

Wiring Systems

Diagnostic Information and Procedures

Where to Find Electrical Schematics

Electrical system schematics are located within their respective subsections. Because more than one electrical system is located in each subsection,

each electrical system's schematics are further broken down into operating systems. The following table lists all electrical system schematics and the subsection in which they are located.

Electrical Schematic Locations

System Name	Section	Subsection
Air Antilock Brakes System Schematics	Brakes	Air Antilock Brake System
Air Brake System Schematics	Brakes	Air Brakes
Air Brake Warning System Schematics	Brakes	Air Brakes
ALC Suspension Schematics	Suspension	Automatic Level Control
Antilock Brake System Schematics	Brakes	Antilock Brake System
Audible Warnings Schematics	Body and Accessories	Instrument Panel, Gauges and Console
Automatic Day-Night Mirrors Schematics	Body and Accessories	Stationary Windows
Automatic Transmission Controls Schematics	Transmission/Transaxle	Automatic Transmission
Automatic Transmission Shift Lock Control Schematics	Transmission/Transaxle	Automatic Transmission
Auxiliary Battery Schematics	Body and Accessories	Wiring Systems
Backup Lights Schematics	Body and Accessories	Lighting Systems
Body Control Module Schematics	Body and Accessories	Body Control System
Body Rear End Schematics	Body and Accessories	Body Rear End
Brake Booster Pump Schematics	Brakes	Hydraulic Brakes
Brake Warning System Schematics	Brakes	Hydraulic Brakes
Cellular Telephone Schematics	Body and Accessories	Cellular Communication
Cigar Lighter/Auxiliary Outlet Schematics	Body and Accessories	Wiring Systems
Collision Avoidance Schematics	Body and Accessories	Collision Avoidance
Column/Ignition Lock Schematics	Steering	Steering Wheel and Column - Standard
Column/Ignition Lock Schematics	Steering	Steering Wheel and Column - Tilt
Cooling Fan Schematics	Engine	Engine Cooling
Cruise Control Schematics	Body and Accessories	Cruise Control
Data Link Connector (DLC) Schematics	Body and Accessories	Data Link Communications
Defogger Schematics	Body and Accessories	Stationary Windows
Differential Lock Schematics	Driveline/Axle	Rear Axle Controls
Door Control Module Schematics	Body and Accessories	Doors
Door Locks Schematics	Body and Accessories	Doors
Driver Information System Schematics	Body and Accessories	Instrument Panel, Gauges and Console
Engine Controls Schematics	Engine	Engine Controls
Engine Exhaust Brake Schematics	Engine	Engine Exhaust
Exterior Lights Schematics	Body and Accessories	Lighting Systems
Fog Lights Schematics	Body and Accessories	Lighting Systems
Garage Door Opener Schematics	Body and Accessories	Garage Door Opener
Ground Distribution Schematics	Body and Accessories	Wiring Systems
Head Up Display Schematics	Body and Accessories	Instrument Panel, Gauges and Console

Electrical Schematic Locations (cont'd)

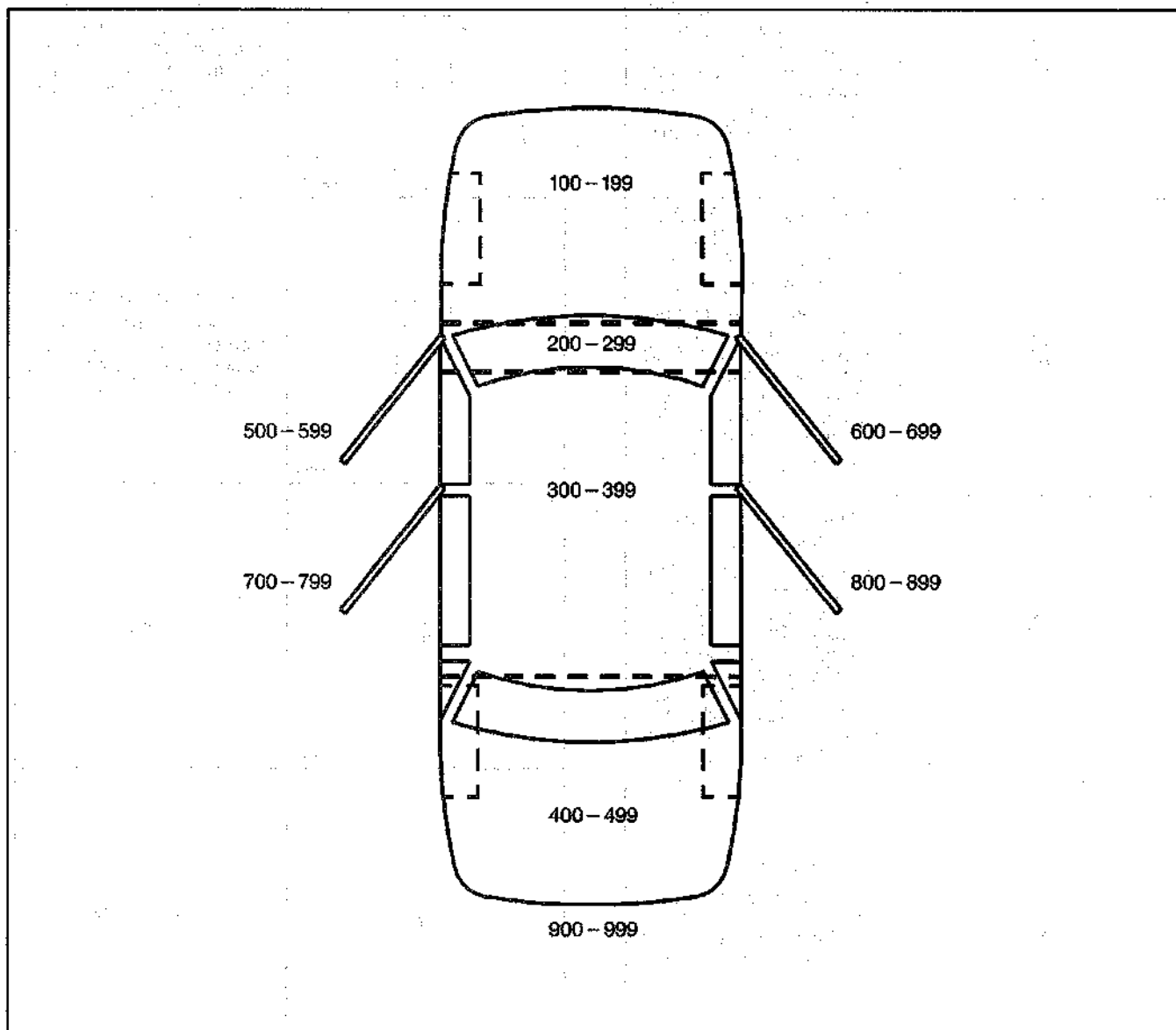
System Name	Section	Subsection
Headlamp Washer System Schematics	Body and Accessories	Wipers/Washer Systems
Headlight Doors Schematics	Body and Accessories	Lighting Systems
Headlight Leveling Schematics	Body and Accessories	Lighting Systems
Headlights Daytime Running Lights (DRL) Schematics	Body and Accessories	Lighting Systems
Headlights Schematics	Body and Accessories	Lighting Systems
Headlights Twilight Sentinel/Daytime Running Lights (DRL) Schematics	Body and Accessories	Lighting Systems
Heated Seats Schematics	Body and Accessories	Seats
Heated Windshield Schematics	Body and Accessories	Stationary Windows
Horns Schematics	Body and Accessories	Horns
HVAC Air Delivery Schematics	HVAC	HVAC Systems - Manual
HVAC Air Delivery Schematics	HVAC	HVAC Systems - Automatic
HVAC Blower Control Schematics	HVAC	HVAC Systems - Manual
HVAC Blower Control Schematics	HVAC	HVAC Systems - Automatic
HVAC Compressor Control Schematics	HVAC	HVAC Systems - Manual
HVAC Compressor Control Schematics	HVAC	HVAC Systems - Automatic
HVAC Compressor/Condenser Fan Control Schematics	HVAC	HVAC Systems - Manual
HVAC Compressor/Condenser Fan Control Schematics	HVAC	HVAC Systems - Automatic
Instrument Cluster Schematics	Body and Accessories	Instrument Panel, Gauges and Console
Interior Lights Dimming Schematics	Body and Accessories	Lighting Systems
Interior Lights Schematics	Body and Accessories	Lighting Systems
Keyless Entry Schematics	Body and Accessories	Keyless Entry
Lumbar Support Schematics	Body and Accessories	Seats
Manual Transmission Schematics	Transmission	Manual Transmission
Memory Seats Schematics	Body and Accessories	Seats
Navigation System Schematic	Body and Accessories	Instrument Panel, Gauges and Console
On-Star Schematics	Body and Accessories	Cellular Communication
Outside Mirrors Schematics	Body and Accessories	Doors
Park Brake System Schematics	Brakes	Park Brake
Power Antenna Schematics	Body and Accessories	Entertainment
Power Distribution Schematics	Body and Accessories	Wiring Systems
Power Folding Top Schematics	Body and Accessories	Roof
Power Seats Schematics	Body and Accessories	Seats
Power Sliding Door (PSD) Schematics	Body and Accessories	Doors
Power Steering System Schematics	Steering	Power Steering System
Power Sunroof Schematics	Body and Accessories	Roof
Power Windows Schematics	Body and Accessories	Doors
Pulldown Systems Schematics	Body and Accessories	Body Rear End
Radiator Shutter Schematics	Engine	Engine Cooling
Radio/Audio System Schematics	Body and Accessories	Entertainment
Rear Sunshade Schematics	Body and Accessories	Stationary Windows
Release Systems Schematics	Body and Accessories	Body Rear End

Electrical Schematic Locations (cont'd)

System Name	Section	Subsection
Retained Accessory Power (RAP) Schematics	Body and Accessories	Retained Accessory Power
Seat Belt Schematics	Restraints	Seat Belts
SIR Schematics	Restraints	Supplemental Inflatable Restraint
SRS Schematics	Restraints	Supplemental Restraint System
Starting and Charging Schematics	Engine	Engine Electrical
Steering Controls Schematics	Steering	Variable Effort Steering
Steering Wheel Controls Schematics	Body and Accessories	Entertainment
Suspension Controls Schematics	Suspension	Air Suspension
Suspension Controls Schematics	Suspension	Real Time Dampening - RTD
Suspension Controls Schematics	Suspension	Road Sensing Suspension - RSS
Suspension Controls Schematics	Suspension	Selectable Ride
Theft Deterrent System Schematics	Body and Accessories	Theft Deterrent
Tilt/Telescoping Steering Column Schematics	Steering	Steering Wheel and Column - Tilt
Tire Pressure Monitoring System	Suspension	Tire Pressure Monitoring
Transfer Case Control Schematics	Driveline/Axle	Transfer Case
Two Speed Rear Axle Schematics	Driveline/Axle	Rear Axle Controls
Upfitter Provision Schematics	Body and Accessories	Wiring systems
Wiper/Washer System Schematics	Body and Accessories	Wipers/Washer Systems

Passenger Car Zoning

All grounds, in-line connectors, pass-through grommets, and splices have identifying numbers that correspond to where they are located in the vehicle. The following table explains the numbering system.



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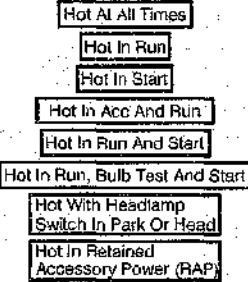
Vehicle Zoning Table

Callout Numbers	Zone Description
100-199	Engine compartment (All forward of the dash panel) Note: 001-099 are additional for the engine compartment (ONLY to be used if all 100-199 items are used)
200-299	Within the instrument panel area
300-399	Passenger compartment (From the instrument panel to the rear wheelhouse)

Vehicle Zoning Table (cont'd)

Callout Numbers	Zone Description
400-499	Luggage compartment (From the rear wheelhouse to the rear of the vehicle)
500-599	Within the left front door
600-699	Within the right front door
700-799	Within the left rear door
800-899	Within the right rear door
900-999	Within the luggage compartment lid or hatch

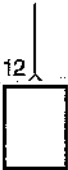
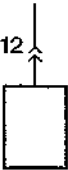
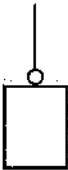
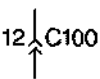
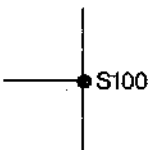
Electrical Symbols

Symbol	Description
 106629	Electrostatic Sensitive Discharge (ESD) Icon. This icon is used to alert the technician that the system contains ESD sensitive components that require certain precautions before servicing. Refer to <i>ESD Notice</i> in Cautions and Notices.
 106630	Supplemental Inflatable Restraint (SIR) or Supplemental Restraint System (SRS) Icon. This icon is used to alert the technician that the system contains SIR/SRS components that require certain precautions before servicing. Refer to <i>SIR Service Precautions Caution</i> in Cautions and Notices.
 106632	On-Board Diagnostic (OBD II) Icon. This icon is used to alert the technician that the circuit is essential for proper OBD II emission controls circuit operation. Any circuit which, if it fails, causes the malfunction indicator lamp (MIL) to turn on, is identified as an OBD II circuit.
 106633	Important Icon This icon is used to alert the technician that there is additional information that will aid in servicing a system.
 106635	Voltage Indicator Boxes. These boxes are used on schematics to indicate when voltage is present at a fuse.

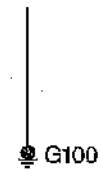
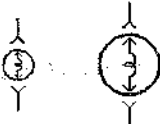
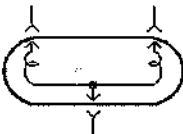
Electrical Symbols (cont'd)

Symbol	Description
 106637	Partial Component When a component is represented in a dashed box, the component or it's wiring is not shown in it's entirety.
 106641	Entire Component When a component is represented in a solid box the component or it's wiring is shown in it's entirety.
 106643	Fuse
 106642	Circuit Breaker
 106644	Fusible Link

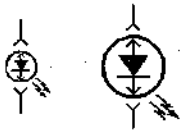
Electrical Symbols (cont'd)

Symbol	Description
 106645	Connector Attached to Component
 106646	Pigtail Connector
 106647	Bolt On or Screw On Eyelet Terminal
 106648	Inline Harness Connector
 106649	Splice

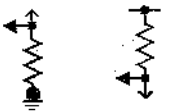
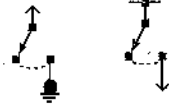
Electrical Symbols (cont'd)

Symbol	Description
 106650	Pass Through The Grommet
 106651	Chassis Ground
 106652	Case Ground
 106653	Single Filament Light Bulbs
 106654	Double Filament Light Bulb

Electrical Symbols (cont'd)

Symbol	Description
 106655	Light Emitting Diodes
 106656	Capacitor
 106657	Battery
 106660	Variable Battery
 106658	Resistor

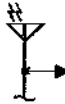
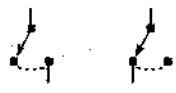
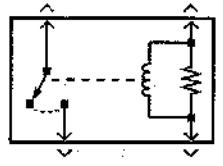
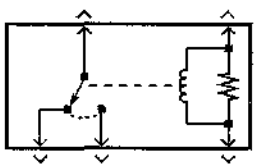
Electrical Symbols (cont'd)

Symbol	Description
 106659	Variable Resistor
 106661	Position Sensor
 106662	I/O Resistors
 106663	I/O Switches
 106664	Diode

Electrical Symbols (cont'd)

Symbol	Description
	Crystal
106665	
	Heating Elements
106666	
	Motor
106667	
	Solenoid
106668	
	Coil
106669	

Electrical Symbols (cont'd)

Symbol	Description
	Antenna
106670	
	Shield
106671	
	Switches
106672	
	Single Pole Single Throw Relay
106673	
	Single Pole Double Throw Relay
106674	

General Electrical Diagnosis Procedures

Basic Knowledge Required

Without a basic knowledge of electricity, it will be difficult to use the diagnostic procedures contained in this section. You should understand the basic theory of electricity and know the meaning of voltage (volts), current (amps) and resistance (ohms). You should understand what happens in a circuit with an open or a shorted wire. You should be able to read and understand a wiring diagram.

Refer to *Strategy Based Diagnosis* in General Information in order to properly diagnose and repair the customer concern.

Checking Aftermarket Accessories

Do not connect aftermarket accessories into the following circuits:

Caution: Refer to *SIR Service Precautions* *Caution in Cautions and Notices*.

- SIR circuits, all such circuits are indicated on circuit diagrams with the SIR symbol.

Notice: Refer to *OBD II Symbol Description* *Notice in Cautions and Notices*.

- OBDII circuits, all such circuits are indicated on circuit diagrams with the OBDII 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.

- *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 for Continuity*
- *Testing for Short to Ground*
- *Testing for a Short to Voltage*

Using Connector Test Adapters

Notice: Do not insert test equipment probes into any connector or fuse block terminal. The diameter of the test probes will deform most terminals. A deformed terminal can cause a poor connection, which can result in system failures. Always use the J 35616-A Connector Test Adapter Kit or the J 42675 Flat Wire Probe Adapter Kit in order to frontprobe terminals. Do not use paper clips or other substitutes as they can damage terminals and cause incorrect measurements.

Probing Electrical Connectors

Important: Always be sure to reinstall the Connector Position Assurance (CPA) and Terminal Position Assurance (TPA) when reconnecting connectors or replacing terminals.

Frontprobe

Disconnect the connector and probe the terminals from the mating side (front) of the connector.

Notice: Do not insert test equipment probes into any connector or fuse block terminal. The diameter of the test probes will deform most terminals. A deformed terminal can cause a poor connection, which can result in system failures. Always use the J 35616-A Connector Test Adapter Kit or the J 42675 Flat Wire Probe Adapter Kit in order to frontprobe terminals. Do not use paper clips or other substitutes as they can damage terminals and cause incorrect measurements.

Backprobe

Do not disconnect the connector and probe the terminals from the harness side (back) of the connector.

Important:

- Backprobe connector terminals only when specifically required in diagnostic procedures.
- Do not backprobe a sealed (Weather Pack®) connector, less than a 280 series Metri-Pack connector, a Micro-Pack connector, or a flat wire (dock and lock) 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.

Troubleshooting with a Digital Multimeter

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

Important: Circuits which include any solid state control modules, such as the PCM, should only be tested with a 10 megohm or higher impedance digital multimeter such as the J 39200.

The J 39200 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, a DMM indicates how much voltage is present.

The ohmmeter function on a DMM shows how much resistance exists between two points along a circuit. Low resistance in a circuit means good continuity.

Important: 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:

- Backprobe 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

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

A test lamp can simply and quickly test a low impedance circuit for voltage.

The J 34142-B Test Lamp is Micro-Pack compatible and comprised of a 12 volt light bulb with an attached pair of leads.

To properly operate this tool use the following procedure.

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.

Using Fused Jumper Wires

Important: A fused jumper may not protect solid state components from being damaged.

The J 36169-A fused jumper includes small clamp 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

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

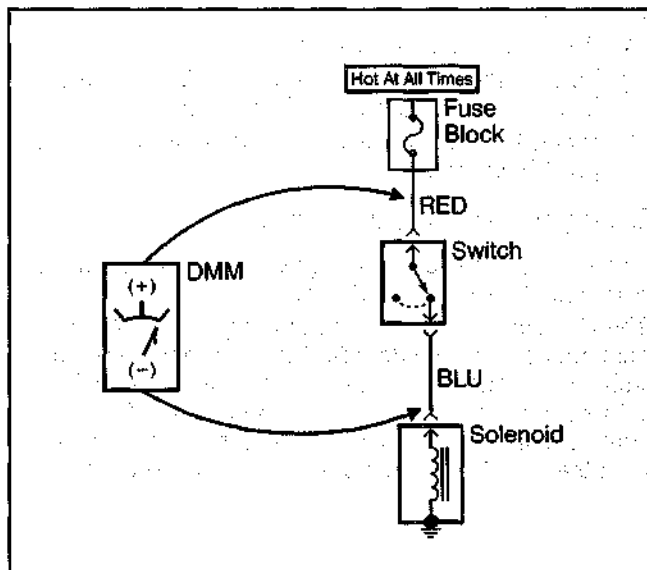
The following procedure measures the voltage at a selected point in a circuit.

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.
 - 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 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

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

The following procedure determines the difference in voltage potential between two points.



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1. Set the rotary dial of the 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 two points.

Measuring Frequency

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

The following procedure determines the frequency of a signal.

Important: Connecting the 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 rotary dial of 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. Press the Hz button on the DMM.
6. The DMM will display the frequency measured.

Testing for Continuity

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

The following procedures verify good continuity in a circuit.

With a DMM

1. Set the rotary dial of 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. Press the MIN MAX button 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 and a tone is heard, the circuit has good continuity.

With a Test Lamp

Important: 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

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

The following procedures test for a short to ground in a circuit.

With a 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

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

Notice: Refer to *Test Probe Notice* in Cautions and Notices.

The following procedure tests for a short to voltage in a circuit.

1. Set the rotary dial of the DMM to the V (DC) position.
2. Connect the positive lead of the DMM to one end of the circuit to be tested.

3. Connect the negative lead of the DMM to a good ground.
4. Turn ON the ignition and operate all accessories.
5. If the voltage measured is greater than 1 volt, there is a short to voltage in the circuit.

Testing for Intermittent and Poor Connections

Most intermittents are caused by faulty electrical connections or wiring. Inspect for the following items:

- Wiring broken inside the insulation.
- Poor connection between the male and female terminal at a connector. Refer to *Testing for Proper Terminal Contact* below for the specific procedure.
- 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.
- Wire insulation which is rubbed through. This causes an intermittent short as the bare area touches other wiring or parts of the vehicle.
- Refer to *Testing for Electrical Intermittents* for test procedures to detect intermittent open, high resistance, short to ground, and short to voltage conditions.

Testing for Proper Terminal Contact

It is important to test terminal contact at the component and any in-line 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, 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.

Round Wire Connectors

Follow the procedure below to test terminal contact of Metri-Pack or 56 series terminals. Refer to the *J 38125-B* Terminal Repair Kit or the *J 38125-4* Instruction Manual for terminal identification.

Follow the procedure below in order to test terminal contact.

1. Separate the connector halves.
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 from the *J 38125-B*, test that the retention force is significantly different between a good terminal and a suspect terminal. Replace the female terminal in question.

Flat Wire (Dock and Lock) Connectors

There are no serviceable parts for flat wire (dock and lock) 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 from the *J 42675* Flat Wire Probe Adapter Kit on the flat wire harness connector in order to test the circuit in question.

Inducing Intermittent Fault Conditions

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

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*. You may need to load the vehicle in order to duplicate the concern. This may require the use of weights, floorjacks, 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 Peak 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 won't 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.

Salt Water Spray

Some compounds possess the ability to conduct electricity when dissolved in water such as ordinary salt. By mixing table salt with water in sufficient quantities, you can enhance the conductive properties of water so that any circuit which may be sensitive to moisture will more readily fail when liberally sprayed with this mixture.

Mixing 12 ounces of water with approximately 1 tablespoon of salt will yield a salt solution of 5%. Fill a normal spray bottle with this mixture. This mixture is sufficient to enhance the water's own conductivity. This may cause the circuit to fail more easily when sprayed. Once the mixture is completed, spray the suspect area liberally with the solution. Then, while monitoring either a scan tool or DMM, manipulate the harness as discussed previously.

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 0°F from one end and 160°F from the other. This is ideally suited for localized cooling needs.

Once the vehicle, component, or harness has been sufficiently cooled, manipulate the harness or components in an effort to duplicate the concern.

Testing for Electrical Intermittents

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

If the fault is not identified, perform the procedure below using the MIN MAX feature on the J 39200 DMM. This feature allows you to manipulate the circuit without having to watch the J 39200. The J 39200 will generate an audible tone when a change is detected.

Important: The J 39200 must be used in order to perform the following procedure since the J 39200 can monitor current, resistance or voltage while recording the minimum (MIN), and maximum (MAX) values measured.

1. Connect the J 39200 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 J 39200 to the circuit.
2. Set the rotary dial of the J 39200 to the V (AC) or V (DC) position.
3. Press the range button of the J 39200 in order to select the desired voltage range.
4. Press the MIN MAX button of the J 39200. The J 39200 displays 100 ms RECORD and emits an audible tone (beep).

Important: 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.

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.

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 once in order to display the MAX value and note the value.
8. Press the MIN MAX button again in order to display the MIN value 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 volt 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 volt an intermittent open or high resistance condition does not exist.

Scan Tool Snapshot Procedure

Snapshot is a recording of what a control module on the vehicle was receiving for information while the snapshot is being made. A snapshot may be used to analyze the data during the time a vehicle condition is current. This allows you to concentrate on making the condition occur, rather than trying to view all the data in anticipation of the fault. The snapshot contains information around a trigger point that you have determined. Only a single data list may be recorded in each snapshot. The Scan Tool has the ability to store two snapshots. The ability to record two snapshots allows comparing hot versus cold and good versus bad vehicle scenarios. The snapshots are stored on a 'first in, first out' basis. If a third snapshot is taken, the first snapshot stored in the memory will be lost.

Snapshots can be one of two types:

- Snapshot - taken from the Snapshot menu choice
- Quick Snapshot - taken from the Data Display soft key choice (Does not contain DTC information)

When a snapshot is taken, it is recorded on the memory card and may contain as many as 1200 frames of information. Because the snapshot is recorded onto the memory card, snapshots are not lost if the Scan Tool is powered down.

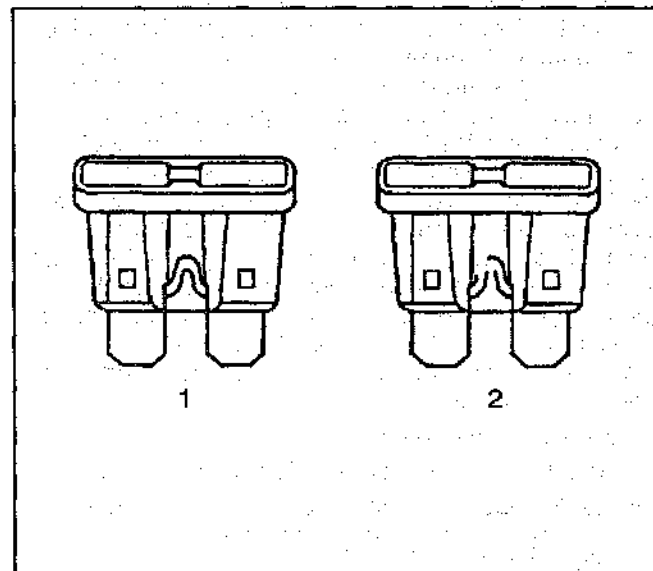
The snapshot replay screen has a plot soft key that can be of great value for intermittent diagnosis. The snapshot plot feature can help you to quickly determine if a sensor is outside of its expected values by plotting three parameters at a time. The data will be displayed both graphically and numerically showing the minimum and maximum values for all frames captured. This is helpful, especially if the fault occurs only once and does not set a DTC.

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:

- *Circuit Protection - Fuses*
- *Circuit Protection - Circuit Breakers*
- *Circuit Protection - Fusible Links*
- *Repairing Damaged Wire Insulation*
- *Splicing Copper Wire Using Splice Clips*
- *Splicing Copper Wire Using Splice Sleeves*
- *Splicing Twisted or Shielded Cable*
- *Splicing Inline Harness Diodes*
- *Heated Oxygen Sensor (HO2S) Wiring Repairs*
- *SIR/SRS Wiring Repairs*
- *Flat Wire Repairs*

Circuit Protection - Fuses



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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 the element in the fuse for an open (break). If not broken, also check for continuity using a J 39200 DMM or a continuity tester. If the element is open 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
30	Light Green
40	Orange or Amber
60	Blue
50	Red

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 two.

Circuit Protection - Fusible Links

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 J 39200 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 gage size.

Repairing a Fusible Link

Important: Fusible links cut longer than 225 mm (approx. 9 inches) will not provide sufficient overload protection.

Refer to *Splicing Copper Wire Using Splice Clips*.

Repairing Damaged Wire Insulation

If the conductive portion of the wire is not damaged, locate the problem and apply tape around the wire. If the damage is more extensive, replace the faulty segment of the wire. Refer to *Splicing Copper Wire Using Splice Clips* and follow the instruction to repair the wire.

Wire Size Conversion Table

Metric Wire Sizes (mm 2)	AWG Sizes
0.22	24
0.35	22
0.5	20
0.8	18
1.0	16
2.0	14
3.0	12
5.0	10
8.0	8
13.0	6
19.0	4
32.0	2
50.0	1/0

Splicing Copper Wire Using Splice Clips

Tools Required

J 38125-B Terminal Repair Kit

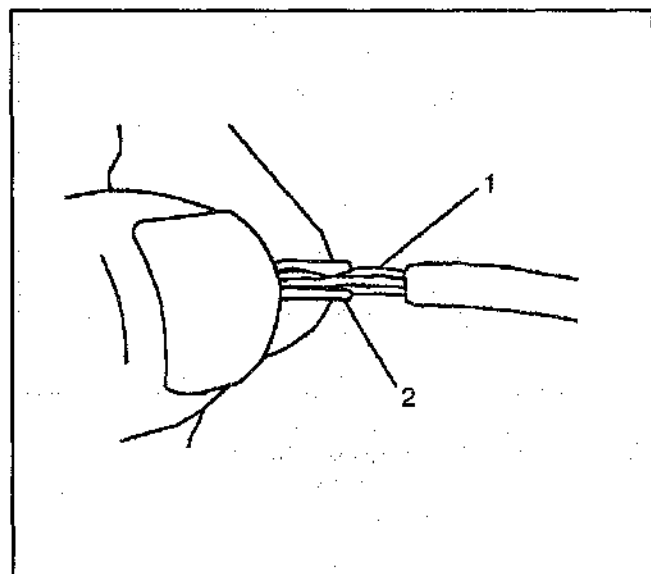
- Open the harness.
 - If the harness is taped, remove the tape.
 - To avoid wiring insulation damage, use a sewing ripper in order to cut open the harness.
 - If the harness has a black plastic conduit, pull out the desired wire.
- Cut the wire.
 - Cut as little wire off the harness as possible.
 - Ensure that each splice is at least 40 mm (1.5 in) away from other splices, harness branches and connectors. This helps prevent moisture from bridging adjacent splices and causing damage.

- Select the proper size and type of wire.
 - The wire must be of equal or greater size than the original (except fusible link).
 - The wire's insulation must have the same or higher temperature rating.
 - Use general purpose insulation for areas that are not subject to high temperatures.
 - Use a cross-linked polyethylene insulated wire for areas where high temperatures are expected.

Important: Use Cross-linked polyethylene wire to replace PVC, but do not replace cross-linked polyethylene with PVC.

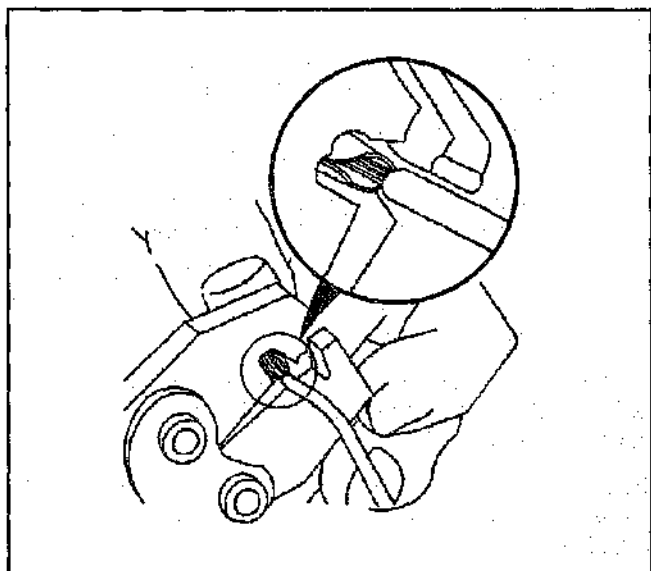
Cross-linked polyethylene wire is not fuel resistant. Do not use to replace wire where there is the possibility of fuel contact.

- Strip the insulation.
 - Select the correct size opening in the wire stripper or work down from the largest size.
 - Strip approximately 7.5 mm (5/16 in) of insulation from each wire to be spliced.
- Select the proper clip to secure the splice. Follow the instructions in the J 38125-B Terminal Repair Kit in order to determine the proper clip size crimp tool and anvil.
- Overlap the two stripped wire ends and hold them between thumb and forefinger.

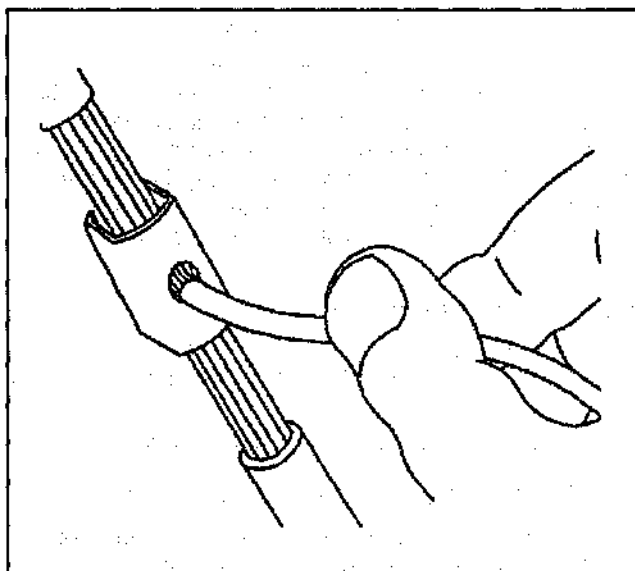


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- Center the splice clip (2) over the stripped wires (1) and hold the clip in place.
 - Ensure that the wires extend beyond the clip in each direction.
 - Ensure that no insulation is caught under the clip.



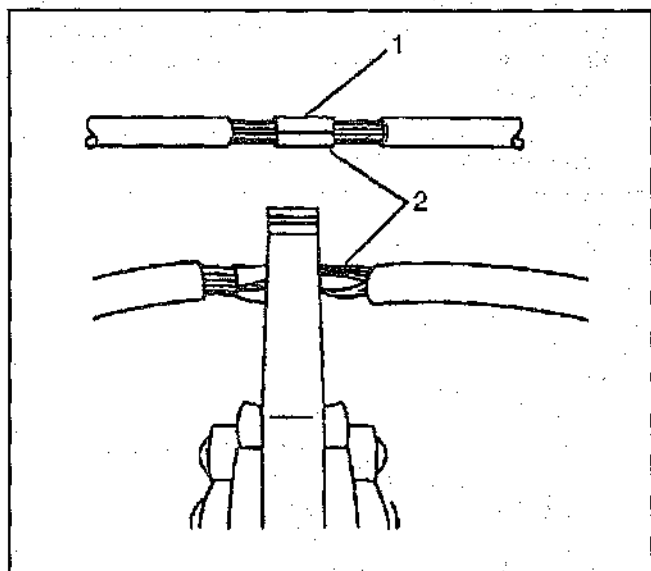
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8791

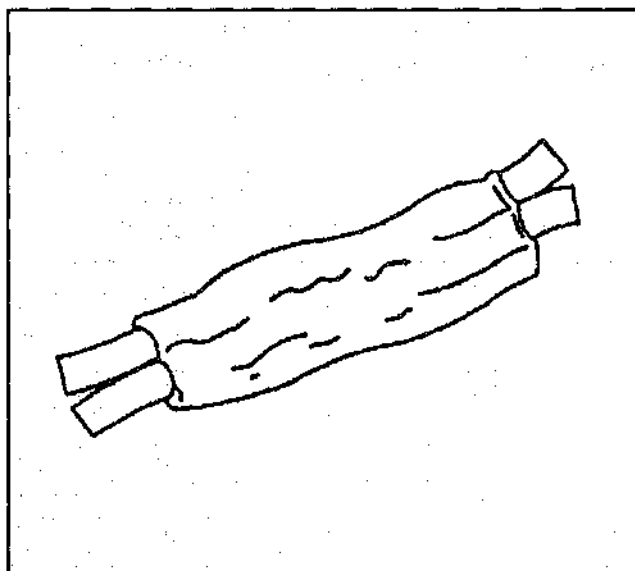
8. Center the crimp tool over the splice clip and wires.
9. Apply steady pressure until the crimp tool closes. Ensure that no strands of wire are cut.

11. Apply 60/40 rosin core solder to the opening in the back of the clip. Follow the manufacturer's instructions for the solder equipment.



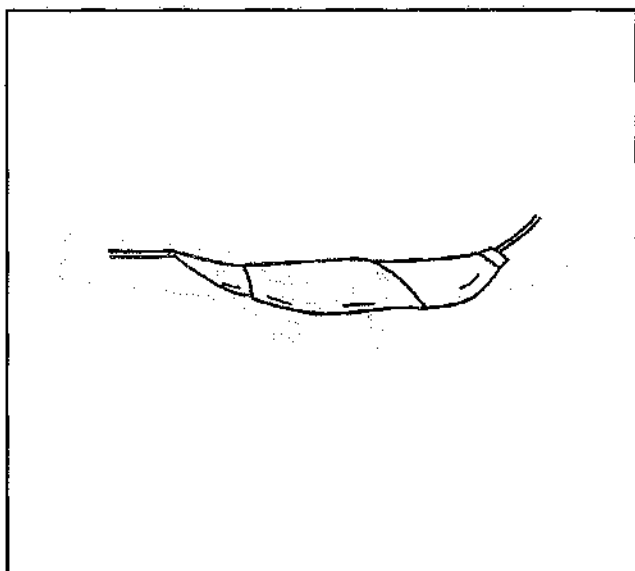
8790

10. Crimp the splice on each end (2).



8792

12. Tape the splice. Roll on enough tape in order to duplicate the thickness of the insulation on the existing wires.



8795

13. Additional tape can be applied to the wire if the wire does not belong in a conduit or another harness covering. Use a winding motion in order to cover the first piece of tape.

Splicing Copper Wire Using Splice Sleeves

Use crimp and seal splice sleeves to form a one-to-one splice on all types of insulation except tefzel and coaxial to form a one-to-one splice. Use tefzel and coaxial where there is special requirements such as moisture sealing. Follow the instructions below in order to splice copper wire using crimp and seal splice sleeves.

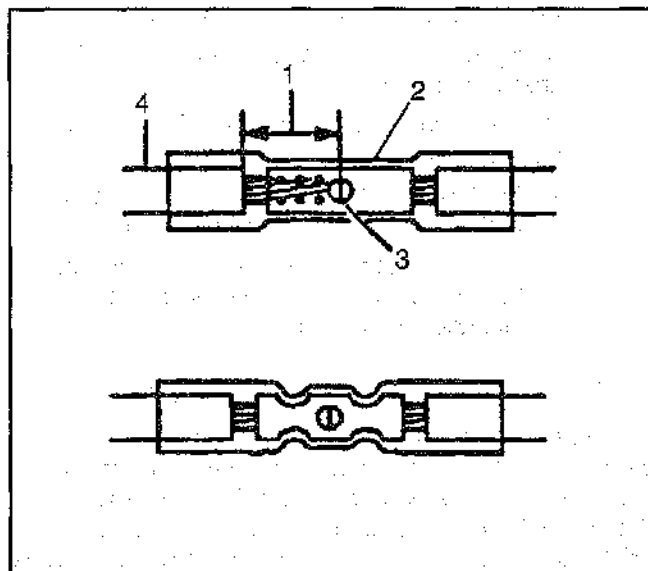
Crimp and Seal Splice Table

Splice Sleeve Color	Crimp Tool Nest Color	Wire Gauge AWG/(Metric)
Salmon	Red	20, 18 / (0.5, 0.8)
Blue	Blue	16, 14 / (1.0, 2.0)
Yellow	Yellow	12, 10 / (3.0, 5.0)

Tools Required

J 38125-B Terminal Repair Kit

- Open the harness.
 - If the harness is taped, remove the tape.
 - To avoid wiring insulation damage, use a sewing ripper in order to cut open the harness.
 - If the harness has a black plastic conduit, pull out the desired wire.
- Cut the wire.
 - Cut as little wire off the harness as possible.
 - Ensure that each splice is at least 40 mm (1.5 in) away from other splices, harness branches and connectors. This helps prevent moisture from bridging adjacent splices and causing damage.



8796

- Select the proper size and type of wire.
 - The wire must be of equal or greater size than the original.
 - The wire's insulation must have the same or higher temperature rating (4).
 - Use general purpose insulation for areas that are not subject to high temperatures.
 - Use a cross-linked polyethylene insulated wire for areas where high temperatures are expected.

Important: Use Cross-linked polyethylene wire to replace PVC, but do not replace cross-linked polyethylene with PVC.

Cross-linked polyethylene wire is not fuel resistant. Do not use to replace wire where there is the possibility of fuel contact.

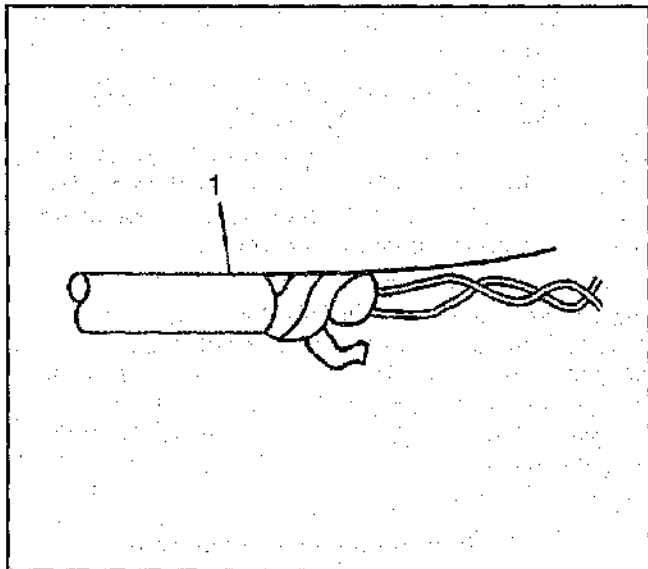
- Strip the insulation.
 - Select the correct size opening in the wire stripper or work down from the largest size.
 - Strip approximately 7.5 mm (5/16 in) of insulation from each wire to be spliced (1).
- Select the proper splice sleeve (2) and the required crimp nest tool, refer to the Crimp and Seal Splice Table.
- Place the nest tool in the J 38125 crimp tool.
- Place the splice sleeve in the crimp tool nest so that the crimp falls at point 1 on the splice.
- Close the hand crimper handles slightly in order to hold the splice sleeve firmly in the proper crimp tool nest.
- Insert the wires into the splice sleeve until the wire hits the barrel stop. The splice sleeve has a stop in the middle of the barrel in order to prevent the wire from passing through the splice (3).
- Close the handles of the J 38125 until the crimper handles open when released. The crimper handles will not open until the proper amount of pressure is applied to the splice sleeve.

11. Shrink the insulation around the splice.

- Using the heat torch apply heat to the crimped area of the barrel.
- Gradually move the heat barrel 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.

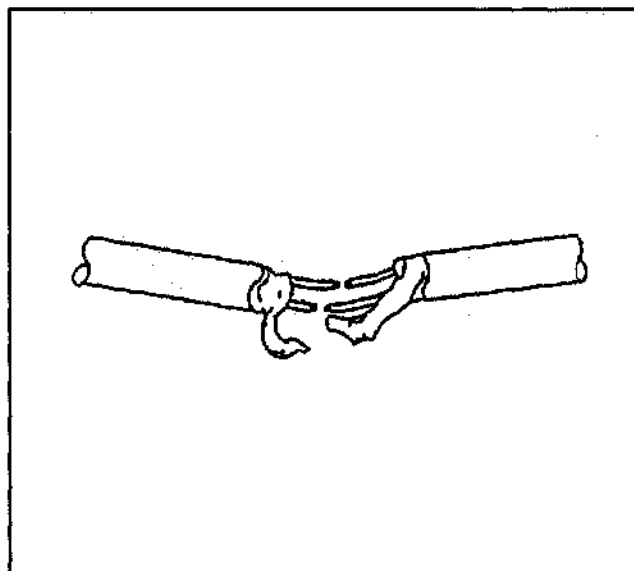
Splicing Twisted or Shielded Cable

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-Bose® 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.



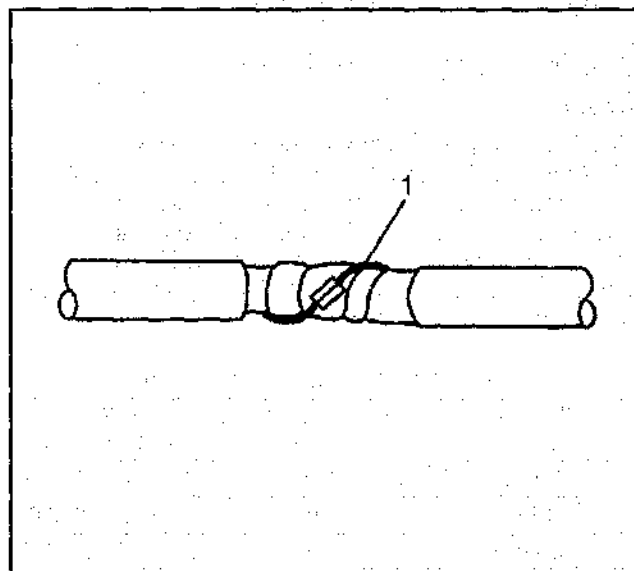
8793

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.



8799

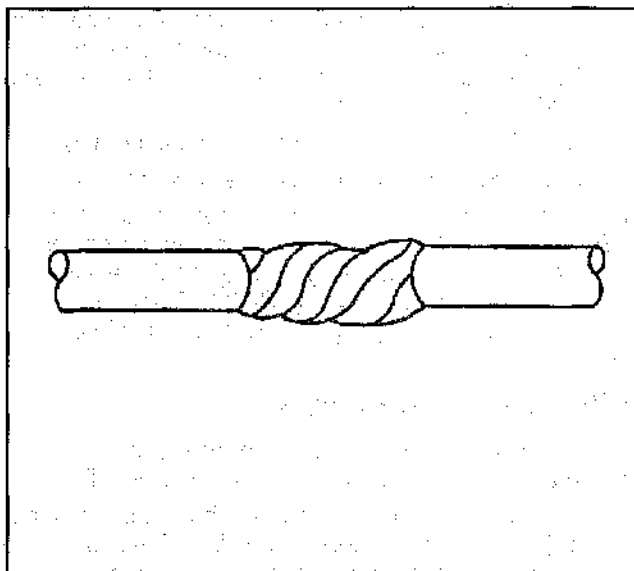
3. Prepare the splice. Untwist the conductors and follow the splicing instructions for copper wire. Staggering the splices by 65 mm is recommended.



8800

4. Re-assemble the cable.
 - Rewrap the conductors with the 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 mylar tape.

Important: Apply the mylar tape with the aluminum side inward. This ensures good electrical contact with the drain wire.



8801

5. Tape over the entire cable. Use a winding motion when you apply the tape.

Splicing Inline Harness Diodes

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 ripper 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.

Important: 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 manual 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.
9. Tape the diode to the harness or connector using electrical tape.

Important: To prevent shorts to ground and water intrusion, completely cover all exposed wire and diode attachment points with tape.

Heated Oxygen Sensor (HO2S) Wiring Repairs

Notice: 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.

The engine harness may be repaired using the J 38125-B.

SIR/SRS Wiring Repairs

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 system wiring, and the wiring components (such as connectors and terminals).

Important: Do not use the terminals in the kit in order to replace damaged SIR/SRS system terminals unless specifically indicated by the terminal package.

Tools Required

J 38125-B Terminal Repair Kit

The tool kit *J 38125-B* contains the following items:

- Special sealed splices - in order to repair the SIR/SRS system wiring
- A wire stripping tool
- A special crimping tool
- A heat torch
- An instruction manual

The sealed splices 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 *J 38125-B* also serves as a generic terminal repair kit. The kit contains the following items:

- A large sampling of common electrical terminals
- The correct tools in order to attach the terminals to the wires
- The correct tools in order to remove the terminals from the connectors

SIR/SRS Connector (Plastic Body and Terminal Metal Pin) Repair

Use the connector repair assembly packs in order to repair the damaged SIR/SRS wire harness connectors and the terminals. Do not use the connector repair assembly pack in order to repair the pigtailed. These kits include an instruction sheet and the sealed splices. Use the sealed splices in order to splice the new wires, connectors, and terminals to the harness. The splice crimping tool is color keyed in order to match the splices from the *J 38125-B*. You must use the splice crimping tool in order to apply these splices.

The terminals in the SIR/SRS system are made of a special metal. This metal provides the necessary contact integrity for the sensitive, low energy circuits. These terminals are only available in the connector repair assembly packs. Do not substitute any other terminals for those in the assembly packs.

If the individual terminals are damaged on the sensing and diagnostic module (SDM) harness connector, use 1 of the following 2 components in order to replace the SDM harness connector:

- The SDM harness connector pigtail assembly
- The SDM harness connector replacement kit

If the individual terminals are damaged on any other SIR/SRS connection, use the appropriate connector repair assembly pack in order to replace the entire connection. Replace the entire SIR/SRS wiring harness, if needed, in order to maintain SIR/SRS circuit integrity.

SIR/SRS Wire Pigtail Repair

Important: Do not make wire, connector, or terminal repairs on components with wire pigtailed.

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

Tools Required

J 38125-B Terminal Repair Kit

Important: Refer to *Wiring Repairs* in *Wiring Systems* 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 sealed splices and splice crimping tool from the *J 38125-B*. Use the following wiring repair procedures in order to ensure the integrity of the sealed splice.

Important: 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.

Splice Sleeve Color	Crimp Tool Nest Color	Wire Gauge mm ² / (AWG)
Salmon (yellow-pink)	Red (1)	0.035-0.8 / (18-20)
Blue	Blue (2)	1.0-2.0 / (14-16)
Yellow	Yellow (3)	3.0-5.0 / (10-12)

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 crimp and sealed splice sleeves on all types of insulation except tefzel and coaxial.
- Do not use the crimp and sealed splice sleeve to form a splice with more than 2 wires coming together.

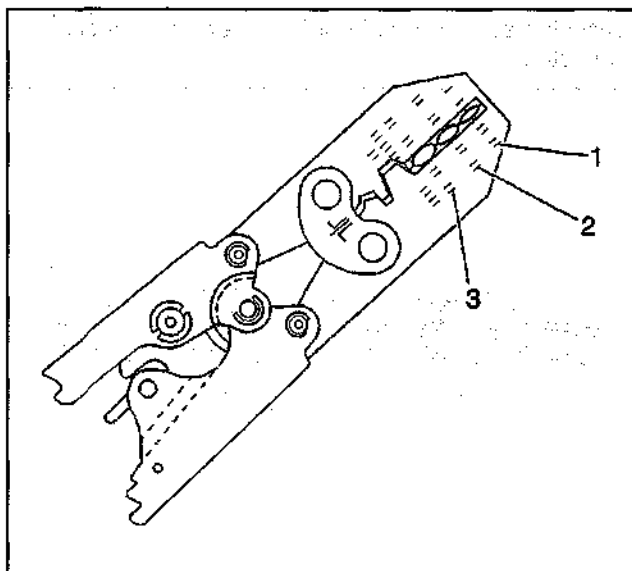
2. Cut as little wire off the harness as possible. You may need the extra length of wire in order to change the location of a splice.

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:

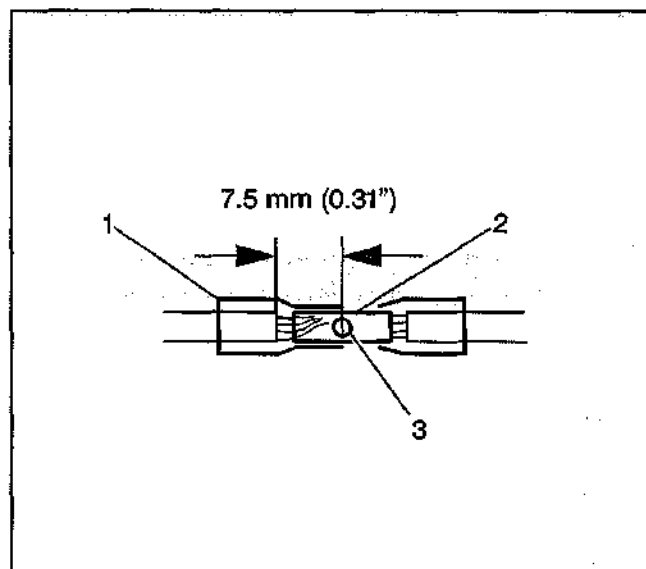
- When adding a length of wire to the existing harness, use the same size wire as the original wire.
- Perform one of the following items in order to find the correct wire size:
 - Find the wire on the schematic and convert the metric size to the equivalent AWG size.
 - Use an AWG wire gauge.
 - If you 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 7.5 mm (0.313 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. Select the proper sealed 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 splice sleeves and the crimp tool nests.



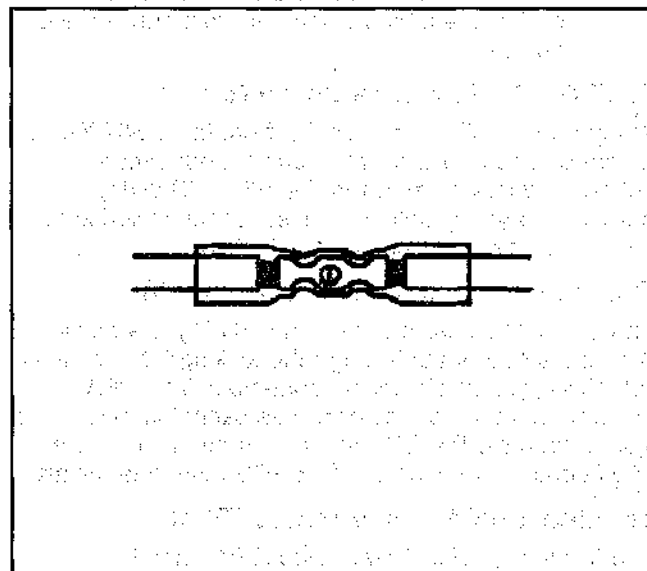
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5. Use the Splice Crimp Tool from the J 38125-B in order to position the splice sleeve in the proper color nest of the Splice Crimp Tool.



68639

6. Place the 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 splice sleeve in the proper nest.



9502

7. Insert the wire into the splice sleeve barrel until the wire hits the barrel stop.
8. 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 splice sleeve. Repeat steps 4 and 5 for the opposite end of the splice.



9503

9. Using the heat torch, apply heat to the crimped area of the barrel.
10. Gradually move the heat barrel 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.

SIR/SRS System Wire Splice Repair

Apply a new splice (not sealed) from the *J 38125-B* if damage occurs to any of the original equipment splices (3 wires or more) in the SIR/SRS wiring harness. Carefully follow the instructions included in the kit for proper splice clip application.

Connector Position Assurance (CPA)

The connector position assurance (CPA) is a small plastic insert that fits through the locking tabs of all the SIR/SRS 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 SIR/SRS mating terminals.

Terminal Position Assurance (TPA)

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 from the connector body unless you remove a terminal for replacement.

Flat Wire Repairs

Notice: 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.

Connector Repairs

The Connector Repairs section contains the following types of connector repair information. Using these elements together will make connector repair faster and easier:

- *Connector Position Assurance Locks.*
- *Terminal Position Assurance Locks.*
- *Push to Seat Connectors.*
- *Pull to Seat Connectors.*
- *Weather Pack Connectors.*
- *Repairing Connector Terminals.*

Connector Position Assurance Locks

The Connector Position Assurance (CPA) is a small plastic insert that fits through the locking tabs of all the 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 SIR mating terminals.

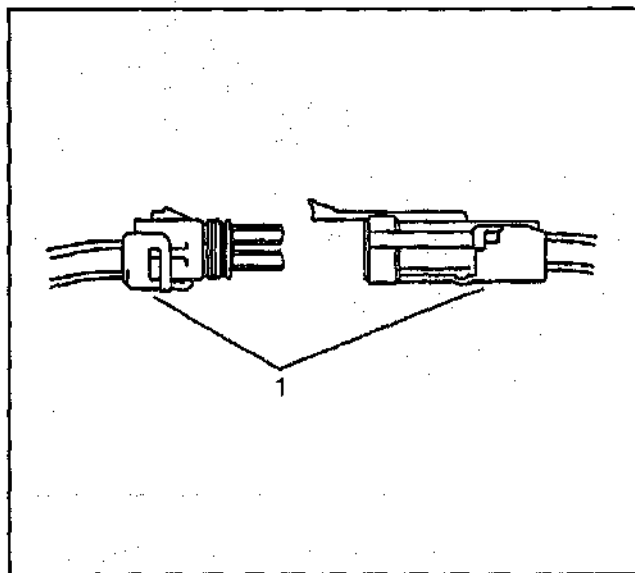
Terminal Position Assurance Locks

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 from the connector body unless you remove a terminal for replacement.

Push to Seat Connectors

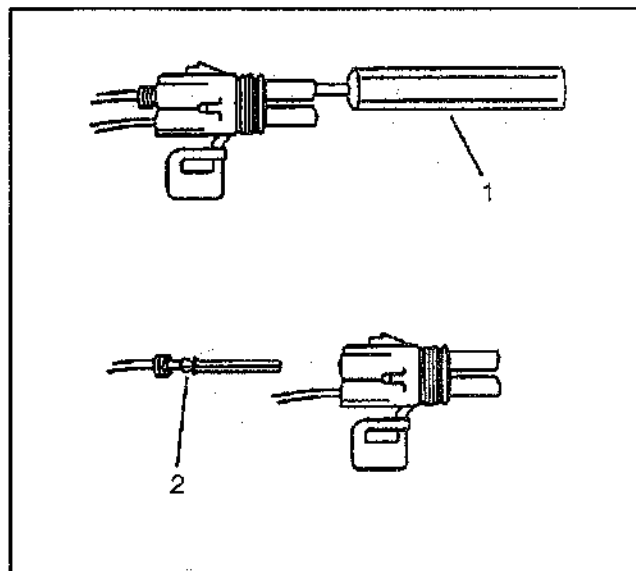
Terminal Removal

Follow the steps below in order to repair push to seat connectors.



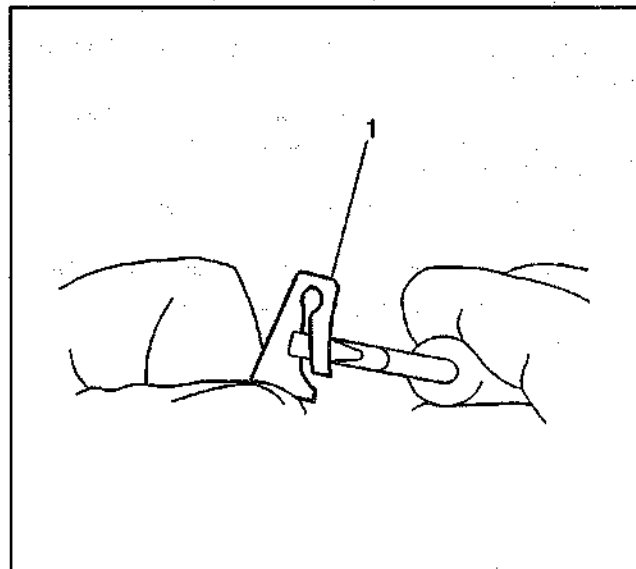
8804

1. Remove the terminal position assurance (TPA) device, the connector position assurance (CPA) device, and/or the secondary lock.
2. Separate the connector halves (1).



8803

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.



8804

5. Re-form the locking device if you are going to reuse the terminal (1).
6. To repair the terminal, refer to Terminal Repair.

Terminal Repair

1. Slip the cable seal away from the terminal.
2. Cut the wire as close to the terminal as possible.
3. Slip a new cable seal onto the wire.
4. Strip 5 mm (3/16 in) of insulation from the wire.
5. Crimp a new terminal to the wire.
6. Solder the crimp with rosin core solder.
7. Slide the cable seal toward the terminal.
8. Crimp the cable seal and the insulation.
9. If the connector is outside of the passenger compartment, apply grease to the connector.

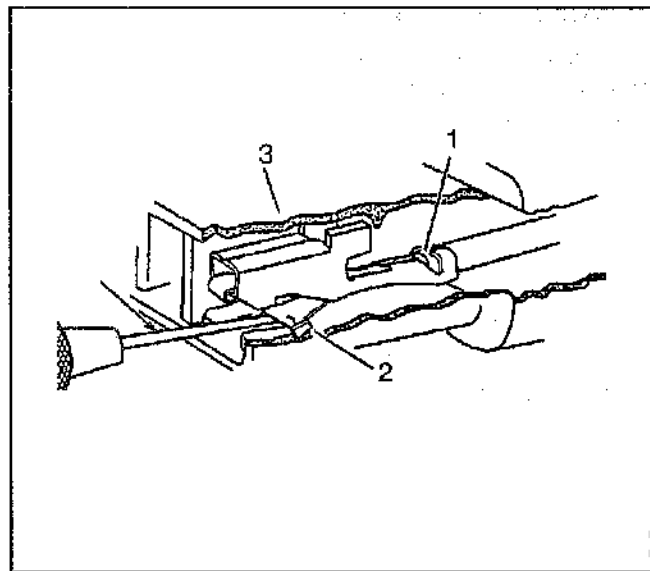
Reinstalling Terminal

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.

Pull to Seat Connectors

Terminal Removal

Follow the steps below in order to repair pull-to-seat connectors.



8805

1. Remove the terminal position assurance (TPA) device, the connector position assurance (CPA) device, and/or the secondary lock.
2. Separate the connector halves.
3. Using the proper pick or removal tool (4) insert into the front of the connector body.
4. Grasp the wire at the back of the connector body and gently pull the terminal (1) from the connector body (3).
5. Inspect the terminal for damage, if damaged refer to Terminal Repair.
6. Reform the locking tang (2) if the terminal is being reused.

Terminal Repair

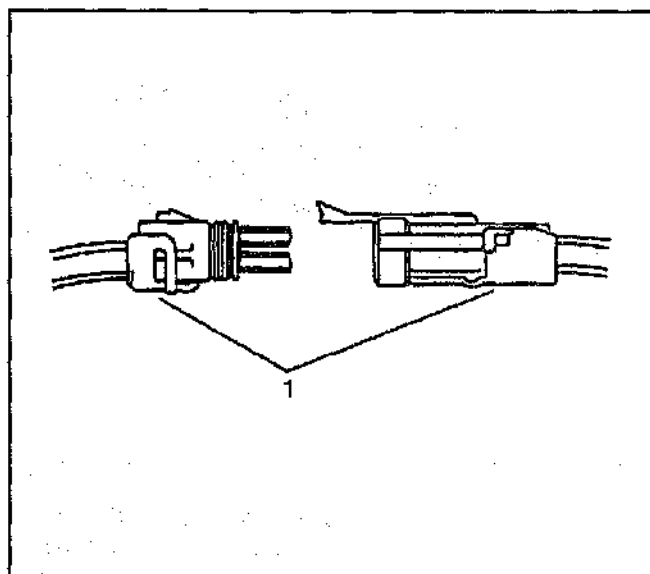
1. Slip the cable seal away from the terminal.
2. Cut the wire as close to the terminal as possible.
3. Slip a new cable seal onto the wire.
4. Strip 5 mm (3/16 in) of insulation from the wire.
5. Crimp a new terminal to the wire.
6. Solder the crimp with rosin core solder.
7. Slide the cable seal toward the terminal.
8. Crimp the cable seal and the insulation.
9. If the connector is outside of the passenger compartment, apply grease to the connector.

Terminal Installation

1. Inspect the terminal for damage. If damaged refer to Terminal Repair.
2. Reform the locking tang (2) if the terminal is being reused.
3. Ensure that the cable seal is kept on the terminal side of the splice.
4. Insert the wire into the back of the connector body. Push until the terminal locking tang locks into the connector body.
5. Install the TPA, CPA and/or the secondary locks.

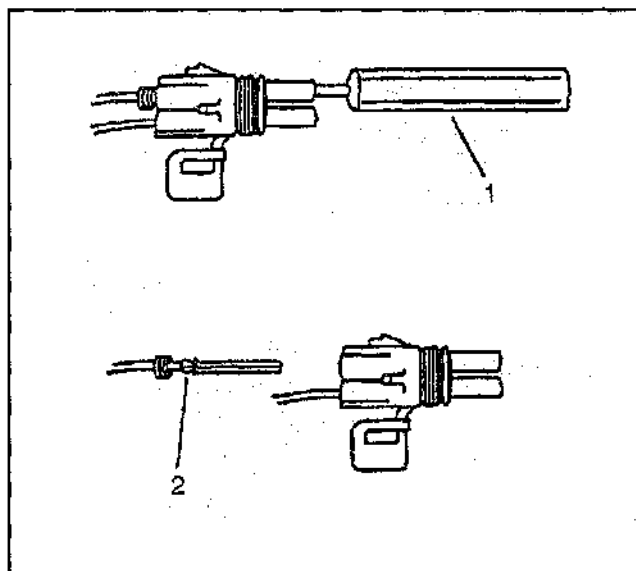
Weather Pack Connectors

The following is the proper procedure for the repair of Weather Pack® Connectors.



8802

- Separate the connector halves (1).
- Open the secondary lock. A secondary lock aids in terminal retention and is usually molded to the connector (1).
- Grasp the wire and push the terminal to the forward most position. Hold the wire in this position.



8803

- Insert the Weather Pack® terminal removal tool into the front (mating end) of the connector cavity until it rests on the cavity shoulder (1).
- Gently pull on the wire to remove the terminal through the back of the connector (2).

Important: Never use force to remove a terminal from a connector.

- Inspect the terminal and connector for damage. Repair as necessary. Refer to *Repairing Connector Terminals*.
- Reform the lock tang (2) and reset terminal in connector body.
- Close secondary locks and join connector halves.
- Verify that circuit is complete and working satisfactorily.
- Perform system check.

Repairing Connector Terminals

Use the following repair procedures in order to repair the following:

- Push to Seat terminals
- Pull to Seat terminals
- Weather Pack® terminals

Some terminals do not require all of the steps shown. Skip the steps that do not apply for your immediate terminal repair. The *J 38125-B* Terminal Repair Kit contains further information.

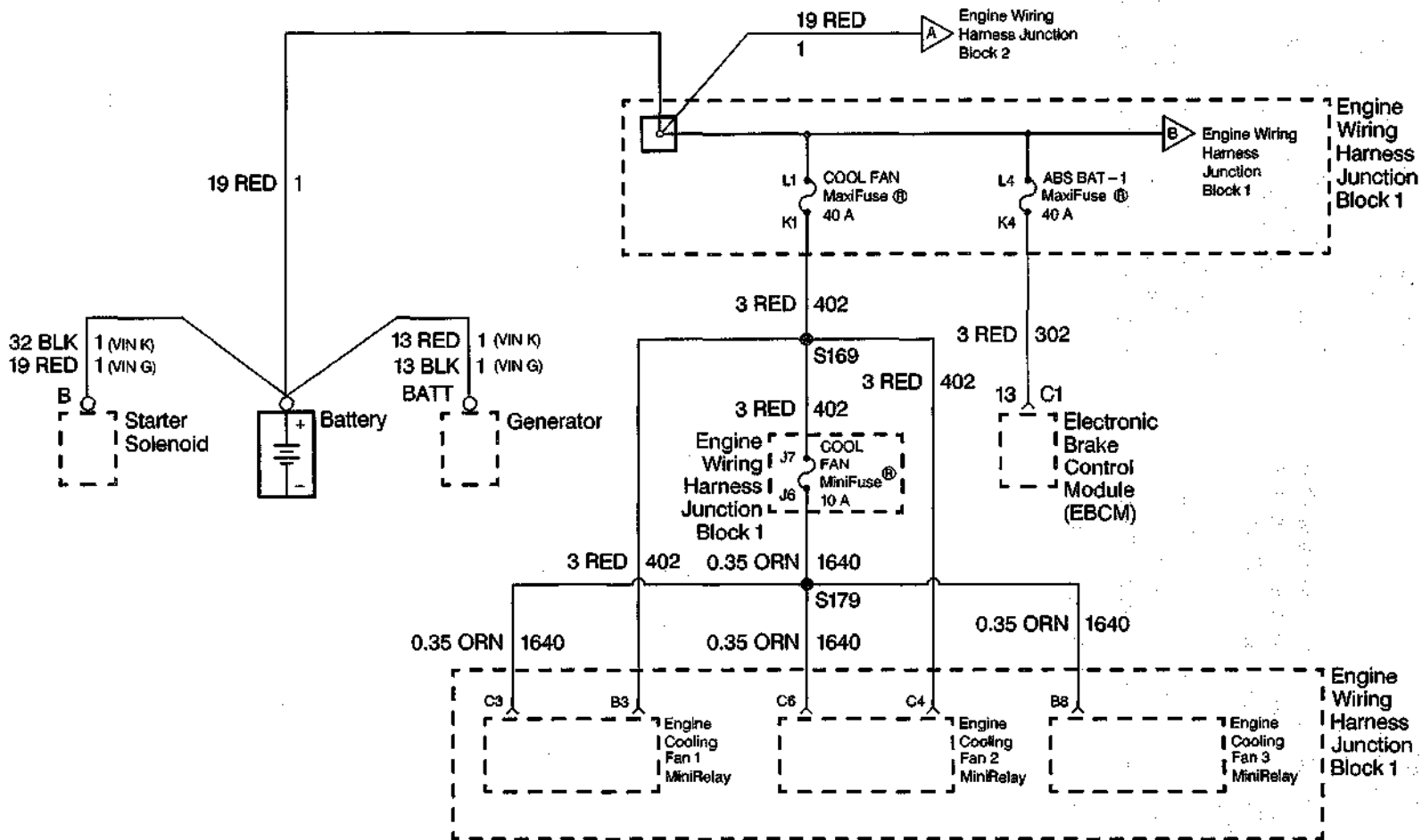
1. Cut off the terminal between the core and the insulation crimp. Minimize any wire loss.

For Weather Pack® terminals, remove the seal.

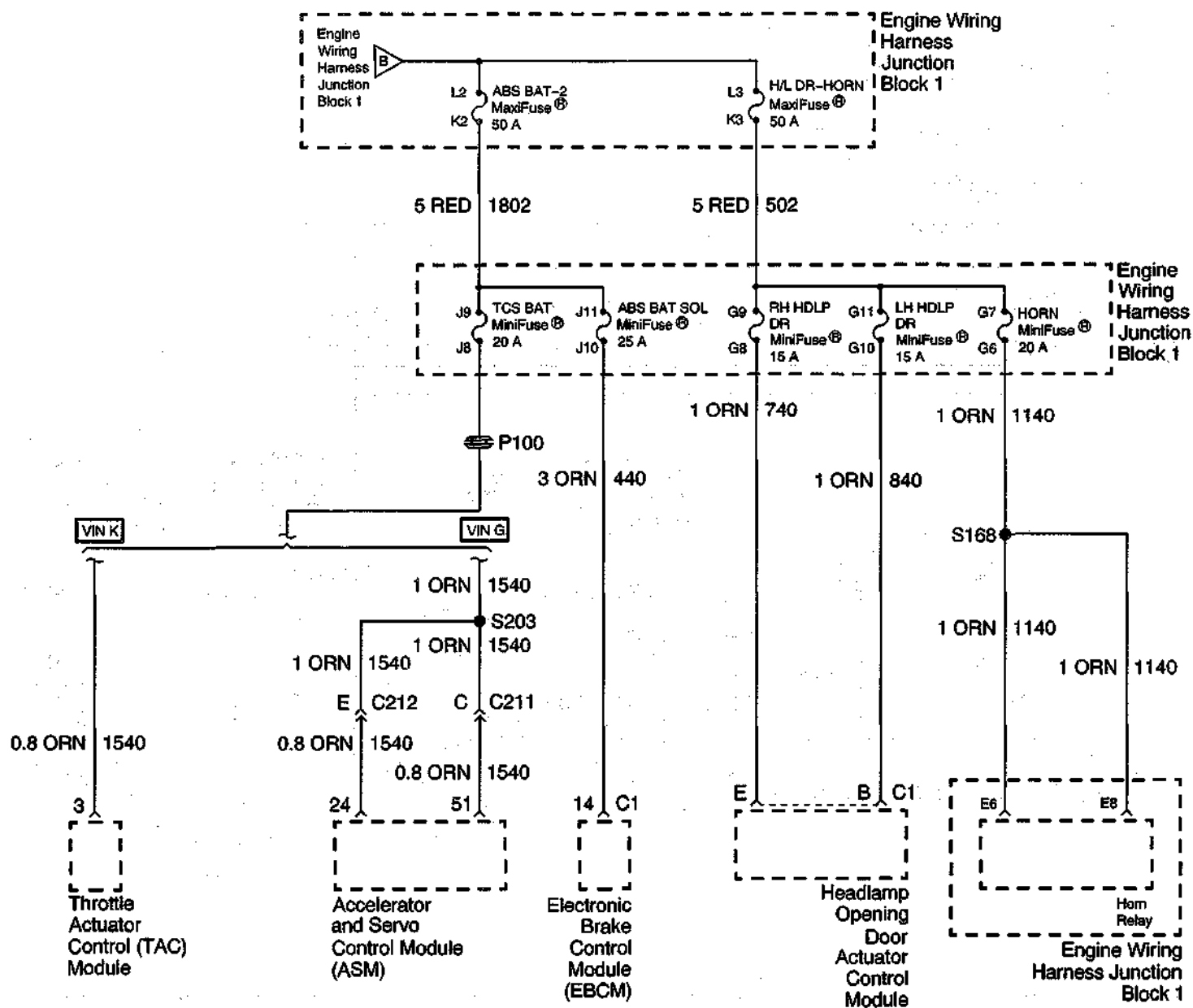
2. Apply the correct seal per gauge size of the wire.
For Weather Pack® terminals, slide the seal back along the wire in order to enable insulation removal.
3. Remove the insulation.
4. For Weather Pack® terminals only, align the seal with the end of the cable insulation.
5. Position the strip in the terminal.
For Weather Pack® terminals, position the strip and seal in the terminal.
6. Hand crimp the core wings.
7. Hand crimp the insulation wings.
For Weather Pack® terminals, hand crimp the insulation wings around the seal and the cable.
8. Solder all of the hand crimp terminals.

Schematic and Routing Diagrams

Power Distribution Schematics (Battery, ABS BAT-1 and COOL FAN Fuses)



Power Distribution Schematics (ABS BAT SOL, ABS BAT-2, HORN, H/L DOOR-HORN, LH HDLP DR, RH HDLP DR, and TCS BAT Fuses)



L_{OC}



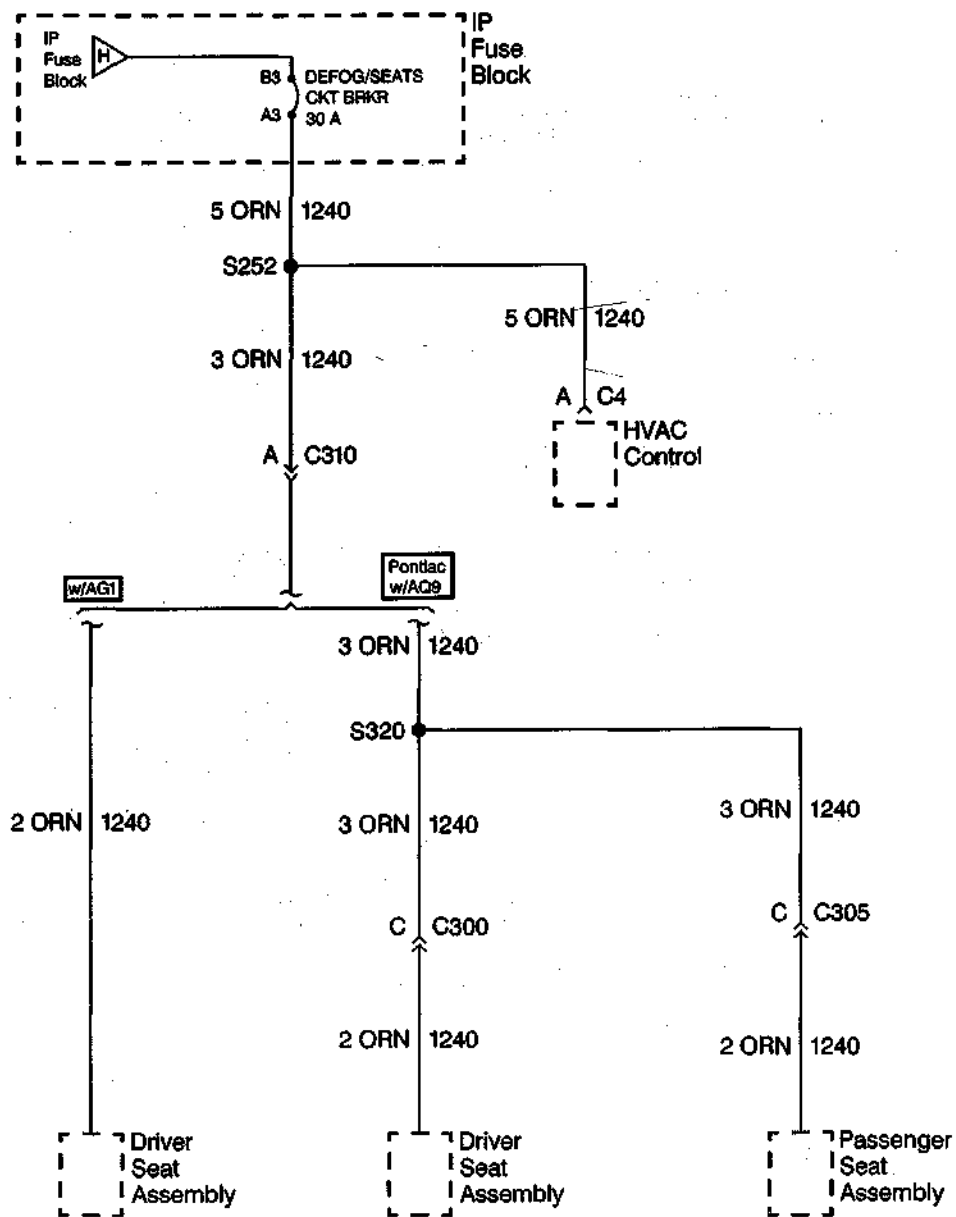
8-404 Wiring Systems



Body and Accessories



Power Distribution Schematics (DEFOG/SEATS Circuit Breaker)

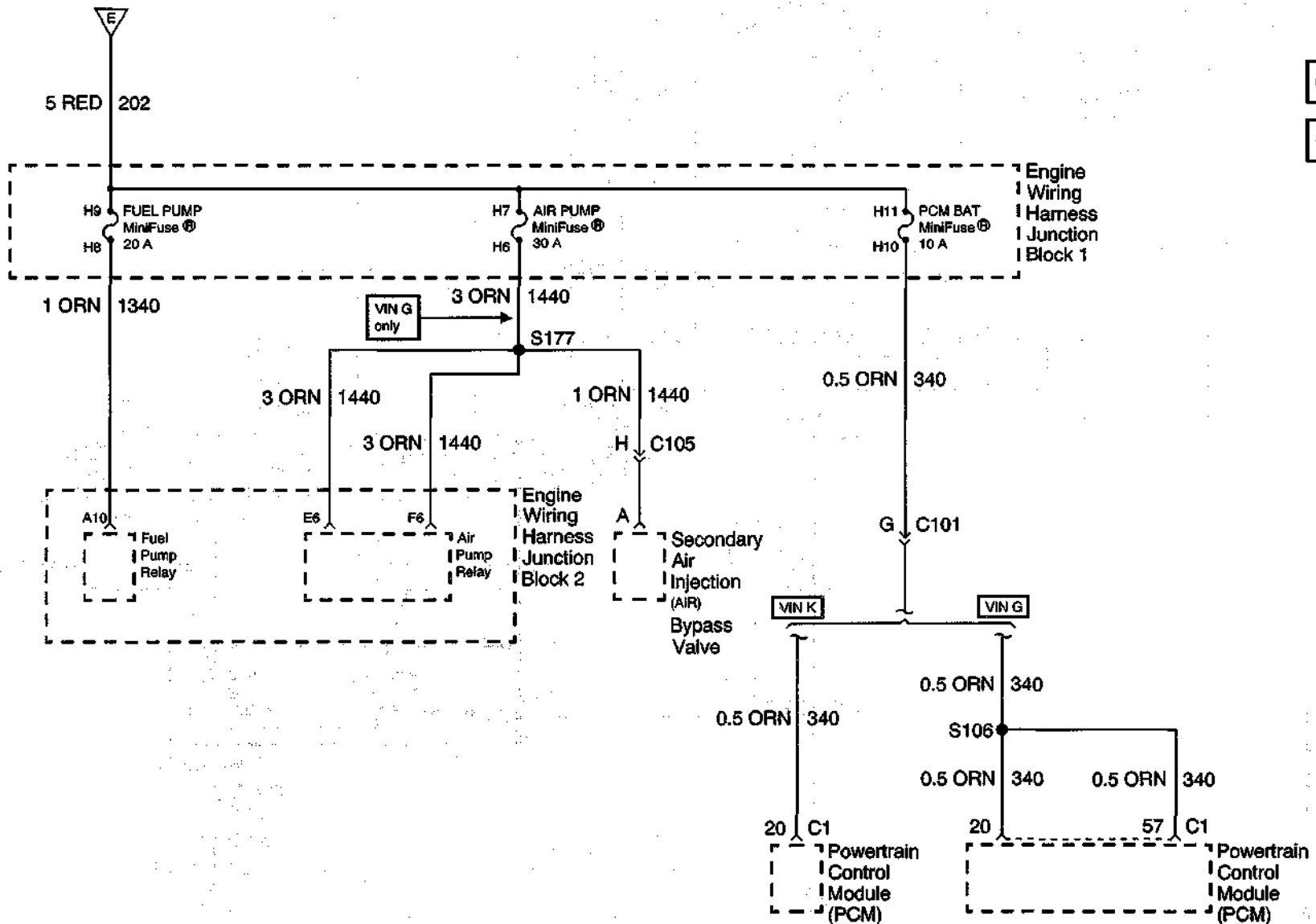


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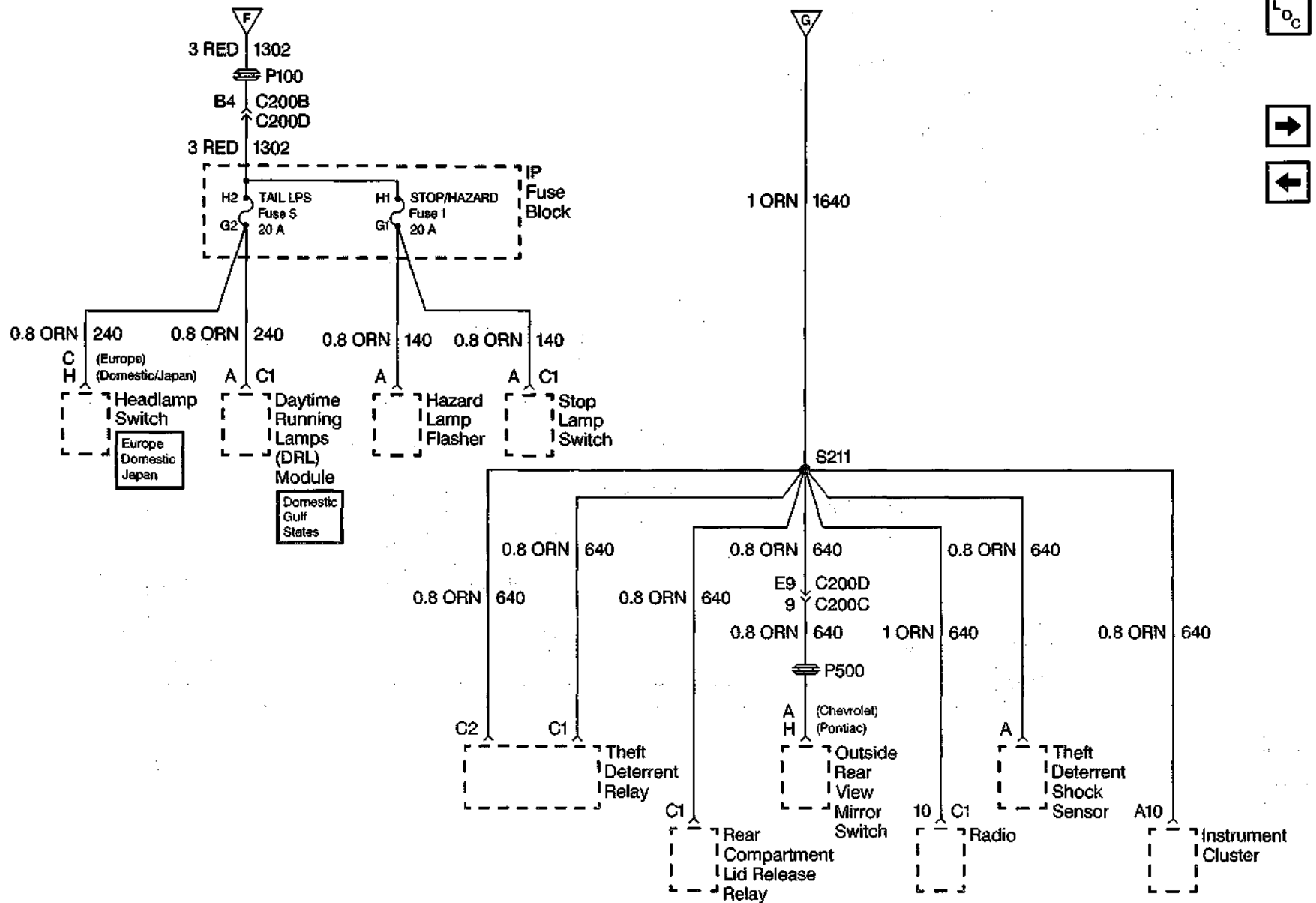


Power Distribution Schematics (AIR PUMP, FUEL PUMP and PCM BAT Fuses)

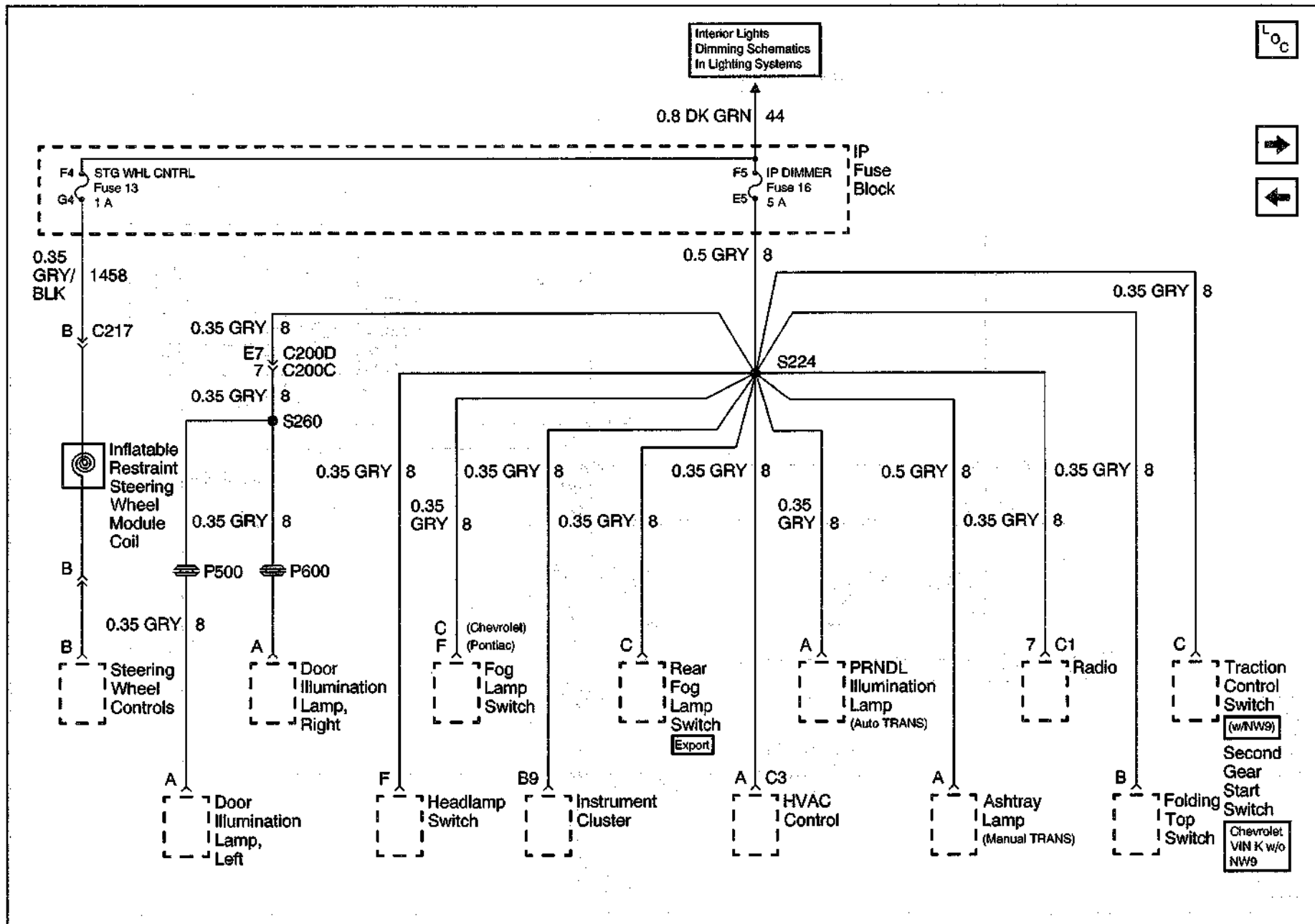
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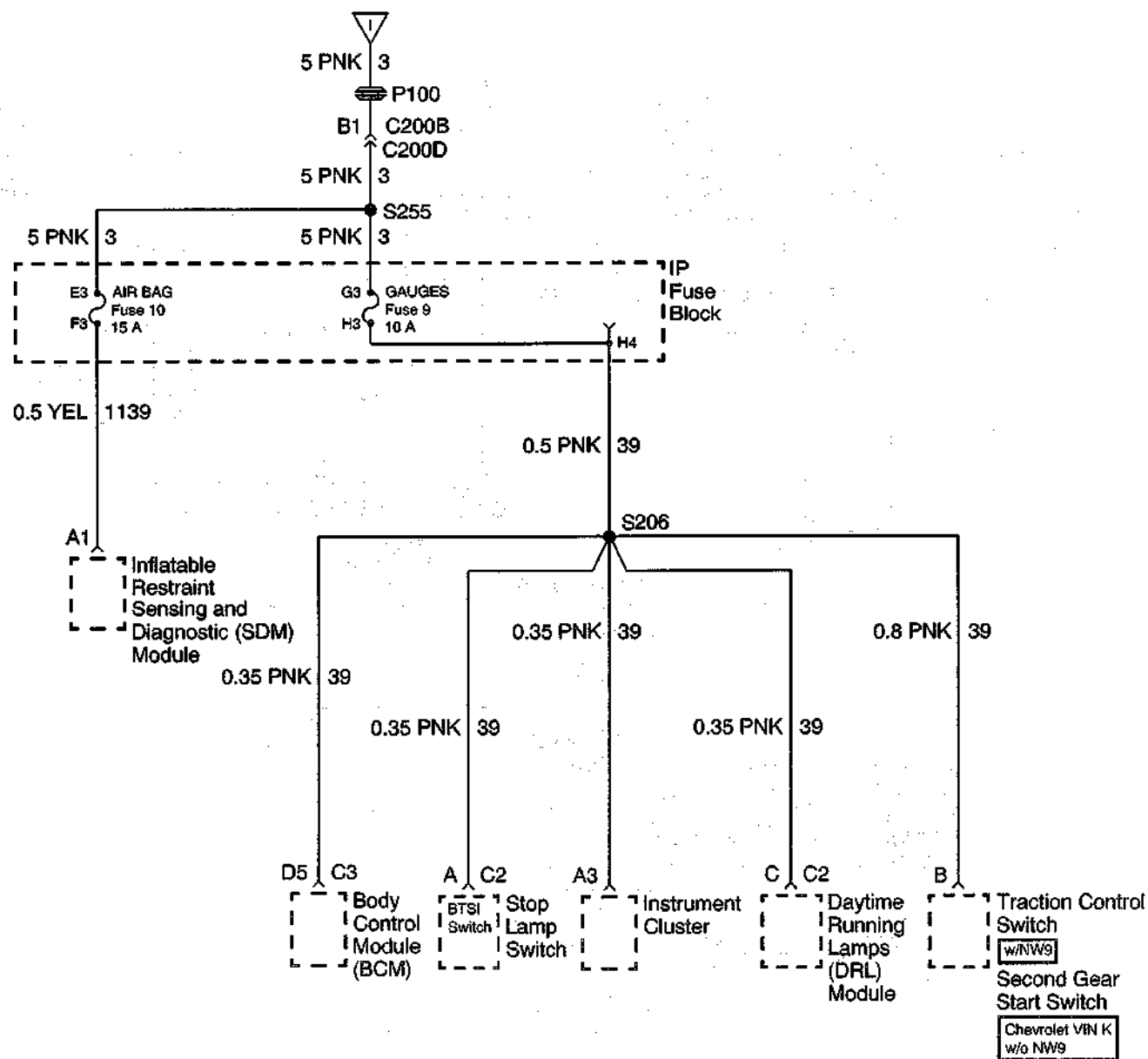
Power Distribution Schematics (TAIL LPS and STOP/HAZARD Fuses)



Power Distribution Schematics (IP DIMMER and STG WHL CNTRL Fuses)



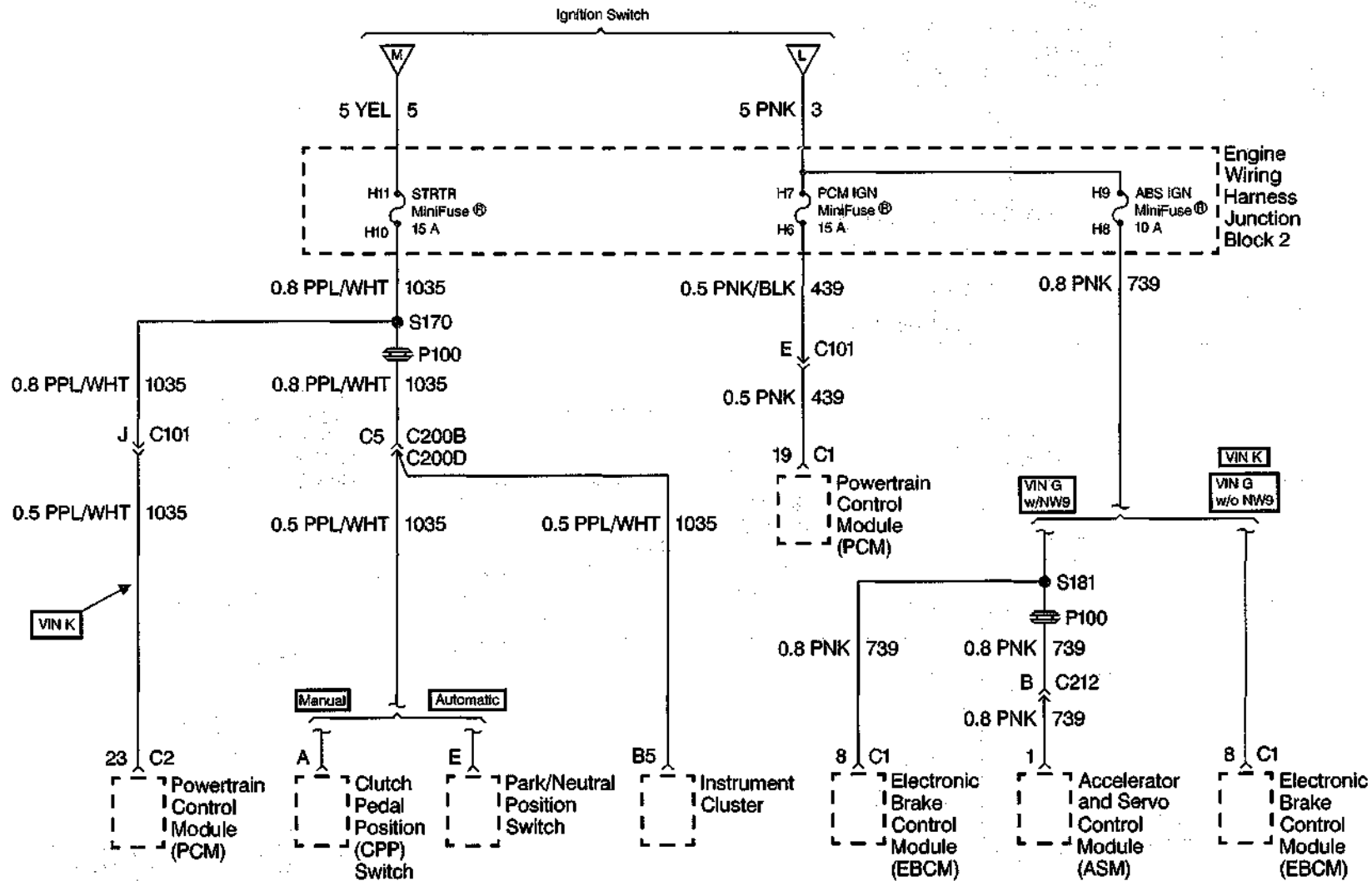
Power Distribution Schematics (AIR BAG and GAUGES Fuses)



8-412 Wiring Systems



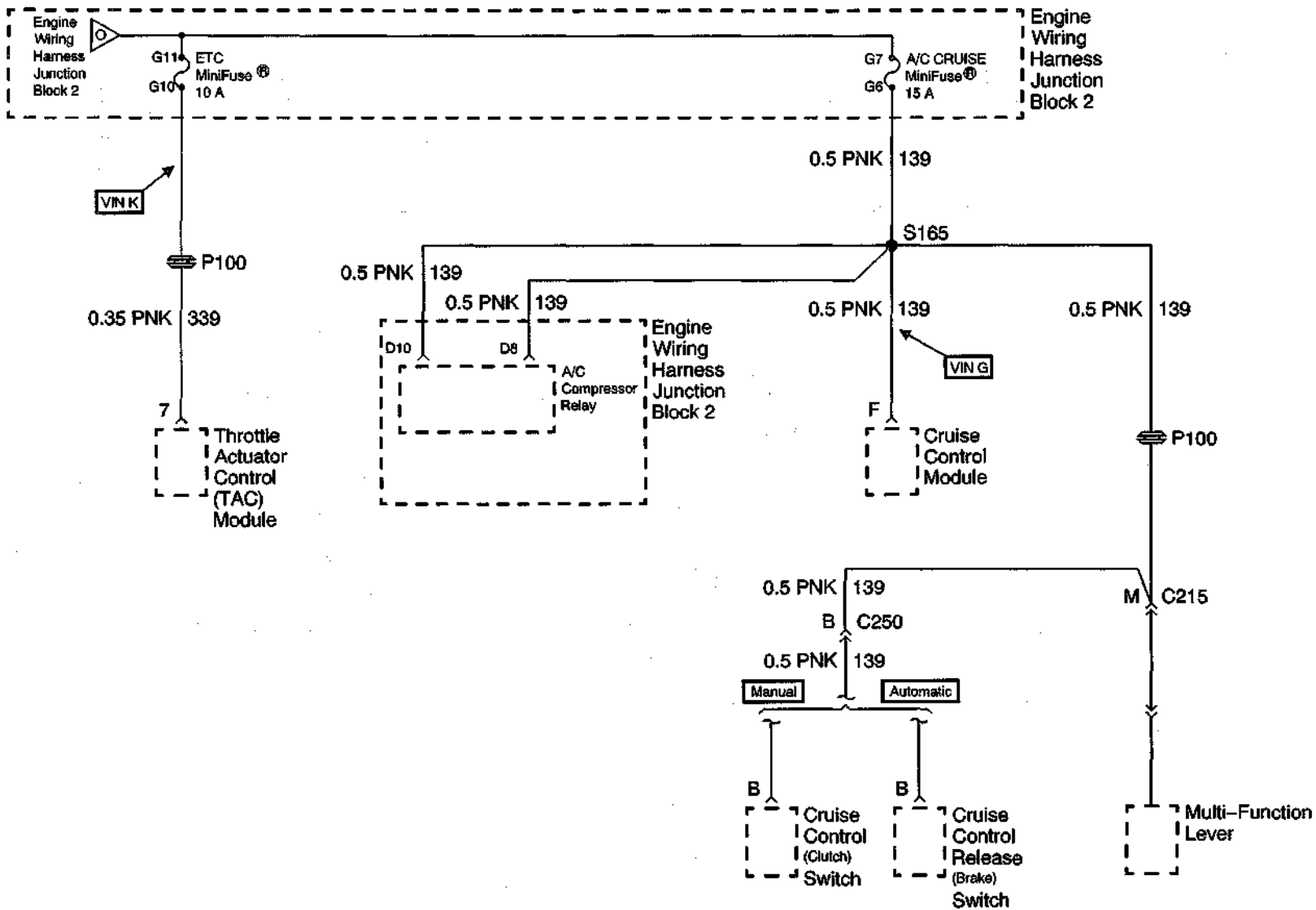
Power Distribution Schematics (ABS IGN, PCM IGN, and STRTR Fuses)



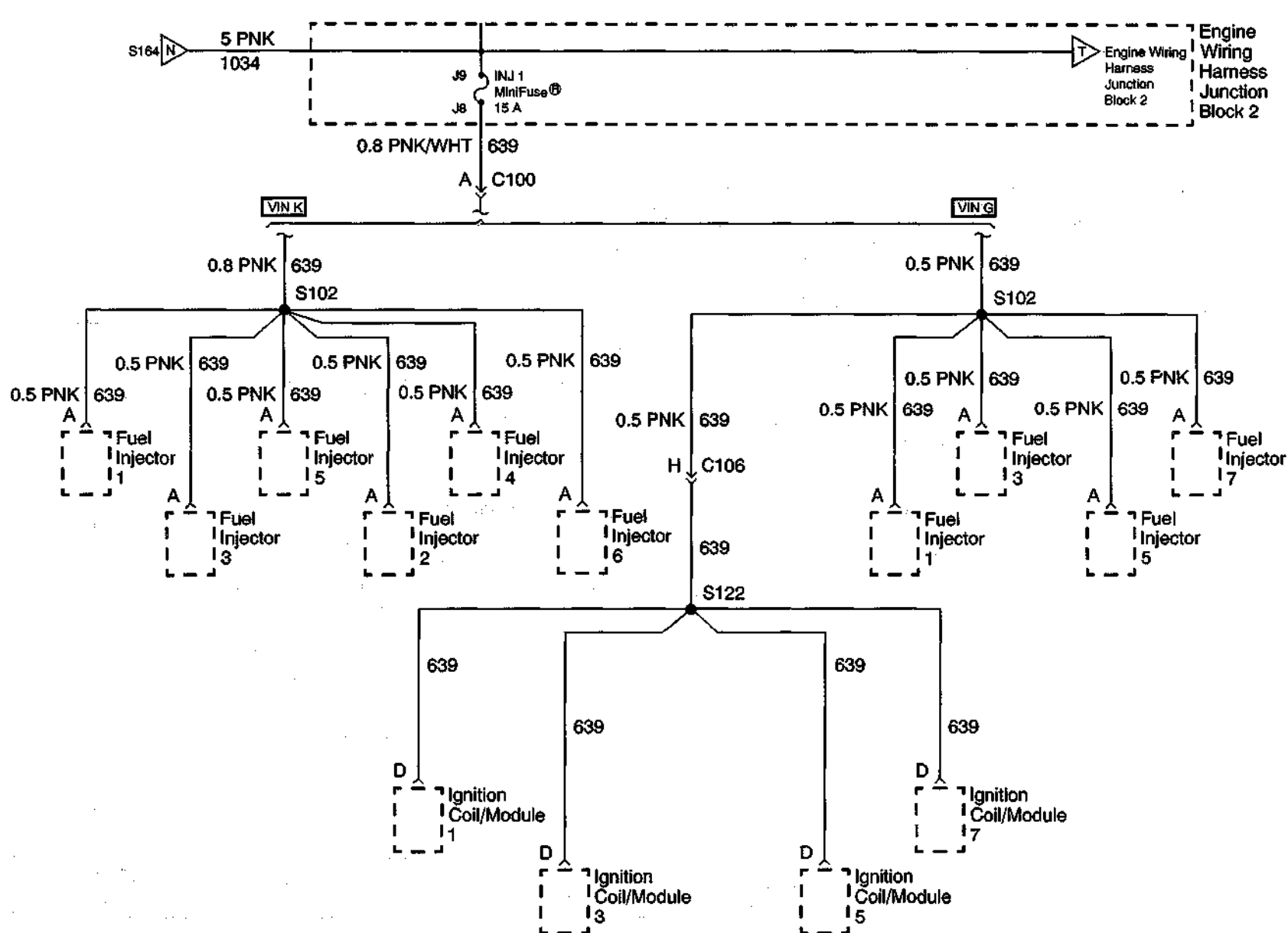
LOC



Power Distribution Schematics (A/C CRUISE and ETC Fuses)



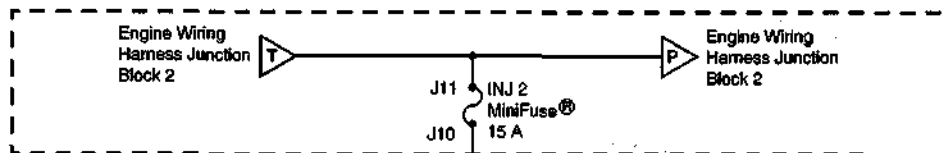
Power Distribution Schematics (INJ 1 Fuse)



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Power Distribution Schematics (INJ 2 Fuse)



Engine Wiring
Harness Junction
Block 2

0.8 PNK 839

B C101

0.8 PNK 839

VIN G

S109

0.5 PNK 839

0.5 PNK 839

0.5 PNK 839

0.5 PNK 839

0.5 PNK 839

H C107

839

S124

839

839

839

839

D

Ignition
Coil/Module

D

Ignition
Coil/Module

D

Ignition
Coil/Module

D

Ignition
Coil/Module

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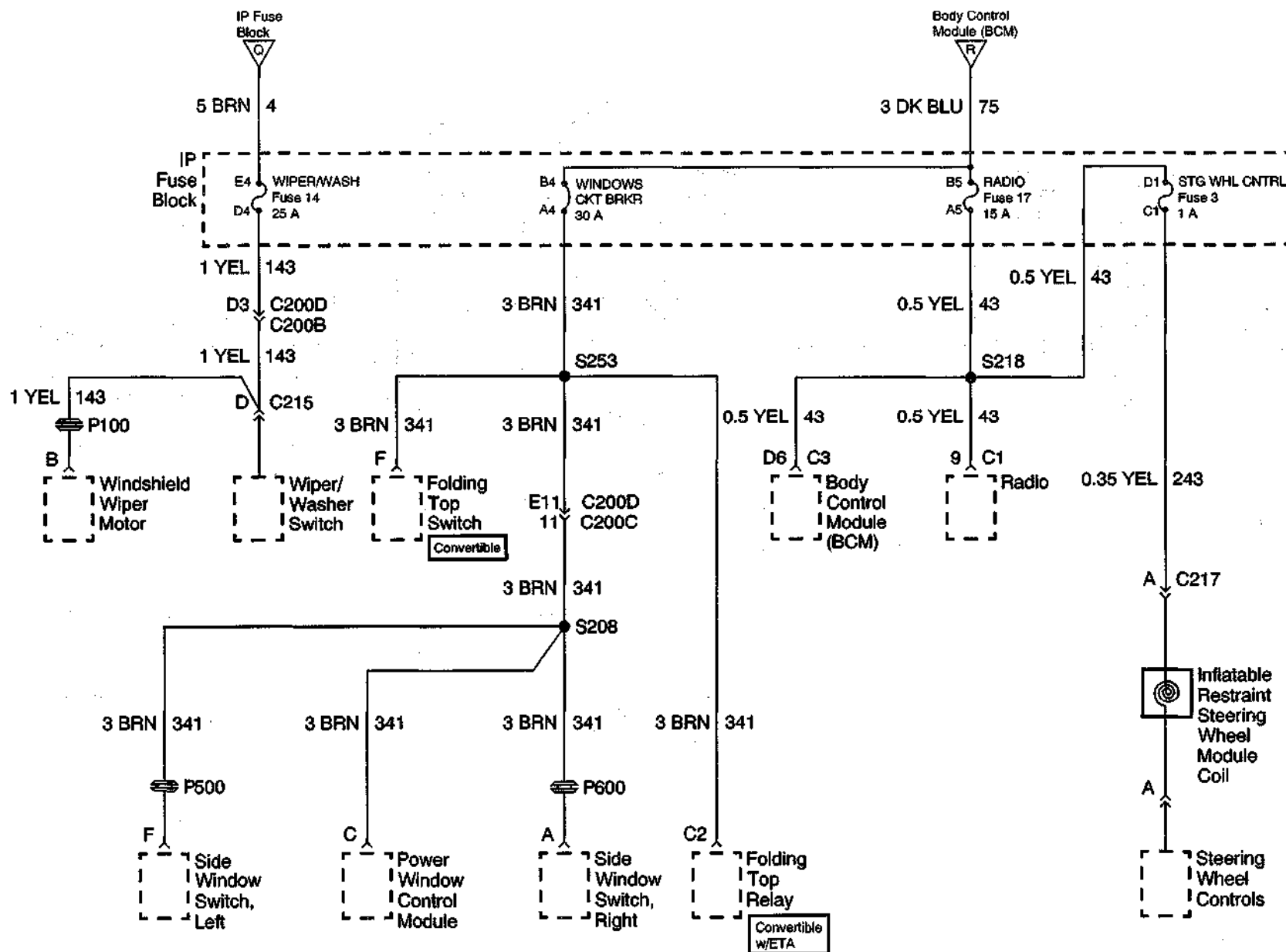
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Body and Accessories

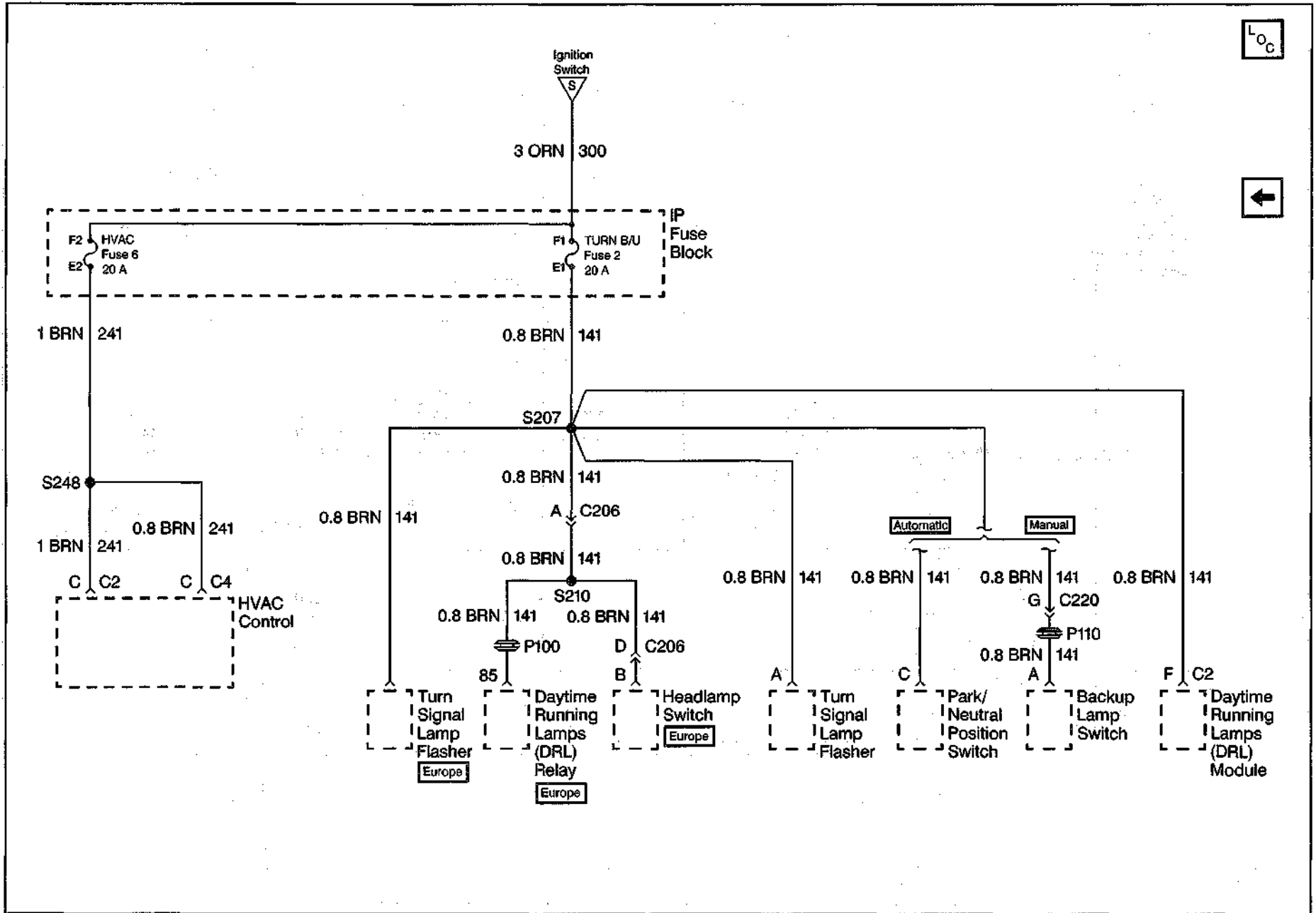




Power Distribution Schematics (WINDOWS Circuit Breaker, RADIO, STG WHL CNTRL, and WIPER/WASH Fuses)

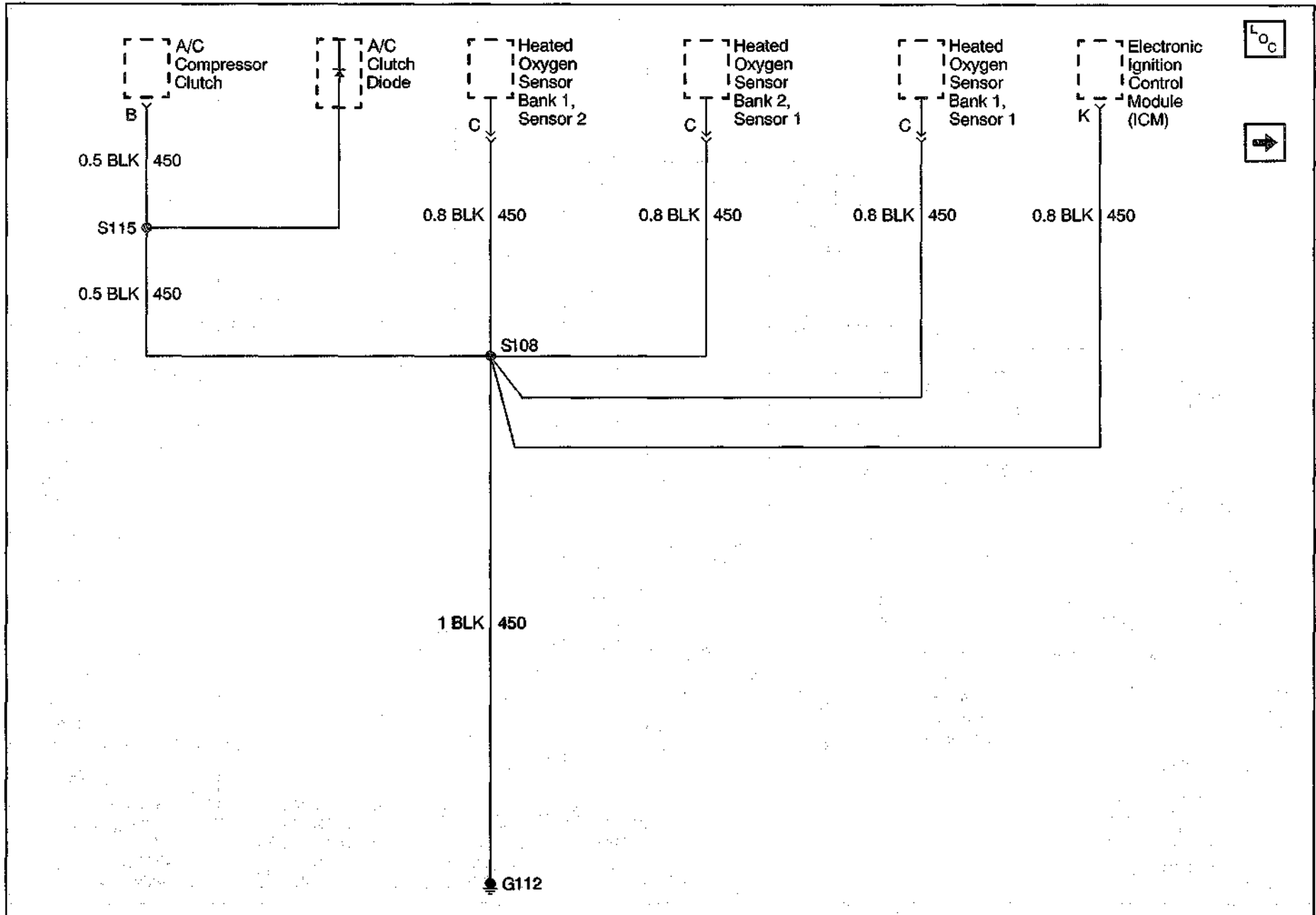


Power Distribution Schematics (HVAC and TURN B/U Fuses)



497216

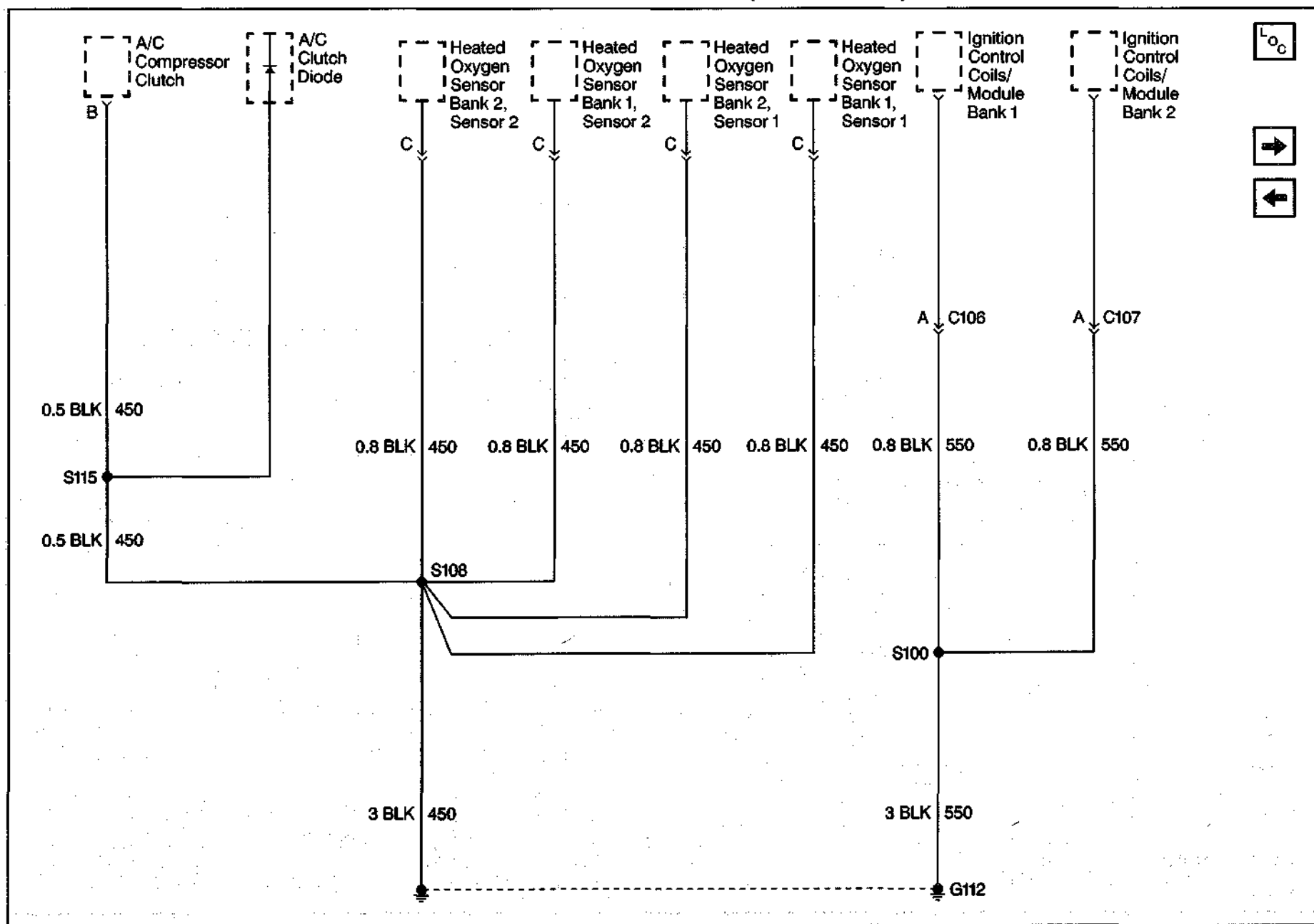
Ground Distribution Schematics (G112 V6 VIN K)



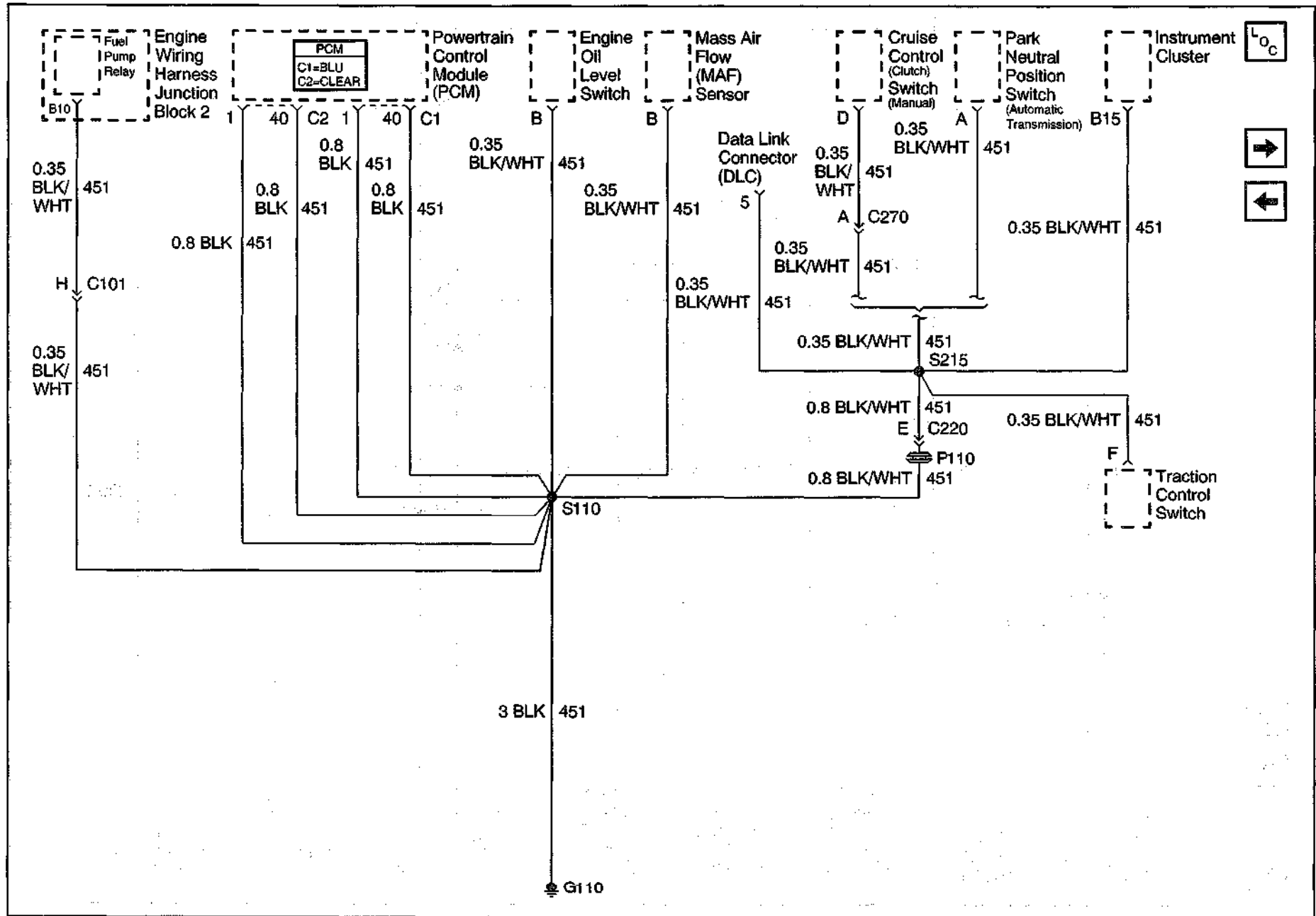
8-422 Wiring Systems



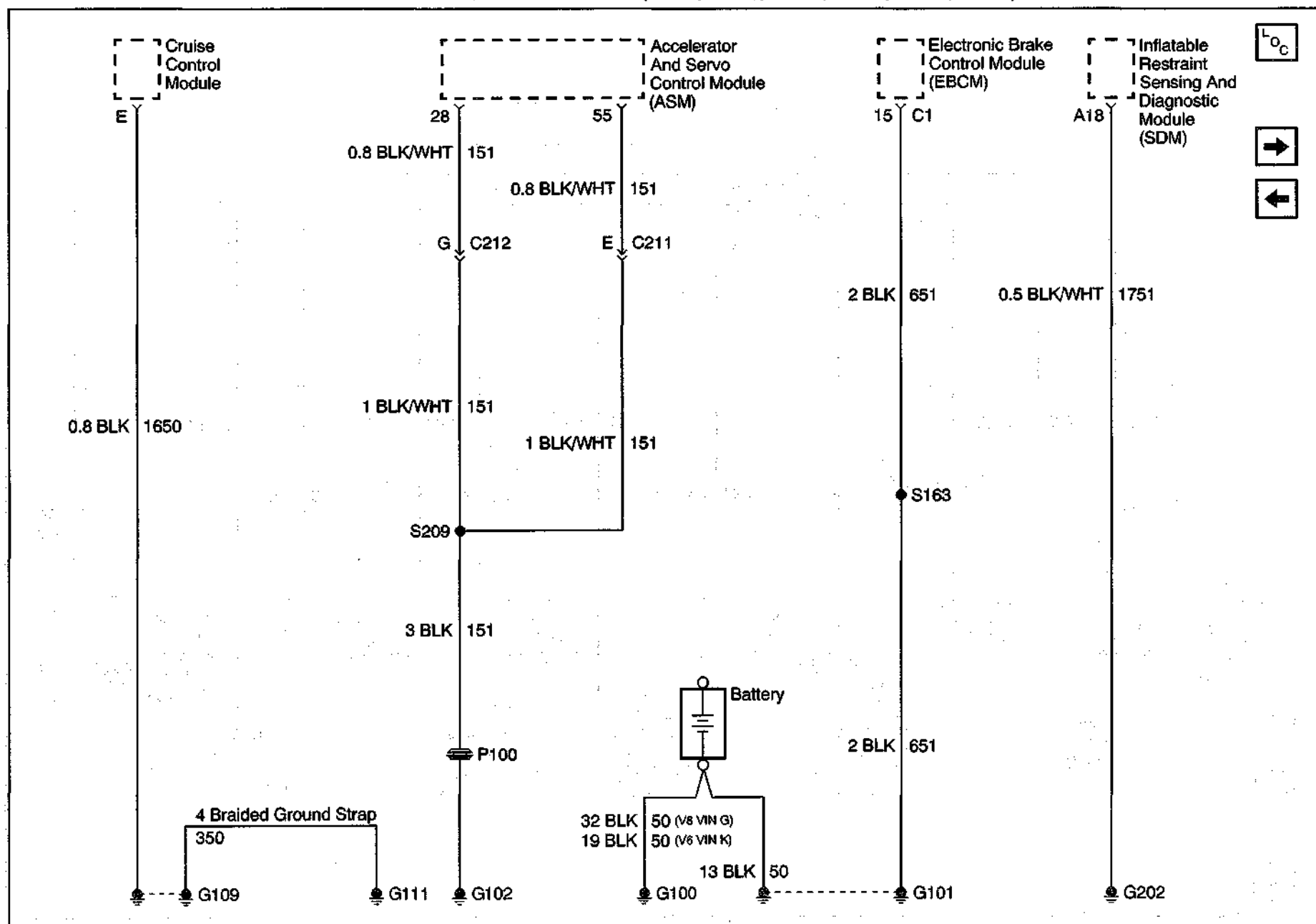
Ground Distribution Schematics (G112 V8 VIN G)



Ground Distribution Schematics (G110 V8 VIN G)

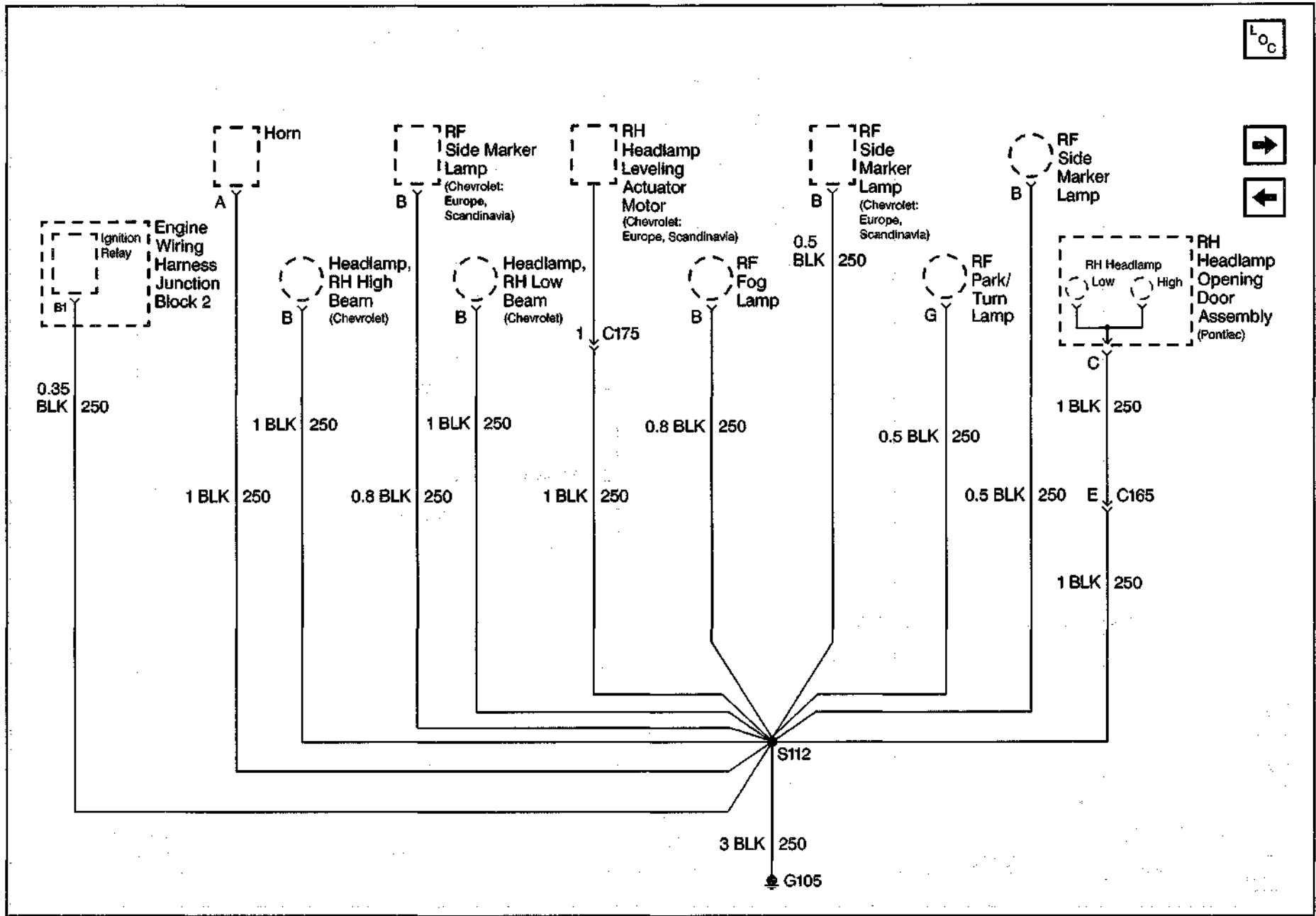


Ground Distribution Schematics (G100, G101, G102, G109, G111, G202)

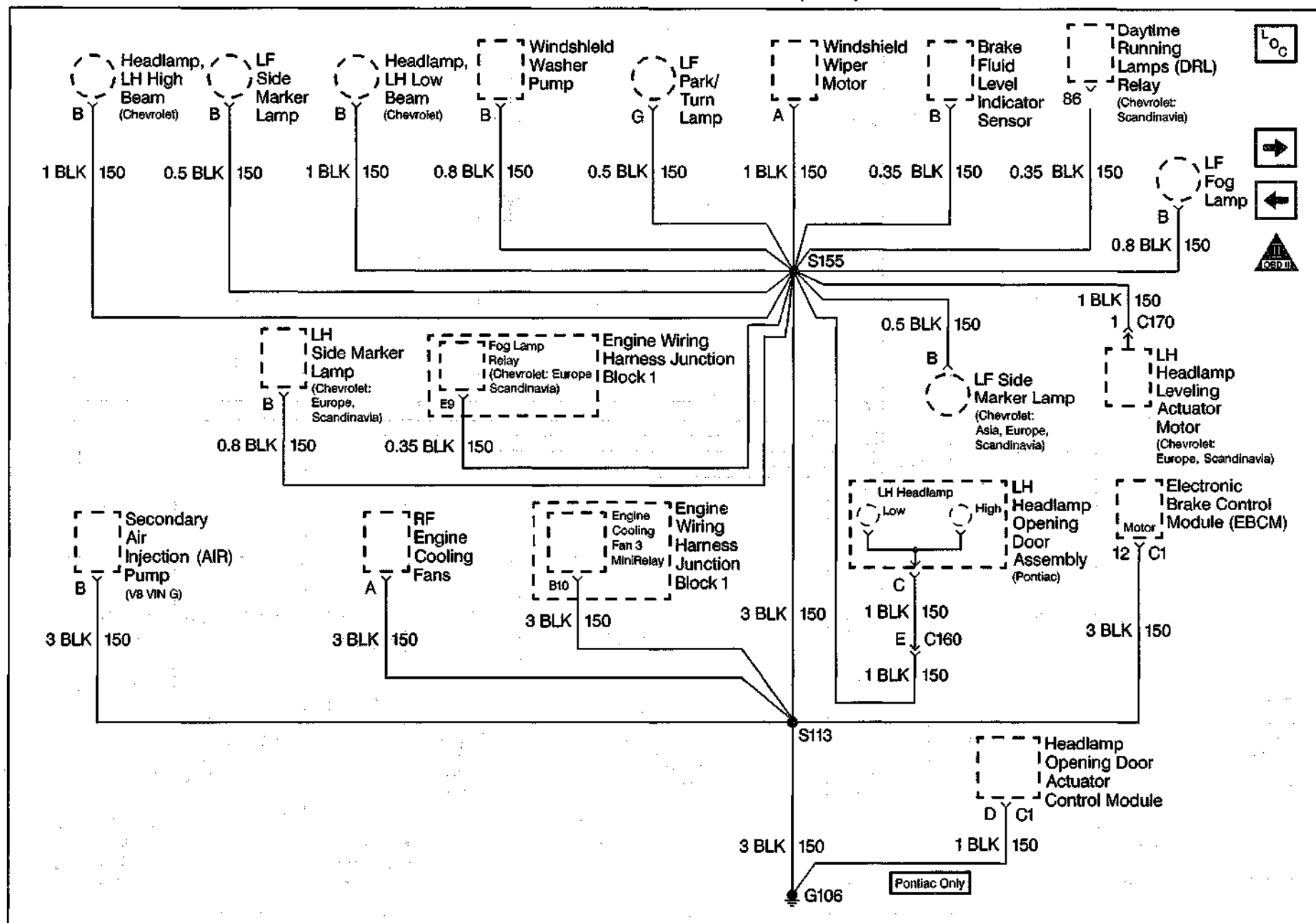


497455

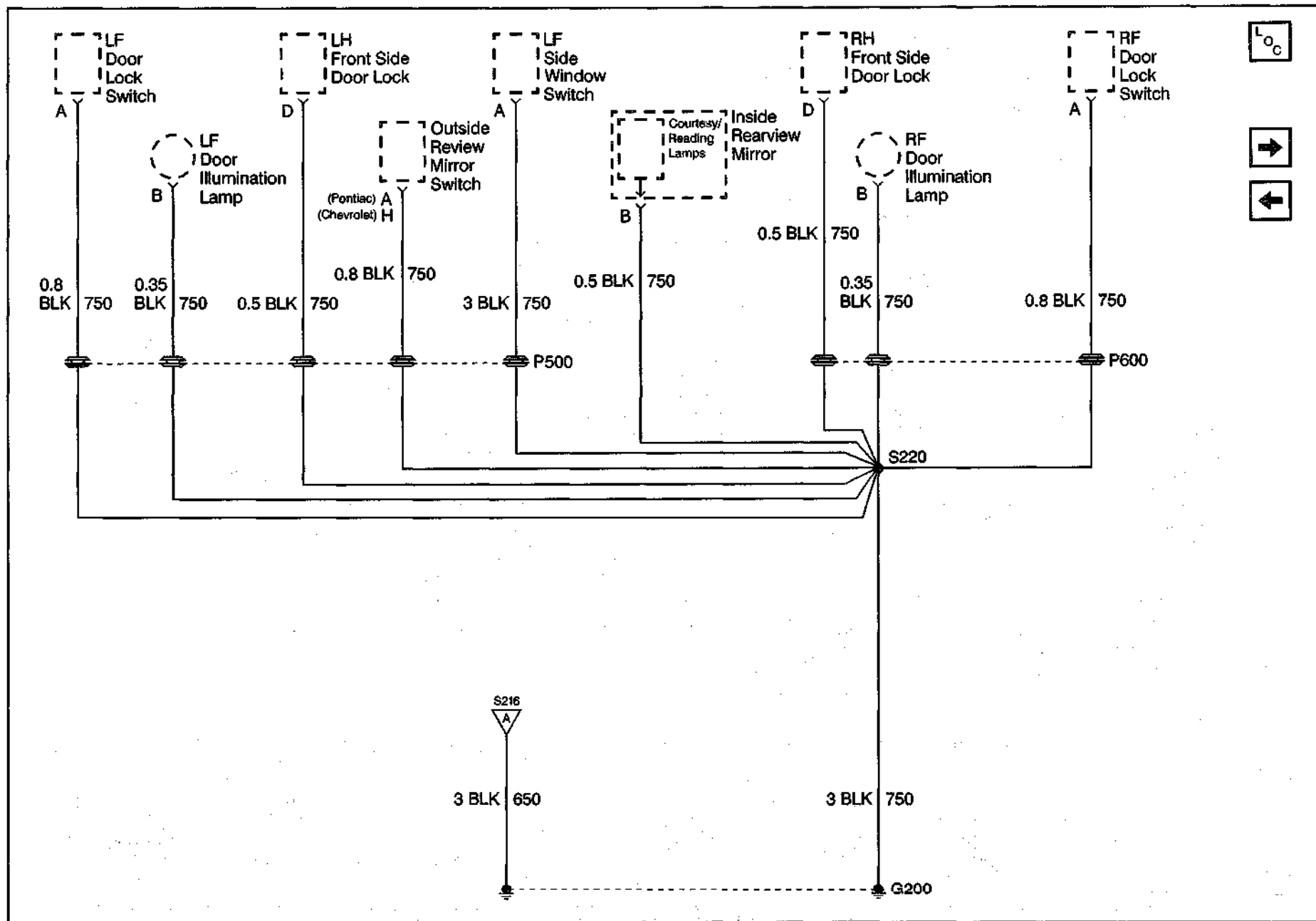
Ground Distribution Schematics (G105)



Ground Distribution Schematics (G106)

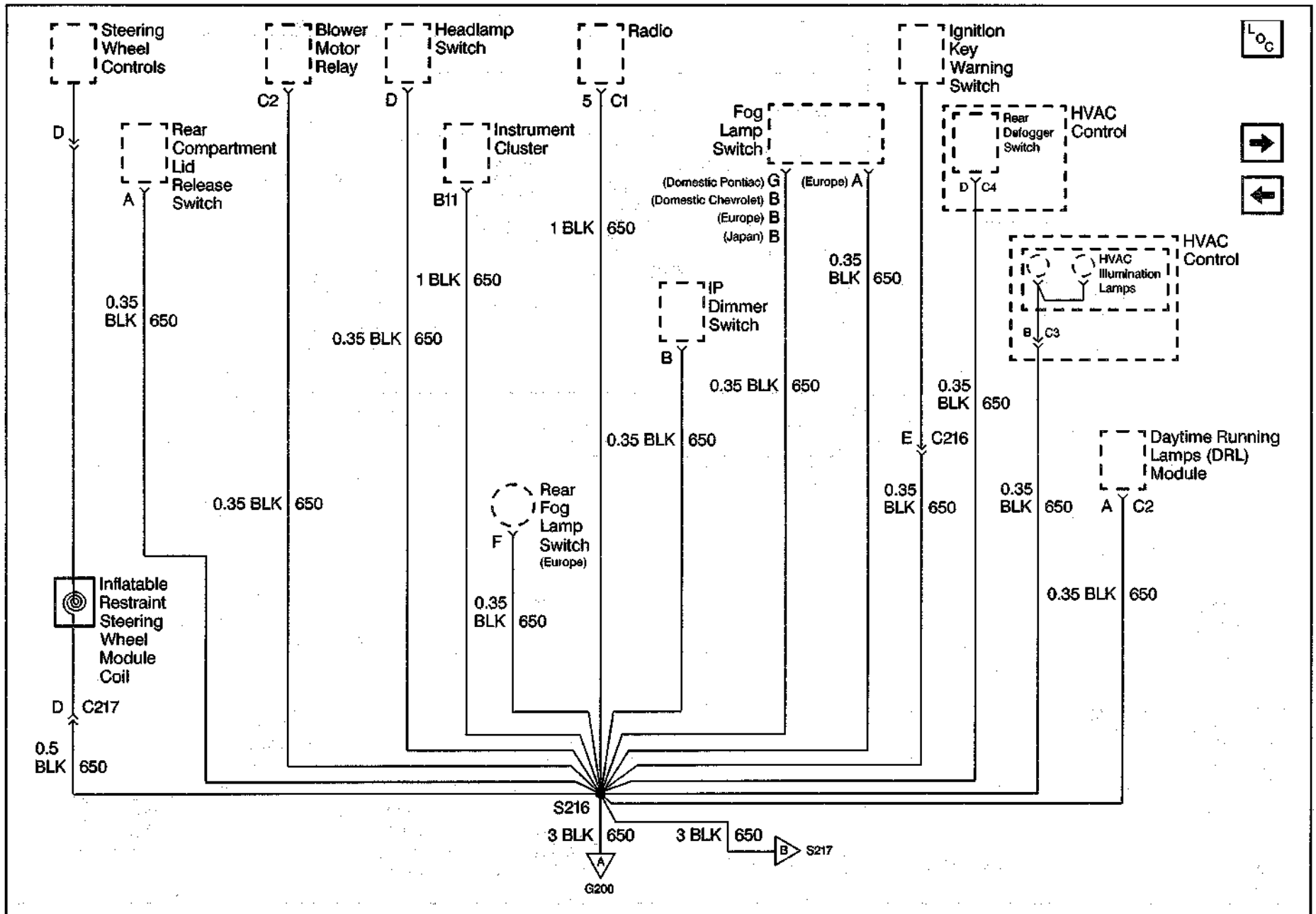


Ground Distribution Schematics (G200 Splice S220)

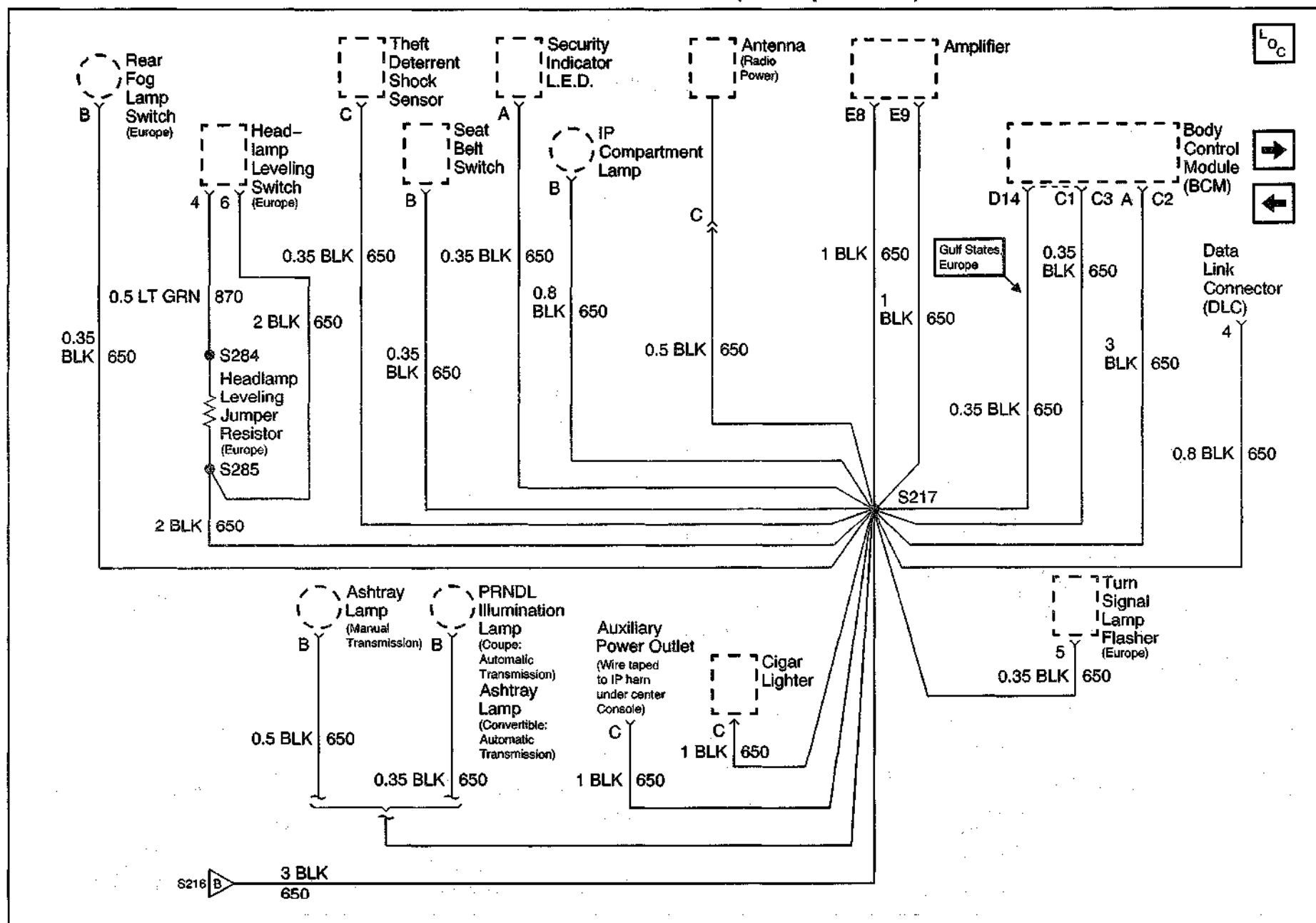


497459

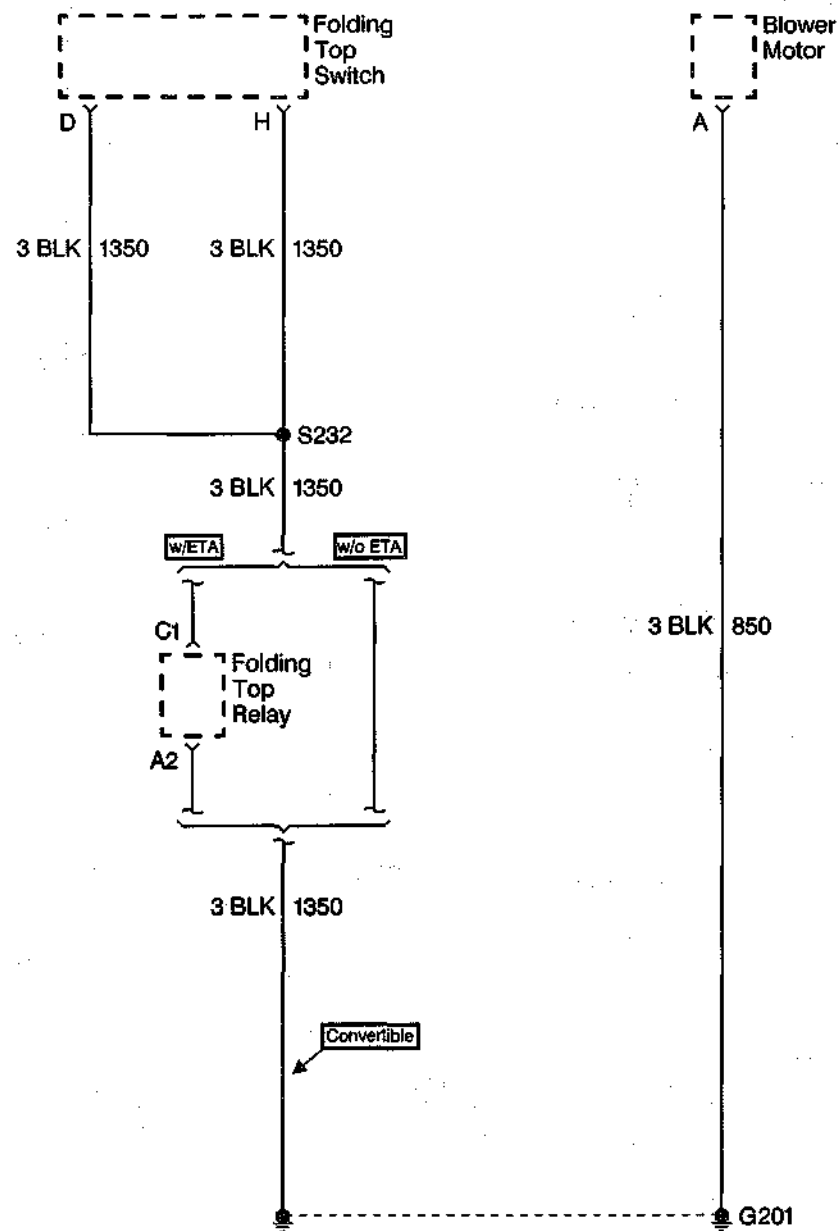
Ground Distribution Schematics (G200 Splice S216)



Ground Distribution Schematics (G200 Splice S217)



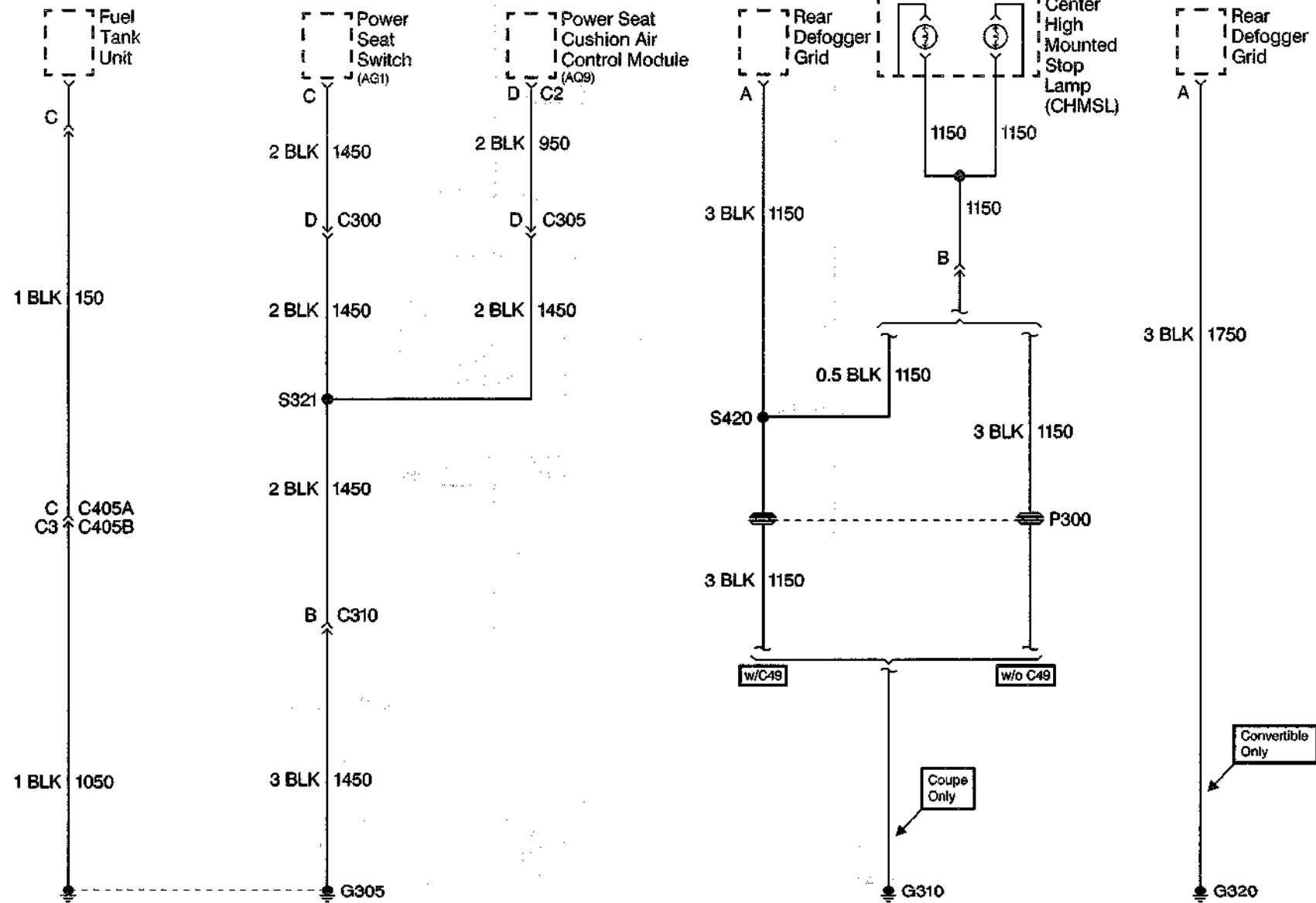
Ground Distribution Schematics (G201)



LOC



Ground Distribution Schematics (G305, G310, G320)

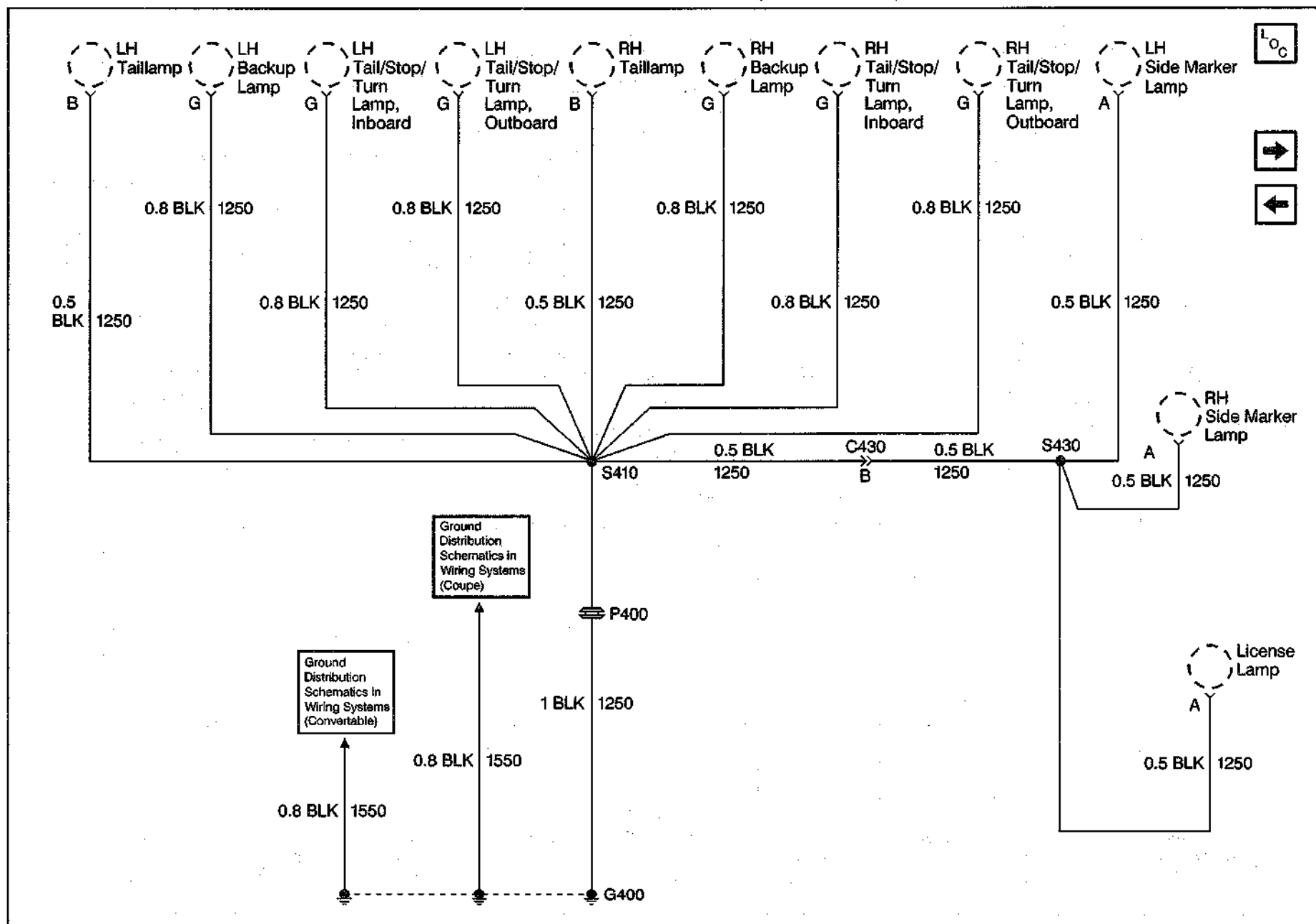


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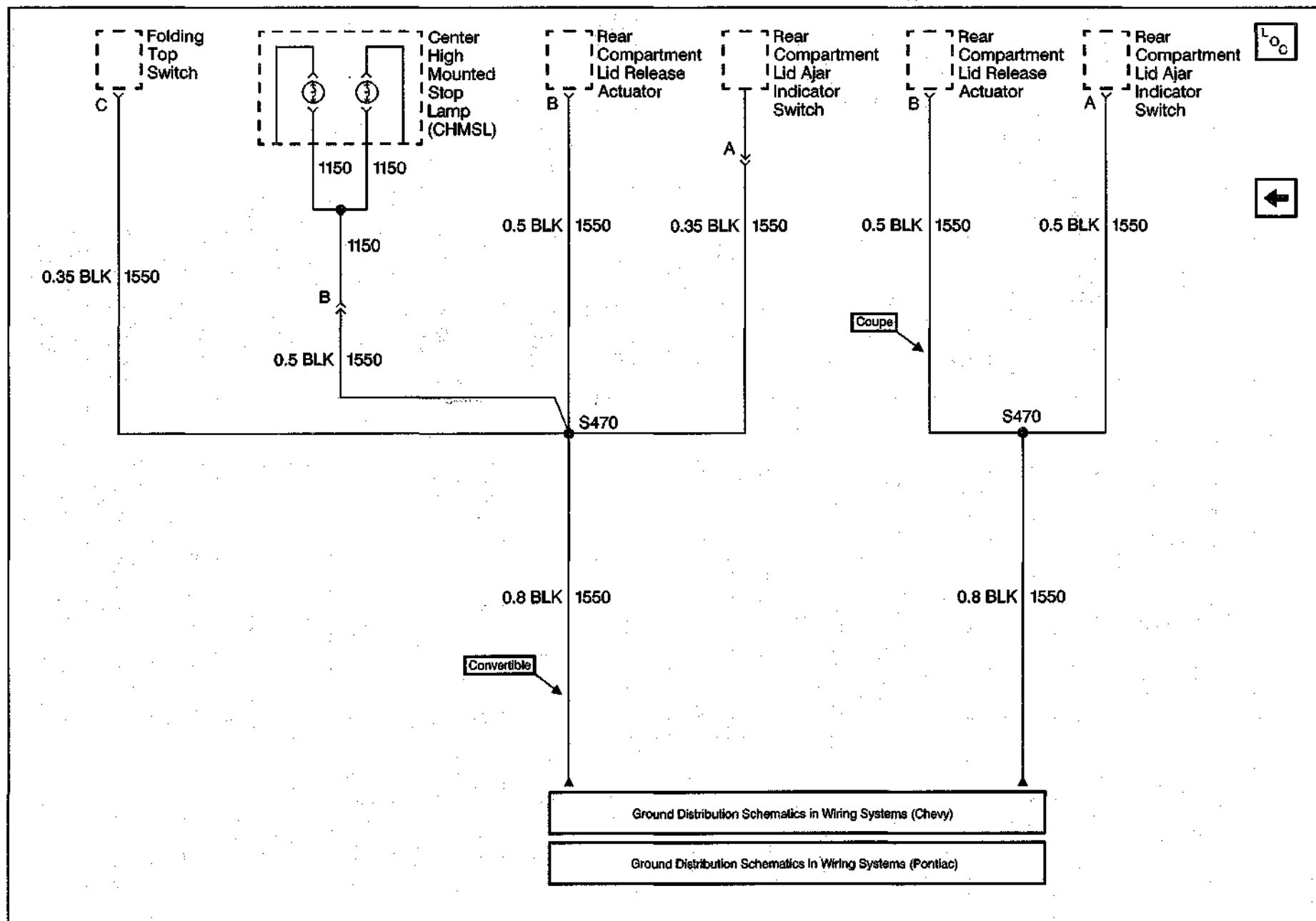
Body and Accessories



Ground Distribution Schematics (G400 Pontiac)



Ground Distribution Schematics (G400 Splice S470)



Component Locator

Power and Grounding Components

Name	Location	Locator View	Connector End View
A/C Clutch Diode (V6 VIN K)	Sealed in a harness, approximately 3 cm (1.2 in) from the injector 2 breakout	—	—
A/C Clutch Diode (V8 VIN G)	Sealed in a harness, approximately 17 cm (6.8 in) from the A/C compressor clutch connector	—	—
A/C Compressor Clutch (V6 VIN K)	In the front of the engine, on the lower right side	<i>HVAC Component Views in HVAC with A/C Manual</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
A/C Compressor Clutch (V8 VIN G)	In the front of the engine, on the lower right side	<i>HVAC Component Views in HVAC with A/C Manual</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Accelerator and Servo Control Module (ASM)	Under the left side of the instrument panel, near the kick panel	<i>ABS Component Views in ABS Traction Control</i>	<i>ABS Connector End Views in Antilock Brake System</i>
Amplifier	Mounted behind the right rear quarter inner trim panel	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Antenna (Radio Power)	Behind the right rear quarter inner trim panel	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Ashtray Lamp (Auto Trans)	In the lighting tube from the PRNDL lamp	<i>Hydraulic Brakes Component Views in Hydraulic Brakes</i>	—
Ashtray Lamp (Manual Trans)	Rearward of the shifter, in the ashtray	<i>Hydraulic Brakes Component Views in Hydraulic Brakes</i>	—
Automatic Transmission (V6 VIN K)	Behind the engine	<i>ABS Component Views in ABS Traction Control</i>	<i>Automatic Transmission Inline Harness Connector End View in Automatic Transmission</i>
Automatic Transmission (V8 VIN G)	Behind the engine	<i>ABS Component Views in ABS Traction Control</i>	<i>Automatic Transmission Inline Harness Connector End View in Automatic Transmission</i>
Auxiliary Power Outlet	On the lower right side of the front of the console	—	<i>Power and Grounding Connector End Views</i>
Backup Lamp Switch (V6 VIN K) (M49)	In the middle of the manual transmission, on the left side	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems/</i>
Backup Lamp Switch (V8 VIN G) (MM6)	In the middle of the manual transmission, on the right side	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Backup Lamps	Mounted in the left and right taillamp assemblies	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Battery	In the right front of the engine compartment	<i>Power and Grounding Component Views</i>	—
Blower Motor	Under the lower right side of the IP, mounted in the HVAC module	<i>Body Control Module Component Views in Body Control Systems</i>	<i>HVAC Connector End Views in HVAC with A/C Manual</i>
Blower Motor Relay	Under the IP, above the floor tunnel, attached to the inflatable restraint instrument panel module bracket	<i>HVAC Component Views in HVAC with AC Manual</i>	—
Body Control Module (BCM)	Under the right side of the IP near the blower motor	<i>Body Control Module Component Views in Body Control Systems</i>	<i>Body Control Module Connector End Views in Body Control Systems</i>

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Brake Fluid Level Indicator Sensor	Part of the master cylinder	—	Hydraulic Brakes Connector End Views in Hydraulic Brakes
Center High Mounted Stop Lamp (CHMSL)	In the center of the rear spoiler	—	—
Cigar Lighter	Mounted on the front of the console	Power and Grounding Component Views	Power and Grounding Connector End Views
Clutch Pedal Position (CPP) Switch	Mounted to the clutch pedal bracket	Cruise Control Component Views in Cruise Control	Engine Electrical Connector End Views in Engine Electrical
Cruise Control (Clutch) Switch (V6 VIN K)	Mounted in the clutch pedal bracket	Cruise Control Component Views in Cruise Control	Cruise Control Connector End Views in Cruise Control
Cruise Control (Clutch) Switch (V8 VIN G Manual)	Mounted in the clutch pedal bracket	—	Cruise Control Connector End Views in Cruise Control
Cruise Control Module	Mounted to the left frame rail, forward of the wheelhouse	Cruise Control Component Views in Cruise Control	Cruise Control Connector End Views in Cruise Control
Cruise Control Release (Brake) Switch	Mounted in the upper hole of the brake pedal bracket	Cruise Control Component Views in Cruise Control	Cruise Control Connector End Views in Cruise Control
Data Link Connector (DLC)	Under the IP, right of the steering column	Data Link Communications Component Views in Data Link Communications	Data Link Communications Connector End Views in Data Link Communications
Daytime Running Lamps (DRL) Module	Mounted behind the radio and the HVAC control, left of the IP compartment	Data Link Communications Component Views in Data Link Communications	Lighting Systems Connector End Views in Lighting Systems
Daytime Running Lamps (DRL) Relay (Chevrolet/Scandinavia)	Approximately 31 cm (12 in) back from the windshield wiper motor	—	—
Door Illumination Lamp	Mounted in the door arm rest	Power Door Systems Component Views in Doors	—
Door Lock Switch	Mounted in the door armrest	Power Door Systems Component Views in Doors	Power Door Systems Connector End Views in Doors
Electronic Brake Control Module (EBCM)	Mounted with brake pressure modulator valve on the top of the left front frame rail	ABS Component Views in ABS Traction Control	ABS Connector End Views in Antilock Brake System
Electronic Ignition Control Module (ICM) (V6 VIN K)	On the top front left side of the engine	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Engine Cooling Fans	Behind the radiator	Cooling System Component Views in Engine Cooling	Cooling System Connector End Views in Engine Cooling
Engine Oil Level Switch (V6 VIN K)	On the lower left side of the engine, in the oil pan	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Engine Oil Level Switch (V8 VIN G)	On the lower right side of the engine, in the oil pan	Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console	Engine Controls Connector End Views in Engine Controls

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Engine Oil Pressure Sensor (V6 VIN K)	On the top right side of the engine	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Engine Wiring Harness Junction Block 1	In the left front corner of the engine compartment	Power and Grounding Component Views	—
Engine Wiring Harness Junction Block 2	In the left front corner of the engine compartment	Power and Grounding Component Views	—
Evaporative Emission (EVAP) Canister Purge Solenoid Valve (V6 VIN K)	On the right side of the engine next to injector 2	—	Engine Controls Connector End Views in Engine Controls
Evaporative Emission (EVAP) Canister Purge Solenoid Valve (V8 VIN G)	On the left side of the engine, mounted to the intake manifold	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Evaporative Emission (EVAP) Canister Vent Solenoid Valve (V6 VIN K)	On the top right side of the engine, part of the EVAP canister	—	Engine Controls Connector End Views in Engine Controls
Evaporative Emission (EVAP) Canister Vent Solenoid Valve (V8 VIN G)	On the top right side of the engine, part of the EVAP canister	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Fog Lamp	On the lower left and right side of the front fascia	Lighting Systems Component Views in Lighting Systems	—
Fog Lamp Switch (Chevrolet)	In the center of the IP, above the HVAC control	ABS Component Views in ABS Traction Control	Lighting Systems Connector End Views in Lighting Systems
Fog Lamp Switch (Pontiac)	On the left steering column, below the headlamp switch	Lighting Systems Component Views in Lighting Systems	Lighting Systems Connector End Views in Lighting Systems
Folding Top Relay	Behind the IP, mounted to the right side of the inflatable restraint instrument panel module bracket	Theft Deterrent System Component Views in Theft Deterrent	—
Folding Top Switch	On the left side of the upper console	Power Roof Systems Component Views in Roof	Power Roof Systems Connector End Views in Roof
Front Side Door Lock	Inside the rear of the door	Power Door Systems Component Views in Doors	Body Control Module Connector End Views in Body Control Systems
Fuel Injectors (V6 VIN K)	Mounted on the intake manifold, part of the fuel rail	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Fuel Injectors (V8 VIN G)	Mounted on the intake manifold, part of the fuel rail	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Fuel Tank Unit (V6 VIN K)	Under the rear of the vehicle	—	Engine Controls Connector End Views in Engine Controls
Fuel Tank Unit (V8 VIN G)	Under the rear of the vehicle	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Fusible Links	Forward of the left front wheelhouse, behind the underhood electrical center 2	—	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Generator (V6 VIN K)	On the front right side of the engine	Engine Electrical Component Views in Engine Electrical	Engine Electrical Connector End Views in Engine Electrical
Generator (V8 VIN G)	On the front left side of the engine	Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console	Engine Electrical Connector End Views in Engine Electrical
Hazard Lamp Flasher	Left of the steering column, mounted to the IP carrier	Data Link Communications Component Views in Data Link Communications	Lighting Systems Connector End Views in Lighting Systems
Headlamp, High Beam (Chevrolet)	On the front of the vehicle	—	—
Headlamp Leveling Actuator Motor (Chevrolet:Europe, Scandinavia)	Part of the headlamp assembly	—	—
Headlamp Leveling Jumper Resistor	In the IP harness, approximately 12 cm (4 in) from G202 breakout, in inflatable restraint sensing and diagnostic module (SDM) breakout	—	—
Headlamp Leveling Switch (Europe)	On the left side of the upper console	Power Roof Systems Component Views in Roof	—
Headlamp, Low beam (Chevrolet)	On the front of the vehicle	—	—
Headlamp Opening Door Actuator Control Module	On the front right side of the engine compartment, beside the underhood electrical center 2	Power and Grounding Component Views	Lighting Systems Connector End Views in Lighting Systems
Headlamp Opening Door Assembly (Pontiac)	On the front right side of the engine compartment, beside the underhood electrical center 2	—	Lighting Systems Connector End Views in Lighting Systems
Headlamp Switch	On the left side of the IP	Lighting Systems Component Views in Lighting Systems	Lighting Systems Connector End Views in Lighting Systems
Heated Oxygen Sensor Bank 1, Sensor 1 (V6 VIN K)	Mounted in the left exhaust manifold	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Heated Oxygen Sensor Bank 1, Sensor 1 (V8 VIN G)	Mounted in the left exhaust manifold	Engine Controls Component Views in Engine Controls	—
Heated Oxygen Sensor Bank 1, Sensor 2 (V8 VIN G)	At the rear of the left catalytic converter	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Heated Oxygen Sensor Bank 1, Sensor 2 (V6 VIN K)	At the rear of the catalytic converter	—	Engine Controls Connector End Views in Engine Controls
Heated Oxygen Sensor Bank 2, Sensor 1 (V6 VIN K)	Mounted in the right exhaust manifold	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Heated Oxygen Sensor Bank 2, Sensor 1 (V8 VIN G)	Mounted in the right exhaust manifold	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Heated Oxygen Sensor Bank 2, Sensor 2 (V8 VIN G)	At the rear of the right catalytic converter	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Horn	In the front right side of the vehicle, directly below headlamp	Power and Grounding Component Views	Horns Connector End Views in Horns

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
HVAC Control	In the center of the IP, above the radio	<i>HVAC Component Views in HVAC with A/C Manual</i>	<i>HVAC Connector End Views in HVAC with A/C Manual</i>
HVAC Control Lamp (Part of HVAC Control)	Part of the HVAC control	—	<i>HVAC Connector End Views in HVAC with A/C Manual</i>
Idle Air Control (IAC) Valve (V8 VIN G)	On the right front of the engine, on the throttle body	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Ignition Coils/Modules (V8 VIN G)	On the left and right valve cover at the top of each engine cylinder	<i>Engine Controls Component Views in Engine Controls</i>	—
Ignition Key Warning Switch	Part of the ignition key lock cylinder	—	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Ignition Switch	Mounted near the base of the steering column	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Inflatable Restraint Sensing and Diagnostic Module (SDM)	On the floor tunnel, below the rear of the console	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Inflatable Restraint Steering Wheel Module Coil	On the top of the steering column	<i>SIR Component Views in SIR</i>	—
Inside Rearview Mirror	Mounted to the inside center of the windshield	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Instrument Cluster	On the left side of the IP	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	<i>Instrument Panel, Gauges, and Console Connector End Views in Instrument Panel, Gauges and Console</i>
IP Compartment Lamp	Inside the top center of the IP compartment	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	—
IP Dimmer Switch	Left of the steering wheel, part of the headlamp switch	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
IP Fuse Block	On the left end of the IP carrier	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	—
License Lamp	In the center of the rear fascia, above the license plate	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Manual Transmission (V6 VIN K)	Behind the engine	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	—
Manual Transmission (V8 VIN G)	Behind the engine	<i>Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console</i>	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Mass Air Flow (MAF) Sensor (V6 VIN K)	Mounted on the air duct, in front of the intake manifold	—	Engine Controls Connector End Views in Engine Controls
Mass Air Flow (MAF) Sensor (V8 VIN G)	Mounted on the air duct, in front of the intake manifold	Engine Controls Component Views in Engine Controls	Engine Controls Connector End Views in Engine Controls
Multi-function Lever	On the left side of the steering column	Cruise Control Component Views in Cruise Control	Wiper/Washer System Connector End Views in Wipers/Washer System
Outside Rearview Mirror Switch	Mounted in the door armrest	Power Door Systems Component Views in Doors	Power Door Systems Connector End Views in Doors
Park/Neutral Position Switch	Under the center console, on the base of the shift control lever	Automatic Transmission Shift Lock Control Component Views in Automatic Transmission	Engine Controls Connector End Views in Engine Controls
Park/Turn Lamp, Front	On the left and right side of the exterior of the vehicle	Lighting Systems Component Views in Lighting Systems	—
Positioning Lamp (Chevrolet/Europe, Scandinavia)	On the front left and right side of the exterior of the vehicle	—	—
Power Seat Cushion Air Control Module (AQ9)	Under the driver seat	Power Seat Systems Component Views in Seats	Power Seat Systems Connector End Views in Seats
Power Seat Switch	On the left side of the driver seat	Power Seat Systems Component Views in Seats	Power Seat Systems Connector End Views in Seats
Powertrain Control Module (PCM) (V6 VIN K)	On the right side of the engine compartment, rear of the wheelhouse	Power and Grounding Component Views	PCM Connector End Views in Engine Controls
Powertrain Control Module (PCM) (V8 VIN G)	On the right side of the engine compartment, rear of the wheelhouse	Engine Controls Component Views in Engine Controls	PCM Connector End Views in Engine Controls
Power Window Control Module	Mounted to the center of the dash mat, above the floor tunnel	Power Door Systems Component Views in Doors	Power Door Systems Connector End Views in Doors
PRNDL Illumination Lamp	Under the console, left of the shift control lever	Hydraulic Brakes Component Views in Hydraulic Brakes	—
Radio	In the center of the IP, below the HVAC control	Entertainment Component Views in Entertainment	Entertainment Connector End Views in Entertainment
Rear Compartment Lid Ajar Indicator Switch	Part of the rear compartment lid latch	Body Rear End Component Views in Body Rear End	Instrument Panel, Gauges, and Console Connector End Views in Instrument Panel, Gauges and Console
Rear Compartment Lid Release Actuator	In the center of the end panel, in the cargo compartment	Body Rear End Component Views in Body Rear End	Body Rear End Connector End Views in Body Rear End
Rear Compartment Lid Release Relay	Under the left side of the IP, near C200	Body Rear End Component Views in Body Rear End	—
Rear Compartment Lid Release Switch	In the driver knee bolster, left of the steering column	—	Body Rear End Connector End Views in Body Rear End
Rear Defogger Grid	Mounted on the rear windshield	Stationary Windows Component Views in Stationary Windows	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Rear Fog Lamps (Europe)	On the left and right side of the rear fascia	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Rear Fog Lamp Switch (Europe)	In the center of the IP, above the HVAC control	<i>ABS Component Views in ABS Traction Control</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Remote Compact Disc Player	In the left rear cargo compartment	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Seat Belt Switch	Part of the driver seat buckle assembly	—	<i>Seat Belt Connector End Views in Seat Belts</i>
Secondary Air Injection Bypass Valve (V8 VIN G)	Mounted to the right front frame rail	—	<i>Engine Controls Connector End Views in Engine Controls</i>
Secondary Air Injection (AIR) Pump (V8 VIN G)	On the front left frame rail, in the engine compartment	—	<i>Engine Controls Connector End Views in Engine Controls</i>
Second Gear Start Switch (V6 VIN K) (Chevrolet w/o NW9)	In the center of the IP, above the HVAC control	<i>ABS Component Views in ABS Traction Control</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Security Indicator L.E.D.	On the top center of the IP	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Side Marker Lamp	On the left and right front and rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Side Window Switch	Mounted in the door arm rest	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Starter Solenoid (V6 VIN K)	On the bottom left side of the engine, above the starter motor	<i>Engine Electrical Component Views in Engine Electrical</i>	—
Starter Solenoid (V8 VIN G)	On the bottom right side of the engine, above the starter motor	<i>Engine Electrical Component Views in Engine Electrical</i>	—
Steering Wheel Controls	On the steering wheel	<i>Entertainment Component Views in Entertainment</i>	<i>SIR Connector End Views in Supplemental Inflatable Restraint</i>
Stop Lamp/TCC Switch (Automatic)	Mounted on the brake pedal bracket	<i>Cruise Control Component Views in Cruise Control</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Taillamp	On the left and right rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Tail/Stop Lamp (Chevrolet)	On the left and right rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Tail/Stop/Turn Lamp (Chevrolet)	On the left and right rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Tail/Stop/Turn Lamp, Inboard (Pontiac)	On the left and right rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Tail/Stop/Turn Lamp, Outboard (Pontiac)	On the left and right rear exterior of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	—
Theft Deterrent Relay	Under the IP, above the floor tunnel, attached to the inflatable restraint IP module bracket	—	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Theft Deterrent Shock Sensor	Behind the right quarter inner trim panel, attached to the wheelhouse	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Throttle Actuator Control (TAC) Module (V6 VIN K)	Mounted on the accelerator pedal bracket	—	<i>Engine Controls Connector End Views in Engine Controls</i>
Traction Control Switch (Chevrolet with NW9)	In the center of the IP, above the HVAC control	<i>ABS Component Views in ABS Traction Control</i>	<i>ABS Connector End Views in Antilock Brake System</i>
Traction Control Switch (Pontiac)	On the left side of the upper console	<i>Power Roof Systems Component Views in Roof</i>	<i>ABS Connector End Views in Antilock Brake System</i>
Turn Signal Lamp Flasher	Under the instrument panel, right of the steering column	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Turn Signal Lamp Flasher (Europe)	Under the instrument panel, right of the steering column	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Windshield Washer Pump	On the front of the vehicle, forward of the top radiator support	—	<i>Wiper/Washer System Connector End Views in Wipers/Washer System</i>
Windshield Wiper Motor	Below the left side of cowl, near left windshield wiper	<i>Wiper/Washer System Component Views in Wipers/Washer System</i>	<i>Wiper/Washer System Connector End Views in Wipers/Washer System</i>
Wipers/Washer Switch	In the left side of the steering column, actuated by the multi-function lever	—	<i>Wiper/Washer System Connector End Views in Wipers/Washer System</i>
C100 (10 cavities)	Engine to forward lamp harness, in the engine compartment, above the right wheelhouse	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C101 (10 cavities)	Engine to forward lamp harness, in the engine compartment, above the right wheelhouse	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C105 (8 cavities)	Engine to forward lamp harness, in the engine compartment, above the right wheelhouse	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C106 (7 cavities)	Engine to the engine jumper harness	—	—
C107 (7 cavities)	Engine to the engine jumper harness	—	—
C160 (5 cavities) (Pontiac)	Left headlamp to the forward lamp harness, behind the headlamp door bracket	<i>Harness Routing Views</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
C165 (5 cavities) (Pontiac)	Right headlamp to the forward lamp harness, behind the headlamp door bracket	<i>Harness Routing Views</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
C175 (3 cavities) (Export)	Forward lamp harness to the right headlamp leveling motor harness	<i>Harness Routing Views</i>	—
C200B (18 cavities)	Forward lamp to IP harness, between the left kick panel and the steering column	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C200C (13 cavities)	Cross car to IP harness, between the left kick panel and the steering column	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C200D (48 cavities)	Part of the IP harness, between the left kick panel and the steering column	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C206 (4 cavities) (Chevrolet Export)	Forward lamp to IP harness, under the left side of the IP, behind the knee bolster	—	<i>Inline Harness Connector End Views</i>
C211 (8 cavities)	Forward lamp to traction control module jumper harness, under the left side of the IP, near the kick panel	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
C212 (10 cavities)	Forward lamp to traction control module jumper harness, under the left side of the IP, near the kick panel	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C215 (11 cavities)	Forward lamp to the steering column harness, near the base of the steering column	<i>Harness Routing Views</i>	<i>Wiper/Washer System Connector End Views in Wipers/Washer System</i>
C216 (11 cavities)	IP to steering column harness, attached to the base of the steering column	<i>Harness Routing Views</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
C217 (4 cavities)	IP to inflatable restraint steering wheel module coil harness, near the base of the steering column	<i>Harness Routing Views</i>	—
C220 (10 cavities)	IP to engine harness, under the right side of the IP, behind the knee bolster	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C250 (2 cavities)	Forward lamp harness of the cruise control harness, near the brake/clutch pedal bracket	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C270 (2 cavities)	IP harness of the cruise control harness, near the brake/clutch pedal bracket	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C300 (6 cavities) (AQ9)	Seat jumper to driver seat harness, under the driver seat assembly	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C305 (6 cavities) (AQ9)	Seat jumper to passenger seat harness, under the passenger seat assembly	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C310 (2 cavities) (w/AG1)	IP to driver seat harness, rear mounting bolt of the driver seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C310 (2 cavities) (w/AQ9)	IP to seat jumper harness, between the rear mounting bolts of the driver seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C405A (7 cavities)	Fuel tank harness to the IP harness pass through connector, forward of the rear axle	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C405B (16 cavities)	IP harness pass through connector, forward of the rear axle	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C405D (4 cavities)	Fuel tank harness to the IP harness pass through connector, forward of the rear axle	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C430 (2 cavities)	Rear body harness to the rear fascia harness, between the rear fascia and the rear panel, on the left side	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
G100 (V6 VIN K)	On the lower right side of the engine, above the A/C compressor	<i>Harness Routing Views</i>	—
G100 (V8 VIN G)	On the lower right side of the engine, above the starter solenoid	<i>Harness Routing Views</i>	—
G101	In the engine compartment, attached to the front of the left wheelhouse	<i>Harness Routing Views</i>	—
G102	In the engine compartment, attached to the front of the right wheelhouse	<i>Harness Routing Views</i>	—
G105	Attached to the top right side of the radiator support	<i>Harness Routing Views</i>	—
G106	Attached to the top left side of the radiator support	<i>Harness Routing Views</i>	—
G109	Attached to the left front frame rail, forward of the brake pressure modulator valve bracket	<i>Harness Routing Views</i>	—
G110 (V6 VIN K)	In the front of the engine, bolted to the pulley above the A/C clutch connector	<i>Harness Routing Views</i>	—
G110 (V8 VIN G)	Attached to the rear of the left cylinder head	<i>Harness Routing Views</i>	—
G111 (V6 VIN K)	Attached to the left engine mount	<i>Harness Routing Views</i>	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
G111 (V8 VIN G)	Attached to the lower left side of the engine, behind the generator	<i>Harness Routing Views</i>	—
G112	Attached to the rear of the left cylinder head	<i>Harness Routing Views</i>	—
G200	Near the left A-pillar, bolted to the IP mounting stud behind the kick panel	<i>Harness Routing Views</i>	—
G201	Near the right A-pillar, bolted to the IP mounting stud behind the kick panel	<i>Harness Routing Views</i>	—
G202	Attached to the floor pan under the center console, rear of the inflatable restraint sensing and diagnostic module (SDM)	<i>Harness Routing Views</i>	—
G305	Bolted to the left rocker panel at the floor pan bar	<i>Harness Routing Views</i>	—
G310	Bolted to the roof, left of the dome lamp	<i>Harness Routing Views</i>	—
G320	Bolted to the roof, left of the dome lamp	—	—
G400	Bolted to the rear compartment lid release actuator bracket in the rear compartment	<i>Harness Routing Views</i>	—
P100	Left side in the dash panel, engine to the passenger compartment	<i>Harness Routing Views</i>	—
P110	Right side in the dash panel, engine to the passenger compartment	<i>Harness Routing Views</i>	—
P300	In the rear center of the roof, near the dome lamp	<i>Harness Routing Views</i>	—
P400	In the rear of the cargo compartment, left of the rear compartment lid release actuator	<i>Harness Routing Views</i>	—
P500	Between the driver door and A-pillar	<i>Harness Routing Views</i>	—
P600	Between the passenger door and A-pillar	<i>Harness Routing Views</i>	—
S100 (V8 VIN G) (Automatic Transmission)	In the engine harness, approximately 12 cm (4.7 in) from the automatic transmission breakout	—	—
S100 (V8 VIN G) (Manual Transmission)	In the engine harness, approximately 5 cm (2 in) from the vehicle speed sensor breakout	—	—
S101 (V6 VIN K)	In the engine harness main branch, approximately 15 cm (6 in) from the powertrain control module (PCM) breakout	—	—
S102 (V6 VIN K)	In the engine harness, approximately 21 cm (8.3 in) from G211 breakout	—	—
S102 (V8 VIN G)	In the engine harness, main branch, approximately 7 cm (2.8 in) from the engine oil pressure sensor breakout	—	—
S104 (V6 VIN K)	In the engine harness, approximately 7 cm (2.3 in) from the right knock sensor breakout	—	—
S104 (V8 VIN G)	In the engine harness, approximately 14 cm (5.5 in) from the powertrain control module (PCM) breakout	—	—
S105 (V8 VIN G)	In the engine harness at the A/C refrigerant pressure sensor breakout	—	—
S106 (V8 VIN G)	In the engine harness, main branch approximately 4 cm (1.6 in) from the powertrain control module (PCM) breakout	—	—
S107 (V6 VIN K)	In the engine harness, main branch, approximately 21 cm (8.3 in) from the powertrain control module (PCM) breakout	—	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S107 (V8 VIN G)	In the engine harness, main branch, approximately 7 cm (2.8 in) from the powertrain control module (PCM) breakout	—	—
S108 (V6 VIN K)	In the engine harness, main branch, approximately 15 cm (6 in) from G112 breakout	—	—
S108 (V8 VIN G) (Automatic Transmission)	In the engine harness, main branch, approximately 5 cm (2 in) from the automatic transmission breakout	—	—
S108 (V8 VIN G) (Manual Transmission)	In the engine harness, main branch, approximately 12 cm (4.7 in) from the vehicle speed sensor breakout	—	—
S109 (V8 VIN G)	In the engine harness, approximately 8 cm (3.2 in) from the fuel injector 4 breakout	—	—
S110 (V6 VIN K)	In the engine harness, approximately 4 cm (1.6 in) from the powertrain control module (PCM) breakout	—	—
S110 (V8 VIN G)	In the engine harness, main branch, approximately 20 cm (7.9 in) from the powertrain control module (PCM) breakout	—	—
S112	In the forward lamp harness, approximately 9 cm (3.5 in) from the right lamps breakout	—	—
S113	In the forward lamp harness approximately 7 cm (2.8 in) from the electronic throttle control (ETC) module/cruise control module breakout	—	—
S115 (V6 VIN K)	In the engine harness at the generator breakout	—	—
S115 (V8 VIN G)	In the engine harness, approximately 20 cm (7.9 in) back from the A/C compressor clutch breakout	—	—
S122 (V8 VIN G)	In the engine jumper harness	—	—
S124 (V8 VIN G)	In the engine jumper harness	—	—
S155	In the forward lamp harness, approximately 27 cm (10.6 in) from the electronic throttle control (ETC) module/cruise control module breakout	—	—
S163	In the forward lamp harness, approximately 11 cm (4.3 in) into the electronic brake control module (EBCM) breakout	—	—
S164	In the forward lamp harness, approximately 11 cm (4.3 in) from the main branch into the engine wiring harness junction block 2 breakout	—	—
S165	In the forward lamp harness, approximately 7 cm (2.8 in) from the main branch into the engine wiring harness junction block 2 breakout	—	—
S168	In the forward lamp harness, approximately 8 cm (3.2 in) from the main branch into the engine wiring harness junction block 1 breakout	—	—
S169	In the forward lamp harness, approximately 6 cm (2.4 in) from the main branch into the engine wiring harness junction block 1 breakout	—	—

Power and Grounding Components (cont'd)

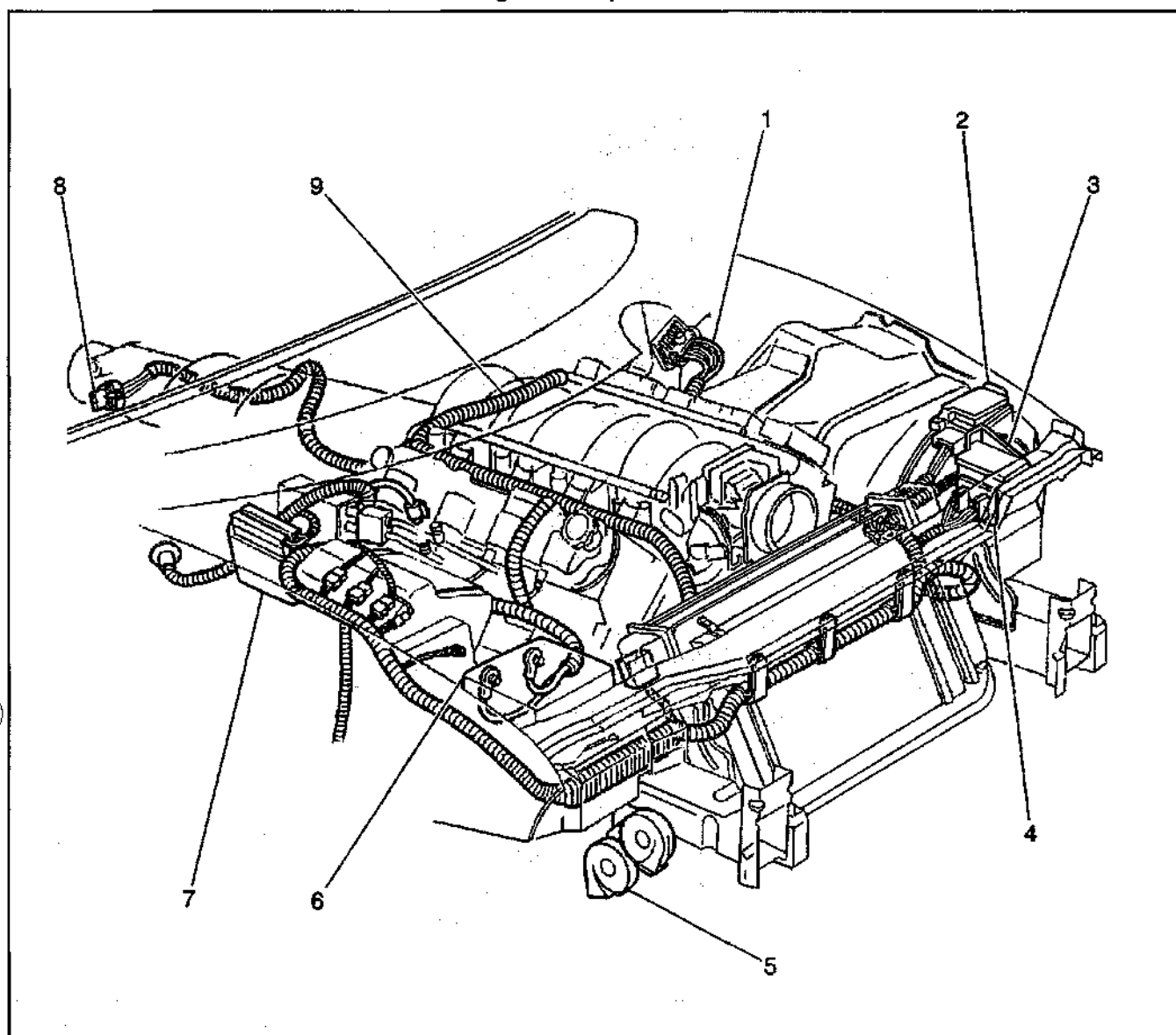
Name	Location	Locator View	Connector End View
S170	In the forward lamp harness, approximately 13 cm (5.1 in) from G106 breakout	—	—
S171	In the forward lamp harness, approximately 10 cm (4 in) from G102 breakout	—	—
S177 (V8 VIN G)	In the forward lamp harness, approximately 5 cm (2 in) from the engine wiring harness junction block 1 breakout	—	—
S179	In the forward lamp harness, approximately 25 cm (9.8 in) from the engine wiring harness junction block 1 breakout	—	—
S181	In the forward lamp harness, approximately 20 cm (8 in) from the engine wiring harness junction block 1 breakout	—	—
S182	In the forward lamp harness, approximately 15 cm (6 in) from the engine wiring harness junction block 1 breakout	—	—
S183	In the forward lamp harness, approximately 10 cm (4 in) from the engine wiring harness junction block 1 breakout	—	—
S185	In the forward lamp harness, at the engine wiring harness junction block 1 breakout	—	—
S203	In the forward lamp harness, main branch, approximately 4 cm (1.6 in) from the ignition switch breakout	—	—
S206	In the IP harness, at the rear compartment lid release relay breakout	—	—
S207	In the IP harness, main branch, approximately 4 cm (1.6 in) from the data link connector (DLC) breakout	—	—
S208	In the cross car harness, main branch, approximately 26 cm (10.2 in) from the power window control module breakout	—	—
S209	In the forward lamp harness, main branch, approximately 11 cm (4.3 in) from the ignition switch breakout	—	—
S210 (Chevrolet Export)	In the forward lamp harness, main branch, approximately 8 cm (3 in) from the ignition switch breakout	—	—
S211	In the IP harness, main branch, approximately 7 cm (2.8 in) from the rear compartment lid release relay breakout	—	—
S215	In the IP harness, main branch, approximately 11 cm (4 in) from the antenna cable breakout	—	—
S216	In the IP harness, main branch, approximately 10 cm (4 in) from the instrument cluster breakout	—	—
S217	In the IP harness, main branch, approximately 18 cm (6.8 in) from the body control module (BCM) breakout	—	—
S218	In the IP harness, approximately 4 cm (1.6 in) from the instrument cluster breakout	—	—
S220	In the cross car harness, main branch, approximately 9 cm (3.5 in) from C200C breakout	—	—

Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S224	In the IP harness, main branch, approximately 17 cm (6.7 in) from the instrument cluster breakout	—	—
S232	In the IP harness, approximately 7 cm (2.8 in) from the park brake switch breakout	—	—
S240	In the IP harness, main branch, approximately 17 cm (6.7 in) from the antenna cable breakout	—	—
S248	In the IP harness, approximately 2 cm (0.8 in) from DRL module breakout	—	—
S252 (Convertible)	In the IP harness, main branch, approximately 48 cm (19 in) from G200 breakout	—	—
S253 (Convertible)	In the IP harness, main branch, approximately 4 cm (1.6 in) from the instrument cluster breakout	—	—
S254	In the IP harness, approximately 7 cm (2.8 in) from the main branch into the C200 breakout	—	—
S255	In the IP harness, approximately 7 cm (2.8 in) into the IP fuse block breakout	—	—
S260	In the cross car harness, main branch, approximately 11 cm (4.3 in) from the inside rearview mirror breakout	—	—
S320 (AQ9)	In the seat jumper harness, main branch, approximately 7 cm (2.8 in) from C310 breakout	—	—
S321 (AQ9)	In the seat jumper harness, main branch, approximately 13 cm (5.1 in) from C310 breakout	—	—
S333 (Convertible)	In the IP harness, approximately 11 cm (4.3 in) from the body control module (BCM) breakout	—	—
S333 (Coupe)	In the IP harness, main branch, approximately 23 cm (9.1 in) from the remote compact disc player/left rear speaker breakout	—	—
S410	In the rear body harness, main branch, approximately 27 cm (10.3 in) from P400 breakout, toward the right taillamp	—	—
S420	In the hatch harness, main branch, approximately 7 cm (2.8 in) from P300 breakout	—	—
S430	In the rear fascia harness, main branch, approximately 12 cm (5.7 in) from the license lamp breakout	—	—
S430 (Export)	In the rear fascia harness, approximately 8 cm (3.2 in) from the main branch, in license lamp breakout	—	—
S470	In the IP harness, approximately 6 cm (9.5 in) from the G400 breakout	—	—

Power and Grounding Component Views

Engine Compartment

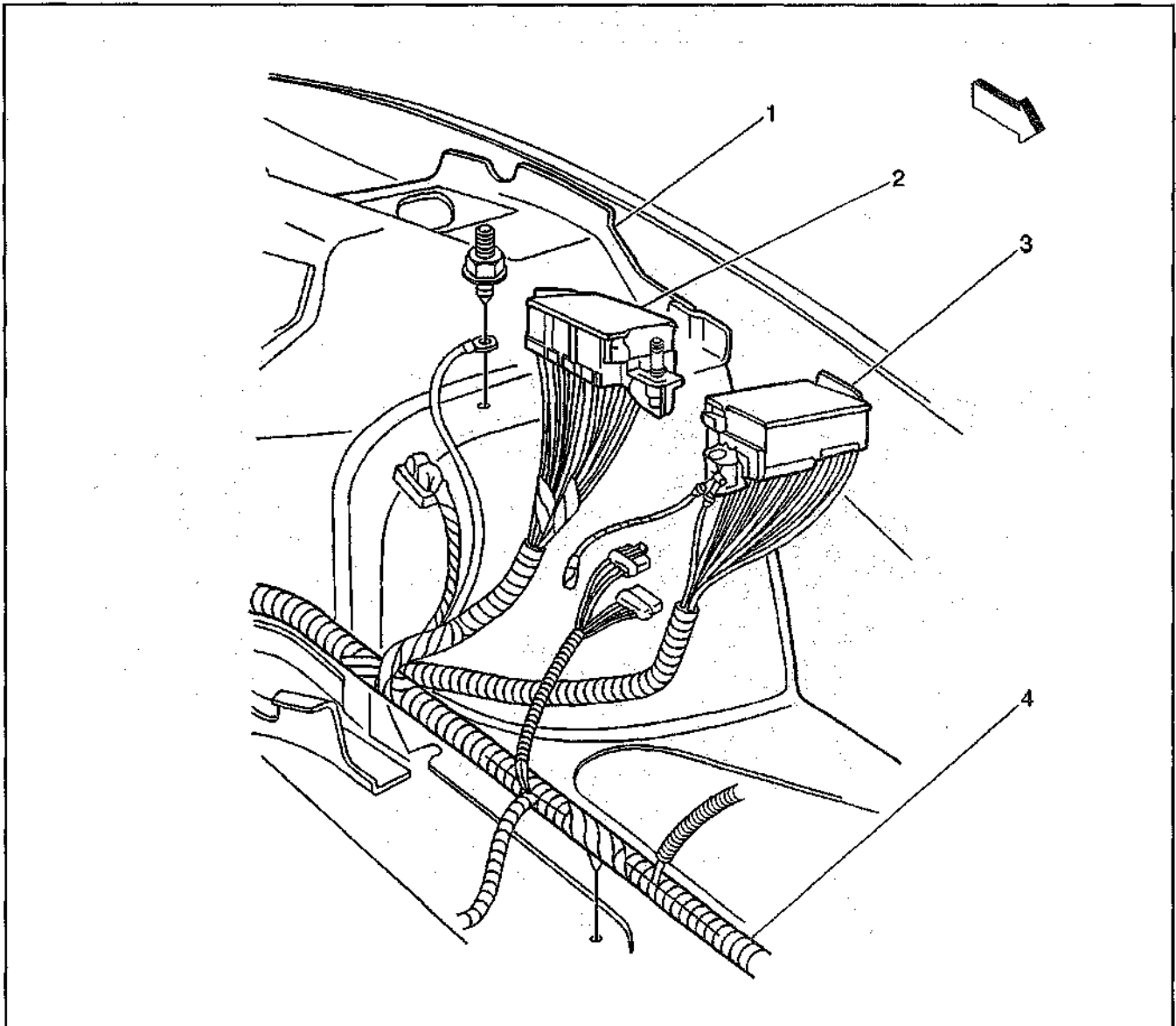


374323

Legend

- | | |
|--|-------------------------------------|
| (1) Forward Lamp Wiring Harness | (6) Battery |
| (2) Engine Wiring Harness Junction Block 1 | (7) Powertrain Control Module (PCM) |
| (3) Engine Wiring Harness Junction Block 2 | (8) Vehicle Speed Sensor |
| (4) Headlamp Opening Door Actuator Module | (9) Engine Wiring Harness |
| (5) Horns | |

Left Front Corner of the Engine Compartment

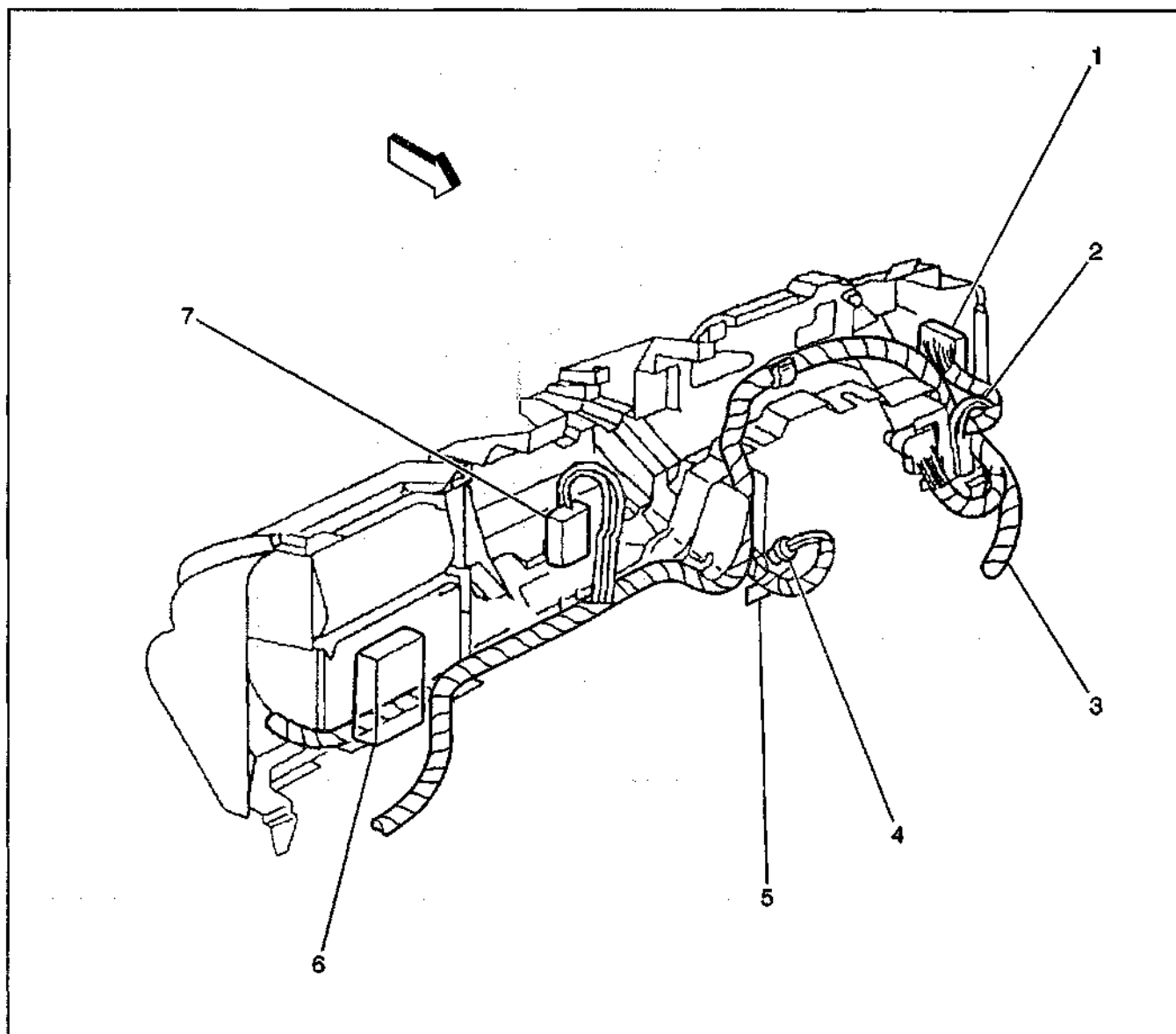


374361

Legend

- | | |
|--|--|
| (1) Left Front Wheelhouse | (3) Engine Wiring Harness Junction Block 1 |
| (2) Engine Wiring Harness Junction Block 2 | (4) Forward Lamp Wiring Harness |

Rear View of the Instrument Panel

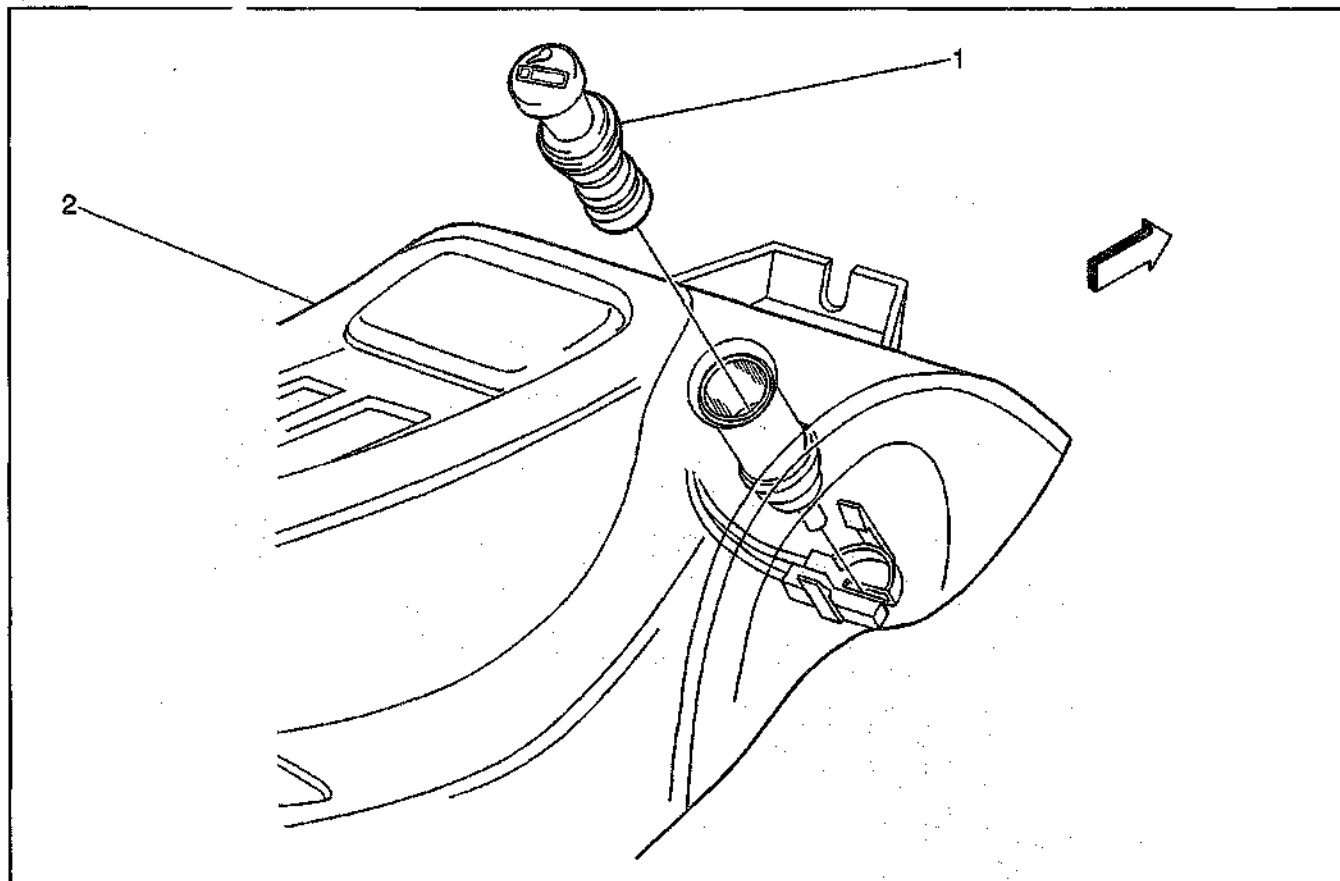


374415

Legend

- | | |
|------------------------------|--|
| (1) IP Fuse Block | (5) Data Link Connector (DLC) |
| (2) Hazard Lamp Flasher | (6) Body Control Module (BCM) |
| (3) IP Wiring Harness | (7) Daytime Running Lamps (DRL) Module |
| (4) Turn Signal Lamp Flasher | |

Center Console (Pontiac Automatic)



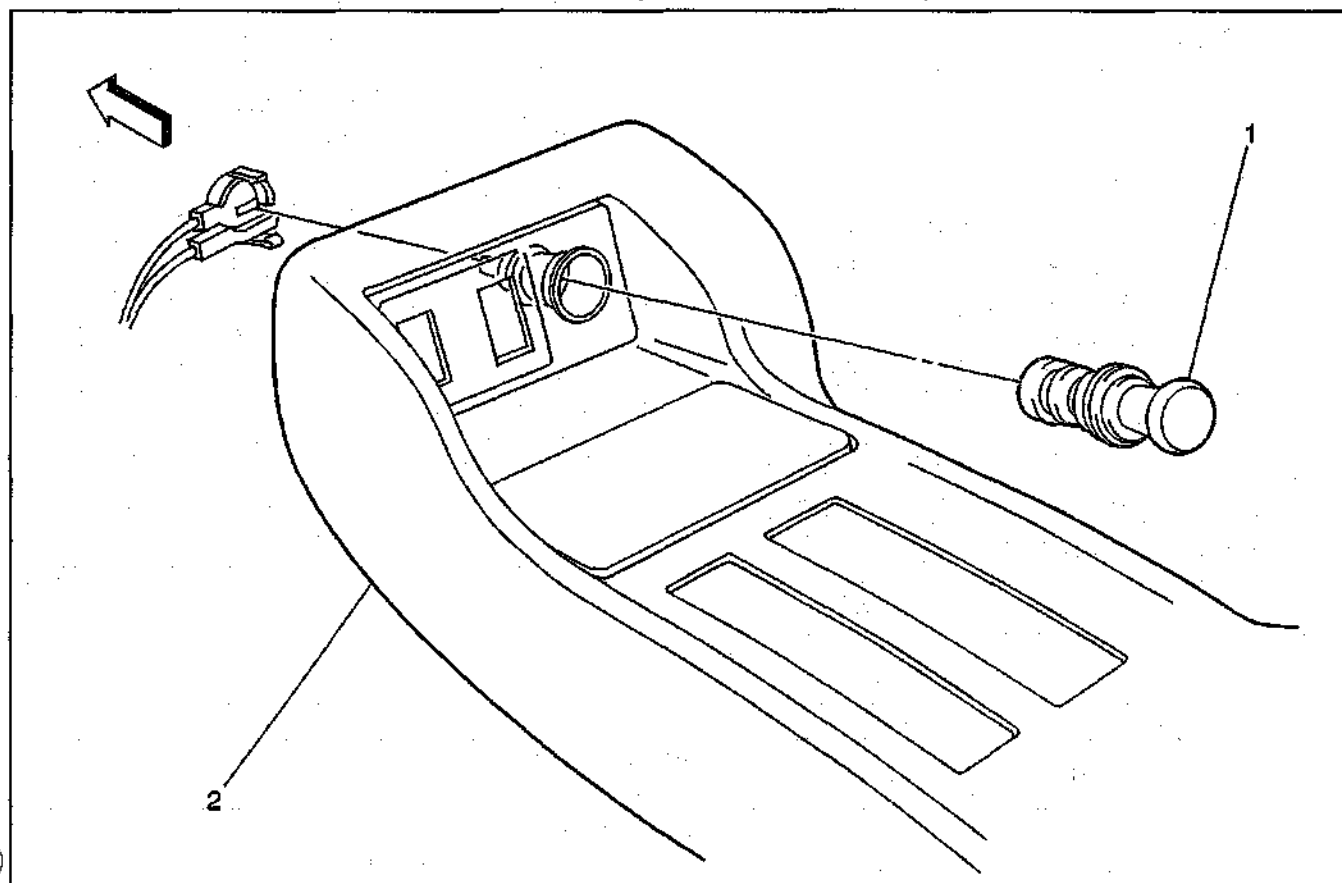
374325

Legend

(1) Cigar Lighter

(2) Center Console

Center Console (Chevrolet Automatic)



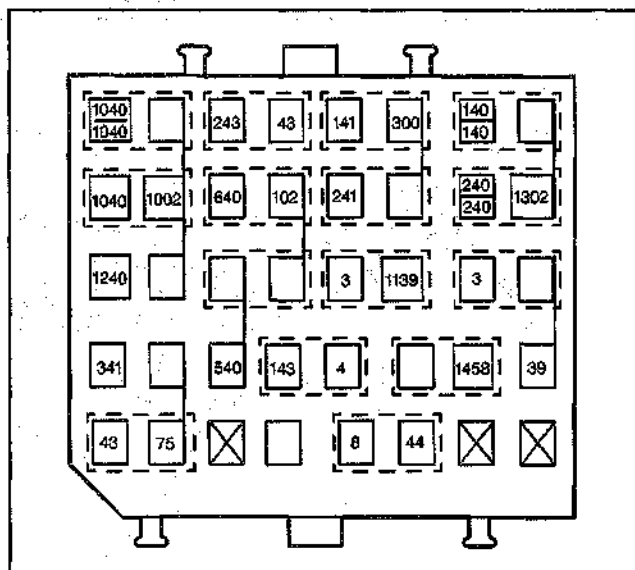
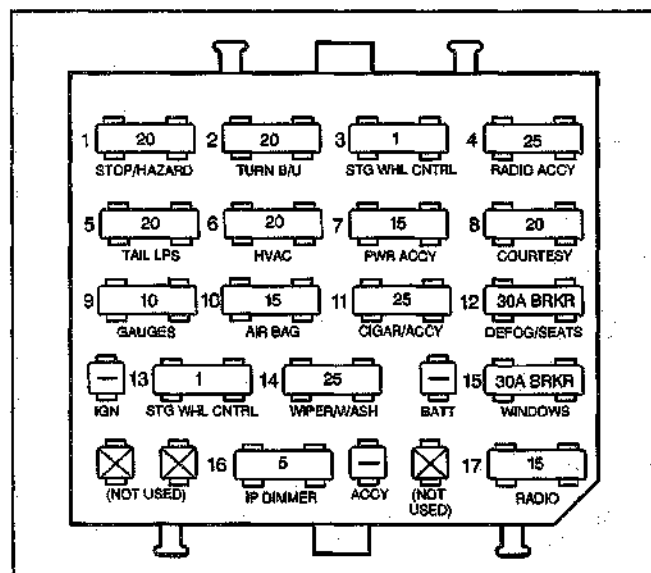
374326

Legend

- (1) Cigar Lighter
- (2) Center Console (Chevrolet Automatic Shown, Pontiac and Chevrolet Manual Similar)

Electrical Center Identification Views

IP Fuse Block



500150

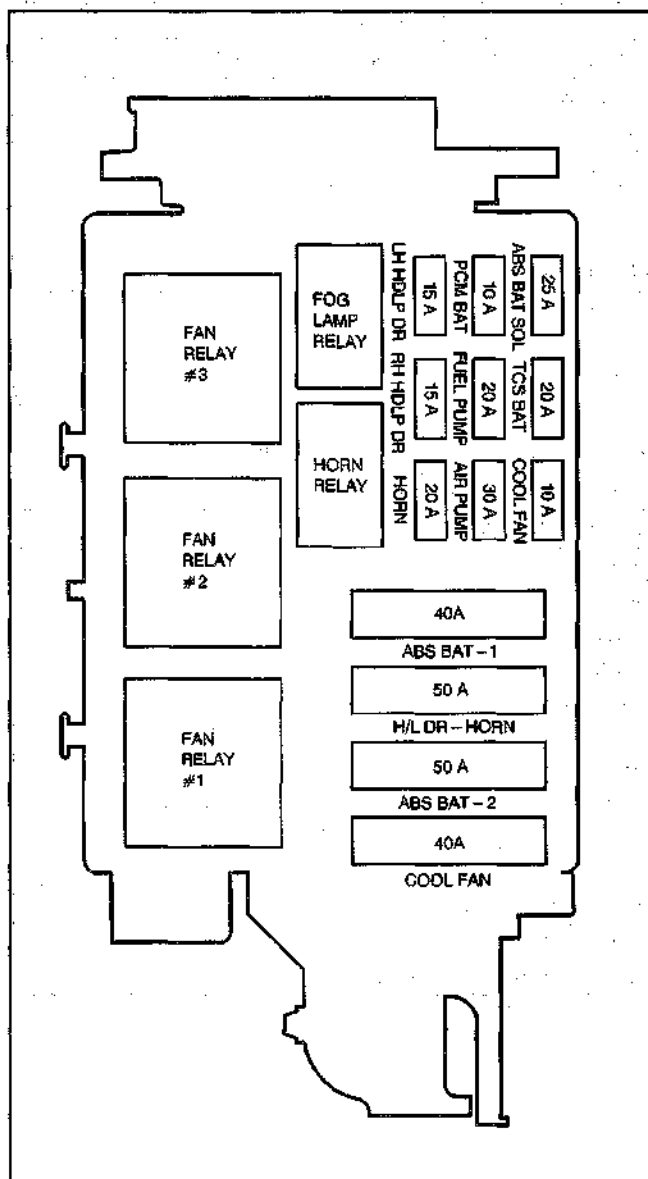
IP Fuse Block MiniFuse® Application

Fuse	Rating	Description
1 - STOP/HAZARD	20A	- Hazard lamp flasher - Stop lamp switch
2 - TURN B/U	20A	- Backup lamp switch - Daytime running lamps (DRL) module - Park/neutral position switch - Turn signal lamp flasher
3 - STG WHL CNTRL	1A	Steering wheel controls
4 - RADIO ACCY	25A	- Amplifier - Antenna, radio power - Remote compact disc player
5 - TAIL LPS	20A	- Daytime running lamps (DRL) module - Headlamp switch
6 - HVAC	20A	HVAC control
7 - PWR ACCY	15A	- Instrument cluster - Outside rearview mirror switch - Radio - Rear compartment lid release relay - Theft deterrent relay - Theft deterrent shock sensor
8 - COURTESY	20A	Body control module (BCM)
9 - GAUGES	10A	- Body control module (BCM) - Daytime running lamps (DRL) module - Second gear start switch (V6 VIN K without traction control) - Traction control switch - Instrument cluster - Stop lamp switch

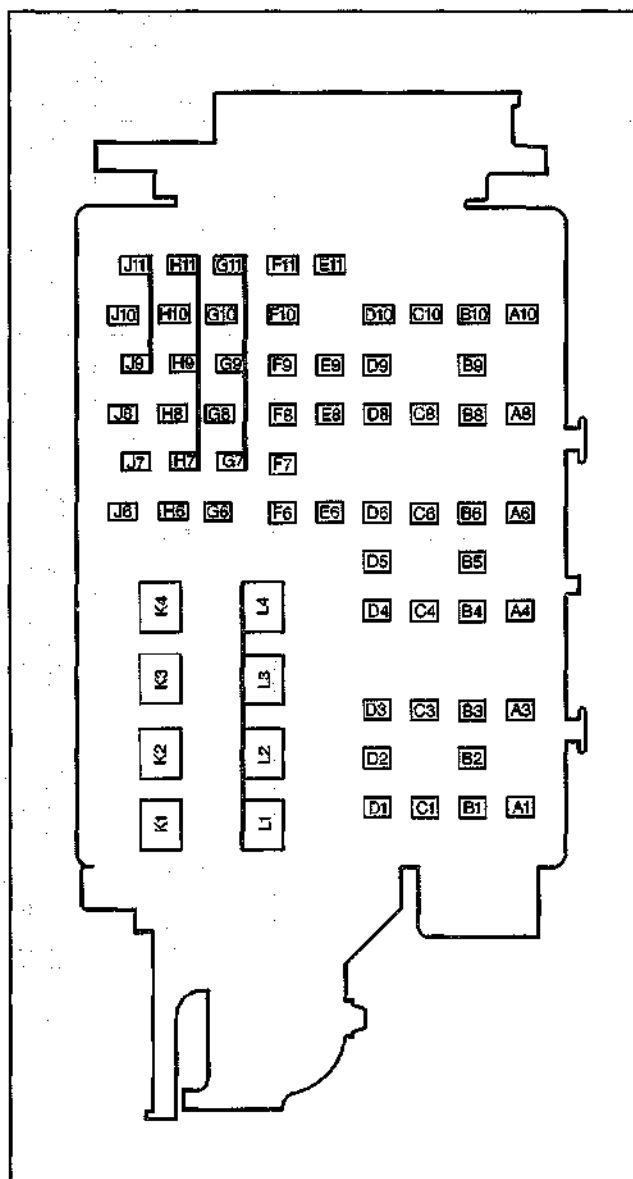
IP Fuse Block MiniFuse® Application (cont'd)

Fuse	Rating	Description
10 - AIR BAG	15A	Inflatable restraint sensing and diagnostic module (SDM)
11 - CIGAR/ACCY	25A	• Auxiliary power outlet • Cigar lighter • Data link connector (DLC)
12 - DEFOG/SEATS	30A	• Driver seat assembly • HVAC control • Passenger seat assembly
13 - STG WHL CNTRL	1A	Steering wheel controls
14 - WIPER/WASH	25A	• Windshield wiper motor • Wiper/washer switch
15 - WINDOWS	30A	• Folding top relay (with ETA) • Folding top switch • Power window control module • Rear Fog Lamp Relay (Export) • Side window switches
16 - IP DIMMER	5A	• Ashtray lamp • Door illumination lamps • Fog lamp switch • Folding top switch • Headlamp switch • HVAC control • Instrument cluster • PRNDL illumination lamp • Radio • Rear fog lamp switch (Export) • Second gear start switch • Traction control switch
17 - RADIO	15A	• Body control module (BCM) • Radio • STG WHL CNTRL Fuse 3

Engine Wiring Harness Junction Block 1



500152



500154

Engine Wiring Harness Junction Block 1 MaxiFuse® Application

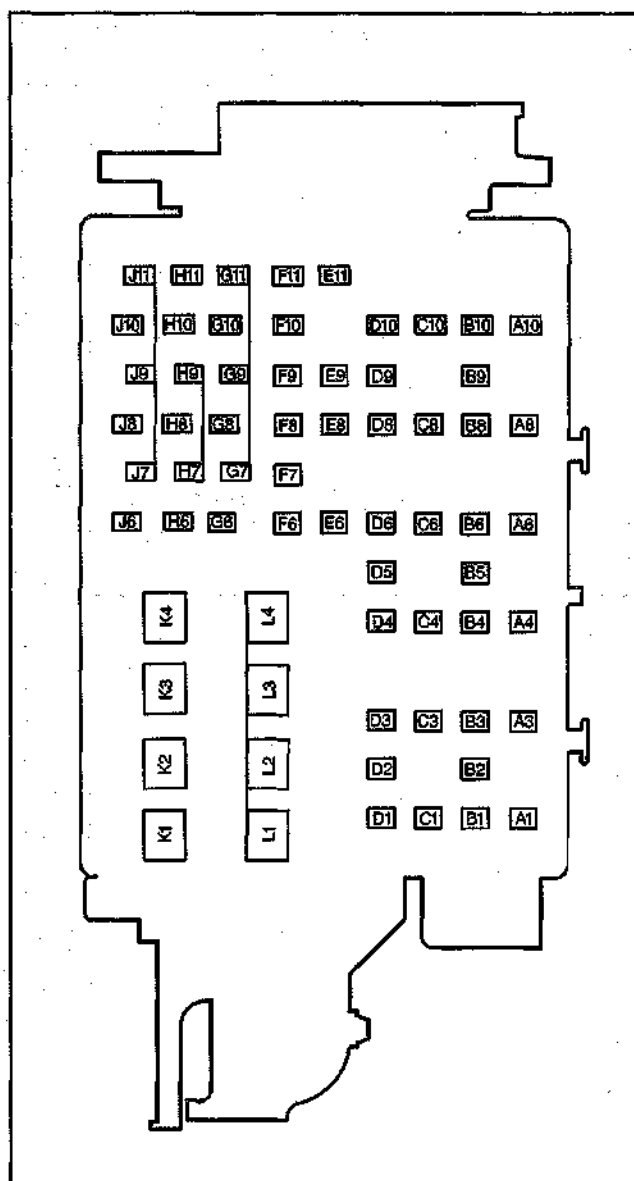
Fuse	Rating	Description
ABS BAT 1	40A	Electronic brake control module (EBCM)
ABS BAT 2	50A	• ABS BAT SOL MiniFuse® • TCS BAT MiniFuse®
COOL FAN	40A	• COOL FAN relay 1 • COOL FAN relay 2 • COOL FAN relay 3 • COOL FAN MiniFuse®
H/L DOOR-HORN	50A	• HORN MiniFuse® • LH HDLP DR MiniFuse® • RH HDLP DR MiniFuse®

Engine Wiring Harness Junction Block 1 MiniFuse® Application

Fuse	Rating	Description
ABS BAT SOL	25A	Electronic brake control module (EBCM)
AIR PUMP	30A	• AIR pump relay • Secondary air injection (AIR) bypass valve
COOL FAN	10A	• COOL FAN relay 1 • COOL FAN relay 2 • COOL FAN relay 3
FUEL PUMP	20A	Fuel pump relay
HORN	20A	Horn relay
LH HDLP DR	15A	Headlamp opening door actuator control module
PCM BAT	10A	Powertrain control module (PCM)
RH HDLP DR	15A	Headlamp opening door actuator control module
TCS BAT	20A	• Accelerator and servo control module (ASM) • Throttle actuator control (TAC) module

The diagram illustrates the layout of the engine compartment, highlighting the positions of various electrical components. On the left side, there are four large rectangular boxes representing relays: FUEL PUMP RELAY, A/C COMP RELAY, STARTER RELAY, and IGN RELAY. To the right of these, there is a smaller box labeled Air Pump Relay. Further to the right, a vertical column of fuses is shown, each with its amperage rating and function: 15 A, INJ 2; 15 A, INJ 1; 20 A, ENG SEN; 15 A, ABS IGN; 15 A, PCM IGN; 10 A, STRIP; 15 A, ENG CTRL; 10 A, A/C CRUISE; and ETC. Below this column, there are four horizontal fuse blocks: 50 A, ENG CTRL; 40 A; 50 A, I/P - 1; 40 A, IGN; and 40 A, I/P - 2.

500157



500161

Engine Wiring Harness Junction Block 2 MaxiFuse® Application Table

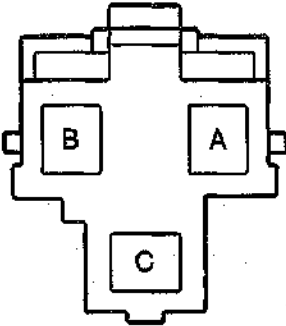
Fuse/Circuit Breaker	Rating	Description
ENG CTRL	50A	- AIR PUMP MiniFuse® - FUEL PUMP MiniFuse® - PCM BAT MiniFuse®
IGN	50A	- Ignition relay - Ignition switch - Starter relay
IP-1	40A	Blower motor relay
IP-2	40A	- STOP/HAZARD MiniFuse® - TAIL LPS MiniFuse®

Engine Wiring Harness Junction Block 2 MiniFuse® Application Table

Fuse/Circuit Breaker	Rating	Description
ABS IGN	10A	- Electronic brake control module (EBCM) - Accelerator and servo control module (ASM)
ETC	10A	Throttle actuator control (TAC) module
A/C CRUISE	15A	- A/C compressor relay - Cruise control (clutch) switch - Cruise control module - Cruise control release (brake) switch - Multi-function lever (cruise control switches)
ENG CTRL	15A	- Automatic transmission (V6 VIN K) Electronic ignition control module - Evaporative emission (EVAP) canister purge solenoid valve - Evaporative emission (EVAP) canister vent solenoid valve
ENG SEN	20A	- Heated oxygen sensors - Manual transmission (V8 VIN G) - Mass air flow (MAF) sensor - Stop lamp switch
INJ 1	15A	(V6 VIN K) Fuel injectors (V8 VIN G) Fuel injectors, Bank 1 (V8 VIN G) Ignition coils/modules, Bank 1
INJ 2	15A	(V8 VIN G) Fuel injectors, Bank 2 (V8 VIN G) Ignition coils/modules, Bank 2
PCM IGN	15A	Powertrain control module (PCM)
STRTR	15A	- Clutch pedal position (CPP) switch - Park/neutral position switch - Instrument cluster - Powertrain control module (PCM)

Power and Grounding Connector
End Views

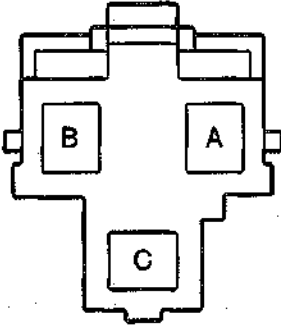
Auxiliary Power Outlet



320518

Connector Part Information		• 1217-6446 • 3-Way F Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	ORN	540	Fused Input Feed
B	—	—	Not Used
C	BLK	650	Ground

Cigar Lighter



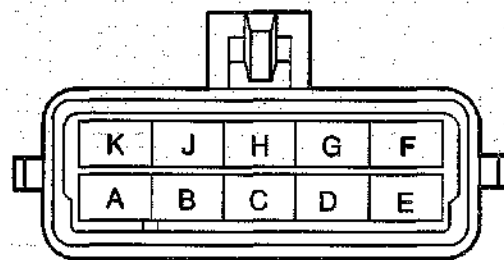
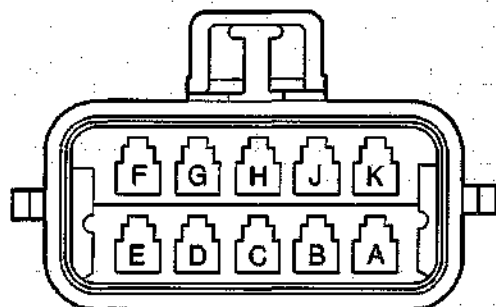
365964

Connector Part Information		• 1217-6445 • 3-Way F Metri-pack 280 Series (NAT)	
Pin	Wire Color	Circuit No.	Function
A	ORN	540	Fused Input Feed
B	—	—	Not Used
C	BLK	650	Ground

Visual Identification

Inline Harness Connector End Views

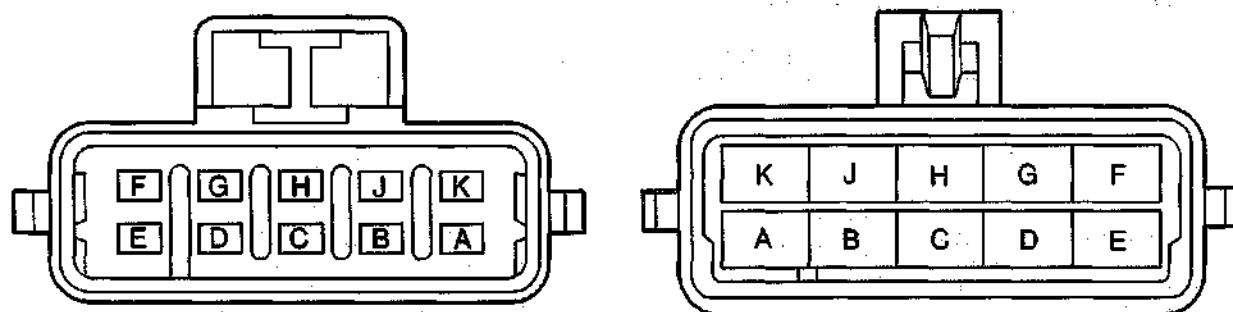
In-Line Connector C100



510678

Connector Part Information		• 1206-5425 • 10-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1204-8253 • 10 - Way M Metri-pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PNK	639	Fused Feed Input	A	PNK/WHT	639	Fused Feed Input
B	DK GRN/ WHT	459	A/C Compressor Relay Control	B	DK GRN/ WHT	459	A/C Compressor Relay Control
C	DK GRN	59	A/C Compressor Clutch Solenoid Feed	C	DK GRN	59	A/C Compressor Clutch Solenoid Feed
D	GRY	596	(V8 VIN G) (+NW9) Reference Voltage Feed - 5 Volt Reference	D	GRY	596	(V8 VIN G) (+NW9) Reference Voltage Feed - 5 Volt Reference
E	DK BLU	417	(V8 VIN G) (+NW9) Throttle Position Sensor Signal	E	DK BLU	417	(V8 VIN G) (+NW9) Throttle Position Sensor Signal
F	BRN	86	(V6 VIN K) Brake Pedal Switch Output	F	BRN	86	(V6 VIN K) Brake Pedal Switch Output
G	PNK	239	Fused Input Feed	G	PNK	239	Fused Input Feed
H	DK BLU	473	Coolant Fan Relay Control	H	DK BLU	473	Coolant Fan Relay Control
J	DK GRN	335	Coolant Fan Relay Control	J	DK GRN	335	Coolant Fan Relay Control
K	BLK	452	(V8 VIN G) (+NW9) Sensor Return	K	BLK	452	(V8 VIN G) (+NW9) Sensor Return

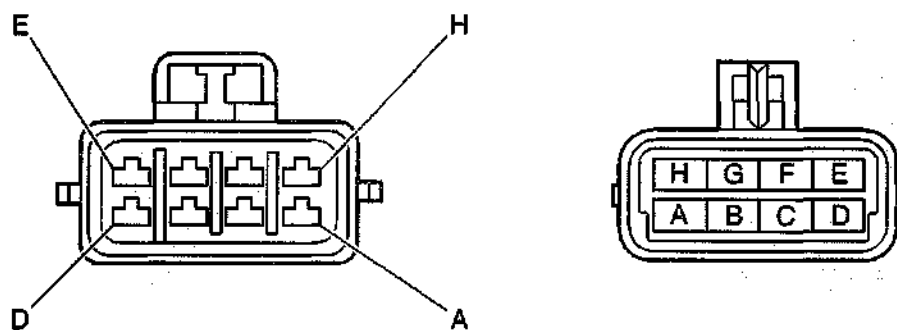
In-Line Connector C101



280743

Connector Part Information		• 1206-5426 • 10-Way F Metri-pack 150 Series (GRY)		Connector Part Information		• 1206-5648 • 10-Way M Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL/BLK	625	Vehicle Anti-Theft System Starter Enable Relay Output - Coil	A	YEL/BLK	625	Vehicle Anti-Theft System Starter Enable Relay Output - Coil
B	BLK/WHT	451	(V6 VIN K) Ground	B	BLK/WHT	451	(V6 VIN K) Ground
B	PNK	839	(V8 VIN G) Fused Input Feed	B	PNK	839	(V8 VIN G) Fused Input Feed
C	BRN	436	(V8 VIN G) Idle Speed Control Motor Relay Output-Coil	C	BRN	436	(V8 VIN G) Idle Speed Control Motor Relay Output-Coil
D	DK GRN/WHT	465	Fuel Pump Relay Feed - Coil	D	DK GRN/WHT	465	Fuel Pump Relay Feed - Coil
E	PNK	439	Fused Input Feed	E	PNK/BLK	439	Fused Input Feed
F	—	—	Not Used	F	—	—	Not Used
G	ORN	340	Fused Input Feed	G	ORN	340	Fused Input Feed
H	BLK/WHT	451	Ground	H	BLK/WHT	451	Ground
J	PPL/WHT	1035	(V6 VIN K) Starter Relay Feed-Coil	J	PPL/WHT	1035	(V6 VIN K) Starter Relay Feed-Coil
K	DK GRN	220	(V6 VIN K) Vehicle Anti-Theft System Signal-Starter Inhibit	K	DK GRN	220	(V6 VIN K) Vehicle Anti-Theft System Signal-Starter Inhibit
K	GRY/BLK	1687	(V8 VIN G) (+NW9) Ignition Retard Signal	K	GRY/BLK	1687	(V8 VIN G) (+NW9) Ignition Retard Signal

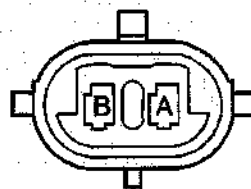
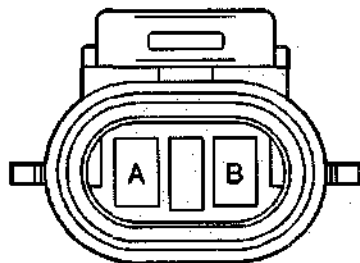
In-Line Connector C105



229958

Connector Part Information				Connector Part Information			
• 1204-7937 • 8-Way F Metri-pack 150 Series (BLK)				• 1205-2454 • 8-Way M Metri-pack 150 Series (BLK)			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PPL/WHT	1572	(V6 VIN K) (M30, - NW9) Traction Control System Indicator Lamp Output - Failure	A	PPL/WHT	1572	(V6 VIN K) (M30, - NW9) Traction Control System Indicator Lamp Output - Failure
B	PNK	539	Fused Output - Ignition	B	PNK	539	Fused Output - Ignition
C	BRN/WHT	1571	(V6 VIN K) (M30, - NW9) Traction Control System Switch Signal	C	BRN/WHT	1571	(V6 VIN K) (M30, - NW9) Traction Control System Switch Signal
D	ORN/BLK	463	(V6 VIN K) (+ NW9) Traction Control System Signal - Torque Desired	D	ORN/BLK	463	(V6 VIN K) (+ NW9) Traction Control System Signal - Torque Desired
D	DK GRN	83	(V8 VIN G) Cruise Control Signal-Disengage	D	DK GRN	83	(V8 VIN G) Cruise Control Signal-Disengage
E	—	—	Not Used	E	—	—	Not Used
F	TAN/BLK	464	(V6 VIN K) (+ NW9) Traction Control System Signal - Torque Delivered	F	TAN/BLK	464	(V6 VIN K) (+ NW9) Traction Control System Signal - Torque Delivered
F	WHT	85	(V8 VIN G) Cruise Control Indicator Lamp Output	F	WHT	85	(V8 VIN G) Cruise Control Indicator Lamp Output
G	WHT	121	(+ NW9) Tachometer Signal	G	WHT	121	(+ NW9) Tachometer Signal
H	ORN	1440	(V8 VIN G) Fused Input Feed	H	ORN	1440	(V8 VIN G) Fused Input Feed

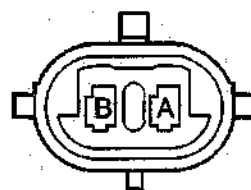
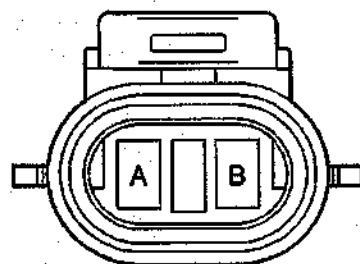
In-Line Connector C120



40381

Connector Part Information		• 1205-2644 • 2-Way F Metri-pack 150 Series (GRY)		Connector Part Information		• 1216-2343 • 2-Way M Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	873	Wheel Speed Sensor Return - Left Front	A	YEL	873	Wheel Speed Sensor Return - Left Front
B	LT BLU	830	Wheel Speed Sensor Signal - Left Front	B	LT BLU	830	Wheel Speed Sensor signal - Left Front

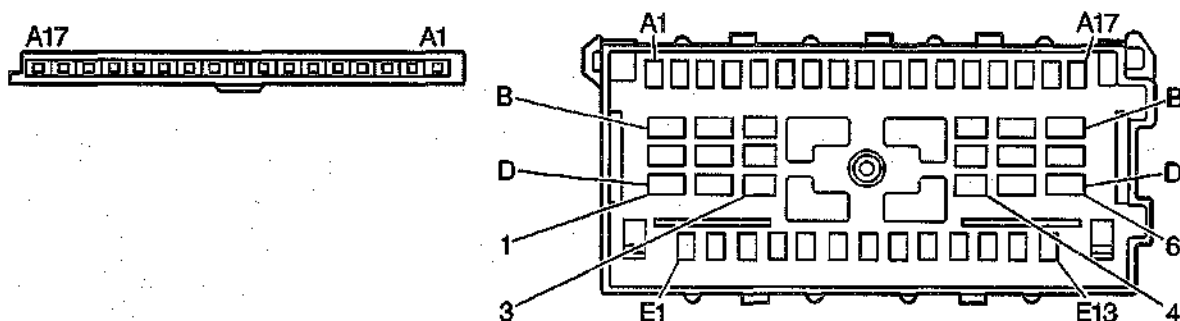
In-Line Connector C130



40381

Connector Part Information		• 1205-2644 • 2-Way F Metri-pack 150 Series (GRY)		Connector Part Information		• 1216-2343 • 2-Way M Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	873	Wheel Speed Sensor Return - Right Front	A	TAN	833	Wheel Speed Sensor Return - Right Front
B	LT BLU	830	Wheel Speed Sensor Signal - Right Front	B	DK GRN	872	Wheel Speed Sensor Signal - Right Front

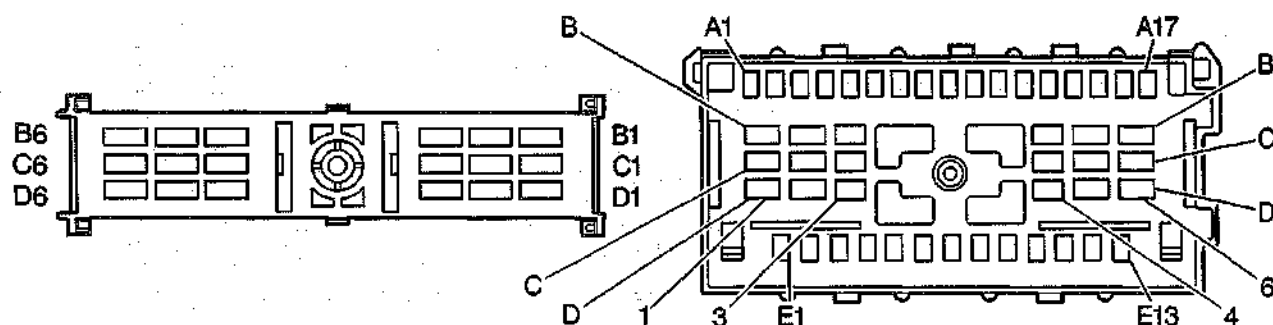
In-Line Connector C200A/C200D



62438

Connector Part Information		• 1204-7842 • 17-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1207-7822 • 48-Way M Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1	DK GRN/ WHT	817	(V8 VIN G) Vehicle Speed Signal - 4000 Pulses Per Mile	A1	DK GRN/ WHT	817	(V8 VIN G) Vehicle Speed Signal - 4000 Pulses Per Mile
A2	LT BLU	14	Turn Signal Lamp Feed - Left Front	A2	LT BLU	14	Turn Signal Lamp Feed - Left Front
A3	LT BLU	1122	ABS Serial Data Signal - Class 2	A3	LT BLU	1122	ABS Serial Data Signal - Class 2
A4	LT BLU	20	Stop Lamp Feed	A4	LT BLU	20	Stop Lamp Feed
A5	ORN/BLK	1061	(V6 VIN K) UART Serial Data Signal	A5	ORN/BLK	1061	(V6 VIN K) UART Serial Data Signal
A6	DK GRN	1433	Clutch Start Switch Output	A6	DK GRN	1433	Clutch Start Switch Output
A7	BLK	28	Horn Relay Output-Coil	A7	BLK	28	Horn Relay Output-Coil
A8	GRY	120	Fuel Pump Motor Feed	A8	GRY	120	Fuel Pump Motor Feed
A9	DK GRN	220	(V6 VIN K) Vehicle Anti-Theft System Signal - Starter Inhibit	A9	DK GRN	220	(V6 VIN K) Vehicle Anti-Theft System Signal - Starter Inhibit
A10	BRN	882	(+ NW9) Wheel Speed Sensor Signal - Right Rear	A10	BRN	882	(+ NW9) Wheel Speed Sensor Signal - Right Rear
A11	WHT	883	(+ NW9) Wheel Speed Sensor Return - Right Rear	A11	WHT	883	(+ NW9) Wheel Speed Sensor Return - Right Rear
A12	TAN	800	(V6 VIN K) Serial Data Signal-UART	A12	TAN	800	(V6 VIN K) Serial Data Signal-UART
A12	BRN/WHT	1571	(+ NW9) Traction Control System Switch Signal	A12	BRN/WHT	1571	(+ NW9) Traction Control System Switch Signal
A13	BRN/WHT	1571	Traction Control System Switch Signal	A13	BRN/WHT	1571	Traction Control System Switch Signal
A14	RED	885	Wheel Speed Sensor Return - Left Rear	A14	RED	885	Wheel Speed Sensor Return - Left Rear
A15	BLK	884	Wheel Speed Sensor Signal - Left Rear	A15	BLK	884	Wheel Speed Sensor Signal - Left Rear
A16	YEL	317	Fog Lamp Relay Feed - Coil	A16	YEL	317	Fog Lamp Relay Feed - Coil
A17	—	—	Not Used	A17	—	—	Not Used

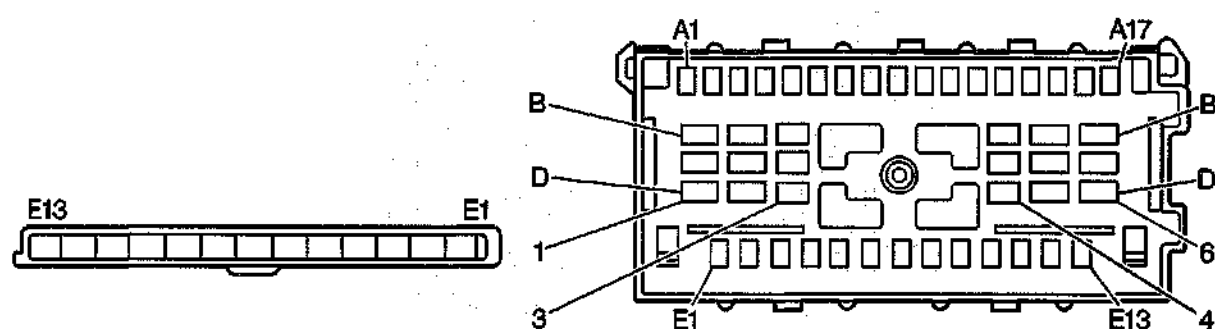
In-Line Connector C200B/C200D



39776

Connector Part Information		• 1216-2504 • 18-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1207-7822 • 48-Way M Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
B1	PNK	3	Ignition Switch Output	B1	PNK	3	Ignition Switch Output
B2	TAN/WHT	33	Brake Warning Indicator Lamp Output	B2	TAN/WHT	33	Brake Warning Indicator Lamp Output
B3	PPL	34	(Pontiac) Fog Lamp Feed	B3	PPL	34	(Pontiac) Fog Lamp Feed
B4	RED	1302	Fused Output - Battery	B4	RED	1302	Fused Output - Battery
B5	YEL	10	Headlamp Switch Output	B5	YEL	10	Headlamp Switch Output
B6	RED	702	Fused Output - Battery	B6	RED	702	Fused Output - Battery
C1	RED	102	Fused Output - Battery	C1	RED	102	Fused Output - Battery
C2	RED	1002	Fused Output - Battery	C2	RED	1002	Fused Output - Battery
C3	LT GRN	11	High Beam Headlamp Feed	C3	LT GRN	11	High Beam Headlamp Feed
C4	PPL/WHT	1572	Traction Control System Indicator Lamp Output - Failure	C4	PPL/WHT	1572	Traction Control System Indicator Lamp Output - Failure
C5	PPL/WHT	1035	Starter Relay Feed - Coil	C5	PPL/WHT	1035	Starter Relay Feed - Coil
C6	BRN	4	Ignition Switch Output - Accessory	C6	BRN	4	Ignition Switch Output - Accessory
D1	RED	1202	Fused Output - Battery	D1	RED	1202	Fused Output - Battery
D2	PNK	239	Fused Output - Ignition	D2	PNK	239	Fused Output - Ignition
D3	YEL	143	Fused Output - Accessory	D3	YEL	143	Fused Output - Accessory
D4	BRN	9	Park Lamp Feed	D4	BRN	9	Park Lamp Feed
D5	—	—	Not Used	D5	—	—	Not Used
D6	DK BLU	15	Turn Signal Lamp Feed - Right Front	D6	DK BLU	15	Turn Signal Lamp Feed - Right Front

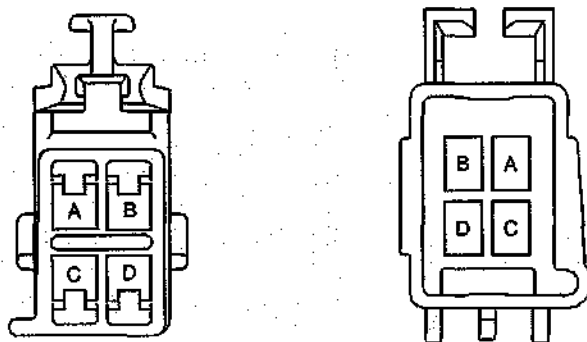
In-Line Connector C200C/C200D



39770

Connector Part Information		• 1204-7840 • 13-Way F Metri-pack 280 Series (BLK)		Connector Part Information		• 1207-7822 • 48-Way M Metri-pack Mixed Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
E1-E2	—	—	Not Used	E1-E2	—	—	Not Used
E3	DK BLU/WHT	149	Courtesy Lamp Feed	E3	DK BLU/WHT	149	Courtesy Lamp Feed
E4	GRY/BLK	745	Door Ajar Switch Signal - Left Front	E4	GRY/BLK	745	Door Ajar Switch Signal - Left Front
E5	BLK/WHT	746	Door Ajar Switch Signal - Right Front	E5	BLK/WHT	746	Door Ajar Switch Signal - Right Front
E6	—	—	Not Used	E6	—	—	Not Used
E7	GRY	8	Instrument Panel Lamp Feed	E7	GRY	8	Instrument Panel Lamp Feed
E8	—	—	Not Used	E8	—	—	Not Used
E9	ORN	640	Fused Output - Battery	E9	ORN	640	Fused Output - Battery
E10	WHT	156	Courtesy Lamp Output	E10	WHT	156	Courtesy Lamp Output
E11	BRN	341	Fused Output - Ignition	E11	BRN	341	Fused Output - Ignition
E12-E13	—	—	Not Used	E12-E13	—	—	Not Used

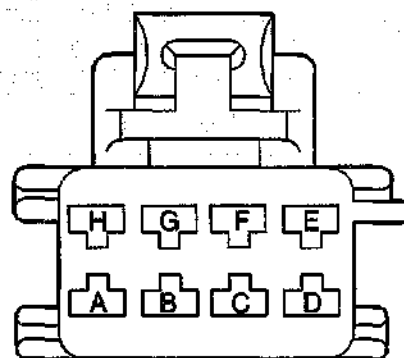
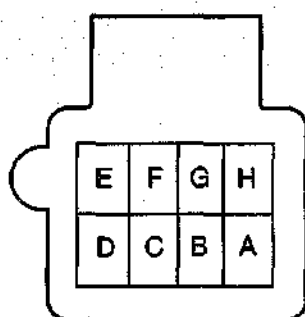
In-Line Connector C206



95855

Connector Part Information		• 1212-9136 • 4-Way F Metri-pack 280 Series (BLK)		Connector Part Information		• 1212-9135 • 4-Way M Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PPL	709	(Japan) Park Lamp Feed	A	PPL	709	(Japan) Park Lamp Feed
A	BRN	141	(Europe: Scandinavia) Fused Output - Ignition	A	BRN	141	(Europe: Scandinavia) Fused Output - Ignition
B	BRN/WHT	309	(Japan) Park Lamp Feed	B	BRN/WHT	309	(Japan) Park Lamp Feed
B	PPL	869	(Europe) Headlamp Leveling Switch Signal	B	PPL	869	(Europe) Headlamp Leveling Switch Signal
C	RED	1372	(Europe: Scandinavia) Fused Output - DRL	C	RED/WHT	1372	(Europe: Scandinavia) Fused Output - DRL
D	BRN	141	(Europe: Scandinavia) Fused Output - Ignition	D	BRN	141	(Europe: Scandinavia) Fused Output - Ignition

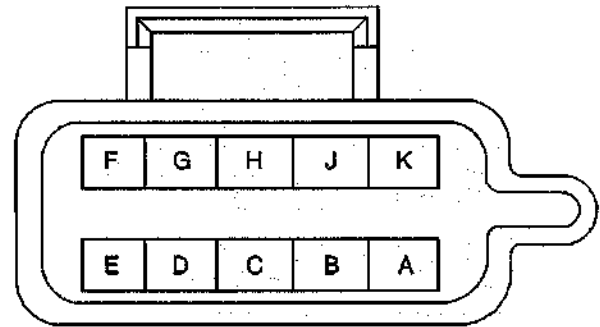
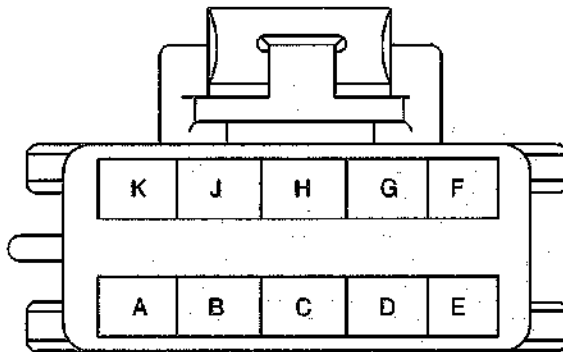
In-Line Connector C211



62461

Connector Part Information		• 1207-7777 • 8-Way M Metri-pack 150 Series (BLU)		Connector Part Information		• 1206-4766 • 8-Way F Metri-pack 150 Series (BLU)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU	417	Throttle Position Sensor Signal	A	DK BLU	417	Throttle Position Sensor Signal
B	WHT	560	Throttle Relaxer Motor Feed	B	WHT	560	Throttle Relaxer Motor Feed
C	ORN	1540	Fused Output - Battery	C	ORN	1540	Fused Output - Battery
D	GRY	561	Throttle Relaxer Motor Return	D	GRY	561	Throttle Relaxer Motor Return
E	BLK/WHT	151	Ground	E	BLK/WHT	151	Ground
F-H	—	—	Not Used	F-H	—	—	Not Used

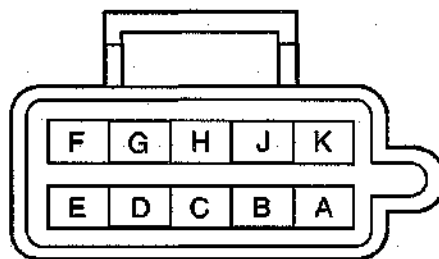
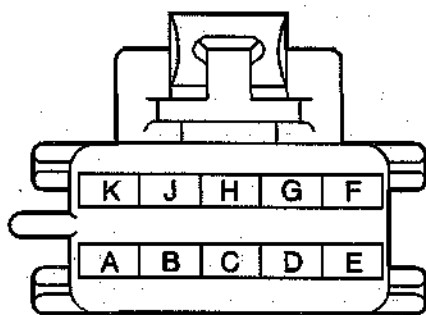
In-Line Connector C212



39763

Connector Part Information		• 1206-4769 • 10-Way F Metri-pack 150 Series (NAT)		Connector Part Information		• 1207-8169 • 10-Way M Metri-pack 150 Series (NAT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN/BLK	463	Traction Control System Signal - Torque Desired	A	ORN/BLK	463	Traction Control System Signal - Torque Desired
B	PNK	739	Fused Output - Ignition	B	PNK	739	Fused Output - Ignition
C	TAN/BLK	464	Traction Control System Signal - Torque Delivered	C	TAN/BLK	464	Traction Control System Signal - Torque Delivered
D	WHT	560	Throttle Relaxer Motor Feed	D	WHT	560	Throttle Relaxer Motor Feed
E	ORN	1540	Fused Output - Battery	E	ORN	1540	Fused Output - Battery
F	GRY	561	Throttle Relaxer Motor Return	F	GRY	561	Throttle Relaxer Motor Return
G	BLK/WHT	151	Ground	G	BLK/WHT	151	Ground
H	—	—	Not Used	H	—	—	Not Used
J	BLK	452	Sensor Return	J	BLK	452	Sensor Return
K	GRY	596	Reference Voltage Feed - 5 Volt Reference	K	GRY/BLK	596	Reference Voltage Feed - 5 Volt Reference

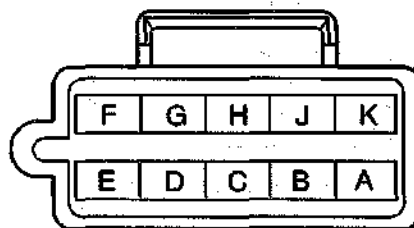
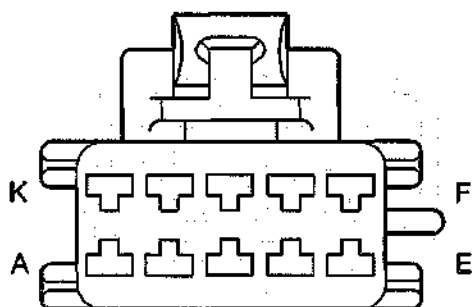
In-Line Connector C220



258237

Connector Part Information		• 1206-4769 • 10-Way F Metri-pack 150 Series (NAT)		Connector Part Information		• 1206-4770 • 10-Way M Metri-pack 150 Series (NAT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	31	Oil Pressure Indicator Lamp Output	A	TAN	31	Oil Pressure Indicator Lamp Output
B	GRY	48	(With MM6/M49) Clutch Switch Signal - Clutch Anticipate	B	GRY	48	(With MM6/M49) Clutch Switch Signal - Clutch Anticipate
C	PNK	539	(With M30) Fused Output - Ignition	C	PNK	539	(With M30) Fused Output - Ignition
D	PPL	420	(With M30) Brake Pedal Switch Output - Torque Converter Clutch	D	PPL	420	(With M30) Brake Pedal Switch Output - Torque Converter Clutch
E	BLK/WHT	451	Ground	E	BLK/WHT	451	Ground
F	ORN/BLK	1061	(V6 VIN K) UART Serial Data Signal	F	ORN/BLK	1061	(V6 VIN K) UART Serial Data Signal
G	BRN	141	(With MM6/M49) Fused Output - Ignition	G	BRN	141	(With MM6/M49) Fused Output - Ignition
H	ORN/BLK	434	(With M30) Transmission Mounted Neutral Safety Switch Signal	H	ORN/BLK	434	(With M30) Transmission Mounted Neutral Safety Switch Signal
H	LT GRN	24	(With MM6/M49) Backup Lamp Feed	H	LT GRN	24	(With MM6/M49) Backup Lamp Feed
J	YEL/BLK	625	Vehicle Anti-Theft System Starter Enable Relay Output - Coil	J	YEL/BLK	625	Vehicle Anti-Theft System Starter Enable Relay Output - Coil
K	DK GRN/WHT	817	Vehicle Speed Signal-4000 Pulses per Mile	K	DK GRN/WHT	817	Vehicle Speed Signal-4000 Pulses per Mile

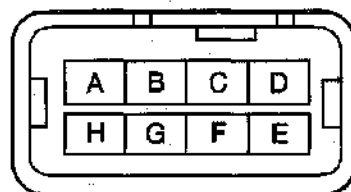
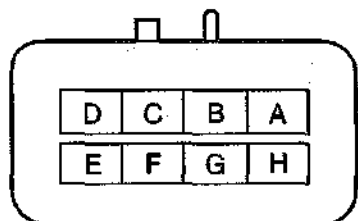
In-Line Connector C230



283830

Connector Part Information		• 1206-4871 • 10-Way F Metri-pack 150 Series (BLU)		Connector Part Information		• 1206-4872 • 10-Way M Metri-pack 150 Series (BLU)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT BLU/BLK	1688	(V6 VIN K) Reference Voltage Feed - 5V	A	GRY	474	(V6 VIN K) Reference Voltage Feed - 5V
A	GRY	474	(V8 VIN G) Reference Voltage Feed - 5V	A	GRY	474	(V8 VIN G) Reference Voltage Feed - 5V
B	BRN/WHT	419	Service Engine Soon Indicator Feed	B	BRN/WHT	419	Service Engine Soon Indicator Feed
C	WHT	1310	Canister Vent Valve Solenoid Output	C	WHT	1310	Canister Vent Valve Solenoid Output
D	TAN	800	(V6 VIN K) UART Serial Data Signal	D	TAN	800	(V6 VIN K) UART Serial Data Signal
E	DK BLU	229	Theft Deterrent - Fuel Enable Feed	E	DK BLU	229	Theft Deterrent - Fuel Enable Feed
F	DK GRN/WHT	762	A/C Request Signal	F	DK GRN/WHT	762	A/C Request Signal
G	GRY	720	Sensor Return	G	GRY	720	Sensor Return
H	DK GRN	890	Fuel Tank Pressure Sensor Signal	H	DK GRN	890	Fuel Tank Pressure Sensor Signal
J	PPL	1589	Fuel Gauge Sensor Signal	J	PPL	1589	Fuel Gauge Sensor Signal
K	DK GRN	1049	PCM Serial Data Signal - Class 2	K	DK GRN	1049	PCM Serial Data Signal - Class 2

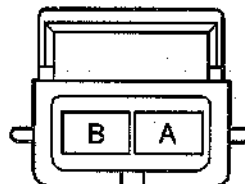
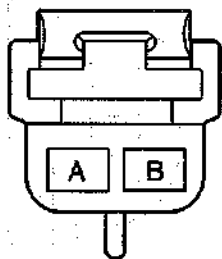
In-Line Connector C240



73135

Connector Part Information		• 1204-5688 • 8-Way M Metri-pack Series 150 (BLK)		Connector Part Information		• 1204-7886 • 8-Way F Metri-pack Series 150 (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU	1857	(With W54, W55, X10, X20, UZ7, U59) Speaker Feed - Left Front Midrange	A	DK BLU	1857	(With W54, W55, X10, X20, UZ7, U59) Speaker Feed - Left Front Midrange
B	BLK	1856	(With U59, UZ7) Speaker Feed - Left Front Tweeter	B	BLK	1856	(With U59, UZ7) Speaker Feed - Left Front Tweeter
B	TAN	201	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Feed - Left Front	B	TAN	201	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Feed - Left Front
C	YEL	1956	(With U59, UZ7) Speaker Return - Left Front Tweeter	C	YEL	1956	(With U59, UZ7) Speaker Return - Left Front Tweeter
C	GRY	118	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Return - Left Front	C	GRY	118	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Return - Left Front
D	LT BLU	1957	(With U59, UZ7, W54, W55, X10, X20) Speaker Return - Left Front Midrange	D	LT BLU	1957	(With U59, UZ7, W54, W55, X10, X20) Speaker Return - Left Front Midrange
E	ORN	1853	(With U59, UZ7, W54, W55, X10, X20) Speaker Feed - Right Front Midrange	E	ORN	1853	(With U59, UZ7, W54, W55, X10, X20) Speaker Feed - Right Front Midrange
F	PPL	1952	(With U59, UZ7) Speaker Return - Right Front Tweeter	F	PPL	1952	(With U59, UZ7) Speaker Return - Right Front Tweeter
F	DK GRN	117	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker return-right front	F	DK GRN	117	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker return-right front
G	LT GRN	1852	(With U59, UZ7) Speaker Feed - Right Front Tweeter	G	LT GRN	1852	(With U59, UZ7) Speaker Feed - Right Front Tweeter
G	LT GRN	200	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Feed - Right Front	G	LT GRN	200	(With U62, UQ0, W53, W54, W55, X10, X20) Speaker Feed - Right Front
H	DK GRN	1953	(With U59, UZ7, W54, W55, X10, X20) Speaker Return - Right Front Midrange	H	DK GRN	1953	(With U59, UZ7, W54, W55, X10, X20) Speaker Return - Right Front Midrange

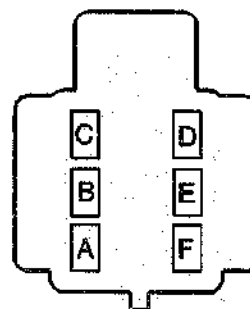
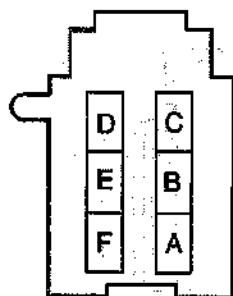
In-Line Connector C250



288384

Connector Part Information		• 1205-2832 • 2-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1205-2833 • 2-Way M Metri-pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	86	Brake Pedal Switch Output	A	BRN	86	Brake Pedal Switch Output
B	PNK	139	Fused Output - Ignition	B	PNK	139	Fused Output - Ignition

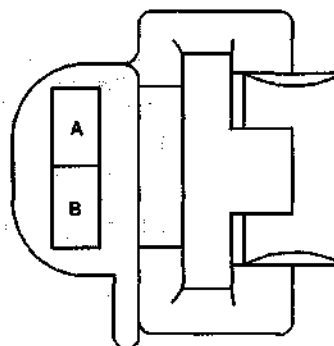
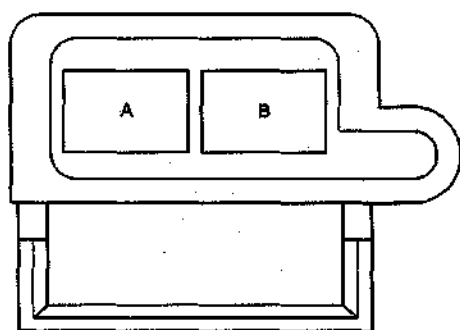
In-Line Connector C260



263939

Connector Part Information		• 1208-9527 • 6-Way F Metri-pack 280 Series (LT GRN)		Connector Part Information		• 1208-9745 • 6-Way M Metri-pack 280 Series (LT GRN)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock	A	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock
B	GRY	295	Power Door Lock Motor Feed - Lock	B	GRY	295	Power Door Lock Motor Feed - Lock
C	RED/BLK	780	Power Door Lock Switch Output - Driver Switch Lock	C	RED/BLK	780	Power Door Lock Switch Output - Driver Switch Lock
D	ORN/BLK	781	Power Door Lock Switch Output - Driver Switch Unlock	D	ORN/BLK	781	Power Door Lock Switch Output - Driver Switch Unlock
E	GRY/BLK	1663	Power Door Lock Motor Feed - Passenger Door Unlock	E	GRY/BLK	1663	Power Door Lock Motor Feed - Passenger Door Unlock
F	—	—	Not Used	F	—	—	Not Used

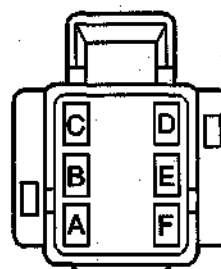
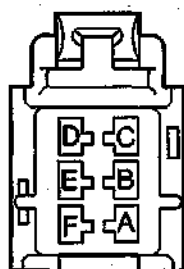
In-Line Connector C270



130728

Connector Part Information		• 1206-4867 • 2-Way F Metri-pack 150 Series (NAT)		Connector Part Information		• 1206-4868 • 2-Way M Metri-pack 150 Series (NAT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	451	Ground	A	BLK/WHT	451	Ground
B	GRY	48	Clutch Switch Signal - Clutch Anticipate	B	GRY	48	Clutch Switch Signal - Clutch Anticipate

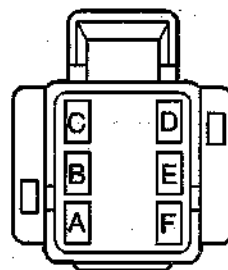
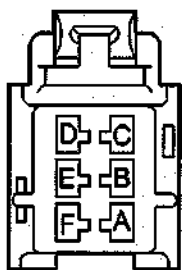
In-Line Connector C300



62455

Connector Part Information		• 1206-4752 • 6-Way F Metri-pack 280 Series (BLK)		Connector Part Information		• 1206-4754 • 6-Way M Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	764	Pneumatic Seat Relay Coil Feed - Deflate	A	GRY	903	Pneumatic Seat Relay Coil Feed - Deflate
B	WHT	766	Pneumatic Seat Relay Coil Feed - Inflate	B	PNK	904	Pneumatic Seat Relay Coil Feed - Inflate
C	ORN	1240	Fused Output - Battery	C	ORN	1240	Fused Output - Battery
D	BLK	1450	Ground	D	BLK	950	Ground
E	BRN	763	Pneumatic Seat Lumbar Solenoid Feed - Driver	E	PPL	905	Pneumatic Seat Lumbar Solenoid Feed - Driver
F	PPL	765	Pneumatic Seat Lateral Solenoid Feed - Driver	F	RED	906	Pneumatic Seat Lateral Solenoid Feed - Driver

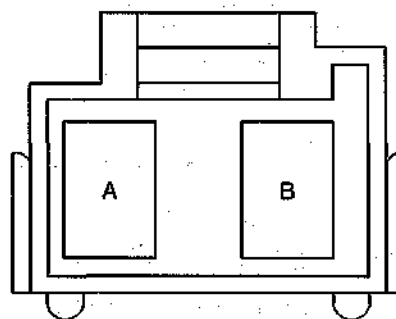
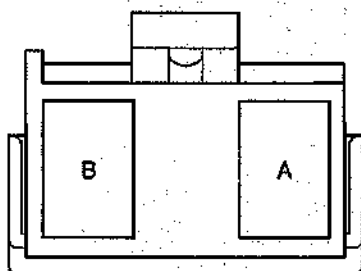
In-Line Connector C305



62455

Connector Part Information		• 1206-4752 • 6-Way F Metri-pack 280 Series (BLK)		Connector Part Information		• 1206-4754 • 6-Way M Metri-pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	764	Pneumatic Seat Relay Coil Feed - Deflate	A	GRY	903	Pneumatic Seat Relay Coil Feed - Deflate
B	WHT	766	Pneumatic Seat Relay Coil Feed - Inflate	B	PNK	904	Pneumatic Seat Relay Coil Feed - Inflate
C	ORN	1240	Fused Output - Battery	C	ORN	1240	Fused Output - Battery
D	BLK	1450	Ground	D	BLK	950	Ground
E	BRN	763	Pneumatic Seat Lumbar Solenoid Feed - Driver	E	PPL	905	Pneumatic Seat Lumbar Solenoid Feed - Driver
F	PPL	765	Pneumatic Seat Lateral Solenoid Feed - Driver	F	RED	906	Pneumatic Seat Lateral Solenoid Feed - Driver

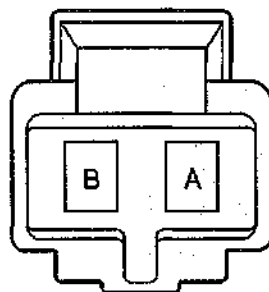
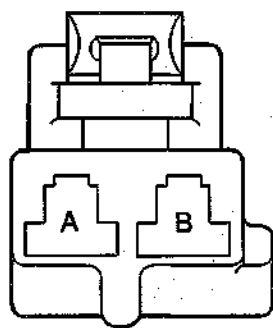
In-Line Connector C310



73244

Connector Part Information		• 1201-5199 • 2-Way F Metri-pack 280 Series (NAT)		Connector Part Information		• 1201-5271 • 2-Way M Metri-pack 280 Series (NAT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1240	Fused Output - Battery	A	ORN	1240	Fused Output - Battery
B	BLK	1450	Ground	B	BLK	1450	Ground

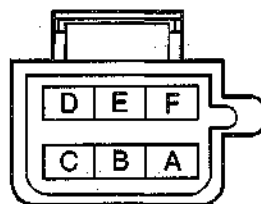
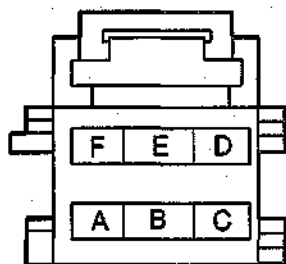
In-Line Connector C330



62454

Connector Part Information		• 1206-4749 • 2-Way F Metri-pack 480 Series (BLK)		Connector Part Information		• 1206-6387 • 2-Way M Metri-pack 480 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PPL	293	(+ C49) Rear Defogger Element Feed	A	PPL	293	(+ C49) Rear Defogger Element Feed
B	LT BLU	20	(- T79) Stop Lamp Feed	B	LT BLU	20	(- T79) Stop Lamp Feed
B	YEL	820	(+ T79) Center High Mounted Stop Lamp Feed	B	LT BLU	20	(+ T79) Center High Mounted Stop Lamp Feed

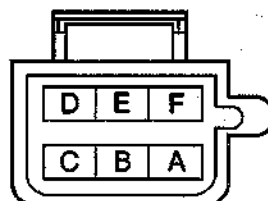
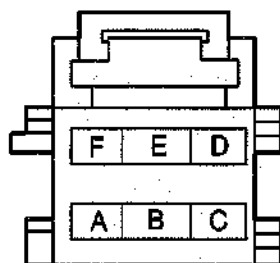
In-Line Connector C400



62460

Connector Part Information		• 1206-5781 • 6-Way M Metri-pack 150 Series (GRY)		Connector Part Information		• 1206-4762 • 6-Way F Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT BLU	20	(Chevrolet) Stop Lamp Feed	A	LT BLU	20	(Chevrolet) Stop Lamp Feed
B	RED	122	(Chevrolet:Europe) Fog Lamp Feed - Rear	B	RED	122	(Chevrolet:Europe) Fog Lamp Feed - Rear
C	BRN	9	Park Lamp Feed	C	BRN	9	Park Lamp Feed
D	YEL	18	Stop/Turn Lamp Feed - Left Rear	D	YEL	18	Stop/Turn Lamp Feed - Left Rear
D	LT BLU	14	(Chevrolet:Japan) Turn Signal Lamp Feed - Left Front	D	LT BLU	14	(Chevrolet:Japan) Turn Signal Lamp Feed - Left Front
E	DK GRN	19	Stop/Turn Lamp Feed - Left Rear	E	DK GRN	19	Stop/Turn Lamp Feed - Left Rear

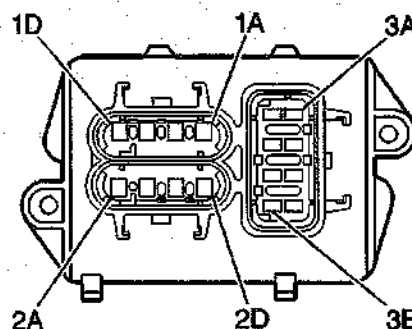
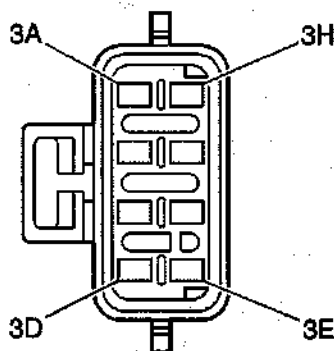
In-Line Connector C400 (cont'd)



62460

Connector Part Information		• 1206-5781 • 6-Way M Metri-pack 150 Series (GRY)		Connector Part Information		• 1206-4762 • 6-Way F Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
E	DK BLU	15	(Chevrolet:Japan) Turn Signal Lamp Feed - Right Front	E	DK BLU	15	(Chevrolet:Japan) Turn Signal Lamp Feed - Right Front
F	LT GRN	24	Backup Lamp Feed	F	LT GRN	24	Backup Lamp Feed

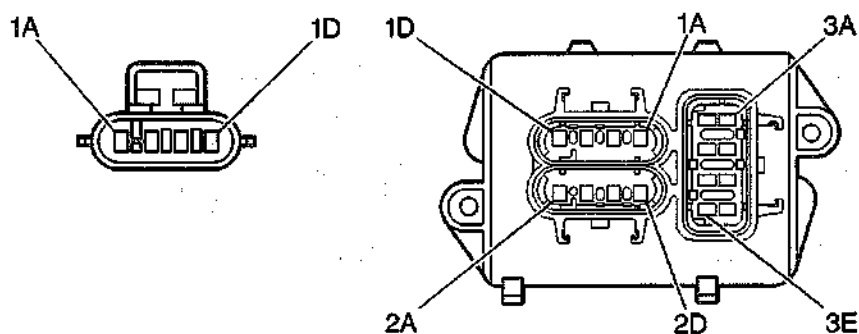
In-Line Connector C405A/C405B



73141

Connector Part Information		• 1531-7611 • 7-Way F Metri-pack 280 Series (NAT)		Connector Part Information		• 1532-6715 • 16-Way M Metri-pack Mixed Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
3A	PPL	30	Fuel Gauge Sensor Signal	3A	PPL	1589	Fuel Gauge Sensor Signal
3B	GRY	120	Fuel Pump Motor Feed	3B	GRY	120	Fuel Pump Motor Feed
3C	BLK	150	Ground	3C	BLK	1050	Ground
3D	GRY/BLK	416	Reference Voltage Feed - 5 Volt Reference	3D	GRY	474	Reference Voltage Feed - 5 Volt Reference
3E	---	---	Not Used	3E	---	---	Not Used
3F	BLK/WHT	651	Fuel Gauge Sensor Ground	3F	GRY	720	Fuel Gauge Sensor Ground
3G	ORN/BLK	469	Manifold Absolute Sensor Return	3G	GRY	720	Manifold Absolute Sensor Return
3H	DK GRN	890	Fuel Tank Pressure Sensor Signal	3H	DK GRN	890	Fuel Tank Pressure Sensor Signal

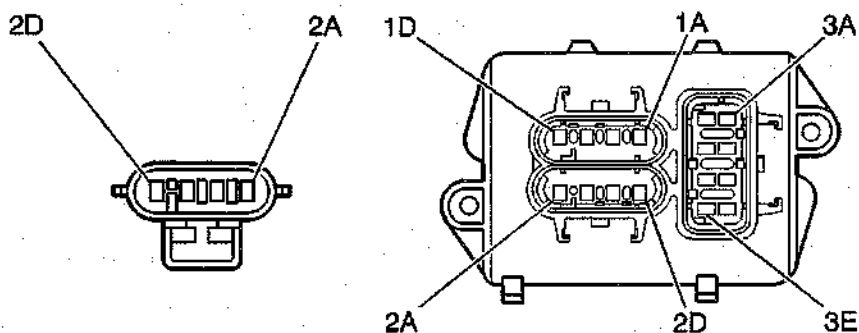
In-Line Connector C405C/C405B



73247

Connector Part Information		• 1214-6439 • 4-Way F Metri-pack 150 Series (GRY)		Connector Part Information		• 1532-6715 • 16-Way M Metri-pack Mixed Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
1A	BRN	882	(+ NW9) Right Rear Wheel Speed Sensor Signal	1A	BRN	882	(+ NW9) Right Rear Wheel Speed Sensor Signal
1B	WHT	883	(+ NW9) Right Rear Wheel Speed Sensor Return	1B	WHT	883	(+ NW9) Right Rear Wheel Speed Sensor Return
1C	BLK	884	Left Rear Wheel Speed Sensor Signal	1C	BLK	884	Left Rear Wheel Speed Sensor Signal
1D	WHT	885	(- NW9) Left Rear Wheel Speed Sensor Return	1D	RED	885	(- NW9) Left Rear Wheel Speed Sensor Return
1D	RED	885	(+ NW9) Left Rear Wheel Speed Sensor Return	1D	RED	885	(+ NW9) Left Rear Wheel Speed Sensor Return

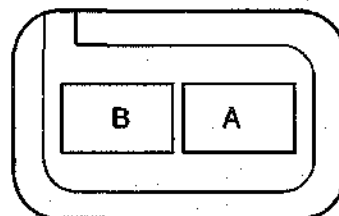
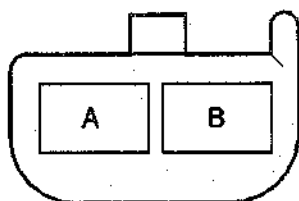
In-Line Connector C405D/C405B



324841

Connector Part Information		• 1216-2144 • 4-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1532-6715 • 16-Way M Metri-pack Mixed Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
2A	PNK	239	Fused Output - Ignition	2A	PNK	239	Fused Output - Ignition
2B	WHT	1310	Canister Vent Valve Solenoid Output	2B	WHT	1310	Canister Vent Valve Solenoid Output
2C-2D	—	—	Not Used	2C-2D	—	—	Not Used

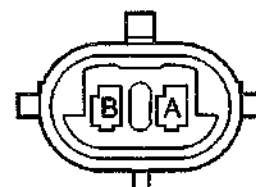
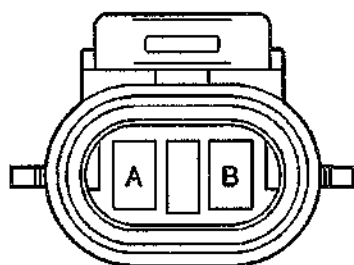
In-Line Connector C410



327938

Connector Part Information		• 1204-7662 • 2-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1204-7663 • 2-Way M Metri-pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PPL	709	Park Lamp Feed - Left	A	PPL	709	Park Lamp Feed - Left
B	BRN/WHT	309	Park Lamp Feed - Right	B	BRN/WHT	309	Park Lamp Feed - Right

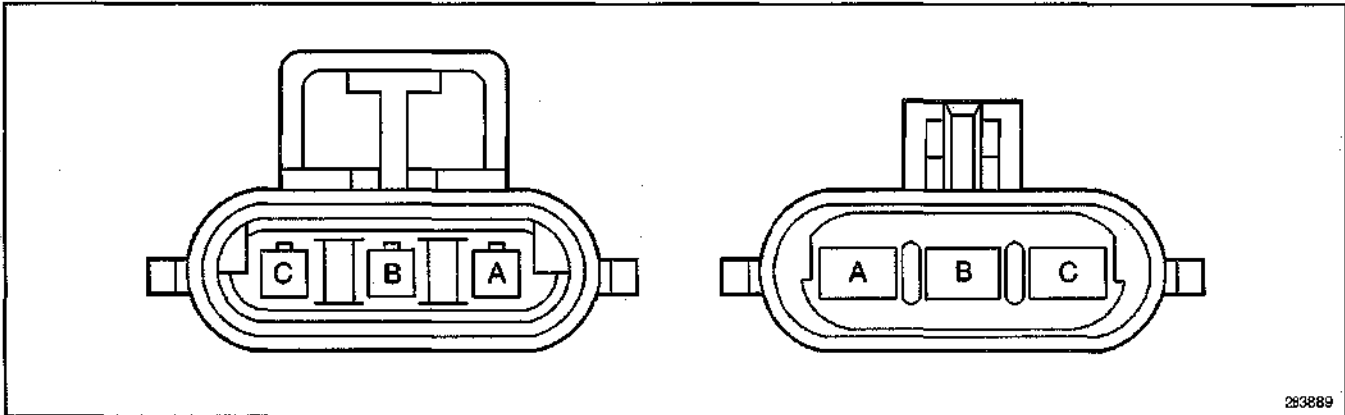
In-Line Connector C430 (Domestic)



40381

Connector Part Information		• 1205-2644 • 2-Way F Metri-pack 150 Series (GRY)		Connector Part Information		• 1216-2343 • 2-Way M Metri-pack 150 Series (GRY)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	BLK	1250	Ground	B	BLK	1250	Ground

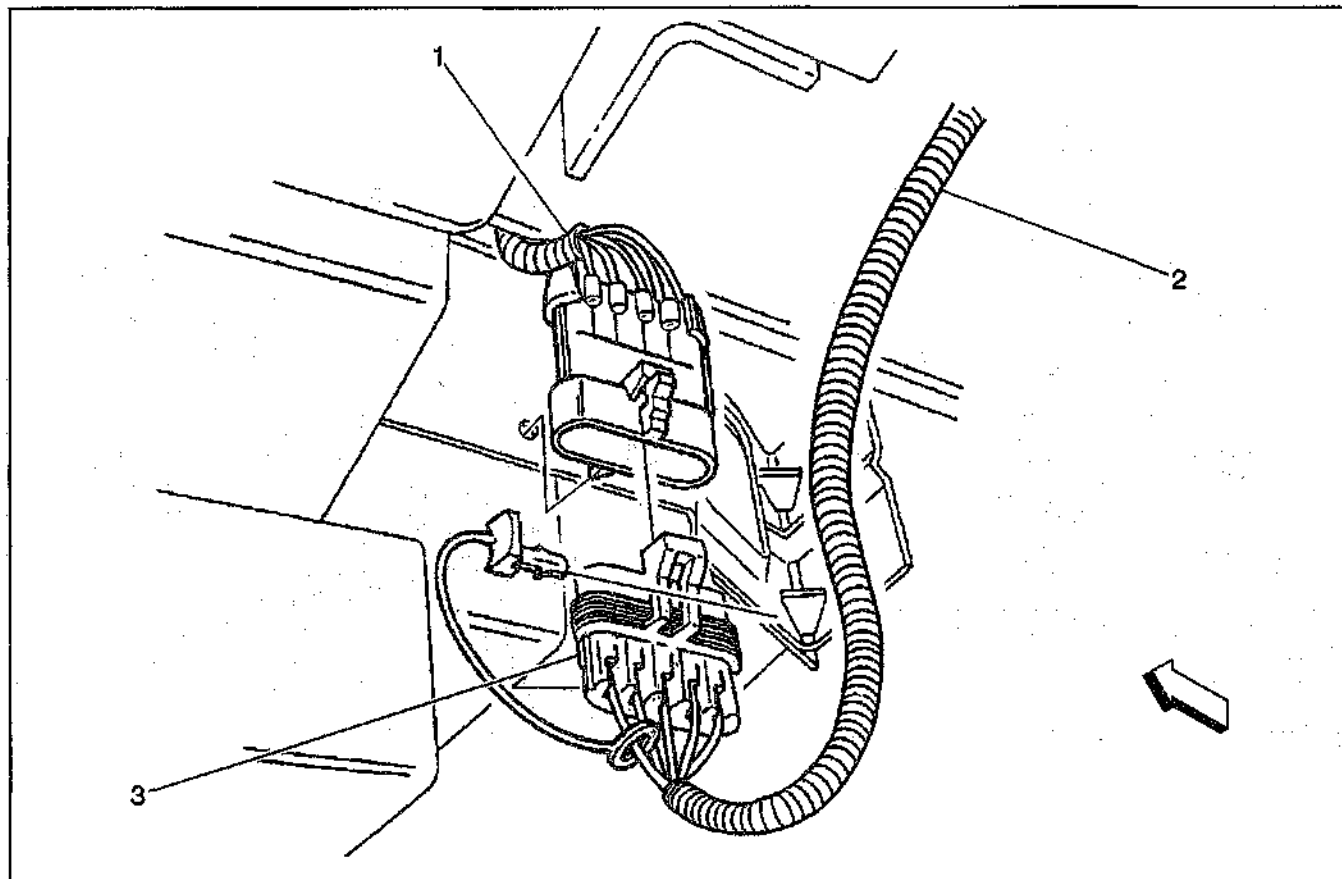
In-Line Connector C430 (Europe)



Connector Part Information		• 1211-0293 • 3-Way F Metri-pack 150 Series (BLK)		Connector Part Information		• 1212-9615 • 3-Way M Metri-pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	BLK	1250	Ground	B	BLK	1250	Ground
C	RED	122	Park Lamp Feed - Rear	C	RED	122	Park Lamp Feed - Rear

Schematic and Routing Diagrams

Harness Routing Views (Right Front Engine Compartment)



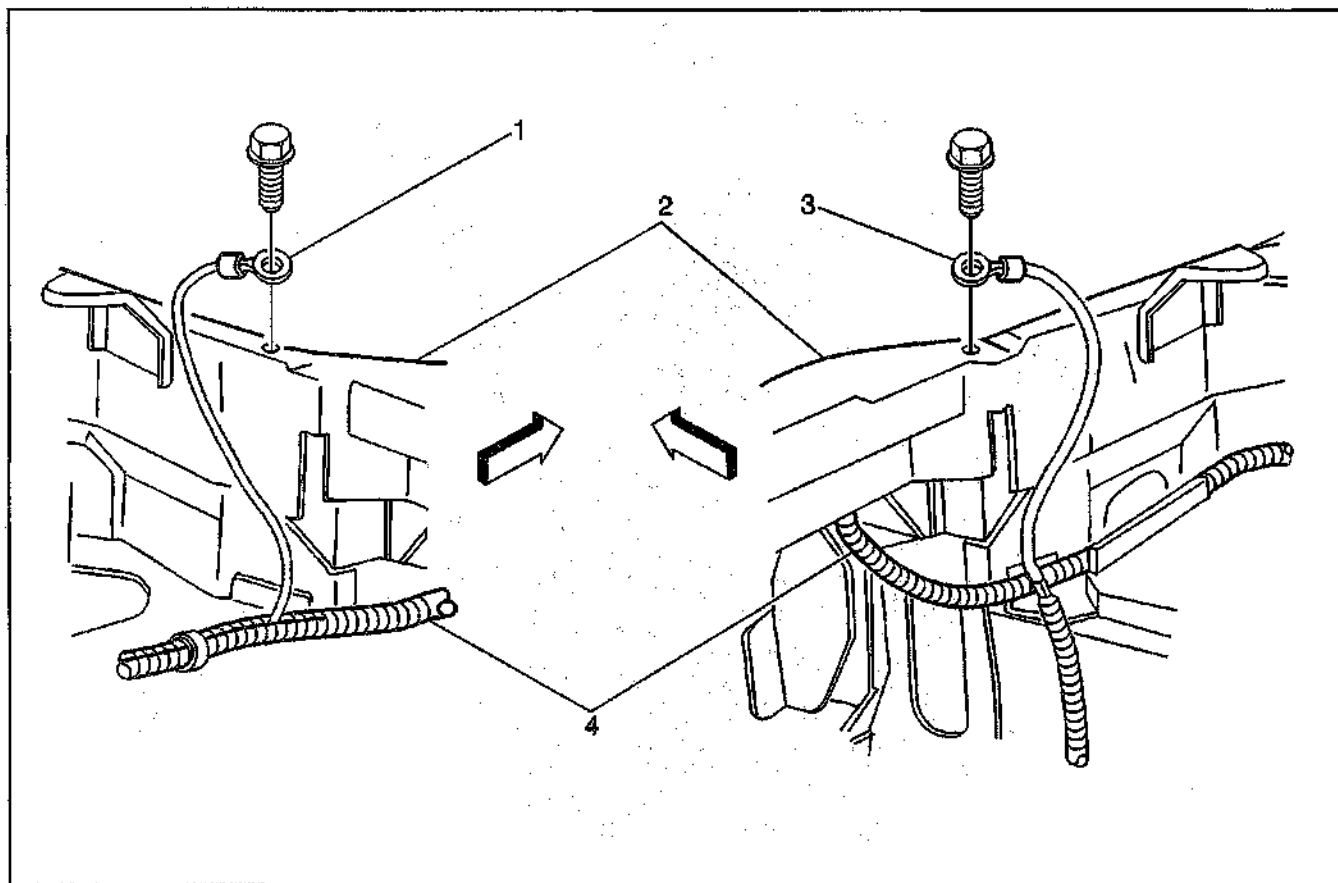
383100

Legend

- (1) Headlamp Jumper Harness
- (2) Forward Lamp Harness

- (3) C160 Left or C165 Right

Harness Routing Views (Foward Lamp Harness Grounds)



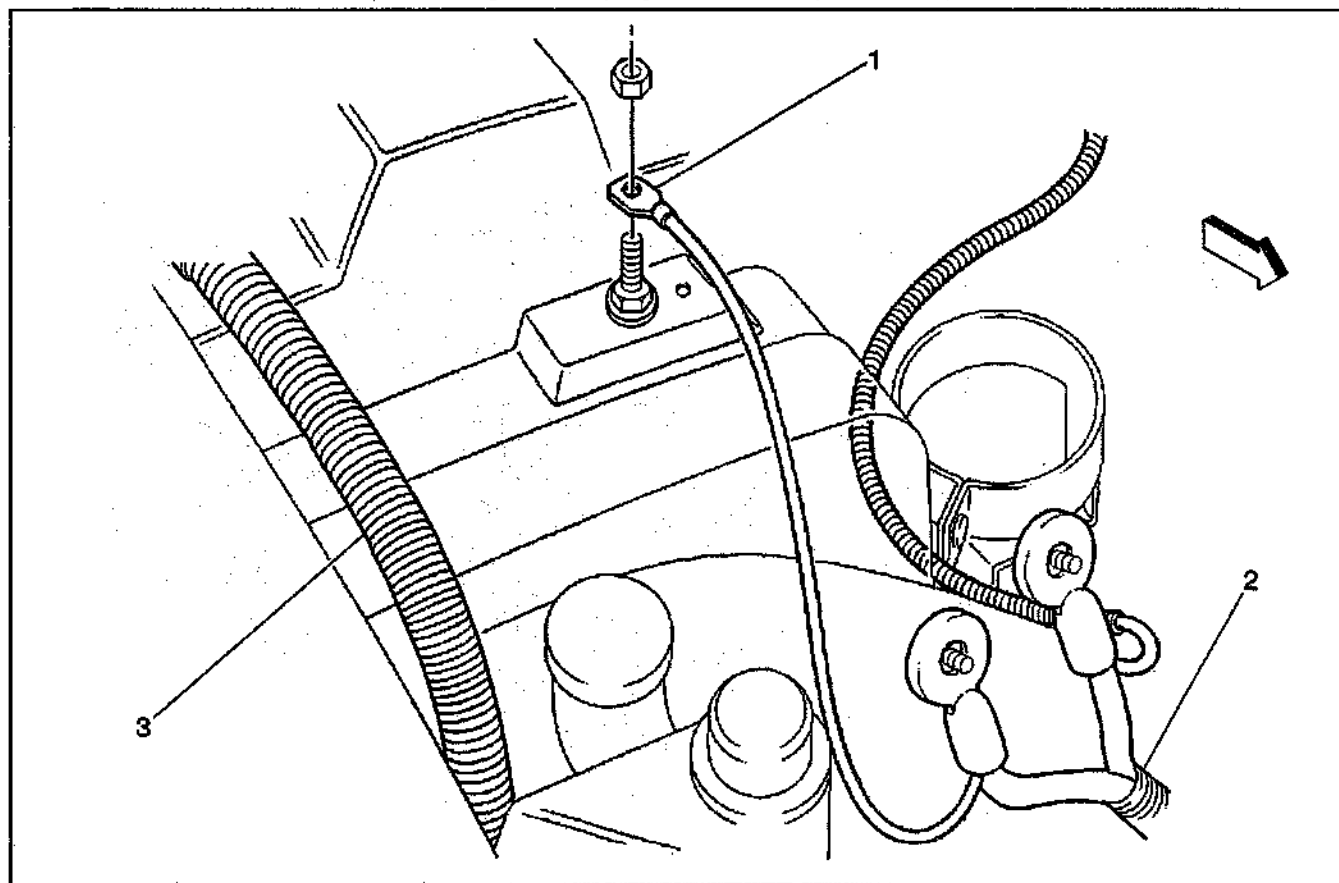
393103

Legend

- (1) G106
- (2) Radiator Support

- (3) G105
- (4) Foward Lamp Harness

Harness Routing Views (Right Front Engine Compartment)



383106

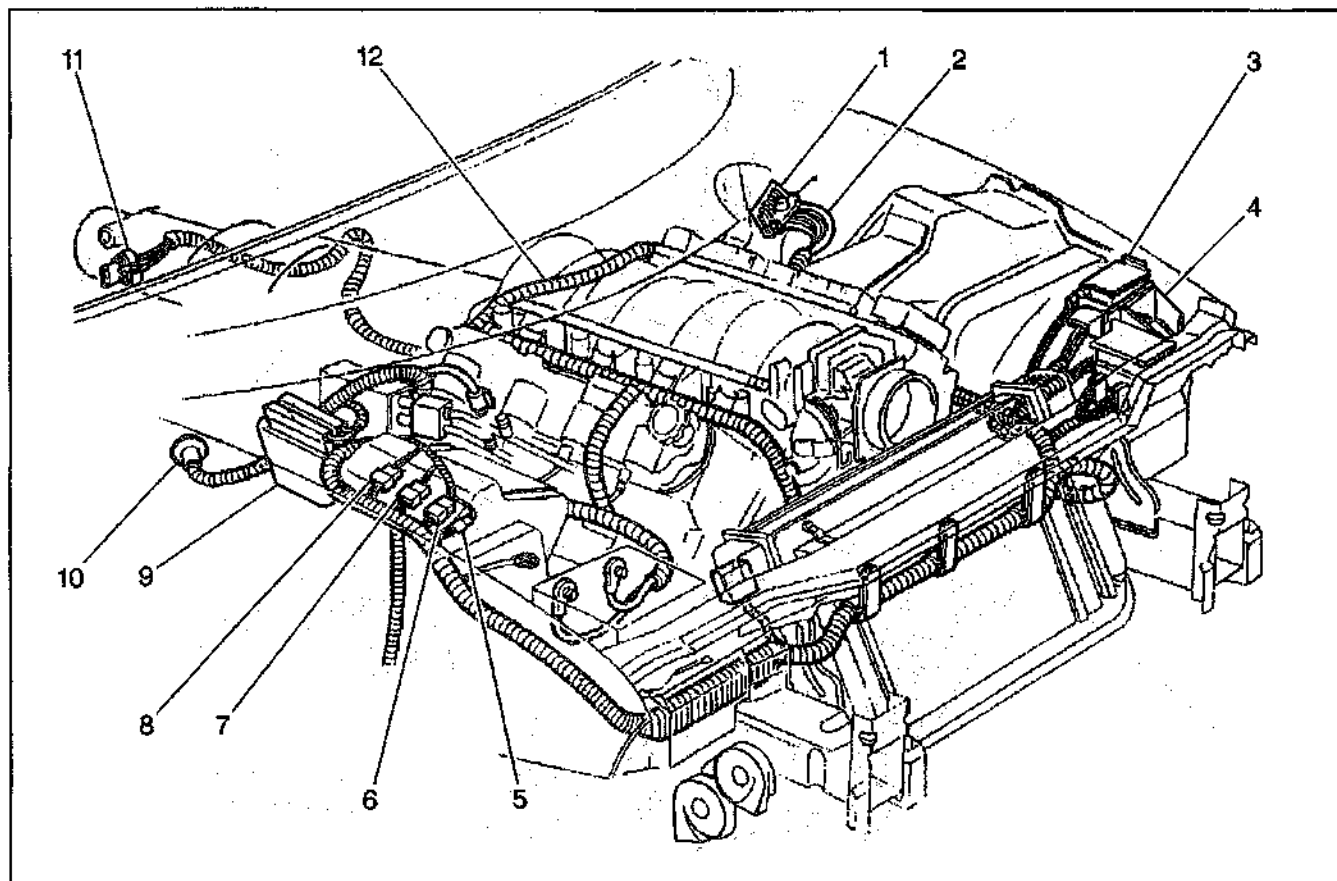
Legend

(1) G102

(2) Forward Lamp Harness

(3) Forward Lamp Harness

Harness Routing Views (Engine Compartment)

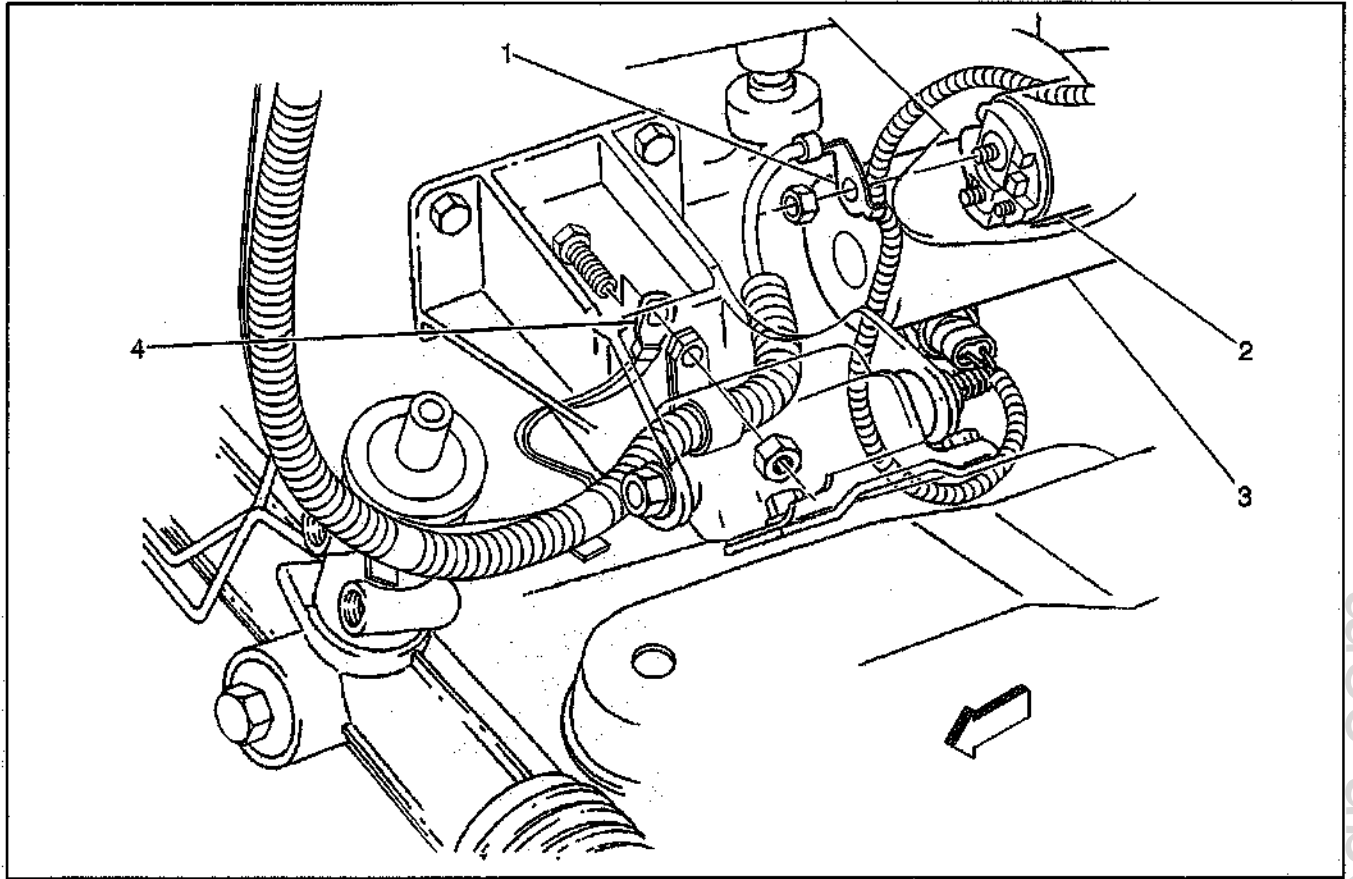


383107

Legend

- | | |
|--|-------------------------------------|
| (1) P100 | (7) C105 |
| (2) Forward Lamp Harness | (8) C101 |
| (3) Engine Wiring Harness Junction Block 1 | (9) Powertrain Control Module (PCM) |
| (4) Engine Wiring Harness Junction Block 2 | (10) P110 |
| (5) C102 | (11) Vehicle Speed Sensor |
| (6) C100 | (12) Engine Harness |

Harness Routing Views (Lower Left Side of Engine (V6 VIN K))



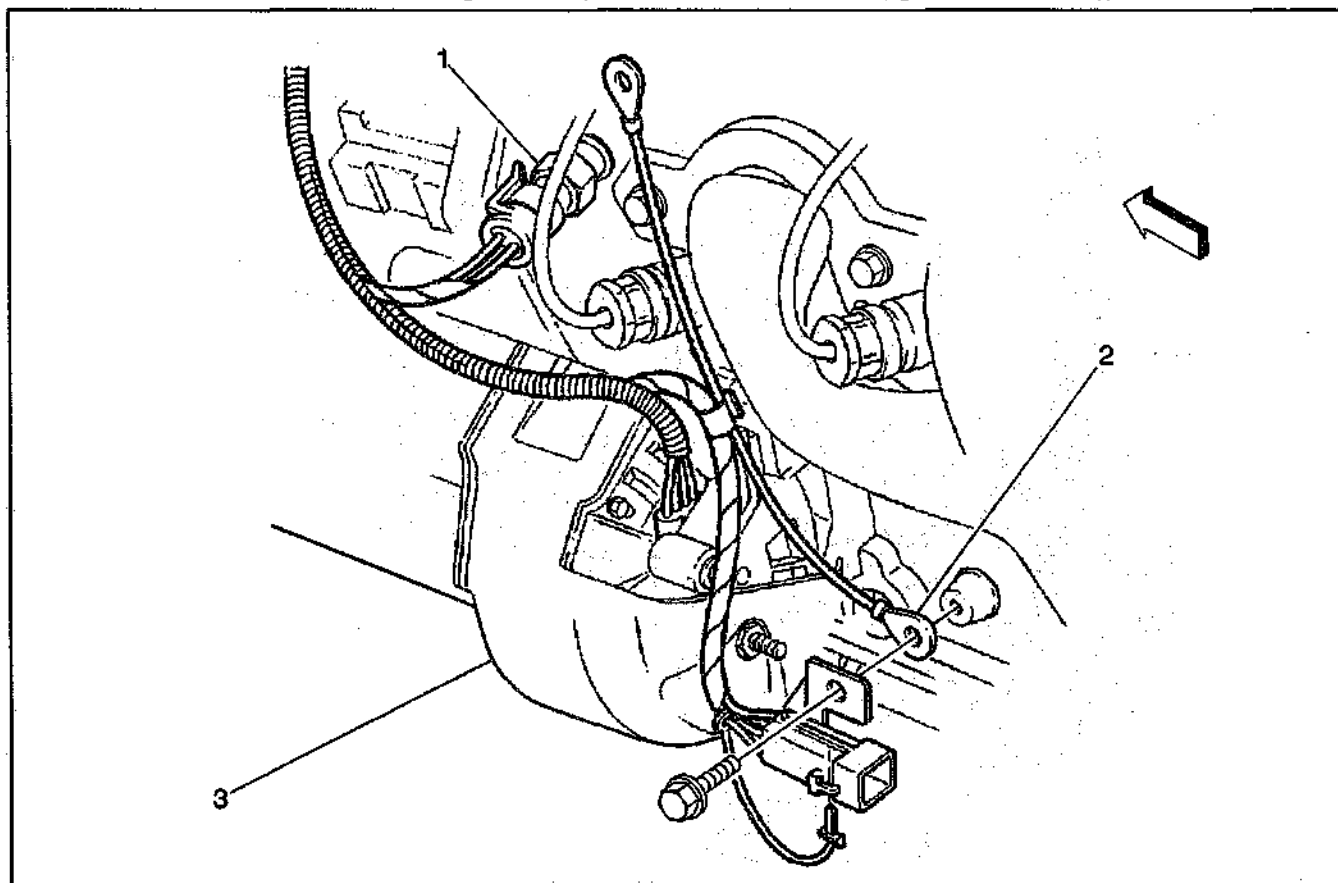
386724

Legend

- (1) Power Feed to Starter Motor Solenoid
- (2) Starter Solenoid

- (3) Starter Motor
- (4) G111

Harness Routing Views (Lower Left Front of Engine (V8 VIN G))



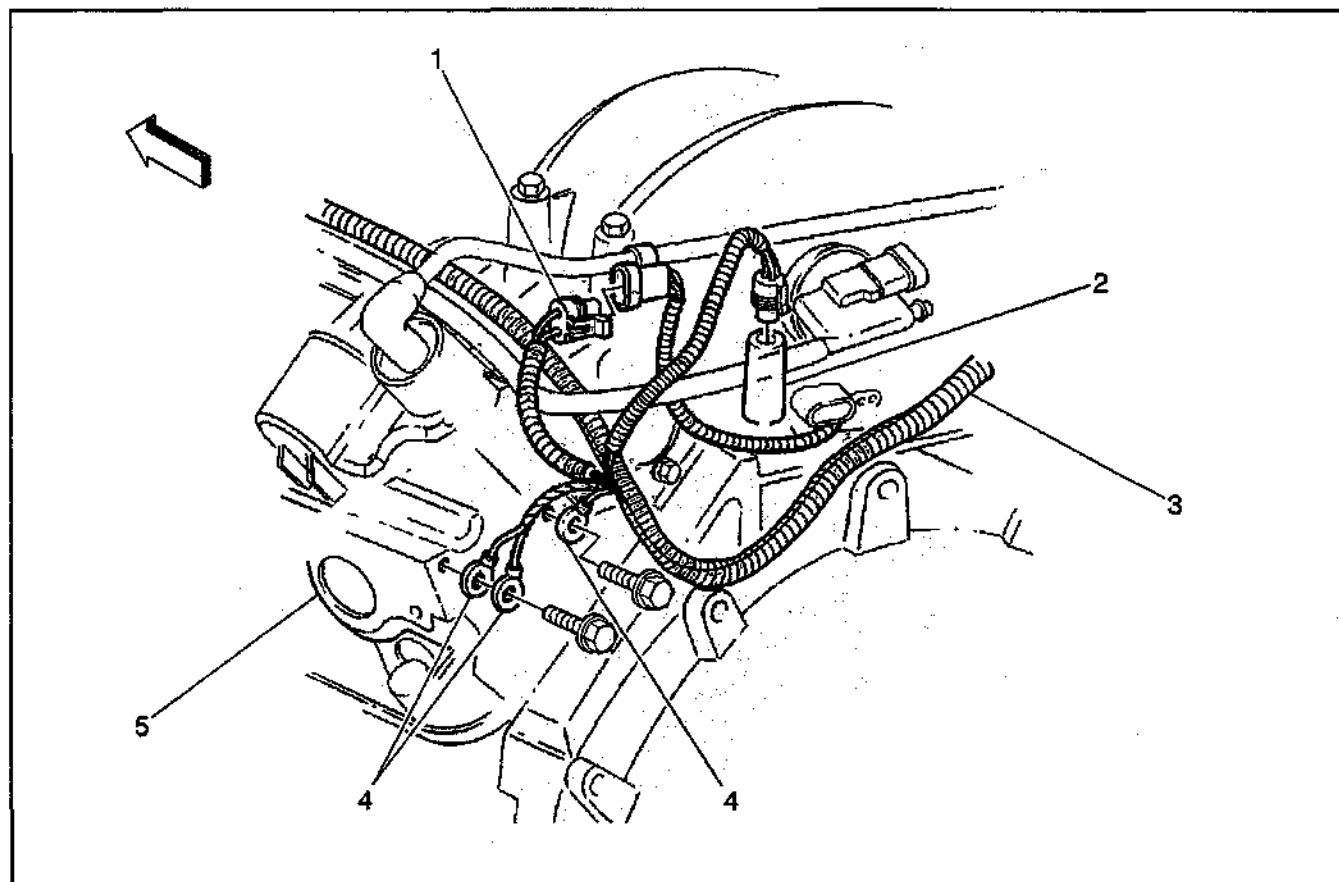
383110

Legend

- (1) Engine Coolant Temperature (ECT) Sensor
(2) G111

- (3) Generator

Harness Routing Views (Upper Left Rear Side of Engine (V8 VIN G))



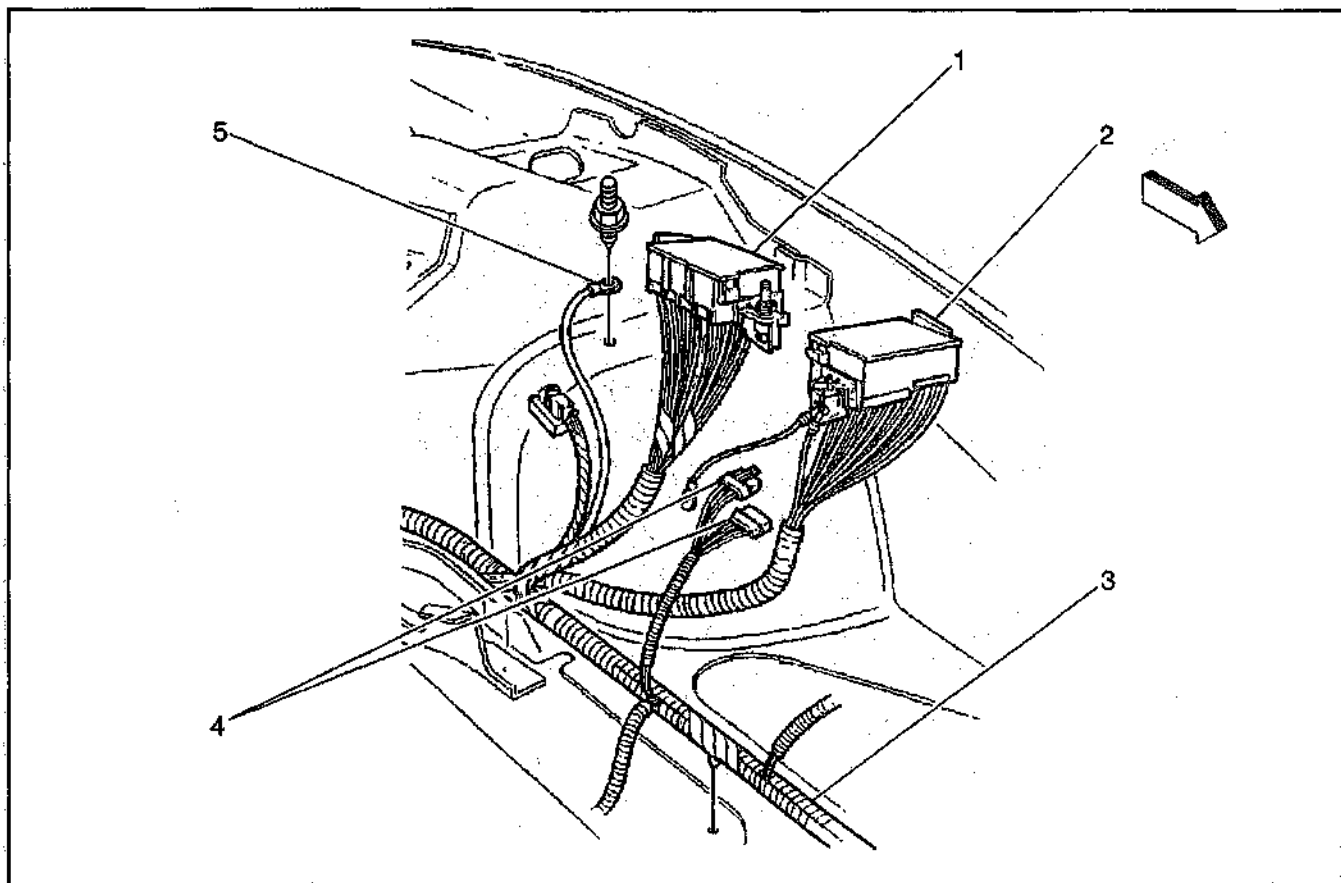
383112

Legend

- (1) Knock Sensor Connector
- (2) Engine Oil Pressure Sensor
- (3) Engine Harness

- (4) G110
- (5) Left Cylinder Head

Harness Routing Views (Underhood Electrical Centers)

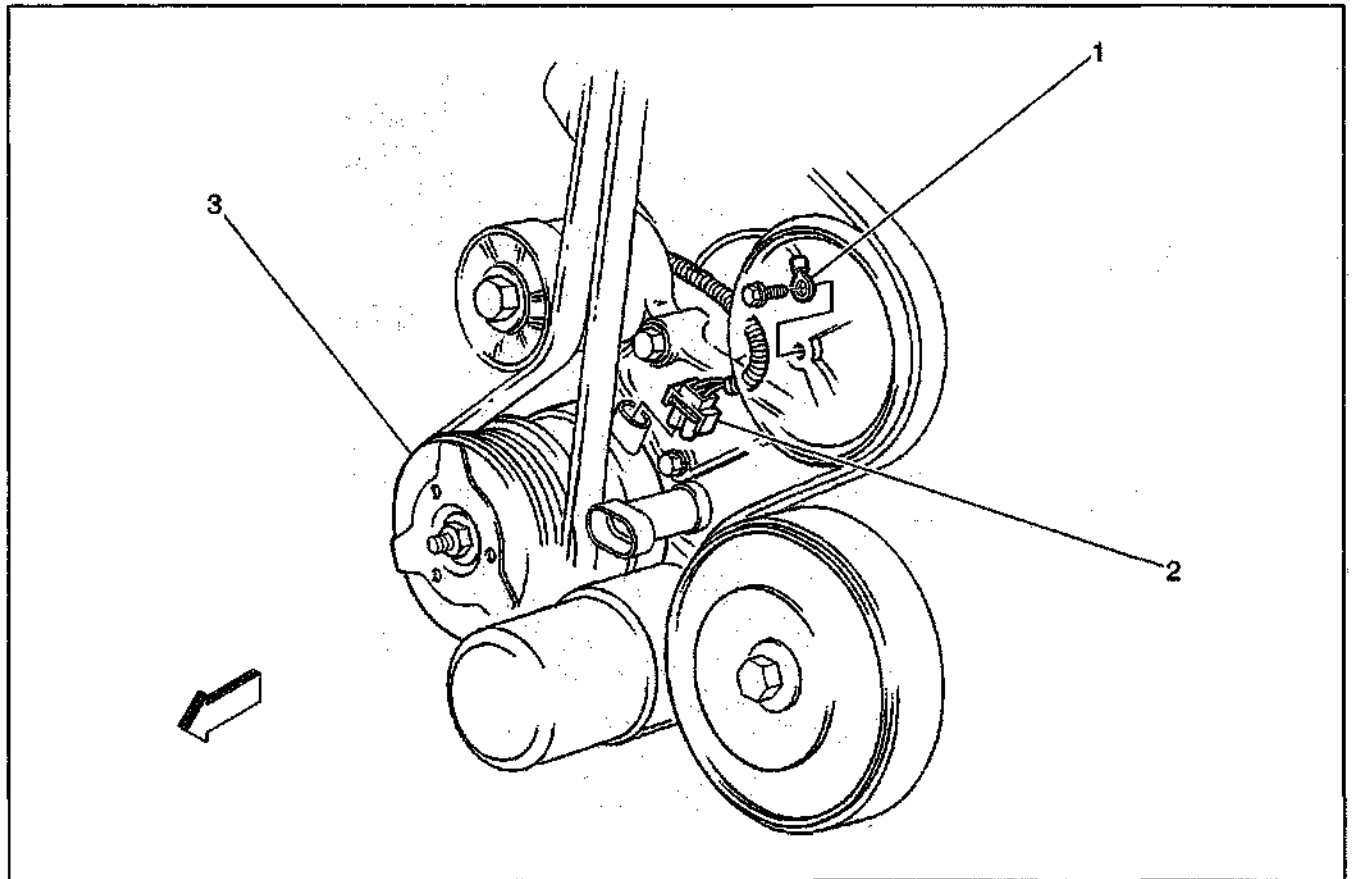


383116

Legend

- | | |
|--|-----------------------------------|
| (1) Engine Wiring Harness Junction Block 2 | (4) Headlamp Connectors (Pontiac) |
| (2) Engine Wiring Harness Junction Block 1 | (5) G101 |
| (3) Forward Lamp Harness | |

Harness Routing Views (Front Right Side of Engine (V6 VIN K))

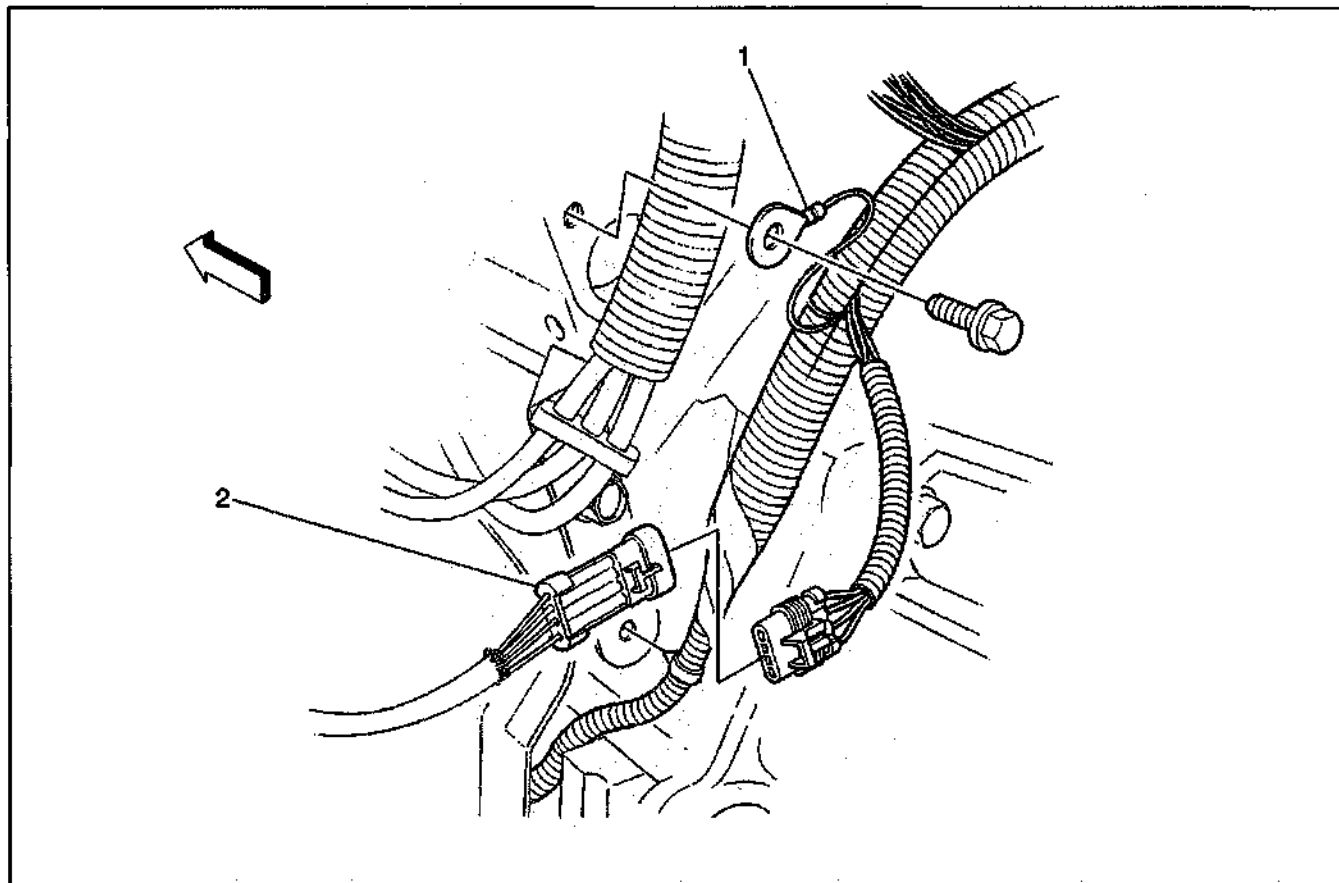


383120

Legend

- | | |
|-------------------------------------|--------------------|
| (1) G110 | (3) A/C Compressor |
| (2) A/C Compressor Clutch Connector | |

Harness Routing Views (Rear Left Side of Engine (V6 VIN K))

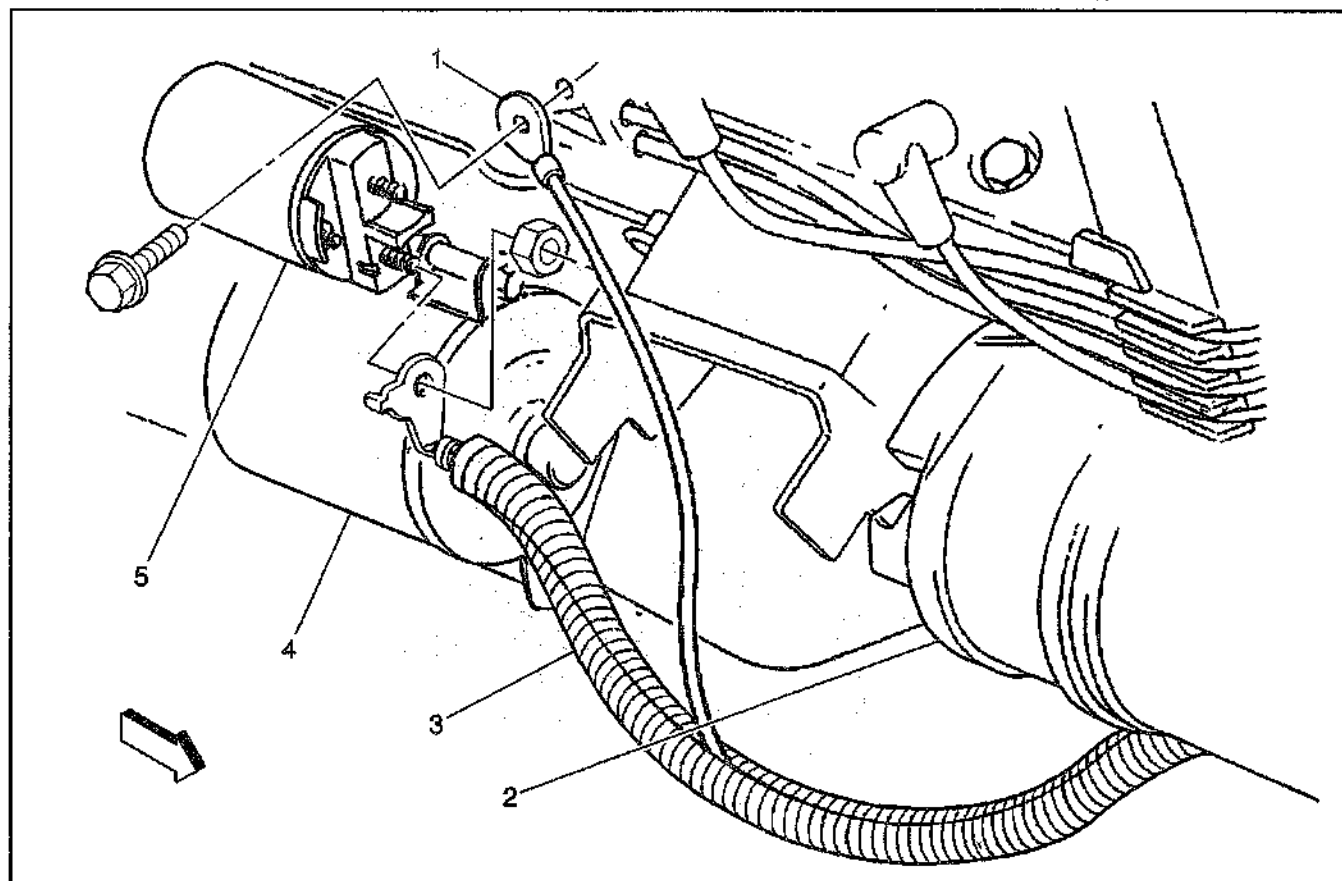


383124

Legend

- (1) G112
- (2) Left Manifold Heater Oxygen Sensor Connector

Harness Routing Views (Lower Right Side of Engine (V8 VIN G))



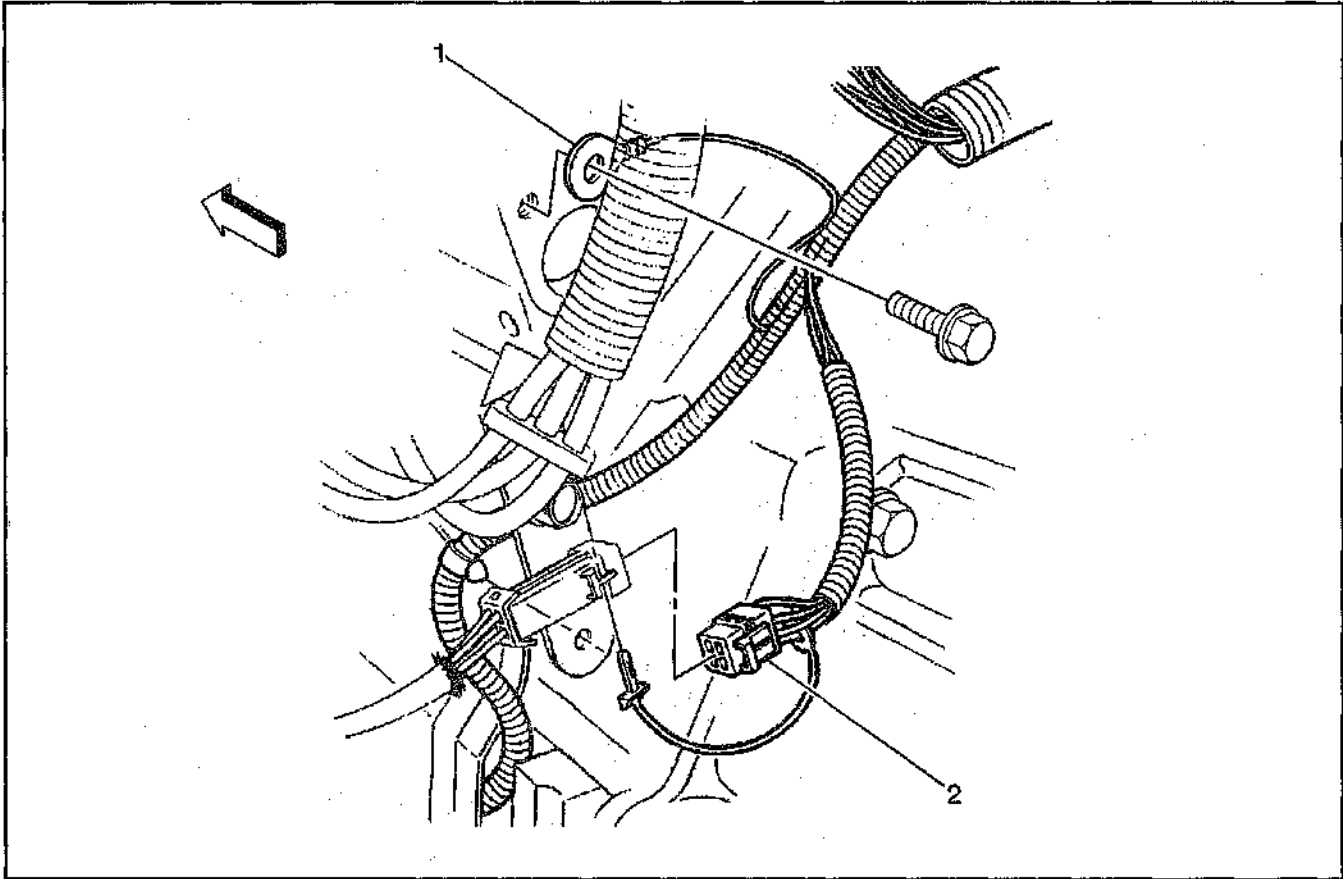
383126

Legend

- (1) G100
- (2) A/C Compressor
- (3) Battery Cable

- (4) Starter Motor
- (5) Starter Solenoid

Harness Routing Views (Rear Left Side of Engine (V6 VIN K))

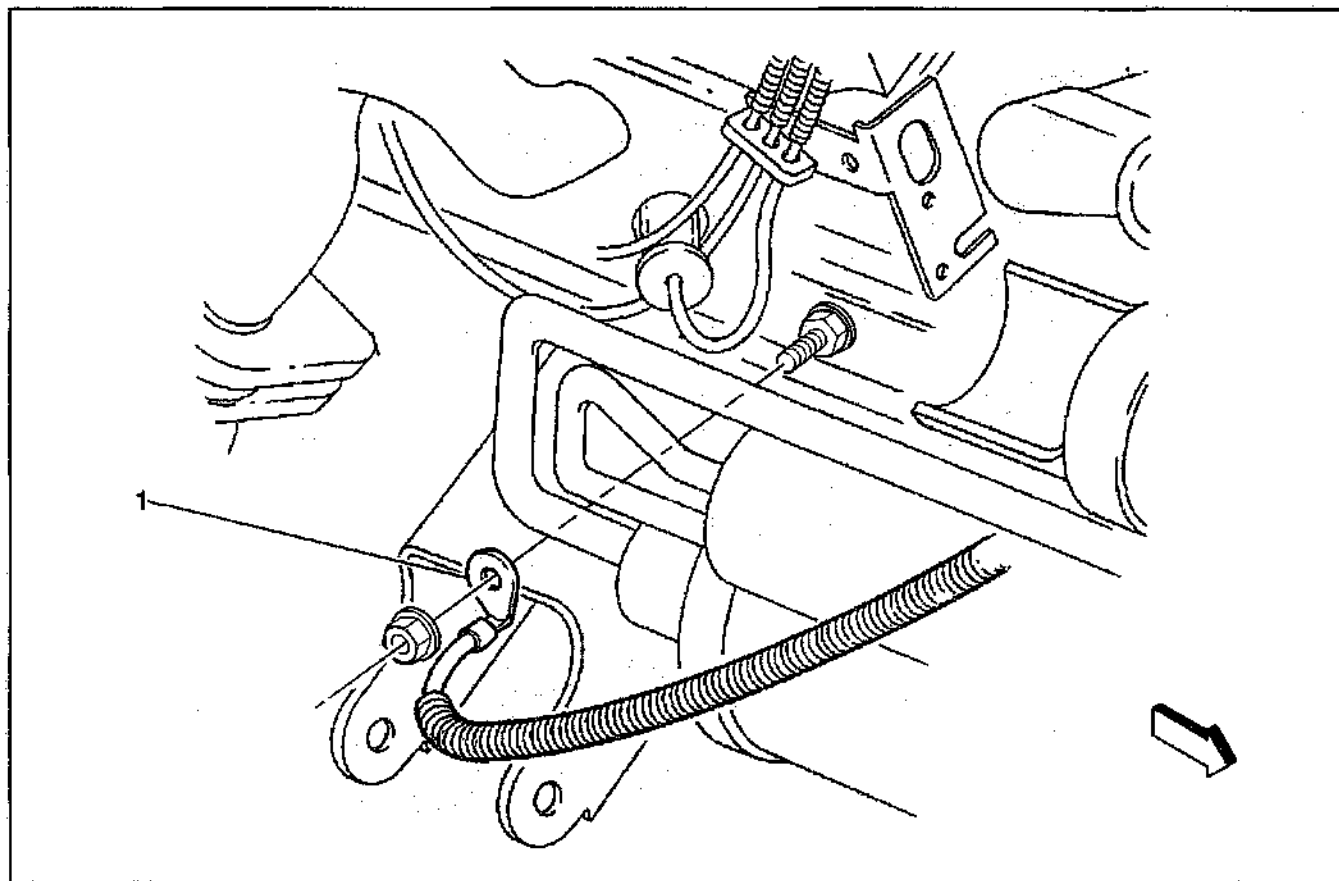


383185

Legend

- (1) G112
- (2) Left Manifold Heater Oxygen Sensor Connector

Harness Routing Views (Lower Right Side of Engine (V6 VIN K))

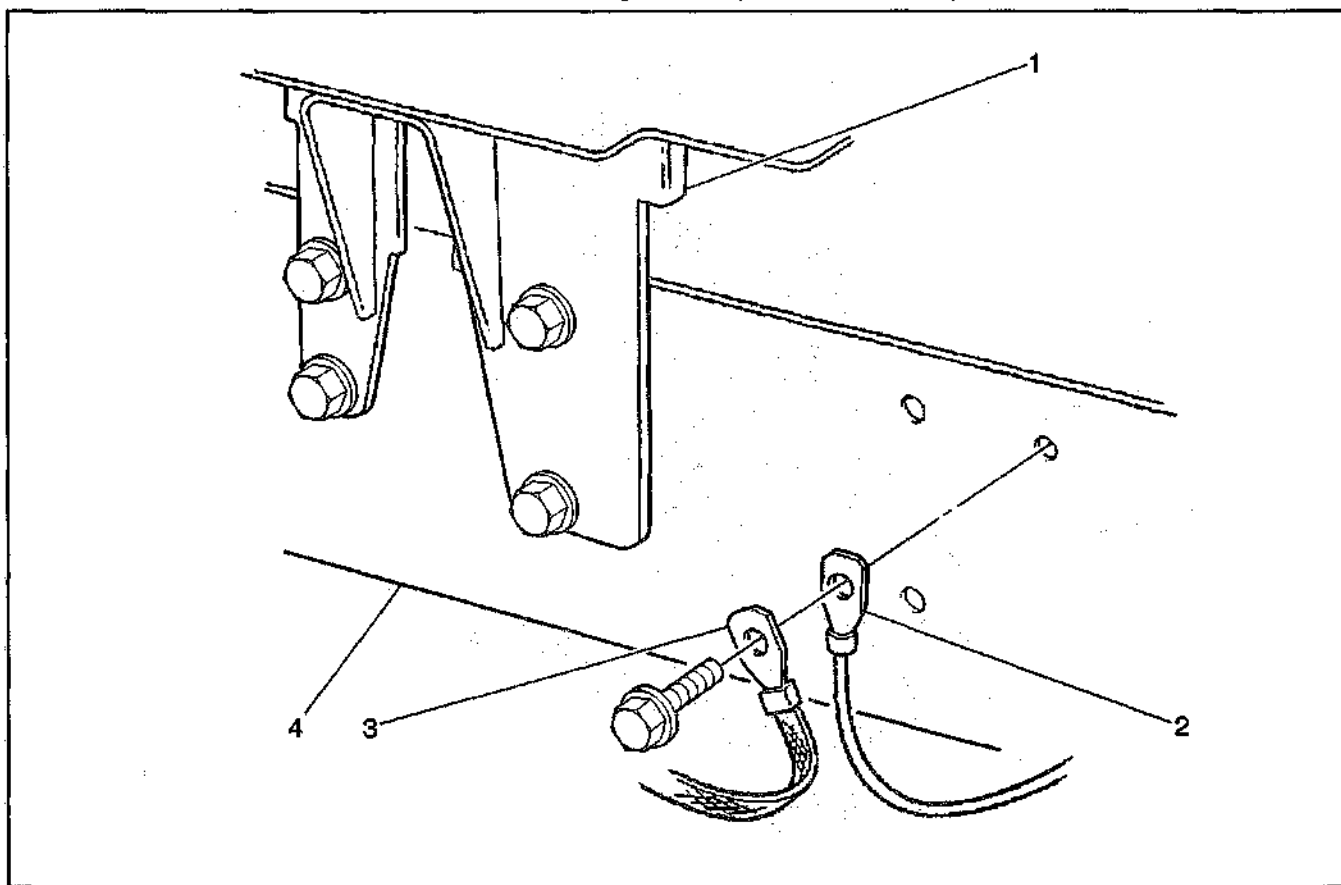


383186

Legend

(1) G100

Harness Routing Views (Left Frame Rail)



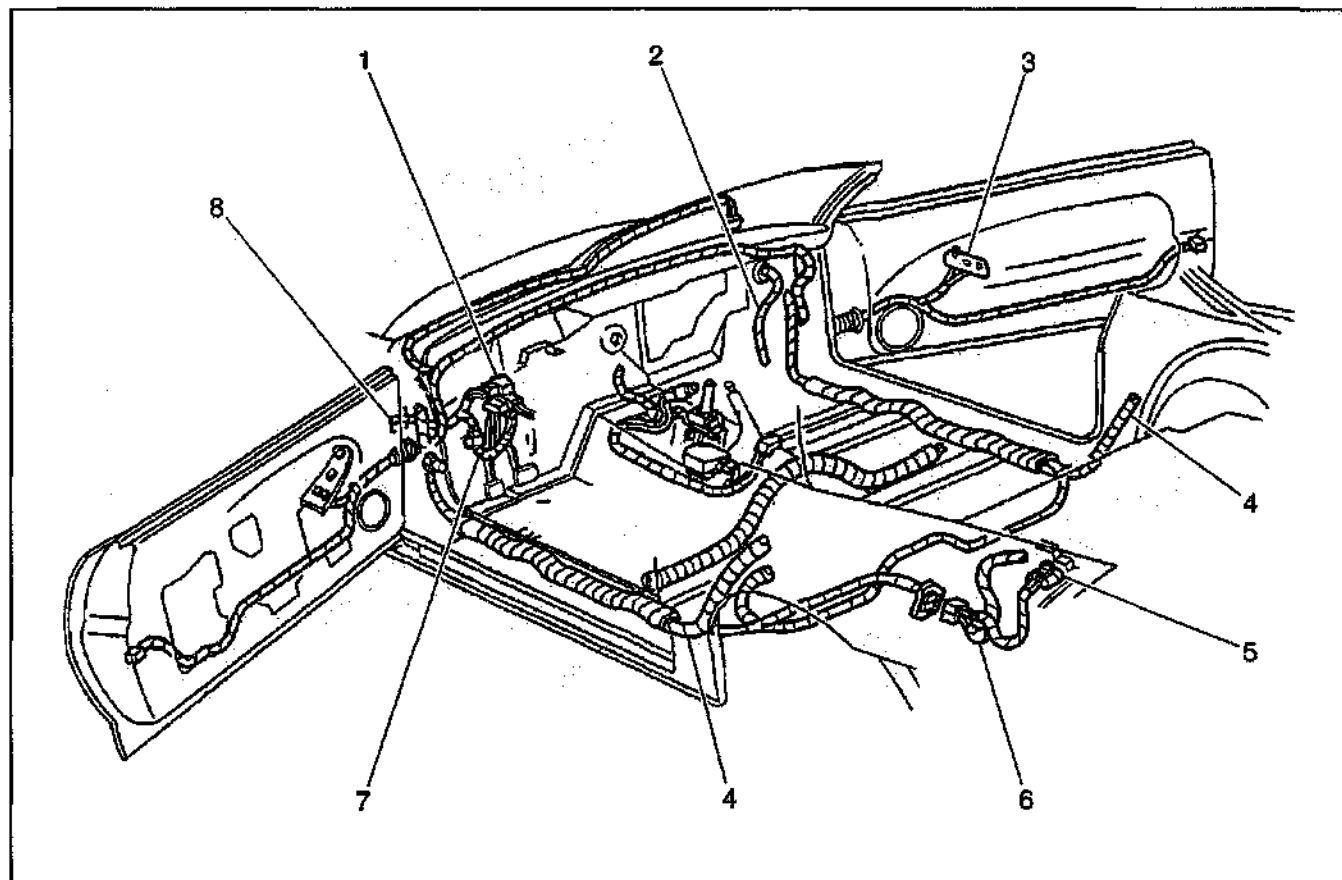
383189

Legend

- (1) Brake Pressure Modulator Valve (BPMV) Bracket
- (2) G109 Cruise Control Ground (V8 VIN G)

- (3) G109
- (4) Left Front Frame Rail

Harness Routing Views (Interior Body)

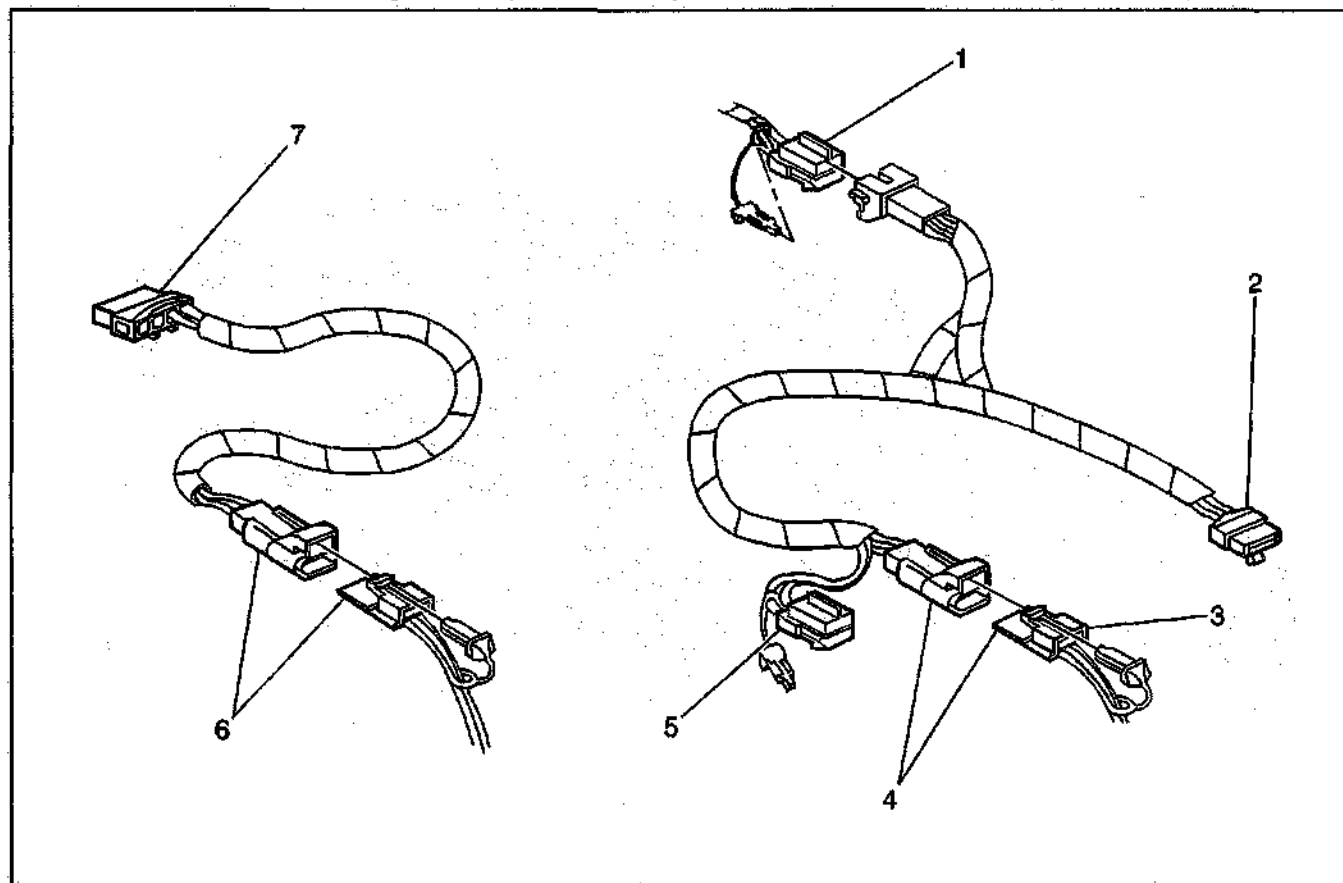


393191

Legend

- | | |
|---|-------------------------------------|
| (1) Stop Lamp Switch and Clutch Anticipate Switch | (5) Rear Wheel Speed Sensor Harness |
| (2) Engine Harness | (6) Fuel Tank Sender Harness |
| (3) Door Switch | (7) Cruise Control Jumper |
| (4) Instrument Panel Wiring Harness | (8) Forward Lamp Harness |

Harness Routing Views (Clutch Jumper Harness Combinations (V6 VIN K))

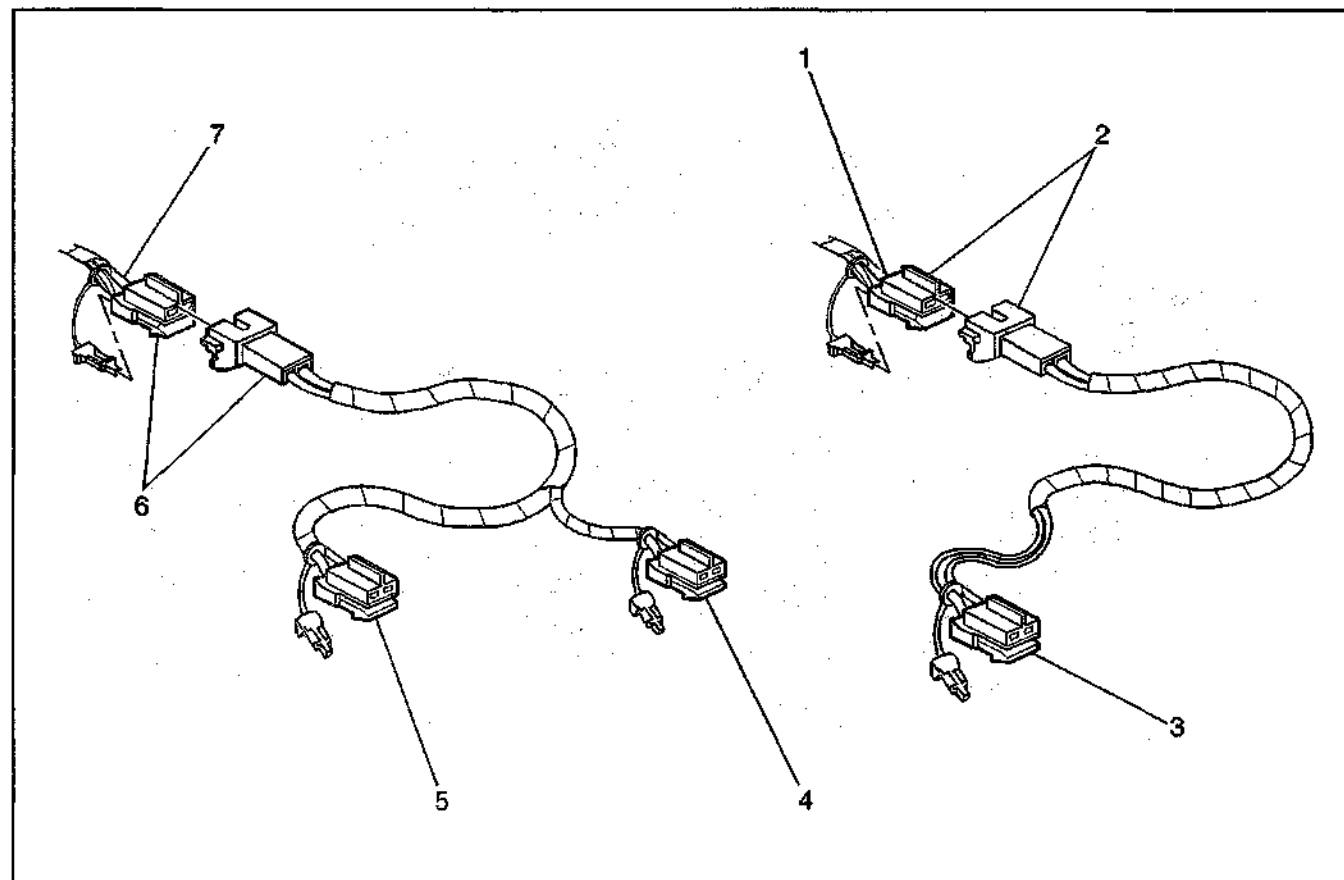


383196

Legend

- | | |
|---|---|
| (1) Forward Lamp Harness | (5) Cruise Control Release (Brake) Switch Connector |
| (2) Cruise Control/Clutch Anticipate Switch Connector | (6) C270 with Manual Transmission, w/o Cruise Control |
| (3) Instrument Panel Wiring Harness | (7) C270 with Manual Transmission, w/o Cruise Control |
| (4) C270 with Manual Transmission with Cruise Control | |

Harness Routing Views (Clutch Jumper Harness Combinations (V8 VIN G))

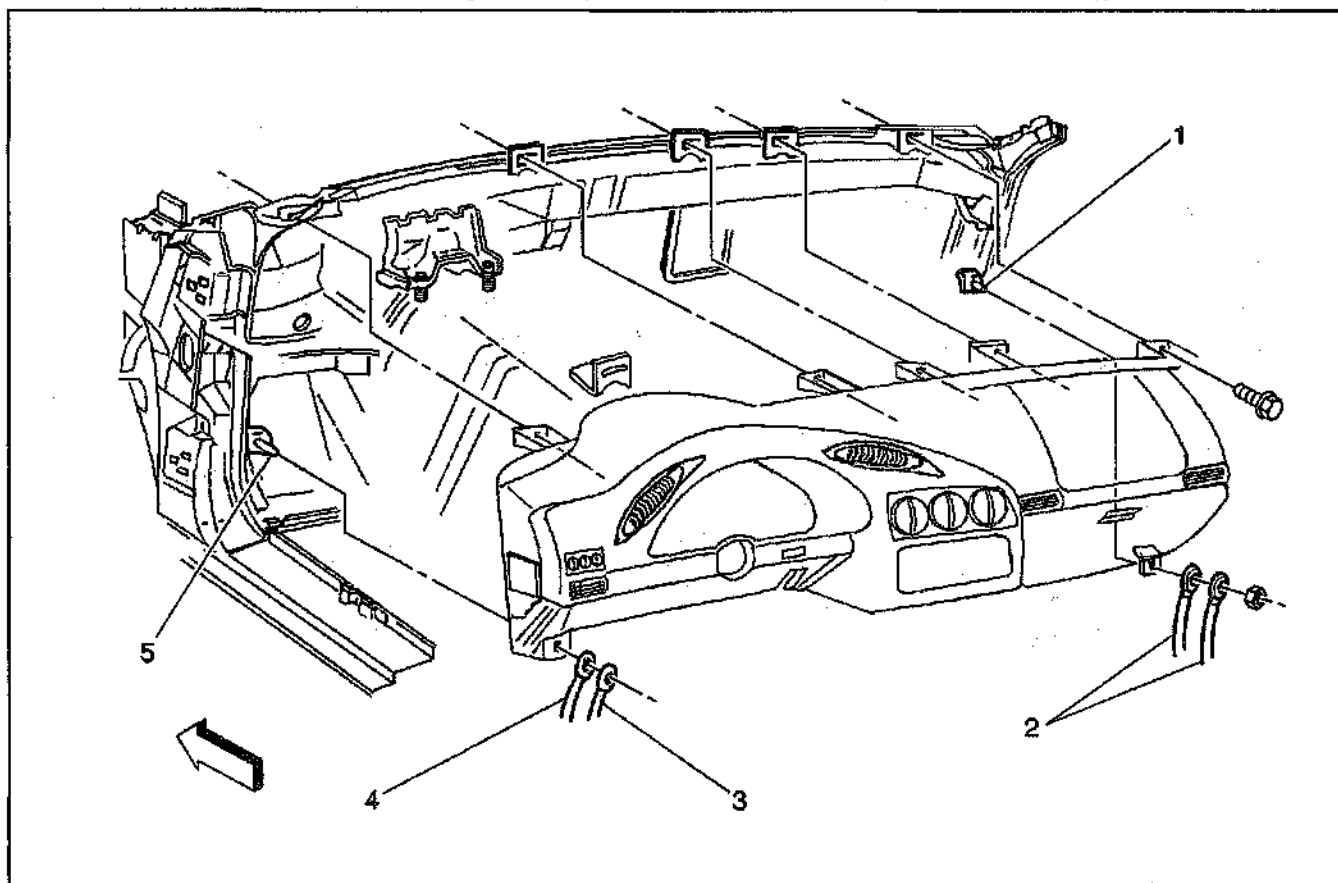


383198

Legend

- | | |
|---|--|
| (1) Forward Lamp Harness | (5) Cruise Control Release (Brake) Switch Connector |
| (2) C250 with Automatic Transmission and Cruise Control | (6) C250 with Manual Transmission and Cruise Control |
| (3) Cruise Control Release (Brake) Switch Connector | (7) Forward Lamp Harness |
| (4) Cruise Control (Clutch) Switch Connector | |

Harness Routing Views (Chevrolet IP Ground (Pontiac Similar))

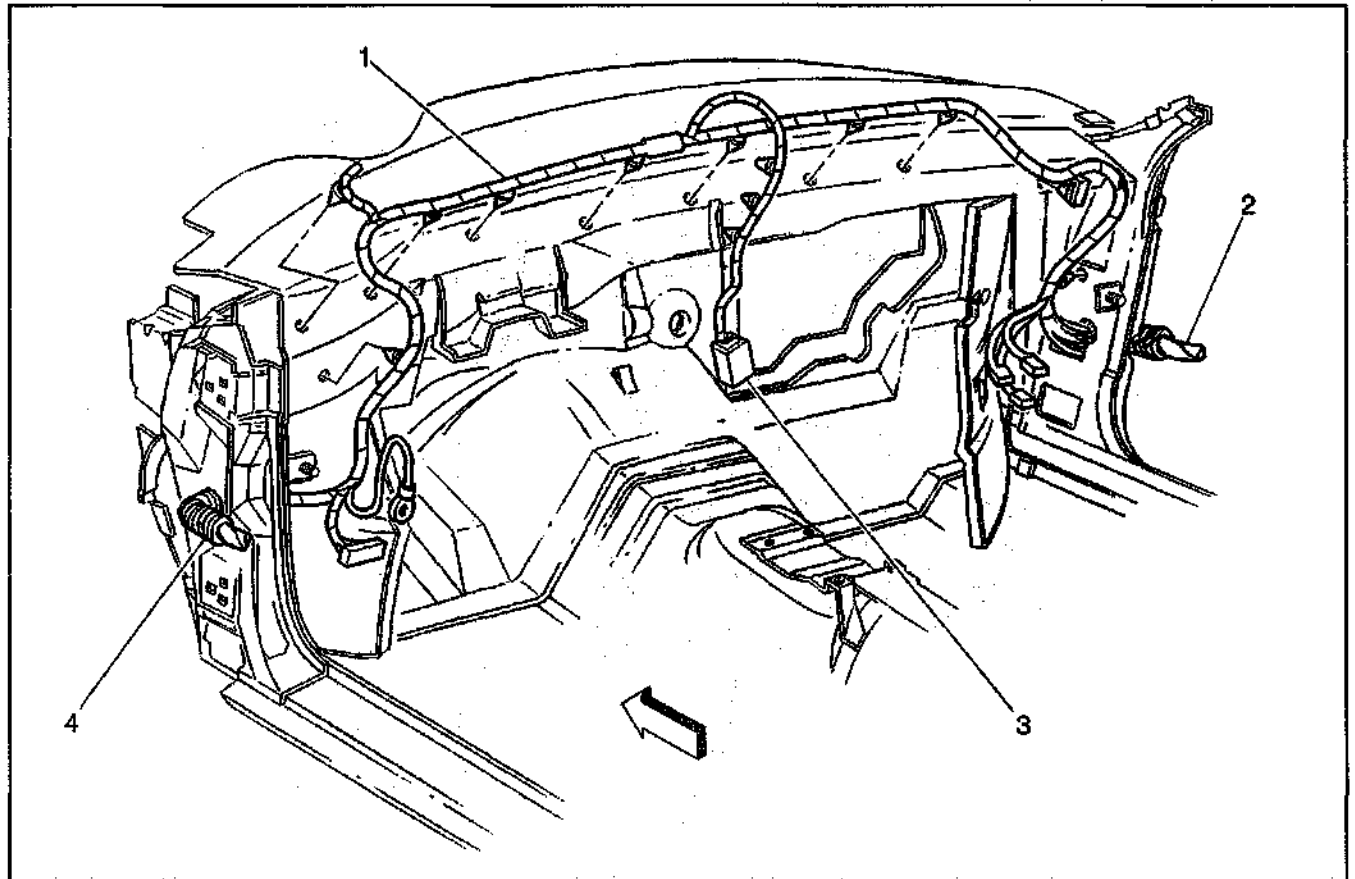


383201

Legend

- | | |
|-------------------------------------|-----------------------------|
| (1) G201 | (4) Crosscar Wiring Harness |
| (2) Instrument Panel Wiring Harness | (5) G200 |
| (3) Instrument Panel Wiring Harness | |

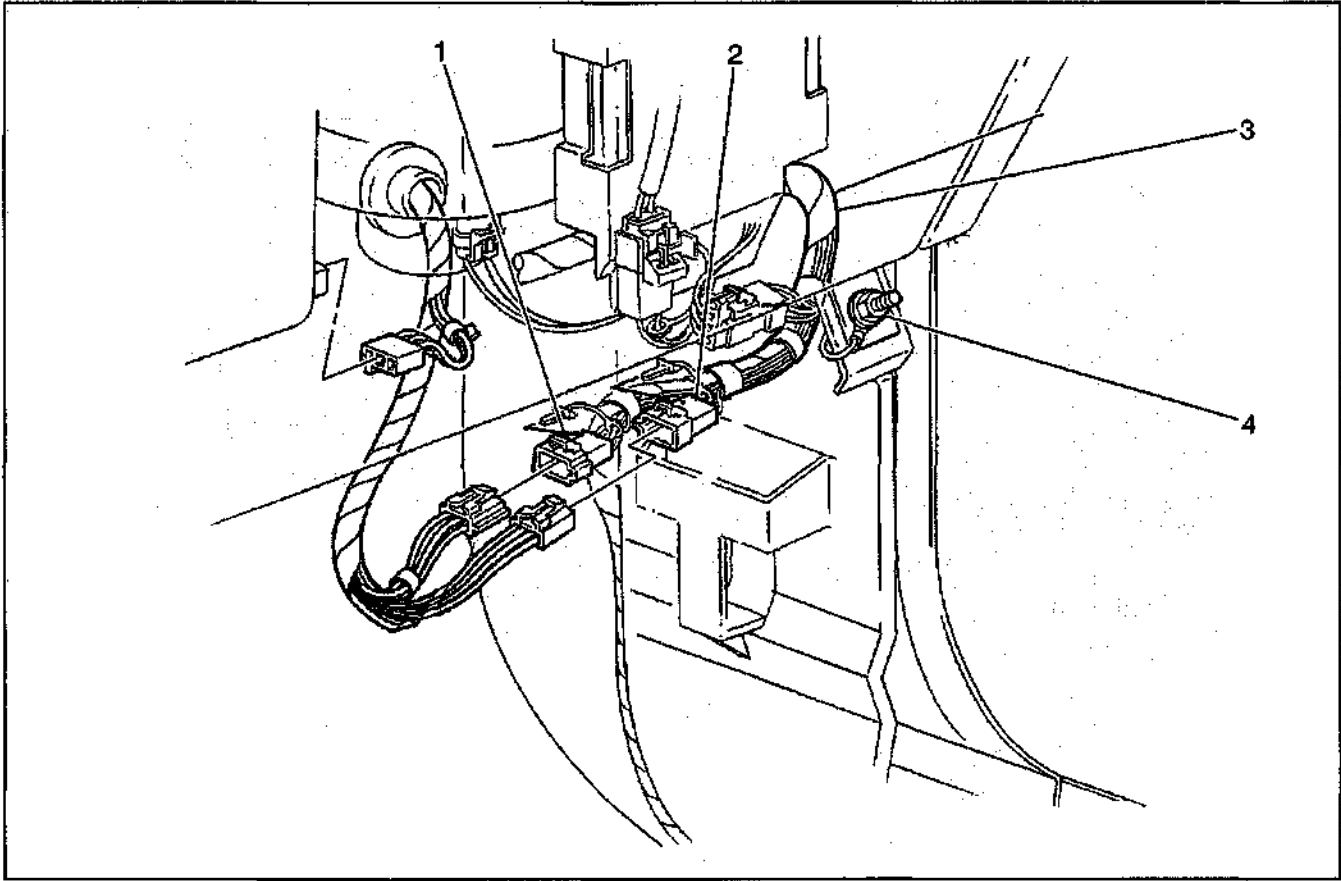
Harness Routing Views (Dash Panel)

**Legend**

- (1) Crosscar Harness
- (2) P600

- (3) Power Window Control Module
- (4) P500

Harness Routing Views (Right Side of the IP)



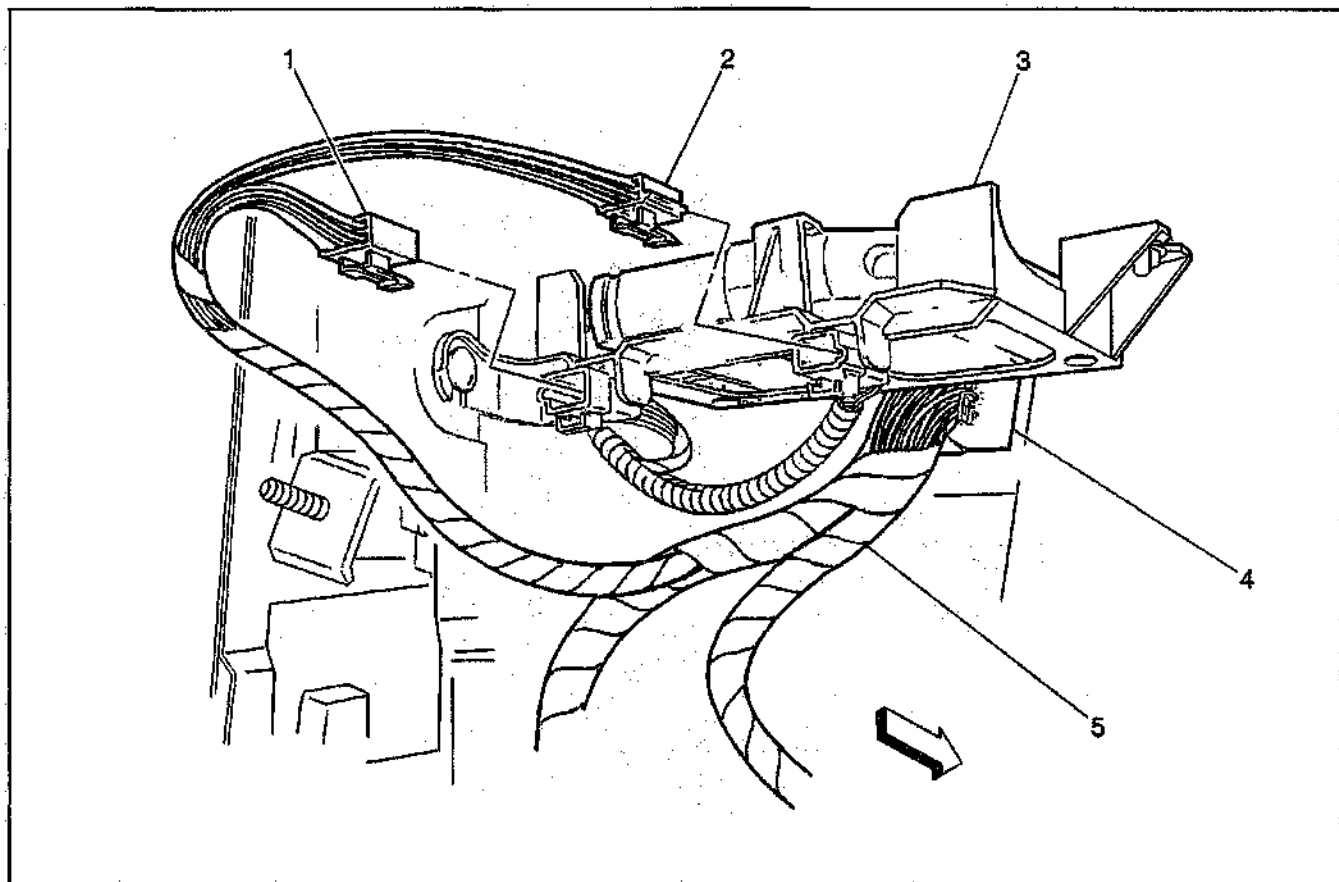
363211

Legend

- (1) C220
- (2) C230

- (3) IP Wiring Harness
- (4) G201

Harness Routing Views (Behind Lower Left Side of IP)

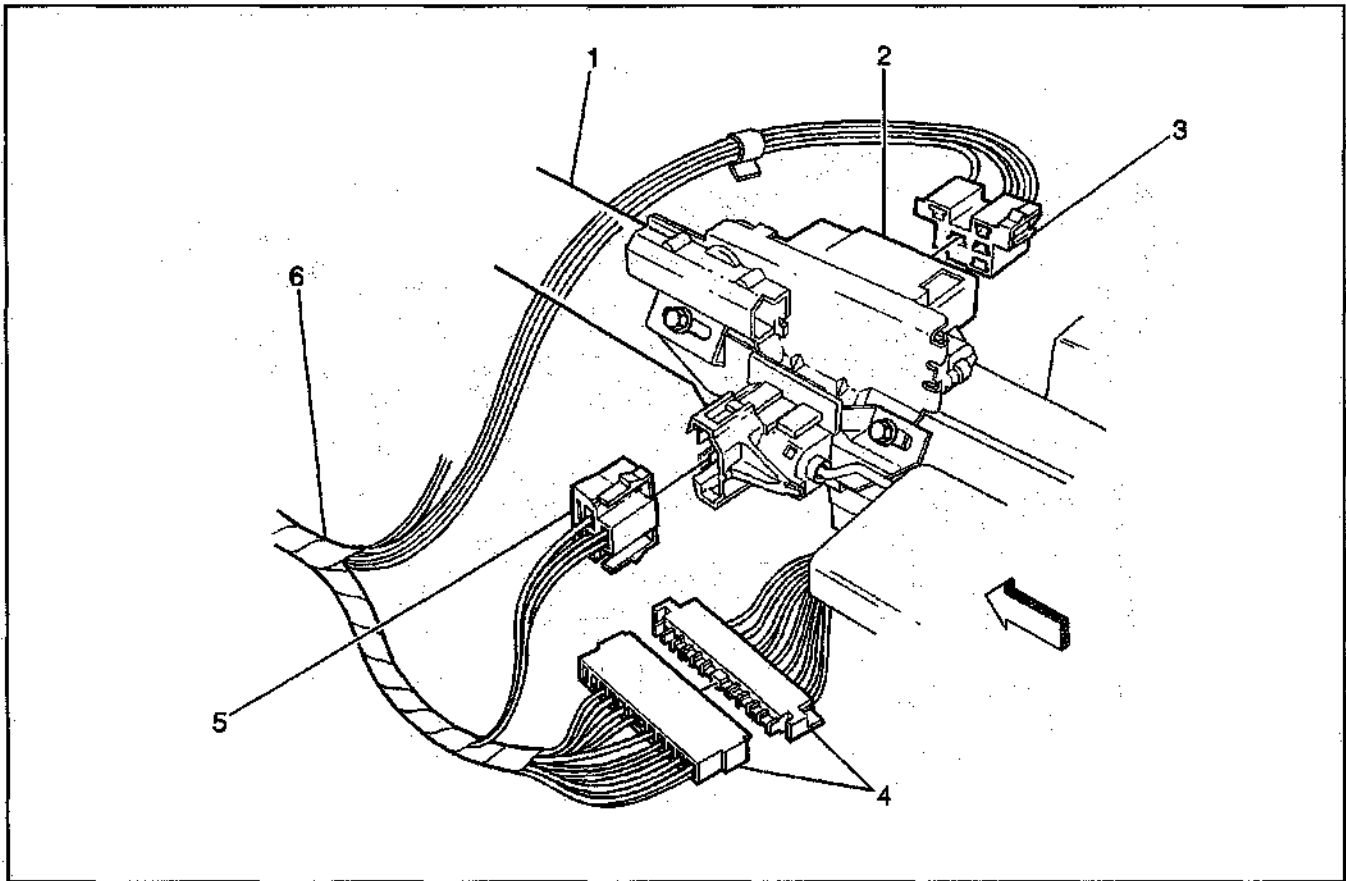


383214

Legend

- | | |
|--|---------------------------|
| (1) C212 | (4) P100 |
| (2) C211 | (5) Forward Lamps Harness |
| (3) Accelerator and Servo Control Module | |

Harness Routing Views (Base of Steering Column)

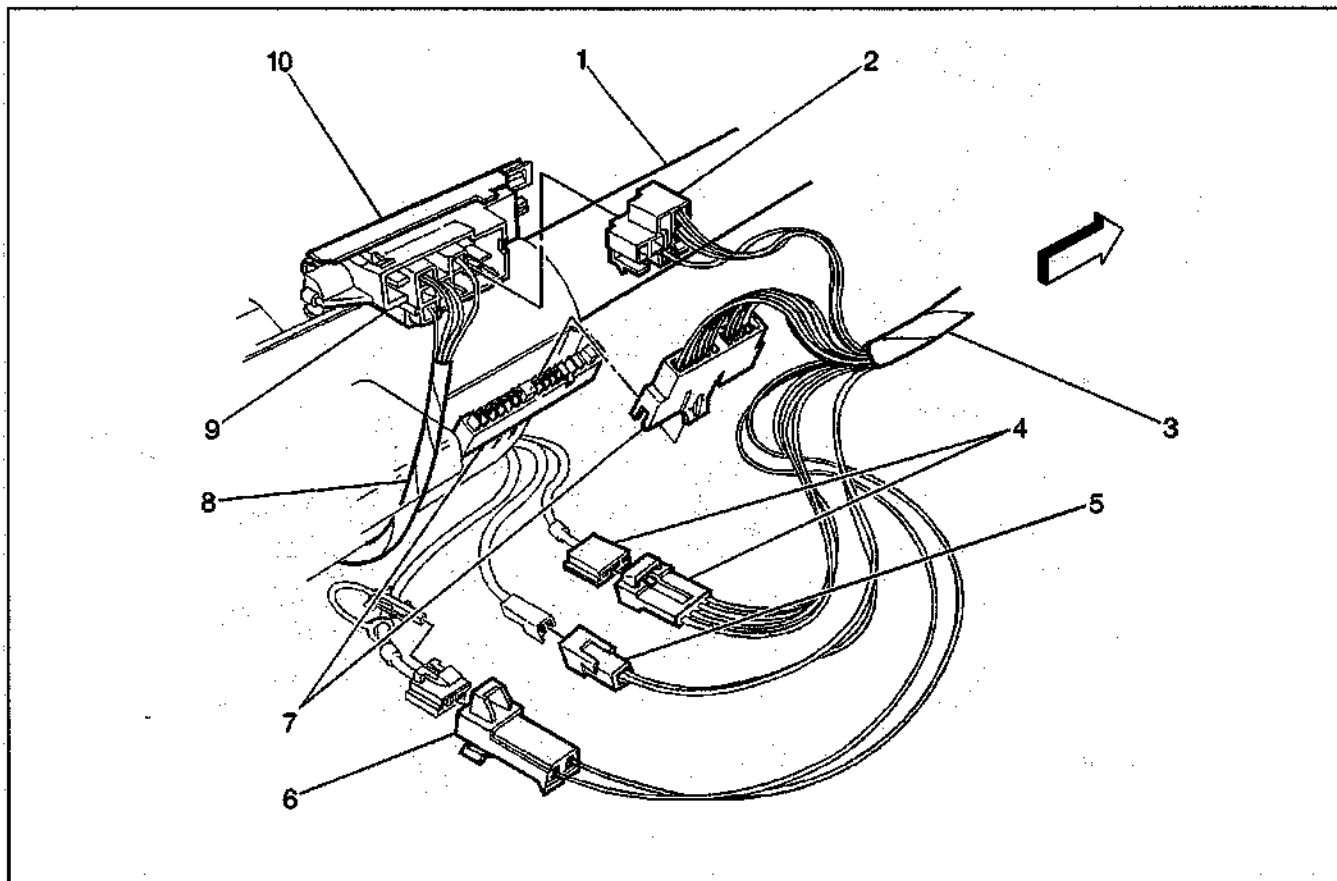


383219

Legend

- | | |
|----------------------------------|-----------------------------------|
| (1) Steering Column | (4) C215 (Not Attached to Column) |
| (2) Ignition Switch | (5) Dimmer Switch Connector |
| (3) Ignition Switch Connector C2 | (6) Forward Lamp Harness |

Harness Routing Views (Steering Column)

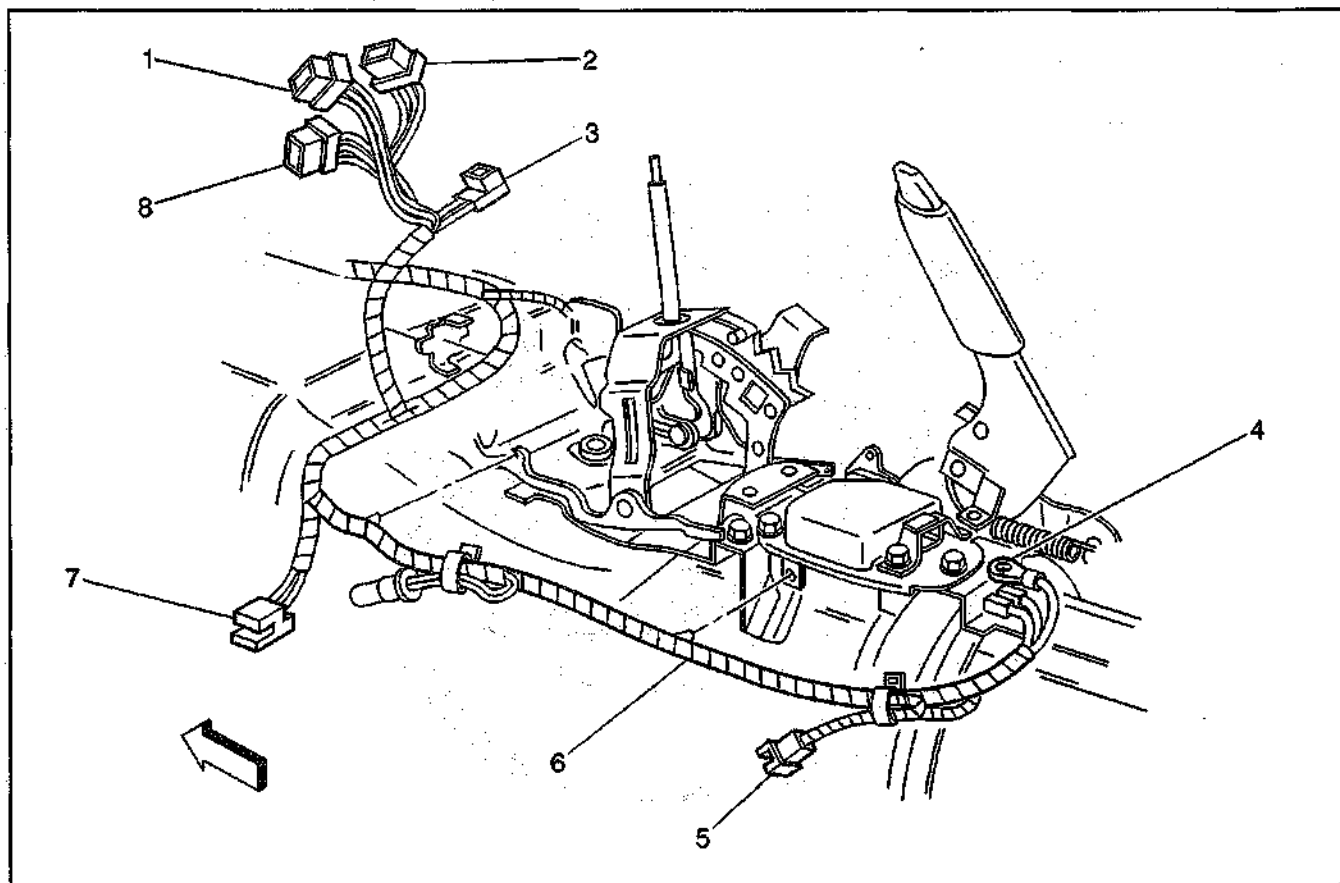


383667

Legend

- | | |
|--|----------------------------------|
| (1) Steering Column | (6) C218 |
| (2) Ignition Switch Connector C1 | (7) C216 |
| (3) IP Wiring Harness | (8) Forward Lamp Harness |
| (4) C217 | (9) Ignition Switch Connector C2 |
| (5) Ignition Key Lock Cylinder (Resistor Pellet) Connector | (10) Ignition Switch |

Harness Routing Views (Under Console, Left Side (Automatic Transmission))

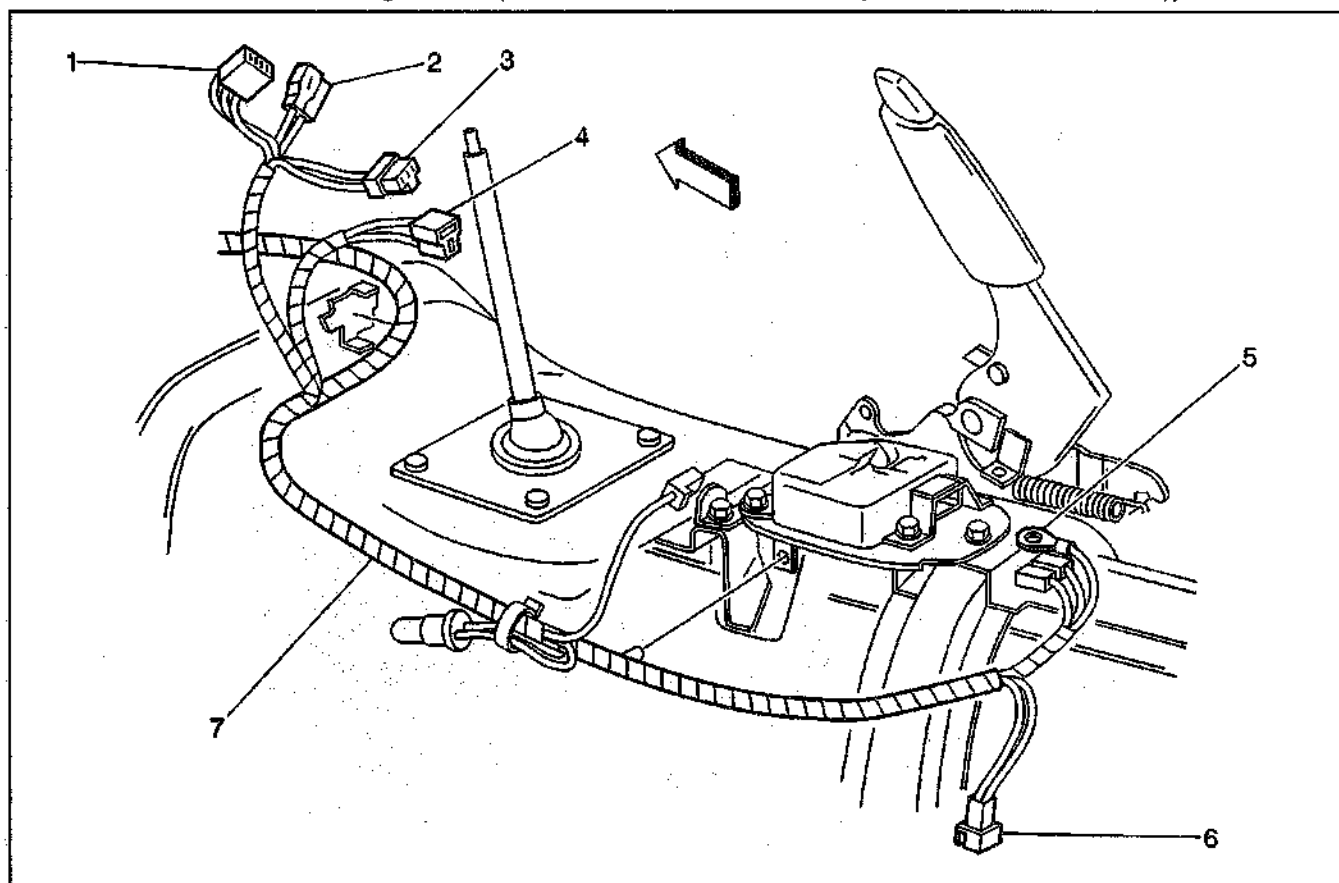


386744

Legend

- | | |
|----------------------------------|--|
| (1) Folding Top Switch Connector | (6) IP Wiring Harness |
| (2) Cigar Lighter Connector | (7) BTSI Connector |
| (3) Auxiliary Power Connector | (8) Traction Control or Second Gear Start Switch Connector |
| (4) G202 | |
| (5) Seat Belt Switch Connector | |

Harness Routing Views (Under Console, Left Side (Manual Transmission))

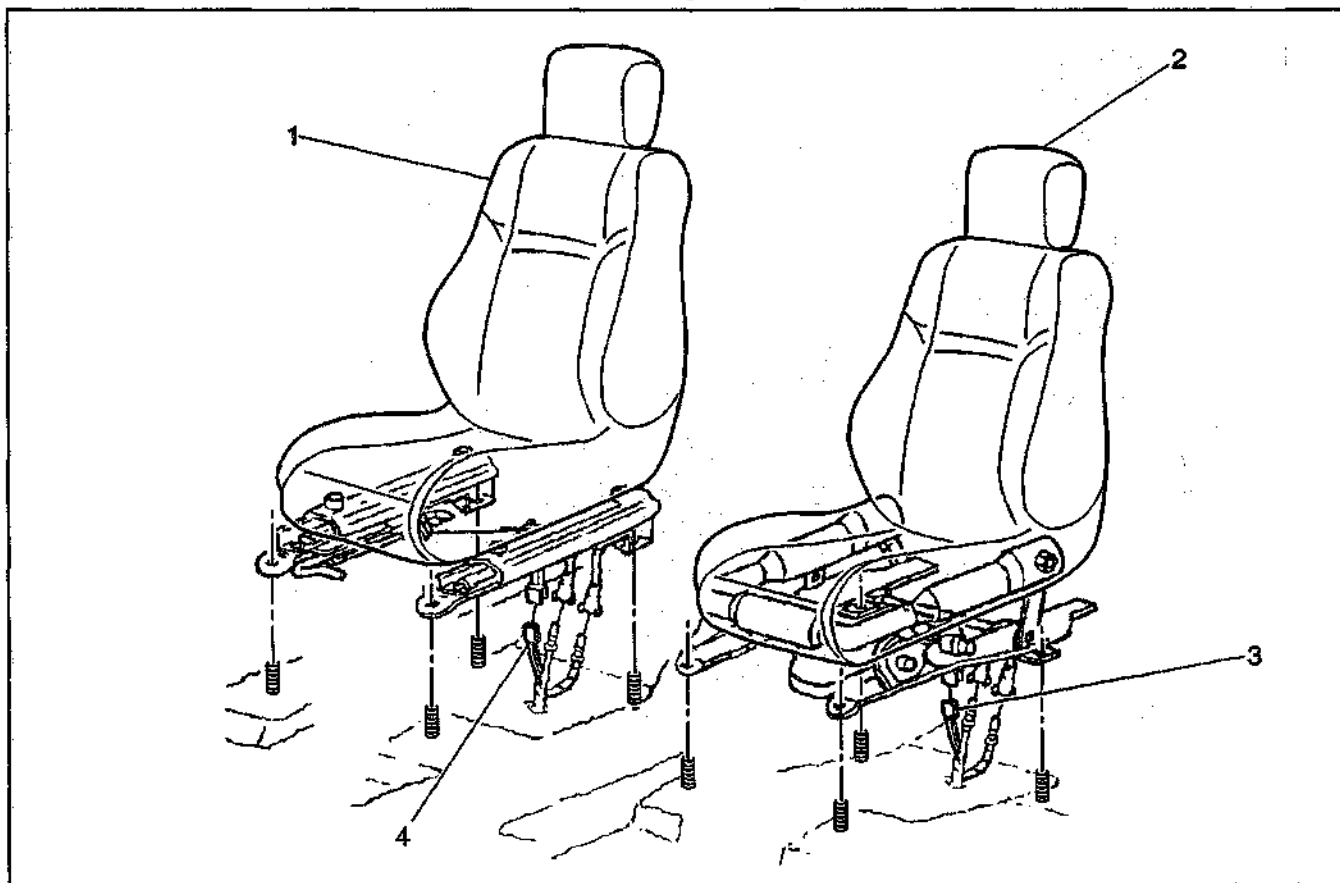


386750

Legend

- | | |
|---|--------------------------------|
| (1) Folding Top Switch Connector | (5) G202 |
| (2) Cigar Lighter Connector | (6) Seat Belt Switch Connector |
| (3) Traction Control Switch Connector (Pontiac) | (7) IP Wiring Harness |
| (4) Auxiliary Power Connector | |

Harness Routing Views (Seats)



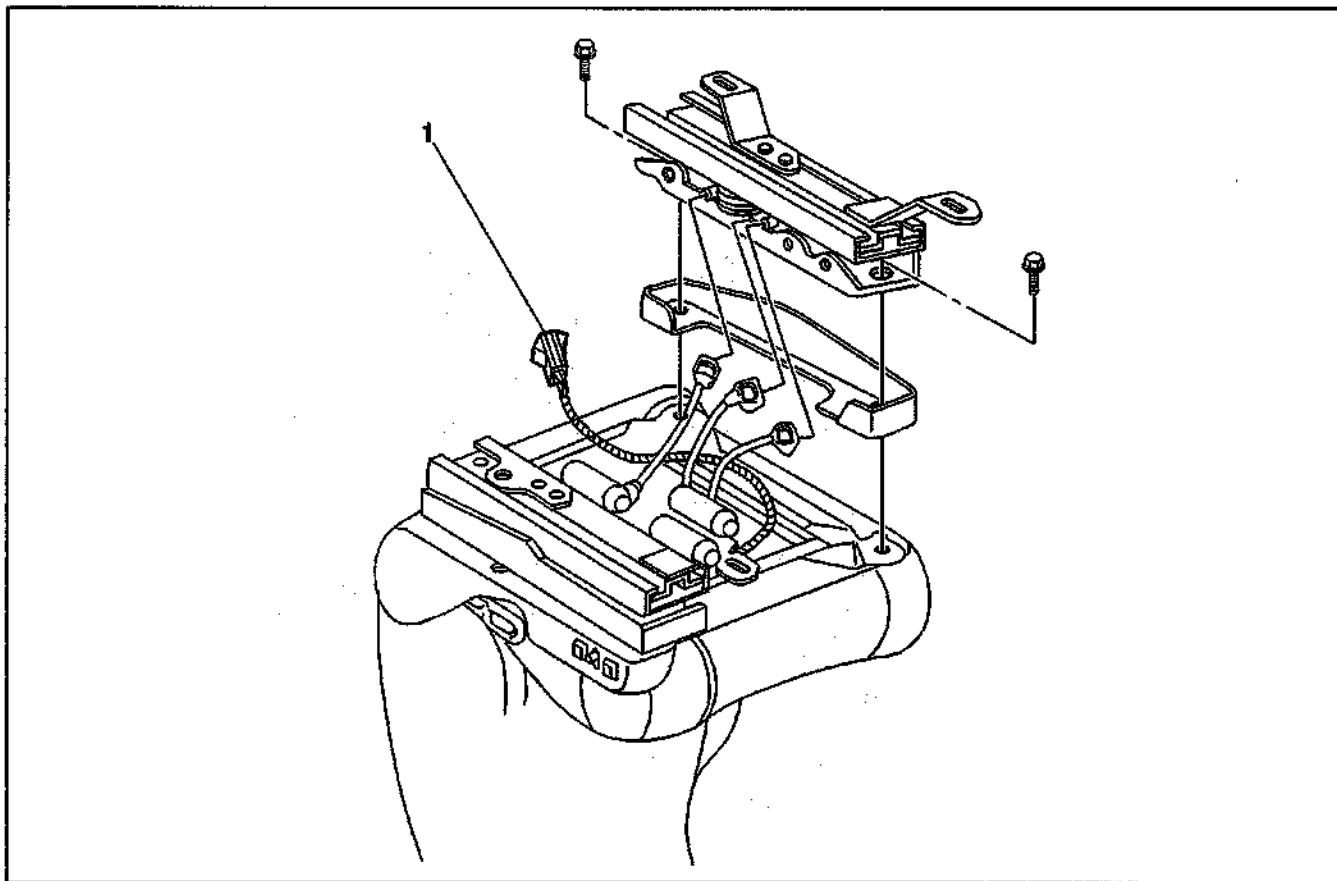
386754

Legend

- (1) Passenger Seat
- (2) Driver Seat

- (3) C300
- (4) C305

Harness Routing Views (Bottom of Driver Seat (AG1))

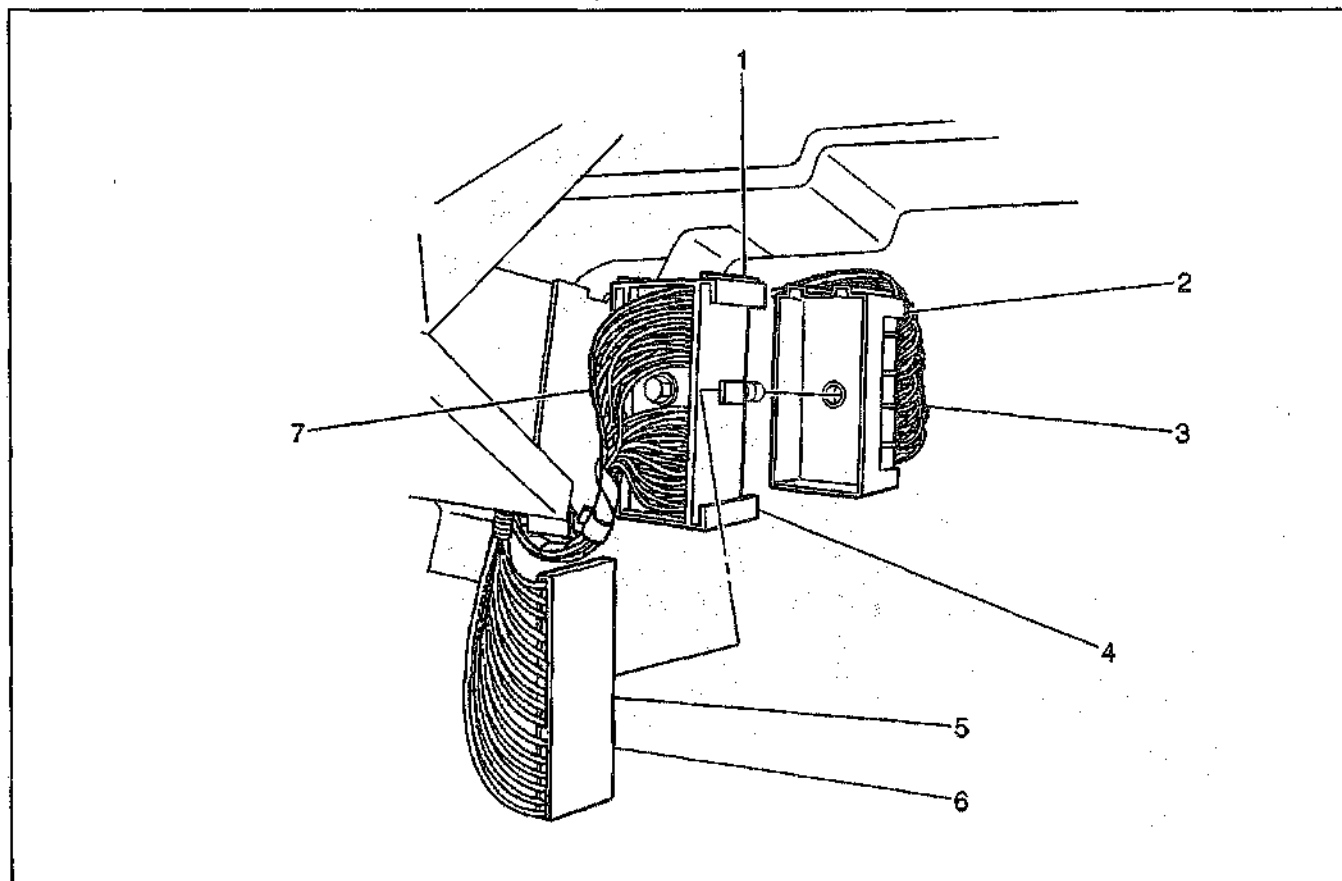


383678

Legend

(1) C310

Harness Routing Views (Rear Left Side of IP)



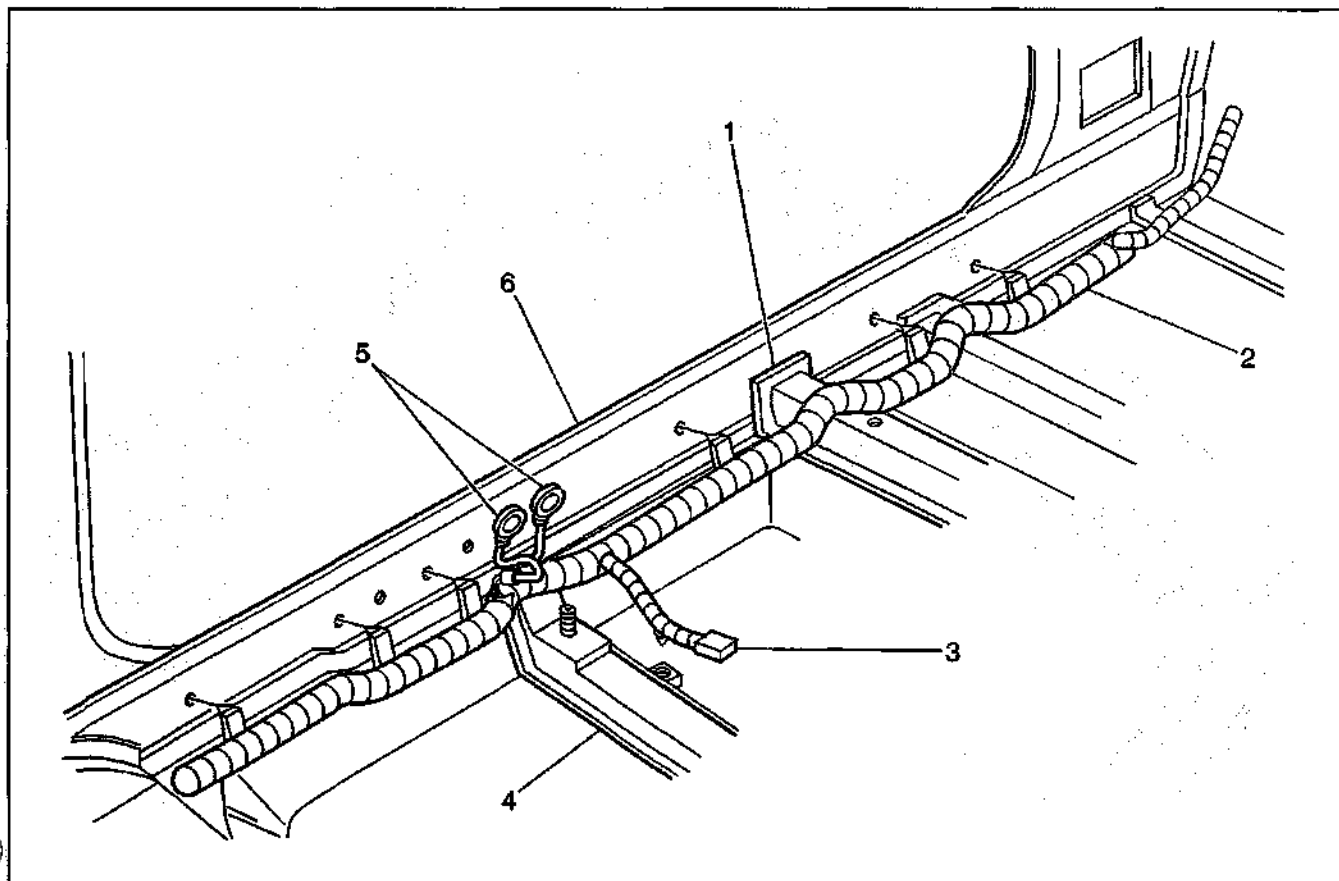
383661

Legend

- (1) Forward Lamp Harness
- (2) C200D
- (3) IP Wiring Harness
- (4) C200B

- (5) Crosscar Wiring Harness
- (6) C200C
- (7) C200A

Harness Routing Views (Left Rocker Panel)



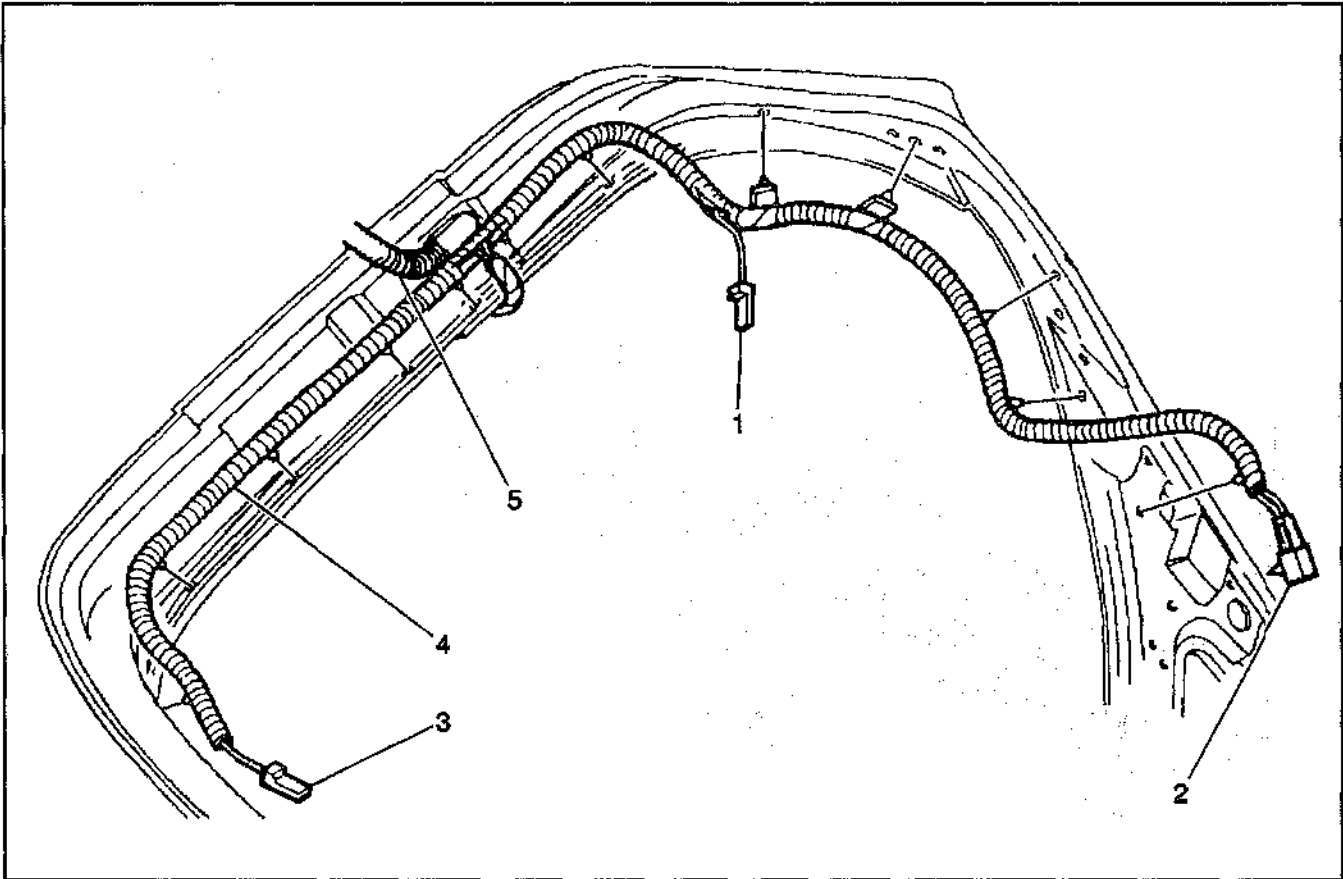
383692

Legend

- (1) G305
- (2) IP Wiring Harness
- (3) C310

- (4) Number 3 Floor Pan Rail
- (5) G305
- (6) Rocker Panel

Harness Routing Views (Underside of Rear Compartment Lid (Coupe))

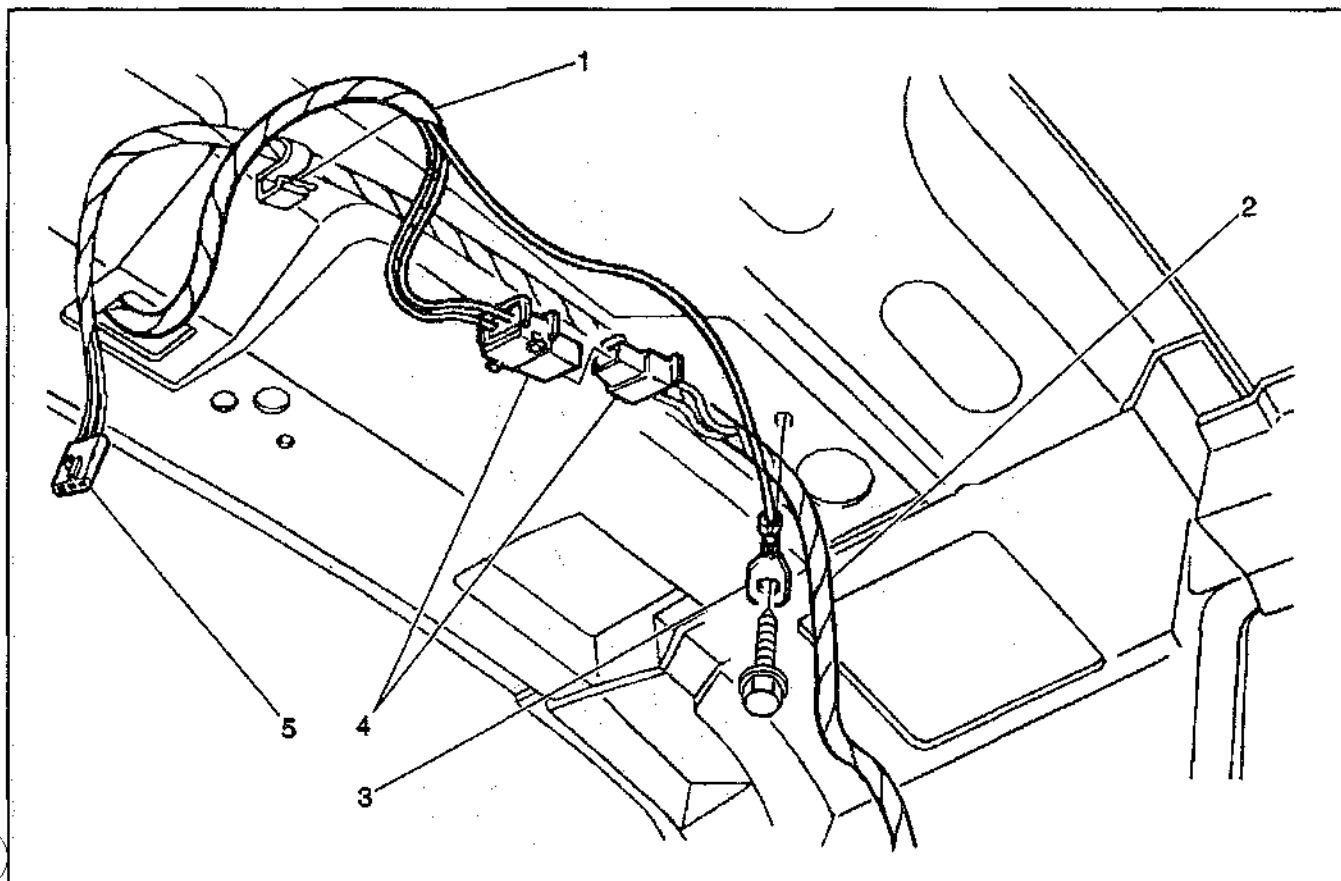


383712

Legend

- | | |
|---|-------------------|
| (1) Rear Defogger Grid Connector (Left Side) | (4) Hatch Harness |
| (2) C420 | (5) P300 |
| (3) Rear Defogger Grid Connector (Right Side) | |

Harness Routing Views (Center Rear of Roof Panel)

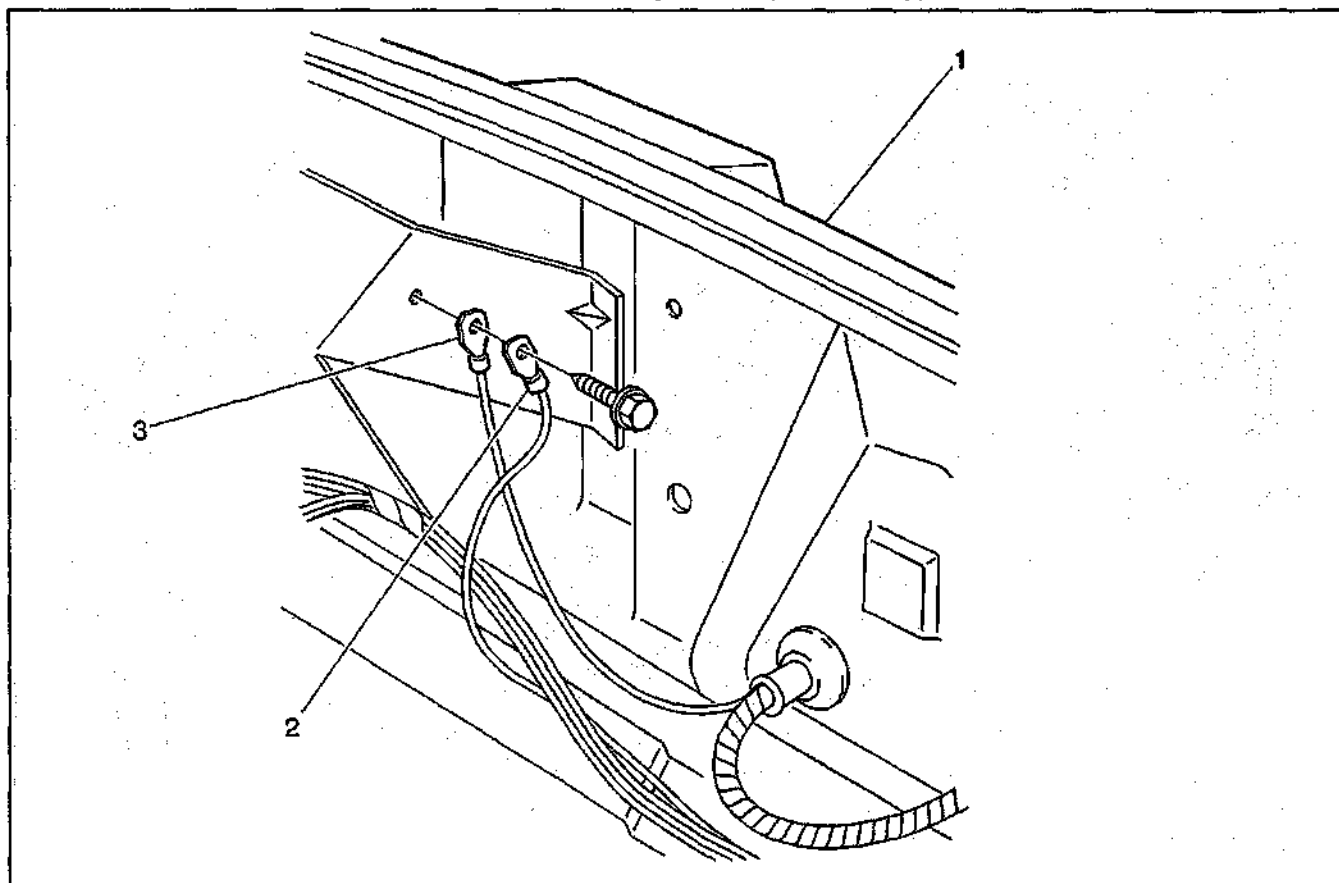


383721

Legend

- | | |
|-------------------------------------|-------------------------|
| (1) Hatch Wiring Harness | (4) C330 |
| (2) Instrument Panel Wiring Harness | (5) Dome Lamp Connector |
| (3) G310 | |

Harness Routing Views (Rear Body)

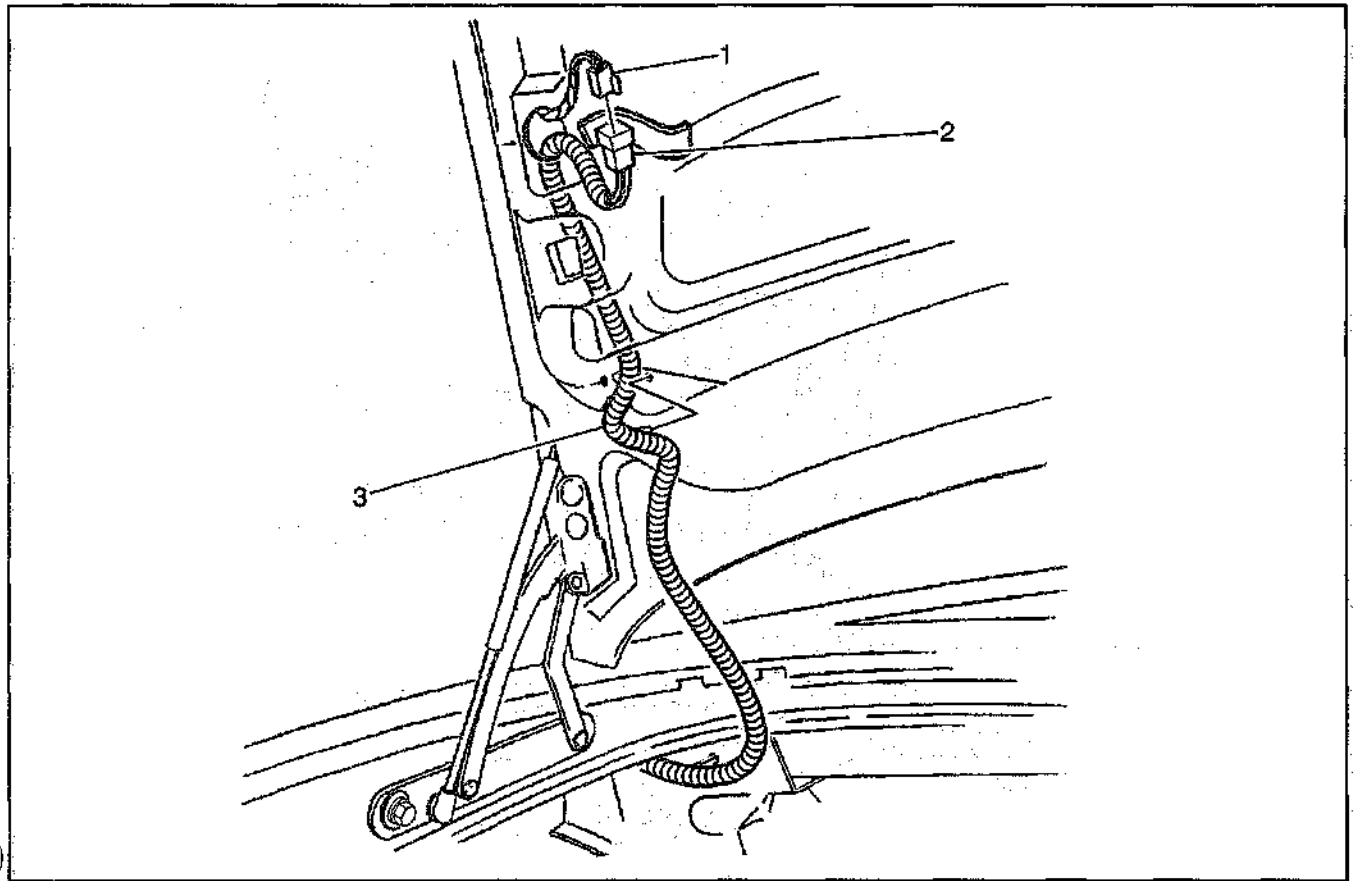


363726

Legend

- (1) Rear End Panel
- (2) IP Wiring Harness Ground
- (3) G400 Rear Lamp Harness Ground

Harness Routing Views (Underside of Rear Compartment Lid (Chevrolet Convertible))

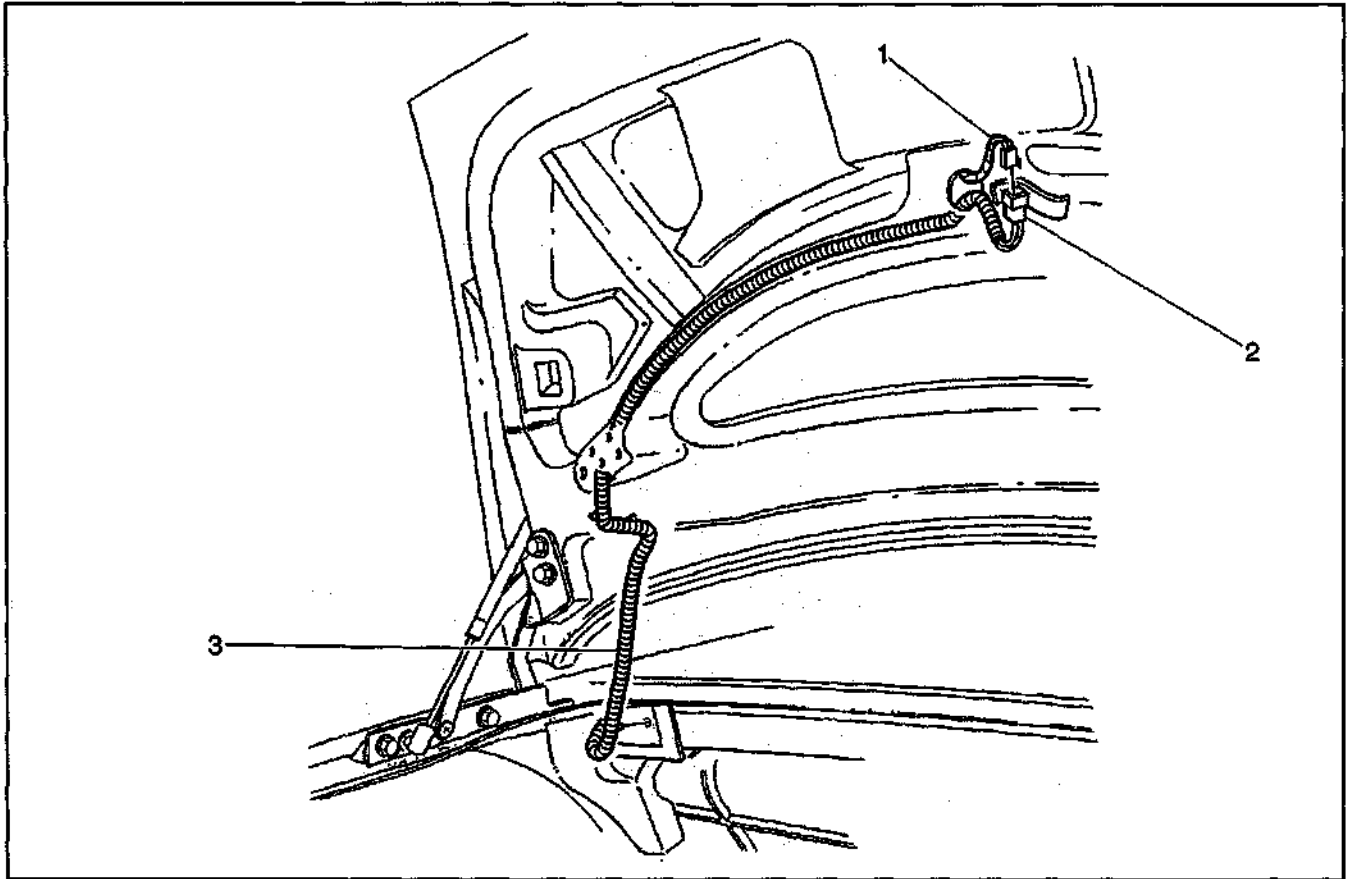


383735

Legend

- | | |
|---|-----------------------|
| (1) CHMSL Wiring Harness | (3) IP Wiring Harness |
| (2) CHMSL Wiring Harness Assembly Connector | |

Harness Routing Views (Underside of Rear Compartment Lid (Pontiac Convertible))



383736

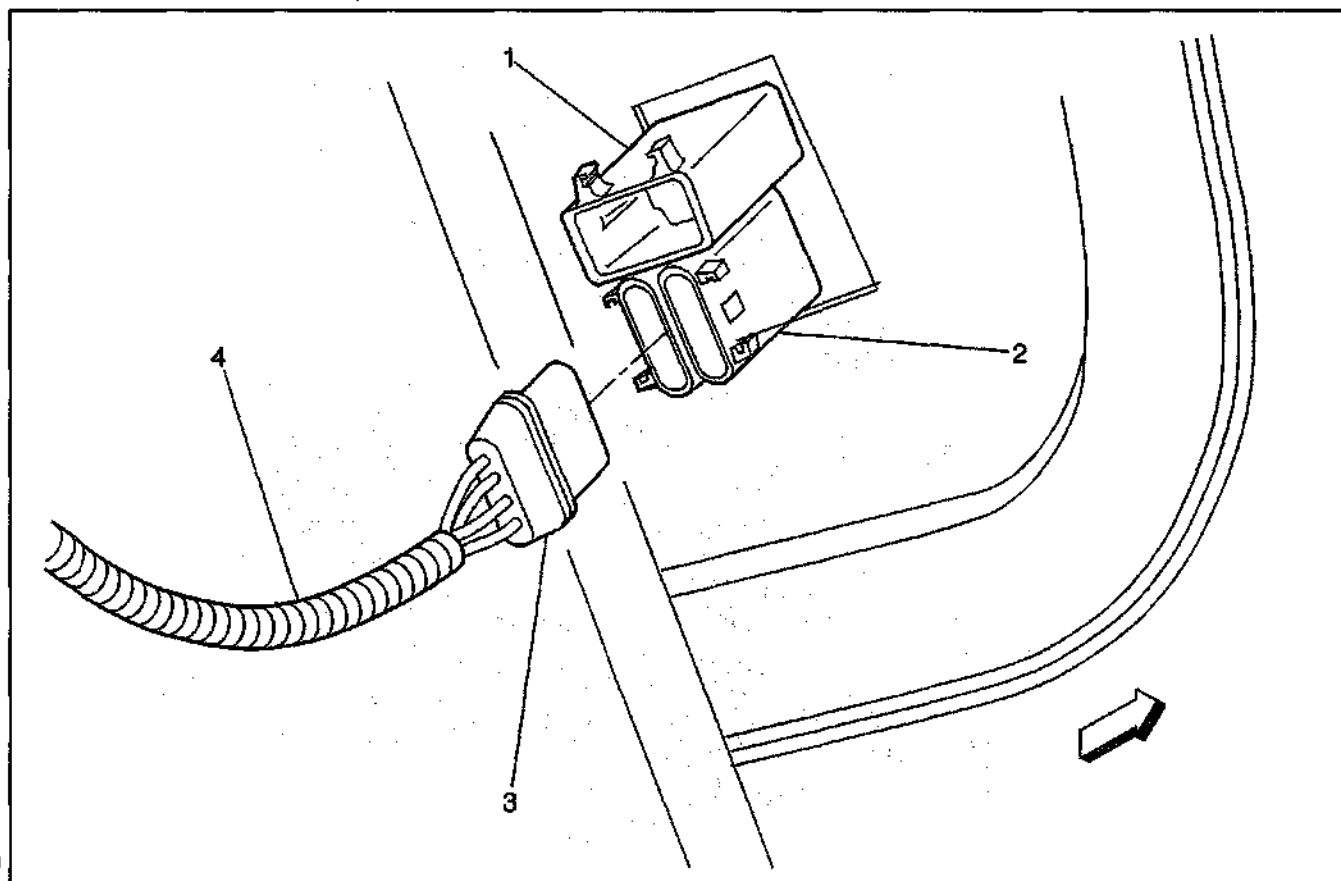
Legend

(1) CHMSL Harness

(2) CHMSL Wiring Harness Assembly Connector

(3) IP Wiring Harness

Harness Routing Views (Outside Left of Rear Floor Pan, Forward of Rear Axle)



383738

Legend

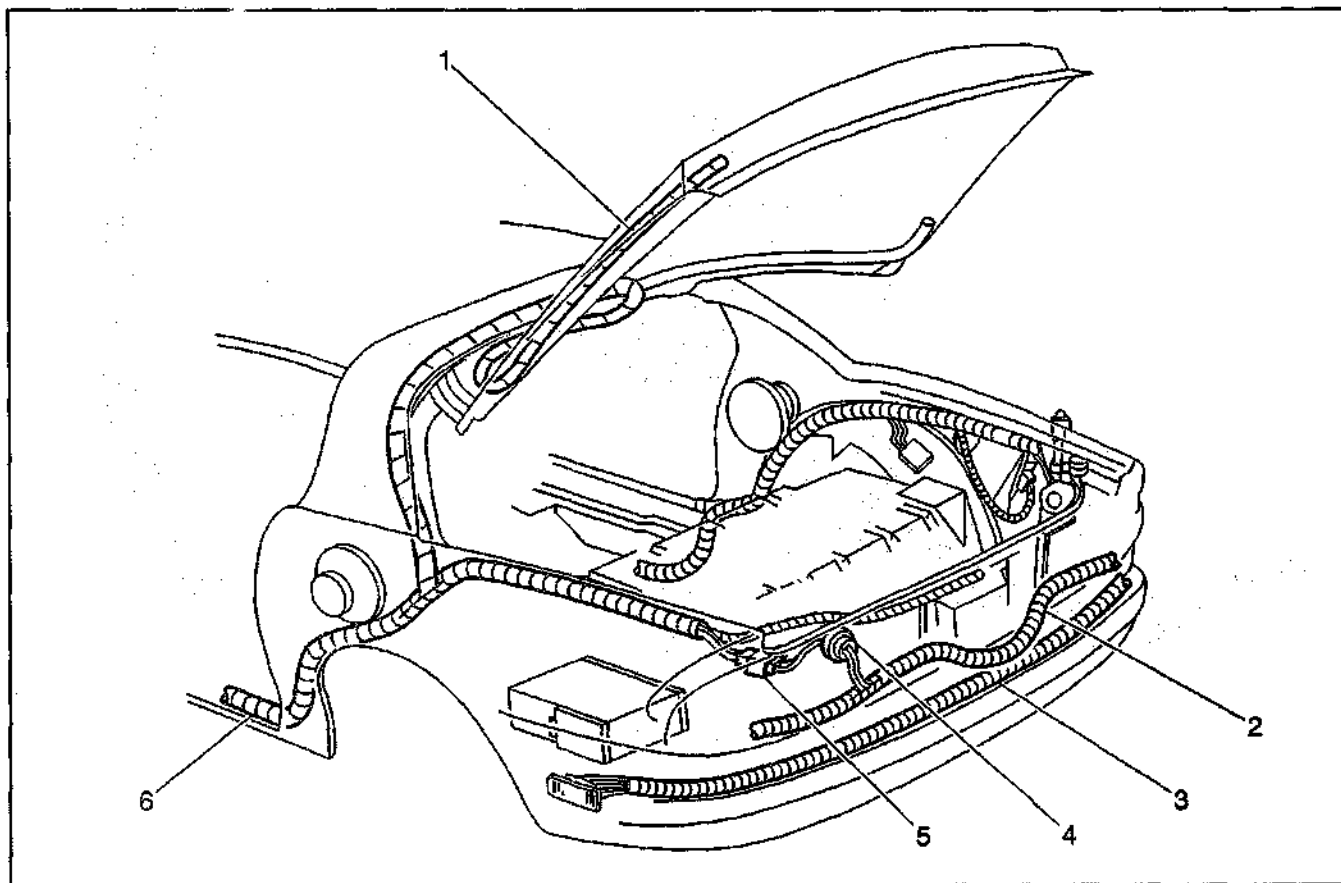
(1) C405B

(2) IP Wiring Harness

(3) C405C

(4) Rear Wheel Speed Sensor Harness

Harness Routing Views (Rear Compartment (Coupe))

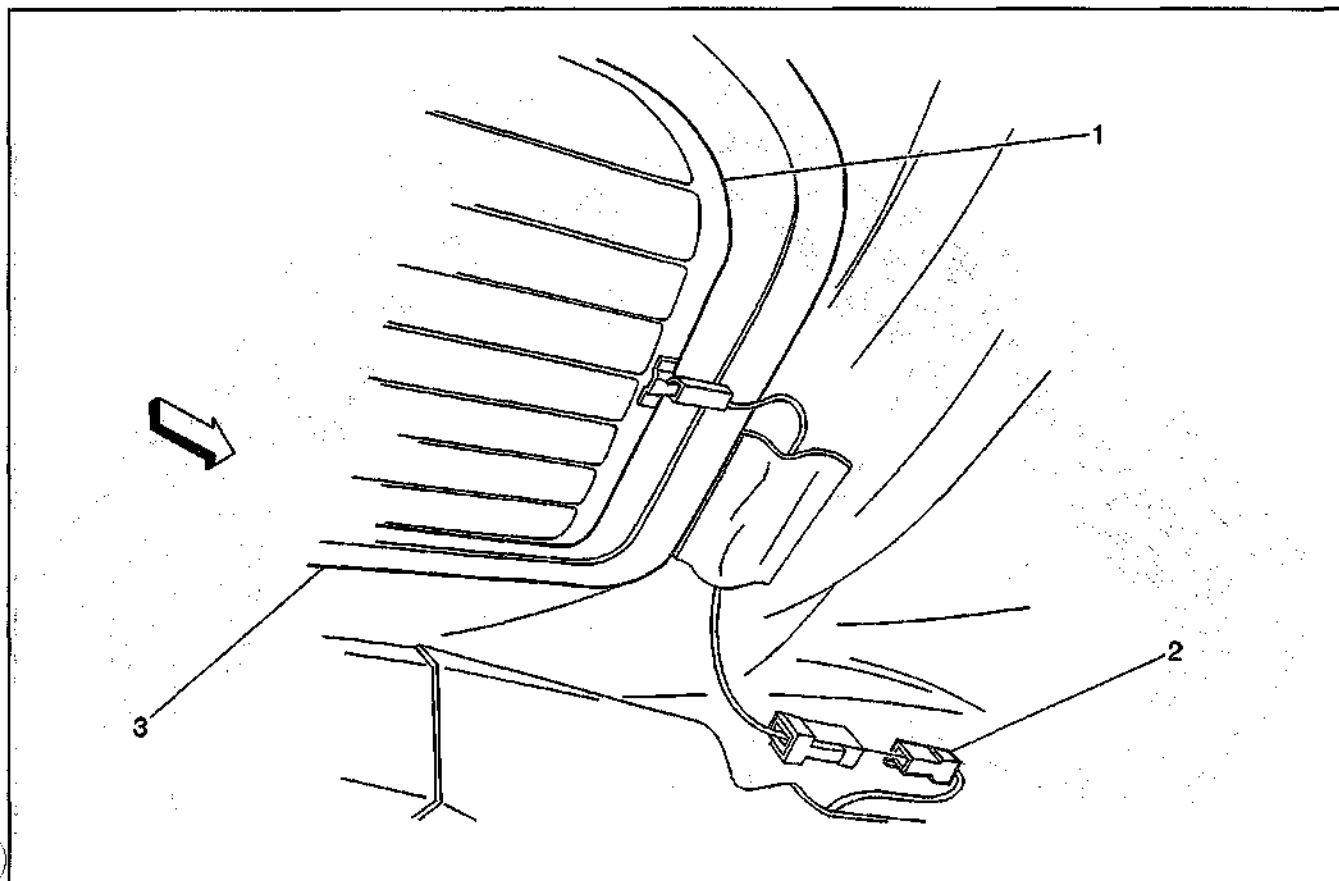


386758

Legend

- | | |
|-------------------------|----------------|
| (1) Hatch Harness | (4) P400 |
| (2) Rear Body Harness | (5) C400 |
| (3) Rear Fascia Harness | (6) IP Harness |

Harness Routing Views (Inside Rear Convertible Top)



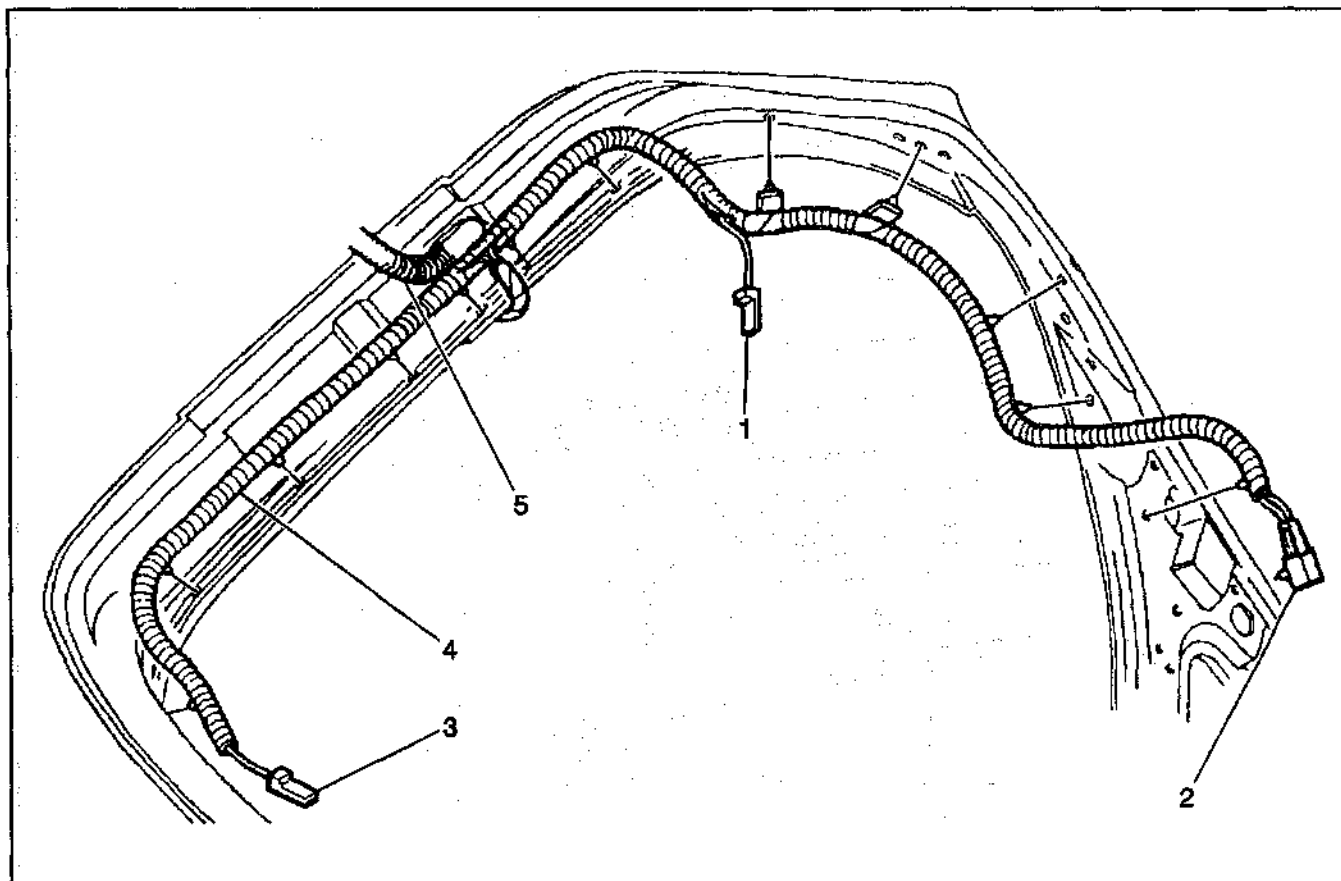
386764

Legend

- (1) Rear Defogger Grid
- (2) C320

- (3) Folding Top Glass

Harness Routing Views (Underside of Rear Compartment Lid (Coupe))



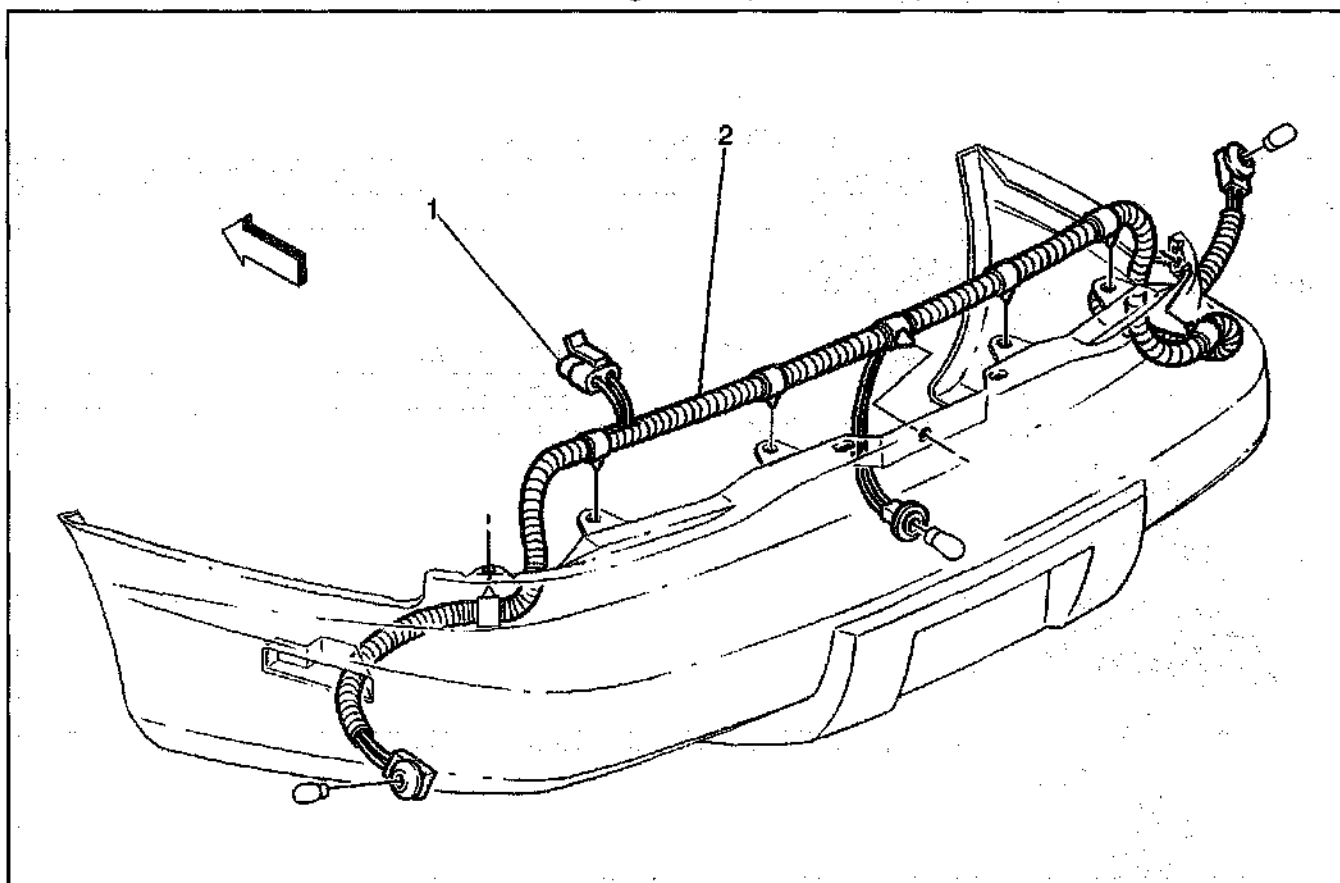
383712

Legend

- (1) Rear Defogger Grid Connector (Left Side)
- (2) C420
- (3) Rear Defogger Grid Connector (Right Side)

- (4) Hatch Harness
- (5) P300

Harness Routing Views (Rear Fascia)



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Legend

(1) C430

(2) Rear Fascia Wiring Harness