

2004 Cadillac SRX

2004 ACCESSORIES & EQUIPMENT Lighting Systems - SRX

2004 ACCESSORIES & EQUIPMENT

Lighting Systems - SRX

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Arc Tube Cover	2 N.m	18 lb in
DRL Resistor Fastener	12 N.m	106 lb in
Fascia to Fender Bolt	9 N.m	80 lb in
Fog Lamp to the Front Fascia	2 N.m	18 lb in
Headlamp Ballast	2 N.m	18 lb in
Headlamp to Mounting Panel	6 N.m	53 lb in
Headlamp Leveling Sensors to the Vehicle	9 N.m	80 lb in
High Mounted Stop Lamp to the Liftgate	3 N.m	27 lb in
Tail Lamp to the Body	6 N.m	53 lb in

SCHEMATIC AND ROUTING DIAGRAMS

HEADLIGHTS/DAYTIME RUNNING LIGHTS (DRL) SCHEMATICS

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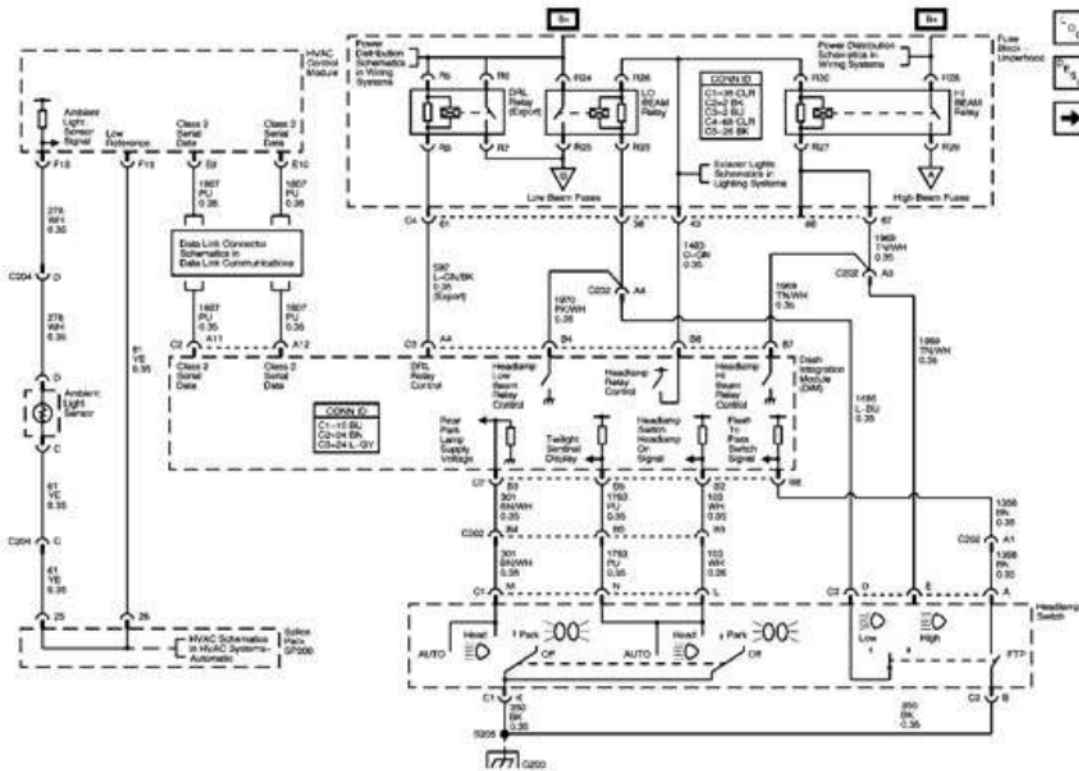


Fig. 1: Headlamp Controls Schematic
 Courtesy of GENERAL MOTORS CORP.

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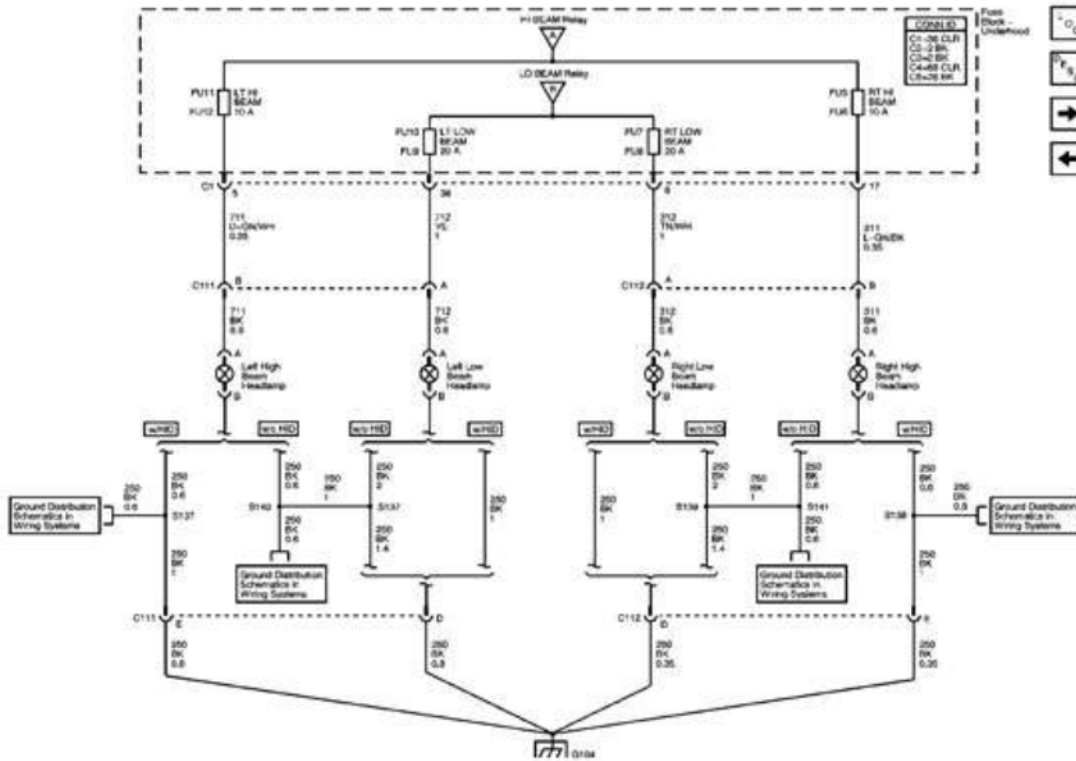


Fig. 2: Headlamps Schematic - Domestic
Courtesy of GENERAL MOTORS CORP.

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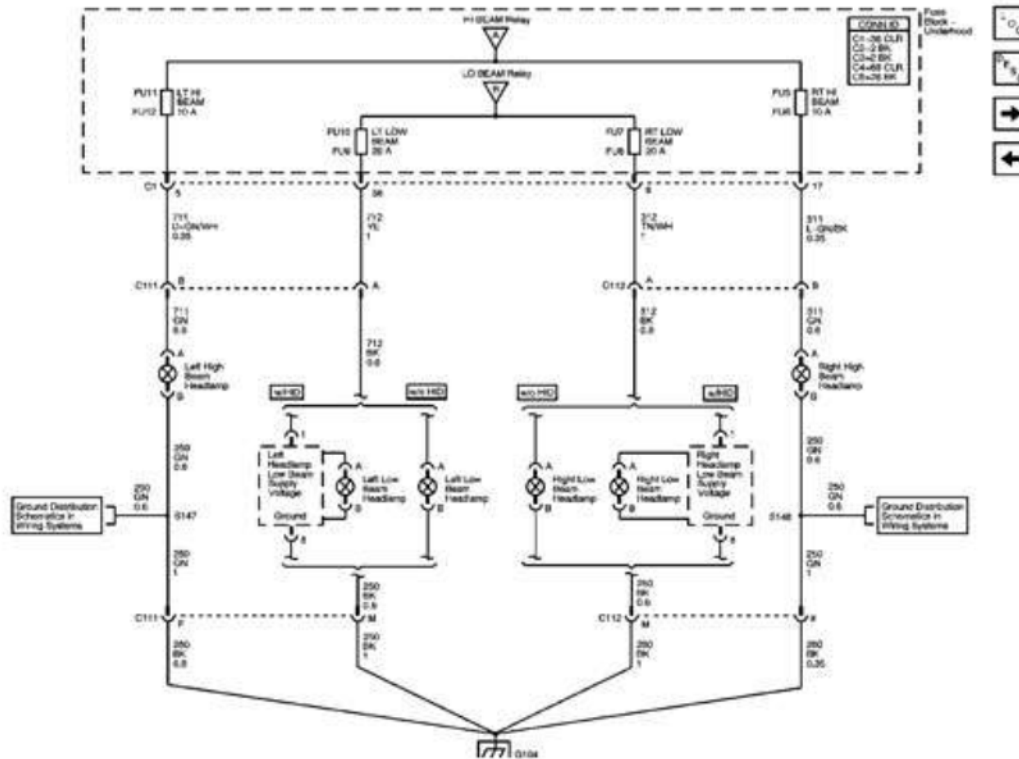


Fig. 3: Headlamps Schematic - Export
Courtesy of GENERAL MOTORS CORP.

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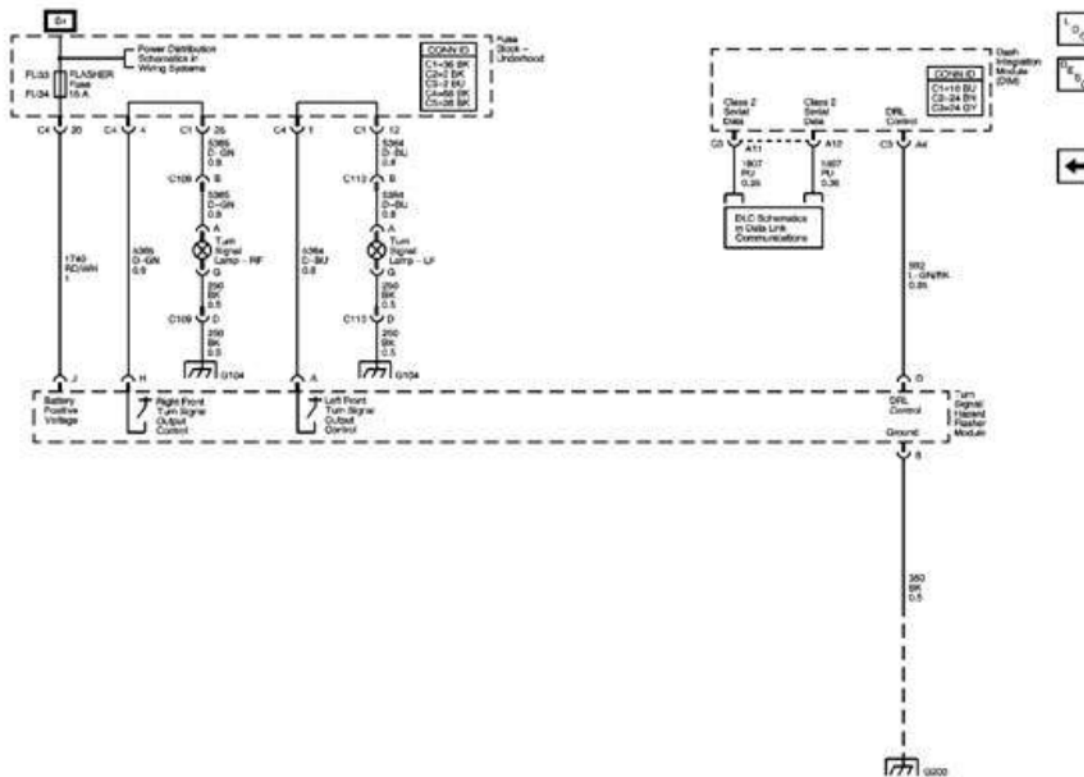


Fig. 4: Daytime Running Lamps (DRL) Schematic - Domestic
Courtesy of GENERAL MOTORS CORP.

FOG LIGHTS SCHEMATICS

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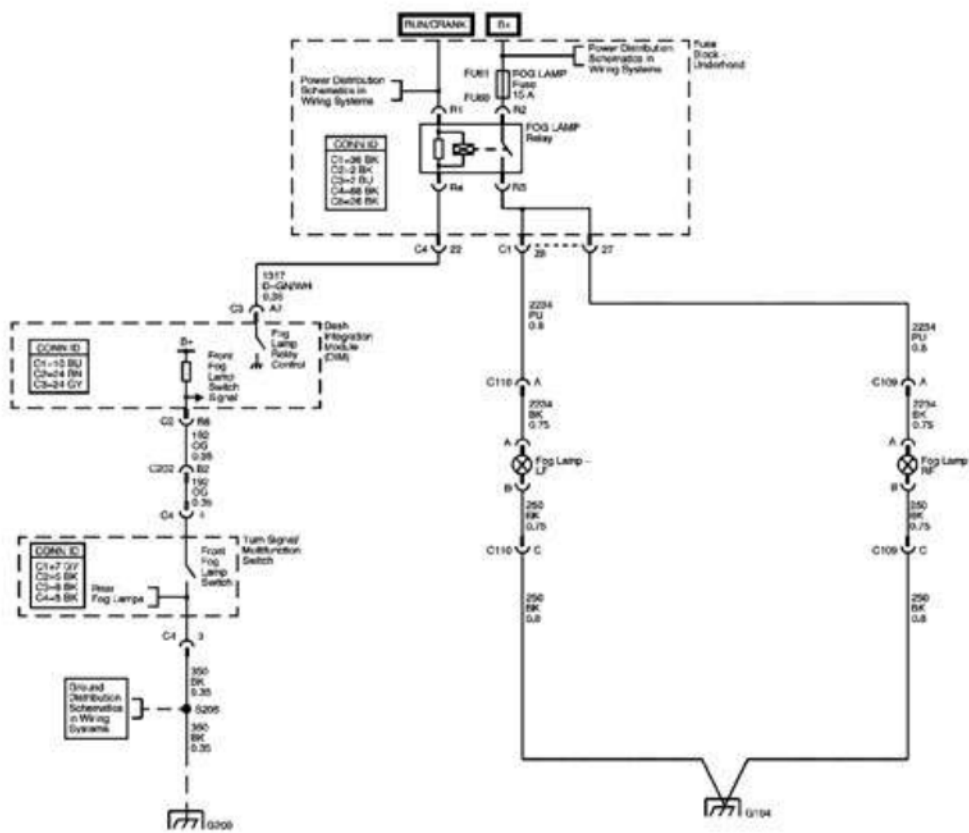


Fig. 5: Front Fog Lamps Schematic
 Courtesy of GENERAL MOTORS CORP.

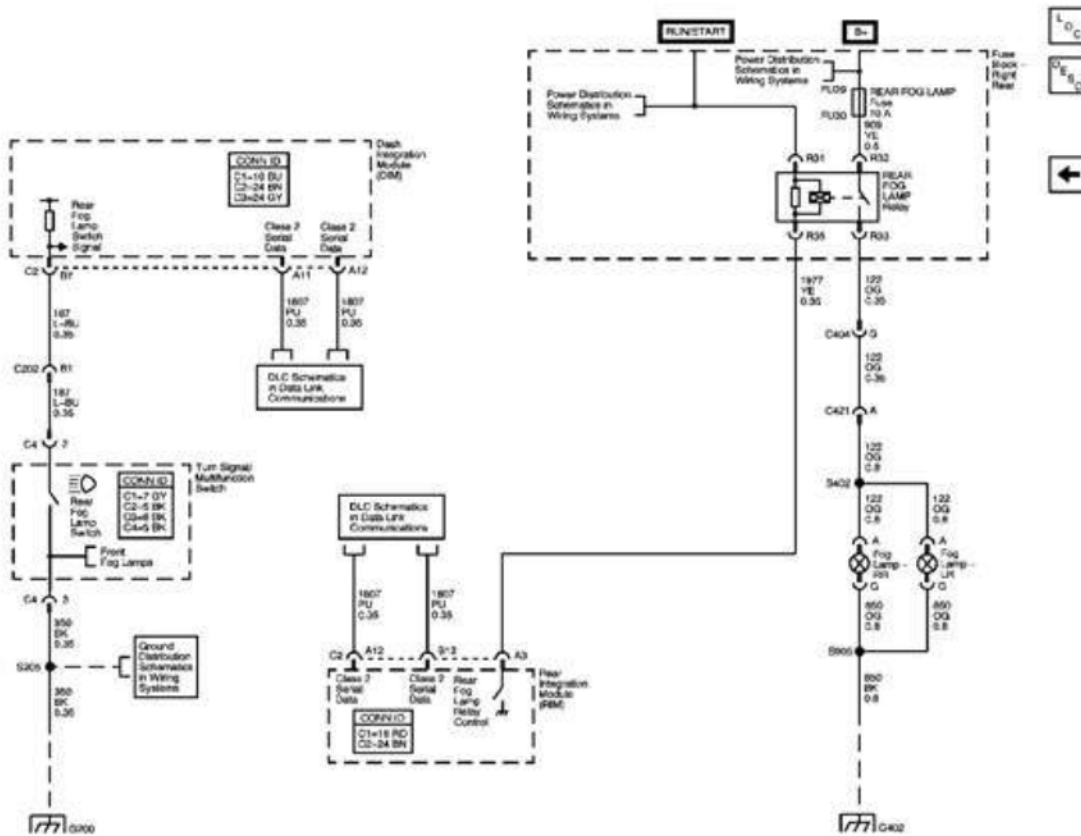


Fig. 6: Rear Fog Lamps Schematic
 Courtesy of GENERAL MOTORS CORP.

HEADLIGHT LEVELING SCHEMATICS

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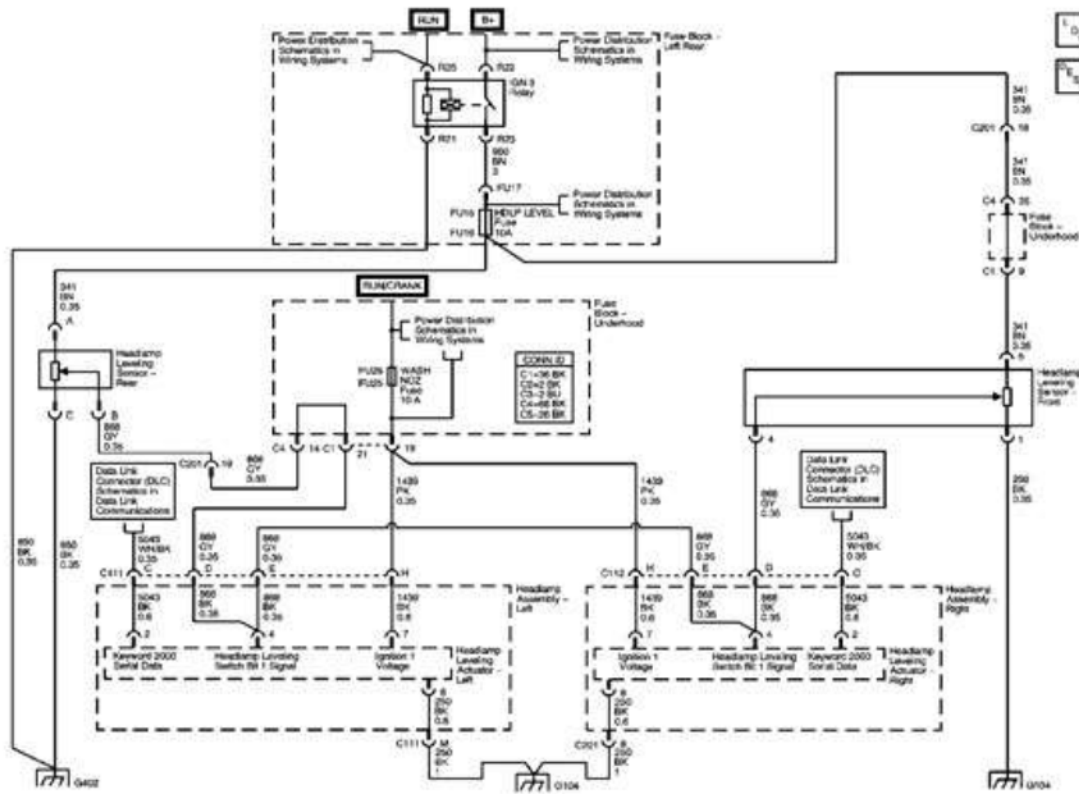


Fig. 7: Headlight Leveling Schematic
 Courtesy of GENERAL MOTORS CORP.

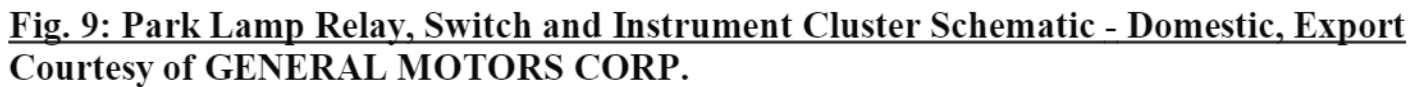
EXTERIOR LIGHTS SCHEMATICS

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Fig. 8: Turn/Hazard Flasher Module Schematic
Courtesy of GENERAL MOTORS CORP.

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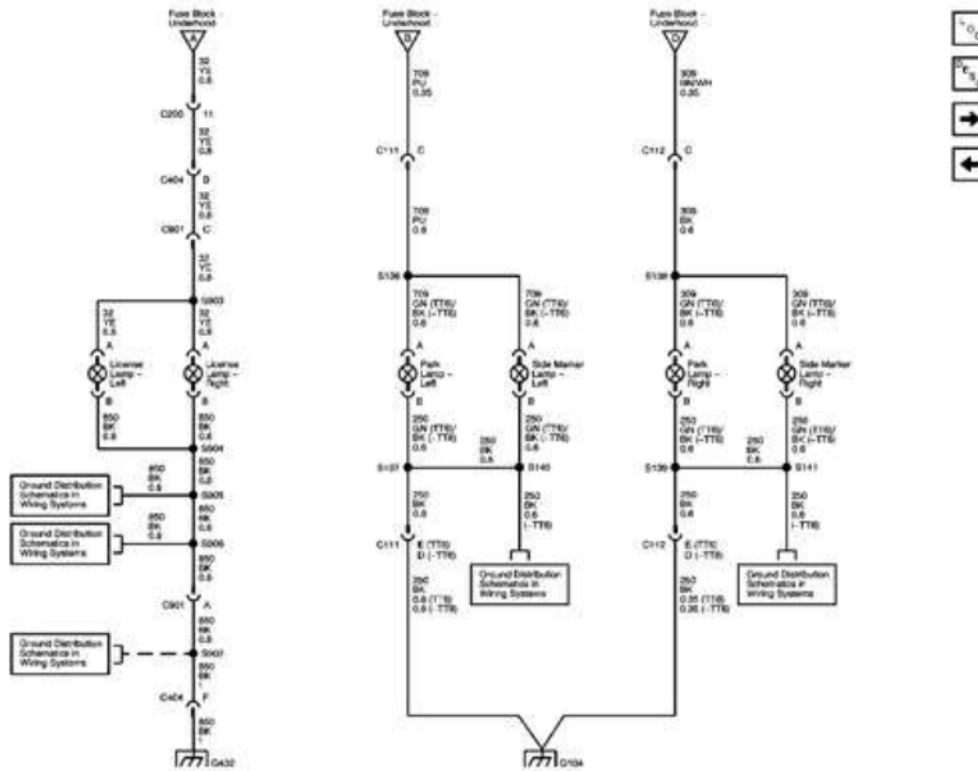


Fig. 10: License, Park & Side Marker Lamp Schematic - Domestic
Courtesy of GENERAL MOTORS CORP.

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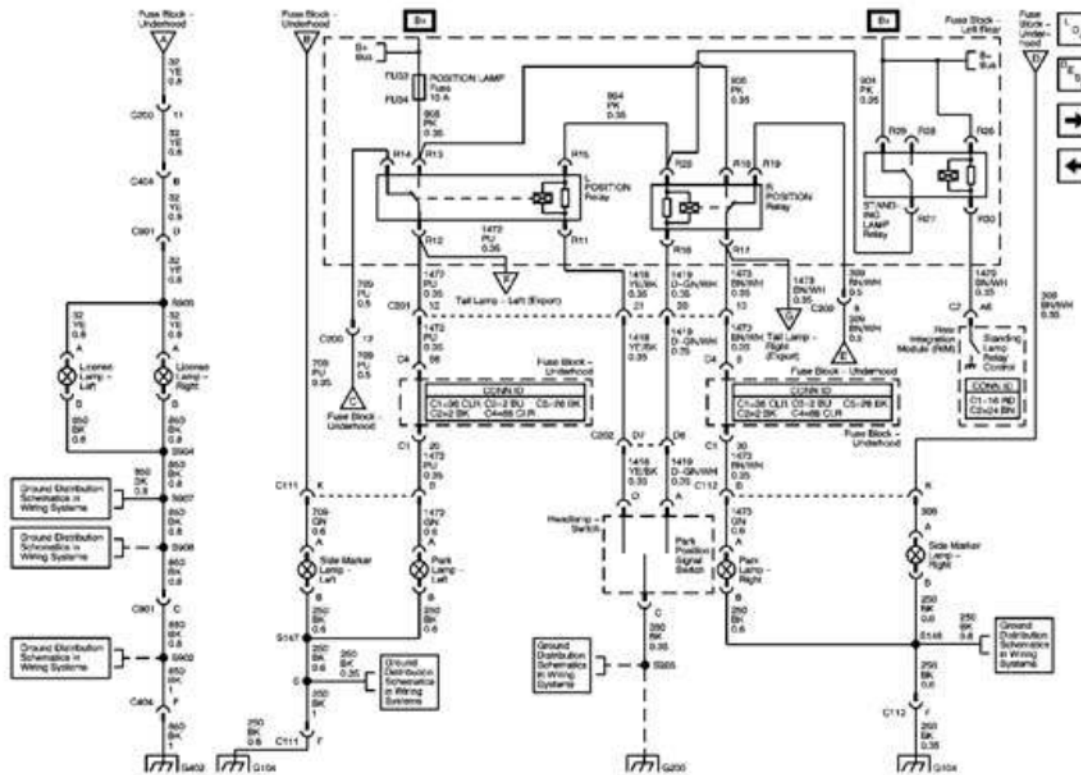


Fig. 11: License, Park & Side Marker Lamps Schematic - Export
Courtesy of GENERAL MOTORS CORP.

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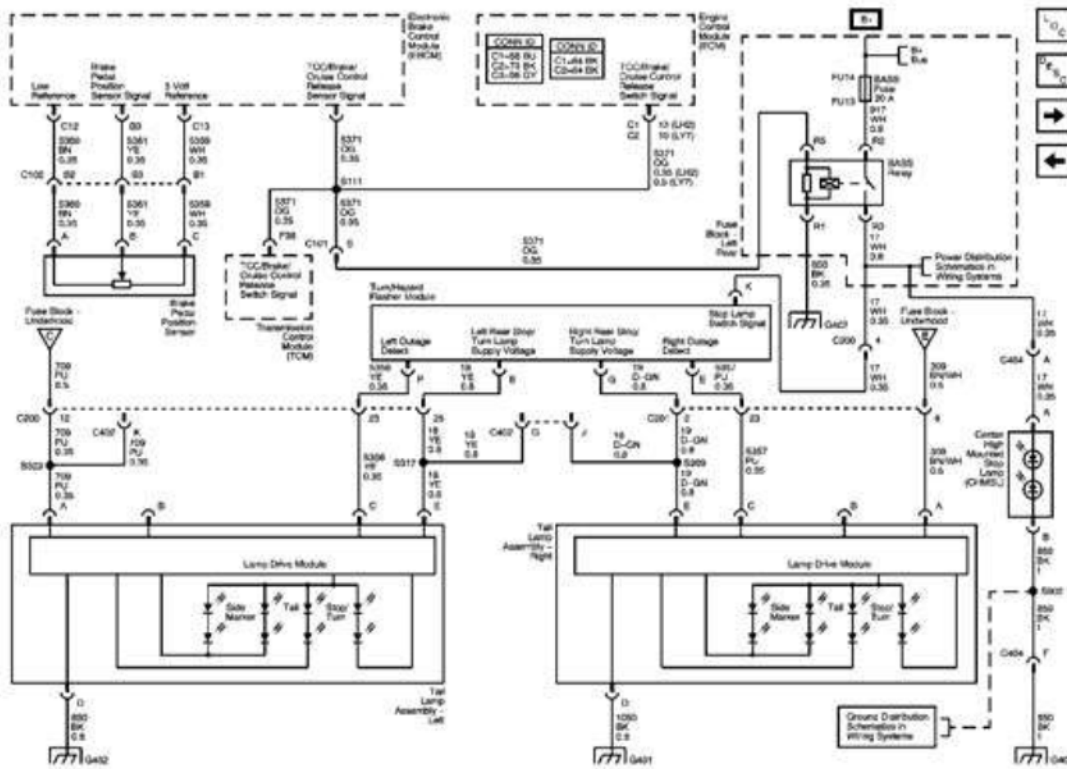


Fig. 12: Tail Lamps Schematic - Domestic
 Courtesy of GENERAL MOTORS CORP.

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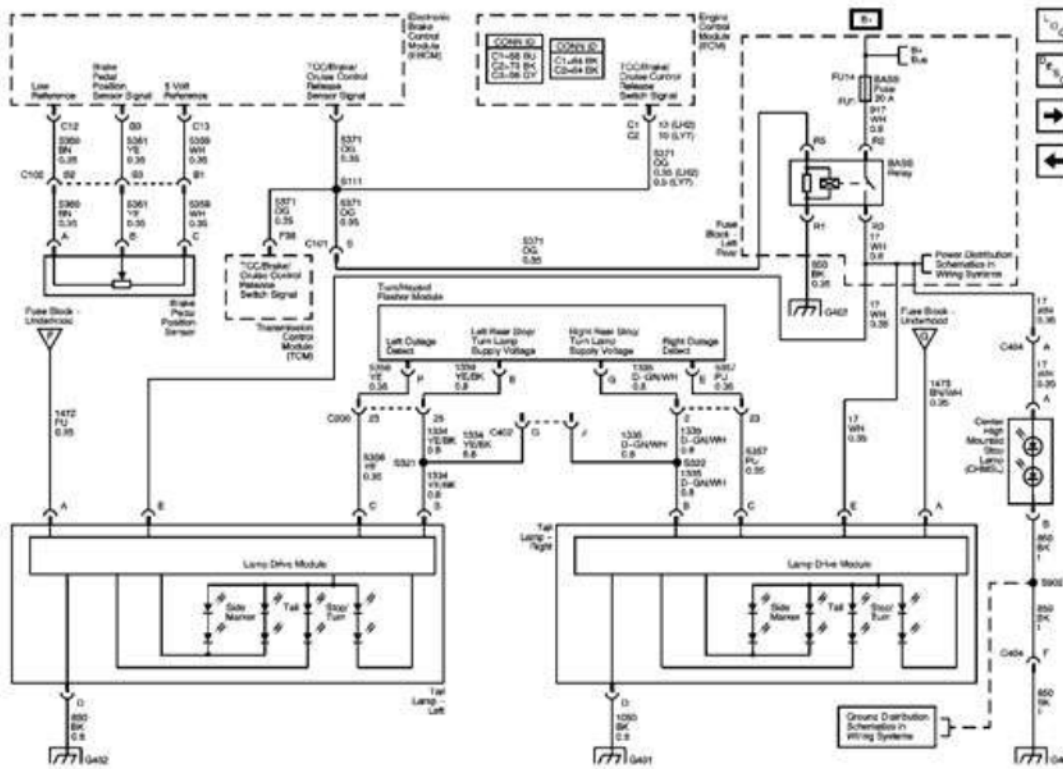


Fig. 13: Tail Lamps Schematic - Export
Courtesy of GENERAL MOTORS CORP.

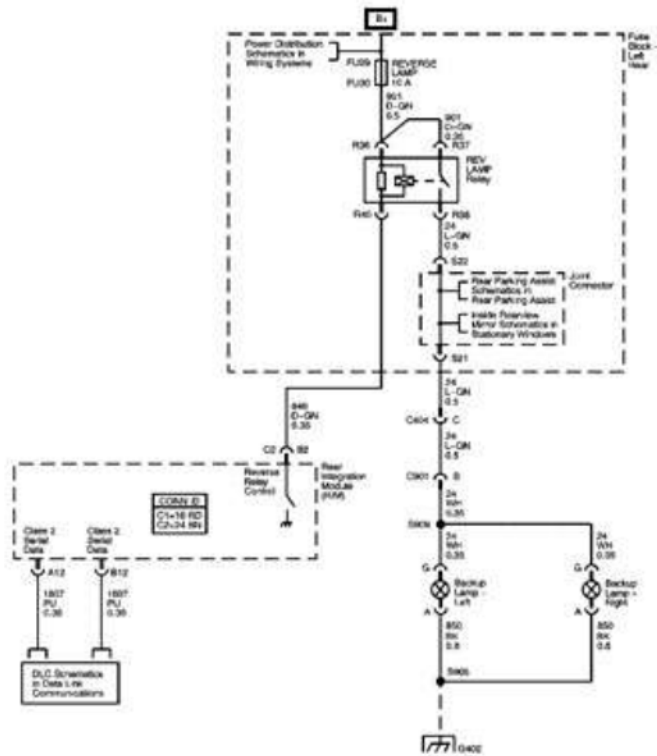


Fig. 14: Backup Lamps Schematic - Domestic, Export
 Courtesy of GENERAL MOTORS CORP.

INTERIOR LIGHTS SCHEMATICS

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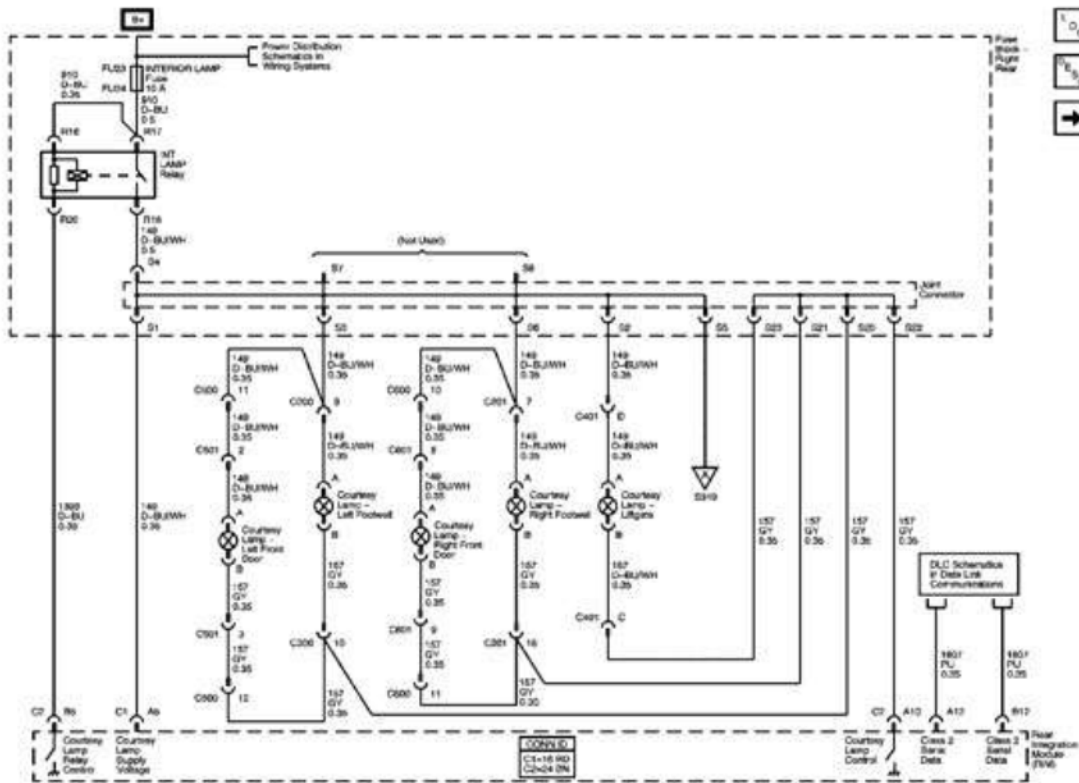


Fig. 15: Courtesy Lamps Schematic
Courtesy of GENERAL MOTORS CORP.

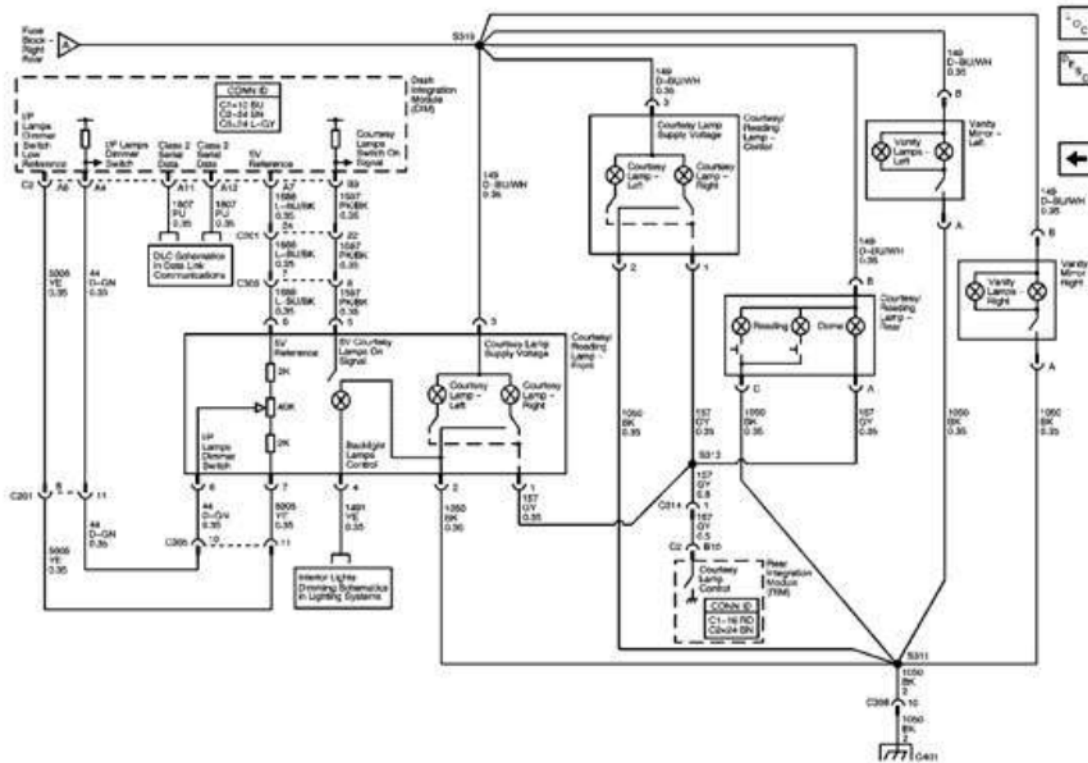


Fig. 16: Courtesy/Reading Lamps Schematic
Courtesy of GENERAL MOTORS CORP.

INTERIOR LIGHTS DIMMING SCHEMATICS

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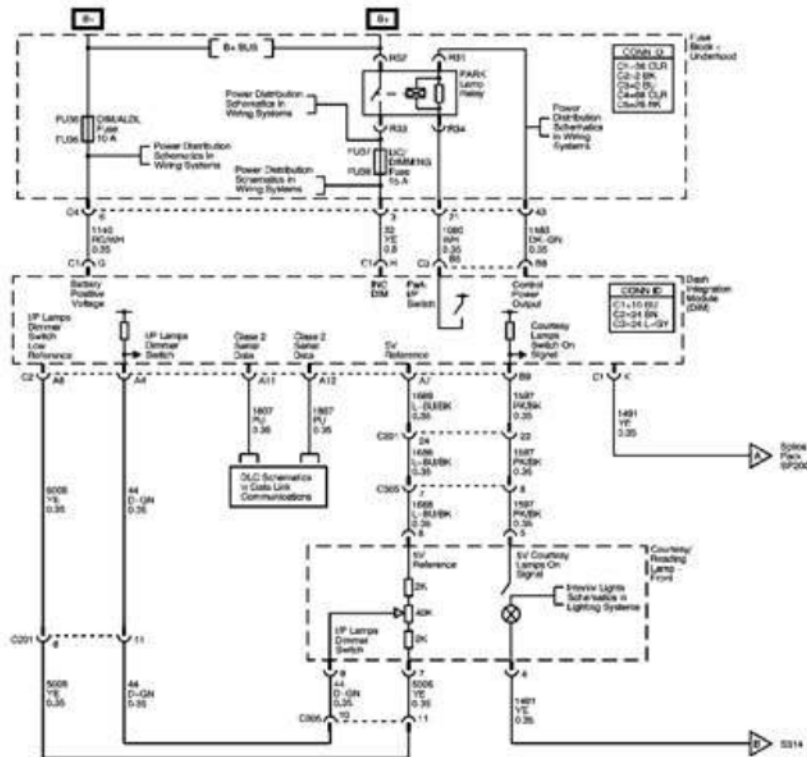


Fig. 17: Interior Lamps Dimming Controls Schematic
 Courtesy of GENERAL MOTORS CORP.

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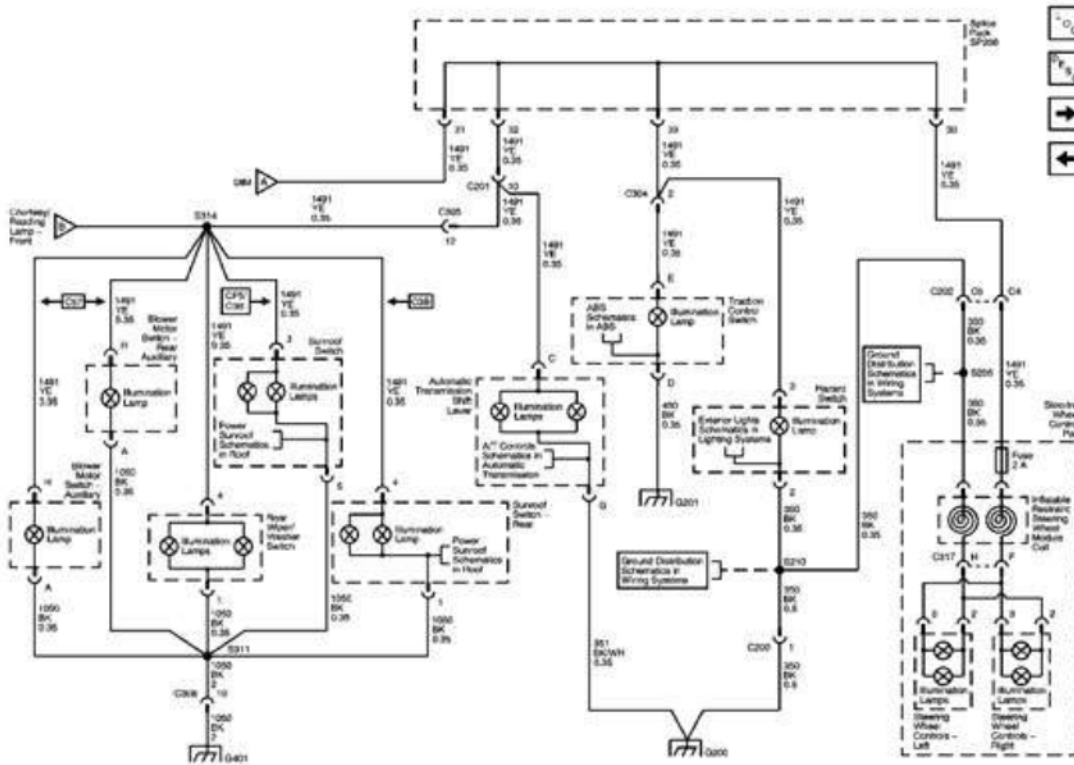
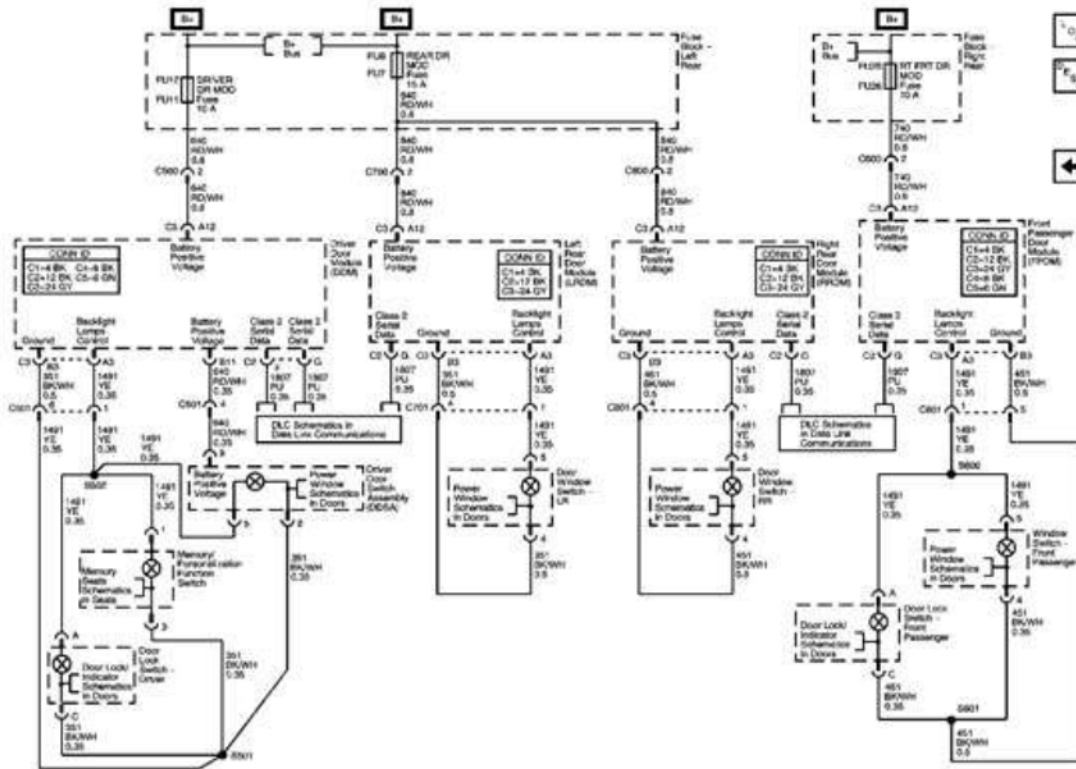


Fig. 18: Dimming Lamps Schematic - 1 Of 2
 Courtesy of GENERAL MOTORS CORP.



COMPONENT LOCATOR

LIGHTING SYSTEMS COMPONENT VIEWS

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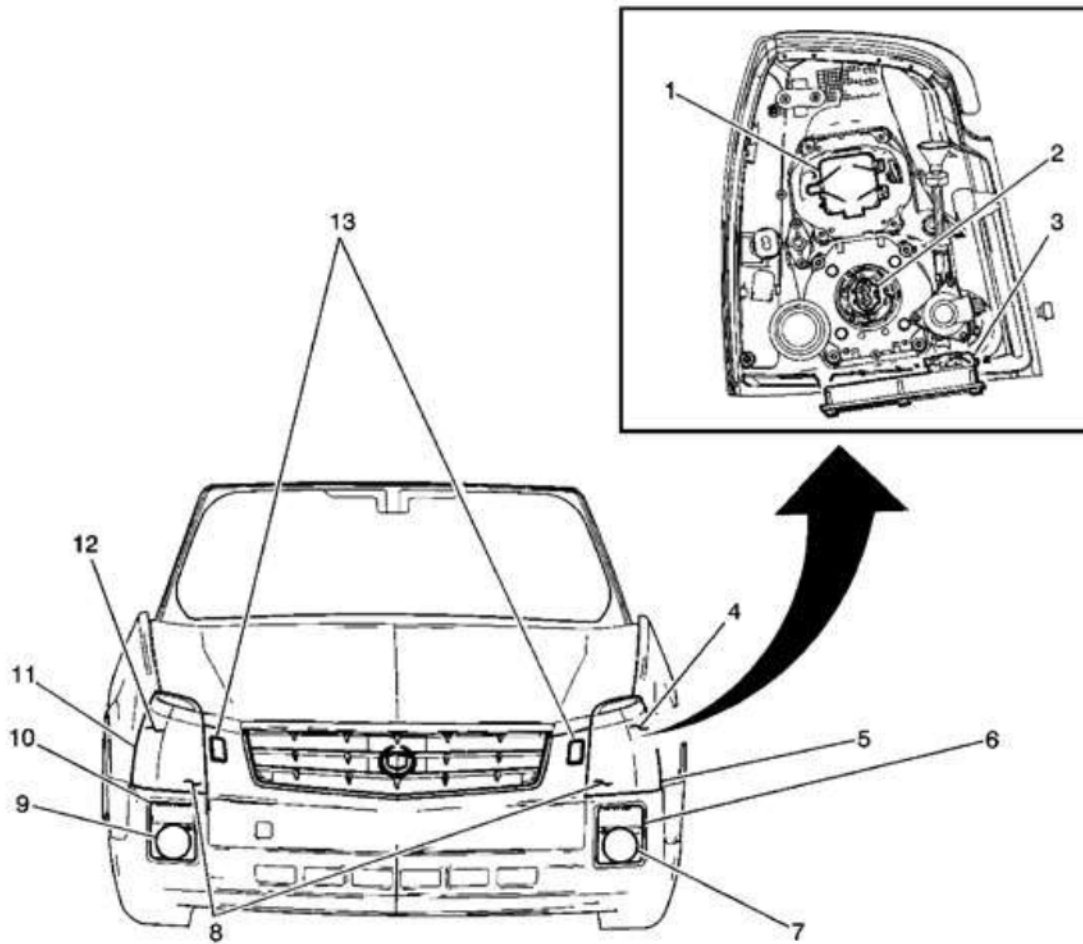


Fig. 20: Front Exterior Lights (TT6/TT7) Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 20

Callout	Component Name
1	Headlamp - Low Beam - Left, Right Similar
2	Headlamp - High Beam - Left, Right Similar
3	Headlamp Ballast - Left, Right Similar (TR7)
4	Marker Lamp - Left
5	Headlamp Assembly - Left
6	Turn Signal Lamp - LF
7	Fog Lamp - LF
8	Park Lamp - Right/Left
9	Fog Lamp - RF

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10	Turn Signal Lamp - RF
11	Headlamp Assembly - Right
12	Marker Lamp - Right
13	Headlamp Washer Fluid Nozzle - Left/Right

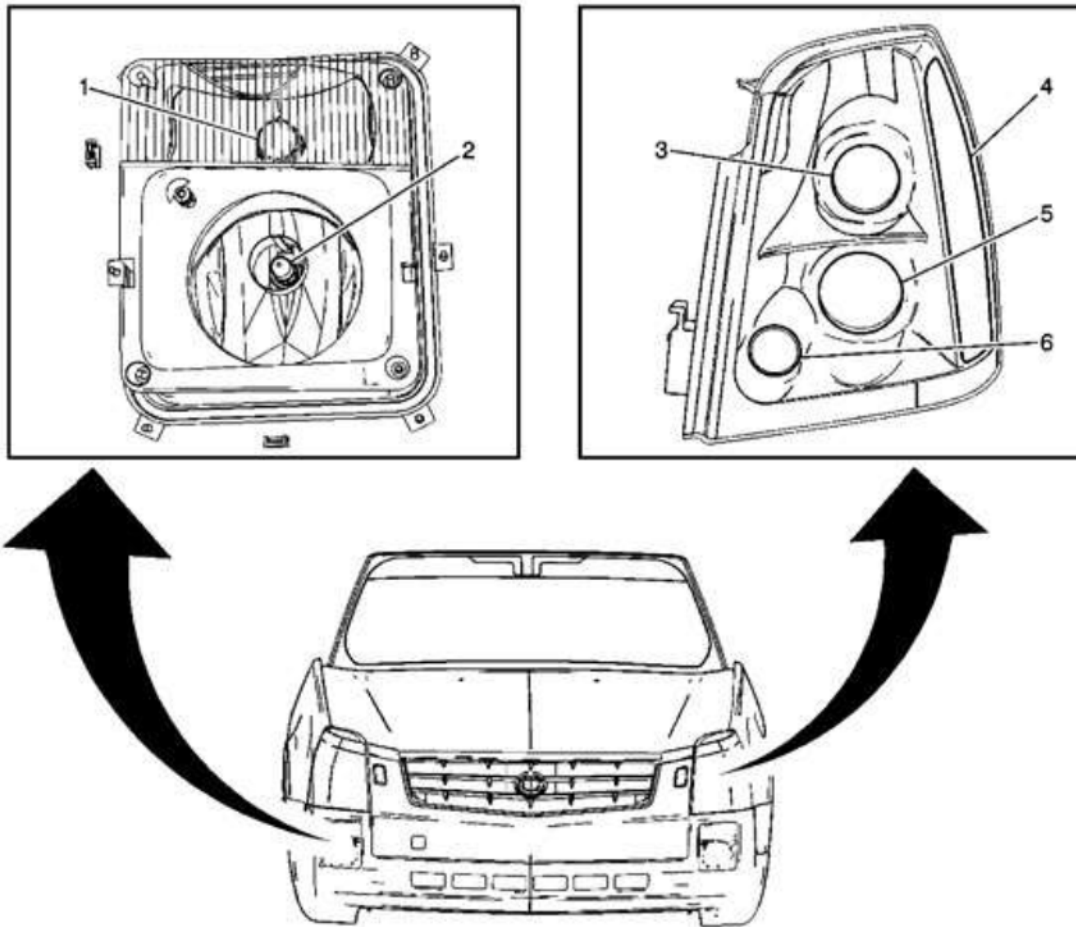


Fig. 21: Front Exterior Lights (w/o TT6/TT7) Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 21

Callout	Component Name
1	Turn Signal Lamp - RF, LF Similar
2	Fog Lamp - RF, LF Similar
3	Headlamp - Low Beam - Left, Right Similar
4	Marker Lamp - Left, Right Similar
5	Headlamp - High Beam - Left, Right Similar

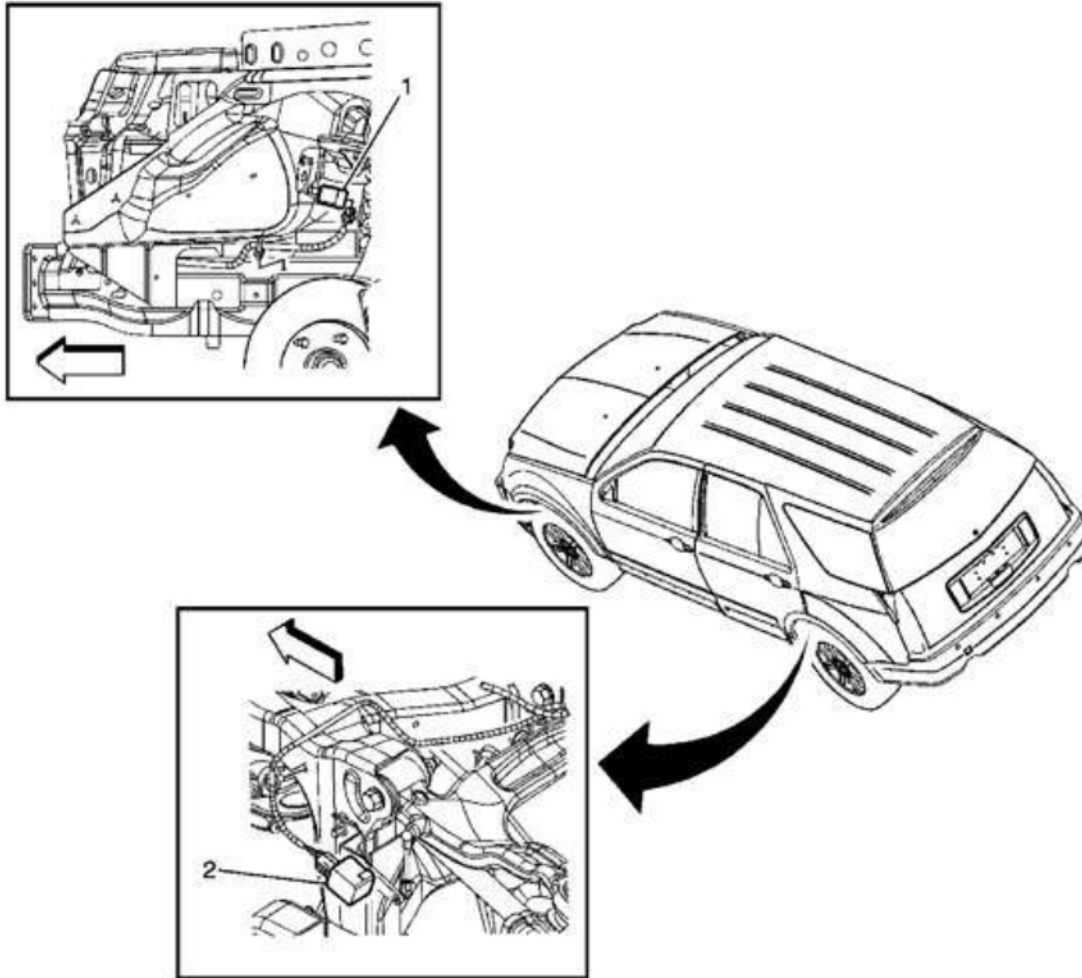


Fig. 22: Headlamp Leveling Sensors (TR7) Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 22

Callout	Component Name
1	Headlamp Leveling Sensor - Front
2	Headlamp Leveling Sensor - Rear

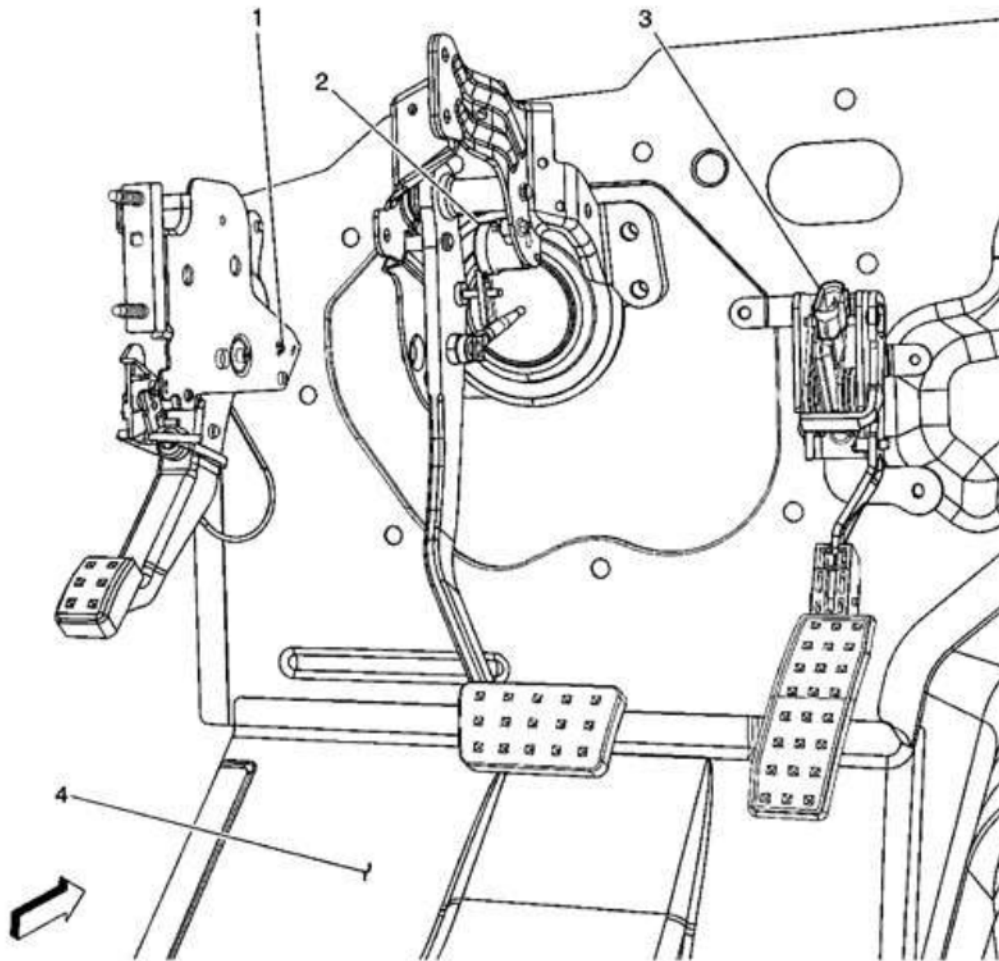


Fig. 23: Pedal Switches & Sensors Component View
 Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 23

Callout	Component Name
1	Park Brake Switch
2	Brake Pedal Position Sensor
3	Accelerator Pedal Position (APP) Sensor
4	Left Front Floor Panel

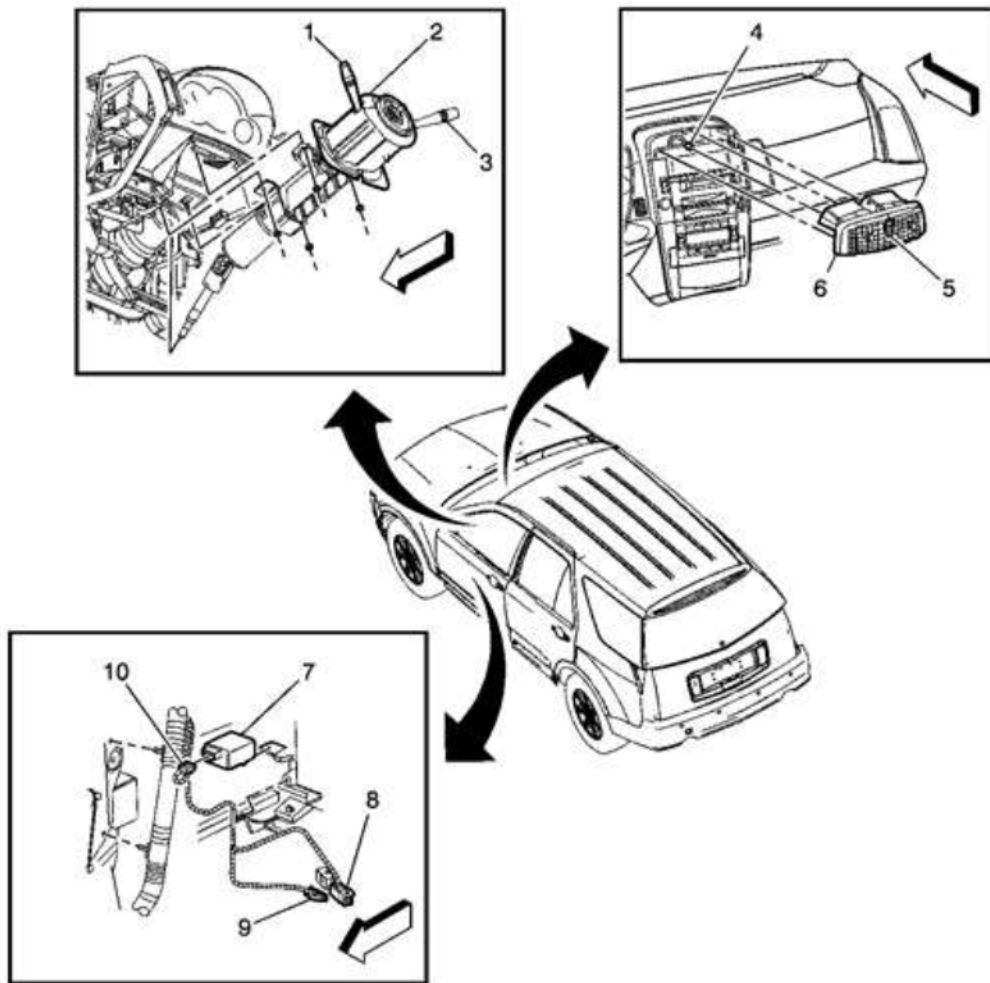


Fig. 24: Lighting Switches & Flasher Module Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 24

Callout	Component Name
1	Turn Signal/Multifunction Switch
2	Steering Column
3	Windshield Wiper/Washer Switch
4	Hazard Switch Connector
5	Hazard Switch
6	I/P Air Deflector - Center
7	Turn Signal/Hazard Flasher Module

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8	Data Link Connector (DLC)
9	Park Brake Switch Connector
10	Turn Signal/Hazard Flasher Module Connector

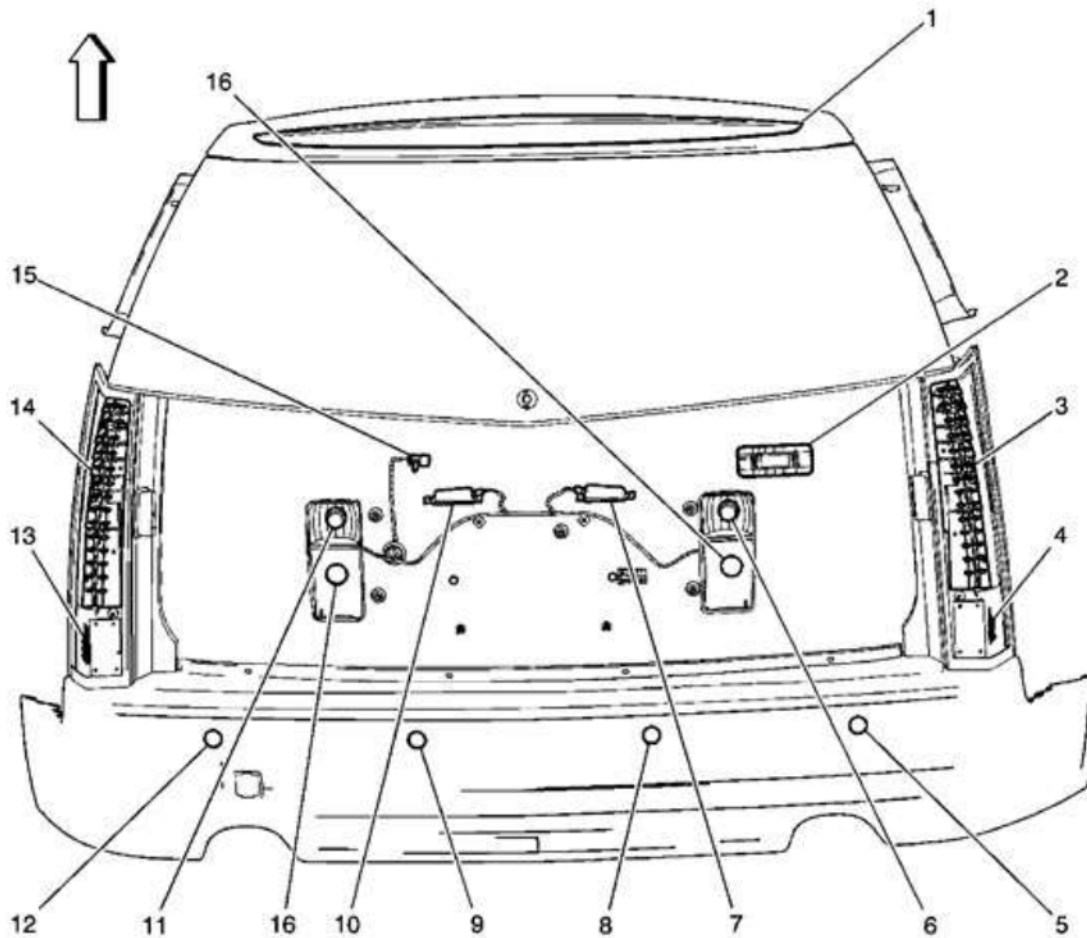


Fig. 25: Rear Exterior Lights Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 25

Callout	Component Name
1	Center High Mounted Stop Lamp (CHMSL)
2	Courtesy Lamp - Liftgate
3	Tail Lamp Assembly - Right
4	Tail Lamp Drive Module - Right
5	Object Sensor - RR Corner
6	Backup Lamp - Right

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7	License Lamp - Right
8	Object Sensor - RR Middle
9	Object Sensor - LR Middle
10	License Lamp - Left
11	Backup Lamp - Left
12	Object Sensor - LR Corner
13	Tail Lamp Drive Module - Left
14	Tail Lamp Assembly - Left
15	C901
16	Fog Lamp - LR/RR (T79)

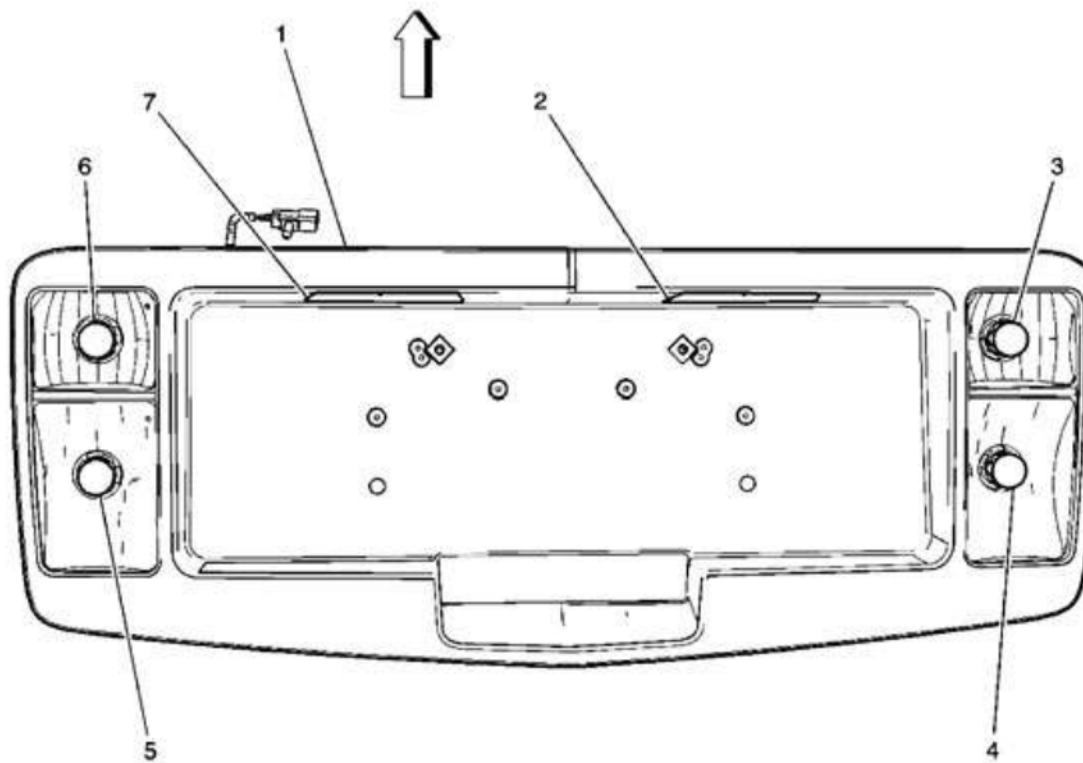


Fig. 26: Tailgate Exterior Lights Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 26

Callout	Component Name
1	License Lamp Assembly
2	License Lamp - Right

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3	Backup Lamp - Right
4	Fog Lamp - RR (T79)
5	Fog Lamp - LR (T79)
6	Backup Lamp - Left
7	License Lamp - Left

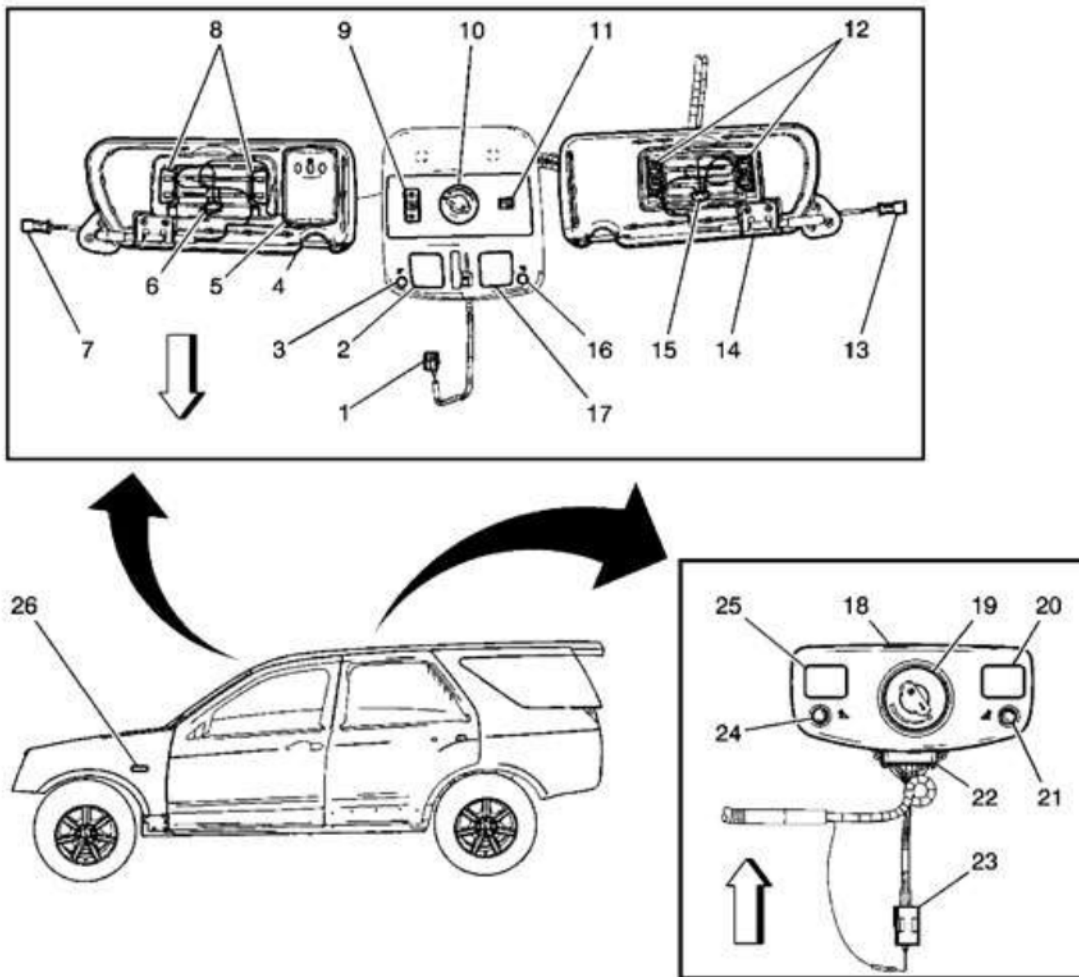


Fig. 27: Interior Lights Components (1 Of 2)
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 27

Callout	Component Name
1	Inside Rearview Mirror Connector
2	Courtesy/Reading Lamp - Front Left
3	Courtesy/Reading Lamp Switch - Front Left

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4	Sunshade - Left
5	Garage Door Opener
6	Vanity Mirror Lamp Switch - Left
7	Vanity Mirror Lamp Connector - Left
8	Vanity Mirror Lamps - Left
9	Rear Wiper/Washer Switch
10	Blower Motor Switch - Auxiliary (C57)
11	Noise Compensation Microphone
12	Vanity Mirror Lamps - Right
13	Sunshade Connector - Right
14	Sunshade - Right
15	Vanity Mirror Lamp Switch - Right
16	Courtesy/Reading Lamp Switch - Front Right
17	Courtesy/Reading Lamp - Front Right
18	Instrument Panel Lamps Dimmer Switch
19	Overhead Console Assembly - Center
20	Blower Motor Switch - Rear Auxiliary
21	Courtesy Lamp - Left Center
22	Courtesy Lamp Switch - Left Center
23	Blower Motor Switch Connector - Rear Auxiliary
24	Courtesy Lamps Connector
25	Courtesy Lamp Switch - Right Center
26	Courtesy Lamp - Right Center
27	Repeater Lamp - Left, Right Similar (Export)

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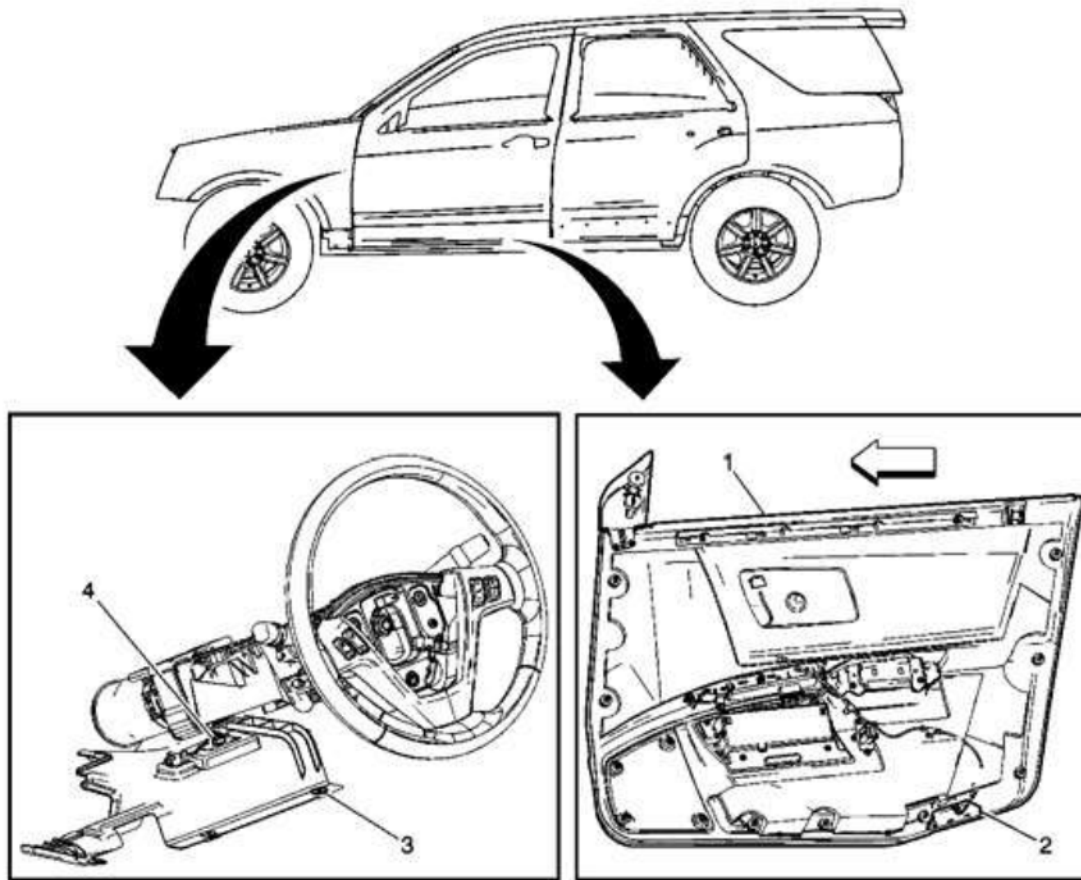


Fig. 28: Interior Lights Components (2 Of 2)
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 28

Callout	Component Name
1	Door - Driver
2	Courtesy Lamp - LF Door, RF Similar
3	Hush Panel
4	Courtesy Lamp - Left Footwell, Right Similar

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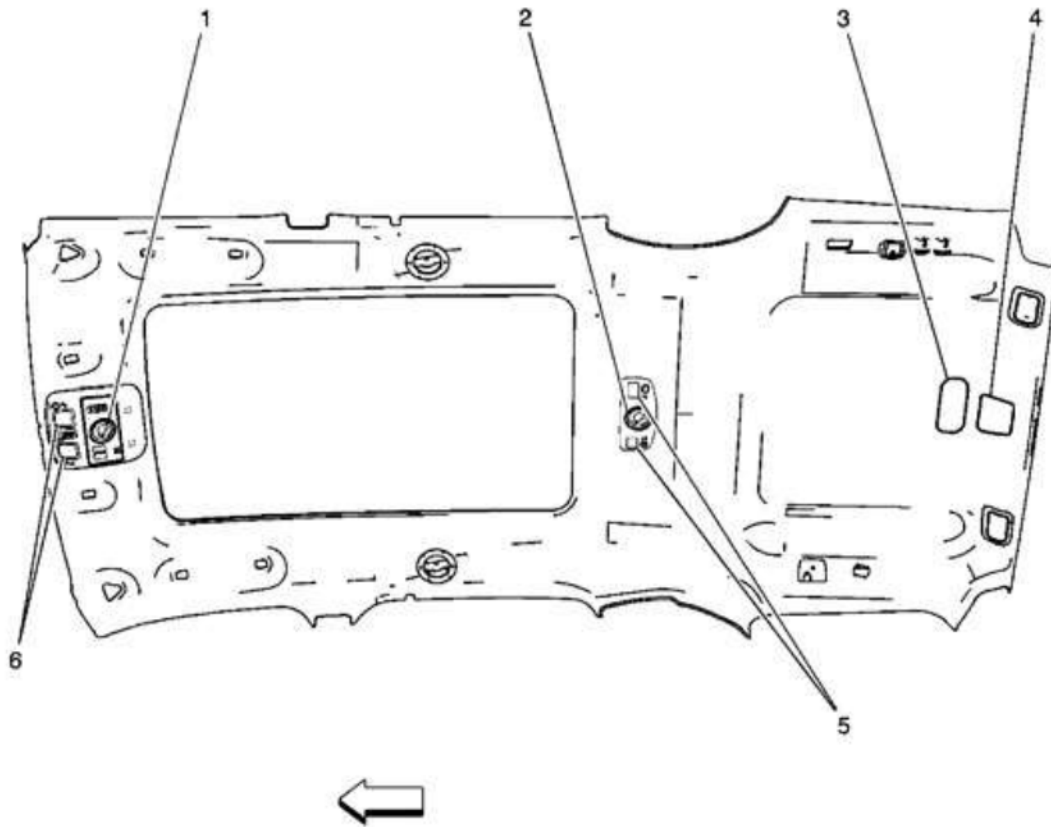


Fig. 29: Headliner Component View
Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 29

Callout	Component Name
1	Blower Motor Switch - Auxiliary (C57)
2	Blower Motor Switch - Rear Auxiliary (C57)
3	Courtesy/Reading Lamp - Rear
4	Rear Parking Assist (RPA) Display
5	Courtesy/Reading Lamp - Center
6	Courtesy/Reading Lamp - Front

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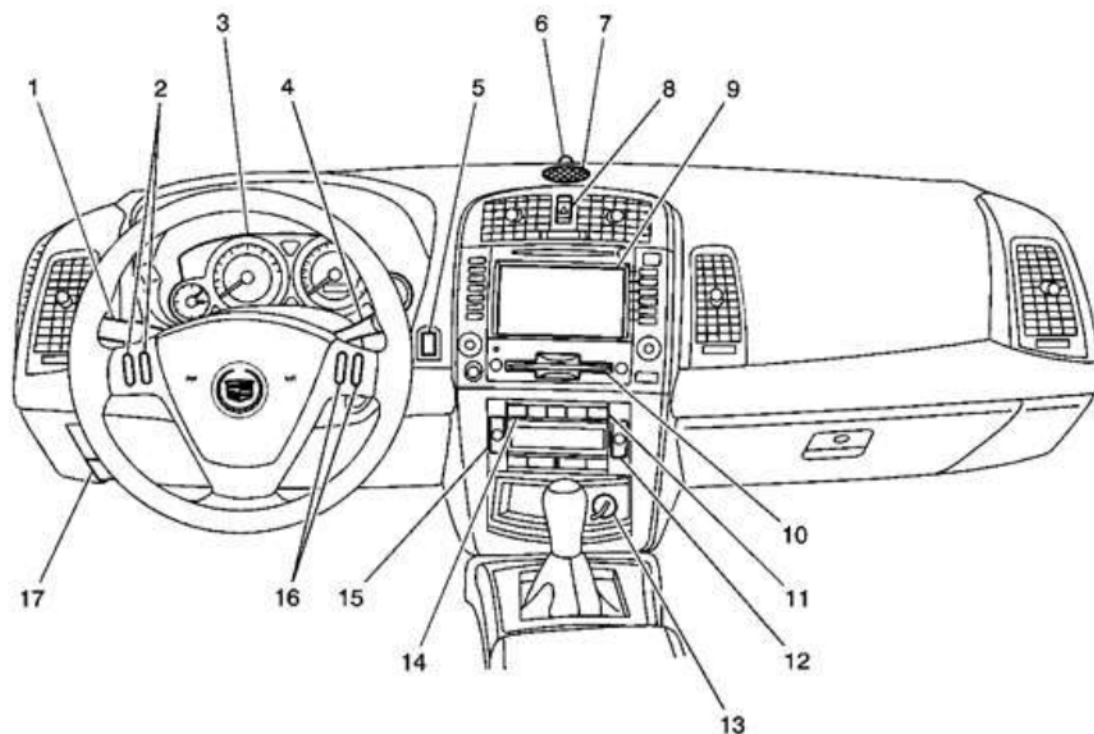


Fig. 30: Instrument Panel Component View
Courtesy of GENERAL MOTORS CORP.

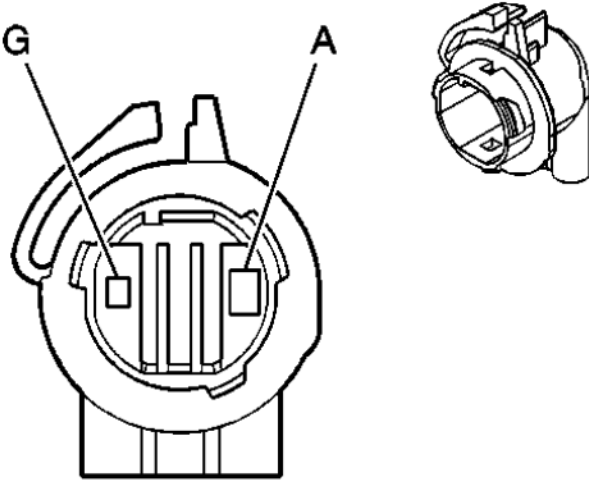
Callouts For Fig. 30

Callout	Component Name
1	Turn Signal/Multifunction Switch
2	Steering Wheel Controls - Left
3	Instrument Panel Cluster
4	Windshield Wiper/Washer Switch
5	Inside Air Temperature Sensor
6	Sunload/Ambient Light Sensor
7	Speaker - Front Midrange (U57)
8	Hazard Switch
9	Radio
10	CD Player
11	HVAC Control Module - Climate Control - Right
12	Heated Seat Switch - Passenger (KA1)
13	Cigar Lighter
14	Heated Seat Switch - Driver (KA1)

15	HVAC Control Module - Climate Control - Left
16	Steering Wheel Controls - Left
17	Hood Release Lever

LIGHTING SYSTEMS CONNECTOR END VIEWS

Backup Lamp Terminal Identification - Left

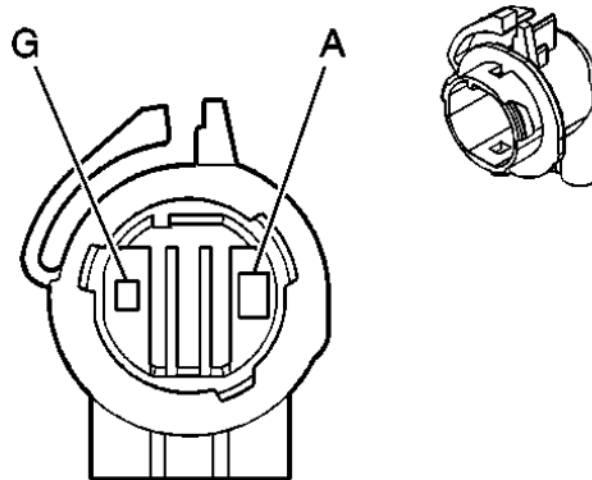


Connector Part Information		• 15324350 • 2-Way Lamp Socket Wedge Base W3 (BK)	
Pin	Wire Color	Circuit No.	Function
A	BK	24	Backup Lamp Supply Voltage
G	WH	850	Ground

Backup Lamp Terminal Identification - Right

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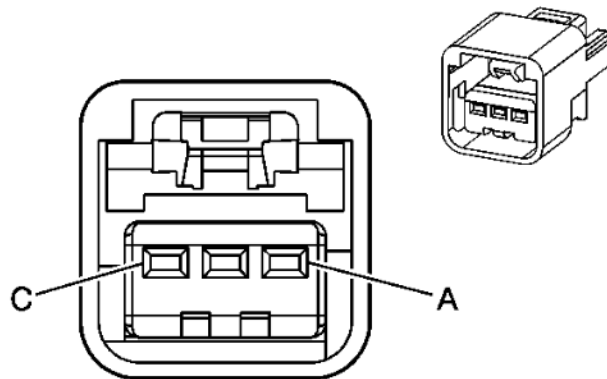


Connector Part Information

- 15324350
- 2-Way Lamp Socket Wedge Base W3 (BK)

Pin	Wire Color	Circuit No.	Function
A	BK	24	Backup Lamp Supply Voltage
G	WH	850	Ground

Brake Pedal Position (BPP) Sensor Terminal Identification



Connector Part Information

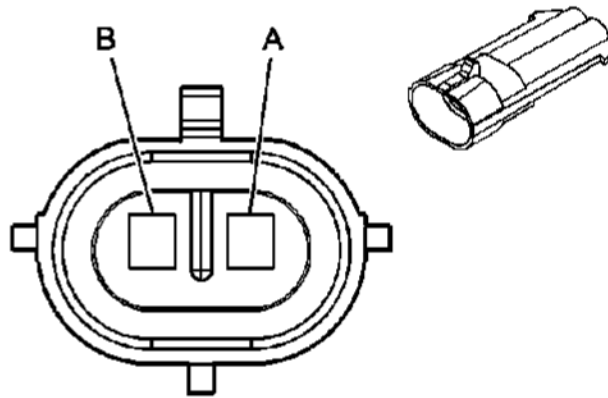
- 15332132
- 3-Way F Metri-Pack 150 Series (BK)

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Pin	Wire Color	Circuit No.	Function
A	BN	5360	Low Reference
B	YE	5361	Brake Pedal Position Sensor Signal
C	WH	5359	5-Volt Reference

Center High Mounted Stop Lamp (CHMSL) Terminal Identification



Connector Part Information

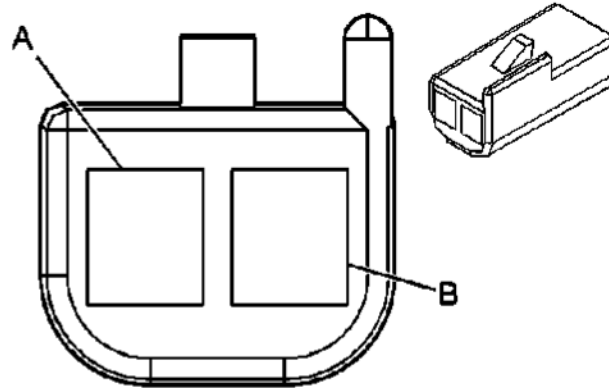
- 12162000
- 2-Way M Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	WH	17	Stop Lamp Switch Signal
B	BK	850	Ground

Courtesy Lamp Terminal Identification - Left Front Door

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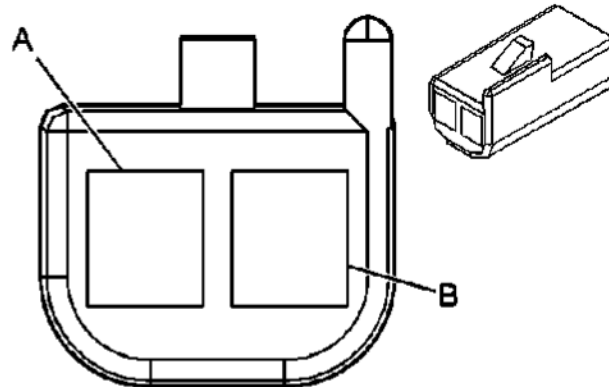


Connector Part Information

- 12047662
- 2-Way F Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	D-BU/WH	149	Courtesy Lamp Supply Voltage
B	GY	157	Courtesy Lamp Control

Courtesy Lamp Terminal Identification - Right Front Door



Connector Part Information

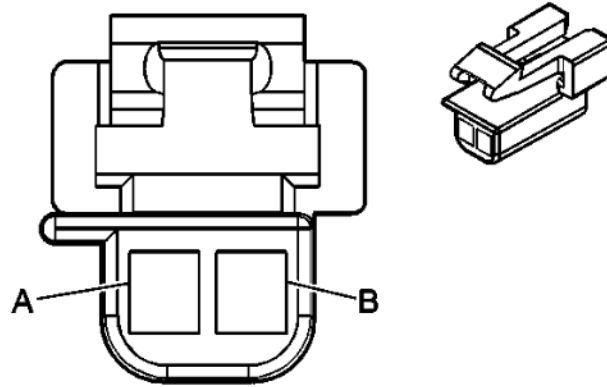
- 12047662
- 2-Way F Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	D-BU/WH	149	Courtesy Lamp Supply Voltage
B	GY	157	Courtesy Lamp Control

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Courtesy Lamp Terminal Identification - Left Footwell

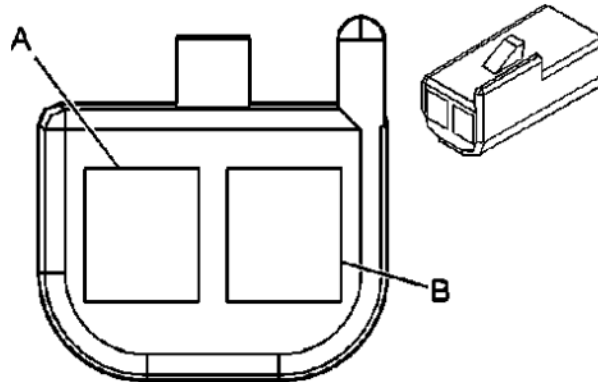


Connector Part Information

- 12064869
- 2-Way F Metri-Pack 150 Series (BU)

Pin	Wire Color	Circuit No.	Function
A	D-BU/WH	149	Courtesy Lamp Supply Voltage
B	GY	157	Courtesy Lamp Control

Courtesy Lamp Terminal Identification - Liftgate



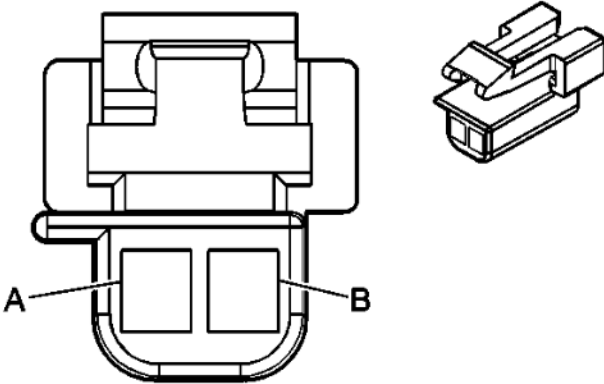
Connector Part Information

- 12047781
- 2-Way F 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	D-BU/WH	149	Courtesy Lamp Supply Voltage

B	GY	157	Courtesy Lamp Control
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Courtesy Lamp Terminal Identification - Right Footwell



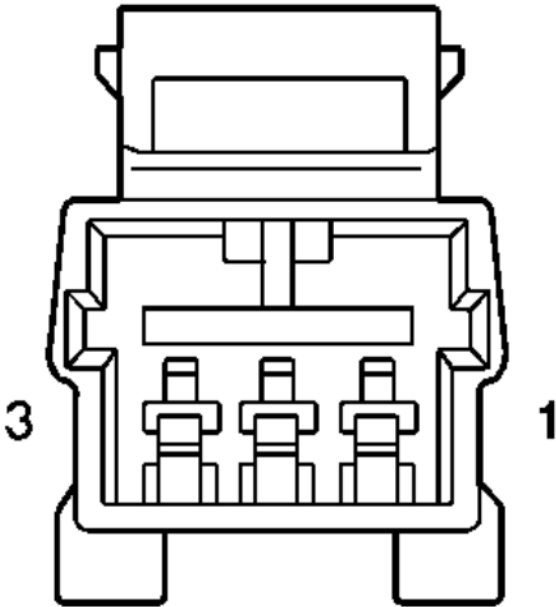
Connector Part Information		• 12064869 • 2-Way F Metri-Pack 150 Series (BU)	
Pin	Wire Color	Circuit No.	Function
A	D-BU/WH	149	Courtesy Lamp Supply Voltage
B	GY	157	Courtesy Lamp Control

Courtesy/Reading Lamp Terminal Identification - Center

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Connector Part Information

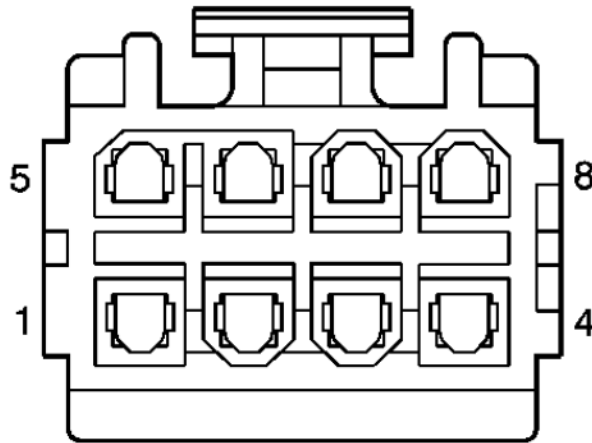
- 174928-1
- 3-Way F Multi-Lock (WH)

Pin	Wire Color	Circuit No.	Function
1	GY	157	Courtesy Lamp Control
2	BK	1050	Ground
3	D-BU/WH	149	Courtesy Lamp Supply Voltage

Courtesy/Reading Lamp Terminal Identification - Front

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Connector Part Information

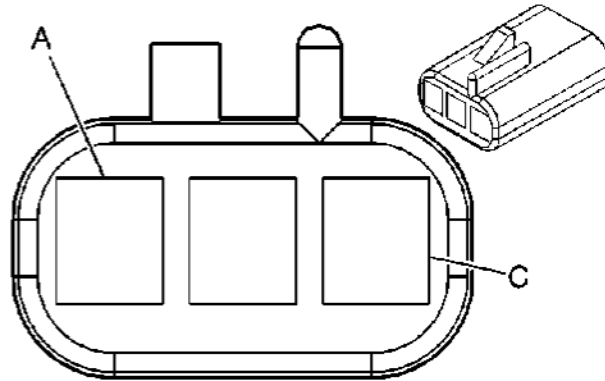
- 15975081
- 8-Way F (BK)

Pin	Wire Color	Circuit No.	Function
1	GY	157	Courtesy Lamp Control
2	BK	1050	Ground
3	D-BU/WH	149	Courtesy Lamp Supply Voltage
4	YE	1491	Backlight Lamp Control
5	PK/BK	1597	5-Volt Courtesy Lamp On Signal
6	L-BU/BK	1688	5-Volt Reference
7	YE	5005	I/P Lamps Dimmer Switch Low Reference
8	D-GN	44	I/P Lamps Dimmer Switch

Courtesy/Reading Lamp Terminal Identification - Rear

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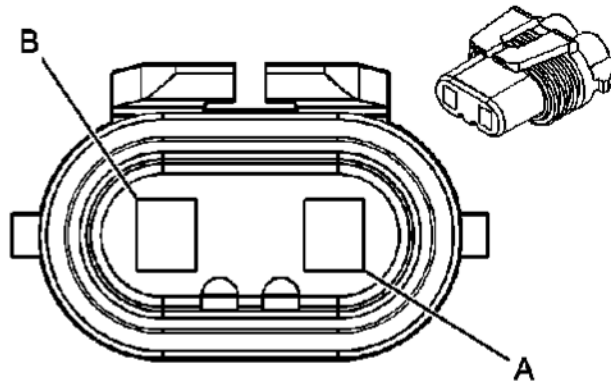


Connector Part Information

- 12047781
- 3-Way F Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	GY	157	Courtesy Lamp Control
B	D-BU/WH	149	Courtesy Lamp Supply Voltage
C	BK	1050	Ground

Fog Lamp Terminal Identification - LF



Connector Part Information

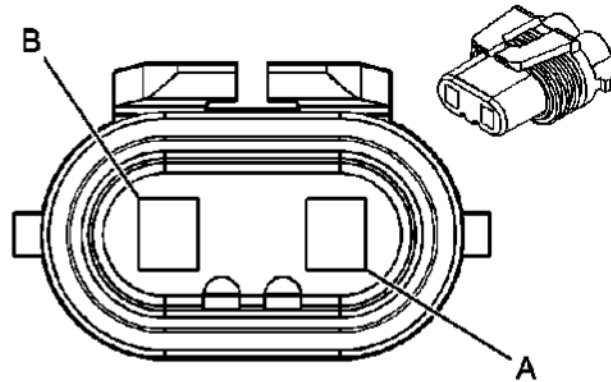
- 12059183
- 2-Way F Metri-Pack 280 Series Sealed (BK)

Pin	Wire Color	Circuit No.	Function
A	BK	2234	Front Fog Lamp Supply Voltage
B	BK	250	Ground

Fog Lamp Terminal Identification - RF

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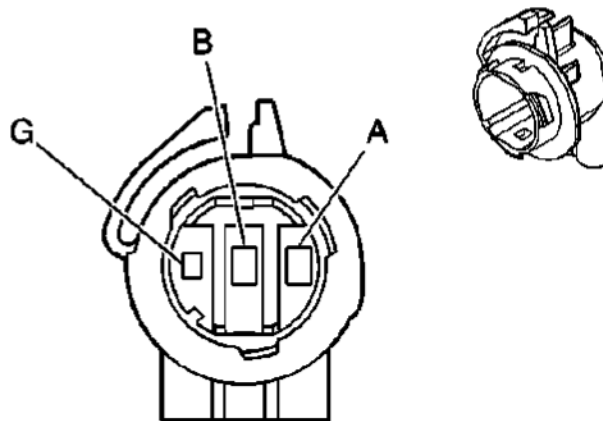


Connector Part Information

- 12059183
- 2-Way F Metri-Pack 280 Series Sealed (BK)

Pin	Wire Color	Circuit No.	Function
A	BK	2234	Front Fog Lamp Supply Voltage
B	BK	250	Ground

Fog Lamp Terminal Identification - LR (T79)



Connector Part Information

- 12160394
- 3-Way Lamp Socket Wedge Base W3 (NA)

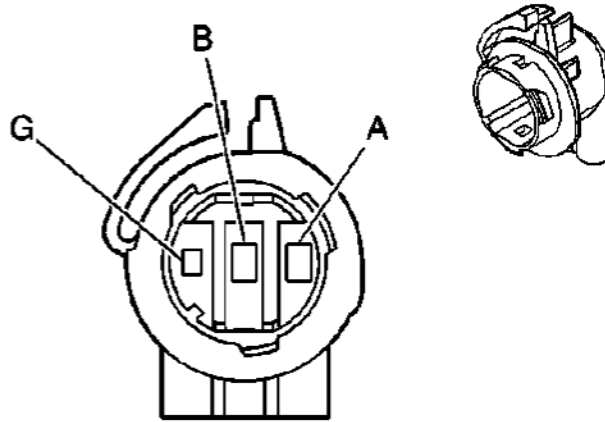
Pin	Wire Color	Circuit No.	Function
A	RD	122	Rear Fog Lamps Supply Voltage

2004 Cadillac SRX

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B	-	-	Not Used
G	BK	850	Ground

Fog Lamp Terminal Identification - RR (T79)

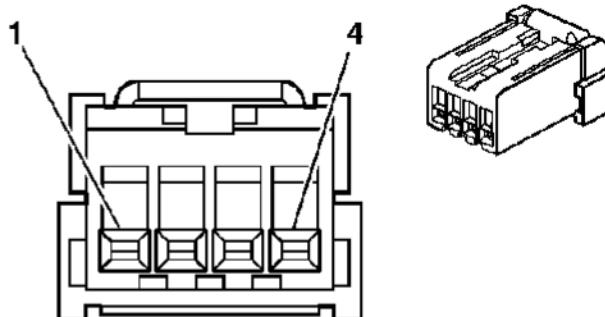


Connector Part Information

- 12160394
- 3-Way Lamp Socket Wedge Base W3 (NA)

Pin	Wire Color	Circuit No.	Function
A	RD	122	Rear Fog Lamps Supply Voltage
B	-	-	Not Used
G	BK	850	Ground

Hazard Switch Terminal Identification

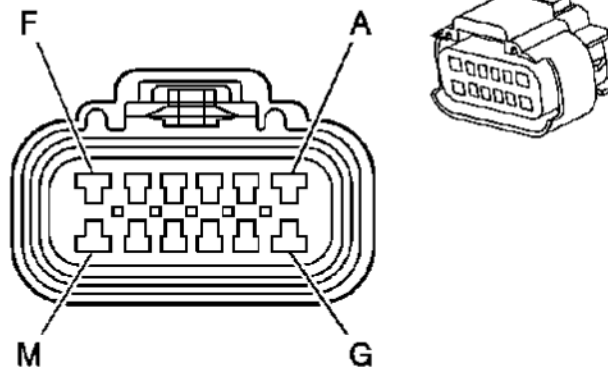


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Connector Part Information		• 174966-2 • 4-Way F Multi-Lock (BK)	
Pin	Wire Color	Circuit No.	Function
1	L-BU	1717	Hazard Switch - Output - Turn Flasher
2	BK	350	Ground
3	YE	1491	Backlight Lamps Control
4	L-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage

Headlamp Assembly Terminal Identification - Left (w/o HID)

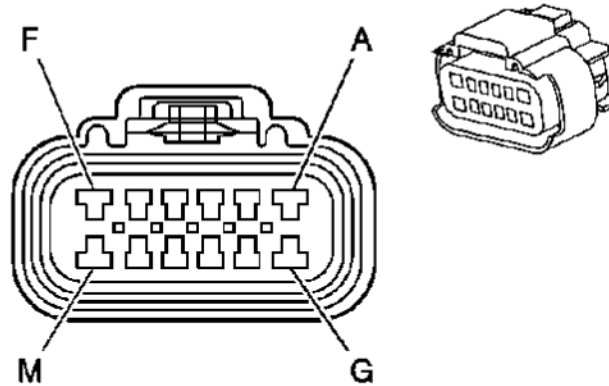


Connector Part Information		• 15326939 • 12-Way F GT 150 280 Series Sealed (BK)	
Pin	Wire Color	Circuit No.	Function
A	D-GN/WH	711	Left Headlamp High Beam Supply Voltage
B	YE	712	Left Headlamp Low Beam Supply Voltage
C	PU	709	Left Park Lamp Supply Voltage
D	BK	250	Ground
E-M	-	-	Not Used

Headlamp Assembly Terminal Identification - Left (HID)

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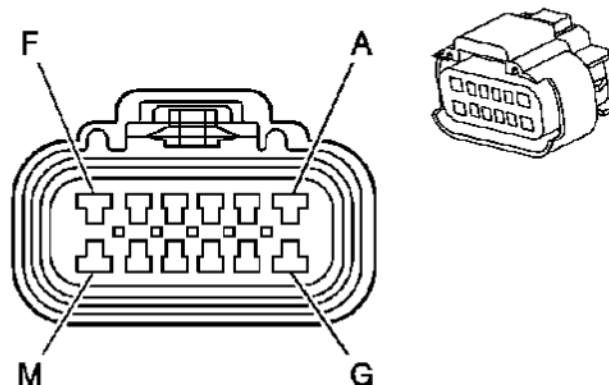


Connector Part Information

- 15373535
- 12-Way F GT 150 280 Series Sealed (GY)

Pin	Wire Color	Circuit No.	Function
A	YE	712	Left Headlamp Low Beam Supply Voltage
B	D-GN/WH	711	Left Headlamp High Beam Supply Voltage
C	PU	709	Left Park Lamp Supply Voltage
D	BK	250	Ground
E	BK	250	Ground
F-M	-	-	Not Used

Headlamp Assembly Terminal Identification - Right (w/o HID)

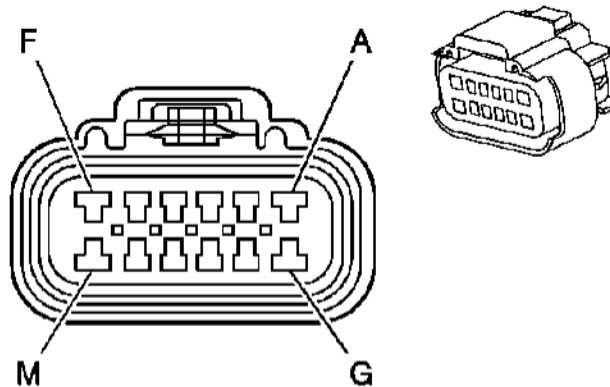


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Connector Part Information		• 15326939 • 12-Way F GT 150 280 Series Sealed (BK)	
Pin	Wire Color	Circuit No.	Function
A	L-GN/BK	311	Right Headlamp High Beam Supply Voltage
B	TN/WH	312	Right Headlamp Low Beam Supply Voltage
C	BN/WH	309	Right Park Lamp Supply Voltage
D	BK	250	Ground
E-M	-	-	Not Used

Headlamp Assembly Terminal Identification - Right (HID)

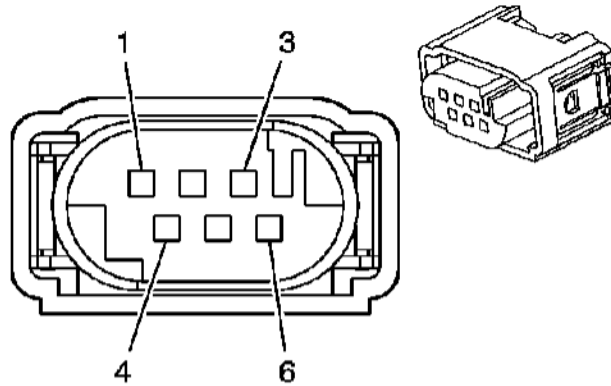


Connector Part Information		• 15373535 • 12-Way F GT 150 280 Series Sealed (GY)	
Pin	Wire Color	Circuit No.	Function
A	TN/WH	312	Right Headlamp Low Beam Supply Voltage
B	L-GN/BK	311	Right Headlamp High Beam Supply Voltage
C	BN/WH	309	Right Park Lamp Supply Voltage
D	BK	250	Ground
E	BK	250	Ground
F-M	-	-	Not Used

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Headlamp Leveling Sensor Terminal Identification - Front (Export w/TR7)

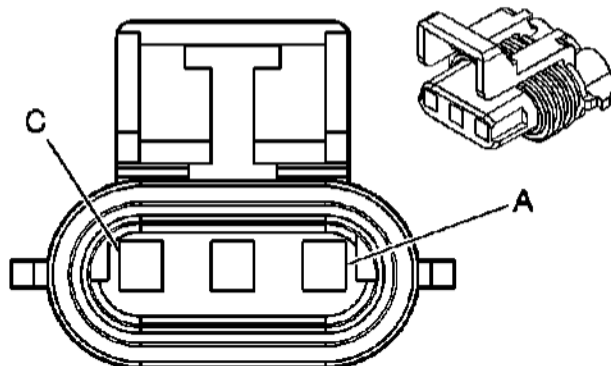


Connector Part Information

- 1-967616-1
- 6-Way F MQS Socket Housing

Pin	Wire Color	Circuit No.	Function
1	BK	250	Ground
2	BK	250	Ground
3	-	-	Not Used
4	GY	868	Headlamp Leveling Switch Bit 1 Signal
5	BN	341	Ignition 3 Voltage
6	BK	250	Ground

Headlamp Leveling Sensor Terminal Identification - Rear (Export w/TR7)



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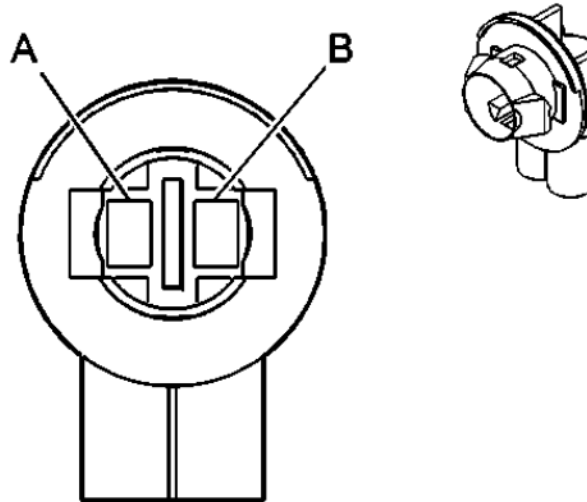
2004 ACCESSORIES & EQUIPMENT Lighting Systems - SRX

Connector Part Information

- 12110293
- 3-Way F Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	BN	341	Ignition 3 Voltage
B	GY	868	Headlamp Leveling Switch Bit 1 Signal
C	BK	850	Ground

License Lamp Terminal Identification - Left



Connector Part Information

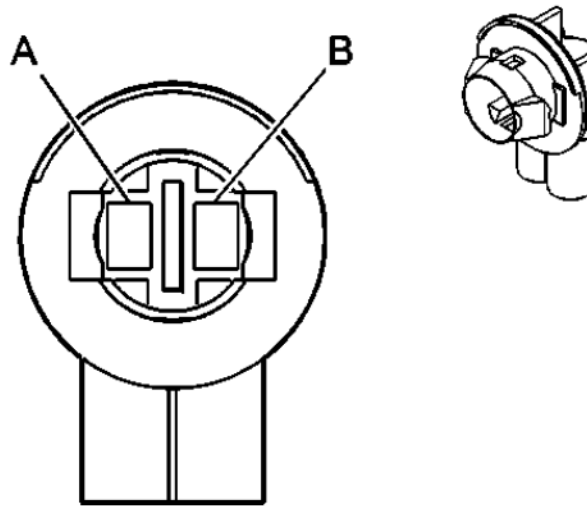
- 12146418
- 2-Way Lamp Socket (BK)

Pin	Wire Color	Circuit No.	Function
A	D-BU	32	Park Lamps Supply Voltage
B	BK	850	Ground

License Lamp Terminal Identification - Right

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Connector Part Information

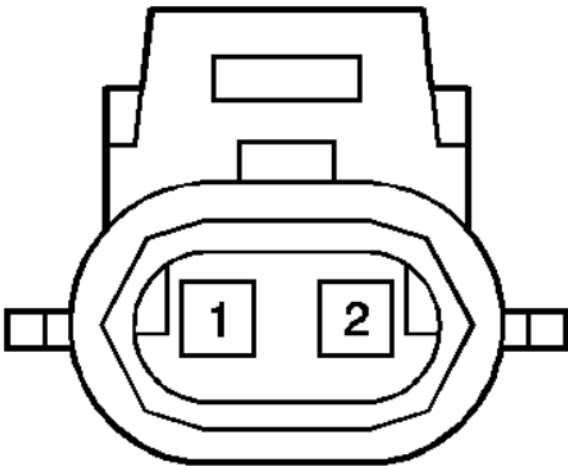
- 12146418
- 2-Way Lamp Socket (BK)

Pin	Wire Color	Circuit No.	Function
A	D-BU	32	Park Lamps Supply Voltage
B	BK	850	Ground

Marker Lamp Terminal Identification - LF

2004 Cadillac SRX

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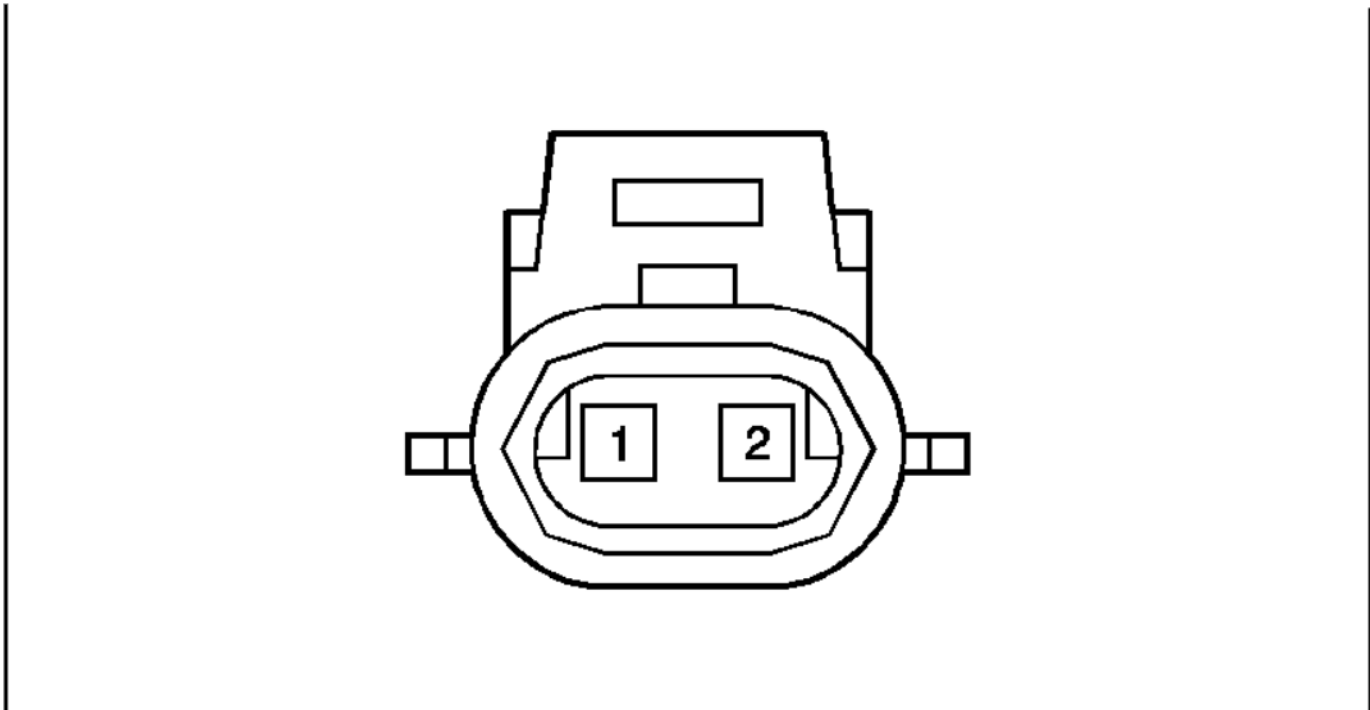


Connector Part Information		• E5229 • 2-Way F (L-GY)	
Pin	Wire Color	Circuit No.	Function
1	L-GN	709	Left Park Lamp Supply Voltage (TT6)
	BK	709	Left Park Lamp Supply Voltage (w/o TT6)
2	L-GN	250	Ground (TT6)
	BK	250	Ground (w/o TT6)

Marker Lamp Terminal Identification - RF

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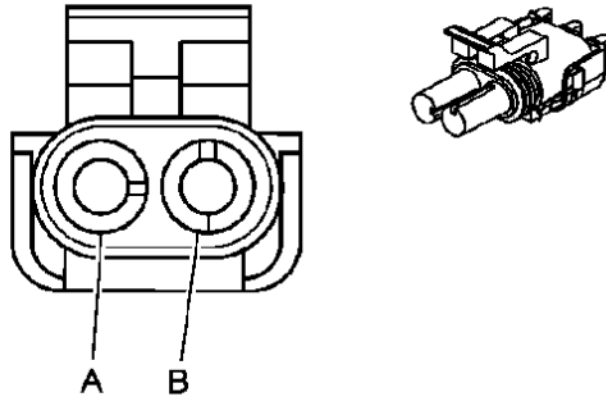


Connector Part Information		● E5229 ● 2-Way F (GY)	
Pin	Wire Color	Circuit No.	Function
1	L-GN	709	Left Park Lamp Supply Voltage (TT6)
	BK	709	Left Park Lamp Supply Voltage (w/o TT6)
2	L-GN	250	Ground (TT6)
	BK	250	Ground (w/o TT6)

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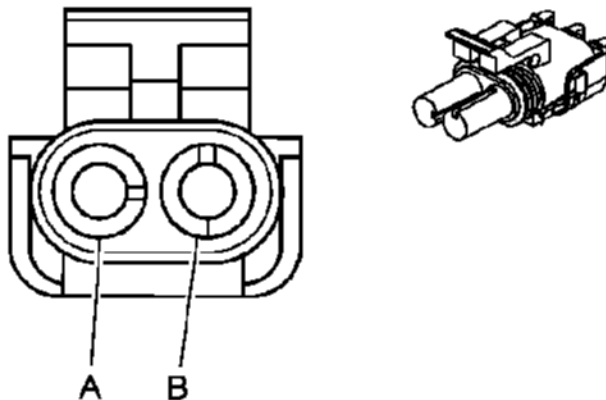


Connector Part Information

- 12015792
- 2-Way F Weather-Pack (BK)

Pin	Wire Color	Circuit No.	Function
A	L-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage
B	BK	250	Ground

Repeater Lamp Terminal Identification - Right (T90)



Connector Part Information

- 12015792
- 2-Way F Weather-Pack (BK)

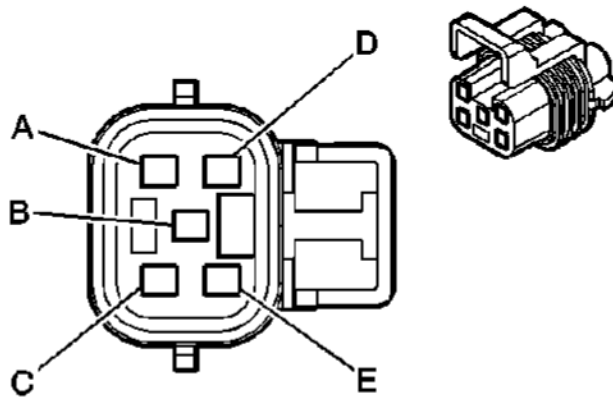
Pin	Wire Color	Circuit No.	Function

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A	D-BU/WH	1315	Right Front Turn Signal Lamp Supply Voltage
B	BK	250	Ground

Tail Lamp Terminal Identification - Left (Domestic)

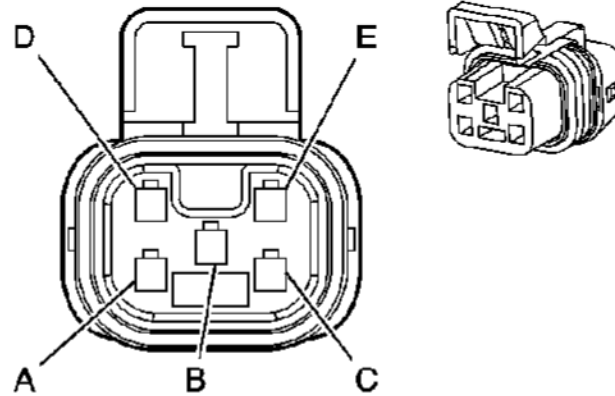


Connector Part Information		• 12124662 • 4-Way F Metri-Pack 150 Series Sealed (BN)	
Pin	Wire Color	Circuit No.	Function
A	BN/WH	709	Left Park Lamp Supply Voltage
B	-	-	Not Available
C	YE	5356	Left Tail Lamp Outage Detection Signal
D	BK	850	Ground
E	YE	18	Left Rear Stop/Turn Lamp Supply Voltage

Tail Lamp Terminal Identification - Left (Export)

2004 Cadillac SRX

2004 ACCESSORIES & EQUIPMENT Lighting Systems - SRX

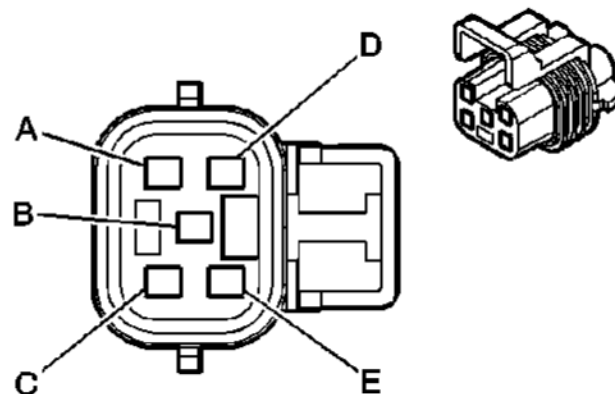


Connector Part Information

- 12077591
- 5-Way F Metri-Pack 150 Series Sealed (BK)

Pin	Wire Color	Circuit No.	Function
A	PU	1472	Left Park Lamp Supply Voltage
B	YE/BK	1334	Left Rear Turn Signal Lamp Supply Voltage
C	YE	5356	Left Tail Lamp Outage Detection Signal
D	BK	850	Ground
E	WH	17	Stop Lamp Supply Voltage

Tail Lamp Terminal Identification - Right (Domestic)

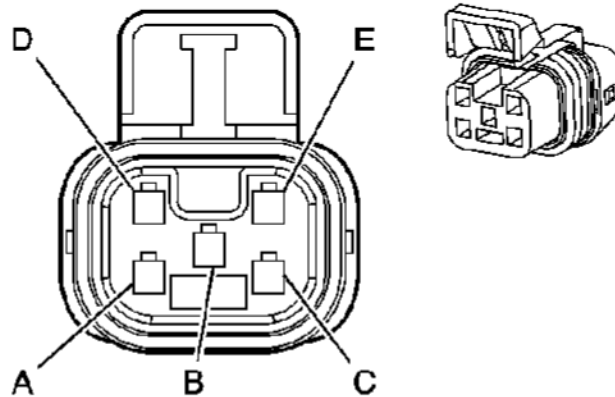


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Connector Part Information		• 12124662 • 4-Way F Metri-Pack 150 Series Sealed (BN)	
Pin	Wire Color	Circuit No.	Function
A	BN/WH	309	Right Park Lamp Supply Voltage
B	-	-	Not Available
C	PU	5357	Right Tail Lamp Outage Detection Signal
D	BK	1050	Ground
E	D-GN	19	Right Rear Stop/Turn Lamp Supply Voltage

Tail Lamp Terminal Identification - Right (Export)

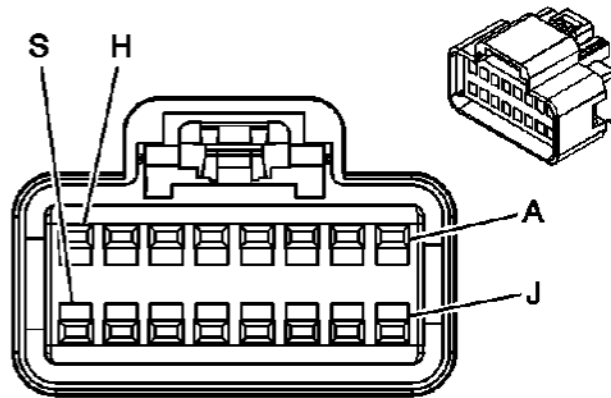


Connector Part Information		• 12077591 • 5-Way F Metri-Pack 150 Series Sealed (BK)	
Pin	Wire Color	Circuit No.	Function
A	BN/WH	1473	Right Park Lamp Supply Voltage
B	D-GN/WH	1335	Right Rear Turn Signal Lamp Supply Voltage
C	PU	5357	Right Tail Lamp Outage Detection Signal
D	BK	850	Ground
E	WH	17	Stop Lamp Supply Voltage

Turn Signal/Hazard Flasher Module Terminal Identification

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Connector Part Information

- 15332177
- 16-Way F GT 150 Series (BK)

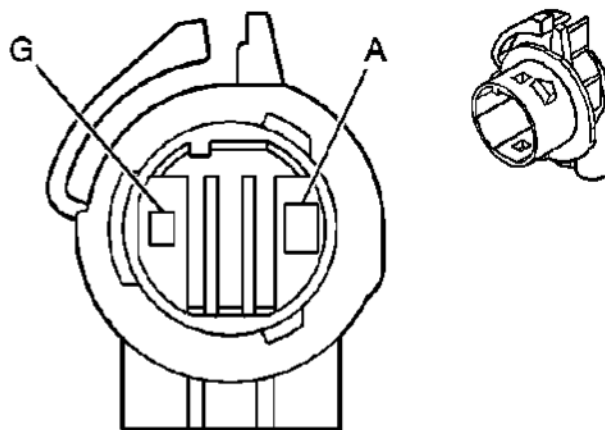
Pin	Wire Color	Circuit No.	Function
A	D-BU	5364	Left DRL/Turn Supply Voltage (Domestic)
	L-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage/Left Turn Signal Indicator Lamp Supply Voltage (Export)
B	YE	18	Left Rear Stop/Turn Lamp Supply Voltage (Domestic)
	YE/BK	1334	Left Rear Turn Signal Lamp Supply Voltage (Export)
C	L-BU/WH	1314	Left Turn Signal Indicator Lamp Supply Voltage (Domestic)
D	L-GN/BK	592	DRL Low Control (Domestic)
E	PU	5357	Right Tail Lamp Outage Detection Signal
F	D-BU/WH	1315	Right Turn Signal Indicator Lamp Supply Voltage (Domestic)
G	D-GN	19	Right Rear Stop/Turn Lamp Supply Voltage (Domestic)
	D-GN/WH	1335	Right Rear Turn Signal Lamp Supply Voltage (Export)
	D-GN	5365	Right DRL/Turn Supply Voltage

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H	D-BU/WH	1315	(Domestic)
			Right Front Turn Signal Lamp Supply Voltage/Right Turn Signal Indicator Lamp Supply Voltage (Export)
J	RD/WH	1740	Battery Positive Voltage
K	WH	17	Stop Lamp Supply Voltage (Domestic)
L	WH	111	Hazard Switch Signal
M	L-BU/WH	1414	Left Turn Signal Switch Signal
N	D-BU/WH	1415	Right Turn Signal Switch Signal
P	YE	5356	Left Tail Lamp Outage Detection Signal
Q	-	-	Not Used
S	BK	350	Ground

Turn Signal Lamp Terminal Identification - LF

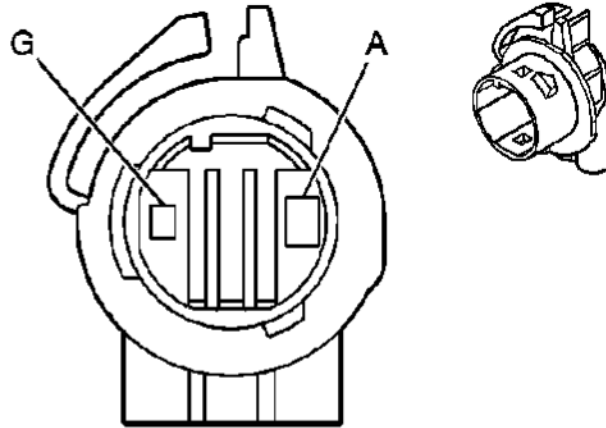


Connector Part Information		• 15354859 • 2-Way F Lamp Socket BB W-3 (WH)	
Pin	Wire Color	Circuit No.	Function
A	WH	5364	Left DRL/Turn Supply Voltage (Domestic)
A	WH	1314	Left Turn Signal Indicator Lamp Supply Voltage (w/T62/T65)
G	WH	250	Ground

2004 Cadillac SRX

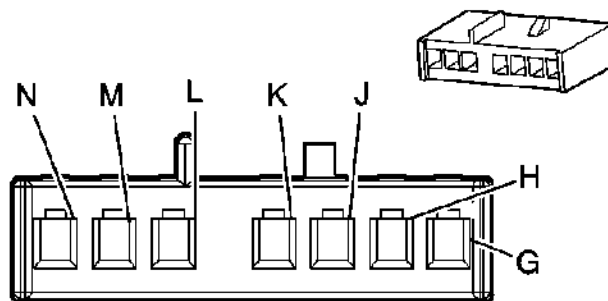
2004 ACCESSORIES & EQUIPMENT Lighting Systems - SRX

Turn Signal Lamp Terminal Identification - RF



Connector Part Information		• 15354859 • 2-Way F Lamp Socket BB W-3 (WH)	
Pin	Wire Color	Circuit No.	Function
A	WH	5365	Right DRL/Turn Supply Voltage (Domestic)
A	WH	1315	Right Turn Signal Indicator Lamp Supply Voltage (w/T62/T65)
G	WH	250	Ground

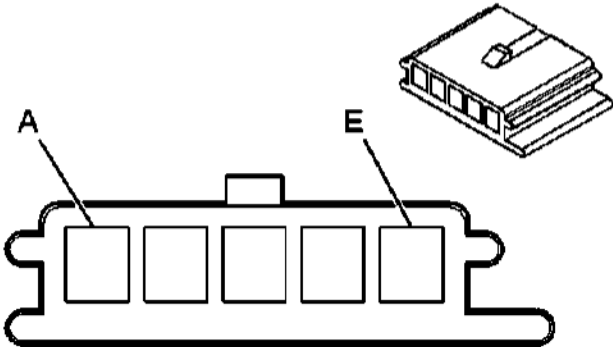
Turn Signal/Multifunction Switch C1 Terminal Identification



Connector Part Information		• 15339058 • 7-Way F Metri-Pack 150 Series (GY)	

Pin	Wire Color	Circuit No.	Function
G-J	-	-	Not Used
K	BK	350	Ground
L	WH	103	Headlamp Switch Headlamps On Signal
M	BN/WH	301	Park Lamp Switch On Signal
N	PU	1783	Twilight Sentinel Delay Signal

Turn Signal/Multifunction Switch C2 Terminal Identification



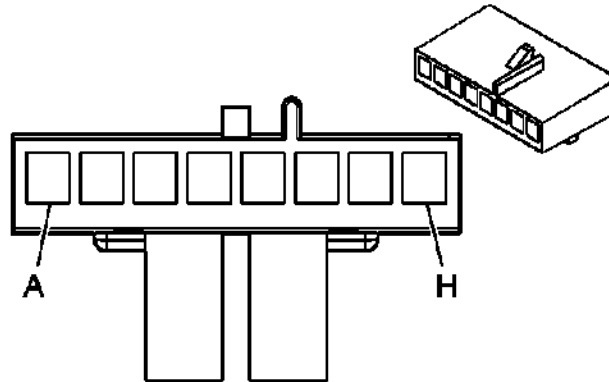
Connector Part Information		12059800 5-Way F Metri-Pack 150 Series (BK)	
Pin	Wire Color	Circuit No.	Function
A	BN	1356	Flash To Pass Switch Signal
B	BK	350	Ground
C	-	-	Not Used
D	L-BU	1485	Headlamp Control
E	BK/WH	1969	Headlamp High Beam Relay Control

Turn Signal/Multifunction Switch C3 Terminal Identification

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Connector Part Information

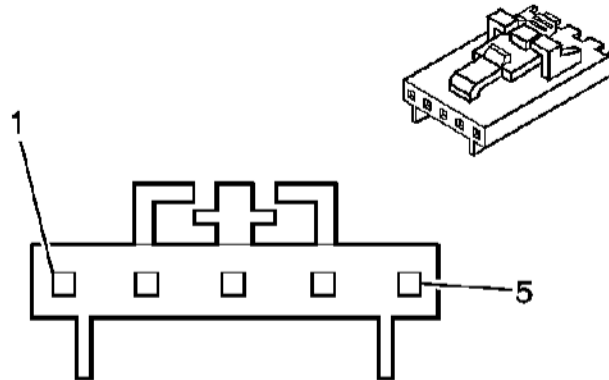
- 12064862
- 8-Way F Metri-Pack 150 Series (BK)

Pin	Wire Color	Circuit No.	Function
A	L-GN	1419	Right Rear Turn Signal Switch Signal
B	-	-	Not Used
C	BK	350	Ground
D	YE/BK	1418	Left Rear Turn Signal Switch Signal
E	-	-	Not Used
F	L-BU/WH	1414	Left Turn Signal Switch Signal
G	PK	339	Ignition 1 Voltage
H	D-BU/WH	1415	Right Turn Signal Switch Signal

Turn Signal/Multifunction Switch C4 Terminal Identification

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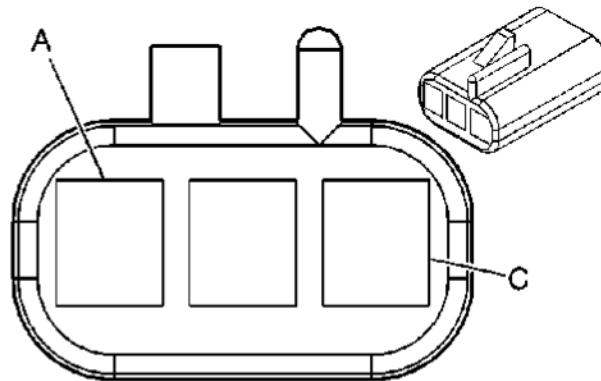


Connector Part Information

- HCMW5B-05-K
- 5-Way M (BK)

Pin	Wire Color	Circuit No.	Function
1	PK	339	Ignition 1 Voltage
2	L-BU	187	Rear Fog Lamp Switch Signal (T79)
3	BK	350	Ground
4	OG	192	Front Fog Lamp Switch Signal
5	GY/BK	1884	Cruise Control Set/Coast and Resume/Accelerate Switch Signal

Vanity Mirror Terminal Identification - Left



Connector Part Information

- 12047781
- 3-Way F Metri-Pack 150 series (BK)

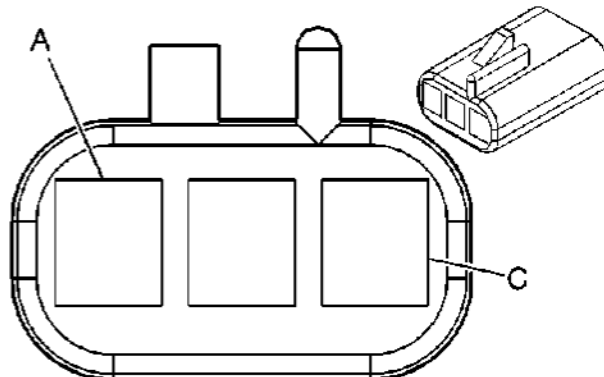
Pin	Wire Color	Circuit No.	Function
A	BK	850	Ground

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B	D-BU/WH	149	Courtesy Lamp Supply Voltage
C	RD/WH	3640	Battery Positive Voltage

Vanity Mirror Terminal Identification - Right



Connector Part Information		• 12047781 • 3-Way F Metri-Pack 150 Series (BK)	
Pin	Wire Color	Circuit No.	Function
A	BK	850	Ground
B	D-BU/WH	149	Courtesy Lamp Supply Voltage
C	-	-	Not Used

REPAIR INSTRUCTIONS

BRAKE PEDAL POSITION SENSOR REPLACEMENT

Removal Procedure

1. Remove the driver side instrument panel (I/P) insulator closeout panel. Refer to **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.
2. Remove the bolt (1) securing the brake pedal position switch to the brake panel bracket.
3. Remove the switch.

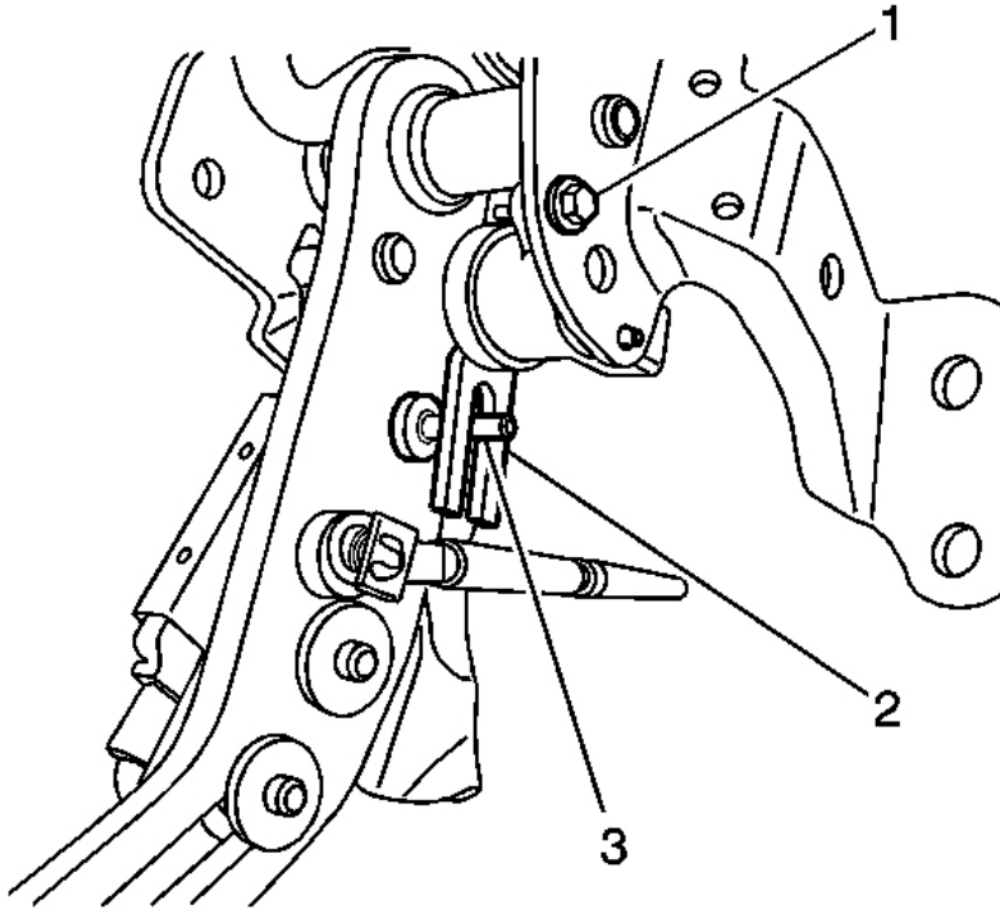


Fig. 31: View Of Brake Pedal Position Switch
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Connect the electrical connector on the switch.
2. Align the brake panel position switch to the stud (3).

NOTE: Refer to **Fastener Notice** in Cautions and Notices.

3. Install the bolt (1) securing the brake panel position switch to the brake panel bracket.

Tighten: Tighten the bolt (1) to 9 N.m (80 lb in).

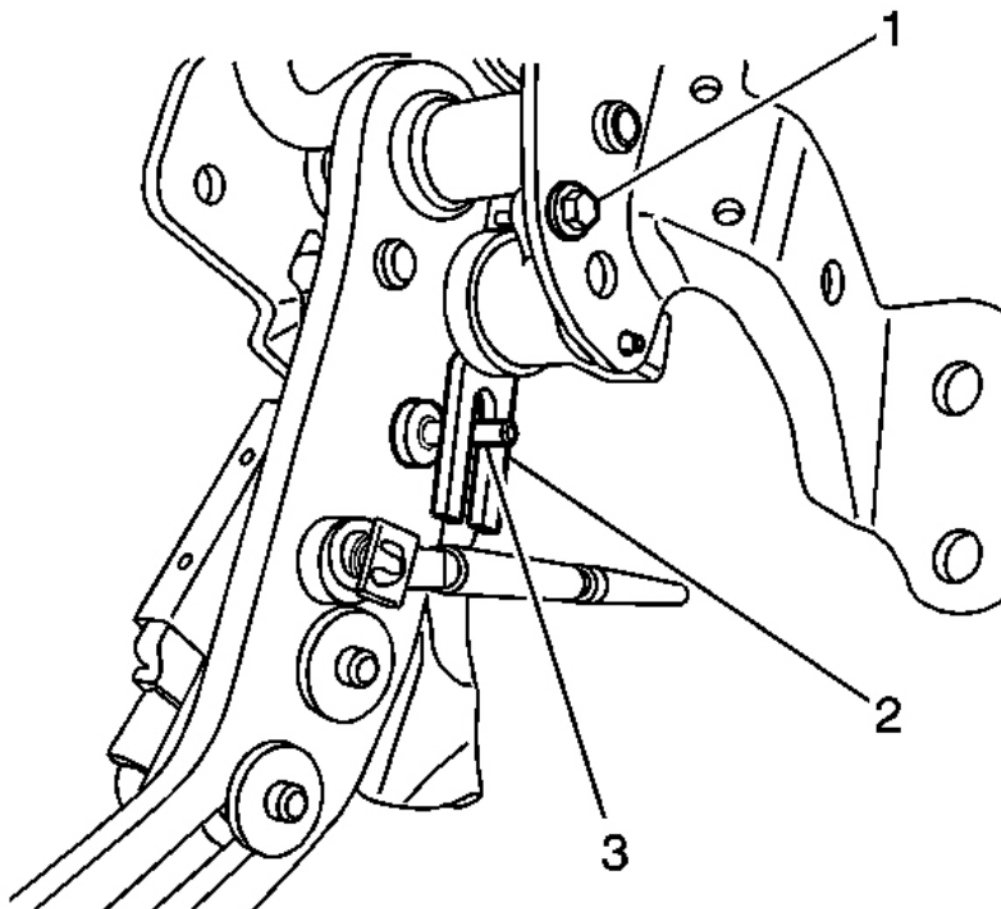


Fig. 32: View Of Brake Pedal Position Switch
Courtesy of GENERAL MOTORS CORP.

4. Install the driver side I/P insulator closeout panel. Refer to **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.
5. Recalibrate the brake pedal position sensor. Refer to **Brake Pedal Position Sensor Calibration Description and Operation**.

HEADLAMP LEVELING SENSOR REPLACEMENT - FRONT

Removal Procedure

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in General Information.
2. Remove the right front tire and wheel assembly. Refer to Tire and Wheel Removal and Installation in Tires and Wheels.
3. Disconnect the electrical connector (1).

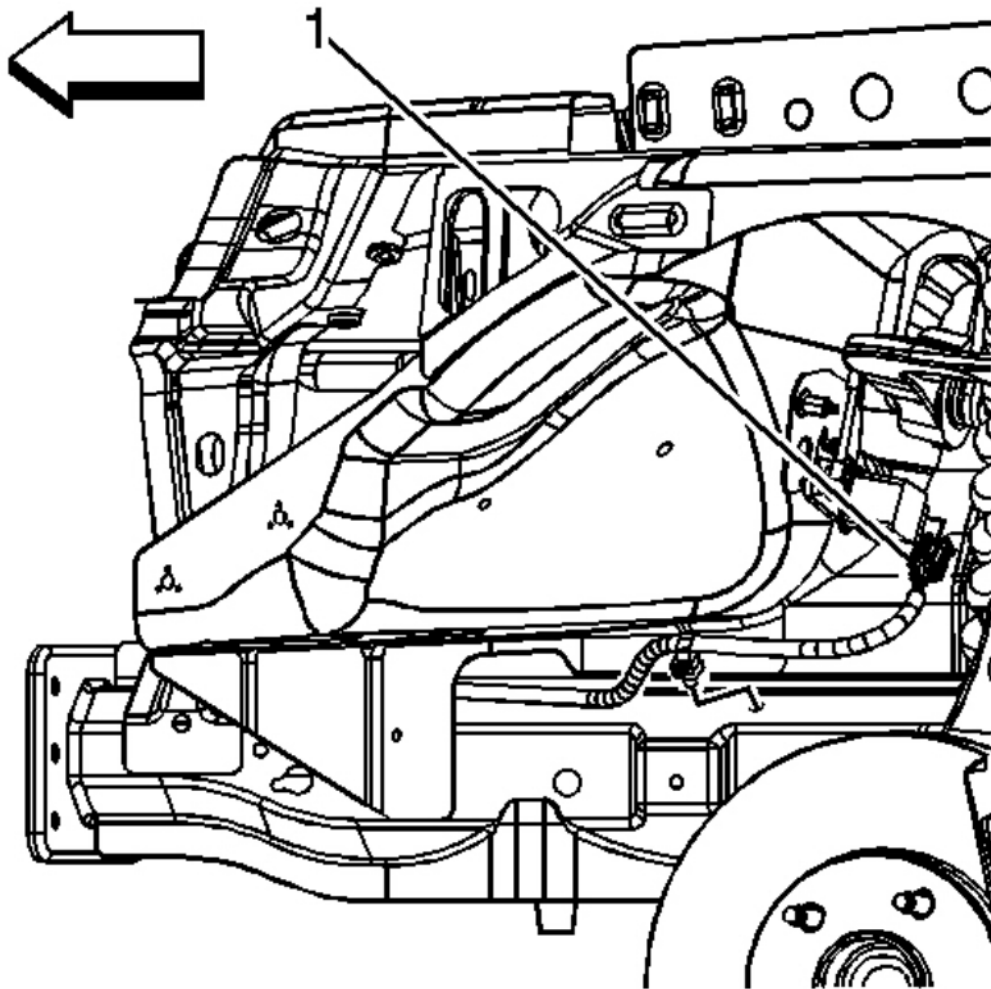


Fig. 33: View Of Front Headlamp Leveling Sensor Electrical Connector
Courtesy of GENERAL MOTORS CORP.

4. Disconnect the ball and socket (1) from vehicle.
5. Remove the bolt (2) from the sensor.

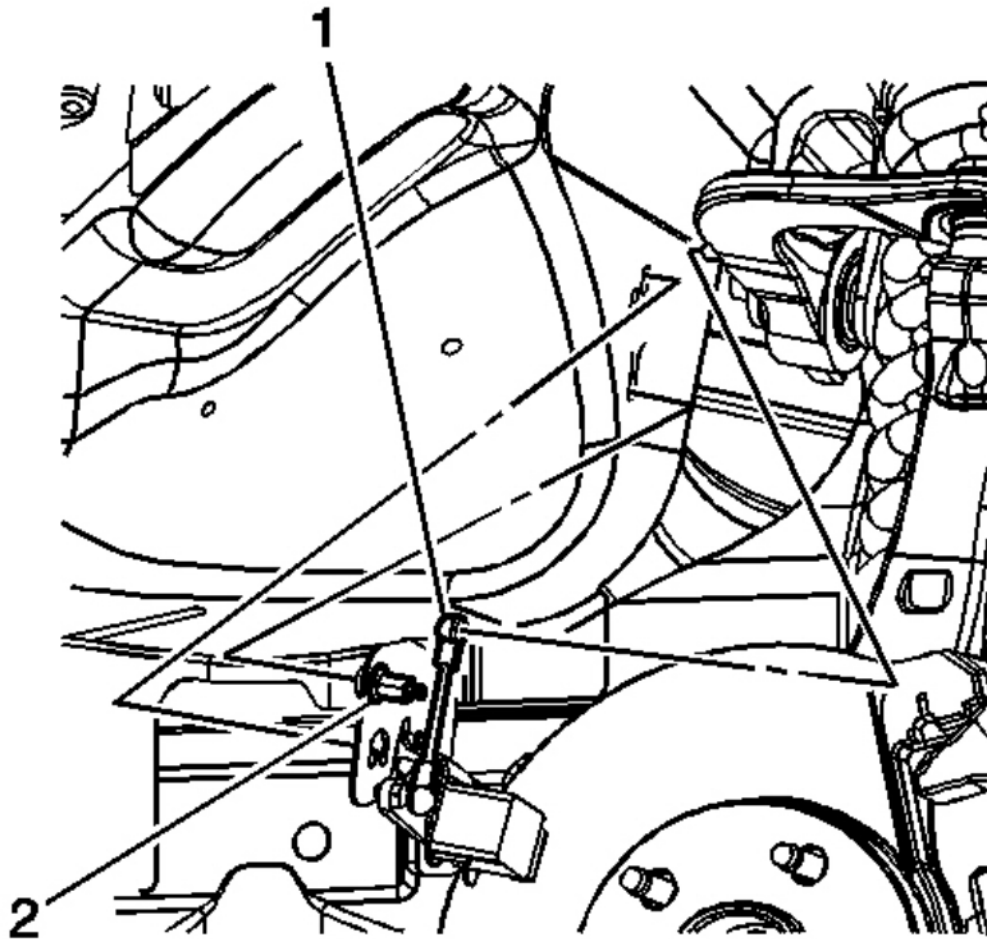


Fig. 34: View Of Ball & Socket
Courtesy of GENERAL MOTORS CORP.

6. Remove the sensor from the vehicle.

Installation Procedure

1. Position the sensor (1) to the vehicle.

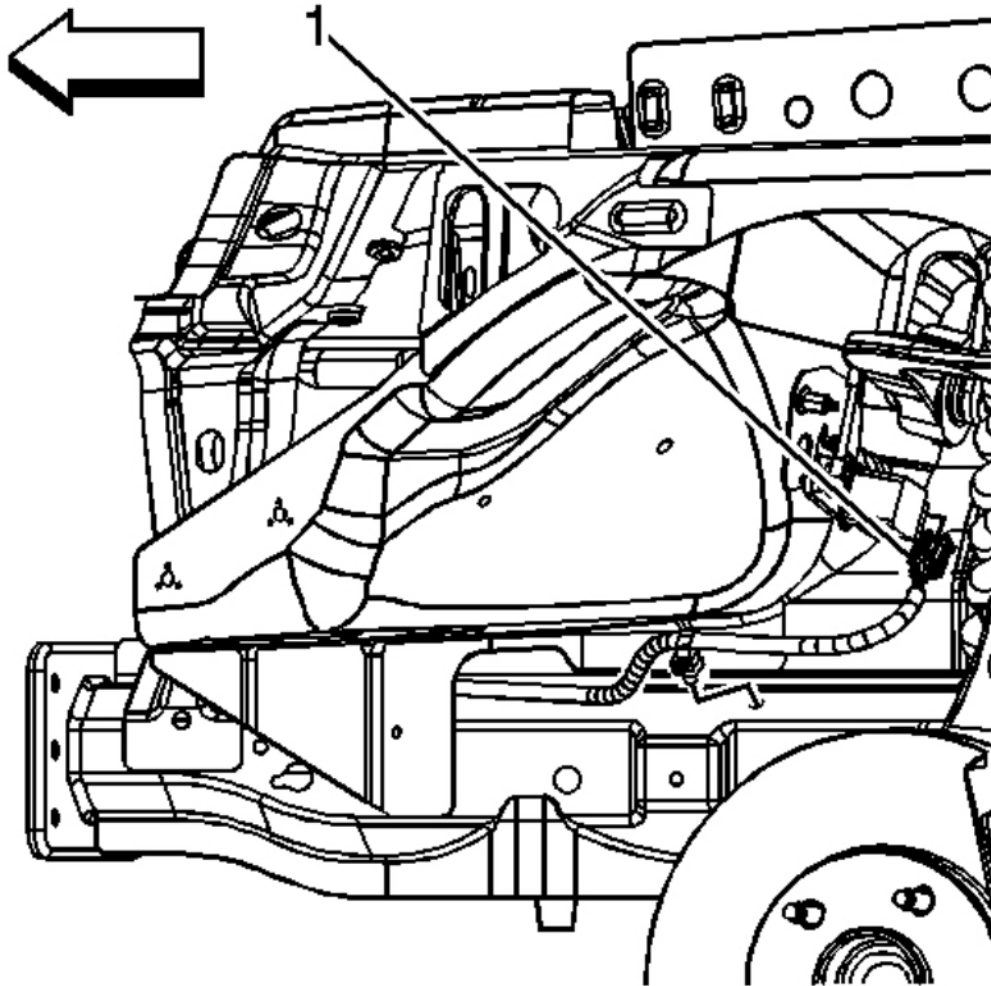


Fig. 35: View Of Front Headlamp Leveling Sensor Electrical Connector
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the bolt (2) to secure the sensor to the vehicle.

Tighten: Tighten the bolt to 9 N.m (80 lb in)

3. Install ball and socket (1) to sensor.

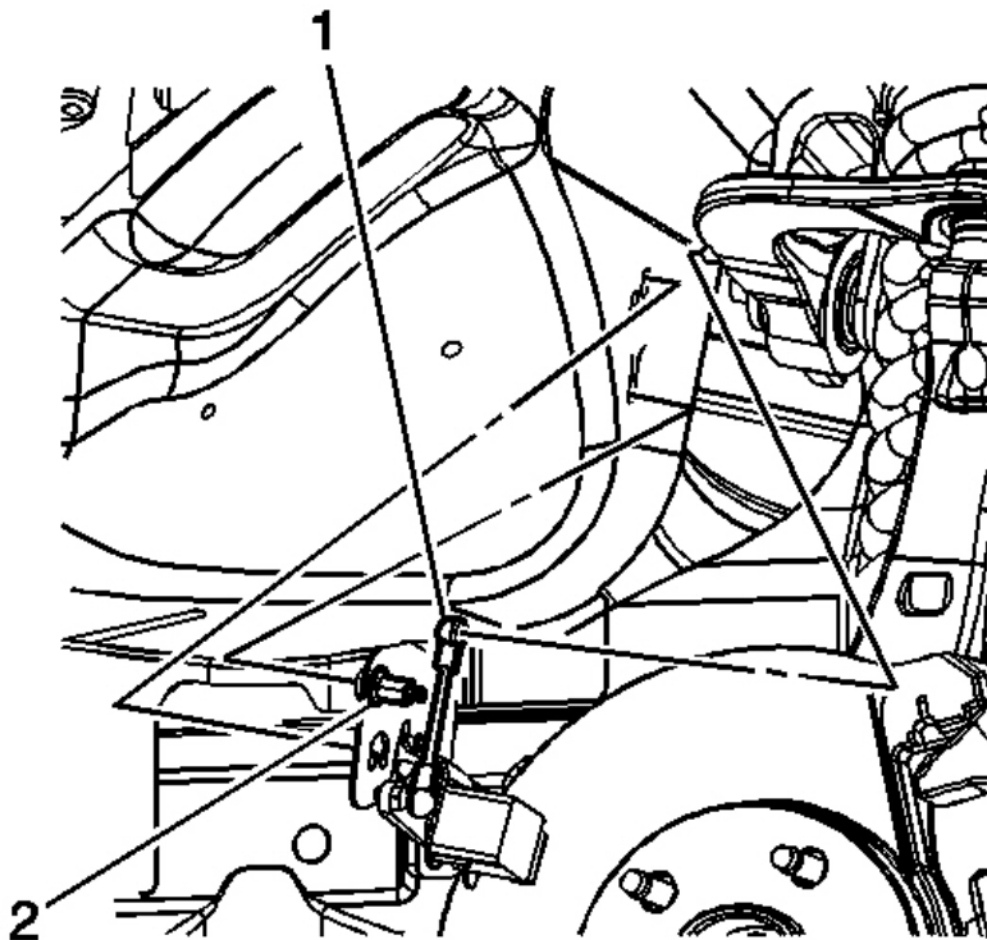


Fig. 36: View Of Ball & Socket
Courtesy of GENERAL MOTORS CORP.

4. Connect the electrical connector (1) to the sensor.

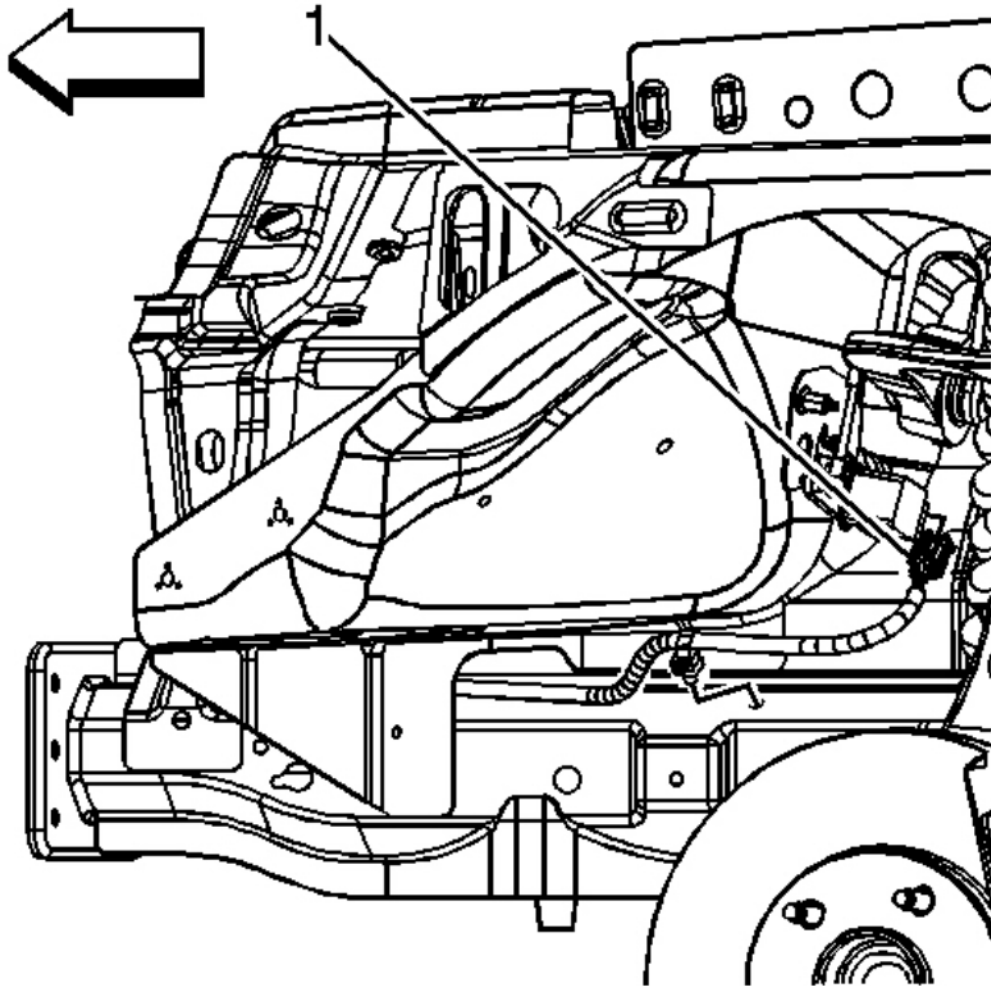


Fig. 37: View Of Front Headlamp Leveling Sensor Electrical Connector
Courtesy of GENERAL MOTORS CORP.

5. Install the right tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
6. Lower the vehicle.

HEADLAMP LEVELING SENSOR REPLACEMENT - REAR

Removal Procedure

1. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle** in General Information.
2. Remove the right rear tire and wheel assembly. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
3. Disconnect electrical connector (2).
4. Disconnect the ball and socket (3) from vehicle.
5. Remove the bolt (1) from the sensor.
6. Remove the sensor from the vehicle.

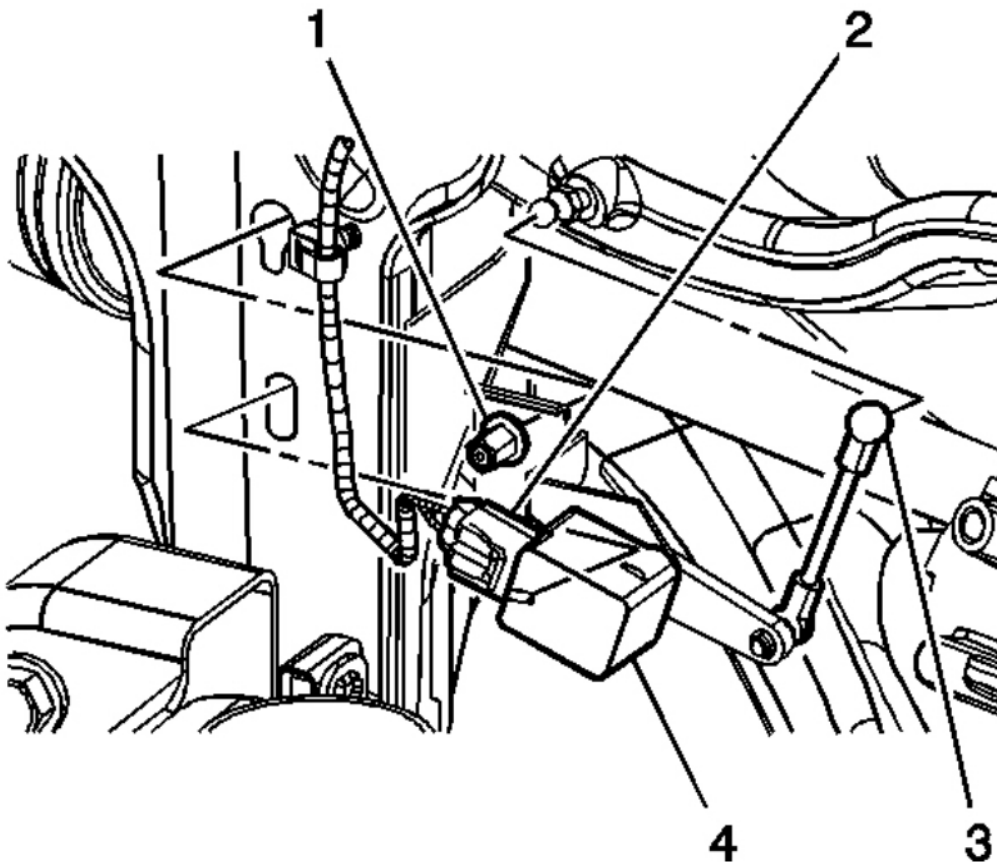


Fig. 38: View Of Rear Headlamp Leveling Sensor
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Position the sensor (3) to the vehicle.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the bolt (1) to secure the sensor (4) to the vehicle.

Tighten: Tighten the bolt to 9 N.m (80 lb in)

3. Install ball and socket (3) to sensor (4).
4. Connect electrical connector (2) to the sensor (4).

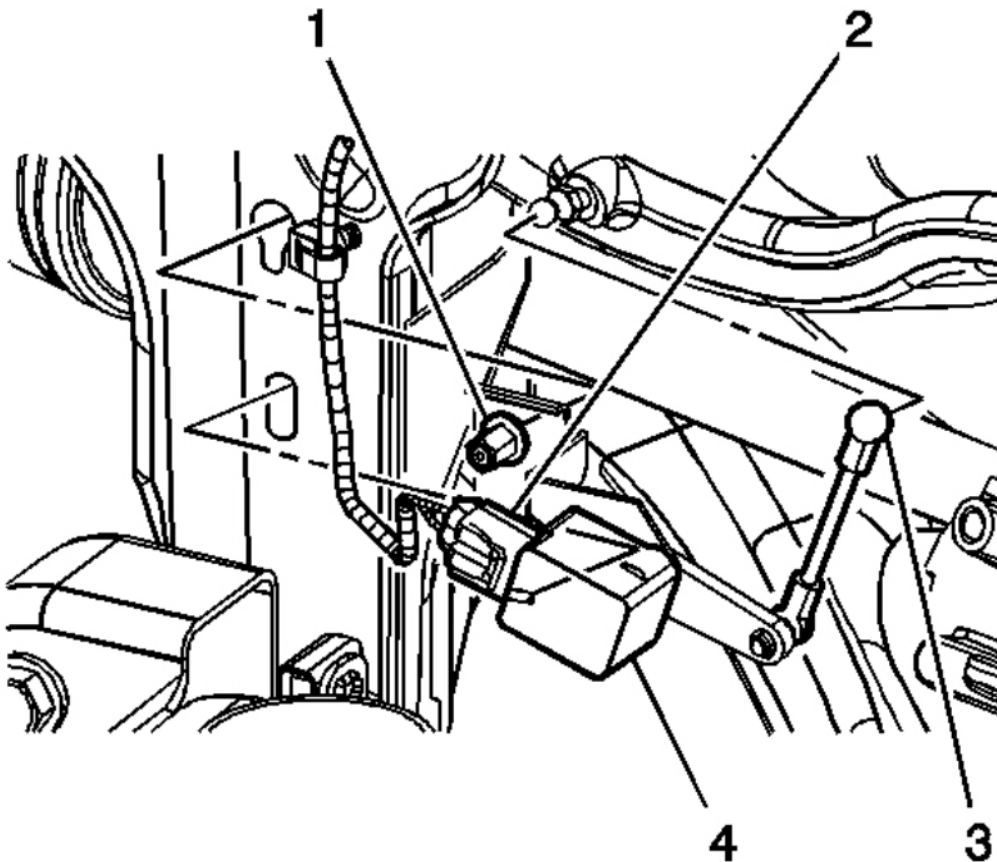


Fig. 39: View Of Rear Headlamp Leveling Sensor

Courtesy of GENERAL MOTORS CORP.

5. Install the right tire and wheel assembly. Refer to Tire and Wheel Removal and Installation in Tires and Wheels.
6. Lower the vehicle.

HAZARD WARNING SWITCH REPLACEMENT

Removal Procedure

1. Remove the center I/P vent. Refer to Deflector Replacement - Instrument Panel Air - Center .
2. Disconnect the hazard switch electrical connector.

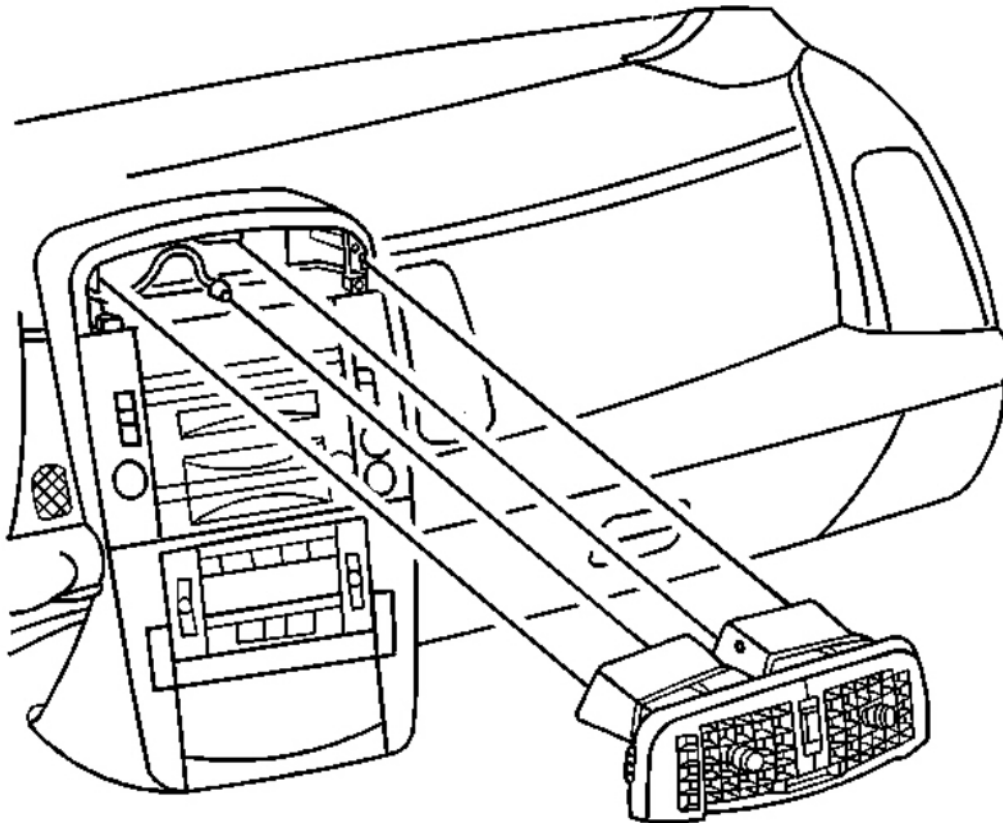


Fig. 40: View Of Center I/P Air Vent And Hazard Switch Connector

Courtesy of GENERAL MOTORS CORP.

3. Release the tabs (1) securing the switch to the vent.

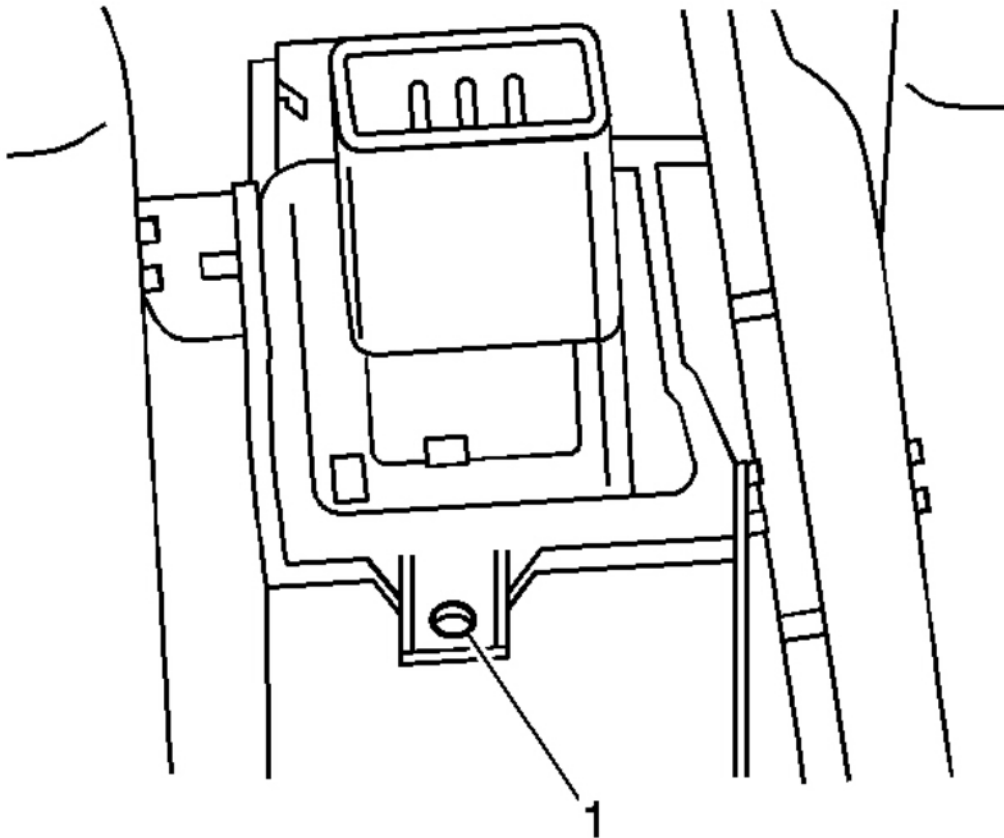


Fig. 41: Locating Hazard Switch Retaining Tabs
Courtesy of GENERAL MOTORS CORP.

4. Remove the hazard switch.

Installation Procedure

1. Install the hazard switch to the vent ensuring the locking tabs (1) on the switch are secure.

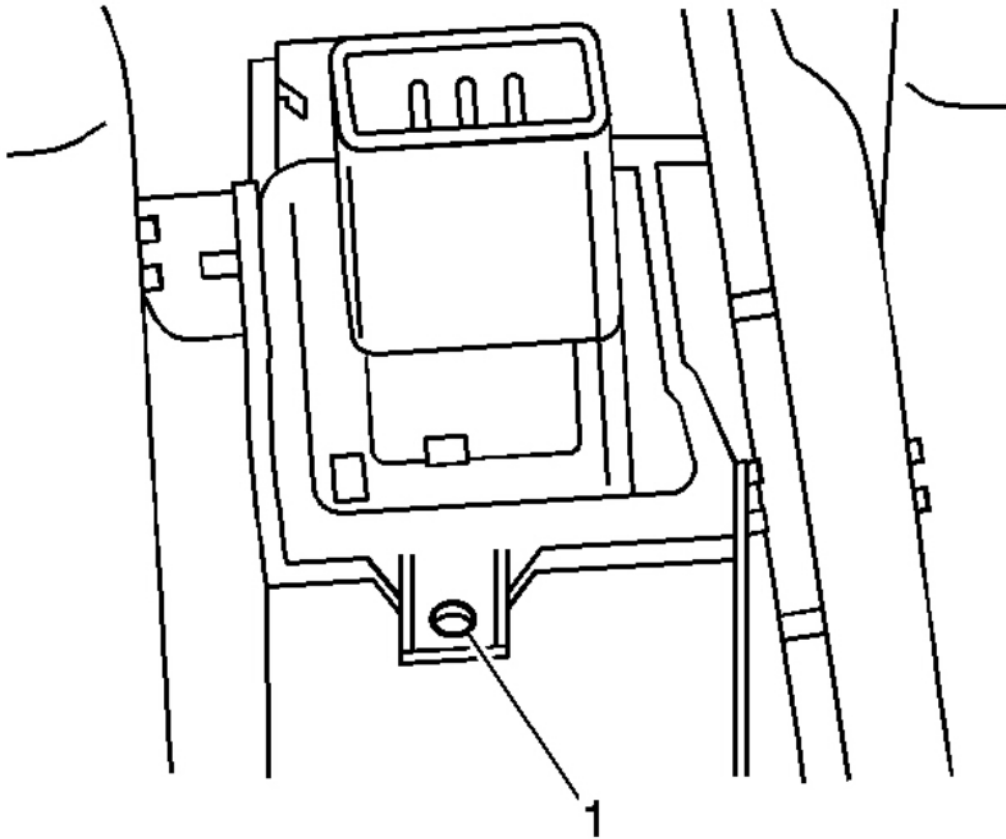


Fig. 42: Locating Hazard Switch Retaining Tabs
Courtesy of GENERAL MOTORS CORP.

2. Connect the hazard switch connector.

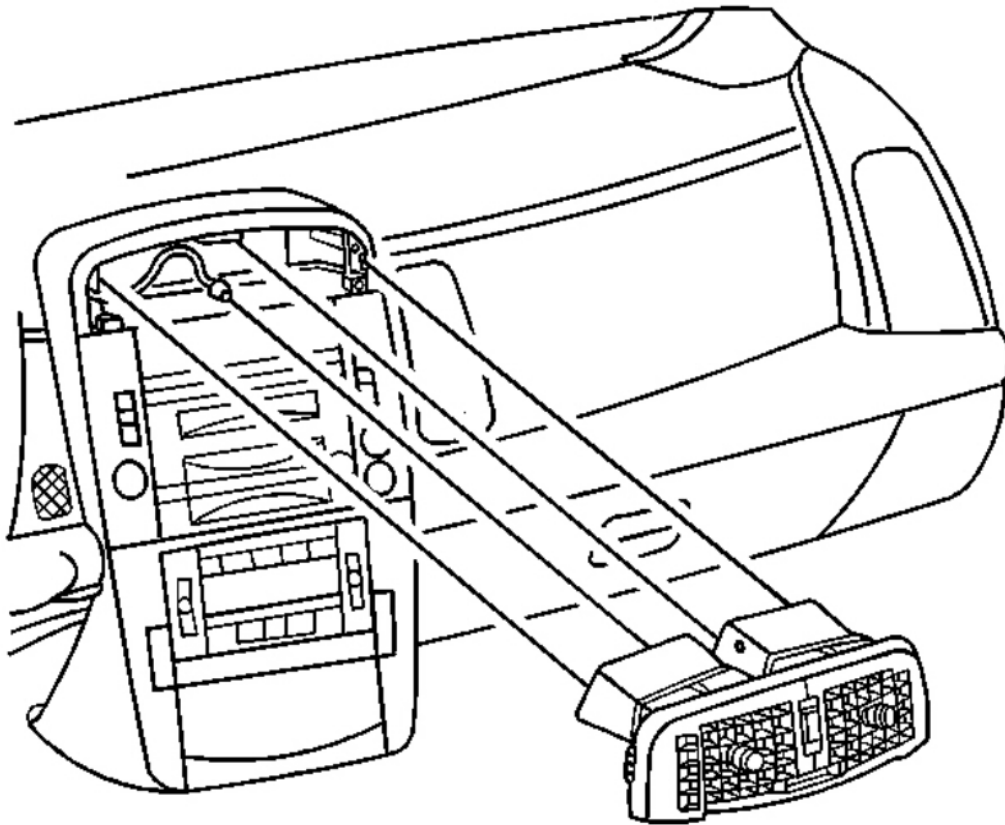


Fig. 43: View Of Center I/P Air Vent And Hazard Switch Connector
Courtesy of GENERAL MOTORS CORP.

3. Install the center I/P vent to the I/P. Refer to **Deflector Replacement - Instrument Panel Air - Center**.

INSTRUMENT PANEL (I/P) DIMMER SWITCH REPLACEMENT

Removal Procedure

1. Remove the front overhead console. Refer to **Console Replacement - Overhead** in Interior Trim.
2. Remove the screws securing the I/P dimmer switch (3) the overhead console.
3. Disconnect the electrical connector.

4. Remove the switch.

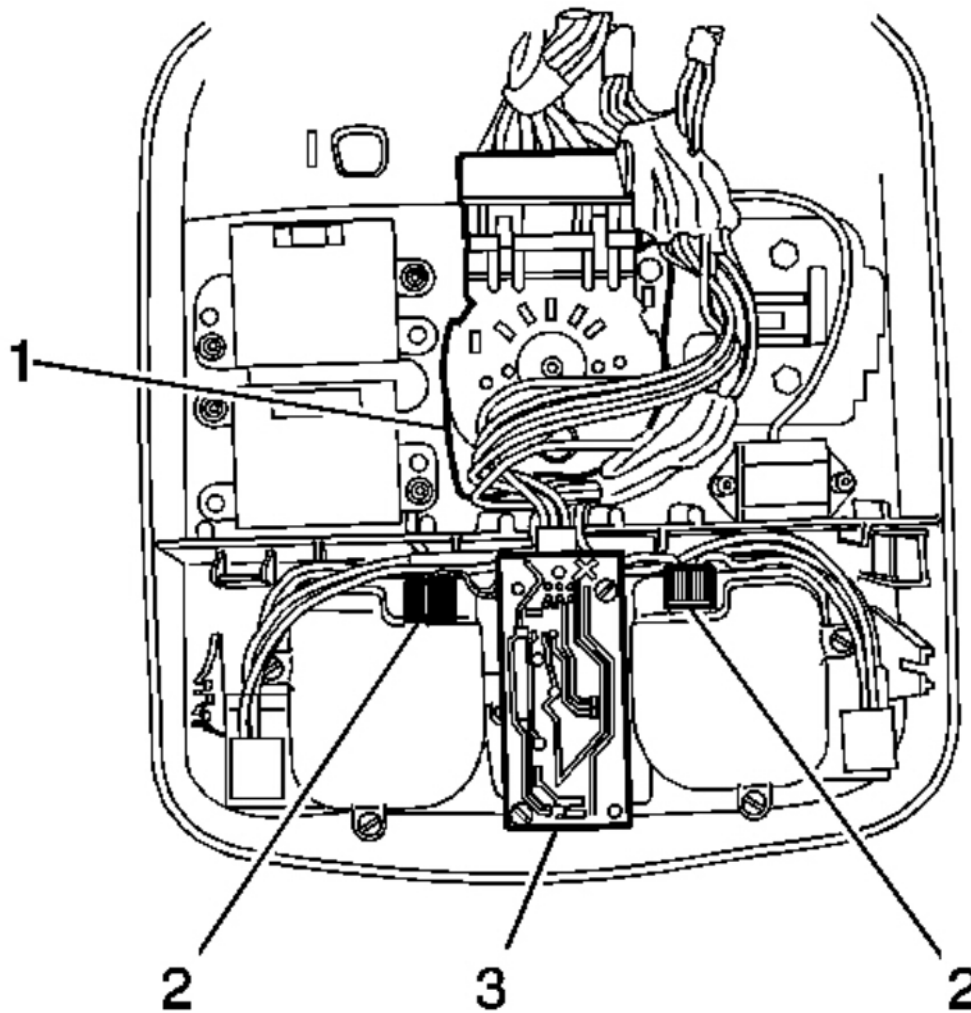


Fig. 44: View Of Overhead Console Electrical Components
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Connect the electrical connector.

NOTE: Refer to Fastener Notice in Cautions and Notices.

2. Install the screws securing the I/P dimmer switch (3) the overhead console.

Tighten: Tighten the screws to 2 N.m (18 lb in).

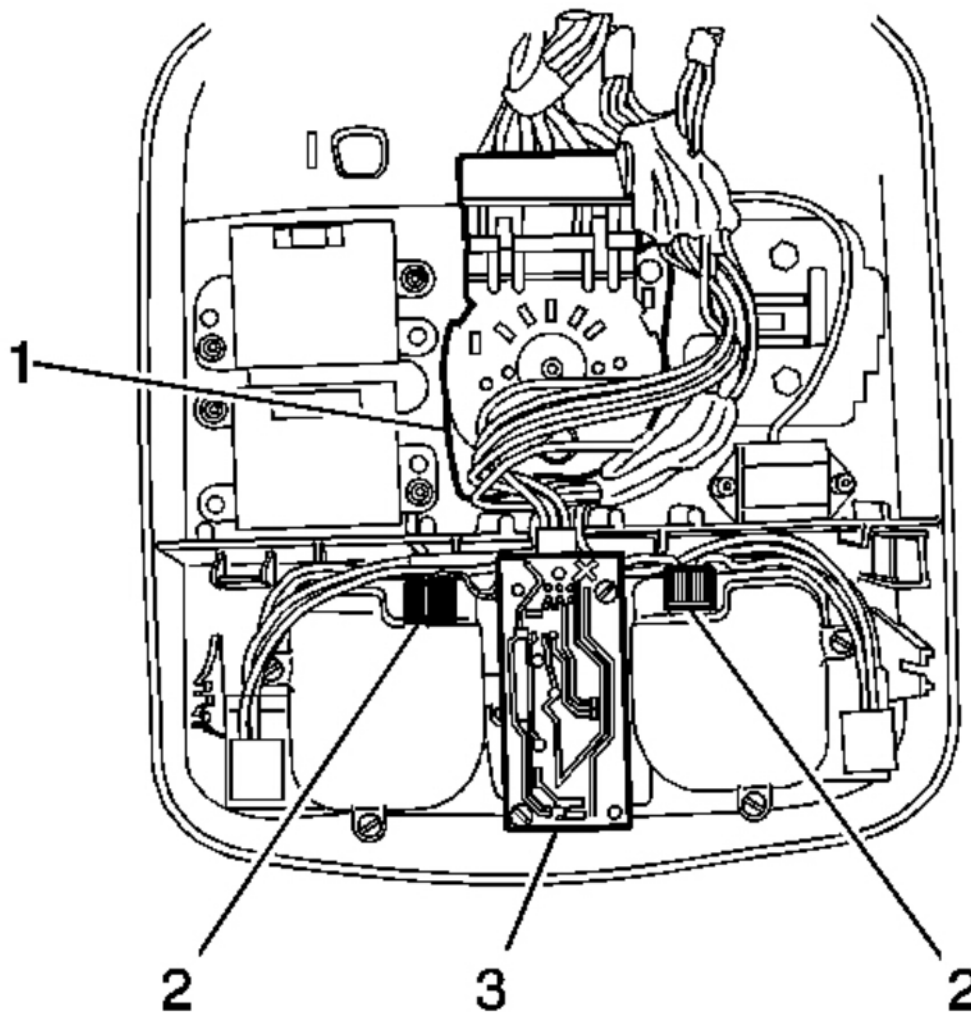


Fig. 45: View Of Overhead Console Electrical Components
Courtesy of GENERAL MOTORS CORP.

3. Install the front overhead console. Refer to **Console Replacement - Overhead** in Interior Trim.

HAZARD AND TURN SIGNAL FLASHER REPLACEMENT

Removal Procedure

1. Remove the driver side I/P closeout/Insulator panel. Refer to **Closeout/Insulator Panel Replacement - Right** or **Closeout/Insulator Panel Replacement - Left** .
2. Remove the flasher module (2) off the I/P carrier.
3. Disconnect the electrical connector (1).

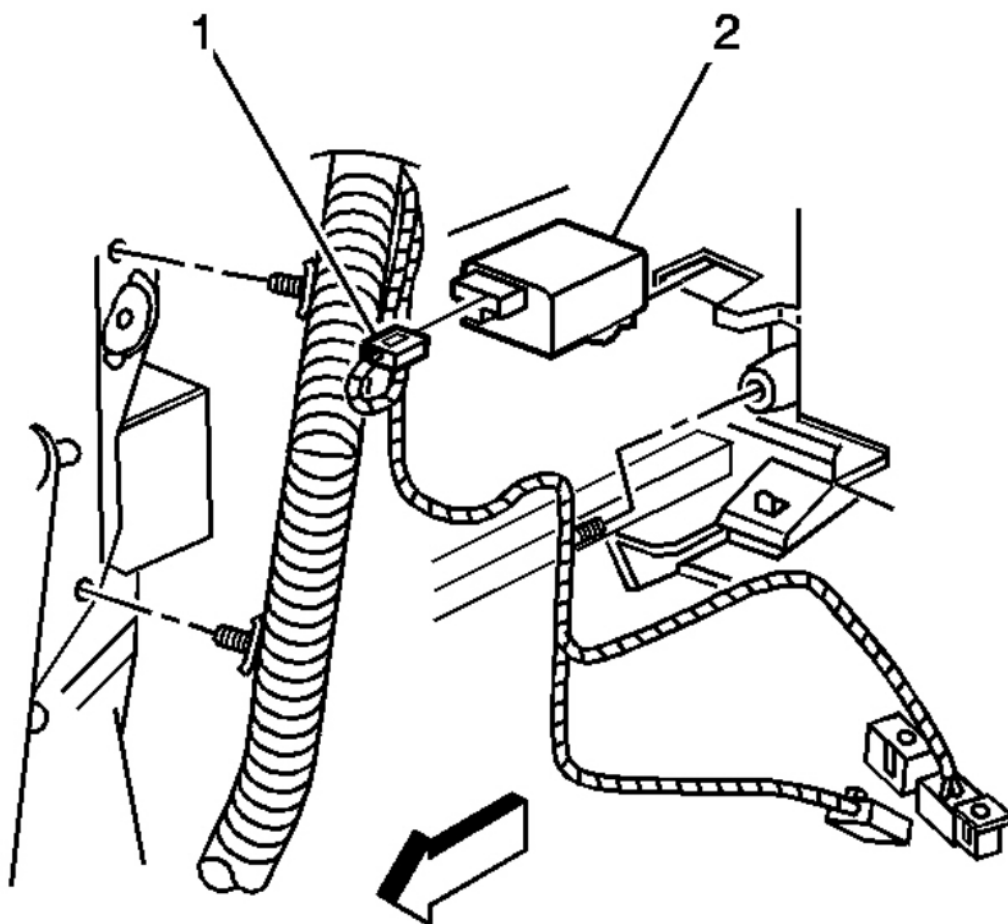


Fig. 46: View Of Flasher Module
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Connect the electrical connector (1) to the flasher module (2).
2. Slide the flasher module retaining clip onto the I/P carrier.

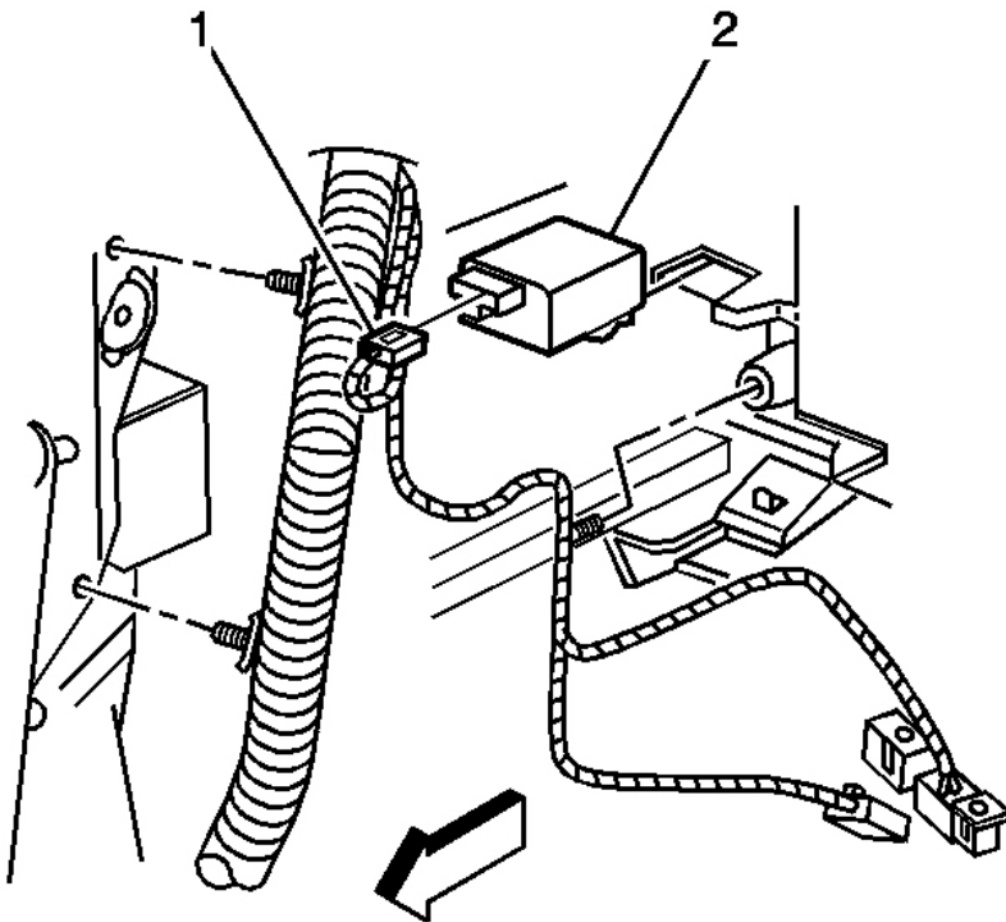


Fig. 47: View Of Flasher Module
Courtesy of GENERAL MOTORS CORP.

3. Install the driver side I/P closeout/Insulator panel. Refer to Closeout/Insulator Panel Replacement - Right or Closeout/Insulator Panel Replacement - Left.

COURTESY LAMP REPLACEMENT - INSTRUMENT PANEL - LEFT

Removal Procedure

1. Remove the closeout panel. Refer to Closeout/Insulator Panel Replacement - Right in Instrument Panel, Gages, and Console.
2. Disconnect the electrical connector (1).

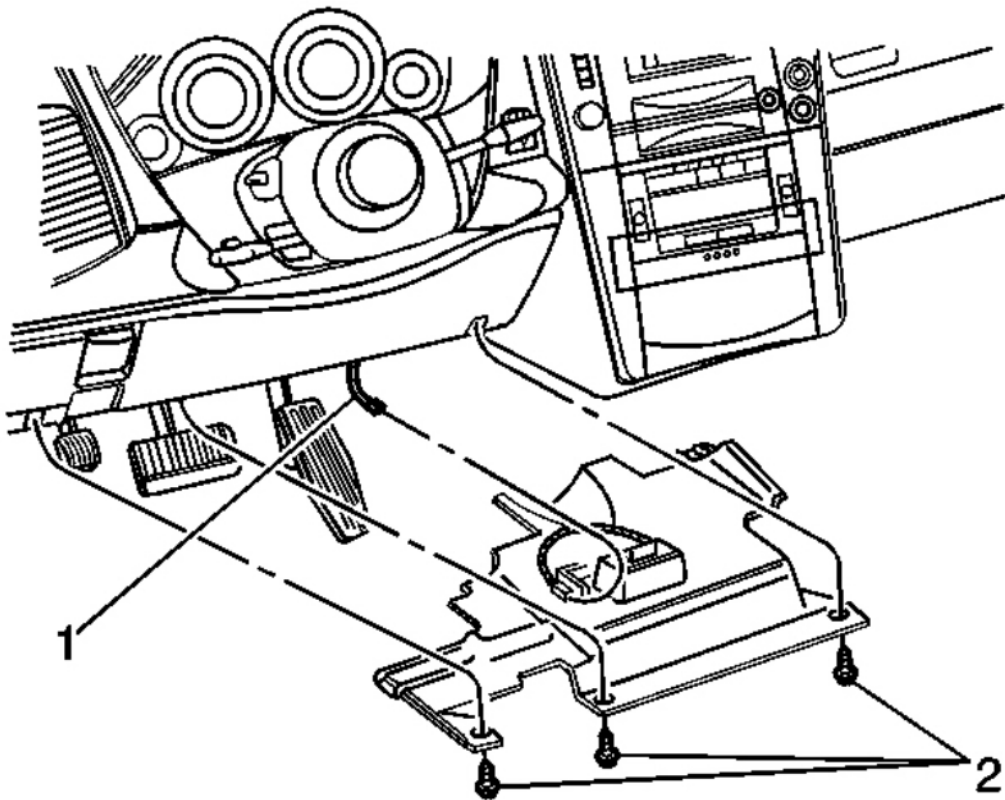


Fig. 48: View Of Left Closeout Panel
Courtesy of GENERAL MOTORS CORP.

3. Remove the bulb.

Installation Procedure

1. Install the bulb.

2. Connect the electrical connector (1).
3. Install the closeout panel. Refer to **Closeout/Insulator Panel Replacement - Right** in Instrument Panel, Gages, and Console.

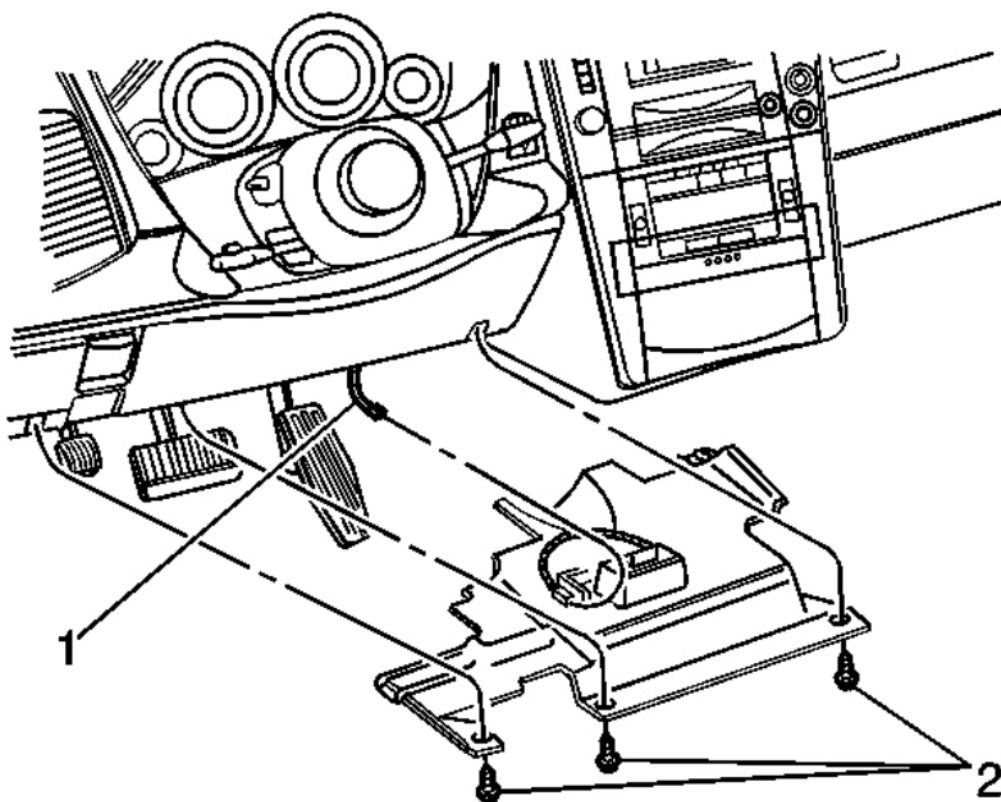


Fig. 49: View Of Left Closeout Panel
Courtesy of GENERAL MOTORS CORP.

COURTESY LAMP REPLACEMENT - INSTRUMENT PANEL - RIGHT

Removal Procedure

1. Remove the closeout panel. Refer to **Closeout/Insulator Panel Replacement - Right** or **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.
2. Disconnect the electrical connector (1).

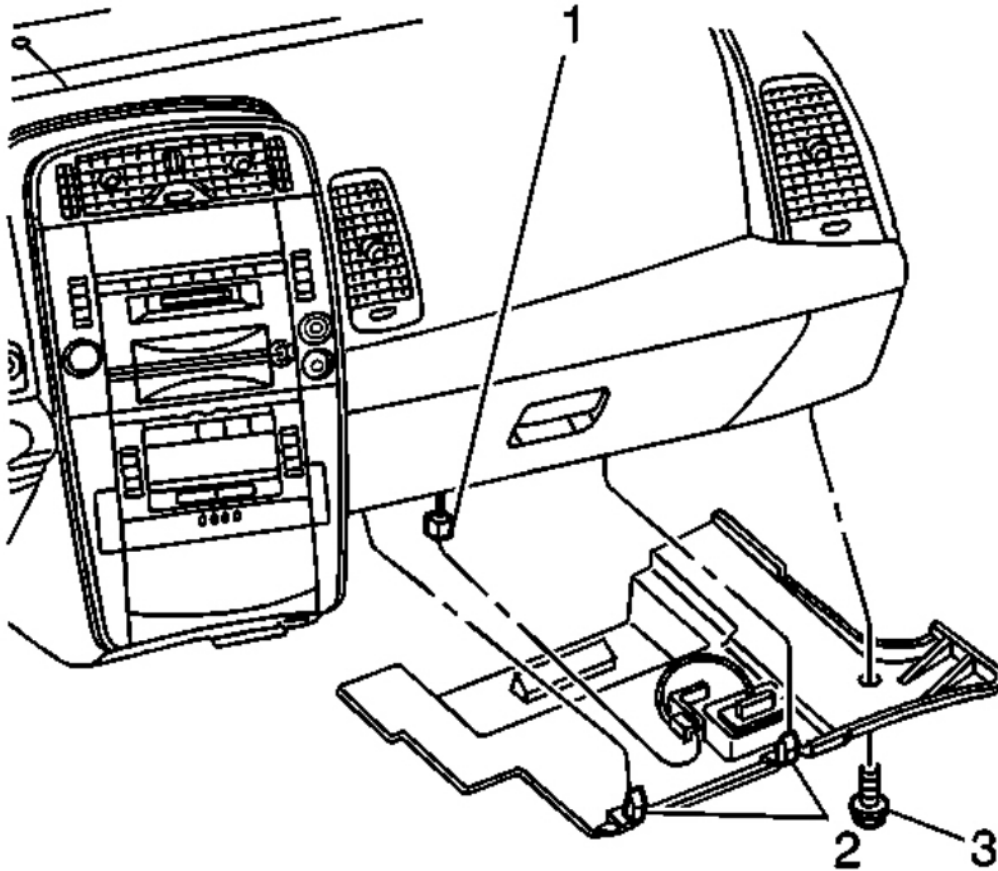


Fig. 50: View Of Right Closeout Panel
Courtesy of GENERAL MOTORS CORP.

3. Remove the bulb.

Installation Procedure

1. Install the bulb.
2. Connect the electrical connector (1).

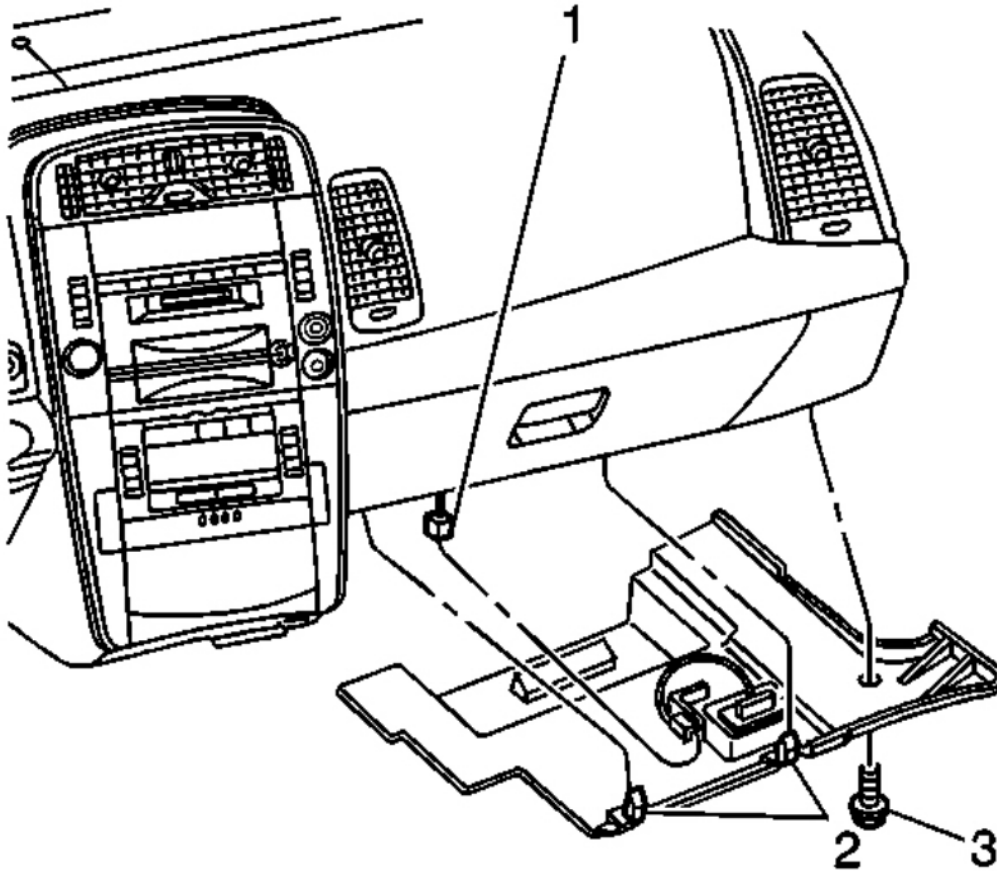


Fig. 51: View Of Right Closeout Panel
 Courtesy of GENERAL MOTORS CORP.

3. Install the closeout panel. Refer to **Closeout/Insulator Panel Replacement - Right** or **Closeout/Insulator Panel Replacement - Left** in Instrument Panel, Gages, and Console.

COURTESY LAMP REPLACEMENT - OVERHEAD CONSOLE

Removal Procedure

1. Remove the front overhead console. Refer to **Console Replacement - Overhead** in Interior Trim.
2. Turn the bulb (2) socket in order to remove it out of the light housing.

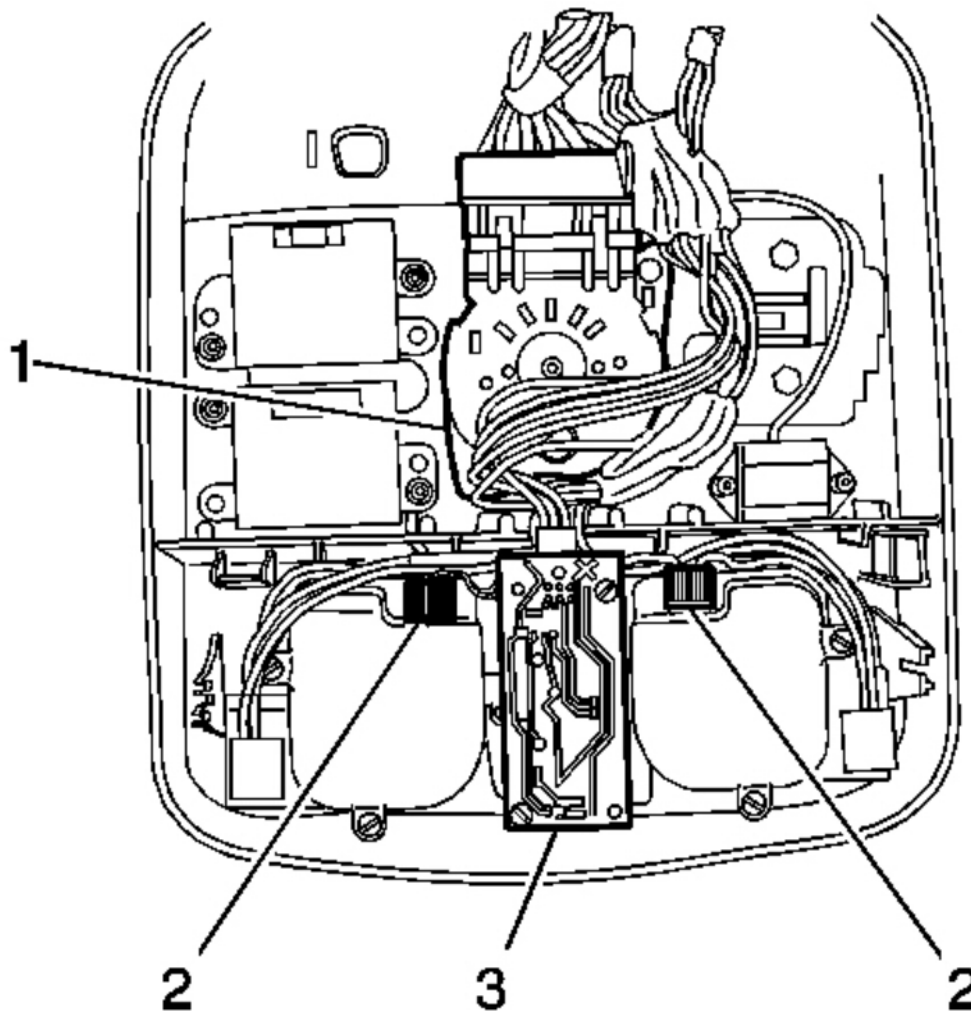


Fig. 52: View Of Overhead Console Electrical Components
Courtesy of GENERAL MOTORS CORP.

3. Remove the bulb.

Installation Procedure

1. Install the bulb into the bulb socket (2).
2. Turn the bulb (2) socket in order to fasten it into the light housing.

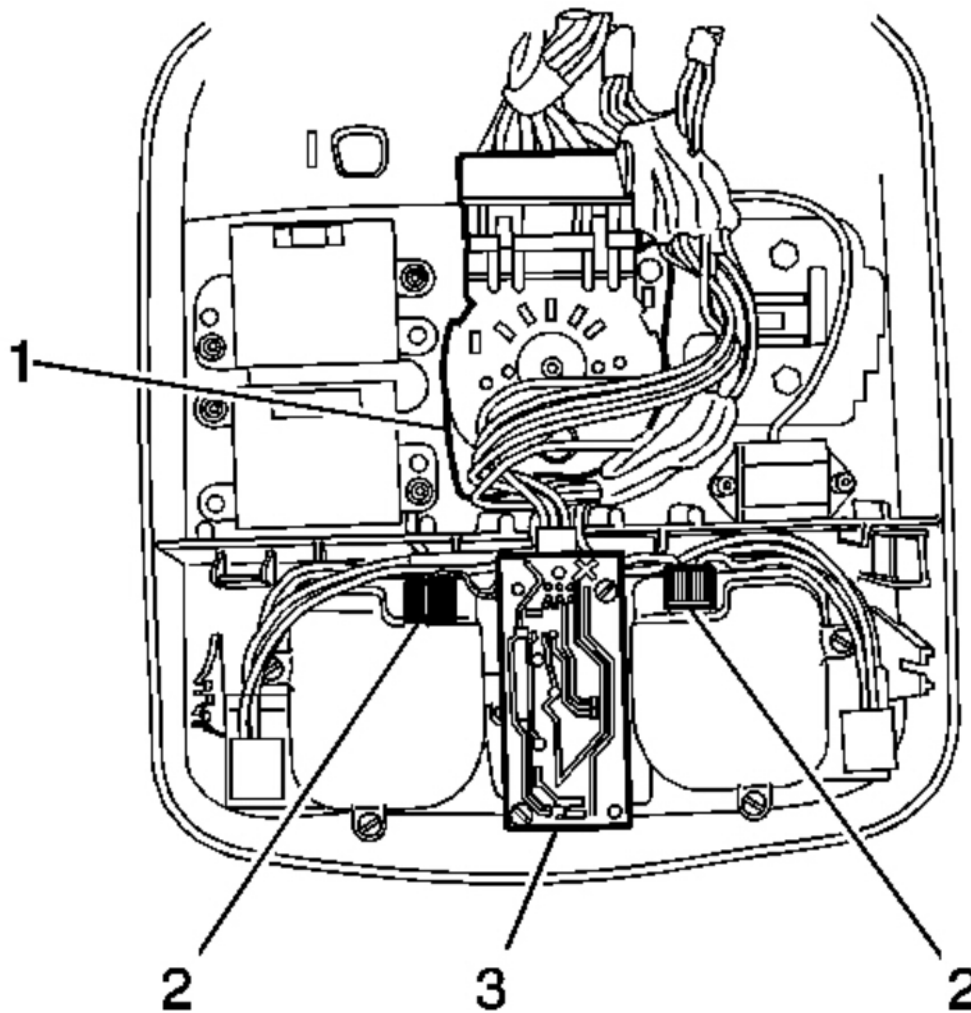


Fig. 53: View Of Overhead Console Electrical Components
Courtesy of GENERAL MOTORS CORP.

3. Install the front overhead console. Refer to Console Replacement - Overhead in Interior Trim.

VANITY MIRROR LAMP REPLACEMENT

Removal Procedure

1. Pry the vanity mirror lamp lens (1) in order to remove the lens.

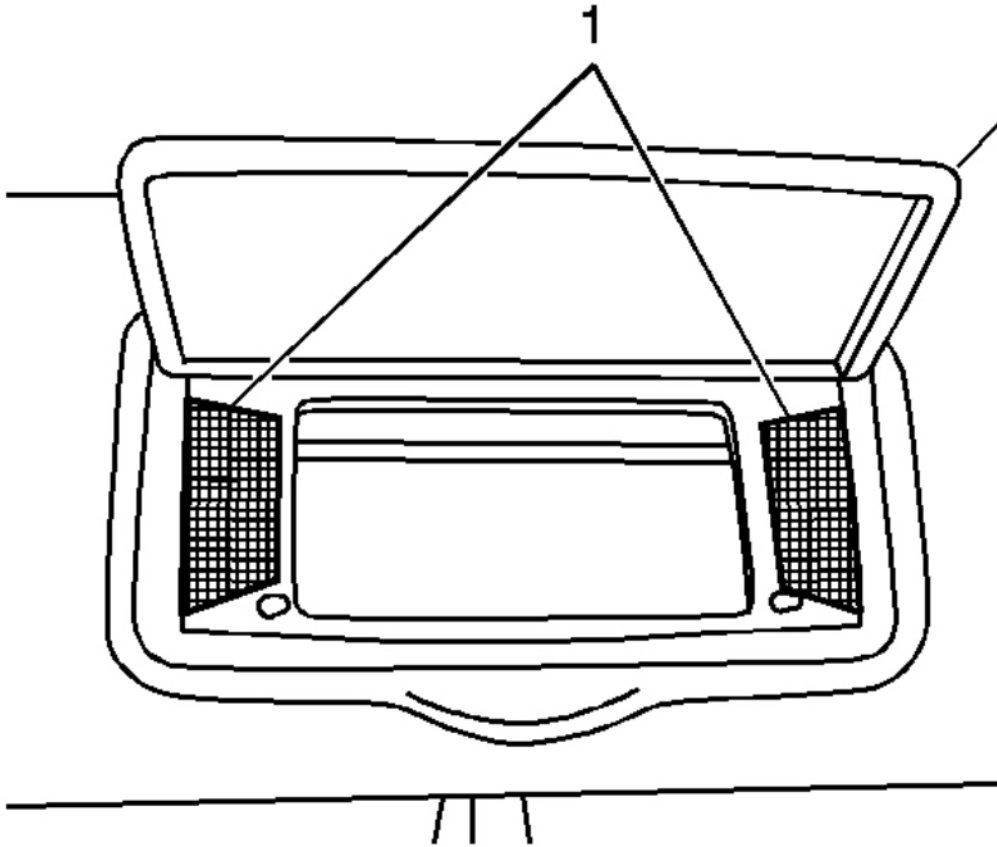


Fig. 54: View Of Vanity Mirror Lamp Lens
Courtesy of GENERAL MOTORS CORP.

2. Remove the bulb.

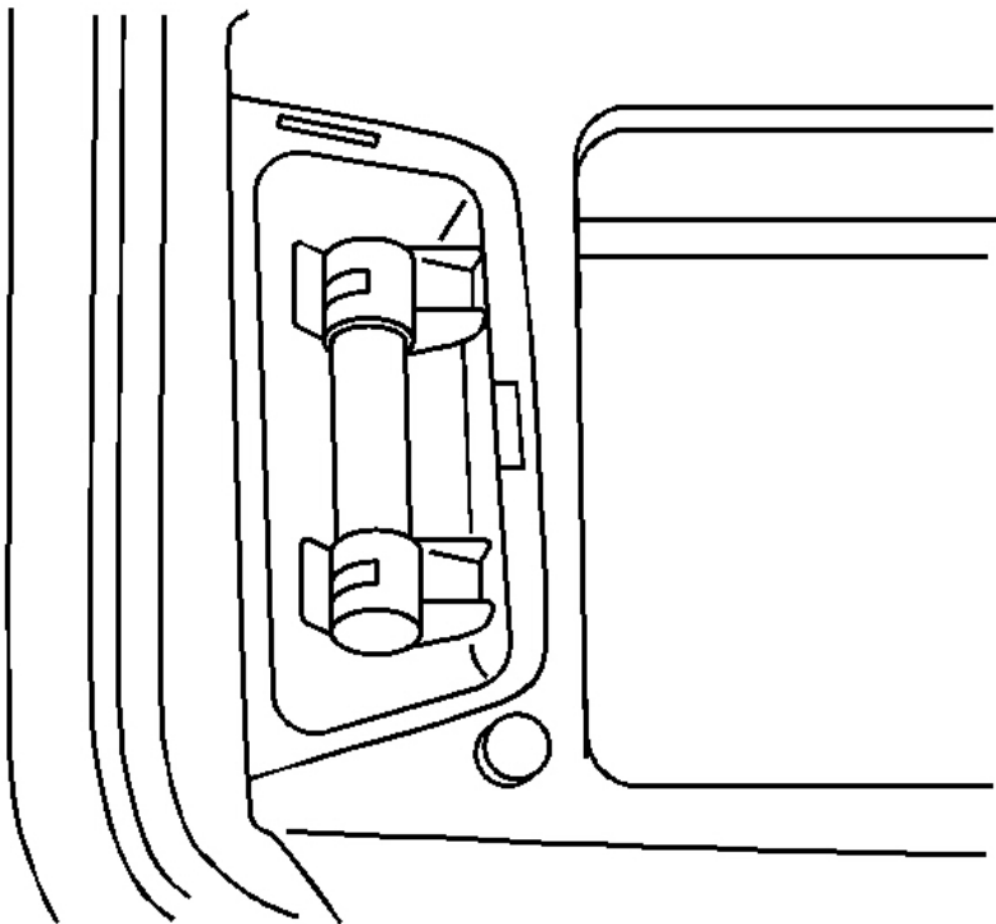


Fig. 55: View Of Vanity Mirror Lamp Bulb
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the bulb.

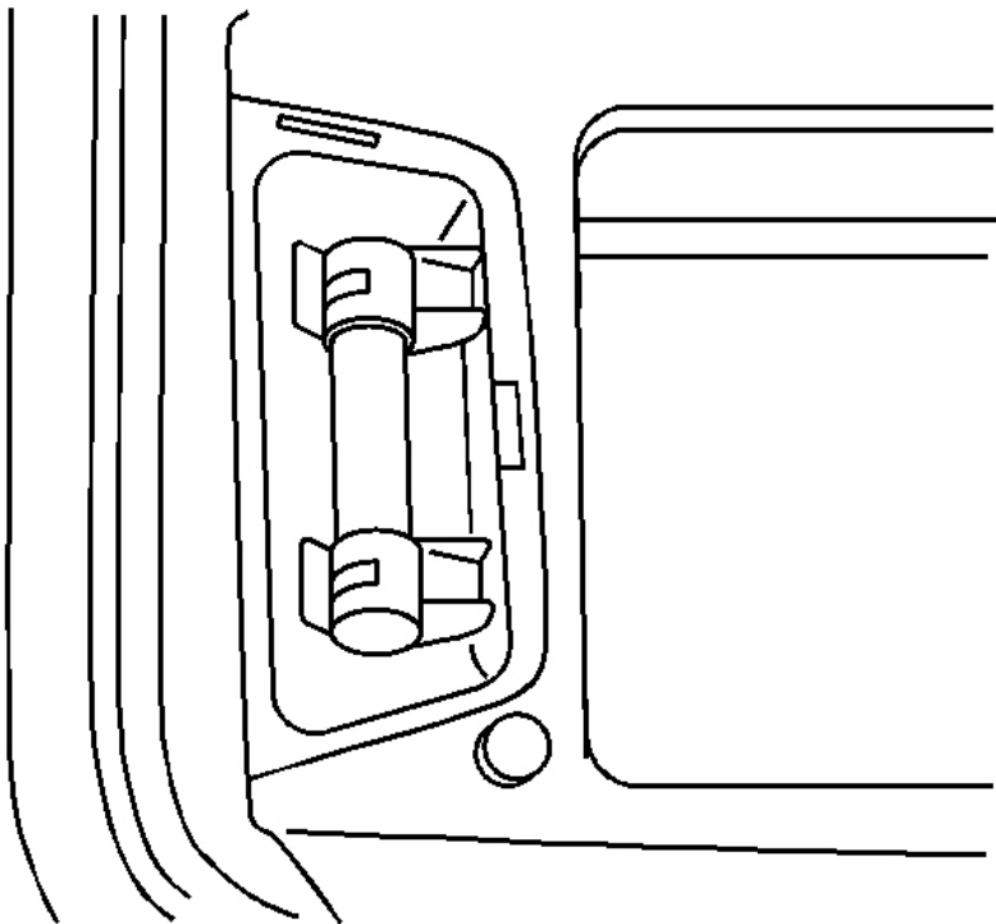


Fig. 56: View Of Vanity Mirror Lamp Bulb
Courtesy of GENERAL MOTORS CORP.

2. Reinstall the vanity mirror lamp lens (1).

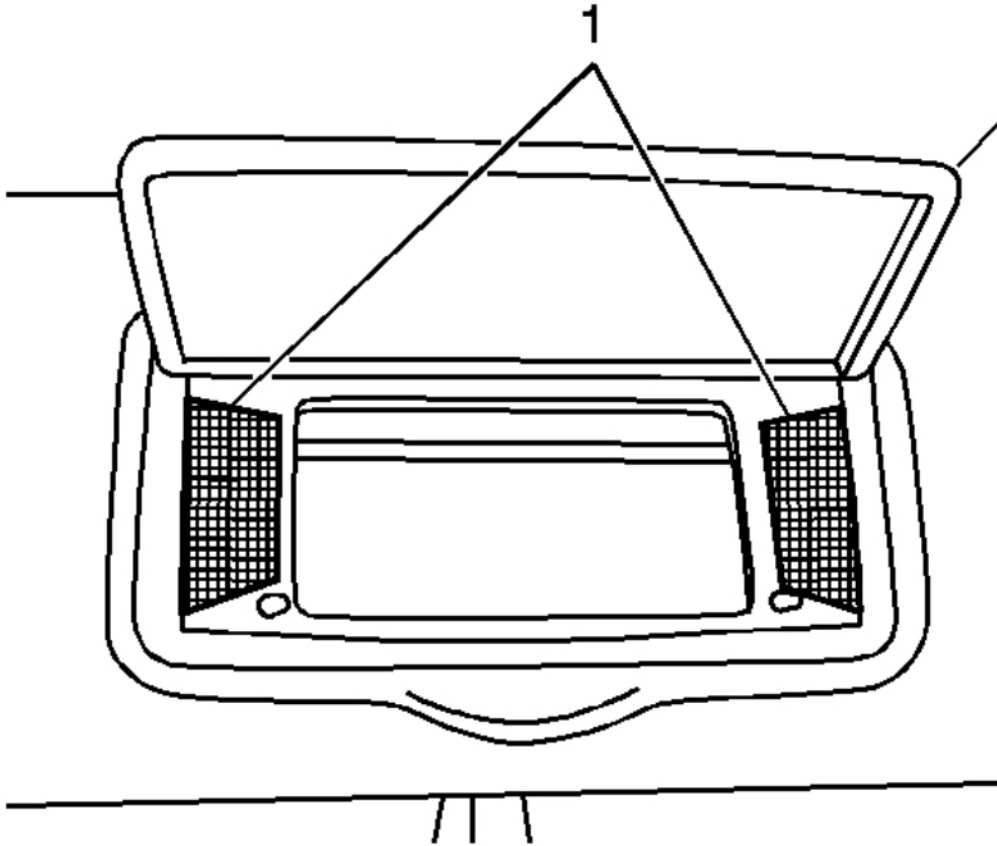


Fig. 57: View Of Vanity Mirror Lamp Lens
Courtesy of GENERAL MOTORS CORP.

TRANS FLOOR SHIFT CONTROL INDICATOR LAMP REPLACEMENT

Removal Procedure

1. Remove the shifter bezel. Refer to **Console Shift Lever Bezel Replacement** in Instrument Panel, Gages, and Console.
2. Release the tabs (1) on the bottom of the shifter position indicator.

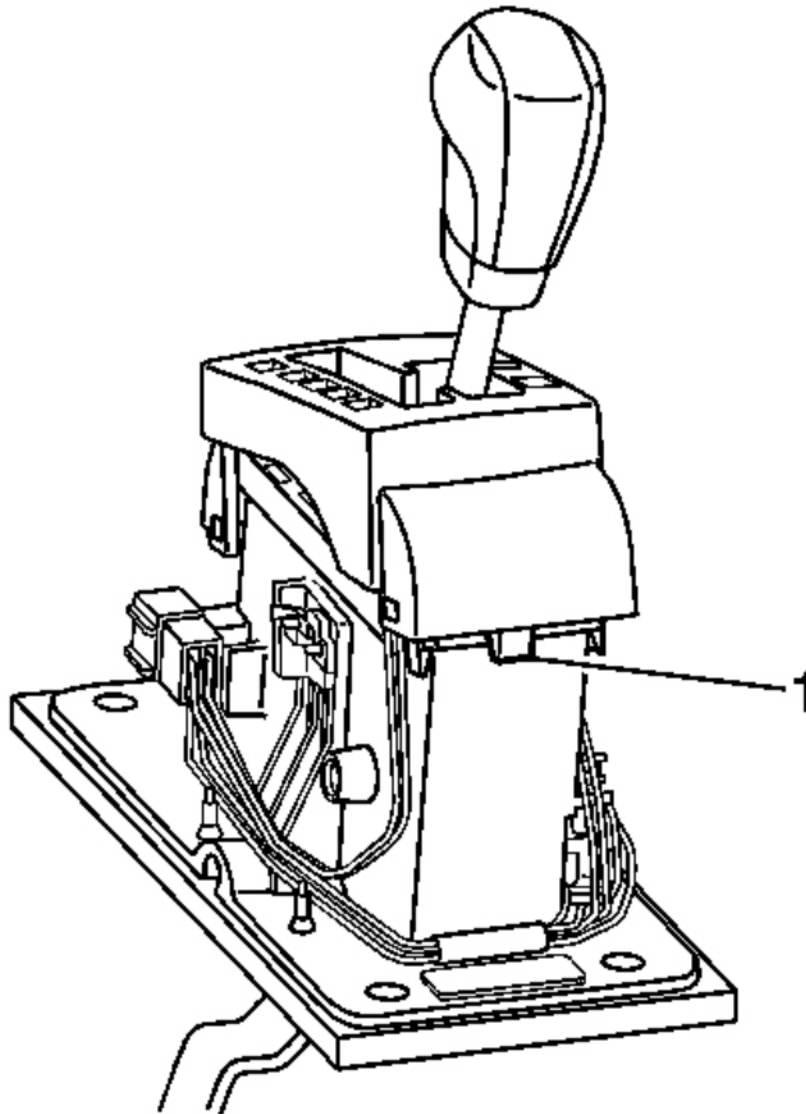


Fig. 58: Locating Shifter Position Indicator Tabs
Courtesy of GENERAL MOTORS CORP.

3. Raise the indicator cover in order to access the bulbs mounted on the bottom of the indicator cover.
4. Turn the bulb socket (1) in order to release it from the indicator cover.

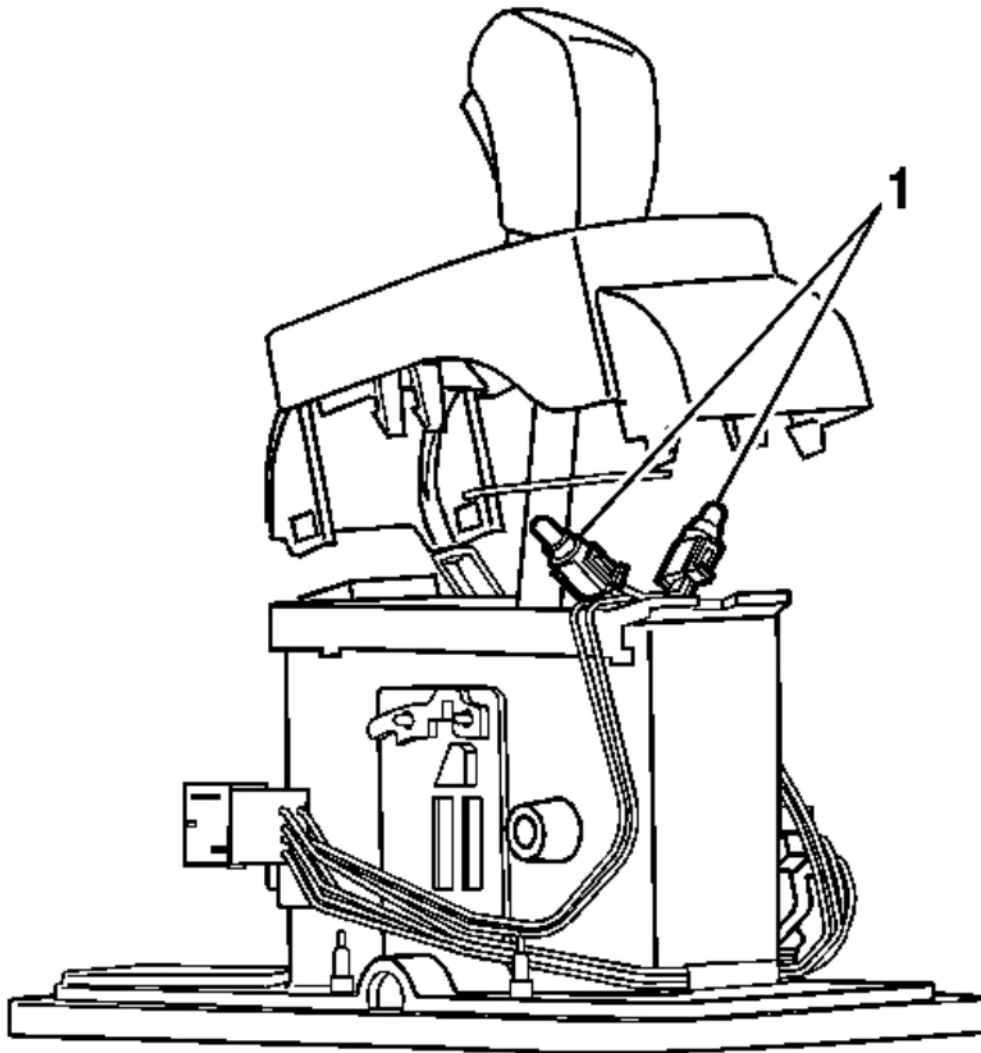


Fig. 59: View Of Floor Shift Control Indicator Lamp Bulb Socket
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Locate the bulb socket (1) into the indicator cover.
2. Turn the bulb socket (1) in order to secure it to the indicator cover.

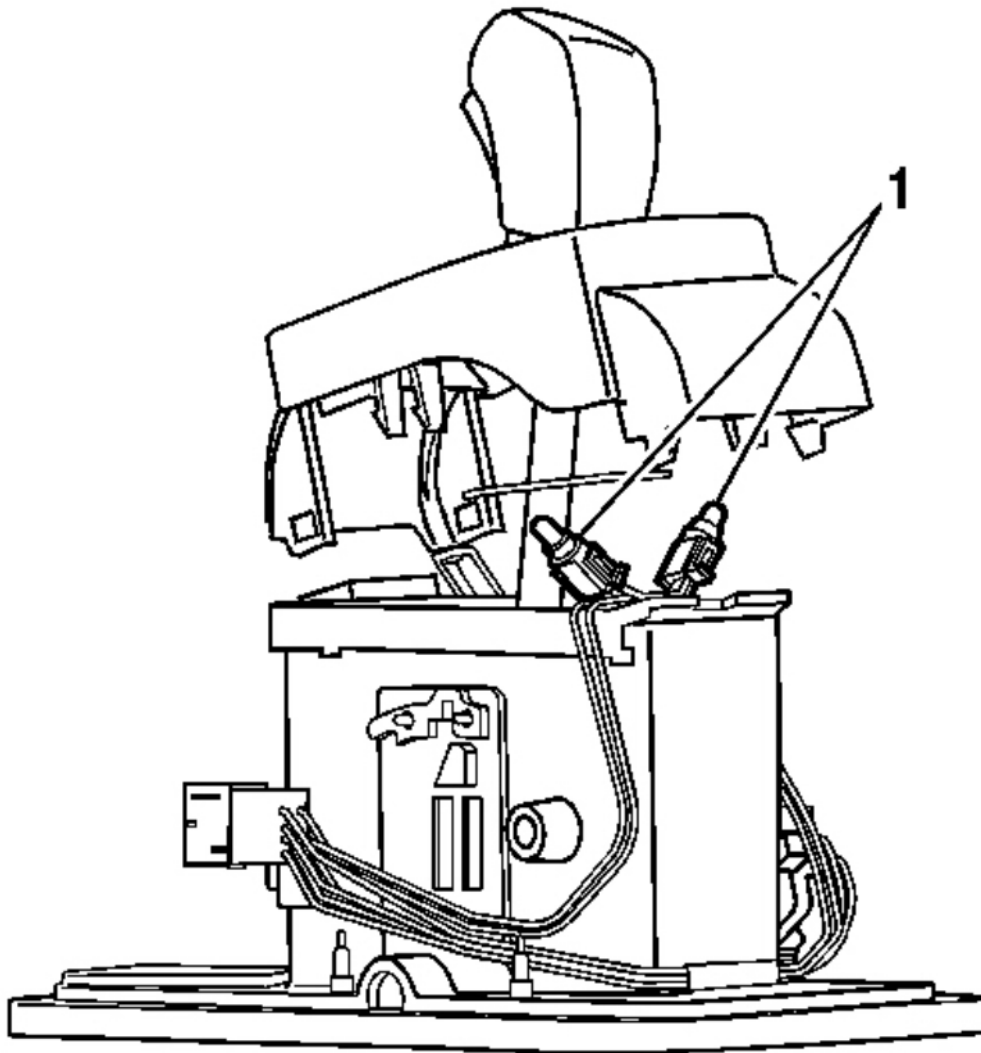


Fig. 60: View Of Floor Shift Control Indicator Lamp Bulb Socket
Courtesy of GENERAL MOTORS CORP.

3. Lower the indicator cover onto the shifter assembly.
4. Push the cover in order to secure the tabs (1) on the bottom of the shifter position indicator.

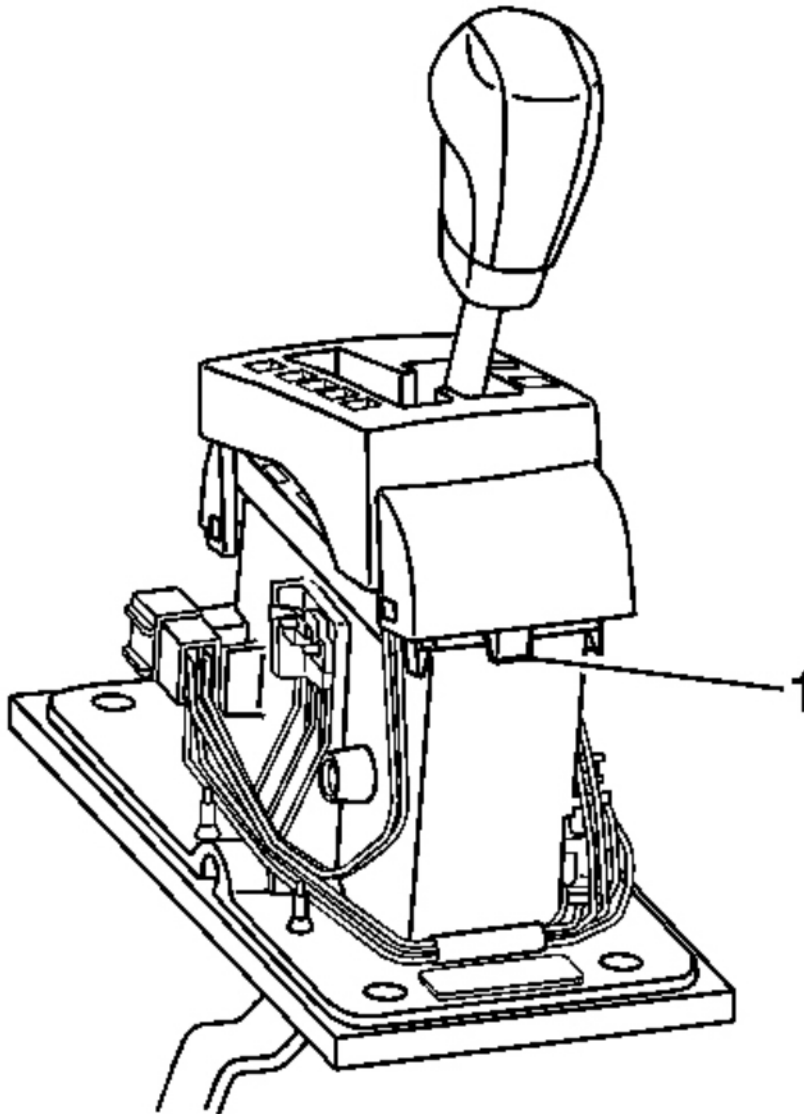


Fig. 61: Locating Shifter Position Indicator Tabs
Courtesy of GENERAL MOTORS CORP.

5. Install the shifter bezel. Refer to **Console Shift Lever Bezel Replacement** in Instrument Panel, Gages, and Console.

Removal Procedure

1. Pull down on the center dome lamp assembly in order to release the retaining clips.
2. Turn the bulb (2) socket in order to remove it out of the light housing.
3. Remove the bulb.

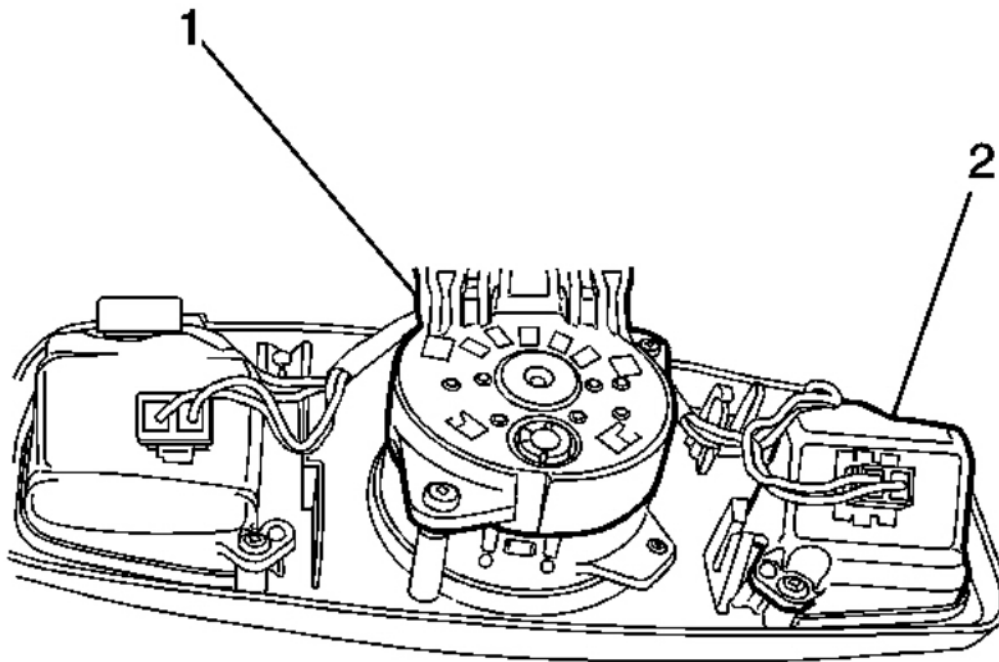


Fig. 62: View Of Dome Lamp
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the bulb into the bulb socket (2).
2. Turn the bulb (2) socket in order to fasten it into the light housing.

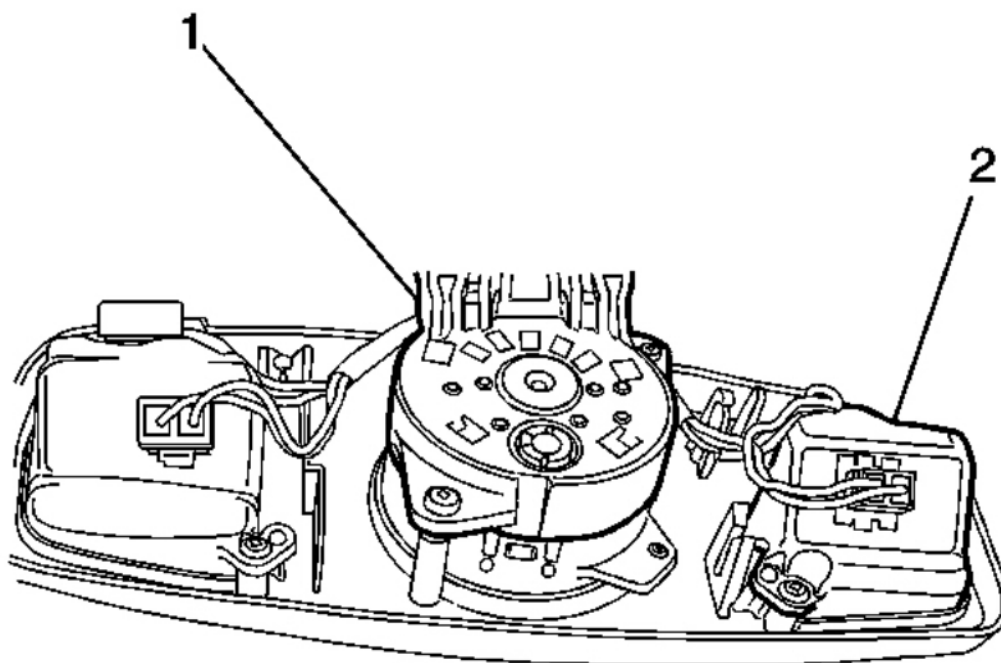


Fig. 63: View Of Dome Lamp
Courtesy of GENERAL MOTORS CORP.

3. Install the center dome lamp assembly.

HID HEADLAMP STARTER/ARC TUBE REPLACEMENT

Removal Procedure

CAUTION: The high intensity discharge system produces high voltage and current. To reduce the risk of severe shocks and burns:

- Never open the high intensity discharge system ballast or the arc tube assembly starter.
- Never probe between the high intensity discharge system ballast output connector and the arc tube assembly.

CAUTION: The high intensity discharge system produces high voltage

and current. In order to reduce the risk of severe shocks and burns, the battery negative cable must be disconnected any time service work is being performed on or around the high intensity discharge system.

NOTE: When removing or replacing the arc tube, the arc tube must not contact the side of the headlamp housing or the bulb shield. Damage to the arc tube may result.

1. Disconnect the battery negative cable. Refer to Battery Negative Cable Disconnect/Connect Procedure in Engine Electrical.
2. Remove the headlamp. Refer to Headlamp Assembly or Headlamp Bulb and/or Cornering, Sidemarkers, Park, Turn Signal Bulb Replacement.
3. Remove the arc tube cover screws (1) from the headlamp housing.

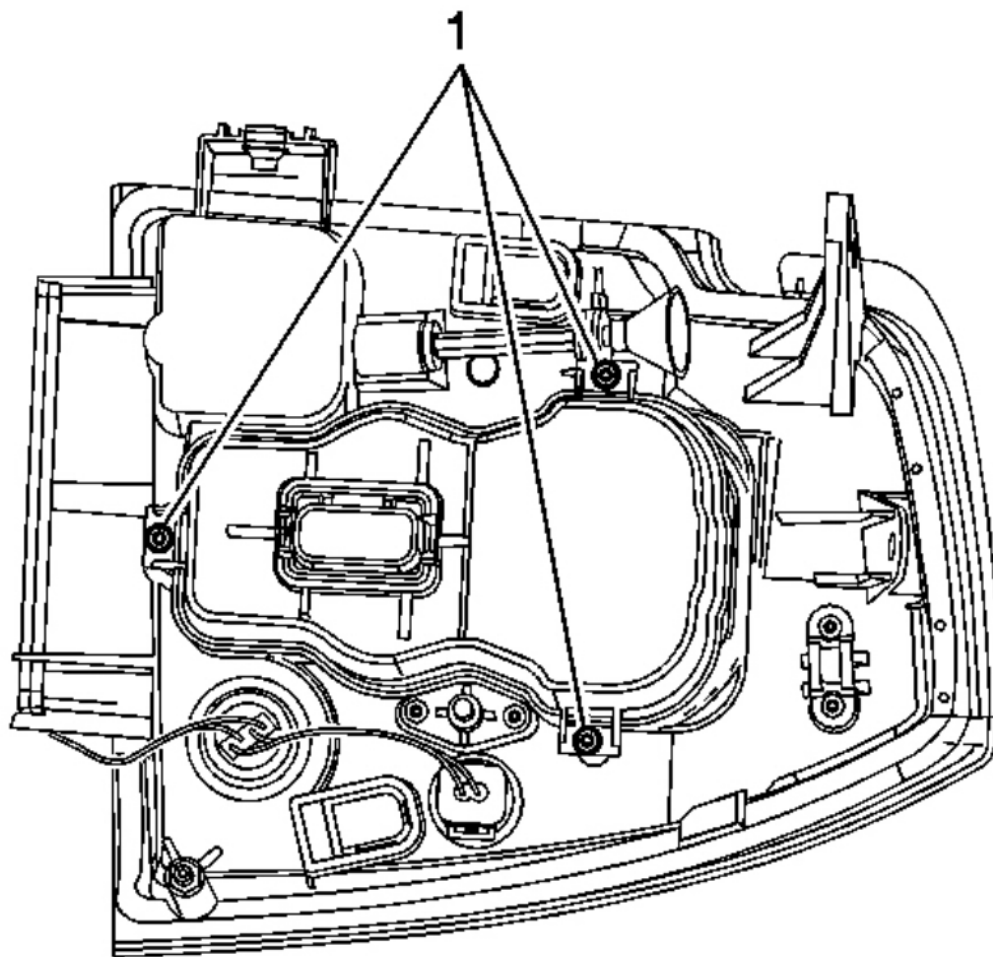


Fig. 64: Locating Arc Tube Cover Screws
Courtesy of GENERAL MOTORS CORP.

4. Disconnect the electrical connector from the arc tube.

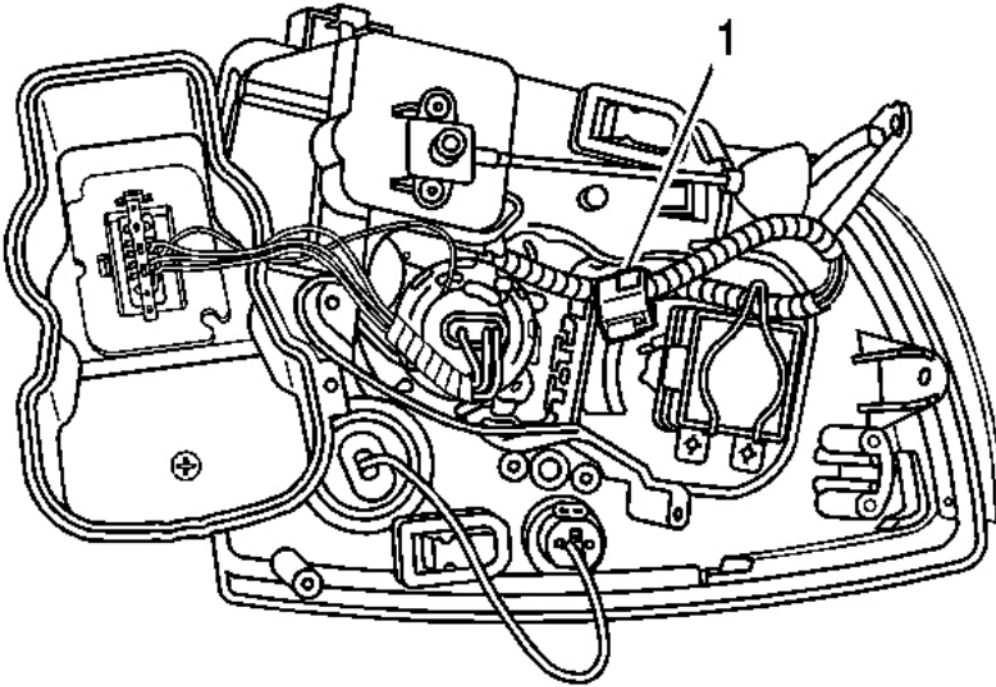


Fig. 65: Locating Arc Tube Electrical Connector
Courtesy of GENERAL MOTORS CORP.

5. Remove the arc tube by pressing the retaining clip downward to release the clip.
6. Remove the arc tube.

Installation Procedure

1. Install the arc tube into the headlamp housing.

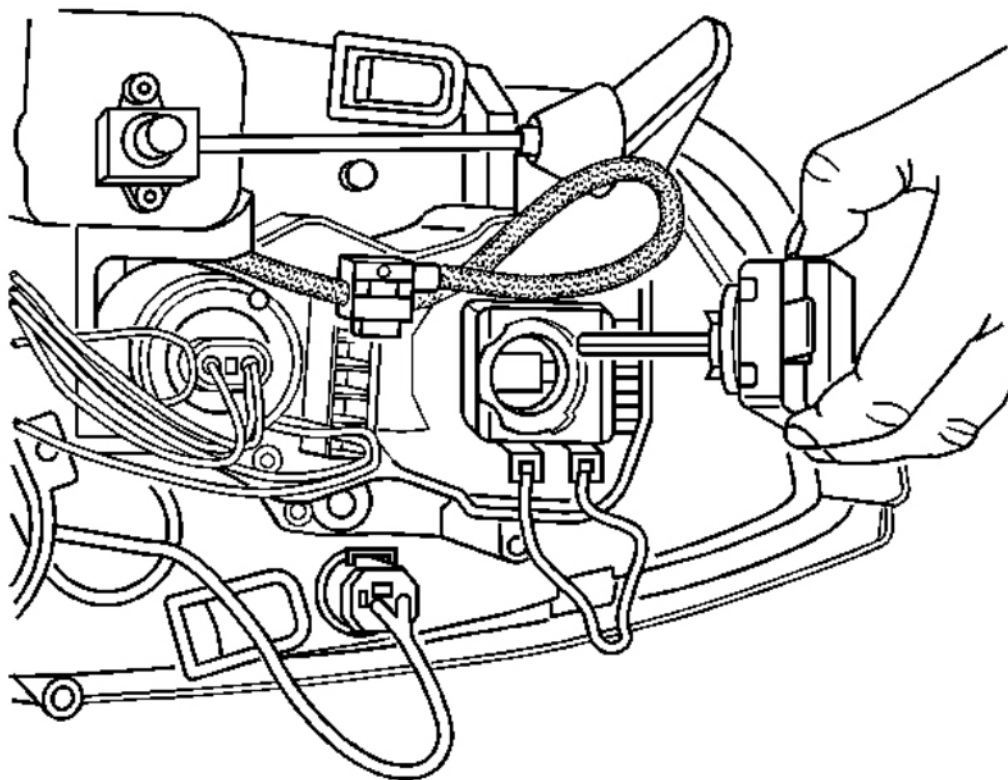


Fig. 66: Installing Arc Tube
Courtesy of GENERAL MOTORS CORP.

2. Press down on the retaining clip to lock the arc tube in place and reconnect the electrical connector.
3. Install the arc tube cover to the headlamp housing.

NOTE: Refer to **Fastener Notice** in Cautions and Notices.

4. Install the arc tube cover screws to secure the cover.

Tighten: Tighten the screws to 2 N.m (18 lb).

5. Install the headlamp to the vehicle. Refer to **Headlamp Assembly or Headlamp Bulb and/or Cornering, Sidemarkers, Park, Turn Signal Bulb Replacement**.

6. Connect the battery negative cable. Refer to **Battery Negative Cable Disconnect/Connect Procedure** in Engine Electrical.

HID HEADLAMP BALLAST REPLACEMENT

Removal Procedure

CAUTION: The high intensity discharge system produces high voltage and current. To reduce the risk of severe shocks and burns:

- Never open the high intensity discharge system ballast or the arc tube assembly starter.
- Never probe between the high intensity discharge system ballast output connector and the arc tube assembly.

CAUTION: The high intensity discharge system produces high voltage and current. In order to reduce the risk of severe shocks and burns, the battery negative cable must be disconnected any time service work is being performed on or around the high intensity discharge system.

CAUTION: Refer to Battery Disconnect Caution in Cautions and Notices.

1. Remove the headlamp. Refer to **Headlamp Assembly or Headlamp Bulb and/or Cornering, Sidemarker, Park, Turn Signal Bulb Replacement**.
2. Remove the screws (1) from the headlamp.

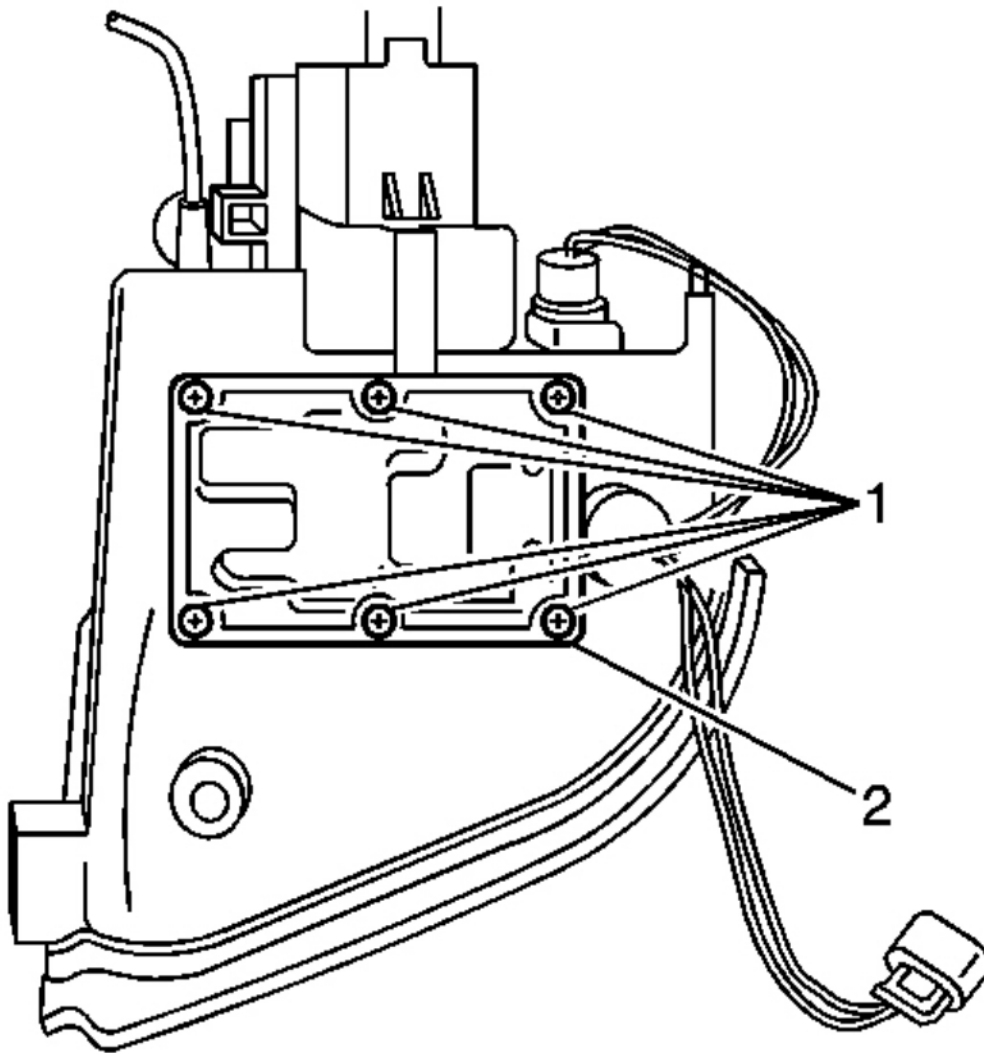


Fig. 67: View Of HID Headlamp Screws & Ballast
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Be careful when disconnecting the electrical connectors.

3. Disconnect the electrical connectors.

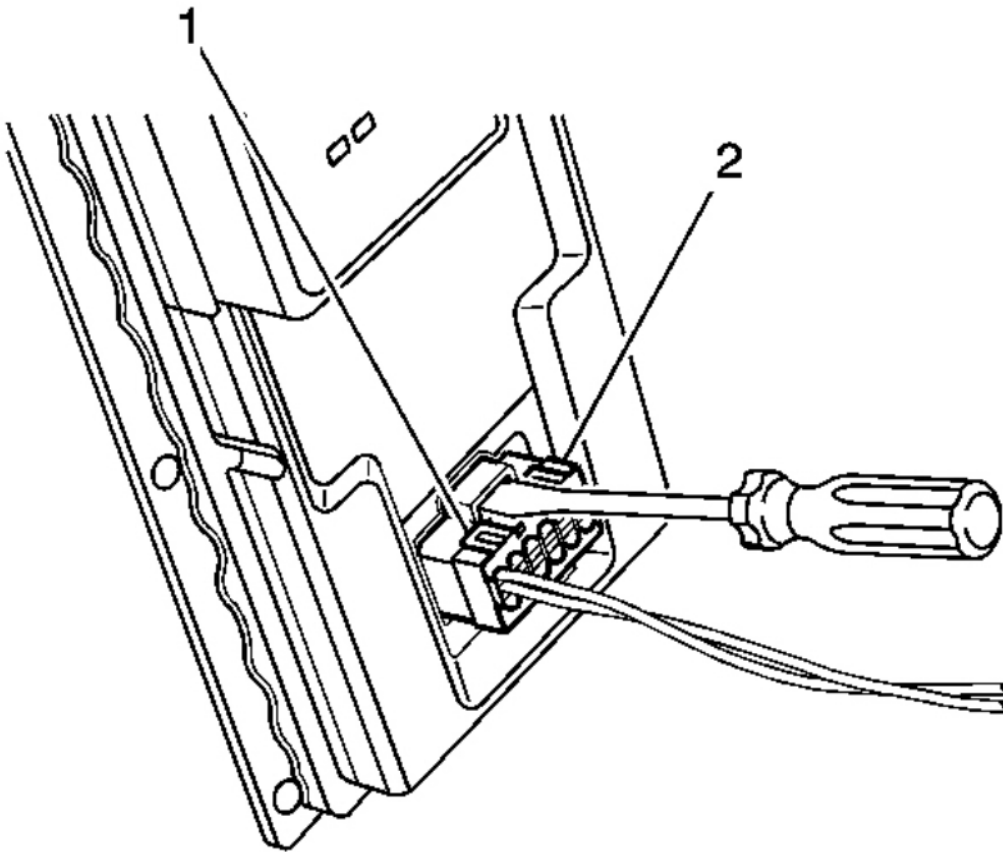


Fig. 68: View Of HID Headlamp Electrical Connectors
Courtesy of GENERAL MOTORS CORP.

4. Remove ballast from headlamp.

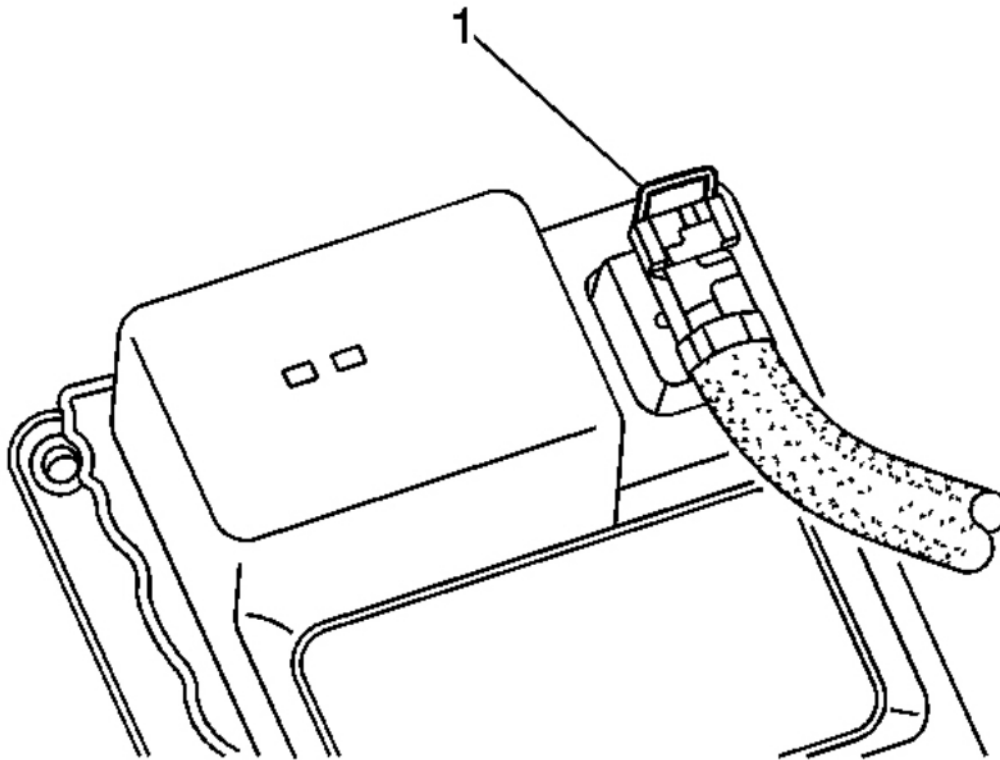


Fig. 69: Removing Headlamp Ballast
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

NOTE: Refer to Fastener Notice in Cautions and Notices.

IMPORTANT: Always replace the old gasket with the gasket provided with the new ballast.

1. Install the ballast (2) to the headlamp.

Tighten: Tighten the ballast screws to 2 N.m (18 lb in).

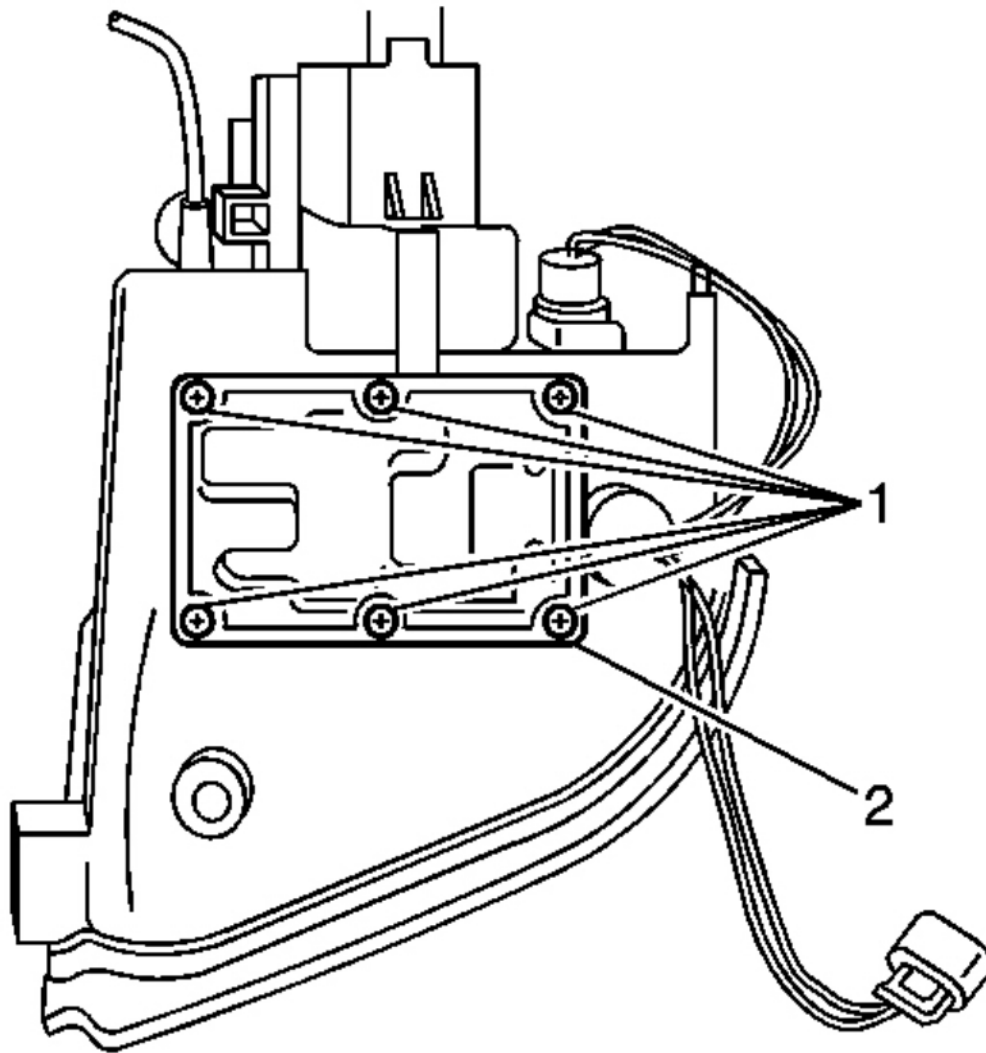


Fig. 70: View Of HID Headlamp Screws & Ballast
Courtesy of GENERAL MOTORS CORP.

2. Install the headlamp. Refer to **Headlamp Assembly or Headlamp Bulb and/or Cornering, Sidemarkers, Park, Turn Signal Bulb Replacement**.

HEADLAMP ASSEMBLY OR HEADLAMP BULB AND/OR CORNERING, SIDEMARKER, PARK, PARK, TURN SIGNAL BULB REPLACEMENT

Removal Procedure

1. Open the hood.
2. Remove the push-pin retainers that secure the top of the upper fascia and grille assembly to the upper tie bar to allow the upper fascia and grille assembly to flex forward.
3. Remove the bolt and the push-pin retainer that secures the top of the headlamp assembly to the upper tie bar.
4. Gently pull the upper fascia and grille assembly forward only far enough to remove the bolt located at the bottom inboard side of the headlamp assembly.
5. Pull the headlamp assembly straight out to disengage the snap-in retainer at the lower outboard back surface of the assembly. Turn the assembly so that the front inboard corner clears the front fascia.
6. Pull the headlamp assembly out and away from the vehicle

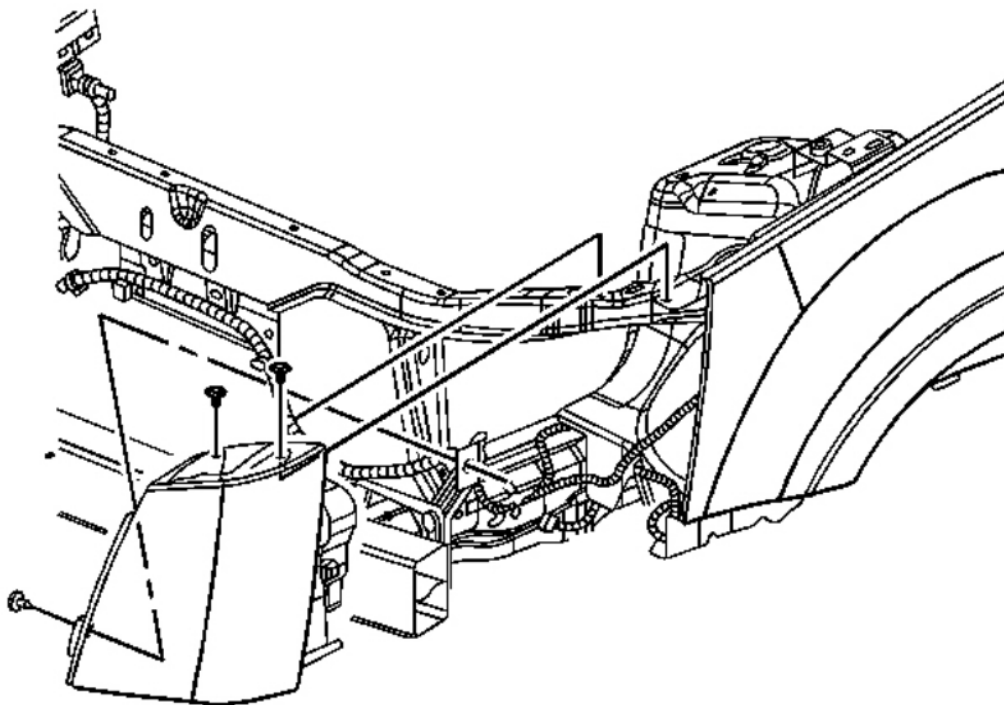


Fig. 71: View Of Headlamp Assembly
Courtesy of GENERAL MOTORS CORP.

7. Disconnect the headlamp electrical connector.
8. Remove the headlamp assembly from the vehicle.
9. Remove the headlamp bulb cover from the headlamp assembly.

CAUTION: Refer to Halogen Bulb Caution in Cautions and Notices.

10. Remove the headlamp bulb socket from the headlamp assembly.
11. Remove the headlamp bulb.
12. Remove the side marker bulb socket from the outer side of the headlamp assembly.
13. Remove the side marker bulb.
14. Remove the parking lamp bulb socket from the inner edge of the headlamp assembly.
15. Remove the parking lamp bulb.

Installation Procedure

CAUTION: Refer to Halogen Bulb Caution in Cautions and Notices.

1. Install the headlamp bulb to the socket.
2. Install the headlamp bulb socket to the headlamp assembly.
3. Install the headlamp bulb cover to the headlamp assembly.
4. Install the side marker bulb to the socket.
5. Install the side marker bulb socket to the headlamp assembly.
6. Install the parking lamp bulb to the socket.
7. Install the parking lamp socket to the headlamp assembly.
8. Connect the headlamp electrical connector.
9. Install the headlamp assembly to the vehicle by placing it back into position so that the bolt holes align and the snap-in retainer located at the outboard back surface of the headlamp assembly engages.

NOTE: Refer to Fastener Notice in Cautions and Notices.

10. Gently pull the upper fascia and grille assembly forward only far enough to install the bolt located at the bottom inboard side of the headlamp assembly.
11. Install the bolt and push-pin retainer that secures the top of the headlamp assembly to the

upper tie bar.

Tighten: Tighten the bolts to 6 N.m (53 lb in).

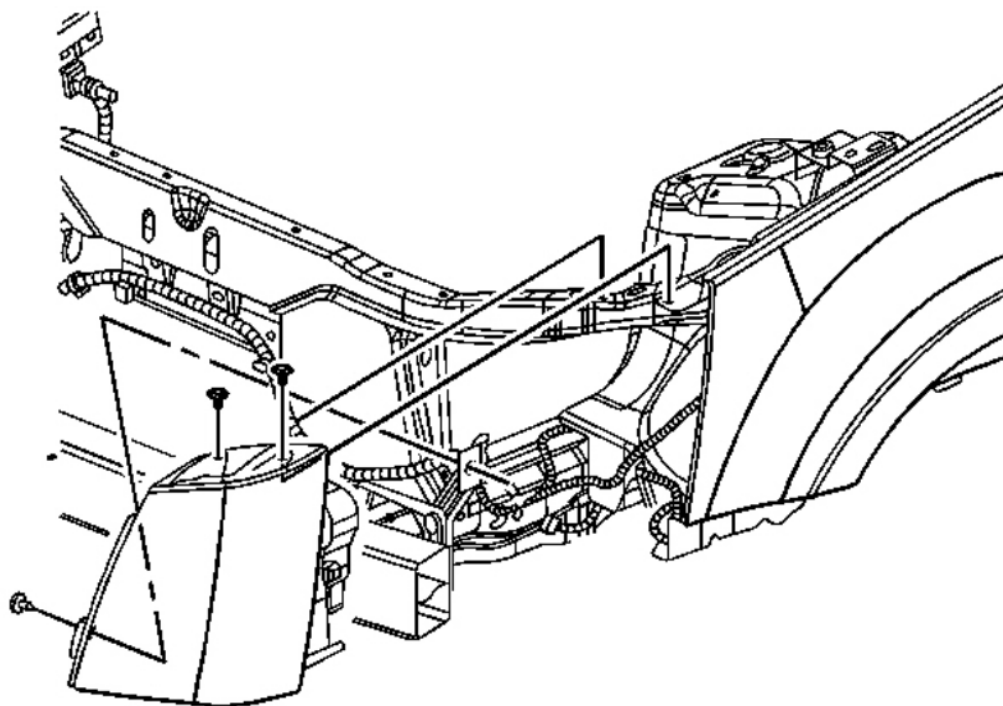


Fig. 72: View Of Headlamp Assembly
Courtesy of GENERAL MOTORS CORP.

12. Install the push-pin retainers that secure the top of the upper fascia and grille assembly to the upper tie bar to allow the upper fascia and grille assembly.
13. Close the hood.

HEADLAMP LEVELING MODULE REPLACEMENT

IMPORTANT: The headlamp leveling module is not serviced separately from the headlamp assembly. If the headlamp leveling module needs to be replaced, the complete headlamp assembly will need to be replaced.

Replace the headlamp assembly. Refer to **Headlamp Assembly or Headlamp Bulb and/or Cornering, Sidemarkers, Park, Turn Signal Bulb Replacement**.

HEADLAMP AIMING

Aiming Headlamps (Visual Aim)

IMPORTANT: Some state and local laws specify requirements for headlamp aim. All of these laws must be complied with when performing any headlamp aiming operations.

Headlamp aim should be checked:

- When a new headlamp capsule is installed
- If service or repairs to the front end area have (or may have) disturbed the headlamps or their mounting
- The area will consist of a level surface large enough to allow for a vehicle and an additional 7.62 m (25 feet) measured from face of lamps to the front of the aiming screen.
- The screen will be 1.52 m (5 ft) high x 3.66 m (12 ft) wide with a matte white surface well shaded from extraneous light, and properly adjusted to the floor on which the vehicle stands. Provisions may be made for moving the screen so it can be aligned parallel with the vehicle.
- The screen shall be provided with a fixed vertical centerline, two laterally adjustable vertical tapes, and one vertically adjustable horizontal tape.
- If a regular commercial aiming screen is not available, the screen may consist of a vertical wall having a clear uninterrupted area approximately 1.83 m (6 ft) high and 3.66 m (12 ft) wide. The surface should be finished with a washable non-gloss white paint.
- After the aiming screen has been set up in its permanent location, it is necessary to paint a reference line on the floor directly under the lens of the lamps to indicate the proper location of the headlamps when they are being aimed:
 - Distance between headlamps (1)
 - Center line of screen (2)
 - Adjustable vertical pointer (3)
 - Adjustable horizontal tape (4)
 - Diagram of light screen (5)
 - Vertical center line ahead of right headlamp pointer position (6)
 - 7.62 m (25 ft) (7)
 - Car axis (8)

- Adjustable vertical pointer
- Horizontal center line of lamps
- Vertical center line ahead of left headlamp

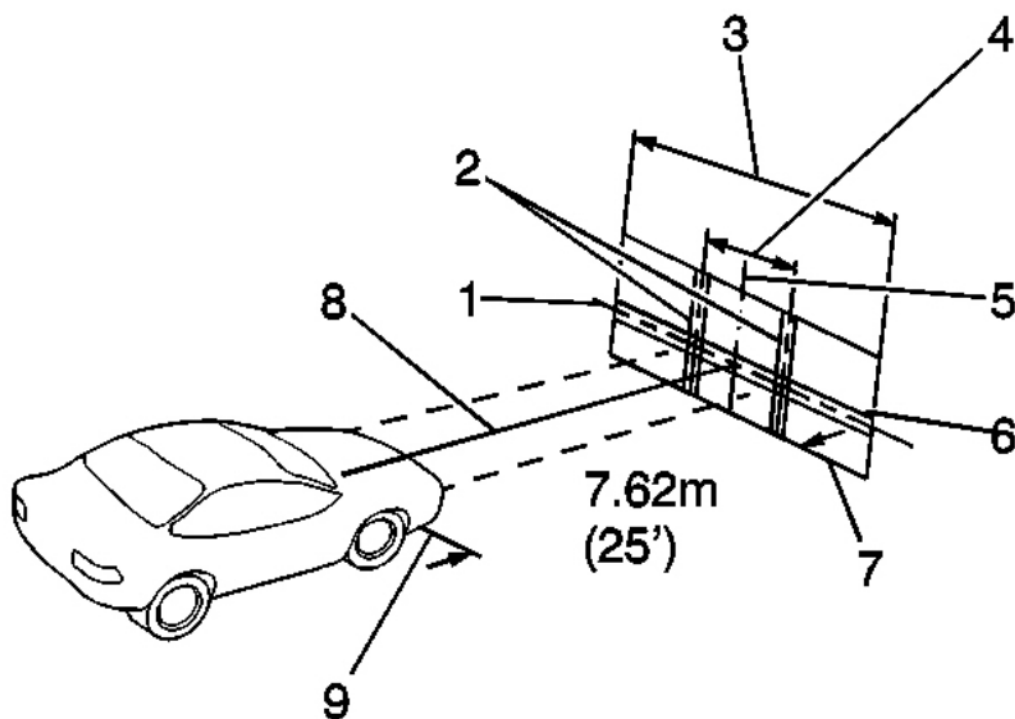


Fig. 73: Headlamp Aiming/Adjusting
Courtesy of GENERAL MOTORS CORP.

Prior to aiming the headlamps, the following steps must be taken:

1. Remove any snow, ice or mud from the vehicle.
2. The vehicle must have a full tank of gas.
3. Stop all other work on the vehicle.
4. If any service has been performed on the vehicle, make sure that all of the components are back in their original place.
5. The vehicle must be on a level surface.

6. The vehicle left tires must be aligned with the reference line extending from the screen with the headlamps aligned with the reference line.
7. Do not load any cargo in the vehicle.
8. The vehicle must contain one person or 72.56 kg (160 lb) on the driver's seat.
9. Inflate the tires to the proper pressure.
10. Simulate the vehicle loads if the intended use of the vehicle is for hauling heavy loads or towing a trailer.
11. Rock the vehicle in order to stabilize the suspension.
12. Turn on the headlamps to low beam and observe the left and the top edges of the high intensity zone on the screen. The edges of the high intensity zone should fall within the specifications.

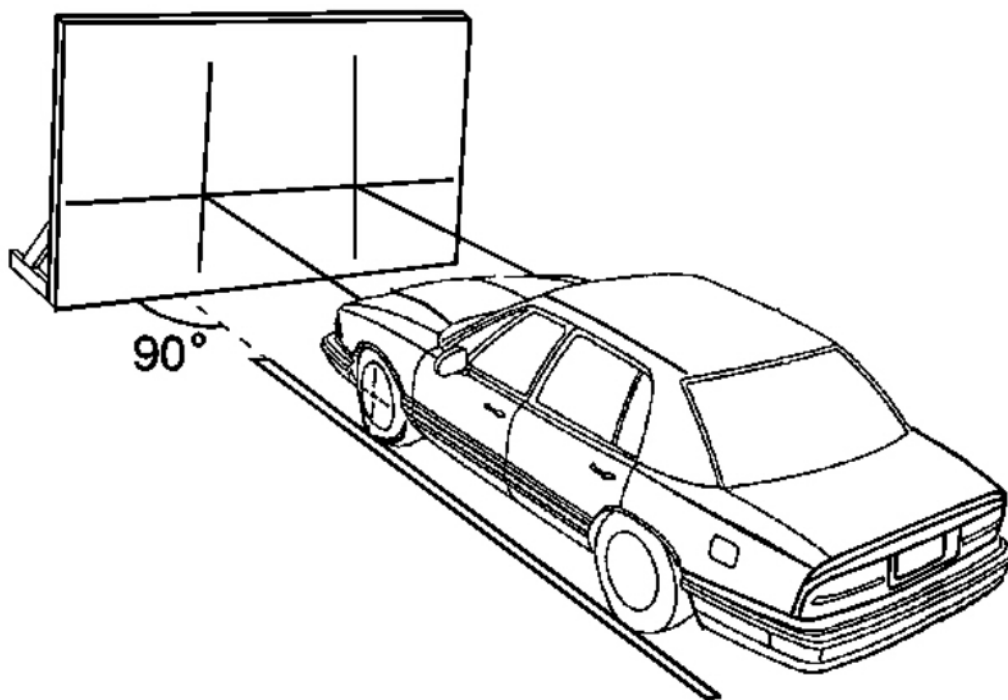


Fig. 74: View Of Headlamp Aiming Screen & Vehicle Alignment
Courtesy of GENERAL MOTORS CORP.

1. Open the hood.
2. Measure from the floor to the center of the headlamp bulb. (Some headlamps have an aim dot marked on the headlamp lens).
3. At the screen, measure from the floor and place the horizontal tape at the measured distance.
4. Measure from the reference line on the floor to the left headlamp bulb centerline.
5. At the screen, measure from the reference line and place the vertical tape at the measured distance.
6. Measure from the reference line on the floor to the right headlamp bulb centerline.
7. At the screen, measure from the reference line and place the vertical tape at the measured distance.

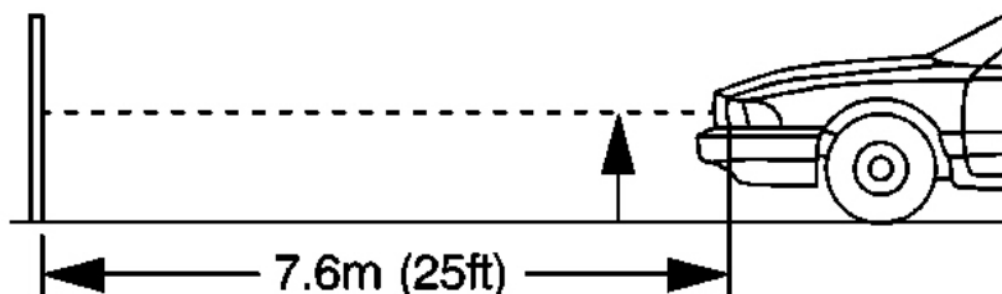


Fig. 75: Measuring Distance Between Headlamps Face & Aiming Screen
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Do not cover the headlamp, this may cause excessive heat build up.

8. Turn on the low beam headlamps and block the light from projecting onto the screen from the passenger side headlamp.

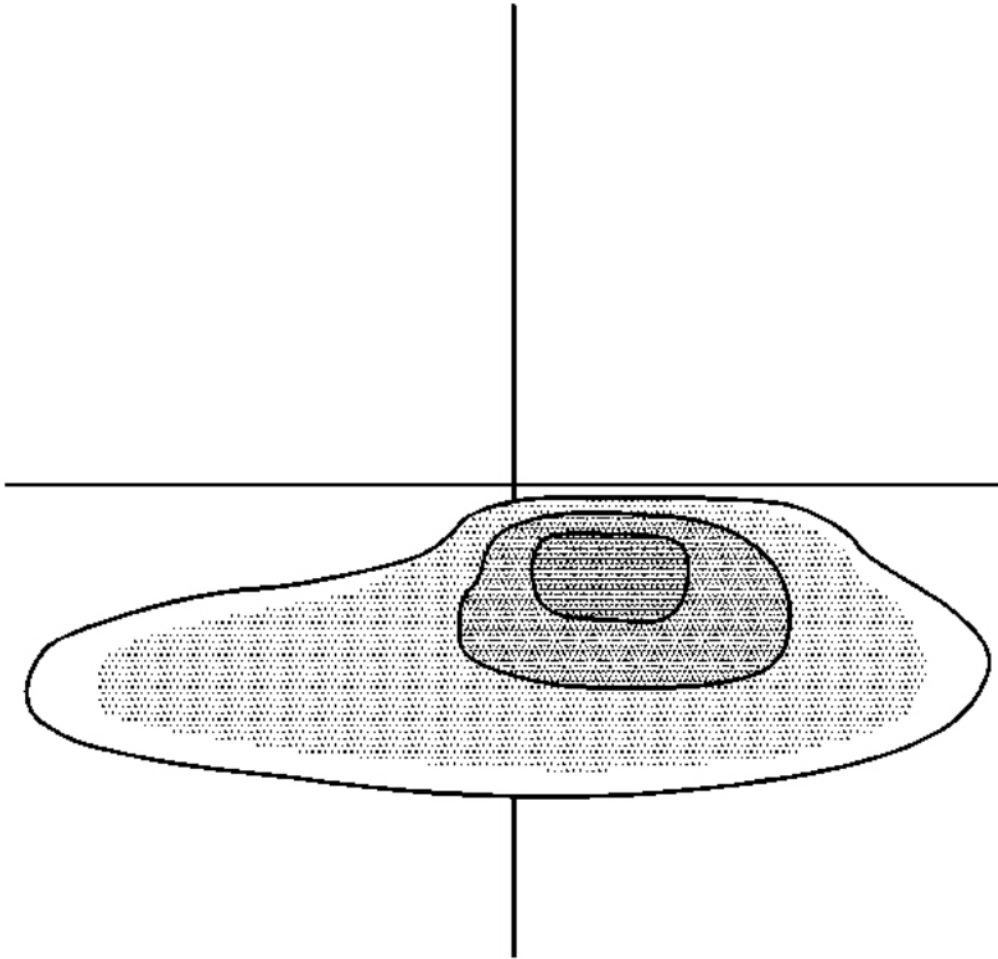


Fig. 76: Right Side Low Beam Proper Screen Positioning
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Horizontal headlamp adjustment does not exist.

9. Adjust the vertical aim of the headlamps to the specifications required by the state and the local authorities, or as shown in step number 8.
10. Rotate the headlamp adjuster (1) to change the vertical aim of the headlamp.

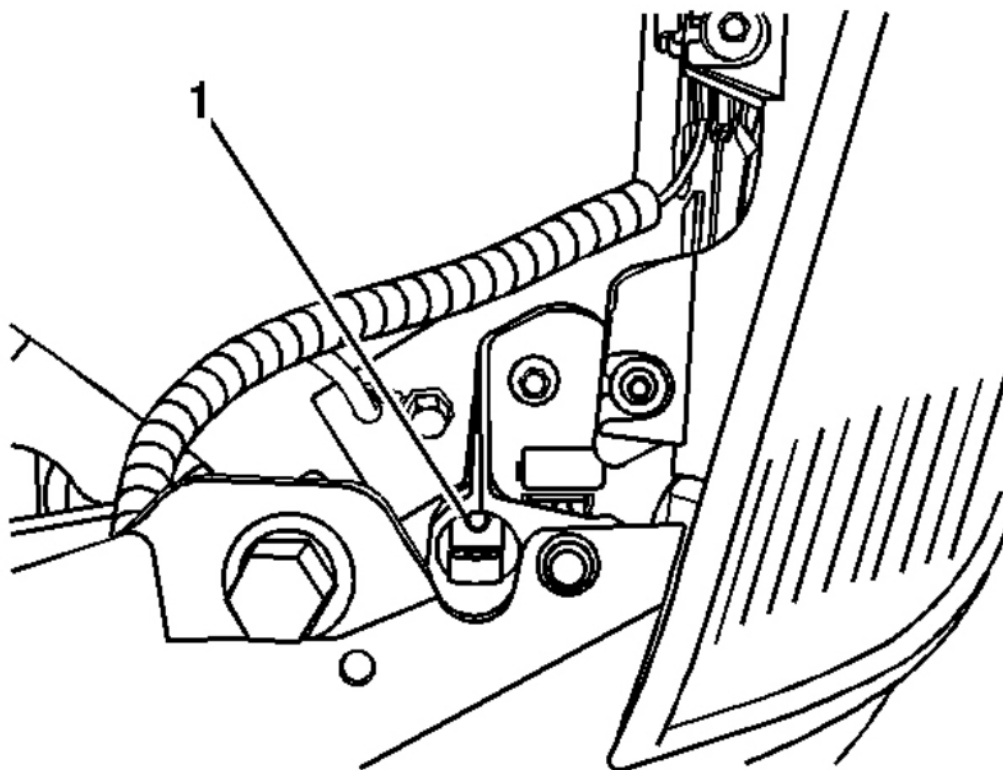


Fig. 77: View Of Headlamp Adjuster
Courtesy of GENERAL MOTORS CORP.

11. Repeat the aiming procedure for the passenger side headlamp while blocking the light from projecting onto the screen from the driver side headlamp.
12. Close the hood.

FOG LAMP, TURN SIGNAL LAMP, DAYTIME RUNNING LAMP (DRL) ASSEMBLY AND/O AND/OR BULB REPLACEMENT

Removal Procedure

1. Remove the front air deflector. Refer to **Air Deflector Replacement - Front** in Body Front End.
2. For the right side only, remove the front fascia extension. Refer to **Fascia Extension Replacement - Front** in Bumpers.

3. Remove the screws (1) that secure the lamp assembly to the front fascia.

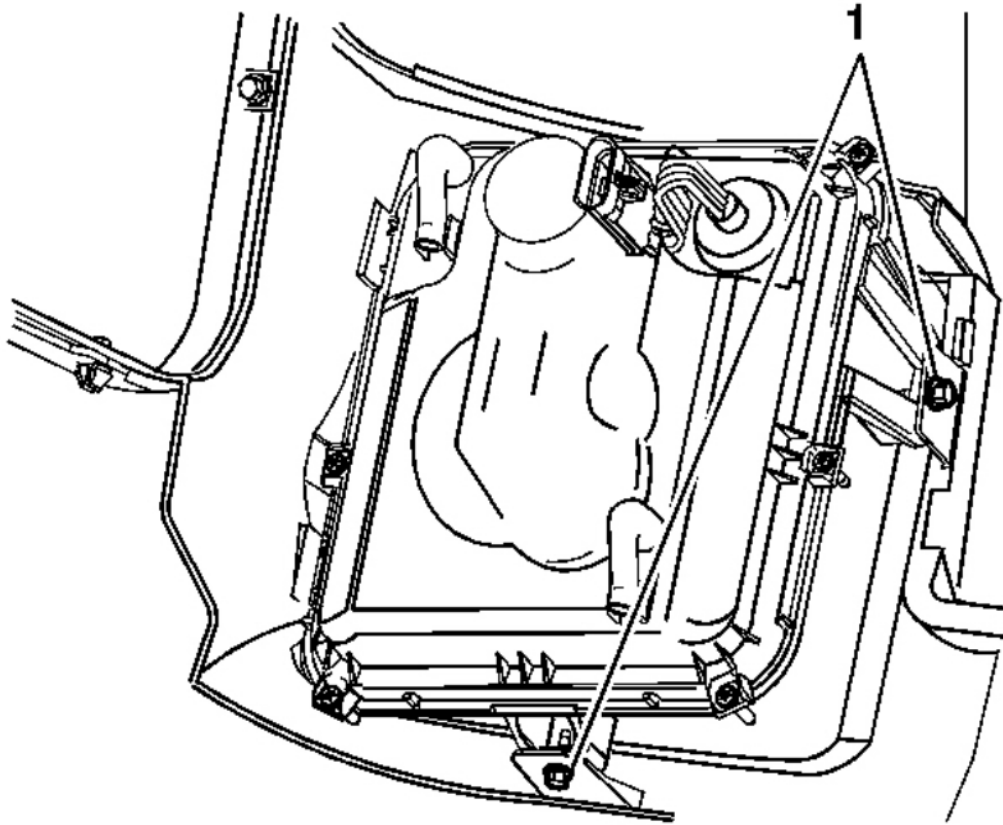


Fig. 78: Locating Lamp Assembly Retaining Screws
Courtesy of GENERAL MOTORS CORP.

4. Remove the lamp assembly from the vehicle.
5. Disconnect the electrical connector.
6. Remove the screws (1) that secure the cover to the back of the lamp assembly.

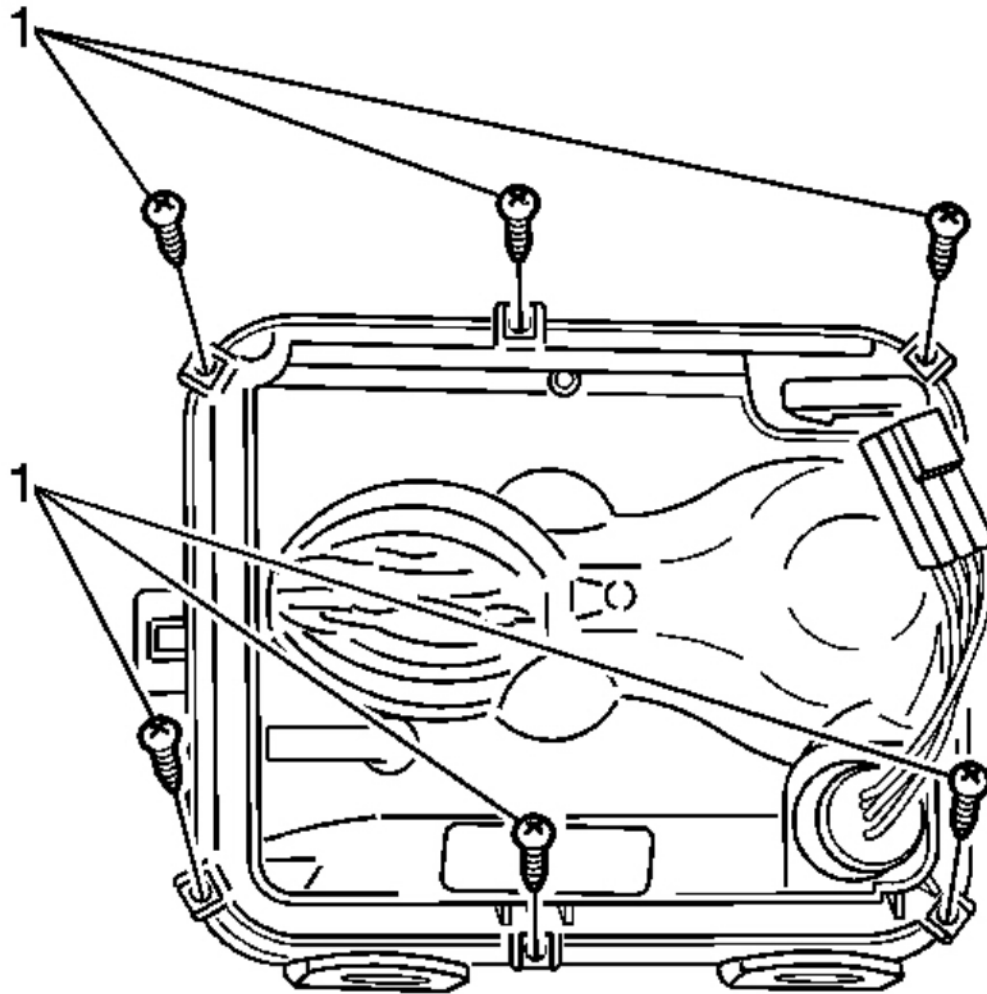


Fig. 79: View Of Lamp Assembly Back Cover Screws
Courtesy of GENERAL MOTORS CORP.

7. Remove the back cover of the lamp assembly.
8. Remove the bulb from the socket.

Installation Procedure

1. Install the bulb into the socket.
2. Install the back cover to the lamp assembly.

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the screws (1) that secure the cover to the back of the lamp assembly.

Tighten: Tighten the fog lamp cover screws to 2 N.m (18 lb in).

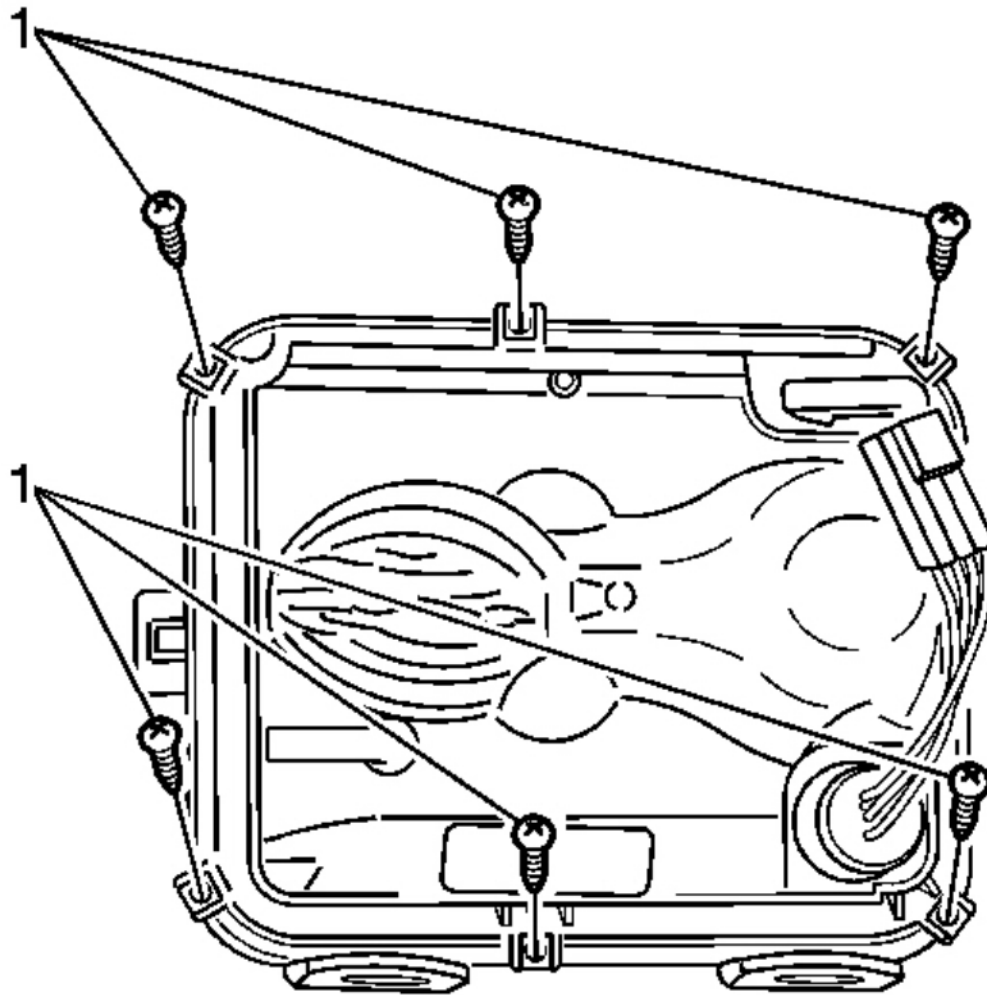


Fig. 80: View Of Lamp Assembly Back Cover Screws
Courtesy of GENERAL MOTORS CORP.

4. Connect the electrical connector.

5. Install the lamp assembly to the vehicle.
6. Install the screws (1) that secure the lamp assembly to the front fascia.

Tighten: Tighten the fog lamp cover screws to 2 N.m (18 lb in).

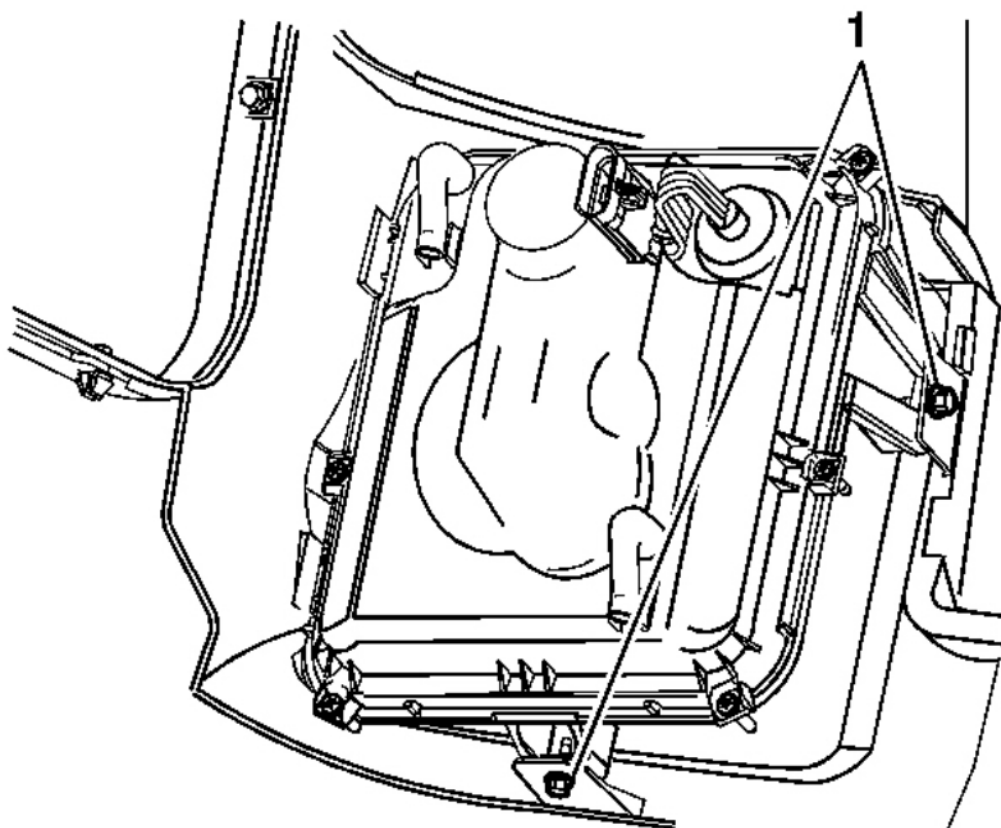


Fig. 81: Locating Lamp Assembly Retaining Screws
Courtesy of GENERAL MOTORS CORP.

For the right side only, install the front fascia extension. Refer to **Fascia Extension Replacement - Front** in Bumpers.

7. Install the front air deflector. Refer to **Air Deflector Replacement - Front** in Body Front End.

FOG LAMP BULB REPLACEMENT - REAR**Removal Procedure**

CAUTION: Refer to Halogen Bulb Caution in Cautions and Notices.

1. Remove the lift gate applique. Refer to Liftgate Applique Replacement in Body Rear End.
2. Remove the fog lamp bulb socket (1) from the applique assembly by turning the socket counterclockwise and pulling the socket out.
3. Remove the fog lamp bulb from the socket.

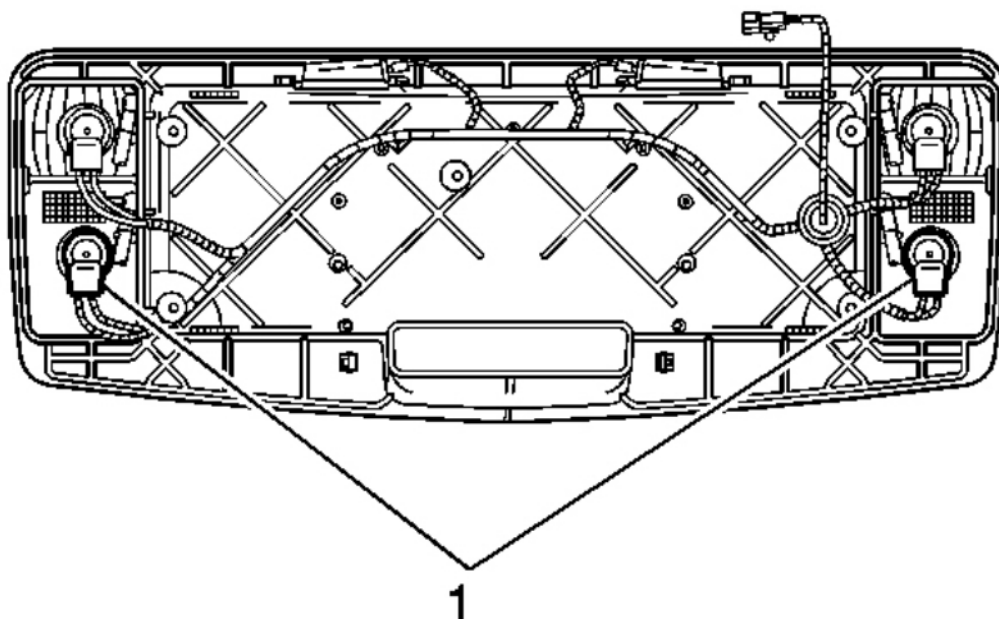


Fig. 82: Locating Fog Lamp Bulb Sockets
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

CAUTION: Refer to Halogen Bulb Caution in Cautions and Notices.

1. Install the fog lamp bulb into the socket.
2. Install the fog lamp bulb socket (1) into the applique assembly by inserting and twisting the socket clockwise.

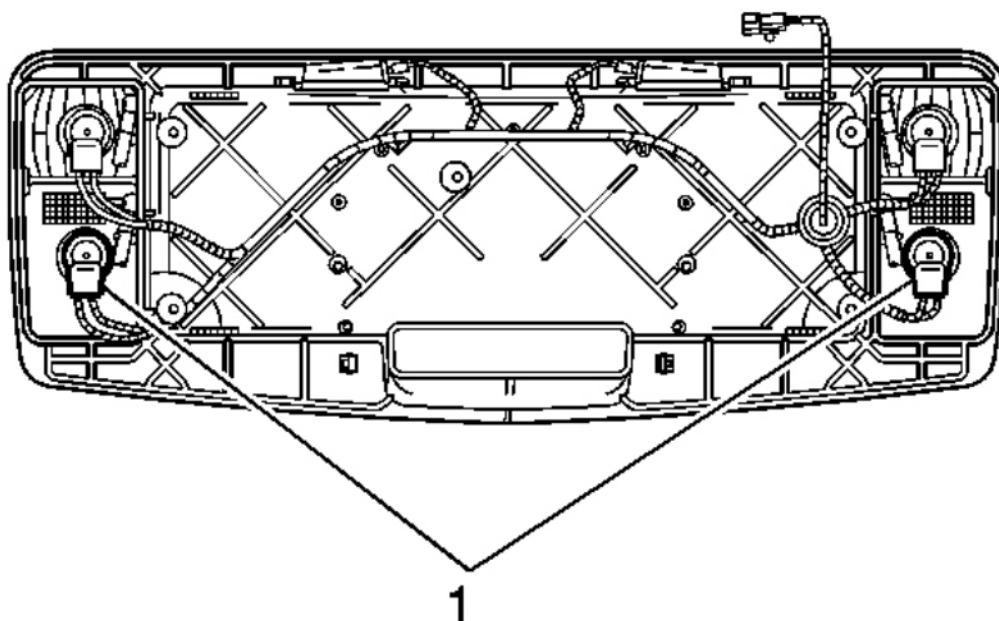


Fig. 83: Locating Fog Lamp Bulb Sockets
Courtesy of GENERAL MOTORS CORP.

3. Connect the electrical connector.
4. Install the lift gate applique. Refer to **Liftgate Applique Replacement** in Body Rear End.

FOG LAMP AIMING PROCEDURE

Adjustment Procedure

Proper road illumination and safety require the fog lamps to be aimed. The front fog lamp aim should be checked when a new front fog lamp assembly is installed, or if any service repairs have been performed to the vehicle which disturb the front fog lamp mounting or the vehicle ride height.

2004 Cadillac SRX

2004 ACCESSORIES & EQUIPMENT Lighting Systems - SRX

There are no horizontal adjustments for aiming the front fog lamp assemblies on this vehicle.

1. To ensure accurate vertical front fog lamp aiming, first perform the following steps to prepare the vehicle.
 - Make sure that all the components are in place on the vehicle, the tires are properly inflated, and there is not any mud or snow clinging to the vehicle.
 - Stop all other operations of work on the vehicle.
 - Make sure the fuel level is 1/2 full or more.
 - Jounce the vehicle to settle the suspension.
 - Place the vehicle on a level surface 7.6 m (25 ft) from the target screen.
 - Measure the distance from the floor to the center of the fog lamp (5).
 - Using this measurement, mark the horizontal centerline of the fog lamp (1) on the target screen directly in front of the vehicle.
 - Start the vehicle in order to level the suspension.

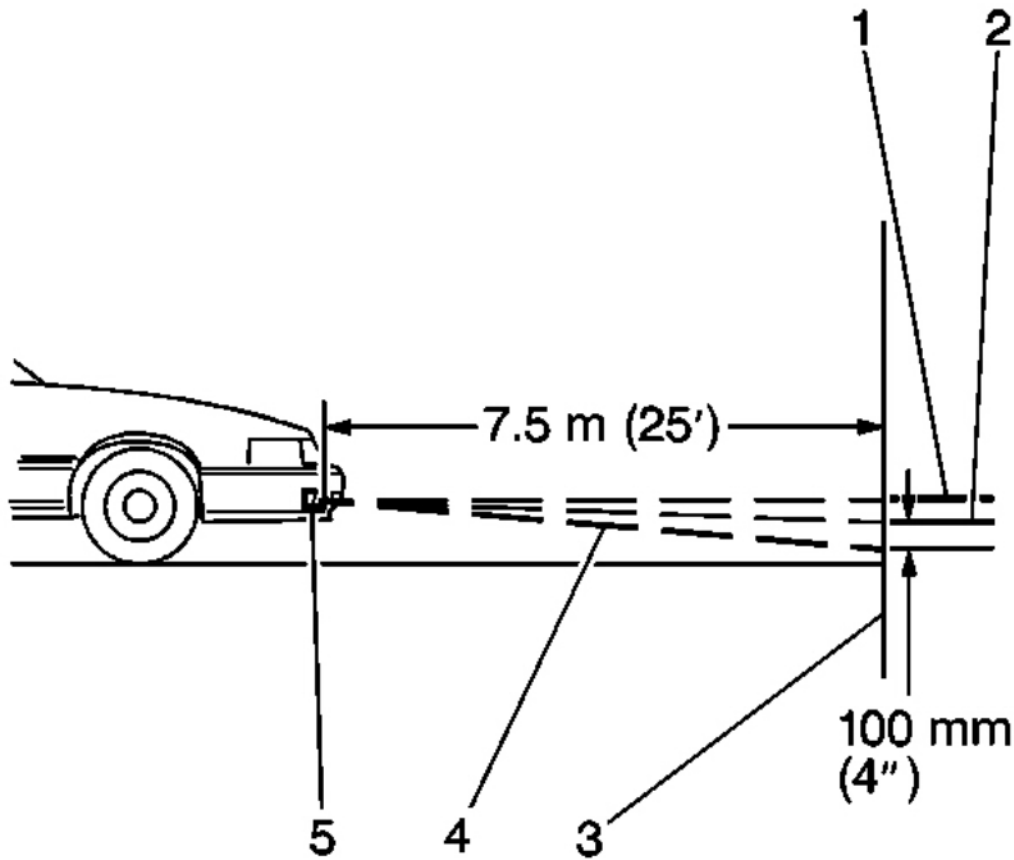


Fig. 84: Aiming Fog Lamp

Courtesy of GENERAL MOTORS CORP.

2. Turn the front fog lamps ON.
3. Adjust (1) the fog lamp up or down until the top edge of the high intensity zone on the screen is 102 mm (4 in) below the horizontal centerline (1).

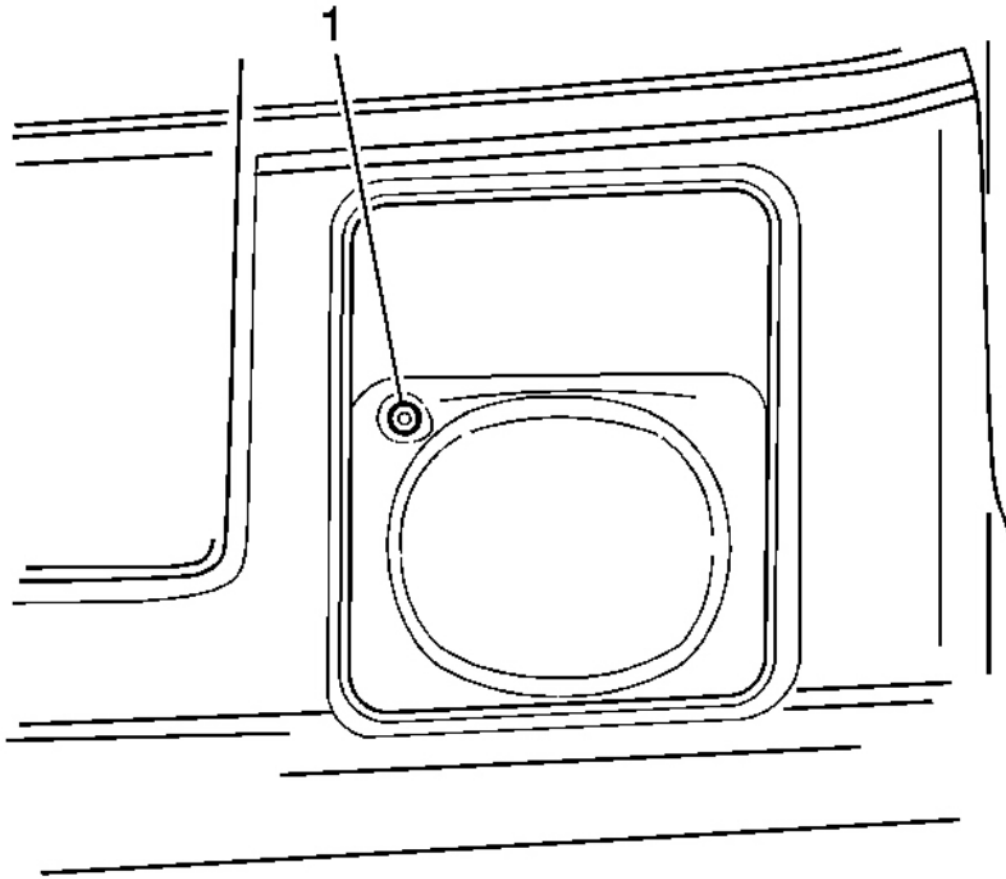


Fig. 85: View Of Fog Lamp Adjuster
Courtesy of GENERAL MOTORS CORP.

4. Turn OFF the front fog lamps.

REPEATER LAMP REPLACEMENT

Removal Procedure

1. Remove the front wheelhouse liner. Refer to **Wheelhouse Liner Replacement - Front** in Body Front End.
2. Push on the rear of the lamp assembly towards the front of the vehicle in order to disengage the lamp from the fender.
3. Remove the repeater lamp from the front fender.

4. Disconnect the lamp socket from the repeater lamp.

Installation Procedure

1. Connect the lamp socket to the repeater lamp.
2. Install the repeater lamp to the front fender.
3. Press the rear of the repeater lamp in order to engage the tab with the front fender.
4. Install the wheelhouse liner. Refer to **Wheelhouse Liner Replacement - Front** in Body Front End.

HIGH MOUNTED STOP LAMP REPLACEMENT

Removal Procedure

1. Remove the liftgate. Refer to **Liftgate Replacement** in Body Rear End.
2. Remove the fasteners securing the high mounted stop lamp to the liftgate.
3. Separate the rear edge weatherstrip of the bezel from the liftgate. Use a plastic flat-bladed tool to release the adhesive strip from the liftgate.
4. Disconnect the high mounted stop lamp electrical connector from the wiring harness.
5. Separate the front edge weatherstrip from the bezel. Use a plastic flat-bladed tool to release the adhesive strip from the bezel.
6. Remove the fasteners securing the high mounted stop lamp to the bezel.
7. Remove the high mounted stop lamp from the bezel.

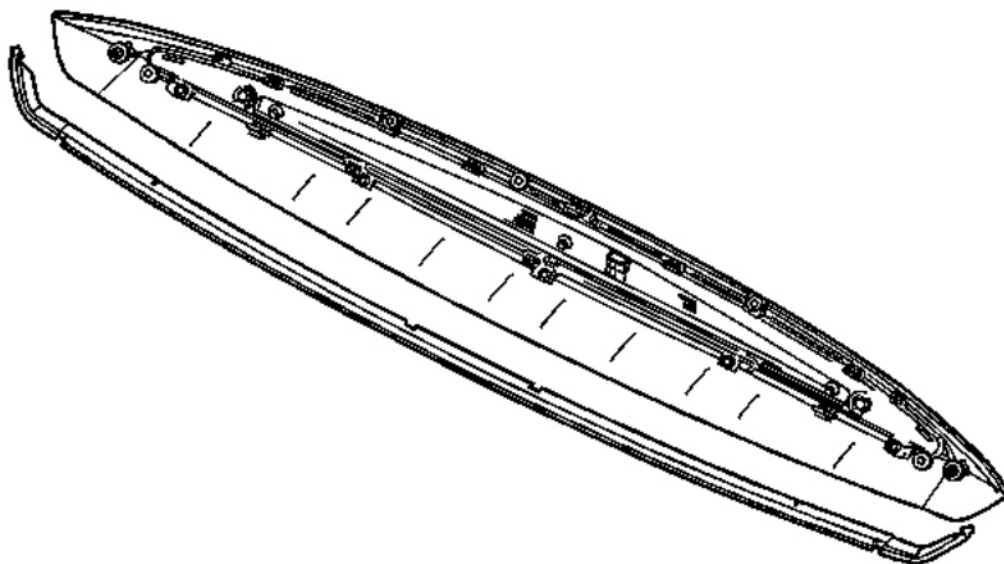


Fig. 86: View Of High Mounted Stop Lamp
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Clean any tape residue from the liftgate and the high mounted stop lamp bezel with a 50/50 mixture by volume of isopropyl alcohol and water.
2. Use a clean lint-free cloth to wipe dry the liftgate, the high mounted stop lamp, and the bezel.
3. Install the high mounted stop lamp to the bezel.

NOTE: Refer to **Fastener Notice** in **Cautions and Notices**.

4. Install the fasteners that secure the high mounted stop lamp to the bezel.

Tighten: Tighten the high mounted stop lamp fasteners to 2 N.m (18 lb in).

5. Peel back the protective cover to expose the bezel side adhesive tape edge of the new rear edge weatherstrip.
6. Position the notches on the new rear edge weatherstrip to the high mounted stop lamp bezel.

7. Press the new rear edge weatherstrip onto the high mounted stop lamp bezel.
8. Connect the high mounted stop lamp electrical connector to the wiring harness connector.
9. Peel back the protective cover to expose the liftgate side adhesive tape edge of the new rear edge weatherstrip on the high mounted stop lamp bezel.
10. Position the high mounted stop lamp bezel to the liftgate.
11. Press the rear edge of the high mounted stop lamp bezel onto the liftgate.
12. Install the fasteners securing the high mounted stop lamp bezel to the liftgate.

Tighten: Tighten the bezel fasteners to 3 N.m (27 lb in).

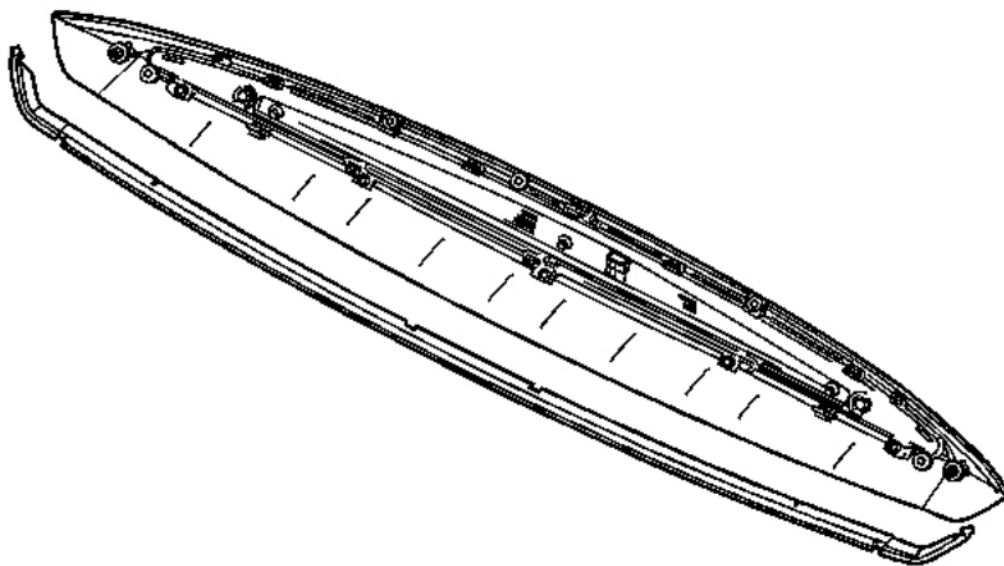


Fig. 87: View Of High Mounted Stop Lamp
Courtesy of GENERAL MOTORS CORP.

13. Install the liftgate. Refer to **Liftgate Replacement** in Body Rear End.
14. Use a small flat-bladed tool to work the upper window seal out from under the high mounted stop lamp bezel.

CARGO LAMP REPLACEMENT

Removal Procedure

1. Pull down on the rear dome lamp in order to release the retaining clips.
2. Remove the bulb (1).

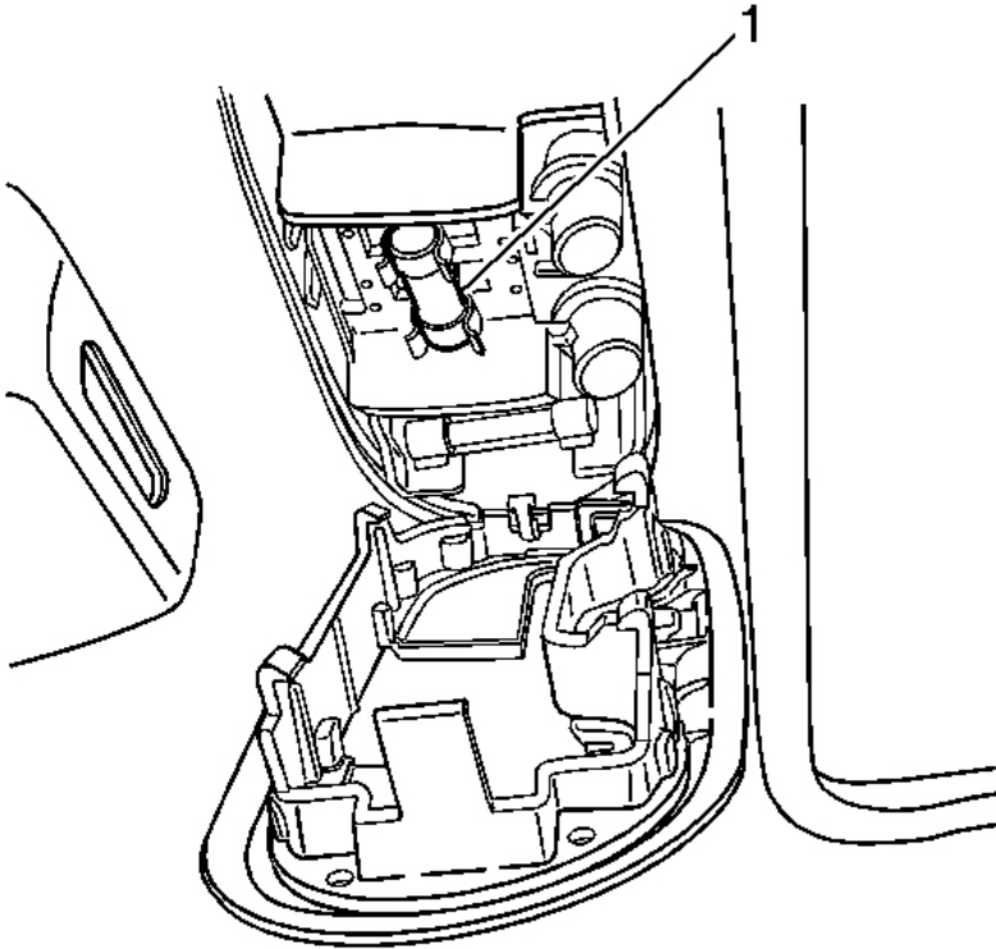


Fig. 88: View Of Cargo Lamp Bulb
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the bulb (1)

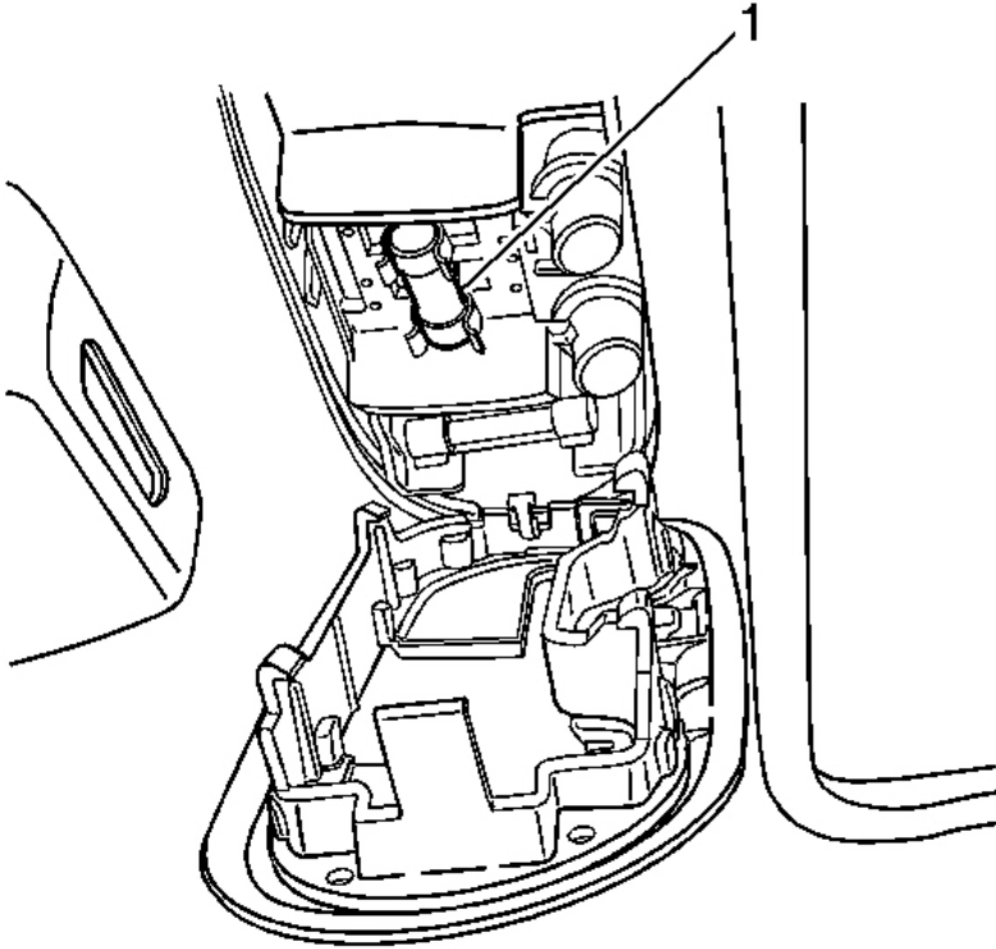


Fig. 89: View Of Cargo Lamp Bulb
Courtesy of GENERAL MOTORS CORP.

2. Locate the rear dome lamp assembly onto the headliner.
3. Push the rear dome lamp assembly in order to lock the retainers.

BACKUP LAMP REPLACEMENT

Removal Procedure

1. Open the liftgate.

2. Remove the liftgate applique. Refer to **Liftgate Applique Replacement** in Body Rear End.
3. Remove the back up lamp socket (1) from the liftgate applique by turning the socket (1) counterclockwise.

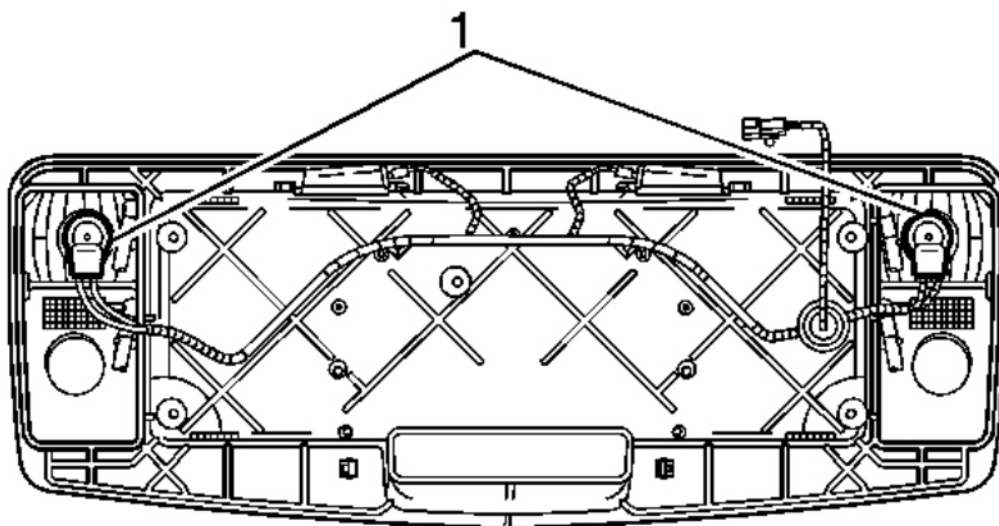


Fig. 90: Locating Back Up Lamp Sockets
Courtesy of GENERAL MOTORS CORP.

4. Remove the back up lamp bulb from the socket.

Installation Procedure

1. Install the back up lamp bulb into the socket.
2. Install the back up lamp socket (1) into the liftgate applique by inserting it and turning it clockwise.

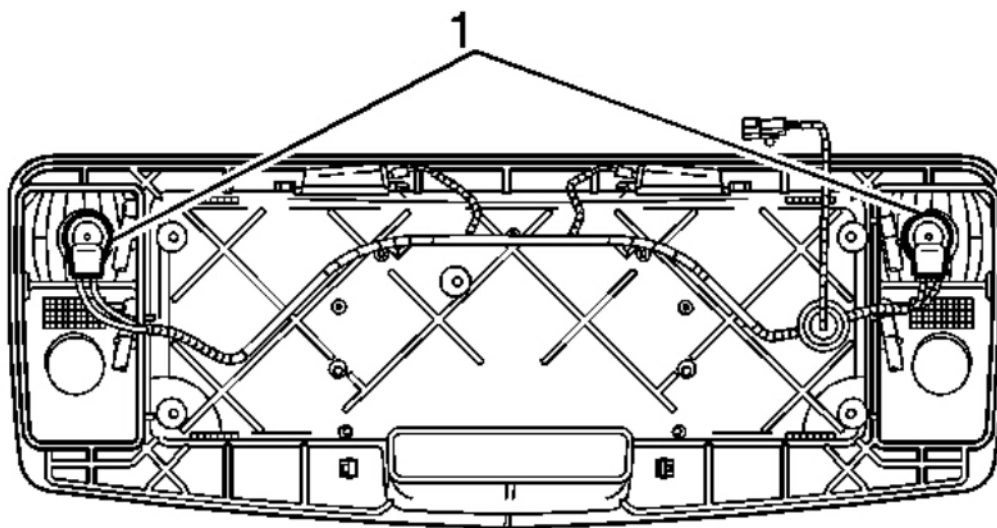


Fig. 91: Locating Back Up Lamp Sockets
Courtesy of GENERAL MOTORS CORP.

3. Install the liftgate applique to the liftgate. Refer to **Liftgate Applique Replacement** in Body Rear End.
4. Close the liftgate.

LICENSE LAMP REPLACEMENT

Removal Procedure

1. Open the liftgate.
2. Remove the liftgate applique. Refer to **Liftgate Applique Replacement** in Body Rear End.
3. Remove the license lamp (1) from the liftgate applique by lifting the retaining tabs and sliding the lamp away from the applique.

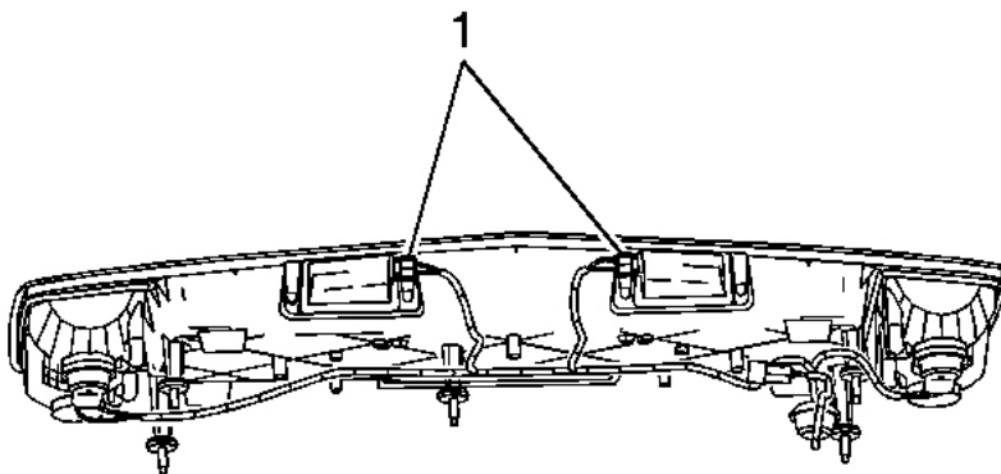


Fig. 92: View Of License Lamp
Courtesy of GENERAL MOTORS CORP.

4. Remove the license lamp socket from the lamp assembly by turning it counterclockwise.
5. Remove the license lamp bulb from the socket if replacing.

Installation Procedure

1. Install the license lamp bulb into the socket if replacing.
2. Install the license lamp socket into the lamp assembly by inserting the socket and turning the socket clockwise.
3. Install the license lamp (1) to the liftgate applique by sliding the lamp into the applique until an audible click is heard.

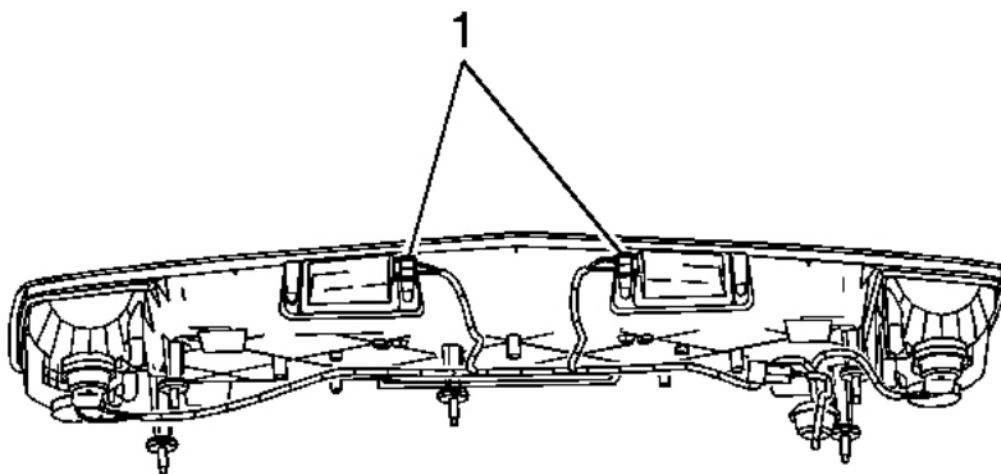


Fig. 93: View Of License Lamp
Courtesy of GENERAL MOTORS CORP.

4. Install the liftgate applique to the rear compartment lid. Refer to **Liftgate Applique Replacement** in Body Rear End.
5. Close the lift gate.

TAIL LAMP REPLACEMENT

Removal Procedure

1. Open the liftgate.
2. Remove the body side rear trim panel. Refer to **Trim Panel Replacement - Body Side Rear** in Interior Trim.
3. For the right side only, remove the rear speaker. Refer to **Speaker Replacement - Rear** in Entertainment.
4. For the left side only, remove the fasteners. Tilt the auxiliary blower motor outward to gain access to the nuts that secure the tail lamp. Refer to **Blower Motor Replacement - Auxiliary** in Heating, Ventilation, and Air Conditioning.
5. Remove the nuts (1) that secure the tail lamp (2) to the body.

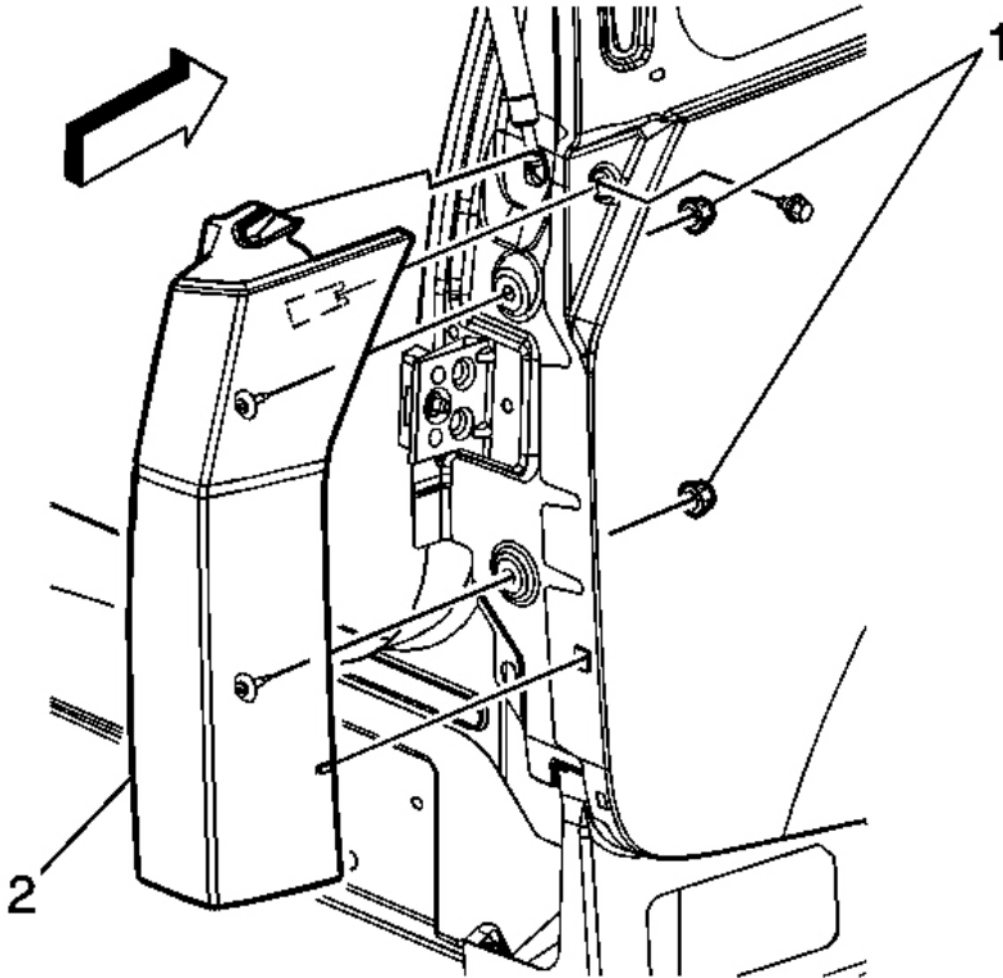


Fig. 94: View Of Tail Lamp
Courtesy of GENERAL MOTORS CORP.

6. Disconnect the tail lamp electrical connector.
7. Remove the tail lamp.

Installation Procedure

1. Install the tail lamp assembly.
2. Connect the tail lamp electrical connector

NOTE: Refer to Fastener Notice in Cautions and Notices.

3. Install the nuts (1) that secure the tail lamp (2) to the body.

Tighten: Tighten the tail lamp nuts to 6 N.m (53 lb in).

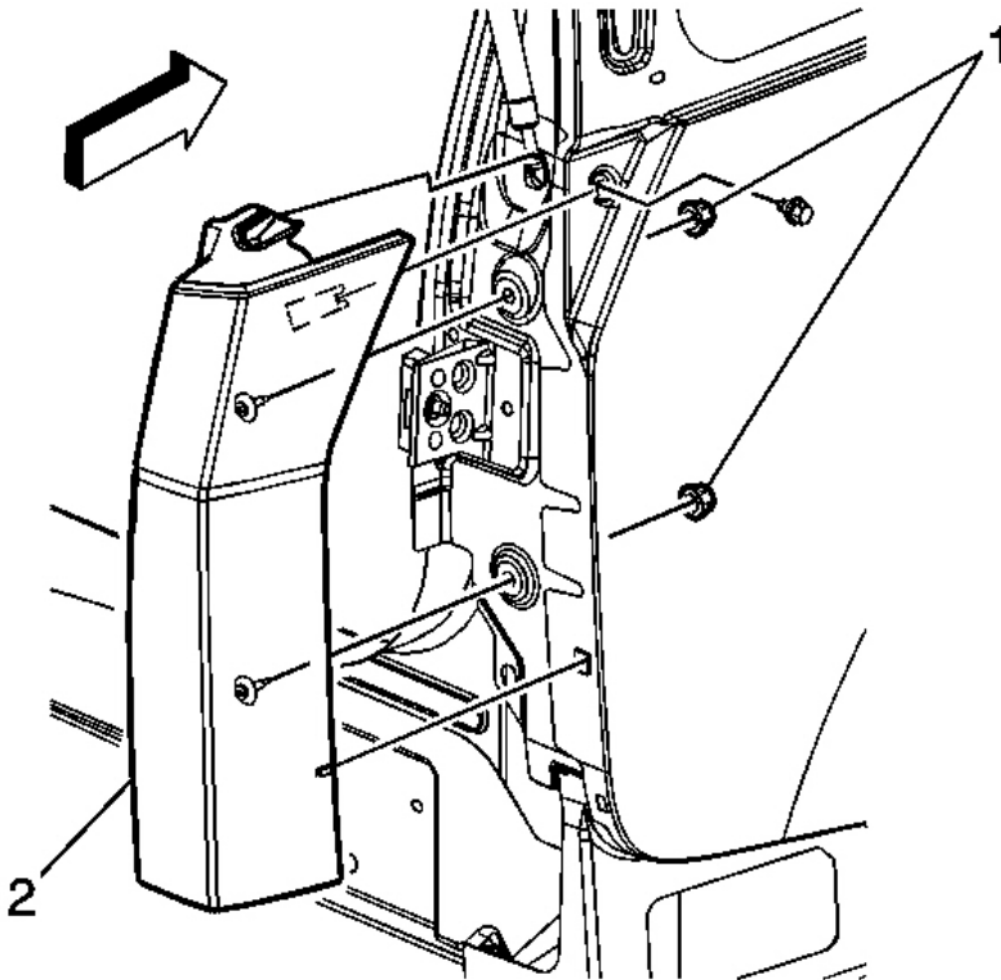


Fig. 95: View Of Tail Lamp
Courtesy of GENERAL MOTORS CORP.

4. For the right side only, install the rear speaker. Refer to Speaker Replacement - Rear in

Entertainment.

5. For the left side only, install the auxiliary blower motor. Refer to **Blower Motor Replacement - Auxiliary** in Heating, Ventilation, and Air Conditioning.
6. Install the body side rear trim panel. Refer to **Trim Panel Replacement - Body Side Rear** in Interior Trim.
7. Close the liftgate.

REAR LIFTGATE LAMP REPLACEMENT

Removal Procedure

1. Use a small flat tool in order to pry the liftgate lens (1) off of the trim panel.
2. Remove the bulb.

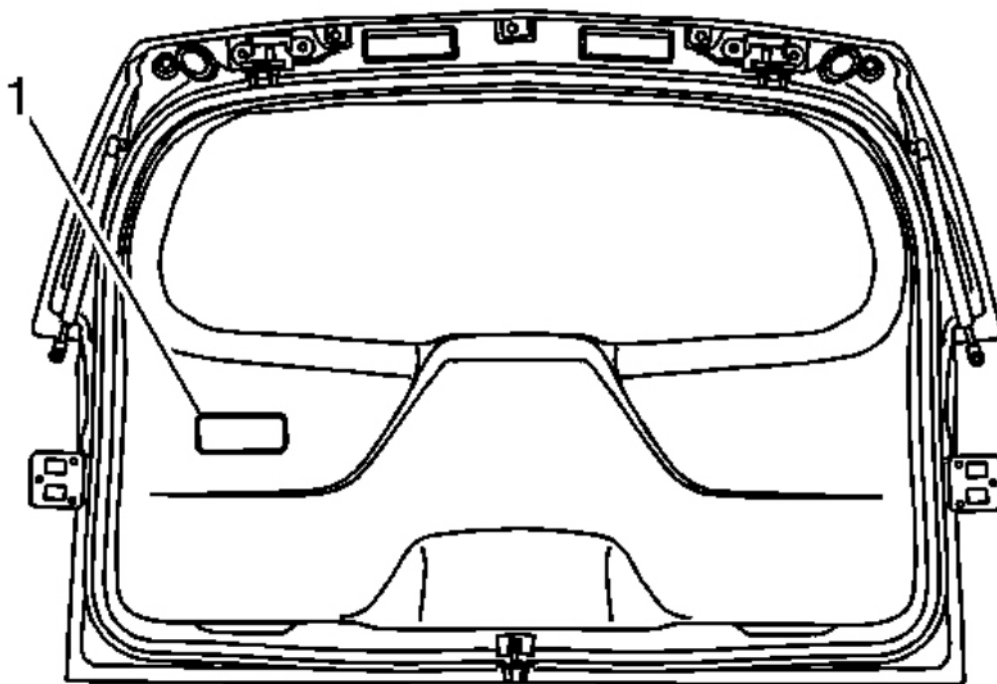


Fig. 96: View Of Rear Liftgate Lamp
Courtesy of GENERAL MOTORS CORP.

Installation Procedure

1. Install the bulb.
2. Locate the lens onto the liftgate trim panel.
3. Push the lens in order to lock the retainers.

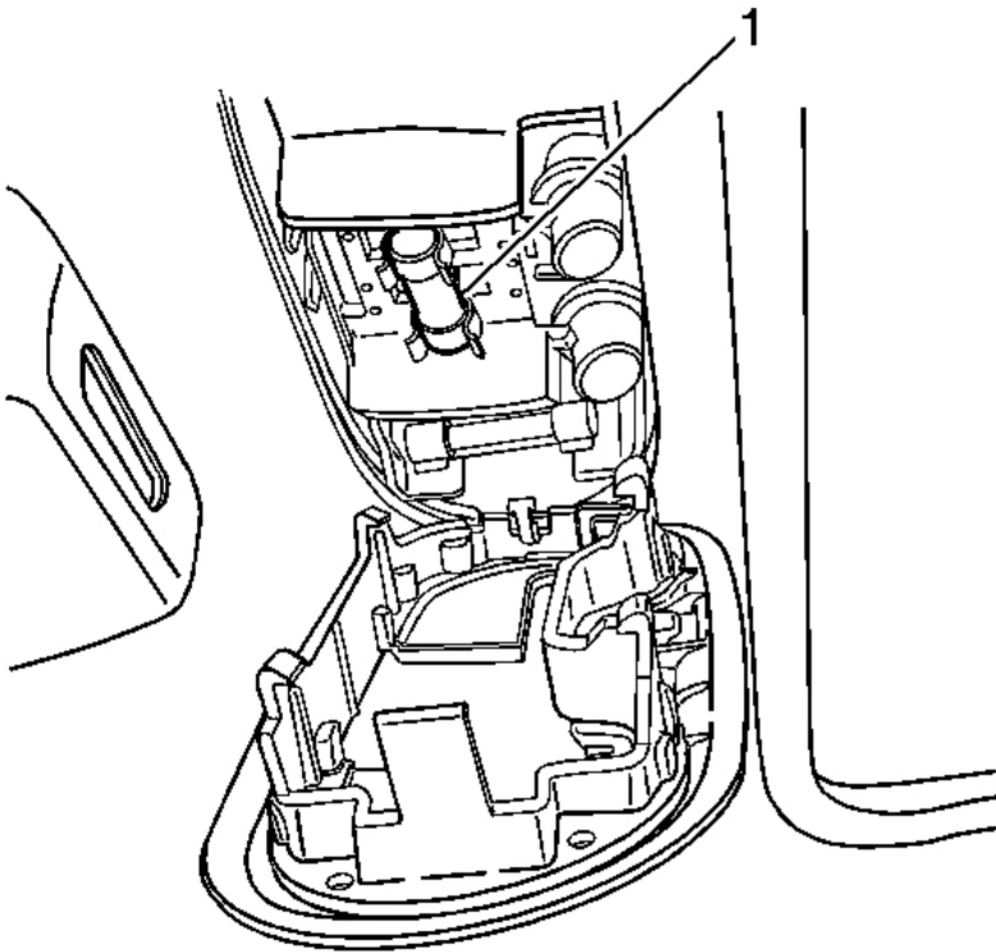


Fig. 97: View Of Cargo Lamp Bulb
Courtesy of GENERAL MOTORS CORP.

DESCRIPTION AND OPERATION

AUTOMATIC HEADLAMP LEVELING CALIBRATION DESCRIPTION AND OPERATION**Calibration Criteria**

Automatic headlamp leveling calibration must be performed after a ride height sensor or automatic headlamp leveling module has been serviced. The calibration procedure will set both of the ride height sensors "centered" value. This value is used by the leveling modules to determine the proper amount of headlamp adjustment required for vehicle conditions. The following criteria must be met before performing the calibration procedure:

- The vehicle must be placed on a flat level surface.
- There must be no occupants in the vehicle.
- Any additional cargo weight in the rear compartment must be removed.
- All the doors must be closed.

Calibration Procedure

Install a scan tool. Turn ON the ignition, with the engine OFF. Select Calibrate Module and follow the directions displayed on the screen. Once the calibration procedure has been completed, verify the calibration by selecting the calibration procedure on the scan tool an additional time. If mechanical adjustments are required refer to **Headlamp Aiming**.

BRAKE PEDAL POSITION SENSOR CALIBRATION DESCRIPTION AND OPERATION**Calibration Criteria**

Brake pedal position sensor calibration must be performed after the brake pedal position sensor or electronic brake control module (EBCM) have been serviced. The calibration procedure will set the brake pedal position sensor "home" value. This value is used by the EBCM to determine the action of the driver applying the brake system and to provide this information to the vehicle subsystems via the class II communication bus.

Calibration Procedure

- Install a scan tool.
- Turn ON the ignition, with the engine OFF.
- Select Chassis.
- Select DRP/ABS/TCS/VSES.
- Select Special Functions.
- Select the BPP Sensor Calibration and follow the directions displayed on the screen.

EXTERIOR LIGHTING SYSTEMS DESCRIPTION AND OPERATION

Exterior Lamps

Exterior lighting consists of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Front fog lamps
- Rear fog lamps
- Park, tail, licence and marker lamps
- Turn signal/hazard lamps and repeater lamps
- Stop lamps
- Backup lamps
- Position lamps

Headlamps

The headlamps consist of 2 interchangeable single filament bulbs or 2 high intensity discharge (HID) arc tubes and ballast on each side of the vehicle which provide high and low beams. The lower bulb in the headlamp is the high beam and the upper bulb is the low beam.

The headlamps may be turned on in three different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

With the headlamp switch in the ON position, the headlamp switch headlamp on signal circuit is grounded through the headlamp switch to G200. In response to this input, the dash integration module (DIM) provides ground to either the headlamp low beam relay control circuit or the headlamp high beam relay control circuit. The position of the dimmer switch determines which relay coil has ground. The DIM supplies battery positive voltage to the relay coil circuits via the headlamp relay control circuit, if the headlamps are necessary. The fuse block underhood supplies battery positive voltage to both relay switch circuits. When the low beam relay coil is energized, current flows through the LT LOW BEAM fuse and the RT LOW BEAM fuse to the low beam headlamps.

The low beam headlamps have ground at G104. When the high beam relay coil is energized, current flows through the LT HI BEAM fuse and the RT HI BEAM fuse to the high beam headlamps. The high beam headlamps also have ground at G104. When the headlamp dimmer switch lever is pulled toward the driver, the flash to pass (FTP) switch closes. This grounds the DIM flash to pass switch signal circuit. In response to this input, the DIM energizes the high beam relay. Both high beams remain on until the driver releases the switch handle. If the low beam headlamps were on during FTP operation, the low beams remain on. The headlights may be switched to high beam with the opposite movement of the dimmer switch lever. All SRXs exported to Norway, Sweden, Finland, or Israel will operate so that the low beam headlamps will also remain illuminated when the dimmer switch is in the high beam position. With the dimmer switch in the high beam position the DIM sends a class 2 message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator. If the headlamp switch is left in the ON position, the inadvertent power control feature will turn off the headlights 10 minutes after the ignition switch is turned to the OFF position. If the driver places the headlight switch in the ON position after the ignition switch has been turned OFF, or if the ignition switch is in the ACCY position, the headlights will remain on until turned off or the battery runs dead.

During automatic lamp control (ALC) the headlamps will be in low beam operation during low light conditions. A HEADLAMPS SUGGESTED message will appear on the driver information center DIC when the headlamps and park lamps are off due to all exterior lighting controls being inactive when Dark conditions are sensed. The auto position of the headlamp switch is supplied ground at G200 and enables the auto lamp feature. When the ignition is on the DIM will automatically turn the headlamps on or off according to the Light/Dark photocell Status.

The headlamps on with wipers feature operates when the following conditions are true:

- Ignition is in the RUN position
- Headlamps are currently OFF
- Headlamp switch is in the AUTO position
- Photocell Status indicates Light conditions

When the headlamps on with wipers feature is active the DIC will display the HEADLAMPS SUGGESTED message.

Headlamps - High Intensity Discharge (HID)

The High Intensity Discharge (HID) System is made up of the ballast and arc tube. The headlamp ballast receives the headlamp low beam supply voltage, which would normally be used to directly supply the low beam headlamp. Each ballast has a separate ground. The HID headlamp operation consist of three states. The startup or strike state, run up state, and steady state. When the

headlamp switch is turned to the ON position the ballast may draw up to 20 amps to begin the strike state. The ballast will provide multiple high voltage pulses to the arc tube in order to start the bulb. The voltage provided by the ballast during the startup state ranges from -600 volts to +600 volts. Once an arc is established, the ballast will provide a higher than steady state voltage to the arc tube in order to keep the bulb illuminated. This is called the run up state, on a cold bulb this state could last as long as 41 seconds. On a hot bulb the run up state may last as long as 15 seconds. Steady state operation begins when the bulb reaches the 35 watt power level. The ballast provides the bulb with a minimum of 55 volts during steady state operation.

For proper operation of the HID system ensure the battery and the harness are capable of supplying up to 20 amps of current per ballast, with less than 2 volts of system loss or voltage drop. Each ballast requires up to 20 amps in order to ensure normal startup and run up of the lamp.

The range of white light that is acceptable is broad when compared to halogens. Therefore, some variation in headlight coloring between the right and left headlamp will be normal. Replace the arc tube only if the arc tube is determined to be at the bulb failure stage.

HID Headlamps Low Voltage Operation

The dash integration module (DIM) monitors the vehicle's system voltage while in the RUN power mode. When the system voltage drops below 8.9 volts, the following will occur:

STAGE 1: If the low beam headlamps are on, whether manually or automatically the DIM will turn ON the high beam headlamps by activating the Flash To Pass output control and turn OFF the low beam headlamps

When the system voltage drops below 8.5 volts, the following will occur:

- STAGE 2: If the low beam headlamps are currently on, whether manually or automatically the DIM will turn OFF the low beam headlamps by deactivating the headlamp low beam relay.
- If the headlamps are turned on manually, the manual switch redundancy will cause the low beam headlamps to remain ON.
- If the headlamp dimmer switch is in the high beam position, the low beam headlamps will remain on. The DIM will activate the flash to pass output control.

If during the same ignition cycle, the DIM enters either STAGE 1 or STAGE 2 operations noted above, then determines that the system voltage has risen, the following will occur:

- If the DIM has entered STAGE 2 operation, it will not return to STAGE 1 operation until

the system voltage rises above 9.4 volts.

- If the DIM has entered STAGE 1 operation, it will not return to normal operation until the system voltage rises above 9.8 volts.

Automatic Headlamp Leveling - Export Only

The Automatic Headlamp Leveling Systems consist of the following components:

- Ballast module - left
- Ballast module - right
- Headlamp leveling actuator - left
- Headlamp leveling actuator - right
- Headlamp leveling controller - left
- Headlamp leveling controller - right
- Headlamp leveling sensor - front
- Headlamp leveling sensor - rear

The automatic headlamp leveling system automatically maintains the vertical alignment of the headlamps when the vehicle load and driving conditions change. The right and left headlamp leveling controllers share the inputs from the front and rear headlamp leveling sensors to determine vehicle pitch. The headlamp leveling sensors send an output to the headlamp leveling controllers as the vehicle suspension compresses and rebounds. The controllers calculate the difference in vehicle pitch and send a command to the high intensity discharge (HID) ballast. The ballast then drive the headlamp leveling actuators to the position commanded by the controllers. The headlamp leveling system also monitors the performance of the HID bulb and ballast. When the headlamp switch is placed in the ON position the headlamps will go down, and then back up to the center position.

Daytime Running Lamps (DRL) - Domestic/Canadian

The daytime running lamps (DRL) will illuminate the right and left front turn signal bulbs continuously. The DRLs will operate when the following conditions are met:

1. Ignition is in the RUN or CRANK position
2. Shift lever is out of the PARK position for vehicles equipped with automatic transmissions or the parking brake is released for vehicles with manual transmissions.
3. High and low beam headlamps are OFF.

When conditions for DRL operation exist, the powertrain control module (PCM) sends a class 2

message to the dash integration module (DIM), indicating the transmission is out of the PARK position. The DIM sends a signal to the turn signal/hazard flasher module by grounding the DRL signal circuit of the turn signal/hazard flasher module. When the turn signal/hazard flasher module receives this signal the module supplies continuous battery voltage to the right and left front turn signal lamps. The turn signal lamps are permanently ground at G104 and therefore illuminate. Turn signal and hazard flasher operation take precedence over DRL operation. For Domestic vehicle only, DRL operation will be disabled if the Photocell Status indicates Dark conditions, the twilight switch status OFF and either the front fog lamps or park lamps are turned ON.

Daytime Running Lamps (DRL) - Norway/Sweden

The daytime running lamps (DRL) will illuminate the low beam headlamps and the park lamps at normal intensity. The DRLs will operate when the following conditions are met:

- Ignition is in the RUN or CRANK position.
- Shift lever is out of the PARK position for vehicles equipped with automatic transmissions or the parking brake is released for vehicles with manual transmissions.
- High and low beam headlamps are OFF.
- Park lamps are OFF.
- Fog lamps are OFF.

When conditions for DRL operation exist, the powertrain control module (PCM) sends a class 2 message to the dash integration module (DIM), indicating the transmission is out of the PARK position. The DIM will then ground the control circuit of the DRL relay and the park lamp relay. Battery voltage is supplied to the coil and switch side feed circuits of the DRL relay. When the DIM grounds the control circuit of the DRL relay the switch contacts close and battery voltage is supplied to the low beam headlamps. Operation of the park lamps and are the same as described in the park lamp section.

Twilight Sentinel

Twilight sentinel is a driver convenience that controls the exterior lamps in response to changes to the outside, ambient light level. The twilight sentinel will also keep the exterior lamps on for a pre-selected period of time after the ignition is turned to the OFF position with nighttime conditions sensed. The exterior lamps will be turned off automatically after the delay period elapses. The twilight delay is programmable through the drivers information center (DIC) for Driver 1 and Driver 2. Refer to **Personalization Description and Operation** in Personalization for more Driver 1 and Driver 2 information. The following delay settings are available to Driver 1 and Driver 2 :

- 0 seconds
- 15 seconds
- 30 seconds
- 60 seconds
- 90 seconds
- 120 seconds
- 180 seconds
- 240 seconds

The DIC will enable the park/headlamp delay feature under the following conditions:

- Time delay is programed to 15 seconds or more for the current driver
- Headlamp switch is in the auto position
- Photocell status is Dark
- Ignition is OFF
- A door has been opened

The delay timer starts once a door is opened. The lights will not turn off until the set time has been completed.

Front Fog Lamps

With the ignition switch in the ON or START position, the fog lamps will illuminate when the driver places the front fog lamp switch in the ON position. The dash integration module (DIM) controls the fog lamp relay coil. When the driver turns ON the front fog lamp switch, the switch momentarily grounds the front fog lamp input circuit of the DIM. In response to this input, the DIM grounds the control circuit of the fog lamp relay. The fuse block - underhood supplies battery positive voltage to the switch circuit of the front fog lamp relay. Ignition voltage is available to the fog lamp relay coil when the key is in the ON or START position. When the DIM grounds the control circuit the relay coil energizes, closing the switch contacts. Current then flows from the fog lamp relay switch to both front fog lamps. Both front fog lamps are permanently grounded at G104. The state of the front fog lamps will be retained when the ignition is cycled off and on.

The DIM will turn ON the park lamps when the fog lamps are ON and send a class 2 message to the instrument panel cluster (IPC) to enable the fog lamp indicator. The front fog lamps will deactivate when either the flash-to-pass or the high beam headlamps are turned on. For vehicles exported to Japan or any European Country except Norway or Sweden the fog lamps remain

illuminated with the operation of the high beam headlamps or flash-to-pass. The fog lamps are deactivated in Norway and Sweden when the low or high beam headlamps are turned ON.

Rear Fog Lamps

Rear fog lamps are required equipment on some export vehicle equipped with RPO T79. The rear fog lamps are located in the rear deck lid lamp assembly. The rear fog lamps will only operate when the ignition is in the RUN position and either the front fog lamps or headlamps are turned ON. When the driver turns ON the rear fog lamp switch, the switch momentarily grounds the rear fog lamp input circuit of the dash integration module (DIM). In response to this input, the DIM sends a class 2 message to the rear integration module (RIM). The RIM response to this message by grounding the rear fog lamp relay control circuit. The RIM also sends a class 2 message to the instrument panel module (IPM). The IPM will then illuminate the rear fog lamp indicator. When the rear fog lamp relay control circuit is grounded this energizes the rear fog lamp relay coil causing the switch side contacts to close. Supply voltage from the rear fog lamp fuse flows through the rear fog lamp relay switch to the rear fog lamps. The rear fog lamps have permanent ground at G402. The rear fog lamps will deactivate if the front fog lamps or headlamps are turned OFF, if the ignition is out of the RUN position, or if the driver turns the rear fog lamp switch OFF. The rear fog lamps will default to the OFF position upon a key cycle.

Park, Tail, License and Marker Lamps

The rear tail, stop, and turn signal functions are performed by light emitting diodes (LED) in the tail lamp assemblies. The tail lamp assemblies wrap around the corner of the vehicle and serve as the rear side marker. The lower portion of each lamp contains reflectors to alert approaching vehicles for nighttime driving safety. The front park and side marker lamps are part of the front headlamp assembly and use an incandescent bulb. The park, tail, license and marker lamps are turned on when the headlamp switch is placed in the PARK LAMP or HEADLAMP position or anytime the headlights are requested. The park lamps are also turned on with the front fog lamps. When the ignition switch is in the ON position, the dash integration module (DIM) provides battery positive voltage to the controlled positive voltage circuit of the park lamp relay coil. The Fuse Block - Underhood supplies battery positive voltage to the switch contacts of the park lamp relay. When the headlamp switch is in the PARK LAMP or the HEADLAMP position, the park lamp switch on signal circuit has ground at G200. In response to this signal, the DIM provides ground to the control circuit of the park lamp relay coil, which energizes the relay coil. This closes the relay switch contacts. Current flows from the park lamp relay to the LIC/Dimming fuse, LT PARK fuse and to the RT PARK fuse. From the fuse, the current flows to the park lamps. The front park lamps are grounded at G104 and the tail lamps are grounded at G401 and G402. The LIC/Dimming fuse supplies battery positive voltage to the license lamps, underhood lamp and to the DIM park lamp input, for interior lamps dimming. The license lamps are grounded at G402. The inadvertent power control feature prevents the park lights from remaining

on more than 10 minutes if left on. If the park lights are turned on after the ignition switch has been turned OFF, or is in the ACCY position, they will remain on until turned off or the battery runs dead.

Position Lamps

The position lamps are on export vehicles only. European countries require that side position lamps are activated when the vehicle is parked along the side of the road. This feature utilizes the front and rear park and the side marker lamps. The position lamp function operates only when the key is in the OFF position and the gear selector is in the PARK position on vehicles equipped with automatic transmissions or when the parking brake is applied on vehicles equipped with manual transmissions. The position lamp function will operate when the turn signal switch is placed in the right turn position for the right side position lamps to illuminate or the left turn position for the left side position lamps to illuminate. Battery positive voltage is supplied to the standing lamp relay coil and switch. Battery positive voltage is supplied through the normally closed relay contacts of the standing lamp relay switch to each position lamp relay coil. Battery positive voltage is supplied to each position lamp relay switch. When the driver places the turn signal lever in the right or left turn position the turn signal switch grounds the respective position lamp relay control circuit. This energizes the relay coil, closing the switch contacts providing battery voltage to the respective park and side marker lamps. When the gear selector is out of the PARK position on vehicles with automatic transmissions or the parking brake is released on vehicles with manual transmissions, the rear integration module (RIM) grounds the standing lamp relay coil which removes battery positive voltage from each position lamp relay coil.

Stop Lamps

The brake pedal position sensor is a resistive device used to sense the action of the driver's application of the brake pedal. The brake pedal position sensor provides an analog signal that will increase as the brake pedal is pressed.

The brake pedal position sensor receives both a 5 volt reference voltage and a low reference signal from the electronic brake control module (EBCM). When the brake pedal is pressed, a variable signal is applied from the brake pedal position sensor to the EBCM through the brake sensor signal circuit. The fuse block left rear supplies battery positive voltage to the bass relay switch through the BASS fuse. One side of the bass relay coil is permanently grounded at G402. The EBCM supplies voltage to the bass relay coil upon receiving the signal from the brake pedal position sensor. The switch contacts of the bass relay close and battery positive voltage is applied through the bass relay switch to the center high mounted stop lamp (CHMSL), and to the turn signal/hazard flasher module through the stop lamp switch signal circuit. The ground for the CHMSL is applied from G402. The turn signal/hazard flasher module then supplies voltage to the left and right stop lamps in the tail lamp assemblies that have ground at G401 and G402. For

export vehicles the stop lamps receive battery positive voltage directly from the bass relay.

Turn Signal/Hazard Flasher Lamps

The FLASHER fuse in the fuse block underhood supplies battery positive voltage to the turn signal/hazard flasher module. The turn signal/hazard flasher module has ground at G200. The turn signal lamps may only be activated with the ignition switch in the ON or START position. The STRG CTRLS fuse in the fuse block underhood supplies battery positive voltage to the turn signal switch. When the turn signal switch is placed in either the left or right position, current flows from the turn signal switch assembly to the turn signal/hazard flasher module. The turn signal/hazard flasher module then sends an on-off voltage signal to either the left or right turn signals and the appropriate instrument panel cluster (IPC) indicator. When the IPC receives an input from either of the turn signals it starts to track vehicle mileage. When the IPC has determined that the vehicle has traveled over 1.6 km (1 mile) with one of the turn signals continuously engaged, it shall display the DIC message "Turn Signal On" and request the appropriate chime to notify the driver. The left turn signals have ground at G104 and at G402. The right turn signals have ground at G104 and G401.

The hazard flashers may be activated in any power mode. The hazard switch is permanently grounded through G200. When the driver turns ON the hazard switch the contacts in the switch close, grounding the hazard switch output circuit of the dash integration module (DIM). The turn signal/hazard flasher module then supplies battery voltage to all four turn signal lamps and IPC in an ON and OFF duty cycle. This illuminates the turn signal lamps in the same manner as explained above. When a THEFT is occurring, the dash integration module (DIM) provides a ground to the turn signal/hazard flasher module hazard switch signal circuit. This allows the hazard lamps to flash during theft detection.

The flash rate of the turn signal lamps is 90 flashes per minute. Each tail lamp assembly monitors the current among the LEDs. When 20 percent or more of the tail lamp LEDs fail, that tail lamp removes ground from the outage detection signal circuit. The turn signal/hazard flasher module will then increase the flash rate of the remaining turn signal lamps and the respective indicator to 180 flashes per minute.

Repeater Lamps

The repeater lamps are on export vehicles only. Each lamp is located in the front fender. The repeater lamps are used as additional turn signal lamps, and operate as described in the Turn Signal/Hazard Flasher Lamps description. The repeater lamps have ground at G104.

Backup Lamps

The fuse block left rear supplies battery positive voltage through the REVERSE LAMP fuse to

the coil and switch terminals of the reverse lamp relay. The dash integration module (DIM) sends a power mode message to the rear integration module (RIM) indicating that the ignition is in the ON position. When the driver places the gear selector in the REVERSE position, the powertrain control module (PCM) sends a class 2 message to the RIM. The message indicates that the gear selector lever is in the REVERSE position. The RIM then grounds the control circuit of the reverse lamp relay. This energizes the reverse lamp relay, closing the switch side contacts and providing battery positive voltage to the backup lamp bulbs. The backup lamps are permanently grounded at G402. With both power and ground the backup lamp bulbs illuminate. Once the driver moves the shift lever out of the reverse position a message is sent via class 2 by the PCM causing the RIM to remove the ground from the reverse lamp relay control circuit. This opens the contacts in the relay turning OFF the backup lamps.

Remote Keyless Entry Exterior Lamp Illumination

When the remote control door lock receiver (RCDLR) detects a door UNLOCK command from the keyless entry transmitter, the RCDLR will send a class 2 message to the dash integration module (DIM). The DIM must have inputs that indicate that the ignition switch is off, the park lamps are off, all the doors are closed, and the Photocell status is Dark conditions. The DIM will then activate the flash to pass relay, park lamp relay and send a class 2 message to the rear integration module (RIM) requesting reverse lamp illumination. The reverse lamp feature may not be available in all countries due to possible export regulations. The DIM will flash the headlamps and park lamps twice, then keep the park and reverse lamps on approximately 20 seconds or until a door is opened. When the RCDLR detects a door LOCK command from the keyless entry transmitter, The DIM will flash the headlights and park lights once. In daylight conditions, the DIM will activate the park lamp relay only to flash the park lamps twice with a door UNLOCK command and once with a door LOCK command from the keyless entry transmitter.

Battery Run Down Protection/Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The dash integration module (DIM) monitors the state of the headlamp switch. If the park or headlamp switch is ON when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the DIM initiates a 10 minute timer. At the end of the 10 minutes, the DIM will turn off the control power output to the park and headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The DIM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The DIM determined that the park or headlamp switch was not active when the ignition was turned OFF.

INTERIOR LIGHTING SYSTEMS DESCRIPTION AND OPERATION

Interior Lamps

The interior lamps consist of 2 groups. The first group are those lamps which may not be dimmed. The second group include lamps that may be dimmed.

Courtesy/Illuminated Entry Lamps

Courtesy/illuminated entry lamps are lamps that may be illuminated by opening a door, manually operating a switch or through a remote control door lock receiver (RCDLR) command. This group consist of the following lamps:

- Door courtesy lamps
- Footwell lamps
- Overhead console courtesy/reading lamps
- The vanity mirror lamps

The rear integration module (RIM) controls battery positive voltage and ground to the interior courtesy lamps in the following manner. Battery positive voltage is supplied through the INTERIOR LAMP fuse to both the switch side and coil side of the interior lamp relay. The RIM provides a ground to the control circuit of the interior lamp relay during all power modes except when battery run down protection is active. With the interior lamp relay energized battery positive voltage is supplied to all the interior lamps in this group. The ground side circuits of the door, footwell and overhead courtesy lamps are controlled by a pulse width modulated (PWM) ground circuit of the RIM. The RIM pulses the on time of the ground circuit between 0-100 percent at a frequency of approximately 100 hertz. By decreasing the on time percentage of the controlled ground circuit the intensity of the lamps will decrease. This effect is called theater dimming. The RIM will illuminate these lamps under various condition which will be described in the following information.

Courtesy/Illuminated Entry

Courtesy/illuminated entry occurs when any of the door control modules receive a discrete input from the door open switch located in the door latch assembly. The appropriate door control module sends a class 2 message to the RIM indicating a door is opened. If the Photocell Status is Dark, the RIM will illuminate the courtesy lamps. The lamps will remain illuminated for 25 seconds after all the doors are closed or until the ignition is placed in the ON position. At this time the RIM will fade the lamps from full intensity to off in 3-5 seconds by activating the theater dim feature.

Exit Lighting

Exit lighting is activated when the following conditions exist. The RIM receives a class 2 message from the instrument panel cluster (IPC) indicating that the ignition key has been removed from the lock cylinder, the Photocell Status is Dark and all the doors are closed. At this time the RIM will illuminate the interior lamps. During this exit lighting feature, the RIM will also request that the drivers door module illuminate the driver's door switch back lighting at full intensity. The RIM will theater dim the interior lamps after 20-25 seconds. If the key is placed back into the lock cylinder before the lamps have dimmed, the RIM will immediately activate the theater dim feature.

Keyless Entry Illumination

Keyless entry illumination is activated when the remote control door lock receiver (RCDLR) detects a door UNLOCK command from the keyless entry transmitter. The RCDLR will send a class 2 message to the RIM indicating that an UNLOCK command was received. The RIM will then activate the courtesy lamps if all the doors are closed, the ignition is in the OFF position and the Photocell Status is Dark. The RIM will also send a class 2 message to the drivers door module (DDM) requesting for the drivers door switches to be illuminated at full intensity. The RIM will keep the lamps on 36-40 seconds and then turn them off through the theater dimming feature. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the ON or RUN position the courtesy lamps will deactivate immediately.

Manual Interior Lighting

The interior lamps may also be illuminated manually in all ambient light conditions. When a vehicle occupant places instrument panel (I/P) dimmer switch to the interior lamp ON position the contacts in the switch close, grounding the interior lamp input circuit of the dash integration module (DIM). With this input grounded the DIM sends a class 2 message to the RIM requesting the interior lamps illuminate. The RIM will ground the lamps as mentioned above. When the I/P dimmer switch is placed out of the interior lamp ON position, the RIM will immediately turn off the interior lamps.

Panic Illumination

If the RCDLR detects a PANIC signal from keyless entry transmitter, the RIM will activate the interior lamps and request the drivers door module to illuminate the driver's door switch back lighting at full intensity. The interior lamps will remain illuminated for 30 seconds or until the RCDLR detects a door UNLOCK message. At this time the RIM will activate the theater dim feature.

Reading Lamps

The reading lamps will operate in all ambient light conditions. The reading lamp switches are located in the courtesy/overhead reading lamp assembly. By pressing the overhead reading lamp switch the contacts in the switch close and provides a direct path to ground for the corresponding reading lamp. When the switch is pressed again the contacts open turning off the reading lamp.

Supplemental Inflatable Restraint (SIR) Lighting

The RIM will provide interior lamp illumination in the event that an air bag has been deployed. Upon deployment of the air bag the SDM will send a class 2 message to the RIM. The RIM will activate the interior lamps approximately 15 seconds after the air bag deployment if the Photocell Status is Dark and the ignition is in the ON position. The interior lamps will remain illuminated until there is a change in the power mode.

Vanity Mirror Lamps

The vanity mirror lamps operate in all ambient light conditions. When the cover on the sunshade is opened, a switch internal to the sun shade closes to provide a direct path to ground. Closing the cover opens the contacts and turns off the vanity lamps.

Interior Lamp Dimming

Interior lamp dimming are lamps that may be dimmed by operating the I/P Dimmer switch. This group consist of the following lamps:

- Ashtray lamp
- Door switches
- Driver information center (DIC) switches
- Hazard warning switch
- Heated seat switches
- HVAC control head assembly
- Instrument panel cluster (IPC)
- Memory seat switches
- PRNDL
- Radio
- Shift indicator lamp
- Traction control switch
- Steering wheel controls

- Window switches

When the park lamp switch is in the ON position the dash integration module (DIM) energizes the park lamp relay. With the park lamp relay energized, battery positive voltage is supplied through the LIC/DIMMING fuse to the instrument panel lamp fuse supply voltage-1 circuit of the DIM. Upon receiving this voltage supply the DIM request the status of the Photocell from the climate control panel (CCP). The CCP sends a class 2 message indicating a Light or Dark status of the Photocell. The DIM will default to Dark if the message is not received. If the status of the Photocell is Light then the interior back lighting will not be activated. The DIM also receives an input from the I/P dimmer switch. The DIM provides the I/P dimmer switch with a 5.0 volt reference voltage and ground. The I/P dimmer switch is a potentiometer that varies the input signal voltage to the DIM between 0.09V and 4.75V. This input determines the intensity level of the back lighting illumination. The driver may change intensity of the back lighting by positioning the I/P dimmer switch between the minimum and maximum settings. The DIM will default to full intensity if the input from the dimmer switch is not within the specified values. Upon receipt of all the fore mentioned information the DIM then sends a class 2 message to the CCP, IPC, radio and all the door modules indicating the ON/OFF status and intensity level of the back lighting. The CCP, IPC and radio incorporate vacuum fluorescent (VF) lamps that are illuminated at full intensity with the ignition in the ON position. The CCP, IPC and radio will adjust the VF lamp intensity as requested by the DIM by varying the pulse width modulation of the power feed circuit to the VF lamps. When the door control modules receive the class 2 message each door module will supply PWM voltage to the door switch LED's at the requested intensity. The DIM also supplies voltage to all the remaining lamps at the proper PWM voltage to achieve the requested intensity. The PRNDL incorporates LED lamps that are illuminated at full intensity with the ignition in the ON position. When the park lamps are active, the IPC will adjust the PRNDL LED intensity as requested by the DIM by varying the pulse width modulation of the LED dimming signal circuit to the lamps. All the interior back lighting lamps are permanently grounded and therefore illuminate.

Battery Run Down Protection/Inadvertent Power

To provide battery run down protection, the interior lamps will be deactivated automatically under certain conditions. The rear integration module (RIM) initiates a 10 minute timer if the interior lamp relay control output is still active, and the ignition switch is in the OFF position. The RIM timer is set to 3 minutes until the vehicle mileage is above 22.5 km (14 miles). At the end of the designated time, the RIM will deactivate the interior lamp relay, disabling the interior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The RIM will reset the timer if any interior lamp switch is turned on, a door is opened, or the RCDLR module is activated.