate method is to drive the vehicle with the DMM connected to a suspected circuit. An abnormal reading on the DMM when the concern occurs, may help you locate the concern.

## TESTING FOR ELECTRICAL INTERMITTENTS

### Special Tools

**EL-39200** Digital Multimeter

For equivalent regional tools, refer to **Special Tools** .

Perform the following procedures while wiggling the harness from side to side. Continue this at convenient points (about 6 inches apart) while watching the test equipment.

- **Testing for Short to Ground**
- **Testing for Continuity**
- **Testing for a Short to Voltage**

If the fault is not identified, perform the procedure below using the MIN MAX feature on the **EL-39200** digital multimeter (DMM). This feature allows you to manipulate the circuit without having to watch the DMM. The DMM will generate an audible tone when a change is detected.

**NOTE:** **The DMM must be used in order to perform the following procedure since the DMM can monitor current, resistance or voltage while recording the minimum (MIN), and maximum (MAX) values measured.**

1. Connect the DMM to both sides of a suspected connector (still connected), or from one end of a suspected circuit to the other. Refer to **Troubleshooting with a Digital Multimeter** for information on connecting the DMM to the circuit.
2. Set the DMM to the V (AC) or V (DC) position.
3. Select the voltage range feature of the DMM in order to select the desired voltage range.

   **NOTE:** **The 100 ms RECORD mode is the length of time an input must stay at a new value in order to record the full change.**

4. Select the MIN MAX function of the DMM. The DMM displays the 100 ms RECORD and emits an audible tone (beep).
5. Simulate the condition that is potentially causing the intermittent connection, either by wiggling the connections or the wiring, test driving, or performing other operations. Refer to **Inducing Intermittent Fault Conditions**.
6. Listen for the audible Min Max Alert which indicates that a new minimum or maximum value has been recorded.
7. Press the MIN MAX button until the MAX value is displayed and note the value.
8. Press the MIN MAX button until the MIN value is displayed and note the value.
9. Determine the difference between the MIN and MAX values.
   - If the variation between the recorded MIN and MAX voltage values is 1 V or greater an intermittent open or high resistance condition exists. Repair the condition as necessary.
   - If the variation between the recorded MIN and MAX voltage values is less than 1 V, an intermittent open or high resistance condition does not exist.

## SCAN TOOL SNAPSHOT PROCEDURE

### Reviewing Stored Data in Global Diagnostic System (GDS)

#### Overview

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A snapshot is a recording of what a control module on the vehicle was receiving for information while the snapshot is being made. A snapshot is used to analyze the data during the time a vehicle condition is current. In GDS 2 there is not a traditional snapshot as there has been in the past. GDS 2 saves all past VIN and diagnostic data for future viewing. GDS 2 automatically records data whenever the user views Module Diagnostics, Vehicle Diagnostics and/or Systems Diagnostics. Module Diagnostics includes DTC Data, Identification Information, Data Display, Control Functions and Configuration/Reset Functions. Vehicle Diagnostics includes Vehicle Wide DTCs. Systems Diagnostics includes Inspection/Maintenance Status and Inspection/Maintenance Information.

### Reviewing Stored Data

The Review Stored Data function allows viewing and playing of previously recorded vehicle data. This information can be used in analysis of vehicle problems and detection of trigger error conditions. The graph function can be used to compare multiple parameters to see if a component is functioning properly. Recorded sessions can be selected for viewing by the following two methods:

- From the Home Page, click on Review Stored Data. In the Review Stored Data page, highlight a vehicle in the Sessions screen located in the upper pane and highlight the desired Stored Data in the lower pane, then click the Review button.
- The user can view stored data without ending a current on-vehicle diagnostic session by clicking the Vehicle Menu button (when active) or Back button until the Session Manager is displayed in the menu. This is used when a user is viewing live data and wants the quickest way to review the data. Click on the Session Manager button. Highlight the desired Stored Data in the lower pane and click the Review button.

### Stored Data Review Selections

The following information can be selected in the tabs at the top of the screen:

- Graphical Data Display - Allows a detailed review of parameter data. The buttons on the right side modify the graph data
- Diagnostic Data Display - Displays incoming information from the file. The current value of the parameters is displayed on the screen.
- Line Graph - Allows selected locked parameters to be graphed with parameters overlaid for data comparison. The current value of the parameters is displayed on the screen. Use the buttons on the right side to modify the graph data.
- Bookmarks - If bookmarks are present, this displays the Type, Description and Time of automatic and manually generated bookmarks.
- System Information - Displays the GDS 2 Software Version and MDI Serial Number used when the session was recorded.
- Selected Vehicle Configuration - Displays vehicle identifiers, such as transmission type, for the vehicle selected on the Stored Data Review screen in the Sessions field.
- RPO - Displays vehicle build information.

### Graphical Data Display

On the Graphical Data Display tab there are multiple selections at the top of the page. The selections available are:

- Create Report - Opens and internet browser page where a data display report can be printed or saved for future reference.
- Unit Switch - Toggles graph units between English and metric.
- Lock - When a parameter is selected, clicking the lock button locks a selected parameter for viewing in the Line Graph tab. In the Line Graph tab, locked parameters are isolated and overlaid for data comparison.
- Up Arrow - Click the up arrow to move a highlighted parameter up a position on the list.
- Down Arrow - Click the down arrow to move a highlighted parameter down a position on the list.
- Save As - This selection is available in the Graphical Data Display and Diagnostic Data Display tabs. This allows the user to export the graph data to a worksheet for in depth analysis and to timestamp data.

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### Review Stored Data Functions

To review the session there are buttons at the bottom of the window to control the cursor. From left to right the buttons are:

- Insert Bookmark - This button allows the user to insert bookmarks anywhere along the timeline. This provision allows the user to record notes regarding the inserted bookmark.
- Return Bookmark - This button moves the cursor to the previous bookmark.
- Back - This button moves the cursor back 1 frame.
- Timeline Slider Control - This allows the user to slide and select any position on the Timeline required.
- Forward - This button moves the cursor forward 1 frame.
- Forward Bookmark - This button moves the cursor forward 1 bookmark.
- Bookmarks - Allows the user to toggle bookmark visibility ON and OFF.

### Graphical Preference Selections

The vertical side bar on the right side of the screen in the Graphical Data Display and Line Graph tabs toggles the Graphical Selection Panel from hidden to visible. The graphical preference selections available are:

- Reset - Resets the graph display back to the initial standard GDS 2 setting.
- Grid Line Toggle - This toggle reverses the current state of showing or removing grid lines.
- Hash Mark Toggle - This toggle reverses the current state of showing or removing data acquisition points or hash marks.
- Horizontal Graph Compression - Compresses the scale of the graph horizontally.
- Horizontal Graph Expansion - Expands the scale of the graph horizontally.
- Vertical Graph Compression - Compresses the scale of the graph vertically.
- Vertical Graph Expansion - Expands the scale of the graph vertically.
- Move Centerline of Graph Up - Moves the centerline of the graph up incrementally.
- Move Centerline of Graph Down - Moves the centerline of the graph down incrementally.

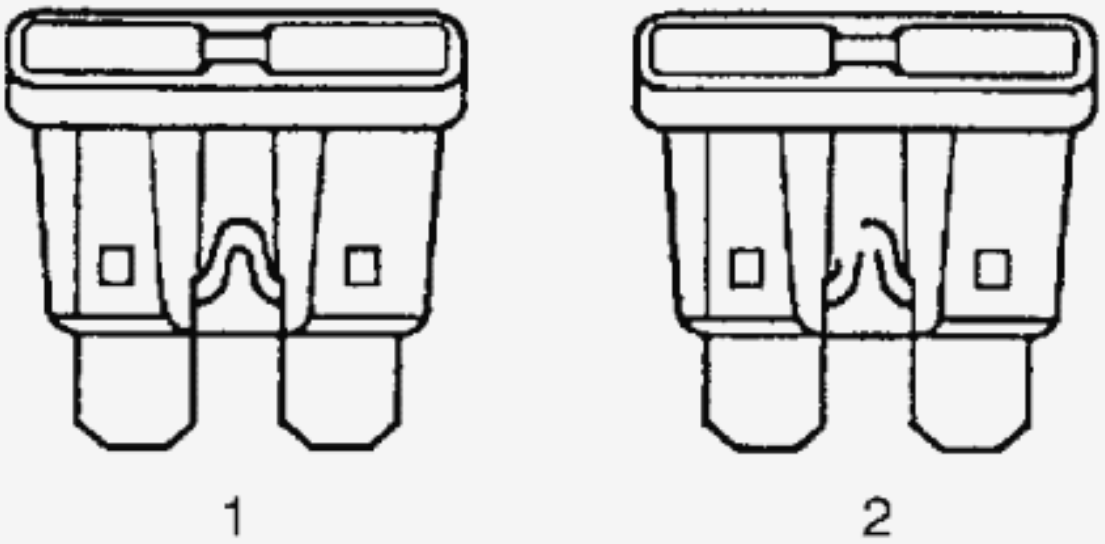
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## CIRCUIT PROTECTION - FUSES

### Special Tools

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .




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**Fig. 4: Good Fuse And Open (Melted) Fuse**
**Courtesy of GENERAL MOTORS COMPANY**

The fuse is the most common method of an automotive wiring circuit protection. Whenever there is an excessive amount of current flowing through a circuit the fusible element will melt and create an open or incomplete circuit. Fuses are a one time protection device and must be replaced each time the circuit is overloaded. To determine if a fuse is open, remove the suspected fuse and examine if the element in the fuse is broken (2). If not broken (1), also check for continuity using a Digital Multimeter (DMM) or a continuity tester. If the element is broken or continuity is suspect, replace the fuse with one of equal current rating.

**Fuse Types**

| Current Rating Amperes | Color |
|---|---|
| Auto Fuses, Mini Fuses | |
| 2 | Gray |
| 3 | Violet |
| 5 | Tan |
| 7.5 | Brown |
| 10 | Red |
| 15 | Blue |
| 20 | Yellow |
| 25 | White or Natural |
| 30 | Green |
| Maxi Fuses | |
| 20 | Yellow |

| Current Rating Amperes | Color |
|---|---|
| 30 | Light Green |
| 40 | Orange or Amber |
| 60 | Blue |
| 50 | Red |
| J-Case Fuses | |
| 20 | Blue |
| 30 | Pink |
| 40 | Green |
| 50 | Red |
| 60 | Yellow |
| Midi Fuses | |
| 80 | Black |
| Mega Fuses | |
| 100 | Black |
| 150 | Black |
| 200 | Black |

## CIRCUIT PROTECTION - CIRCUIT BREAKERS

A circuit breaker is a protective device that is designed to open the circuit when a current load is in excess of the rated breaker capacity. If there is a short or other type of overload condition in the circuit, the excessive current will open the circuit between the circuit breaker terminals. Two types of circuit breakers are used.

### Circuit Breaker

This type opens when excessive current passes through it for a period of time. It closes again after a few seconds, and if the cause of the high current is still present, it will open again. The circuit breaker will continue to cycle open and closed until the condition causing the high current is removed.

### Positive Temperature Coefficient (PTC) Circuit Breaker

This type greatly increases its resistance when excessive current passes through it. The excessive current heats the PTC device, as the device heats its resistance increases. Eventually the resistance gets so high that the circuit is effectively open. Unlike the ordinary circuit breaker the PTC unit will not reset until the circuit is opened, by removing the voltage from its terminals. Once the voltage is removed the circuit breaker will re-close within a second or 2.

## CIRCUIT PROTECTION - FUSIBLE LINKS

**Special Tools**

**EL-39200** Digital Multimeter (DMM)

For equivalent regional tools, refer to **Special Tools** .

**NOTE:** **When repairing a fusible link, fusible links cut longer than 225 mm (approximately 9 in) will not provide sufficient overload protection.**

Fusible link is wire designed to melt and break continuity when excessive current is applied. It is often located between or near the battery and starter or electrical center. Use a continuity tester or a Digital Multimeter (DMM) at each end of the wire containing the fusible link in order to determine if it is broken. If broken, it must be replaced with fusible link of the same gauge size.

## WIRING REPAIRS

The Wiring Repairs section contains the following types of wiring repair information. Using these elements together will make wiring repair faster and easier:

- Flat Wire Repairs
- Serial Data Circuit Wiring Repairs
- High Temperature Wiring Repairs
- Heated Oxygen Sensor Wiring Repairs
- Wire to Wire Repair
- Splicing Inline Harness Diodes
- Splicing Twisted or Shielded Cable
- SIR/SRS Wiring Repairs

## CONNECTOR REPAIRS

Connector Repairs contains a list of all connector repairs. The connector repairs are listed by the connector manufacturer and then by connector type. If the technician cannot identify the manufacturer of the connector, refer to Identifying Connectors below. Knowing the connector manufacturer will assist in finding the correct connector repair from the following list:

- Connector Position Assurance Locks
- Terminal Position Assurance Locks
- AFL/EPC Connectors
- Bosch Connectors (BSK) Bosch Connectors (0.64) Bosch Connectors (2.8 JPT) Bosch Connectors (ECM)
- Delphi Connectors (Weather Pack) Delphi Connectors (Push To Seat) Delphi Connectors (Pull To Seat) Delphi Connectors (Micro-Pack 100W) Delphi Connectors (Micro.64) Delphi Connectors (12-Way) Delphi Connectors (Steering Gear)
- FCI Connectors (Lever Lock) FCI Connectors (SIR)
- FEP Connectors (Steering Gear)
- JST Connectors
- Kostal Connectors (Glow Plug Control Module) Kostal Connectors (Transmission)
- Molex Connectors (Lever Lock) Molex Connectors (SIR)
- Sumitomo Connectors
- Tyco/AMP Connectors (CM 42-Way) Tyco/AMP Connectors (Sensor) Tyco/AMP Connectors (0.25 Cap) Tyco/AMP Connectors (43-Way) Tyco/AMP Connectors (Door Module) Tyco/AMP Connectors (Seat) Tyco/AMP Connectors (102-Way Inline) Tyco/AMP Connectors (SIR)
- Yazaki Connectors (2-Way) Yazaki Connectors (16-Way)
- Repairing Connector Terminals (Terminated Lead Repair) Repairing Connector Terminals (Terminal Repair)

### Connector Anatomy

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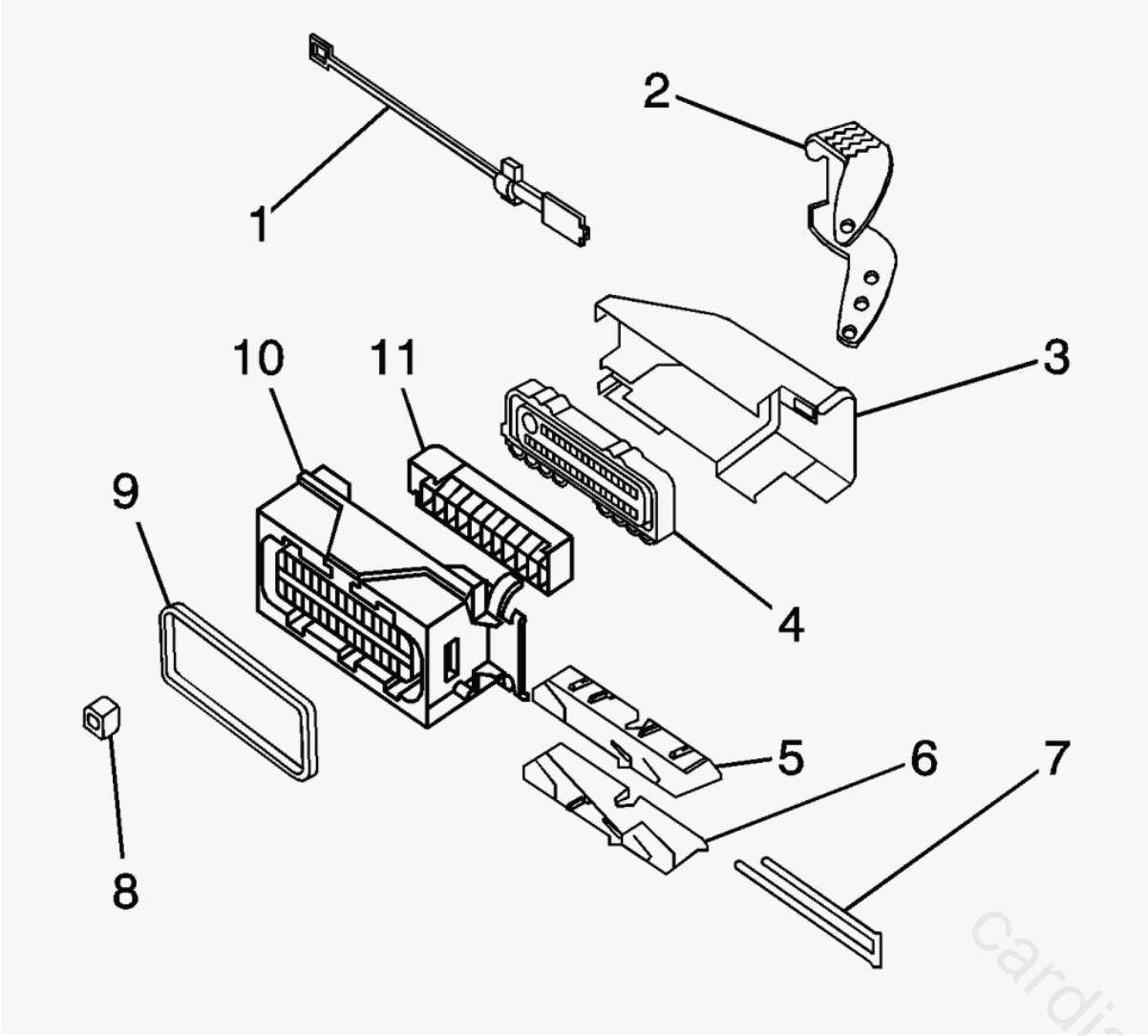



**Fig. 5: Identifying Typical Connector Components**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| 1 | Connector Positive Assurance (CPA) |
| 2 | Assist Lever |
| 3 | Wiredress Cover |
| 4 | Seal Strain/Relief |
| 5 | Slide Left Hand |
| 6 | Slide Right Hand |
| 7 | Terminal Positive Assurance (TPA) |
| 8 | Terminal Positive Assurance (TPA) |
| 9 | Connector Seal |
| 10 | Connector Housing |
| 11 | Inner Connector |

### Identifying Connectors

Knowing the connector manufacturer is helpful when trying to locating the correct connector repair procedure. There are many different connector designs used on GM vehicles and it is sometimes difficult to identify the connector manufacturer. The information in this document should help with the identification of connector manufactures.

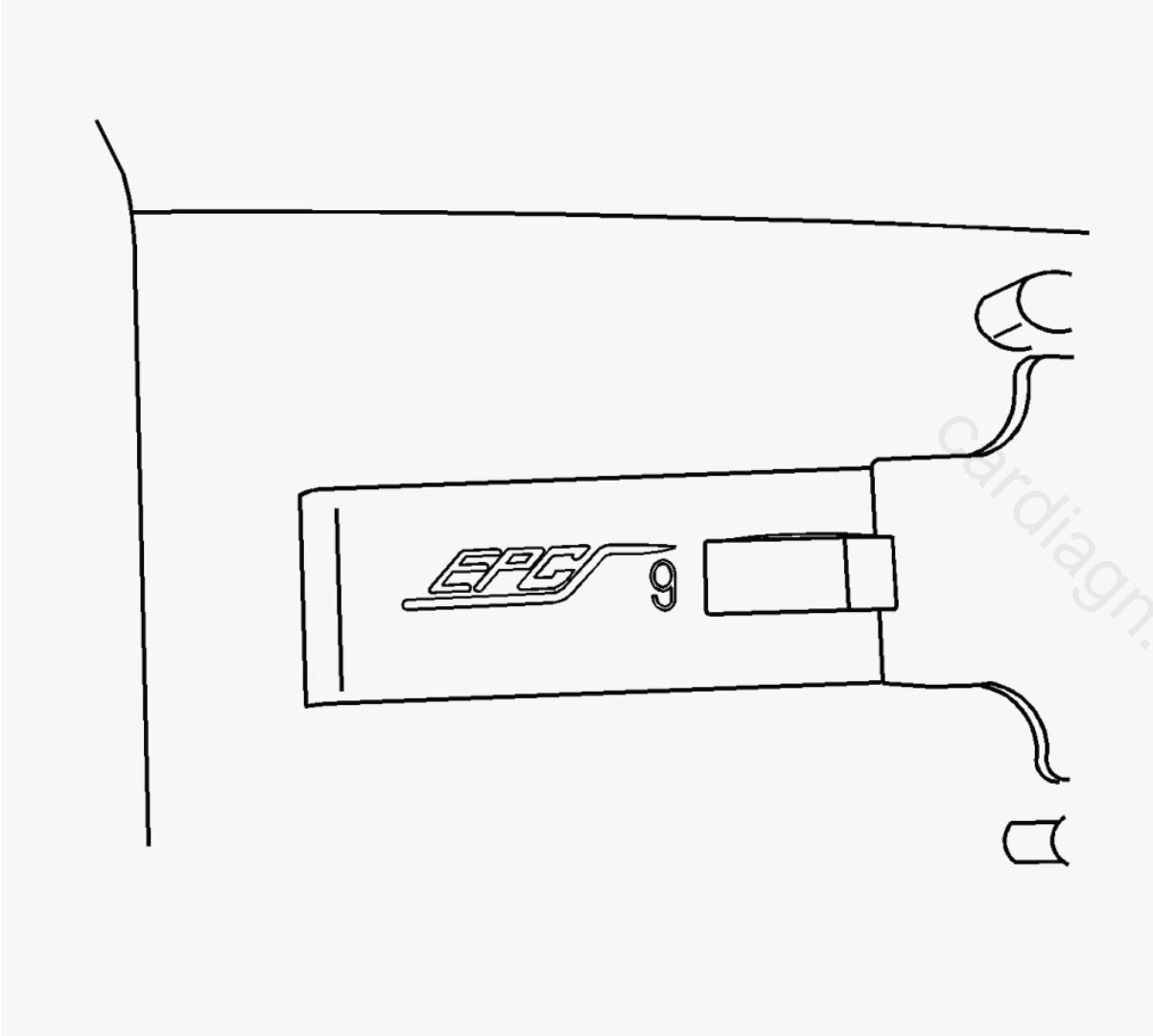
The following connector manufacturers make most of the connectors found in GM vehicles:

- AFL/EPC (Alcoa Fujikura Ltd./Engineered Plastics Components)
- Bosch
- Delphi
- FCI (Framatome Connectors International)

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- JAE (Japan Aviation Electronics)
- JST (Japan Solderless Terminals)
- Kostal
- Molex
- Sumitomo
- Tyco/AMP
- Yazaki

Identifying the manufacturer of a connector is often difficult. When trying to determine the manufacturer of a connector, look for specific identifying marks that are unique to that connector supplier. Most of these identify marks are hard to find or see. Check the connector carefully and refer to the information below for pictures and descriptions of connector identification markings.



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**Fig. 6: EPC Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- Most of AFL's connectors have EPC on their connector body. Some of the smaller connectors will not have any markings on them.

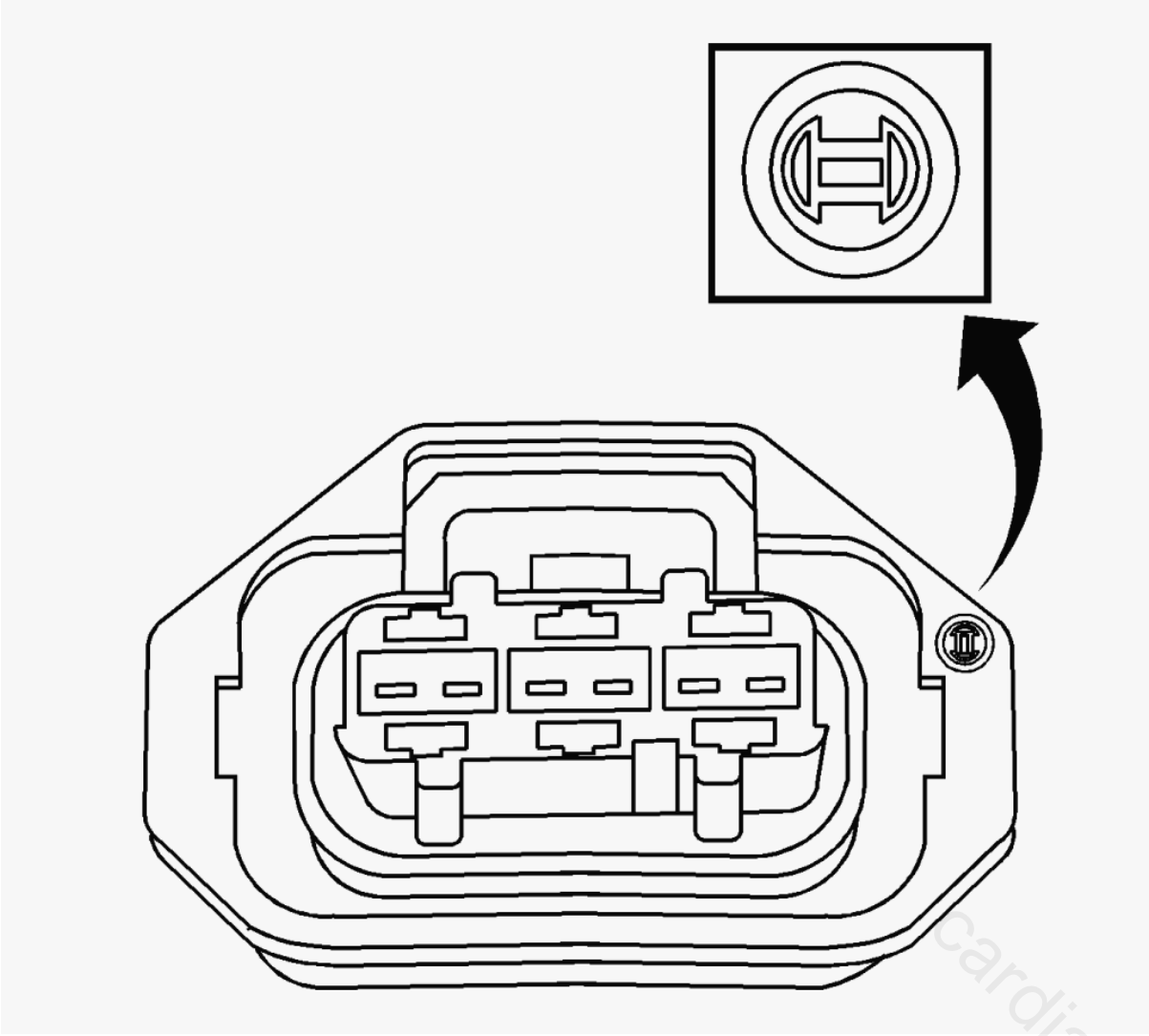


**Fig. 7: Bosch Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- In some cases Bosch will actually be printed on the connector. If Bosch does not appear on the connector, look for the Bosch logo. The Bosch logo is a circle with a blunted arrow inside. This logo can appear anywhere on the connector and is often very small.

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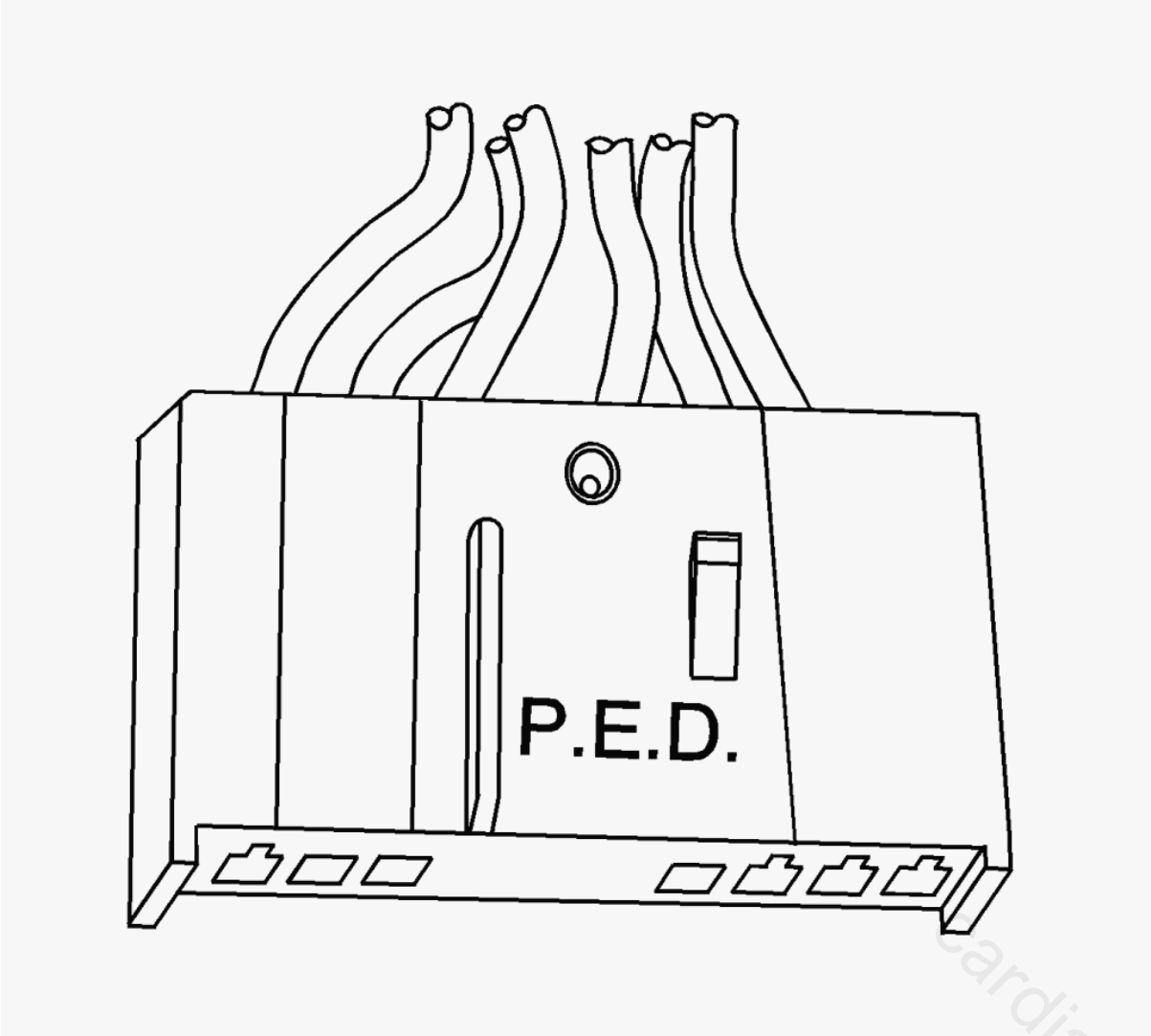



**Fig. 8: PED Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- In some cases Delphi will actually be printed on the connector. If Delphi is not printed on the connector, look for PED. In both cases there is no specific orientation for Delphi or PED and they can appear anywhere on the connector.

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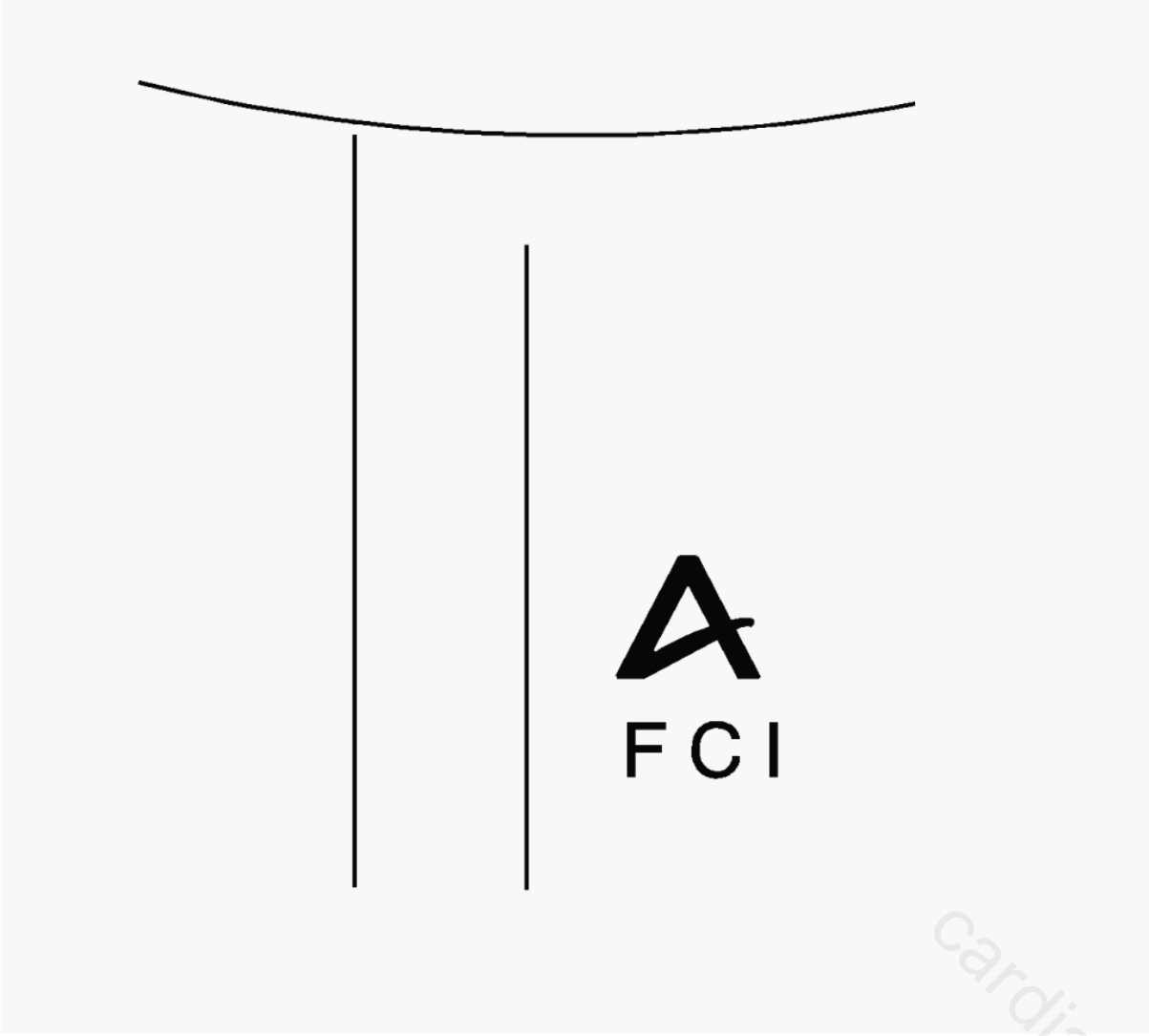



**Fig. 9: FCI Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- FCI connectors may have the FCI logo on their connectors. The logo is the letters FCI with an "A" above it.

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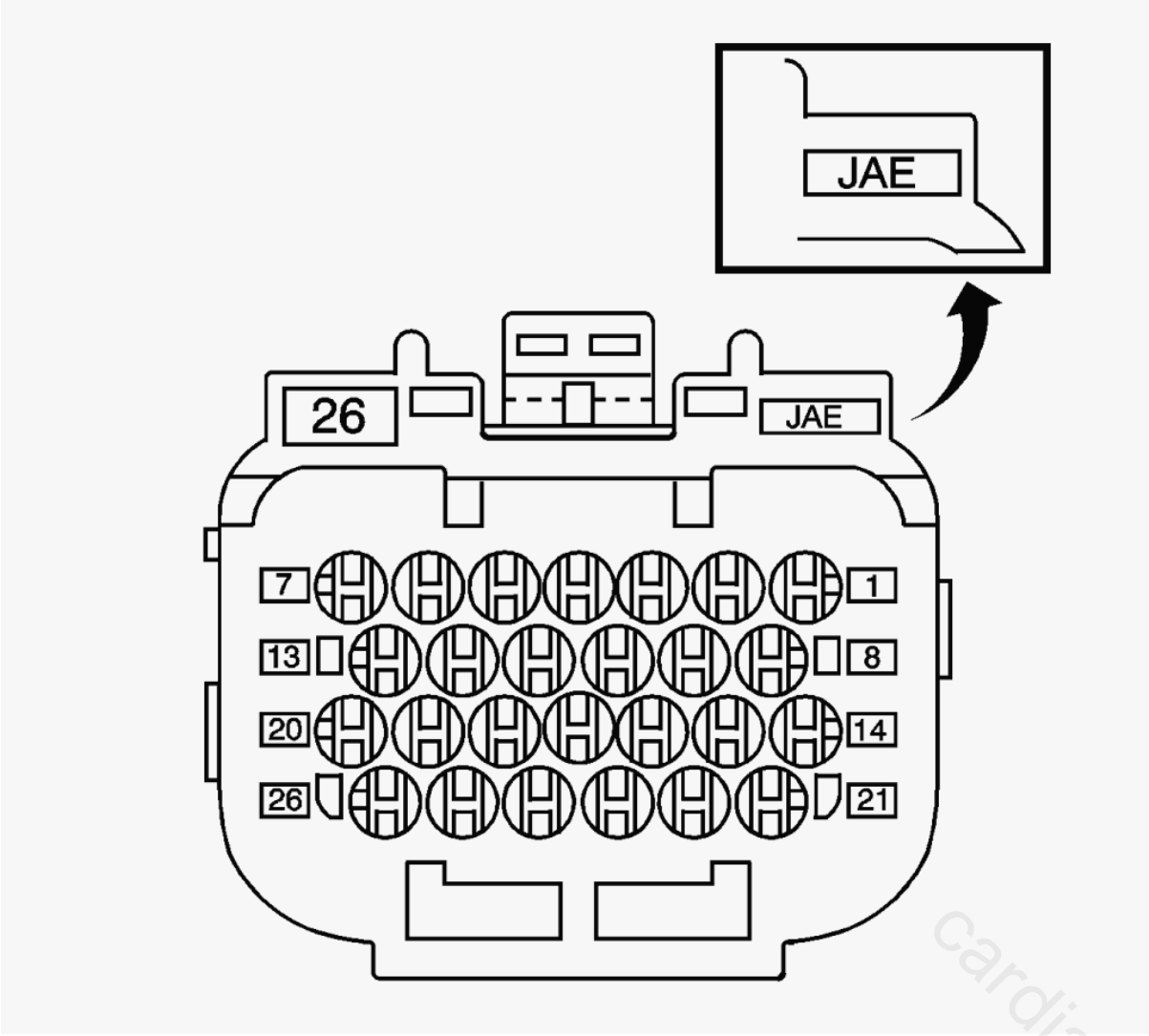



**Fig. 10: JAE Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- JAE connector have JAE in small letters on their connectors.

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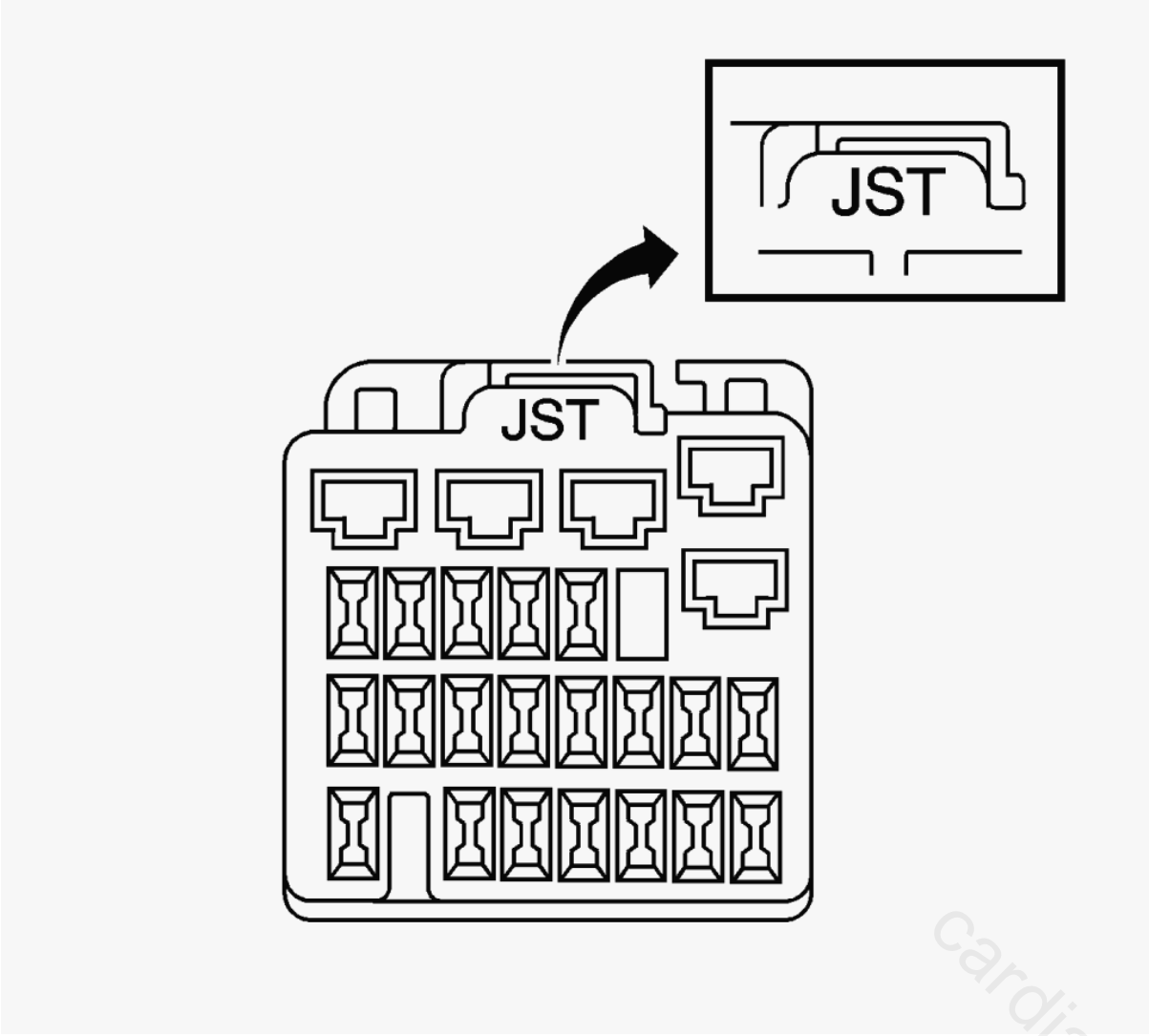



**Fig. 11: JST Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- JST connectors have JST in small letters on their connectors, similar to that above. The location of the logo will vary with the connector size and style.

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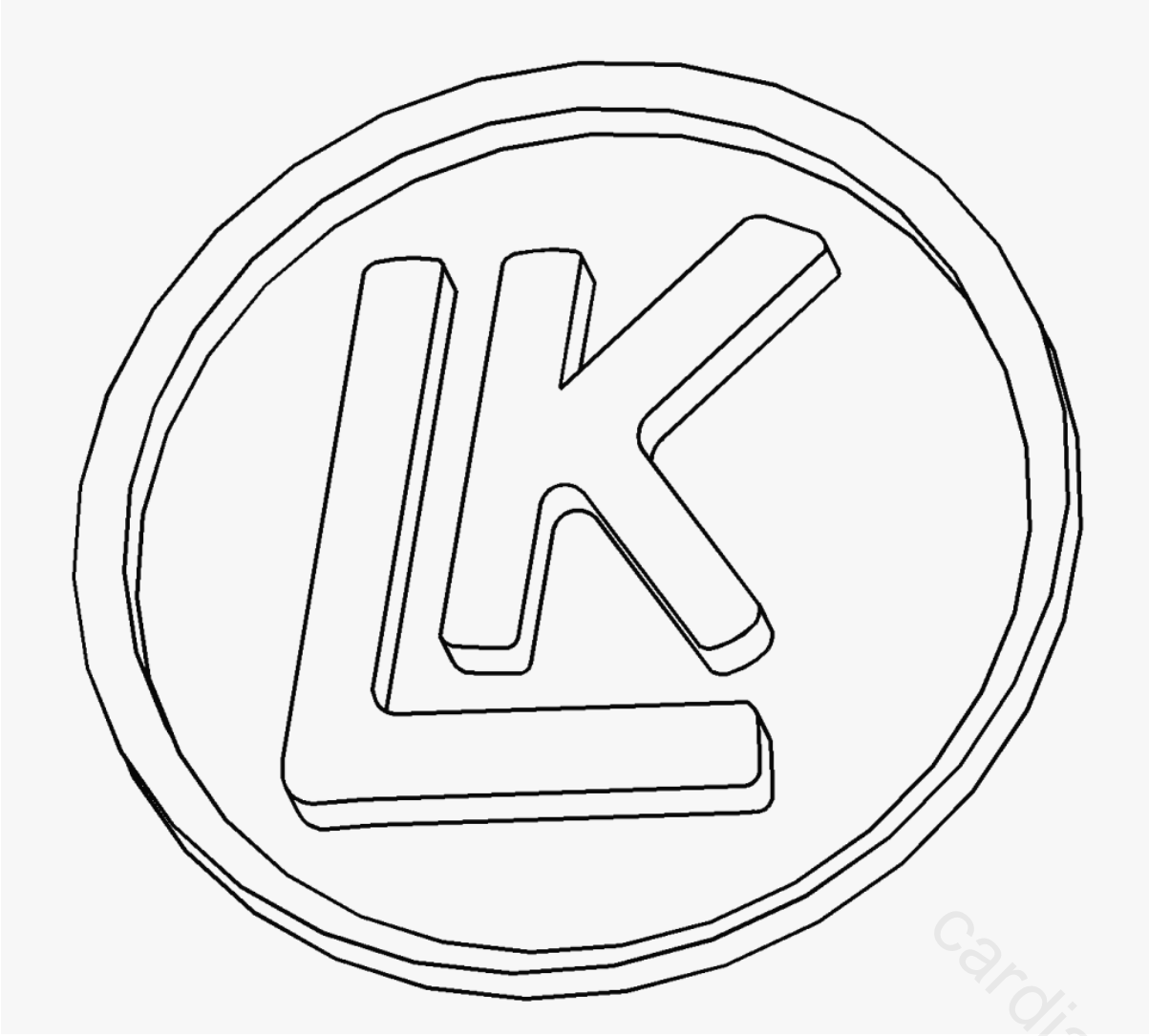


**Fig. 12: Kostel Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- Kostel has an "LK" with a circle around it. These connector are usually used as a transmissions connection.

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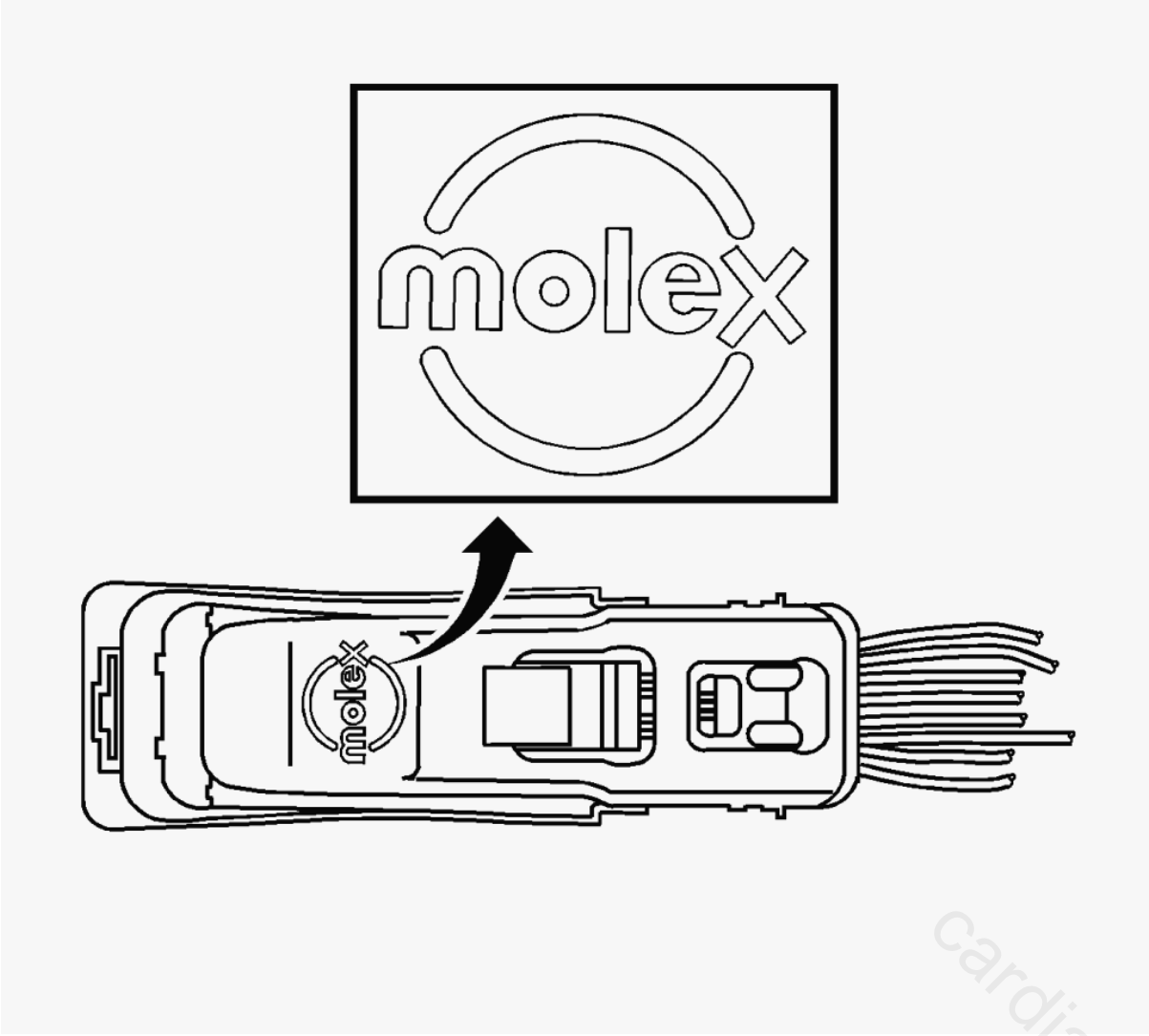



**Fig. 13: Molex Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

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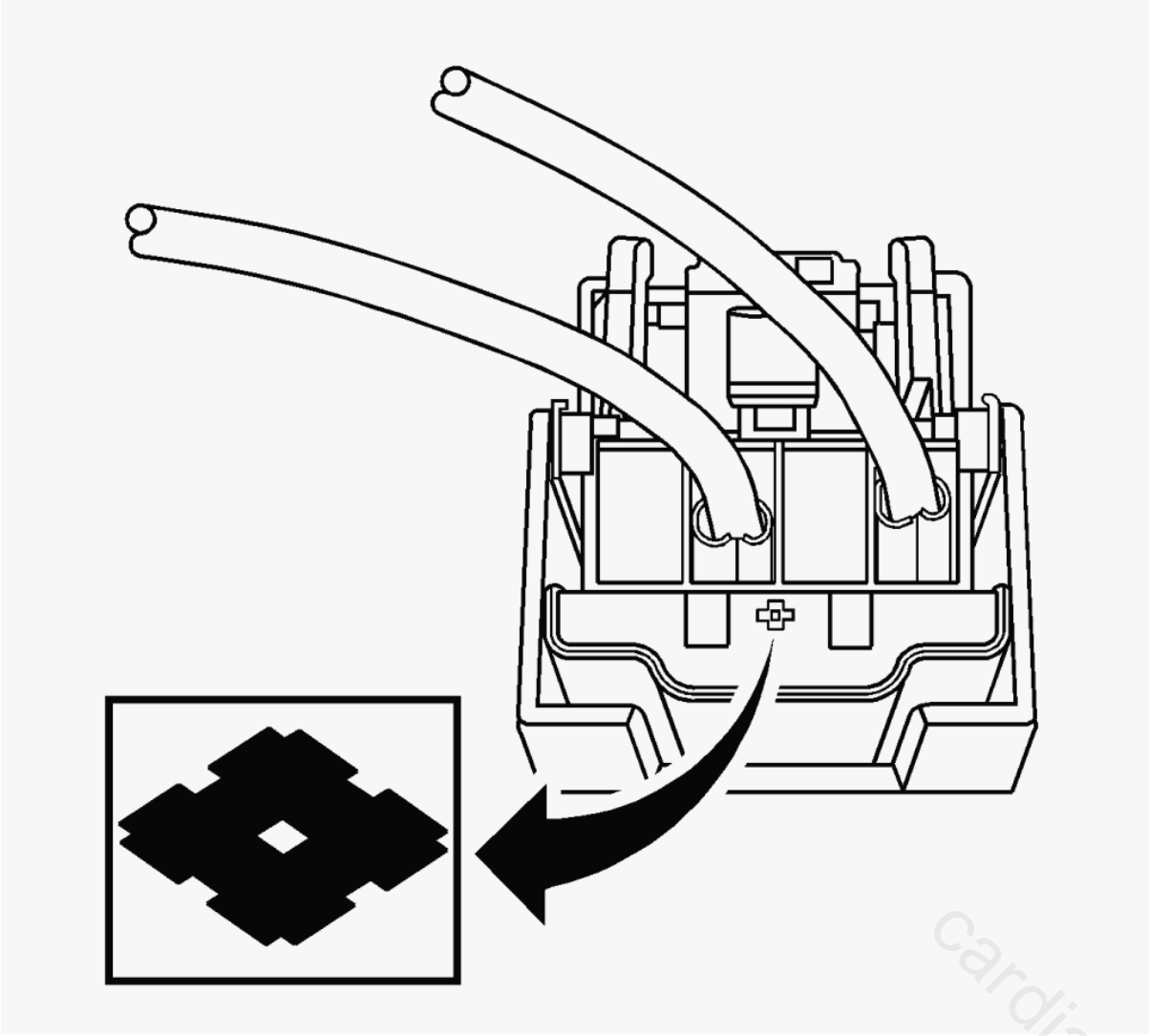


**Fig. 14: Sumitomo Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- Most Molex connectors will have the Molex logo on the dresscover of the connector. In some cases the connectors may have MX followed by another letter. The third letter indicates where the connector was made. A connector with MXD is a Molex connector made in Detroit.

  Sumitomo has a unique symbol on their connector and possibly a part number. The symbol is similar to that of a diamond lying on its side, similar to that shown. The logo could appear anywhere but the most common place is at the wire side of the housing.

- Tyco/AMP has many different and unique connector designs. Some may or may not have identifiable marks on them.

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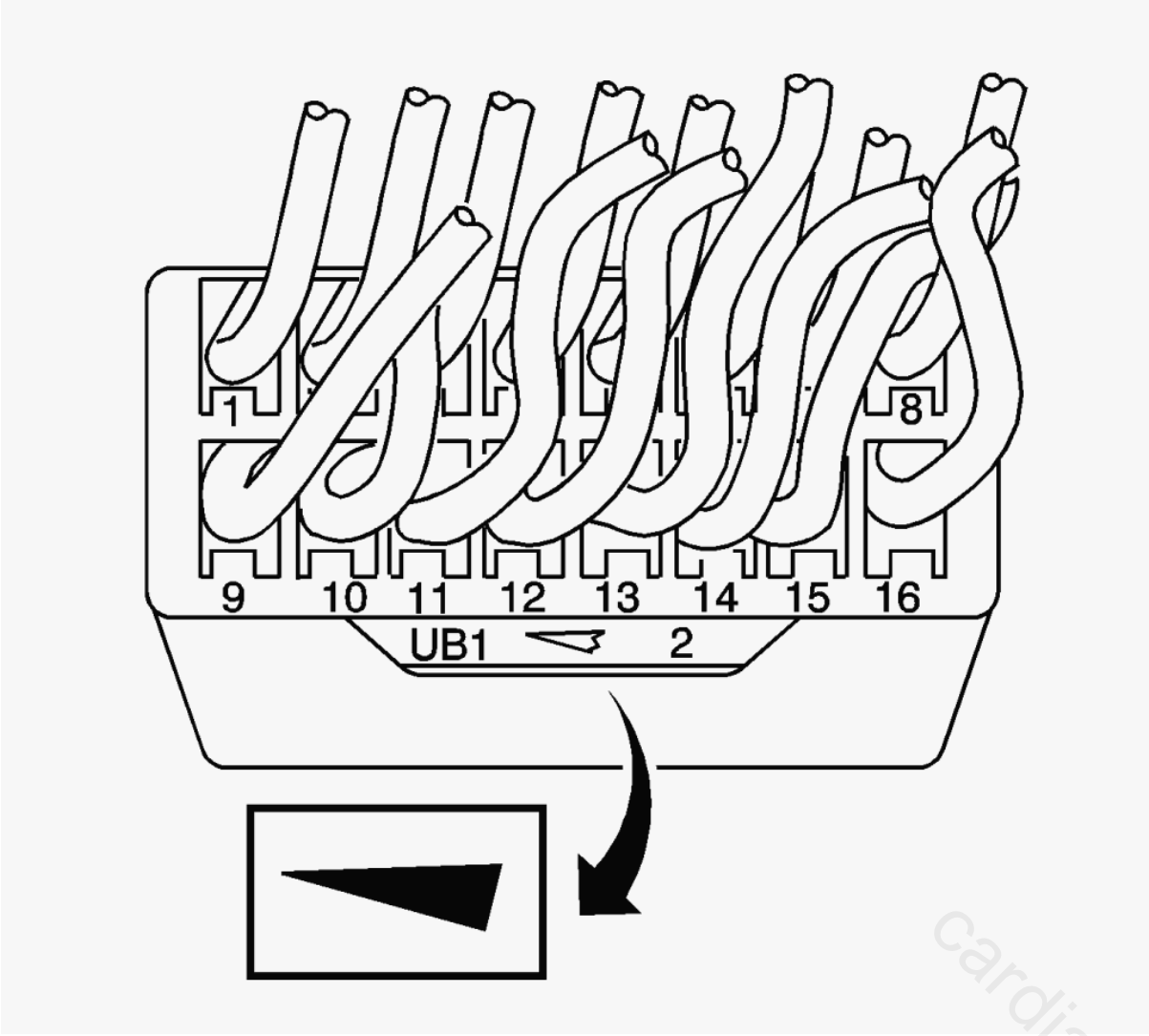



**Fig. 15: Yazaki Identification On Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

- Yazaki has a wedge or arrow shape, similar to that shown.

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# REPAIR INSTRUCTIONS

## REPAIRING DAMAGED WIRE INSULATION

If the wire insulation has been chafed, or broken, enough to show the conductive portion of the wire, and the wire is not damaged, determine the length of insulation that needs to be repaired. If the repair is less than 280 mm (11 in), cut the wire within the damaged area. Then slide the appropriate heat shrink tubing (listed below) over the wire, and repair the wire by splicing the wires together. Refer to **Wire to Wire Repair**. Once the wire is spliced together slide heat shrink tubing over the damaged area and apply heat to seal the repaired wire.

If the wire is damaged, or the damaged area is larger than 280 mm (11 in), then replace the damaged wire by splicing in a new section of wire. Refer to **Wire to Wire Repair**.

**Heat Shrink Tubing Selection**

| GM Part Number | Diameter | | Description | Color | Length | |
|---|---|---|---|---|---|---|
| | Metric | English | | | Metric | English |
| 12355010 | 3.2 mm | 0.125 in | Tubing, Shrink 1/8 | Black | 305 mm | 12 in |
| 12355003 | 9.5 mm | 0.375 in | Tubing, Shrink 3/8 | Black | 305 mm | 12 in |
| 12355005 | 12.7 mm | 0.5 in | Tubing, Shrink 1/2 | Black | 305 mm | 12 in |
| 12355011 | 19.1 mm | 0.75 in | Tubing, Shrink 3/4 | Black | 305 mm | 12 in |
| 12355008 | 25.4 mm | 1.0 in | Tubing, Shrink 1.00 | Black | 305 mm | 12 in |

**Wire Size Conversion**

| Metric Wire Sizes (mm 2) | AWG Sizes |
|---|---|
| 0.13 | 26 |
| 0.21 | 24 |
| 0.35 | 22 |
| 0.5 | 20 |
| 0.8 | 18 |
| 1.31 | 16 |
| 2.09 | 14 |
| 3.31 | 12 |
| 5.27 | 10 |
| 8.37 | 8 |
| 13.3 | 6 |
| 21.2 | 4 |
| 33.6 | 2 |
| 53.5 | 1/0 |

## COAXIAL CABLE REPAIRS

The GM global coaxial (coax) cable repair strategy uses coaxial cables, connectors and jumpers to repair coaxial cables. The intent is to install the new service cable in vehicle, but removal of the old cable is not necessary. There are several repair scenarios:

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- New cables, jumpers, and connector housing are required.
- Only new cables are required while it is possible to reuse the existing connector housing in vehicle. A jumper may or may not be needed.
- Only new connector housing are required, while it is possible to reuse the existing cable in the vehicle.
- A new cable would need to be installed from source to destination and by-pass the inline connector in some cases when an inline connector is unrepairable (Example: a cracked male end of a 1-way connector).

### Coaxial Cable Kits

Four different kits will be available to repair coaxial cables. Components of each kit cannot be ordered separately from the kit.

- **Communication Interface Module Antenna Cable Kit** (Kit #13581174) is used to repair Cellular coaxial cables. This kit uses RG58 low loss coaxial cables that are available in four lengths. The coaxial cables can be attached together in various lengths to closely match the length of the faulty/damaged coaxial cable.
- **Digital Radio and Vehicle Locator Antenna Coaxial Cable Kit** (Kit #13581173) is used to repair XM and GPS coaxial cables. For vehicles that have a combined GPS and Cellular/OnStar signal on one cable, use Kit #13581174. This kit uses RG316 low loss coaxial cables that are available in three lengths. The coaxial cables can be attached together in various lengths to closely match the length of the faulty/damaged coaxial cable.
- **Digital Radio, Mobile Telephone and Vehicle Locator Antenna Coaxial Cable Kit** (Kit #19119056) is used with OnStar, XM, and GPS cables. This kit consists of jumpers and connectors. The jumpers are used to adapt different types of connectors together (to attach 2-way and 3-way connector onto the long 7, 5, and 3 foot cables). The connectors are used to replace existing connectors. The 1-way and 2-way connectors in the kit are in water-blue color (different than what the vehicle is built with) and are non-keyed (universal fit). The 3-way connectors in the kit are in the same color as in the vehicle.
- **Communication Interface Module Antenna Cable Kit** (Kit #22803854) is used for the OnStar module on some vehicles built before the 2011 model year.

**Coaxial Cable Repair Kits**

| Repair Kit Name | Description |
|---|---|
| Communication Interface Module Antenna Cable Kit (Kit #13581174) | RG58 coaxial cable with female/female connectors - 7ft/2.1m |
| | RG58 coaxial cable with female/male connectors - 5ft/1.5m |
| | RG58 coaxial cable with female/male connectors - 3.5ft/1.1m |
| | RG58 coaxial cable with female/male connectors - 3.5ft/1.1m |
| Digital Radio and Vehicle Locator Antenna Coaxial Cable Kit (Kit #13581173) | RG316 coaxial cable with female/female connectors - 7ft/2.1m |
| | RG316 coaxial cable with female/male connectors - 5ft/1.5m |
| | RG316 coaxial cable with female/male connectors - 3.5ft/1.1m |

| Repair Kit Name | | Description |
|---|---|---|
| Digital Radio, Mobile Telephone and Vehicle Locator Antenna Coaxial Cable Kit (Kit #19119056) | 3-way Gen 1 sub-kit | 1-way to 3-way Gen 1 jumper for female connector - Part #13581154 - 4in/10cm<br>1-way to 3-way Gen 1 jumper for male connector - Part #19119052 - 4in/10cm |
| | | White female connector |
| | | White male connector |
| | | Blue female connector |
| | | Blue male connector |
| | 3-way Gen 2 sub-kit | 1-way to 3-way Gen 2 jumper for female connector - Part #13581155 - 4in/10cm<br>1-way to 3-way Gen 2 jumper for male connector - Part #19119058 - 4in/10cm |
| | | Tan female connector |
| | | Tan male connector |
| | | Gray female connector |
| | | Gray male connector |
| | 2-way Gen 1 sub-kit | 1-way to 2-way Gen 1 jumper for female connector - Part #13581156 - 4in/10cm |
| | | Water-blue female connector |
| | 2-way Gen 2 sub-kit (wide) | 1-way to 2-way Gen 2 jumper for female connector - Part #13581157 - 4in/10cm |
| | | 1-way to 2-way Gen 2 jumper for male connector - Part #13581158 - 4in/10cm |
| | | Water-blue female connector |
| | | Water-blue male connector |
| | 2-way Gen 2 and 3 sub-kit (narrow) | 1-way to 2-way Gen 2 and 3 jumper for female connector - Part #13582468 - 4in/10cm |
| | | Use the 1-way to 2-way Gen 2 jumper for female connector 19119058 - 4in/10cm from the 2-way Gen 2 sub-kit. |
| | | Water-blue female connector |
| | | Water-blue male connector |
| | Right-angle jumper with water-blue universal 1-way connector - 4in/10cm | |
| Communication Interface Module Antenna Cable Kit (Kit #22803854) | | 1-way to mini UHF jumper - 4in/10cm |

### Connector Housing Repair Procedure

The connector housings (available in Digital Radio, Mobile Telephone and Vehicle Locator Antenna Coaxial Cable Kit) are available for 1-way housings, 2-way housings and 3-way housings. Determine the connector housing required:

**1-way housing**

No change to the service coaxial cable is necessary in order to install the new coaxial cable into the vehicle.

**2-way housing**

A 4-inch jumper is required.

1. Determine the appropriate generation (1, 2, or 3) and/or size (12.7 mm or 8 mm) of the 2-way housing that is in the vehicle.
2. Remove the faulty/damaged coaxial cable from the 2-way connector housing by removing the terminal position assurance (TPA) from the connector housing and then slide the cable out of the connector.

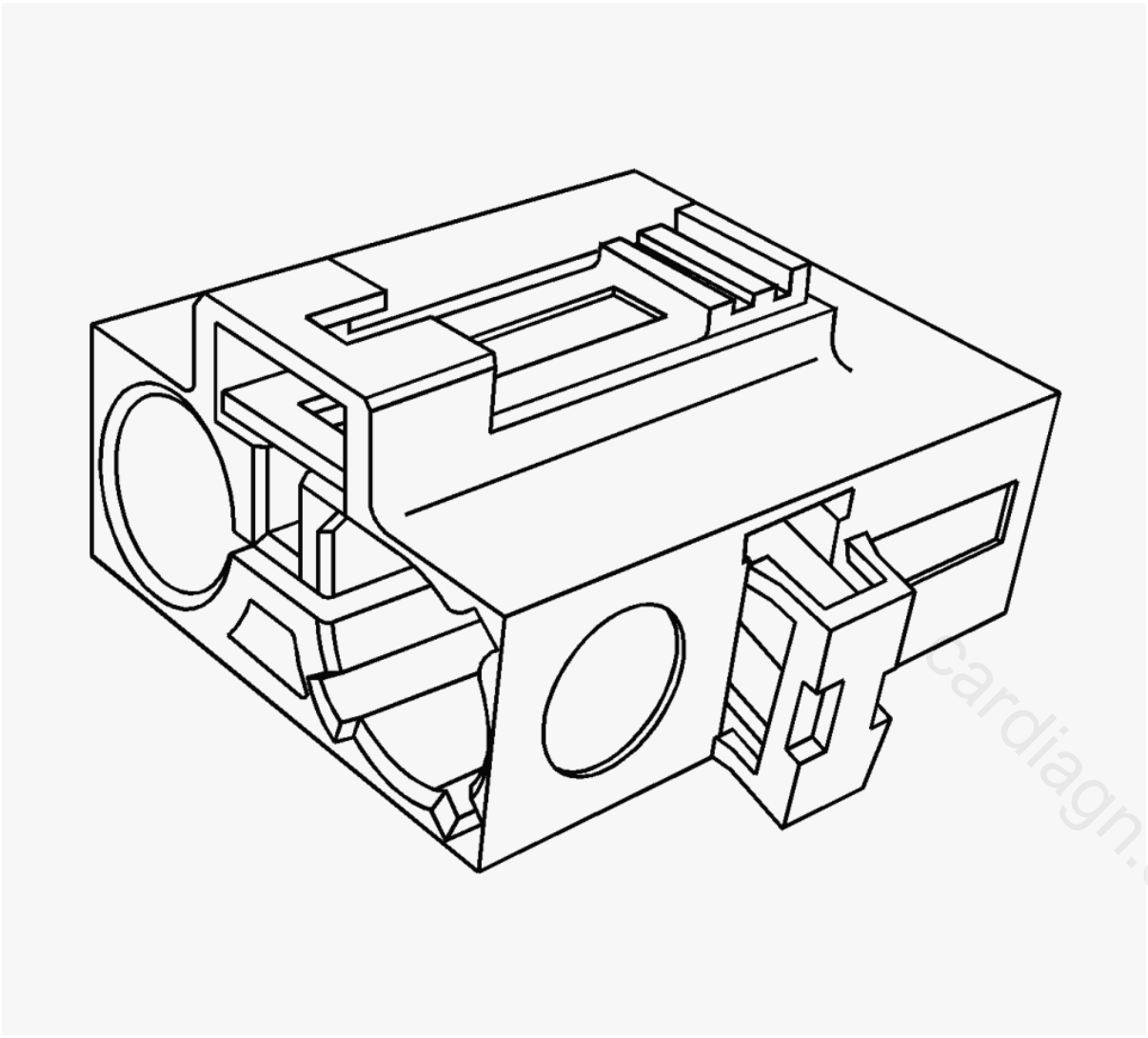


**Fig. 1: Connector Housing**
**Courtesy of GENERAL MOTORS COMPANY**

3. Install the new service coaxial cable into the vehicle. Use the 4-inch jumper for the appropriate 2-way connector housing to connect the new service coaxial cable to the connector housing.
4. If the issue is found to be the connector housing and not cable, a new connector housing may be installed while reusing all other components.

**3-way housing**

A 4-inch jumper is required.

1. Determine the appropriate generation (1 or 2) and keyed 3-way connector housing based on the connector housing color.
2. Note the locations of each of the cables in 3-way housing, as it is important for new cables be placed in the appropriate terminal location in the new connector. The connector housing colors are not interchangeable.
3. Remove the faulty/damaged coaxial cable from the 3-way connector housing by using a pair of side/diagonal cutters to nip and break away the housing.

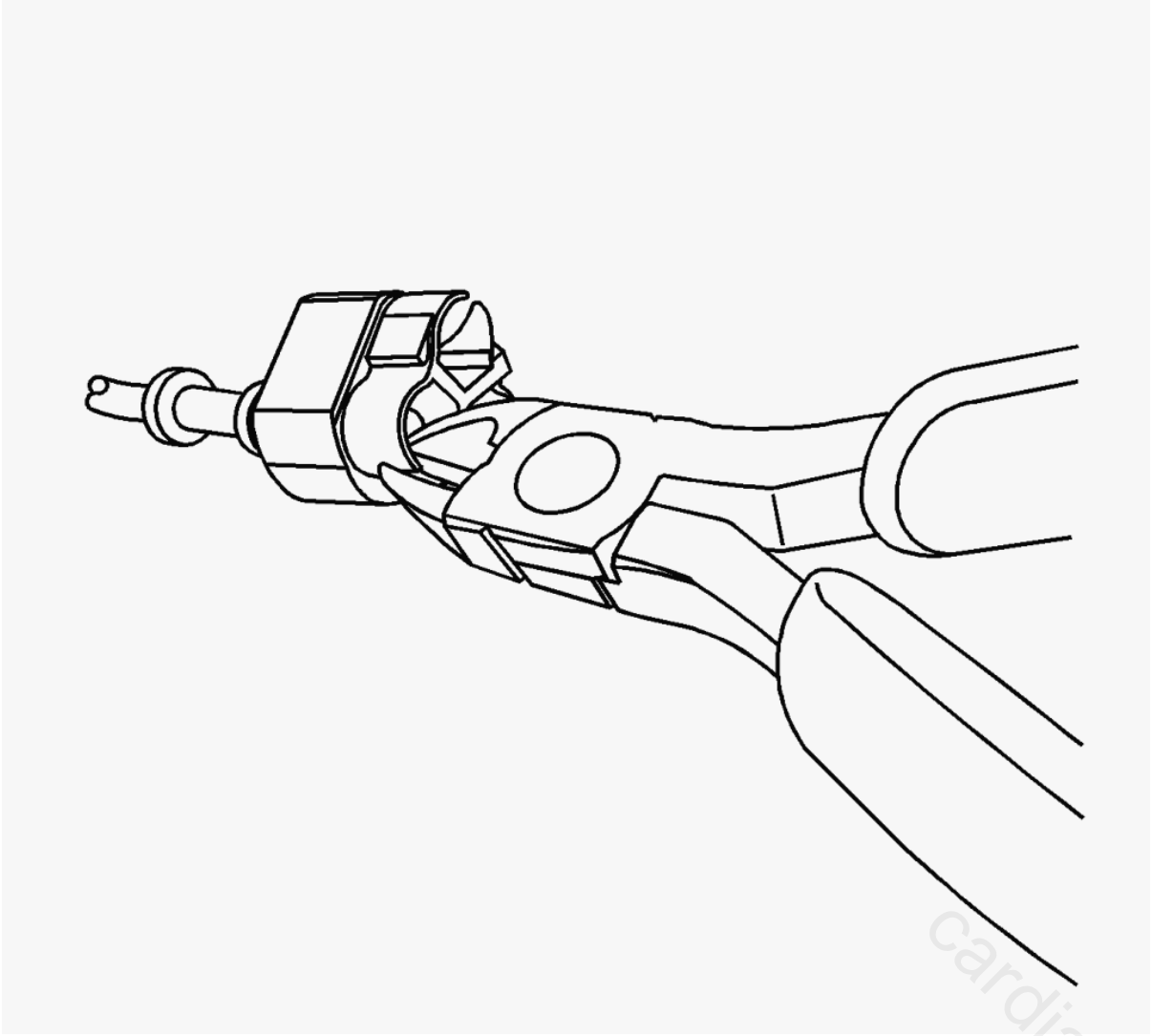


**Fig. 2: Using Side/Diagonal Cutters To Nip And Break Away Connector Housing**
**Courtesy of GENERAL MOTORS COMPANY**

4. Use caution not to damage the conductive ends of the coaxial cables inside the connector housing. Do not bend or force the terminal out or it could be damaged.

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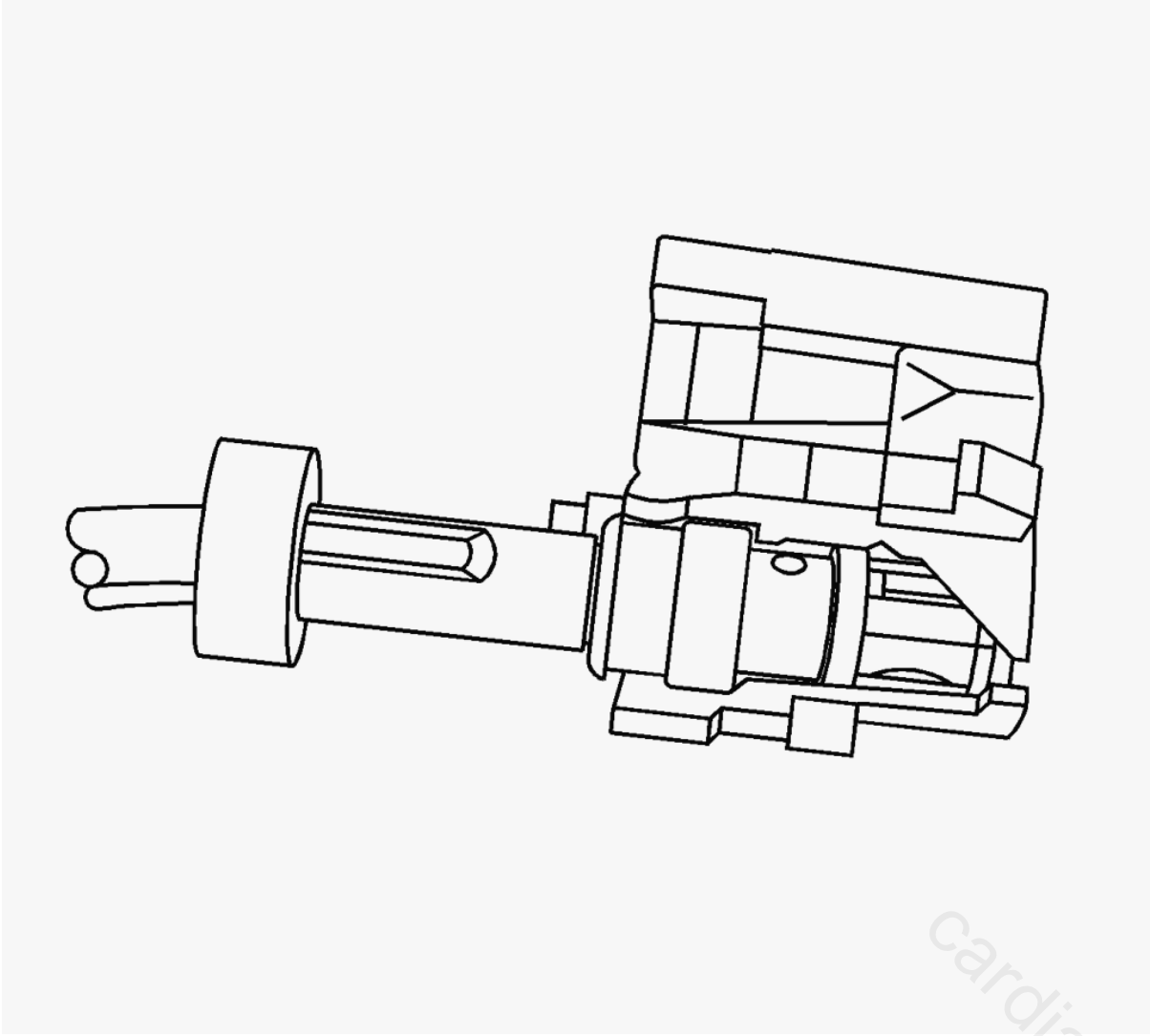


**Fig. 3: Connecting New Service Coaxial Cable To New 3-Way Connector Housing**
**Courtesy of GENERAL MOTORS COMPANY**

5. Install the new service coaxial cable into the vehicle. Use the 4-inch jumper for the appropriate color 3-way connector housing to connect the new service coaxial cable to the new 3-way connector housing.
6. If the issue is found to be the connector housing and not cable, a new connector housing may be installed while reusing all other components.

### Coaxial Cable Repair Procedure

1. Identify the faulty/damaged coaxial cable.
2. Disconnect the faulty/damaged coaxial cable and leave it in the vehicle.
3. Identify the type of coaxial cable to be replaced and match up with the appropriate pieces to repair the damaged coaxial cable. Match up the type of coaxial cable, cable length and connector types. In some cases there may be extra length of cable left over.

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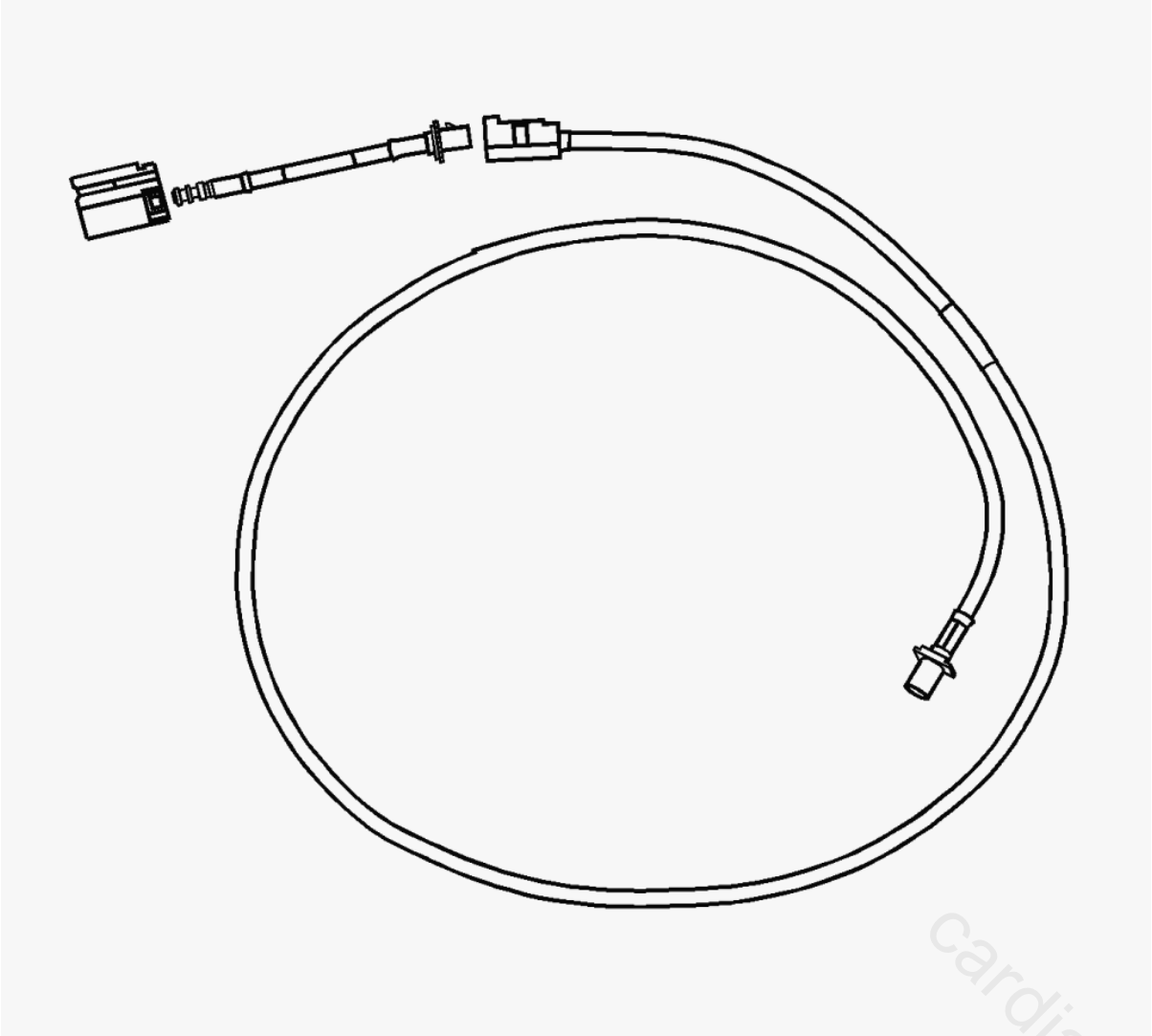


Fig. 4: Coaxial Cable
Courtesy of GENERAL MOTORS COMPANY

**NOTE:**

- **Avoid routing the new coaxial cable near sharp edges that can damage the new coaxial cable.**
- **In some instances, it may be necessary to pass the new coaxial cable through the dash panel harness grommet:**
  - **If the dash panel grommet has a service port nipple, cut or pierce a small hole in the nipple. With the assistance of a fishing tool, insert the coaxial cable through the hole created in the nipple and pull the coaxial cable through the grommet and into the vehicle interior. Seal the nipple with an appropriate sealant to prevent moisture and noise intrusion into the vehicle interior.**
  - **If the dash panel grommet does not have a service port nipple, cut or pierce a small hole in the grommet with a suitable tool such as a small drill bit. With the assistance of a fishing tool, insert the coaxial cable through the hole created in the grommet and pull the coaxial cable through the grommet and into the vehicle interior. Seal the hole with an appropriate sealant to prevent moisture and noise intrusion into the vehicle interior.**

4. Install the new coaxial cable in the vehicle.

   Use tie-straps to attach the new service coaxial cable to existing harnesses or brackets. Use felt tape/foam to reduce rattles, as necessary.

   **NOTE:** **To avoid permanent damage, do not pinch the cable or bend it tighter**

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**than a 2 inch (5 centimeter) radius.**

5. Remove the faulty/damaged connectors, if applicable.
6. Install new connectors or jumpers, as needed. Refer to Connector Housing Repair Procedure.
7. Verify the repair by operating the system with the engine running.

## FLAT WIRE REPAIRS

The flat wire within the flex wiring harness is not serviceable. If an open or short exists within the flex wiring harness the complete harness must be replaced.

## FOLDED-OVER WIRE REPAIR

**Special Tools**

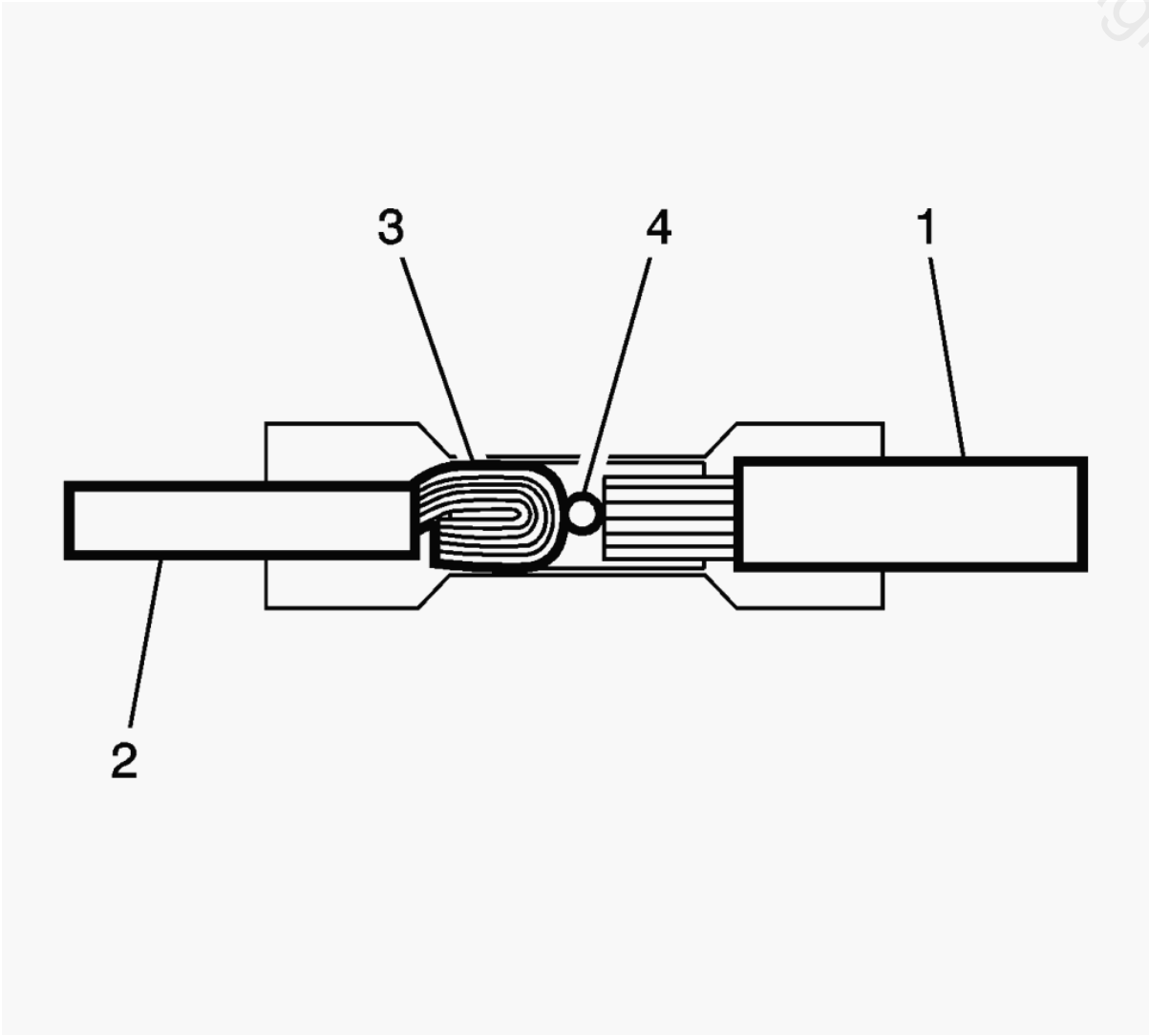
- **EL-38125-10** Splice Sleeve Crimping Tool (non GMNA)
- **J-38125-5A** Ultra Torch Special Tool
- **J-38125-8** Splice Sleeve Crimping Tool (GMNA)

For equivalent regional tools, refer to **Special Tools** .

The GM global wire repair strategy uses connector assemblies (pigtails) and terminated leads to repair wiring harnesses.

To reduce and manage GM Service Parts proliferation, the service pigtails and terminated leads are designed with the largest wire gauge size that can be held by either the terminal or the connector housing.

The folded over wire repair technique, in which the copper wire strands are folded over before being installed into a splice sleeve, allows the service part to be used when repairing a smaller gauge size wire in a vehicle. This technique has passed all GM testing standards.




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Fig. 5: Stripped Wires In Splice Sleeve Connector
**Courtesy of GENERAL MOTORS COMPANY**

The larger harness size wires (1) will be placed in one side of the splice sleeve and match the splice sleeve closely in size. The wires are moved into the splice sleeve until they hit the stop (4) in the splice sleeve. The smaller harness size wires (2) will be placed in the other side of the splice sleeve. The smaller harness size wires will be folded over (3) to match up with the splice sleeve size.

Use the folded over wire repair for:

**NOTE:** **Increasing the amount of copper strands in the smaller gauge size will allow for a better crimp**

- Splicing wires of 0.35 mm or less (22, 24, 26 gauge sizes)

**NOTE:** **Vehicle side needs to be of same or less gauge size (not greater than the service part's gauge size)**

- Splicing wires of different gauges

Use the Service Information (SI) connector end-views to determine:

- Gauge size of wiring harness
- Recommended Repair: Terminated Lead or Pigtail

The following table lists the acceptable variance within the gauge size

**Folded-Over Wire Selection Table**

| Harness Wire Gauge | | Connector Assembly (Pigtail) or Terminated Lead Wire Gauge Size | | | |
|---|---|---|---|---|---|
| - | | Salmon Color Splice Sleeve | | Blue Color Splice Sleeve | Yellow Color Splice Sleeve |
| Metric | - | 0.35 mm | 0.5 - 0.8 mm | 1.0 - 2.0 mm | 3.0 - 6.0 mm |
| - | Wire Gauge (AWG) | 22 | 20 - 18 | 16 - 14 | 12 - 10 |
| 0.13 mm | 26 | Fold Over Wire | Double Fold Over Wire | Not Acceptable | Not Acceptable |
| 0.22 mm | 24 | Fold Over Wire | Fold Over Wire | Not Acceptable | Not Acceptable |
| 0.35 mm | 22 | Fold Over Wire | Fold Over Wire | Double Fold Over Wire | Not Acceptable |
| 0.5 mm | 20 | Not Acceptable | Wire to Wire | Fold Over Wire | Not Acceptable |
| 0.75 mm | - | Not Acceptable | Wire to Wire | Fold Over Wire | Double Fold Over Wire |
| 0.8 mm | 18 | Not Acceptable | Wire to Wire | Fold Over Wire | Double Fold Over Wire |
| 1.0 mm | 16 | Not Acceptable | Not Acceptable | Wire to Wire | Double Fold Over Wire |
| 1.5 mm | - | Not Acceptable | Not Acceptable | Wire to Wire | Fold Over Wire |
| 2.0 mm | 14 | Not Acceptable | Not Acceptable | Wire to Wire | Fold Over Wire |
| 2.5 mm | - | Not Acceptable | Not Acceptable | Wire to Wire | Fold Over Wire |
| 3.0-6.0 mm | 12 - 10 | Not Acceptable | Not Acceptable | Not Acceptable | Wire to Wire |

**Example**

For an IP Harness of 0.22 mm (24 gauge on left side of table) wire size, the SI connector end-view recommends a pigtail with leads of 0.8 mm (18 gauge on the top of the table) with a salmon colored DuraSeal splice sleeve of 0.5 - 1.0 mm (20 - 16 gauge).

Follow these steps to use the folded over wire (1) technique on an IP Harness.

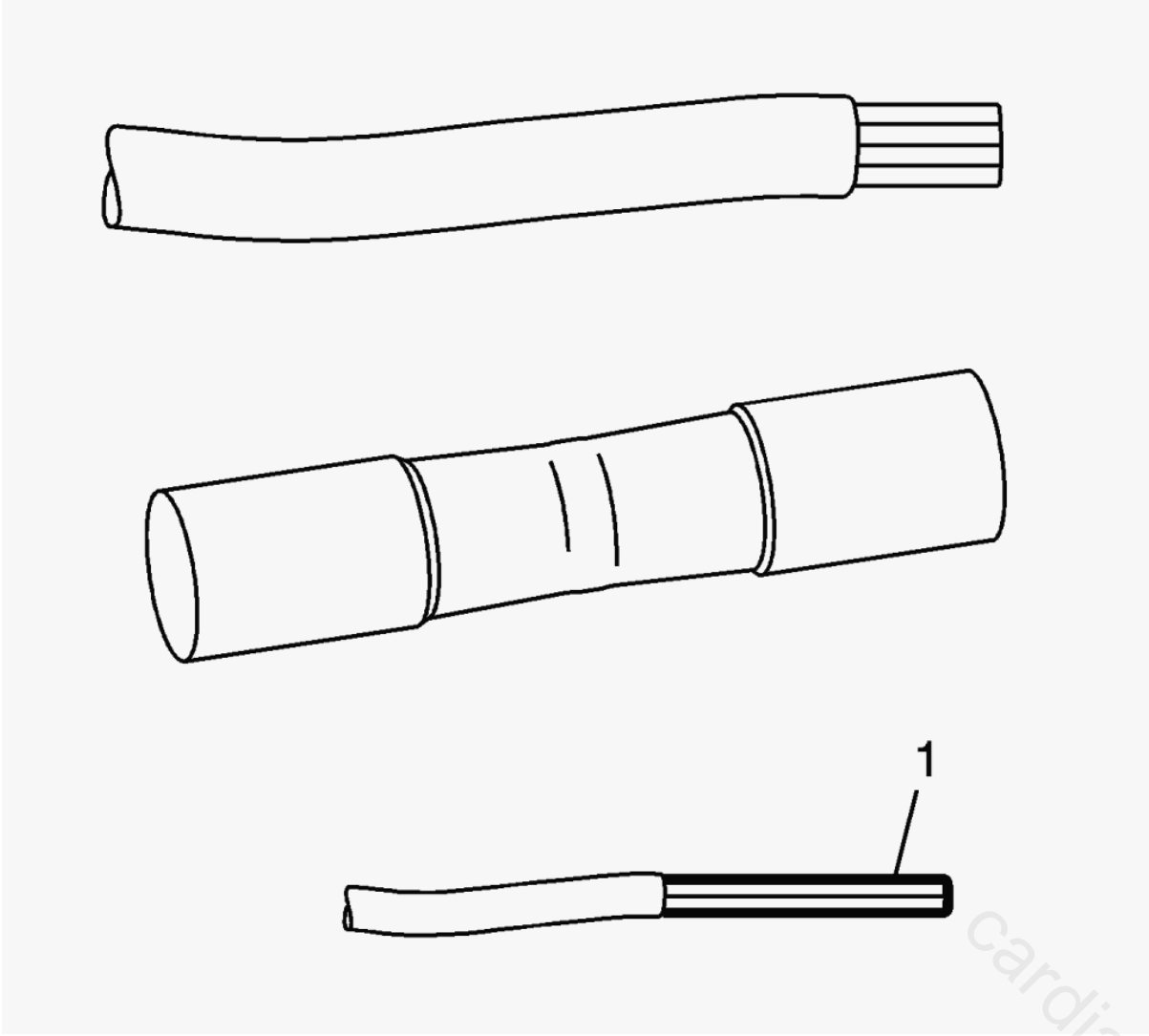



**Fig. 6: Stripped Wires**
**Courtesy of GENERAL MOTORS COMPANY**

Strip twice the amount of insulation on the smaller (1) wire (IP Harness is the lower wire) than normally required. Normally, the terminated leads have 5 mm of insulation stripped off the wire.

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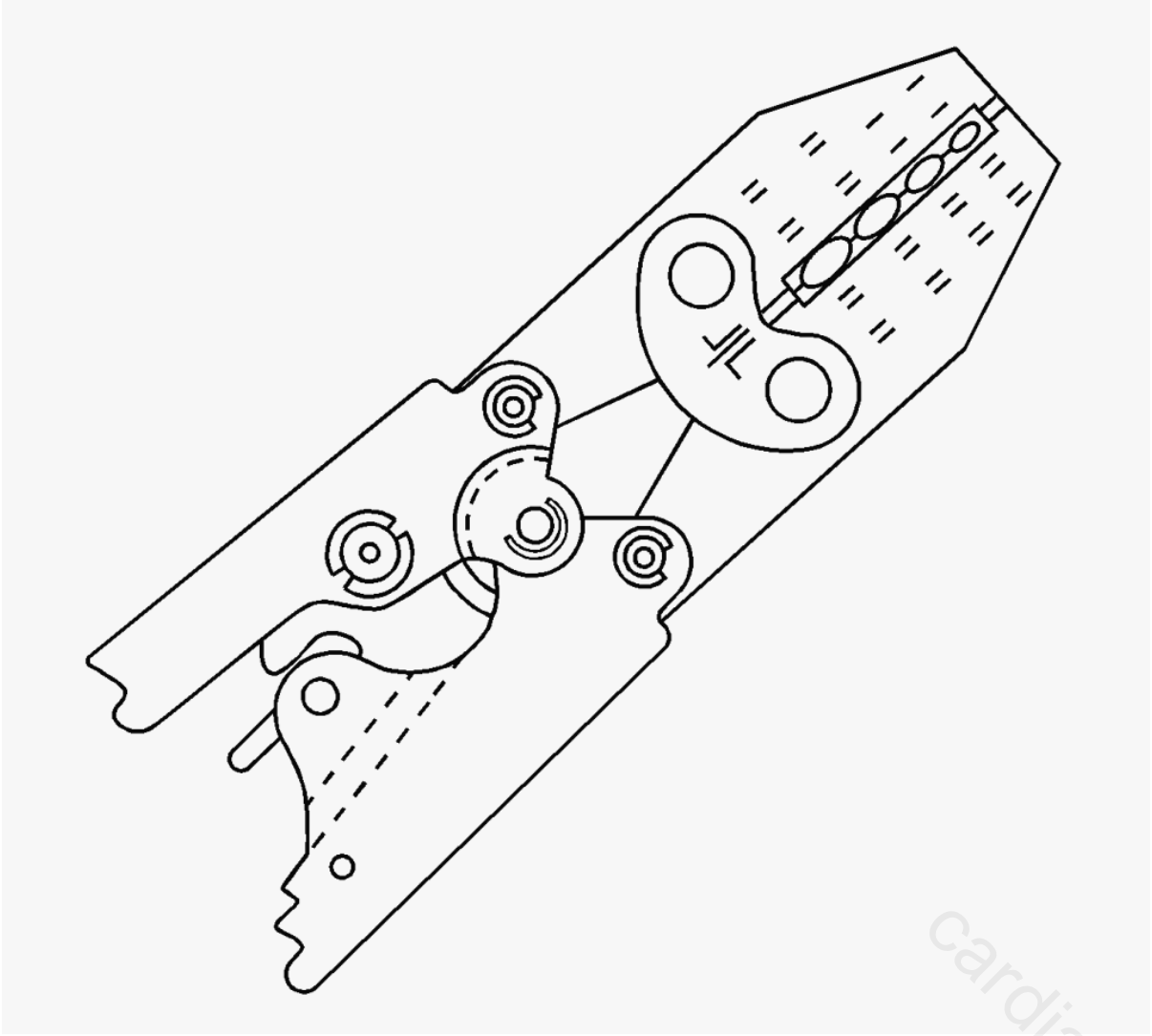


**Fig. 7: Splice Sleeve Crimping Tool**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Use EL-38125-10 splice sleeve crimping tool (non GMNA) or J-38125-8 splice sleeve crimping tool (GMNA).**

1. For wiring repair, refer to **Wire to Wire Repair**.

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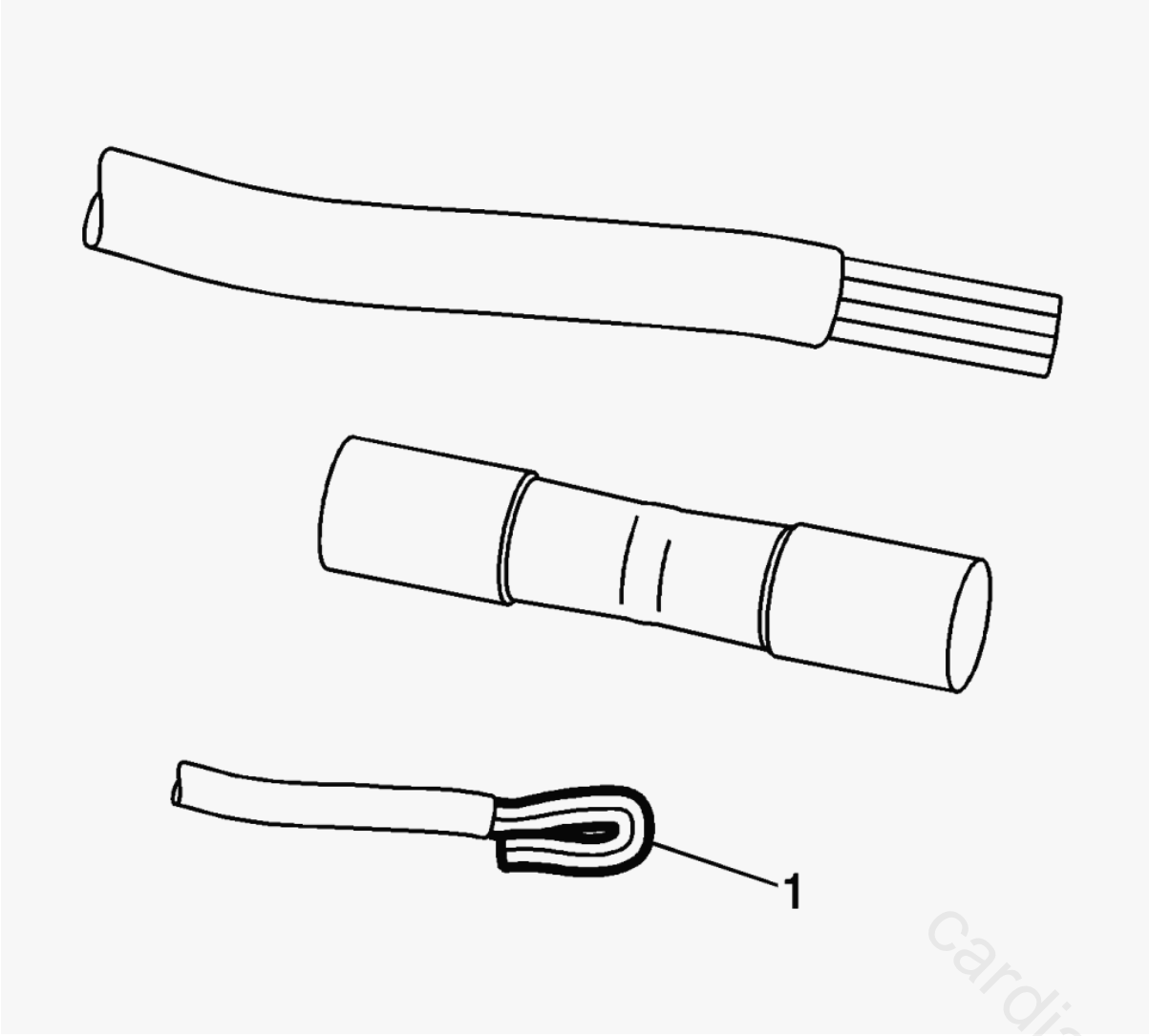



**Fig. 8: Twisted And Folded Wire To Length**
**Courtesy of GENERAL MOTORS COMPANY**

2. Twist the wires before you fold them over to prevent the wire strands from opening up. Fold over the copper wire strands of the smaller (1) gauge wire so that it is the same length as the non-folded wire.

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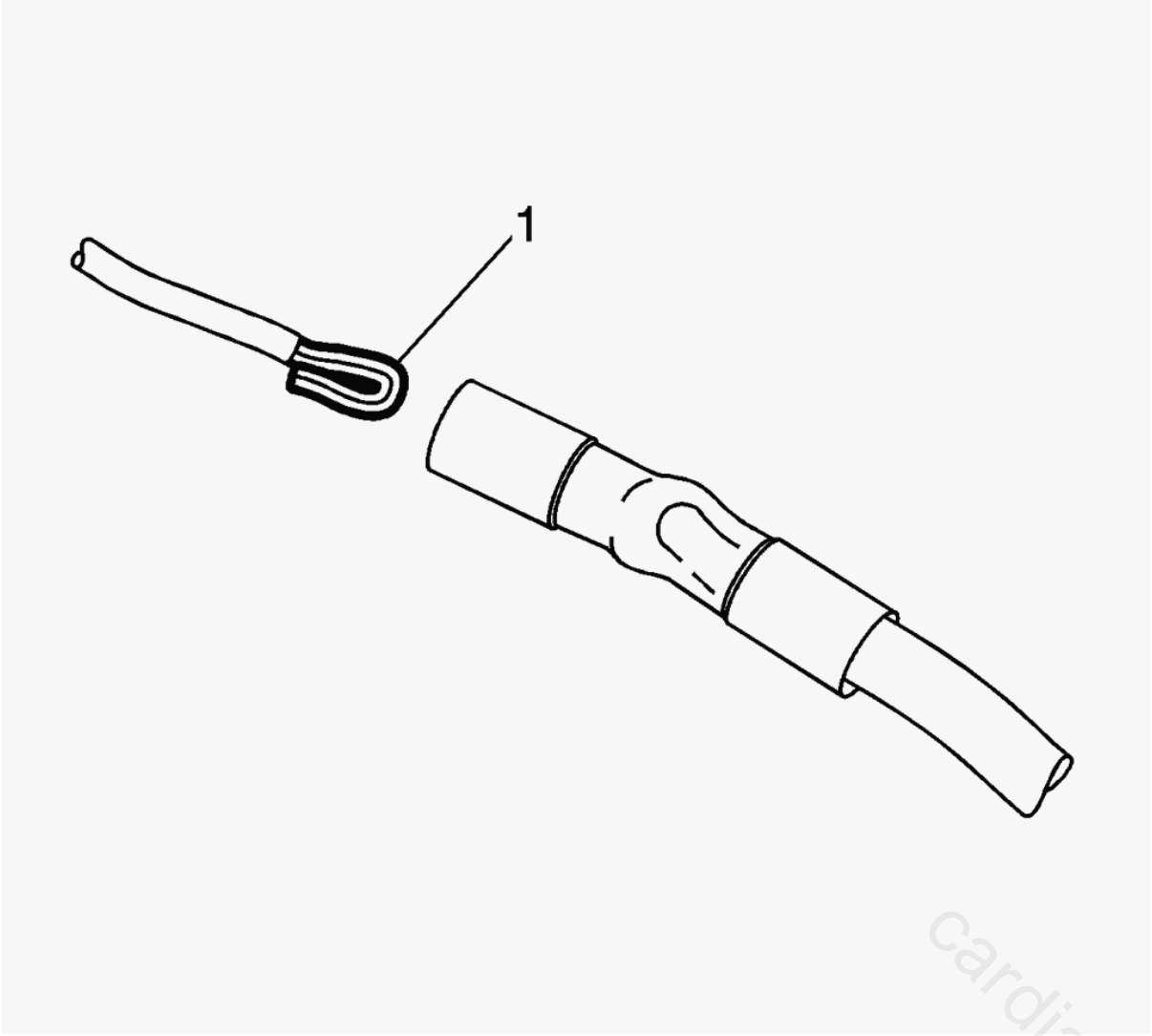



**Fig. 9: Folded Wire And Splice Sleeve**
**Courtesy of GENERAL MOTORS COMPANY**

3. Insert the folded over wire (1) into the splice sleeve.

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Fig. 10: Crimping Splice Sleeve
**Courtesy of GENERAL MOTORS COMPANY**

4. Use the proper crimp tool to crimp the splice sleeve to the smaller wire (harness side of repair). Complete the crimp as usual (using the heat tool to shrink the tube).

## SERIAL DATA CIRCUIT WIRING REPAIRS

**Special Tools**

- **J-38125-8** Splice Sleeve Crimping Tool
- DuraSeal splice sleeves
- A wire stripping tool

For equivalent regional tools, refer to **Special Tools** .

The DuraSeal splice sleeves have the following 2 critical features:

- A special heat shrink sleeve environmentally seals the splice. The heat shrink sleeve contains a sealing adhesive inside.
- A cross hatched (knurled) core crimp provides necessary contact integrity for the sensitive, low energy circuits.

The GM Local Area Network (GMLAN) System requires special wiring repair procedures due to the sensitive nature of the circuitry. Follow the specific procedures and instructions when working on GMLAN connectors and terminals.

### GMLAN Repairs

**NOTE:** **When making a repair to any GMLAN network, the original wire length after the repair must be the same length as before the repair. If the network is a**

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**twisted pair, the twist must be maintained after the repair is completed.**

GMLAN has 2 types of networks, low speed and high speed. Low speed GMLAN has a single wire and works at slow speeds. High speed GMLAN has 2 wires in a twisted pair and works at higher speeds. For more information on GMLAN, refer to **Data Link Communications Description and Operation** .

### GMLAN Connector Terminal Repair

**NOTE:** **A terminated lead can be used to replace damaged connector terminals for both high speed and low speed GMLAN systems. When making a connector terminal repair on a GMLAN high speed system with twisted pair wires, do not untwist the wires more than necessary to make the repair.**

If the individual terminals are damaged on any GMLAN connection, use the appropriate connector repair procedure in order to repair the terminal. Refer to **Connector Repairs** for the appropriate connector repair procedure.

### GMLAN Wire Repair

**NOTE:** **Refer to Wiring Repairs in the service information connector end views or the vehicle wiring schematics in order to determine the correct wire size for the circuit you are repairing. You must obtain this information in order to ensure circuit integrity.**

If any wire except the pigtail is damaged, repair the wire by splicing in a new section of wire of the same gauge size (0.5 $mm^2$ , 0.8 $mm^2$ , 1.0 $mm^2$ etc.). Use the DuraSeal splice sleeves and **EL-38125-10** tool. For wiring repair, refer to **Wire to Wire Repair**.

### Media Oriented Systems Transport (MOST) Wiring Repair

**NOTE:** **If harness repair/analysis is performed, MOST bus Twist Pair unshielded wire should be 0.35 $mm^2$ (22 AWG) wire with at least one twist per each 1 45/64 inch (45 mm) and must not be untwisted for more than 3 15/16 of an inch (10 cm).**

The following conditions need to be met to ensure a valid continuity:

- Untwisted length for all MOST 50 circuits at each wire harness connector should be no longer 50 mm max (25 mm preferred).
- When wire repairs are made, a minimum 25 twists/meter for all MOST 50 circuits.
- MOST 50 has specific receive and transmit I/O.

The transmit of one module is connected to receive of the next module in ring topology.

## HEATED OXYGEN SENSOR WIRING REPAIRS

**CAUTION:** **Do not solder repairs under any circumstances as this could result in the air reference being obstructed.**

If the heated oxygen sensor pigtail wiring, connector, or terminal is damaged the entire oxygen sensor assembly must be replaced. Do not attempt to repair the wiring, connector, or terminals. In order for the sensor to function properly it must have a clean air reference. This clean air reference is obtained by way of the oxygen sensor signal and heater wires. Any attempt to repair the wires, connectors or terminals could result in the obstruction of the air reference and degrade oxygen sensor performance.

The following guidelines should be used when servicing the heated oxygen sensor:

- Do not apply contact cleaner or other materials to the sensor or vehicle harness connectors. These materials may get into the sensor, causing poor performance. Also, the sensor pigtail and harness wires must not be damaged in such a way that the wires inside are exposed. This could provide a path for foreign materials to enter the sensor and cause performance problems.

- Neither the sensor nor vehicle lead wires should be bent sharply or kinked. Sharp bends, kinks, etc., could block the reference air path through the lead wire.
- Do not remove or defeat the oxygen sensor ground wire (where applicable). Vehicles that utilize the ground wire sensor may rely on this ground as the only ground contact to the sensor. Removal of the ground wire will also cause poor engine performance.
- To prevent damage due to water intrusion, be sure that the peripheral seal remains intact on the vehicle harness connector.

## HIGH TEMPERATURE WIRING REPAIRS

**NOTE:** **All wiring repairs need to be 200 mm from the heat zone. Areas of consideration would be any area located near the exhaust manifolds, catalytic converter, exhaust pipes, and turbocharged engines.**

**Items Required**

- DuraSeal splice sleeves to crimp and seal connections
- High temperature SCT1 shrink tubing to protect the splice sleeves
- Terminated leads or pigtails
- The correct tools to remove the terminals from the connectors

Use high temperature bulk wire rated at 150Â°C (302Â°F) continuous temperature of the same or larger gauge size as the original wire when repair damage wire. Also replace any reflective tape that you remove during the repair.

### High Temperature Wiring

Wiring that is exposed to high temperatures, 135Â°C (275Â°F) or higher, for prolonged periods of time may use materials i.e. wires, connectors, and shielding that has a higher heat rating than typical wiring. When making a repair in a high temperature area observe the following:

- Use high temperature bulk wire rated at 150Â°C (302Â°F) continuous temperature to replace any damaged wire.
- Replace any heat shielding that is removed.
- Cover any DuraSeal splice sleeves with SCT1 shrink tubing.
- After making a wiring repair, ensure that the location of the wiring is not moved closer to the heat source.

### Identifying High Temperature Wiring

**NOTE:** **High temperature areas would be areas located near exhaust manifolds, catalytic converters, exhaust pipes, and turbocharged engines.**

Wiring that is exposed to high temperature, 135Â°C (275Â°F) or higher, for prolonged periods of time need special considerations when making wiring repairs. Areas that may be exposed to higher temperatures can be identified by heat resistant materials that are being used in those areas. These materials may include heat reflective tape and high temperature shrink tubing. Also conduit and other protective coverings may be used. Because conduit or similar coverings are used throughout the vehicle regardless of the temperature, it may be necessary for the technician to determine if an area is exposed to excessive heat before making a wiring repair.

## SIR/SRS WIRING REPAIRS

**NOTE:** **Refer to SIR Service Precautions .**

**For European Regions**

**CAUTION:** **If the SIR/SRS wiring, connector, or terminal is damaged, the affected wiring harness must be replaced. Do not attempt to repair the wiring, connector, or terminals. Any attempt to repair the wires, connectors, or**

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**terminals could result in performance problems of the SIR/SRS System. Operations on restraint systems must only be performed by trained and qualified personnel.**

**For Non-European Regions**

**Special Tools**

Splice Sleeve Crimping Tool, refer to **Special Tools** .

The Supplemental Inflatable Restraint (SIR) System/Supplemental Restraint System (SRS) requires special wiring repair procedures due to the sensitive nature of the circuitry. Follow the specific procedures and instructions when working with the SIR/SRS, and the wiring components, such as connectors and terminals.

**SIR/SRS Connector Repair (Plastic Body and Terminal Metal Pin)**

**NOTE:** **Do not use the terminals in the kit in order to replace damaged SIR/SRS system terminals. Use either an SIR/SRS pigtail or a terminated lead from the SIR Repair Kit Tray.**

The terminals in the SIR/SRS system are made with a special plating. This plating provides the necessary contact integrity for the sensitive, low energy circuits.

Pigtail repair packs are available for SIR/SRS connectors with eight or less terminals. Only the connector body is available for connectors with more than eight terminals. Terminated leads can be used to replace damaged terminals when replacing the connector body.

**SIR/SRS Component Wire Pigtail Repair**

**NOTE:** **Do not make wire, connector, or terminal repairs on components with wire pigtails.**

A wire pigtail is a wire or wires attached directly to the device, not by a connector. If a wiring pigtail is damaged, you must replace the entire component, with pigtail. The inflatable restraint steering wheel module coil is an example of a pigtail component.

**SIR/SRS Wire Repair**

**CAUTION:** **Do not install more than 2 DuraSeal splice sleeves per SIR deployment loop. A deployment loop consists of both wires from the K36 Inflatable Restraint Sensing and Diagnostic Module to the deployable component. If more than 2 DuraSeal splice sleeves are required for any SIR deployment loop, the complete circuit of the loop must be replaced. More than 2 DuraSeal splice sleeves per deployment loop may increase the resistance in the circuit causing a DTC to be set.**

**NOTE:** **Refer to Wiring Repairs in the service information connector end views or the vehicle wiring schematics in order to determine the correct wire size for the circuit you are repairing. You must obtain this information in order to ensure circuit integrity.**

If any wire except the pigtail is damaged, repair the wire by splicing in a new section of wire of the same gauge size (0.5 mm, 0.8 mm, 1.0 mm etc.). Use the DuraSeal splice sleeves and the appropriate splice sleeve crimping tool. For wiring repair, refer to **Wire to Wire Repair**.

For connector position assurance (CPA), refer to **Connector Position Assurance Locks**.

For terminal position assurance (TPA), refer to **Terminal Position Assurance Locks**.

**SPLICING INLINE HARNESS DIODES**

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Many vehicle electrical systems use a diode to isolate circuits and protect the components from voltage spikes. When installing a new diode use the following procedure.

1. Open the harness.
    - If the harness is taped, remove the tape.
    - To avoid wiring insulation damage, use a sewing seam ripper (available from sewing supply stores) in order to cut open the harness.
    - If the harness has a black plastic conduit, pull out the diode.
2. If the diode is taped to the harness, remove all of the tape.
3. Check and record the current flow direction and orientation of diode.
4. Remove the inoperative diode from the harness with a suitable soldering tool.

**NOTE:** **If the diode is located next to a connector terminal remove the terminal(s) from the connector to prevent damage from the soldering tool.**

5. Carefully strip away a section of insulation next to the old soldered portion of the wire(s). Do not remove any more than is needed to attach the new diode.
6. Check current flow direction of the new diode, being sure to install the diode with correct bias. Reference the appropriate service information wiring schematic to obtain the correct diode installation position.
7. Attach the new diode to the wire(s) using 60/40 rosin core solder. Before soldering attach some heat sinks (aluminum alligator clips) across the diode wire ends to protect the diode from excessive heat. Follow the manufacturer's instruction for the soldering equipment.
8. Reinstall terminal(s) into the connector body if previously removed.

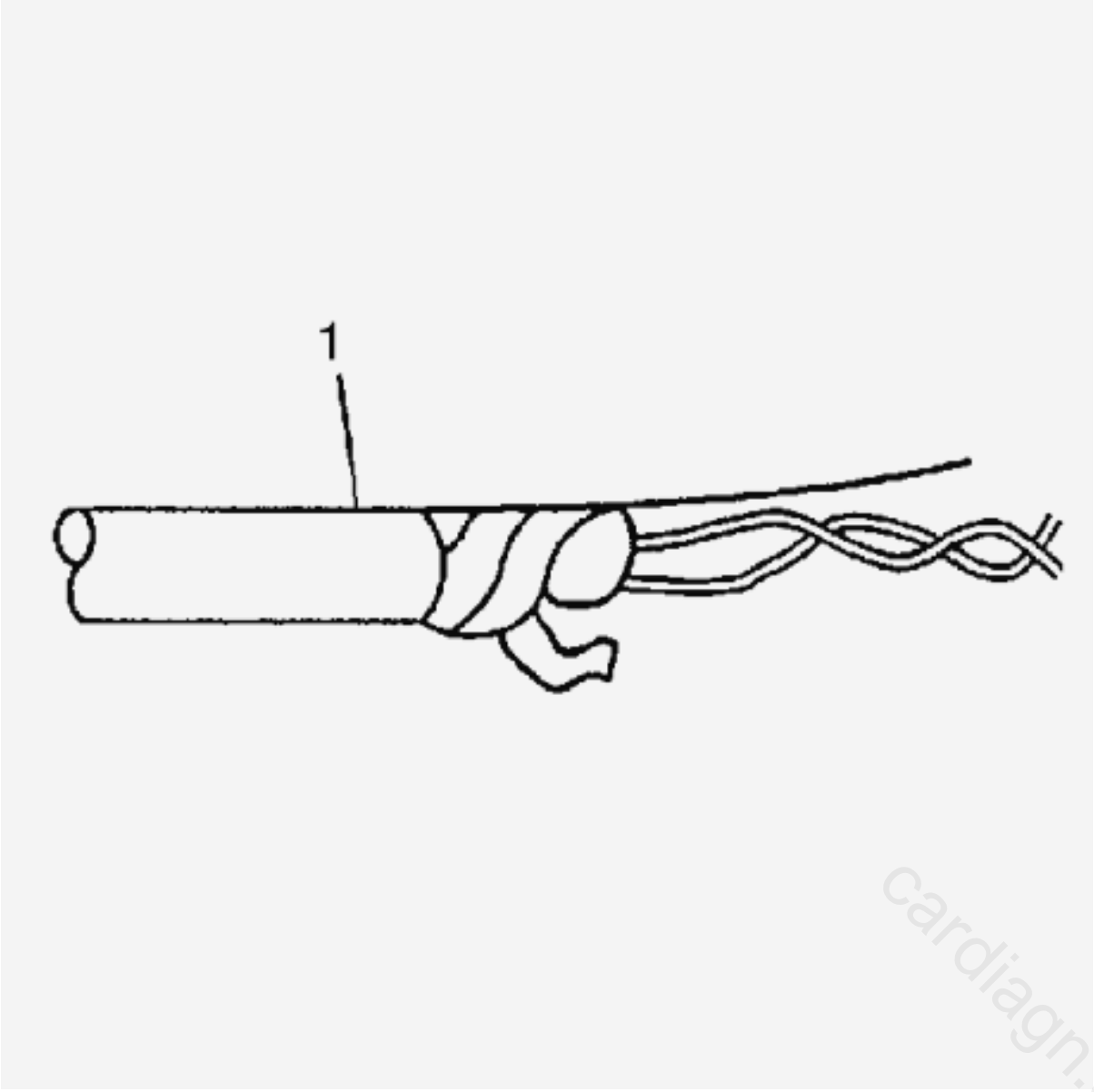
**NOTE:** **To prevent shorts to ground and water intrusion, completely cover all exposed wire and diode attachment points with tape.**

9. Tape the diode to the harness or connector using electrical tape.

## SPLICING TWISTED OR SHIELDED CABLE

Twisted/shielded cable is used in order to protect wiring from electrical noise. Two-conductor cable of this construction is used between the radio and the Delco-BoseÂ® speaker/amplifier units and other applications where low level, sensitive signals must be carried. Follow the instructions below in order to repair the twisted/shielded cable.

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**Fig. 11: Outer Wiring Jacket**
**Courtesy of GENERAL MOTORS COMPANY**

1. Remove the outer jacket (1). Use care not to cut into the drain wire of the mylar tape.
2. Unwrap the tape. Do not remove the tape. Use the tape in order to rewrap the twisted conductors after the splice is made.

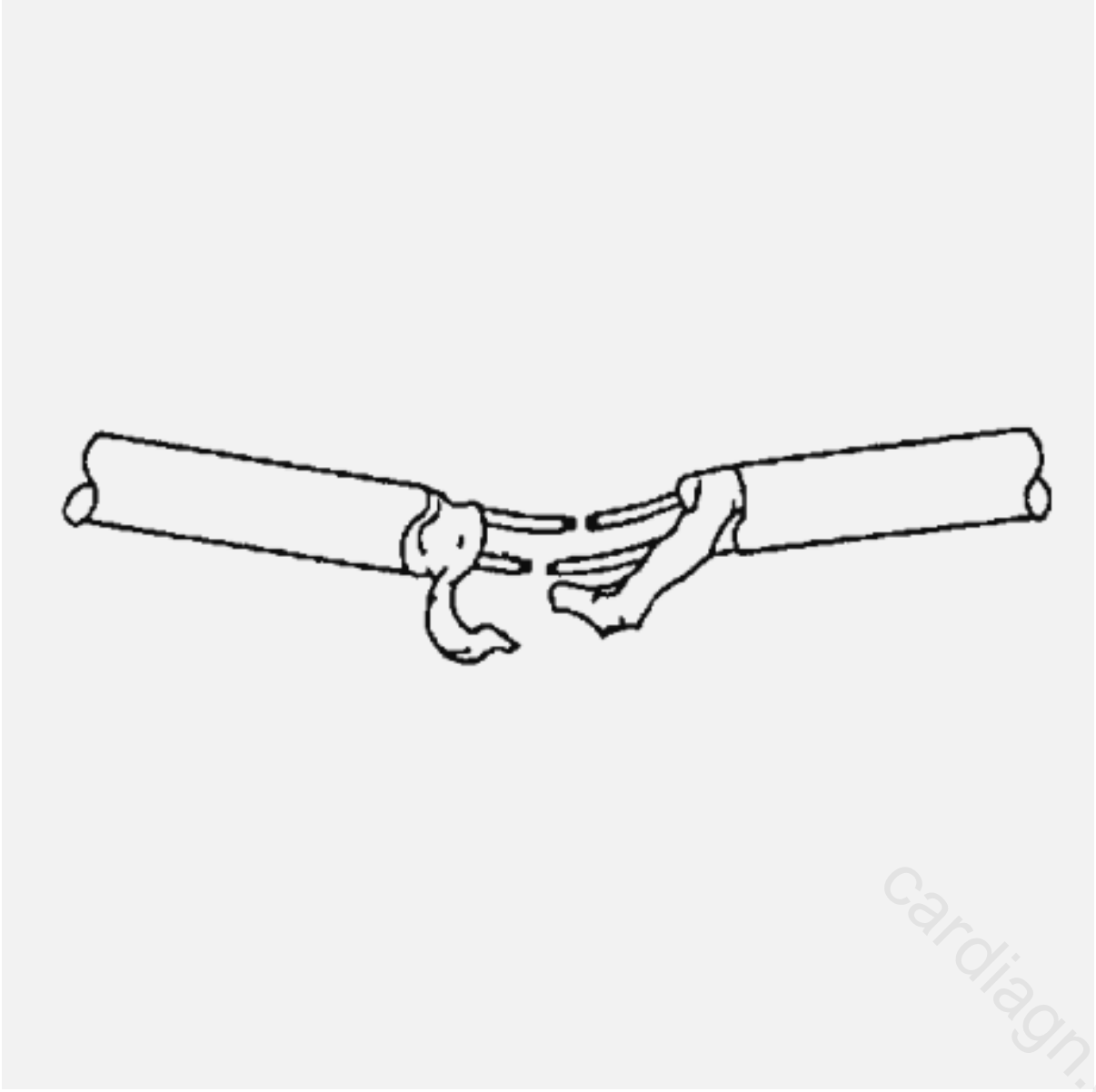


**Fig. 12: Preparing Splice**
**Courtesy of GENERAL MOTORS COMPANY**

3. Prepare the splice. Untwist the conductors and follow the instructions for **Wire to Wire Repair**. Staggering the splices by 65 mm (2.5 in) is recommended.

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**Fig. 13: Drain Wire**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Apply the mylar tape with the aluminum side inward. This ensures good electrical contact with the drain wire.**

4. Re-assemble the cable.
    - Rewrap the conductors with the mylar tape. If the mylar tape is damaged, use 3M product AL-36FR to replace the damaged mylar tape.
    - Use caution not to wrap the drain wire in the tape (1).
    - Follow the splicing instructions for copper wire and splice the drain wire.
    - Wrap the drain wire around the conductors and tape with electrical tape to replace the outer insulation.

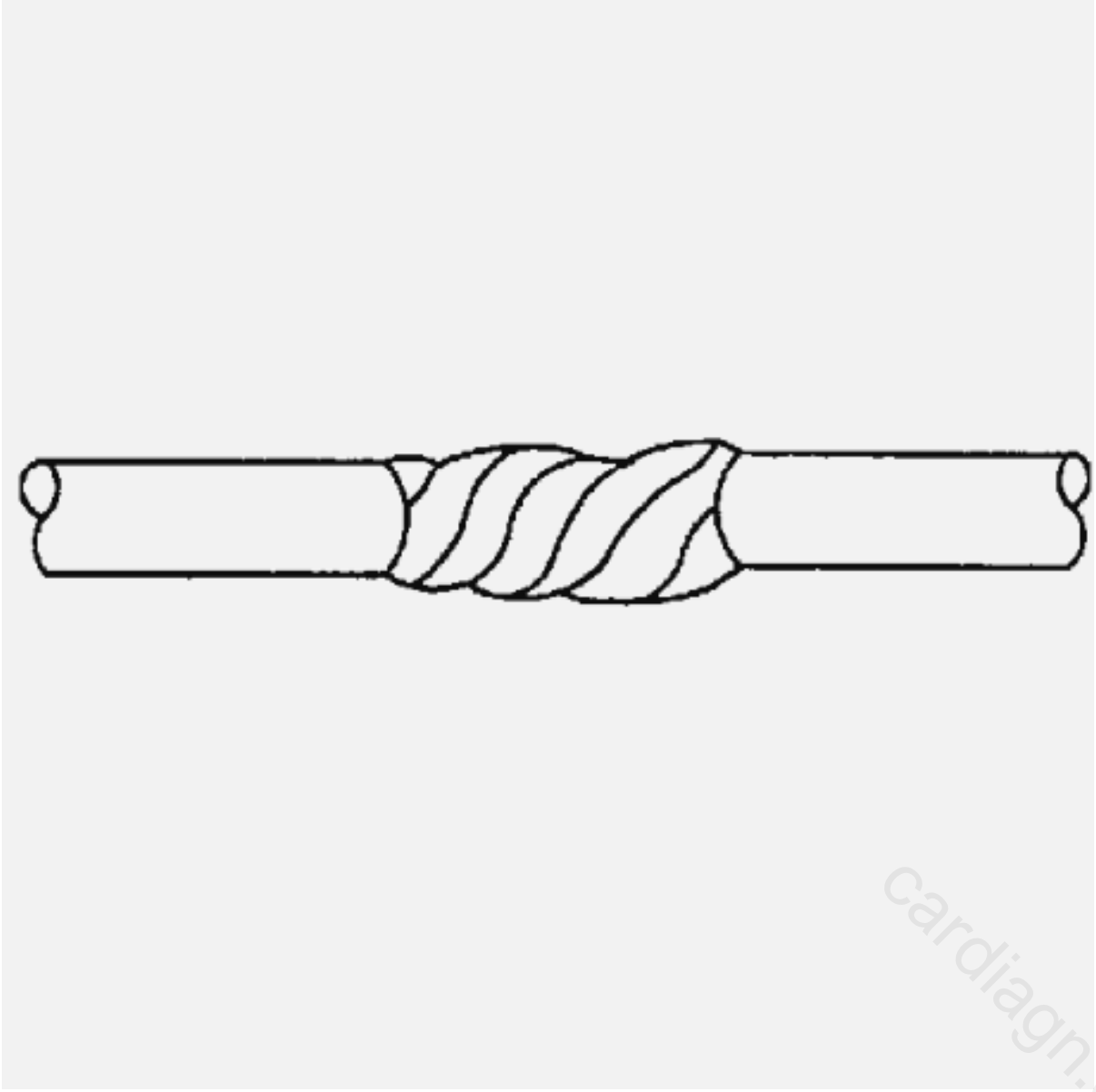


Fig. 14: Repaired Wire Covered With Electrical Tape
**Courtesy of GENERAL MOTORS COMPANY**

5. Tape over the entire cable. Use a winding motion when you apply the tape.

## WIRE TO WIRE REPAIR

**Special Tools**

- **EL-38125-10** Splice Sleeve Crimping Tool (non GMNA)
- **J-38125-5A** Ultra Torch Special Tool
- **J-38125-8** Splice Sleeve Crimping Tool (GMNA)

For equivalent regional tools, refer to **Special Tools** .

**WARNING:** **In order to reduce the risk of personal injury, loss of high voltage isolation to ground and higher system impedance, do not attempt to repair any HV wiring, connector, or terminal that is damaged. High voltage coaxial type cables are not repairable. Never attempt to repair a coaxial type cable. The entire cable/harness or component must be replaced. In order to maintain system integrity and personal safety, never attempt to repair any high voltage wiring, cables, or terminals. Performing this procedure on high voltage circuits may result in serious injury or death.**

**NOTE:** **If the wiring harness internal to the transmission is damaged, the wiring harness must be replaced. The use of splice sleeves in an attempt to**

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**repair the internal transmission wires, connectors, or terminals could result in performance issues.**

**NOTE:** **Do not splice wires in Door Harness Grommets.**

**NOTE:** **The DuraSeal splice sleeves have the following 2 critical features:**

- **A special heat shrink sleeve environmentally seals the splice. The heat shrink sleeve contains a sealing adhesive inside.**
- **A cross hatched (knurled) core crimp provides the necessary low resistance contact integrity for these sensitive, low energy circuits.**

Use only DuraSeal splice sleeves to form a one-to-one splice on all types of insulation except high voltage and specialty cables. Use DuraSeal splice sleeves where there are special requirements such as moisture sealing. Follow the instructions below in order to splice copper wire using DuraSeal splice sleeves.

**Splice Sleeve Selection**

| Splice Sleeve Color | Crimp Tool Nest Color | | Wire Gauge $mm^2$ /(AWG) |
|---|---|---|---|
| | 3 Crimp Nests | 4 Crimp Nests | |
| Salmon (Yellow-Pink) 19300089 | Red (1) or Red/Green (1) | Red (2) | 0.22 - 0.8/(18 - 26) |
| Blue 19168447 | Blue (2) | Blue (3) | 1.0 - 2.0/(14 - 16) |
| Yellow 19168448 | Yellow (3) | Yellow (4) | 3.0 - 5.0/(10 - 12) |

**NOTE:** **You must perform the following procedures in the listed order. Repeat the procedure if any wire strands are damaged. You must obtain a clean strip with all of the wire strands intact.**

1. Open the harness by removing any tape:
   - Use a sewing seam ripper, available from sewing supply stores, in order to cut open the harness in order to avoid wire insulation damage.
   - Use the DuraSeal splice sleeves on all types of insulation except Tefzel and coaxial.
   - Do not use the crimp and DuraSeal splice sleeve to form a splice with more than 2 wires coming together.
2. Cut as little wire off the harness as possible. You may need the extra length of wire in order to change the location of a splice.

   Adjust splice locations so that each splice is at least 40 mm (1.5 in) away from the other splices, harness branches, or connectors.

3. Strip the insulation:
   - When adding a length of wire to the existing harness, use the same size wire as the original wire.
   - Perform one of the following items in order to find the correct wire size:
     - Find the wire on the schematic and convert to regional wiring gauge size.
     - If you are unsure of the wire size, begin with the largest opening in the wire stripper and work down until achieving a clean strip of the insulation.
   - Strip approximately 5.0 mm (0.20 in) of insulation from each wire to be spliced.
   - Do not nick or cut any of the strands. Inspect the stripped wire for nicks or cut strands.
   - If the wire is damaged, repeat this procedure after removing the damaged section.
4. For high temperature wiring, slide a section of high temperature SCT1 shrink tubing down the length of wire to be spliced. Ensure that the shrink tubing will not interfere with the splice procedure.

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5. Select the proper DuraSeal splice sleeve according to the wire size. Refer to the above table at the beginning of the repair procedure for the color coding of the DuraSeal splice sleeves and the crimp tool nests.

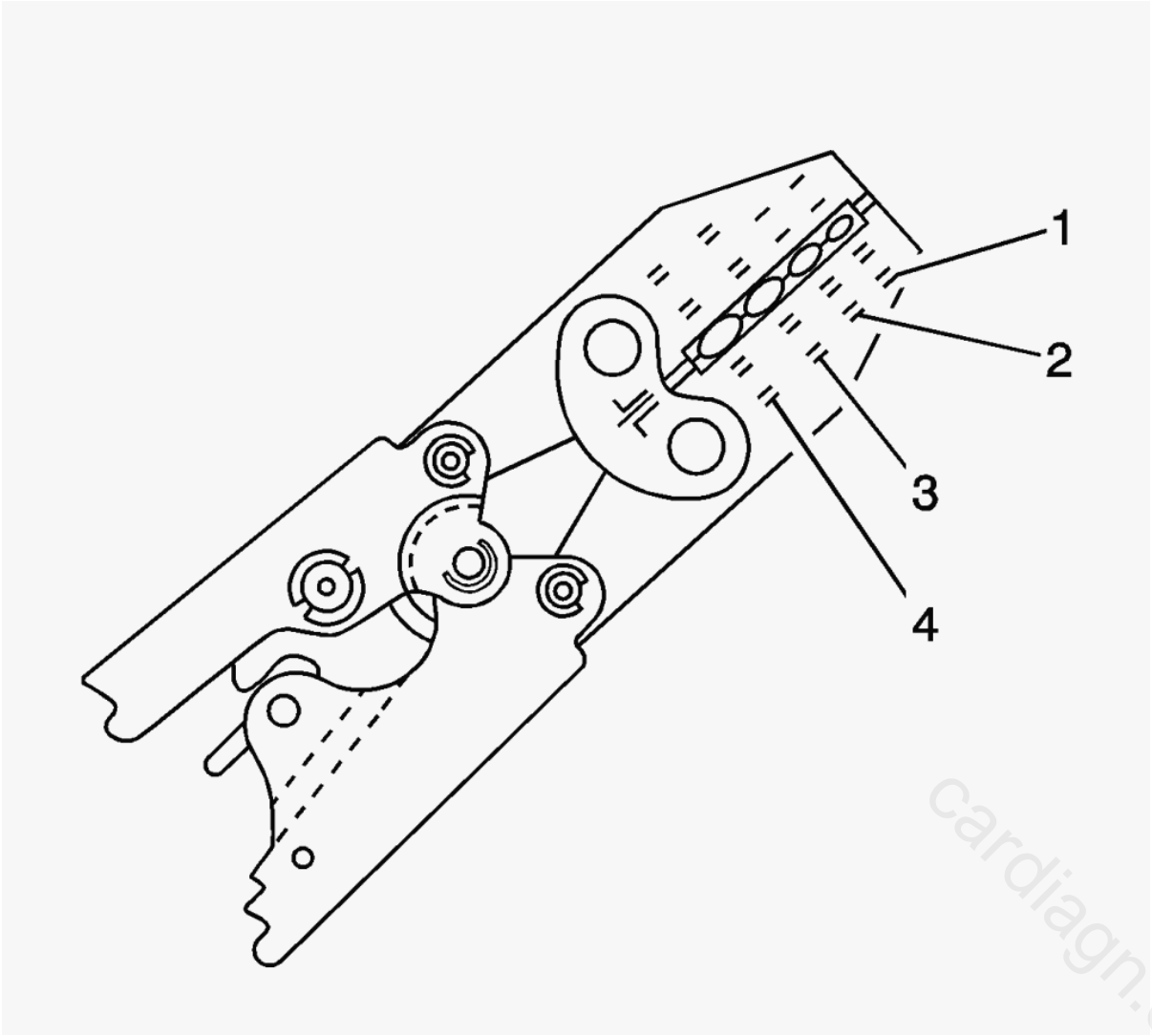



**Fig. 15: Splice Sleeve Crimping Tool With 4 Crimp Nests**
**Courtesy of GENERAL MOTORS COMPANY**

6. The **EL-38125-10** splice sleeve crimping tool has four crimp nests. The largest crimp nest (4) is used for crimping 10 and 12 gauge wires. The second largest crimp nest (3) is used for crimping 14 and 16 gauge wires. The third largest crimp nest (2) is used for crimping 18 and 20 gauge wires. The smallest crimp nest (1) is used for crimping 22 to 26 gauge wires. The crimp nests are referenced in the table (farther above) under the crimp tool nest color.

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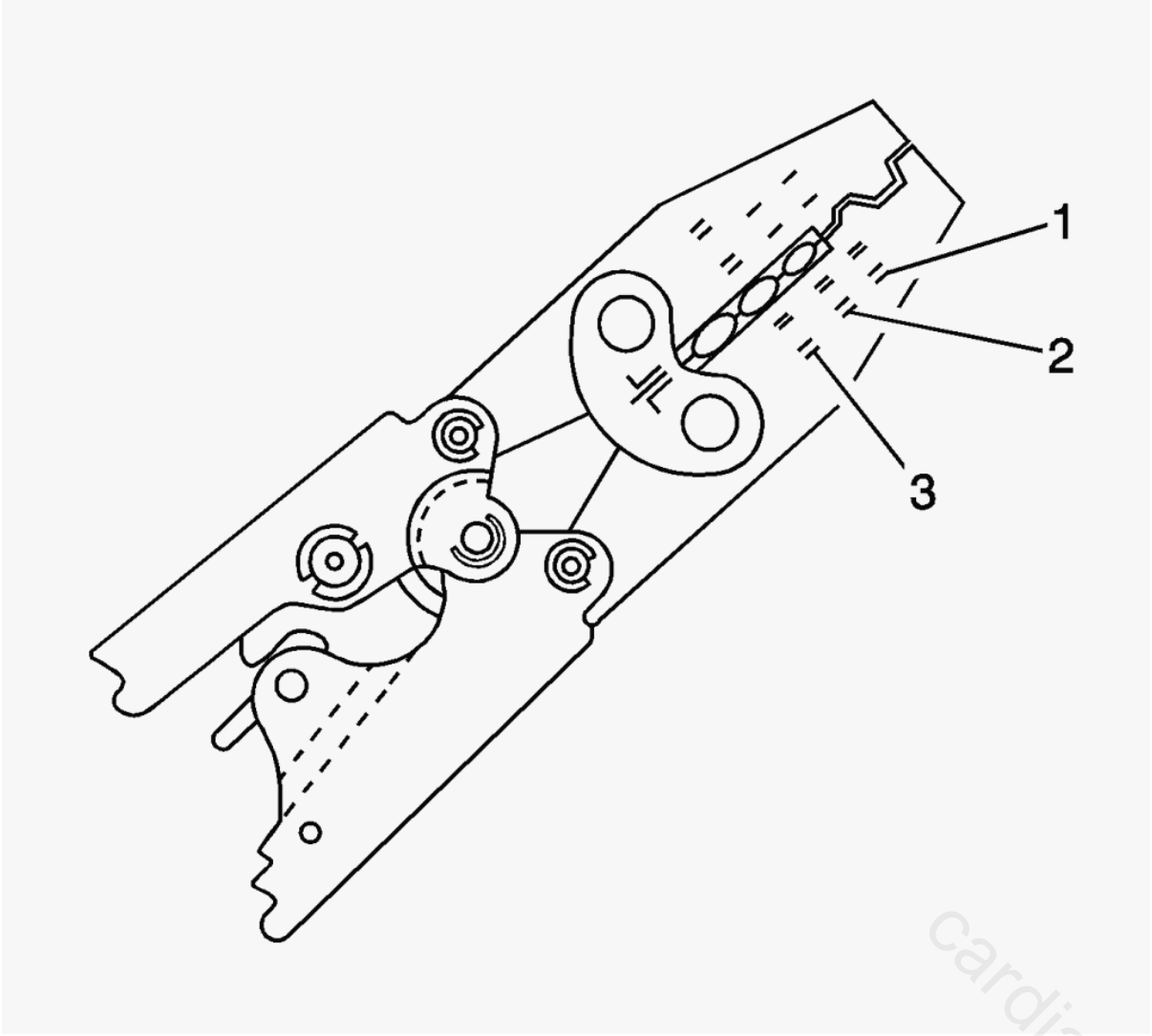



**Fig. 16: Splice Sleeve Crimping Tool With 3 Crimp Nests**
**Courtesy of GENERAL MOTORS COMPANY**

7. The **J-38125-8** splice sleeve crimping tool has three crimp nests. The largest crimp nest (3) is used for crimping 10 and 12 gauge wires. The second largest crimp nest (2) is used for crimping 14 and 16 gauge wires. The smallest crimp nest (1) is used for crimping 18 to 20 gauge wires. The crimp nests are referenced in the table (farther above) under the crimp tool nest color.
8. Use the splice sleeve crimp tool in order to position the DuraSeal splice sleeve in the proper color nest of the splice sleeve crimp tool. For the four crimp nest tool, use the three largest crimp nests to crimp the splice sleeves. For the three crimp nest tool, use all three crimp nests to crimp the splice sleeves. Use the four and three crimp tool diagrams (above) and the table (farther above) to match the splice sleeve with the correct crimp nest. The crimp tool diagram callout numbers match the numbers in the table (under crimp tool nest color).

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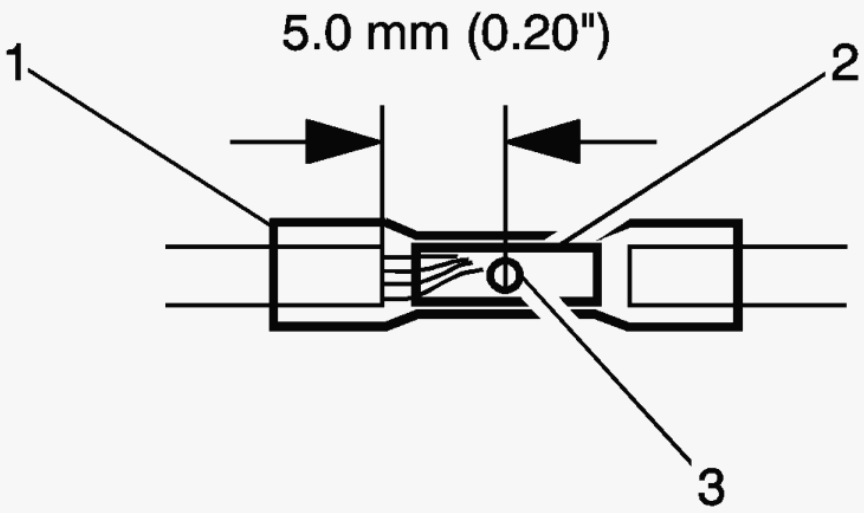



**Fig. 17: Identifying DuraSeal Splice Sleeve**
**Courtesy of GENERAL MOTORS COMPANY**

9. Place the DuraSeal splice sleeve in the nest. Ensure that the crimp falls midway between the end of the barrel and the stop. The sleeve has a stop (3) in the middle of the barrel (2) in order to prevent the wire (1) from going further. Close the hand crimper handles slightly in order to firmly hold the DuraSeal splice sleeve in the proper nest.

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**Fig. 18: Crimped DuraSeal Splice Sleeve**
**Courtesy of GENERAL MOTORS COMPANY**

10. Insert the wire into the splice sleeve barrel until the wire hits the barrel stop. Refer to **Folded-Over Wire Repair** for splicing wires of 0.35 mm or less (22, 24, 26 gauge sizes) and for splicing wires of different gauges.
11. Tightly close the handles of the crimp tool until the crimper handles open when released.

    The crimper handles will not open until you apply the proper amount of pressure to the DuraSeal splice sleeve. Repeat steps 4 and 6 for the opposite end of the splice.

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**Fig. 19: Heated Splice Sleeve**
**Courtesy of GENERAL MOTORS COMPANY**

12. Using the heat torch, apply heat to the crimped area of the barrel.
13. Start in the middle and gradually move the heat barrel to the open ends of the tubing:
    - The tubing will shrink completely as the heat is moved along the insulation.
    - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

### Weatherpack™ Wiring Repair

**NOTE:** **Some replacement pigtail connectors may be delivered without the terminated leads installed into the connector. For Weatherpack™ connectors, all terminated leads included in the package should to be installed into the connector. If the connector end view shows that a terminal is not occupied, the extra terminated lead(s) need to be installed and the end(s) sealed using a DuraSeal splice sleeve and taped back into the harness.**

1. Insert the wire into the splice sleeve barrel until the wire hits the barrel stop. Refer to **Folded-Over Wire Repair** for splicing wires of 0.35 mm or less (22, 24, 26 gauge sizes) and for splicing wires of different gauges.

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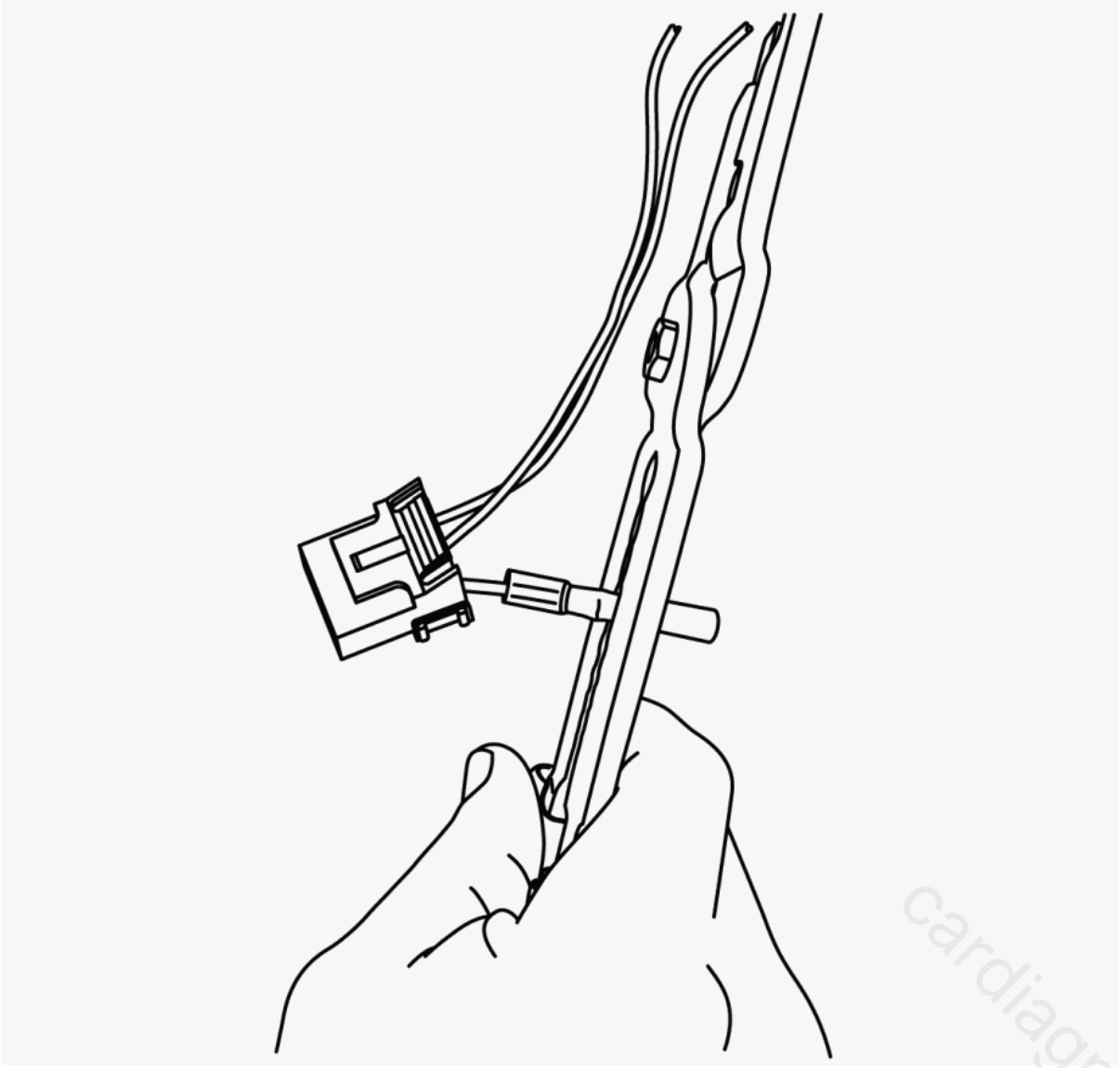


**Fig. 20: Tightly Close Handles Of Crimp Tool**
**Courtesy of GENERAL MOTORS COMPANY**

2. Tightly close the handles of the crimp tool until the crimper handles open when released.

   The crimper handles will not open until you apply the proper amount of pressure to the DuraSeal splice sleeve. Holding the DuraSeal with one hand gently tug on the wire to ensure it is crimped in the DuraSeal.

3. Using the heat torch, apply heat to the crimped area of the barrel.

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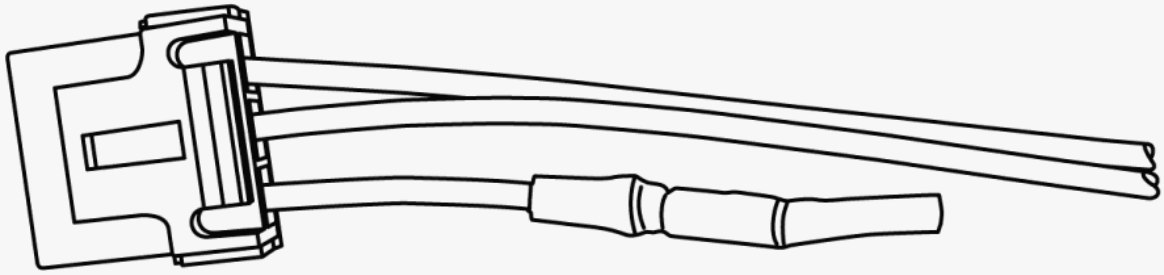


**Fig. 21: Heat To Crimped Area Of Barrel**
**Courtesy of GENERAL MOTORS COMPANY**

4. Start in the middle and gradually move the heat barrel to the open ends of the tubing:
    - The tubing will shrink completely as the heat is moved along the insulation.
    - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

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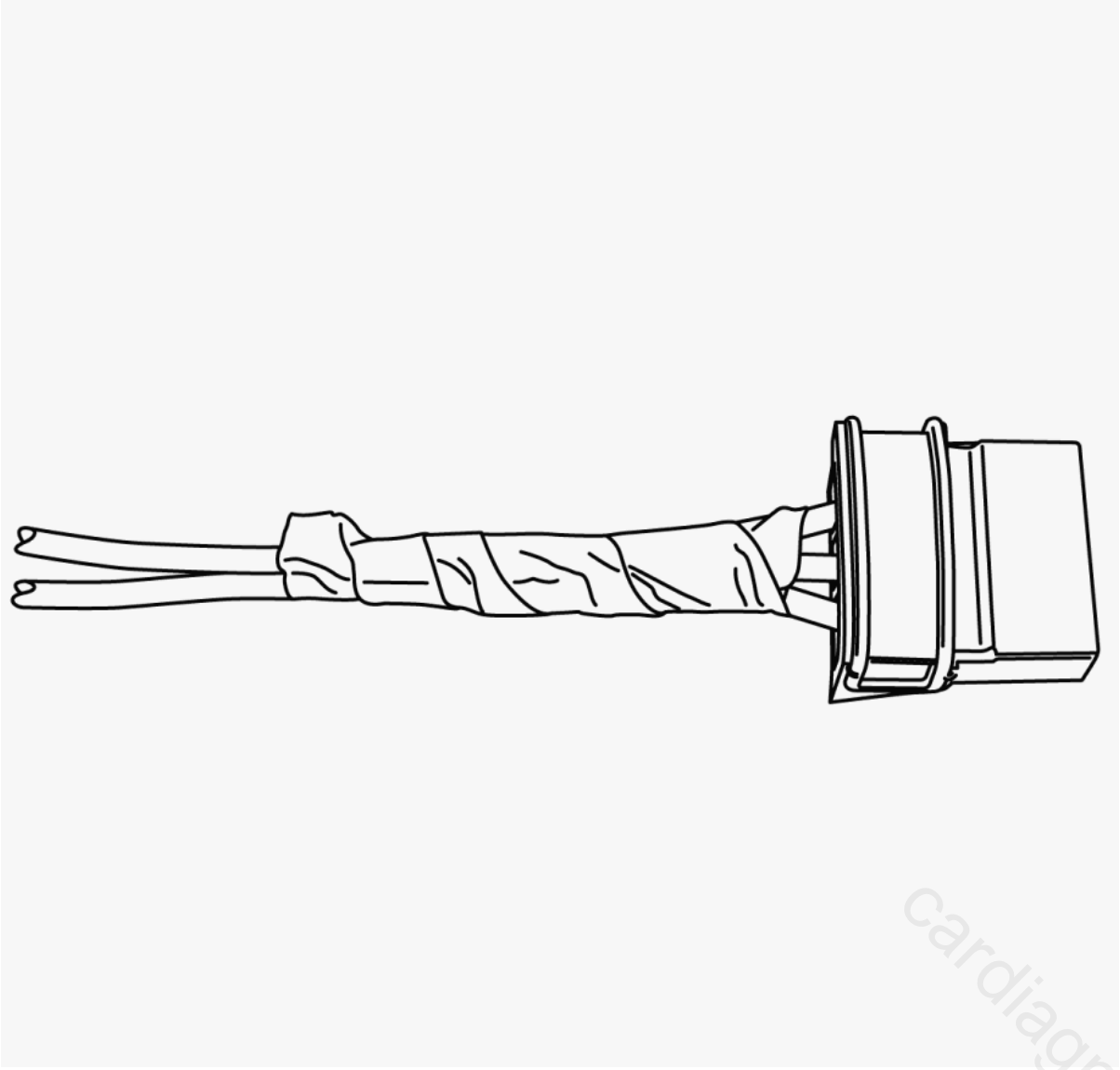


**Fig. 22: Taping Extra Terminated Leads Back Into Harness**
**Courtesy of GENERAL MOTORS COMPANY**

5. Tape the extra terminated lead(s) back into the harness.

### High Temperature Wiring Repairs

Use the following procedures to perform high temperature wiring repairs:

1. Center the high temperature SCT1 shrink tube over the DuraSeal splice sleeve.
2. Using the heat torch, apply heat to the high temperature heat shrink tubing.
3. Gradually move the heat from the center to the open end of the tubing:
    - The tubing will shrink completely as the heat is moved along the insulation.
    - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.
4. Replace any reflective tape and clips that may have been removed during the repair.

## CONNECTOR POSITION ASSURANCE LOCKS

The connector position assurance (CPA) is a small plastic insert that fits through the locking tabs of the connector. CPAs are used in various connectors throughout the vehicle. CPAs are also used in all SIR system electrical connectors. The CPA ensures that the connector halves cannot vibrate apart. You must have the CPA in place in order to ensure good contact between the mating terminals of the connector.

## TERMINAL POSITION ASSURANCE LOCKS

The terminal position assurance (TPA) insert resembles the plastic combs used in the control module connectors. The TPA keeps the terminal securely seated in the connector body. Do not remove the TPA

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from the connector body unless you remove a terminal for replacement. If the TPA is removed, be sure to reinstall it before reconnecting the connector.

## AFL/EPC CONNECTORS

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool
- **J-38125-216** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to remove terminals from the connector.

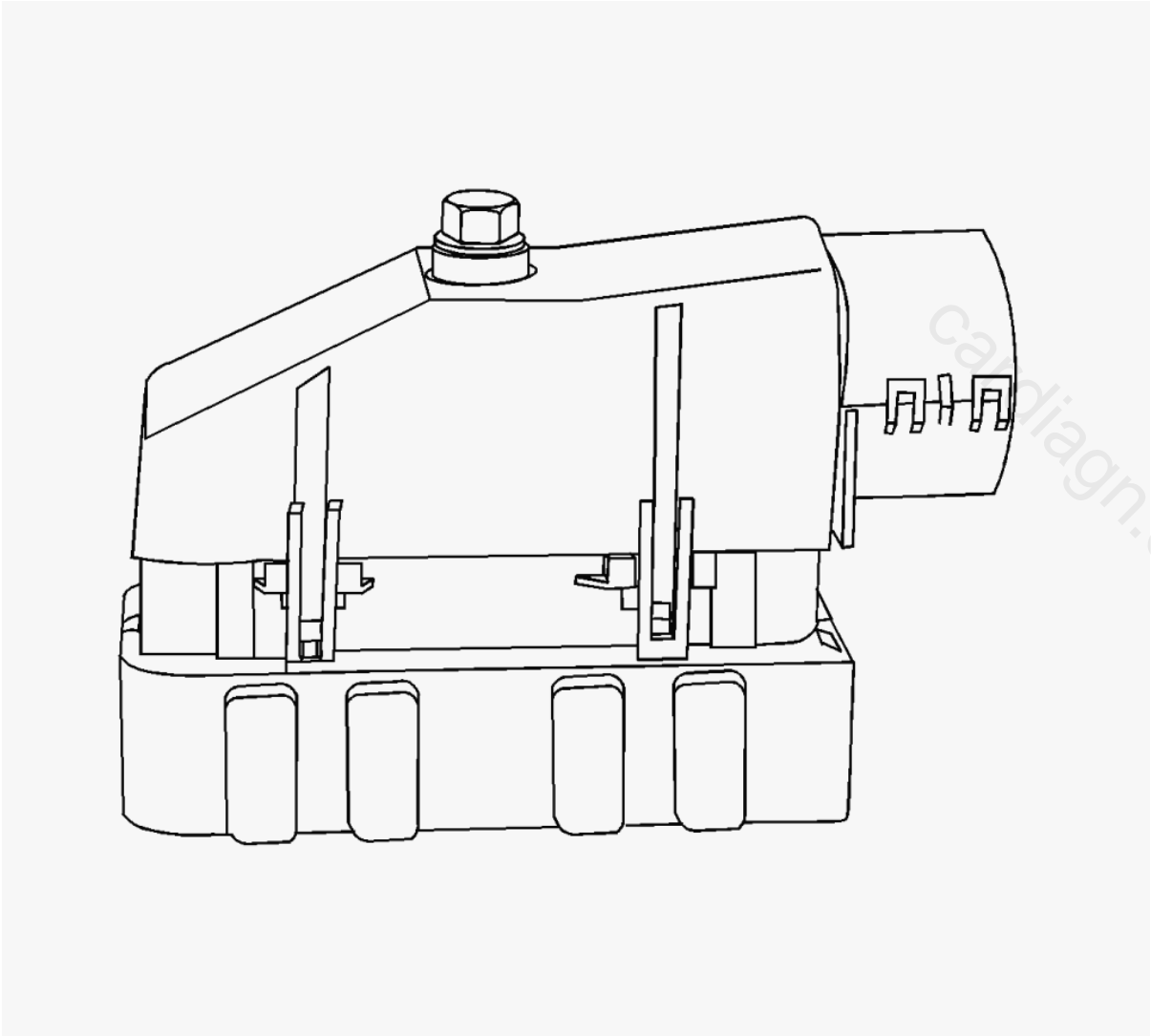


**Fig. 23: Bolt On Connector Cover**
**Courtesy of GENERAL MOTORS COMPANY**

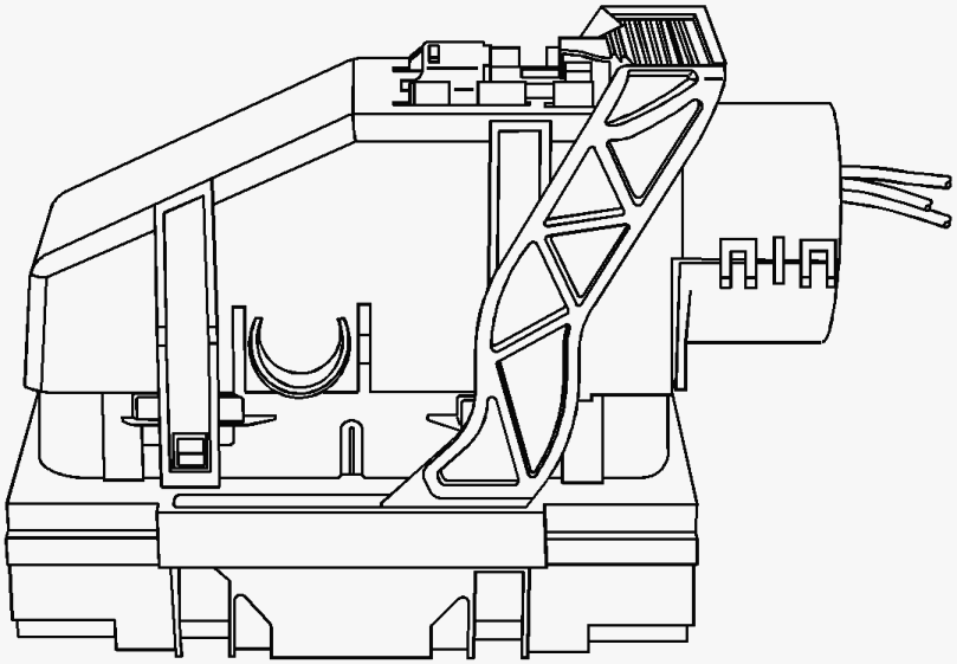


**Fig. 24: Connector Position Assurance (CPA)**
**Courtesy of GENERAL MOTORS COMPANY**

1. For connectors with a bolt in the dress cover, turn the bolt counterclockwise to remove the connector from the component.
2. Locate the connector position assurance (CPA) on the top of the wire dress cover. Slide the CPA forward.

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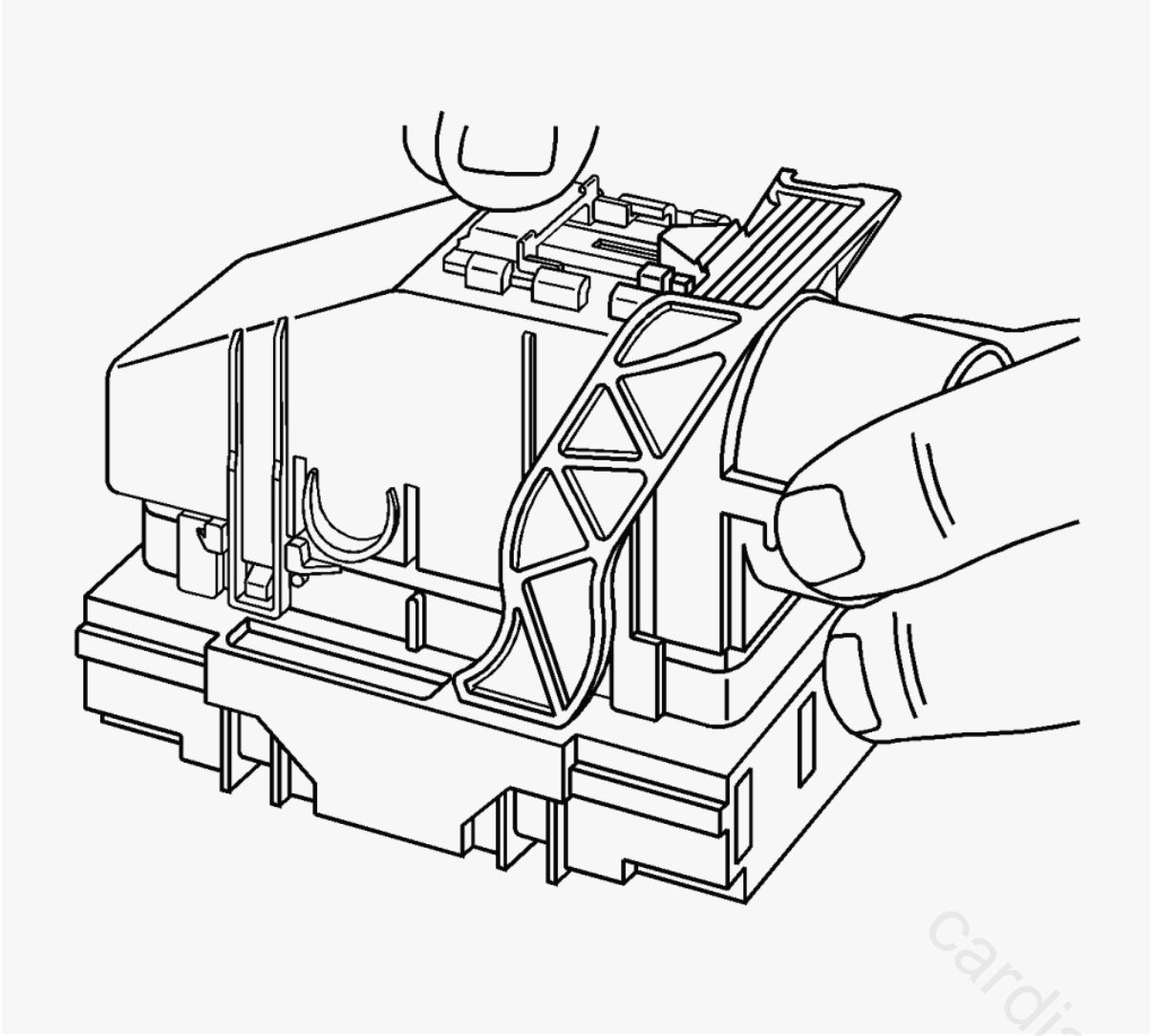


**Fig. 25: Lever Lock And Lever Lock Release Tab**
**Courtesy of GENERAL MOTORS COMPANY**

3. Slide the lever lock forward while pressing down on the lever lock release tab.

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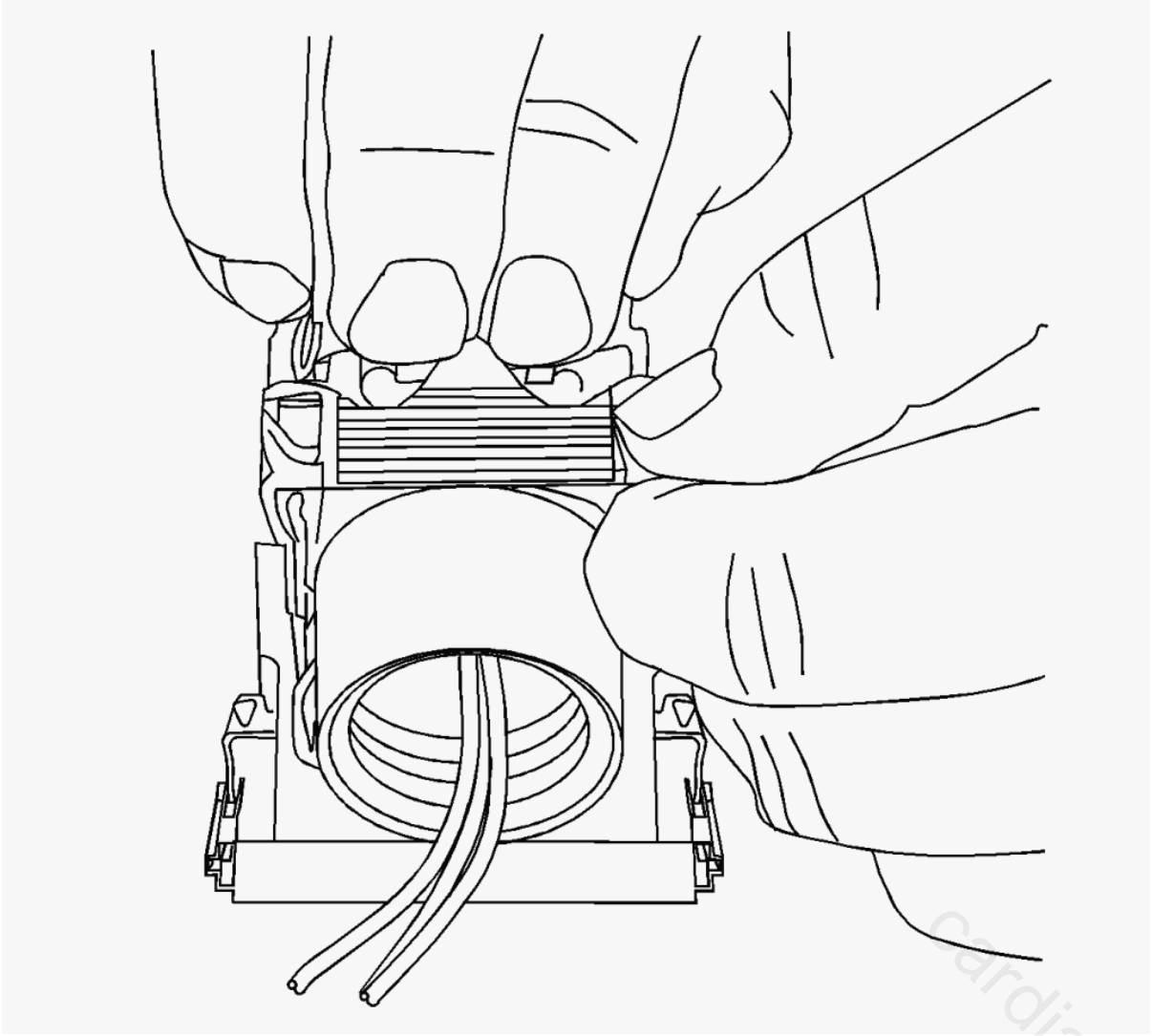


**Fig. 26: Depressing Lever Lock Release Tab**
**Courtesy of GENERAL MOTORS COMPANY**

4. View showing depressing of the lever lock release tab.

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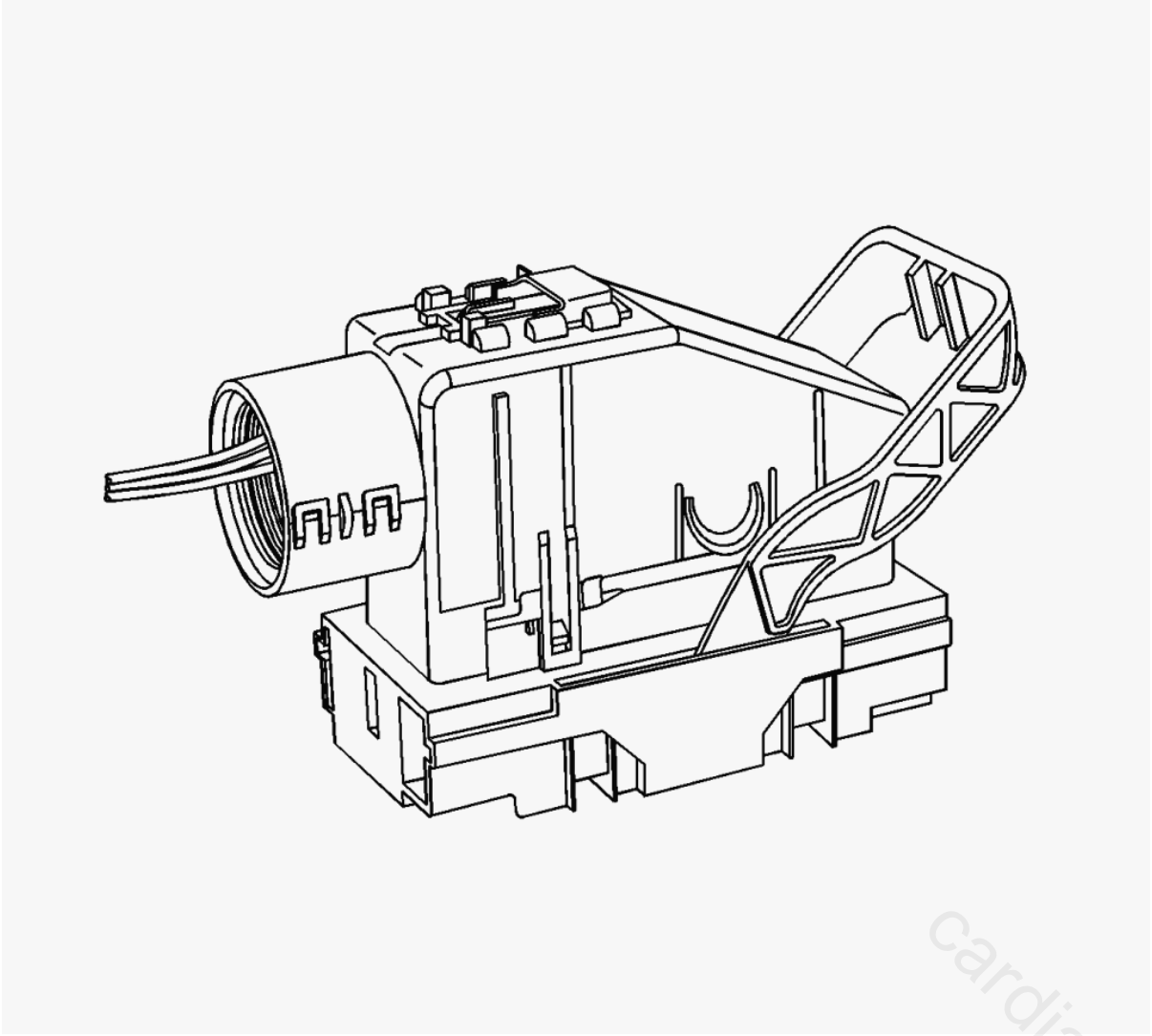


**Fig. 27: Connector In Released Position**
**Courtesy of GENERAL MOTORS COMPANY**

5. View of connector in released position.
6. Disconnect the connector from the component.
7. Locate the dress cover locking tabs at the corners of the dress cover. Use a small flat-blade tool to release the locking tabs and remove the dress cover.

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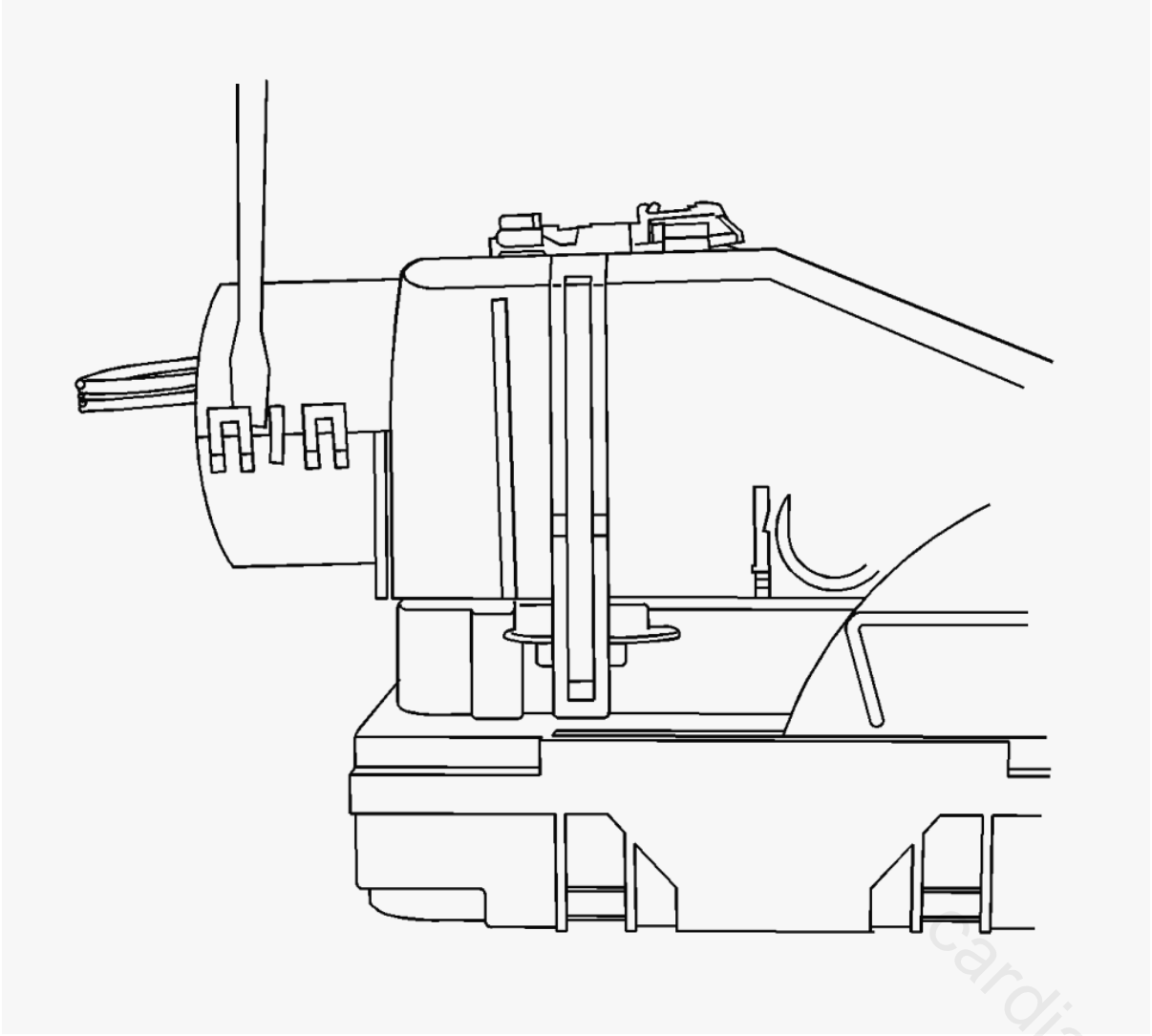


**Fig. 28: Releasing Rear Lower Half Of Wiredress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

8. Release the rear lower half of the wiredress cover.

carDiagn.com

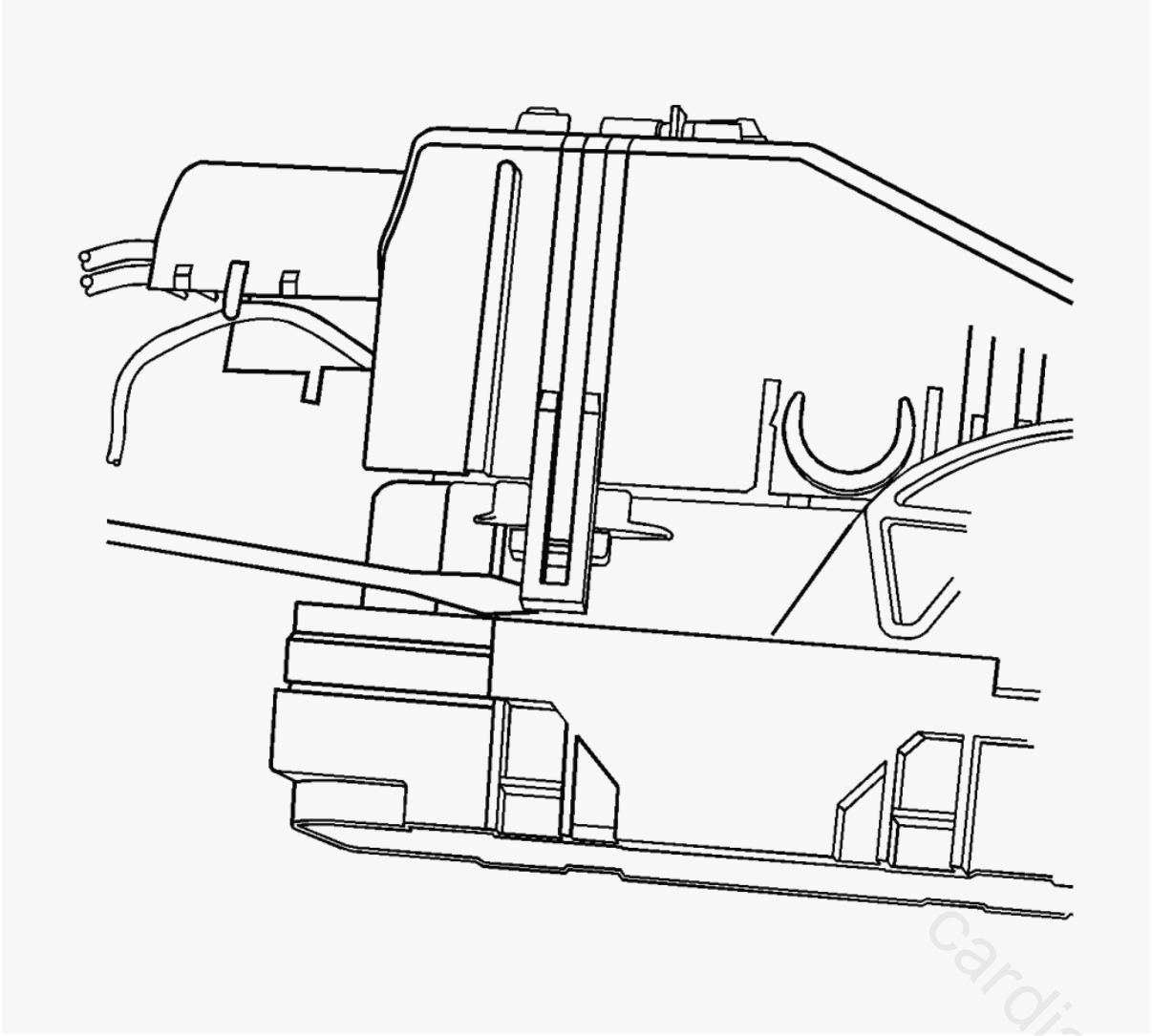


**Fig. 29: Releasing Tabs Holding Wiredress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

9. Release the tabs that are holding the wiredress cover to the connector body.
10. Remove the nose piece by inserting a small flat-blade tool into the slots on both ends of the connector body. Gently pry the nose piece out of the connector. J-38125-216 can also be used to remove the nose piece.

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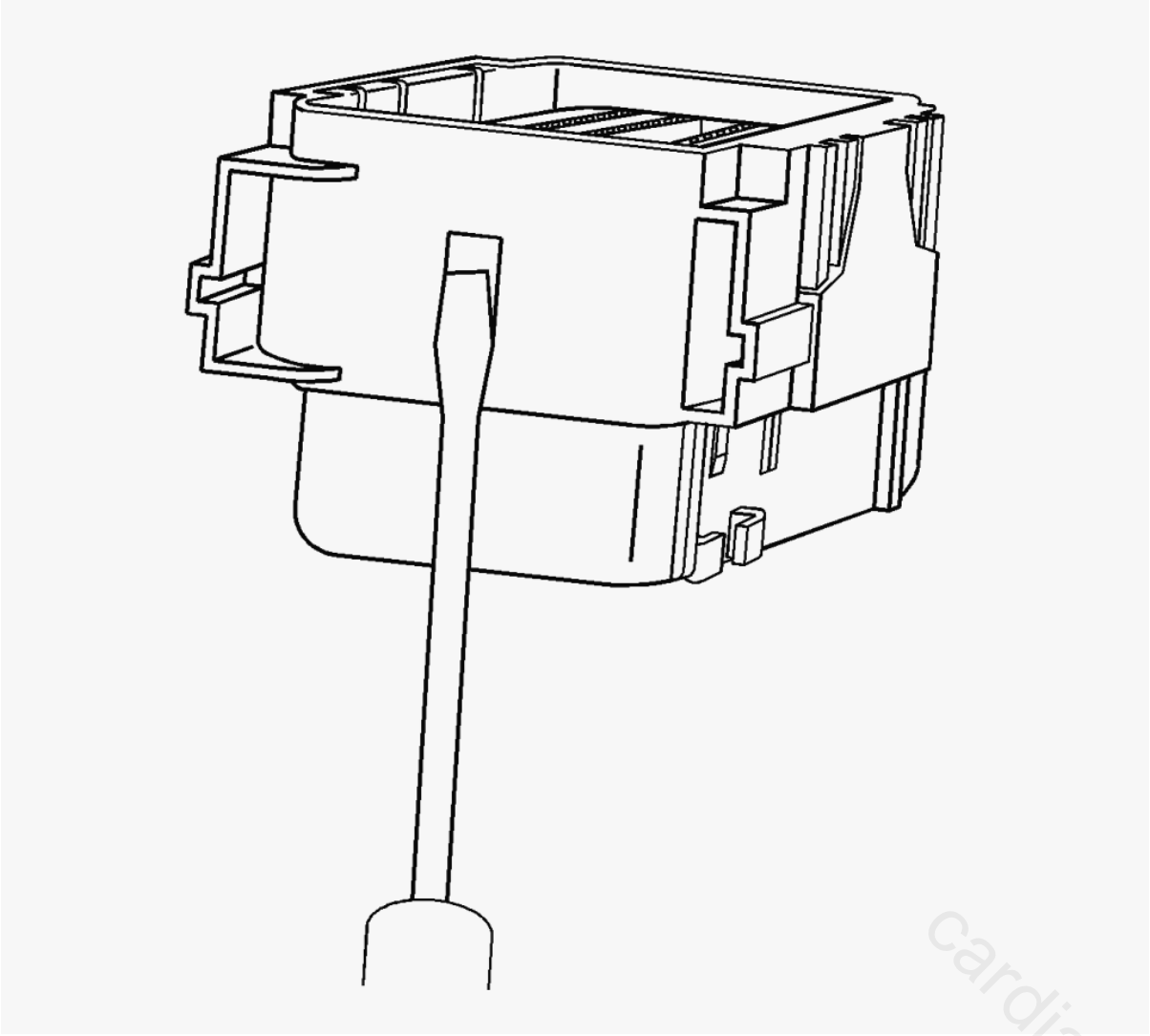


**Fig. 30: Removing Nose Piece Using Flat-Blade Tool**
**Courtesy of GENERAL MOTORS COMPANY**

11. Use the J-38125-12A tool to release the terminals by lifting the terminal retaining tabs on the inside of the connector.

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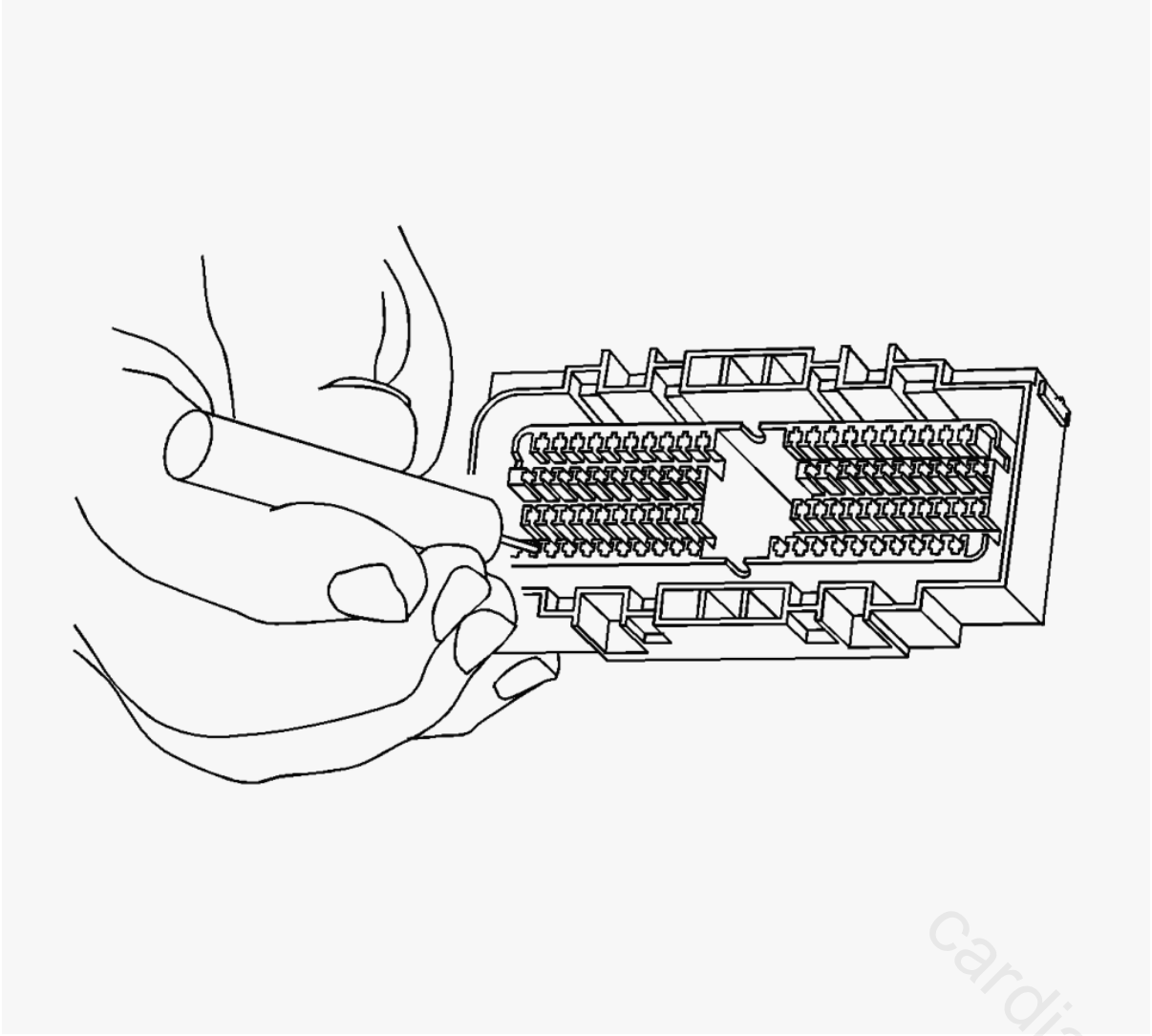


**Fig. 31: Releasing Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

12. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
13. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
14. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## BOSCH CONNECTORS (BSK)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-561** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Disconnect the connector from the component.
2. Remove the wire dress cover, if necessary.
3. Push the wire side of the terminal that is being removed toward the connector and hold it in position.

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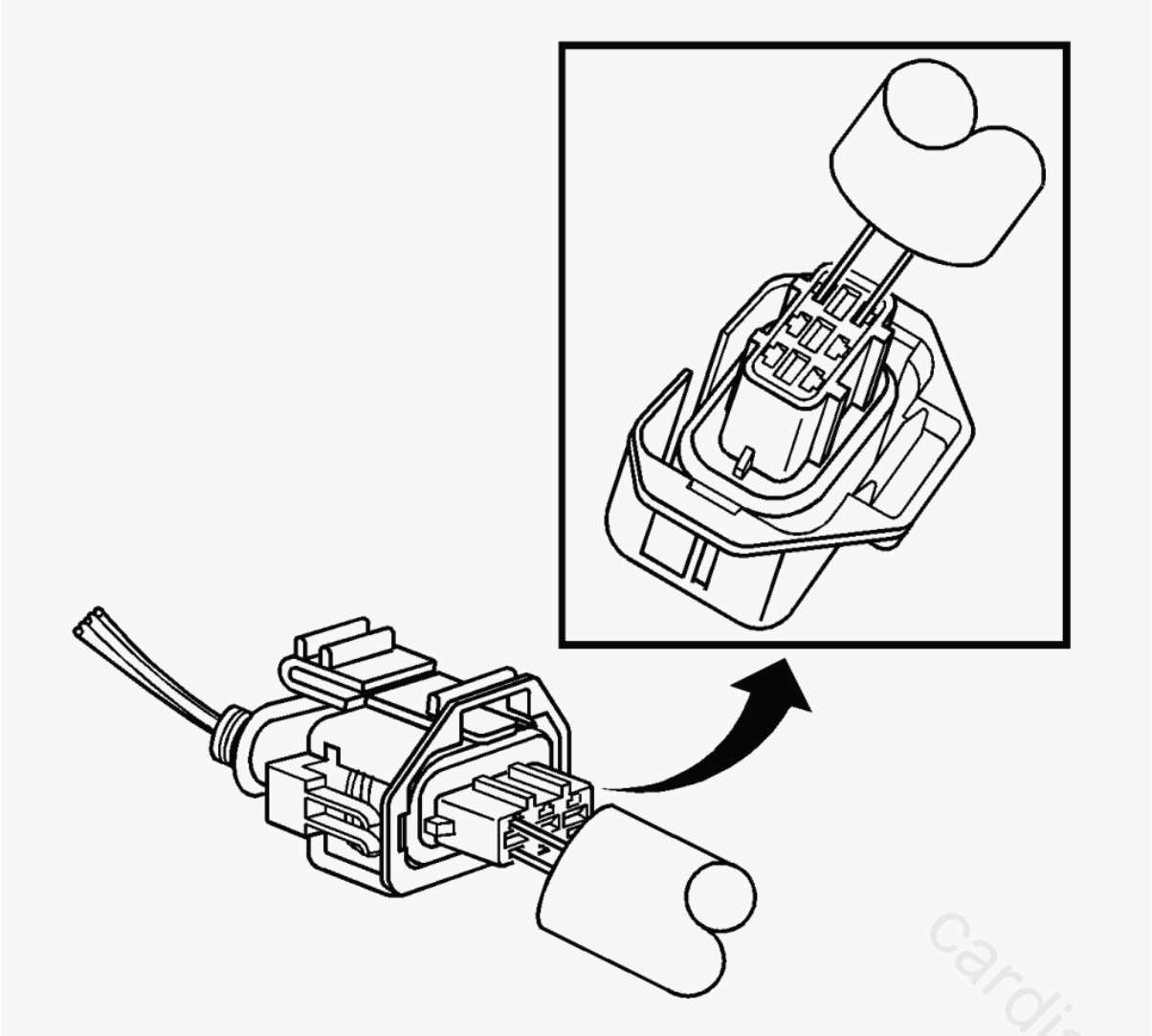


**Fig. 32: Disengaging Terminal Retainers**
**Courtesy of GENERAL MOTORS COMPANY**

4. Insert the J-38125-561 tool into the 2 cavities on each side of the terminal at the front of the connector and push until you feel the tool disengage the terminal retainers.
5. Carefully pull the terminal out of the connector. Always remember never use force when pulling a terminal out of a connector. If the terminal is difficult to remove, repeat the entire procedure.
6. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
7. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## BOSCH CONNECTORS (0.64)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-560** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Locate the lever lock on the wire dress cover. While pressing the lock, pull the lever over and past the lock until the lever is at the end of its travel.
2. Disconnect the connector from the component.
3. Pull the rubber boot that covers the wires back to expose the end of the connector dress cover.
4. Place the connector locking lever in the center of the connector.

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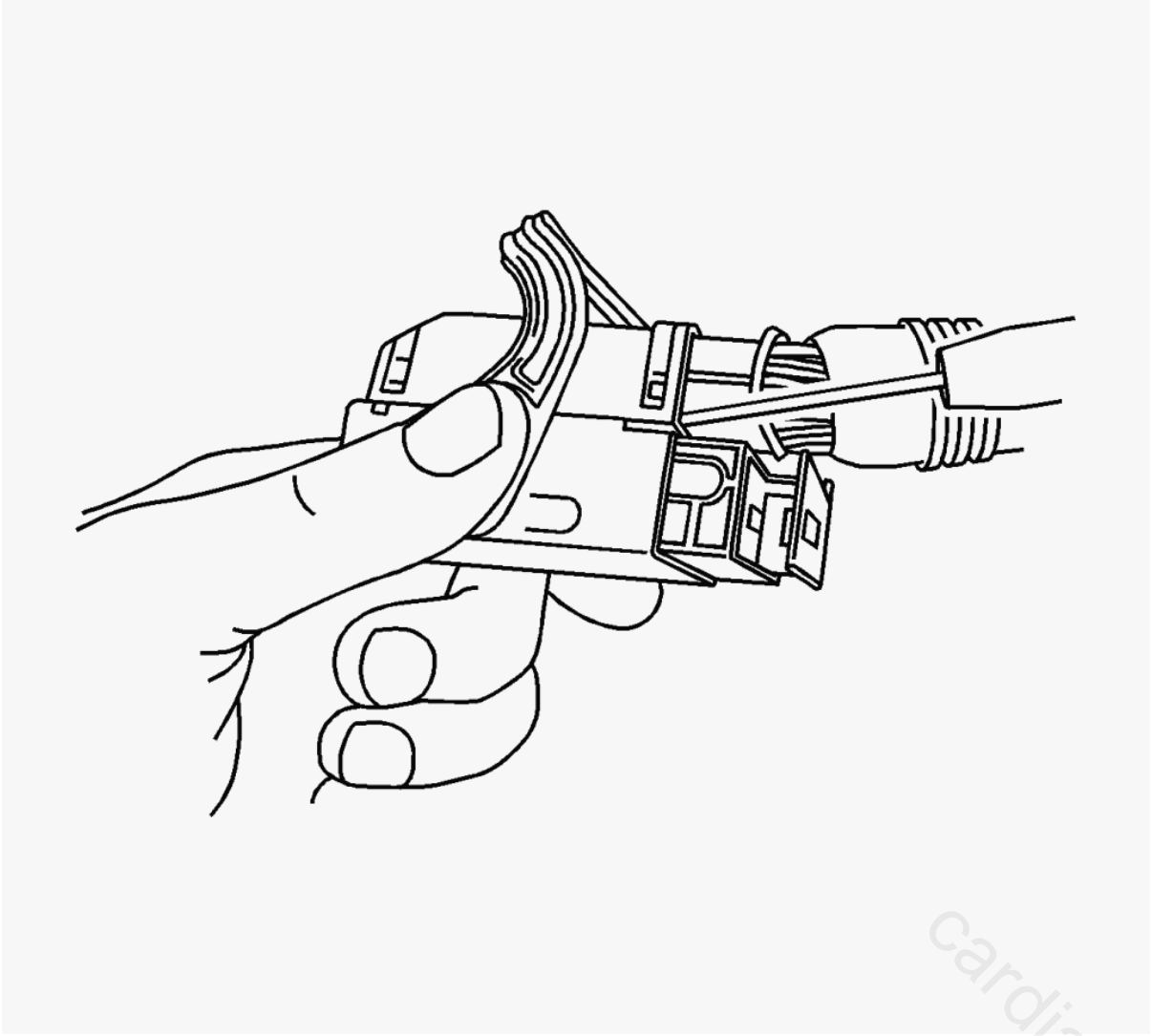


**Fig. 33: Inserting Flat-Bladed Tool Between Cover And Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

5. Locate the 2 dress cover locking tabs that are on the wire end of the connector. Insert a small flat-bladed tool between the cover and connector body and pry up.

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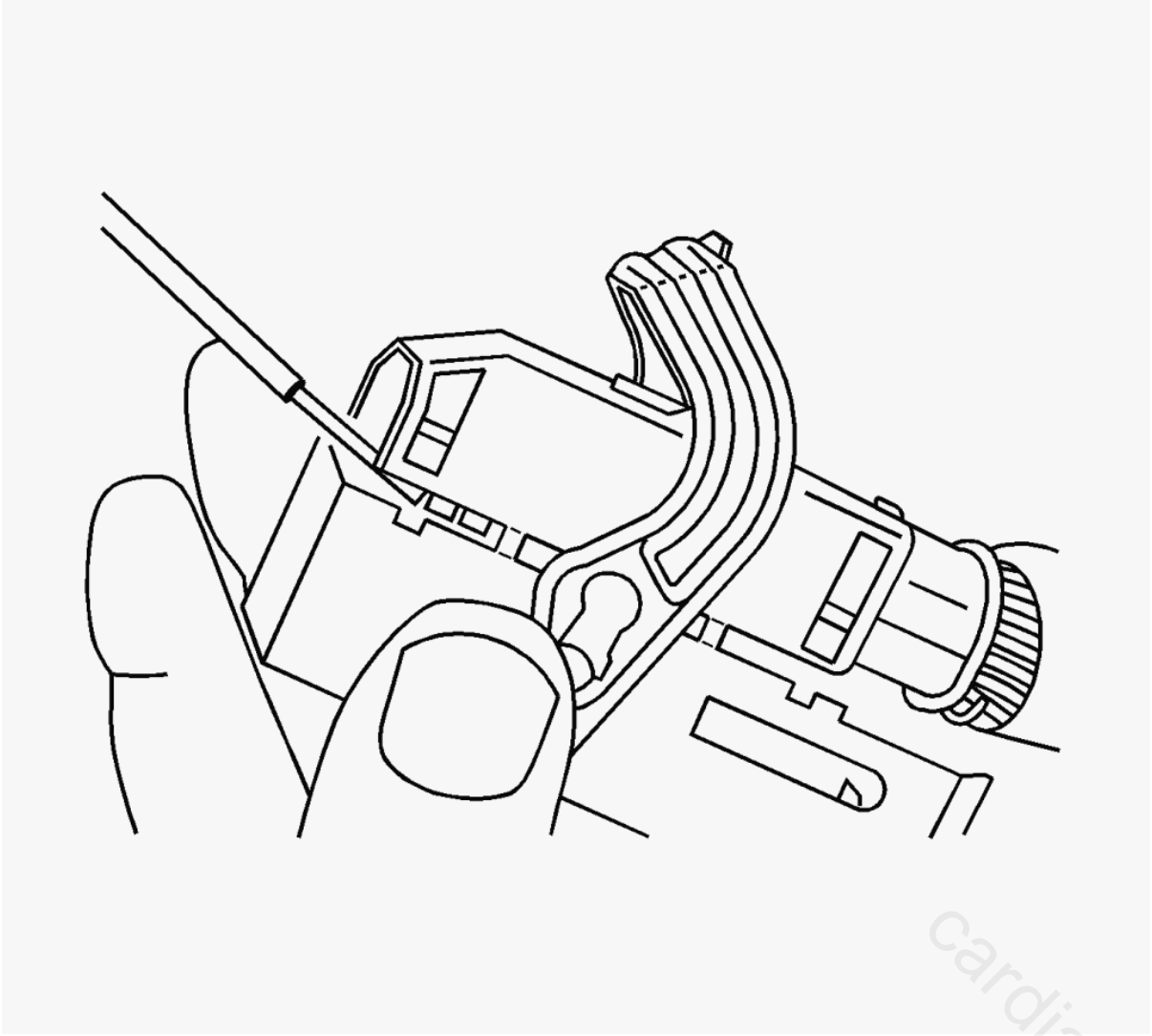


**Fig. 34: Inserting Flat-Bladed Tool Between Cover And Connector End**
**Courtesy of GENERAL MOTORS COMPANY**

6. Locate the 2 dress cover locking tabs located on the opposite side of the connector. Insert a small flat-bladed tool between the cover at the connector end and pry up.
7. Remove the dress cover.
8. Cut the tie wrap on the wire bundle.

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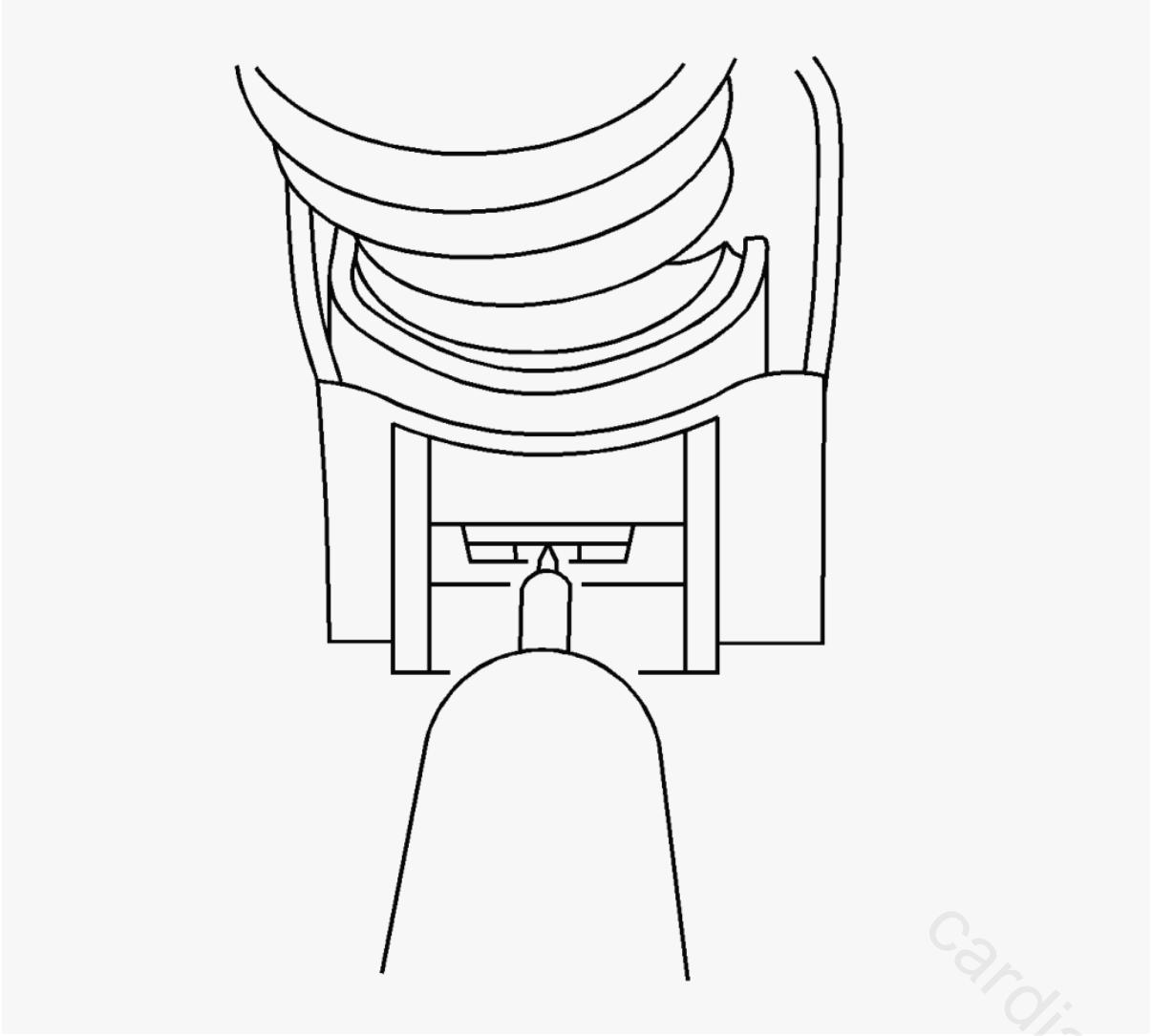


**Fig. 35: Removing Terminal Position Assurance (TPA)**
**Courtesy of GENERAL MOTORS COMPANY**

9. Remove the terminal position assurance (TPA) by inserting a small flat-bladed tool into the small slot in the end of the slider and pushing on the TPA until it comes out of the connector. When the TPA exits the opposite side of the connector, gasp the TPA and pull it completely out of the connector.
10. Push the wire side of the terminal that is being removed toward the connector and hold it in position.

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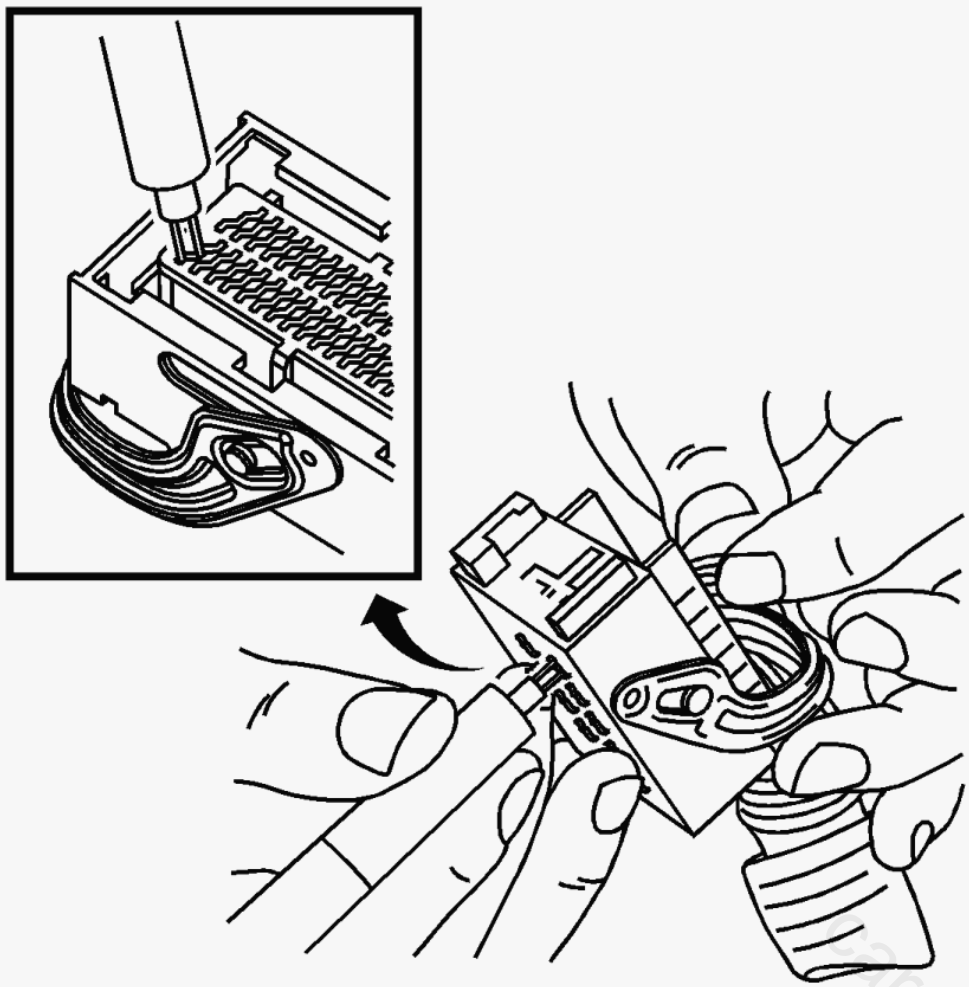


**Fig. 36: Terminal Release Tool Being Inserted Into Triangular Cavities**
**Courtesy of GENERAL MOTORS COMPANY**

11. Insert the J-38125-560 into the 2 triangular cavities on each side of the terminal at the front of the connector.
12. Carefully pull the terminal out of the connector. Always remember never use force when pulling a terminal out of a connector. If the terminal is difficult to remove, repeat the entire procedure.
13. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
14. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

### Terminal Insertion Procedure

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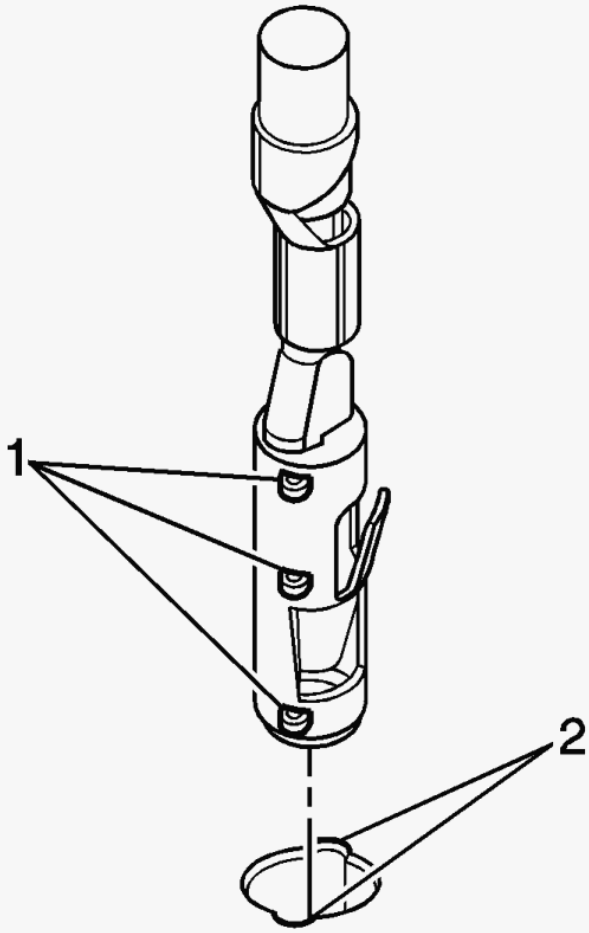



**Fig. 37: Aligning Coding Lugs With Connector Coding Grooves**
**Courtesy of GENERAL MOTORS COMPANY**

1. Prior to installation the terminal must be aligned so the (1) coding lugs align with the (2) coding grooves on the connector.
2. Once the terminal is aligned, slide the terminal into the cavity until the retainer has engaged in the cavity of the connector.
3. Slide the TPA in the connector body and seat it using a small flat bladed tool. The TPA is seated when it is flush with the contact housing.
4. Secure the wires to the connector body using a tie wrap and replace the dress cover and grommet.

## BOSCH CONNECTORS (2.8 JPT)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-557** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Pull out the slider on the connector position assurance (CPA) until it is at the end of its travel.
2. Disconnect the connector from the component.
3. Remove the wire dress cover, if necessary.
4. Push the wire side of the terminal that is being removed toward the connector and hold it in position.

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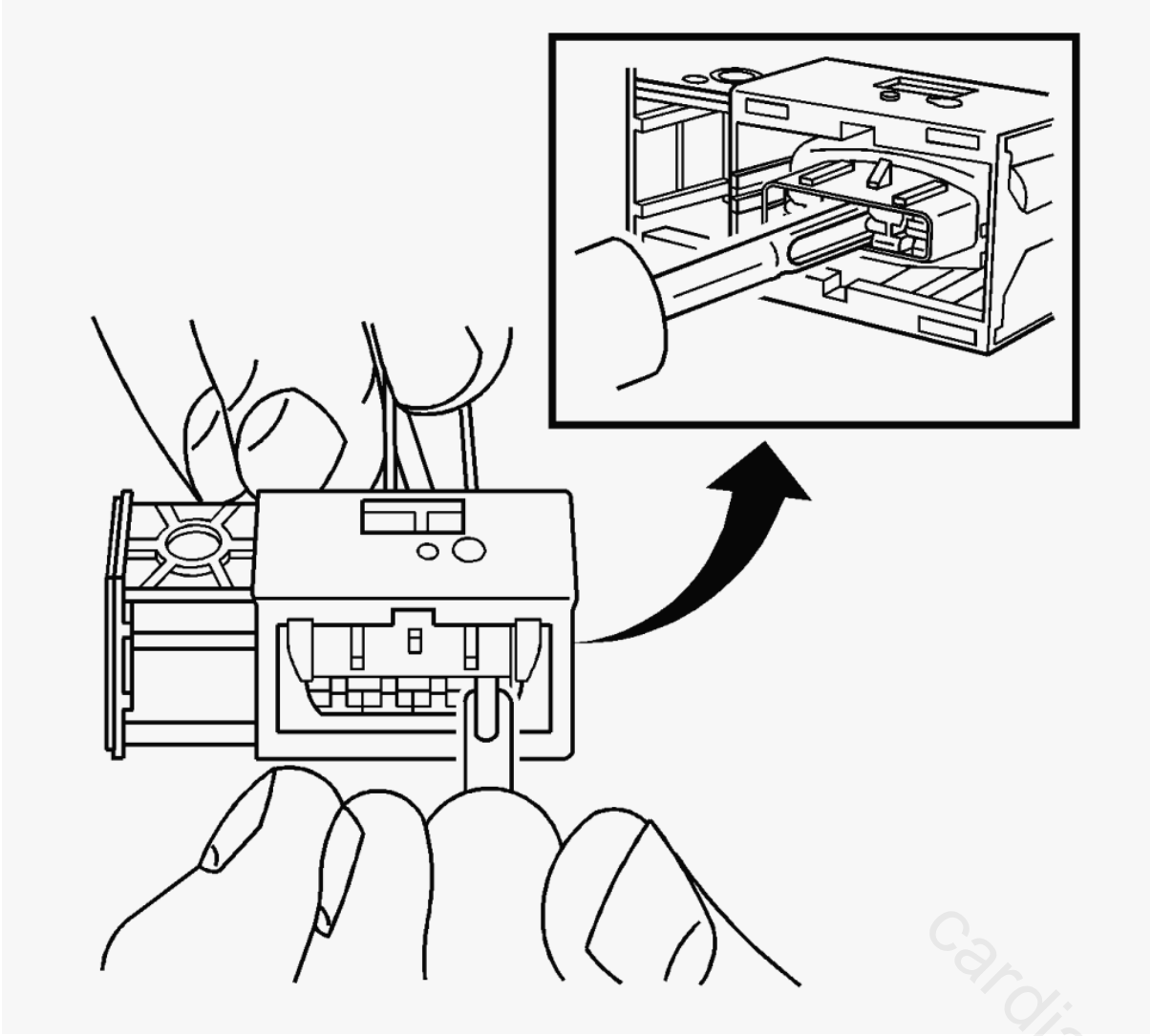


**Fig. 38: Disengaging Terminal Retainers**
**Courtesy of GENERAL MOTORS COMPANY**

5. Insert the J-38125-557 into the 2 cavities on each side of the terminal at the front of the connector and push until you feel the tool disengage the terminal retainers.
6. Carefully pull the terminal out of the connector. Always remember never use force when pulling a terminal out of a connector. If the terminal is difficult to remove, repeat the entire procedure.
7. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
8. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## BOSCH CONNECTORS (ECM)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-213** Terminal Release Tool
- **J-38125-556** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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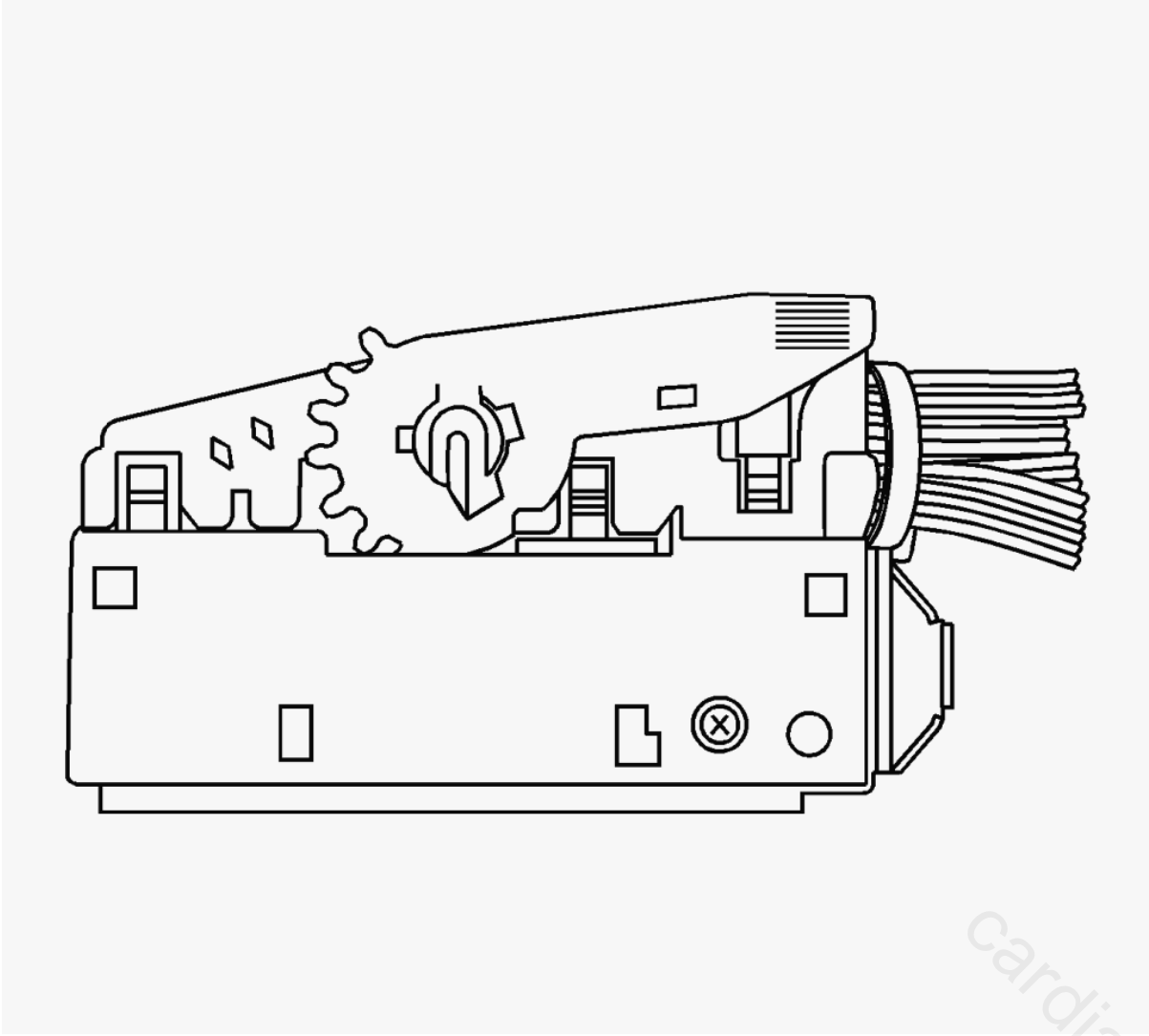


**Fig. 39: Identifying Bosch Connector (ECM)**
**Courtesy of GENERAL MOTORS COMPANY**

1. Locate the assist lever on the top of the connector. Move the assist lever to the forward position.

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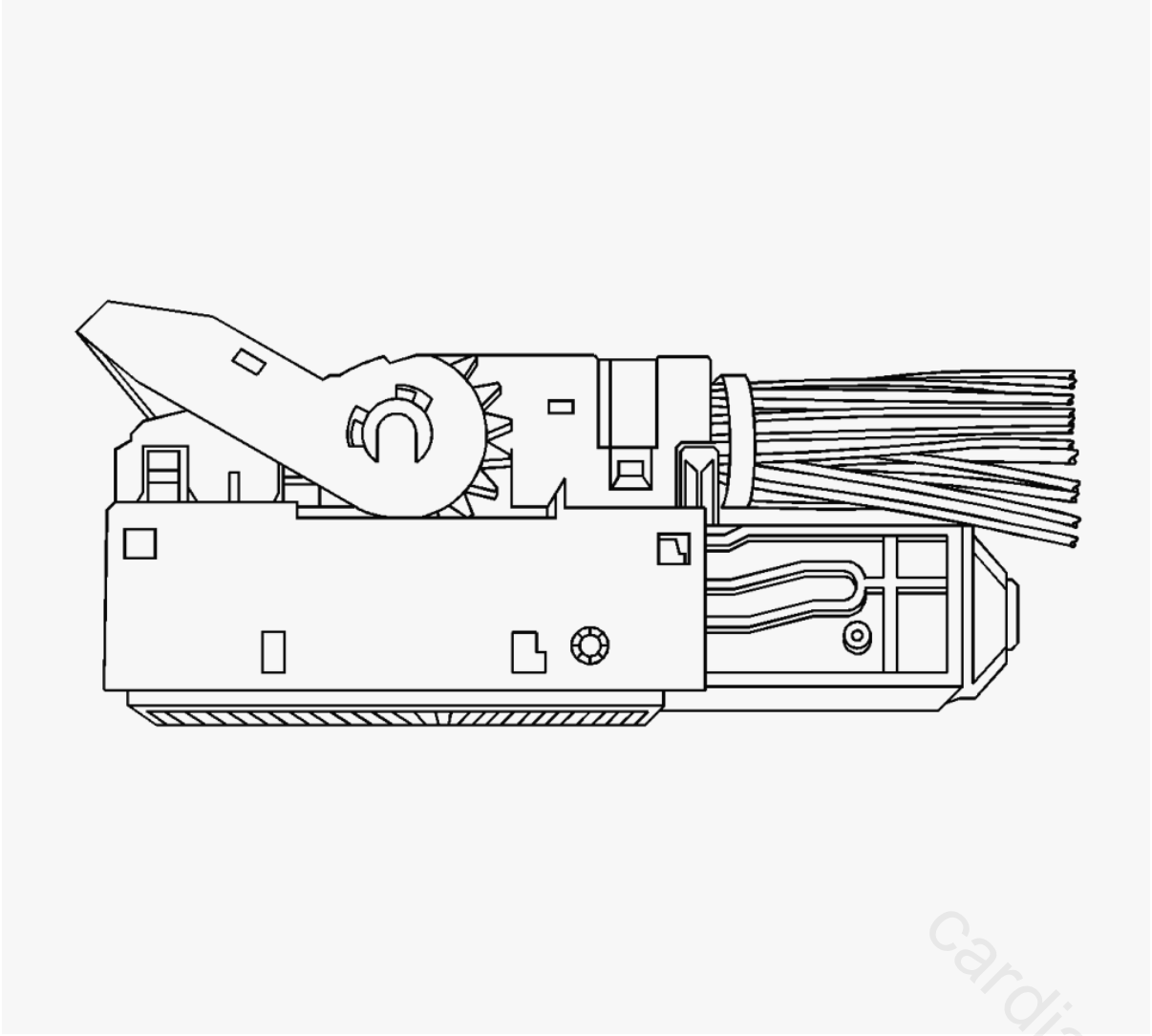


**Fig. 40: Assist Lever In Forward Position**
**Courtesy of GENERAL MOTORS COMPANY**

2. Disconnect the connector from the component.

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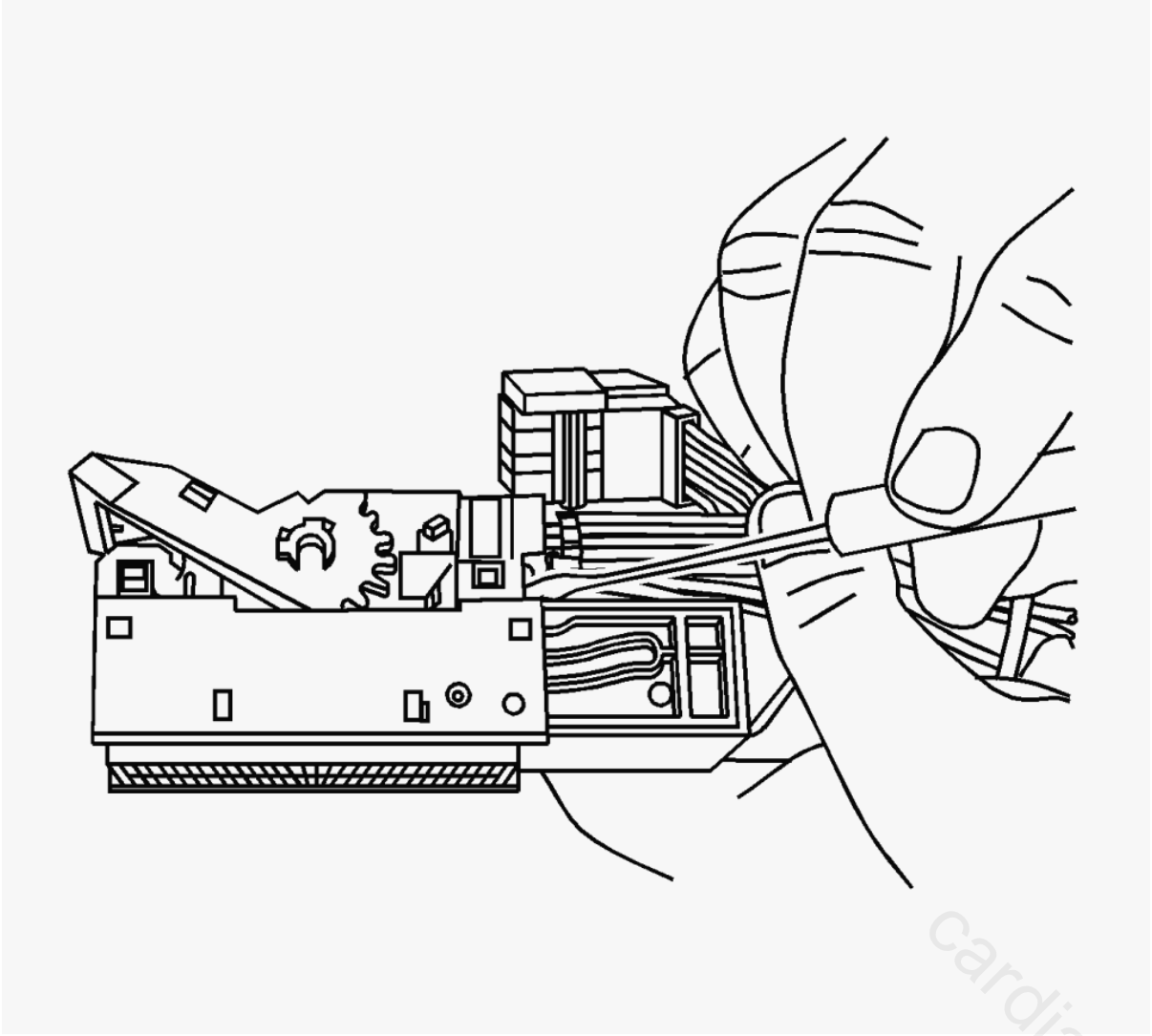


**Fig. 41: Releasing Locking Tabs To Remove Dress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

3. Locate the dress cover locking tabs at the corners of the connector. Use a small flat-blade tool to release the locking tabs and remove the dress cover.

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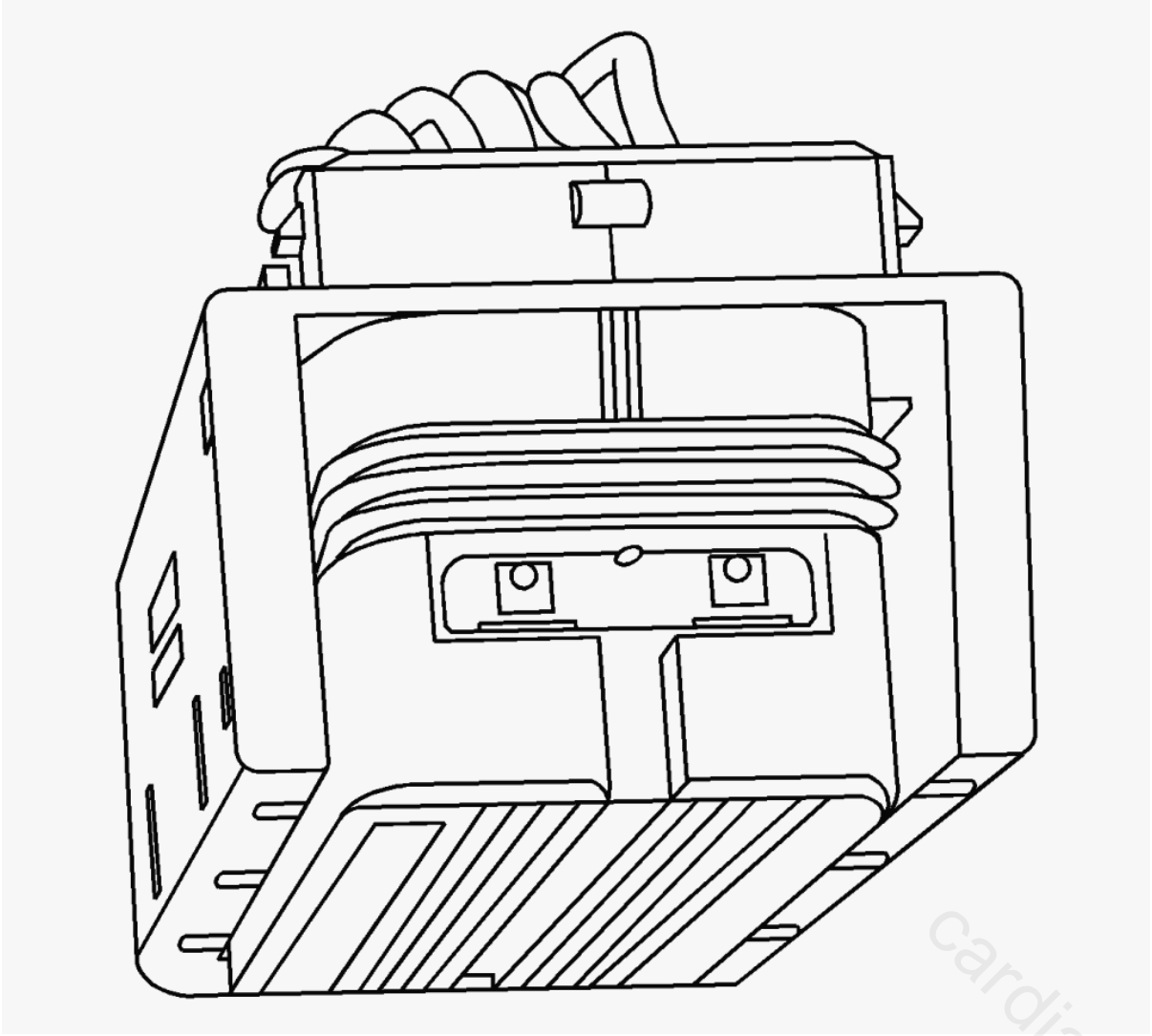


**Fig. 42: Locating Terminal Positive Assurance (TPA)**
**Courtesy of GENERAL MOTORS COMPANY**

4. The terminal positive assurance (TPA) is located in the front of the connector.

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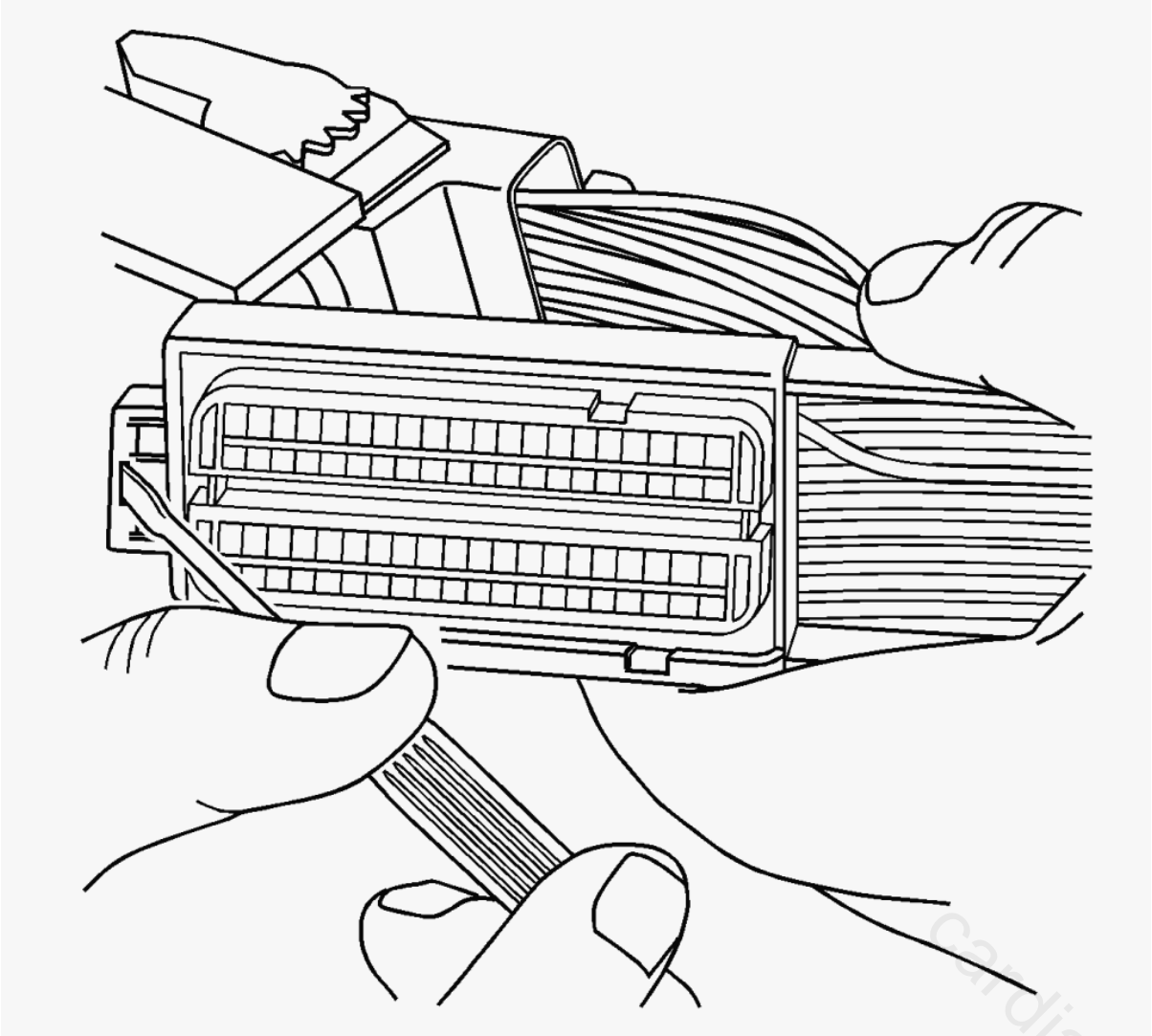


**Fig. 43: Removing TPA From Connector**
**Courtesy of GENERAL MOTORS COMPANY**

5. Use a small flat-blade tool to remove TPA from the connector.

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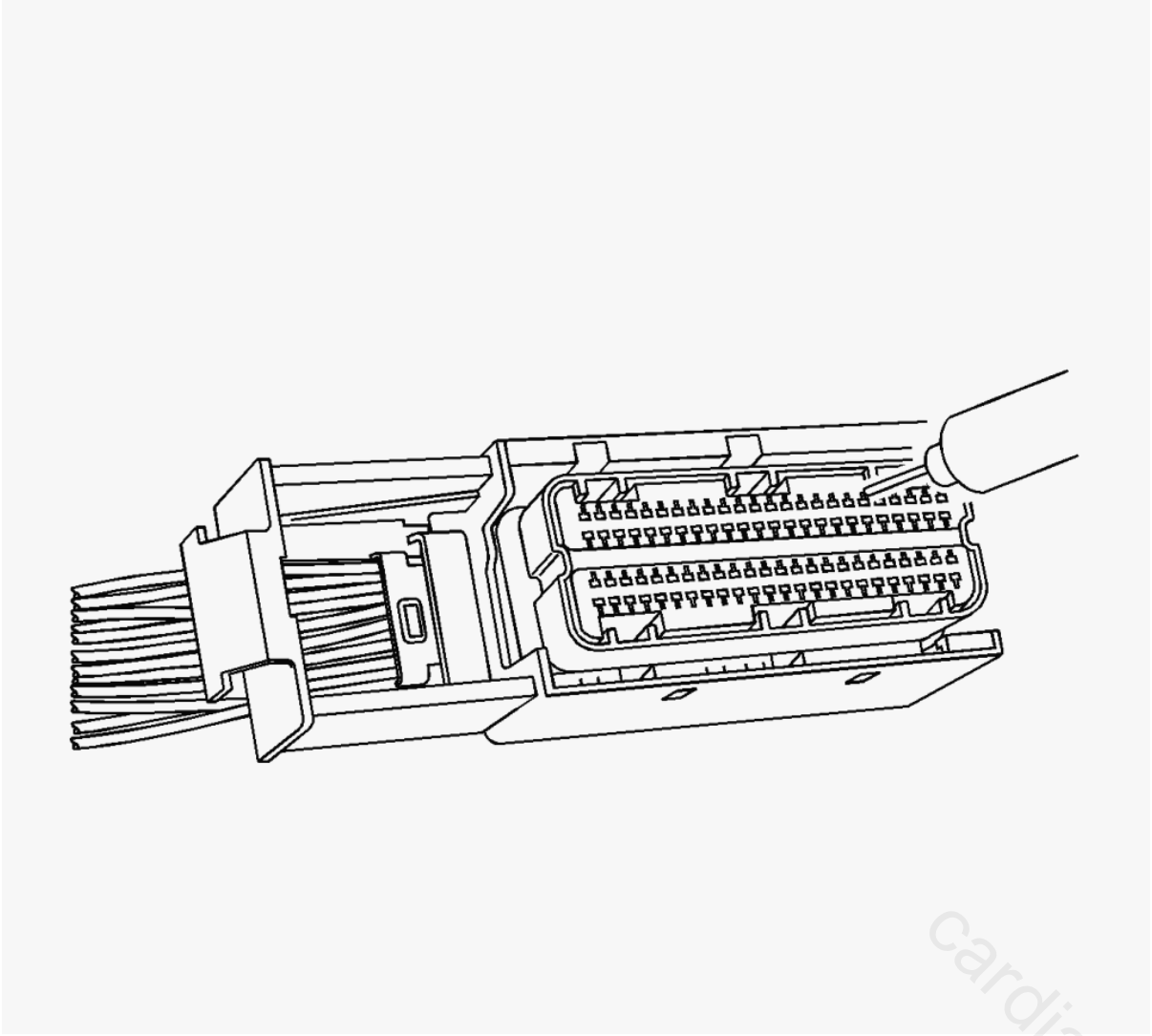


**Fig. 44: Releasing Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

6. Use the J-38125-213 or the J-38125-556 tool to release the terminals by inserting the tool into the terminal release cavity.
7. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
8. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
9. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

**NOTE:** **Ensure that the dress cover and connector body are both in the released position before reassembling. Failure to do so may cause damage to the connector and component.**

10. Reconnect the connector bodies.

## DELPHI CONNECTORS (WEATHER PACK)

### Special Tools

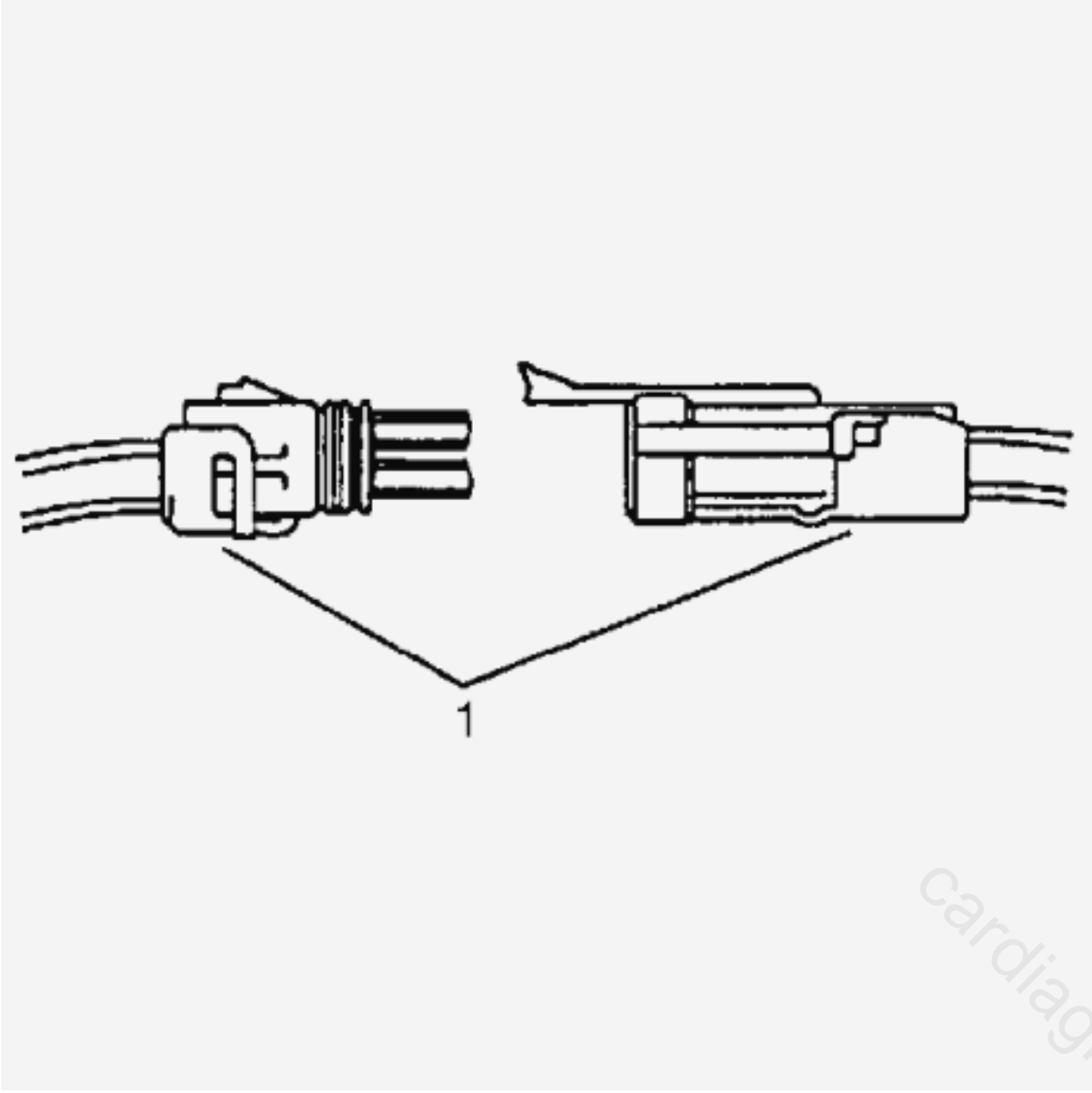
- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-10A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

The following is the proper procedure for the repair of Weather PackÂ® Connectors.

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**Fig. 45: Separating Connector Halves**
**Courtesy of GENERAL MOTORS COMPANY**

1. Separate the connector halves (1).
2. Open the secondary lock. A secondary lock aids in terminal retention and is usually molded to the connector (1).
3. Grasp the wire and push the terminal to the forward most position. Hold the wire in this position.

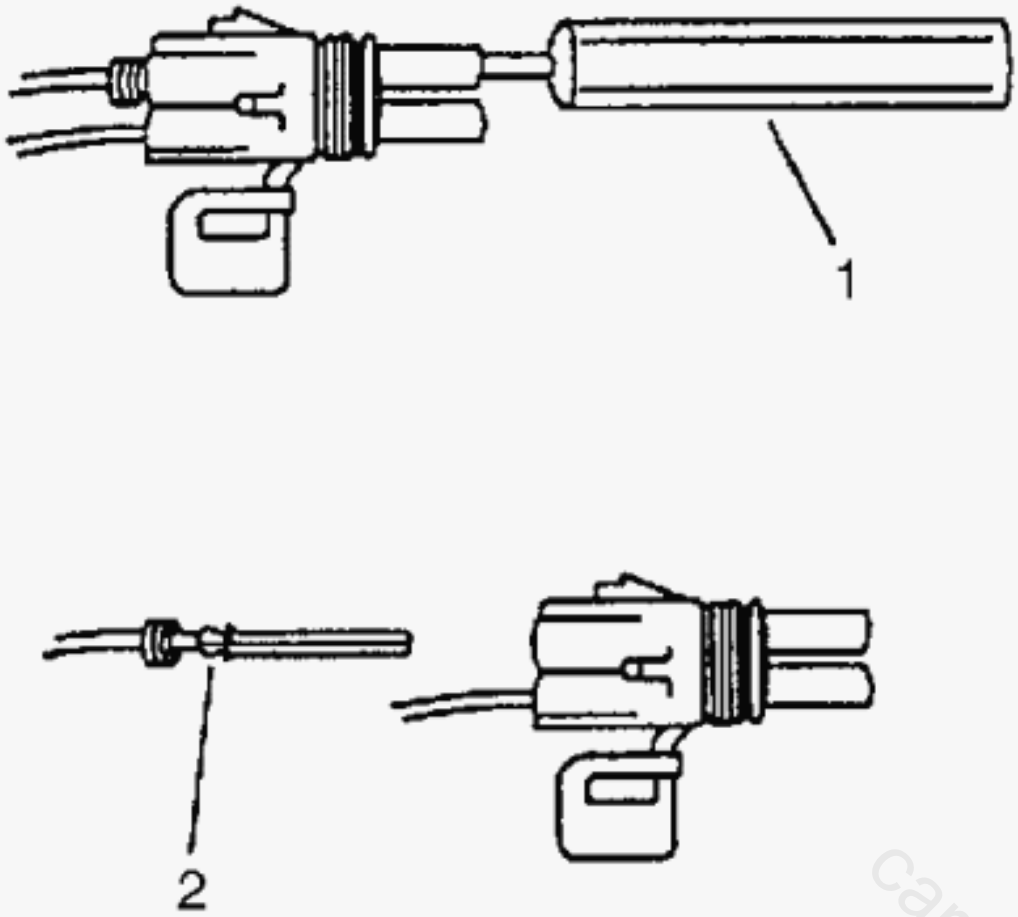



**Fig. 46: Removing Cable & Terminal From Connector**
**Courtesy of GENERAL MOTORS COMPANY**

4. Insert the Weather PackÂ® terminal removal tool J-38125-10A into the front (mating end) of the connector cavity until it rests on the cavity shoulder (1).
5. Gently pull on the wire to remove the terminal through the back of the connector (2).

**NOTE:** **Never use force to remove a terminal from a connector.**

6. Inspect the terminal and connector for damage. Repair as necessary. Refer to **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)**.
7. Reform the lock tang (2) and reset terminal in connector body.
8. Close secondary locks and join connector halves.
9. Verify that circuit is complete and working satisfactorily.
10. Perform system check.
11. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
12. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## DELPHI CONNECTORS (PUSH TO SEAT)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit

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For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to repair push to seat connectors.

1. Remove the terminal position assurance (TPA) device, the connector position assurance (CPA) device, and/or the secondary lock.

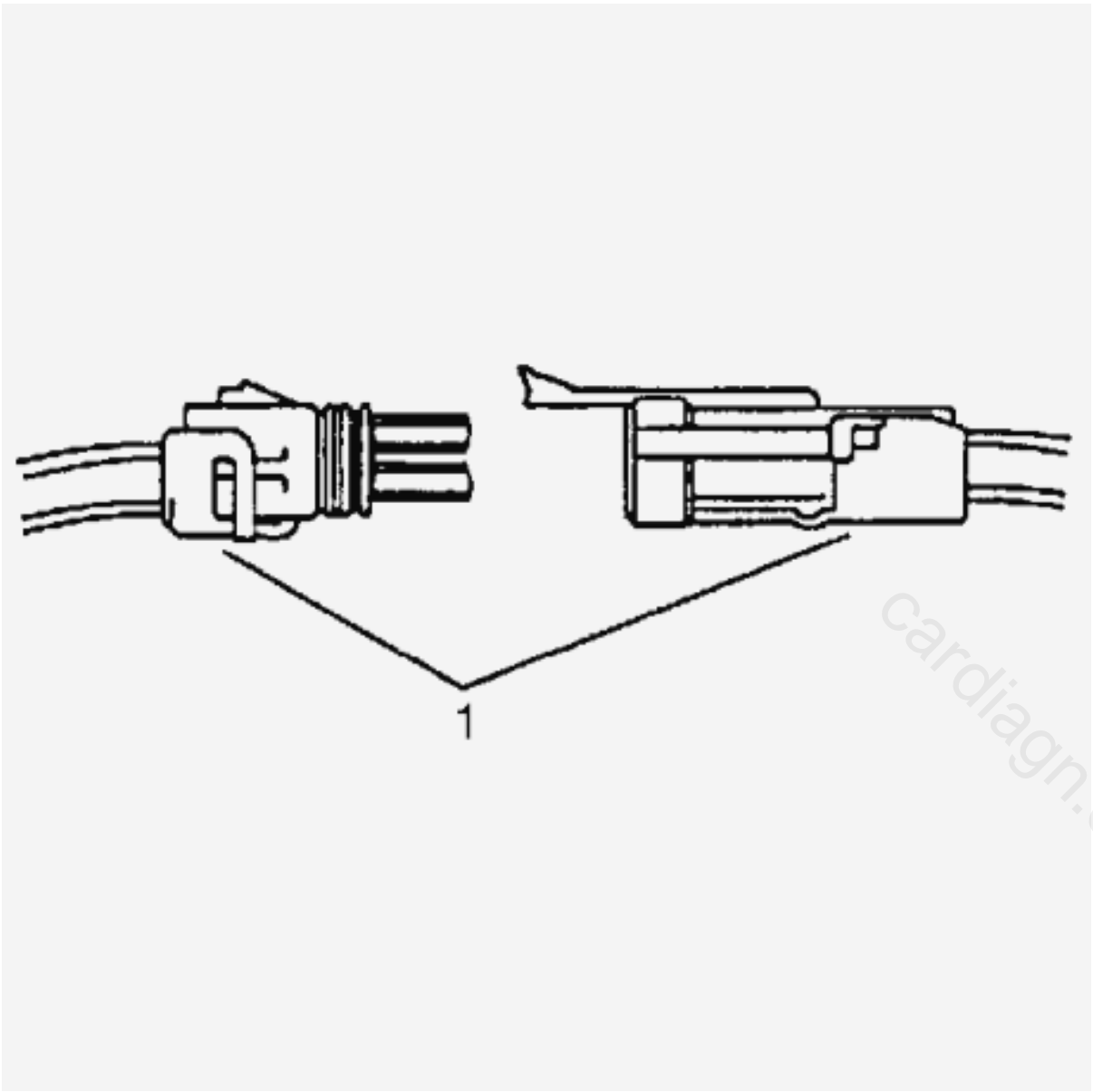



**Fig. 47: Separating Connector Halves**
**Courtesy of GENERAL MOTORS COMPANY**

2. Separate the connector halves (1).

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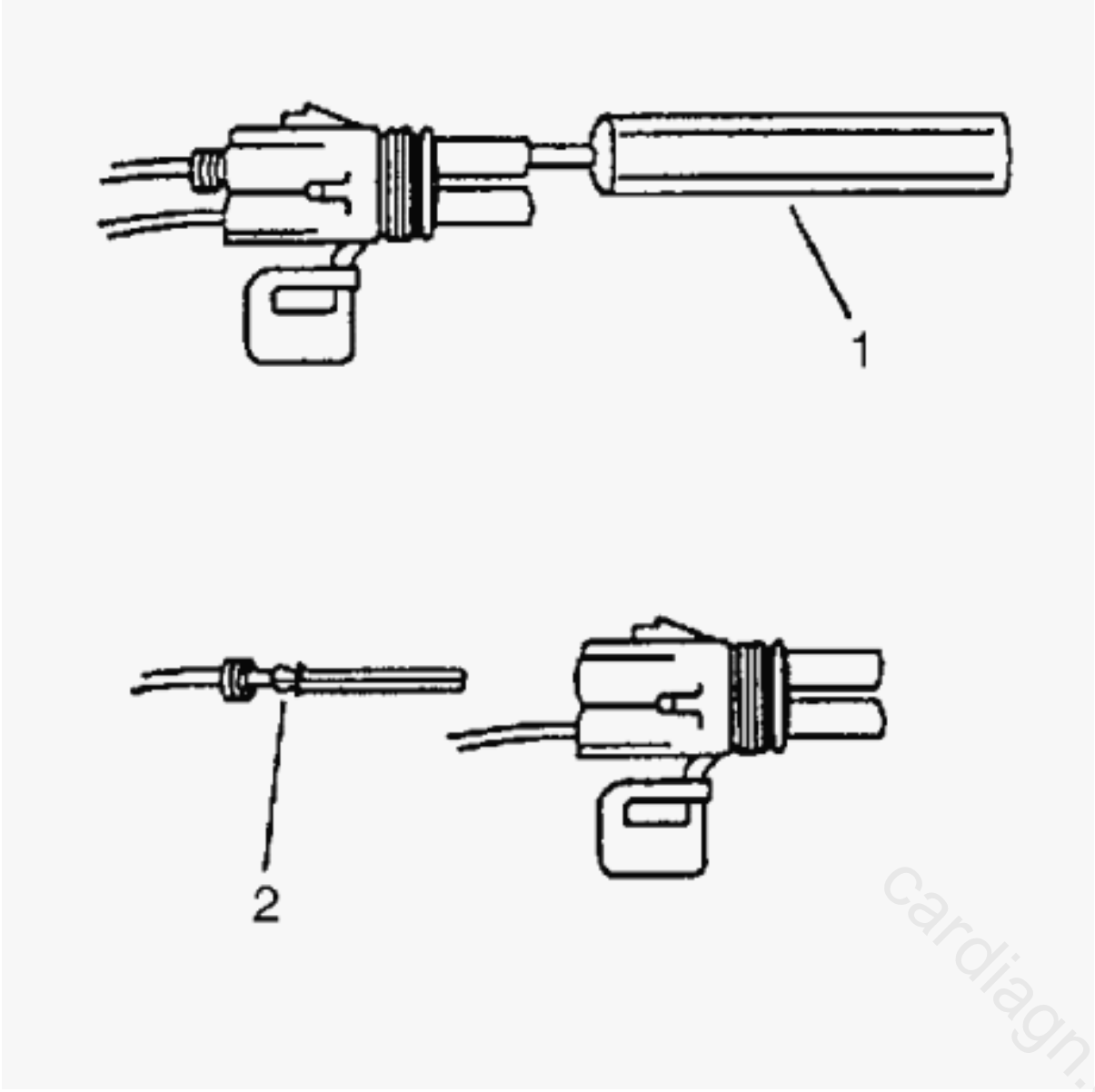



**Fig. 48: Removing Cable & Terminal From Connector**
**Courtesy of GENERAL MOTORS COMPANY**

3. Use the proper pick or removal tool (1) in order to release the terminal.
4. Gently pull the cable and the terminal (2) out of the back of the connector.

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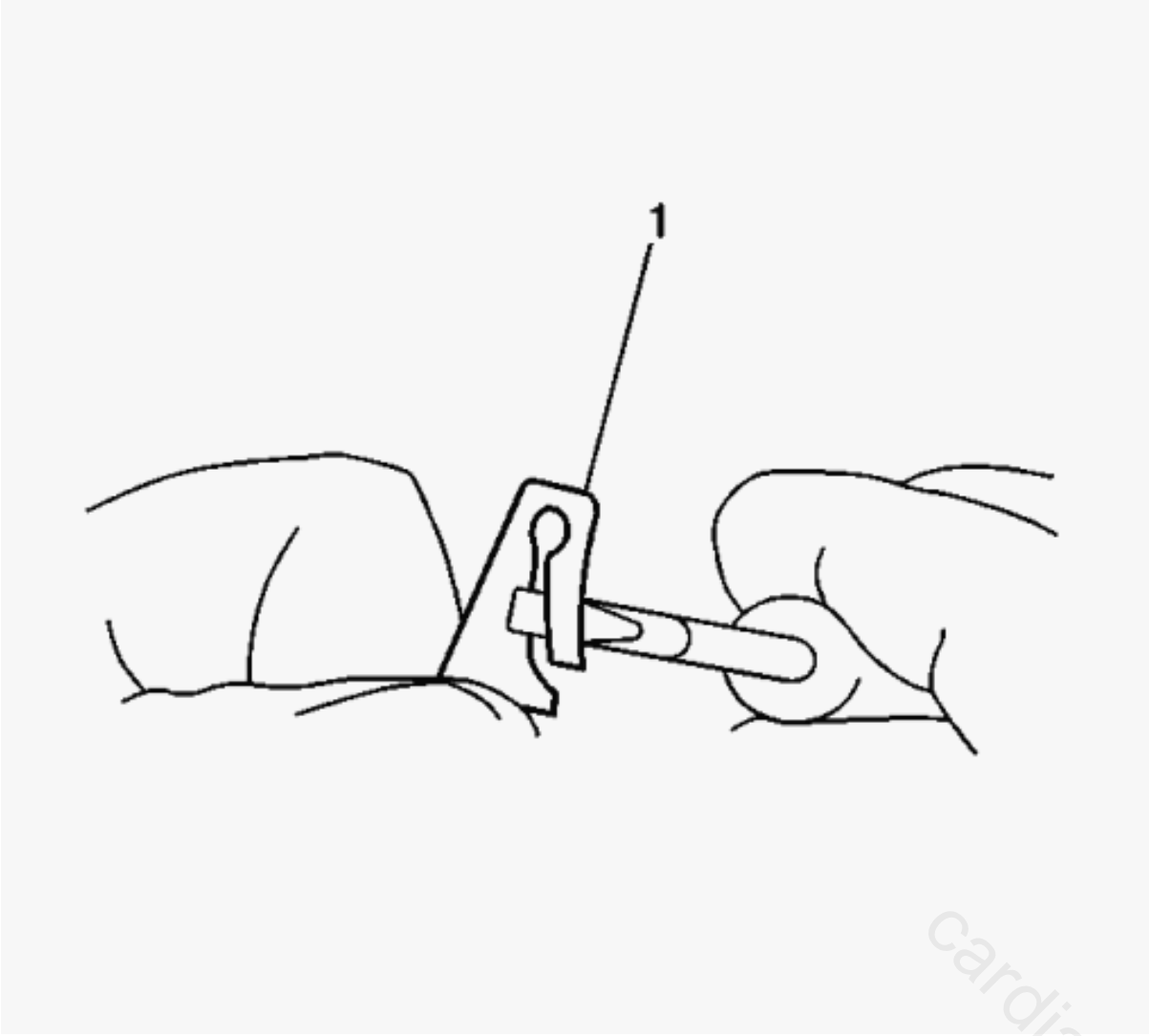



**Fig. 49: Reforming Locking Device**
**Courtesy of GENERAL MOTORS COMPANY**

5. Re-form the locking device if you are going to reuse the terminal (1).
6. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
7. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

### Terminal Insertion Procedure

1. In order to reuse a terminal or lead assembly, refer to **Wiring Repairs** .
2. Ensure that the cable seal is kept on the terminal side of the splice.
3. Insert the lead from the back until it catches.
4. Install the TPA, CPA, and/or the secondary locks.

## DELPHI CONNECTORS (PULL TO SEAT)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

If the terminal is visibly damaged or is suspected of having a faulty connection, the terminal should be replaced.

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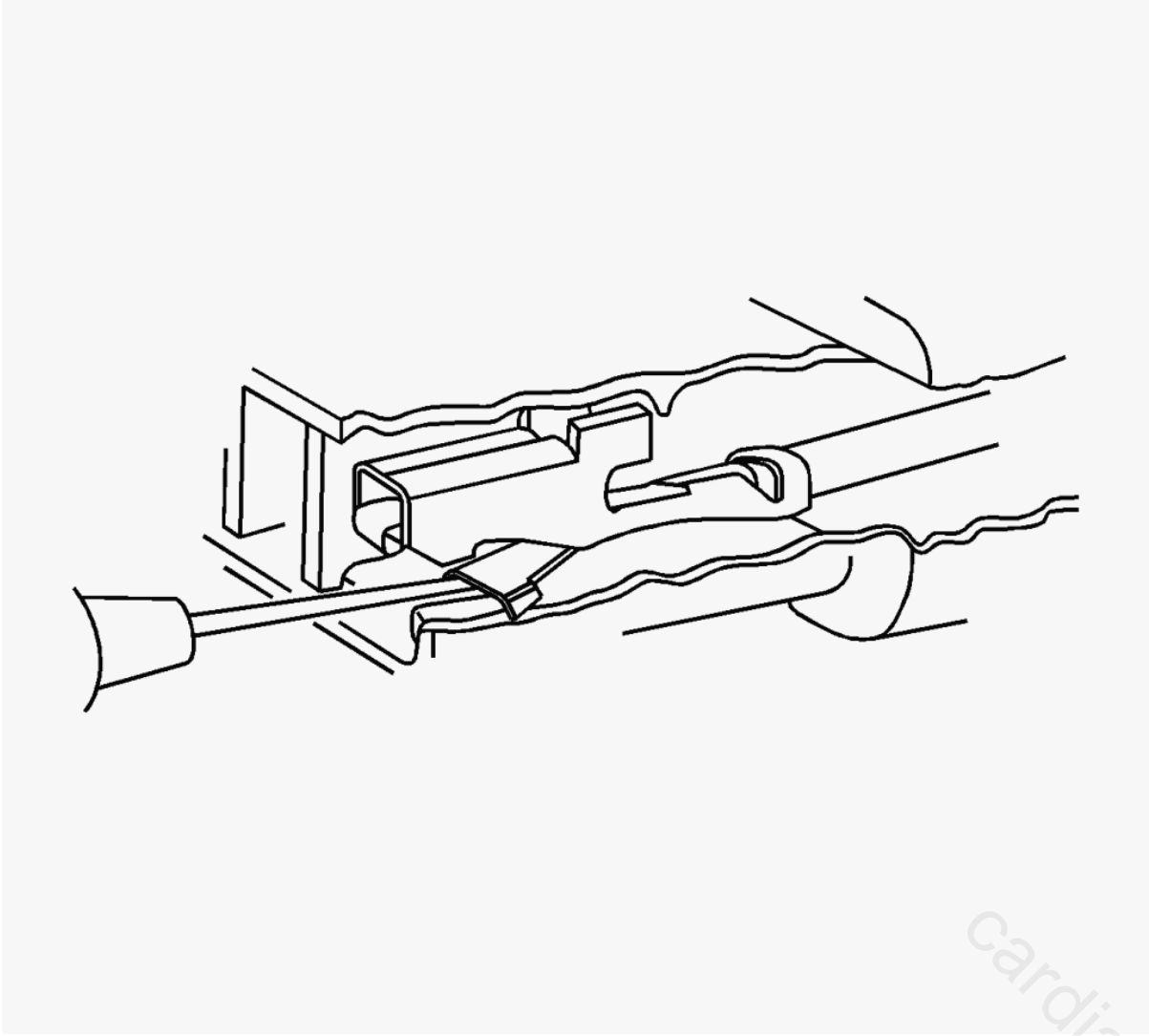


**Fig. 50: Aligning Removal Tool**
**Courtesy of GENERAL MOTORS COMPANY**

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Follow the steps below in order to repair pull-to-seat connectors:

1. Remove the connector position assurance (CPA) device and/or the secondary lock.
2. Disconnect the connector from the component or separate the connectors for in-line connectors.
3. Remove the terminal position assurance (TPA) device.
4. Review the connector end view to determine the proper test probe and release tool.
5. Insert the release tool into the front of the connector body.
6. Grasp the wire at the back of the connector body and gently push the terminal out the front of the connector body.
7. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
8. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

#### Terminal Insertion Procedure

1. Align the terminal and pull the wire from the back of the connector in order to seat the terminal.
2. If the connector is outside of the passenger compartment, apply dielectric grease to the connector.
3. Install the TPA, CPA, and/or the secondary locks.

## DELPHI CONNECTORS (MICRO-PACK 100W)

#### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit

- **J-38125-12A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

There are 2 styles of Micro-Pack 100W connectors. These connectors are very similar but use different terminals and have some minor physical differences also.

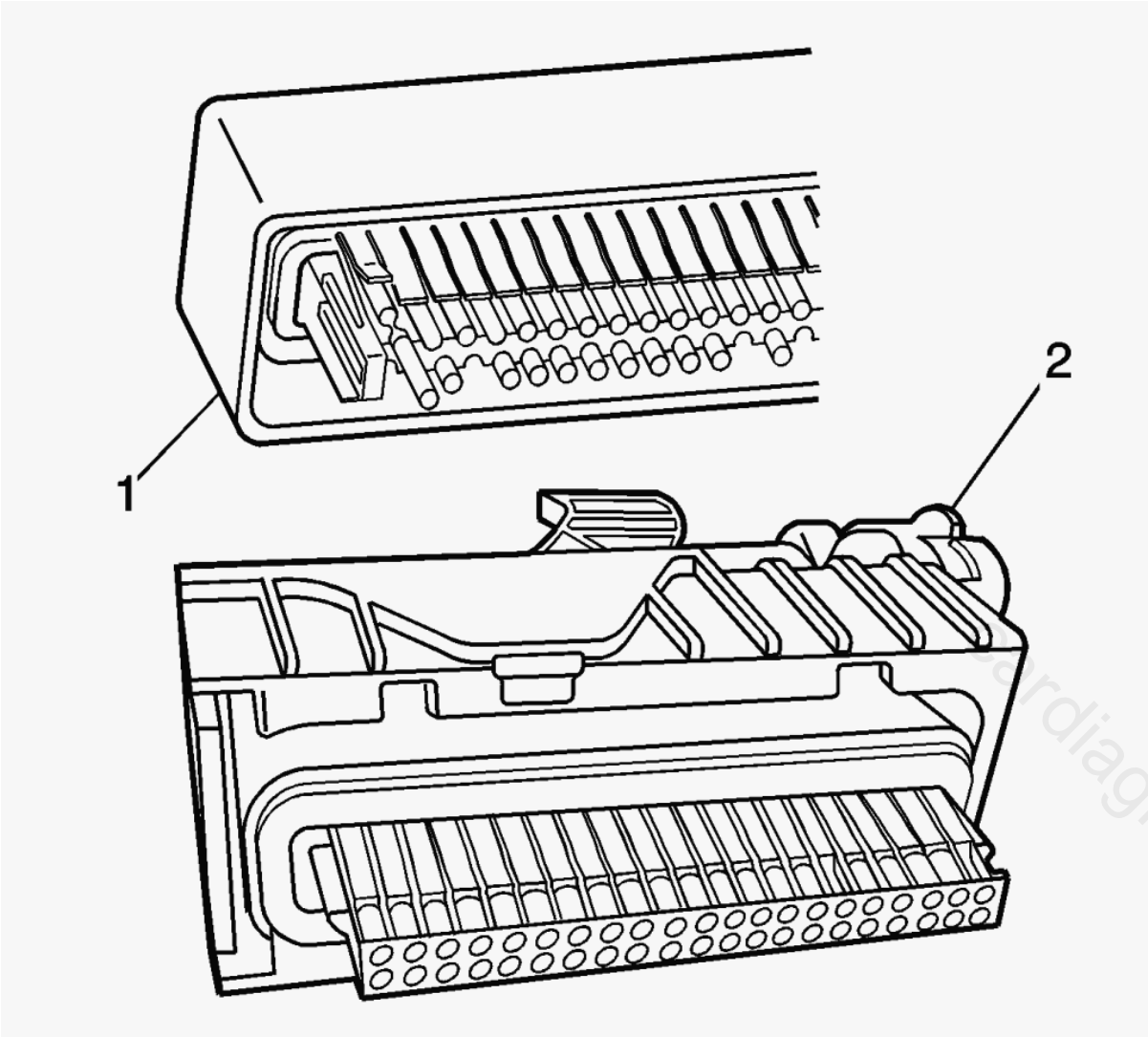



**Fig. 51: Identifying Micro-Pack 100W First & Second Connector Designs**
**Courtesy of GENERAL MOTORS COMPANY**

The first connector design of the Micro-Pack 100W (1) has a white connector interface that holds the terminals. The second design of the Micro-Pack 100W (2) has a gray interface to hold the terminals. Also, the first design has terminal cavities that are further apart (3 mm centerline) and offset from the other row of terminal cavities in the connector. The second design has terminals cavities that are closer together (2.54 mm centerline) and aligned vertically. One other way to identify the second design is the thin strip of material that runs along the outside of the cavities.

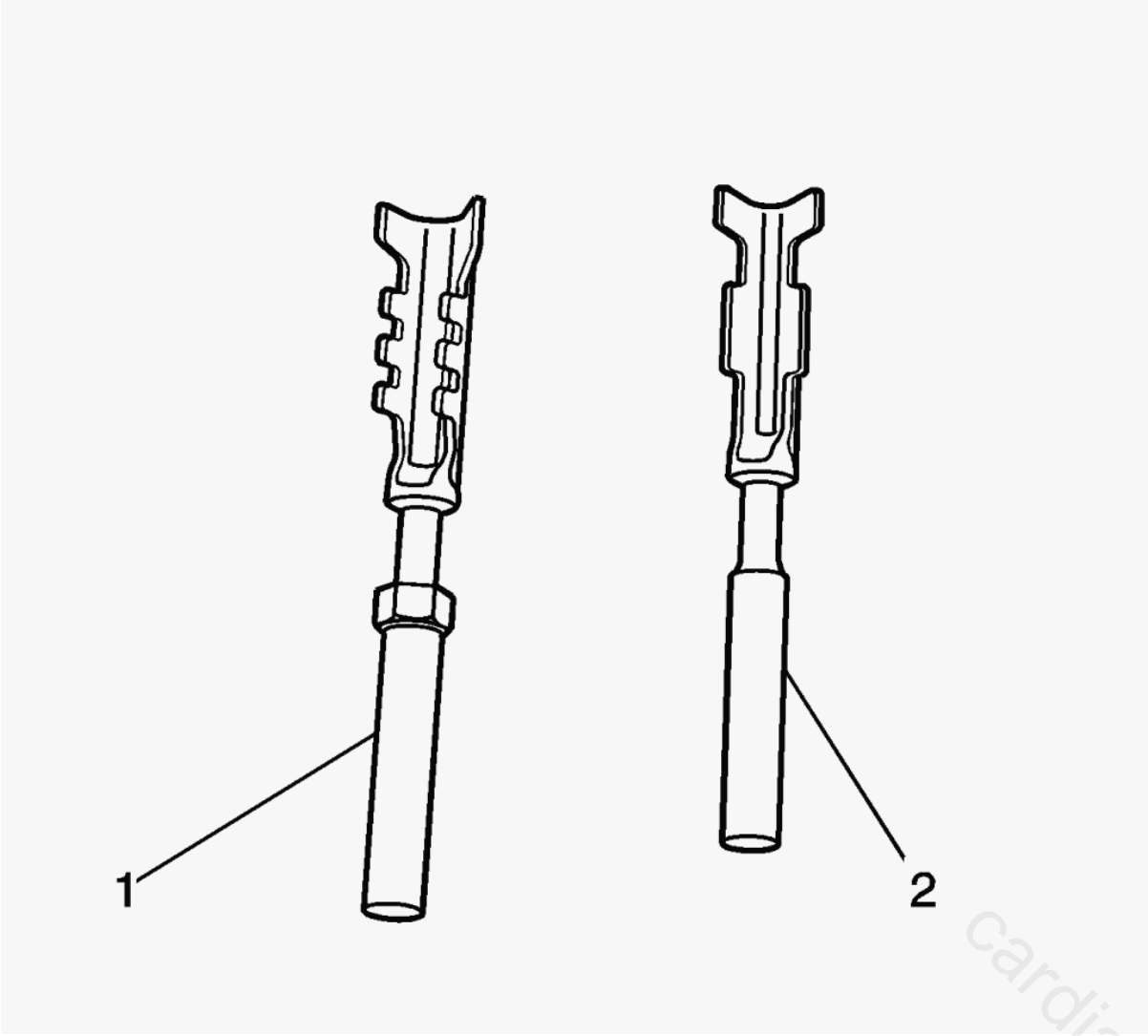



**Fig. 52: Micro-Pack 100W Short And Long Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **There are 2 styles of Micro-Pack 100W terminals which are very similar. Ensure that you have the correct terminal before crimping the new terminal to the wire. The first design connector uses the longer terminal (1) that has a raised area in front of the recess in the terminal. The second design connector uses the shorter terminal without the raised area.**

Follow the steps below in order to remove terminals from Micro-Pack 100W connectors. Some Micro-Pack 100W connector disassembly procedures will vary. Use this procedure as a guide.

1. Disconnect the connector from the component.

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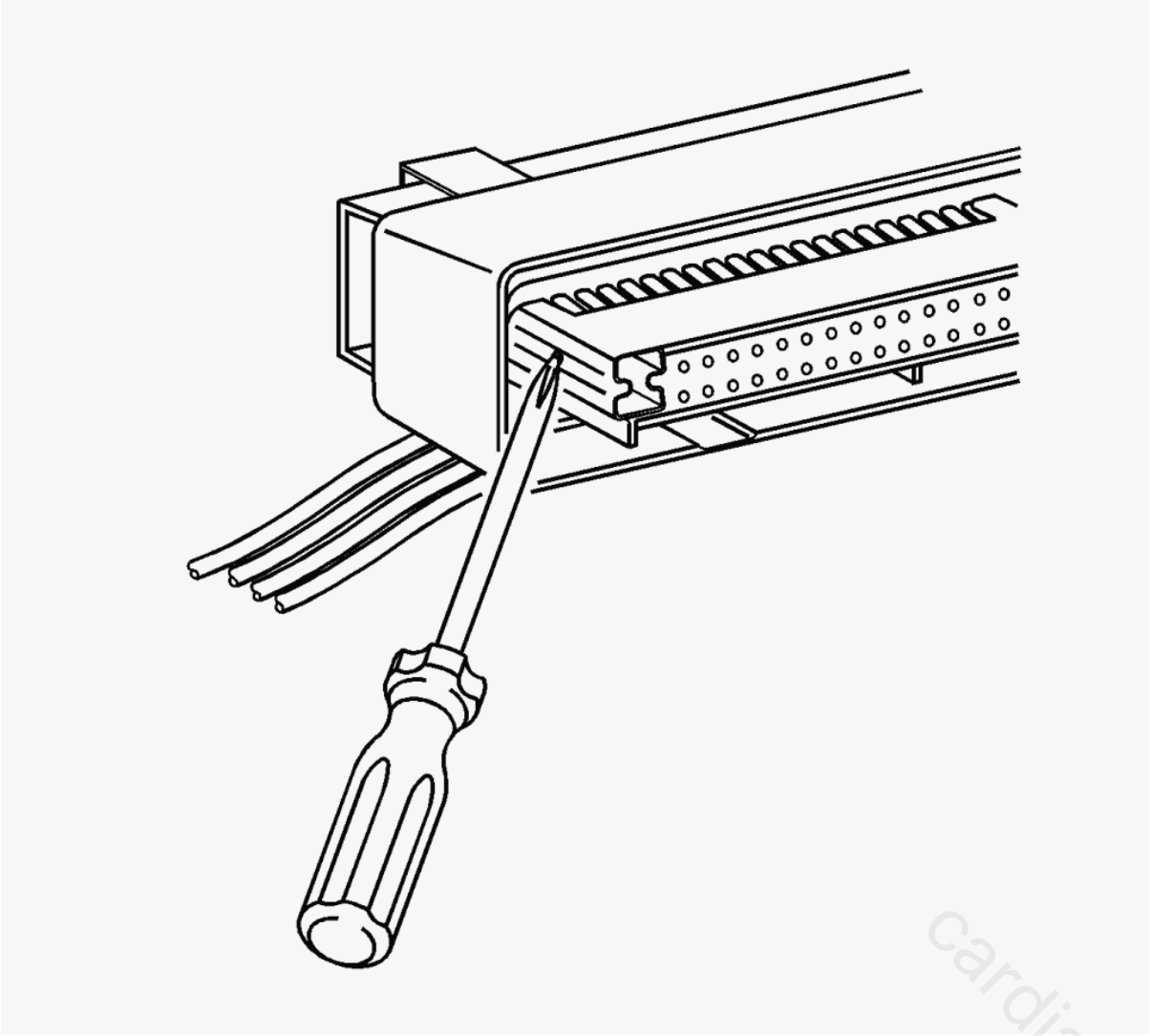


**Fig. 53: Locating Nose Piece Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

2. Locate the nose piece locking tabs that are positioned on the side of the connector nose piece. The connector nose piece acts as a terminal positive assurance (TPA) and may be referred to as such.

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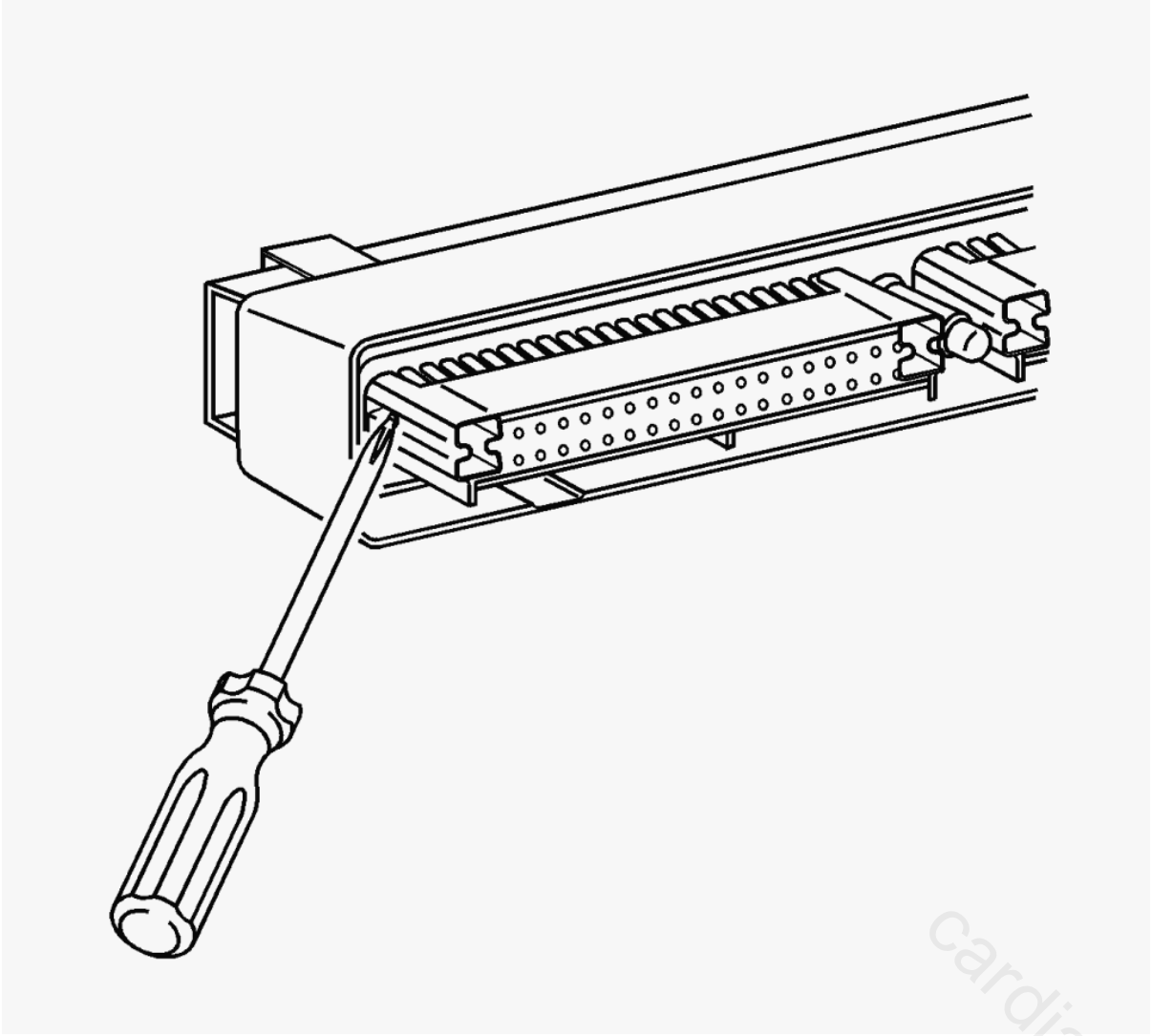


**Fig. 54: Pushing In Nose Piece Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

3. Use a small flat-blade tool to push in one of the locking tabs while gently pulling on the same side of the nose piece.
4. Repeat the procedure for the other locking tab and remove the nose piece.
5. Remove the wire dress cover. The following is a general procedure for wire dress cover removal. Use this procedure as a guide, some dress cover removal procedures may vary.

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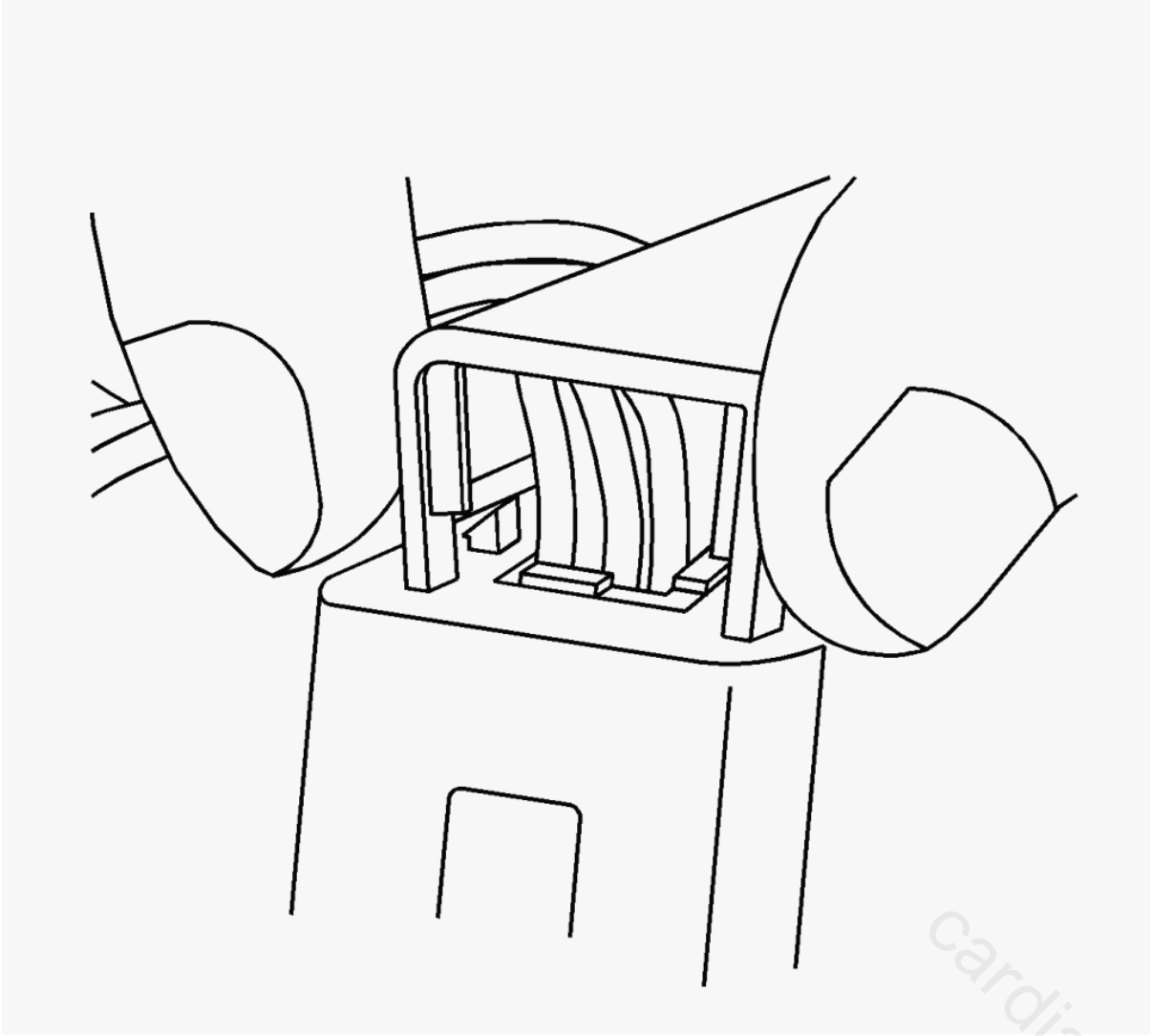


**Fig. 55: Squeezing Cover Locking Legs**
**Courtesy of GENERAL MOTORS COMPANY**

6. Use fingers to squeeze the 2 locking legs of the cover.

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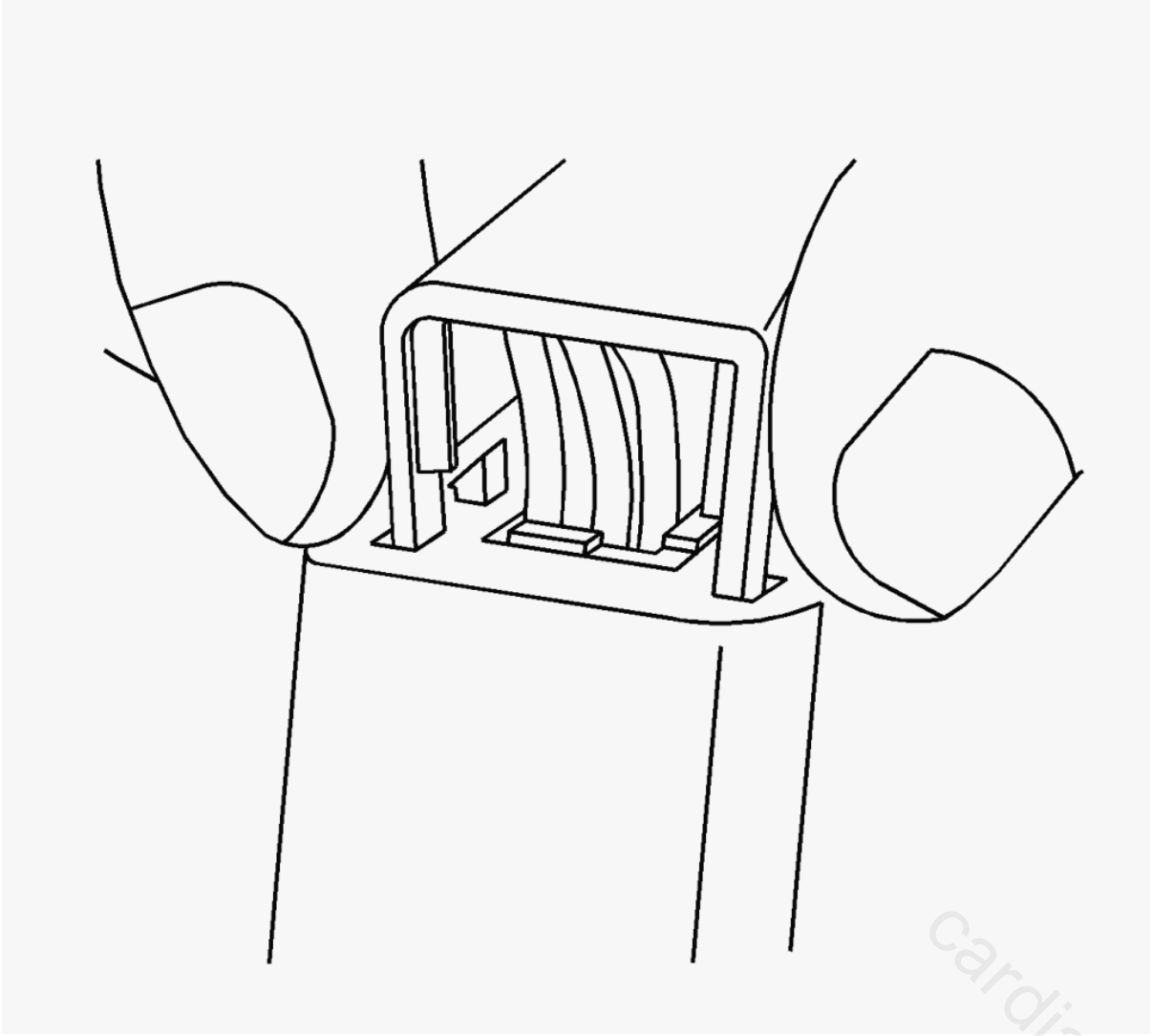


**Fig. 56: Unseating Locking Leg**
**Courtesy of GENERAL MOTORS COMPANY**

7. Apply pressure and gently rock the cover until one locking leg is unseated.

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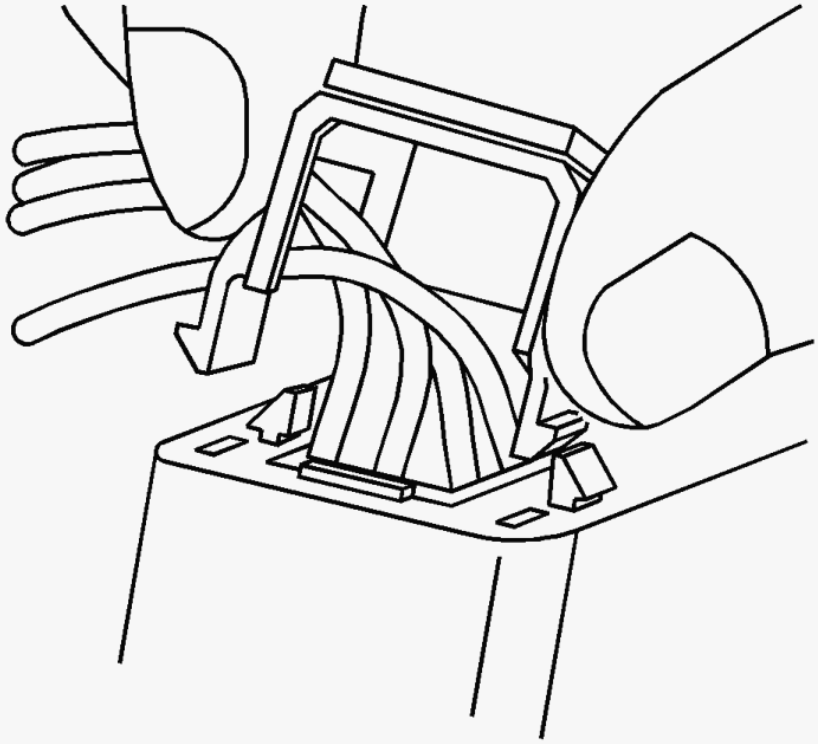


**Fig. 57: Removing Cover**
**Courtesy of GENERAL MOTORS COMPANY**

8. Continue to apply pressure and rock the cover until the second locking leg is unseated. Repeat procedure for the other side of the dress cover and remove the cover.

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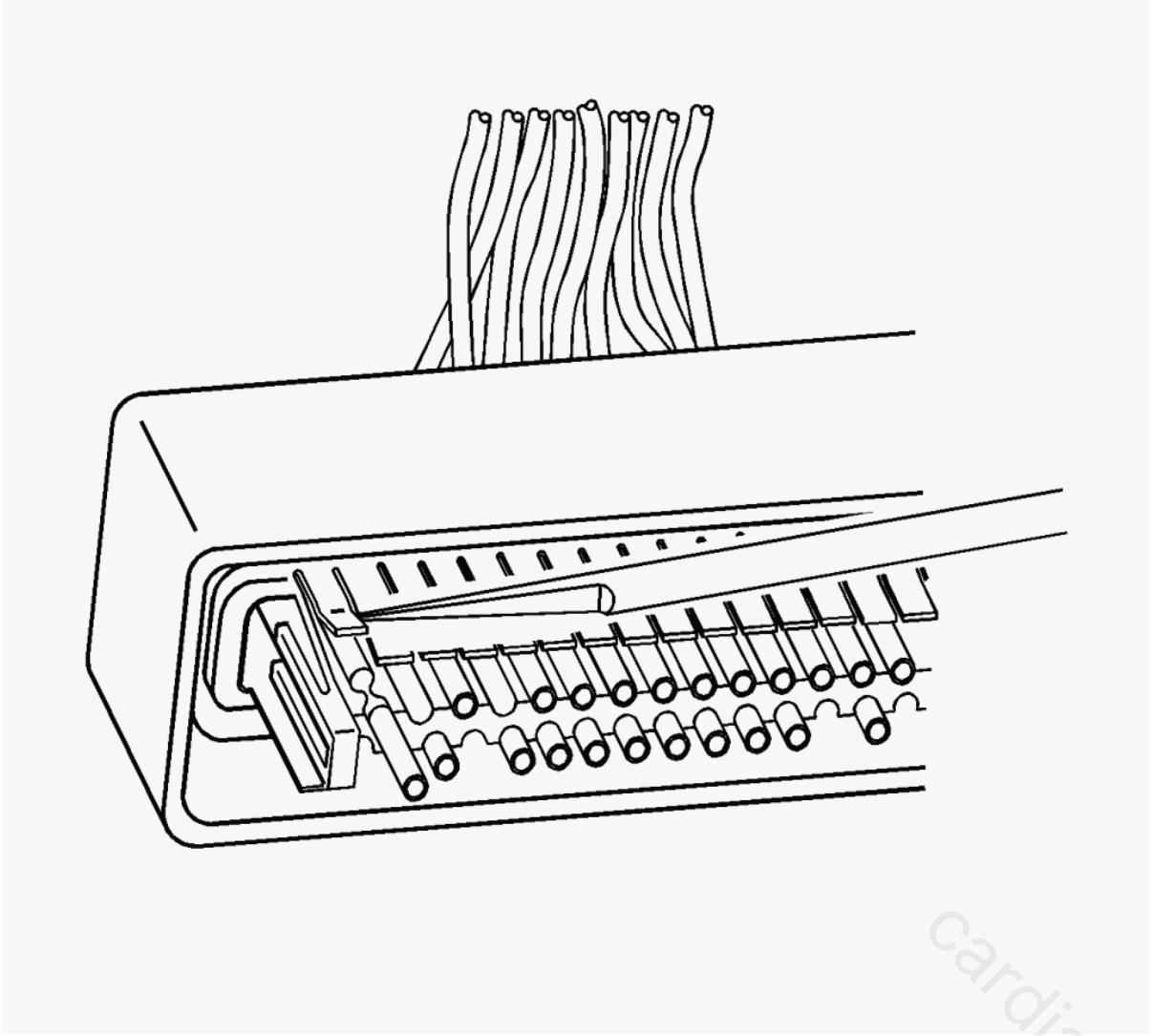


**Fig. 58: Identifying Terminal Retaining Tab**
**Courtesy of GENERAL MOTORS COMPANY**

9. Use J-38125-12A to gently lift the terminal retaining tab while gently pulling the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
10. If the terminal is severely bent or damaged, it may be possible on some connectors to push the wire out of the front of the connector instead of pulling it through. This will prevent damage to the internal seals of the connector. Once the terminal is pushed out of the connector, cut the wire as close to the terminal as possible and pull the wire through the connector.
11. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
12. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

### Terminal Insertion Procedure

After the terminal is crimped to the wire perform the following procedure in order to replace Micro-Pack 100 terminals.

1. Slide the new terminal into the correct cavity at the back of the connector.
2. Push the terminal into the connector until it locks into place. The new terminal should be even with the other terminals. Ensure that the terminal is locked in place by gently pulling on the wire.
3. To assemble the connector, reverse the Terminal Removal Procedure.

## DELPHI CONNECTORS (MICRO.64)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit

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- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-21** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to remove terminals from Micro.64 connectors.

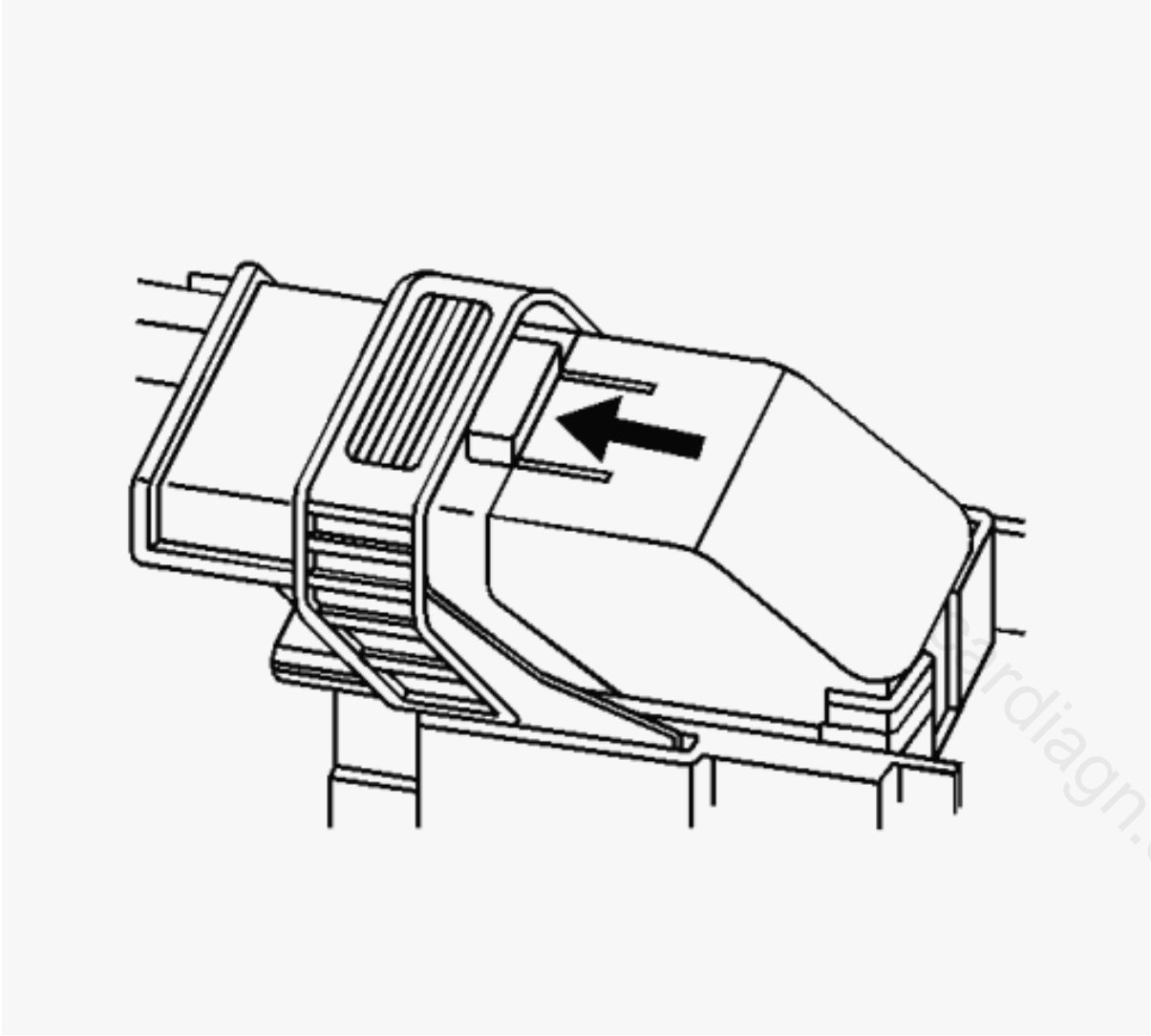


**Fig. 59: Wire Dress Cover Lever Lock**
**Courtesy of GENERAL MOTORS COMPANY**

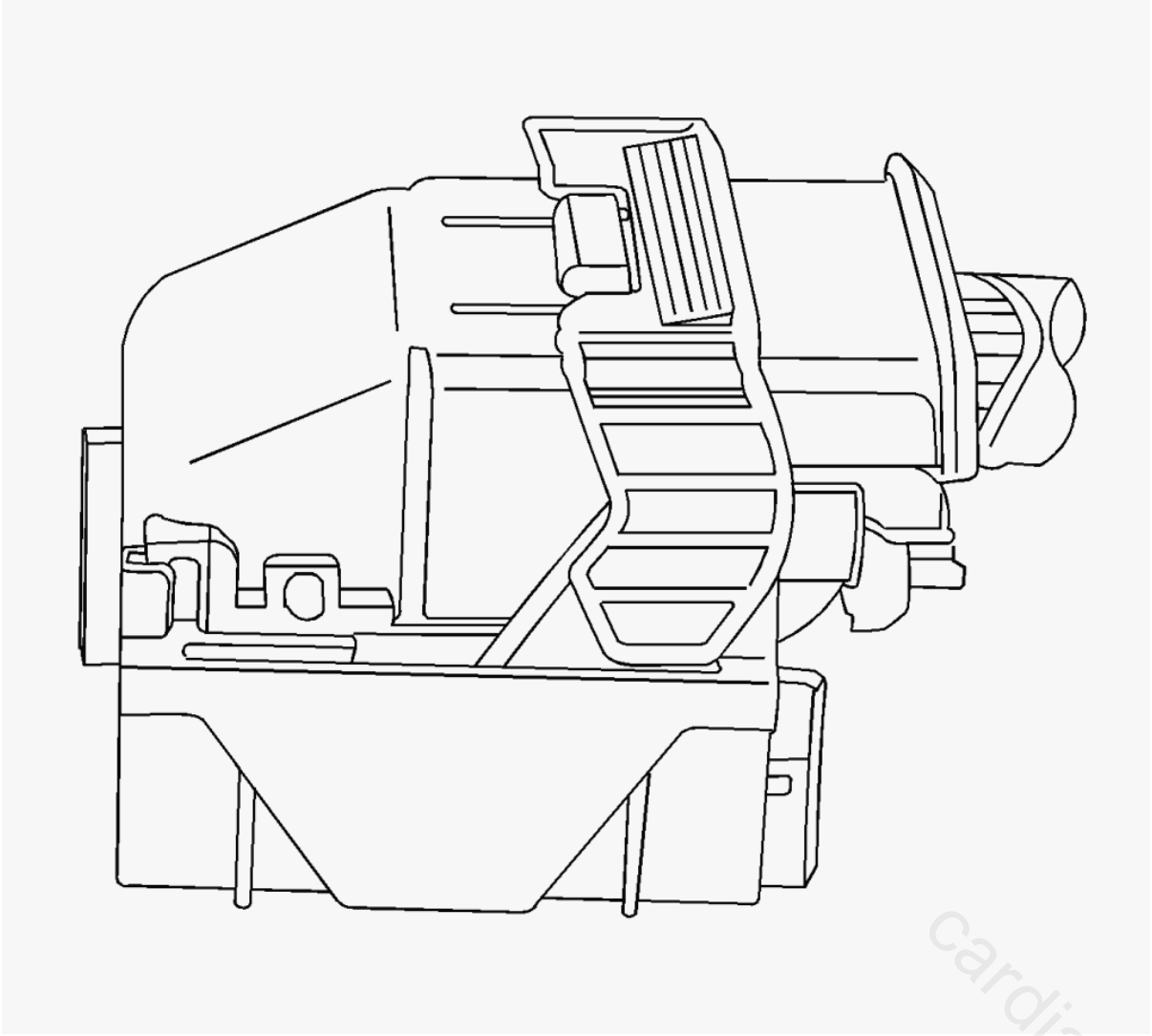


**Fig. 60: Typical Micro 64 Connector**
**Courtesy of GENERAL MOTORS COMPANY**

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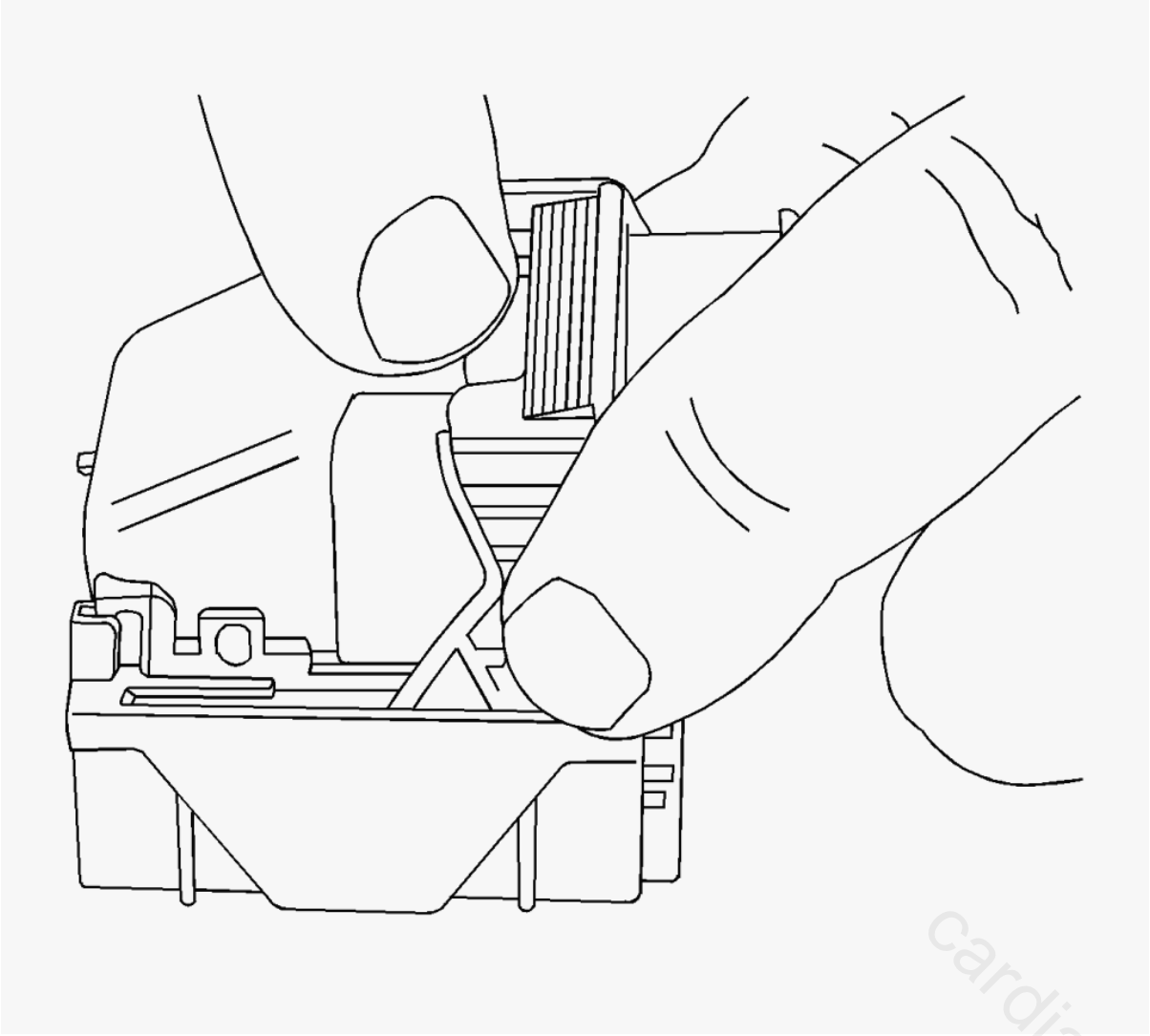
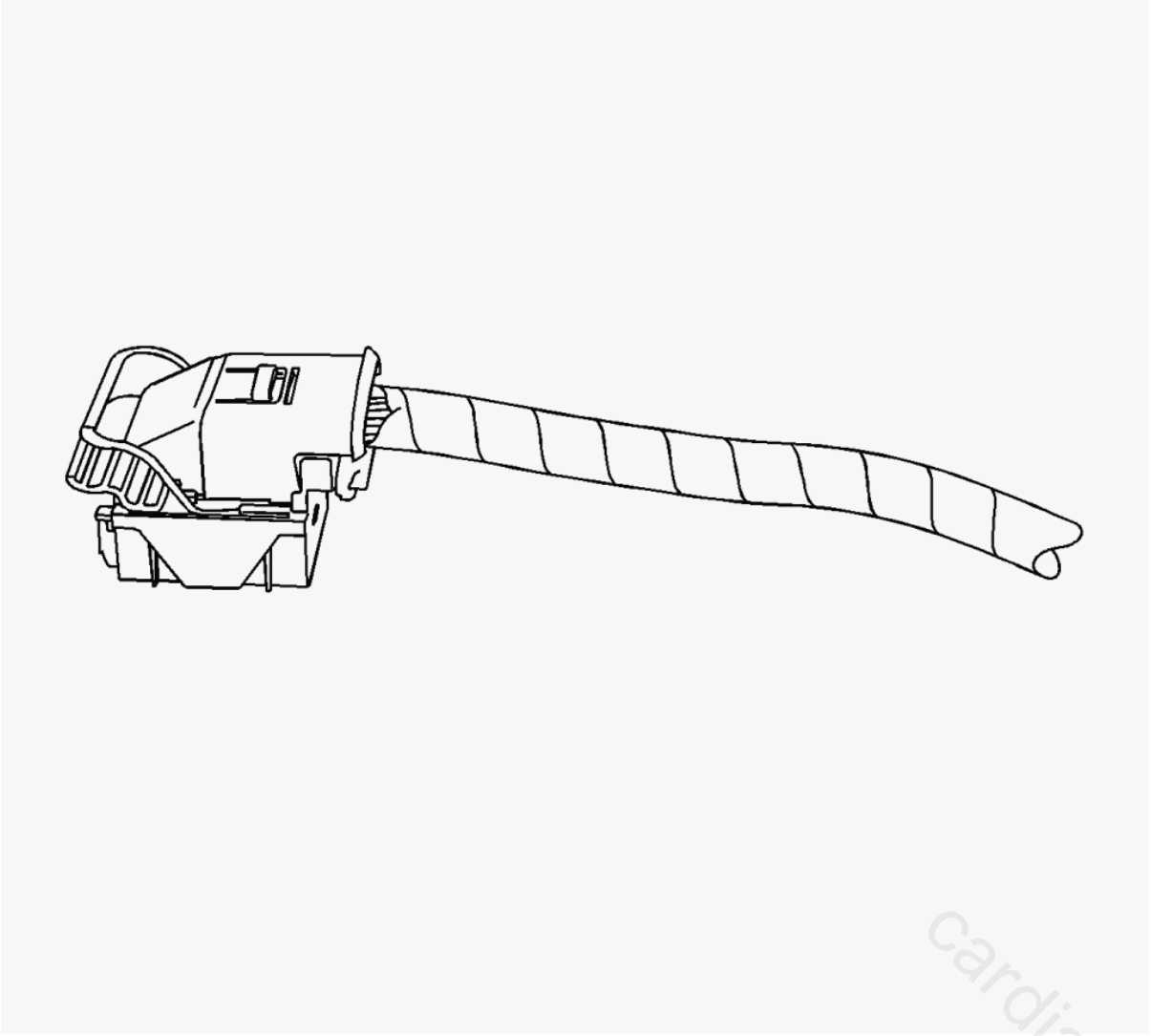


**Fig. 61: Depressing Lock And Pulling Lever**
**Courtesy of GENERAL MOTORS COMPANY**

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**Fig. 62: Connector Released From Component**
**Courtesy of GENERAL MOTORS COMPANY**

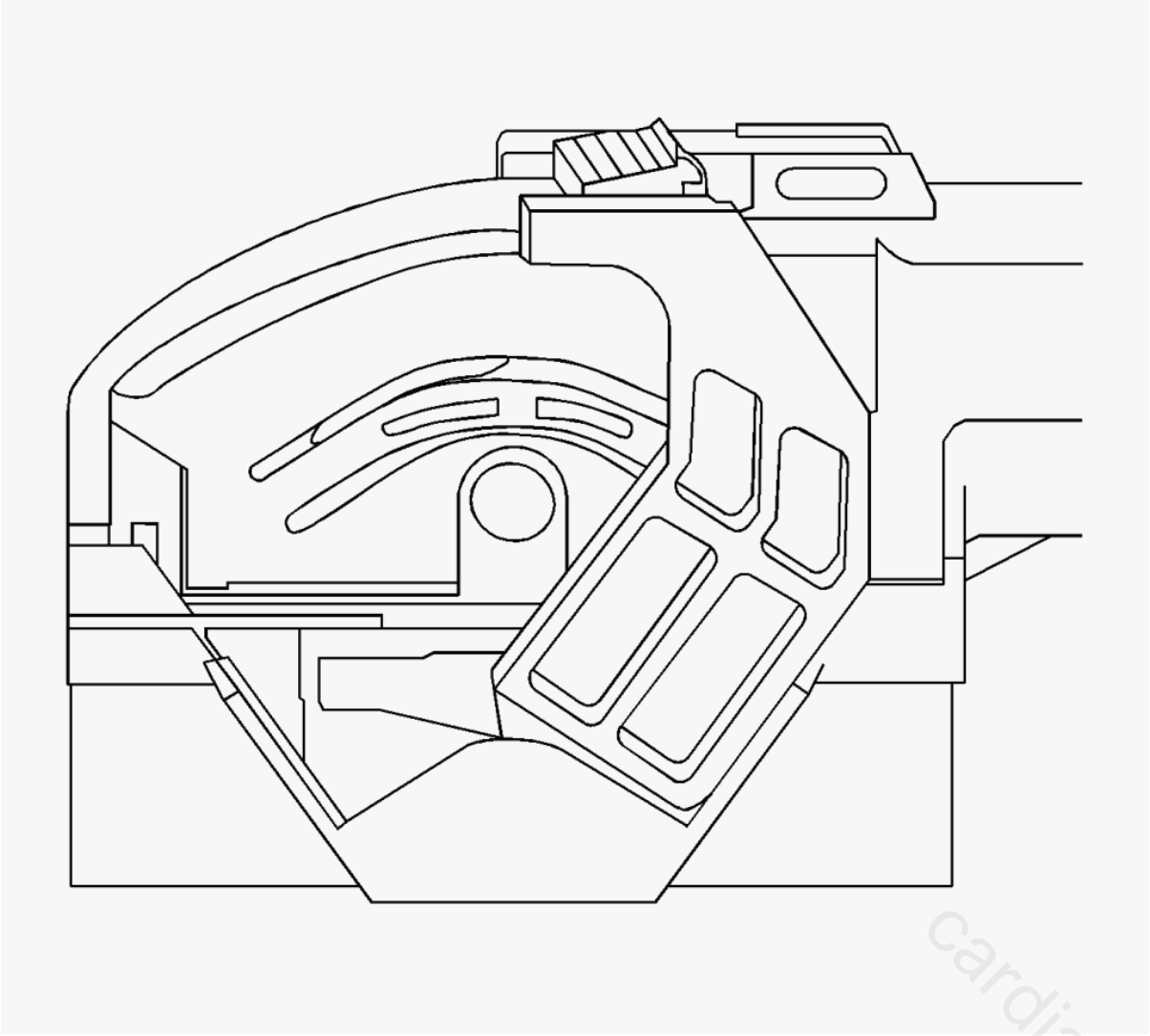


**Fig. 63: Another Type Of Micro 64 Connector**
**Courtesy of GENERAL MOTORS COMPANY**

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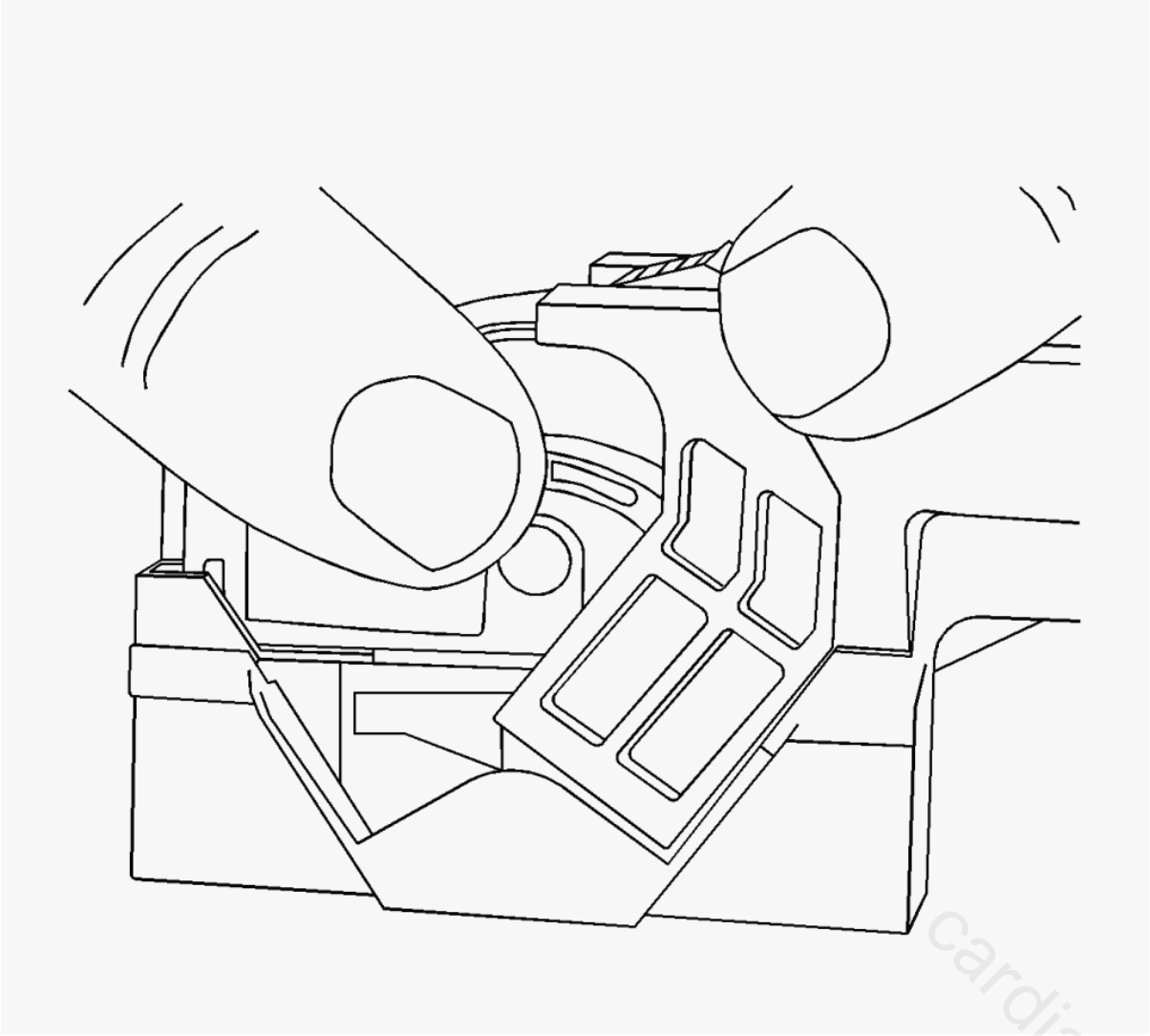


**Fig. 64: Locating Locks On Both Sides Of Wiredress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

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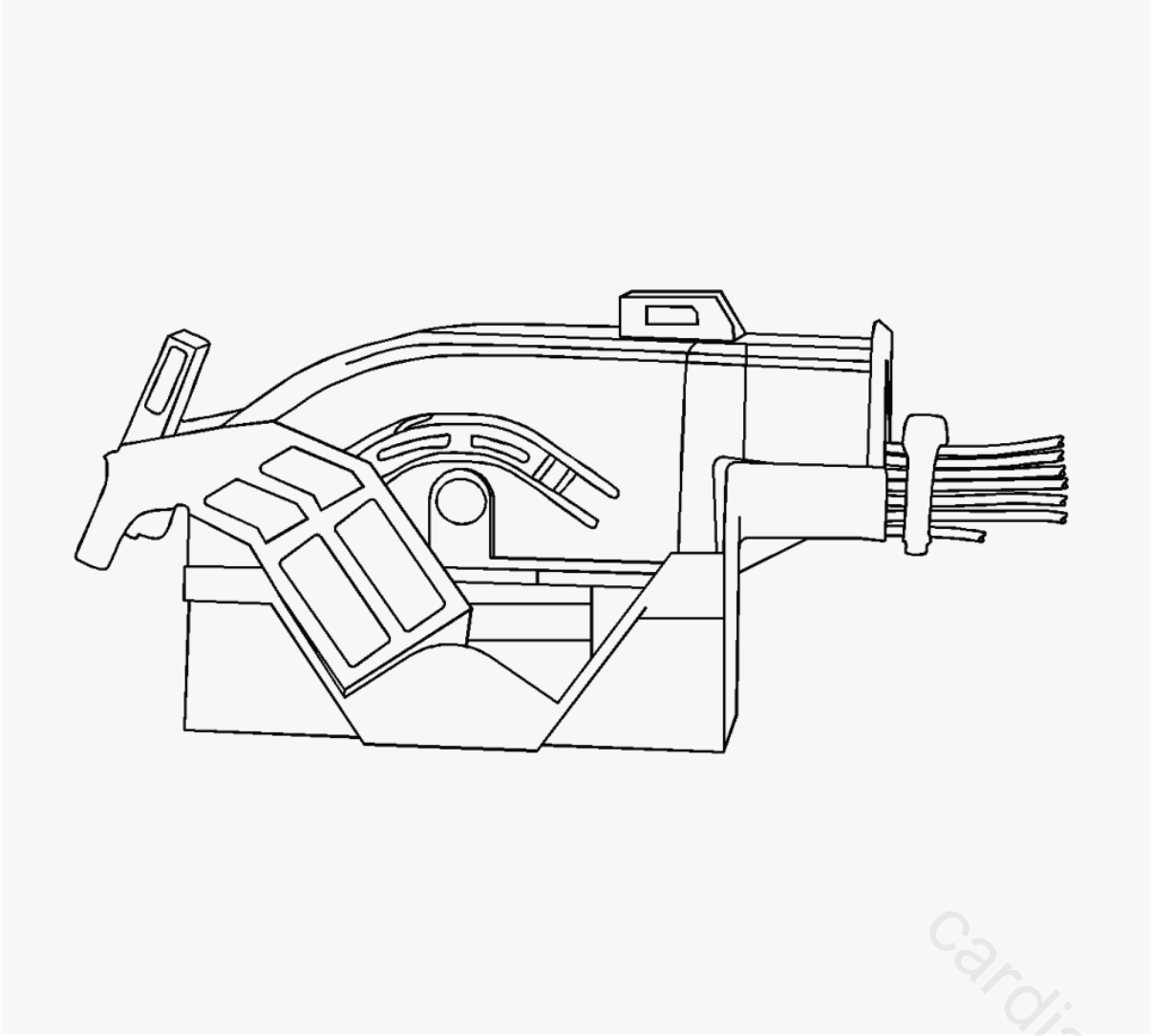


**Fig. 65: Connector Released From Component**
**Courtesy of GENERAL MOTORS COMPANY**

1. Locate the lever lock on the wire dress cover. While depressing the lock, pull the lever over and past the lock. The lever lock may be located on the top or sides of the wire dress cover.

   View of a typical Micro 64 connector.

   Depress the lock and pull the lever over and past the lock.

   View of the connector when released from the component.

   View of another type of Micro 64 connector.

   Depress the locks that are located on both sides of the wire dress cover and pull the lever over and past the locks.

   View of the connector when released from the component.

2. Disconnect the connector from the component.

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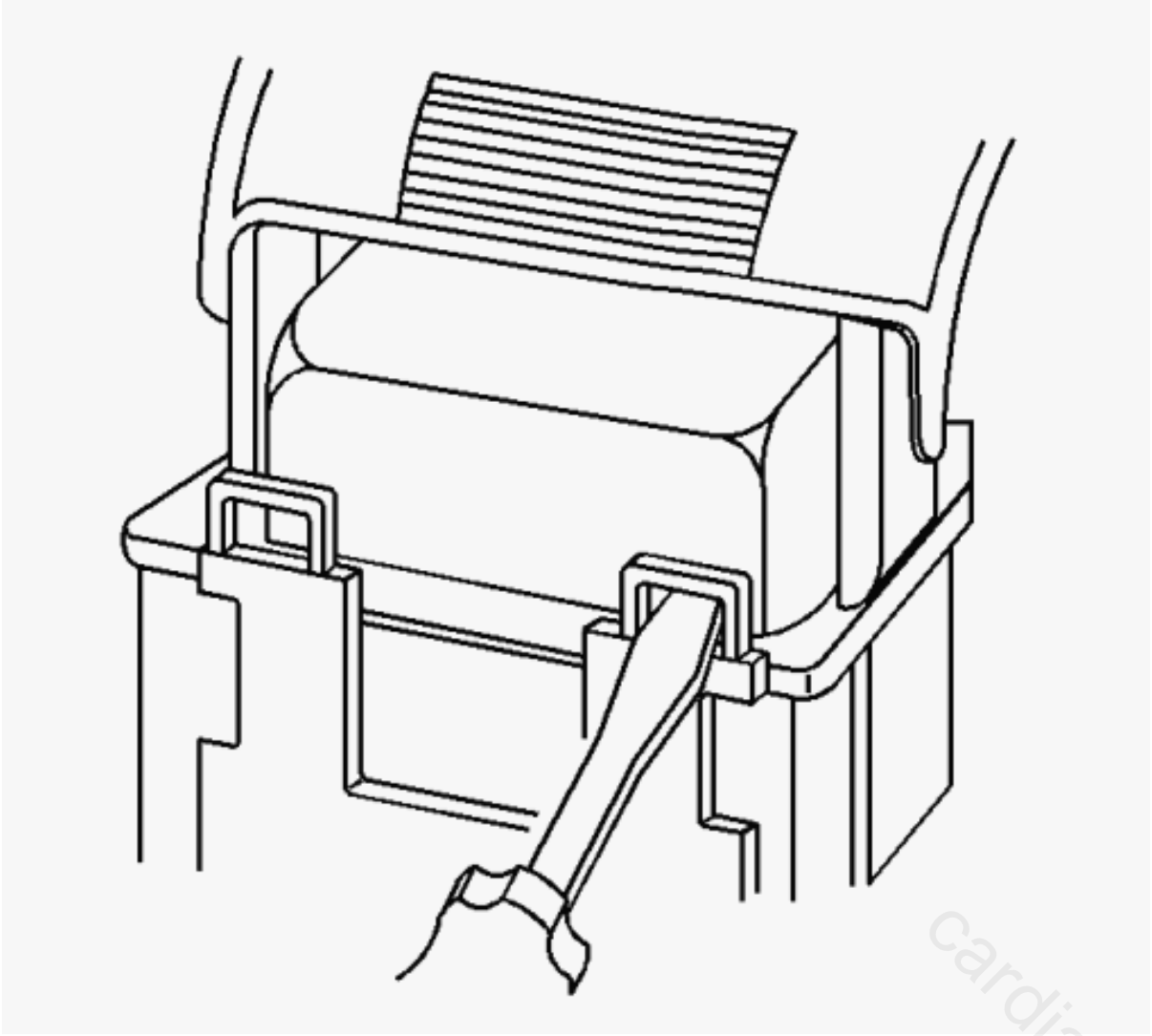


**Fig. 66: Releasing Dress Cover Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

3. Locate the dress cover locking tabs at the front of the connector. Using a small flat-blade tool push down on one of the locking tabs and pull the cover up until the dress cover releases. Repeat this procedure for the other locking tab.
4. Once the front 2 locks are unlocked, lift the front of the dress cover and pull it forward.

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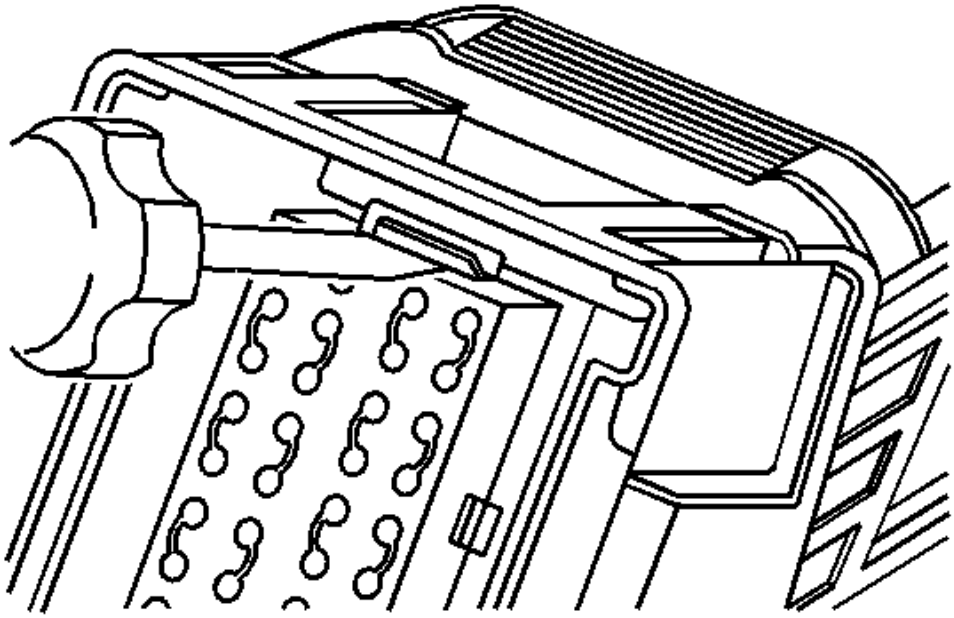


**Fig. 67: Removing Terminal Position Assurance**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Always use care when removing a terminal position assurance (TPA) in order to avoid damaging it.**

5. Remove the TPA by inserting a small flat-blade tool into the small slot on the TPA and pushing down until the TPA releases. Gently pry the TPA out of the connector.

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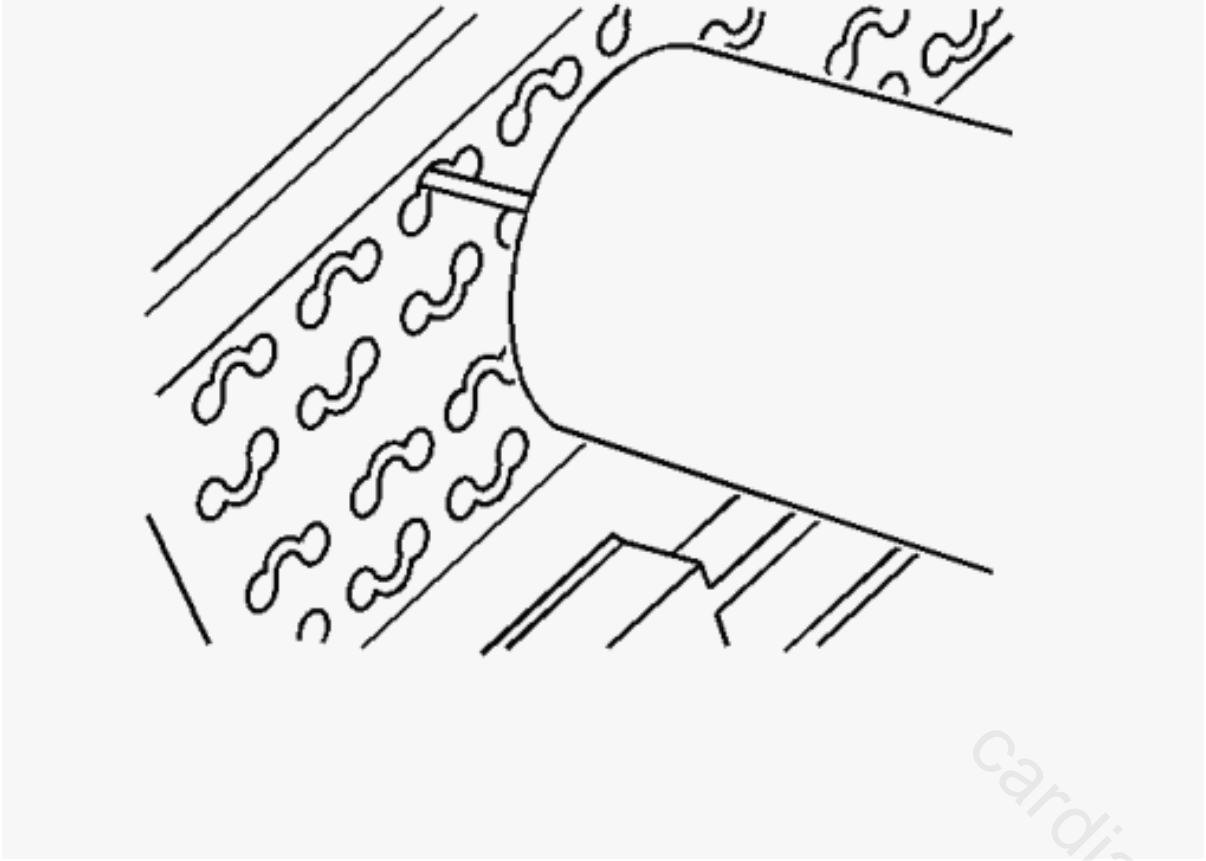


**Fig. 68: Identifying Terminal Release Tool**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Be careful not to angle or rock the J-38125-21 tool when inserting it into the connector or the tool may break.**

6. Insert the J-38125-21 tool into the round canal between the terminals cavities at the front of the connector.

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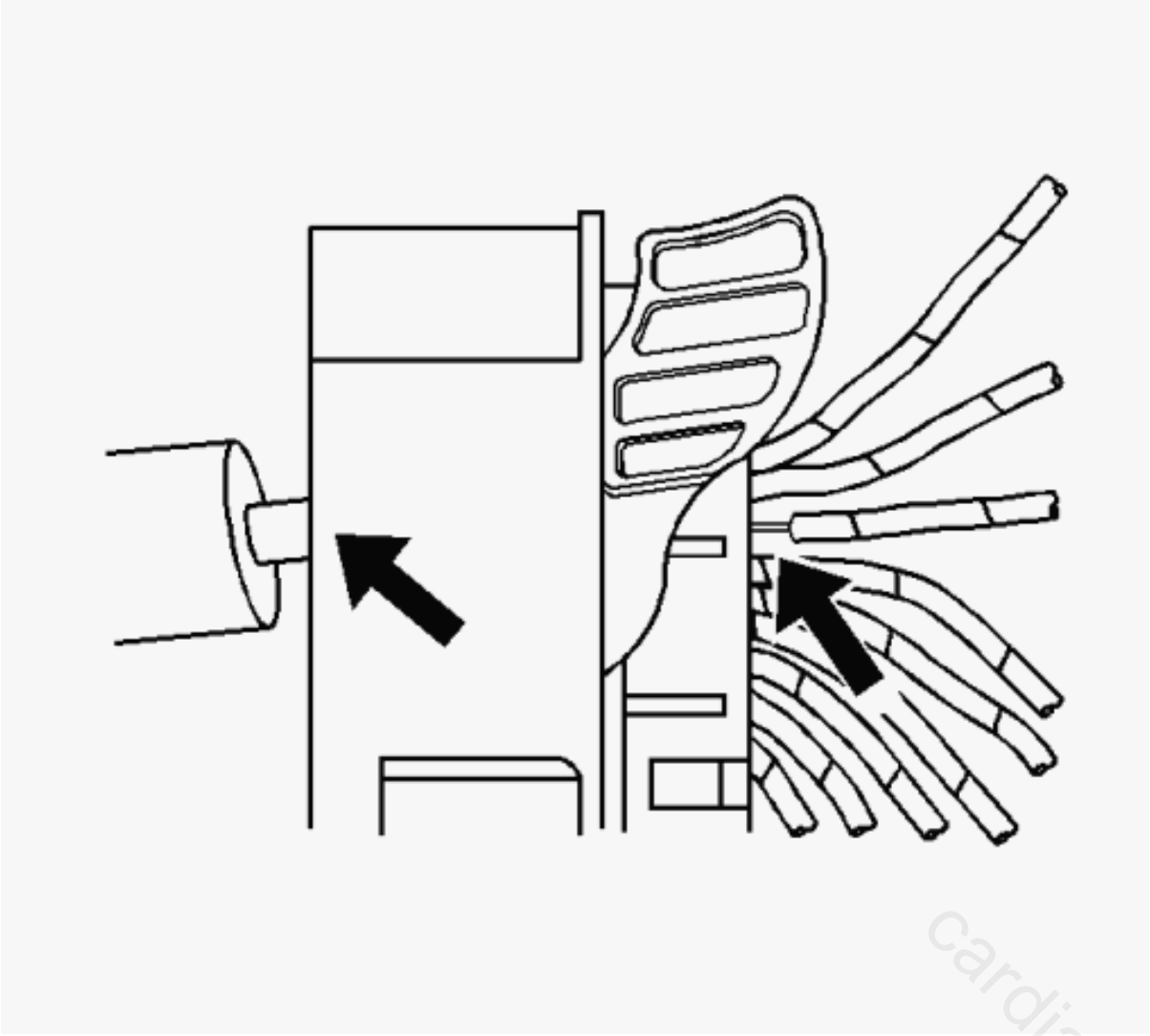


Fig. 69: Removing Wire From Back Of Connector
**Courtesy of GENERAL MOTORS COMPANY**

7. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
8. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
9. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## DELPHI CONNECTORS (12-WAY)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to remove terminals from the connector.

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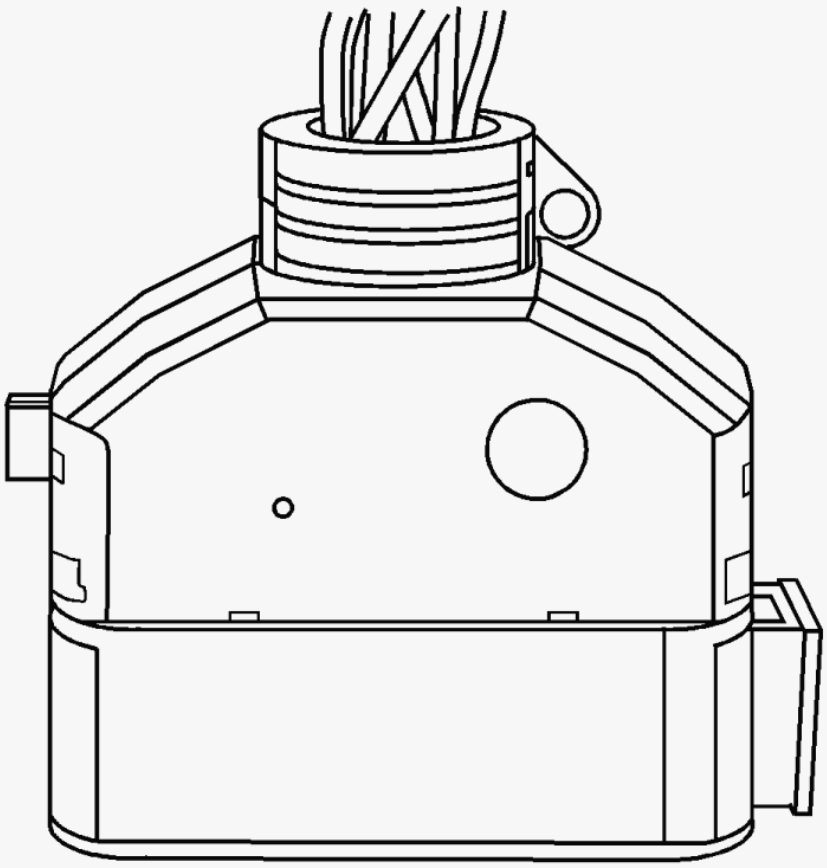


**Fig. 70: Lever Lock**
**Courtesy of GENERAL MOTORS COMPANY**

1. Locate the lever lock on the wire dress cover. Remove the connector position assurance (CPA) and slide the lever lock away from the connector body.
2. Disconnect the connector from the component.

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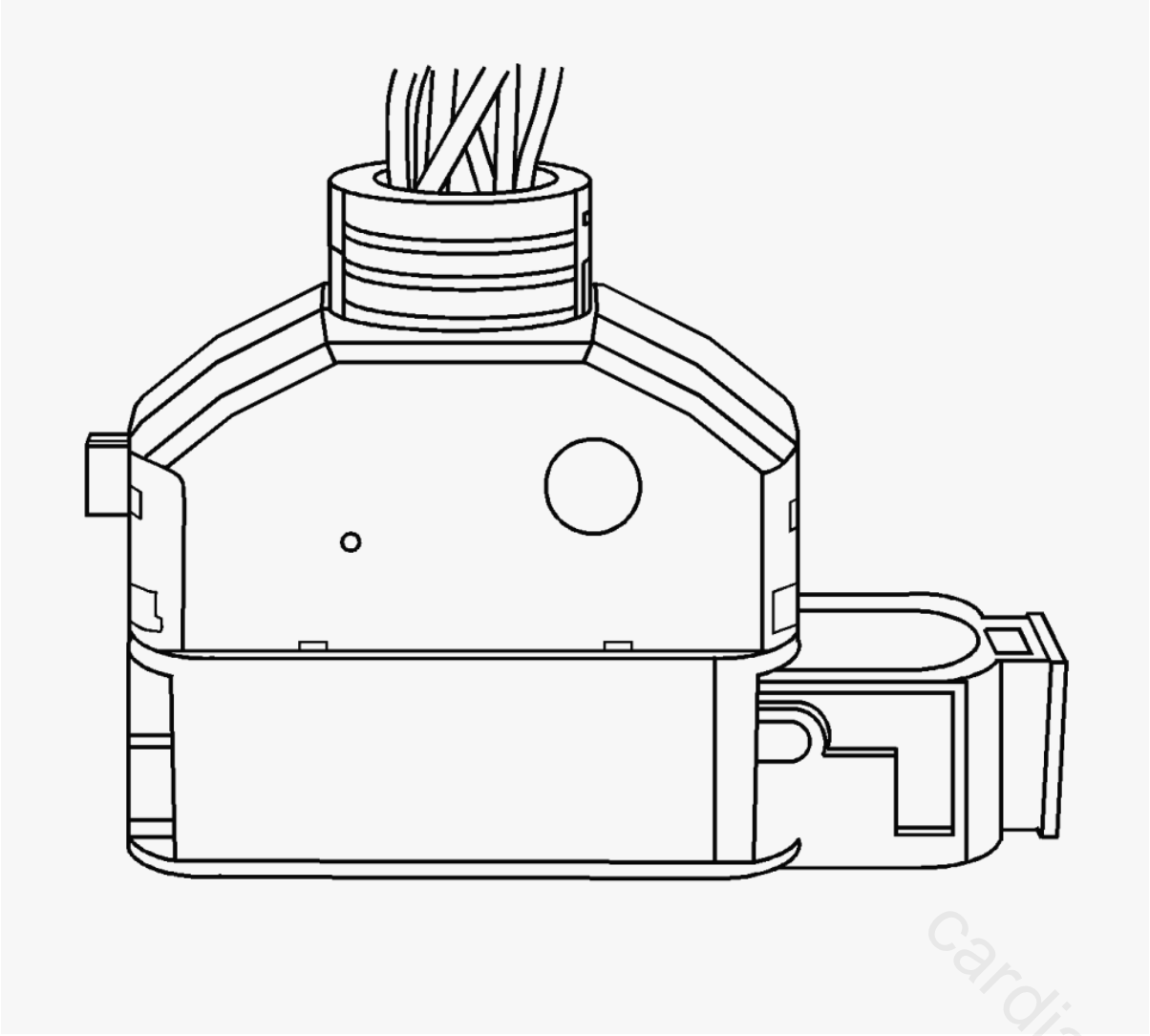


**Fig. 71: Lever Lock Slid Away From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

3. Locate the dress cover locking tabs on the dress cover of the connector. Using a small flat-blade tool release all of the locking tabs.

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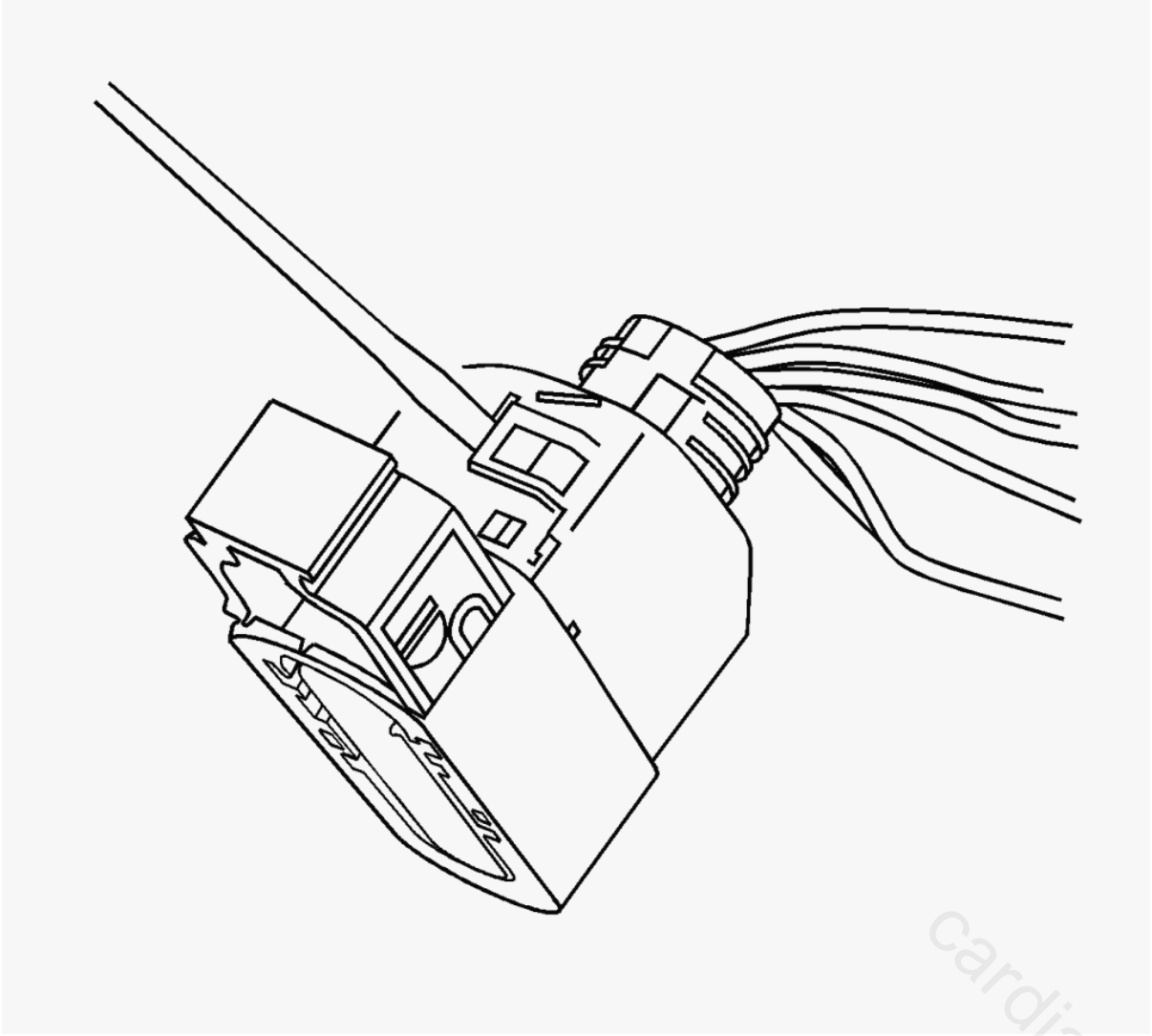


**Fig. 72: Releasing Lower Wire Dress Cover Locking Tab**
**Courtesy of GENERAL MOTORS COMPANY**

4. Release the lower wire dress cover locking tab.

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**Fig. 73: Releasing Upper Wiredress Cover Locking Tab**
**Courtesy of GENERAL MOTORS COMPANY**

5. Release the upper wire dress cover locking tab.
6. Once the locks are unlocked, lift the dress cover off.

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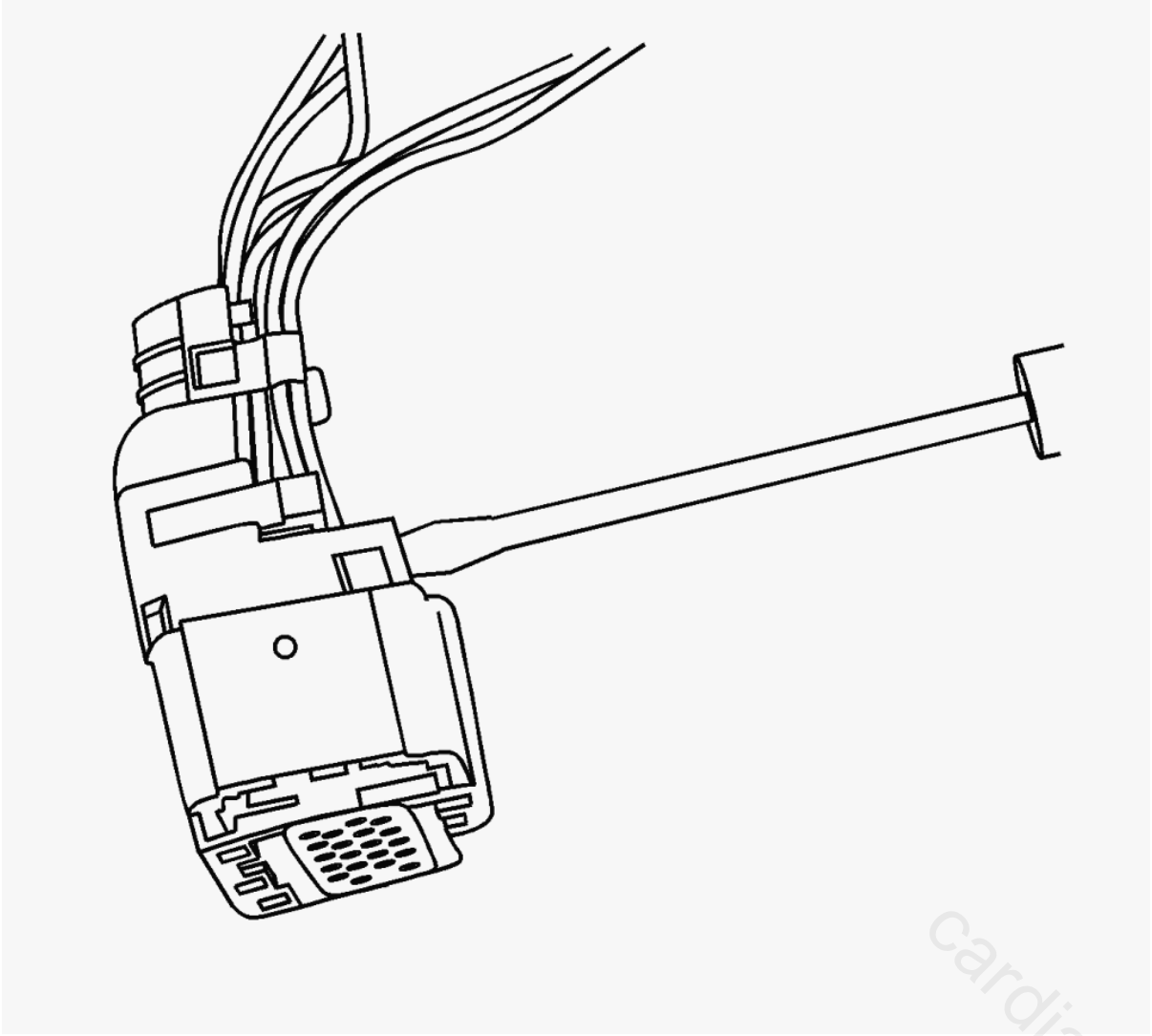


**Fig. 74: Gently Prying TPA Out Of Connector**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Always use care when removing a terminal position assurance (TPA) in order to avoid damaging it.**

7. Remove the TPA by inserting a small flat-blade tool into the locking tabs on both sides of the TPA. Gently pry the TPA out of the connector.

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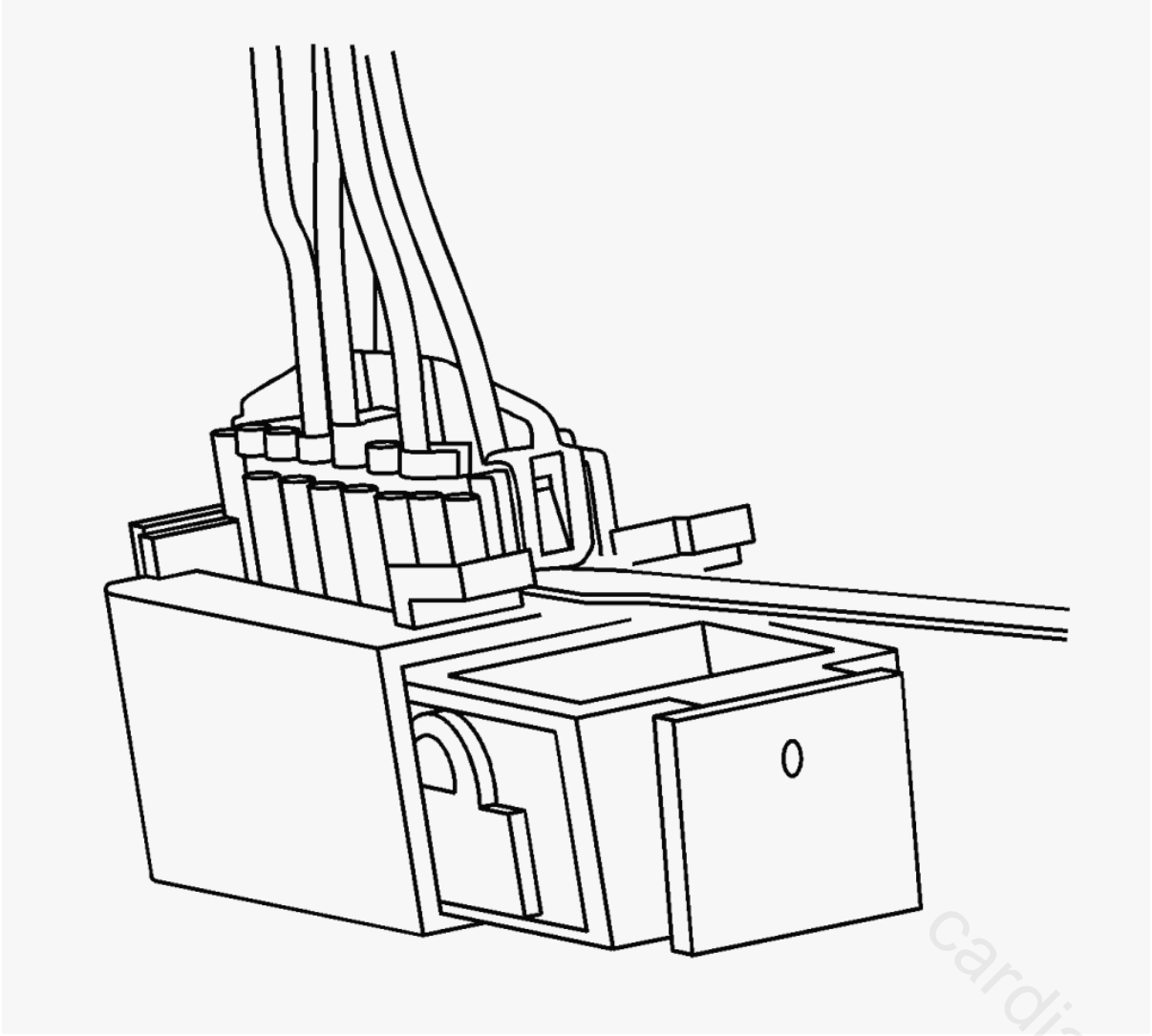


**Fig. 75: Removing Nose Piece**
**Courtesy of GENERAL MOTORS COMPANY**

8. Remove the nose piece by inserting a small flat-blade tool into the locking tabs on both sides of the nose piece. Gently pry the nose piece out of the connector.

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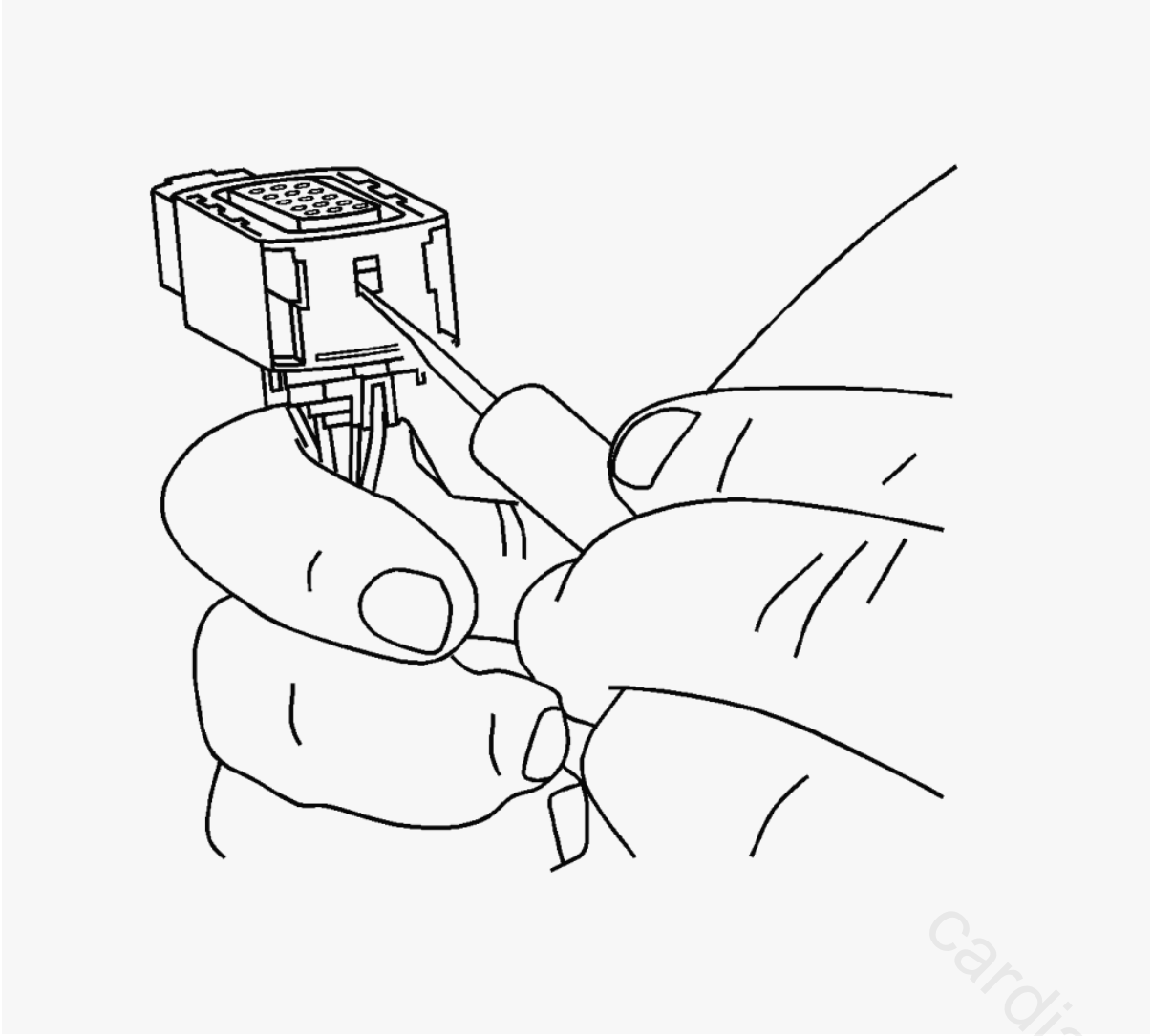


**Fig. 76: Inserting Special Tool Into Terminal Release Cavity**
**Courtesy of GENERAL MOTORS COMPANY**

9. Insert the J-38125-12A tool to release the terminals by inserting the tool into the terminal release cavity.

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**Fig. 77: Holding Removal Tool In Place**
**Courtesy of GENERAL MOTORS COMPANY**

10. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
11. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
12. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## DELPHI CONNECTORS (STEERING GEAR)

### Removal Procedure

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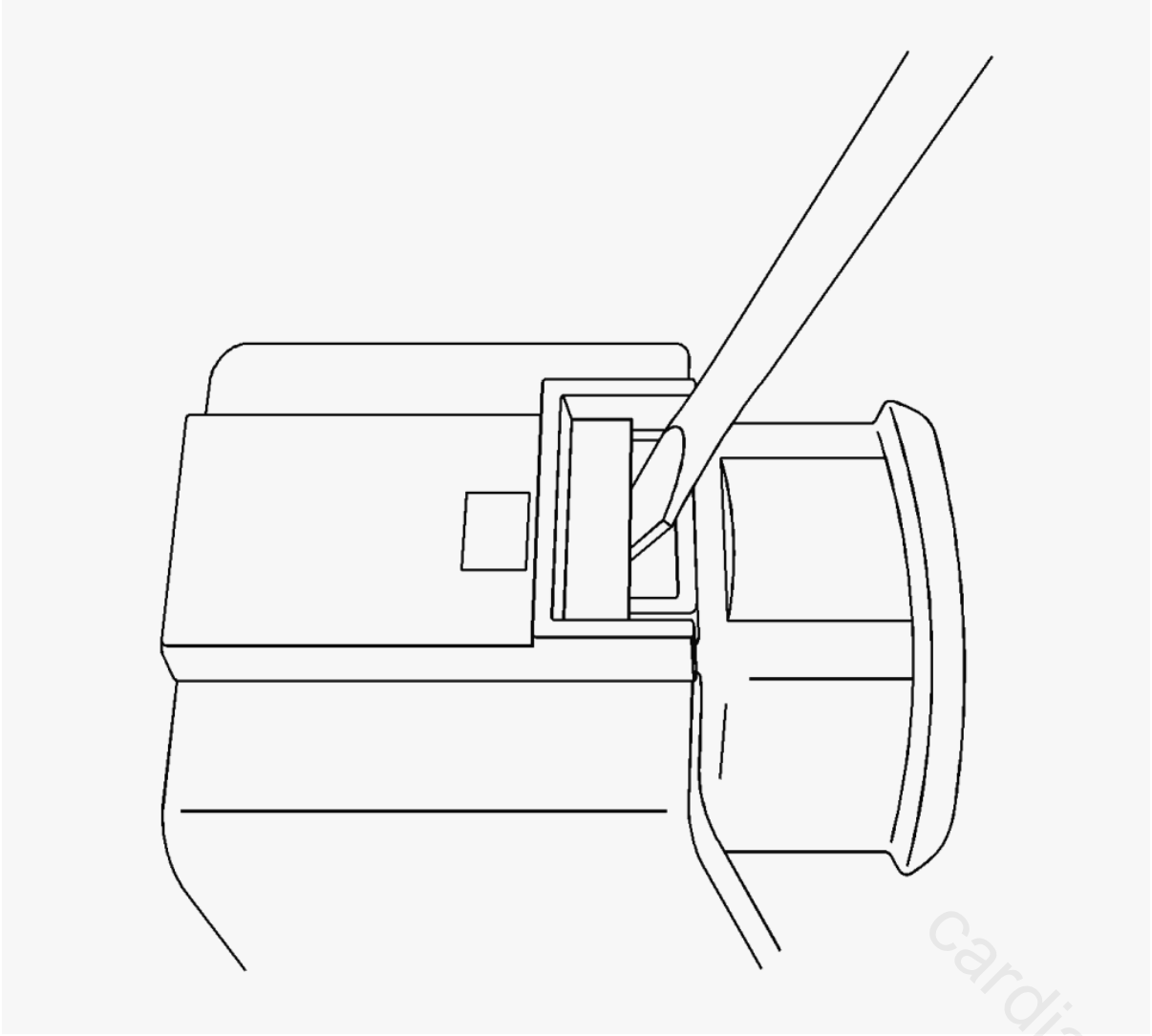


**Fig. 78: Releasing Locking Tab On Connector**
**Courtesy of GENERAL MOTORS COMPANY**

1. Use a small flat-bladed tool to release the locking tab on the connector.

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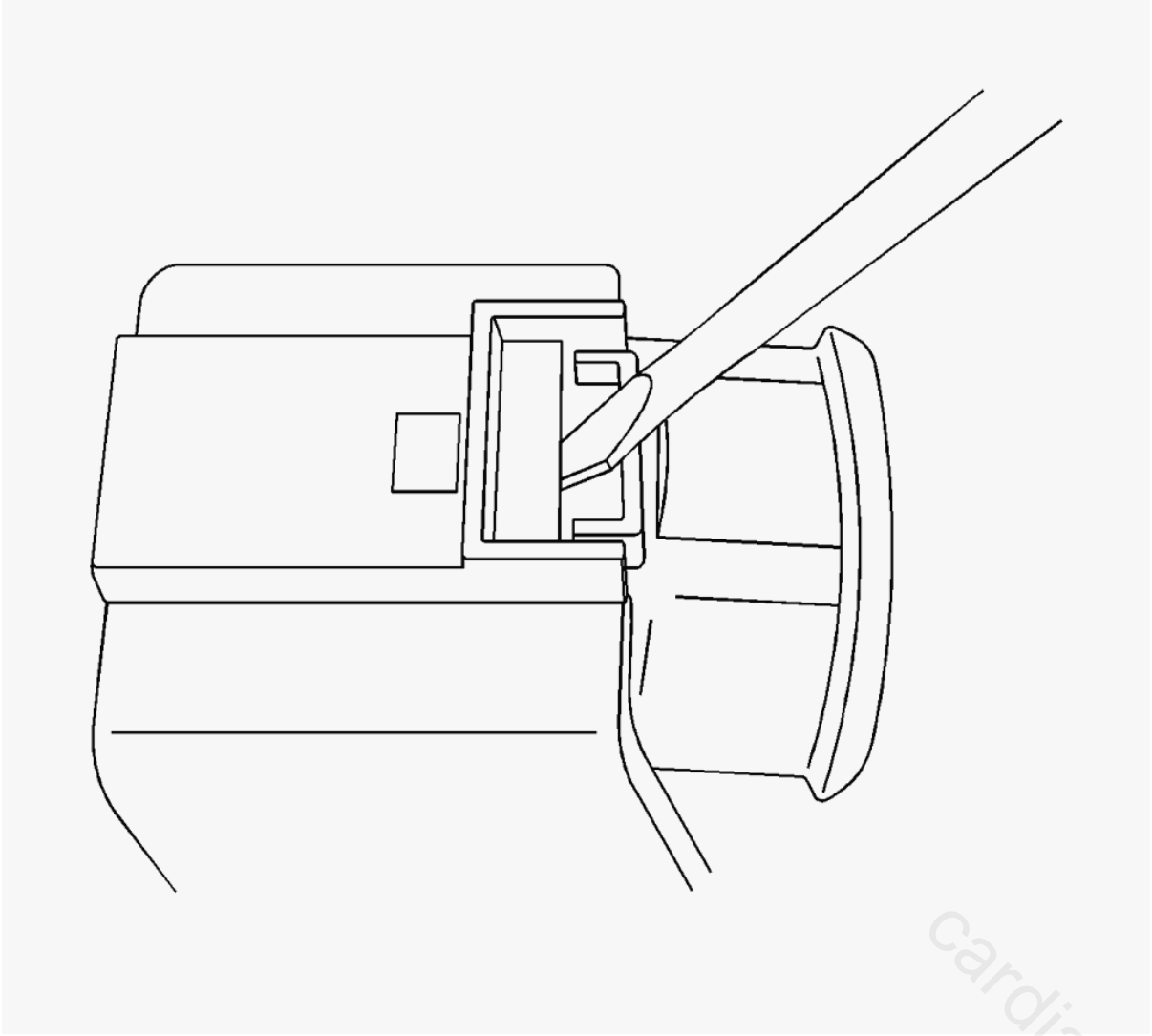


**Fig. 79: Releasing Connector**
**Courtesy of GENERAL MOTORS COMPANY**

2. Push down the locking tab to release the connector. The small flat-bladed tool may need to be pushed down and angled back slightly to depress the locking tab. Pull on the connector body while releasing the locking tab to disconnect the connector.

## FCI CONNECTORS (LEVER LOCK)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-556** Terminal Release Tool
- **J-38125-560** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to remove terminals from the connector.

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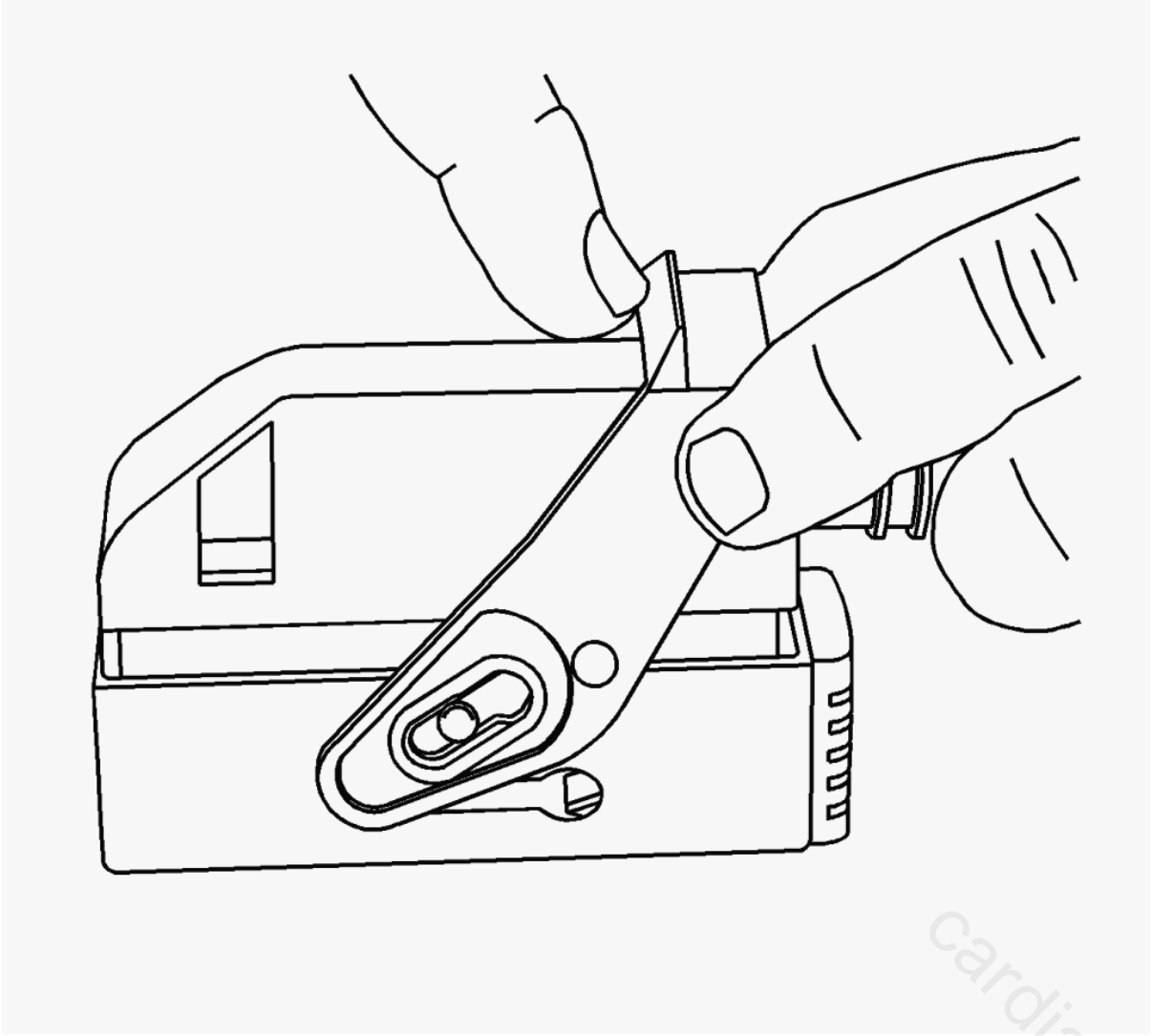


**Fig. 80: Pressing Down On Lever Lock Release Tab**
**Courtesy of GENERAL MOTORS COMPANY**

1. Slide the lever lock forward while pressing down on the lever lock release tab.
2. The release tab is located on the top of the wiredress cover.

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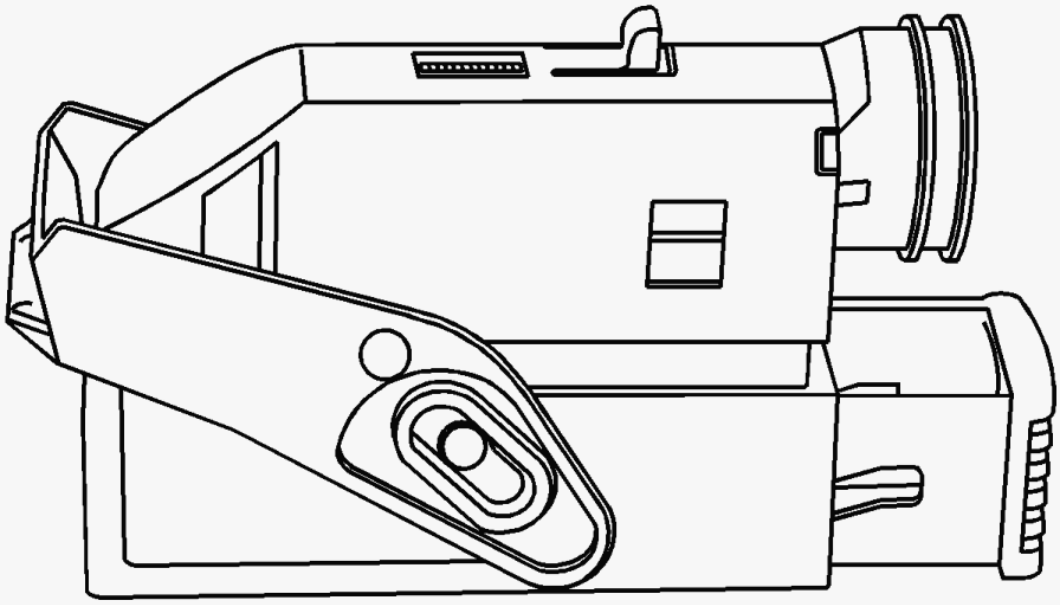


**Fig. 81: Connector In Released Position**
**Courtesy of GENERAL MOTORS COMPANY**

3. View of connector in released position.
4. Disconnect the connector from the component.
5. Locate the dress cover locking tabs at the corners of the dress cover. Use a small flat-blade tool to release the locking tabs and remove the dress cover.

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**Fig. 82: Sliding Terminal Position Assurance (TPA) Up One Notch**
**Courtesy of GENERAL MOTORS COMPANY**

6. Use a small flat-blade tool to slide the terminal position assurance (TPA) up one notch on both ends of the connector. The TPA is located underneath the wire dress cover.

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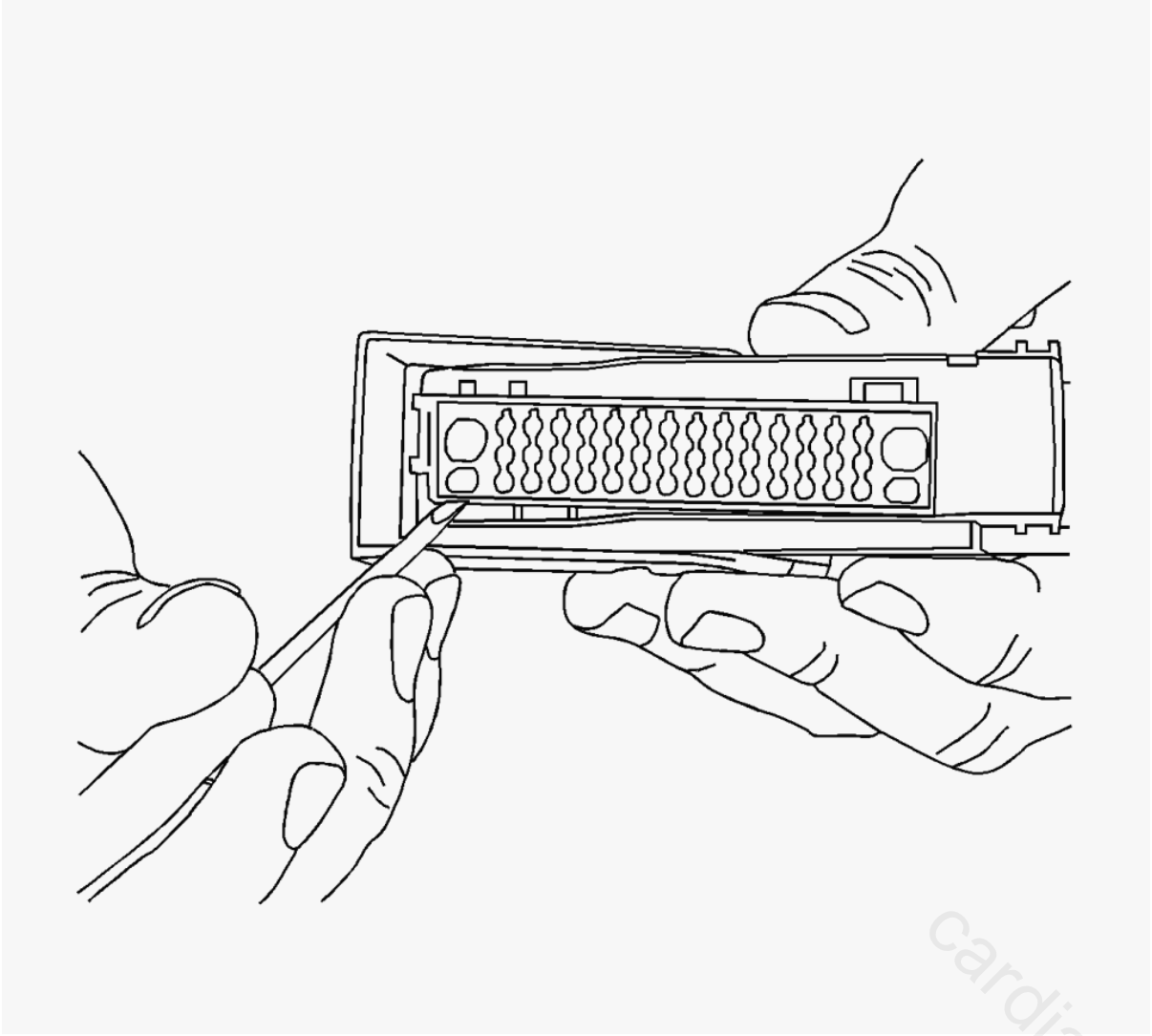


**Fig. 83: Releasing Terminals With Proper Tool**
**Courtesy of GENERAL MOTORS COMPANY**

7. For the larger terminals insert the J-38125-556 tool to release the terminals by inserting the tool into the terminal release cavity. For the smaller terminals insert the J-38125-560 tool to release the terminals by inserting the tool into the terminal release cavity.

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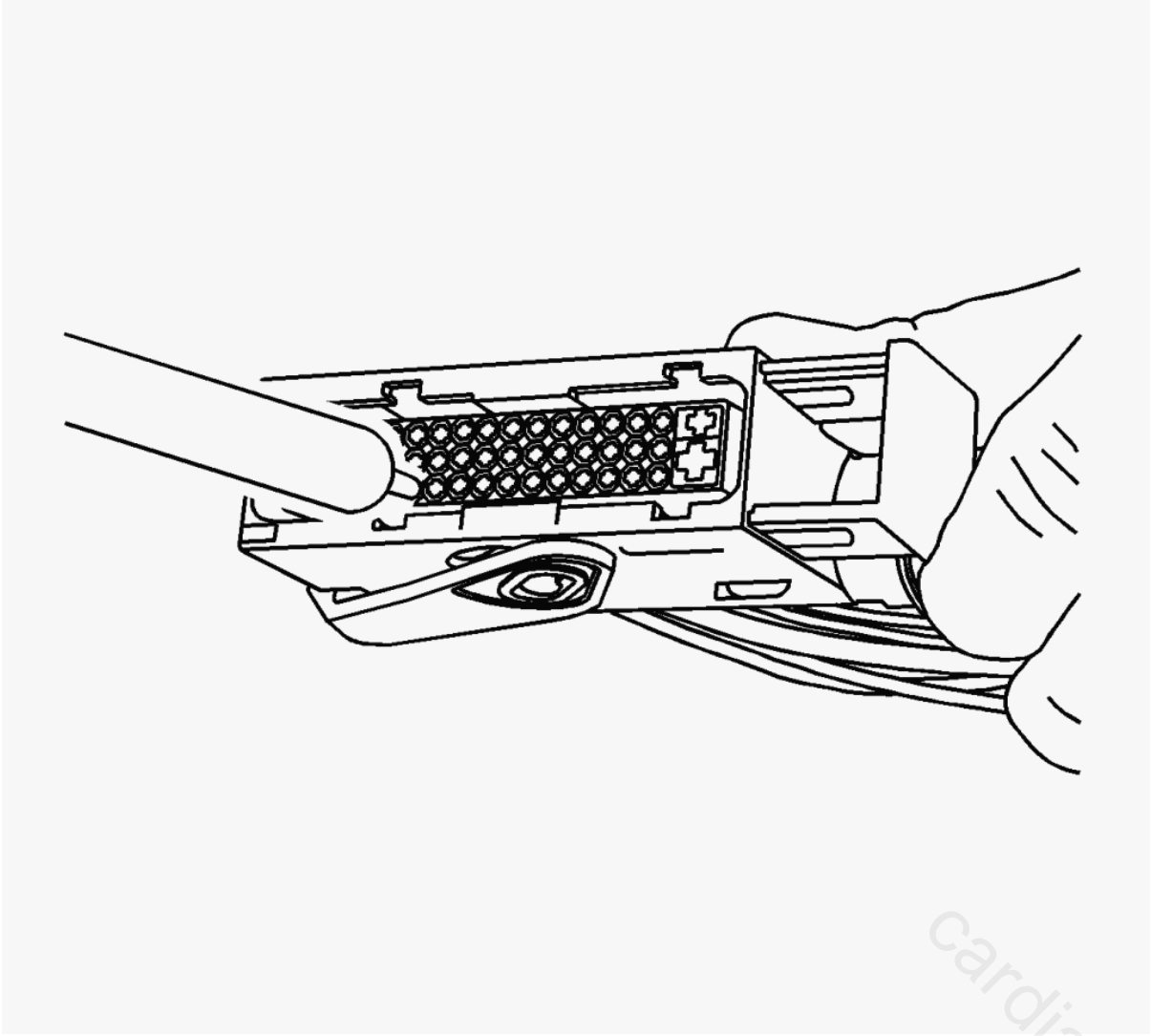


Fig. 84: Holding Removal Tool In Place, Gently Pull Wire Out Of Back Of Connector
**Courtesy of GENERAL MOTORS COMPANY**

8. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
9. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
10. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## FCI CONNECTORS (SIR)

### Removal Procedure

**NOTE:** **The orange or yellow connector position assurance (CPA) must be released first to disconnect or to connect the connector.**

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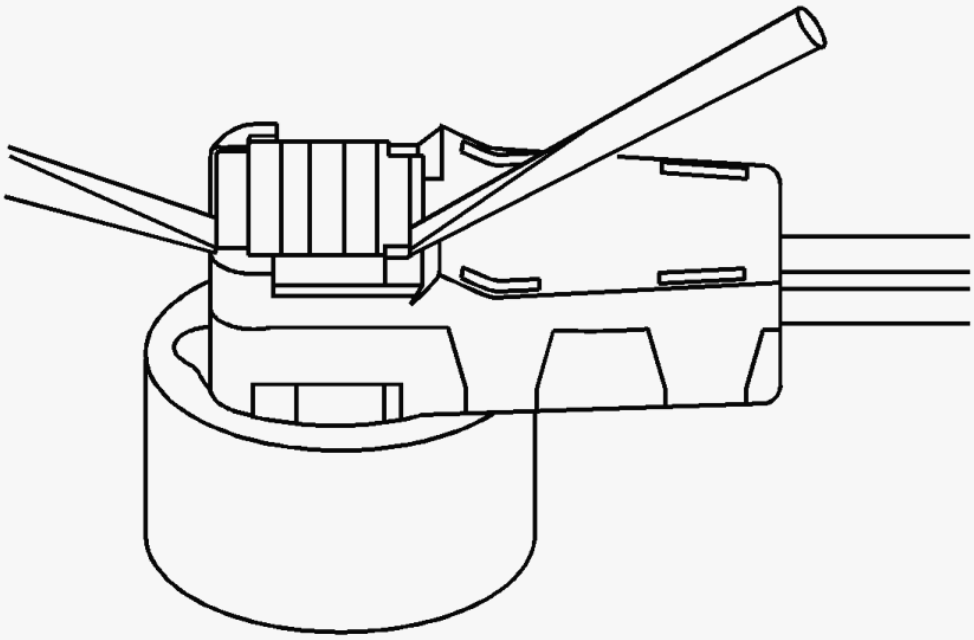


**Fig. 85: Lifting Orange CPA**
**Courtesy of GENERAL MOTORS COMPANY**

1. Lift the orange or yellow CPA vertically (avoid lifting on an angle to the connector) approximately 4 mm to release the connector. Use a small flat-bladed tool to help release the CPA. The CPA may also be released manually without any tools.

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**Fig. 86: Grabbing Connector On Both Sides**
**Courtesy of GENERAL MOTORS COMPANY**

2. Grab the connector on both sides and lift vertically to disconnect the connector.

**Installation Procedure**

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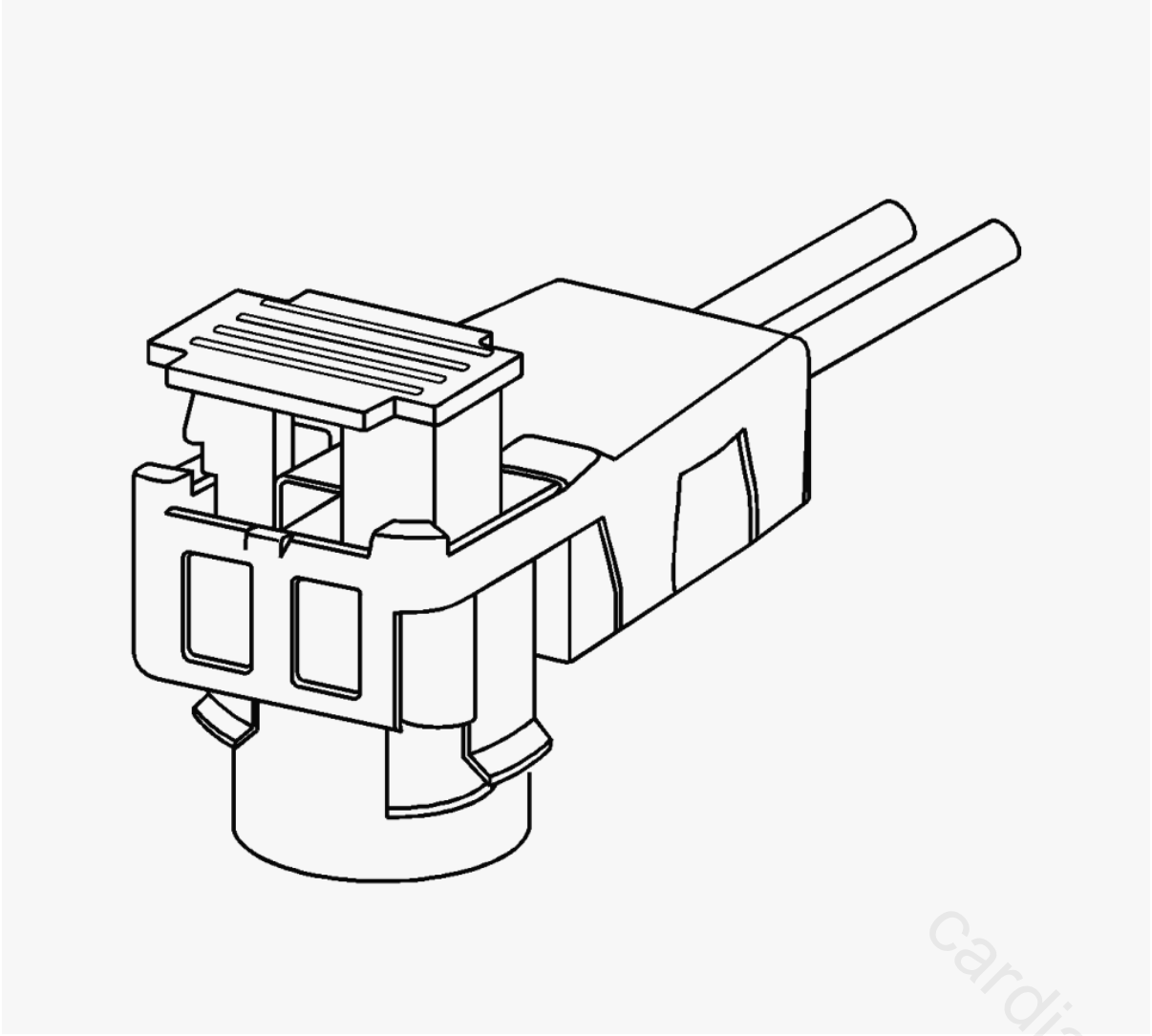


**Fig. 87: Lifting Orange CPA**
**Courtesy of GENERAL MOTORS COMPANY**

1. The CPA should be approximately 4 mm above the yellow cover before installing the connector. If not, use a small flat-bladed tool to help release the CPA. The CPA may also be released manually without any tools.

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**Fig. 88: Seating Connector Sub-Assembly**
**Courtesy of GENERAL MOTORS COMPANY**

2. Line up the connector key tabs with the initiator key slots. Grab the connector on both sides and push down into the initiator connector sub assembly until fully seated.

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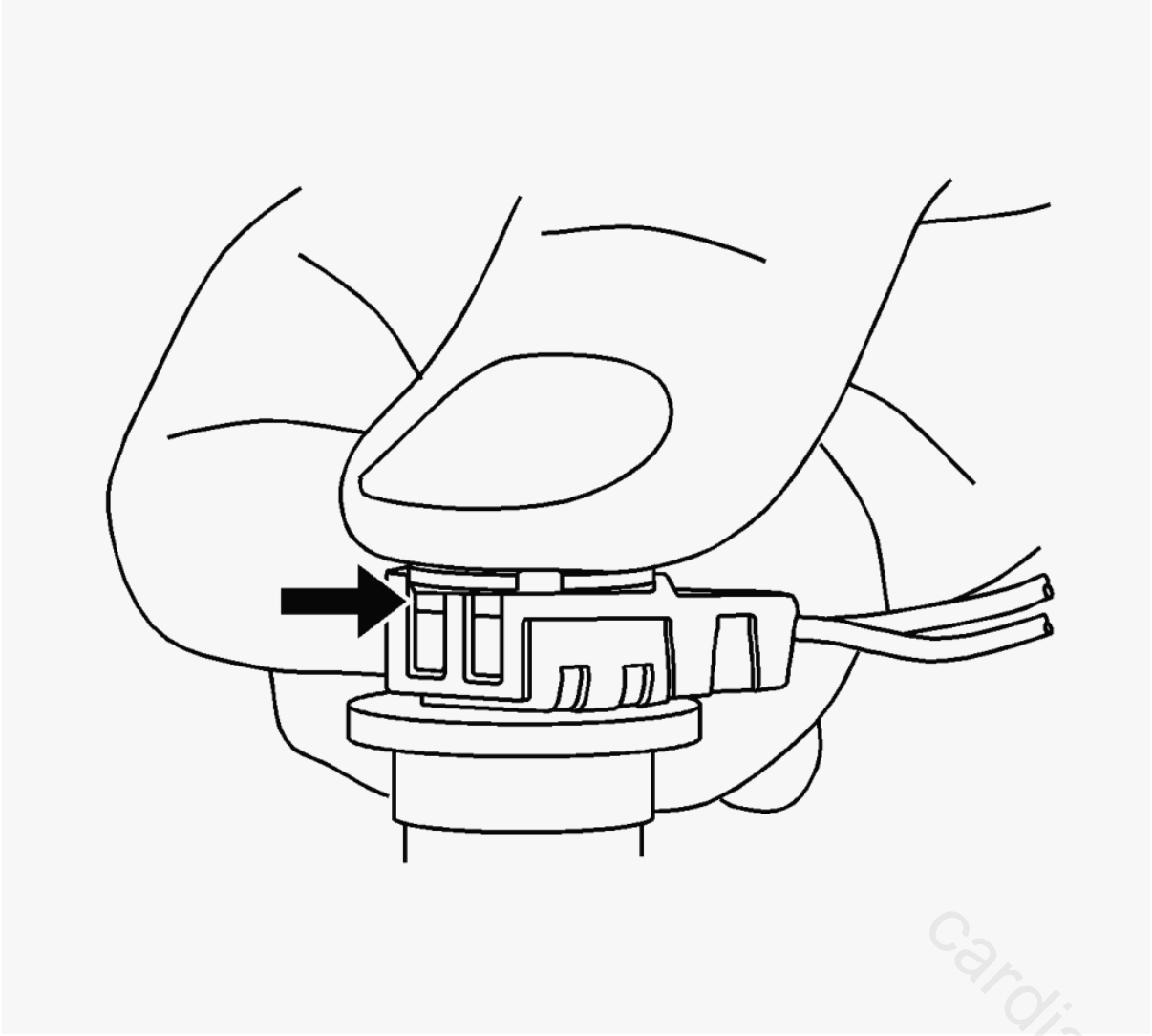


**Fig. 89: Pushing CPA Down**
**Courtesy of GENERAL MOTORS COMPANY**

3. After the connector is fully seated, push the CPA down with your thumb until the CPA is touching the yellow cover on the connector.
4. After the CPA is seated, lightly pull on the connector, it should not pull off if the connector and CPA are properly engaged.

## FEP CONNECTORS (STEERING GEAR)

### Removal Procedure

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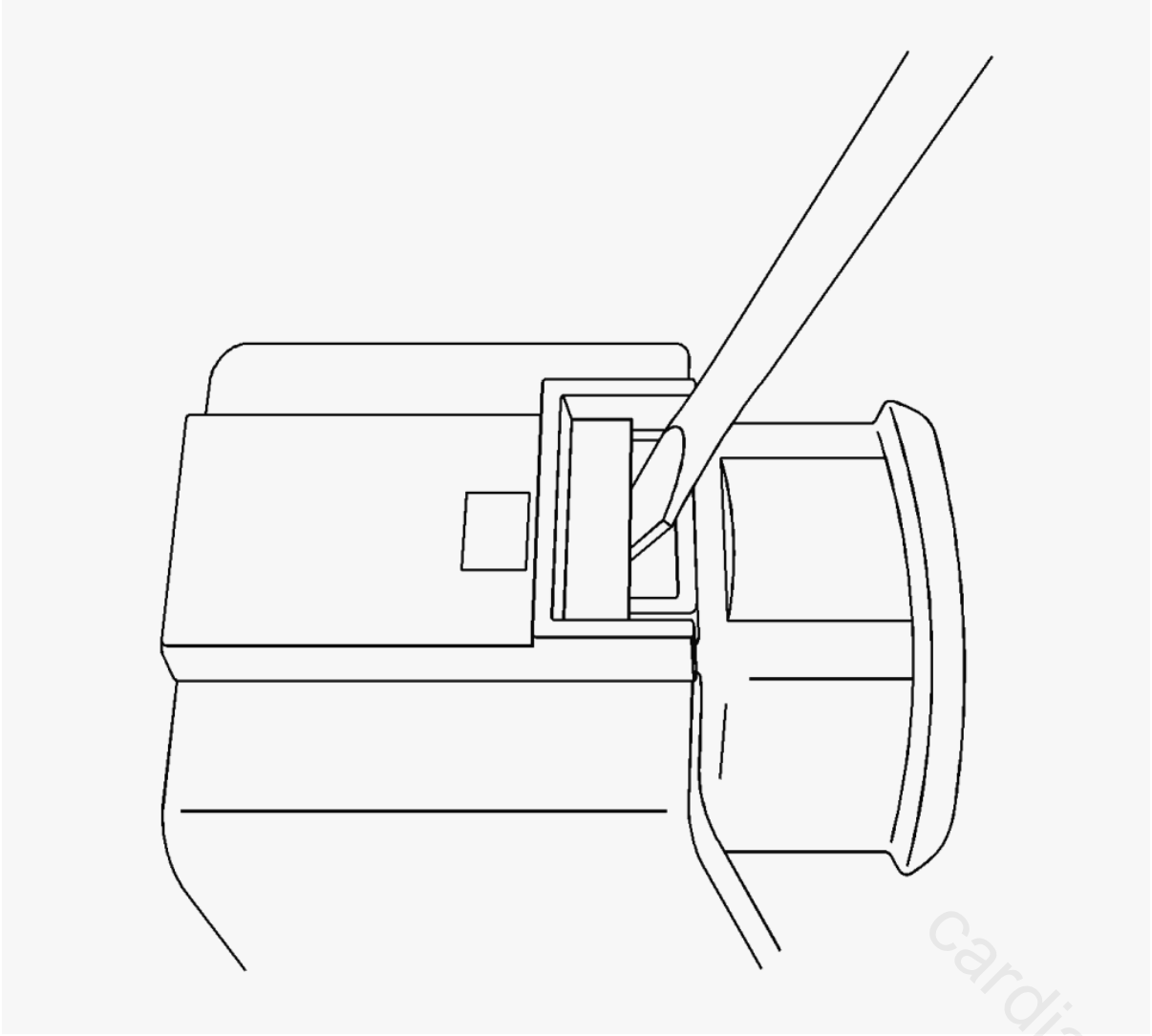


**Fig. 90: Releasing Locking Tab On Connector**
**Courtesy of GENERAL MOTORS COMPANY**

1. Use a flat-bladed tool to release the locking tab on the connector.

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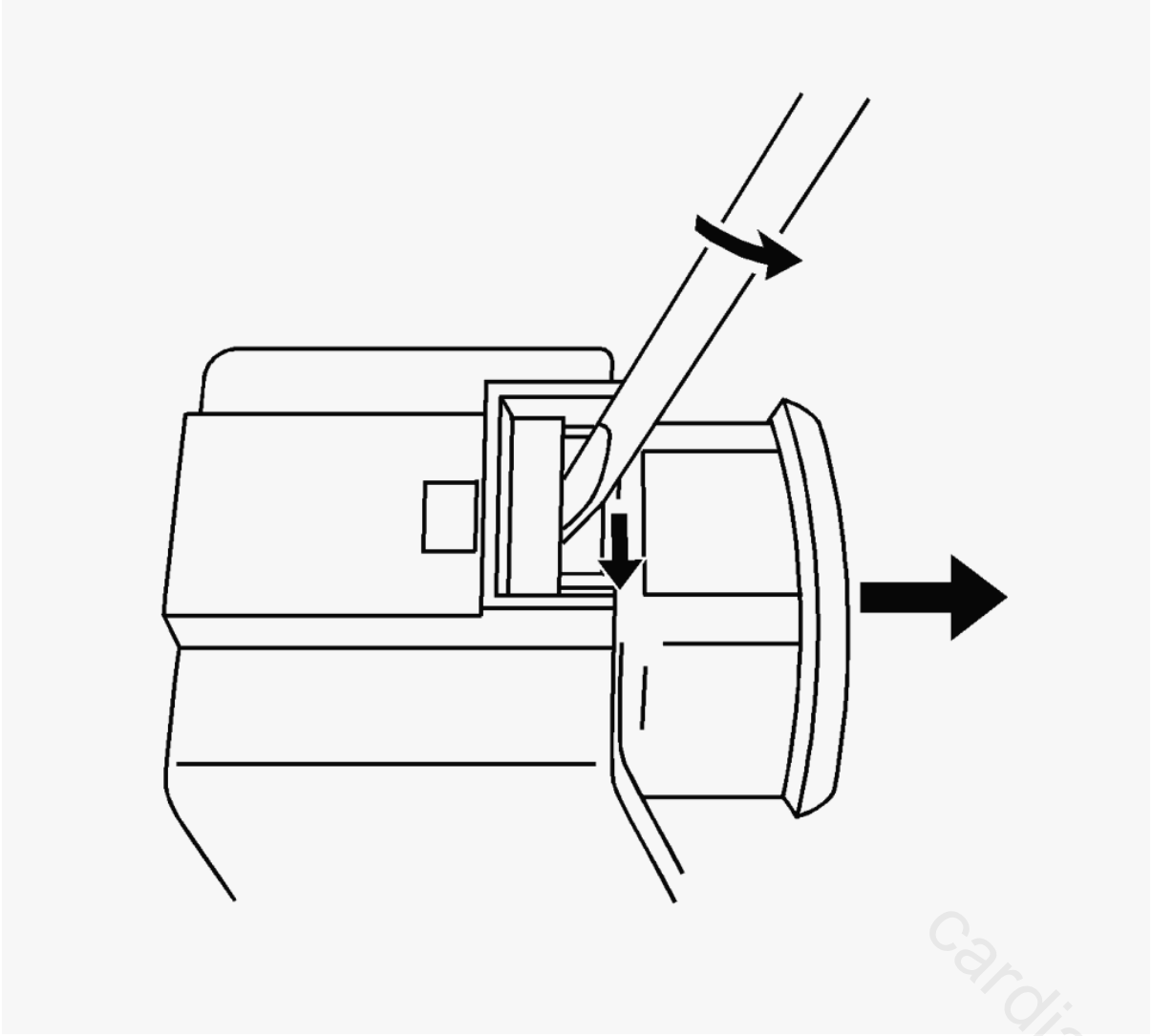


**Fig. 91: Twisting Flat-Bladed Tool To Push Top Of Locking Tab Inward**
**Courtesy of GENERAL MOTORS COMPANY**

2. Option 1: Twist the flat-bladed tool to push the top of the locking tab inward while pulling the connector body out.

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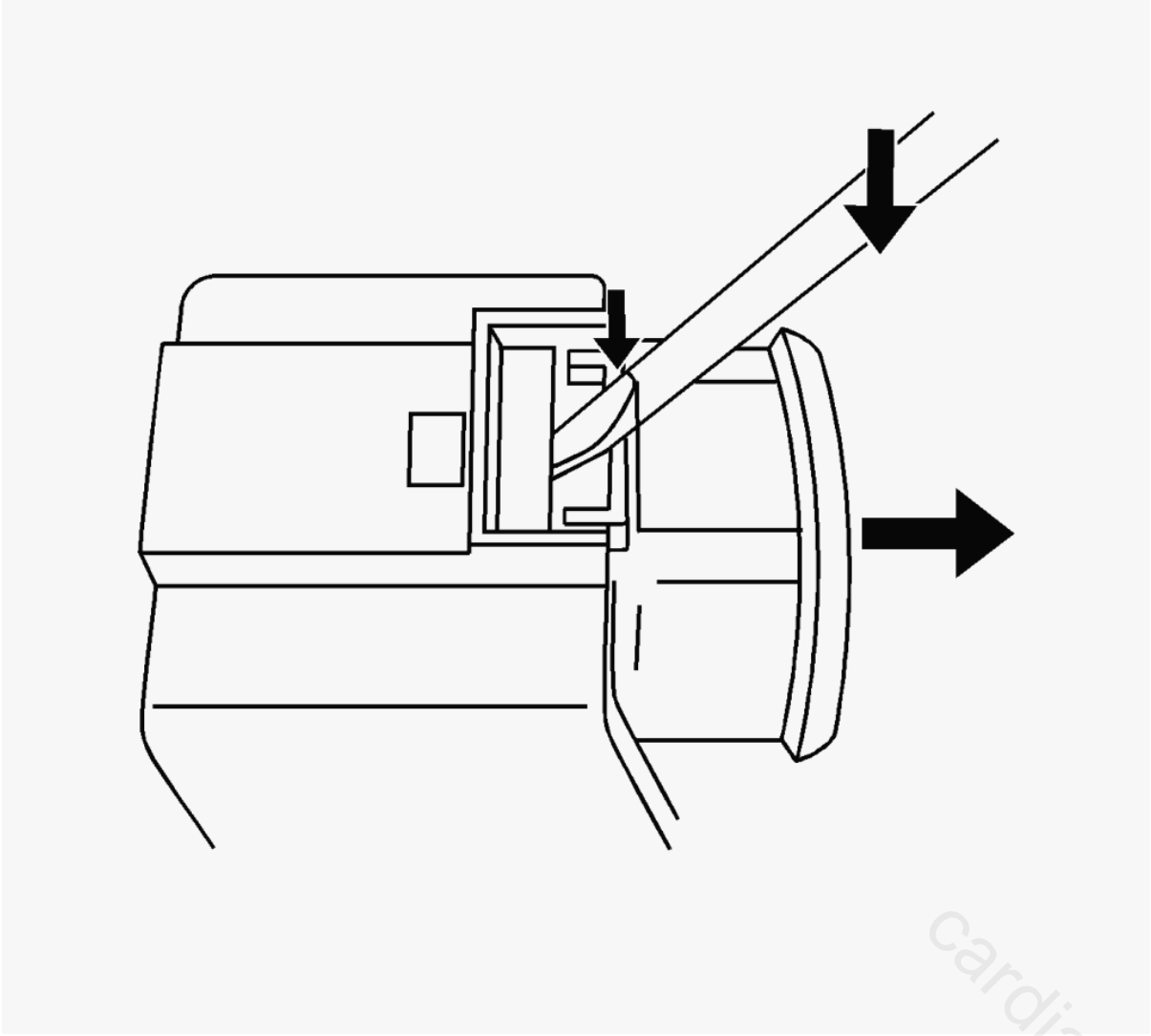


Fig. 92: Using Flat-Bladed Tool To Depress Locking Tab
**Courtesy of GENERAL MOTORS COMPANY**

3. Option 2: Pry using the flat-bladed tool to depress the locking tab while pulling the connector body out.

## JST CONNECTORS

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-553** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

The JST connector family consists of seven unique connector housings differentiated by color and keying. This connector family is designed to use both 0.64 and 2.8 sized terminals.

**JST BCM Connector**

| GM Service Part # | Color |
|---|---|
| 88988806 | Gray |
| 88988837 | Brown |
| 88988838 | Lt Green |
| 88988839 | Natural |
| 88988840 | Lt Blue |
| 88988841 | Black |
| 88988842 | Pink |

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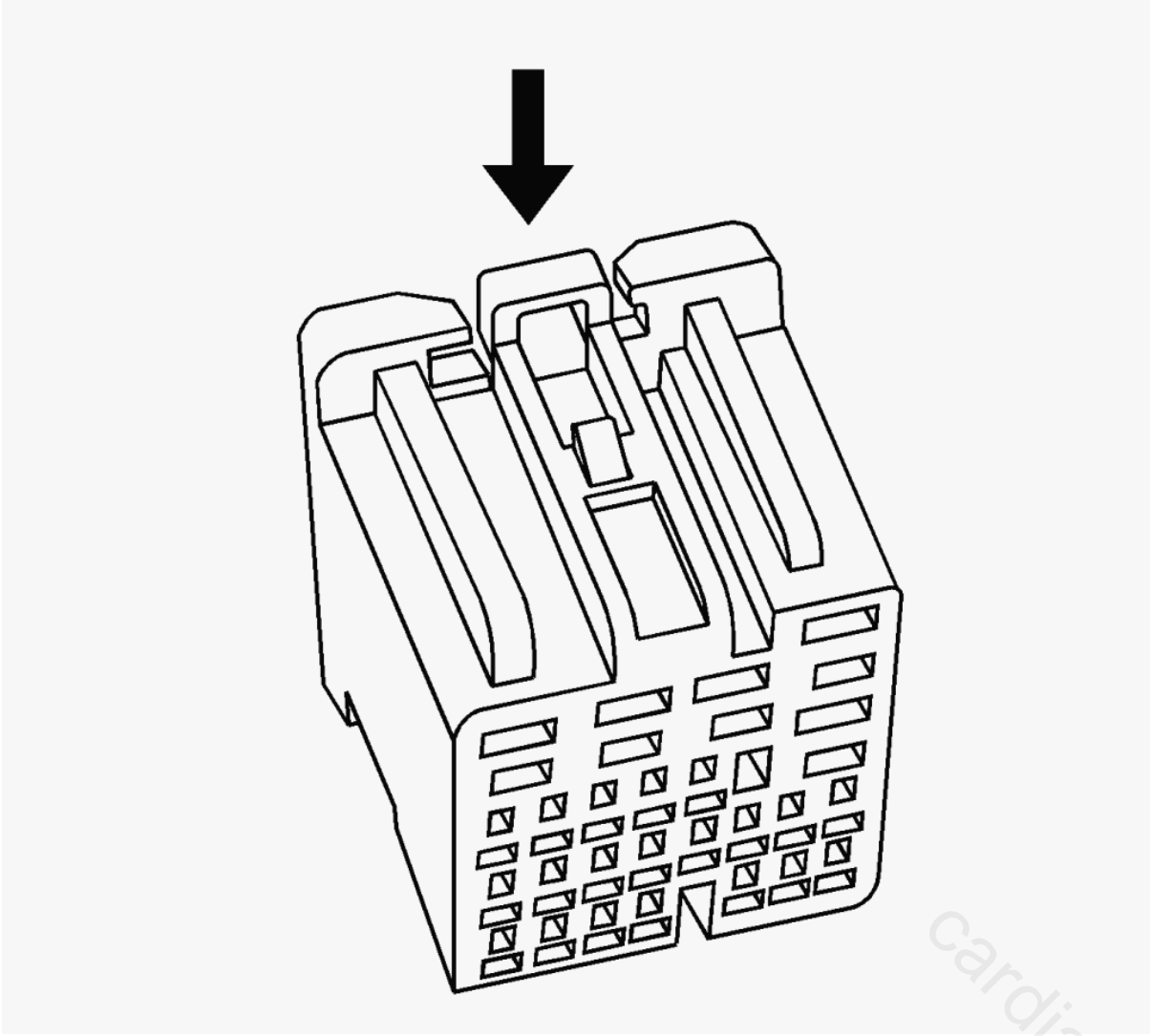


**Fig. 93: Locating Connector Lock**
**Courtesy of GENERAL MOTORS COMPANY**

1. While depressing the lock, remove the connector from the component.

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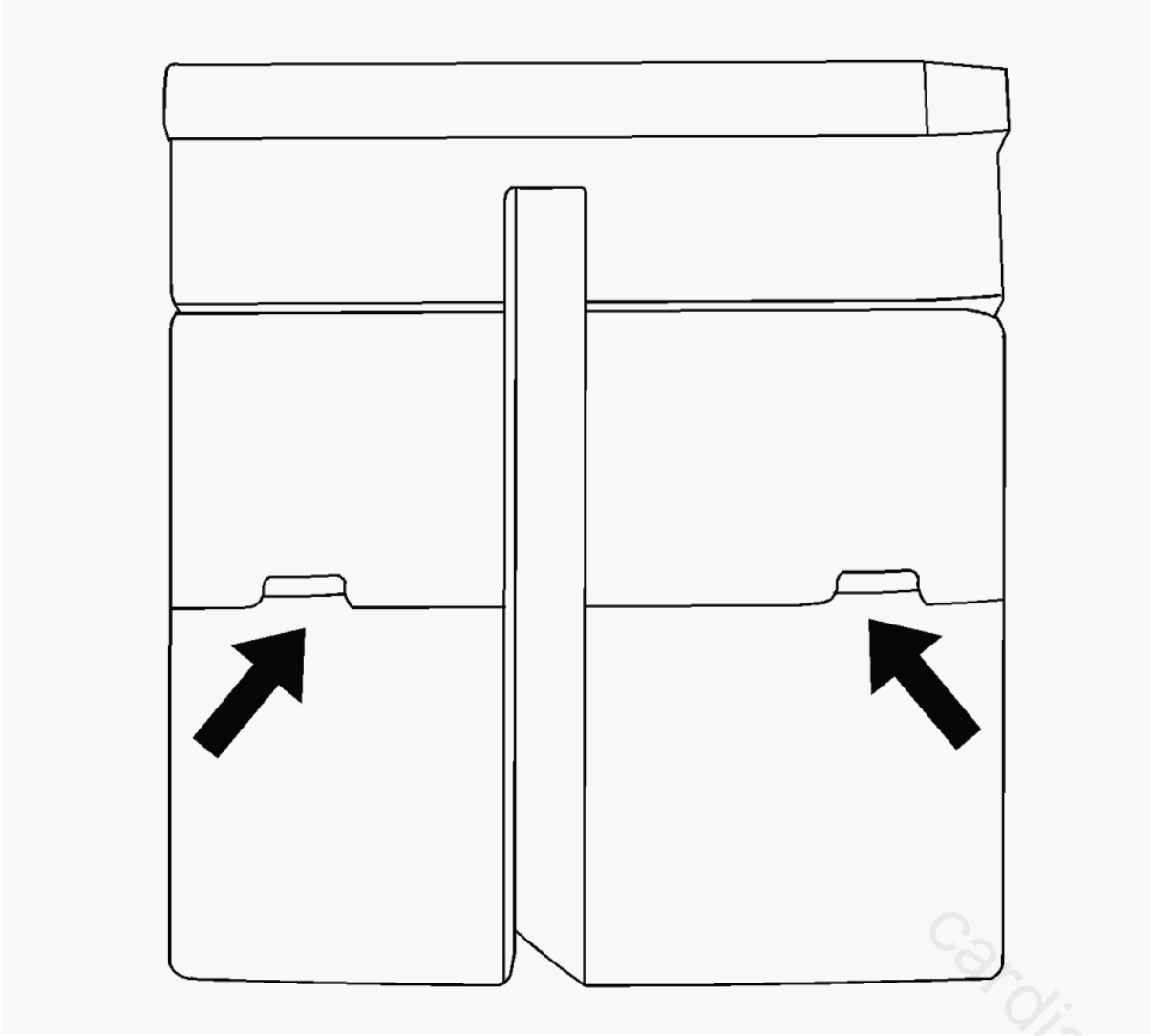


**Fig. 94: Terminal Position Assurance Indents**
**Courtesy of GENERAL MOTORS COMPANY**

2. Unlock the terminal position assurance (TPA):
    - Position connector as shown (above) and locate TPA staging cavities.

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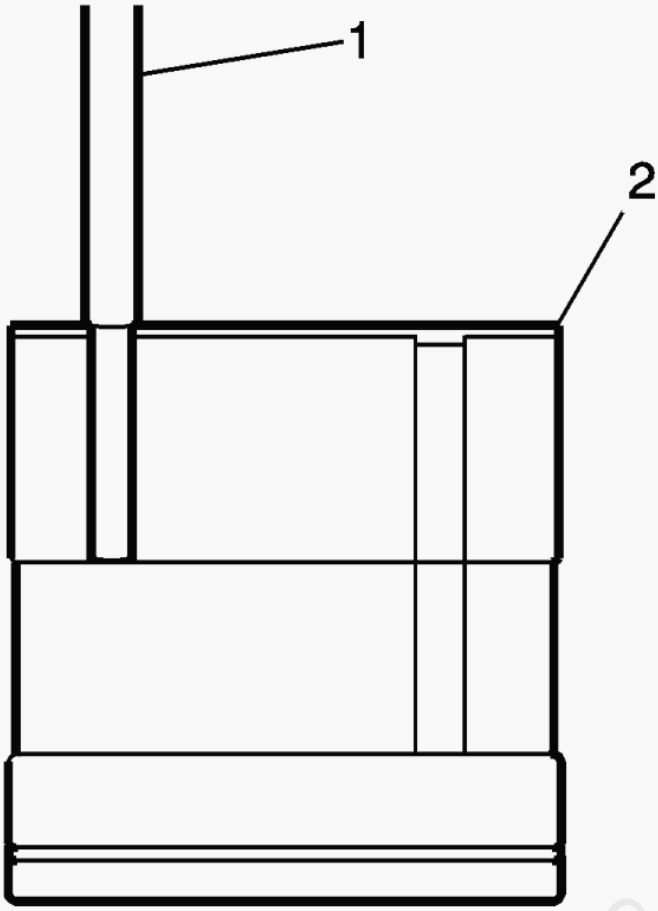



**Fig. 95: Terminal Release Tool**
**Courtesy of GENERAL MOTORS COMPANY**

- Using connector terminal release tool J-38125-553 (1) lift the TPA into the staged position. Perform this step on both sides of the TPA.

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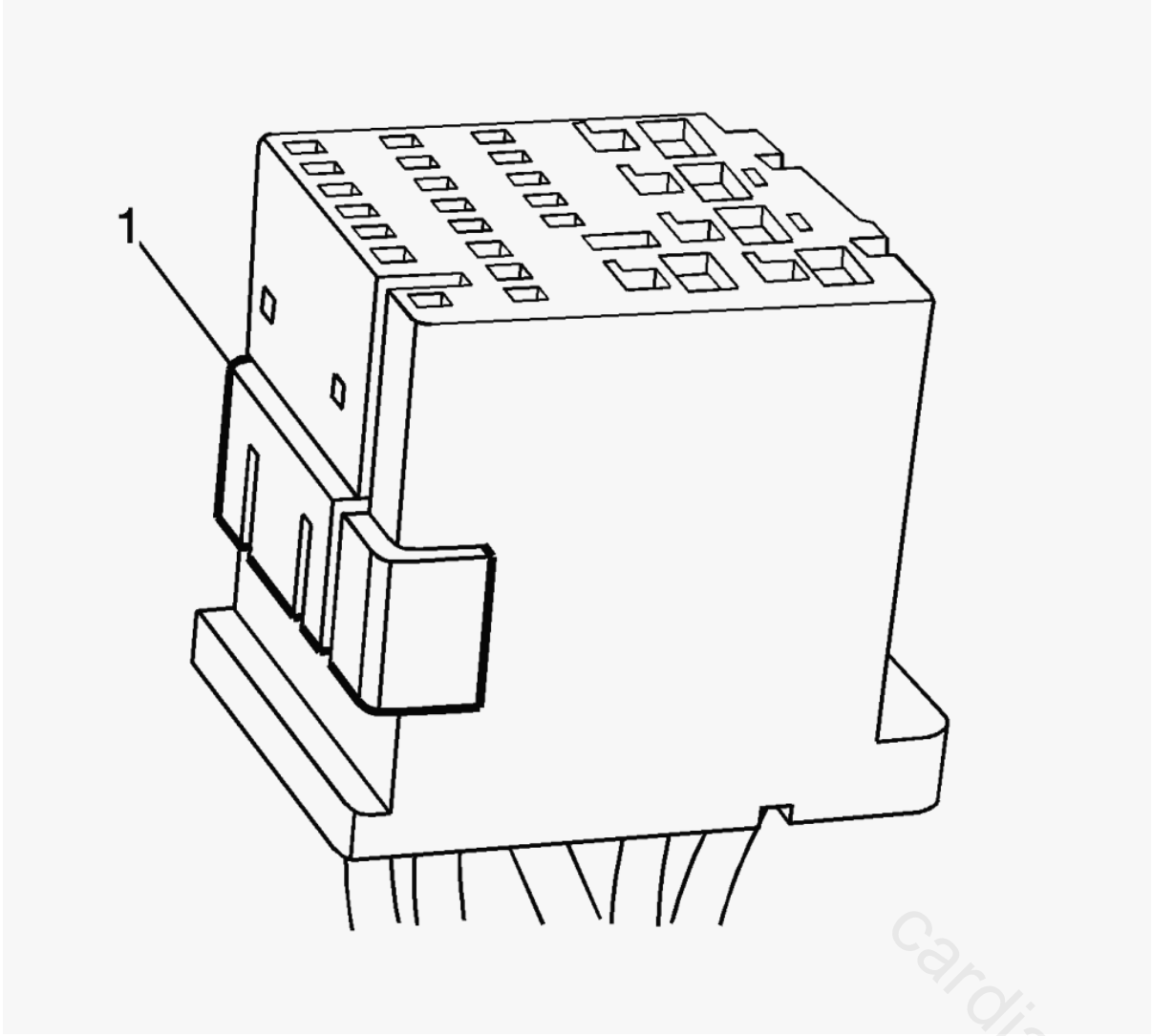



**Fig. 96: TPA In Staged Position**
**Courtesy of GENERAL MOTORS COMPANY**

- You will feel the TPA click into place when fully extended into the staged position. The figure above shows the TPA (1) in the staged position.

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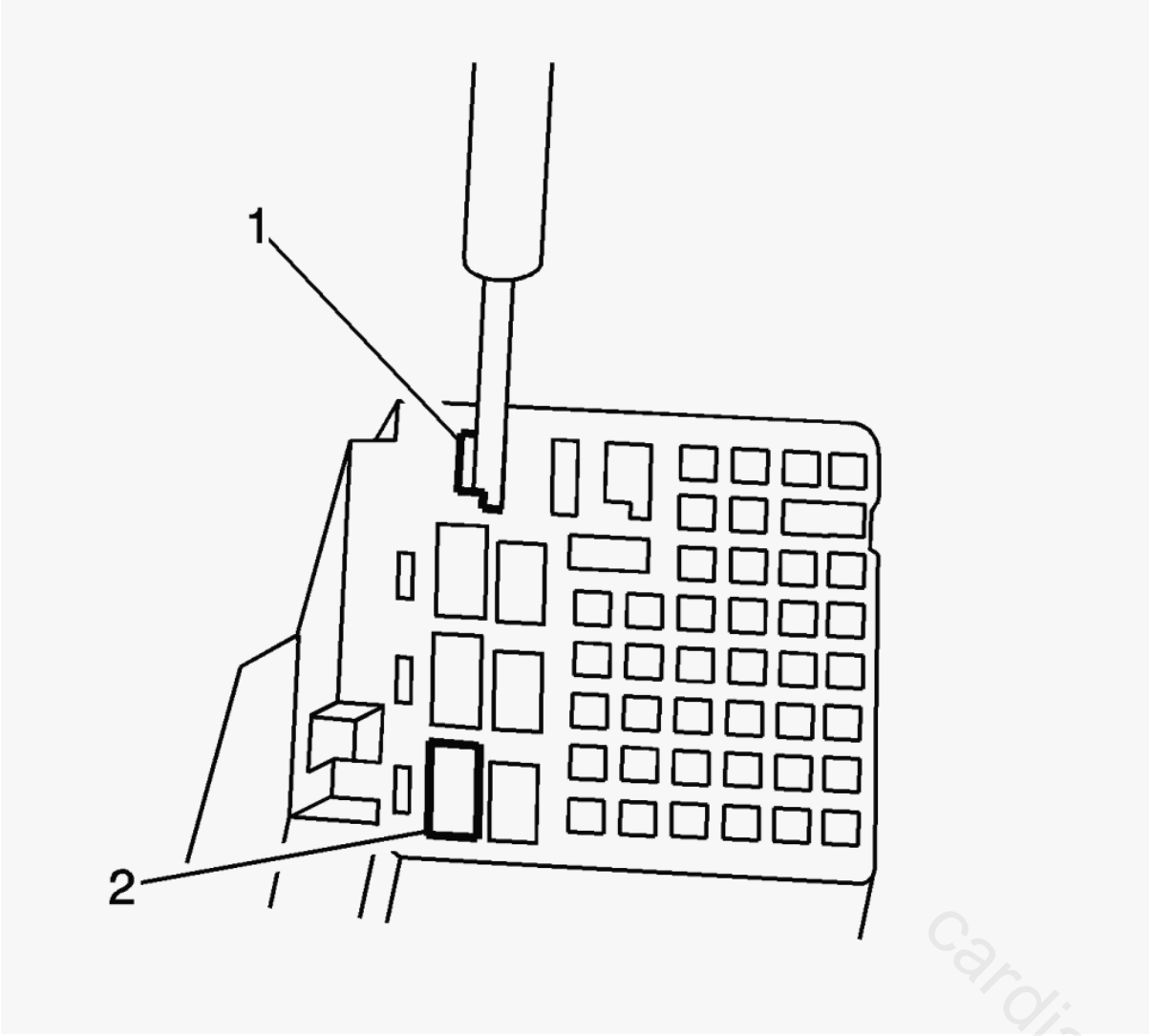



**Fig. 97: Connector Terminal Release Tool**
**Courtesy of GENERAL MOTORS COMPANY**

3. Release the terminal from the connector:
    - Position the connector as shown (above) and locate the terminal release entry canal (1) of the suspect terminal.
    - Insert the connector terminal release tool J-38125-553 into the entry canal with the angled side of the tool facing the connector wall containing cavity 4 (2).

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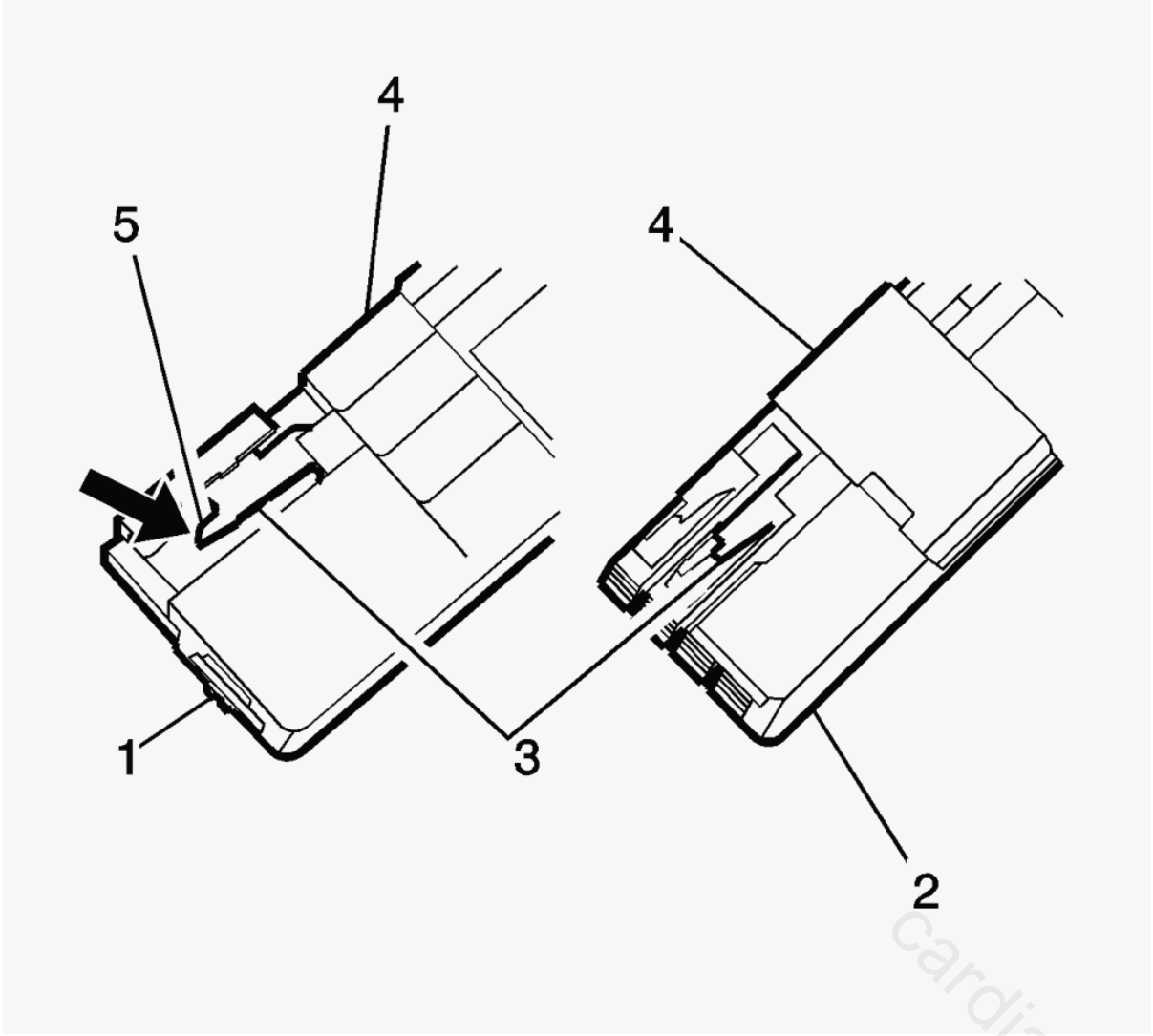



**Fig. 98: Identifying Connector Lance And TPA**
**Courtesy of GENERAL MOTORS COMPANY**

- The cavity on the left (1) is a 2.8 $mm^2$ cavity and the cavity on the right (2) is a 0.64 $mm^2$ cavity.
- Place the tip of the connector terminal release tool onto the connector lance (3) and deflect the lance to the right (5) to release the lock. Hold this released position.
- Holding the lance in the released position, slightly pull on the suspect terminal to remove it from the connector housing. The side TPA (4) is a secondary lock.

4. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
5. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## KOSTAL CONNECTORS (GLOW PLUG CONTROL MODULE)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-24** Terminal Release Tool
- **J-38125-560** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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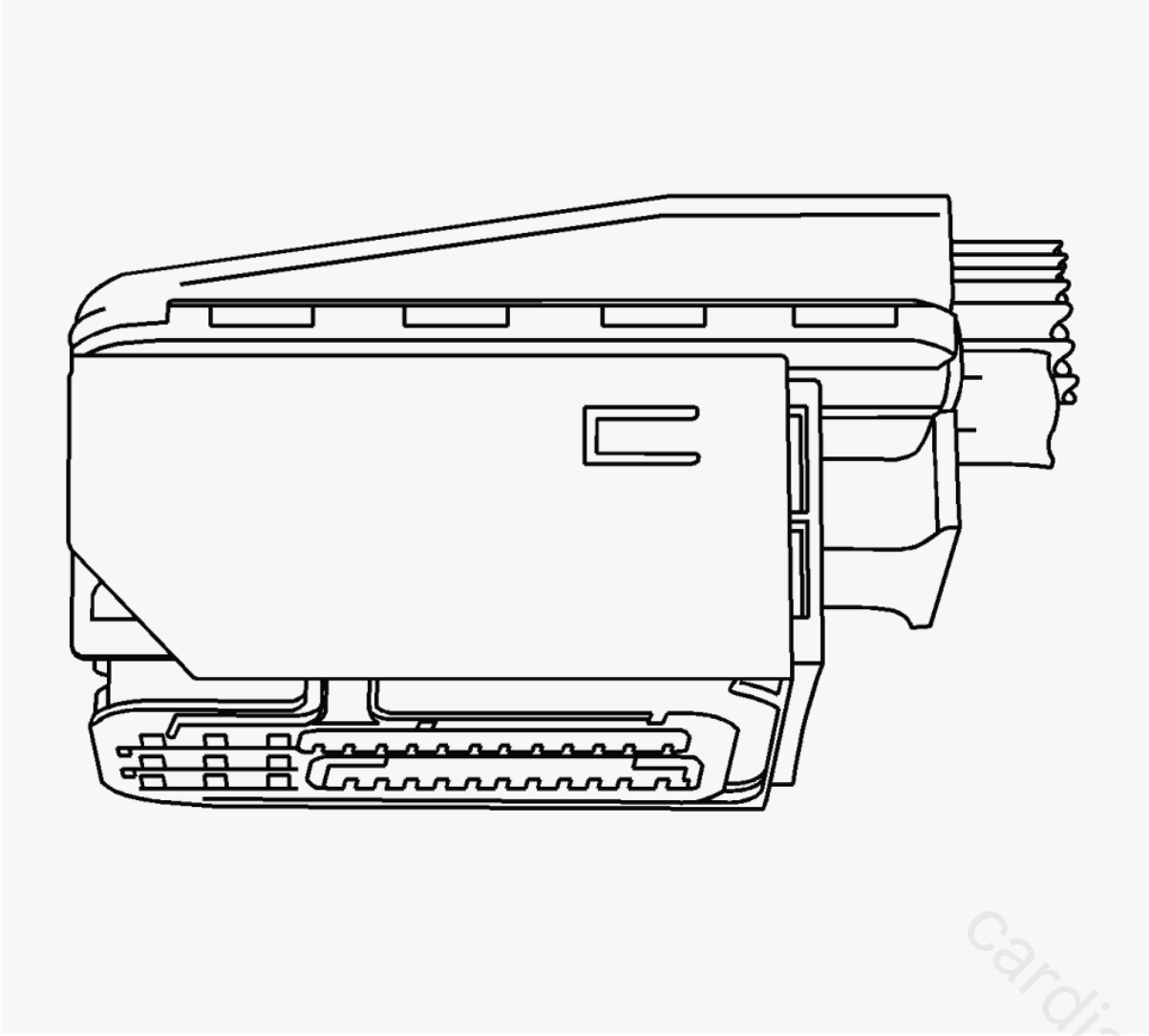


**Fig. 99: Typical Kostal Connector**
**Courtesy of GENERAL MOTORS COMPANY**

View of typical connector.

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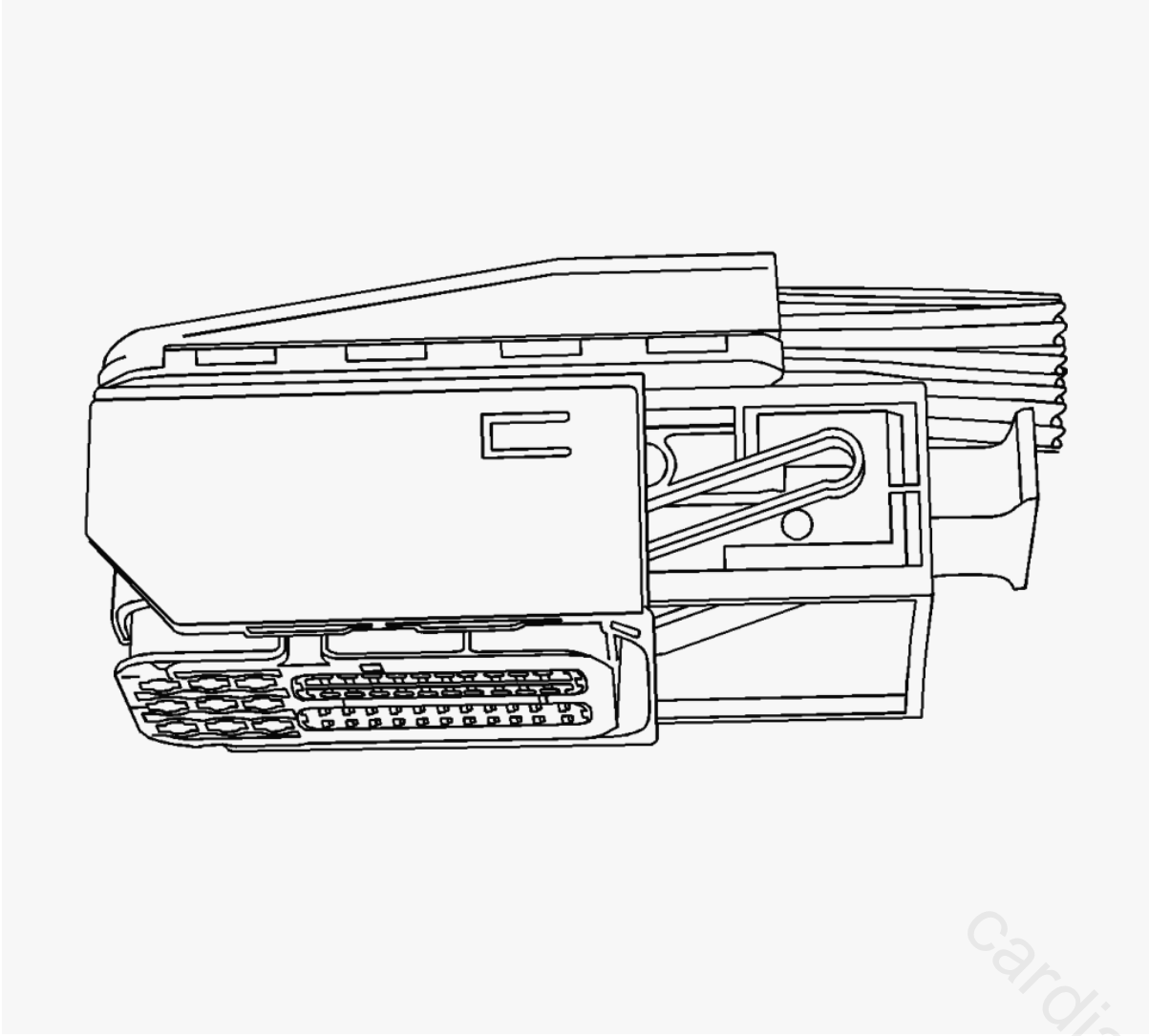


**Fig. 100: Connector In Released Position**
**Courtesy of GENERAL MOTORS COMPANY**

View of connector in released position.

1. Locate the assist lever at the back of the connector. Move the assist lever to the rear position.
2. Disconnect the connector from the component.

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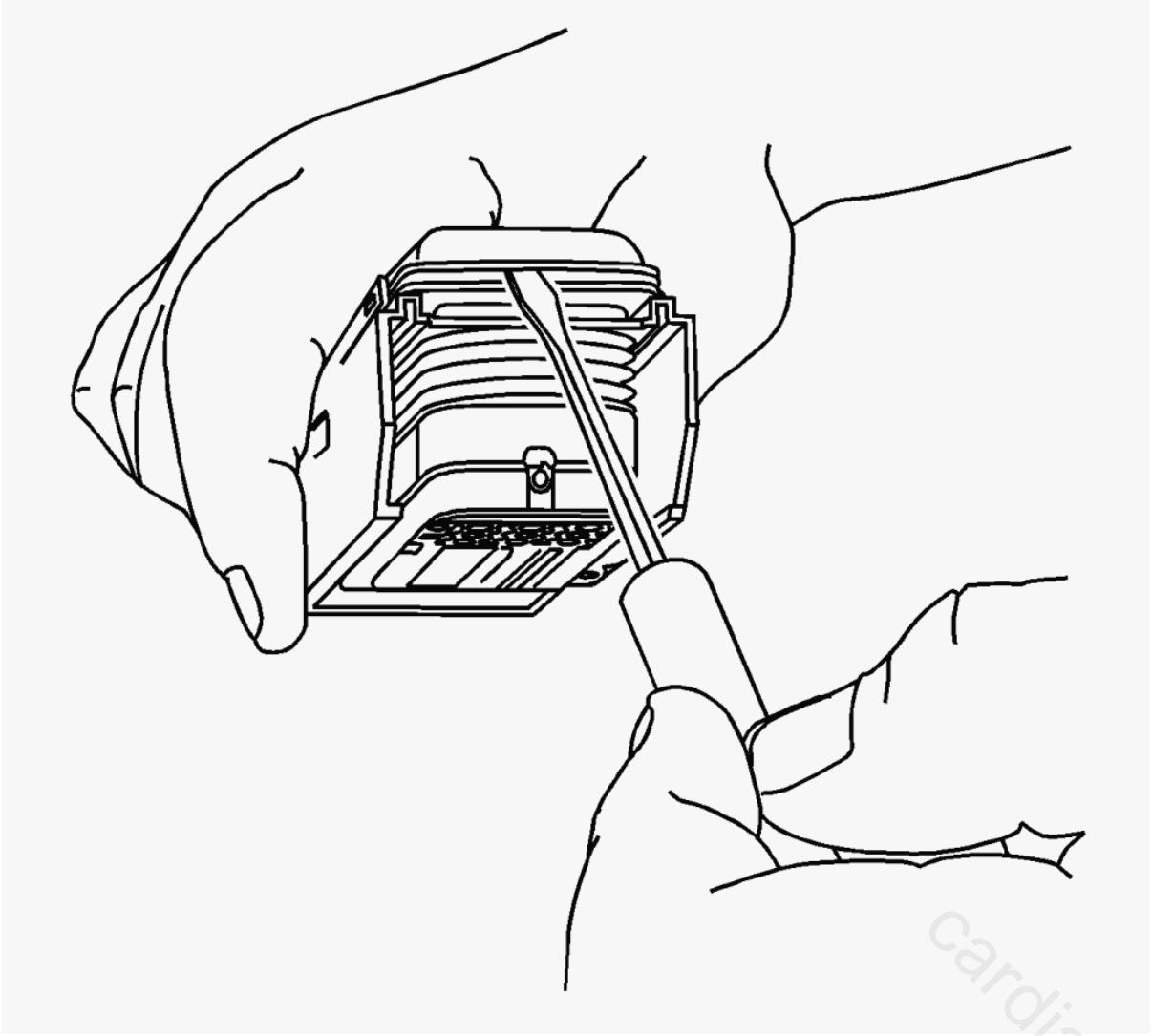


**Fig. 101: Using Small Flat-Blade Tool To Remove Dress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

3. Use a small flat-blade tool to remove the dress cover.

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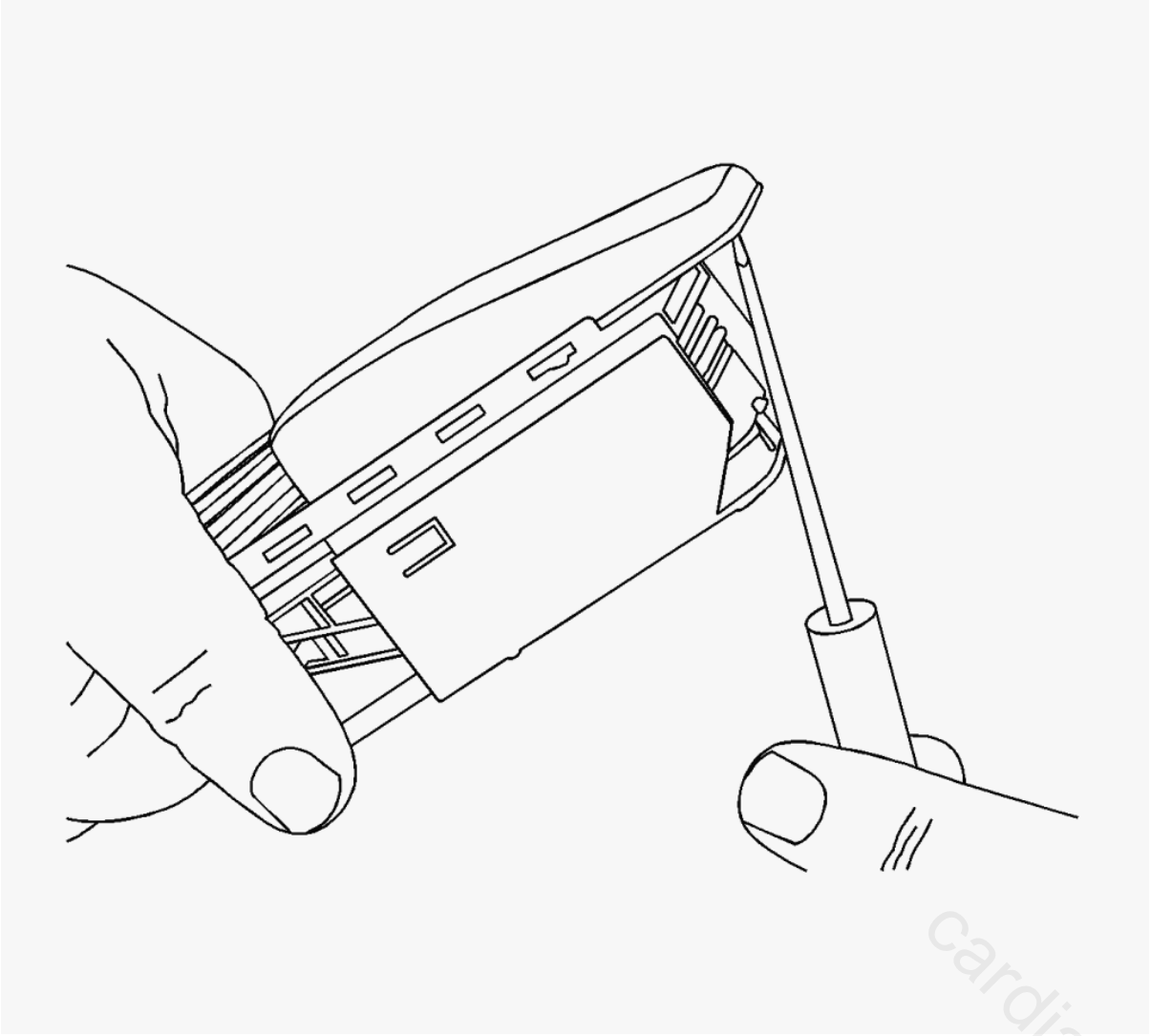


**Fig. 102: Slide Dress Cover Forward And Off Of Connector**
**Courtesy of GENERAL MOTORS COMPANY**

4. Slide the dress cover forward and off of the connector.

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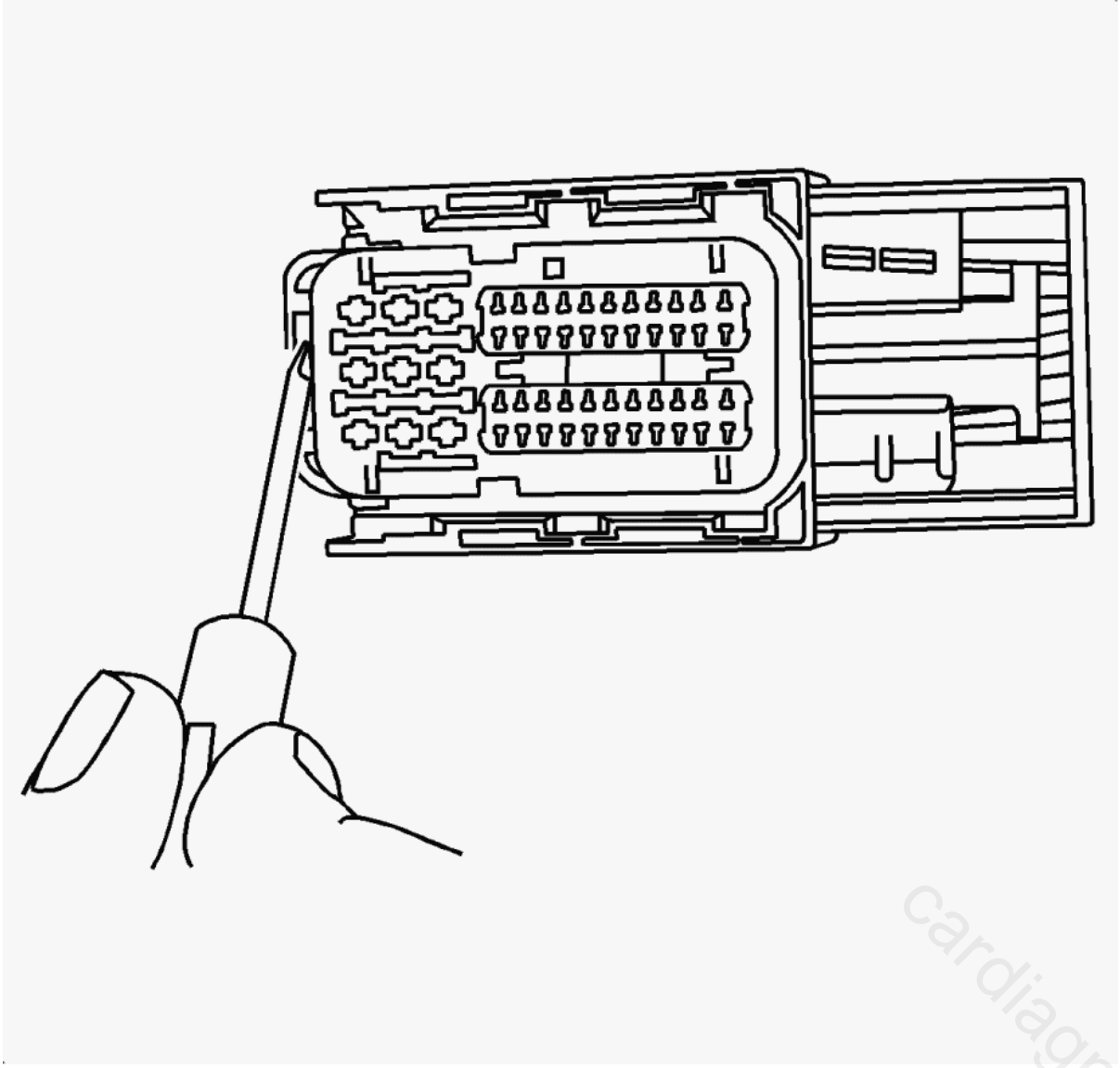


**Fig. 103: Moving Front TPA To Preset Position**
**Courtesy of GENERAL MOTORS COMPANY**

5. The terminal positive assurance (TPA) is located in the front and rear of the connector.

**NOTE:** **The front TPA cannot be removed from the connector. Only move it to the preset position.**

6. Use a small flat-blade tool to move the front TPA to the preset position, outboard approximately 0.125 in. (3 mm).

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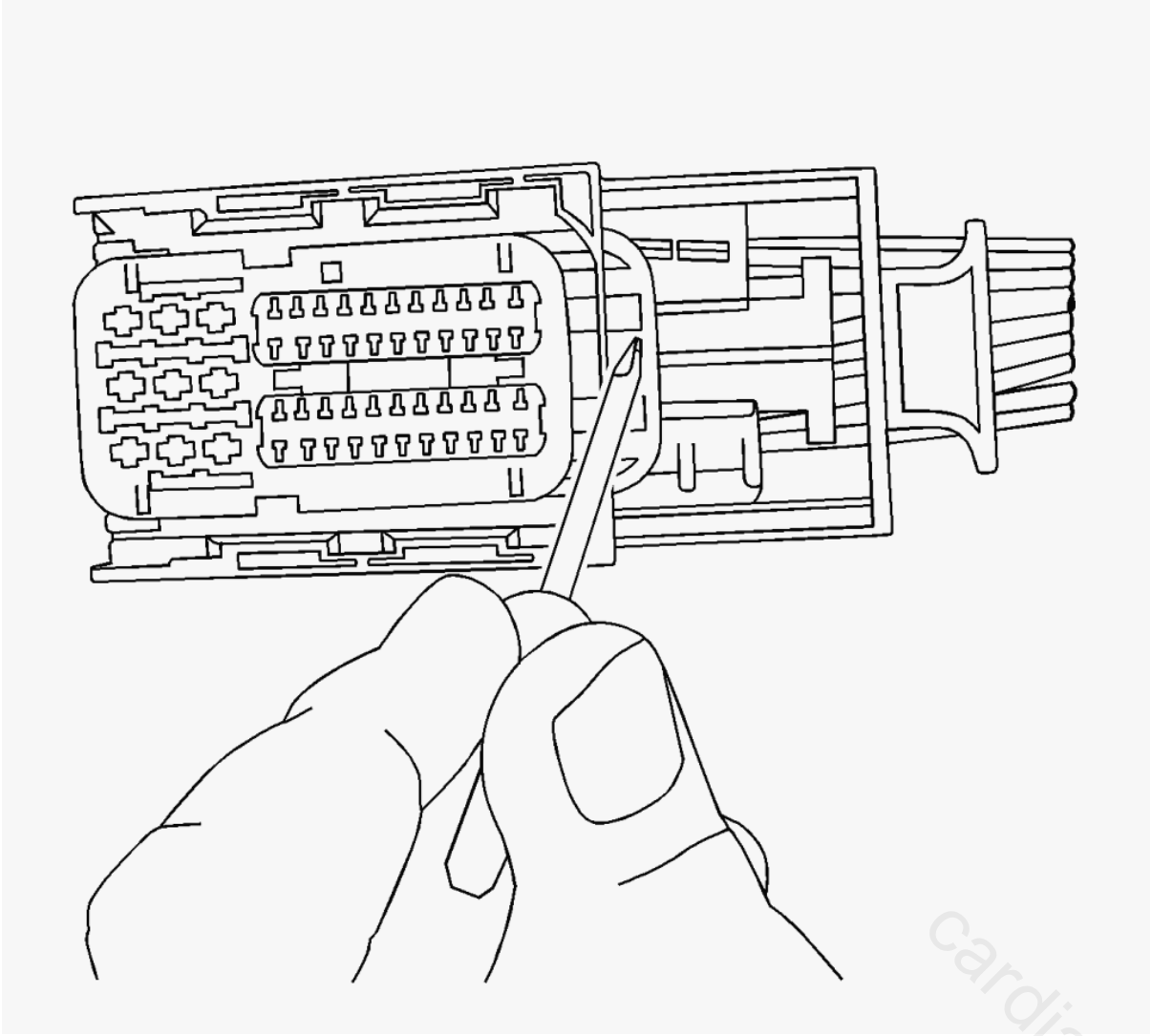


**Fig. 104: Using Small Flat-Blade Tool To Remove Rear TPA**
**Courtesy of GENERAL MOTORS COMPANY**

7. Use a small flat-blade tool to completely remove the rear TPA from the connector.

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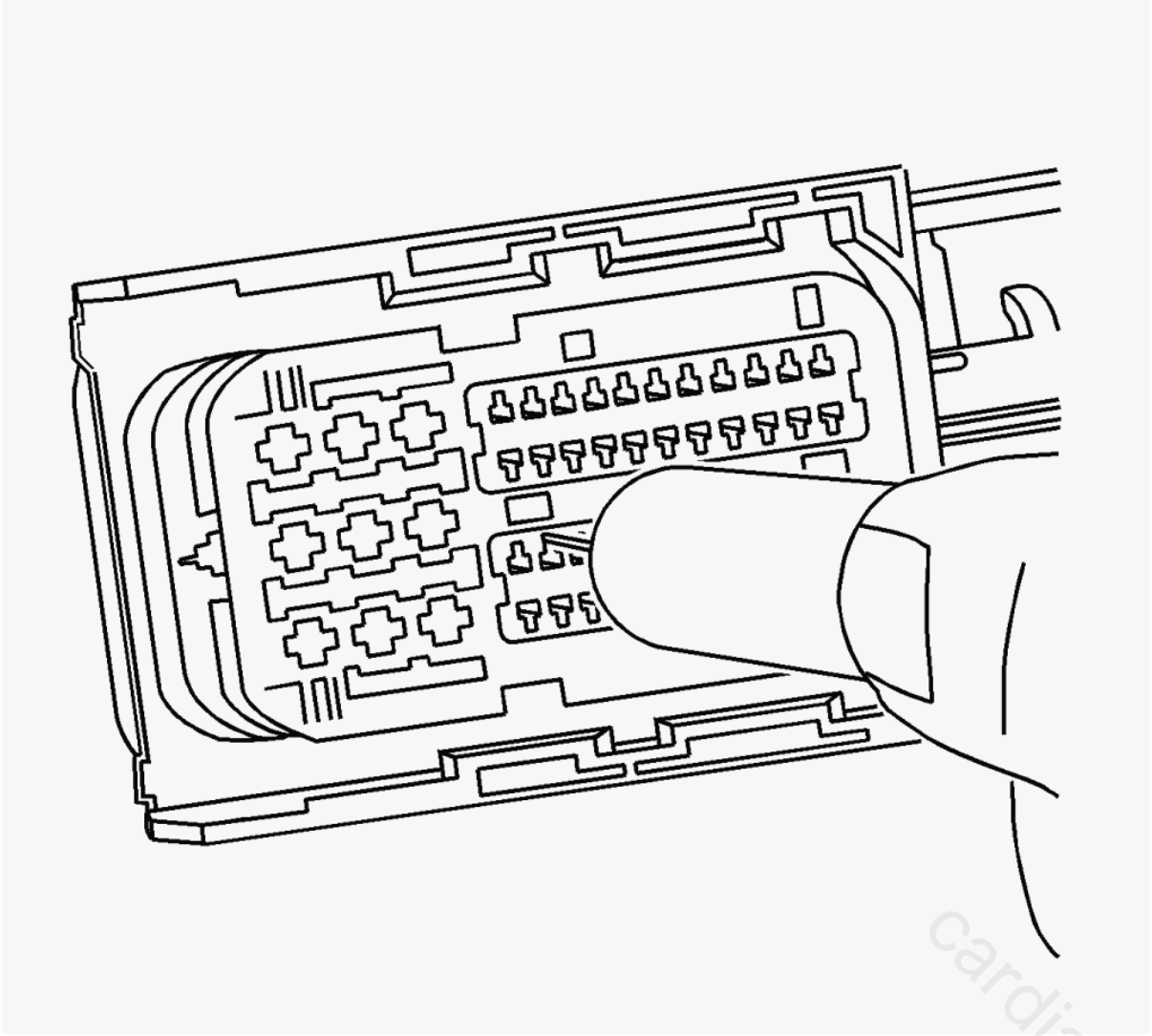


**Fig. 105: Using Special Tool To Release Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

8. Use the J-38125-24 or the J-38125-560 tool to release the terminals by inserting the tool into the terminal release cavity.
9. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
10. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)** **Repairing Connector Terminals (Terminal Repair)** procedure.

## KOSTAL CONNECTORS (TRANSMISSION)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-28** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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**Fig. 106: Connector And Lock**
**Courtesy of GENERAL MOTORS COMPANY**

1. While depressing the lock, twist and remove the connector from the component.

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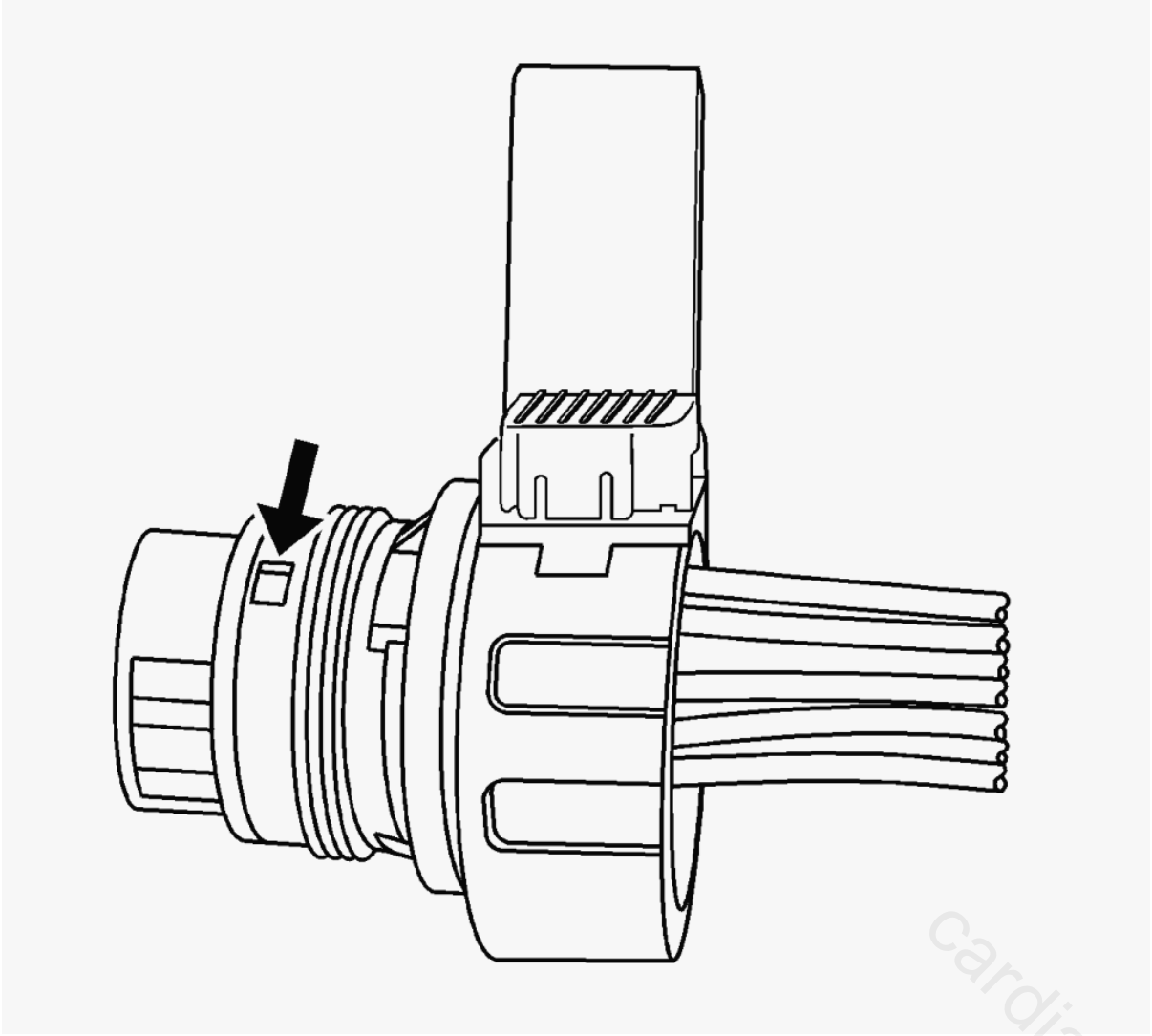


**Fig. 107: Locating Terminal Position Assurance (TPA)**
**Courtesy of GENERAL MOTORS COMPANY**

2. Locate the terminal position assurance (TPA).

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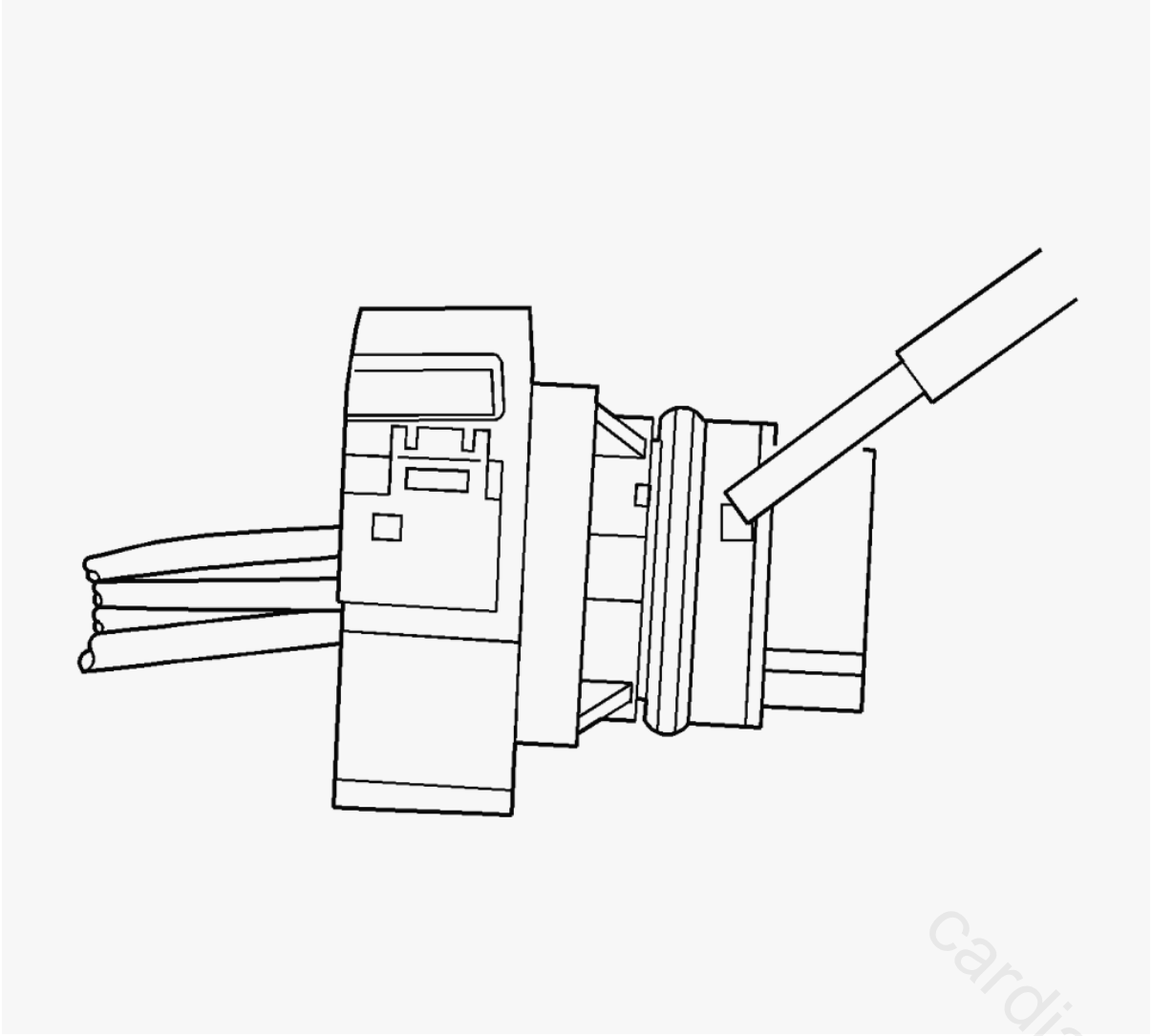


**Fig. 108: Pushing TPA**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **The TPA cannot be removed from the connector while there are terminals present in the connector body.**

3. Use a small flat-blade tool to push the TPA until it bottoms out.

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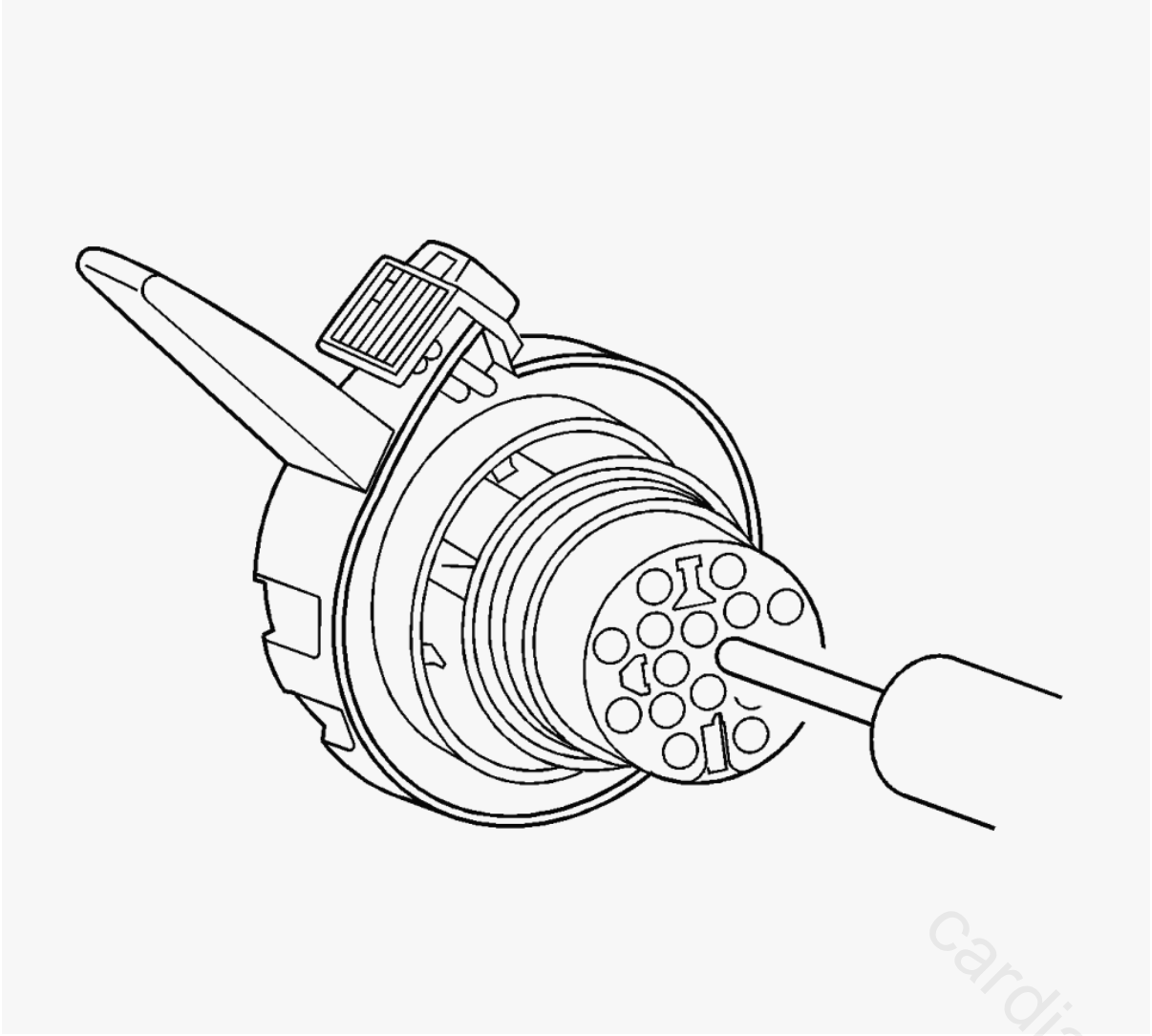


**Fig. 109: Using Special Tool To Release Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

4. Use the J-38125-28 tool to release the terminals by inserting the tool into the terminal cavity as shown in the graphic.
5. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
6. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.

### Terminal Insertion Procedure

After the terminal is replaced, perform the following procedure in order to insert the terminal.

1. Slide the new terminal into the correct cavity at the back of the connector.
2. Push the terminal into the connector until it locks into place. The new terminal should be even with the other terminals. Ensure that the terminal is locked in place by gently pulling on the wire.

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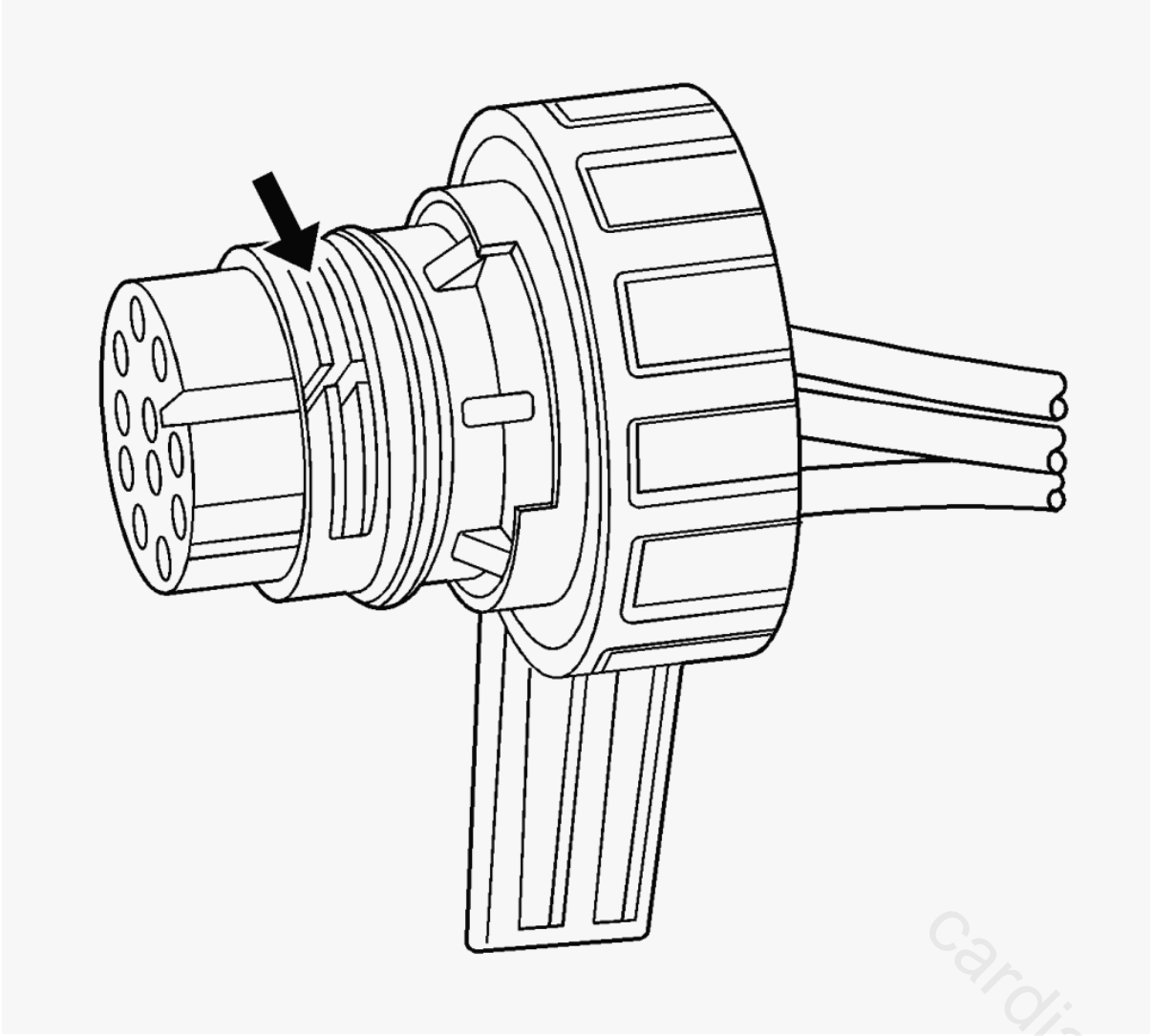


**Fig. 110: Locating Terminal Position Assurance (TPA)**
**Courtesy of GENERAL MOTORS COMPANY**

3. Locate the TPA.

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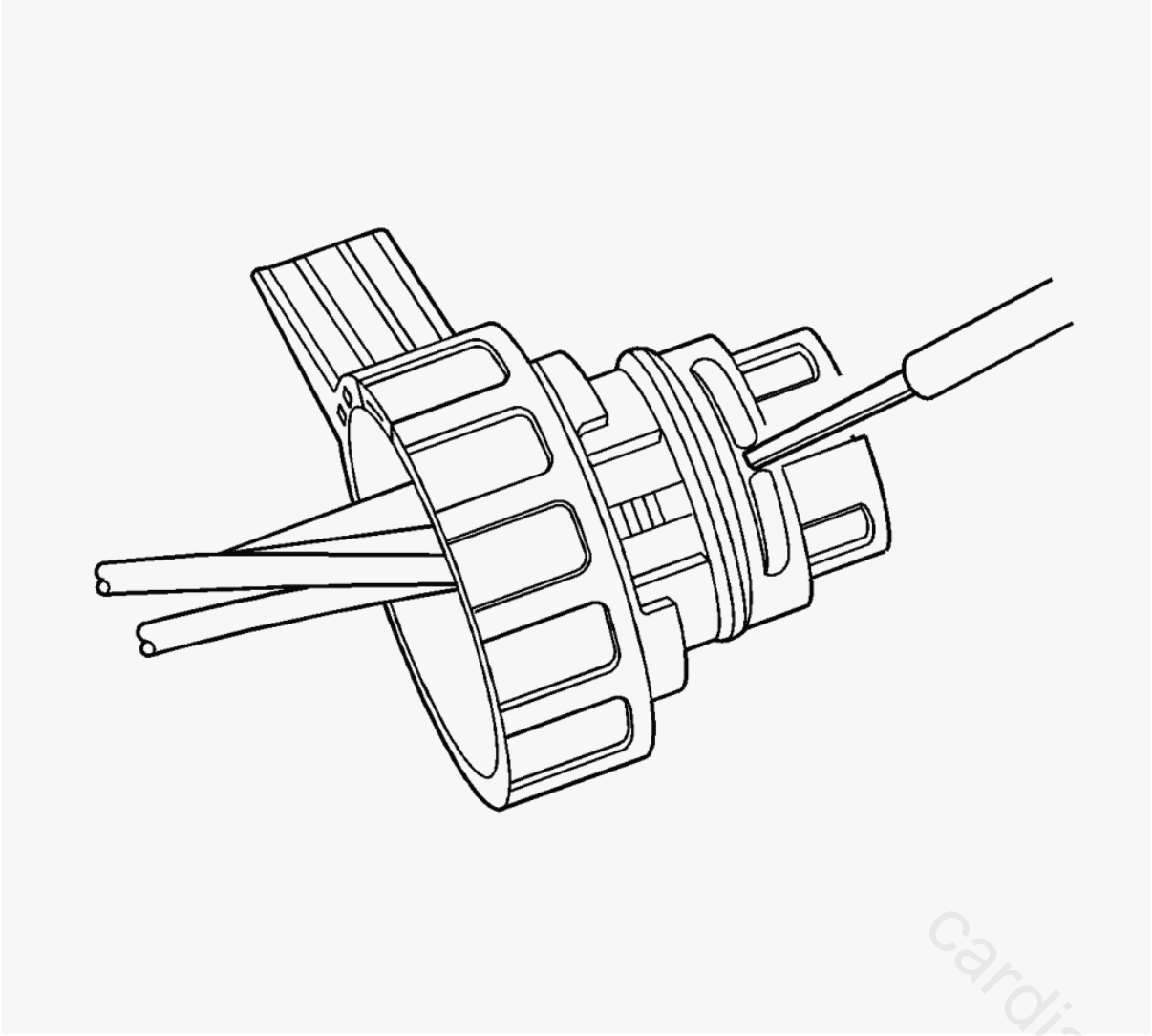


**Fig. 111: Pushing TPA**
**Courtesy of GENERAL MOTORS COMPANY**

4. Use a small flat-blade tool to push the TPA until it bottoms out.

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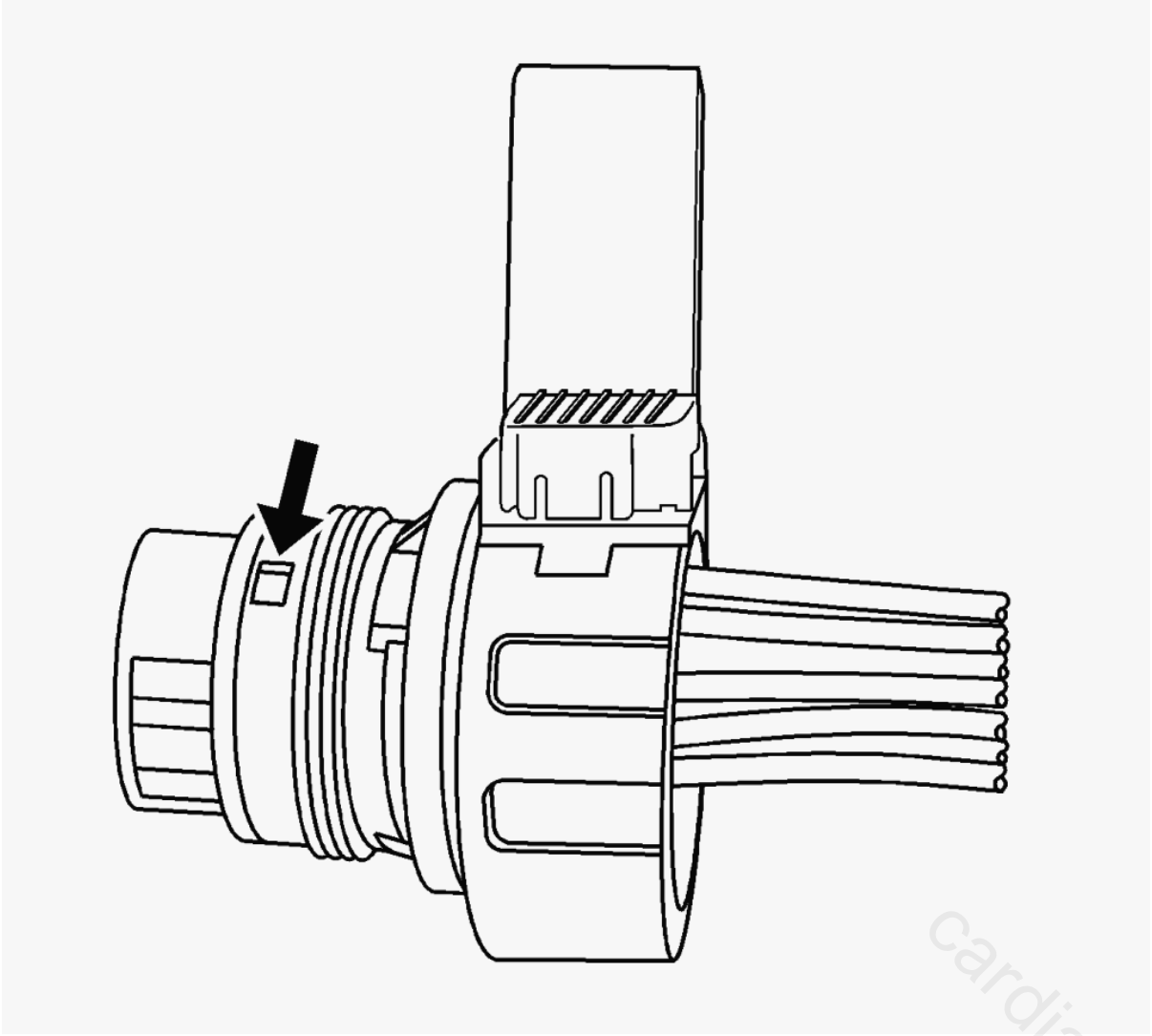


Fig. 112: Fully Seated Terminal Position Assurance (TPA)
**Courtesy of GENERAL MOTORS COMPANY**

5. Ensure the TPA is fully seated. The TPA should be centered and flush with the connector body when viewed.

## MOLEX CONNECTORS (LEVER LOCK)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-213** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Locate the connector position assurance (CPA) on the top of the wire dress cover. Slide the CPA forward.

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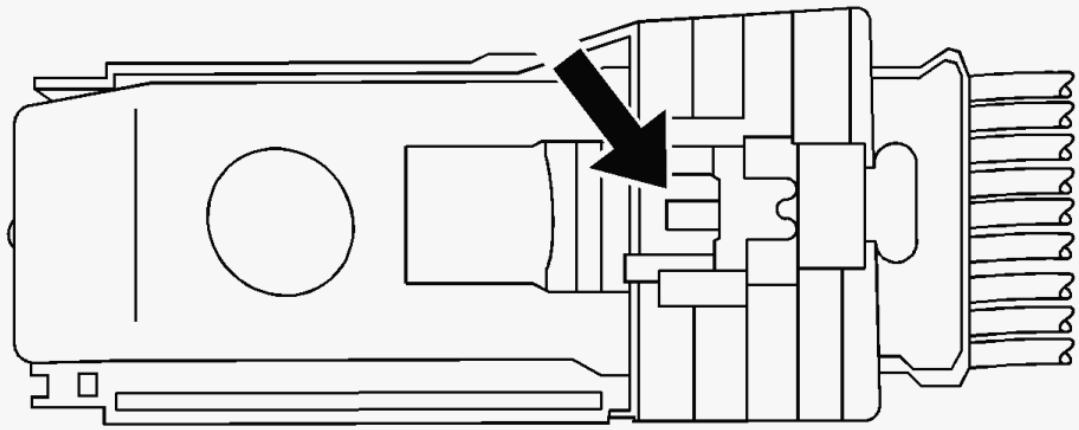


**Fig. 113: Identifying Lever Lock Release Tab**
**Courtesy of GENERAL MOTORS COMPANY**

2. Slide the lever lock forward while pressing down on the lever lock release tab.

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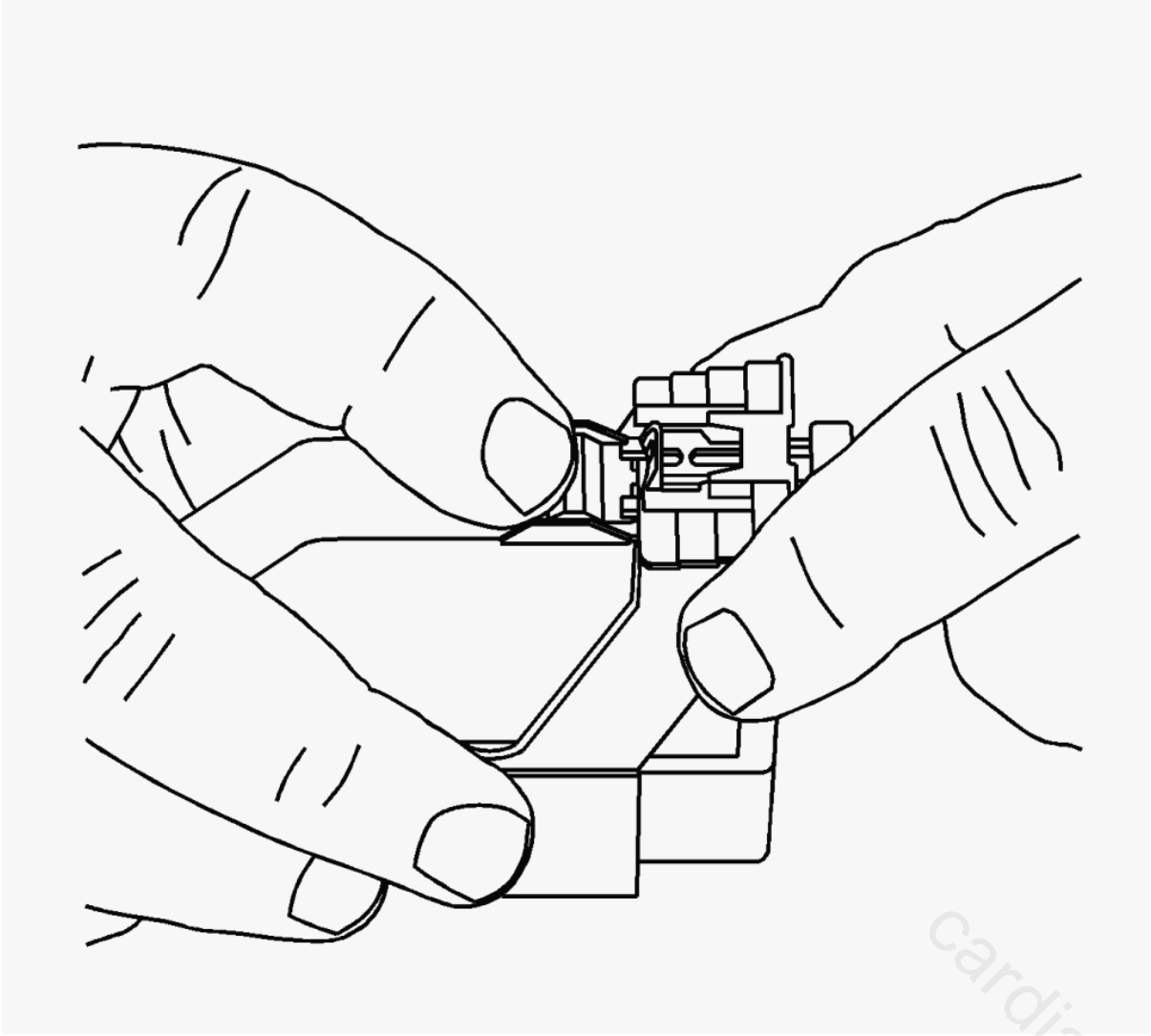


**Fig. 114: Pressing Lever Lock Release Tab**
**Courtesy of GENERAL MOTORS COMPANY**

3. The lever should be in the full forward position.

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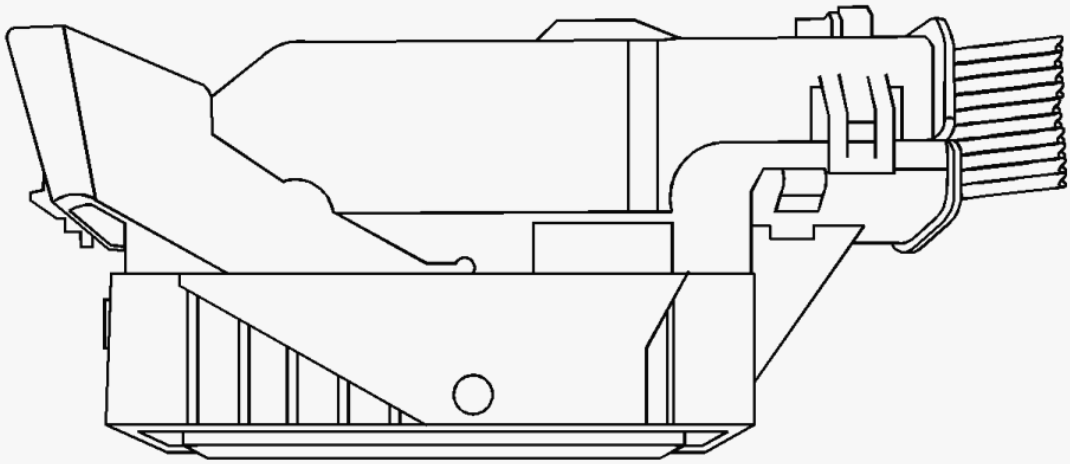


**Fig. 115: Connector Released From Component**
**Courtesy of GENERAL MOTORS COMPANY**

4. Disconnect the connector from the component.

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**Fig. 116: Removing Dress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

5. Remove the dress cover by using a flat bladed tool to release the dress cover locking tabs and lift up on the dress cover.
6. Cut the tie wrap that holds the wires to the connector body.

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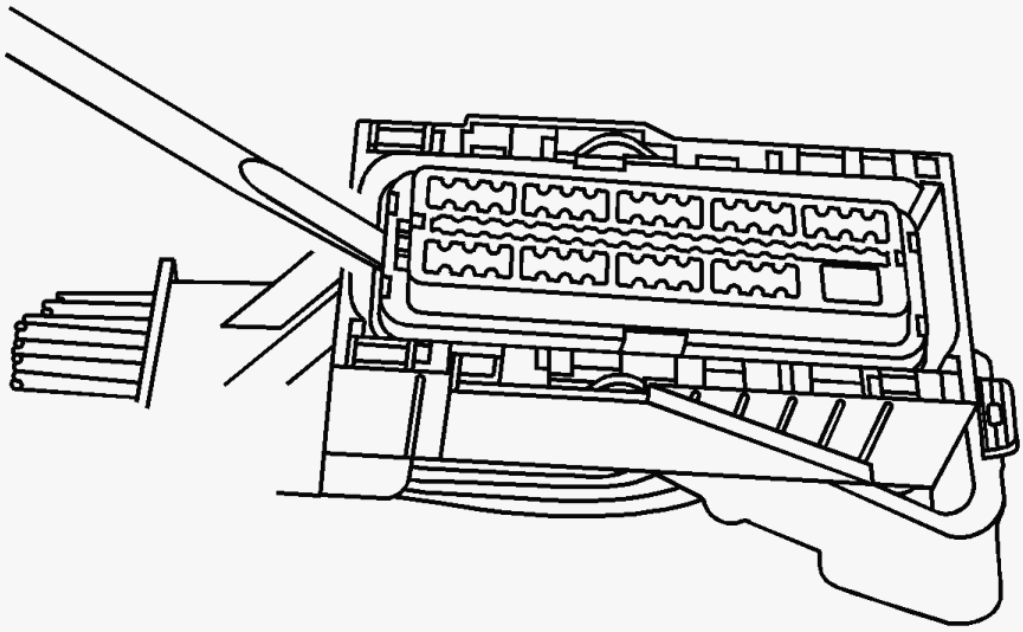


**Fig. 117: Prying One Side Of Nose Piece**
**Courtesy of GENERAL MOTORS COMPANY**

7. Use a small flat-blade tool to pry one side of the nose piece up to the pre-stage position. When the nose piece is in the pre-staged position, the nose piece will be raised above the connector body the length of the step in the nose piece.

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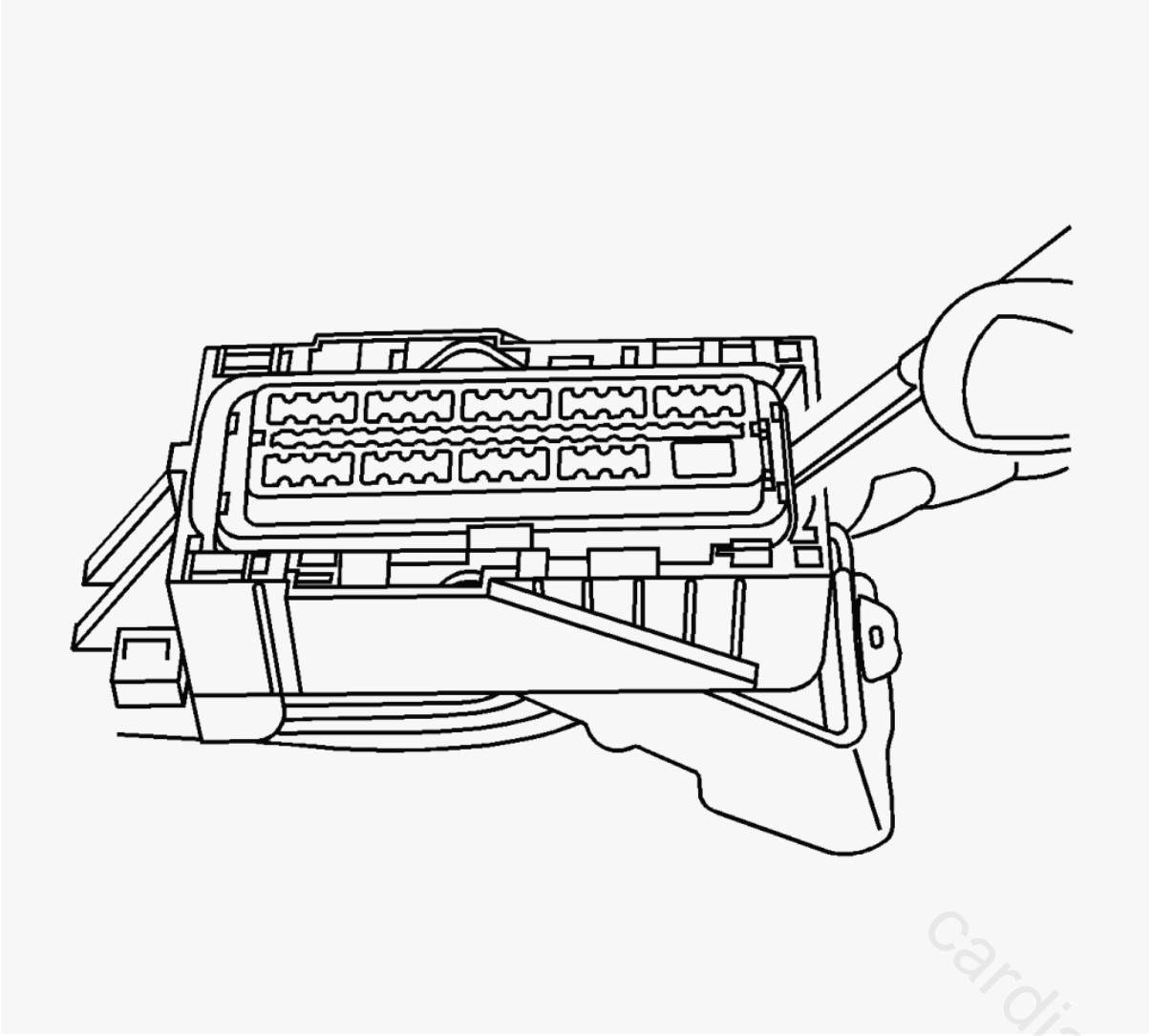


**Fig. 118: Prying Other Side Of Nose Piece**
**Courtesy of GENERAL MOTORS COMPANY**

8. Use a small flat-blade tool to pry the other side of the piece to the pre-stage position. If the nose piece is higher than the first step in the nose piece, gently push down on the nose piece until it meets with resistance from the connector body, you should feel the nose piece click into position.

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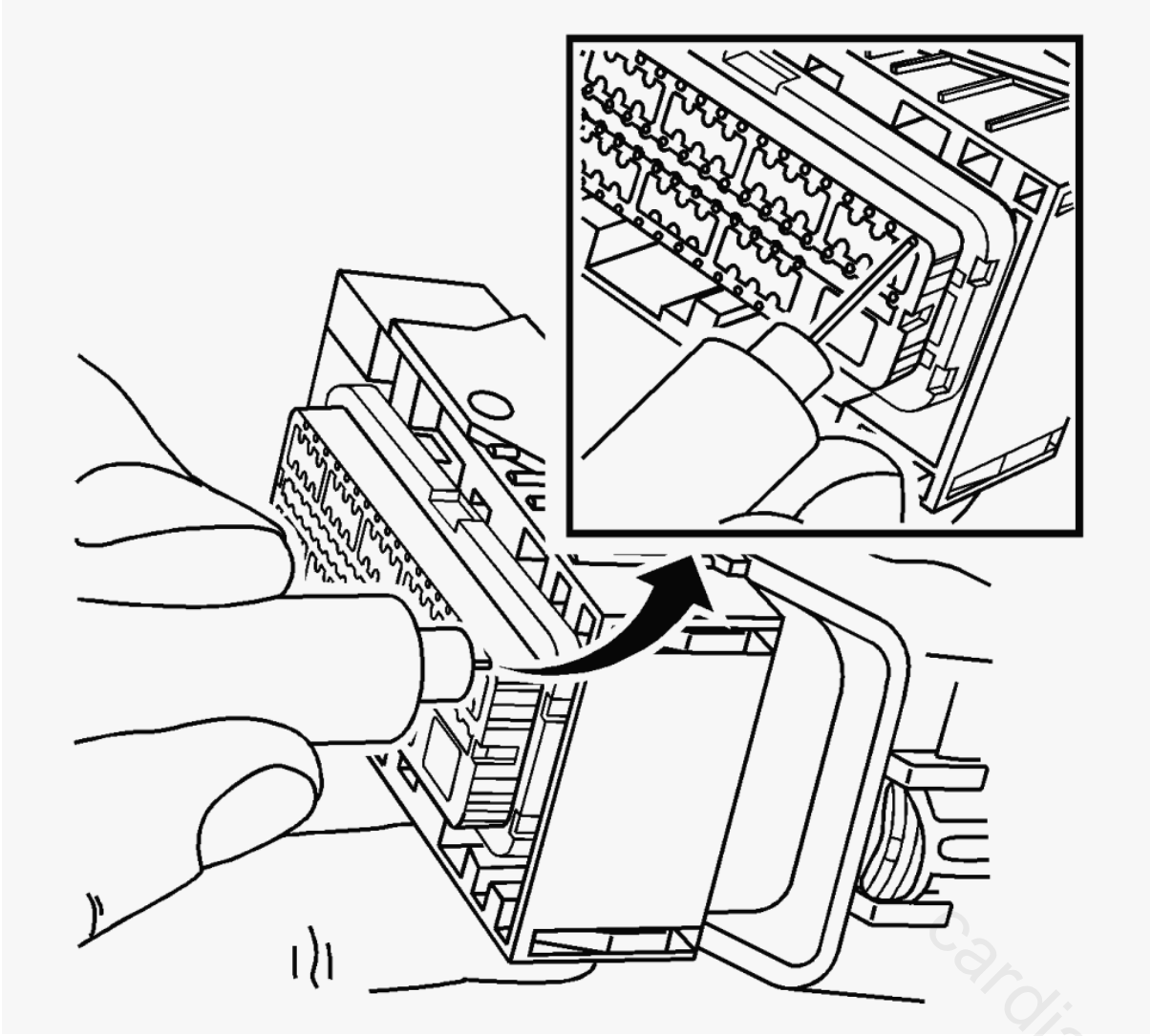


**Fig. 119: Inserting Special Tool Into Small Terminal Release Hole**
**Courtesy of GENERAL MOTORS COMPANY**

9. Insert the J-38125-213 into the small terminal release hole on the nose piece and gently pull on the back of the wire.
10. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
11. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

### Terminated Lead Repair

1. Remove the terminal.
2. Find the appropriate terminated lead.
3. Use the appropriate splice sleeves depending on the gauge size.
4. Refer to **Wire to Wire Repair**.

### Terminal Insertion Procedure

After the terminal is replaced, perform the following procedure in order to insert the terminal.

1. Slide the new terminal into the correct cavity at the back of the connector.
2. Push the terminal into the connector until it locks into place. The new terminal should be even with the other terminals. Insure that the terminal is locked in place by gently pulling on the wire.
3. To assemble the connector, reverse the connector disassembly procedure.

## MOLEX CONNECTORS (SIR)

### Removal Procedure

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**NOTE:** **The orange or yellow connector position assurance (CPA) must be released first to disconnect or to connect the connector.**

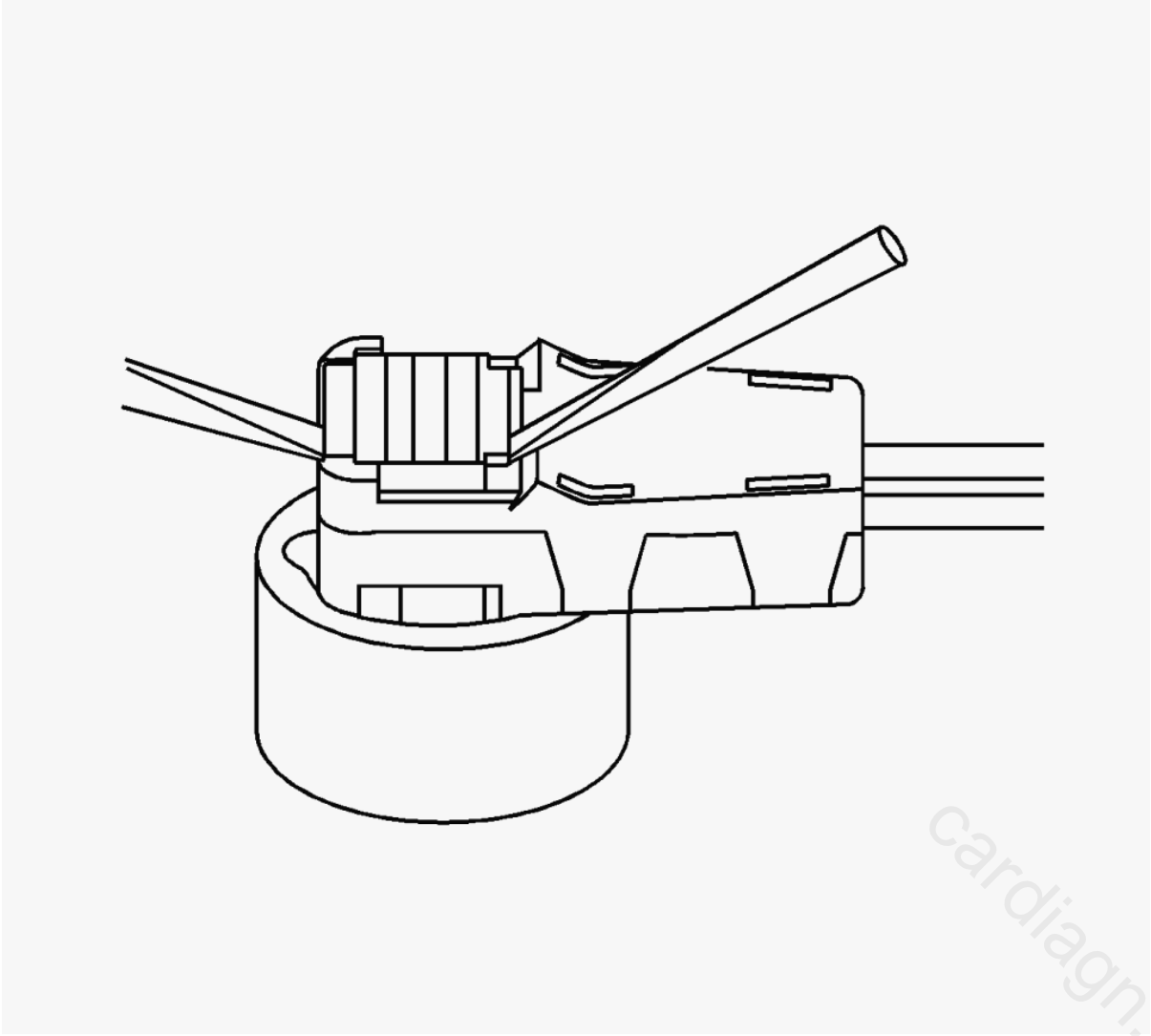


**Fig. 120: Lifting Orange CPA**
**Courtesy of GENERAL MOTORS COMPANY**

1. Lift the orange or yellow CPA vertically (avoid lifting on an angle to the connector) approximately 4 mm to release the connector. Use a small flat-bladed tool to help release the CPA. The CPA may also be released manually without any tools.

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**Fig. 121: Grabbing Connector On Both Sides**
**Courtesy of GENERAL MOTORS COMPANY**

2. Grab the connector on both sides and lift vertically to disconnect the connector.

**Installation Procedure**

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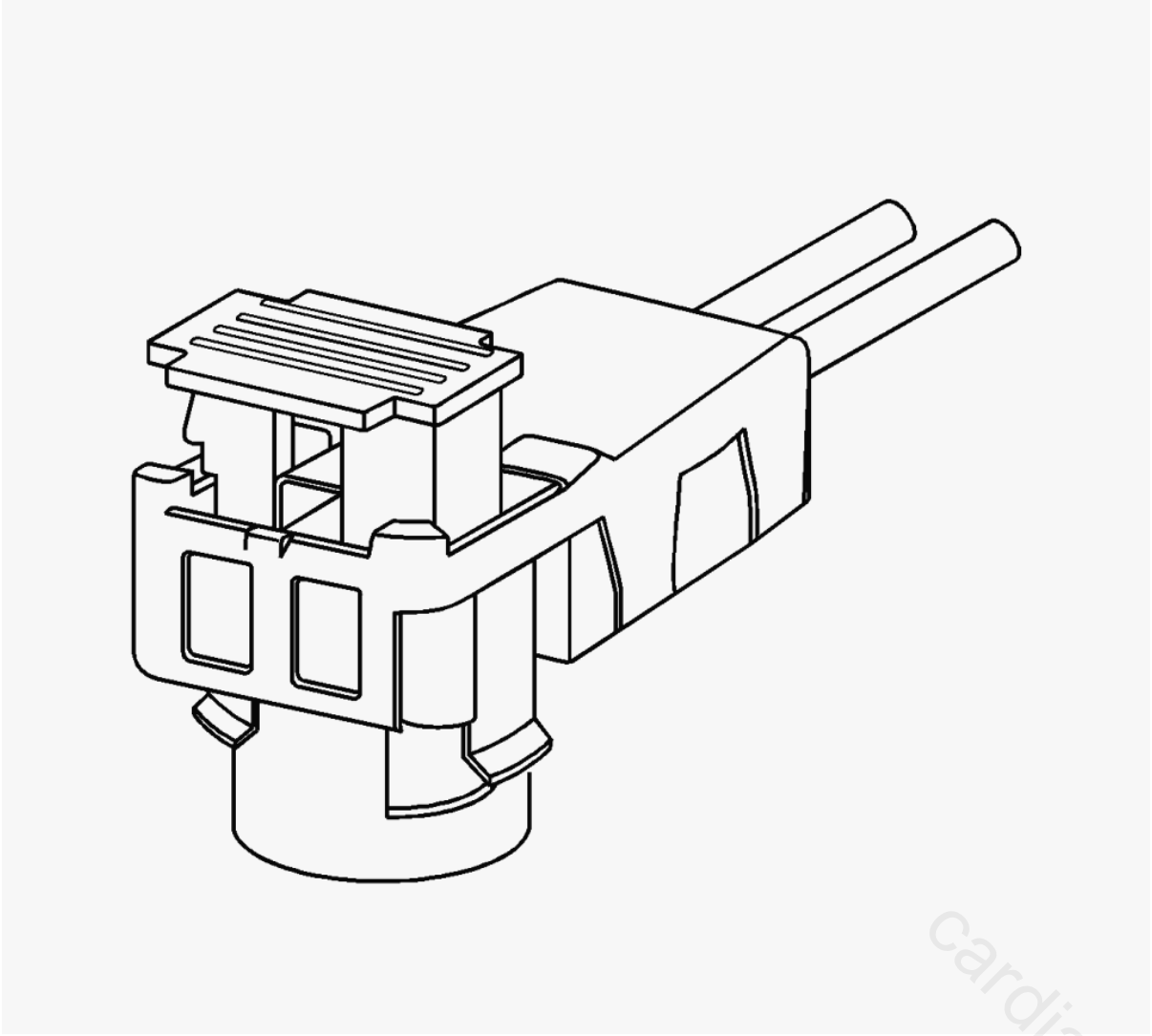


**Fig. 122: Lifting Orange CPA**
**Courtesy of GENERAL MOTORS COMPANY**

1. The CPA should be approximately 4 mm above the yellow cover before installing the connector. If not, use a small flat-bladed tool to help release the CPA. The CPA may also be released manually without any tools.

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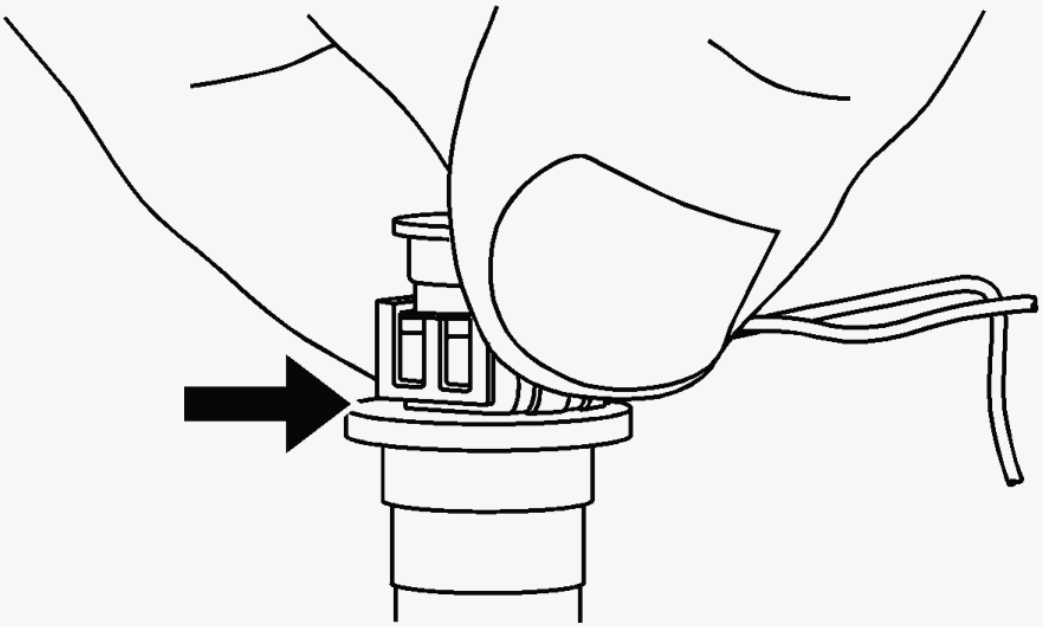


**Fig. 123: Seating Connector Sub-Assembly**
**Courtesy of GENERAL MOTORS COMPANY**

2. Line up the connector key tabs with the initiator key slots. Grab the connector on both sides and push down into the initiator connector sub assembly until fully seated.

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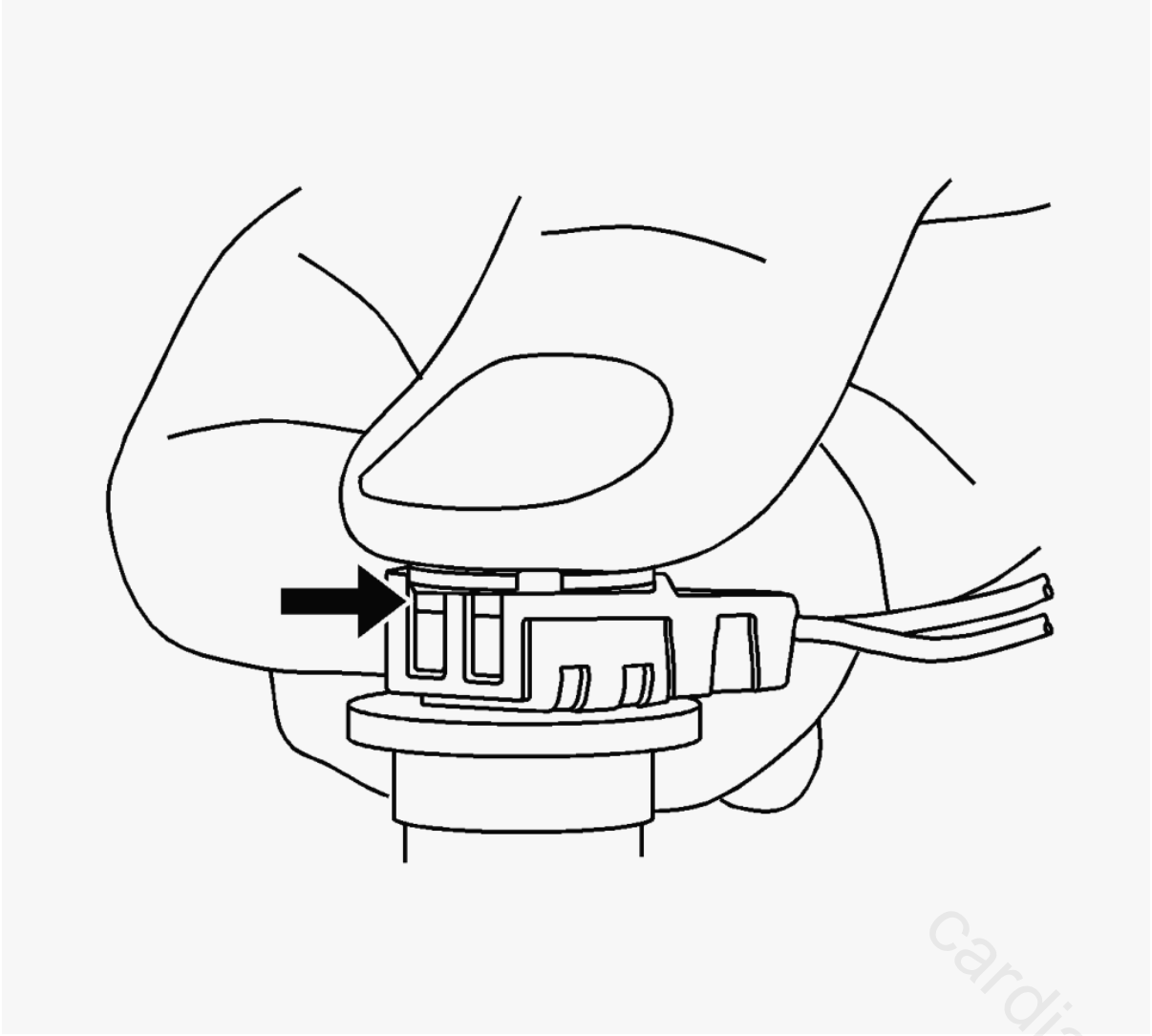


**Fig. 124: Pushing CPA Down**
**Courtesy of GENERAL MOTORS COMPANY**

3. After the connector is fully seated, push the CPA down with your thumb until the CPA is touching the yellow cover on the connector.

## SUMITOMO CONNECTORS

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool
- **J-38125-552** Terminal Release Tool
- **J-38125-553** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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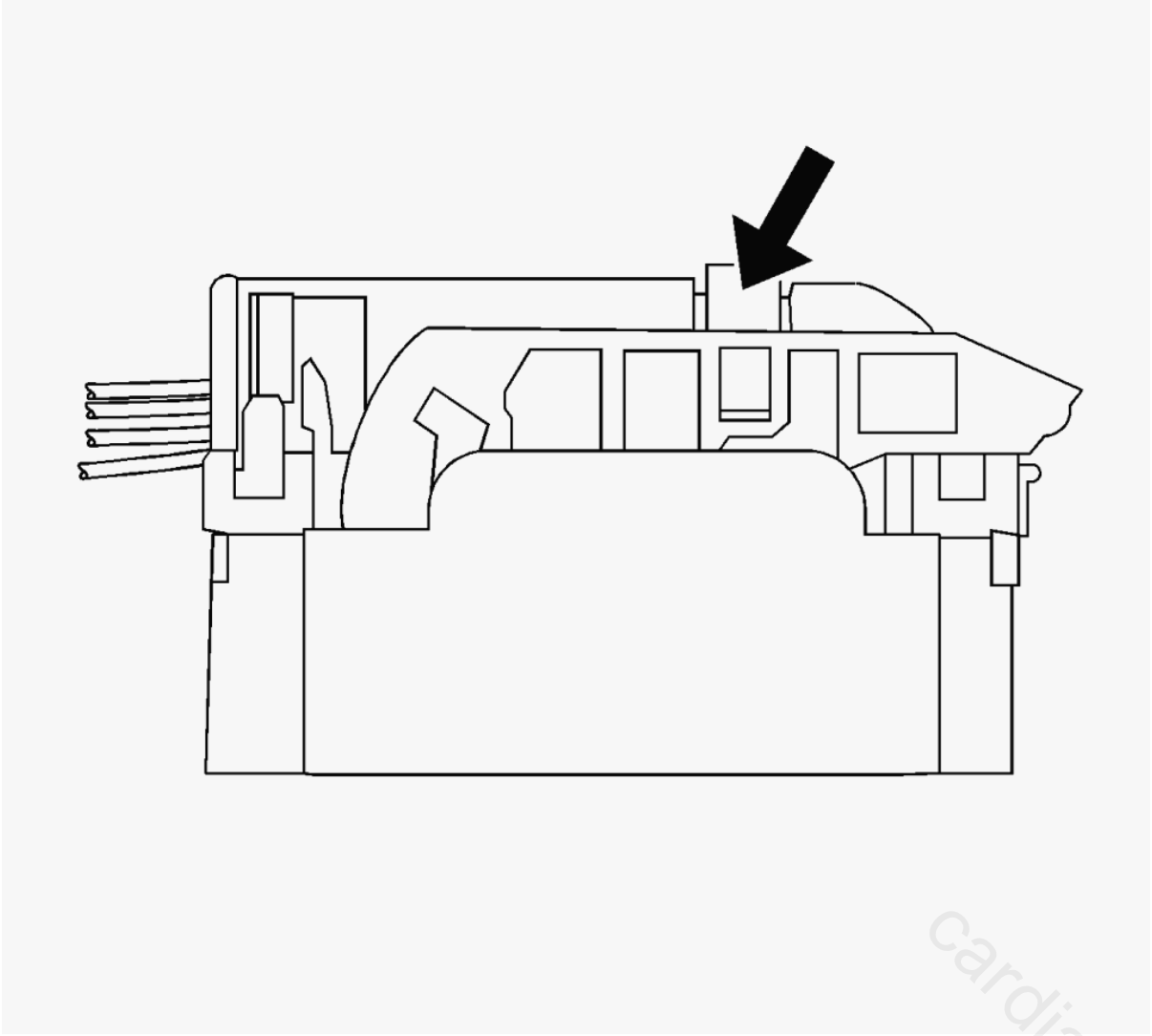


**Fig. 125: Identifying Lever Lock**
**Courtesy of GENERAL MOTORS COMPANY**

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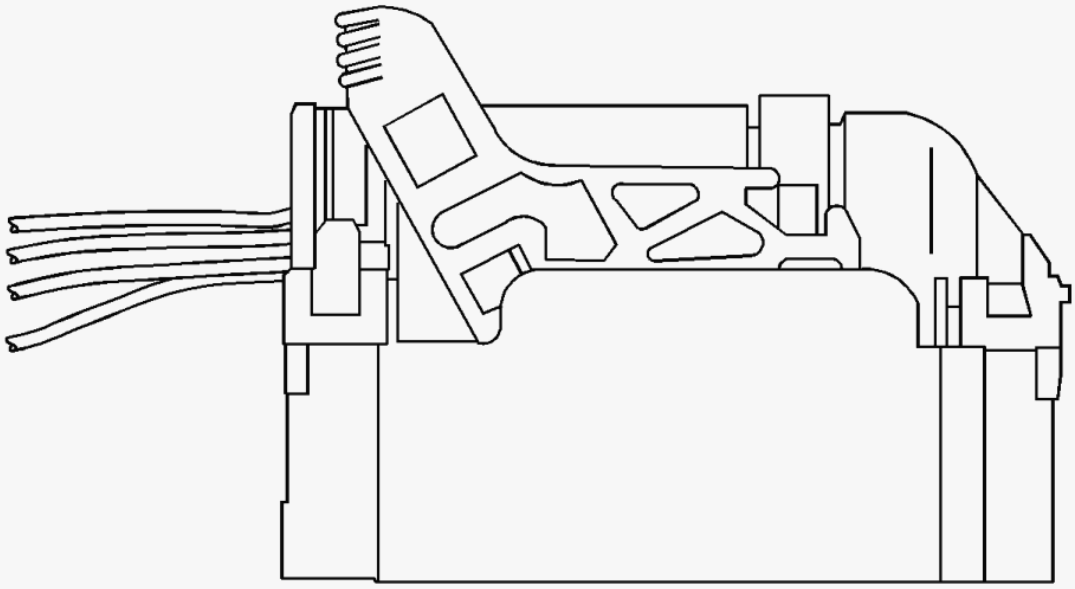


**Fig. 126: Lever Lock In Forward Position**
**Courtesy of GENERAL MOTORS COMPANY**

1. Slide the lever lock forward while pressing down on the lever lock release tab.
2. Disconnect the connector from the component.

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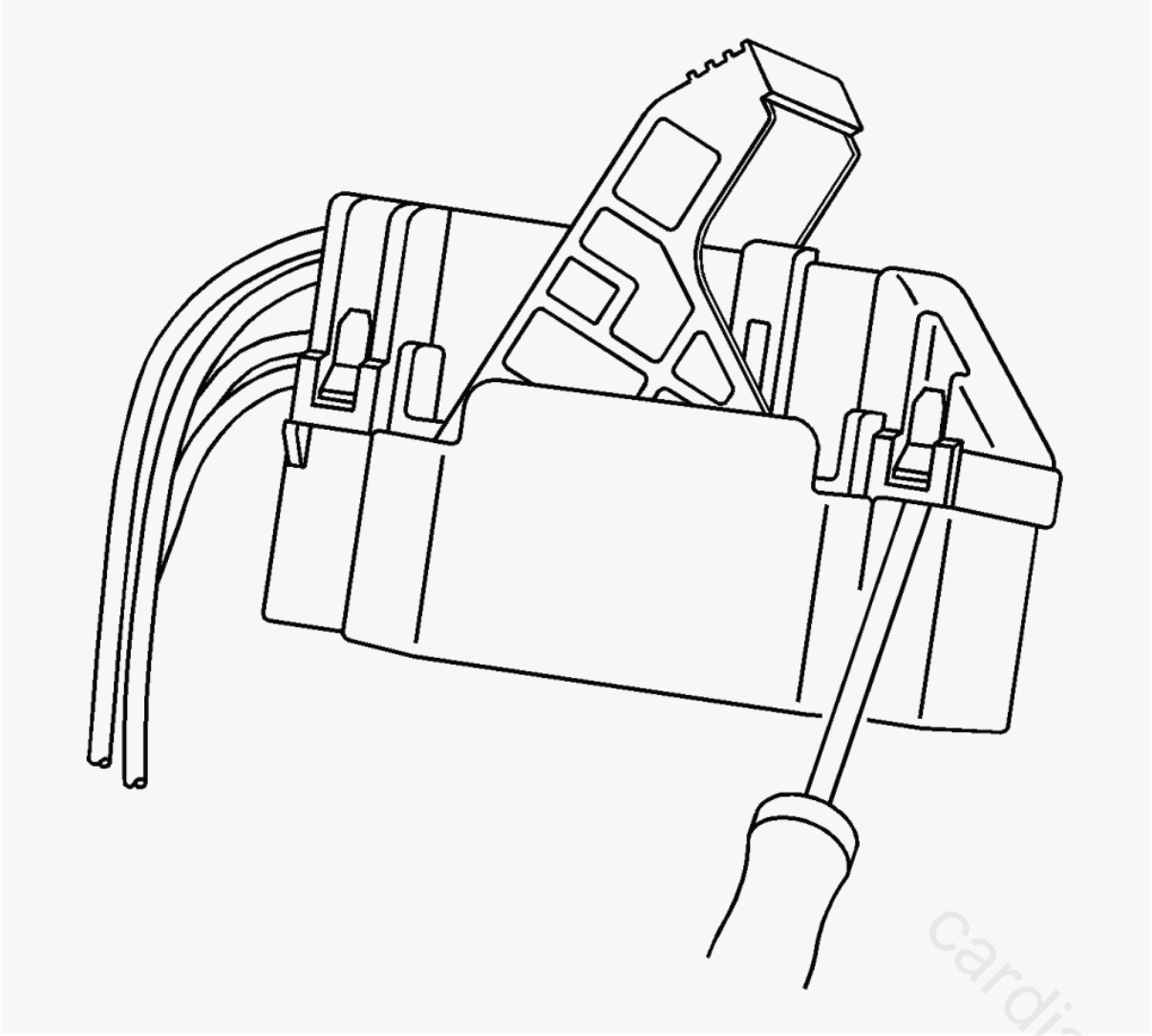


**Fig. 127: Releasing Connector Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

3. Remove the dress cover by using a flat-blade tool to release the connector locking tabs and pulling off the dress cover.

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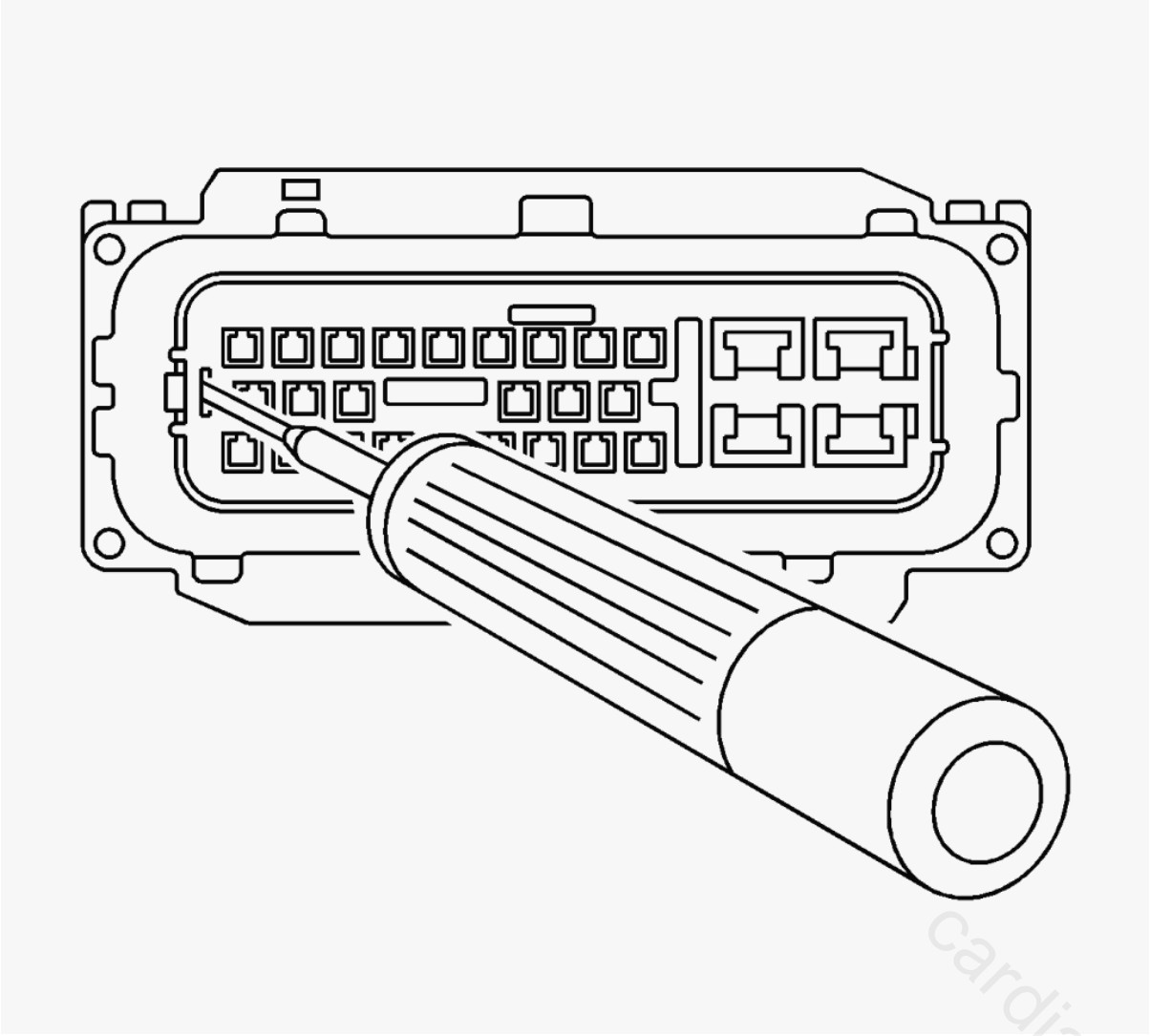


**Fig. 128: Inserting Tool Into Single Retainer Slot**
**Courtesy of GENERAL MOTORS COMPANY**

4. Relieve the tension on the nose piece retainers by inserting J-38125-12A into the single retainer slot on the end of the nose piece and gently prying out the locking tab. Repeat the process for both of the nose piece locking tabs on the opposite side of the nose piece.

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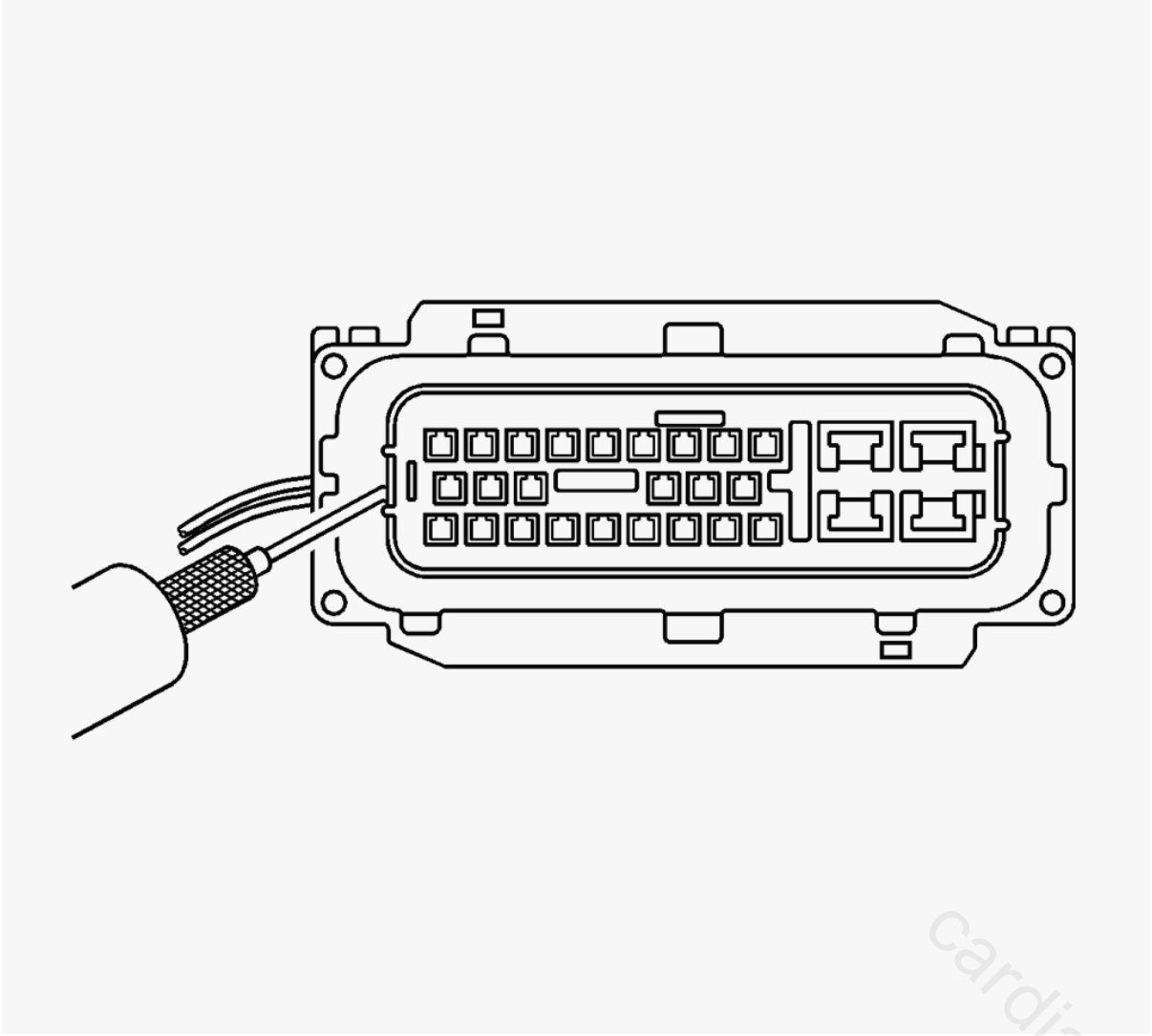


**Fig. 129: Pulling Up One End Of Nose Piece (1st Side)**
**Courtesy of GENERAL MOTORS COMPANY**

5. Once the nose piece retainers are relaxed, use the J-38125-552 to pull up the nose piece by hooking the tool under the nose piece and pulling up. The nose piece should raise slightly.

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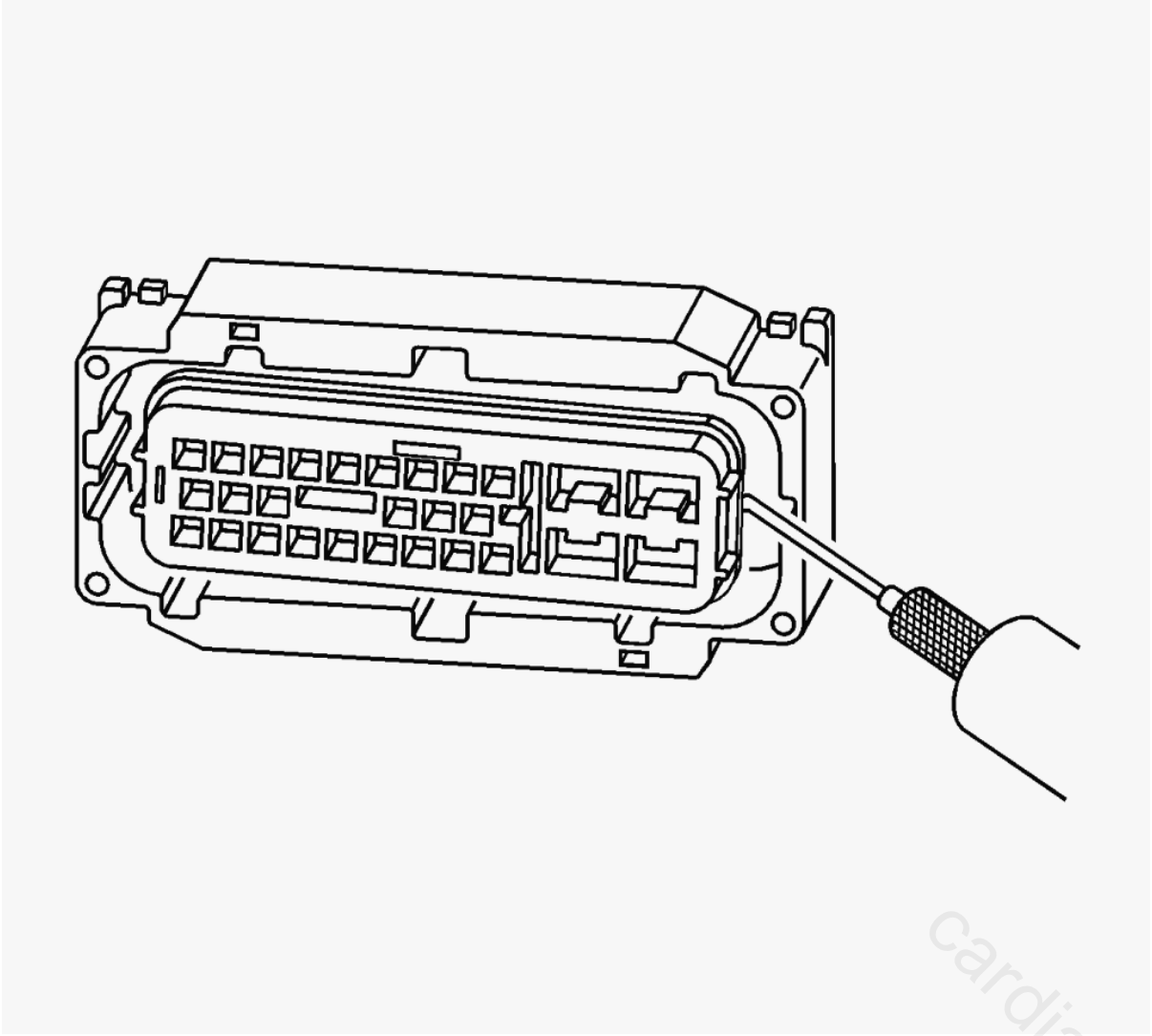


**Fig. 130: Pulling Up One End Of Nose Piece (2nd Side)**
**Courtesy of GENERAL MOTORS COMPANY**

6. On the opposite side of the nose piece, use the J-38125-552 pull up the nose piece by hooking the tool under the nose piece and pulling up. The nose piece should release completely. If the nose piece does not come off, repeat the procedure on the opposite side.

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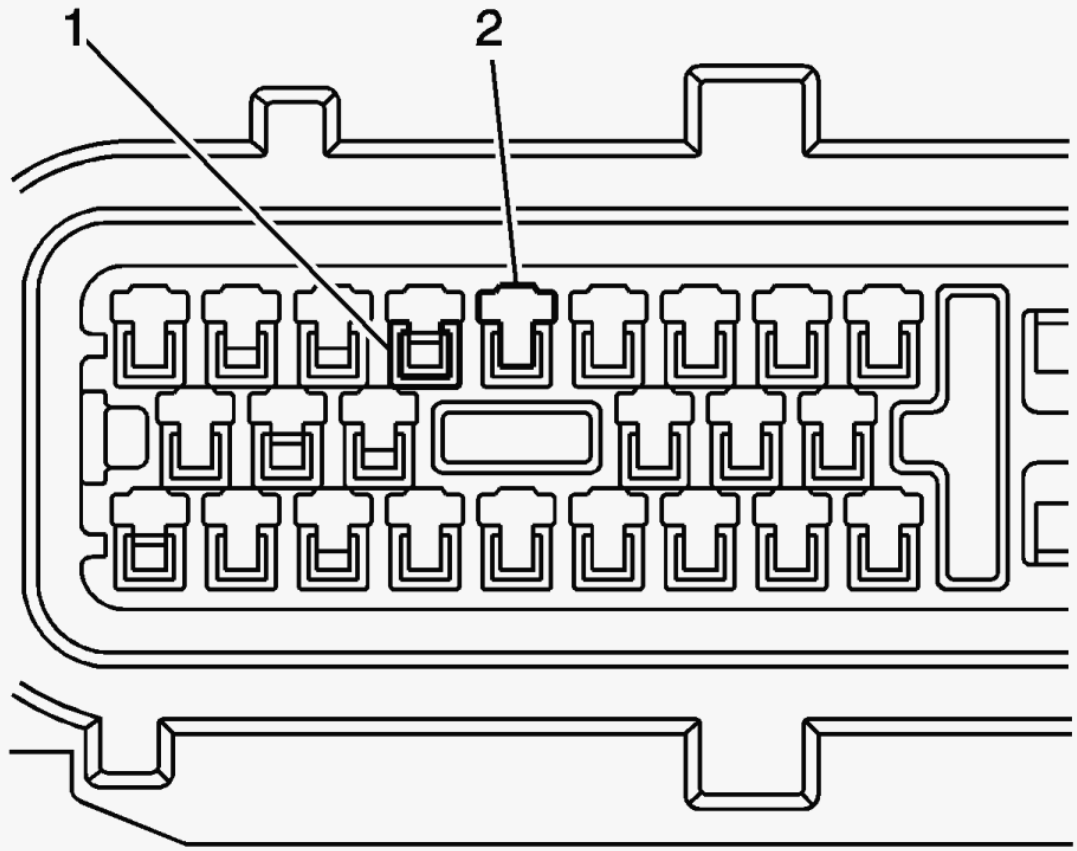



**Fig. 131: Terminal And Entry Canal**
**Courtesy of GENERAL MOTORS COMPANY**

7. The illustration above identifies the entry canal where the terminal release tool will be inserted, and the terminal cavity.
    - Terminal (1)
    - Entry Canal (2)

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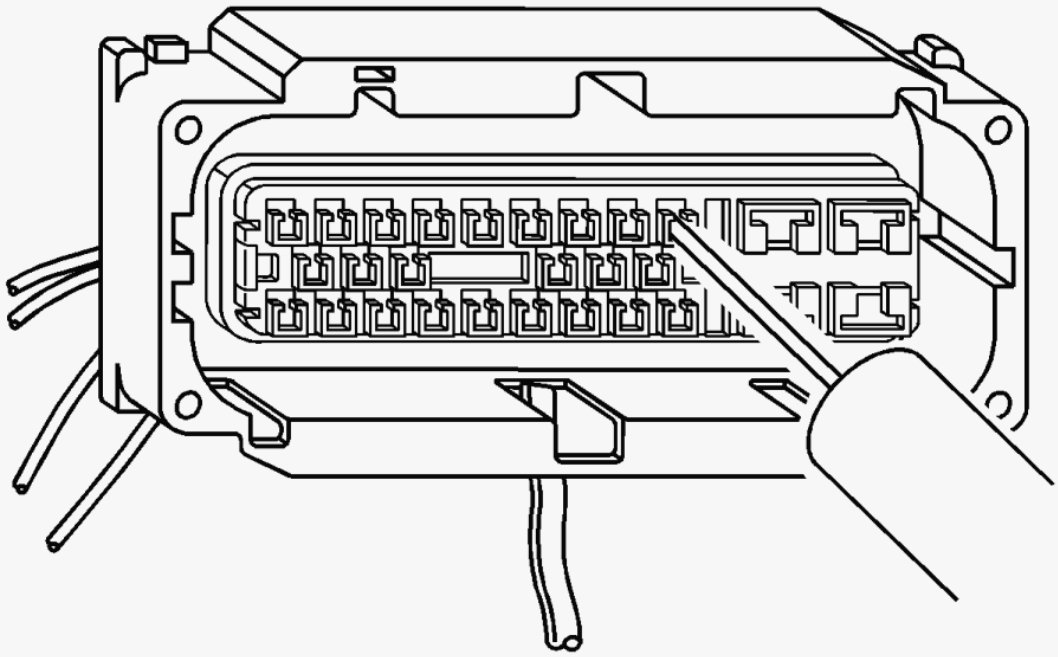


**Fig. 132: Inserting Terminal Release Tool Into Entry Canal**
**Courtesy of GENERAL MOTORS COMPANY**

8. Insert the J-38125-553 tool into the entry canal and pry up on the terminal retainer. The terminal retainer is a small plastic piece on the top of the terminal. The terminal retainer must be held up while the terminal is pulled out of the connector.

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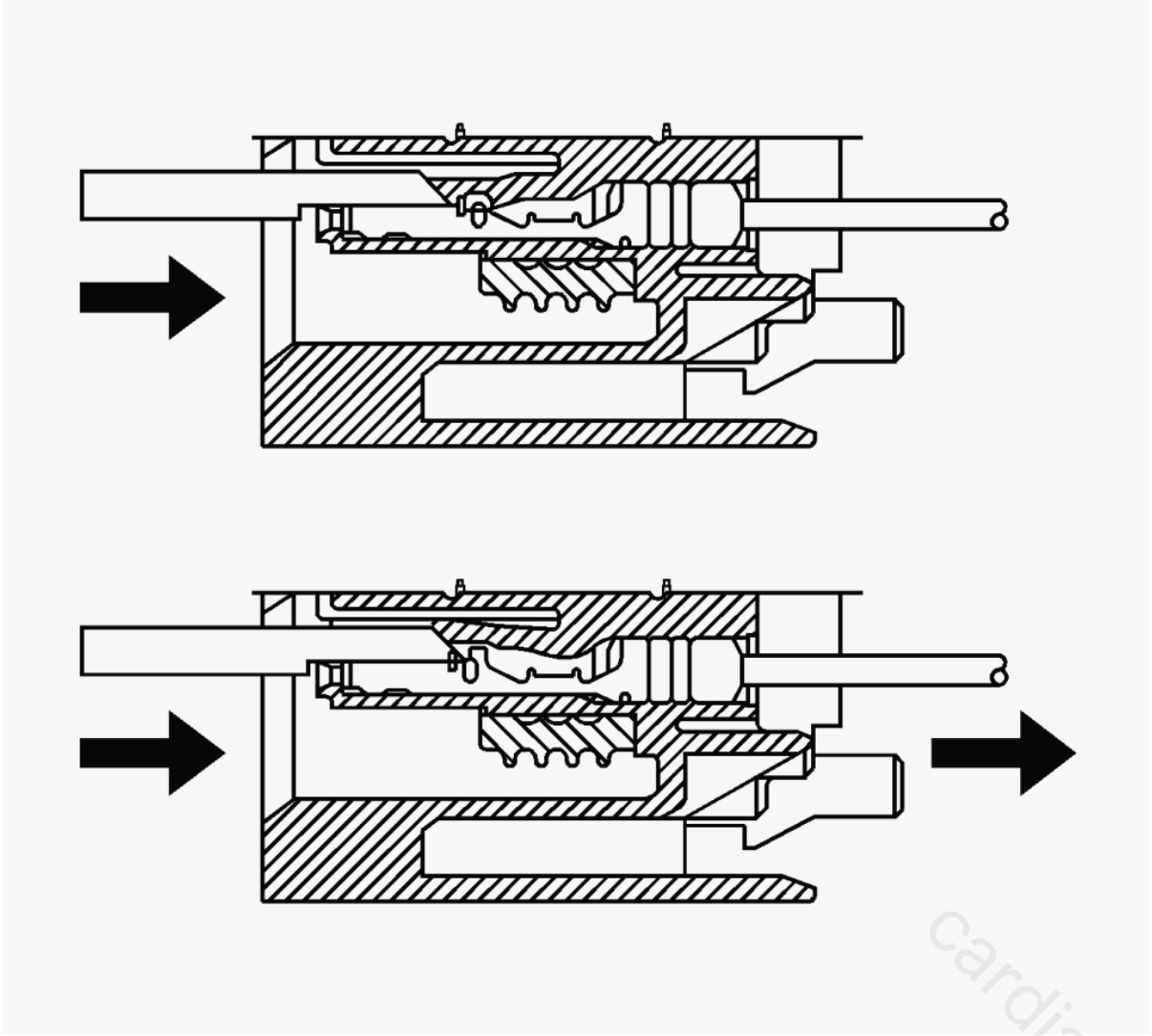


**Fig. 133: Cutaway View Of Connector**
**Courtesy of GENERAL MOTORS COMPANY**

9. The illustration shows a cutaway view of the connector to aid the technician in releasing the terminal retainer.
10. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
11. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

### Terminal Insertion Procedure

After the terminal is replaced, perform the following procedure in order to insert the terminal.

1. Slide the new terminal into the correct cavity at the back of the connector.
2. Push the terminal into the connector until it locks into place. The new terminal should be even with the other terminals. Ensure that the terminal is locked in place by gently pulling on the wire.
3. To assemble the connector, reverse the connector disassembly procedure.

## TYCO/AMP CONNECTORS (CM 42-WAY)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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1. Locate the connector position assurance (CPA) on the connector body and pull the CPA out. The CPA is on the wire harness side of connector.
2. Disconnect the connector from the component.

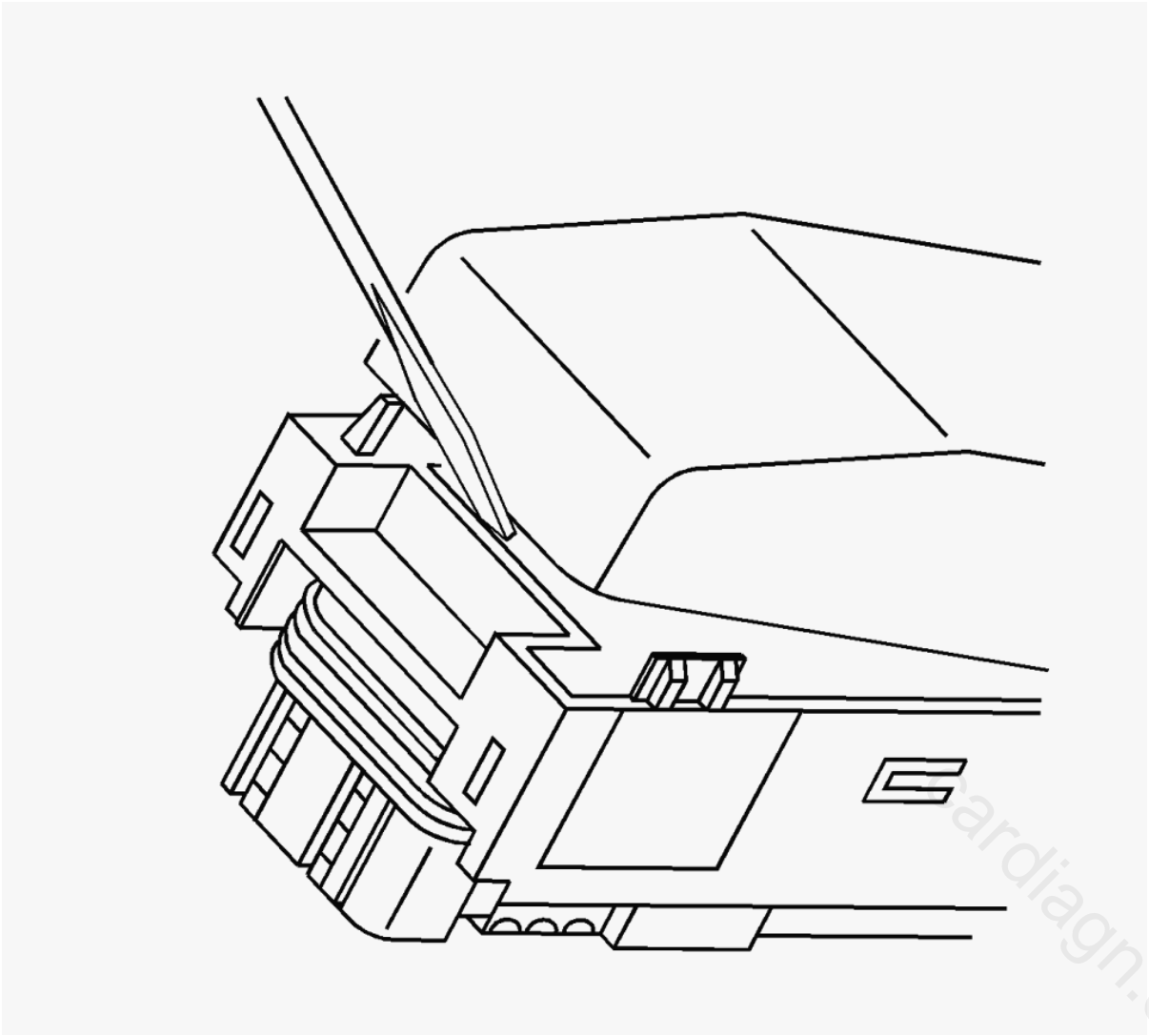


**Fig. 134: Removing Dress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

3. Use a small flat-bladed tool to gently pry off the dress cover by inserting the tool under the cover opposite the harness side and prying up.
4. Remove the cover.

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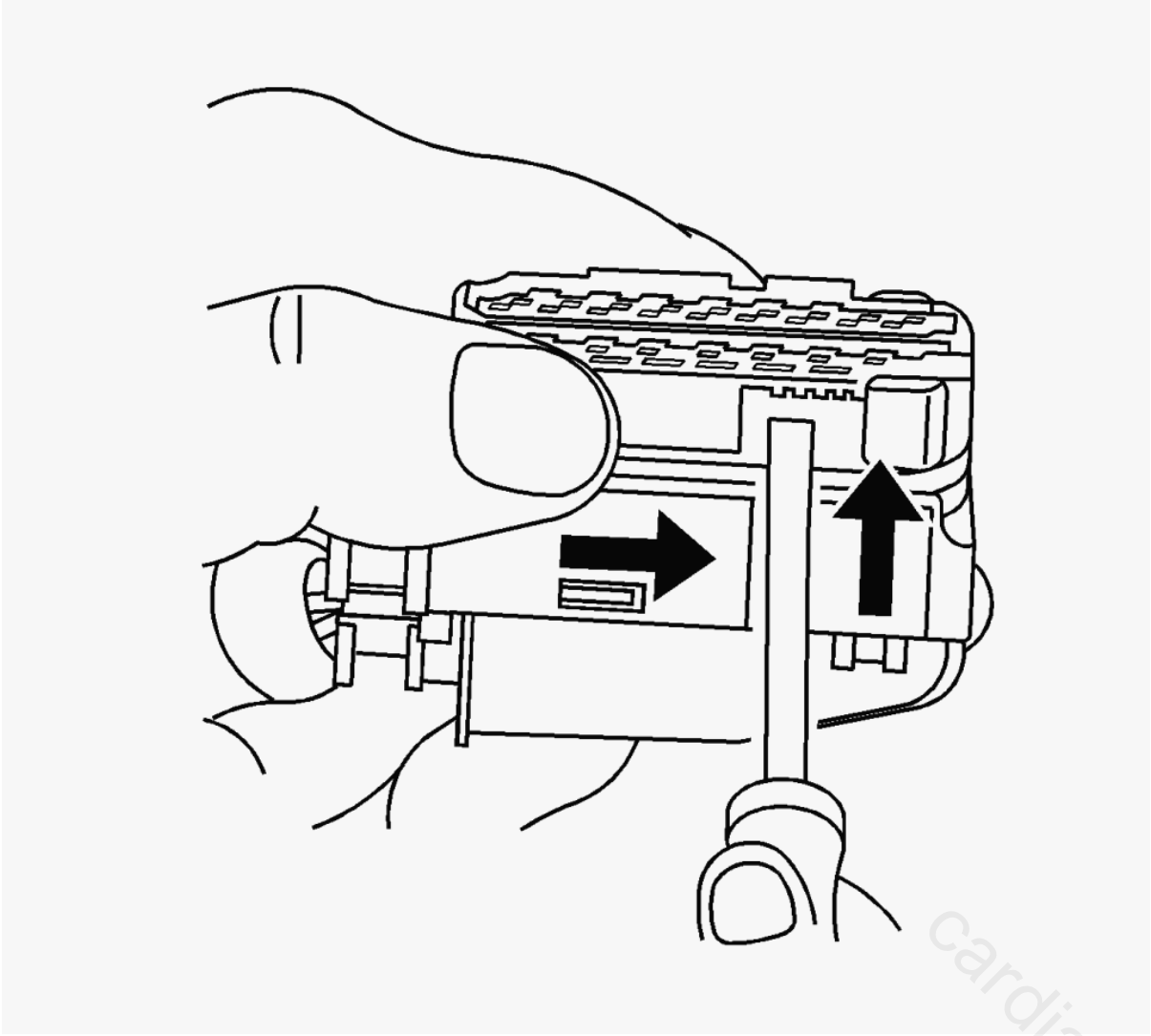


**Fig. 135: Releasing Terminal Position Assurance (TPA)**
**Courtesy of GENERAL MOTORS COMPANY**

5. Using a small flat-bladed tool, push on the side of the nose piece retainer while pushing the nose piece forward with your thumb. This will release the terminal position assurance (TPA).

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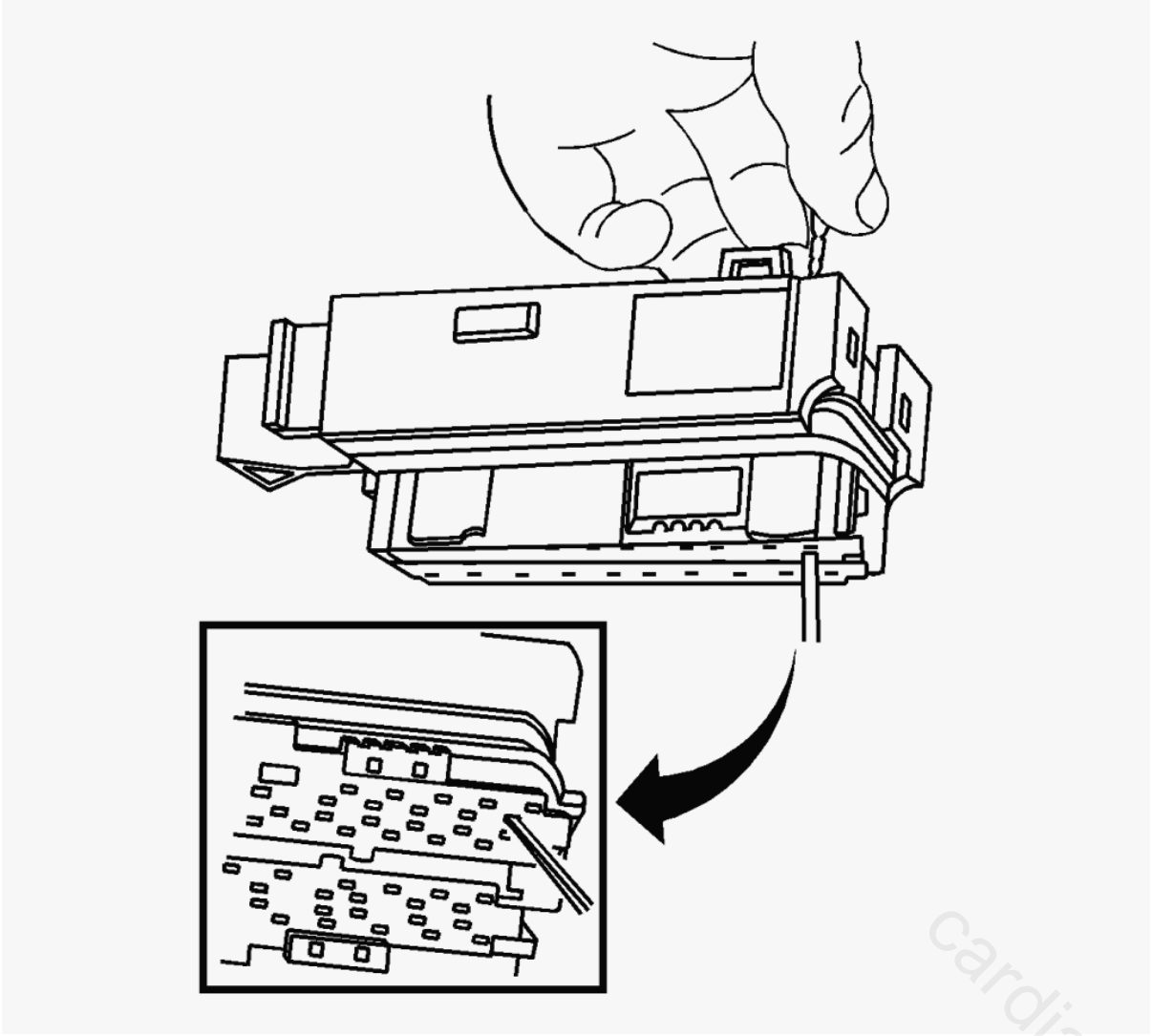


**Fig. 136: Inserting Special Tool Into Terminal Release Cavity**
**Courtesy of GENERAL MOTORS COMPANY**

6. Insert the **J-38125-12A** tool into the corresponding terminal release cavity. The release cavities are the 2 center rows of cavities on one half of the connector.

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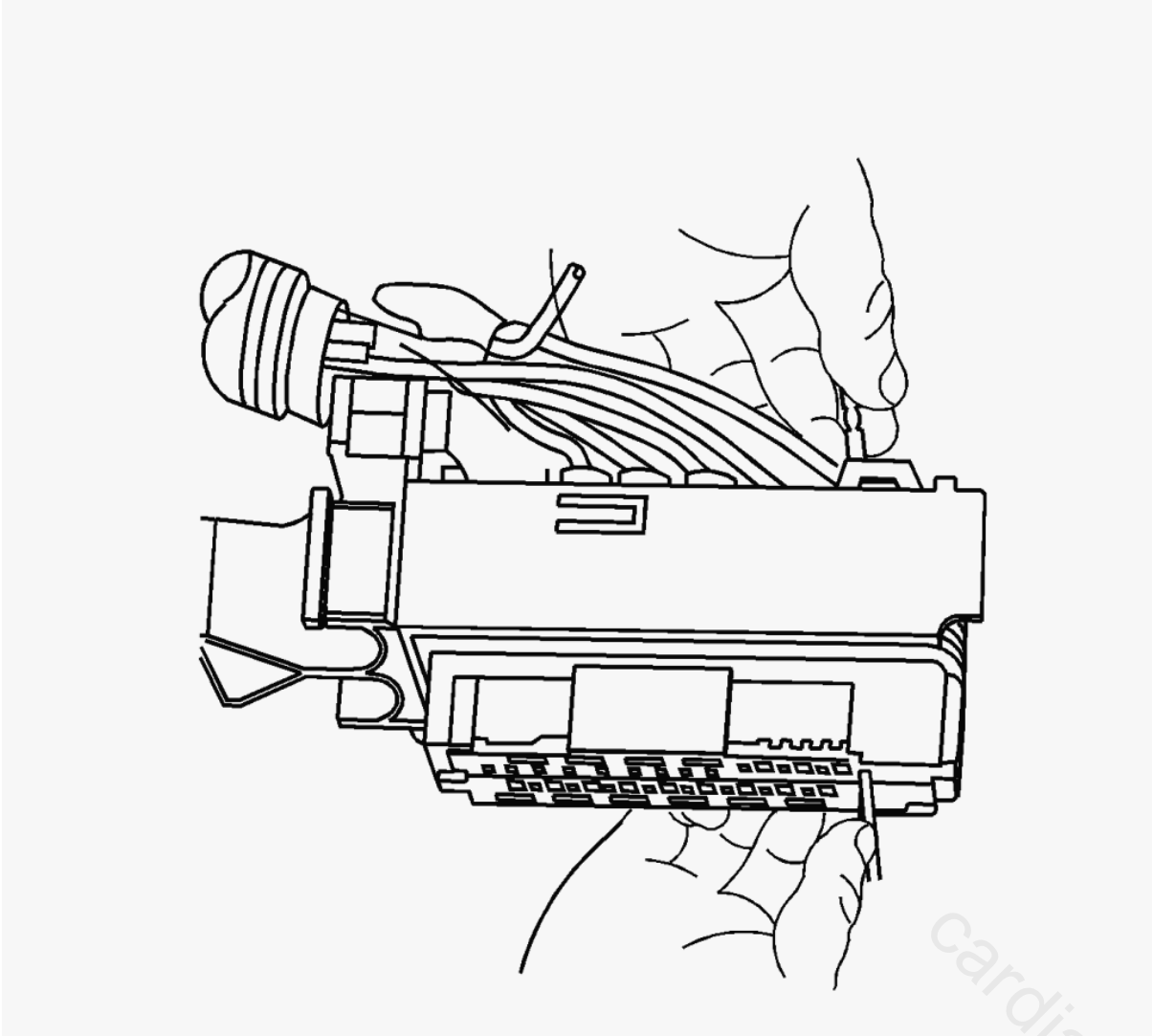


Fig. 137: Holding Special Tool In Place, Gently Pull Wire From Back Of Connector
**Courtesy of GENERAL MOTORS COMPANY**

7. Pressing the **J-38125-12A** tool in the release cavity of the terminal you are removing, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
8. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
9. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (SENSOR)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-11A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Disconnect the connector from the component.

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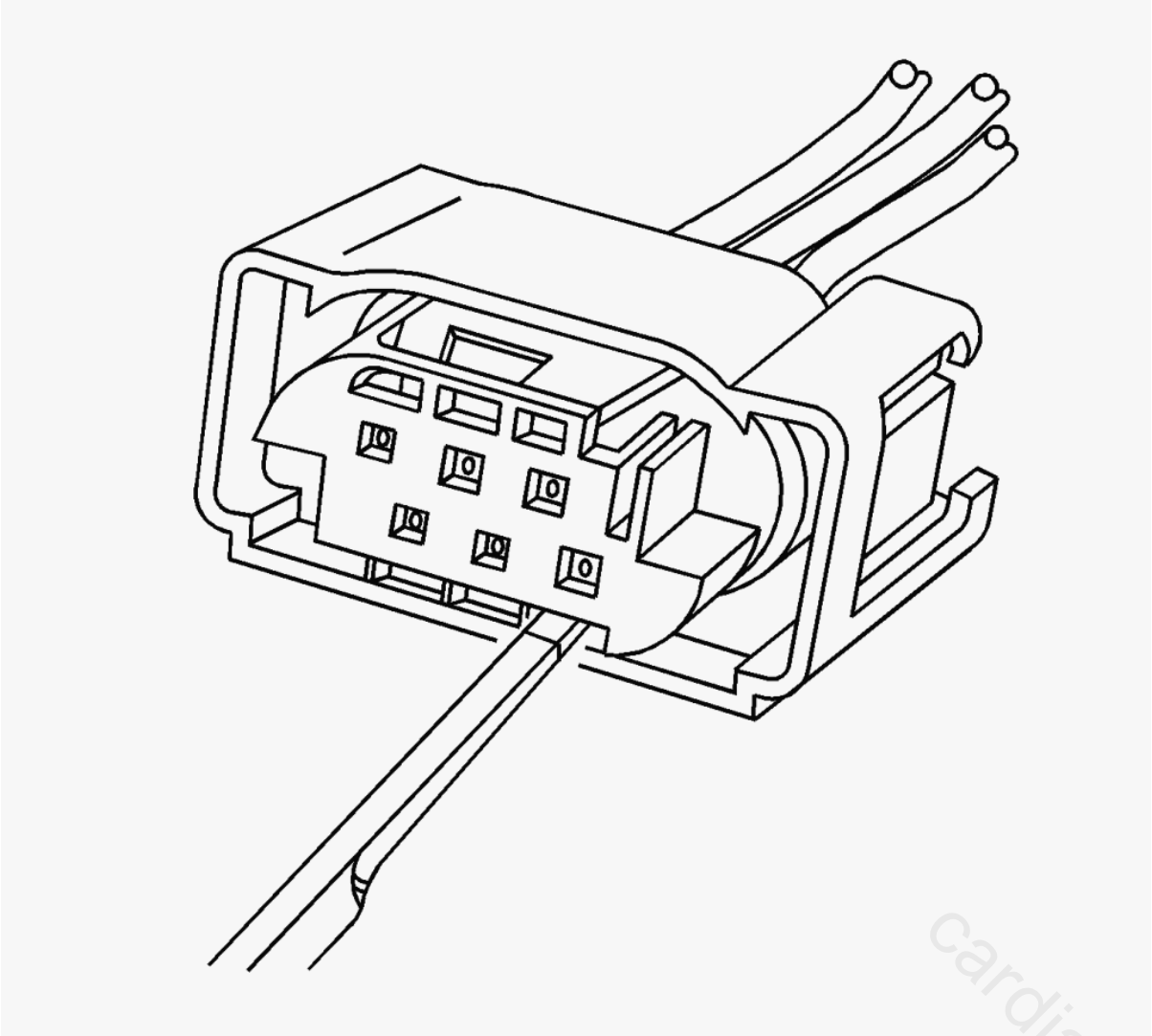


**Fig. 138: Inserting Special Tool Into Lower Right Hand Face Cavity**
**Courtesy of GENERAL MOTORS COMPANY**

2. Insert the J-38125-11A tool into the cavity on the lower right hand face of the connector until the terminal release tang access panel slides over.

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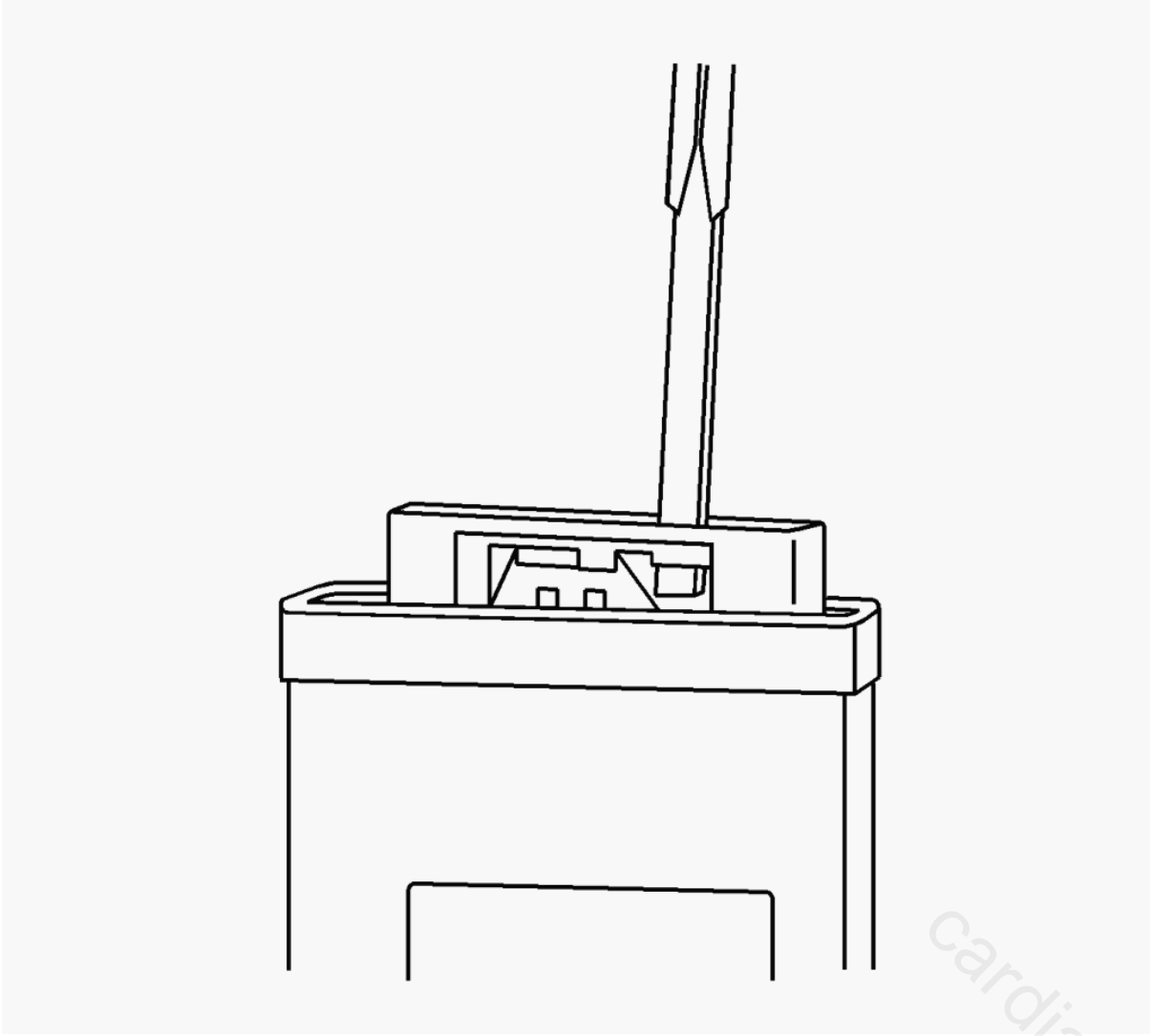


**Fig. 139: Pushing Wire Side Of Terminal Toward Connector**
**Courtesy of GENERAL MOTORS COMPANY**

3. Ensure that the terminal release tang access panel is in the correct location to access the terminals.
4. Push the wire side of the terminal that is being removed toward the connector and hold it in position.

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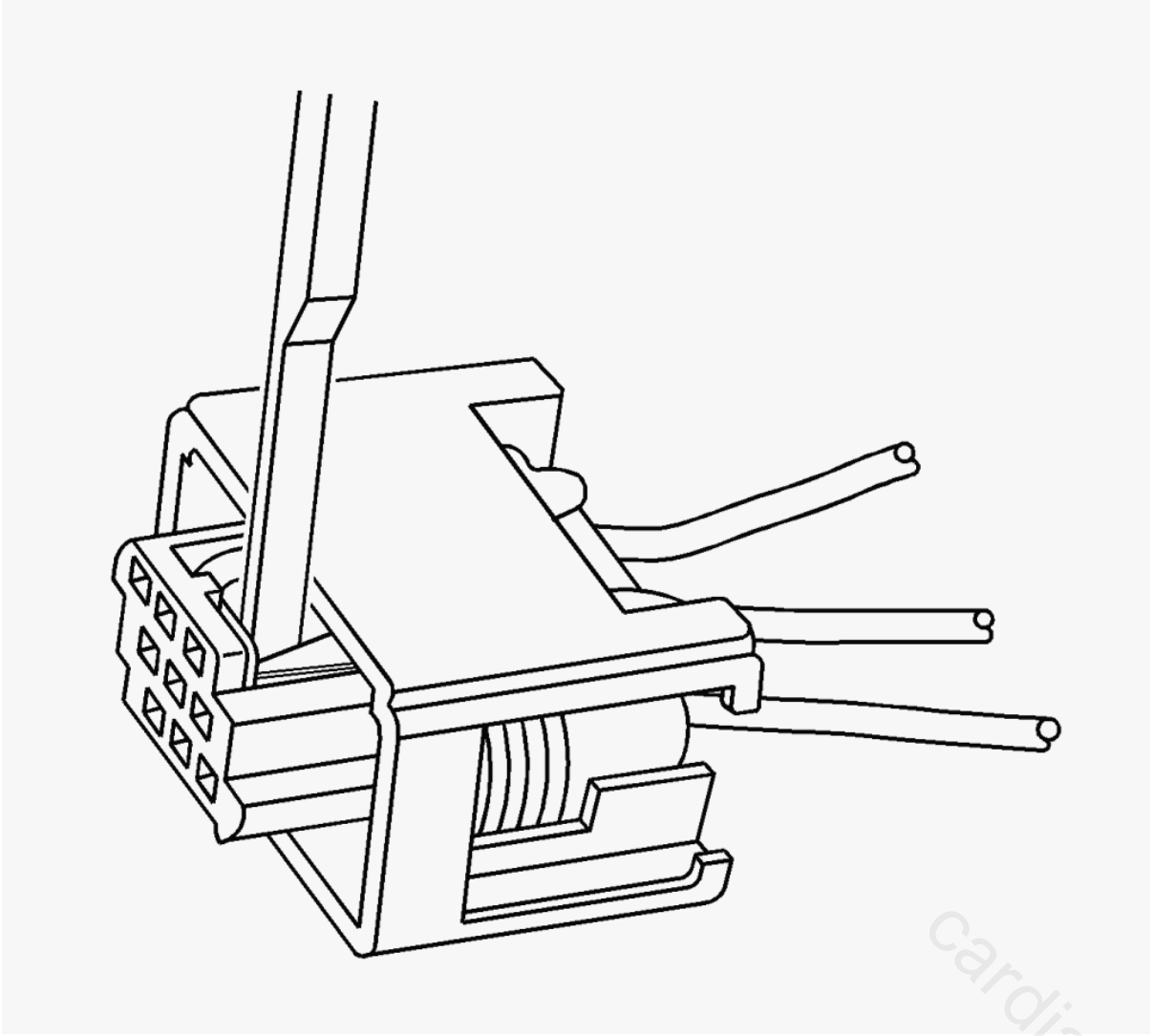


Fig. 140: Inserting Tool Into Terminal Release Tang Access Slot (Sensor)
**Courtesy of GENERAL MOTORS COMPANY**

5. Insert the J-38125-11A into the terminal release tang access slot located behind the access panel of the connector and press down on the terminal while carefully pulling the terminal out of the connector. Always remember never use force when pulling a terminal out of a connector. If the terminal is difficult to remove, repeat the entire procedure.
6. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
7. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (0.25 CAP)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-24** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Disconnect the connector from the component by pressing down on the connector position assurance (CPA).

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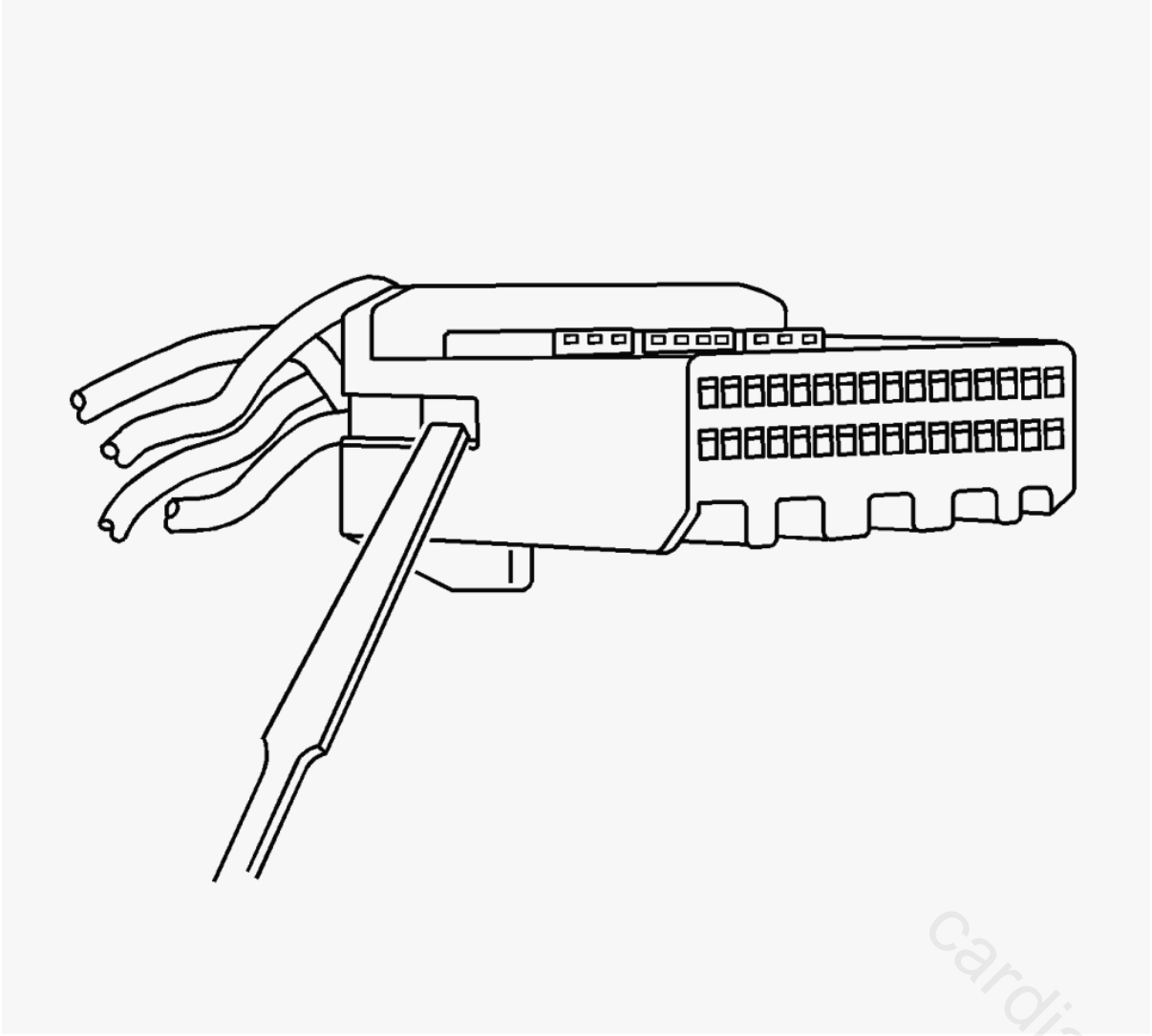


**Fig. 141: Releasing TPA Using Small Flat-Bladed Tool**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **The TPA on this connector cannot be removed unless the terminals are removed first. The TPA will come out of the connector body, but only slightly. When the TPA is slightly raised the terminals can be removed. Using excessive force to remove the TPA with the terminals still in the connector will damage the connector.**

2. Use a small flat-bladed tool to release the terminal position assurance (TPA) by inserting the tool in the small recess on the side of the connector and pushing up until the TPA releases from the connector body. The TPA should raise just slightly. Do not try to remove the TPA.
3. Repeat the process for the other side of the connector.

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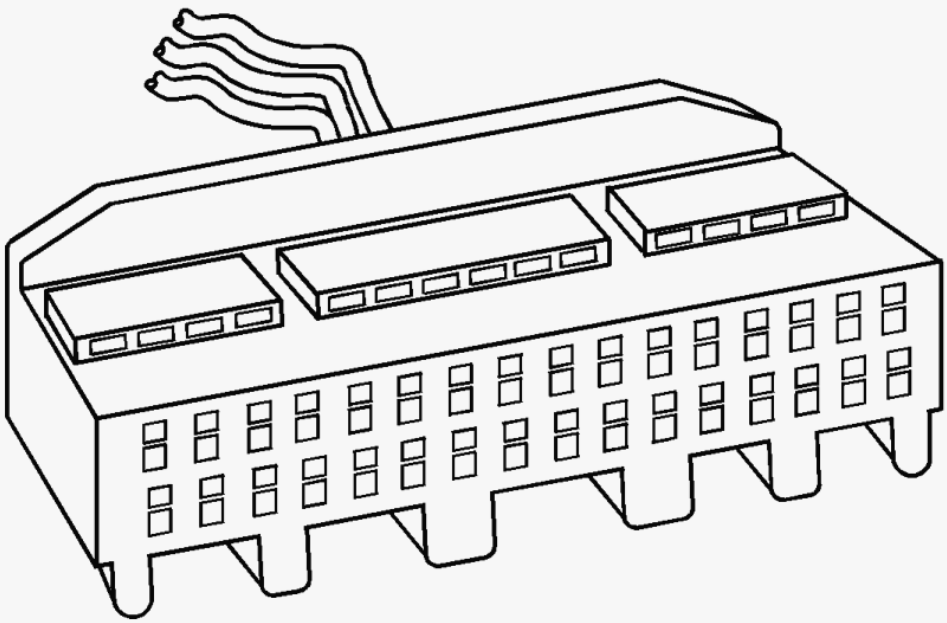


**Fig. 142: Terminal Position Assurance**
**Courtesy of GENERAL MOTORS COMPANY**

4. Ensure that the TPA is in the proper position to remove the terminals.

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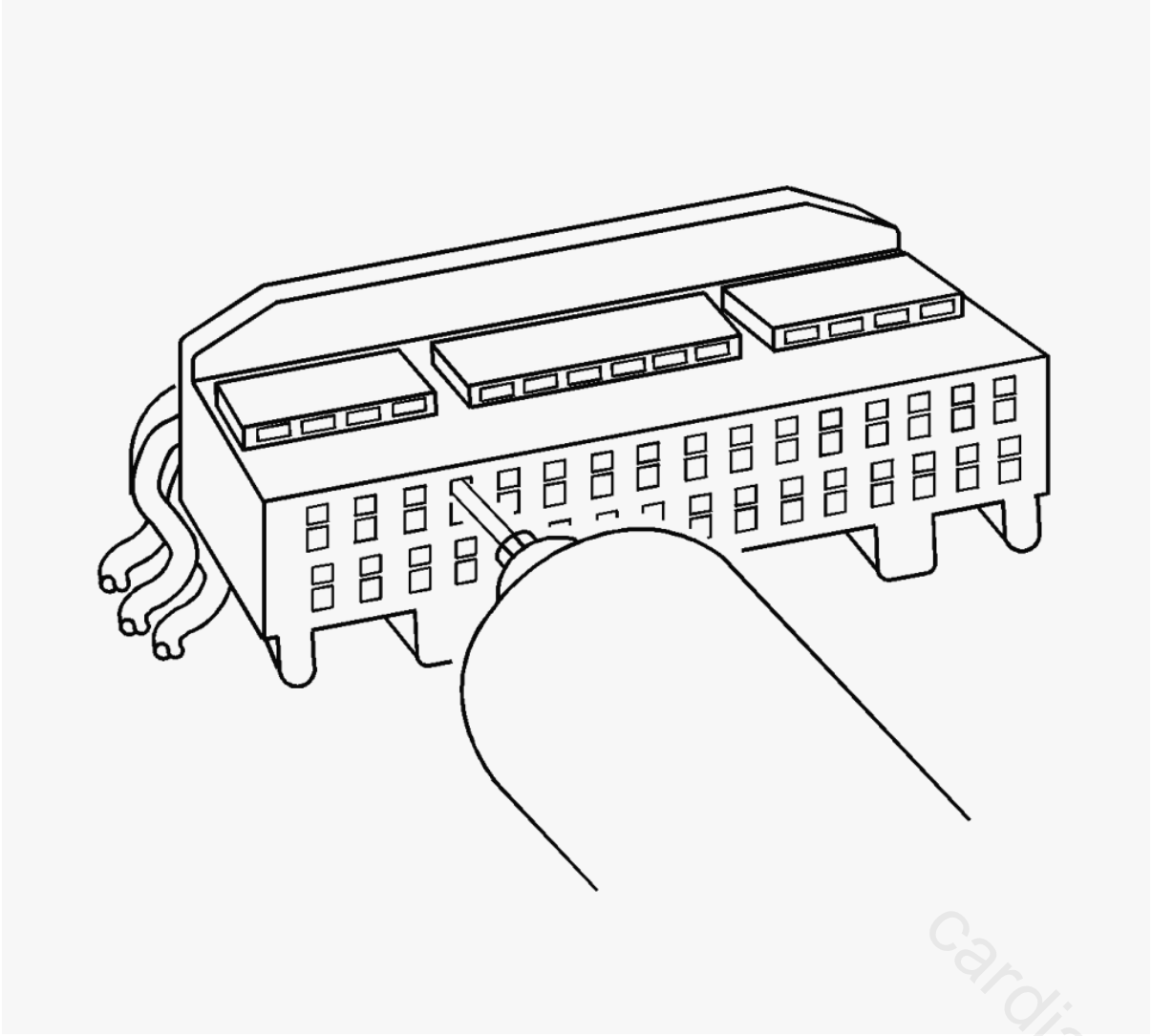


Fig. 143: Inserting Special Tool Into Release Cavity
**Courtesy of GENERAL MOTORS COMPANY**

5. While pushing the terminal forward, insert the J-38125-24 in the release cavity above the terminal you are removing, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
6. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
7. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (43-WAY)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool
- **J-38125-13A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

Follow the steps below in order to remove terminals from the connector.

1. Locate the lever lock on the wire dress cover. Slide the lever lock away from the connector body.
2. Disconnect the connector from the component.
3. Locate the dress cover locking tabs on the dress cover of the connector. Using a small flat-bladed tool release all of the locking tabs.

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4. Once the locks are unlocked, lift the dress cover off.

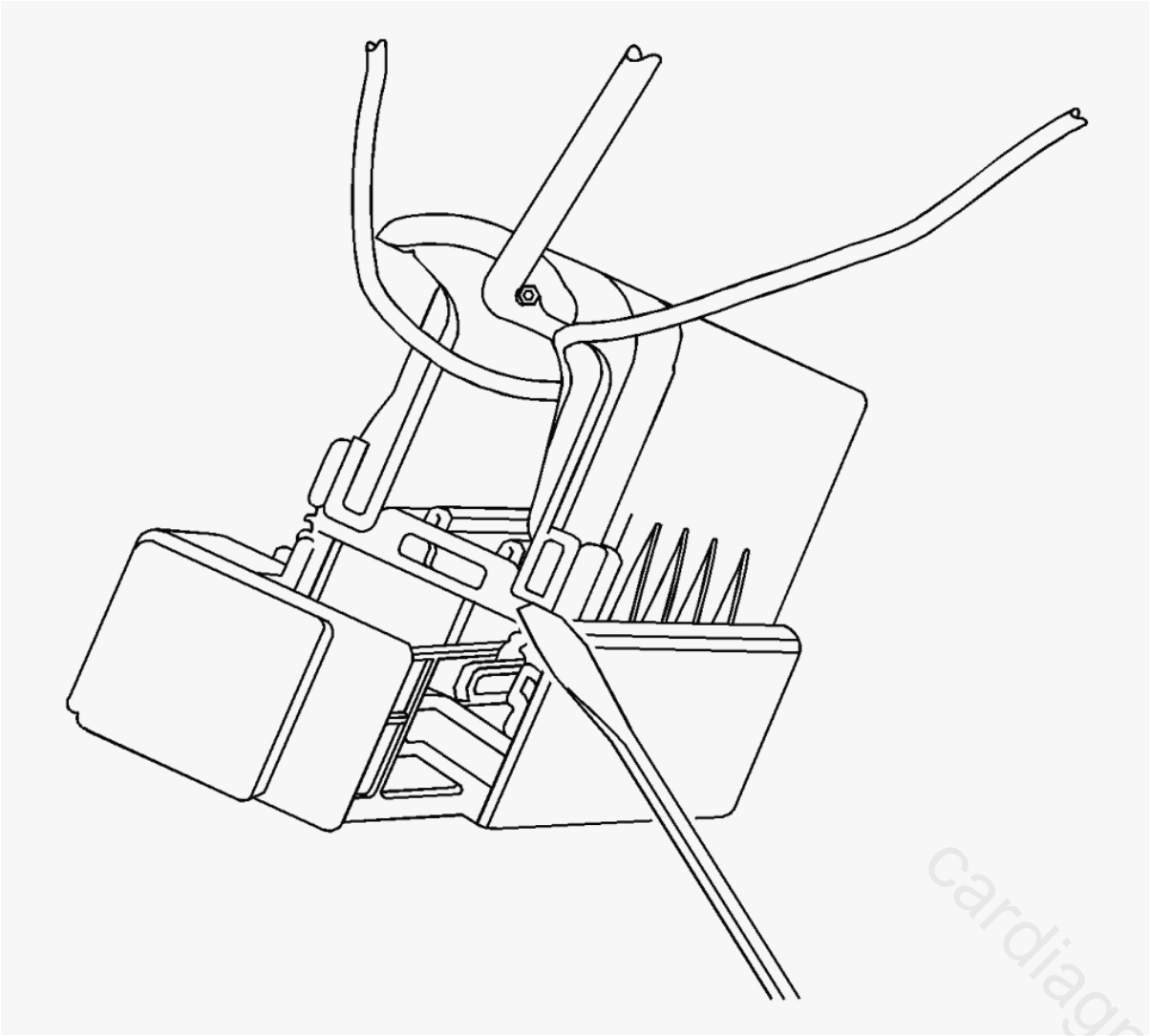


**Fig. 144: Releasing TPA**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Always use care when removing a terminal position assurance (TPA) in order to avoid damaging it.**

5. Release the TPA by inserting a small flat-bladed tool into the blue locking tabs on both ends of the connector. Gently slide the TPA up to the released position on both ends.

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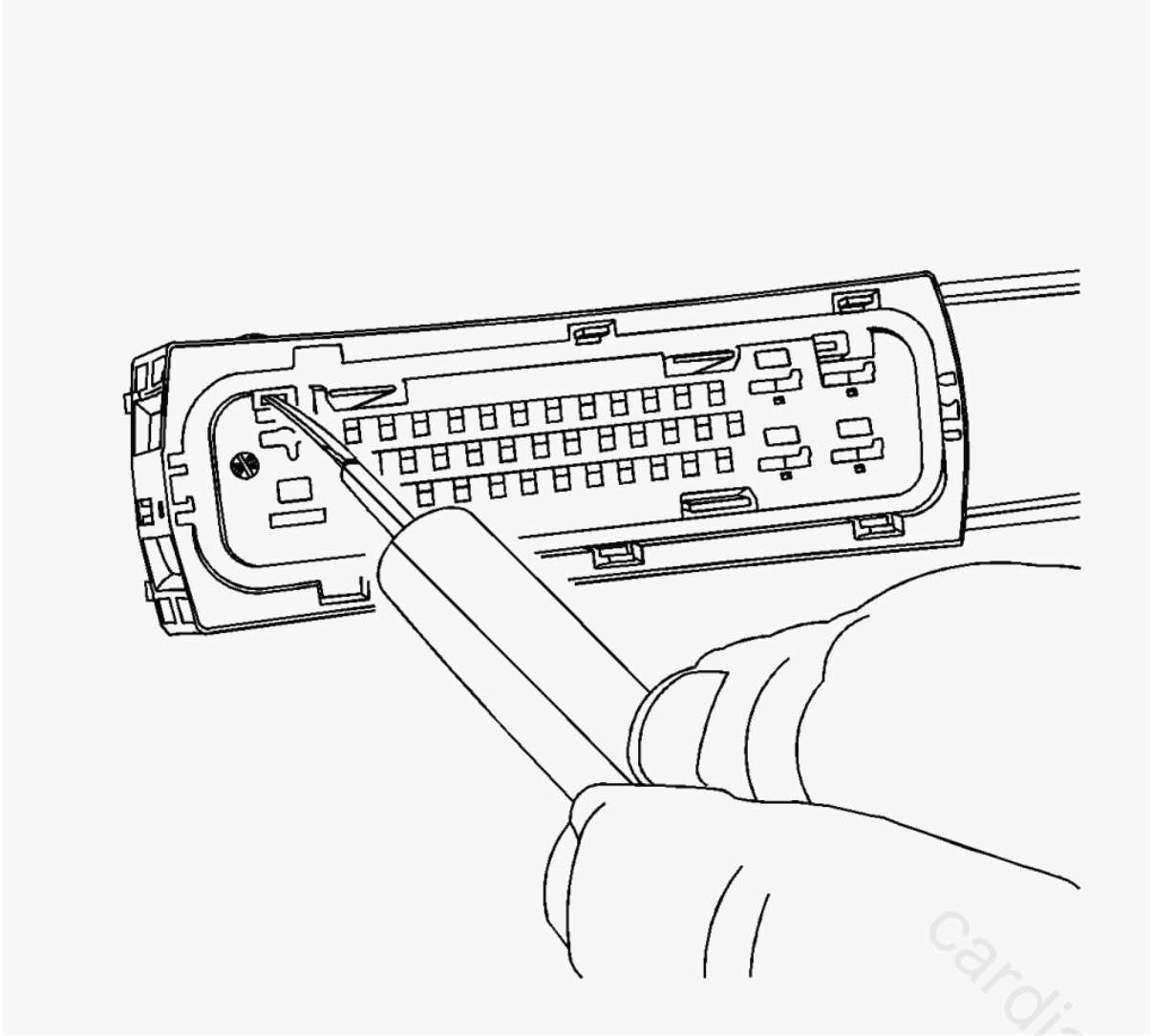


**Fig. 145: Inserting Special Tool Into Terminal Release Cavity**
**Courtesy of GENERAL MOTORS COMPANY**

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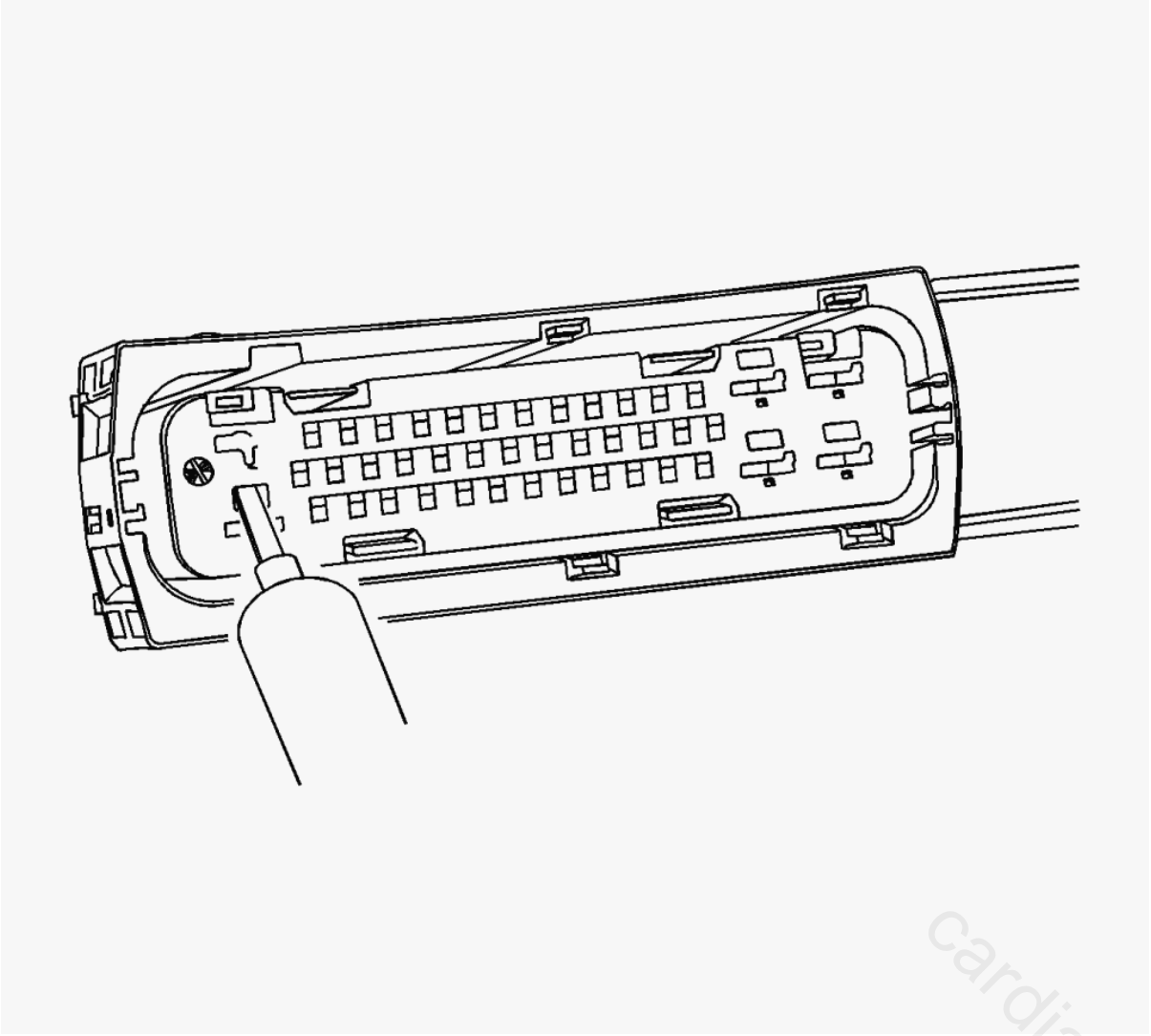


**Fig. 146: Release Tool Being Used For Larger Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

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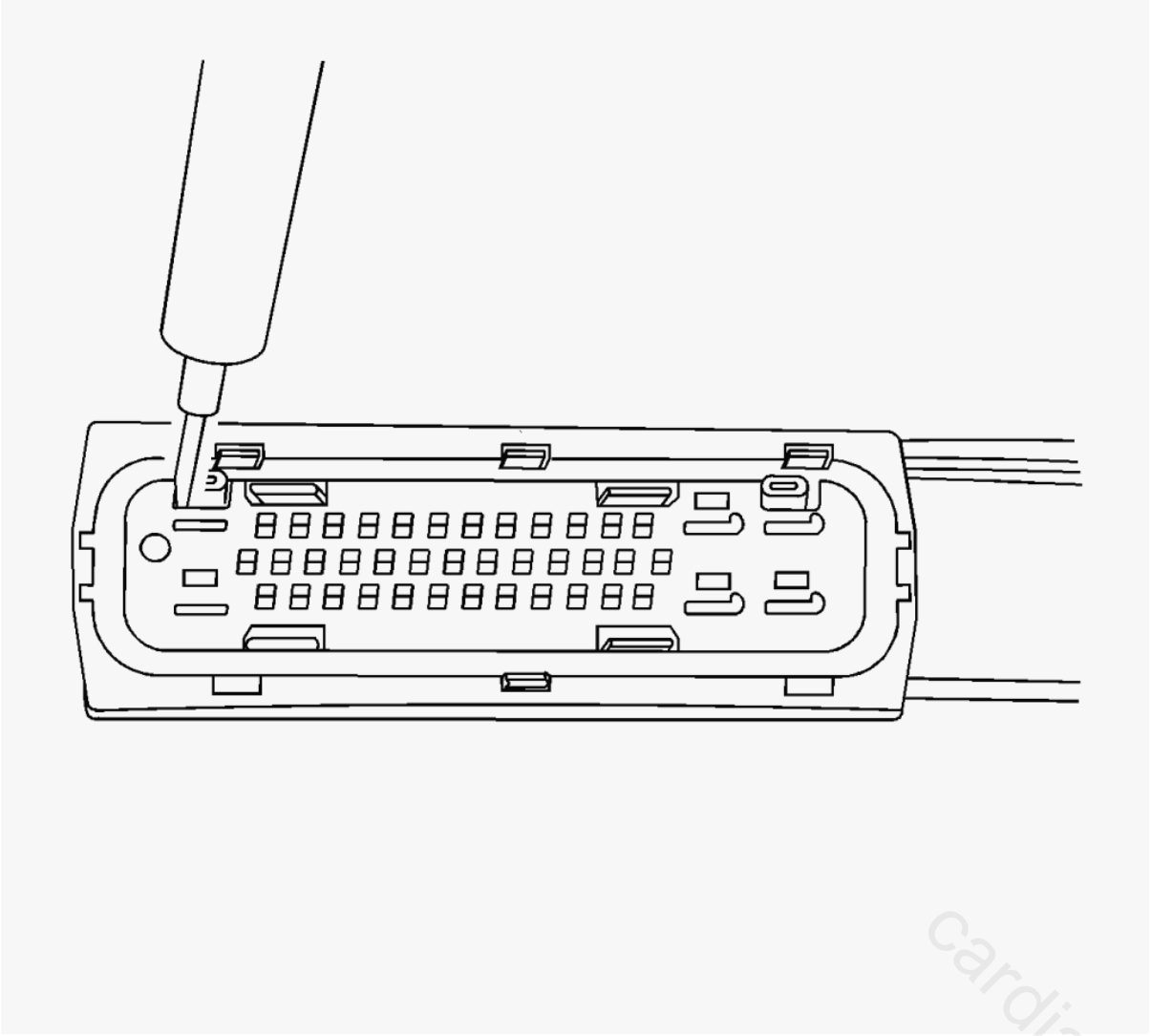


**Fig. 147: Release Tool Being Used For Larger Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

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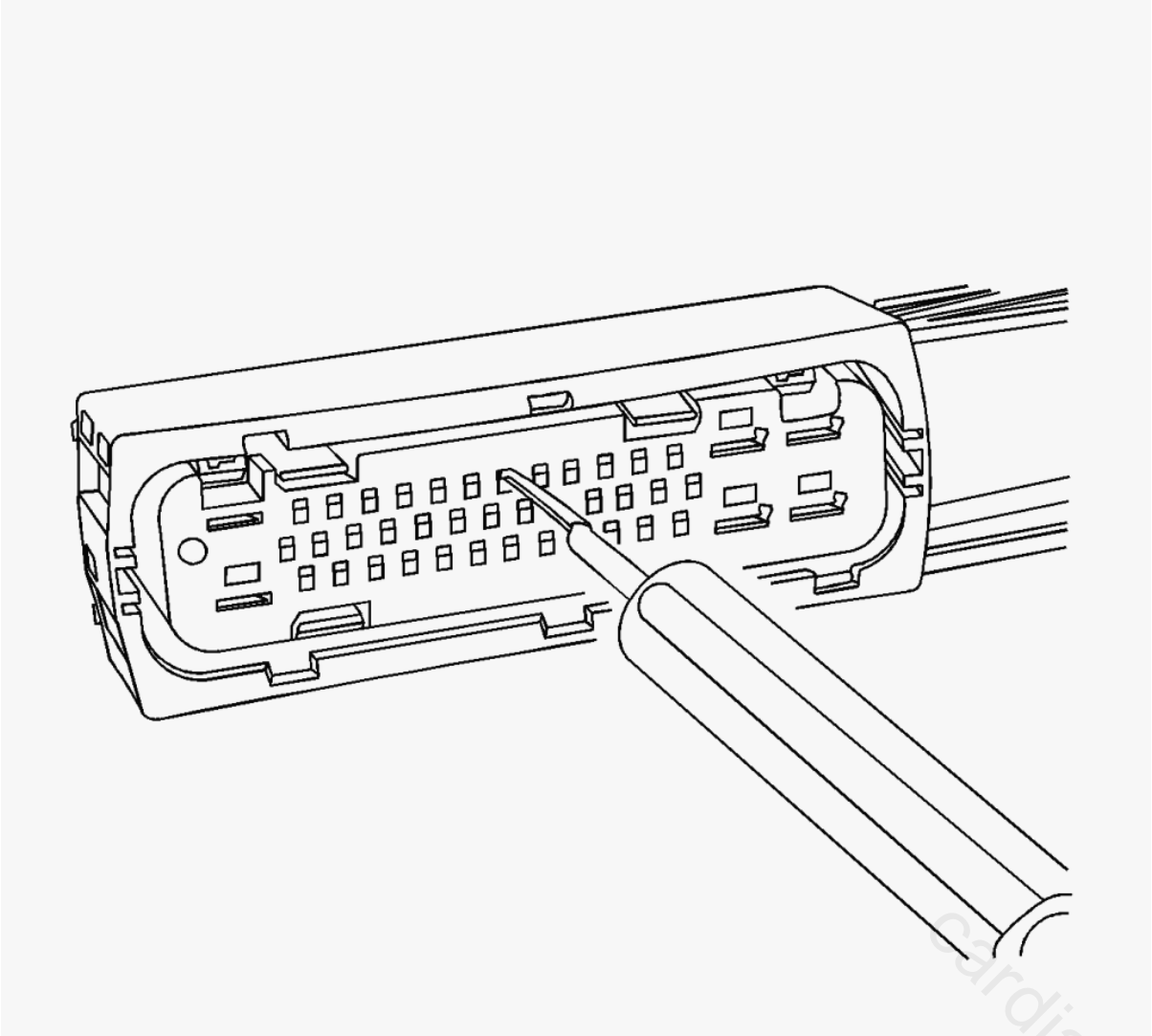


Fig. 148: Release Tool Being Used For Smaller Terminals
**Courtesy of GENERAL MOTORS COMPANY**

6. For the larger terminals insert the **J-38125-13A** tool to release the terminals by inserting the tool into the terminal release cavity. For the smaller terminals insert the **J-38125-12A** tool to release the terminals by inserting the tool into the terminal release cavity.

   View of the release tool being used for the larger terminals.

   View of the release tool being used for the larger terminals.

   View of the release tool being used for the smaller terminals.

7. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
8. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
9. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (DOOR MODULE)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-12A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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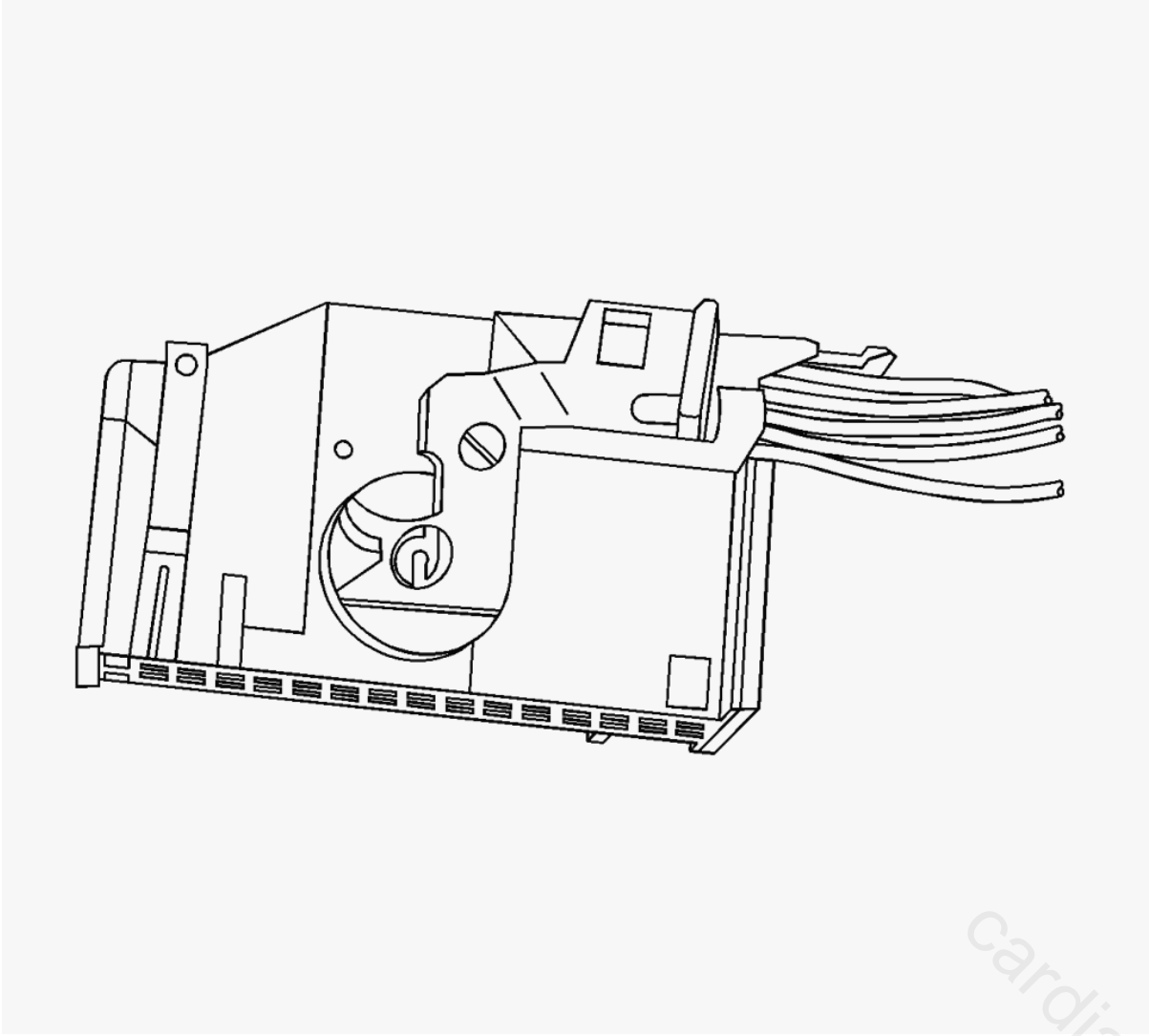


**Fig. 149: Side View Of Tyco/AMP Connector**
**Courtesy of GENERAL MOTORS COMPANY**

Side view of connector.

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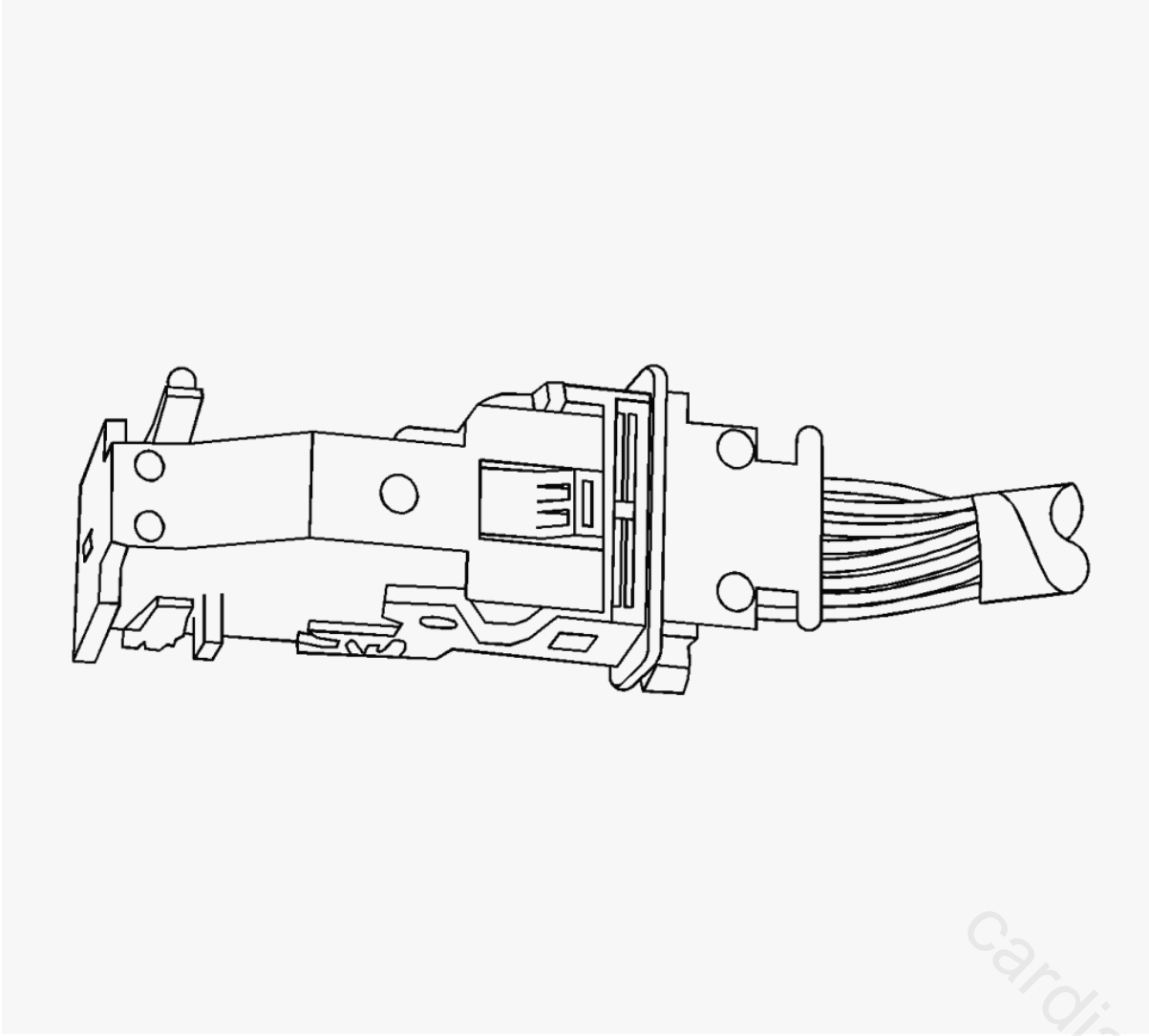


**Fig. 150: Top View Of Tyco/AMP Connector**
**Courtesy of GENERAL MOTORS COMPANY**

View of top of connector.

1. Locate the assist lever and lock on the top of the connector.

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**Fig. 151: Depressing Lock & Pulling Assist Lever**
**Courtesy of GENERAL MOTORS COMPANY**

2. While depressing the lock, pull the lever over and past the lock.

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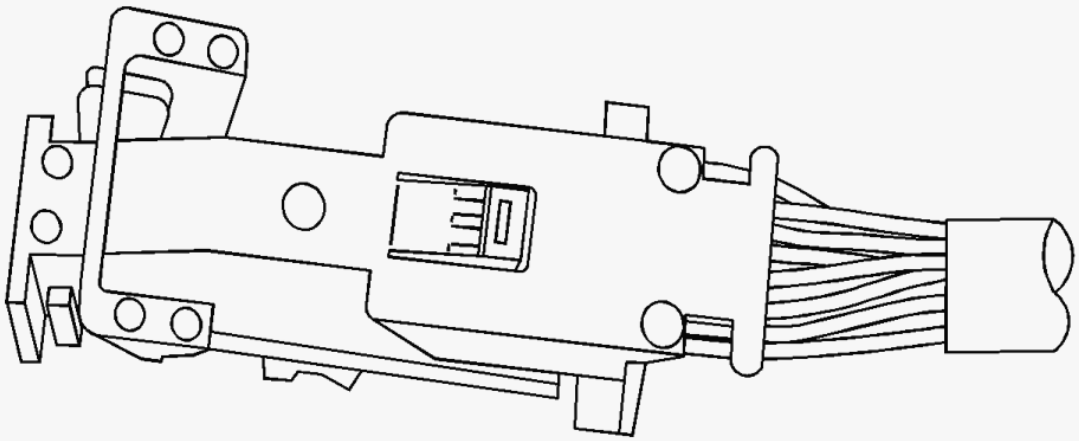


**Fig. 152: Connector Released From Component**
**Courtesy of GENERAL MOTORS COMPANY**

3. Disconnect the connector from the component.

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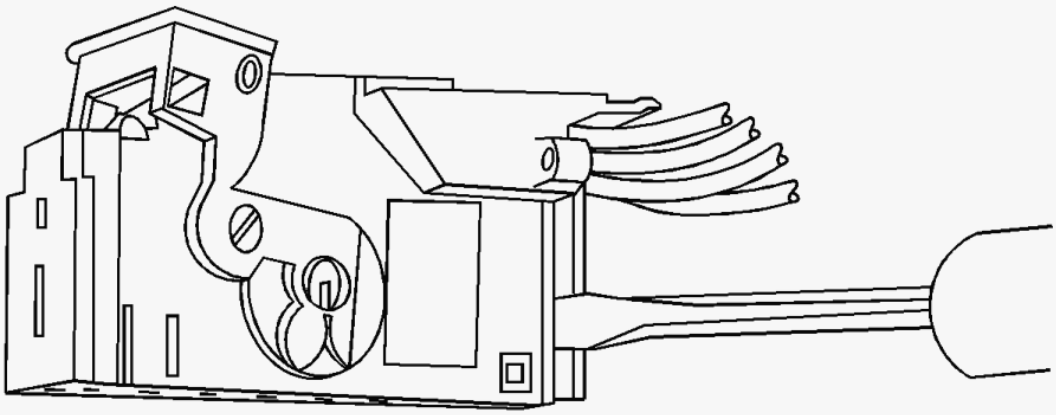


**Fig. 153: Releasing Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

4. Locate the dress cover locking tabs at the rear of the connector. Use a small flat-blade tool to release the locking tabs. Repeat this procedure for the other locking tab.

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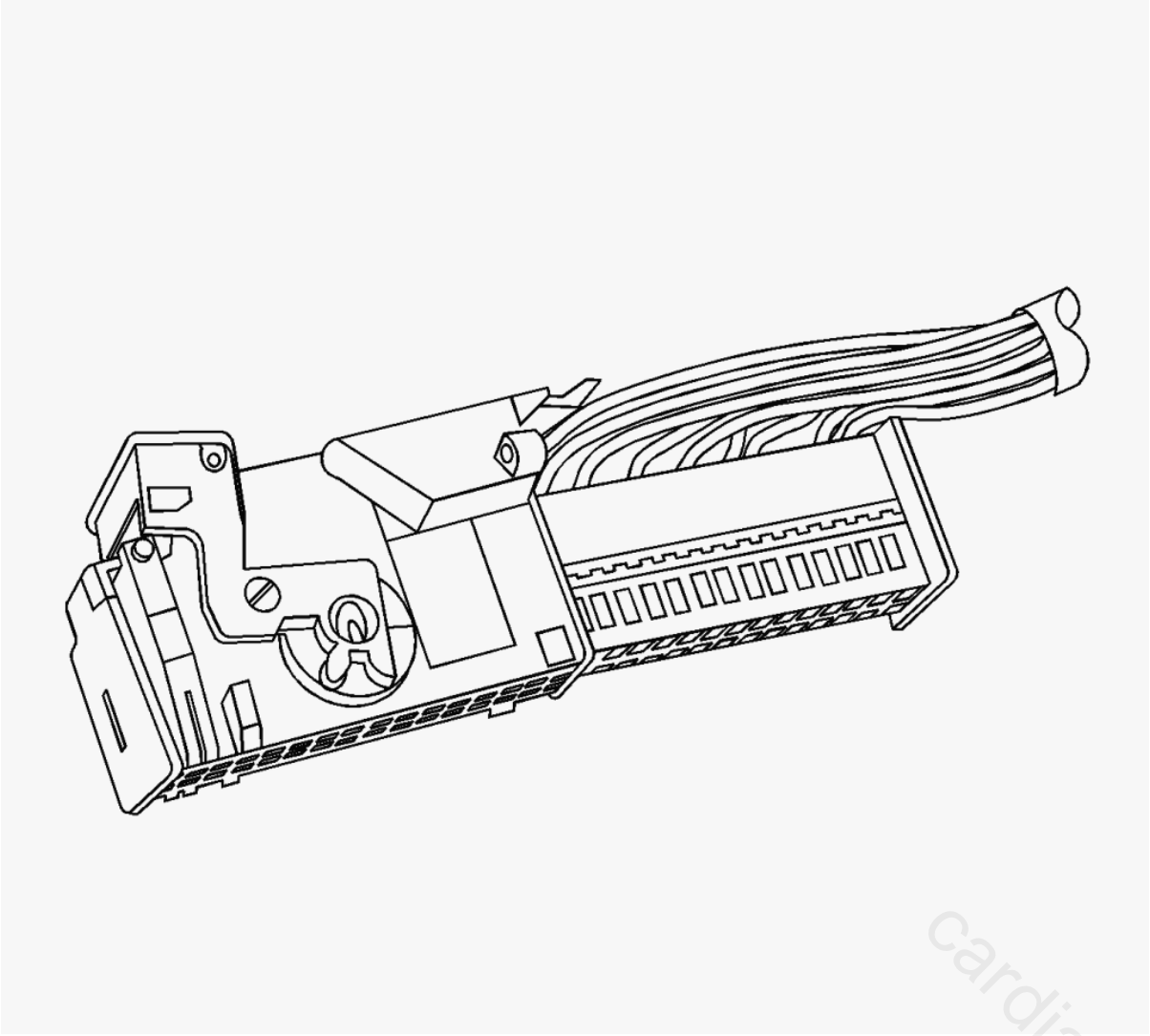


**Fig. 154: Sliding Inner Connector Out Of Connector Housing**
**Courtesy of GENERAL MOTORS COMPANY**

5. Once the locking tabs are unlocked, slide the inner connector out of the rear of the connector housing.

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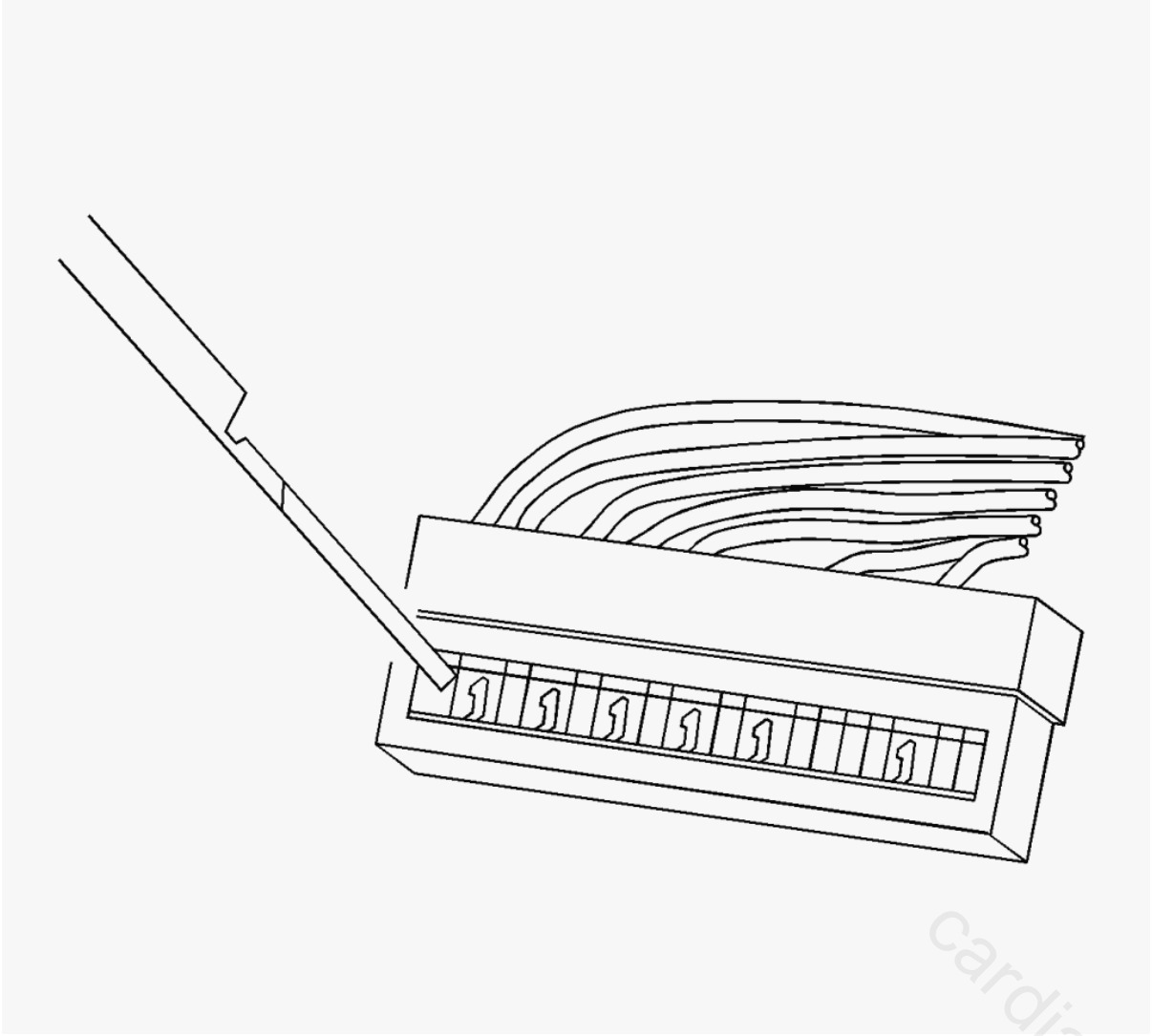


**Fig. 155: Using Special Tool To Release Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

6. Use the J-38125-12A tool to release the terminals by pressing on the tang.
7. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
8. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
9. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (SEAT)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-11A** Terminal Release Tool
- **J-38125-212** Terminal Release Tool
- **J-38125-556** Terminal Release Tool
- **J-38125-560** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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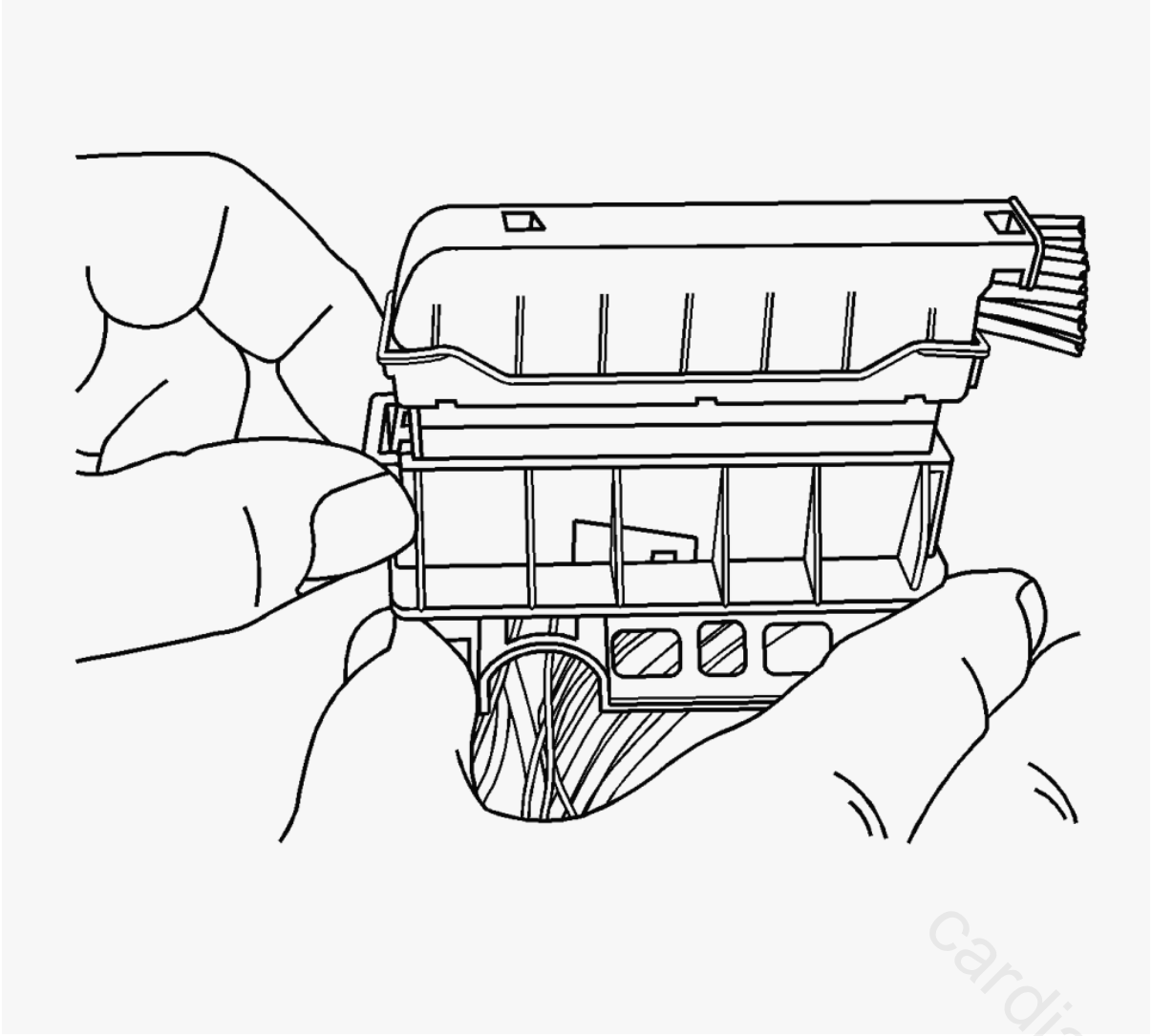


**Fig. 156: Grasping Locking Slide Lever**
**Courtesy of GENERAL MOTORS COMPANY**

1. Grasp the locking slide lever and pull outward from the end of the connector.

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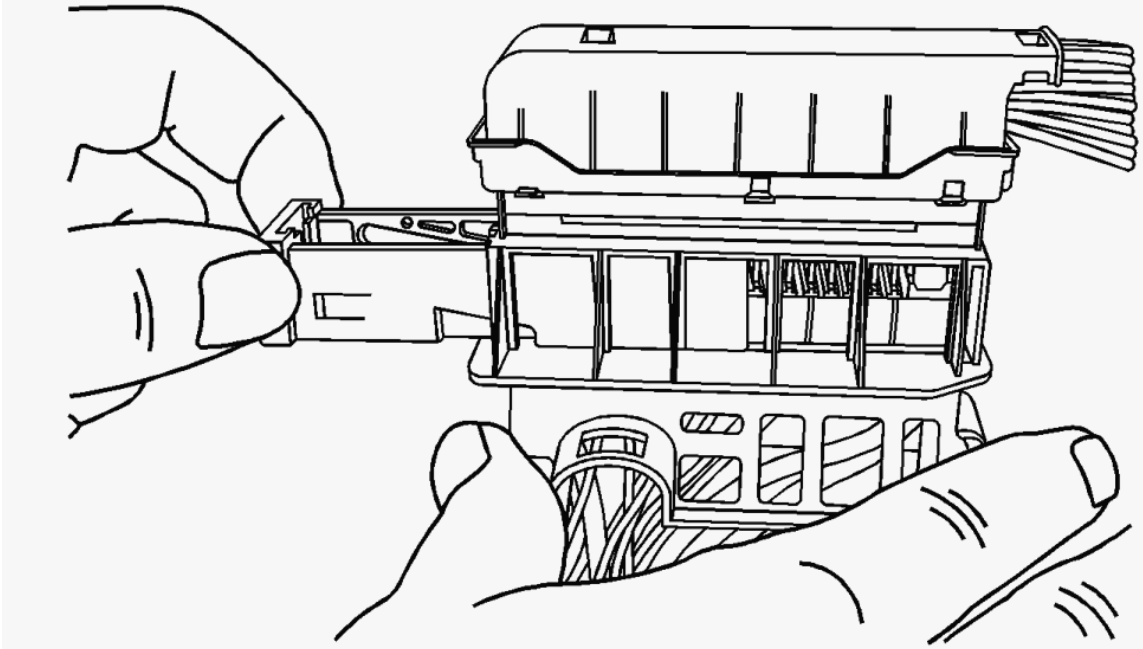


**Fig. 157: Pulling Slide Lever Out Of Mating Connector**
**Courtesy of GENERAL MOTORS COMPANY**

2. As the slide lever is pulled out the mating connector is lifted from the seated position.

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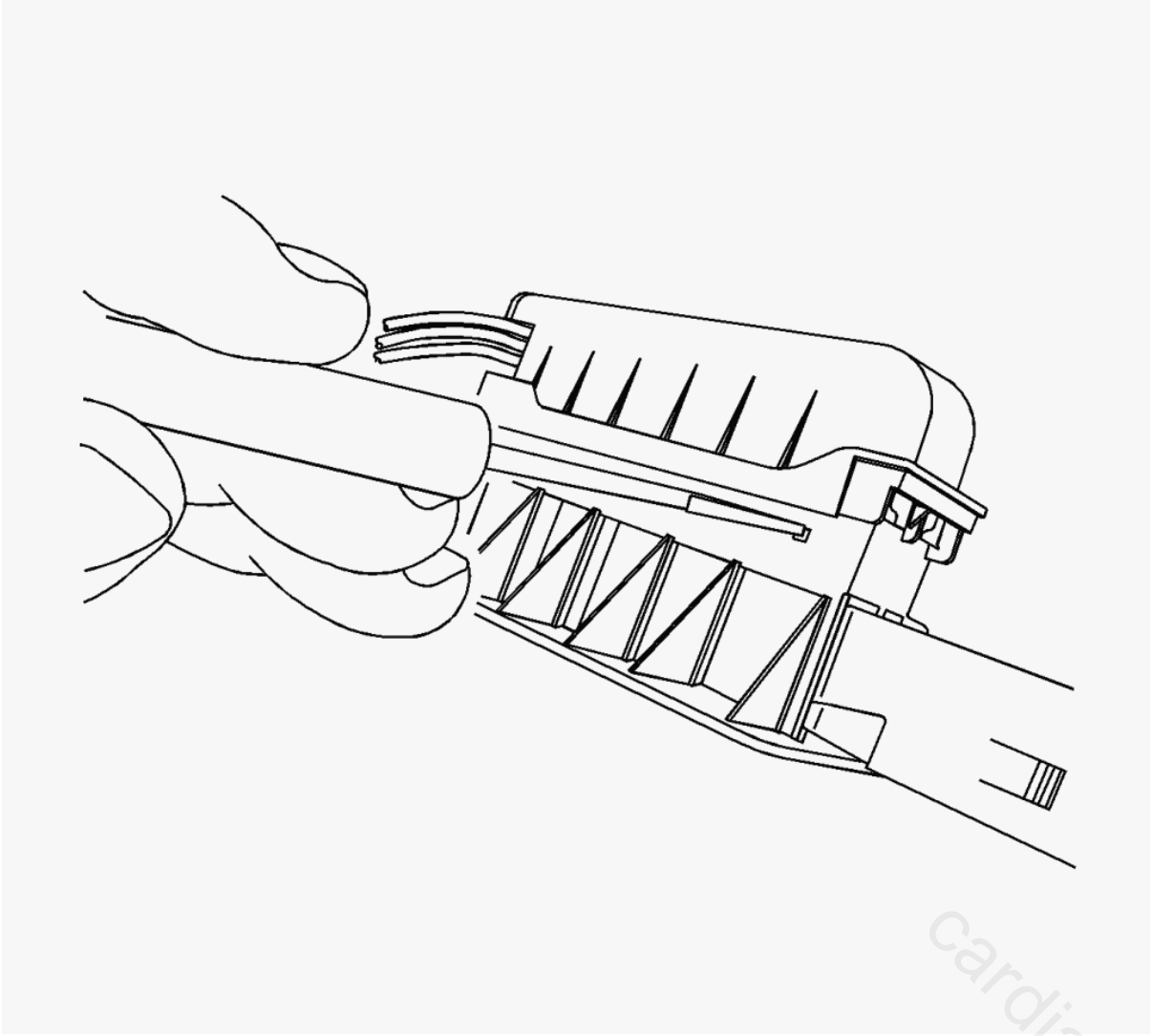


**Fig. 158: Pushing TPA Tabs Into Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **Terminal position assurance (TPA) is keyed and can only be inserted in one direction.**

3. Using terminal release tool J-38125-11A or equivalent, push the TPA tabs into the connector body.

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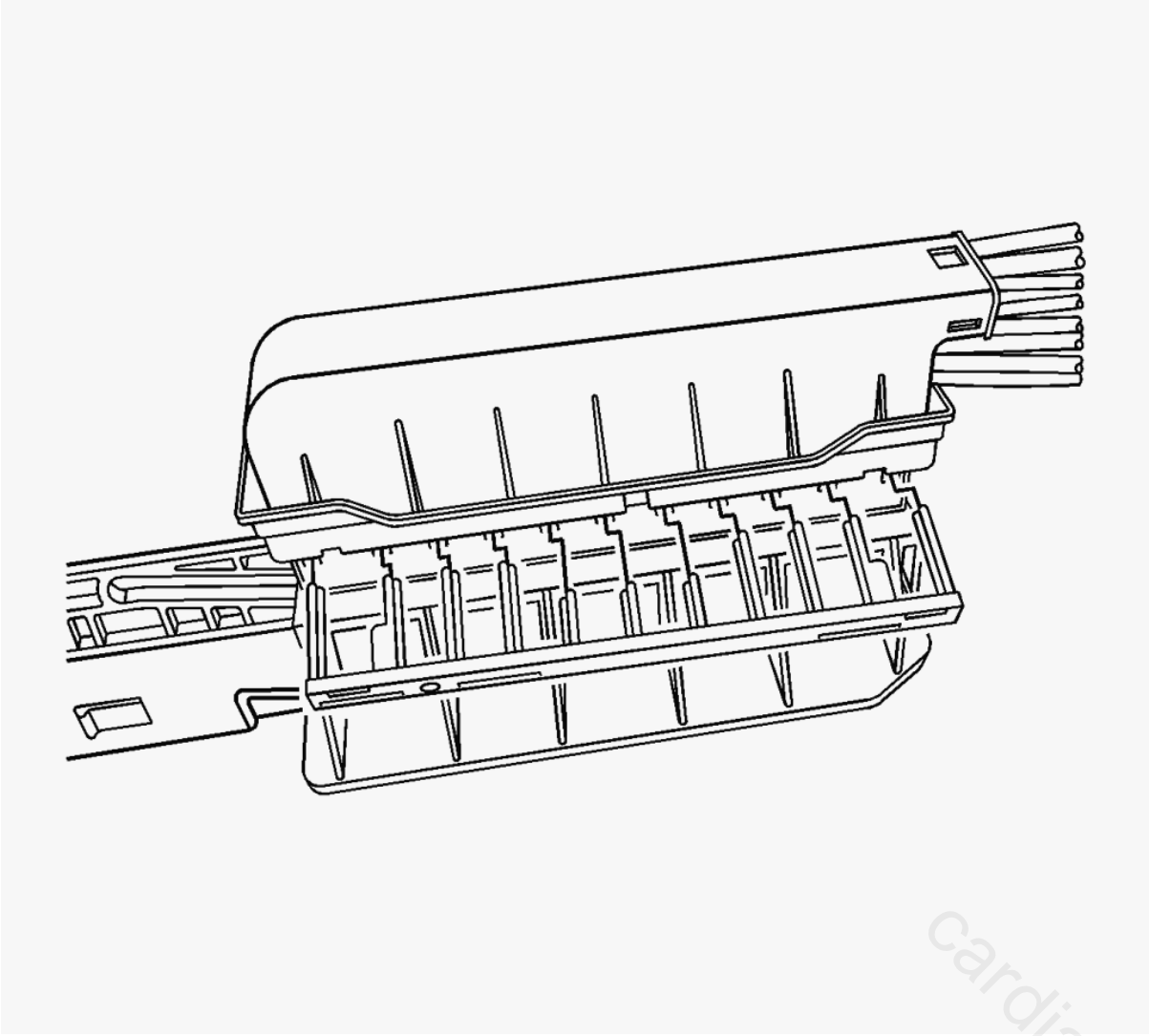


**Fig. 159: Pulling TPA From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

4. Pull the TPA from the connector body.

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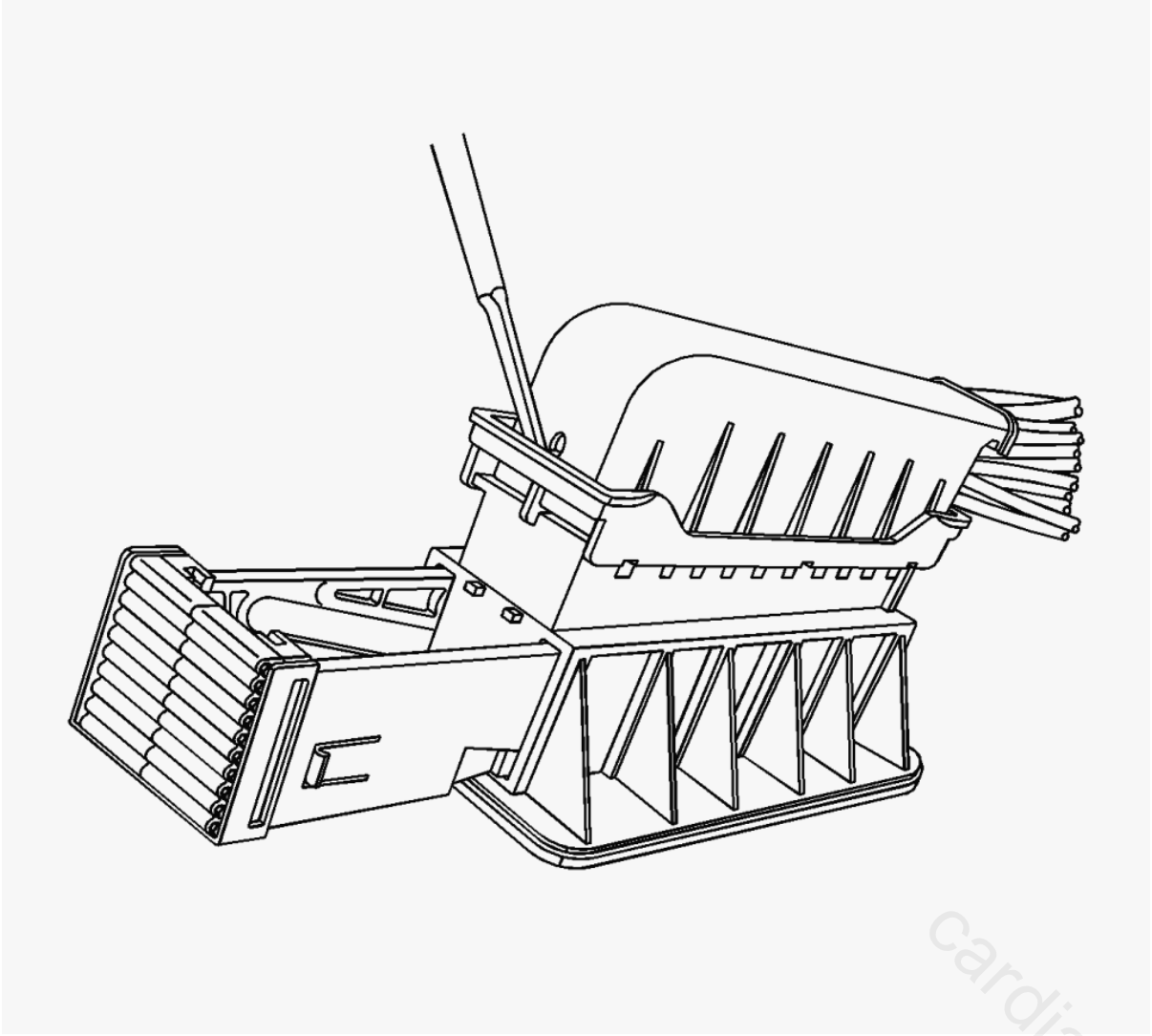


**Fig. 160: Releasing Connector Wire Dress Cover Locking Tab**
**Courtesy of GENERAL MOTORS COMPANY**

5. Using terminal release tool J-38125-11A or equivalent, release the connector wire dress cover locking tab.

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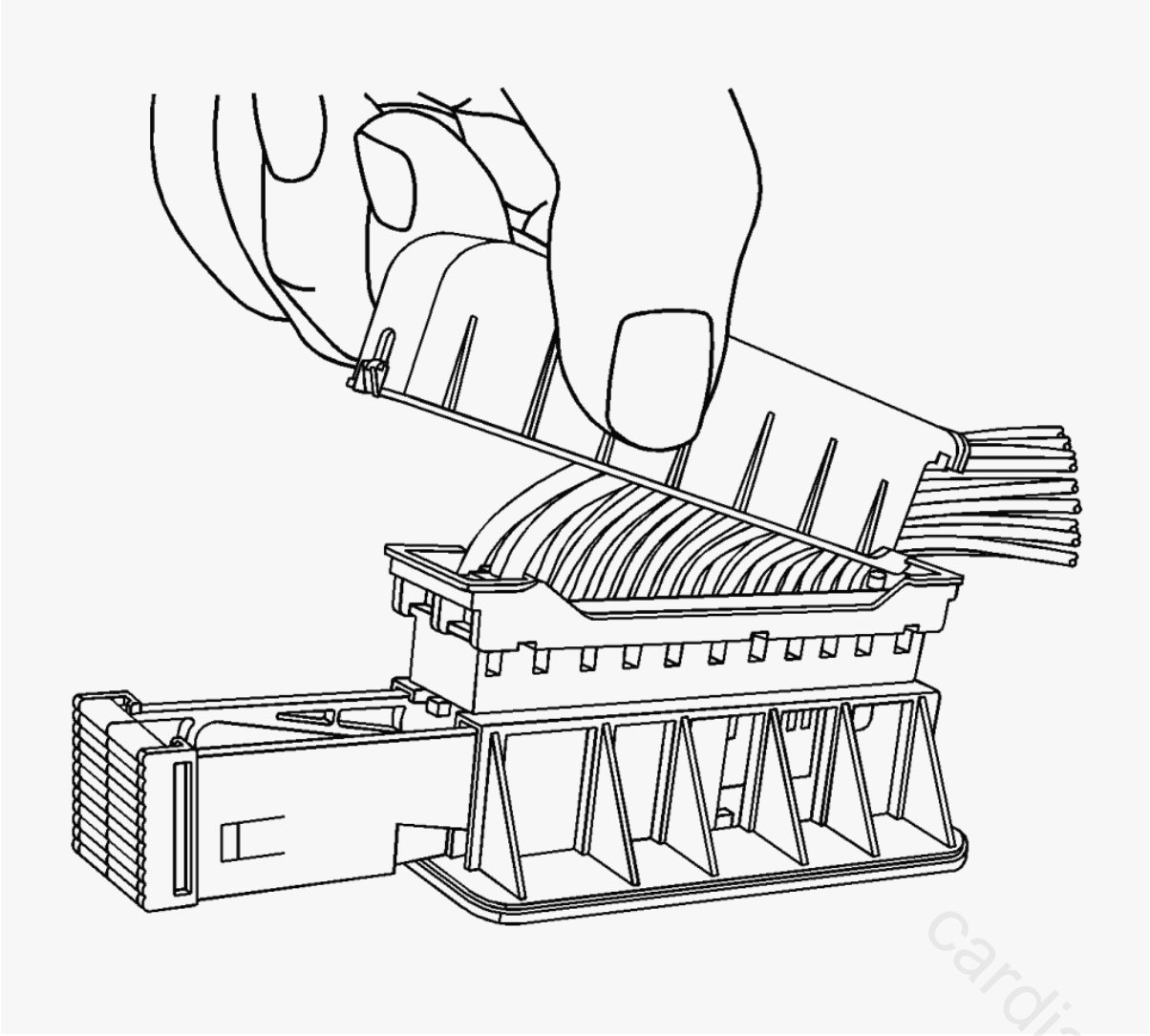


**Fig. 161: Lifting Connector Wire Dress Cover From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

6. With the lock tab released, lift the connector wire dress cover from the connector body.

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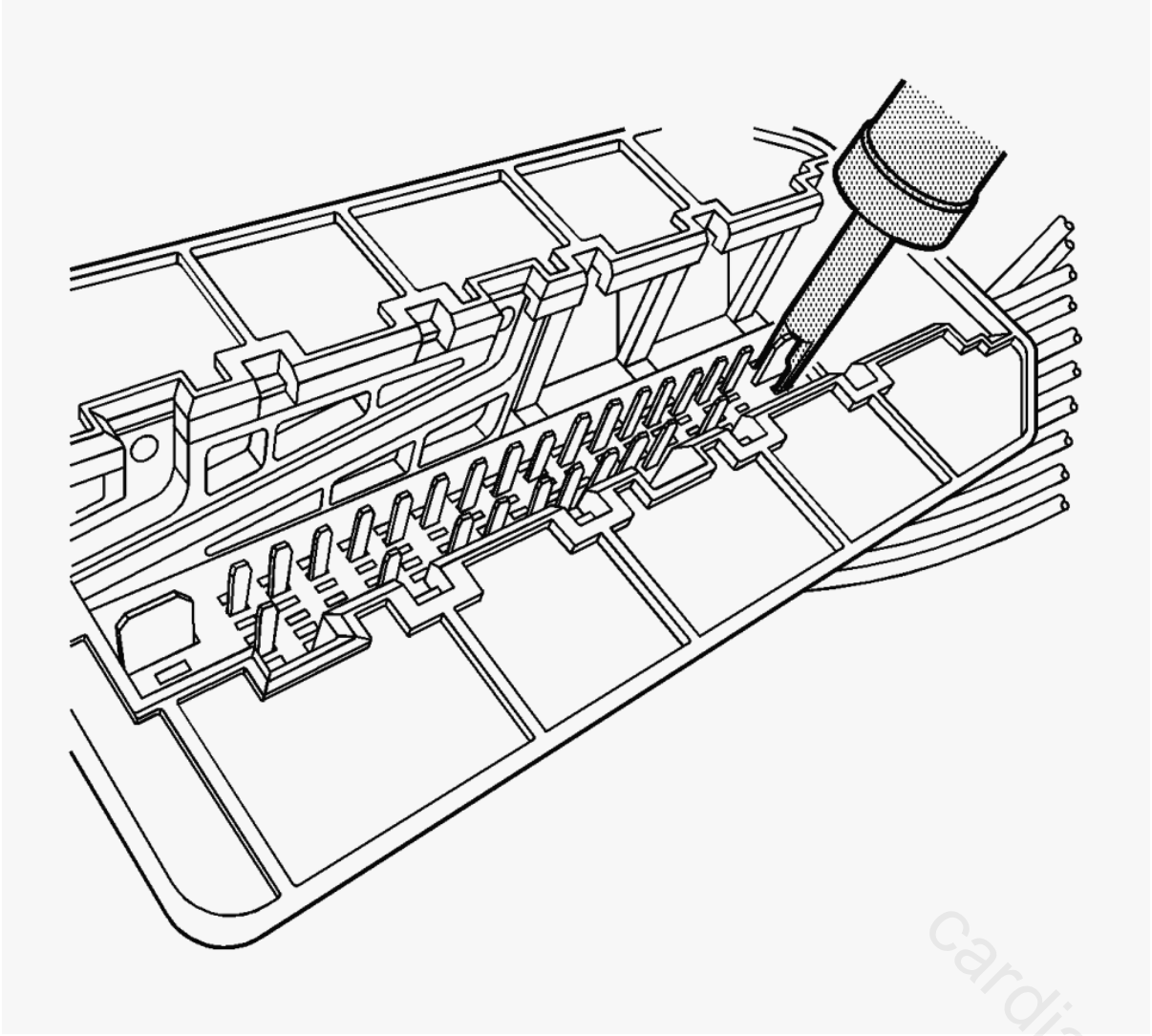


**Fig. 162: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

7. Using terminal release tool J-38125-212, press the prongs into the holes each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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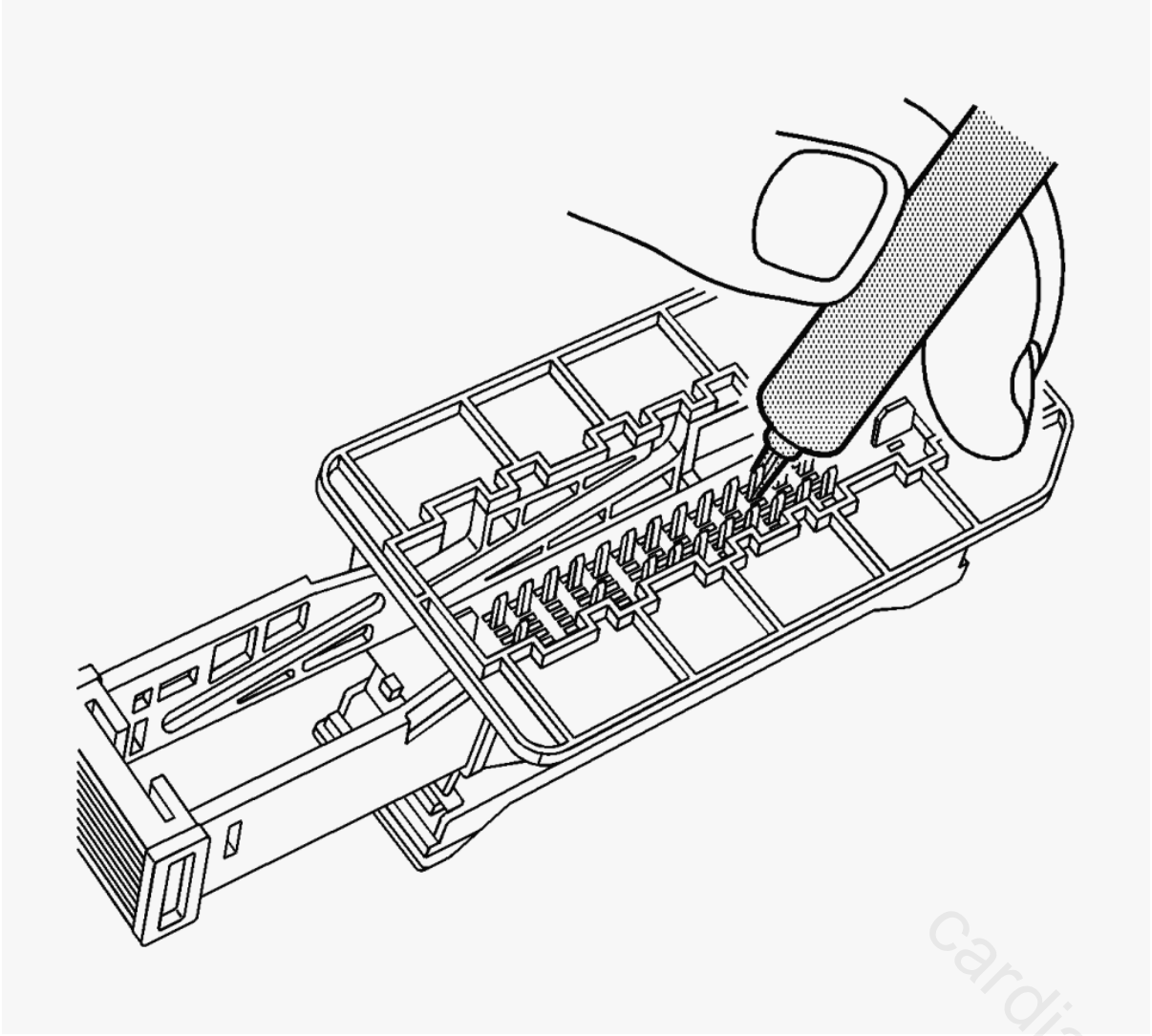


**Fig. 163: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

8. Using terminal release tool J-38125-560, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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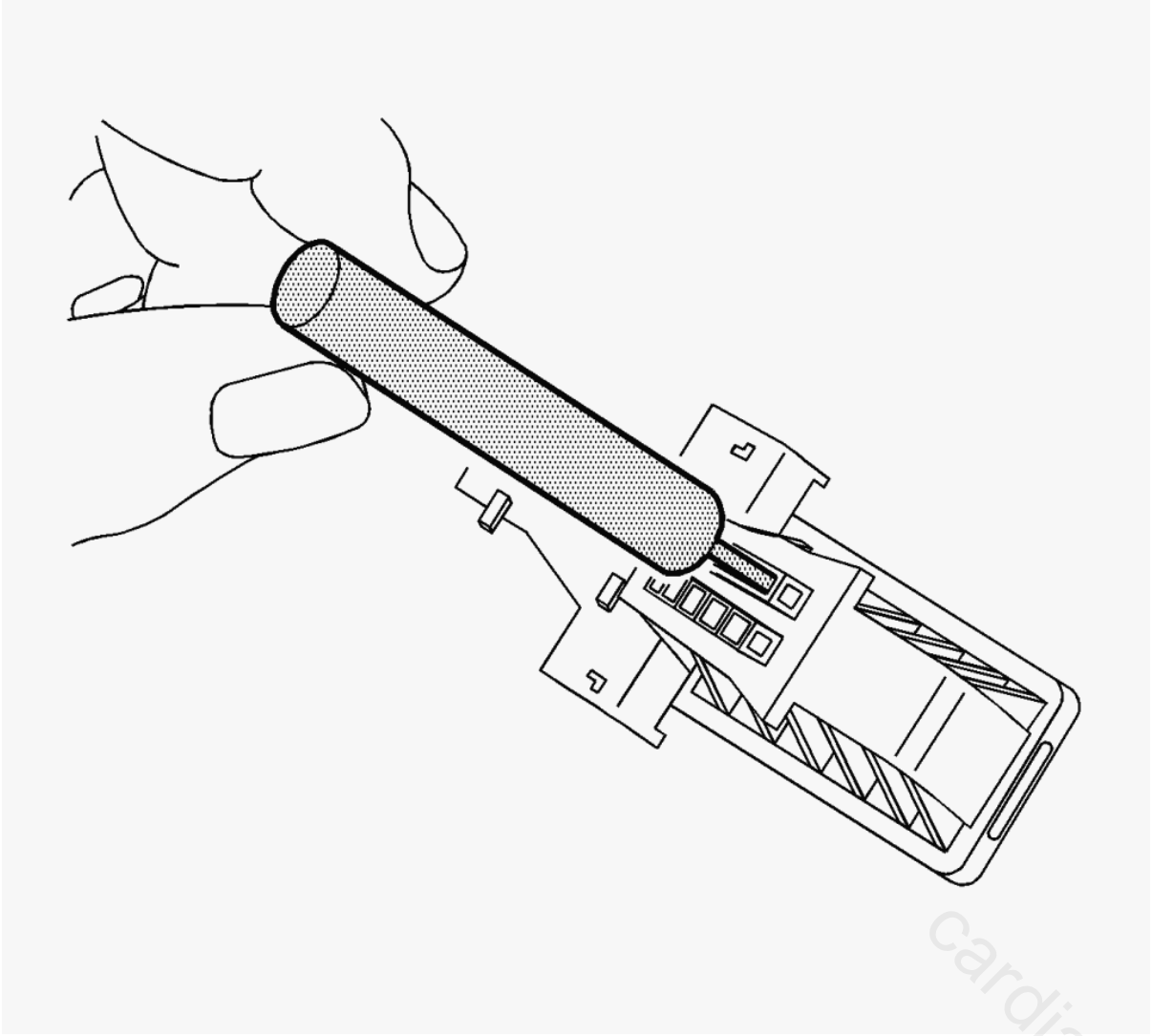


**Fig. 164: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

9. Using terminal release tool J-38125-556, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.
10. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
11. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (102-WAY INLINE)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-11A** Terminal Release Tool
- **J-38125-212** Terminal Release Tool
- **J-38125-216** Terminal Release Tool
- **J-38125-221** Terminal Release Tool
- **J-38125-560** Terminal Release Tool
- **J-38125-566** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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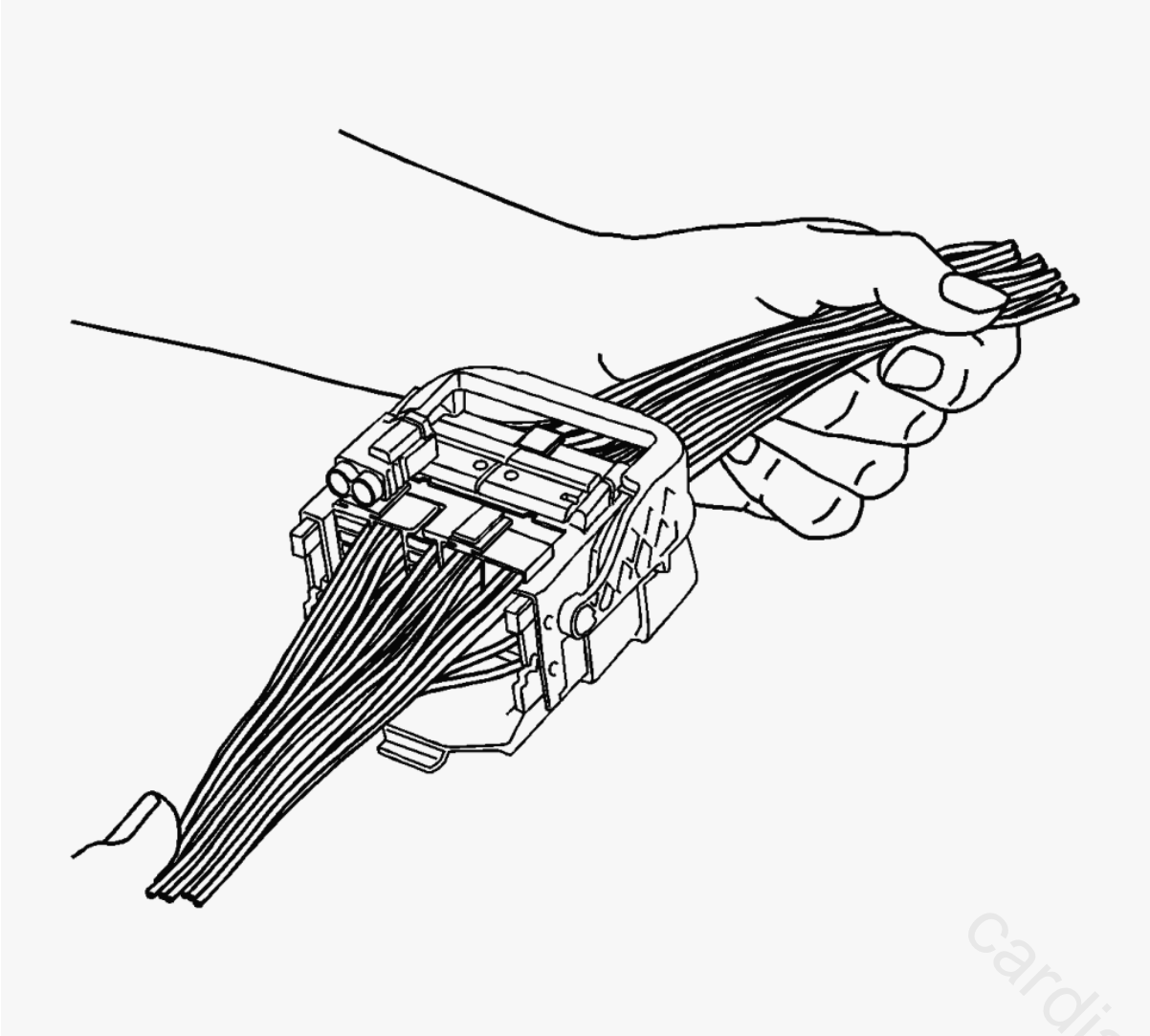


**Fig. 165: Typical Connector In Assembled Position**
**Courtesy of GENERAL MOTORS COMPANY**

View of a typical connector in the assembled position.

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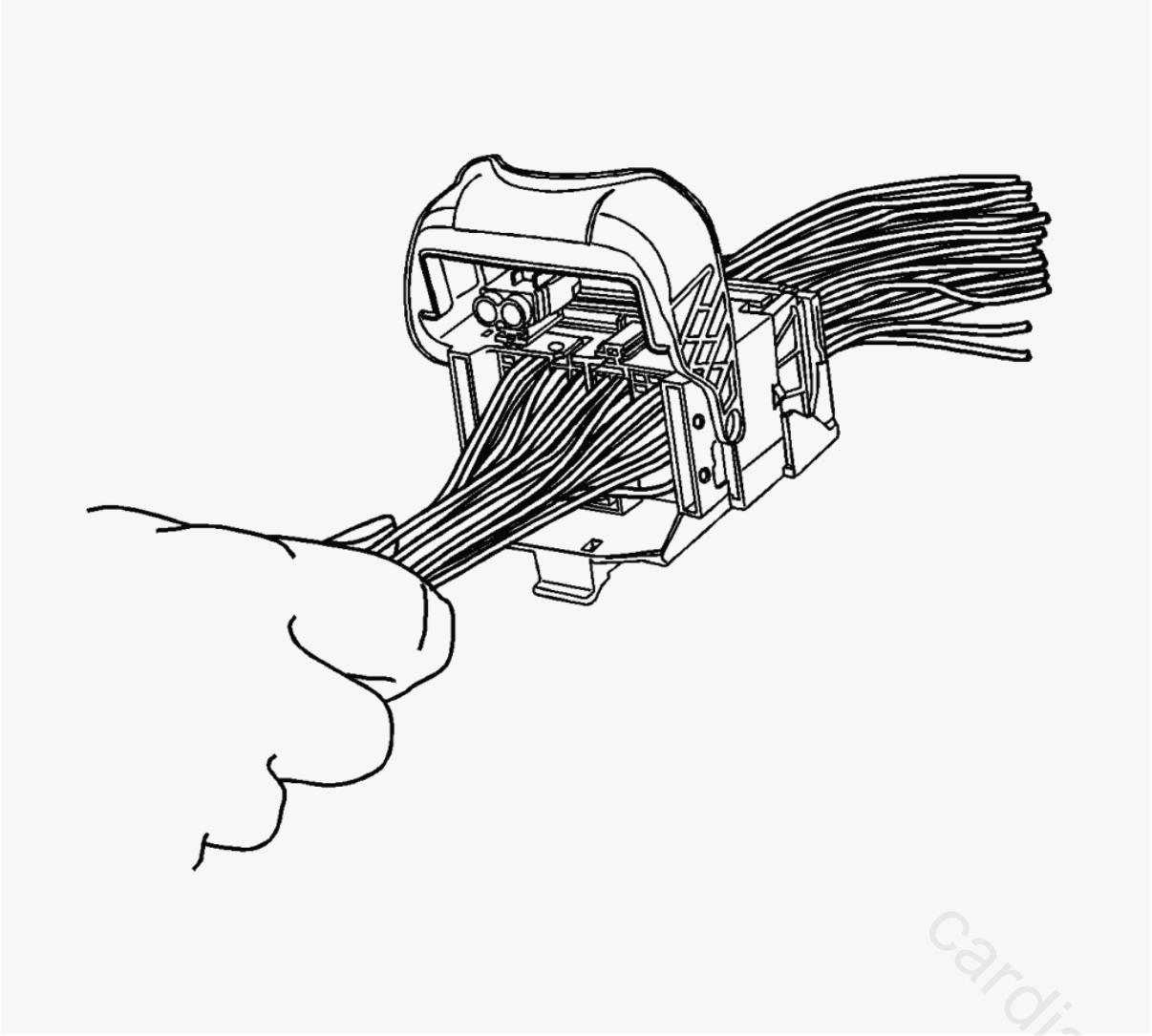


**Fig. 166: Locking Lever At 90 Degrees From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

1. Pull the locking lever to the 90 degree position from the connector body.

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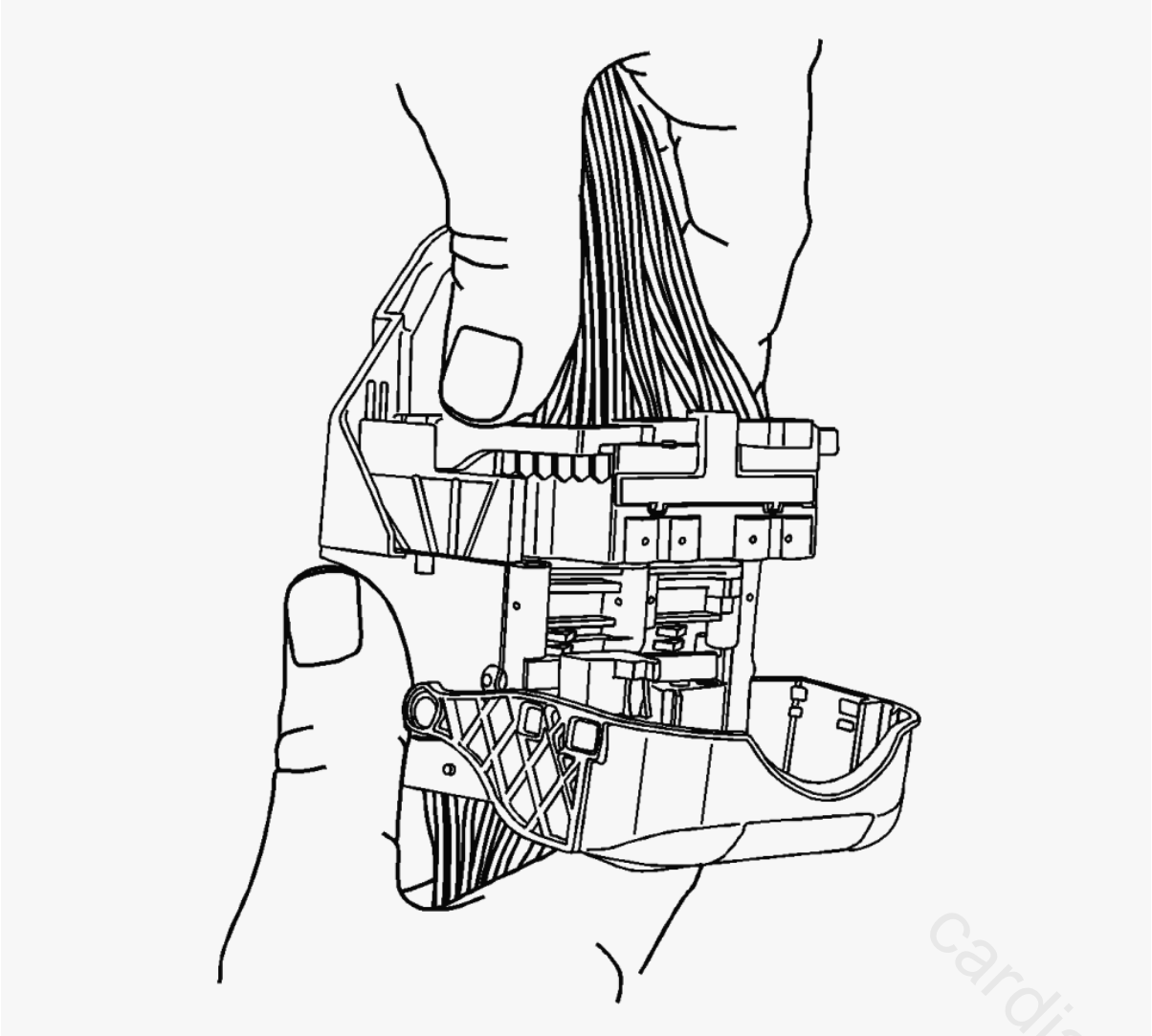


**Fig. 167: Sliding Male Connector Body Outward**
**Courtesy of GENERAL MOTORS COMPANY**

2. With the locking lever in the 90 degree position and the male connector body separated, it can be slid outward for removal.

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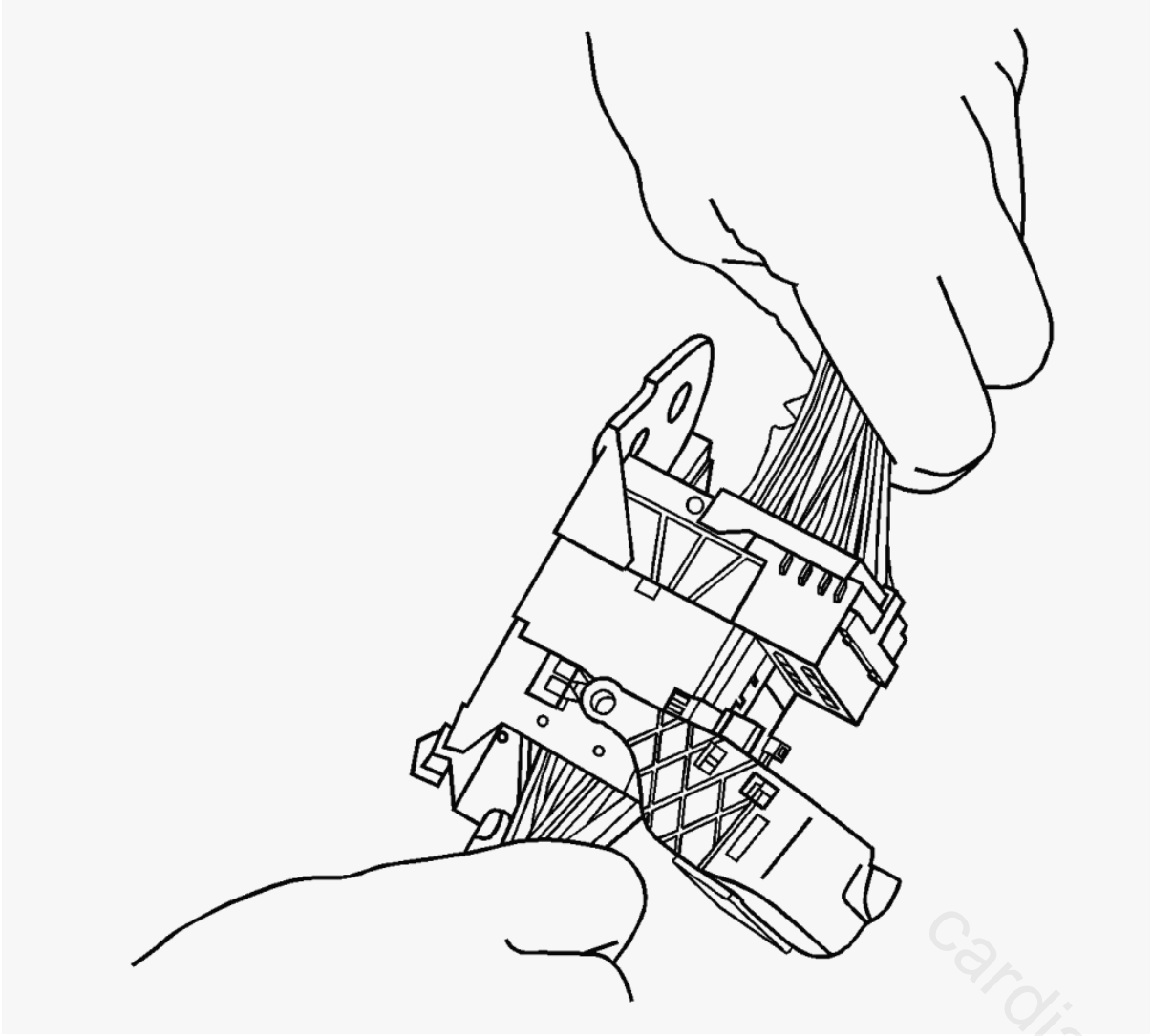


**Fig. 168: Sliding Male Connector Body Away From Guide Plates**
**Courtesy of GENERAL MOTORS COMPANY**

3. Slide the male connector body out away from the guide plates.

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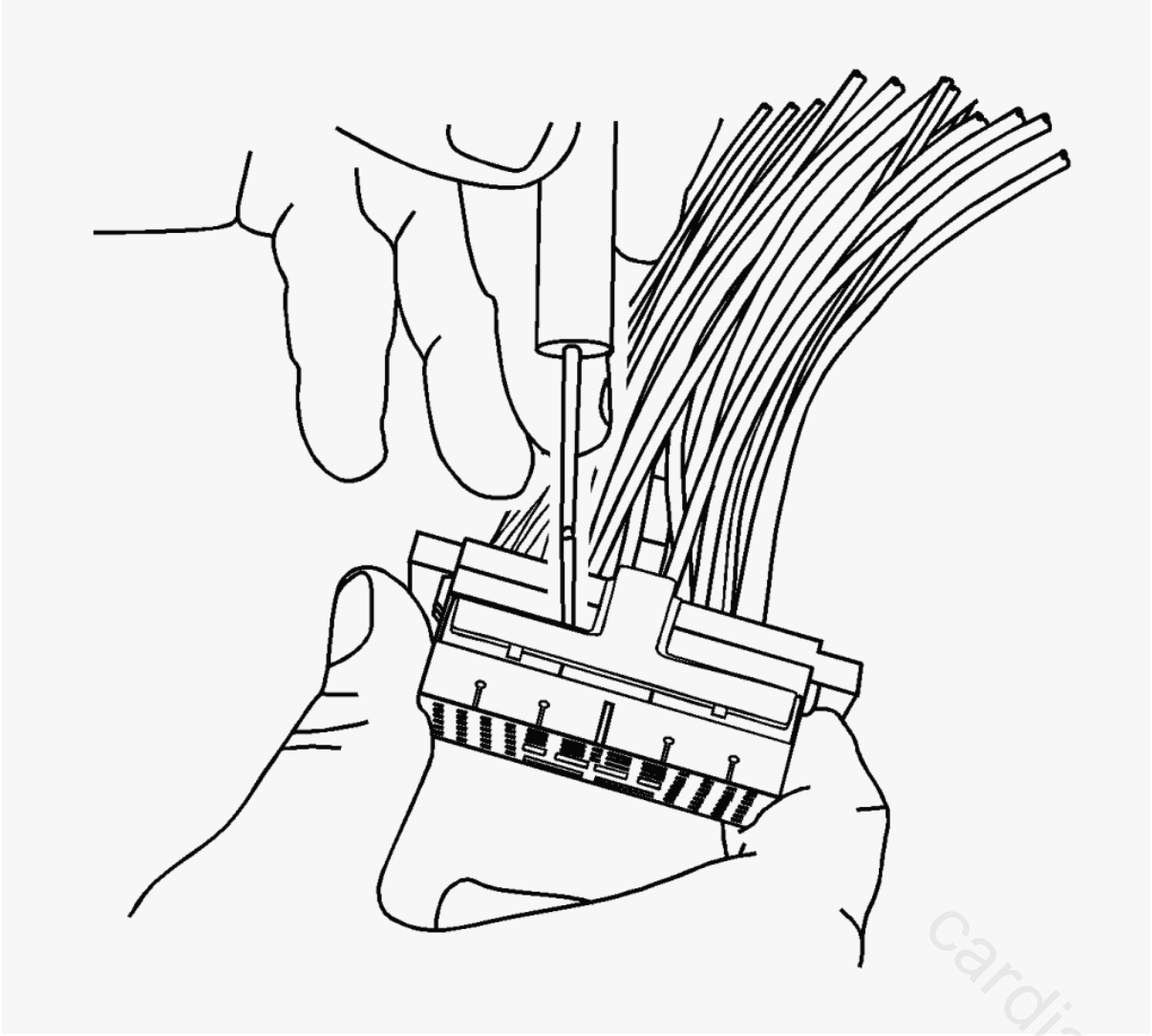


**Fig. 169: Removing TPA From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **During assembly the terminal position assurance (TPA) will not fully seat if any terminal is not fully seated.**

4. Using terminal release tool J-38125-11A or equivalent, remove the TPA from the connector body.

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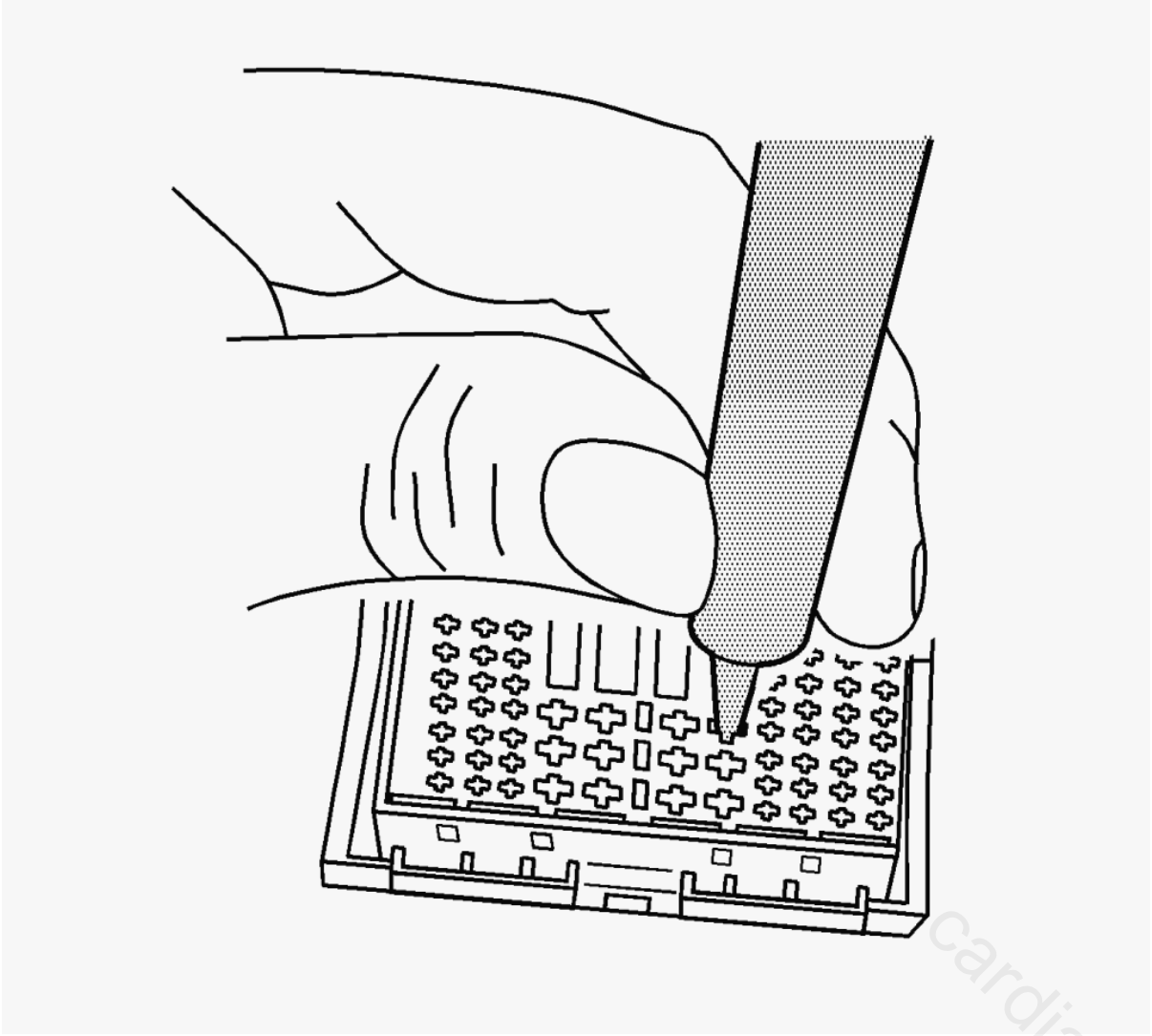


**Fig. 170: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

5. Using terminal release tool J-38125-566, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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**Fig. 171: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

6. Using terminal release tool J-38125-560, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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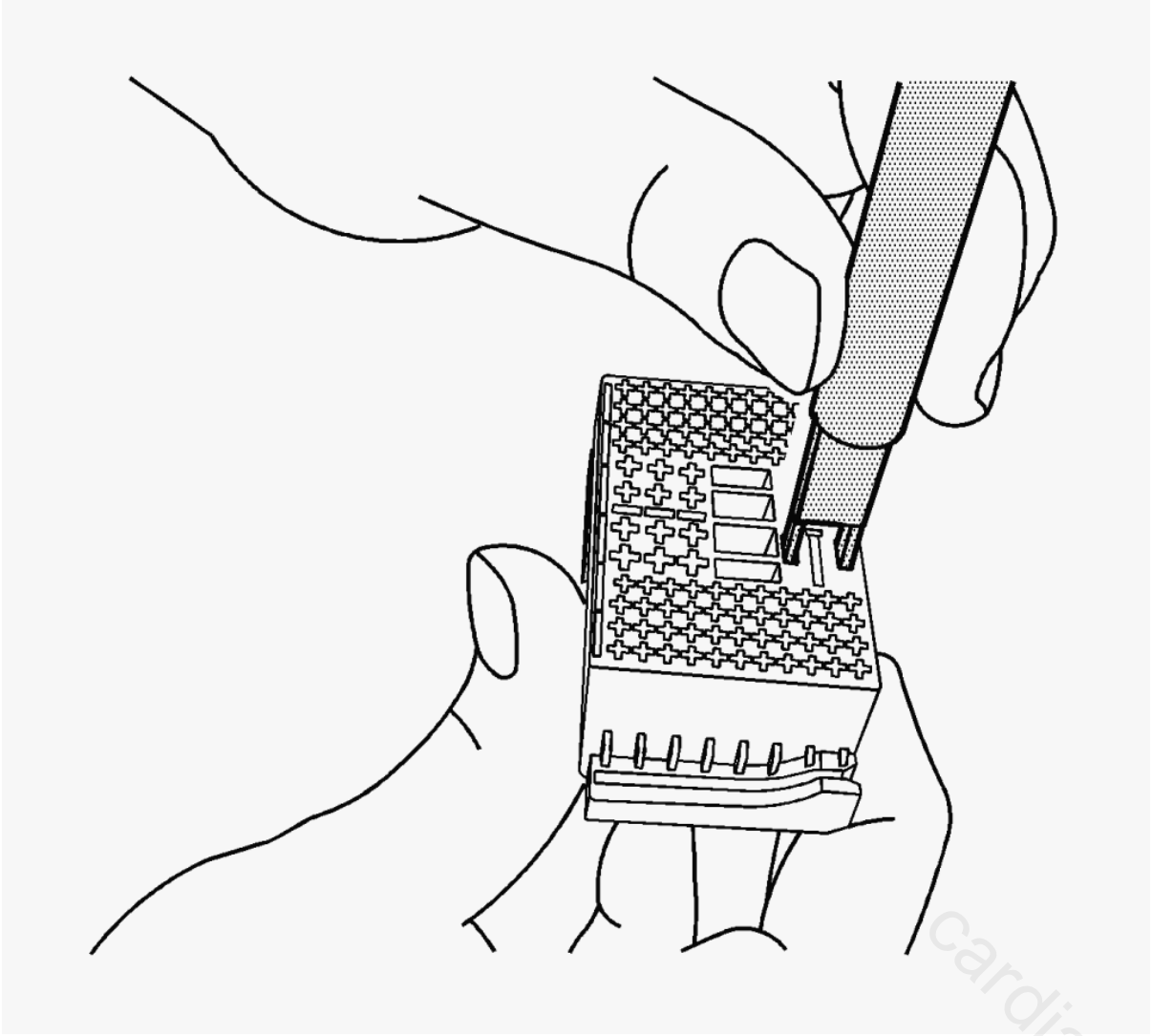


**Fig. 172: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

7. Using terminal release tool J-38125-221, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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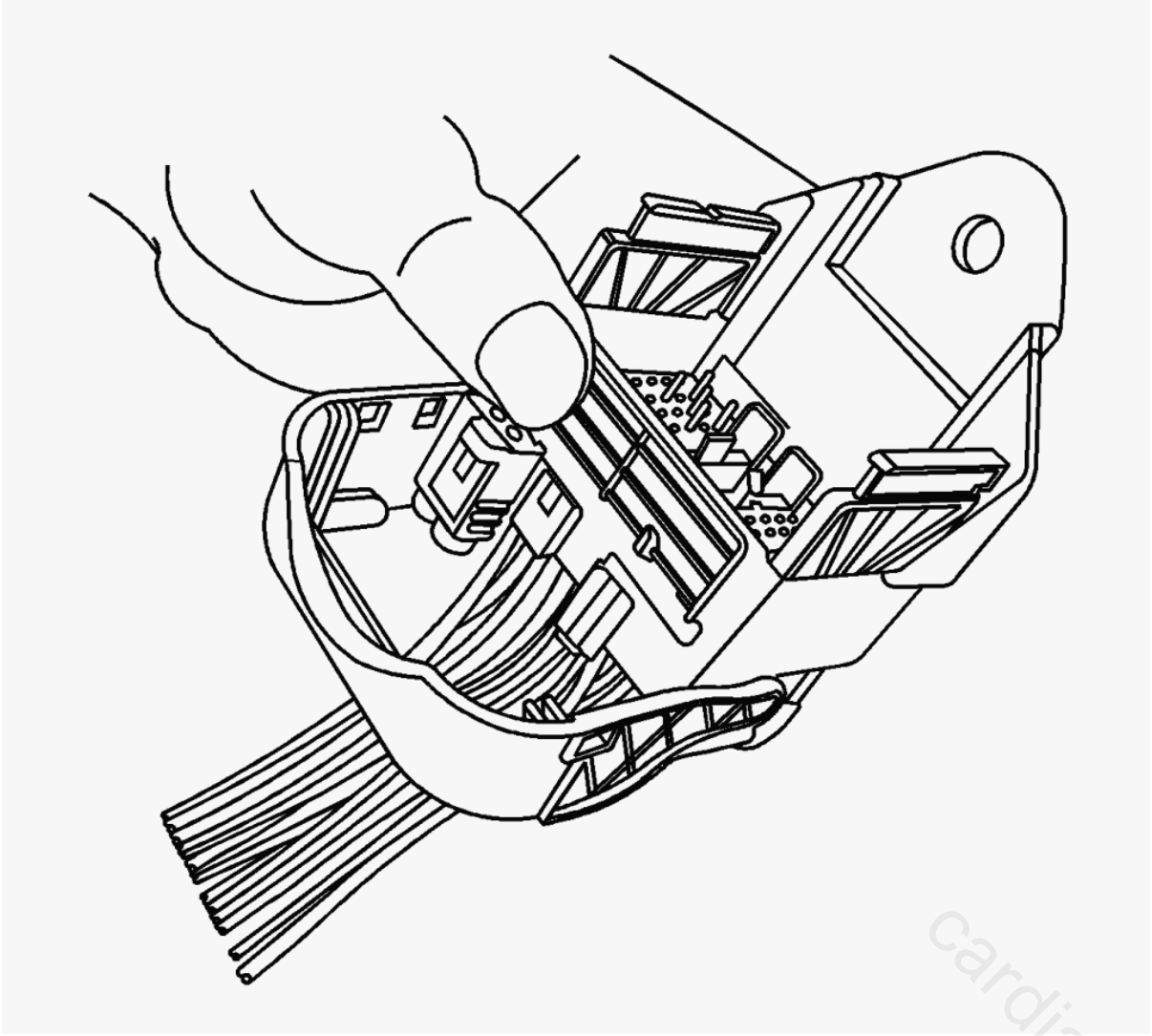


**Fig. 173: Sliding Connector Off Female Body**
**Courtesy of GENERAL MOTORS COMPANY**

8. The female connector body may have an additional connector hooked to the edge of the body. Use terminal release tool J-38125-11A or equivalent to release the locking tab and slide the connector off the female body.

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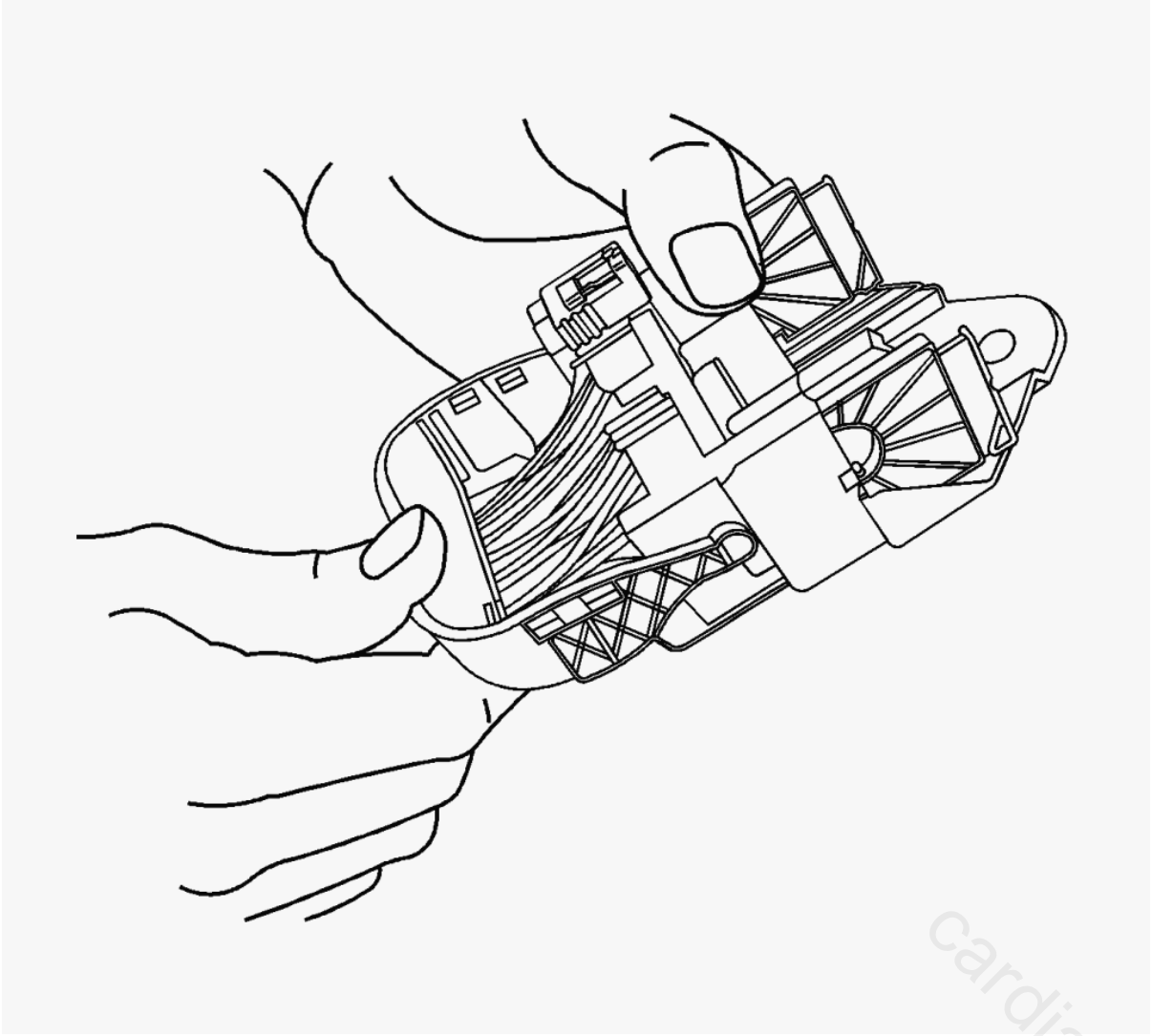


**Fig. 174: Moving Locking Lever 180 Degrees From Connected Position**
**Courtesy of GENERAL MOTORS COMPANY**

9. Move the locking lever 180 degrees from the connected position.

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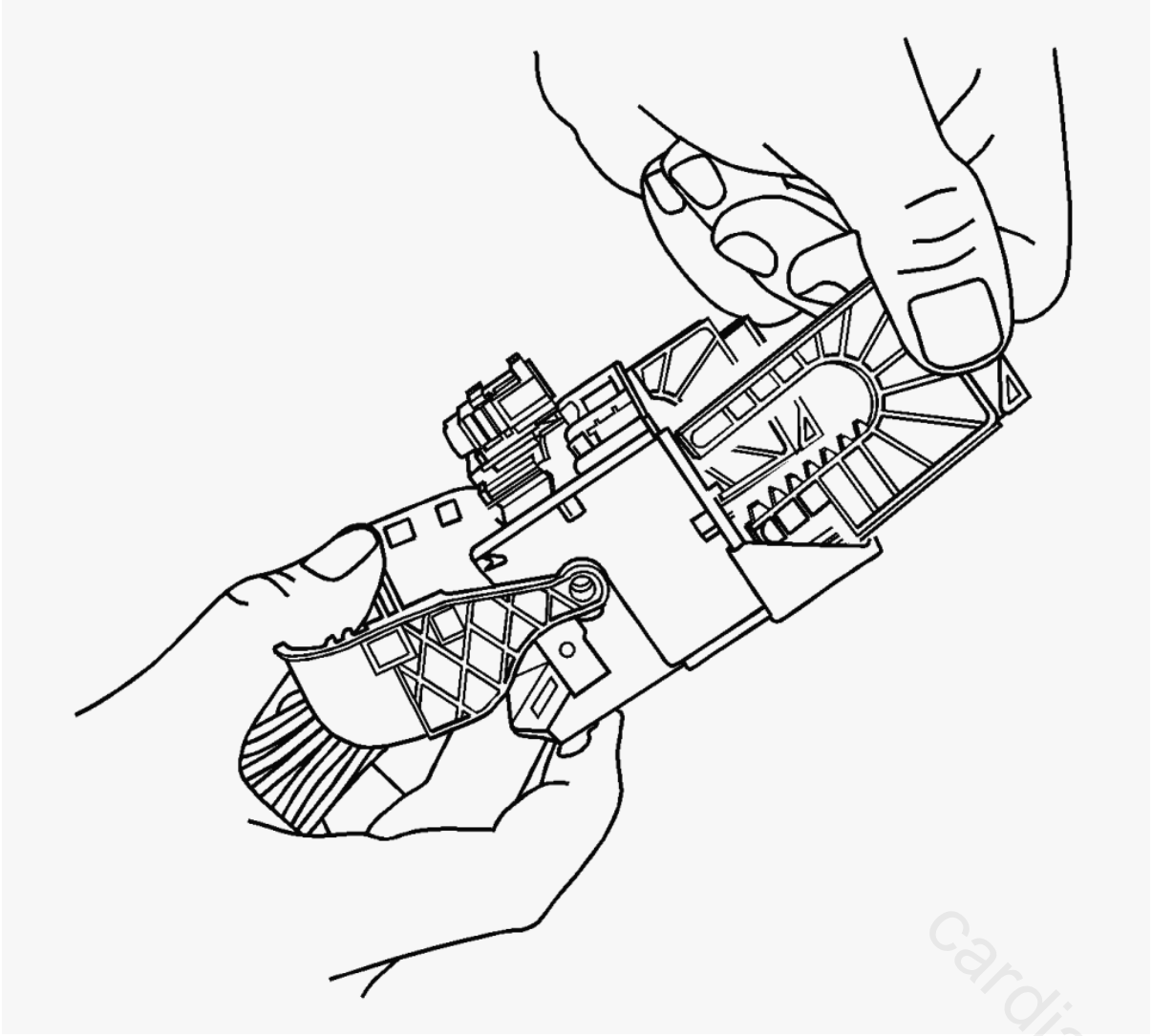


**Fig. 175: Removing Guide Plates From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

10. With the locking lever in the 180 degree position the guide plates can be removed from the connector body.

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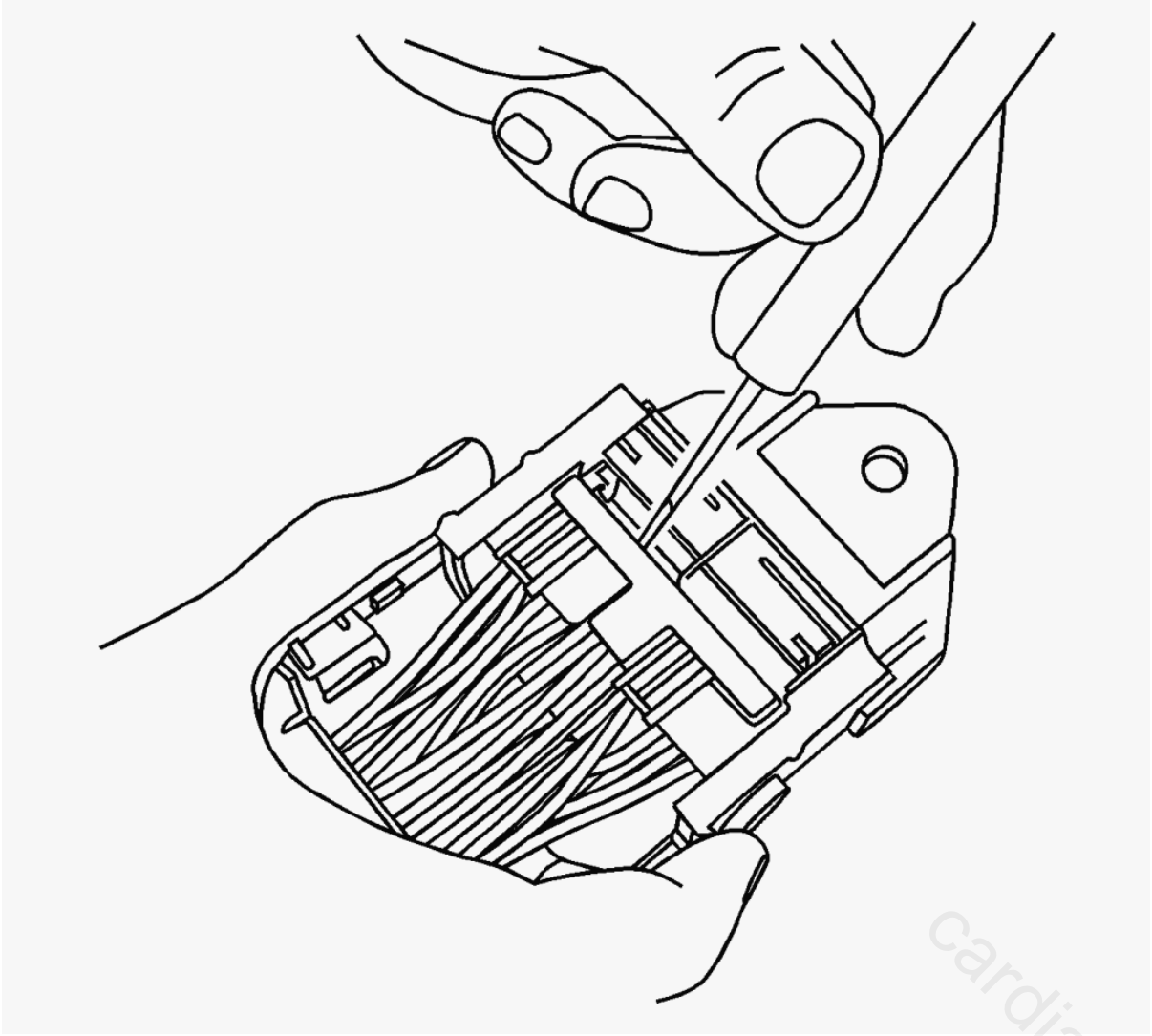


**Fig. 176: Removing TPA From Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

**NOTE:** **During assembly the TPA will not fully seat if any terminal is not fully seated.**

11. Using terminal release tool J-38125-11A or equivalent, remove the TPA from the connector body.

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**Fig. 177: Lifting Terminal Plate Past Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

12. Using terminal release tool J-38125-216, lift the terminal plate past the terminals and out of the connector body cavity.

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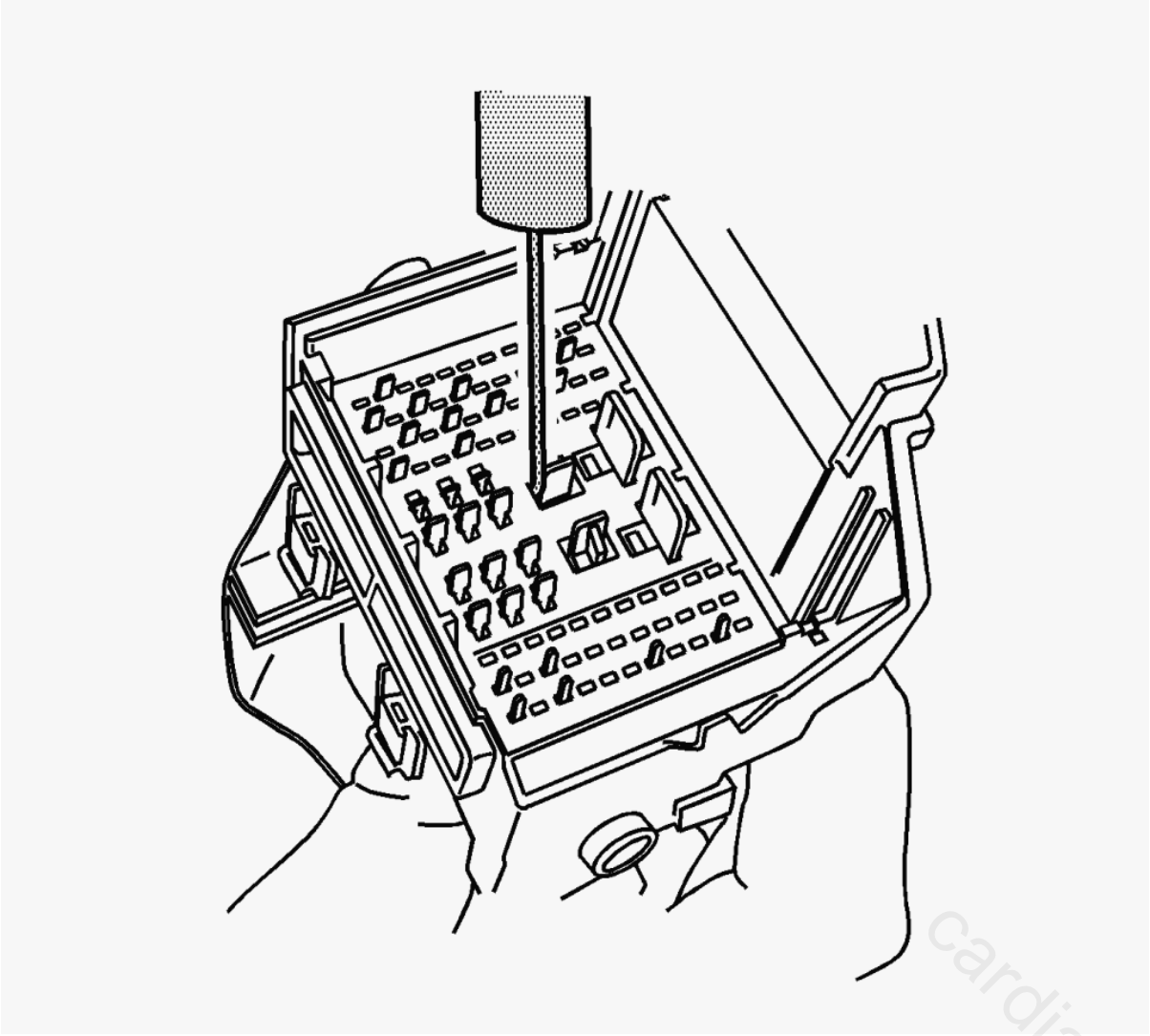


**Fig. 178: Terminal Plate**
**Courtesy of GENERAL MOTORS COMPANY**

13. Terminal plate will bind slightly on each corner.

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**Fig. 179: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

14. Using terminal release tool J-38125-221, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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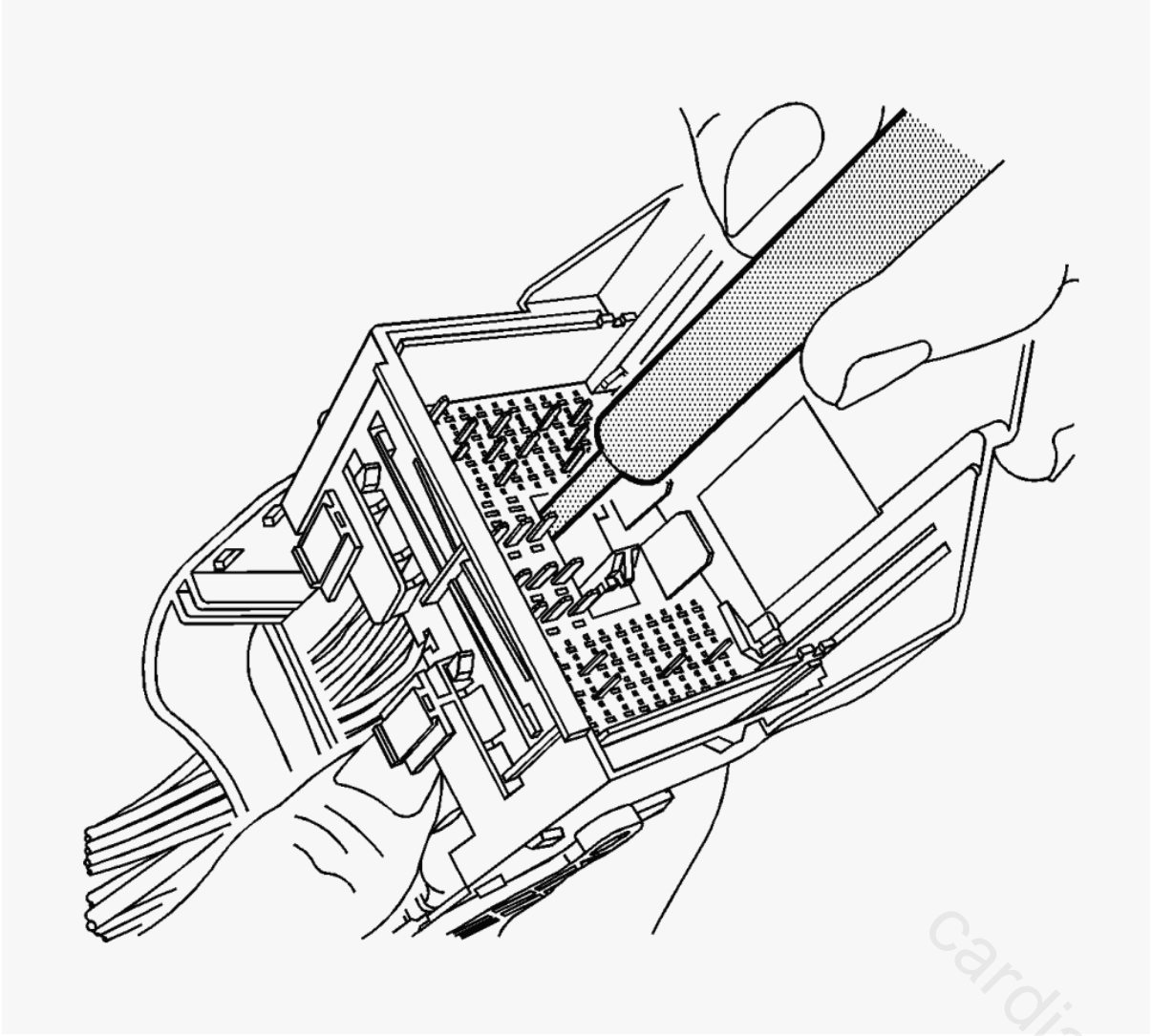


**Fig. 180: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

15. Using terminal release tool J-38125-212, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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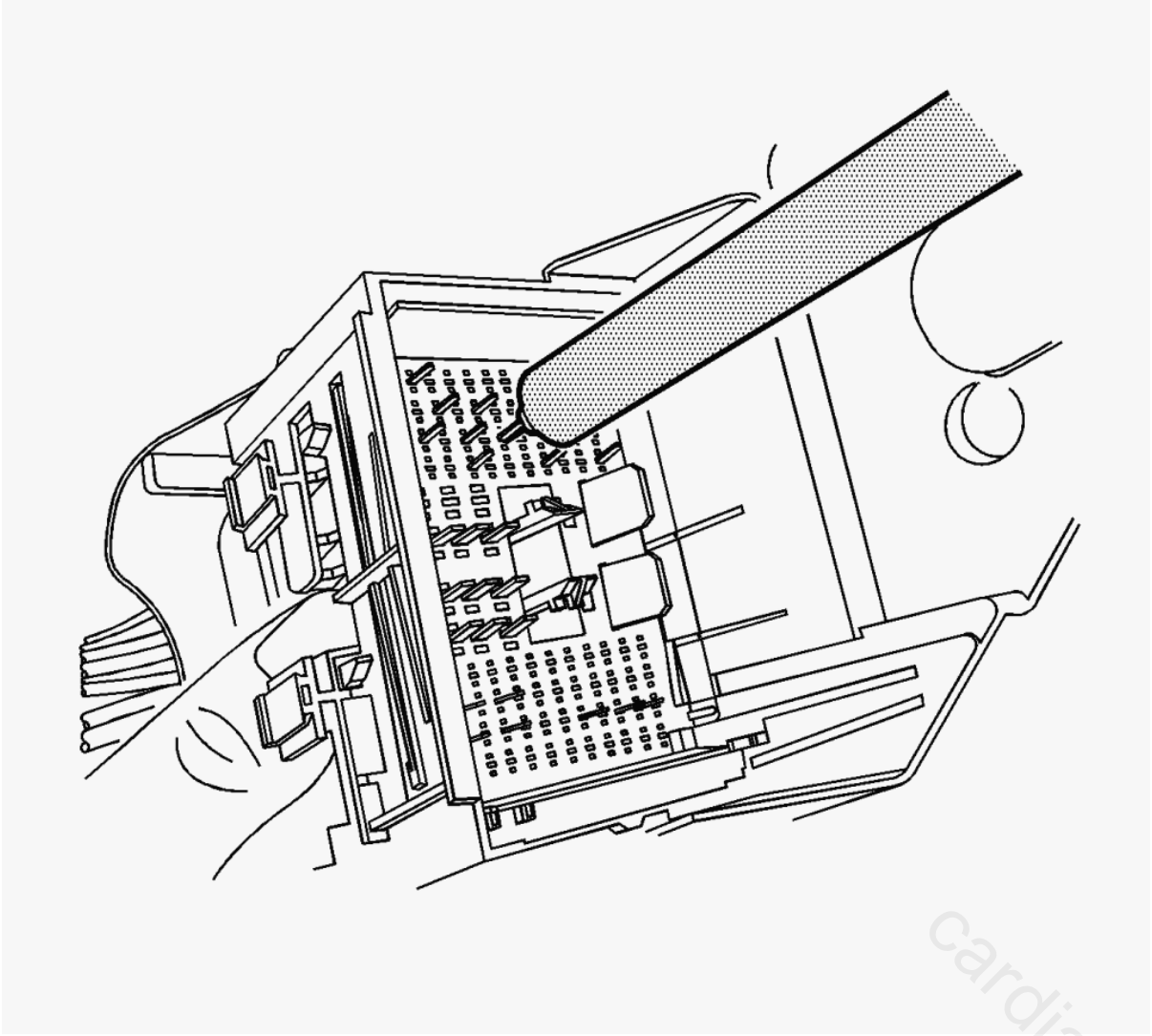


**Fig. 181: Using Terminal Release Tool To Release Lock Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

16. Using terminal release tool J-38125-560, press the prongs into the holes on each side of the terminal to be removed to release the lock tabs and pull the terminal out of the connector body.

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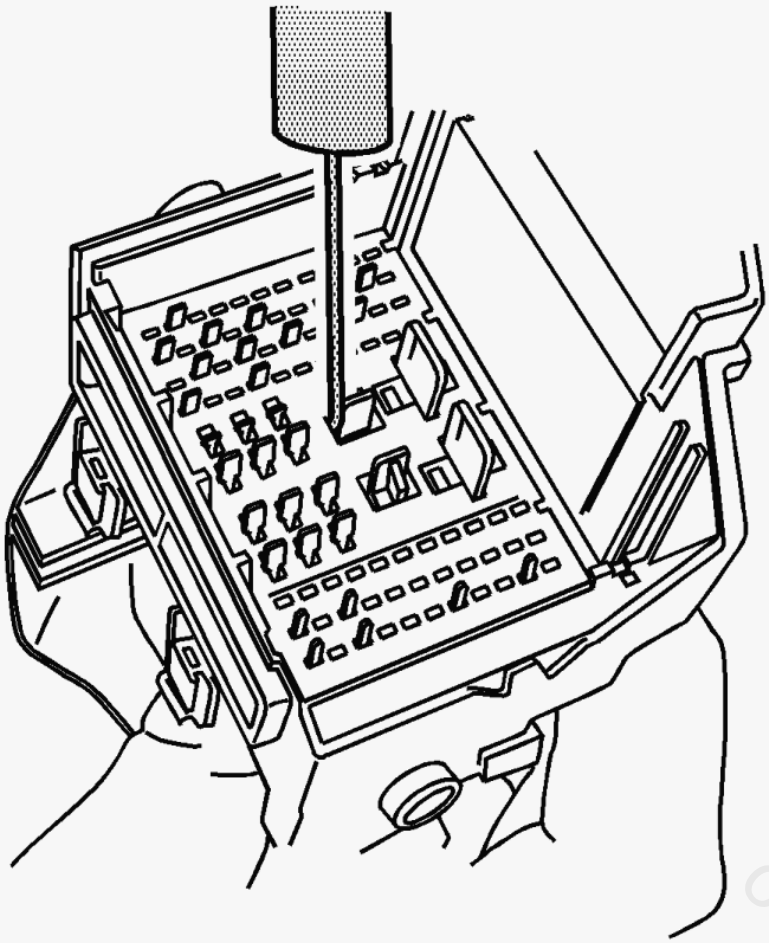


**Fig. 182: Pressing Terminal Plate Into Female Connector To Preset Position**
**Courtesy of GENERAL MOTORS COMPANY**

17. Press the terminal plate back into the female connector to the preset position. The plate will bind slightly on each corner.

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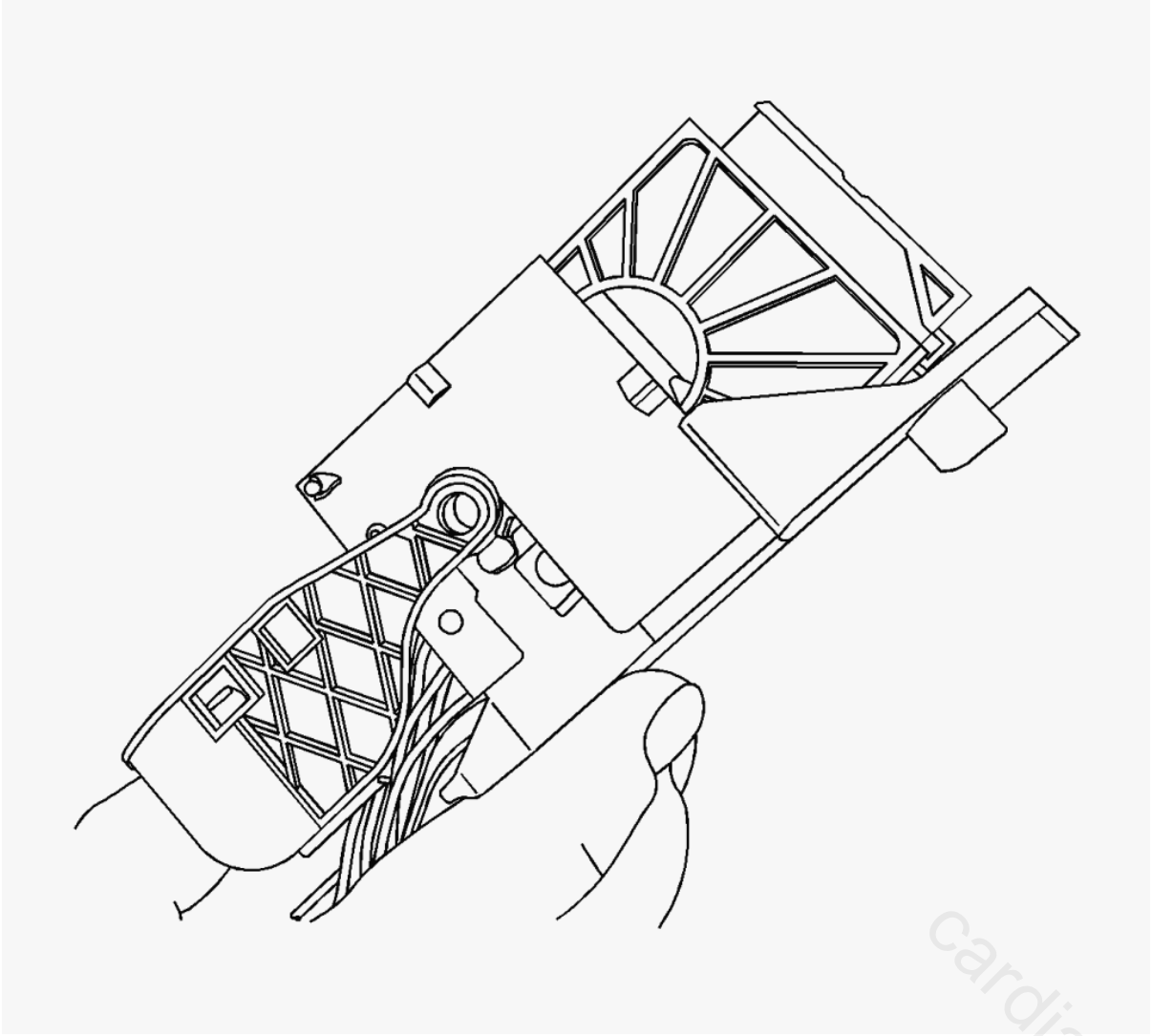


**Fig. 183: Aligning Guide Plates To Mesh With Locking Lever Gears**
**Courtesy of GENERAL MOTORS COMPANY**

18. With the locking lever in the 180 degree position, align the guide plates to mesh with the gears on the locking lever.

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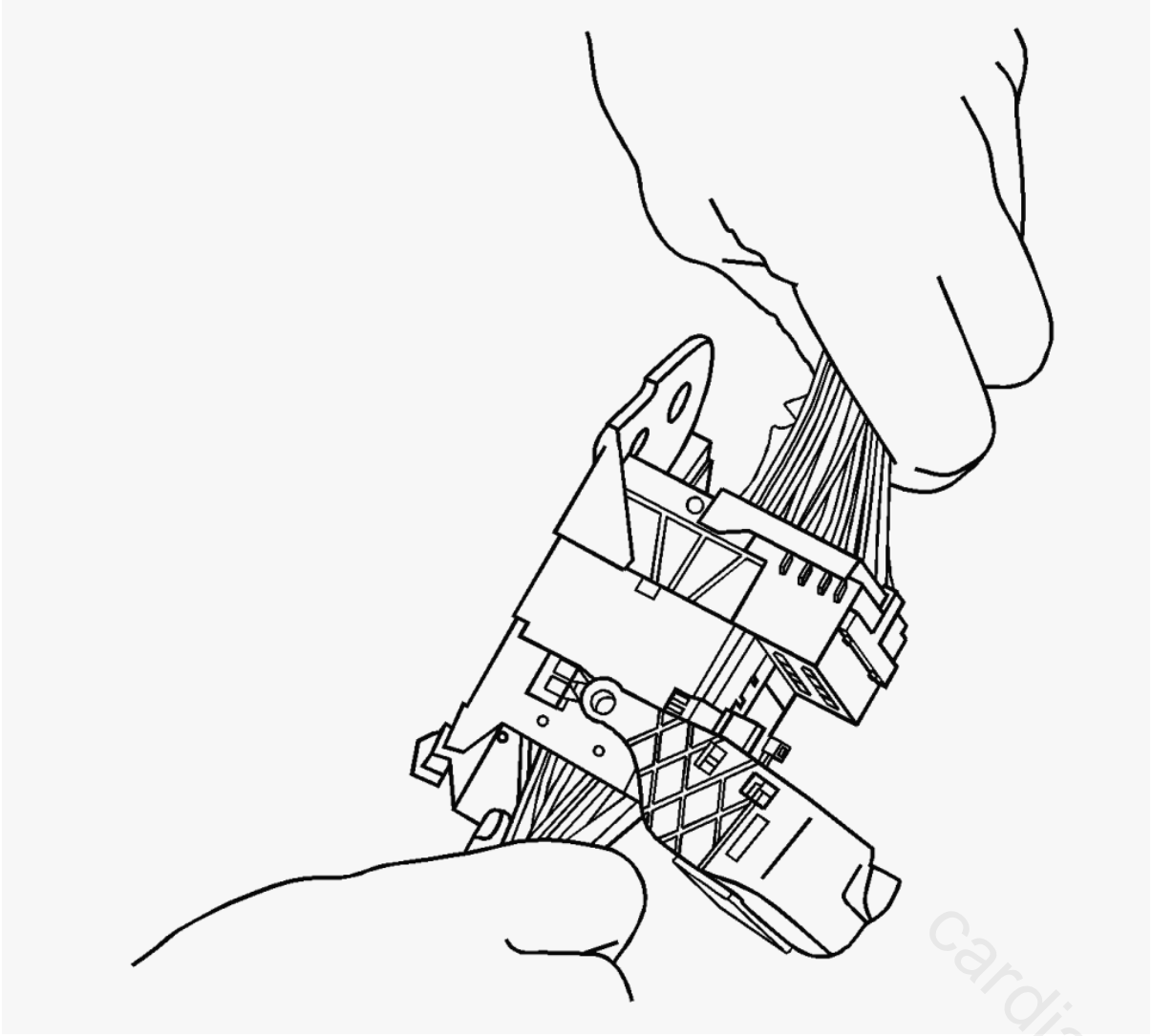


**Fig. 184: Slide Male Connector Body Back Inward Toward Guide Plates**
**Courtesy of GENERAL MOTORS COMPANY**

19. Slide the male connector body back inward toward the guide plates.

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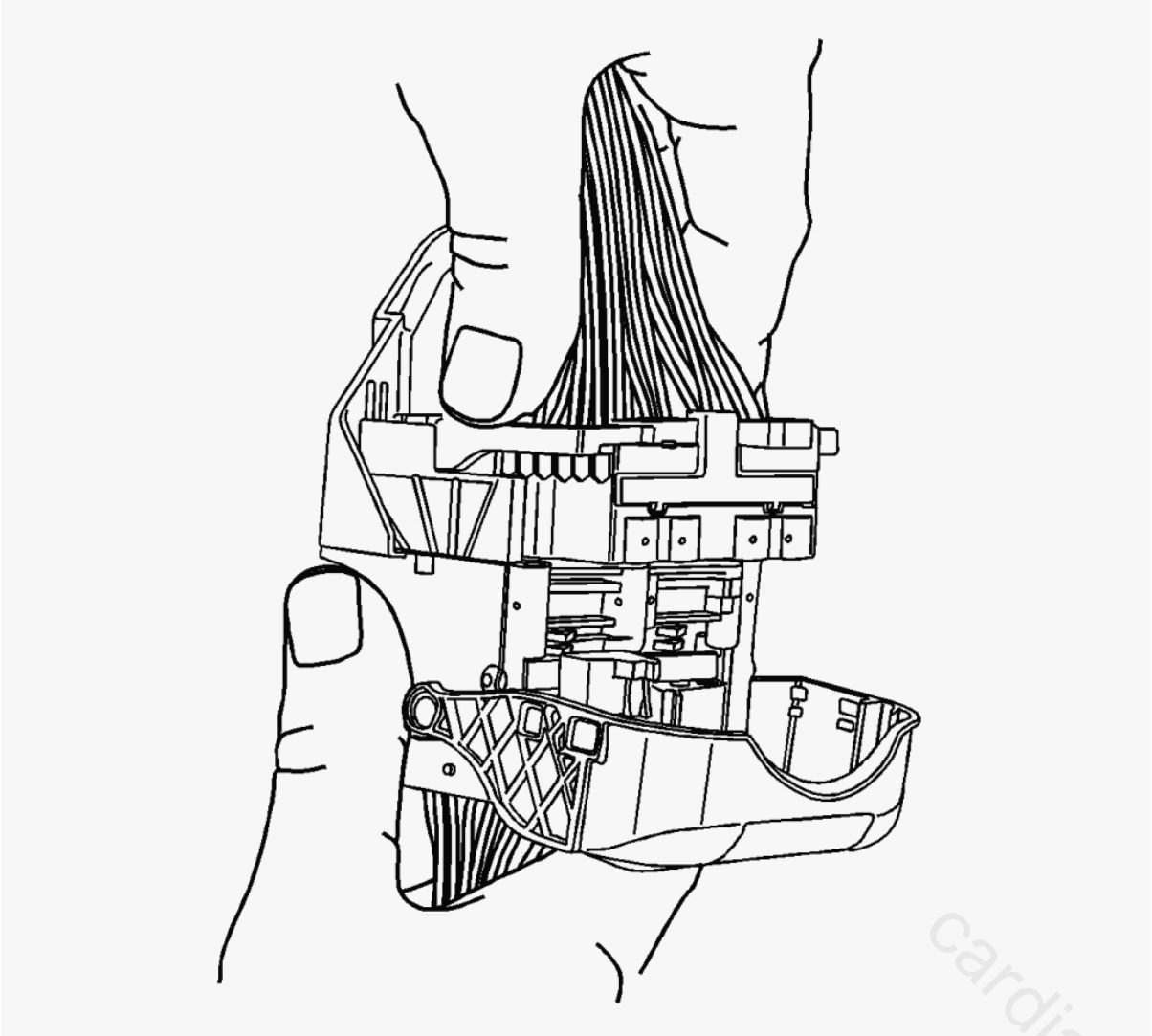


**Fig. 185: Sliding Male Connector Body Inward**
**Courtesy of GENERAL MOTORS COMPANY**

20. With the locking lever in the 90 degree position and the male connector body connected, it can be slid inward for assembly.

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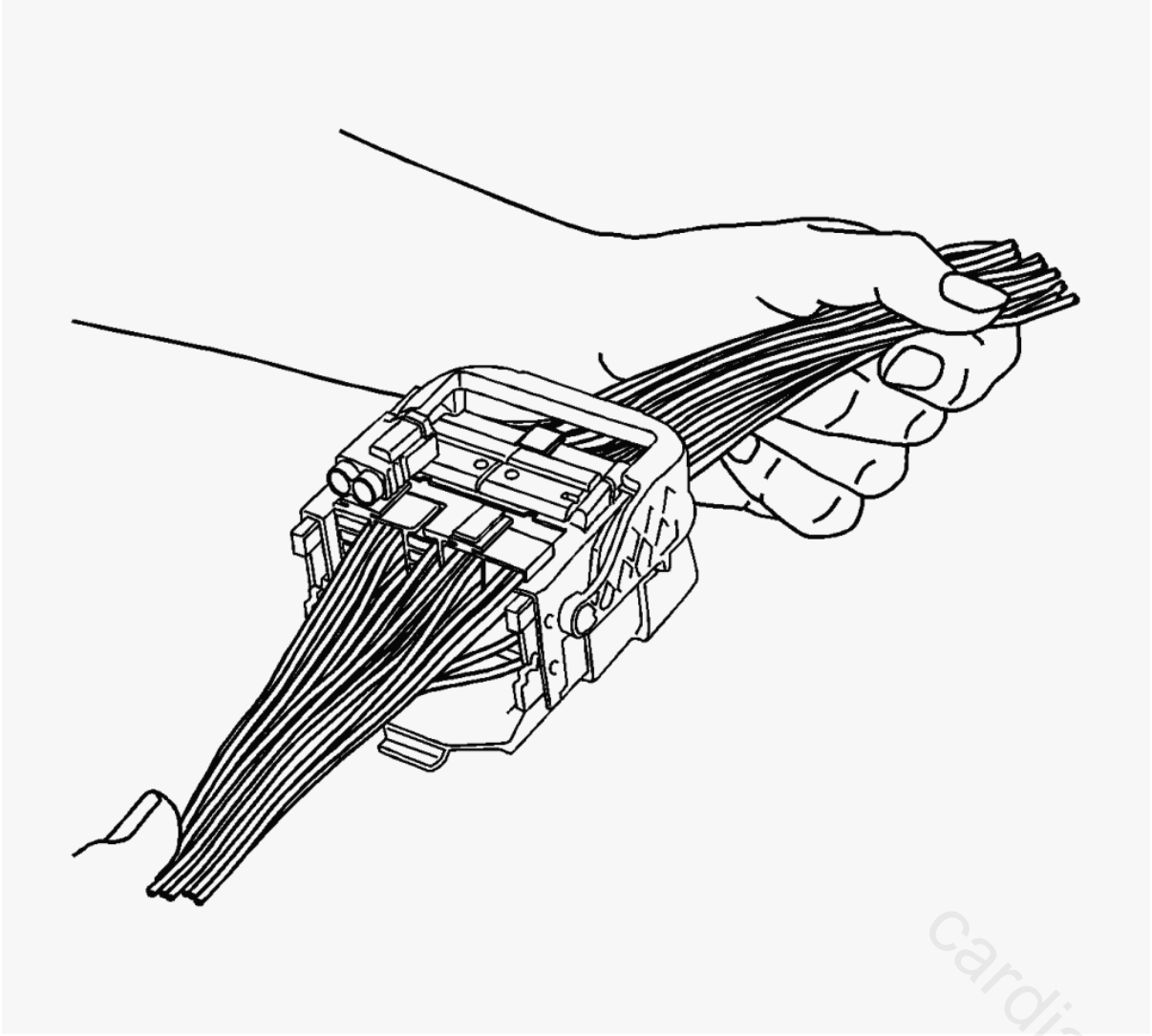


**Fig. 186: Typical Connector In Assembled Position**
**Courtesy of GENERAL MOTORS COMPANY**

21. Move the lever into the locked position or in the assembled position. This will pull the male connector down into the female connector.
22. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
23. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## TYCO/AMP CONNECTORS (SIR)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-11A** Terminal Release Tool
- **J-38125-215A** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Removal Procedure

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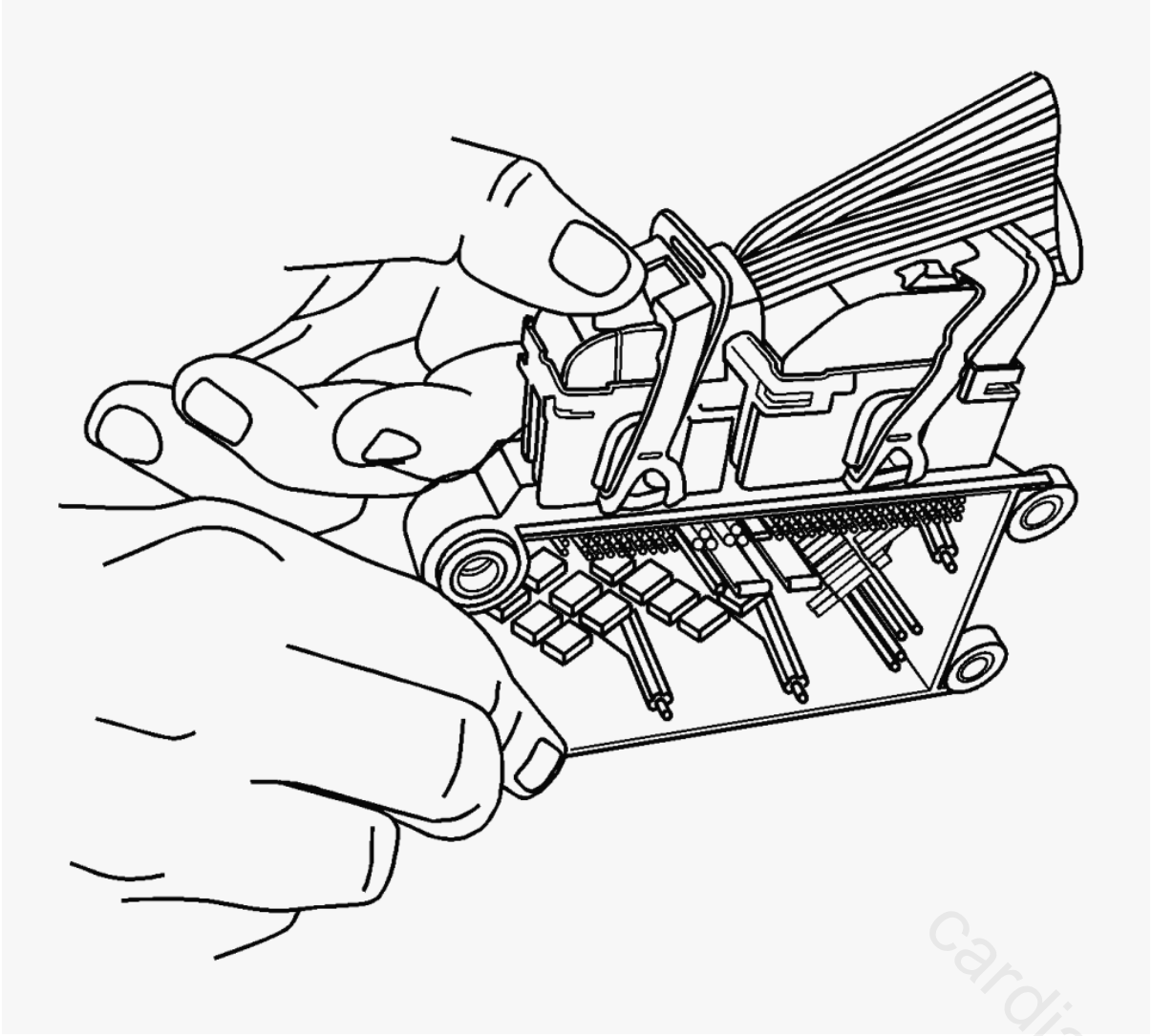


**Fig. 187: Sliding Red CPA Away From Connector Lever**
**Courtesy of GENERAL MOTORS COMPANY**

1. Using your thumbs press down and slide the red CPA away from the connector lever.

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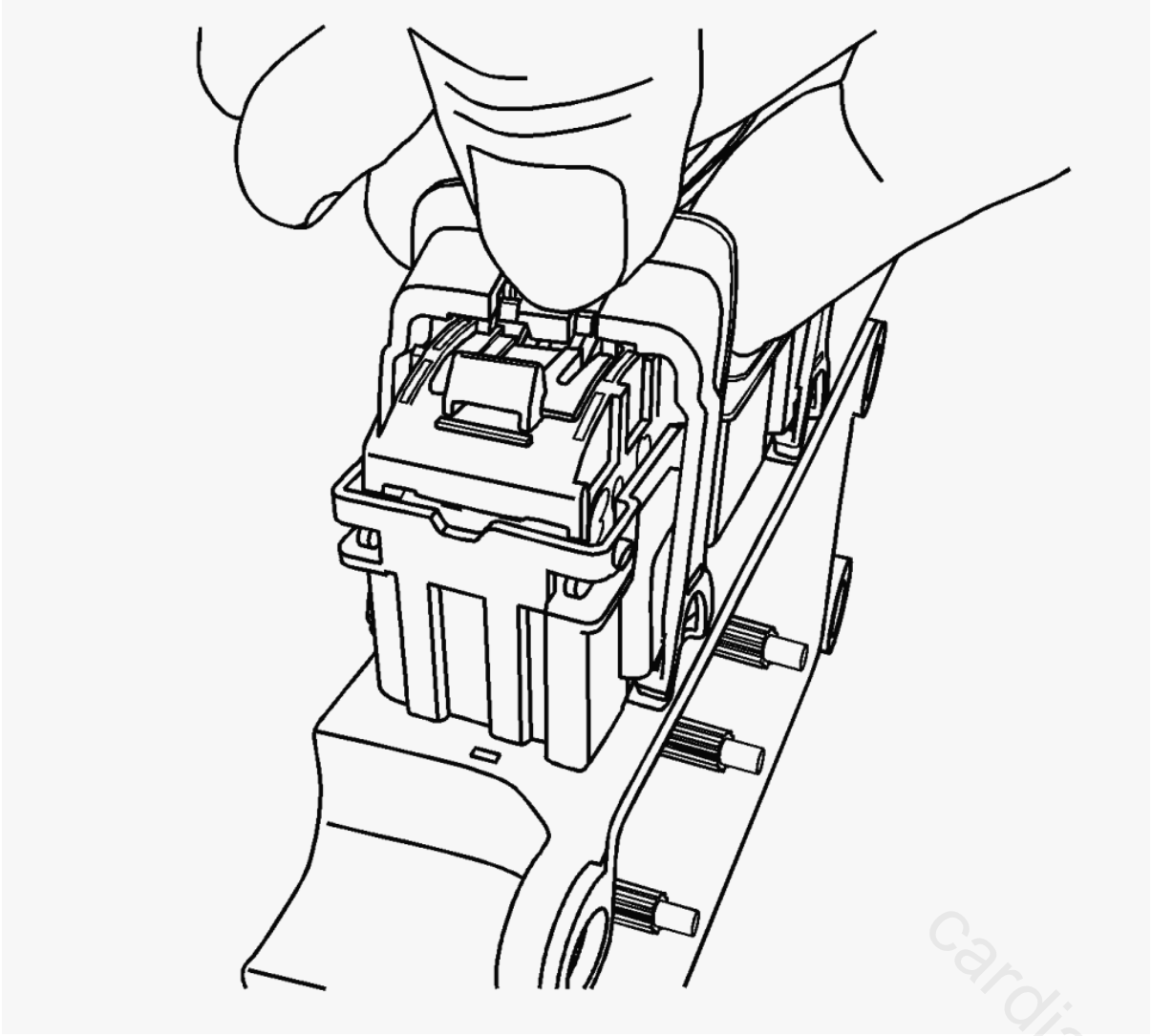


**Fig. 188: Moving Lever To Released Position**
**Courtesy of GENERAL MOTORS COMPANY**

2. Using your thumb press down on the locking tab and move the lever to the released position.

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**Fig. 189: Releasing Wire Dress Cover Locking Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

3. Using terminal tool J-38125-11A or equivalent, release the wire dress cover locking tabs.

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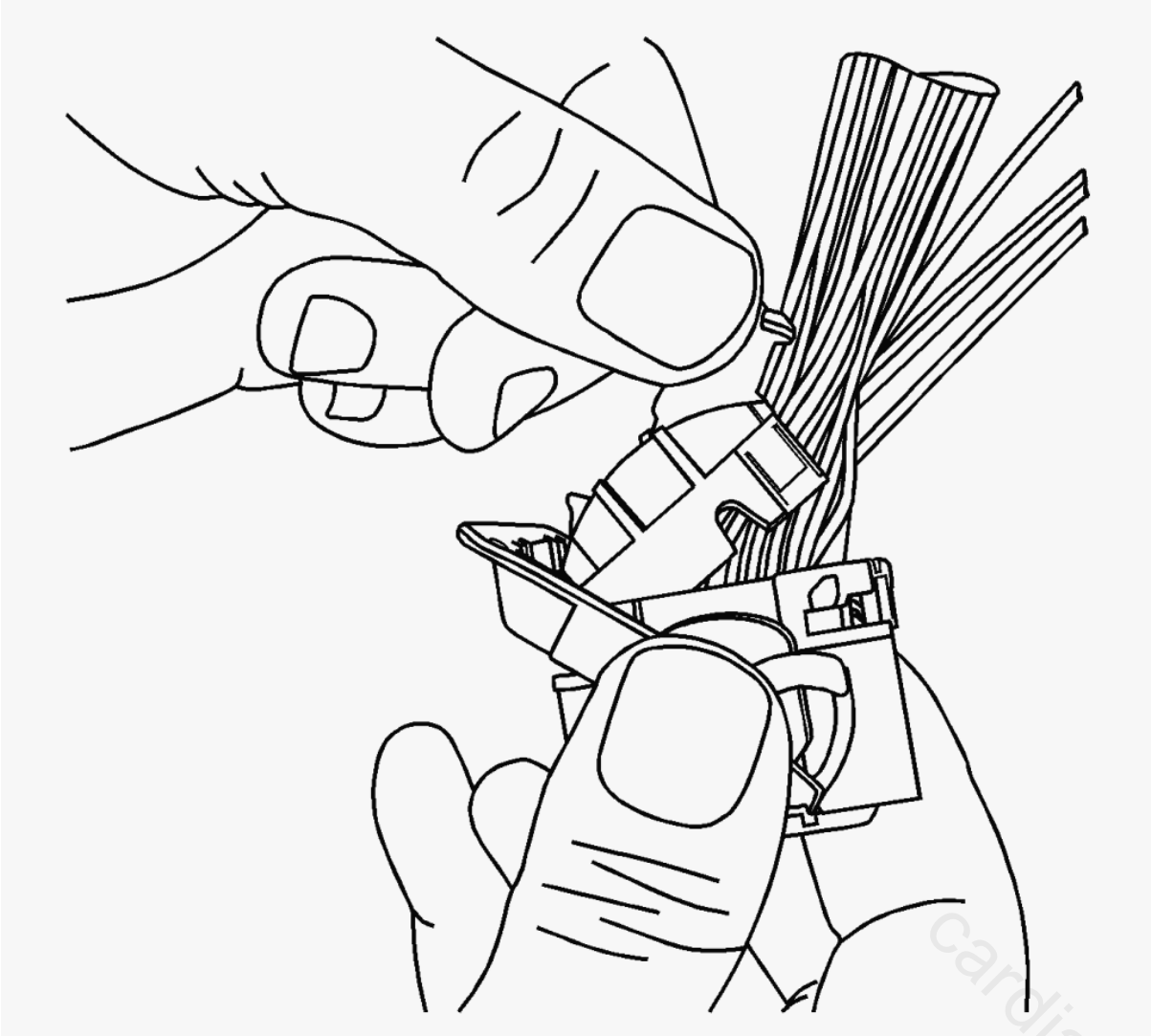


**Fig. 190: Pivoting Connector Wire Dress Cover**
**Courtesy of GENERAL MOTORS COMPANY**

4. Pivot connector wire dress cover while removing from the connector body.

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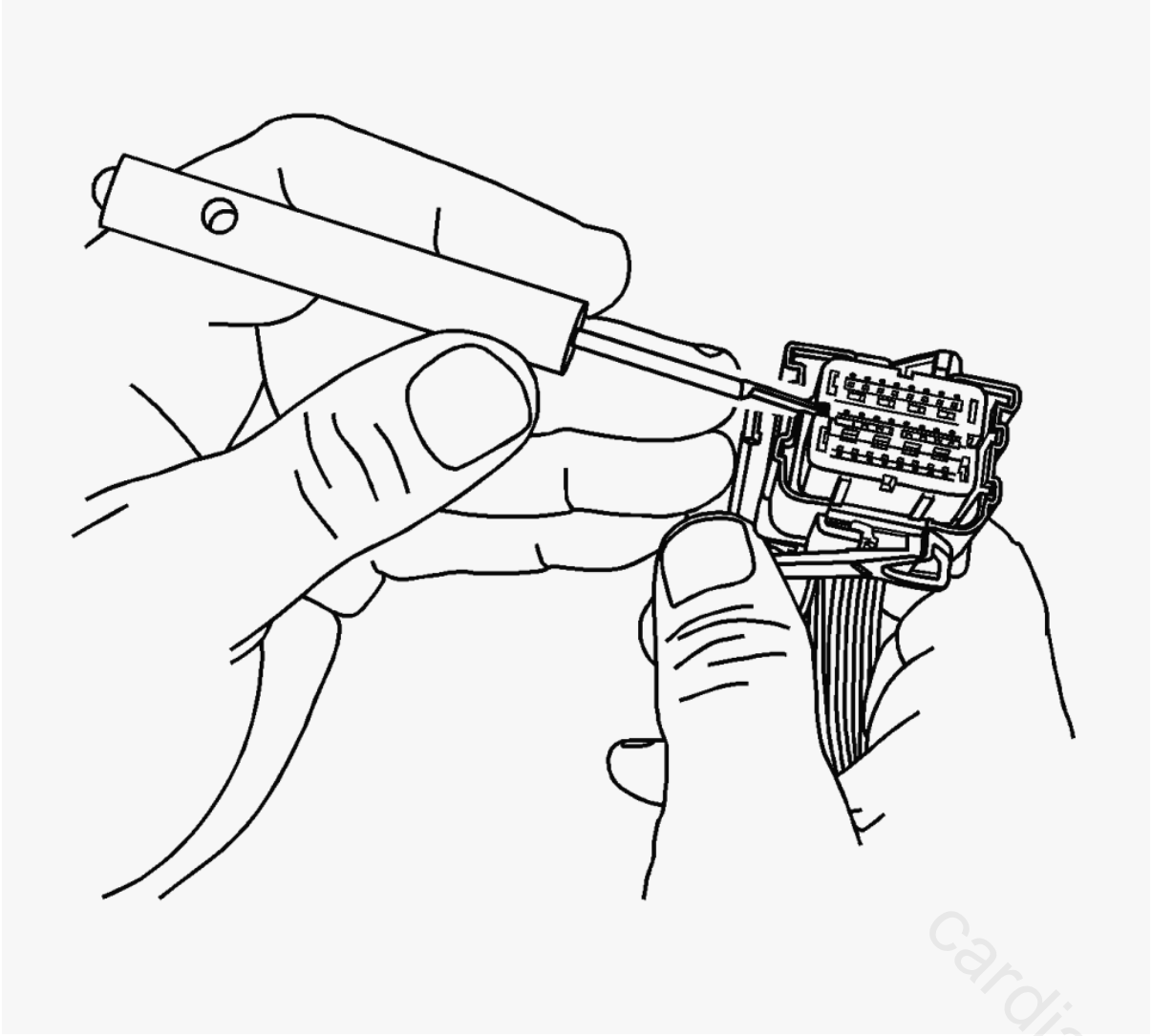


**Fig. 191: Removing TPA**
**Courtesy of GENERAL MOTORS COMPANY**

5. Using terminal tool J-38125-11A or equivalent, remove the TPA by lifting straight off the connector body.

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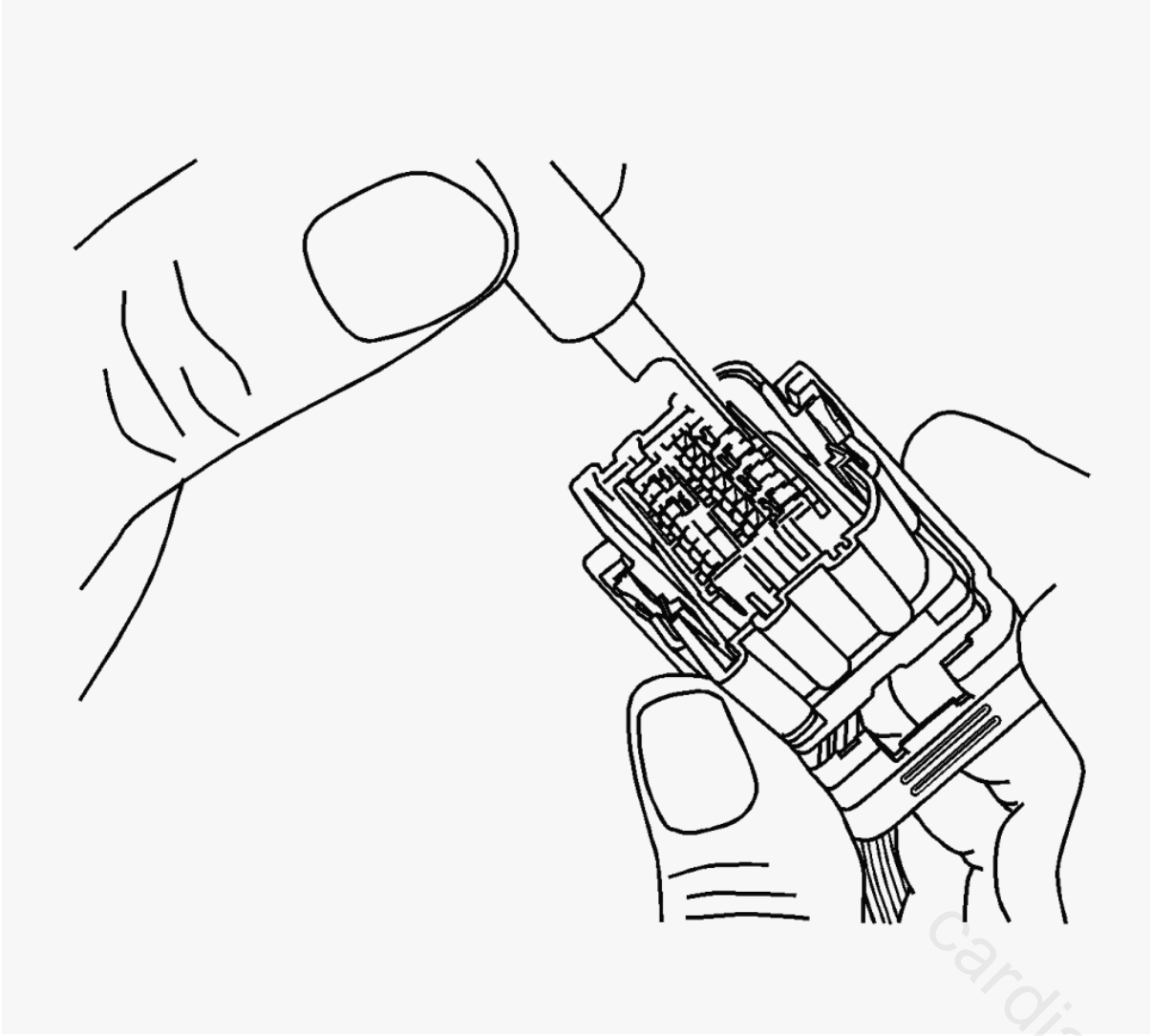


**Fig. 192: Removing Rear Of Connector Body**
**Courtesy of GENERAL MOTORS COMPANY**

6. Using terminal release tool J-38125-215A, place the tip of the tool on the outside edge next to the terminal and depress the lock tab and remove the rear of the connector body.

### Terminal Repair Procedure

Use the appropriate terminal and crimper in order to replace the terminal.

## YAZAKI CONNECTORS (2-WAY)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-553** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

1. Disconnect the connector from the component.

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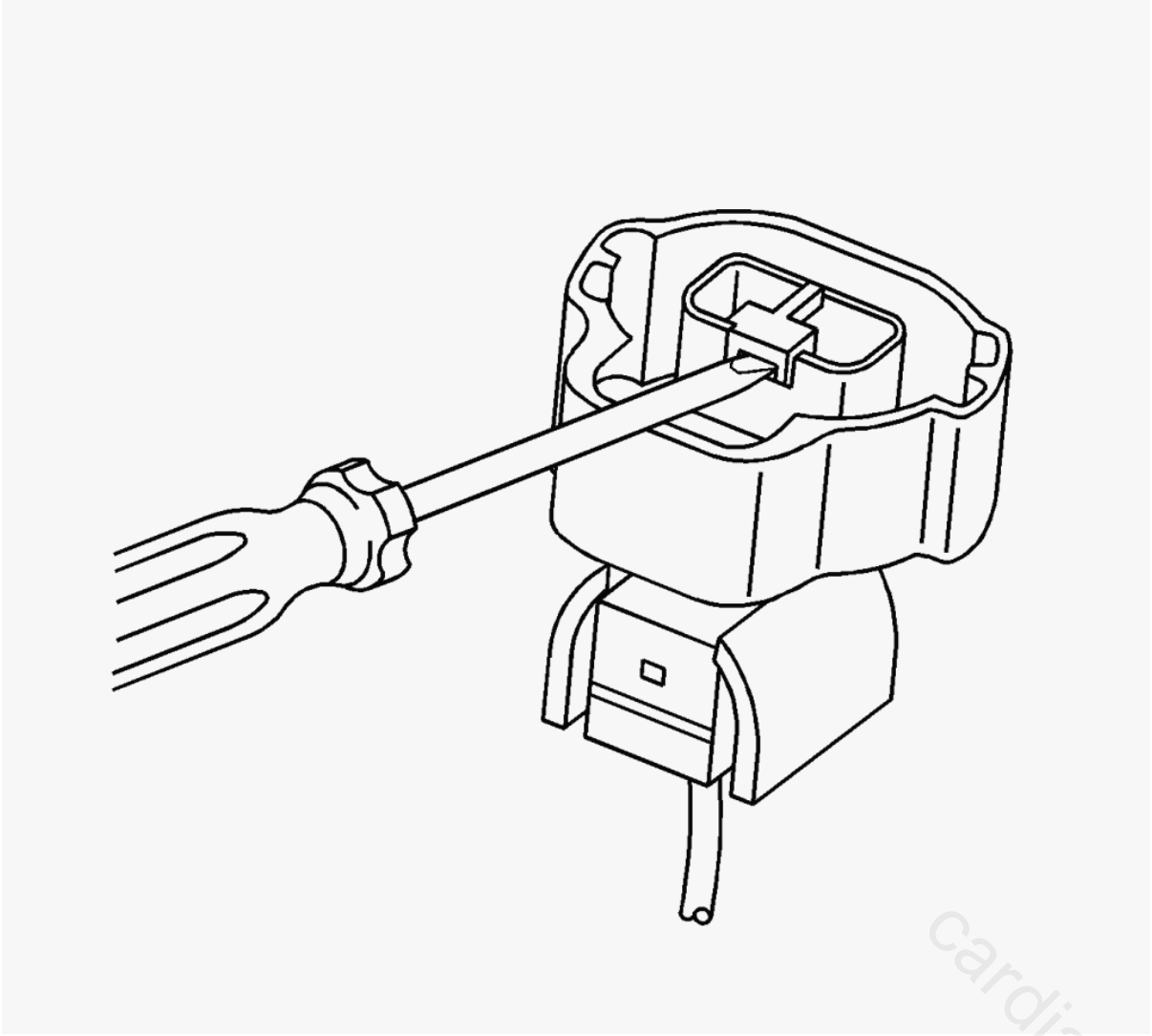


**Fig. 193: Removing Terminal Position Assurance (Yazaki)**
**Courtesy of GENERAL MOTORS COMPANY**

2. Insert a small flat-blade tool in the slot below the front loaded terminal position assurance (TPA) and pry up.
3. Remove the TPA by pulling it out of the connector.
4. Push the wire side of the terminal that is being removed toward the connector and hold it in position.

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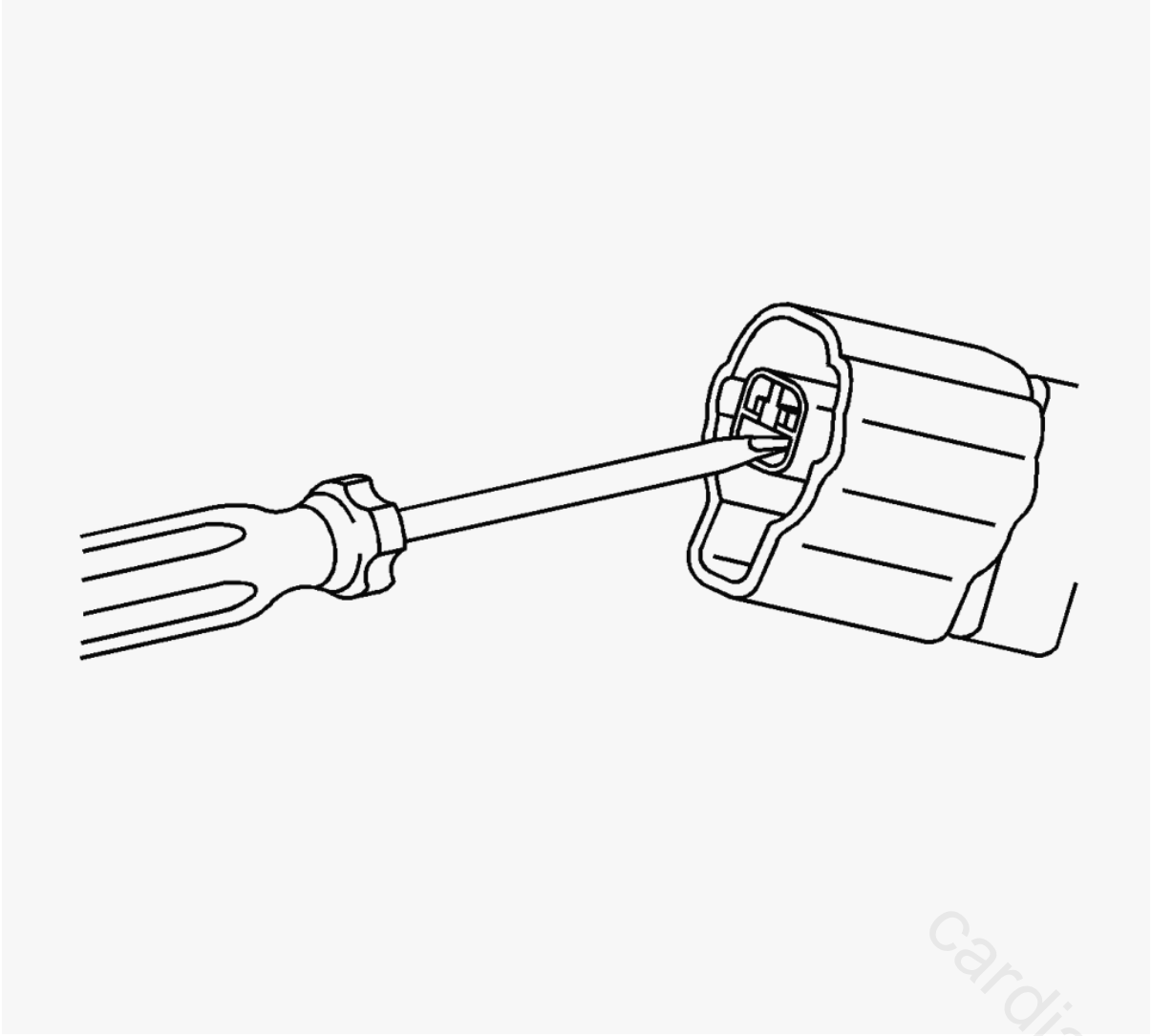


**Fig. 194: Inserting Tool Into Terminal Cavity**
**Courtesy of GENERAL MOTORS COMPANY**

5. Insert the J-38125-553 on a slight upward angle into the cavity below the terminal to be removed. Ensure that the pointed on the end of the tool is facing the bottom of the terminal and it stays in contact with the terminal until it stops on the plastic terminal retainer.

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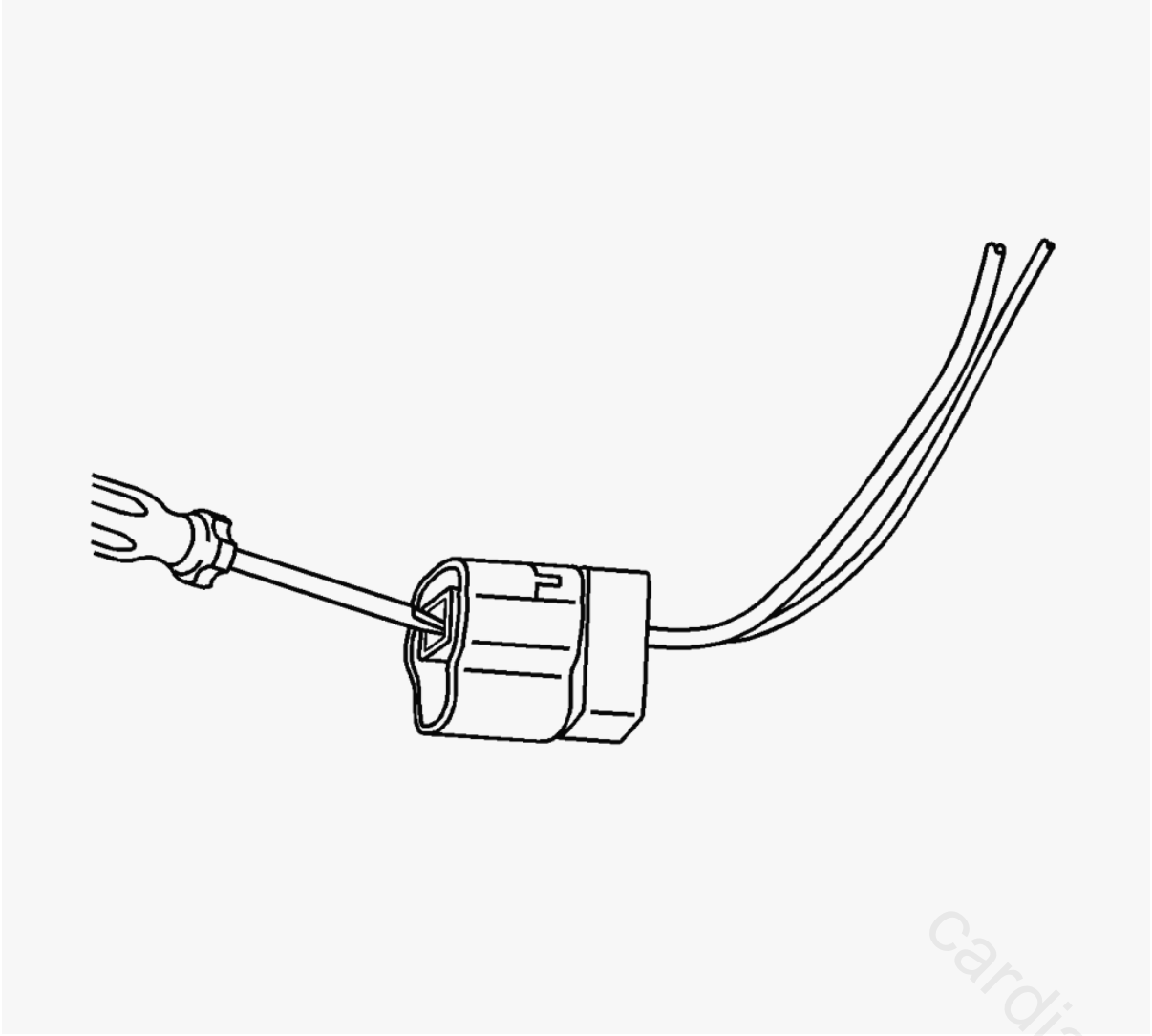


**Fig. 195: Pulling Terminal Out Of Connector**
**Courtesy of GENERAL MOTORS COMPANY**

6. Gently pry the plastic terminal retainer down and carefully pull the terminal out of the connector. Always remember never use force when pulling a terminal out of a connector. If the terminal is difficult to remove, repeat the entire procedure.
7. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
8. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## YAZAKI CONNECTORS (16-WAY)

### Special Tools

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **J-38125-215** Terminal Release Tool

For equivalent regional tools, refer to **Special Tools** .

### Terminal Removal Procedure

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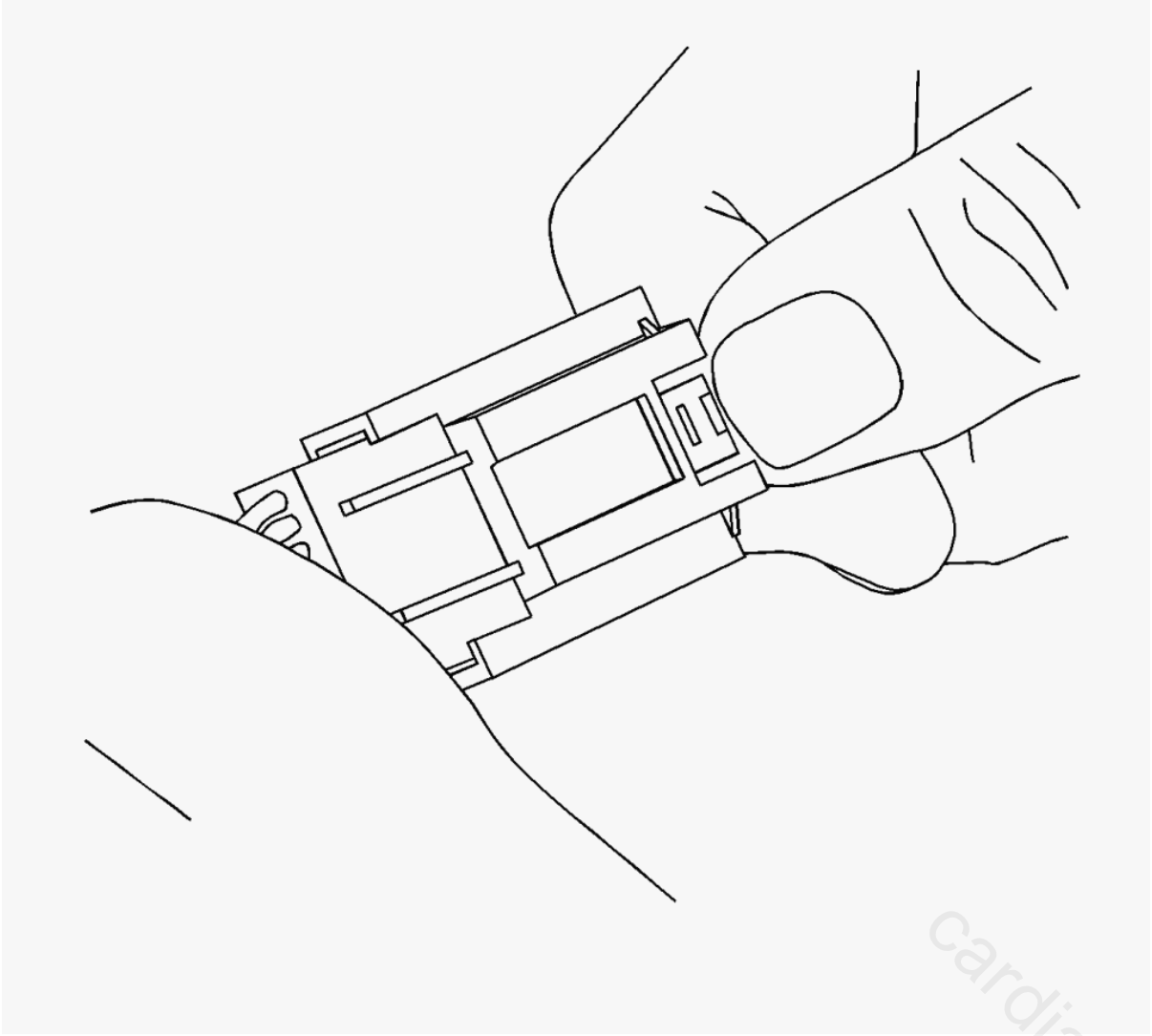


**Fig. 196: Pulling Connector Halves Apart**
**Courtesy of GENERAL MOTORS COMPANY**

1. While depressing the lock, pull the two connector halves apart.

**NOTE:** **The terminal position assurance (TPA) is fragile and may break if not done carefully.**

2. Use a small flat-blade tool to very carefully push the TPA towards the face of the connector on both sides of the connector.

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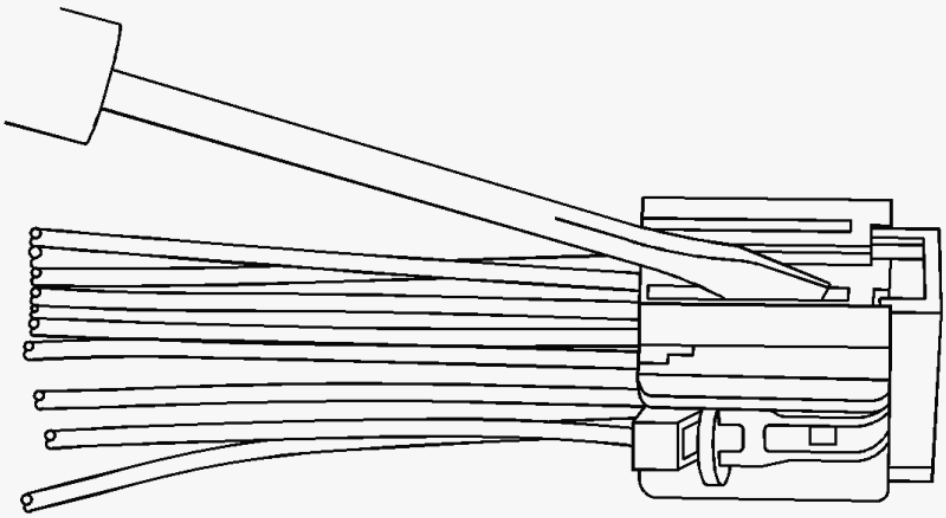


**Fig. 197: Male Half Of Connector With Female Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

3. View of the male half of the connector with female terminals.

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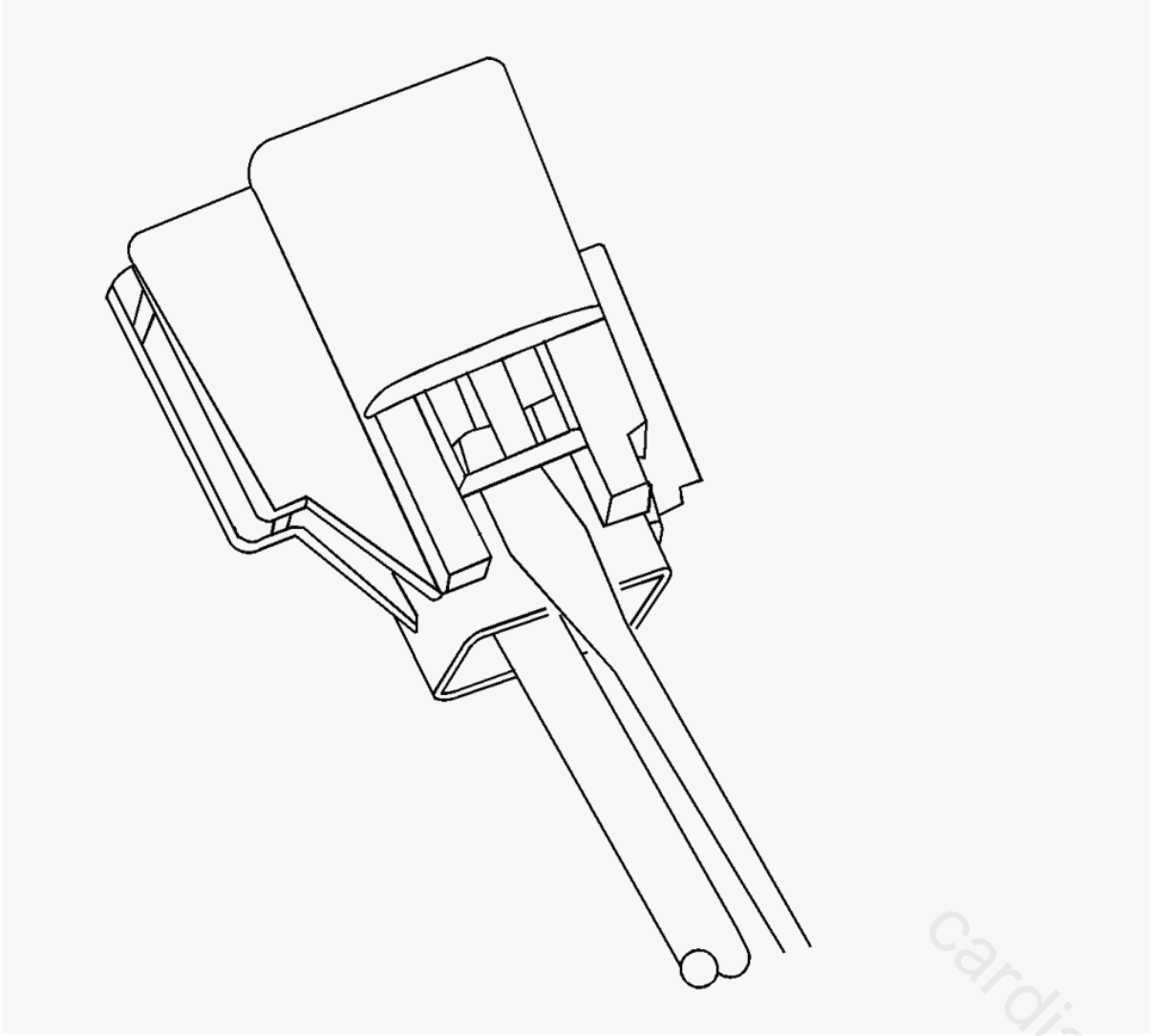


**Fig. 198: Female Half Of Connector With Male Terminals**
**Courtesy of GENERAL MOTORS COMPANY**

4. View of the female half of the connector with male terminals.
5. Use the J-38125-215 tool to release the terminals by inserting the tool into the terminal release cavity.

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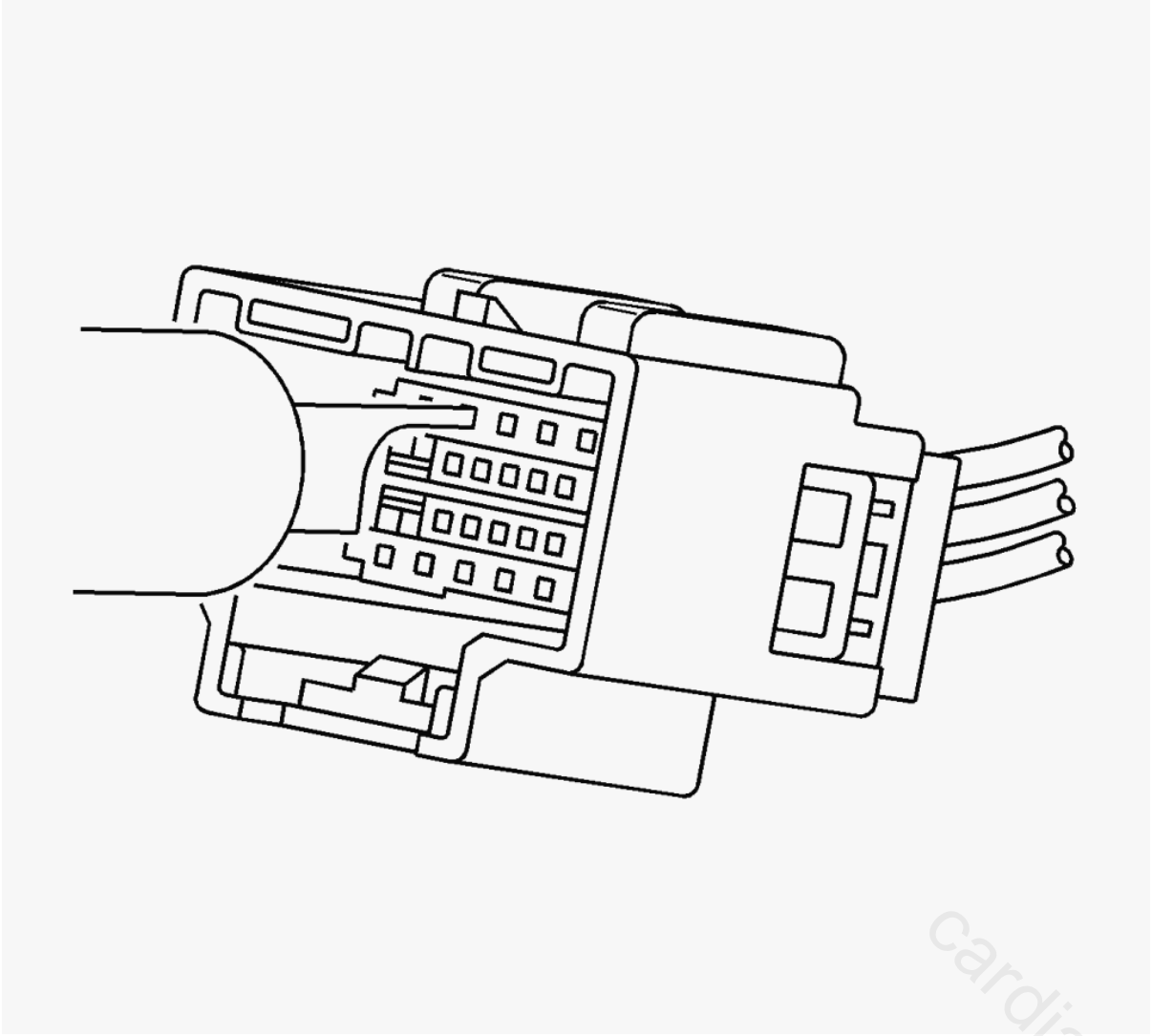


**Fig. 199: Using Removal Tool On Female Half Of Connector**
**Courtesy of GENERAL MOTORS COMPANY**

6. View of the female half of the connector with male terminals.

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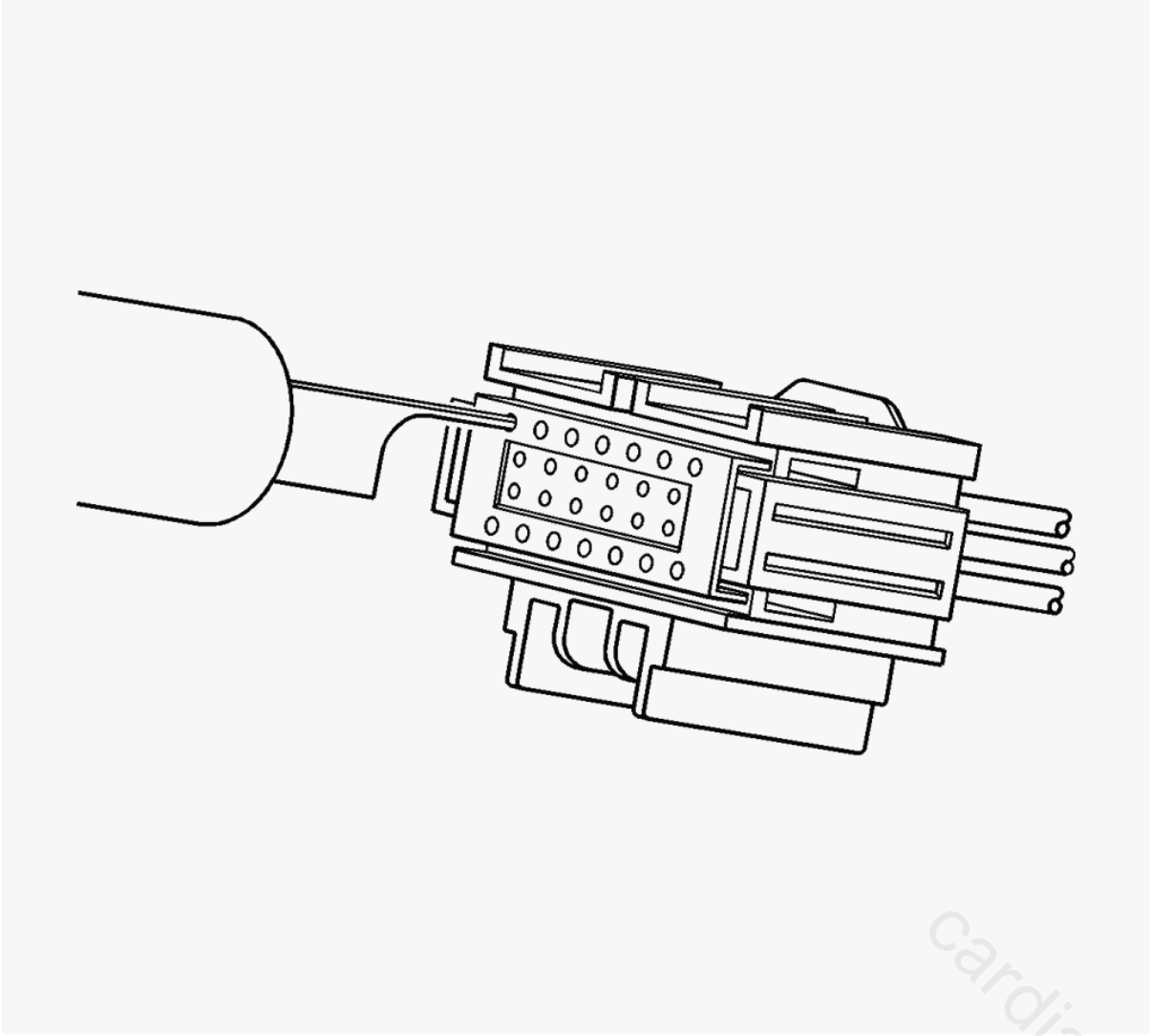


Fig. 200: Using Removal Tool On Male Half Of Connector
**Courtesy of GENERAL MOTORS COMPANY**

7. View of the male half of the connector with female terminals.
8. While holding the removal tool in place, gently pull the wire out of the back of the connector. Always remember never use force when pulling a terminal out of a connector.
9. Repair the terminal by following the **Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair)** procedure.
10. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## REPAIRING CONNECTOR TERMINALS (TERMINATED LEAD REPAIR)

**Special Tools**

**EL-38125-10** Splice Sleeve Crimp Tool

For equivalent regional tools, refer to **Special Tools** .

**NOTE:** **All repairs near the engine manifold, turbo engine and all exhaust pipes should follow the High Temperature Wiring Repairs procedures.**

For high temperature wiring repairs, refer to **High Temperature Wiring Repairs**.

Terminated leads are terminals that are crimped onto wires. The terminated lead can be used throughout the vehicle since it is designed for temperatures up to 150Â°C. The length of the wire is 450 mm.

1. Use the connector end view to identify the correct terminated lead.
2. The terminated lead package should include a DuraSeal splice sleeve. If not, use the chart to in Splicing Copper Wire Using Splice Sleeves to identify the correct DuraSeal splice sleeve, refer to

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Wire to Wire Repair.

## REPAIRING CONNECTOR TERMINALS (TERMINAL REPAIR)

### Special Tools

- **J-38125-580** Terminal Repair Kit
- **J-38125-6** Crimp Tool
- **J-38125-7** Crimp Tool
- **J-38125-8** Crimp Tool
- **J-38125-64** Crimp Tool
- **J-38125-101** Crimp Tool
- **J-38125-641** Crimp Tool
- **J-38125-642** Crimp Tool
- **J-38125-643** Crimp Tool

For equivalent regional tools, refer to Special Tools .

Use the following repair procedures to repair each type of terminal:

- For push to seat terminals, refer to Delphi Connectors (Weather Pack)Delphi Connectors (Push To Seat)Delphi Connectors (Pull To Seat)Delphi Connectors (Micro-Pack 100W)Delphi Connectors (Micro.64)Delphi Connectors (12-Way)Delphi Connectors (Steering Gear).
- For pull to seat terminals, refer to Delphi Connectors (Weather Pack)Delphi Connectors (Push To Seat)Delphi Connectors (Pull To Seat)Delphi Connectors (Micro-Pack 100W)Delphi Connectors (Micro.64)Delphi Connectors (12-Way)Delphi Connectors (Steering Gear).

**NOTE:** **The first step for all terminal repairs is to find the connector end view in the service information.**

### Cable Seal Terminals

1. Cut off the terminal between the core and the insulation crimp to minimize any wire loss.
2. Remove the old seal.
3. Apply the correct cable seal, per the wire gauge size, from the kit. Slide the seal back along the wire to enable removal of the insulation.
4. To minimize wire loss, remove only the insulation required.
5. Using the connector end view, determine the correct crimp tool and crimp jaw.
6. Align the seal with the end of the cable insulation.
7. Position the stripped wire and seal in the terminal.
8. Hand Crimp the core wings first.
9. Hand Crimp the insulation wings around the seal and the cable.

### Unsealed Terminals

1. Cut off the terminal between the core and the insulation crimp to minimize any wire loss.
2. To minimize wire loss, remove only the insulation required.
3. Position the stripped wire in the terminal.
4. Hand Crimp the core wings first.
5. Hand Crimp the insulation wings around the cable.

#### Micro-Pack 100W Size Terminal

The Micro-Pack 100W connectors have small terminals that are difficult to handle and hold when crimping. In order to aid the technician when crimping these terminals, a new crimping tool was developed. The J 38125-101 (W jaw) crimping tool was developed to crimp Micro-Pack 100W terminals. The J 38125-101 (W jaw) crimping tool has a terminal holding block that will hold the terminal in place

while the terminal is being crimped. After the terminal is removed from the connector perform the following procedure in order to repair Micro-Pack 100 terminals.

1. Cut the wire as close to the terminal as possible.

**NOTE:** **After cutting the damaged terminal from the wire, determine if the remaining wire is long enough to reach the connector without putting a strain on the wire. If the wire is not long enough, splice a small length of the same gauge wire to the existing wire, then crimp the new terminal on the added wire.**

2. Strip 5 mm (3/16 in) of insulation from the wire.

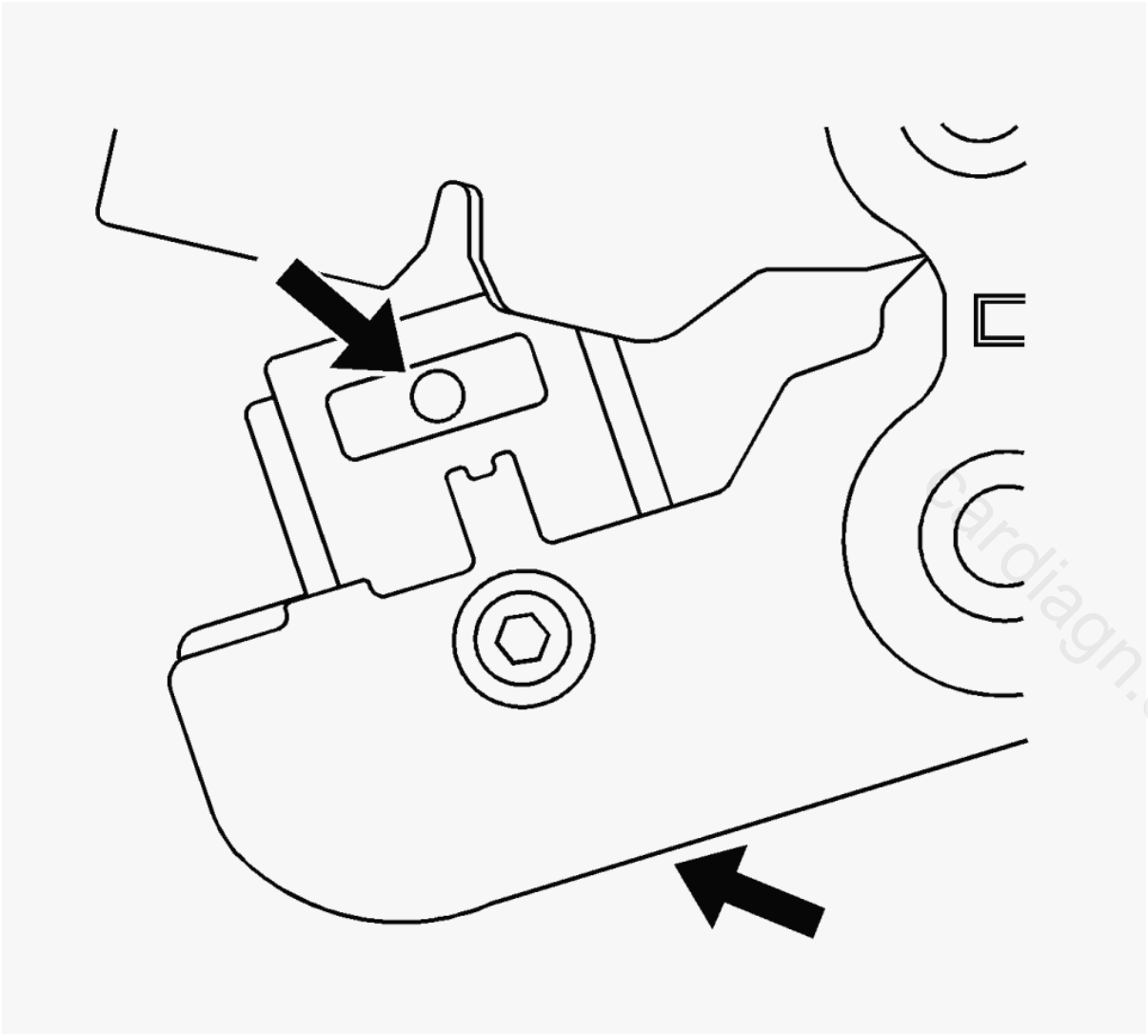


**Fig. 201: Crimping Tool Spring Loaded Locator**
**Courtesy of GENERAL MOTORS COMPANY**

3. Depress the spring loaded locator of the J 38125-101 (W jaw) crimping tool until the terminal holder is completely visible.

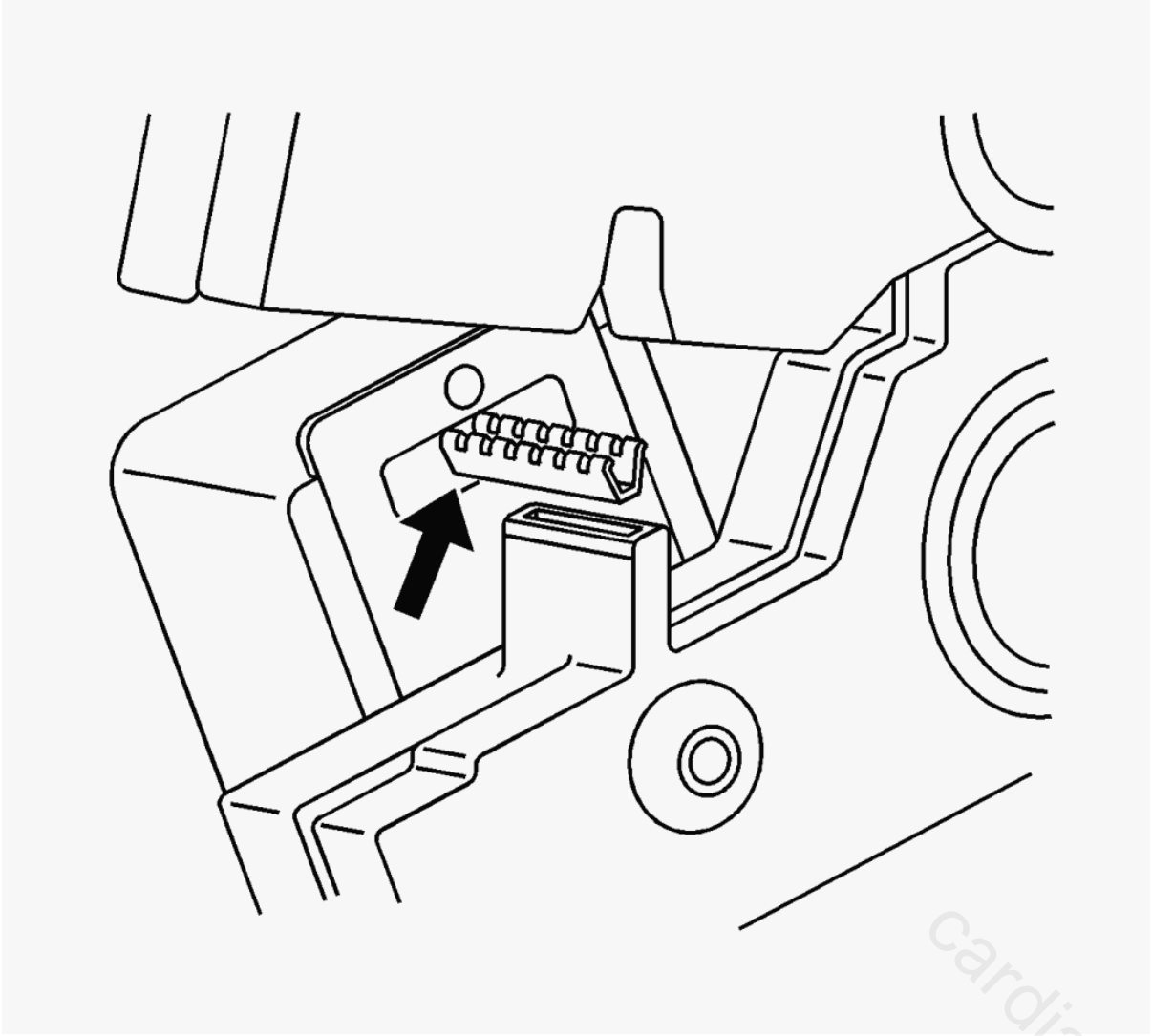


**Fig. 202: Locating Terminal In Crimping Tool**
**Courtesy of GENERAL MOTORS COMPANY**

4. Insert the terminal into the crimp tool until the core wings are flush with the anvil on the crimp tool. Be sure that the wings are pointed toward the crimp tool former and release the spring locator. The locator will hold the terminal in place. Inspect the alignment of the terminal wings with the crimp tool former. If the terminal wings are wider than the crimp tool former, remove the terminal and bend the terminal wings in slightly.
5. Place stripped wire into terminal.
6. Crimp the new terminal to the wire. If a jam occurs, press the emergency release to open applicator.

### Micro 0.64 Size Terminal

The Micro 64 connectors have small terminals that are difficult to handle and hold when crimping. In order to aid the technician when crimping these terminals, a new crimping tool was developed. The J 38125-64 (M jaw) was developed to crimp Micro 64 terminals. The J-38125-64 crimping tool has a terminal holding block that will hold the terminal in place while the terminal is being crimped. The J-38125-64 crimping tool is also designed to crimp both the wire and the insulation at the same time.

After the terminal is removed from the connector perform the following procedure in order to repair Micro 64 terminals.

**NOTE:** **After cutting the damaged terminal from the wire, determine if the remaining wire is long enough to reach the connector without putting a strain on the wire. If the wire is not long enough, splice a small length of the same gauge wire to the existing wire, then crimp the new terminal on the added wire.**

1. Cut the wire as close to the damaged terminal as possible.
2. Strip 5 mm (3/16 in) of insulation from the wire.

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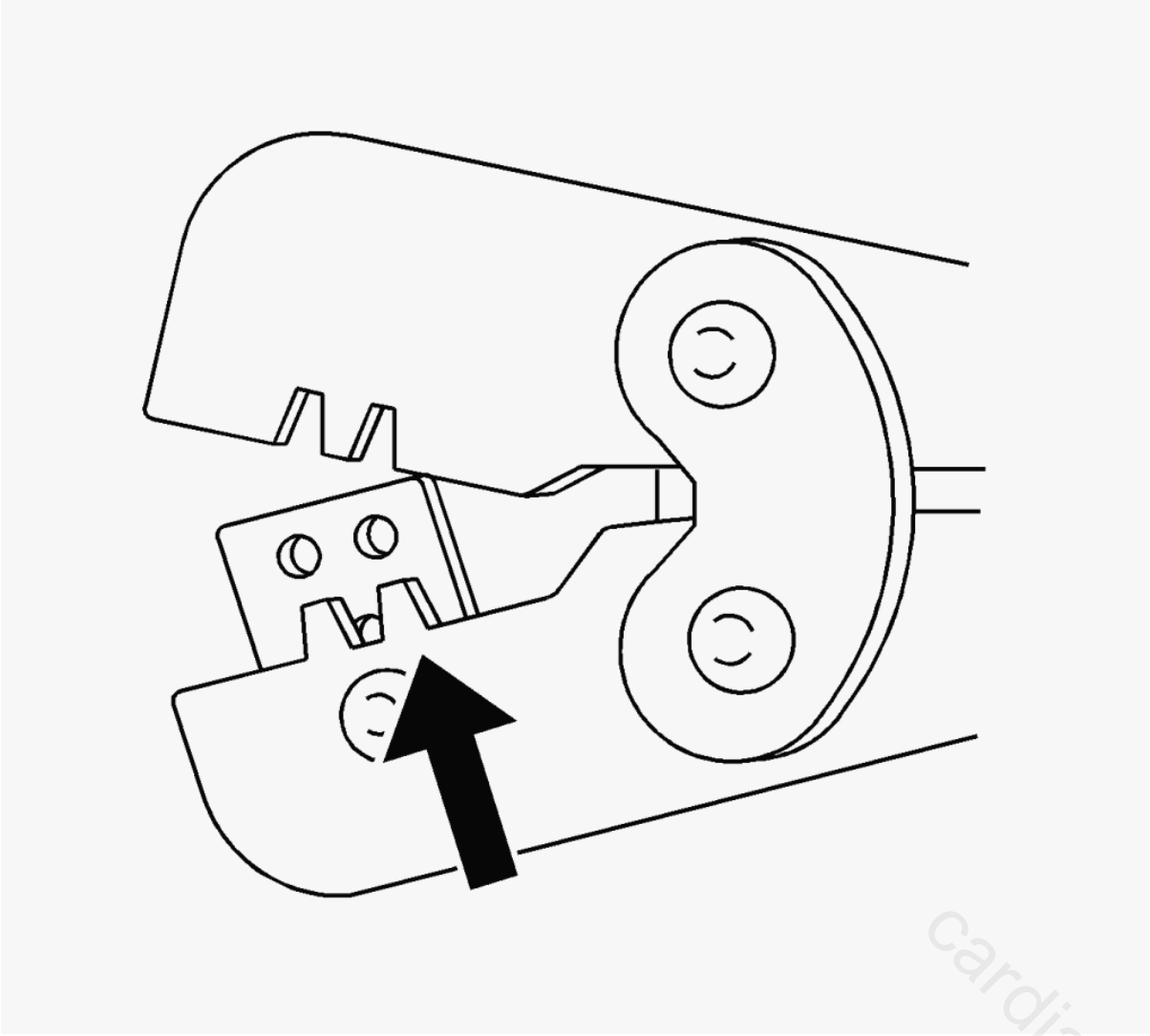


**Fig. 203: Crimping Tool Spring Loaded Locator**
**Courtesy of GENERAL MOTORS COMPANY**

3. Depress the spring loaded locator of the crimping tool until the terminal holder is completely visible.

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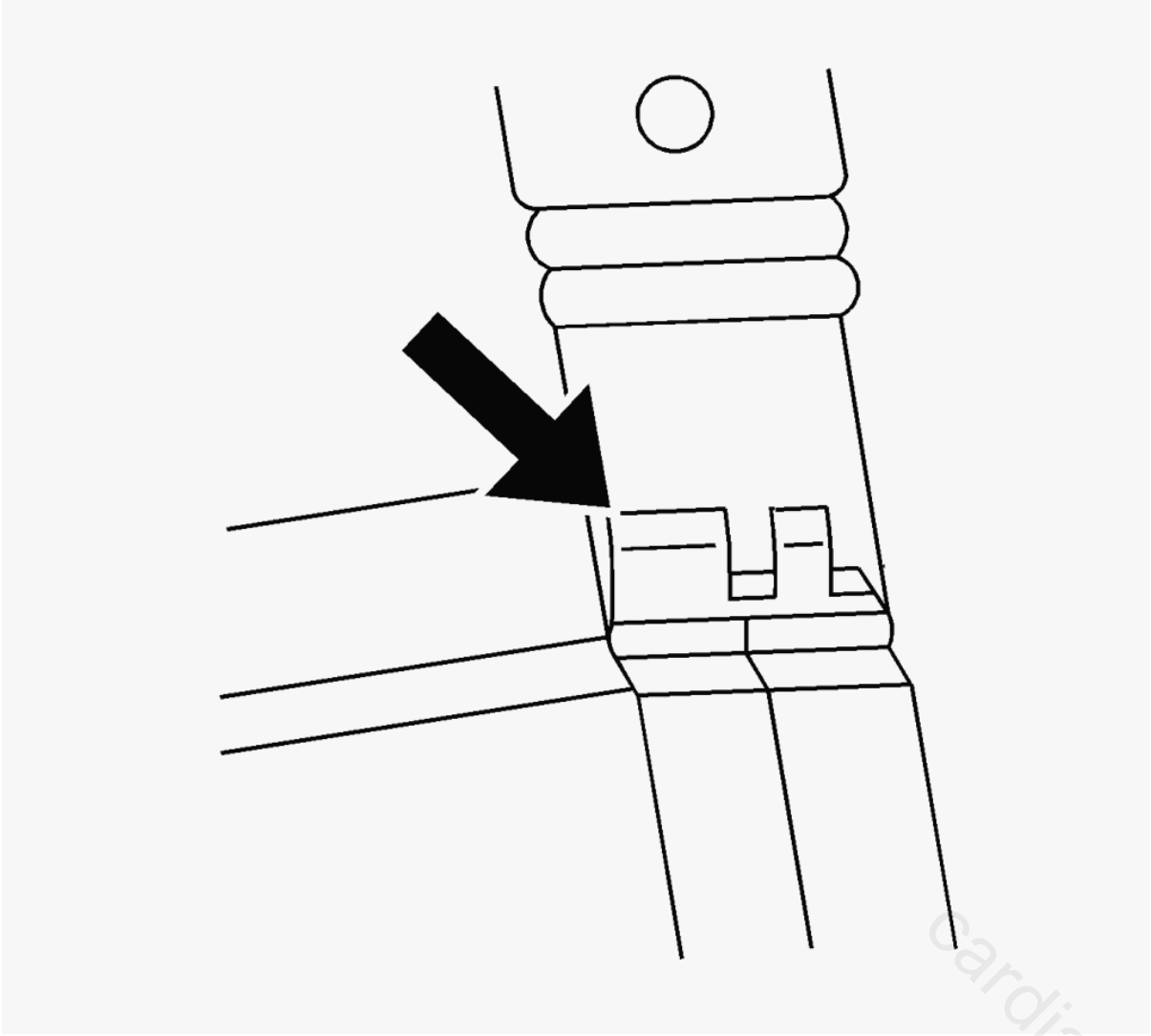


Fig. 204: Inserting Terminal Into Terminal Holder
**Courtesy of GENERAL MOTORS COMPANY**

4. Insert terminal into the appropriate terminal holder until it hits bottom and stops. The correct terminal holder is determined by the wire size. Also ensure that the terminals wings are pointing towards the former on the tool and the release locator.
5. Insert the stripped cable into the terminal. Insulation should be visible on both sides of the terminal insulation wings.
6. Compress the handles until the ratchet automatically releases.
7. Place the terminal into the appropriate cavity and assemble the connector.

## TERMINAL REMOVAL

**Special Tools**

- **EL-38125-550** Terminal Release Tool Kit
- **EL-38125-580** Terminal Release Tool Kit
- **EL-35616** Terminal Test Probe Kit

For equivalent regional tools, refer to **Special Tools** .

**NOTE:** **All repairs near the engine manifold, turbo engine and all exhaust pipes should follow the High Temperature Wiring Repair procedures.**

1. Find the appropriate connector end view within the connector end view section. The connector end view has the following information:
   - Diagnostic probe tool
   - Terminal release tool
   - Terminal/terminated lead part numbers

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**NOTE:** **Not using the proper test kit probe may cause damage to the terminal(s) that are probed.**

2. Determine if a terminal is damaged.
    1. Locate the diagnostic probe tool from the connector end view. The connector end view describes the color and part number to help the technician find and use the correct tool.
    2. Connect the probe tool to the Digital Multimeter.
    3. Insert the probe tool into the cavity and follow the procedures from the **Troubleshooting with a Digital Multimeter** .
3. Disconnect the connector body to perform the repair.
4. Use the following procedure to remove the terminal from the connector body.

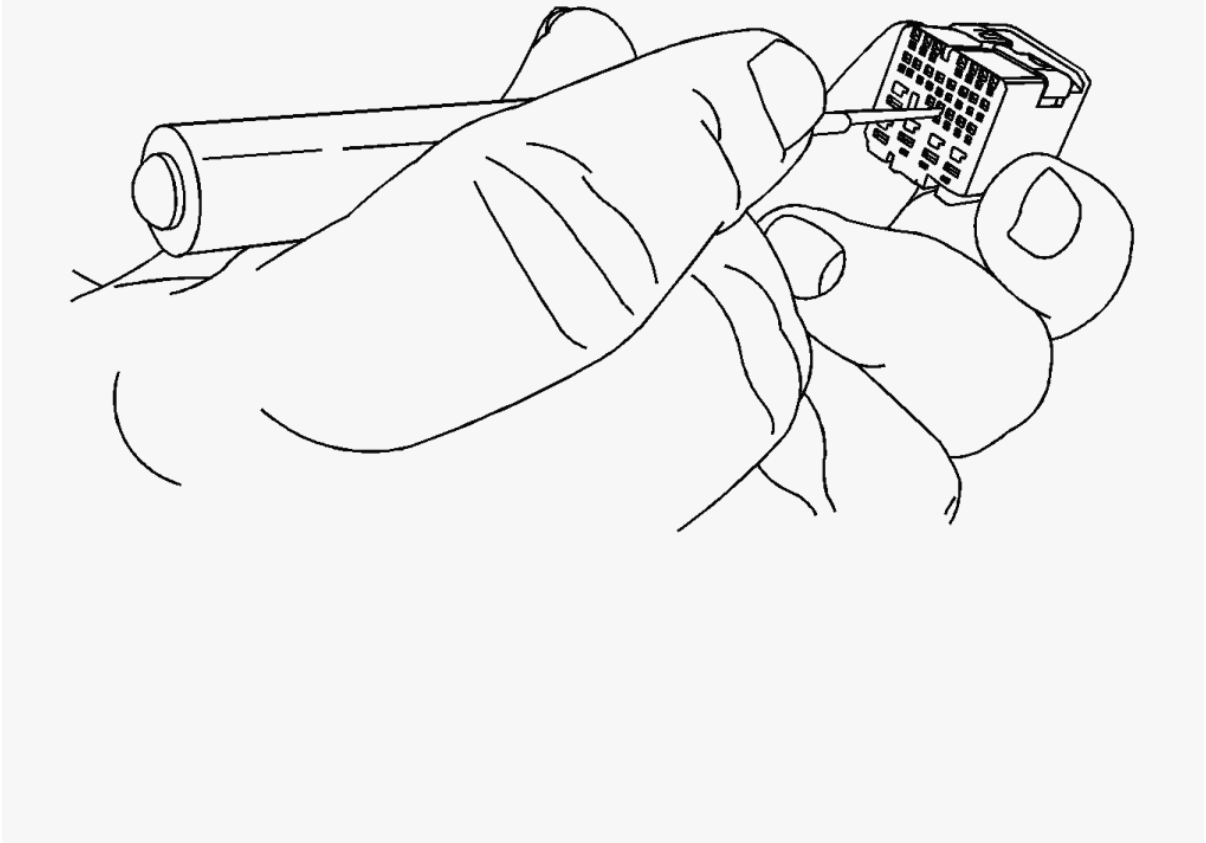
**NOTE:** **Several procedures for specific connector bodies are called out in the Wiring Repairs section.**

1. The terminal position assurance (TPA) and connector position assurance (CPA) should be removed before releasing the terminal for the connector body.
2. Look at the connector end view to locate the cavity of the damaged terminal and find the proper terminal release tool from the terminal release tool kit.

**NOTE:** **Using the incorrect terminal release tool can damage the connector body.**

**NOTE:** **Some terminals have a lever that must be disengaged before the terminal can be released.**

3. Insert the terminal release tool into the cavity.



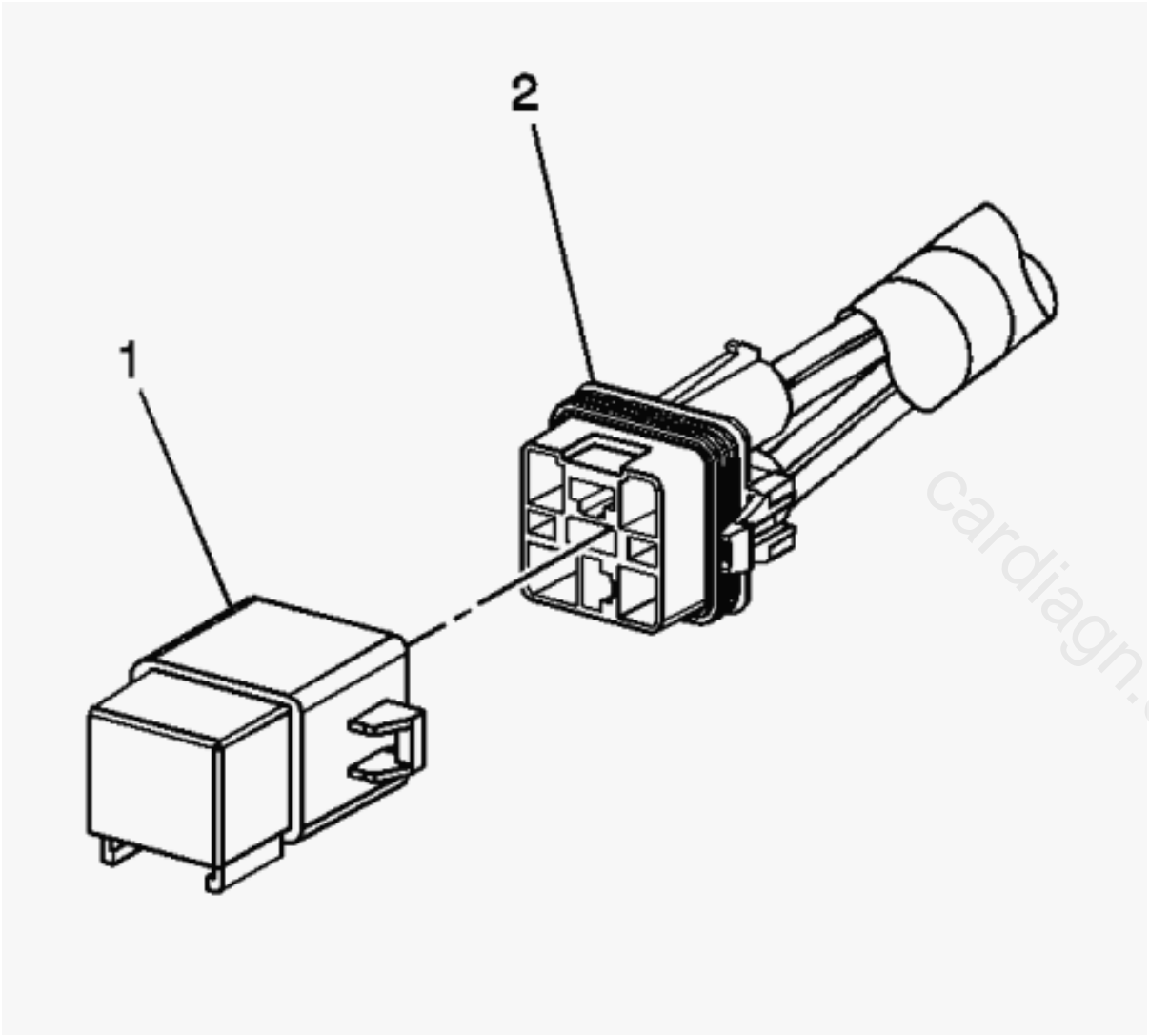
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Fig. 205: Holding Removal Tool In Place, Gently Pull Wire Out Of Back Of Connector
Courtesy of GENERAL MOTORS COMPANY

5. Gently pull the wire out of the back of the connector.
6. Repair the terminal by following the Repairing Connector Terminals (Terminated Lead Repair)Repairing Connector Terminals (Terminal Repair) procedure.
7. Insert the repaired terminal back into the cavity. Repeat the diagnostic procedure to verify the repair and reconnect the connector bodies.

## RELAY REPLACEMENT (ATTACHED TO WIRE HARNESS)

### Removal Procedure



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Fig. 206: Relay And Wire Harness Connector
Courtesy of GENERAL MOTORS COMPANY

1. Locate the relay. Refer to the Master Electrical Component List to locate the relay in the vehicle.
2. Remove any fasteners which hold the relay in place.
3. Remove any connector position assurance (CPA) devices or secondary locks.

**NOTE:** **Use care when removing a relay in a wiring harness when the relay is secured by fasteners or tape.**

4. Separate the relay (1) from the wire harness connector (2).

### Installation Procedure

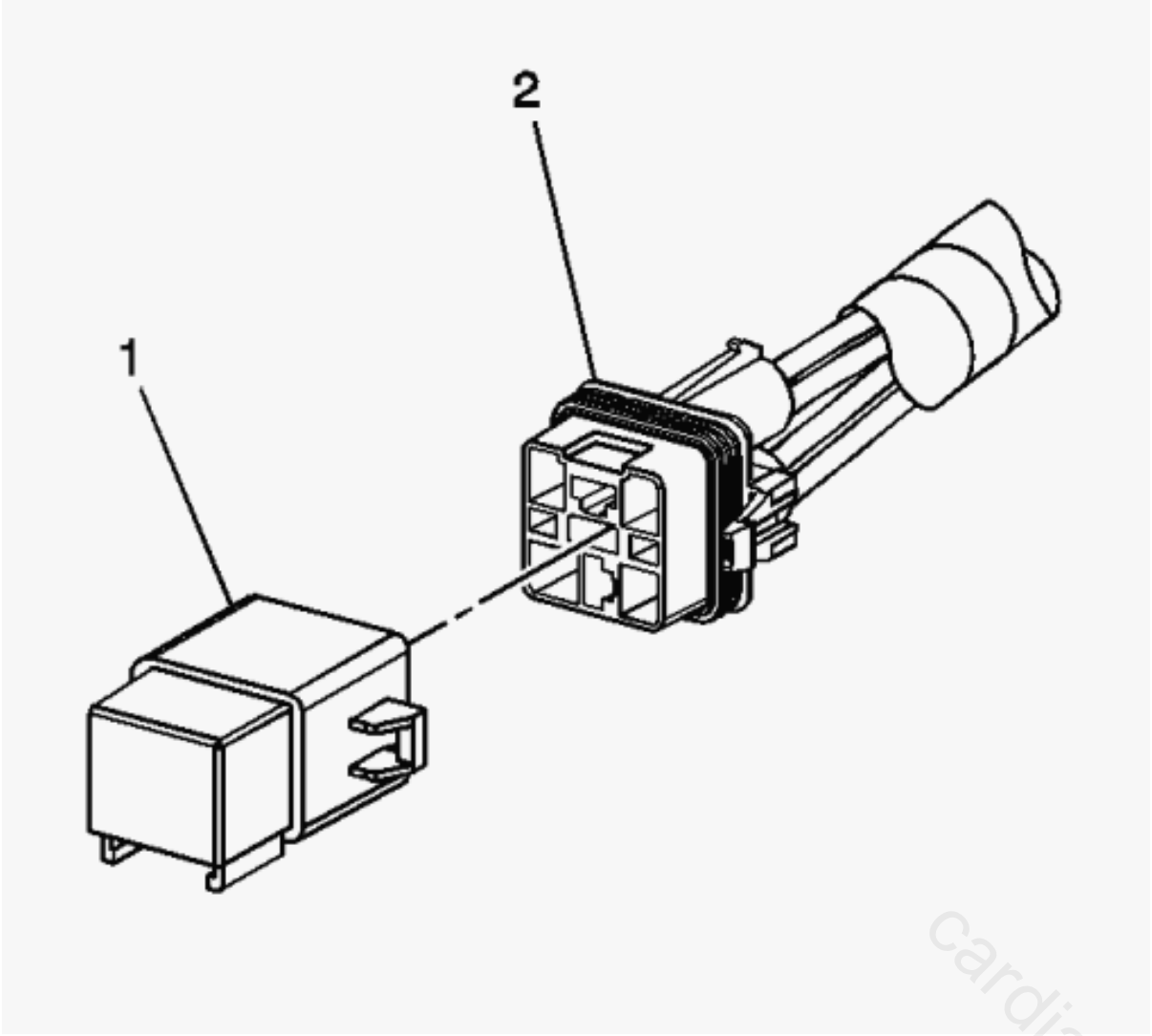



**Fig. 207: Relay And Wire Harness Connector**
**Courtesy of GENERAL MOTORS COMPANY**

1. Connect the relay (1) to the wire harness connector (2).
2. Install any connector position assurance (CPA) devices or secondary locks.
3. Install the relay using any fasteners or tape that originally held the relay in place.

## RELAY REPLACEMENT (WITHIN AN ELECTRICAL CENTER)

### Special Tools

**EL-43244** Relay Puller Pliers

### Removal Procedure

1. Remove the electrical center cover.

**NOTE:**

- **Always note the orientation of the relay.**
- **If equipped with a notch style relay; observe the location of the notch on the old relay to verify the new relay is installed with the notch in the same location.**
- **Ensure that the electrical center is secure, as not to put added stress on the wires or terminals.**

2. Locate the relay. Refer to **Electrical Center Identification Views** to locate the electrical center where the relay exists.

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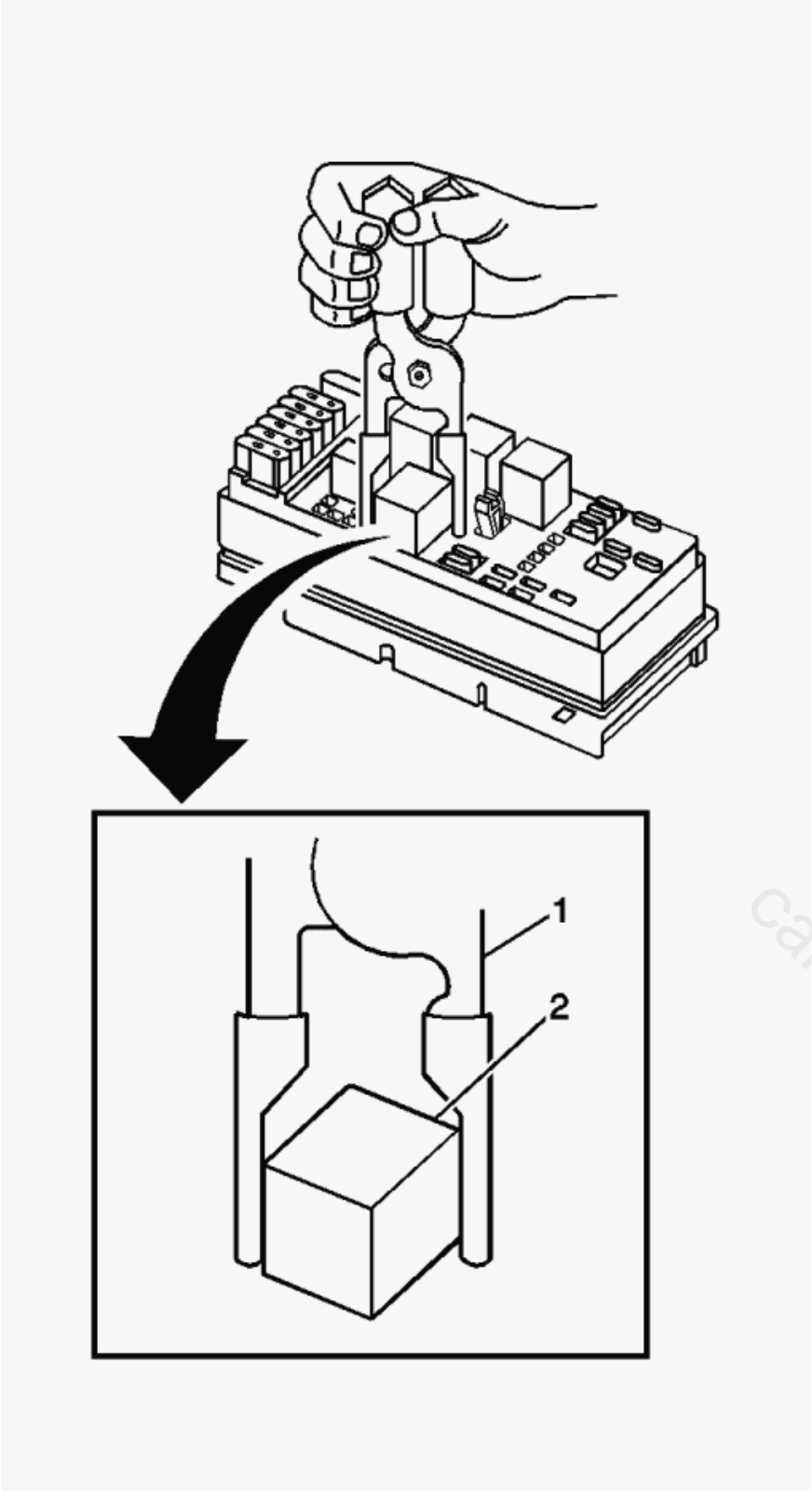



**Fig. 208: Removing/Installing Relay**
**Courtesy of GENERAL MOTORS COMPANY**

3. Using the EL-43244 (1) position the tool on opposing corners of the relay (2).

**CAUTION:** **Use EL-43244 to pull the relay straight out from the electrical center terminals. The use of pliers or a flat bladed tool could damage the electrical center.**

4. Remove the relay (2) from the electrical center.

**Installation Procedure**

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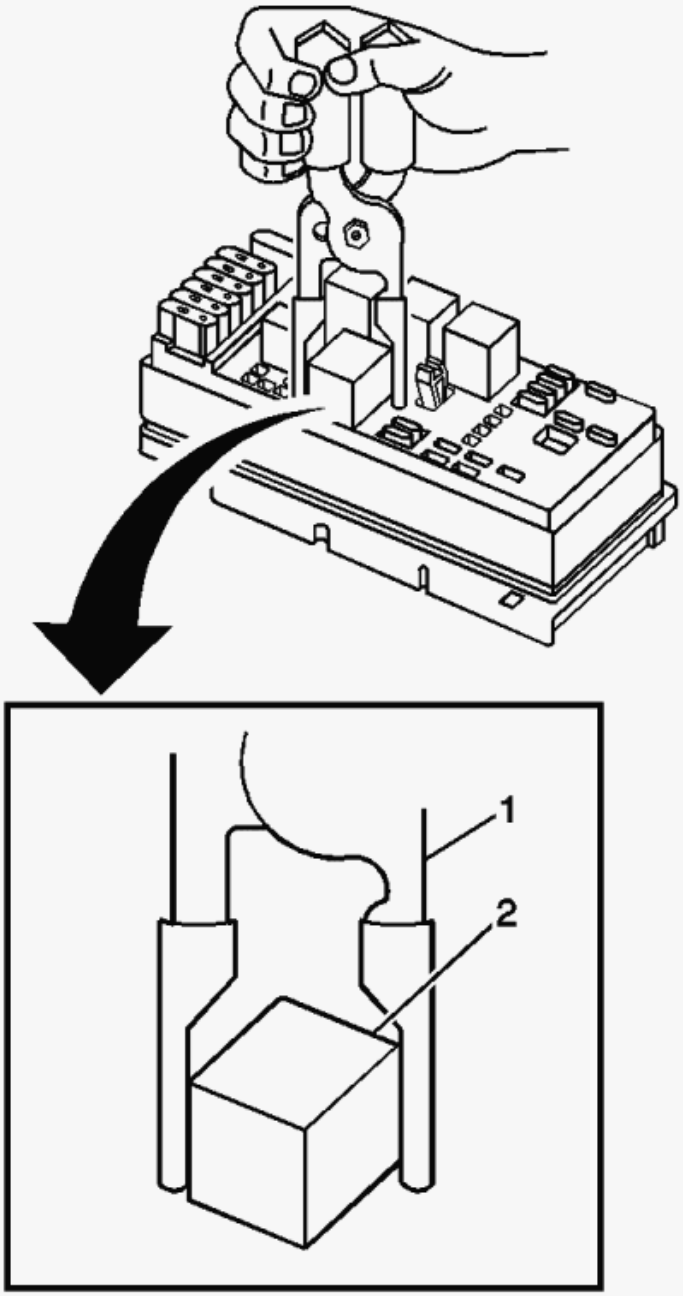



**Fig. 209: Removing/Installing Relay**
**Courtesy of GENERAL MOTORS COMPANY**

1. Install the relay (2) in the same position as removed.
2. Install the electrical center cover.

## GROUND REPAIR

### Electrical Grounds

Proper electrical system function relies on secure, positive, corrosion-free ground connections. Loose, stripped, or corroded connections increase the possibility of improper system function and loss of module communication. These conditions may also lead to unnecessary repairs and component replacements.

In general, electrical ground connections are accomplished using one, or a combination of, three attachment methods:

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- Welded M6 stud and nut
- Welded M6 nut and bolt
- Welded M8 nut and bolt

**CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

Determine which attachment method is used, and carry out the appropriate repair.

**M6 Weld Stud Replacement**

1. Select a location adjacent the damaged or missing M6 ground stud having 20 mm (0.79 in) clearance behind the panel surface and 20 mm (0.79 in) clearance surrounding the M6 rivet stud flange.
2. Using GM approved residue-free solvent or equivalent, remove any grease from the repair site and allow to dry.

   **NOTE:** **Ensure 20 mm (0.79 in) clearance is maintained behind the panel to be drilled.**

3. Drill a 10 mm (0.40 in) diameter hole through the panel.
4. Carefully remove paint and primer from the area surrounding the rivet stud flange until bare metal is visible.

   **CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

5. Select a replacement conductive M6 rivet stud. Reference the GM parts catalog for the correct part number and application.
6. Using a rivet stud installer, install the replacement conductive M6 rivet stud.
7. Ensure the new rivet stud is securely fastened, with no detectable movement.

   **NOTE:** **The rivet stud and surrounding panel area must be properly refinished prior to the installation of the ground terminal and nut to maintain positive electrical grounding.**

8. Completely wrap the threads of the rivet stud with painters tape or equivalent.
9. Refinish the repair area using an anti-corrosion primer.
10. Allow the refinished repair area to cure sufficiently before removing the protective material applied to the rivet stud threads.
11. Remove the painters tape or equivalent from the rivet stud threads.
12. Using GM approved residue-free solvent or equivalent, thoroughly clean the rivet stud threads to remove any adhesive and allow to dry.
13. Carefully remove any corrosion from the electrical ground wire terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
14. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the new conductive M6 rivet stud threads.
15. Install the ground terminal to the new rivet stud.
16. Select a new, conductive M6 nut. Reference the GM parts catalog for the correct part number and application.

    **CAUTION:** **Refer to Fastener Caution**

17. Install the conductive M6 nut and tighten to 8 N.m (71 lb in).
18. Check for proper system operation.

**M6 Weld Nut**

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**CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

1. If the M6 weld nut at the electrical ground location is damaged or stripped, a new, conductive self-threading M7 bolt may be used to secure the ground terminal. Reference the GM parts catalog for the correct part number and application.
2. Using GM approved residue-free solvent or equivalent, remove any grease from the surface surrounding the weld nut and allow to dry.
3. Remove any loose metal particles from the damaged or stripped weld nut with a stiff brush.
4. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the new, conductive, self-threading M7 bolt threads.
5. Carefully remove any corrosion from the electrical ground terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
6. Install the electrical ground terminal to the new, conductive M7 bolt.

**CAUTION:** **Refer to Fastener Caution**

7. Install the conductive M7 bolt and tighten to 9 N.m (80 lb in).
8. Check for proper system operation.

**M6 Weld Nut (Alternative Repair)**

**CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

1. If the electrical ground location is accessible from both sides of the panel, a conductive M6 bolt and a conductive M6 nut may be used to secure the electrical ground terminal. Reference the GM parts catalog for the correct part number and application.
2. Select a location adjacent the damaged M6 weld nut having 20 mm (0.79) clearance behind the panel surface and 20 mm (0.79 in) clearance surrounding the new electrical ground site.
3. Using GM approved residue-free solvent or equivalent, remove any grease from the surface surrounding the ground location and allow to dry.

**NOTE:** **Ensure 20 mm (0.79 in) clearance is maintained behind the panel to be drilled.**

4. Drill a 10 mm (0.40 in) diameter hole through the panel.
5. Carefully remove paint and primer from the area surrounding the new ground site until bare metal is visible.
6. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the new, conductive M6 bolt threads.
7. Carefully remove any corrosion from the electrical ground terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
8. Install the electrical ground terminal and new, conductive M6 bolt to the ground location.

**CAUTION:** **Refer to Fastener Caution**

9. Install the conductive M6 nut and tighten to 8 N.m (71 lb in).

**NOTE:** **The repair area must be properly refinished to maintain positive electrical grounding.**

10. Refinish the repair area using an anti-corrosion primer.
11. Check for proper system operation.

**M8 Weld Nut**

**CAUTION:** **Use GM approved replacement fasteners with conductive finish for**

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**electrical ground repair.**

1. If the M8 weld nut electrical ground location is accessible from both sides of the panel, a conductive M8 bolt and a conductive M8 nut may be used to secure the ground terminal. Reference the GM parts catalog for the correct part number and application.
2. Select a location adjacent to M8 weld nut having 20 mm (0.79 in) clearance behind the panel surface and 20 mm (0.79 in) clearance surrounding the new electrical ground site.
3. Using GM approved residue-free solvent or equivalent, remove any grease from the surface surrounding the ground location and allow to dry.

**NOTE:** **Ensure 20 mm (0.79 in) clearance is maintained behind the panel to be drilled.**

4. Drill a 10 mm (0.40 in) diameter hole through the panel.
5. Carefully remove paint and primer from the area surrounding the new ground site until bare metal is visible.
6. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the new, conductive M8 bolt threads.
7. Carefully remove any corrosion from the electrical ground terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
8. Install the electrical ground terminal and new, conductive M8 bolt to the ground location.

**CAUTION:** **Refer to Fastener Caution**

9. Install the conductive M8 nut and tighten to 22 N.m (16 lb ft).

**NOTE:** **The repair area must be properly refinished to maintain positive electrical grounding.**

10. Refinish the repair area using an anti-corrosion primer.
11. Check for proper system operation.

**M8 Weld Nut (Alternative Repair)**

**CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

1. If the M8 weld nut electrical ground location is not accessible from both sides of the panel, a conductive M6 rivet stud and a conductive M6 nut may be used to secure the ground terminal. Reference the GM parts catalog for the correct part number and application.
2. Select a location adjacent the damaged M8 weld nut having 20 mm (0.79 in) clearance behind the panel surface and 20 mm (0.79 in) clearance surrounding the new, conductive M6 rivet stud flange.
3. Using GM approved residue-free solvent or equivalent, remove any grease from the repair site and allow to dry.

**NOTE:** **Ensure 20 mm (0.79 in) clearance is maintained behind the panel to be drilled.**

4. Drill a 10 mm (0.40 in) diameter hole through the panel.
5. Carefully remove paint and primer from the area surrounding the rivet stud flange until bare metal is visible.
6. Using a rivet stud installer, install the replacement conductive M6 rivet stud.
7. Ensure the new rivet stud is securely fastened, with no detectable movement.

**NOTE:** **The rivet stud and surrounding panel area must be properly refinished prior to the installation of the ground terminal and nut to maintain positive electrical grounding.**

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8. Completely wrap the threads of the rivet stud with painters tape or equivalent.
9. Refinish the repair area using an anti-corrosion primer.
10. Allow the refinished repair area to cure sufficiently before removing the protective material applied to the rivet stud threads.
11. Remove the painters tape or equivalent from the rivet stud threads.
12. Using GM approved residue-free solvent or equivalent, thoroughly clean the rivet stud threads to remove any adhesive and allow to dry.
13. Carefully remove any corrosion from the electrical ground wire terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
14. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the new conductive M6 rivet stud threads.
15. Install the ground terminal to the new, conductive M6 rivet stud.

**CAUTION:** **Refer to Fastener Caution**

16. Install the conductive M6 nut and tighten to 8 N.m (71 lb in).
17. Check for proper system operation.

### Securing Loose Electrical Ground Connections

If the electrical ground connection is loose and the ground attachments are not damaged, properly securing the loose electrical ground may be all that is necessary. Carry out the following procedure to secure loose electrical ground connections.

**CAUTION:** **Use GM approved replacement fasteners with conductive finish for electrical ground repair.**

1. Using GM approved residue-free solvent or equivalent, thoroughly clean the ground stud threads and allow to dry.
2. Carefully remove any corrosion from the electrical ground wire terminal. Refer to **Testing for Intermittent Conditions and Poor Connections**
3. Using a small brush, apply Dielectric Lubricant GM P/N 12377900 (Canadian P/N 10953529) to the ground stud threads.
4. Install the ground wire terminal to the ground stud.

**CAUTION:** **Refer to Fastener Caution**

5. Install the appropriate conductive nut.
   - Conductive M6 nut: Tighten to 8 N.m (71 lb in)
   - Conductive M8 nut: Tighten to 22 N.m (16 lb ft)
   - Conductive M10 nut: Tighten to 45 N.m (33 lb ft)
6. Check for proper system operation.

## BATTERY DISTRIBUTION ENGINE COMPARTMENT FUSE BLOCK REPLACEMENT

### Removal Procedure

1. Disconnect Battery Negative Cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**

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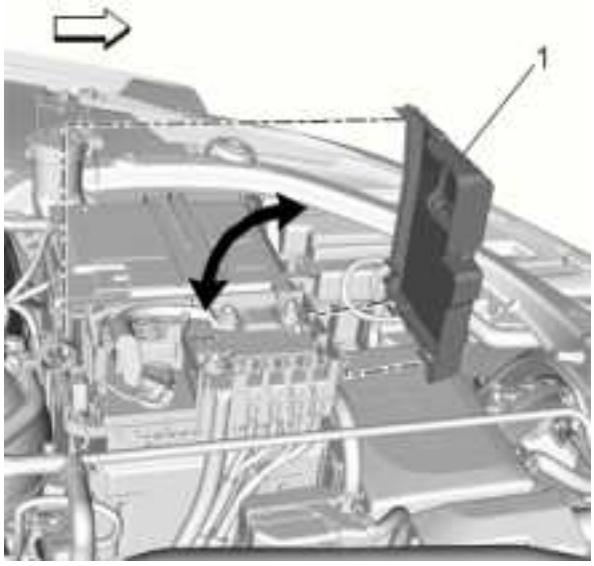



**Fig. 210: Fuse Block Cover**
**Courtesy of GENERAL MOTORS COMPANY**

2. Remove Fuse Block Cover (1)

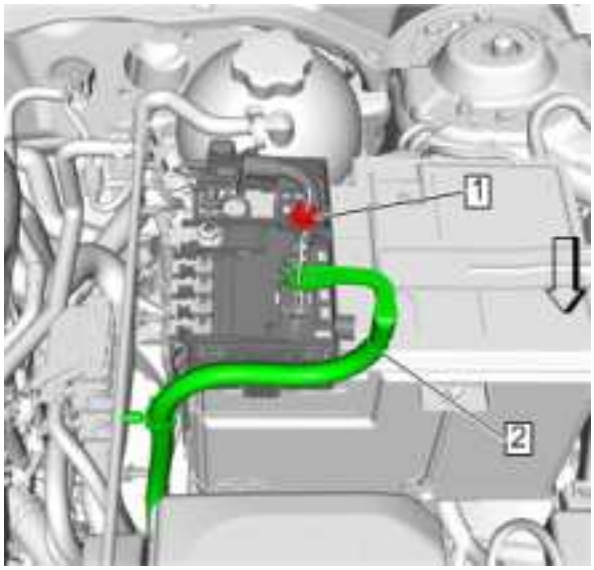



**Fig. 211: Starter Solenoid Cable And Nut**
**Courtesy of GENERAL MOTORS COMPANY**

3. Remove Starter Solenoid Cable Nut (1)
4. Reposition Starter Solenoid Cable (2)

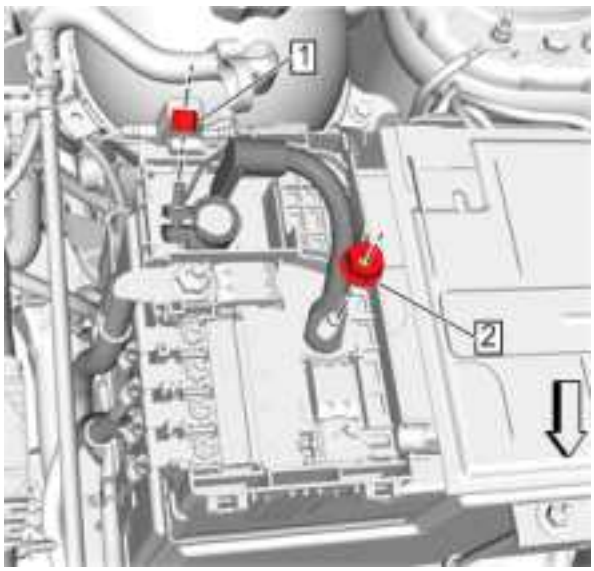



**Fig. 212: Battery Positive Cable And Nut**
**Courtesy of GENERAL MOTORS COMPANY**

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5. Remove Battery Positive Cable Nut (1)
6. Remove the small wire.
7. Remove Battery Positive Cable (2)

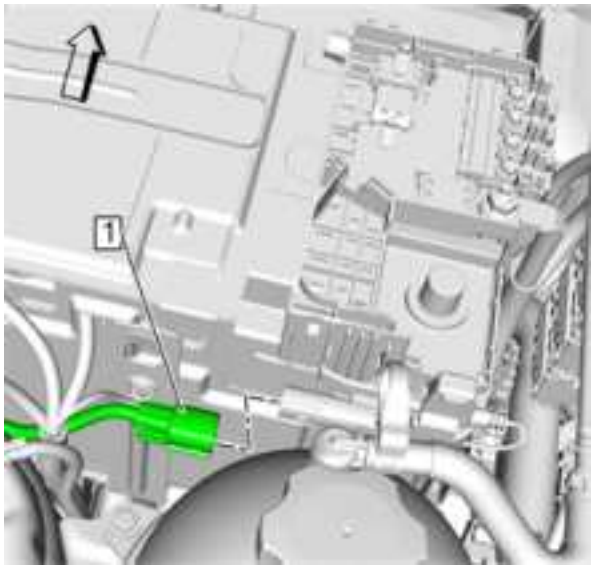



**Fig. 213: Body Wiring Harness Connector**
**Courtesy of GENERAL MOTORS COMPANY**

8. Disconnect the body wiring harness connector. (1)

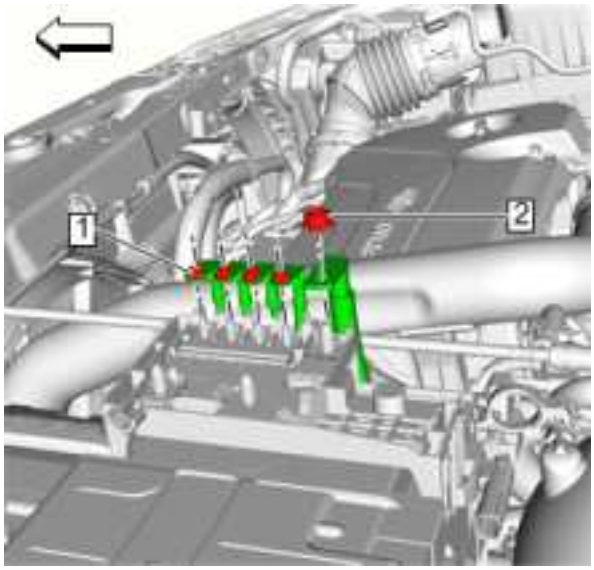



**Fig. 214: Body Wiring Harness Terminals And Nuts**
**Courtesy of GENERAL MOTORS COMPANY**

9. Remove Body Wiring Harness Terminal Nut (1) (Qty: 4)
10. Remove Generator and Starter Nut (2)
11. Remove Wiring Harness Terminals (Qty: 5)

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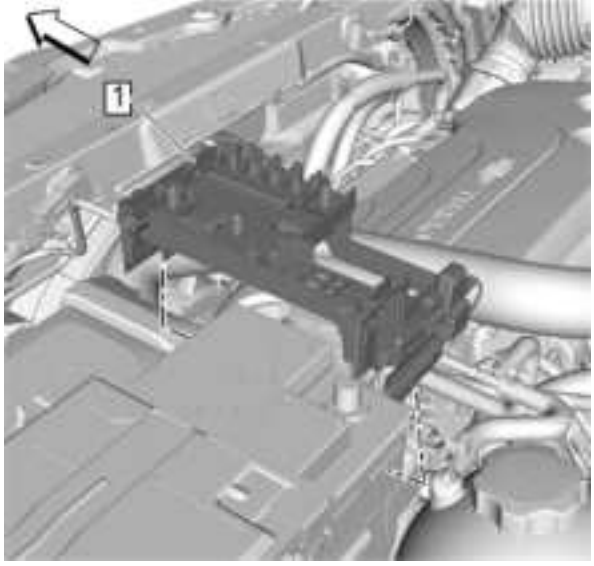



**Fig. 215: Fuse Block Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

12. Unclip the fuse block tabs (1) and remove from the battery.

### Installation Procedure

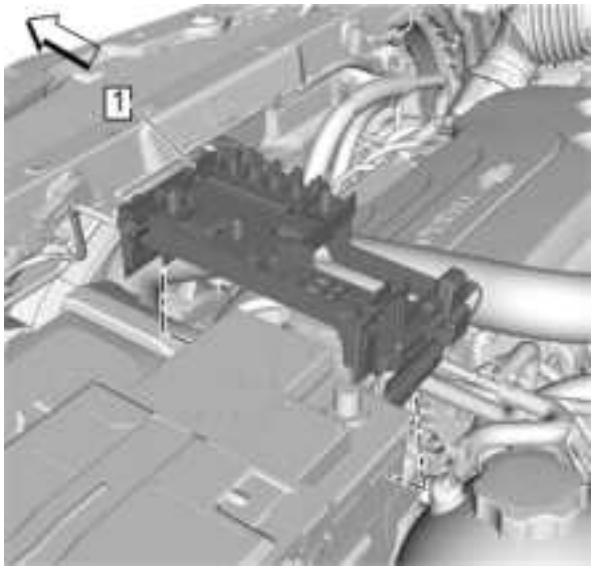
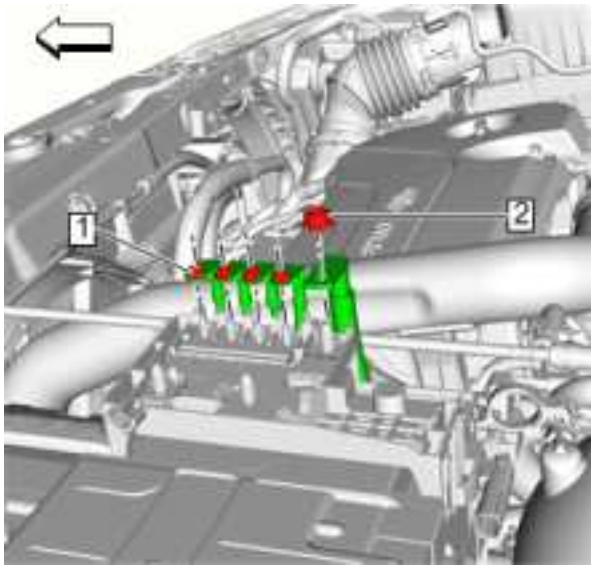



**Fig. 216: Fuse Block Tabs**
**Courtesy of GENERAL MOTORS COMPANY**

1. Install fuse block and tabs (1) to the battery.




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Fig. 217: Body Wiring Harness Terminals And Nuts
Courtesy of GENERAL MOTORS COMPANY

**CAUTION:** Refer to Fastener Caution .

2. Install Fuse Block Wiring Harness Terminals (Qty: 5)
3. Install and tighten Body Wiring Harness Terminal Nuts (1) (Qty: 4) to 9 N.m (80 lb in)
4. Install and tighten Starter and Generator Positive Cable Nut (2) to 12 N.m (106 lb in)

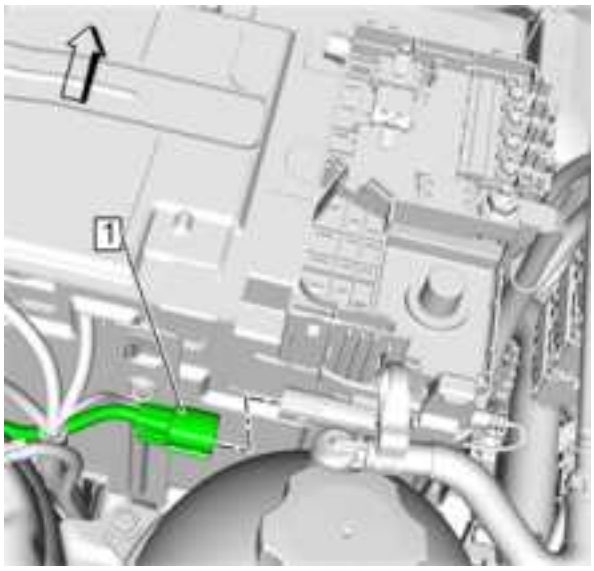



Fig. 218: Body Wiring Harness Connector
Courtesy of GENERAL MOTORS COMPANY

5. Connect the body wiring harness connector. (1)

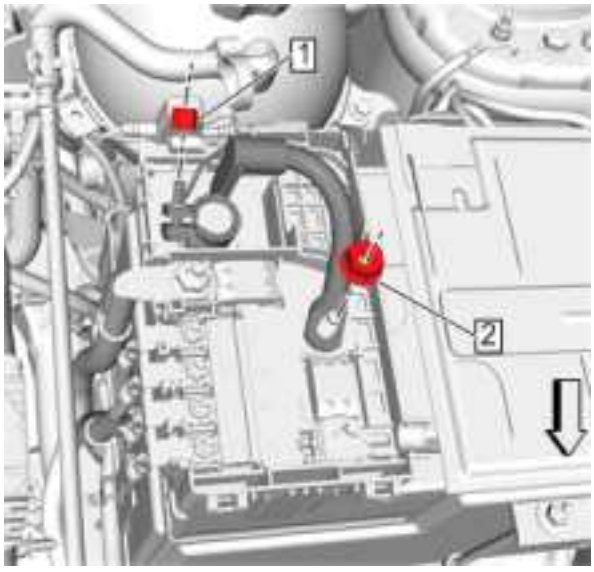



Fig. 219: Battery Positive Cable And Nut
Courtesy of GENERAL MOTORS COMPANY

6. Install Battery Positive Cable
7. Install and tighten Battery Positive Cable and Nut (2) to 9 N.m (80 lb in)
8. Install the small wire.
9. Install and tighten Positive Battery Cable Nut (1) to 9 N.m (80 lb in).

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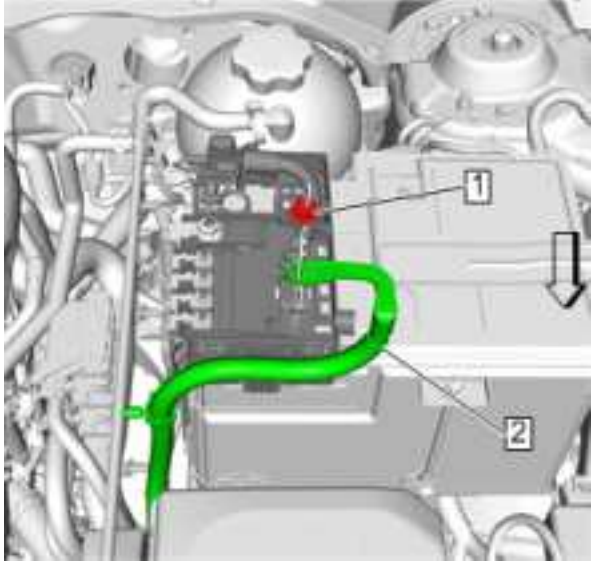



**Fig. 220: Starter Solenoid Cable And Nut**
**Courtesy of GENERAL MOTORS COMPANY**

10. Install Starter Solenoid Cable (2)
11. Install and tighten Starter Solenoid Cable Nut (1) to 12 N.m (106 lb in).

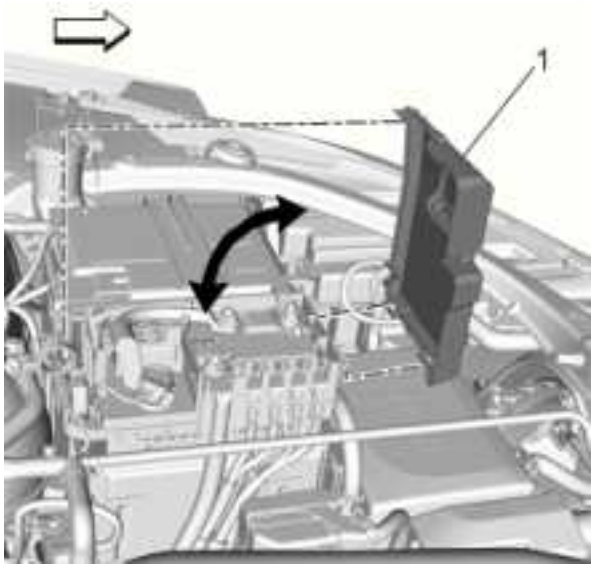



**Fig. 221: Fuse Block Cover**
**Courtesy of GENERAL MOTORS COMPANY**

12. Install Fuse Block Cover (1)
13. Connect Battery Negative Cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**

## FRONT COMPARTMENT FUSE BLOCK COVER REPLACEMENT

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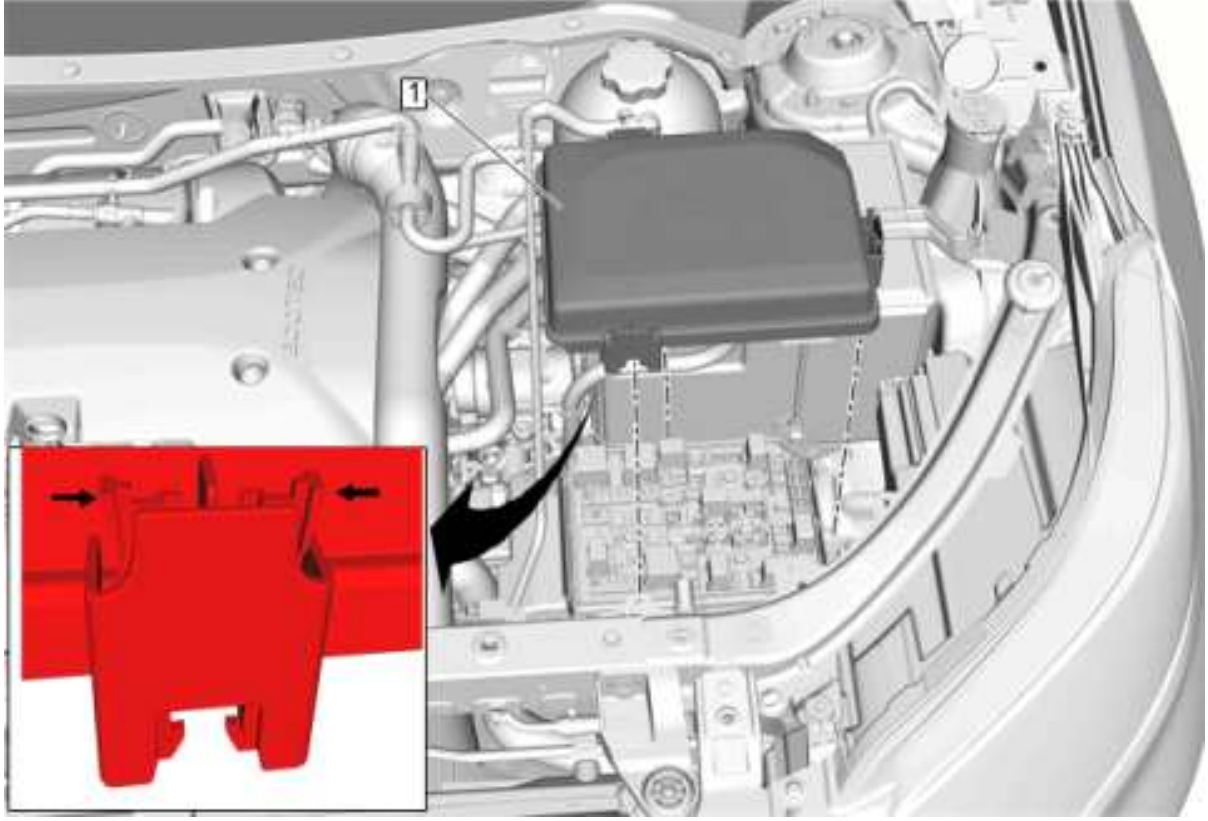



**Fig. 222: Front Compartment Fuse Block Cover**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| 1 | Front Compartment Fuse Block Cover<br>**Procedure**<br>Squeeze the 3 tabs to release cover. |

## TOW VEHICLE ELECTRICAL RECEPTACLE REPLACEMENT

### Removal Procedure

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle**

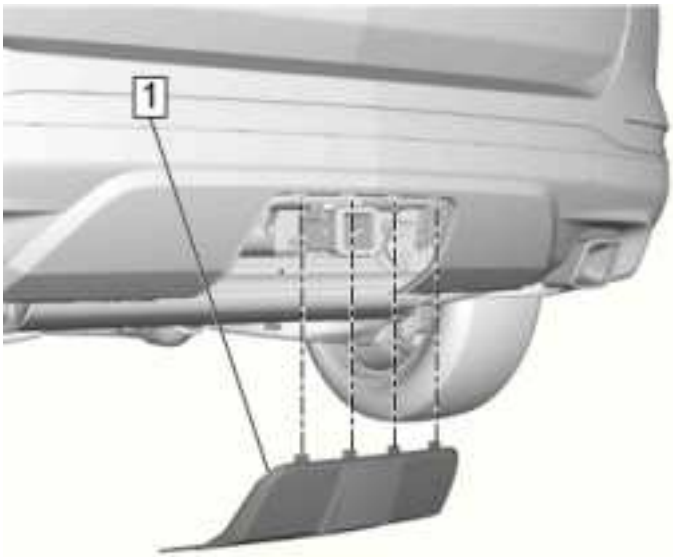



**Fig. 223: Rear Bumper Fascia Trailer Hitch Access Hole Cover**
**Courtesy of GENERAL MOTORS COMPANY**

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2. Remove Rear Bumper Fascia Trailer Hitch Access Hole Cover (1). Refer to **Rear Bumper Fascia Trailer Hitch Access Hole Cover Replacement (Equinox)** **Rear Bumper Fascia Trailer Hitch Access Hole Cover Replacement (Terrain)**

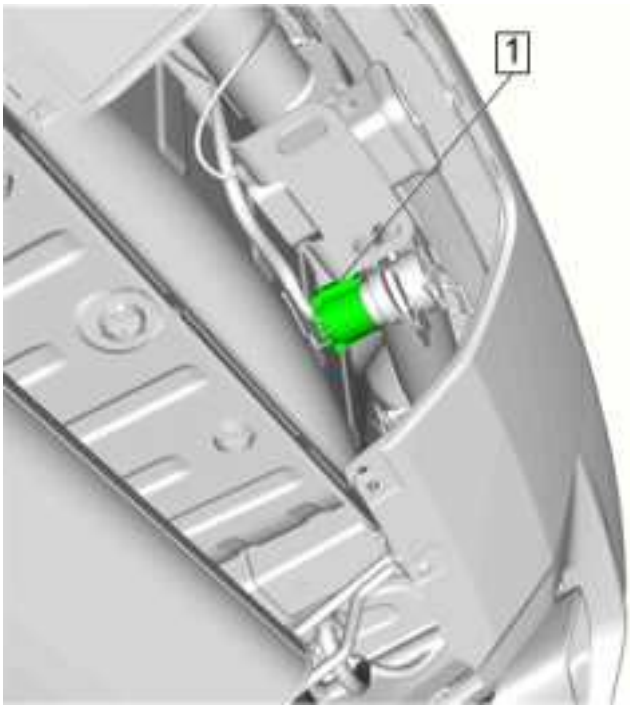



**Fig. 224: Electrical Connector**
**Courtesy of GENERAL MOTORS COMPANY**

3. Disconnect Electrical Connector (1)




**Fig. 225: Tow Vehicle Electrical Receptacle**
**Courtesy of GENERAL MOTORS COMPANY**

4. Rotate Tow Vehicle Electrical Receptacle (1) Counterclockwise 90 degrees

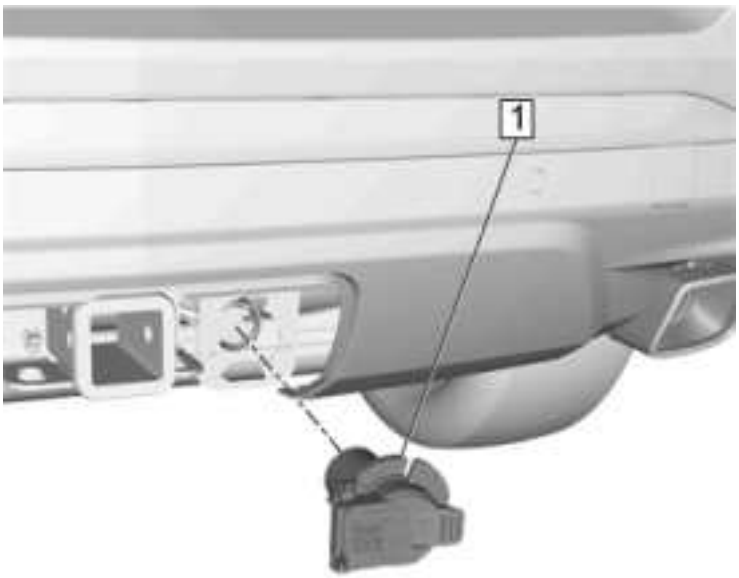
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**Fig. 226: Tow Vehicle Electrical Receptacle**
**Courtesy of GENERAL MOTORS COMPANY**

5. Remove Tow Vehicle Electrical Receptacle (1)

**Installation Procedure**




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**Fig. 227: Tow Vehicle Electrical Receptacle**
**Courtesy of GENERAL MOTORS COMPANY**

1. Install Tow Vehicle Electrical Receptacle (1)

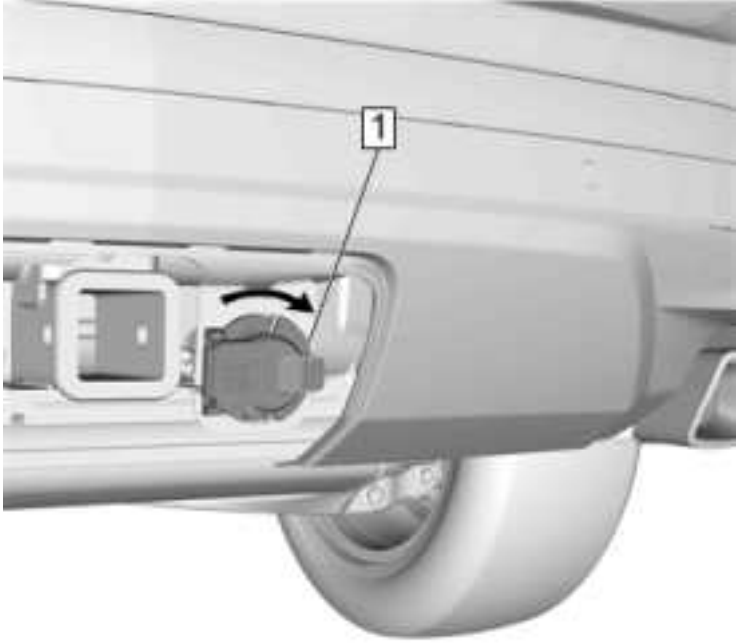



**Fig. 228: Tow Vehicle Electrical Receptacle**
**Courtesy of GENERAL MOTORS COMPANY**

2. Rotate Tow Vehicle Electrical Receptacle (1) Clockwise 90 degrees

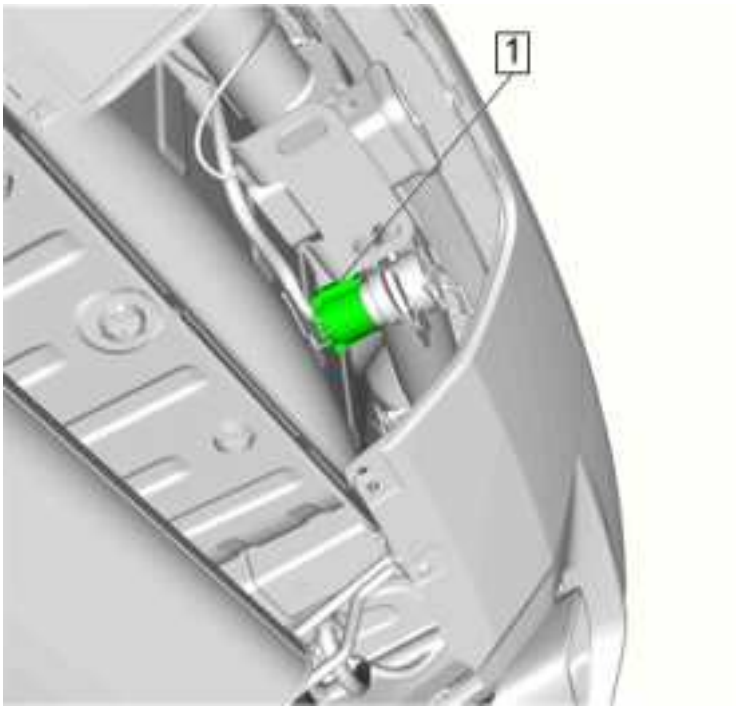



**Fig. 229: Electrical Connector**
**Courtesy of GENERAL MOTORS COMPANY**

3. Connect Electrical Connector (1)

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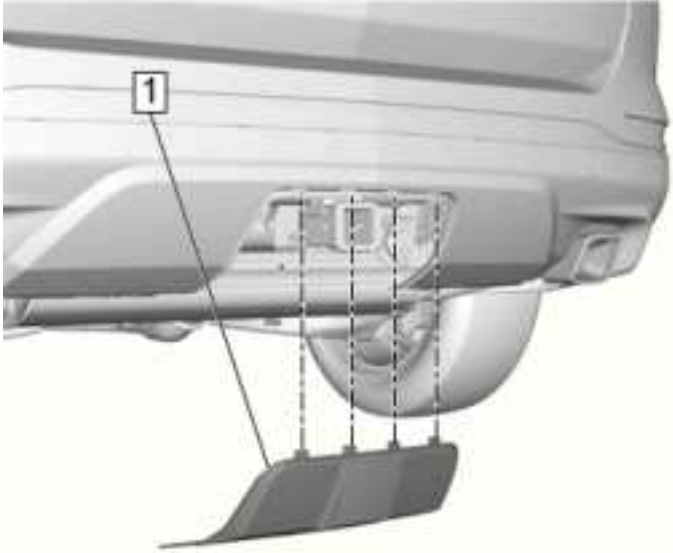



Fig. 230: Rear Bumper Fascia Trailer Hitch Access Hole Cover
Courtesy of GENERAL MOTORS COMPANY

4. Install Rear Bumper Fascia Trailer Hitch Access Hole Cover (1). Refer to Rear Bumper Fascia Trailer Hitch Access Hole Cover Replacement (Equinox) Rear Bumper Fascia Trailer Hitch Access Hole Cover Replacement (Terrain)

## REAR BODY FUSE BLOCK REPLACEMENT (EQUINOX)

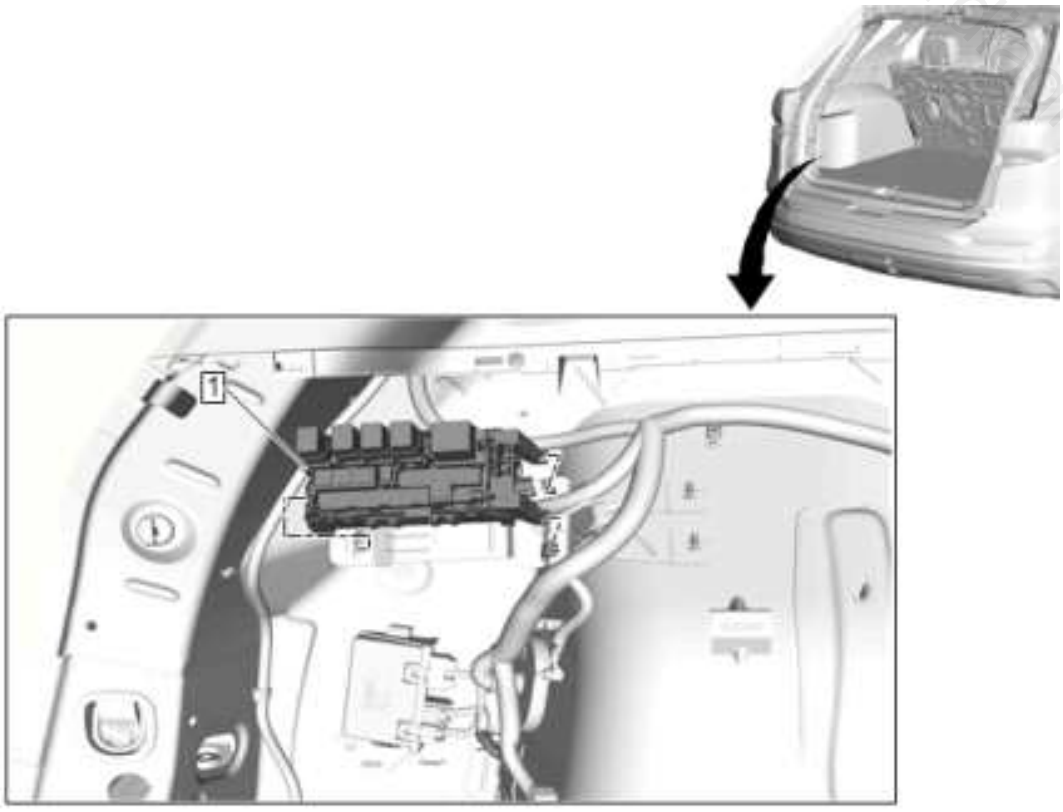



Fig. 231: Rear Body Fuse Block (Equinox)
Courtesy of GENERAL MOTORS COMPANY

| Callout | Component Name |
| --- | --- |
| | |

| Callout | Component Name |
|---|---|
| **Preliminary Procedure**<br>1. Disconnect Battery Negative Cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**<br>2. Remove the left side quarter lower rear trim panel. Refer to **Quarter Lower Rear Trim Panel Replacement (Left Side)** | |
| 1 | Rear Body Fuse Block<br>**Procedure**<br>1. Release the rear retainer tab.<br>2. Rotate the rear fuse block up and back to remove the fuse block from the bracket.<br>3. Release the fuse block terminals. Refer to **Terminal Removal**<br>4. Connect Battery Negative Cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**<br>**NOTE:**<br>**The rear fuse block is part of the body harness.** |

## REAR BODY FUSE BLOCK REPLACEMENT (TERRAIN)

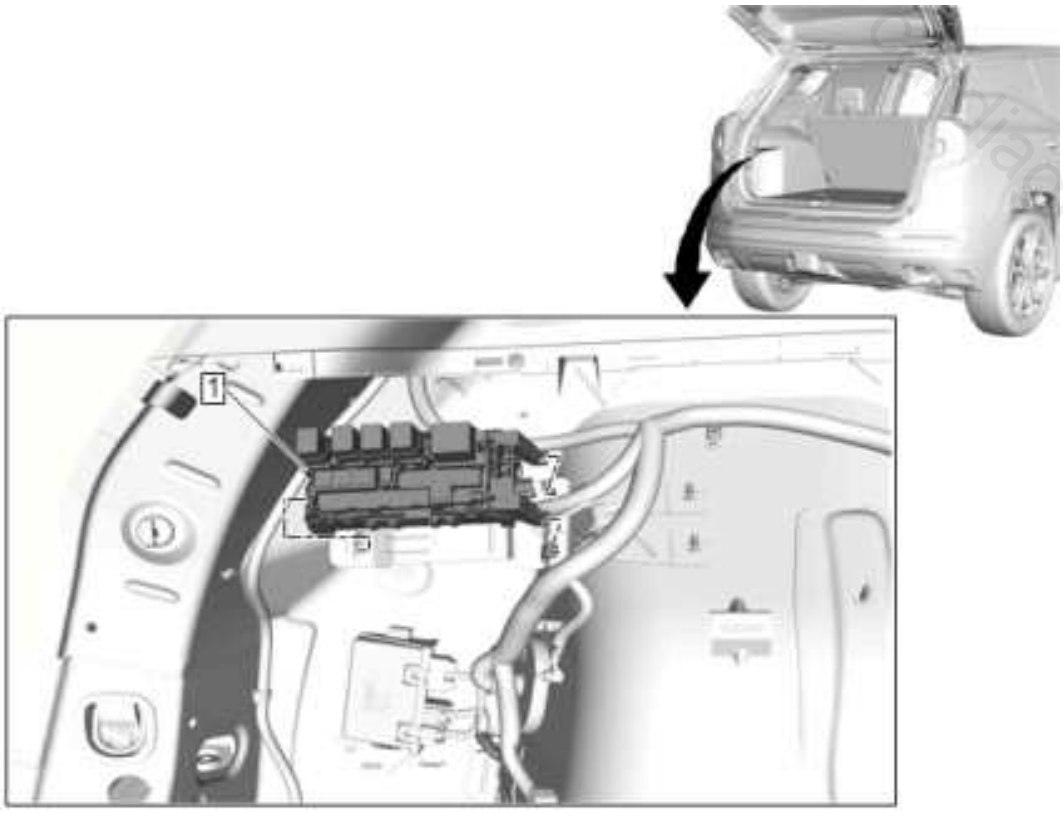



**Fig. 232: Rear Body Fuse Block (Terrain)**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| **Preliminary Procedure**<br>1. Disconnect the battery negative cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**<br>2. Remove the left side quarter lower rear trim panel. Refer to **Quarter Lower Rear Trim Panel Replacement (Left Side)** | |

| Callout | Component Name |
|---|---|
| 1 | Rear Body Fuse Block<br><br>**Procedure**<br><br>1. Release the rear retainer tab.<br>2. Rotate the rear fuse block up and back to remove the fuse block from the bracket.<br>3. Release the fuse block terminals. Refer to **Terminal Removal**<br>4. Connect the battery negative cable. Refer to **Battery Negative Cable Disconnection and Connection (KL9)**<br><br>**NOTE:**<br>**The rear fuse block is part of the body harness.** |

## IGNITION AND START SWITCH REPLACEMENT (EQUINOX)

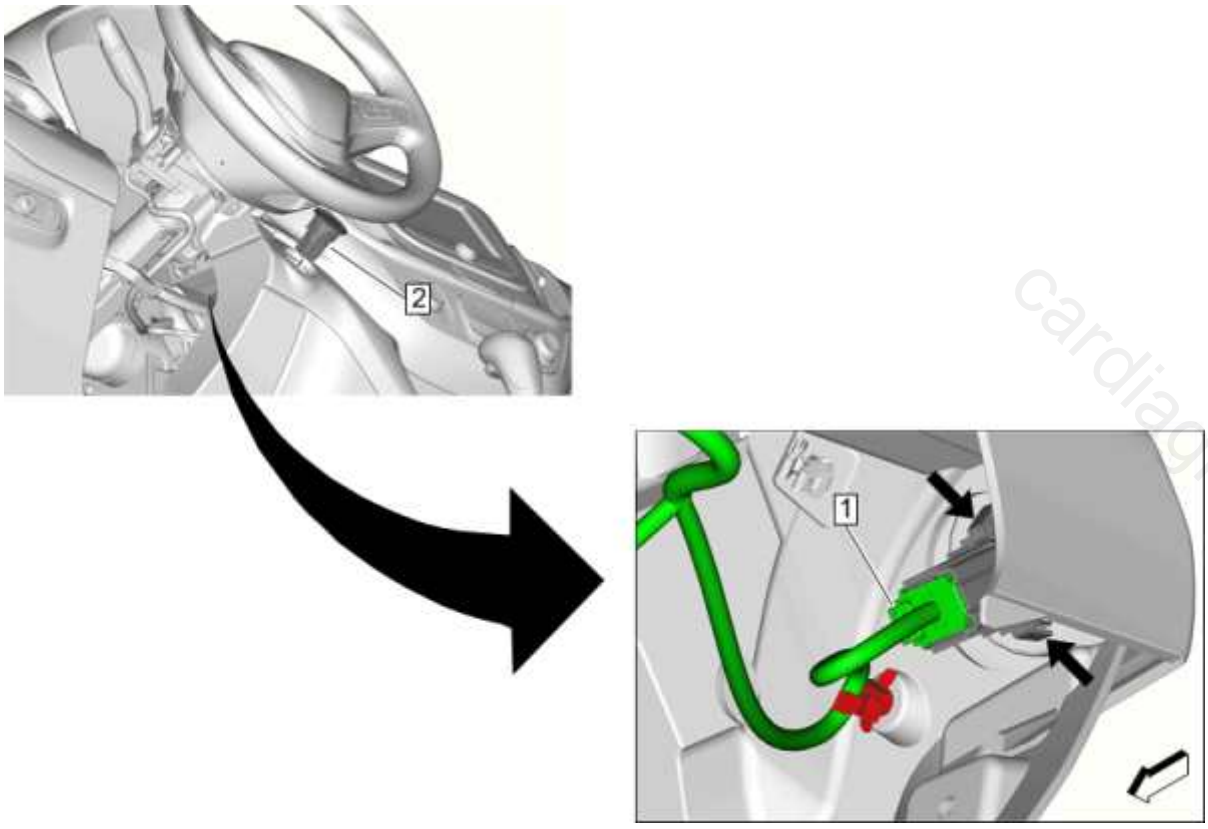



**Fig. 233: Ignition And Start Switch (Equinox)**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| **Preliminary Procedure**<br>Remove Steering Column Lower Trim Cover. Refer to **Steering Column Lower Trim Cover Replacement (Equinox)** | |
| 1 | Electrical Connector<br>**Procedure**<br>Disconnect the electrical connector. |
| 2 | Ignition and Start Switch<br>**Procedure**<br>Squeeze the retaining tabs and push the ignition and start switch out of the instrument panel. |

## IGNITION AND START SWITCH REPLACEMENT (TERRAIN)

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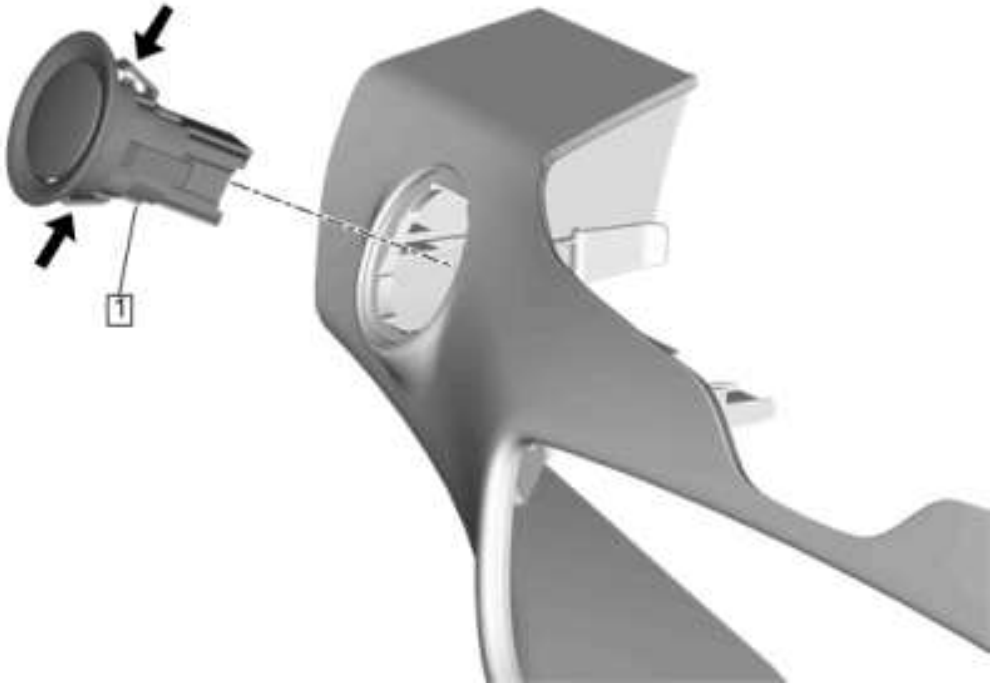


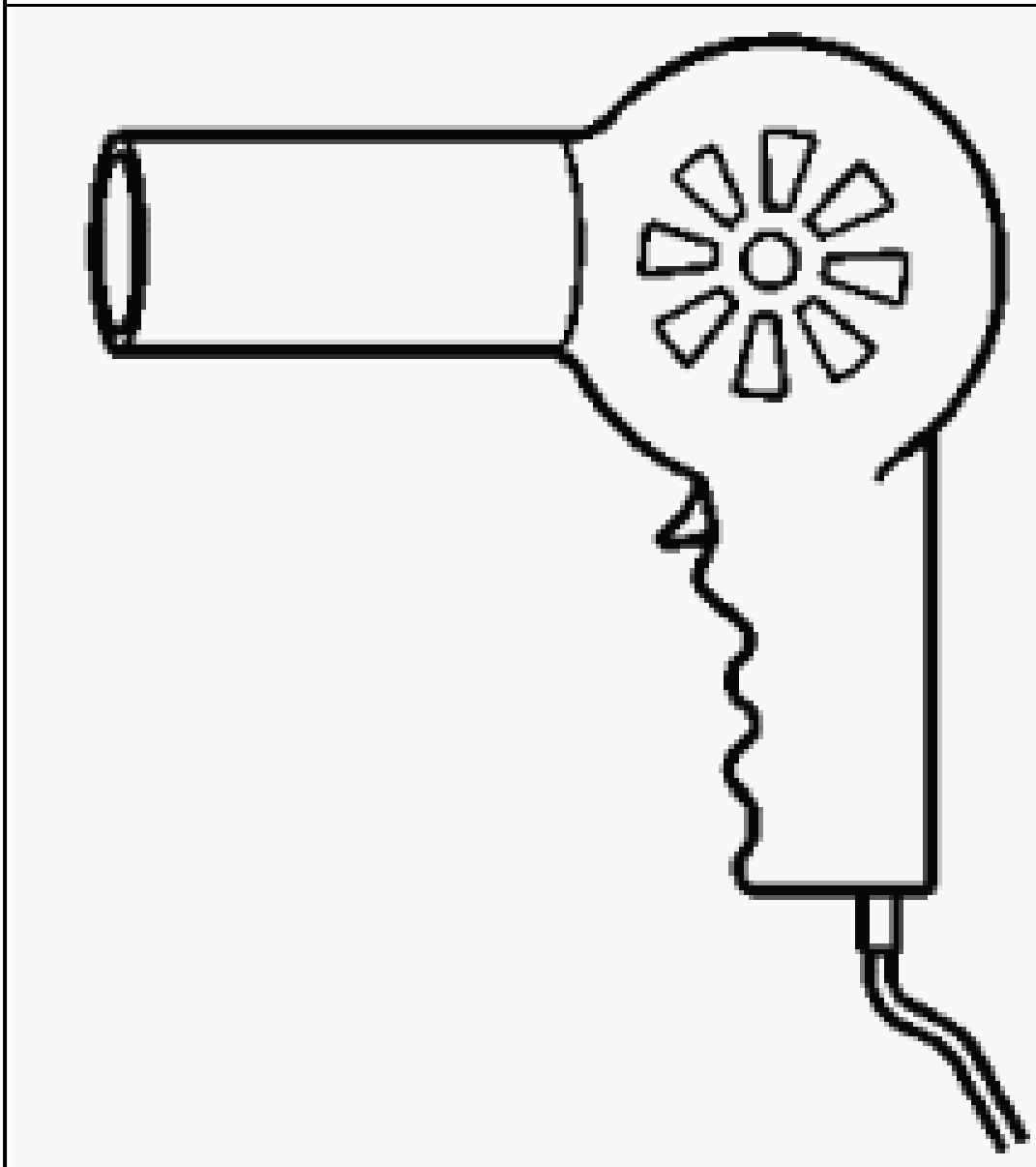

**Fig. 234: Ignition And Start Switch (Terrain)**
**Courtesy of GENERAL MOTORS COMPANY**

| Callout | Component Name |
|---|---|
| **Preliminary Procedure**<br>Remove Instrument Panel Trim Pad - Right Side. Refer to **Instrument Panel Trim Pad Replacement - Right Side (Terrain)** | |
| 1 | Ignition and Start Switch<br>**Procedure**<br>Squeeze the retaining tabs and push the ignition and start switch out of the trim piece. |

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# SPECIAL TOOLS AND EQUIPMENT

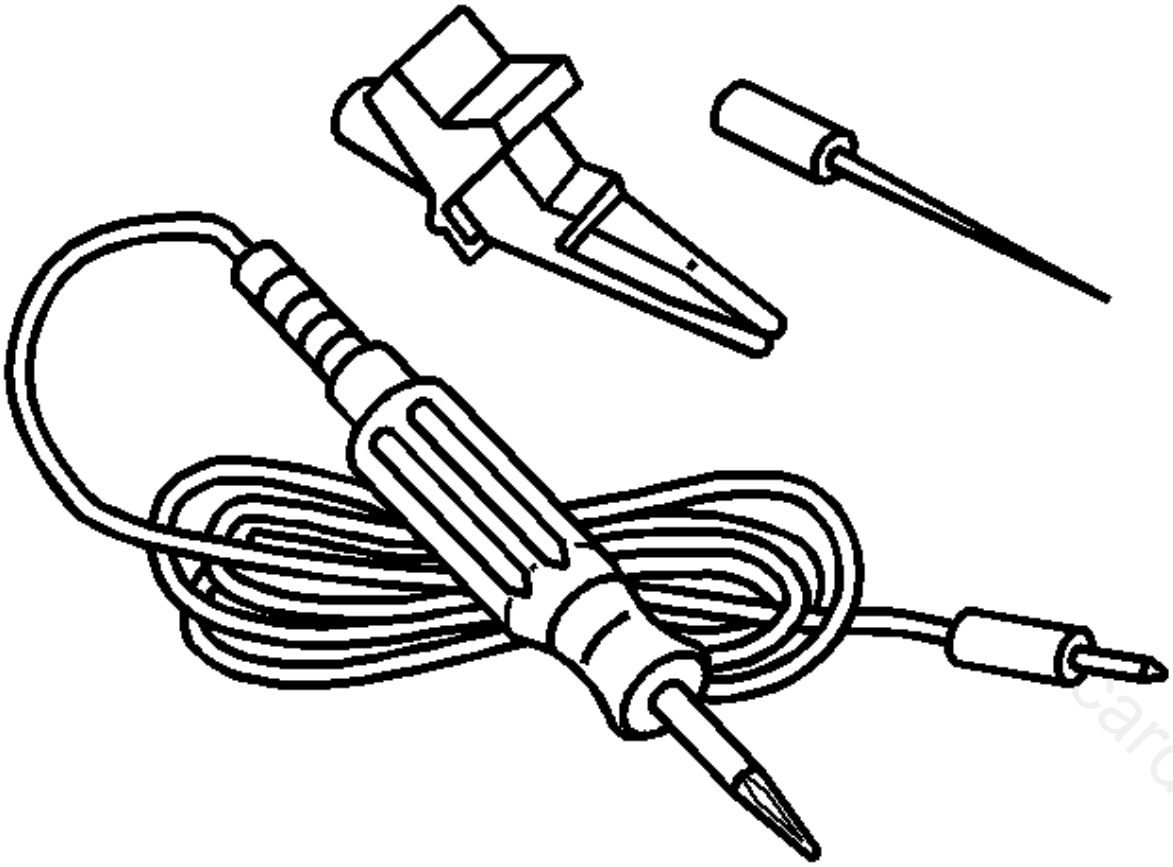
## SPECIAL TOOLS

| Illustration | Tool Number / Description |
|---|---|
|  | EL-25070<br>EL-38125-5A<br>EL-38125-5<br>J-38125-5A<br>Heat Gun<br>500 - 700 F |
| | |

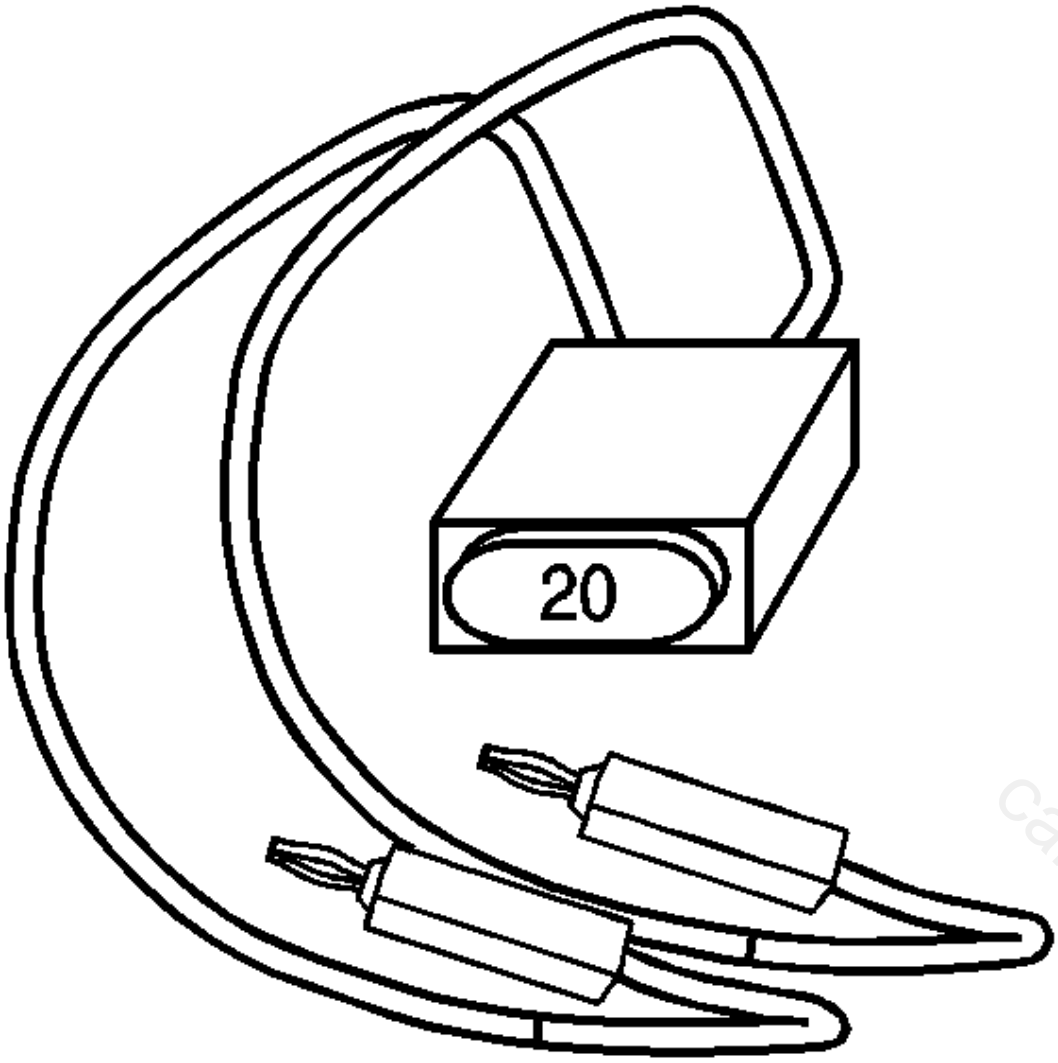
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-35616<br>KM-609<br>Tyco Electronic Tool (5 - 1579007 - 3) Terminal Test Probe Kit |

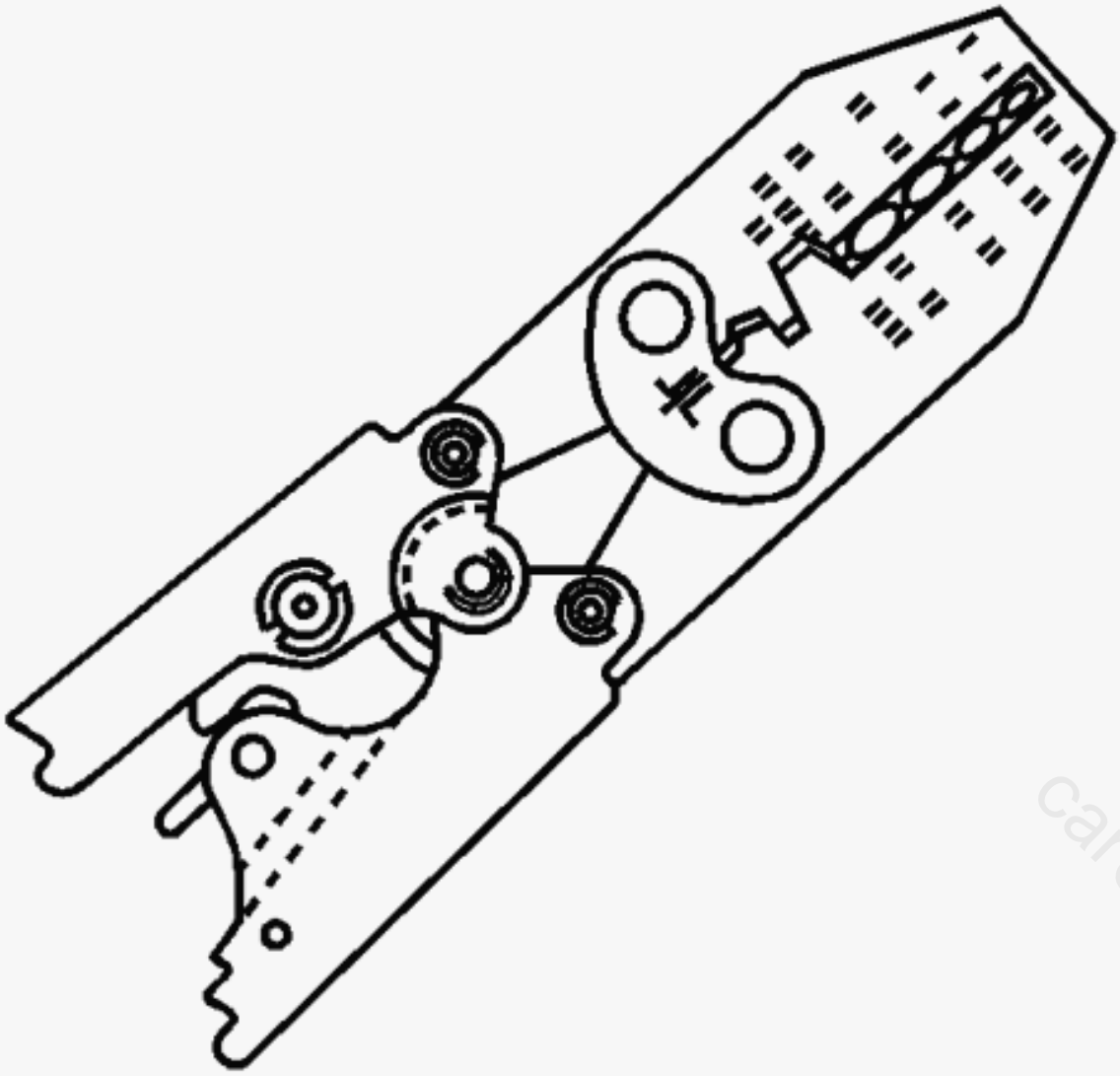
ardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-35616-200<br>KM-J-34142 - B<br>Test Light - Probe Kit |

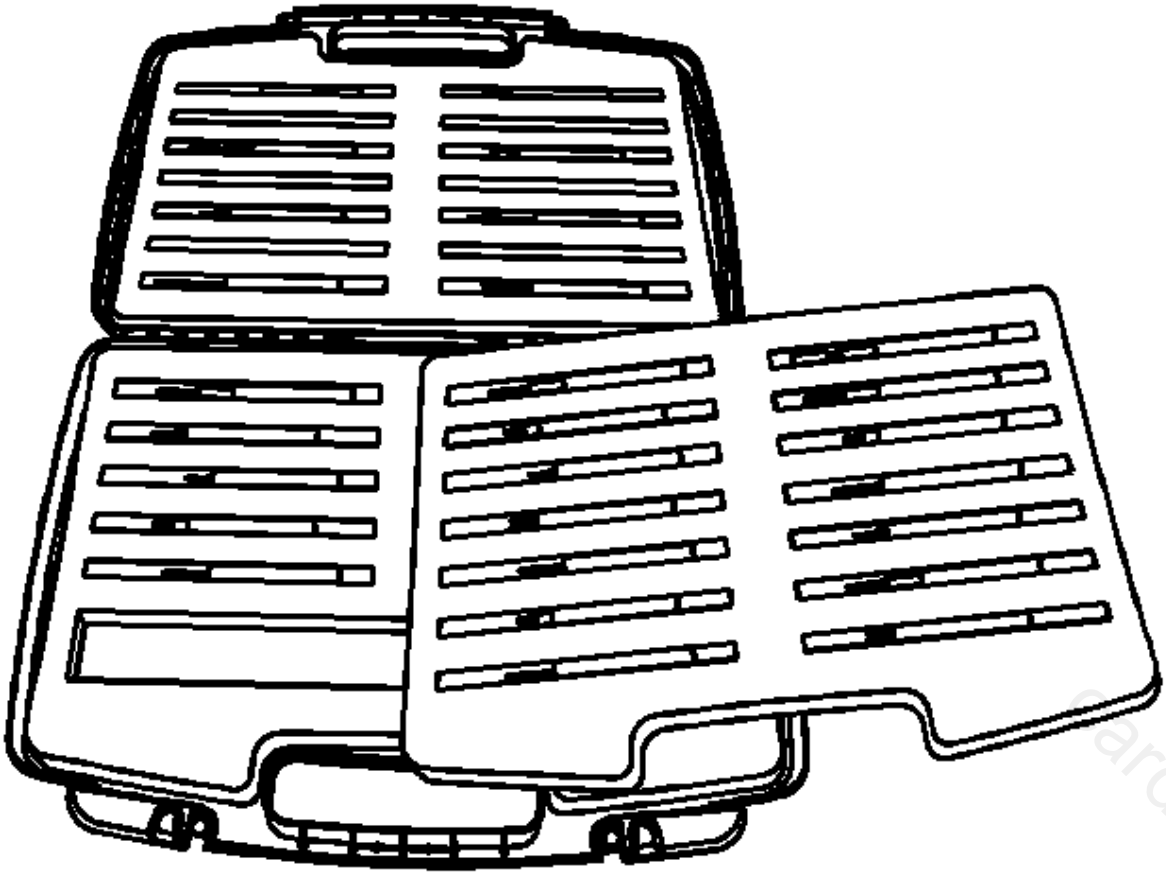
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-35616-20F<br>KM-963<br>Fused Jumper Wire |

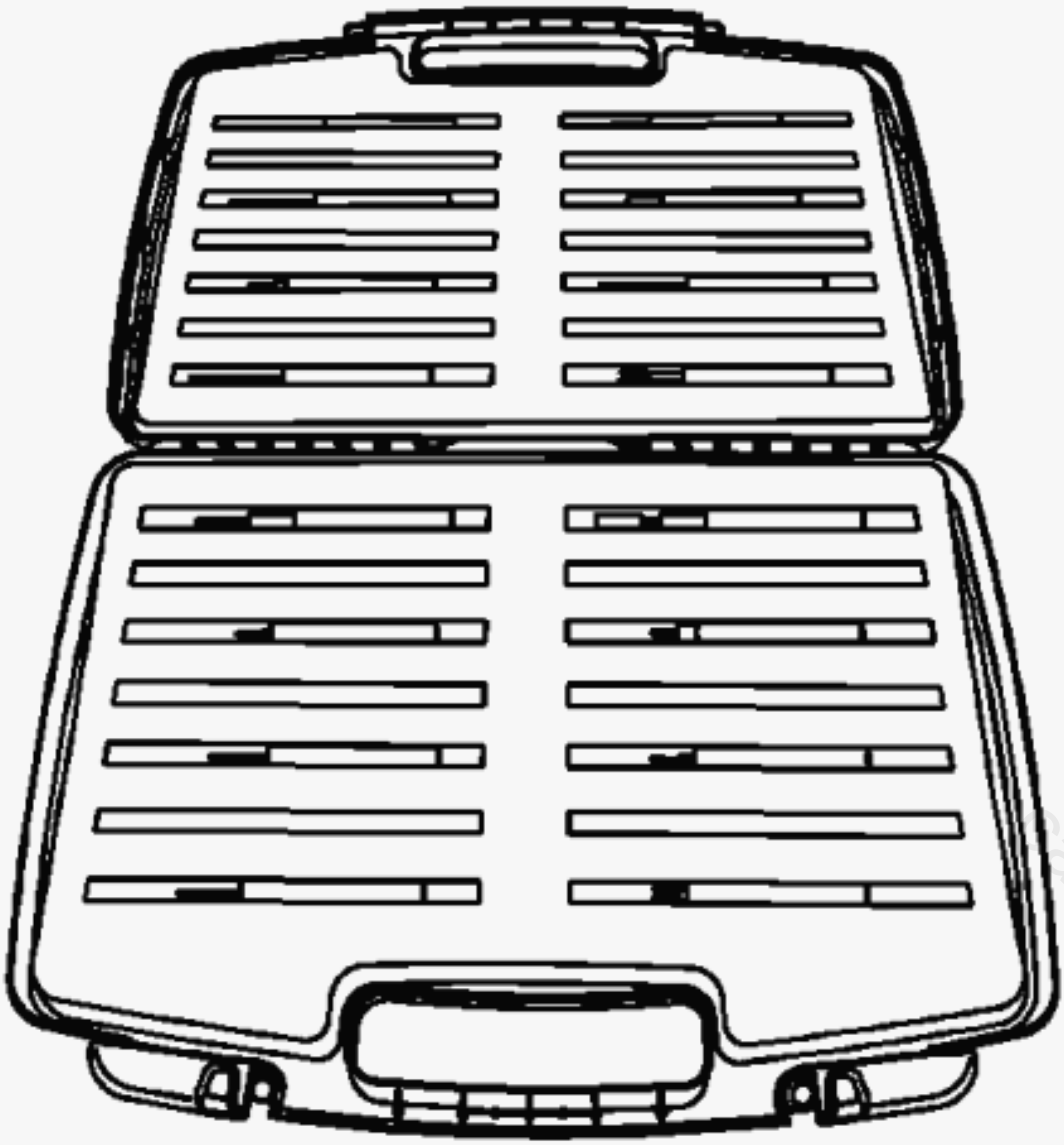
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-38125 - EU (Europe)<br>J-38125-8 (North America Only)<br>EL-38125 - 10 (Non-North America/Non Europe)<br>Splice Sleeve Crimp Tool |

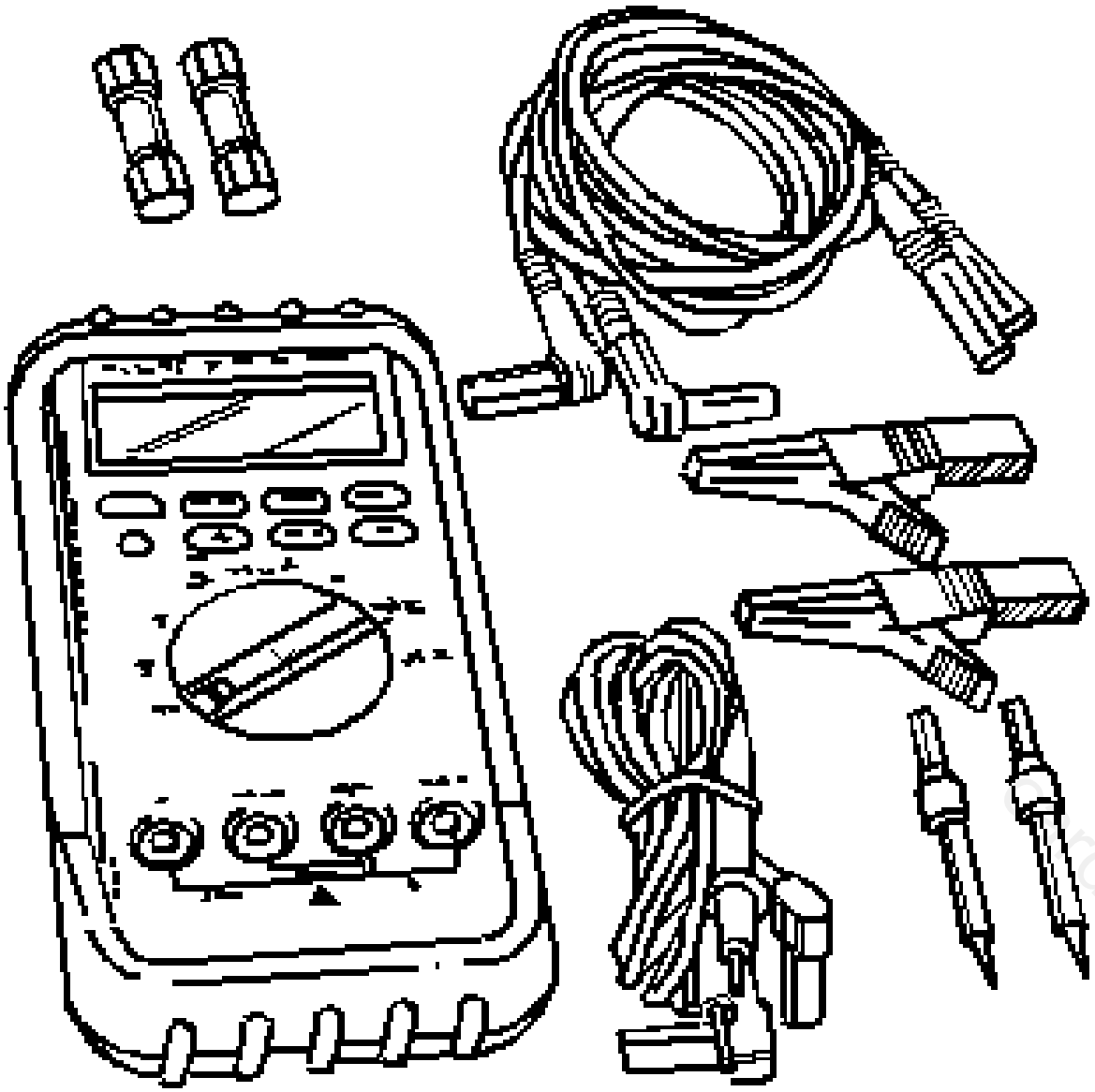
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-38125-550 (North America Only) Terminal Release Tool Kit |

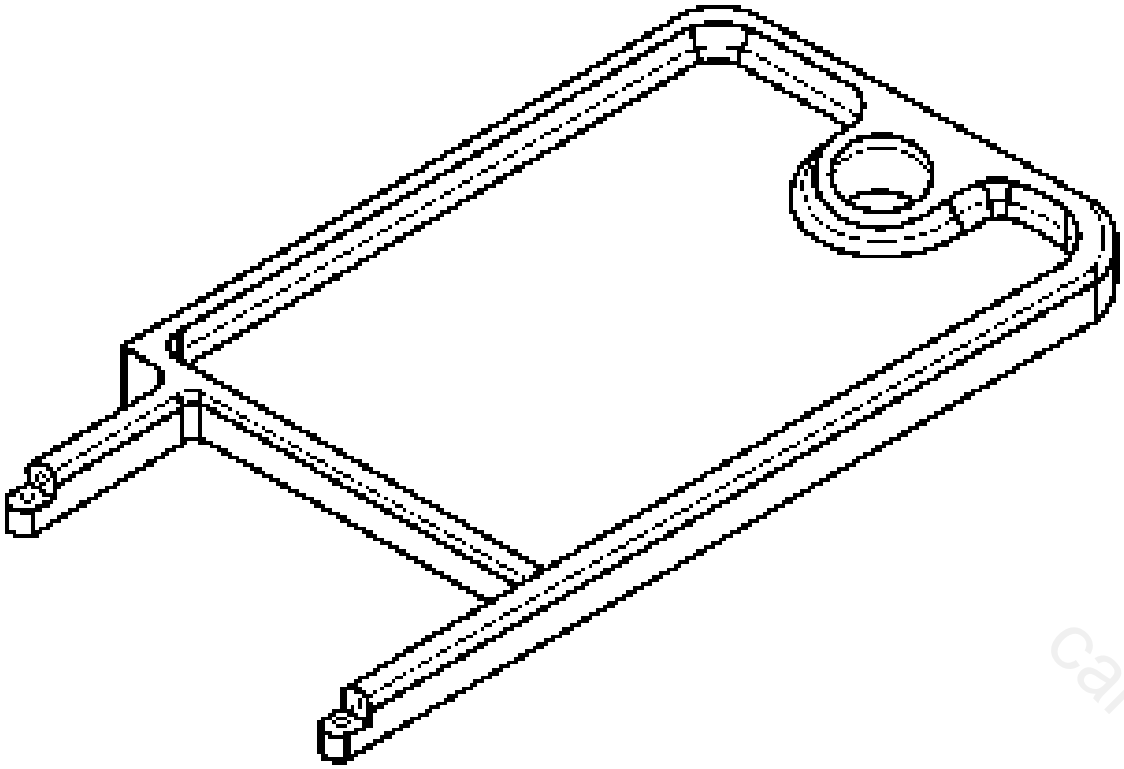
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-38125-580 (Non-North America) Terminal Release Tool Kit |
| | EL-39200 Digital Multimeter |

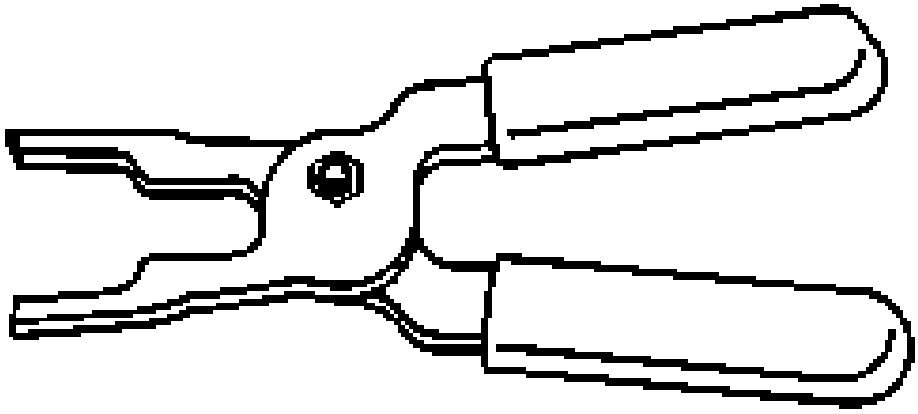
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | |

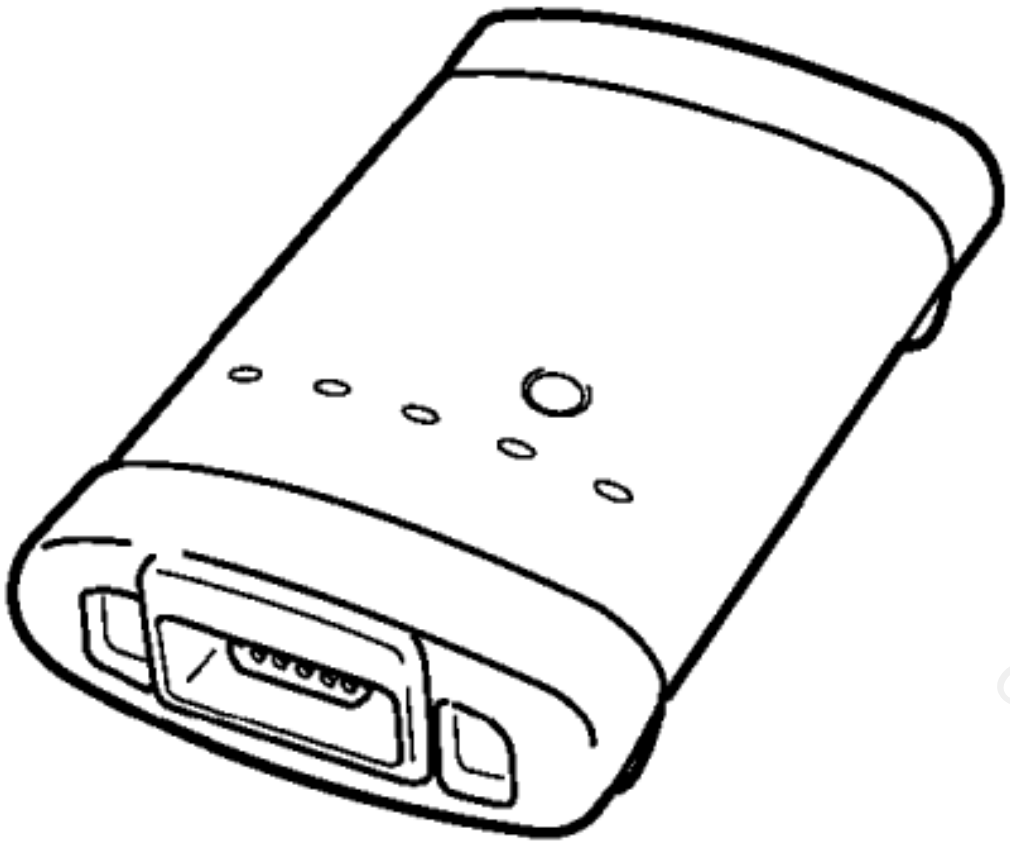
autodiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-42759 Ignition Switch Connector Release Tool |

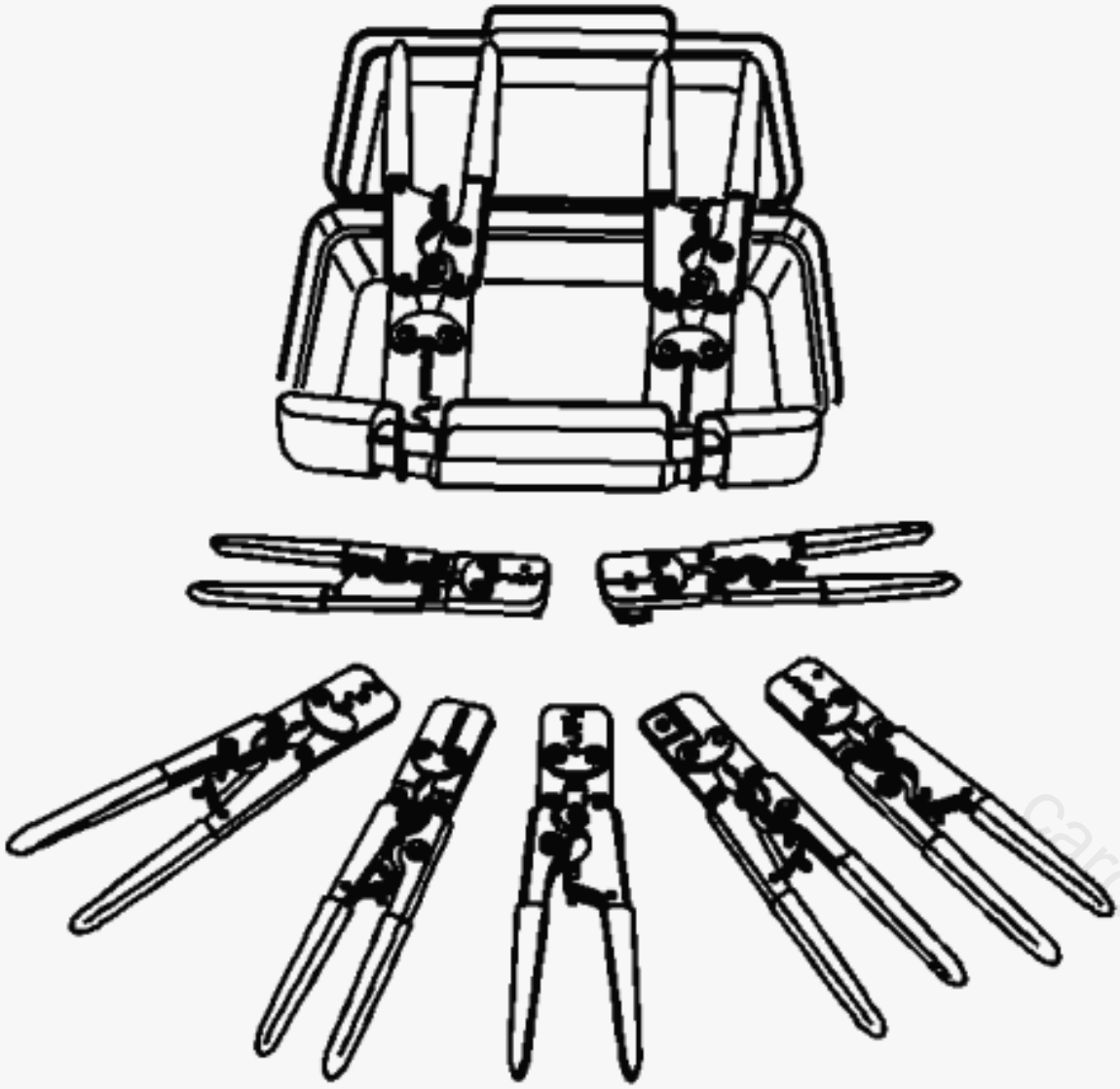
cardiagn.com

| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-43244 Relay Puller Pliers |

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| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-47955<br>J-2534<br>Multi Diagnostic Interface MDI |

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| Illustration | Tool Number / Description |
| --- | --- |
|  | EL-50040 (Holden Only) Crimping Tool Kit |

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# SPECIFICATIONS

## FASTENER SPECIFICATIONS

**Reusable Threaded Fastener Tightening Specifications**

**NOTE:**
***All fasteners listed in this table can be reused after removal.***

| Application | Specification<br>Metric (English) |
|---|---|
| Battery Positive Cable and Nut | 9 N.m (80 lb in) |
| Body Wiring Harness Terminal Nut | 9 N.m (80 lb in) |
| M7 Bolt | 9 N.m (80 lb in) |
| M6 Nut | 8 N.m (71 lb in) |
| M8 Nut | 22 N.m (16 lb ft) |
| M10 Nut | 45 N.m (33 lb ft) |
| Rear Body Fuse Block Bracket Nut | 9 N.m (80 lb in) |
| Positive Battery Cable Nut | 9 N.m (80 lb in) |
| Starter and Generator Positive Cable Nut | 12 N.m (106 lb in) |
| Starter Solenoid Cable Nut | 12 N.m (106 lb in) |

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# EMISSION APPLICATIONS

**2018 Equinox**

| Engine & Fuel System | (1) Emission Control Systems & Devices | (2) EGR Test No. |
|---|---|---|
| 1.6L (98") 4-Cyl DI Turbo | **PCV, DOC, TWC, DPF, SCR, (3) EGR, HO2S, (4) NOxS, CEC, (3) MIL,** | ... |

(1) Major emission control systems and devices are listed in bold type; components and other related devices are listed in light type.

(2) See GENERAL MOTORS under DOMESTIC CARS & TRUCKS in EGR FUNCTION TESTING - DIESEL section. Use test number specified in table.

(3) PCM-controlled.

(4) Equipped with 2.

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