

## Section 8

# Body and Accessories

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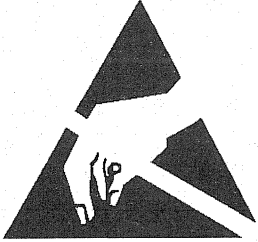
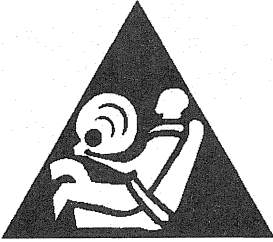
## Data Link Communications

### Schematic and Routing Diagrams

#### Data Link Communications Schematic References

Reference on Schematic	Section Number - Subsection Name
Ground Distribution Cell - 14	8-Wiring Systems
Power Distribution Cell - 10	8-Wiring Systems

#### Data Link Communications Schematic Icons

Icon	Icon Definition
 19384	Refer to <i>Handling ESD Sensitive Parts Notice</i> in Caution and Notices.
 19386	Refer to <i>SIR Caution</i> in Caution and Notices

## 8-18 Data Link Communications





## Component Locator

Data Link Communications Components

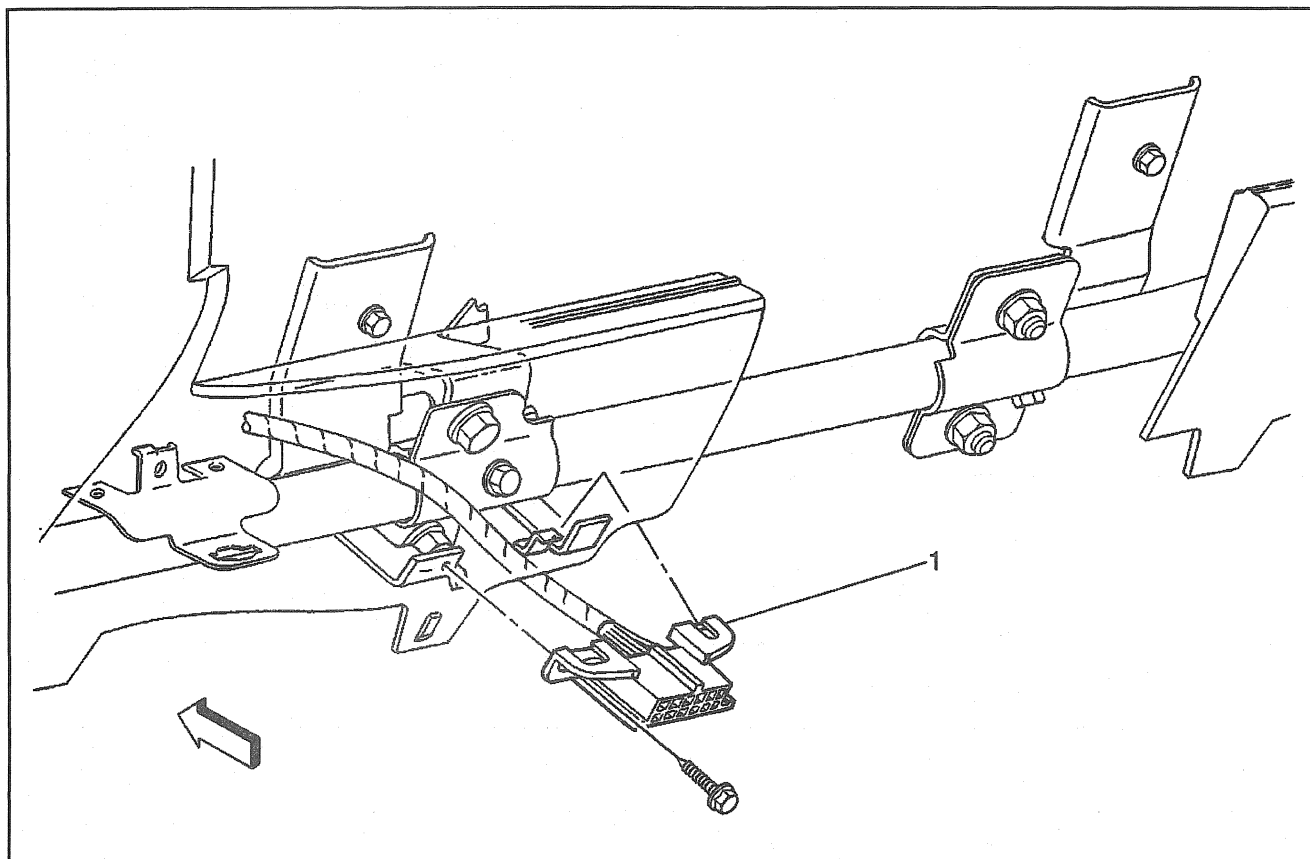
Name	Location	Locator View	Connector End View
Data Link Connector (DLC)	Under LH of IP, LH of Steering Column, mounted to bottom of Knee Bolster	<i>Data Link Communications Component Views</i>	<i>Data Link Communications Connector End Views</i>
Electronic Brake Control Module (EBCM)	Near Brake Master Cylinder, at LF Wheelhousing	<i>ABS Component Views in Antilock Brake Systems</i>	<i>ABS Connector End Views in Antilock Brake Systems</i>
Electronic Variable Orifice (EVO) /Passlock Module	Under the center of the IP	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Inflatable Restraint Sensing and Diagnostic Module (SDM)	Under Carpet Beneath Drivers Seat	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Powertrain Control Module (PCM)	Under RH end of IP, above Blower Motor, behind IP Compartment Box	<i>Engine Controls Component Views in Engine Controls (6.5L)</i>	<i>PCM Connector End Views in Engine Controls (6.5L)</i>
Radio	In the center of the IP	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Remote Control Door Lock Receiver	Under the center of the IP, to the right of the knee bolster	<i>Keyless Entry Component Views in Keyless Entry</i>	<i>Keyless Entry Connector End Views in Keyless Entry</i>
Vehicle Control Module (VCM)	Engine Compartment, near EBCM	<i>Engine Controls Component Views in Engine Controls (5.0L/5.7L)</i> <i>Engine Controls Component Views in Engine Controls (7.4L)</i>	<i>VCM Connector End Views in Engine Controls (5.0L/5.7L)</i> <i>VCM Connector End Views in Engine Controls (7.4L)</i>
Transfer Case Control Module (TCCM)	Under IP, on Steering Column Support Bracket	<i>Transfer Case Control Component Views in Transfer Case Controls (NP1)</i>	<i>Transfer Case Control Connector End Views in Transfer Case Controls (NP1)</i>
Transfer Case Shift Control Module	Under LH of IP, near Convenience Center	<i>Transfer Case Control Component Views in Transfer Case Controls (NP8)</i>	<i>Transfer Case Control Connector End Views in Transfer Case Controls (NP8)</i>
C100	Part of the engine harness to IP harness, in the left rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C200	Behind the right side of the IP, near the heater motor, in foam wrap	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C231	Part of the IP harness to SIR harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C239 (Luxury)	IP harness inline to the Crossbody harness, next to C230	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C298	Behind the left side of the IP, near the convenience center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
G103 (Gas)	On the top front center of the engine, near the thermostat housing	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G104 (5.0L/5.7L)	Back side of the right cylinder head	<i>Power and Grounding Component Views in Wiring Systems</i>	—

Data Link Communications Components (cont'd)

Name	Location	Locator View	Connector End View
G104 (6.5L)	Top rear of the right cylinder	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G104 (7.4L)	Backside of the engine block, below below the right cylinder head	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
S150	Engine harness, approx. 13 cm (5 in) from EBCM breakout	—	—
S204	IP harness, approx. 10 cm (4 in) from C100, towards Data Link Connector (DLC)	—	—
S215	IP harness, approx. 8 cm (3 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S272	IP harness, approx. 4 cm (1.5 in) from auxiliary power outlet breakout	—	—
S280	IP harness, approx. 5 cm (2 in) from DLC breakout	—	—

## Data Link Communications Component Views

## Data Link Connector (DLC)



373048

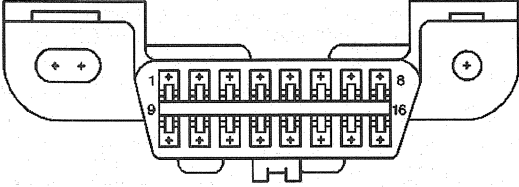
## Legend

(1) Data Link Connector (DLC)

## Visual Identification

### Data Link Communications Connector End Views

Data Link Connector

			
68793			
Connector Part Information		<ul style="list-style-type: none"> <li>• 12110250</li> <li>• 16 Way Metri-pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
1	—	—	Not Used
2	PPL	1807	Serial Data Signal-Class B
3	—	—	Not Used
4	BLK	150	Ground
5	BLK/WHT	451	VCM Ground
6-7	—	—	Not Used
8	BLK/WHT	1455	Keyless Entry Program Enable Signal
9	TAN	800	SIR Serial Data
10-11	—	—	Not Used
12	TAN/WHT	799	Diagnostic Signal (ABS)/ (15,000 GVW Only)
13	ORN	1568	Diagnostic Signal-Transfer Case Control Module
14	GRN DK	835	Diagnostic Signal-Entertainment and Comfort
15	—	—	Not Used
16	ORN	840	Fuse Output - Battery - Type III Fuse

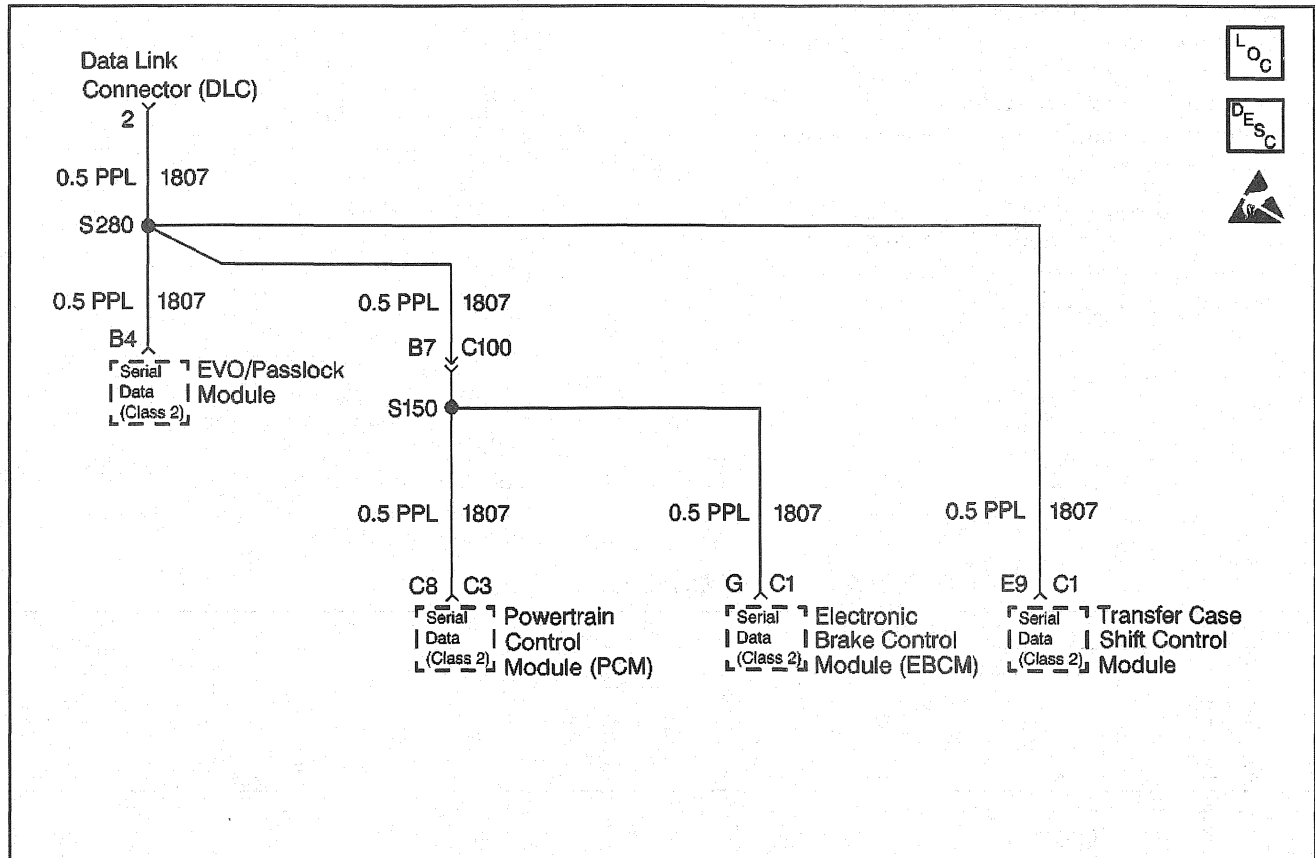
## Diagnostic Information and Procedures

## A Diagnostic System Check - Data Link Communications

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	With scan tool connected make contact with any of the modules applicable to the vehicle	Scan Tools main menu.	<ul style="list-style-type: none"> <li>Blank Screen</li> <li>No power to the scan tool</li> </ul> Refer to <i>Scan Tool Inoperative</i>
2	Select Diagnostics Circuit Check, Class 2 DTC Check from the scan tools menu. The modules below should be listed: <ul style="list-style-type: none"> <li>PCM/VCM</li> <li>ABS/TCS</li> <li>VTD/EVO</li> <li>ATCM (Automatic Transfer Case Only)</li> </ul>	"No" located in the DTCs present column.	"Yes" located in the DTCs present column.  No Communication with the vehicle, or Diagnostic Link Connector. Refer to <i>Scan Tool Does Not Communicate w/Class 2 Data Line</i>
3	1. Select Body Diagnostics from the scan tools menu. 2. Select SIR UART Data Line information. 3. Access DTC's using the scan tool.	No DTCs. Data Only	No communication with the vehicle, or Diagnostic Link Connector. Refer to <i>Scan Tool Does Not Communicate with UART Data Line</i>
4	1. Select Body Diagnostics from the scan tools menu. 2. Access E and C Data Line from the scan tools menu.	No DTCs. Data Only	No communication with the vehicle, or Diagnostic Link Connector. Refer to <i>Scan Tool Does Not Communicate w/E and C Data Line</i>
5	1. Establish communication with the Electronic Brake Control Module (EBCM) 2. Access DTC's using the scan tool. (Vehicles 15,000 GVW and over.)	No DTCs. Data Only	No communication with the vehicle, or Diagnostic Link Connector. Refer to <i>Scan Tool Does Not Communicate with EBCM</i>
6	1. Establish communication with the Powertrain Control System(s). 2. Access DTC's using the scan tool.	No DTCs. Data Only	No communication with the vehicle, or Diagnostic Link Connector. Refer to <i>Scan Tool Does Not Communicate with VCM/PCM (Vehicle Control Module)</i> .  U1026. Refer to <i>DTC U1026 Loss of ATC Class 2 Communication</i> . U1041. Refer to <i>DTC U1041 Loss of EBCM Communication</i> . U1192. Refer to <i>DTC U1192 Loss of VTD Class 2 Serial Data Com.</i>
7	1. Establish communication with the ATCM. 2. Access DTC's using the scan tool.	No DTCs. Data Only	U1016. Refer to <i>DTC U1016 Loss of Communications with PCM</i> U1041. Refer to <i>DTC U1041 Loss of EBCM Communication</i> .
8	1. Establish communication with the EVO/Passlock Control Module. 2. Access DTC's using the scan tool.	No DTCs. Data Only	U1016. Refer to <i>DTC U1016 Loss of Communications with PCM</i> U1255. Refer to <i>DTC U1255 Serial Data Line Malfunction</i>

\* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.

## DTC U1016 Loss of Communications with PCM



429304

**Circuit Description**

The Class II Serial Data Circuit is used to communicate between systems. Each system connected to the Class II Serial Data line is assigned its own recognition code (address). This code is used to identify which module or systems are communicating. The Node Alive or State of Health (SOH) messages are broadcast on the bus every 2 seconds. If a module is monitoring Node Alive messages for that module, it will reset its 5 second timer for that particular module. Any system that communicates properly will also store the appropriate communication Diagnostic Trouble Codes (DTCs) that are assigned to the system(s) it could not communicate with.

**Conditions for Setting the DTC**

All of the following conditions must be met:

- Ignition is active.
- Communication between the Passlock™ Module and the PCM was present for at least 1 second, then lost for more than 5 seconds (usually due to intermittent connection).
- The PCM has not received a valid state of health message from the Passlock™ Module.

**Action Taken When the DTC Sets**

- Stores Diagnostic Trouble Code (DTC) U1016 in the Passlock™ Module memory.
- If the ignition was OFF at the time, the vehicle will not start.
- If the engine was running at the time, the vehicle will start again but the SECURITY indicator will remain illuminated.

**Conditions for Clearing the MIL/DTC**

- The Passlock™ Module continuously monitors the signal and moves the DTC from the current to history on the next ignition cycle when the condition causing the fault no longer exists.
- All of the Passlock™ Module history codes will be cleared after 100 ignition cycles (from OFF to RUN) with no current codes active during the 100 ignition cycles.
- Using a scan tool.

**Diagnostic Aids**

- When the diagnostics direct you to take electrical measurement at the Wiring Harness Junction Blocks, refer to *Inline Harness Connector End Views* in Wiring Systems for terminal assignments of the Wiring Harness Junction Blocks.
- If the DTC is a history DTC, the problem may be intermittent. Try performing the tests shown while wiggling wiring and connectors, this can often cause the malfunction to appear.

**Test Description**

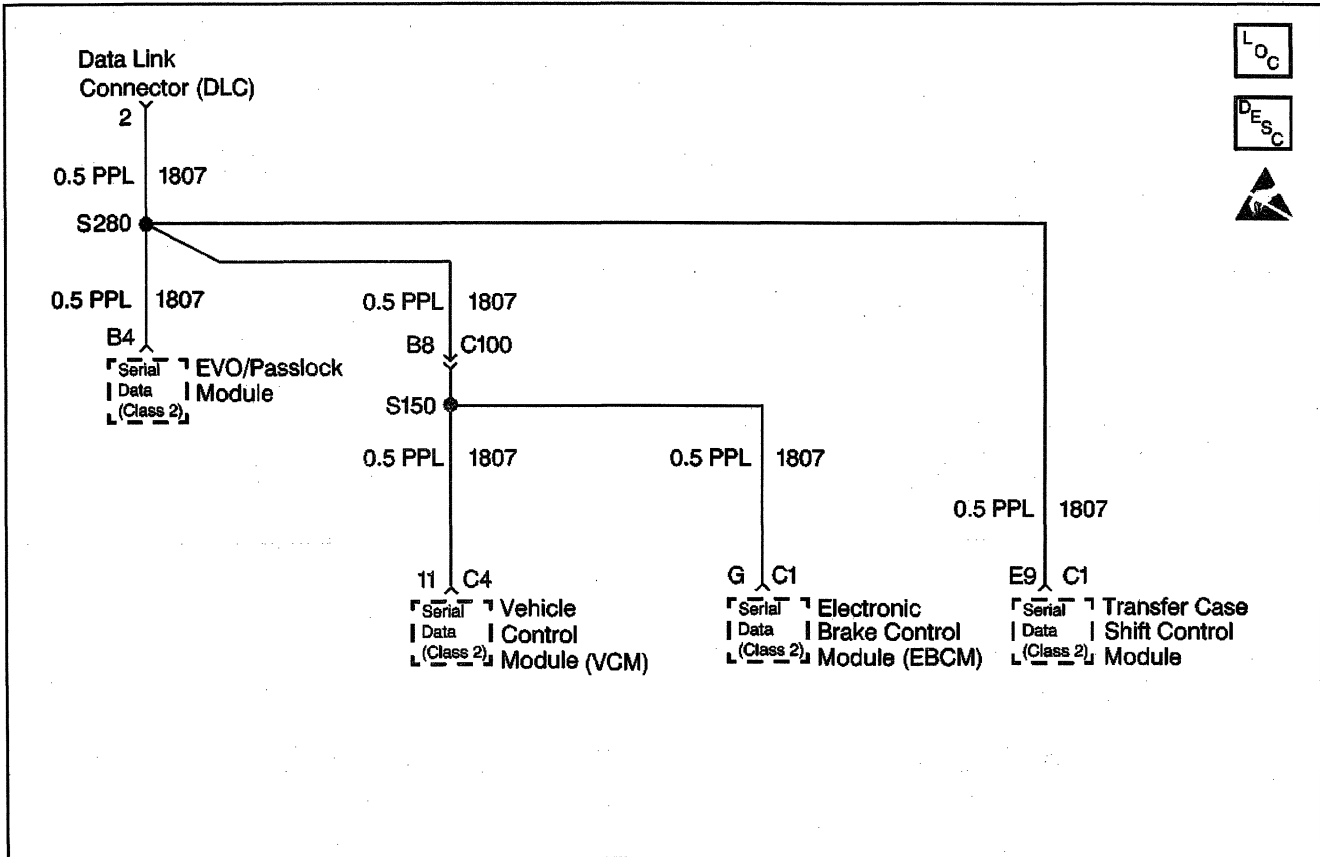
1. The Data Link Communications System Check should be performed before any diagnostics are performed on the system.
2. This step is to determine if communications through CKT 1807 (PPL) are good.
3. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the Powertrain Control Module (PCM).
6. This step is to check CKT 1807 (PPL) and the Transfer Case Shift Control Module for circuit connections.
7. This step is to check CKT 1807 (PPL) and the EVO/Passlock™ Module for circuit connections.
8. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the Transfer Case Shift Control Module.
11. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the EVO/Passlock™ Module.

**DTC U1016 Loss of Communications with PCM**

Step	Action	Value(s)	Yes	No
1	Was the Data Link Communications System Check performed?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	Establish communications with the Powertrain Control Module (PCM). Can communications be established?	—	Go to Step 6	Go to Step 3
3	1. Turn the ignition to the OFF position. 2. Remove the scan tool from the Data Link Connector (DLC). 3. Disconnect connector C3 from the PCM. 4. Connect a Digital Multimeter (DMM) (continuity) between terminal C8 of the PCM connector and terminal 2 of the DLC. Is continuity present?	—	Go to Step 4	Go to Step 5
4	Replace the PCM. Refer to <i>PCM Replacement/Programming</i> in Engine Controls. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
5	Locate and repair the open in CKT 1807 (PPL) between the PCM and the DLC. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
6	Establish communications with the Transfer Case Shift Control Module. Can communications be established?	—	Go to Step 7	Go to Step 8
7	Establish communications with the EVO/Passlock™ Module. Can communications be established?	—	Go to A Diagnostic System Check - Data Link Communications	Go to Step 11

## DTC U1016 Loss of Communications with PCM (cont'd)

Step	Action	Value(s)	Yes	No
8	1. Turn the ignition switch to the OFF position. 2. Remove the scan tool from the DLC. 3. Disconnect C1 from the Transfer Case Shift Control Module. 4. Connect a DMM (continuity) between terminal E9 of the Transfer Case Shift Control Module and terminal 2 of the DLC. Is continuity present?	—	Go to Step 9	Go to Step 10
9	Replace the Transfer Case Shift Control Module. Refer to Transfer Case Control Module Replacement in Driveline and Axles. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
10	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the Transfer Case Shift Control Module and splice S280. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
11	1. Turn the ignition switch to the OFF position. 2. Remove the scan tool from the DLC. 3. Disconnect the EVO/Passlock™ Module connector. 4. Connect a DMM (continuity) between terminal B4 of the Passlock™ Module connector and terminal 2 of the DLC. Is continuity present?	—	Go to Step 12	Go to Step 13
12	Replace the EVO/Passlock™ Module. Refer to Theft Deterrent Module Replacement in Theft Deterrent. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
13	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the EVO/Passlock™ Module and splice S280. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

**DTC U1016 Loss of Class 2 Communication with VCM**

429306

**Circuit Description**

The Class II Serial Data Circuit is used to communicate between systems. Each system connected to the Class II Serial Data line is assigned its own recognition code (address). This code is used to identify which module or systems are communicating. The Node Alive or State of Health (SOH) messages are broadcast on the bus every 2 seconds. If a module is monitoring Node Alive messages for that module, it will reset its 5 second timer for that particular module. Any system that communicates properly will also store the appropriate communication Diagnostic Trouble Codes (DTCs) that are assigned to the system(s) it could not communicate with.

**Conditions for Setting the DTC**

All of the following conditions must be met:

- Ignition is active.
- Communication between the Passlock™ Module and the VCM was present for at least 1 second, then lost for more than 5 seconds (usually due to intermittent connection).
- The VCM has not received a valid state of health message from the Passlock™ Module.

**Action Taken When the DTC Sets**

- Stores Diagnostic Trouble Code (DTC) U1016 in the Passlock™ Module memory.
- If the ignition was OFF at the time, the vehicle will not start.
- If the engine was running at the time, the vehicle will start again but the SECURITY indicator will remain illuminated.

**Conditions for Clearing the MIL/DTC**

- The Passlock™ Module continuously monitors the signal and moves the DTC from the current to history on the next ignition cycle when the condition causing the fault no longer exists.
- All of the Passlock™ Module history codes will be cleared after 100 ignition cycles (from OFF to RUN) with no current codes active during the 100 ignition cycles.
- Using a scan tool.



**Diagnostic Aids**

- When the diagnostics direct you to take electrical measurement at the Wiring Harness Junction Blocks, refer to *Inline Harness Connector End Views* in Wiring Systems for terminal assignments of the Wiring Harness Junction Blocks.
- If the DTC is a history DTC, the problem may be intermittent. Try performing the tests shown while wiggling wiring and connectors, this can often cause the malfunction to appear.

**Test Description**

1. The Data Link Communications System Check should be performed before any diagnostics are performed on the system.
2. This step is to determine if communications through CKT 1807 (PPL) are good.
3. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the Vehicle Control Module (VCM).
6. This step is to check CKT 1807 (PPL) and the Transfer Case Shift Control Module for circuit connections.
7. This step is to check CKT 1807 (PPL) and the EVO/Passlock™ Module for circuit connections.
8. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the Transfer Case Shift Control Module.
11. This step is to determine if CKT 1807 (PPL) is at fault or if the problem is within the EVO/Passlock™ Module.

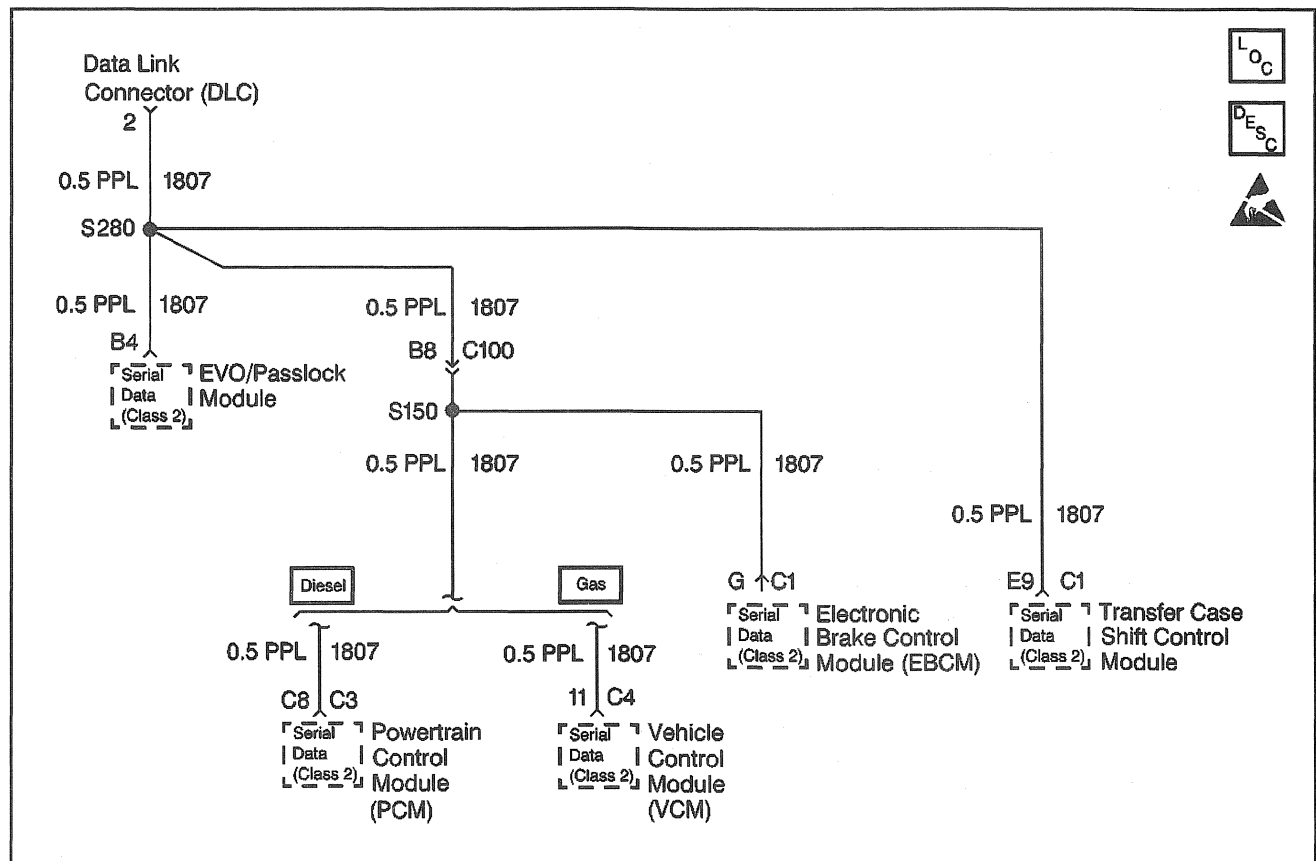
**DTC U1016 Loss of Class 2 Communication with VCM**

Step	Action	Value(s)	Yes	No
1	Was the Data Link Communications System Check performed?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	Establish communications with the Vehicle Control Module (VCM). Can communications be established?	—	Go to Step 6	Go to Step 3
3	1. Turn the ignition to the OFF position. 2. Remove the scan tool from the Data Link Connector (DLC). 3. Disconnect connector C4 from the VCM. 4. Connect a Digital Multimeter (DMM) (continuity) between terminal 11 of the VCM connector and terminal 2 of the DLC. Is continuity present?	—	Go to Step 4	Go to Step 5
4	Replace the VCM. Refer to <i>VCM Replacement/Programming</i> (5.0L/5.7L)/ <i>VCM Replacement/Programming</i> (7.4L) in Engine Controls. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
5	Locate and repair the open in CKT 1807 (PPL) between the VCM and the DLC. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
6	Establish communications with the Transfer Case Shift Control Module. Can communications be established?	—	Go to Step 7	Go to Step 8
7	Establish communications with the EVO/Passlock™ Module. Can communications be established?	—	Go to A Diagnostic System Check - Data Link Communications	Go to Step 11

## DTC U1016 Loss of Class 2 Communication with VCM (cont'd)

Step	Action	Value(s)	Yes	No
8	1. Turn the ignition switch to the OFF position. 2. Remove the scan tool from the DLC. 3. Disconnect C1 from the Transfer Case Shift Control Module. 4. Connect a DMM (continuity) between terminal E9 of the Transfer Case Shift Control Module and terminal 2 of the DLC. Is continuity present?	—	Go to Step 9	Go to Step 10
9	Replace the Transfer Case Shift Control Module. Refer to Transfer Case Control Module Replacement in Driveline and Axles. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
10	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the Transfer Case Shift Control Module and splice S280. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
11	1. Turn the ignition switch to the OFF position. 2. Remove the scan tool from the DLC. 3. Disconnect the EVO/Passlock™ Module connector. 4. Connect a DMM (continuity) between terminal B4 of the Passlock™ Module connector and terminal 2 of the DLC. Is continuity present?	—	Go to Step 12	Go to Step 13
12	Replace the EVO/Passlock™ Module. Refer to Theft Deterrent Module Replacement in Theft Deterrent. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
13	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the EVO/Passlock™ Module and splice S280. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## DTC U1026 Loss of ATC Class 2 Communication



393986

## Circuit Description

The Vehicle Control Module (VCM)/Powertrain Control Module (PCM) monitors the serial data (class II) circuit for communications from the Automatic Transfer Case (ATC) controller. If the ATC controller is not communicating with the VCM this DTC will set.

## Conditions for Setting the DTC

No serial data (class II) from ATC controller to the VCM/PCM.

## Action Taken When the DTC Sets

This DTC will not illuminate the MIL.

## Conditions for Clearing the MIL/DTC

- A History DTC will clear after 40 consecutive warm up cycles with no failures of any non-emissions related diagnostic test.
- VCM/PCM battery voltage is interrupted.
- Use of a scan tool.

## Diagnostic Aids

This DTC will not set unless the VCM/PCM and ATC controllers have already establish communications first. This DTC will only diagnosis an open or intermittent connection from the ATC controller to the splice.

## Test Description

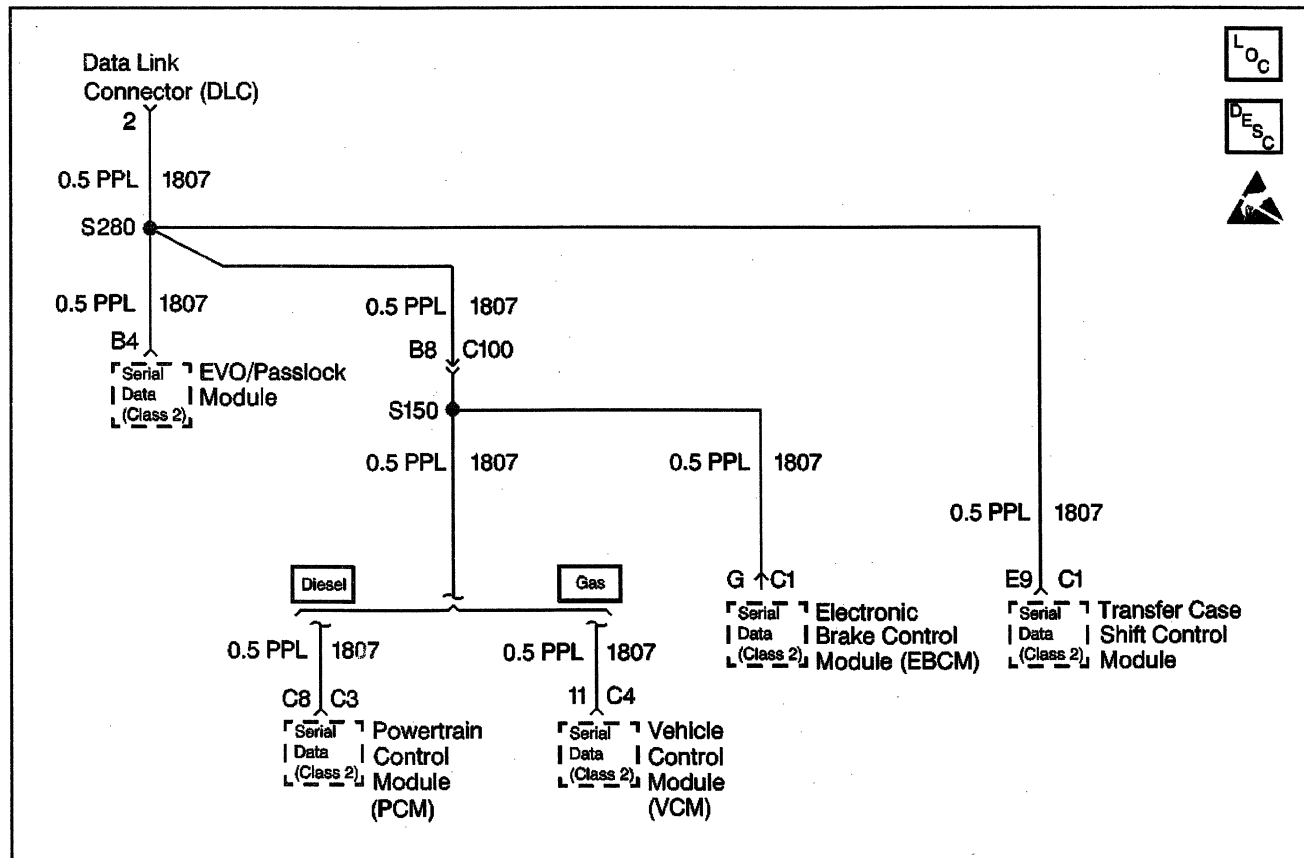
The number(s) below refer to the step number(s) on the diagnostic table.

2. This test checks if communication can be established between the scan tool and the ATC Control Module. If the scan tool cannot communicate with the ATC Control Module, refer to the *ATC Control Module System Check*.
3. This test checks for any opens in the Class 2 Serial Data circuit between the VCM and the ATC Control Module. It also checks for any intermittent malfunctions associated with the serial data circuit.
7. Use a scan tool to clear and check for any DTCs in all the modules connected to the Class 2 Serial Data circuit (VCM/PCM, ATC, and EBCM).

## DTC U1026 Loss of ATC Class 2 Communication

Step	Action	Value(s)	Yes	No
1	<p><b>Important:</b> Before clearing the DTCs, use the scan tool in order to record the Freeze Frame and the Failure Records for reference. This data will be lost when the Clear DTC Information function is used.</p> <p>Was the Powertrain On-Board Diagnostic (OBD) System Check performed?</p>	—	Go to Step 2	<p>Go to A Powertrain On Board Diagnostic (OBD) System Check (5.0L/5.7L), A Powertrain On Board Diagnostic (OBD) System Check (6.5L), A Powertrain On Board Diagnostic (OBD) System Check (7.4L) in Engine Controls</p>
2	<p>1. Install the scan tool. 2. Turn ON the ignition leaving the engine OFF. 3. Attempt to establish communications with the Transfer Case Shift Control Module.</p> <p>Does the scan tool communicate with the Transfer Case Shift Control Module?</p>	—	Go to Step 3	Go to A Diagnostic System Check - Data Link Communications
3	<p>Check the Class 2 Serial Data circuit for the following intermittent conditions:</p> <ul style="list-style-type: none"> <li>• An open in the Class 2 Serial Data circuit between the VCM and the ATC Control Module</li> <li>• A short to ground</li> <li>• A short to voltage</li> <li>• Loose or damaged terminals at the DLC, VCM, or the Transfer Case Shift Control Module</li> </ul> <p>Did you find a problem?</p>	—	Go to Step 6	Go to Step 4
4	<p>1. Turn OFF the ignition. 2. Connect or install any connectors or components that were disconnected or removed. 3. Clear all DTCs using a scan tool. 4. Turn OFF the ignition for 15 seconds. 5. Operate the vehicle within the conditions listed in the Failure Records.</p> <p>Does DTC U1026 reset?</p>	—	Go to A Diagnostic System Check - Data Link Communications	Go to Step 5
5	<p>This DTC is intermittent. Are any additional DTCs stored?</p>	—	Go to A Diagnostic System Check - Data Link Communications	—
6	<p>Repair the circuit as necessary. Refer to <i>Wiring Repairs</i> in Wiring Systems.</p> <p>Is the action complete?</p>	—	Go to Step 7	—
7	<p>1. Turn OFF the ignition. 2. Connect or install any connectors or components that were disconnected or removed. 3. Clear all DTCs using a scan tool.</p> <p>Are any DTCs displayed?</p>	—	Go to A Diagnostic System Check - Data Link Communications	System OK

## DTC U1041 Loss of EBCM Communication



393986

## Circuit Description

The Class II Serial Data Circuit is used to communicate between systems. Each system connected to the Class II Serial Data line is assigned its own recognition code (address). This code is used to identify which module or systems are communicating. The Node Alive or State of Health (SOH) messages are broadcast on the bus every 2 seconds. If a module is monitoring Node Alive messages for that module, it will reset its 5 second timer for that particular module. Any system that communicates properly will also store the appropriate communication Diagnostic Trouble Codes (DTCs) that are assigned to the system(s) it could not communicate with.

## Conditions for Setting the DTC

- The Vehicle Control Module (VCM)/Powertrain Control Module (PCM) has established communications, received Node Alive/SOH messages, during this ignition cycle with the Electronic Brake Control Module (EBCM).
- The VCM/PCM cannot re-establish communications, no Node Alive/SOH messages received, with the EBCM for 5 seconds.

## Action Taken When the DTC Sets

- A DTC U1041 is stored in the VCM/PCM memory.
- The VCM/PCM will not illuminate the Malfunction Indicator Lamp.

## Conditions for Clearing the MIL/DTC

- This DTC requires an ignition cycle in order to change from Current to History.
- The VCM/PCM receives a Node Alive/SOH message back from the EBCM.
- A history DTC will clear after 40 consecutive ignition cycles if the condition for the malfunction is no longer present.
- The DTCs can be cleared using a scan tool.

**Diagnostic Aids**

**Important:** Do not clear the DTCs unless directed by a diagnostic procedure. Clearing the DTCs will also clear valuable Freeze Frame and Failure Records information.

- Inspect for published service bulletins relating to the exhibited symptoms or component operation.
- Inspect all related wiring and connections including the connections at the VCM/PCM and the ATC Control Module. These connections may cause an intermittent malfunction.
- Thoroughly inspect any circuit that can cause an intermittent complaint for the following items:
  - Backed out terminals
  - Improper mating of connectors
  - Improper mating of connectors
  - Improperly formed or damaged terminals
  - Poor terminal to wiring connections
  - Physical damage to the wiring harness
  - Corroded terminal to connections
- All of the modules or systems connected to the Class II Serial Data line will not communicate properly if the following conditions are present:
  - The Class II Serial Data line is shorted up to ground
  - The Class II Serial Data line is shorted to voltage

The systems or modules that are capable of storing loss of communications DTC's (DTC's with the letter U as a prefix) will have these codes in their memory. If a DTC U1041 is stored in the VCM/PCM memory, inspect for the same DTC stored in the Active Transfer Case (ATC) Control Module. The ATC Control Module also monitors the Node Alive/SOH message from the Electronic Brake Control Module (EBCM). If the ATC Control Module has a DTC U1041 stored, inspect the for an open in the Class II Serial Data circuit between the VCM and the EBCM.

- Use the scan tool in order to perform the following functions:
- Monitor the Class II Serial Data circuit for Node Alive/SOH messages
- Monitor the loss of communications DTC's (DTC's with the letter U as a prefix)
- Clear the loss of communication DTCs
- The scan tool's Diagnostic Circuit Check status of Active indicates that the module is communicating with the scan tool. An inactive status indicates that the module previously communicated with the scan tool, but is not communicating currently. If a module is not listed at all, the module never successfully established communications with the scan tool. Refer to *A Diagnostic System Check - Data Link Communications* for the complete Class II data link diagnosis to determine if there are any unlisted modules.

**Test Description**

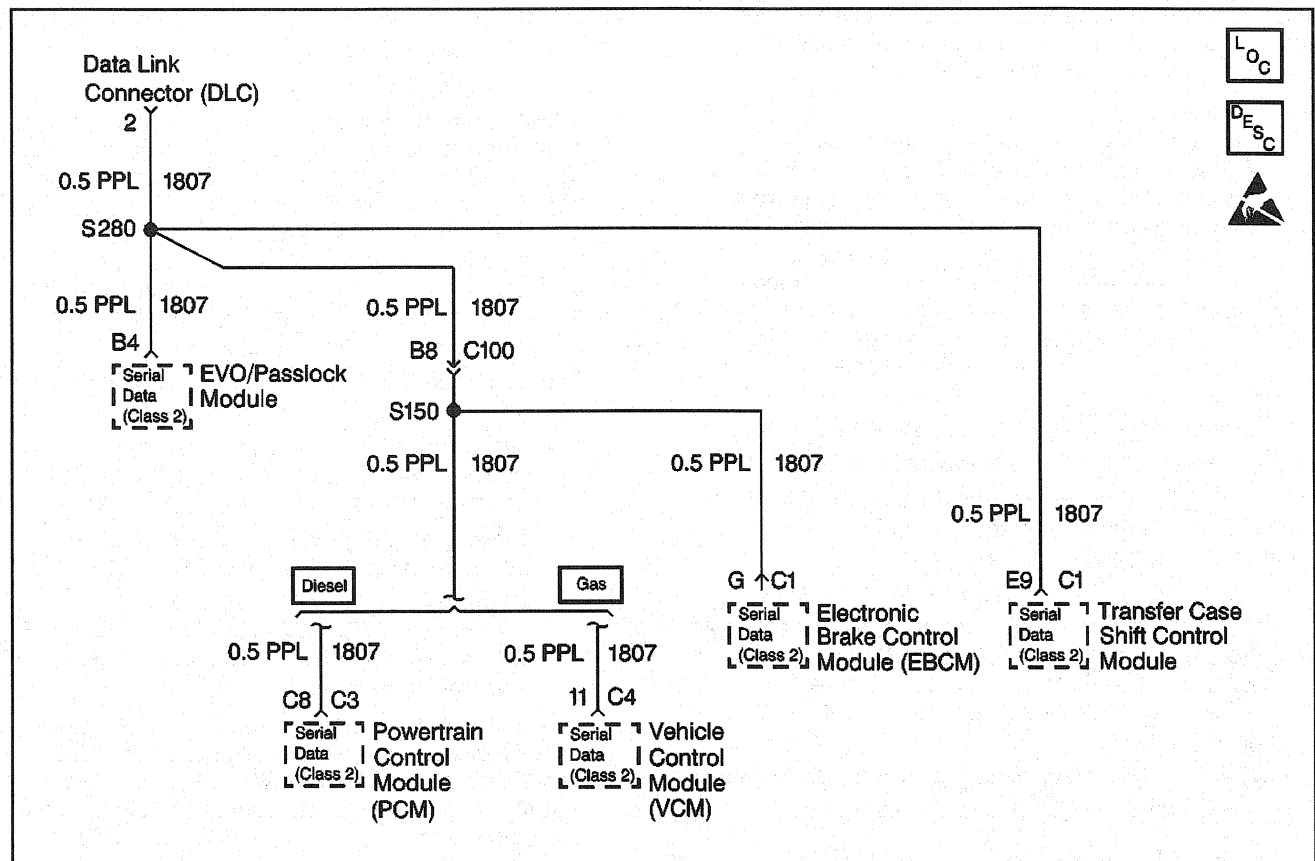
The number(s) below refer to the step number(s) on the diagnostic table.

1. The Automatic Transfer Case System Check (Automatic Four Wheel Drive) will test the scan tool's ability to communicate with the Automatic Transfer Case Control Module (ATCM), Electronic Brake Control Module (EBCM), and the Powertrain Control Module (PCM) or the Vehicle Control Module (VCM). If communications are unable to be established with the EBCM, a CURRENT fault exists, refer to *A Diagnostic System Check - Data Link Communications*. This fault could be caused by a faulty power or ground circuit to the EBCM, a faulty EBCM or a faulty CKT 1807 (PPL).
2. If a HISTORY U1041 DTC is stored, this indicates the communication circuits are OK and an intermittent condition exists. Refer to *A Diagnostic System Check - Data Link Communications*.

**DTC U1041 Loss of EBCM Communication**

Step	Action	Value(s)	Yes	No
1	Did you perform the Automatic Transfer Case Diagnostic System Check?	—	Go to Step 2	Go to Transfer Case Diagnostic System Check
2	Is DTC U1041 stored by the ATM as a CURRENT or HISTORY DTC?	—	Go to A Diagnostic System Check - Data Link Communications	—

## DTC U1192 Loss of VTD Class 2 Serial Data Com



393986

## Circuit Description

The Class II Serial Data Circuit is used to communicate between systems. Each system connected to the Class II Serial Data line is assigned its own recognition code (ID / address). This code is used to identify which module or systems are communicating. The Node Alive or State of Health (SOH) messages are broadcast on the bus every two seconds. If a module is monitoring Node Alive messages for that module, it will reset its 5 second time for that particular module. Any system that cannot communicate properly will also store the appropriate communication DTCs that are assigned to the system(s) it could not communicate with.

The VTD sends a Vehicle Security Password when its ignition 1 input becomes active and includes its source ID. The Vehicle Security Password includes either a Fuel Continue Password or a Fuel Disable Password. The Vehicle Control Module (VCM)/Powertrain Control Module (PCM) learns the source ID, Monitors for the Node Alive messages, and responds with a Vehicle Security Status message including its VCM/PCM ID. The VTD learns the VCM ID, monitors for Node Alive messages from the VCM/PCM ID, and responds with a Vehicle Security Status acknowledge message. This tells the VCM, I heard you so you can stop sending the message.

Lost Communications DTCs (U-Codes) are equal to U1000 plus the ID. This is U1016 and U1192 for VTD.

## Conditions for Setting the DTC

- The VCM/PCM has established communications and received the Vehicle Security Password during this ignition cycle from the VTD (Passlock) Control Module.
- The VCM/PCM communications, no Node Alive/SOH messages received, from the VTD (Passlock) Control Module for 5 seconds.

**Action Taken When the DTC Sets**

When a failure occurs after the VCM/PCM enables fuel due to receipt of a Vehicle Security Password containing the Fuel Continue Password:

- The vehicle starts
- The VCM/PCM continues to enable fuel delivery (Fuel Enabled after Security Fault mode), until the fault is corrected and a valid password is received from the VTD (Passlock) Control Module. If the fault is corrected and a valid password is received, fuel delivery is enabled. The difference is that the Fail Enable Active bit in the Vehicle Security Status message will now be false while the Fuel Continue State bit will be true.
- A DTC U1192 is stored in the VCM/PCM memory
- The VCM/PCM will not illuminate the MIL

When the failure occurs with the ignition OFF, or before the VCM/PCM received a valid Passlock password during engine cranking:

- The vehicle does not start or it starts and stalls
- The VCM/PCM disables fuel delivery until the fault is corrected and a valid password is received from the VTD (Passlock) Control Module. Fuel delivery is disabled for the current ignition cycle.
- A DTC U1192 is stored in the VCM/PCM memory
- The VCM/PCM will not illuminate the MIL

**Conditions for Clearing the MIL/DTC**

- This DTC requires an ignition cycle in order to change from Current to History
- The VCM establishes communication with the VTD (Passlock) Control Module
- A history DTC will clear after 40 consecutive ignition cycles if the condition for the malfunction is no longer present
- The DTCs can be cleared using a scan tool

**Diagnostic Aids**

**Important:** Do not clear the DTCs unless directed by a diagnostic procedure. Clearing the DTCs will also clear valuable Freeze Frame and Failure Records information.

- Check for published service bulletins relating to the exhibited symptoms or component operation.
- Inspect all related wiring and connections, including the connections at the VCM and the VTD (Passlock) Control Module. These connections may cause an intermittent malfunction.
- Thoroughly check any circuit that can cause an intermittent complaint for the listed items:
  - Backed out terminals
  - Improper mating of connectors
  - Broken connector locks

- Improperly formed or damaged terminals
- Poor terminal to wiring connections
- Physical damage to the wiring harness
- Corroded terminals or connections

- If the Class II Serial Data line is shorted to ground or shorted to voltage, all the modules or systems connected to the Class II Serial Data line will not be able to communicate properly. These systems or modules are capable of storing loss of communications DTC's (DTC's with the letter U as a prefix) in their memory. After repairing the cause of a DTC U1192, clear all DTCs from all systems capable of storing this DTC.
- The scan tools Diagnostic Circuit Check can be used to:
  - Monitor the Class II Serial Data circuit for modules which have been or are communicating
  - Monitor for the presence of loss of communications DTCs (U1001–U1199)
  - Clear the loss of communication DTCs. When a Clear Codes command is issued, all codes, Freeze Frame, and Failure Records information is cleared.
- The scan tools Diagnostic Circuit Check status of *Active* indicates that the module is communicating with the scan tool. An *Inactive* status indicates that the module previously communicated with the scan tool, but is not communicating currently. If a module is not listed at all, the module never successfully established communications with the scan tool. Refer to *Electrical Diagnosis* for the complete Class II data link to determine if there are any unlisted modules.

**Test Description**

The number(s) below refer to the step number(s) on the diagnostic table.

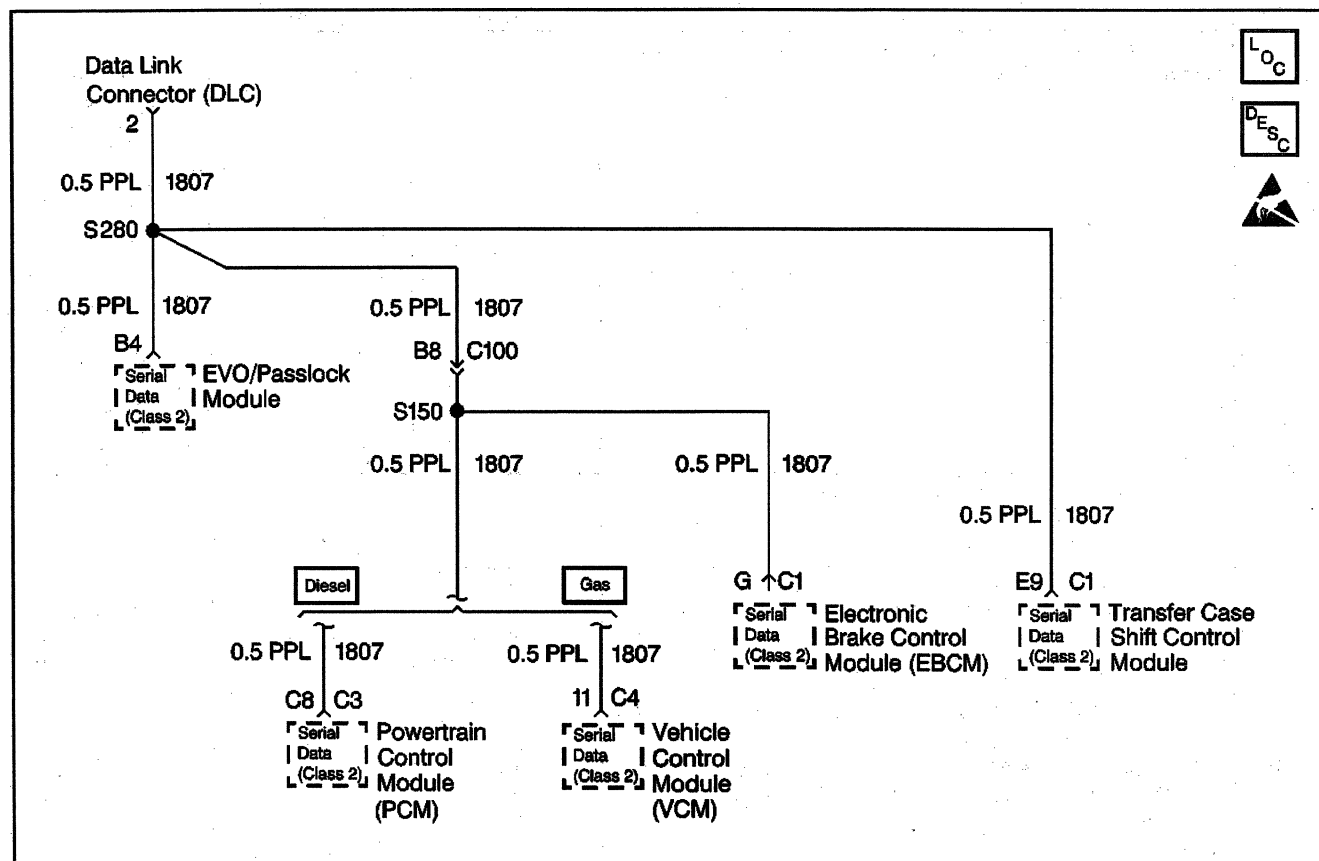
1. If the scan tool indicates No Data Communication with Vehicle, inspect the Diagnostic Link Connector. Inspect Ignition (On/Off?), then no communication with any control module is possible. This problem will be diagnosed properly by following the Diagnostic Table Scan Tool Does Not Communicate with any Class II Modules, found in this section.
2. If the engine cranks but does not start, or the engine starts and immediately stalls, a problem with the EVO/Passlock Module's power and/or ground circuits could be the problem. Refer to *A Diagnostic System Check - Theft Deterrent*.
3. This step verifies that a problem communicating with the EVO/Passlock Module exists.
4. If communication can be established with the VCM/PCM, continuity exists in CKT 1807 from the Data Link Connector terminal 2 through Splice S280.



## DTC U1192 Loss of VTD Class 2 Serial Data Com

Step	Action	Value(s)	Yes	No
1	Did you perform the On-Board Diagnostic (OBD) System Check?	—	Go to Step 2	Go to A Powertrain On Board Diagnostic (OBD) System Check (5.0L/5.7L), A Powertrain On Board Diagnostic (OBD) System Check (6.5L) or A Powertrain On Board Diagnostic (OBD) System Check (7.4L) in Engine Controls
2	With the scan tool connected to the Data Link Connector (DLC). 1. Turn the ignition switch to the RUN position. 2. Establish communications with the Vehicle Control Module (VCM)/Powertrain Control Module (PCM). Can communications be established with the VCM/PCM?	—	Go to Step 3	Go to A Diagnostic System Check - Data Link Communications
3	1. Turn the ignition to the OFF position. 2. Disconnect the Passlock™ Module connector and the scan tool from the DLC. 3. Connect a J 39200 DMM between terminal B4 of the Passlock™ Module connector and terminal 2 of the DLC. Is the resistance below the specified value?	0-5Ω	Go to Step 4	Go to Step 5
4	Replace the EVO/Passlock™ Module. Refer to <i>Theft Deterrent Module Replacement</i> in Theft Deterrent. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
5	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the Passlock™ Module and splice S280. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## DTC U1255 Serial Data Line Malfunction



393986

### Circuit Description

This circuit supplies the Passlock data to the Vehicle Control Module (VCM)/Powertrain Control Module (PCM) from the Passlock™ Module, as well as communicating all of the Class 2 messages among all of the modules and the tool, CKT 1807 (PPL).

## Conditions for Setting the DTC

**All of the following conditions must be met:**

- The ignition is active.
- Communication with the Data Link Connector and other modules is lost or at least has been lost at one time due to intermittent connection (this is usually a DTC).

### Action Taken When the DTC Sets

- Stores DTC U1125 in the Passlock™ Module memory.
- If the ignition was OFF at the time, the vehicle will not start again.
- If the engine was running at the time, the vehicle will start again but the SECURITY indicator will remain illuminated.

## Conditions for Clearing the DTC

- The Passlock™ Module continuously monitors the signal and moves the DTC from current to history on the next ignition cycle when the condition causing the fault no longer exists.

**All Passlock™ Module history codes will be cleared after 100 ignition cycles (from OFF to RUN) with no current codes active during the 100 ignition cycles.**

- Using a scan tool.

## Diagnostic Aids

- When the diagnostics direct you to take electrical measurements at the Wiring Harness Junction Blocks, refer to *Inline Harness Connector End Views* in Wiring Systems for terminal assignments of the Wiring Harness Junction Blocks.
- If the DTC is a history DTC, the problem may be intermittent. Try performing the test shown while wiggling wiring and connectors, this can often cause the malfunction to appear.

**Test Description**

The number(s) below refer to the step number(s) on the diagnostic table.

1. The VTD Diagnostic System Check will test the scan tool's ability to communicate with the EVO/Passlock Module and the Vehicle Control Module VCM/Powertrain Control Module (PCM). If communications are unable to be established with either module a CURRENT fault exists. This fault could be caused by a faulty power or ground circuit to the affected module, a faulty CKT 1807 (PPL), or a faulty control module. The VTD Diagnostic System Check table will determine if power or ground circuits are faulty. If the power and grounds test OK, you are referred to *A Diagnostic System Check - Data Link Communications* to diagnose CKT 1807 (PPL) or a faulty EVO/Passlock Module.
2. This step is to determine if the scan tool can use CKT 1807 (PPL) to communicate with the VCM/PCM.
3. This step is to determine the problem with CKT 1807 (PPL). Whether it is fault of the circuit or fault of the Passlock™ Module.
4. In this step be sure to connect all connectors removed during the diagnosis and perform the reprogramming of the Passlock™ Module.

**DTC U1255 Serial Data Line Malfunction**

Step	Action	Value(s)	Yes	No
1	Was the VTD Diagnostic System Check performed?	—	Go to Step 2	Go to A Diagnostic System Check - Theft Deterrent in Theft Deterrent
2	1. Turn the ignition switch to the ON position. 2. Connect a scan tool to the Data Link Connector (DLC). 3. Establish communication with the Vehicle Control Module (VCM)/Powertrain Control Module (PCM). Does the scan tool communicate with the VCM/PCM?	—	Go to Step 3	Go to A Diagnostic System Check - Data Link Communications
3	1. Turn the ignition to the OFF position. 2. Disconnect the Passlock™ Module. 3. Connect a Digital Multimeter (DMM) between the terminal B4 of the Passlock™ Module and terminal 2 of the DLC. Is the resistance below the specified value?	0-5Ω	Go to Step 4	Go to Step 5
4	Replace the Passlock™ Module. Refer to <i>Theft Deterrent Module Replacement</i> in Theft Deterrent. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
5	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between the Passlock™ Module and the DLC. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## Scan Tool Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Data Link Communications System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	1. Locate an identical vehicle with the same systems. 2. Connect the scan tool to the second vehicles DLC. 3. Establish communications with the second vehicle. Can communications be established?	—	Go to Step 3	Go to scan tools owners manual.
3	1. Disconnect the scan tool from the secondary vehicle. 2. Ensure the ignition switch is in the OFF position on the original vehicle. 3. Connect a testlamp between terminals 16 of the DLC and ground on the original vehicle. Does the testlamp light?	—	Go to Step 4	Go to Step 6
4	Connect the testlamp between terminals 16 and 4, and then 16 and 5 of the DLC. Does the testlamp light?	—	Go to Step 5	Go to Step 7
5	Inspect the power and ground circuits of the DLC for intermittents and poor connections. Refer to <i>Intermittents and Poor Connections Diagnosis</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
6	Locate and repair the open in CKT 840 (ORN) between the AUX PWR fuse and the DLC. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
7	Locate and repair the open in CKT 150 (BLK) or CKT 451 (BLK/WHT) between the DLC and ground. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## Scan Tool Does Not Communicate with EBCM

Step	Action	Value(s)	Yes	No
1	Did you perform the Data Link Communications System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	1. Turn the ignition to the OFF position. 2. Disconnect the scan tool from the Data Link Connector (DLC). 3. Disconnect C1 from the Electronic Brake Control Module (EBCM). 4. Connect a J 39200 DMM between terminal F of the EBCM and terminal 12 of the DLC. Is continuity present?	—	Go to Step 3	Go to Step 4
3	Replace the EBCM. Refer to <i>Electronic Brake Control Module (EBCM) Replacement</i> Electronic Brake Control Module Replacement. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
4	Locate and repair the open or cause of resistance in CKT 799 (TAN/WHT) between the EBCM and the DLC. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## Scan Tool Does Not Communicate with UART Data Line

Step	Action	Value(s)	Yes	No
1	Did you perform the SIR Diagnostic System Check?	—	Go to Step 2	<i>SIR Diagnostic System Check</i> in SIR
2	1. Turn the ignition switch to the RUN position. 2. Connect a <i>J 39200</i> DMM between the Data Link Connector (DLC) terminals 9 and 4. Is the voltage less than the specified value?	4–5 volts	Go to Step 4	Go to Step 3
3	Is the voltage greater than the specified value?	4–5 volts	Go to Step 6	<i>SIR Diagnostic System Check</i> in SIR
4	1. Turn the ignition switch to the OFF position. 2. Connect a <i>J 39200</i> DMM between terminal 9 of the DLC and ground. Is continuity present?	—	Go to Step 5	Go to Step 8
5	Locate and repair the short to ground in CKT 800 (TAN) between the Sensing and Diagnostic Module (SDM) and the DLC. Refer to <i>SIR Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	<i>SIR Diagnostic System Check</i> in SIR	—
6	1. Disconnect the SDM connector. Refer to <i>Inflatable Restraint Sensing and Diagnostic Module Replacement</i> in SIR. 2. Turn the ignition switch to the RUN position. 3. Connect a <i>J 39200</i> DMM between terminal 9 of the DLC and ground. Is the voltage greater than the specified value?	0 volts	Go to Step 7	Go to Step 8
7	Locate and repair the short to voltage in CKT 800 (TAN) between the Sensing and Diagnostic Module (SDM) and the DLC. Refer to <i>SIR Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	<i>SIR Diagnostic System Check</i> in SIR	—
8	Perform the SDM Integrity Check. Refer to <i>SDM Integrity Check</i> in SIR. Did the SDM pass the check?	—	<i>SIR Diagnostic System Check</i> in SIR	Go to Step 9
9	Replace the SDM. Refer to <i>Inflatable Restraint Sensing and Diagnostic Module Replacement</i> in SIR. Is the repair complete?	—	<i>SIR Diagnostic System Check</i> in SIR	—

## Scan Tool Does Not Communicate with VCM/PCM (Vehicle Control Module)

Step	Action	Value(s)	Yes	No
1	Did you perform the Data Link Communications Diagnostic System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	Turn the Ignition Switch to the RUN position. Does the Malfunction Indicator Lamp (MIL) illuminate?	—	Go to Step 3	Go to A Powertrain On Board Diagnostic (OBD) System Check (5.0L/5.7L) or A Powertrain On Board Diagnostic (OBD) System Check (7.4L) in Engine Controls
3	1. From the scan tool's main menu, select Powertrain Diagnostics. 2. Establish communications with the Vehicle Control Module (VCM). Does the scan tool indicate "No Data Communication with Vehicle"?	—	Go to Step 4	Go to A Diagnostic System Check - Data Link Communications
4	1. From the scan tool's main menu, select Chassis Diagnostics. 2. Establish communications with the Electronic Brake Control Module (EBCM). Is the scan tool able to communicate with the EBCM?	—	Go to Step 5	Go to A Diagnostic System Check - Data Link Communications
5	1. Turn the Ignition Switch to the OFF position. 2. Disconnect connector C4 from the VCM 3. Connect a J 39200 DMM between terminal 11 of connector C4 of the VCM and splice S150. Is continuity present?	—	Go to Step 7	Go to Step 6
6	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between splice S150 and terminal 11, connector C4 of the VCM. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
7	Replace the VCM. Refer to <i>VCM Replacement/Programming</i> (5.0L/5.7L); <i>VCM Replacement/Programming</i> (7.4L) in <i>Engine Controls</i> . Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

**Scan Tool Does Not Communicate with VCM/PCM (Powertrain Control Module )**

Step	Action	Value(s)	Yes	No
1	Did you perform the Data Link Communications Diagnostic System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	Turn the Ignition Switch to the RUN position. Does the ABS Indicator Lamp illuminate?	—	Go to Step 3	Go to A Diagnostic System Check - ABS
3	1. From the scan tool's main menu, select the Chassis Diagnostics. 2. Establish communication with the Electronic Brake Control Module (EBCM). Does the scan tool indicate "No Communication with Vehicle"?	—	Go to A Diagnostic System Check - Data Link Communications	Go to Step 4
4	1. From the scan tool's main menu, select Powertrain Diagnostics. 2. Establish communication with the Powertrain Control Module (PCM). Is the scan tool able to communicate with the VCM?	—	Go to A Diagnostic System Check - Data Link Communications	Go to Step 5
5	1. Turn the Ignition Switch to the OFF position. 2. Disconnect connector C3 from the PCM. 3. Connect a J 39200 DMM between cavity C8 of connector C3 of the PCM and splice S150. Is continuity present?	—	Go to Step 6	Go to Step 7
6	Replace the PCM. Refer to <i>PCM Replacement/Programming</i> in Engine Controls. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
7	Locate and repair the open or cause of resistance in CKT 1807 (PPL) between splice S107 and the EBCM. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

**Scan Tool Does Not Communicate w/Class 2 Data Line**

Step	Action	Value(s)	Yes	No
1	Did you perform the Data Link Communications System Check?	—	Go to Step 2	Go to A Diagnostic System Check - Data Link Communications
2	1. Disconnect the scan tool from the Data Link Connector (DLC). 2. Turn the ignition switch to the RUN position. 3. Connect a J 39200 DMM between terminal 2 and 4 of the DLC. Is the voltage reading greater than the specified value?	7 volts	Go to Step 3	Go to Step 10
3	1. Turn the ignition to the OFF position. 2. Disconnect connector C100. 3. Take the same reading between terminals 2 and 4 of the DLC as in step 3. Is the voltage reading greater than the specified value?	7 volts	Go to Step 6	Go to Step 4

## Scan Tool Does Not Communicate w/Class 2 Data Line (cont'd)

Step	Action	Value(s)	Yes	No
4	1. Turn the ignition to the OFF position. 2. Reconnect connector C100. 3. Disconnect connector C1 of the Electronic Brake Control Module (EBCM). 4. Take the same reading between terminals 2 and 4 of the DLC as in step 3. Is the voltage reading greater than the specified value?	7 volts	Go to Step 5	Go to Step 18
5	1. Turn the ignition to the OFF position. 2. Disconnect the Vehicle Control Module (VCM) or Powertrain Control Module (PCM). 3. Take the same reading between terminals 2 and 4 of the DLC as in step 3. Is the voltage reading greater than the specified value?	7 volts	Go to Step 8	Go to Step 18
6	1. Turn the ignition to the OFF position. 2. Disconnect the EVO/Passlock Module (VTD). 3. Take the same reading between terminals 2 and 4 of the DLC as in step 3. Is the voltage reading greater than the specified value?	7 volts	Go to Step 7	Go to Step 18
7	1. Turn the ignition to the OFF position. 2. Disconnect the Transfer Case Shift Control Module connector C1. 3. Take the same reading between terminals 2 and 4 of the DLC as in step 3. Is the voltage reading greater than the specified value?	7 volts	Go to Step 9	Go to Step 18
8	Locate and repair the short to voltage in CKT 1807 (PPL) between C100 and the EBCM, VCM/PCM. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
9	1. Locate and repair the short to voltage in CKT 1807 (PPL) between the DLC and the VTD, C100 and the Transfer Case Shift Control Module. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. Reconnect C100. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
10	1. Turn the ignition switch to the OFF position. 2. Connect a J 39200 (continuity) between cavity 2 of the DLC and ground. Is continuity present?	—	Go to Step 11	Go to A Diagnostic System Check - Data Link Communications
11	1. Disconnect connector C100. 2. Take the same reading between terminals 2 of the DLC and ground as in step 10. Is continuity present?	—	Go to Step 14	Go to Step 12
12	1. Reconnect connector C100. 2. Disconnect connector C1 of the Electronic Brake Control Module (EBCM). 3. Take the same reading between terminals 2 of the DLC and ground as in step 10. Is continuity present?	—	Go to Step 13	Go to Step 18
13	1. Disconnect the Vehicle Control Module (VCM) or Powertrain Control Module (PCM). 2. Take the same reading between terminals 2 of the DLC and ground as in step 10. Is continuity present?	—	Go to Step 16	Go to Step 18



## Scan Tool Does Not Communicate w/Class 2 Data Line (cont'd)

Step	Action	Value(s)	Yes	No
14	1. Disconnect the EVO/Passlock Module (VTD). 2. Take the same reading between terminals 2 of the DLC and ground as in step 10. Is continuity present?	—	Go to Step 15	Go to Step 18
15	1. Disconnect the Transfer Case Shift Control Module connector C1. 2. Take the same reading between terminals 2 of the DLC and ground as in step 10. Is continuity present?	—	Go to Step 17	Go to Step 18
16	Locate and repair the short to ground in CKT 1807 (PPL) between C100 and the EBCM, VCM/PCM. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
17	1. Locate and repair the short to ground in CKT 1807 (PPL) between the DLC and the VTD, C100 and the Transfer Case Shift Control Module. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. Reconnect C100. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—
18	Replace the control module that you disconnected last. Is the repair complete?	—	Go to A Diagnostic System Check - Data Link Communications	—

## Scan Tool Does Not Communicate w/E and C Data Line

Step	Action	Value(s)	Yes	No
1	Did you perform the Radio/Audio Diagnostic System Check?	—	Go to Step 2	Radio/Audio System Check in Entertainment
2	1. Turn ignition to the OFF position. 2. Disconnect the scan tool, if connected. 3. Disconnect connector C2 from the Radio. 4. Connect a J 39200 DMM between terminal 15 of the Radio connector C2 and terminal 14 of the Data Link Connector (DLC). Is continuity present?	—	Go to Step 3	Go to Step 4
3	Replace the Radio. Refer to <i>Radio Replacement</i> in Entertainment. Is the repair complete?	—	Radio/Audio System Check in Entertainment	—
4	Locate and repair the open or cause of resistance in CKT 835 (DK GRN) between the Radio and the DLC. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Radio/Audio System Check in Entertainment	—

## Description and Operation

### Data Link Communications Circuit Description

The Data Link Connector DLC connection is used as an access point for different vehicle diagnostic and programming functions, including those involving the use of a scan tool. Three different types of Serial Data Communications are accessible through the DLC.

#### UART

The UART Serial Data communication relies on a 5 volt digital signal for the exchange of data between different control modules and to provide scan tool diagnostic data. When the ignition switch is in the RUN position and the UART line is at rest, i.e. no communication taking place, the voltage remains HIGH at approximately 5 volts. When data is transmitted the voltage is pulled to ground, approximately 0 volts.

The Supplemental Inflatable Restraint System's Sensing and Diagnostic Module (SDM) utilizes UART communications. The SDM uses UART serial data to allow communication with a scan tool for diagnostic purposes. Diagnostic Trouble Codes (DTC's) stored by the SDM can be retrieved, viewed and cleared with the use a scan tool. A loss of UART communications would prevent the scan tool from communicating with the SDM during SIR system diagnosis.

#### Class 2

Modules on the Class 2 Data Line use State of Health communication messages to control and monitor other modules. Some control modules on the Class 2 communication system have the ability to recognize other modules that are no longer communicating. When this problem occurs, the module(s) that recognize the problem may store one or more DTC's identifying the failed module. From the beginning of a power mode, communications between modules continues every 2 seconds. If the communication time between modules passes 5 seconds a State of Health DTC will set.

Failure to communicate with the Class 2 data circuit could be anyone of the following faults:

- A faulty Class 2 data line, CKT 1807 (PPL)
- A fault in the modules power circuit
- A fault in modules ground circuits
- A faulty control module

Communication failure DTC's are identified as 5 digit codes, with the first digit being U. The remaining digits are numeric and refer to the specific system that has failed.

#### E&C Bus

The Entertainment and Comfort (E&C) Bus has limited function capability. By connecting a scan tool, the radio receiver can be requested to transmit it's hardware, software, and calibration values through the E&C Bus to the scan tool.

#### Remote Control Door Lock Receiver (Remote Keyless Entry) Programming

The DLC provides a connection to the Remote Control door Lock Receiver to allow the programming of the receiver to recognize the specific Remote Control Door Lock Transmitters used. If the Remote Control Door Lock Receiver will not respond to programming input, refer to Unable to Reprogram Remote Keyless Entry Control Module diagnostic table.

#### Selectable Transfer Case Control Module (TCCM) Diagnostics

The Selectable Transfer Case Control Module has limited self-diagnostic capabilities. If the TCCM diagnostics are not functioning properly follow Obtaining Diagnostic Trouble Codes. Refer to *Obtaining Diagnostic Trouble Codes*

# Lighting Systems

## Specifications

### Fastener Tightening Specifications

Application	Specification	
	Metric	English
Cargo/Stoplamp Mounting Screws	2 N·m	17 lb in
Center High-Mounted Stoplamp Mounting Screws	2 N·m	17 lb in
Head Clamping Screw	3 N·m	27 lb in
Mounting Bracket Screws	15 N·m	11 lb ft

### Bulb Usage

Lamp or Bulb	Trade Number	Power Rating	Quantity
Instrument Panel Lights			
ABS Warning Indicator	74	0.7	1
Brake Warning Indicator	74	0.7	1
Charging System Indicator Lamp	74	0.7	1
Check Gages Indicator	74	0.7	1
Daytime Running Lights Indicator	74	0.7	1
Directional Signal Indicator	74	0.7	2
Headlamp Beam Indicator	74	0.7	1
Instrument Cluster Illuminating Lamps	194	0.2	4
Instrument Cluster Illuminating Lamps w/ Tachometer	194	0.2	6
Low Coolant Lamp	74	0.7	1
Malfunction Indicator (SERVICE ENGINE SOON)	74	0.7	1
Malfunction Indicator (SERVICE THROTTLE SOON)	74	0.7	1
Safety Belt Warning	74	0.7	1
Service Fuel Filter Lamp	74	0.7	1
Transmission Indicator (PRNDL)	161	1	1
Upshift Indicator	74	0.7	1
Wait Lamp	74	0.7	1
Interior Lights			
Ashtray	194	2	1
Courtesy Lamp	1003	15	2
Dome Lamps	211-2	12	2
Four Wheel Drive Indicator	161	1	1
Four Wheel Drive Shift Lever	194	1	1
Heater or A/C Control Lamp	194	2	1
Instrument Panel Compartment Lamp	194	2	1
Reading Lamps	211-2	12	4
Roof Console Lamp	168	3	2
Sunshade Vanity Mirror	74	0.7	4

## Bulb Usage (cont'd)

Lamp or Bulb	Trade Number	Power Rating	Quantity
Exterior Lights			
Backup Lamp	3156	32	2
Backup Lamp (Cab/Chassis Only)	1156	32	2
Center High-Mounted Stoplamp Bulb	921	32	1
Fender Clearance Lamp	194	2	4
Fog Lamp	H3	115	2
Fog Lamp - Denali	GE 894	115	2
Fog Lamp - Limited & Z-71	GE 881	115	2
Front Marker Lamp	194	2	2
Front Park and Turn Lamp	2375NA	30/2	4
Headlamps: 2 Headlamp System	H6054	35/65	2
Headlamps: Denali	HB3 (High)/ HB4 (Low)	65/55	2
License Plate Lamp	194	2	2
Rear Parking Lamp	3057	32-2	2
Rear Stop and Turn Lamp	3057	32-2	2
Reel Lamp	232	10	1
Roof Marker Lamp	194	2	5
Underhood Lamp	93	15	1

## GM SPO Group Numbers

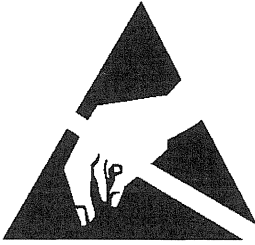
Application	GM SPO Group Number
Cargo Lamp Switch	9.988
Daytime Running Lamp Module	2.485
Door Jamb Switch	16.494
Emergency Vehicle Roof Lamp Switch	2.575
Fog Lamp Switch	2.485
Front Park/Turn Signal Lamp	2.575
Front Side Marker Lamp	2.757
Headlamp	2.725
Headlamp Auto Control Module	2.485
Headlamp Capsule	2.725
Headlamp Switch	2.485
Headlamp - Parking, Turn Signal, and Cornering	2.585
Lamp/Dome	16.494
Lamp/Dome — Bracket	16.494
Lamp/Dome — Harness	16.495
Lamp/Dome — Lamp with Reading	16.494
Lamp/High Mounted Stop	2.679
Lamp/IP Compartment	16.110
Lamp/Dome — Lens	16.495
Lamp/Underhood	8.890
Lamp/Rear Fender Clearance	2.575
Lamp/Rear License	2.709
Spotlamp	9.773
Taillamp	2.679

## Schematic and Routing Diagrams

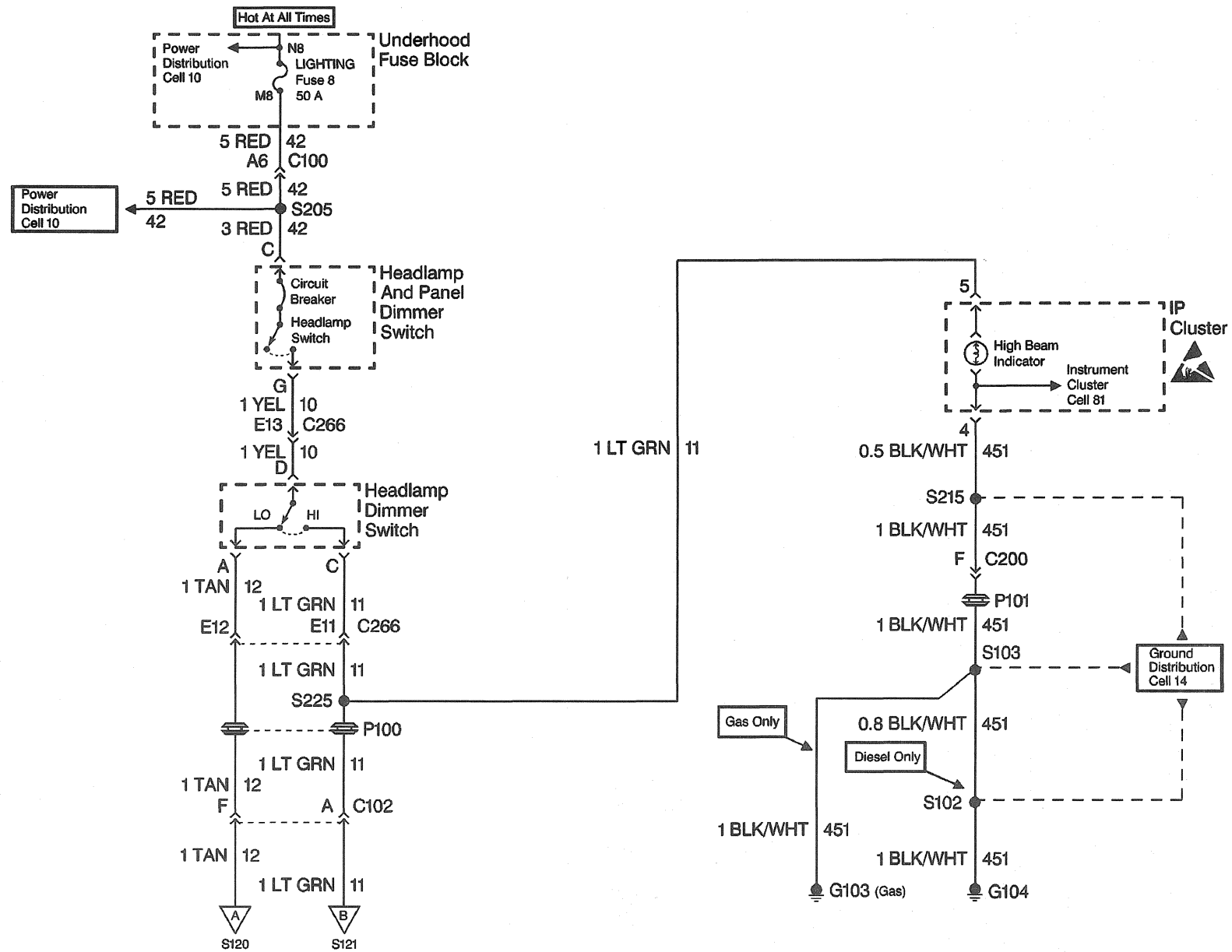
## Lighting Systems Schematic References

Reference on Schematic	Section Number - Subsection Name
Automatic Day/Night Mirrors Cell - 148	8 - Stationary Windows
Backup Lights Cell - 112	8 - Lighting Systems
Cruise Control Cell - 34	6 - Engine Controls
Exterior Lights Cell - 110	8 - Lighting Systems
Fog Lights Cell - 103	8 - Lighting Systems
Fuse Block Details Cell - 11	8 - Wiring Systems
Ground Distribution Cell - 14	8 - Wiring Systems
Headlights Twilight Sentinel/DRL Cell - 10	8 - Lighting Systems
Interior Lights Cell - 114	8 - Lighting Systems
Interior Lights Dimming Cell - 117	8 - Lighting Systems
Power Distribution Cell - 10	8 - Wiring Systems

## Lighting Systems Schematic Icons

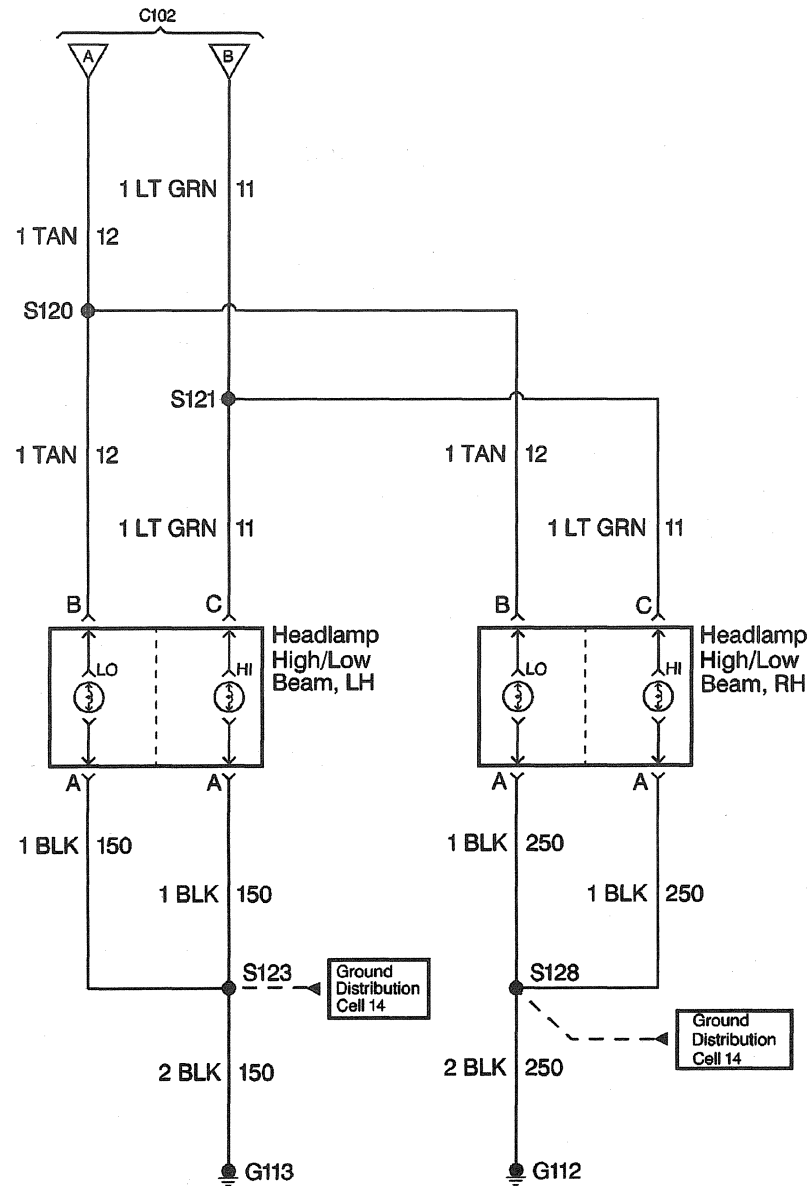
Icon	Icon Definition
 330402	Refer to <i>ESD Notice</i> in Cautions and Notices.

# Headlights Schematics (Cell 100: LIGHTING Fuse 8 (Export))



366355

# Headlights Schematics (Cell 100: Headlamps (Export))



L<sub>OC</sub>

D<sub>ESC</sub>



## 8-50 Lighting Systems



366360



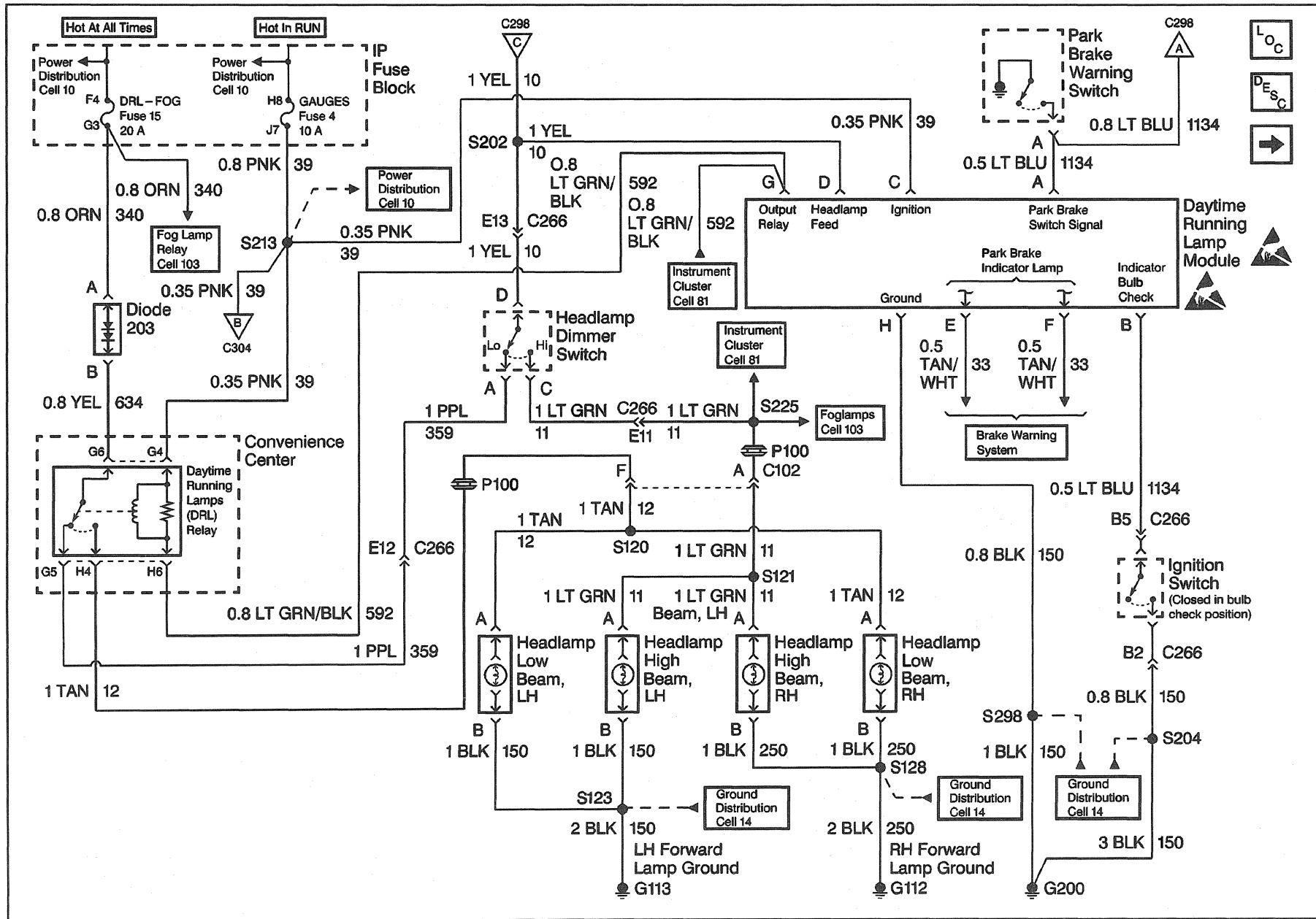
## **Body and Accessories**



## **8-52 Lighting Systems**



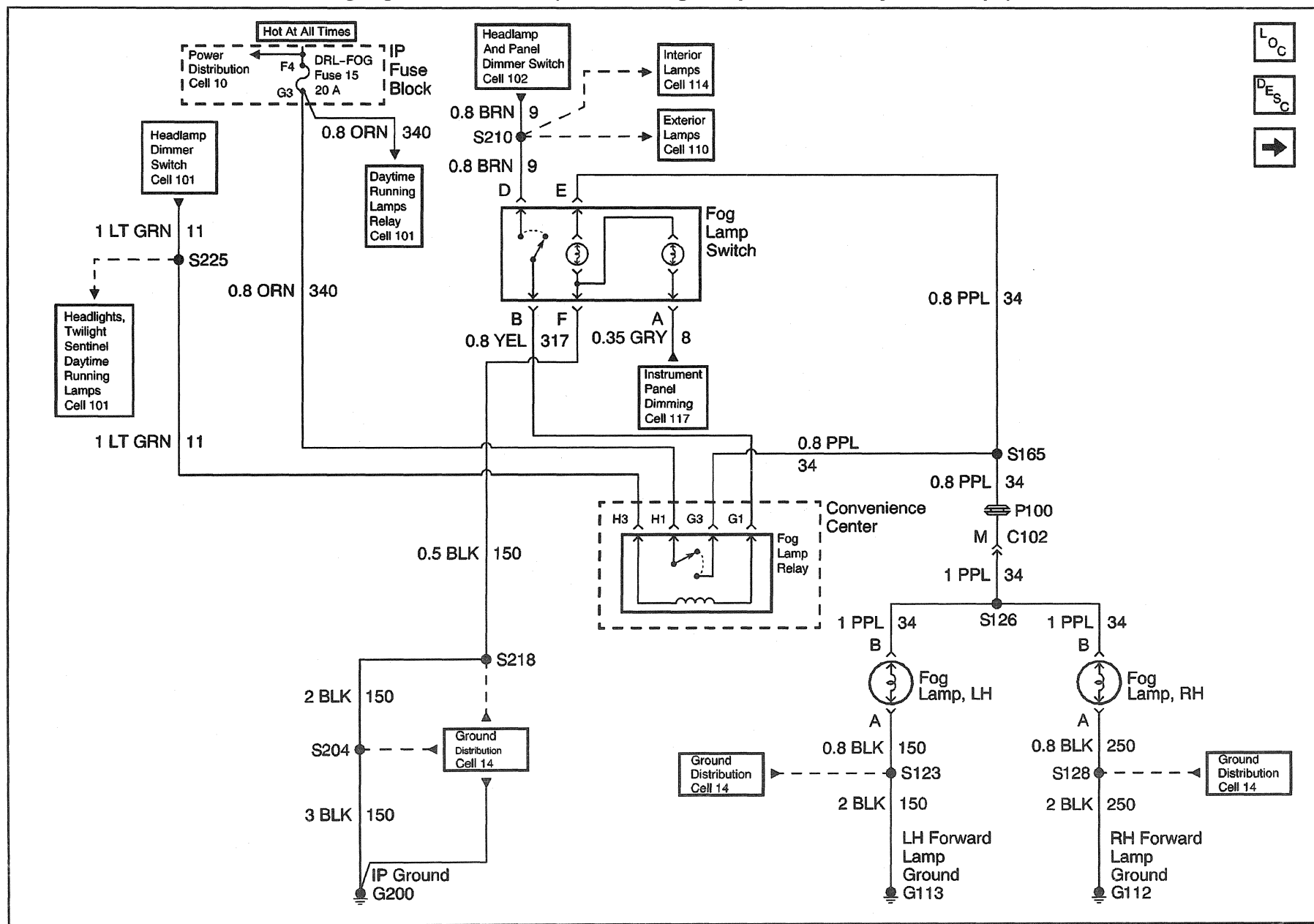
# Headlights Twilight Sentinel/DRL Schematics (Luxury) (Cell 101: DRL Module, DRL Relay, Headlamps)



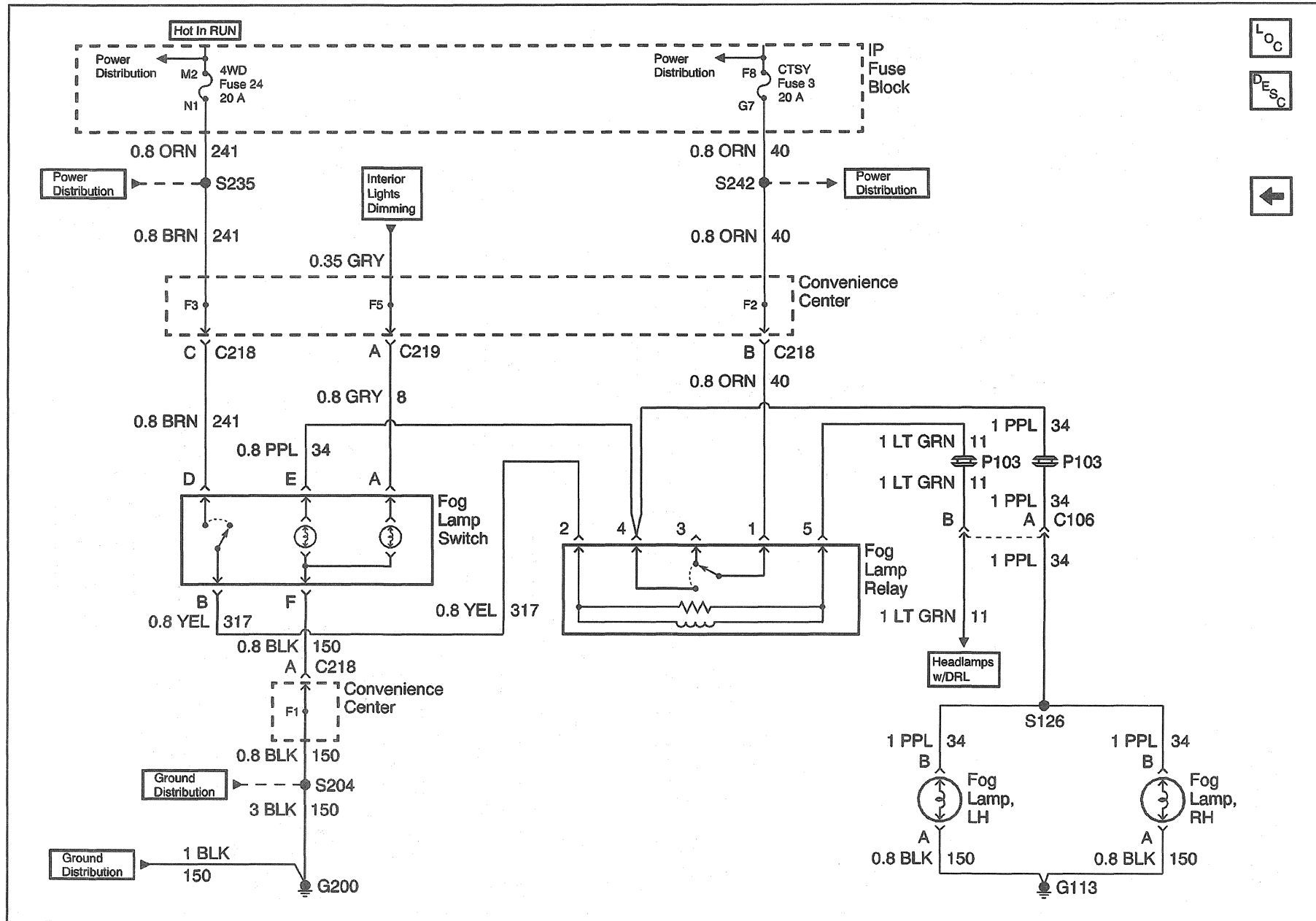
## 8-54 Lighting Systems



# Fog Lights Schematics (Cell 103: Fog Lamp Switch, Relay and Lamps)

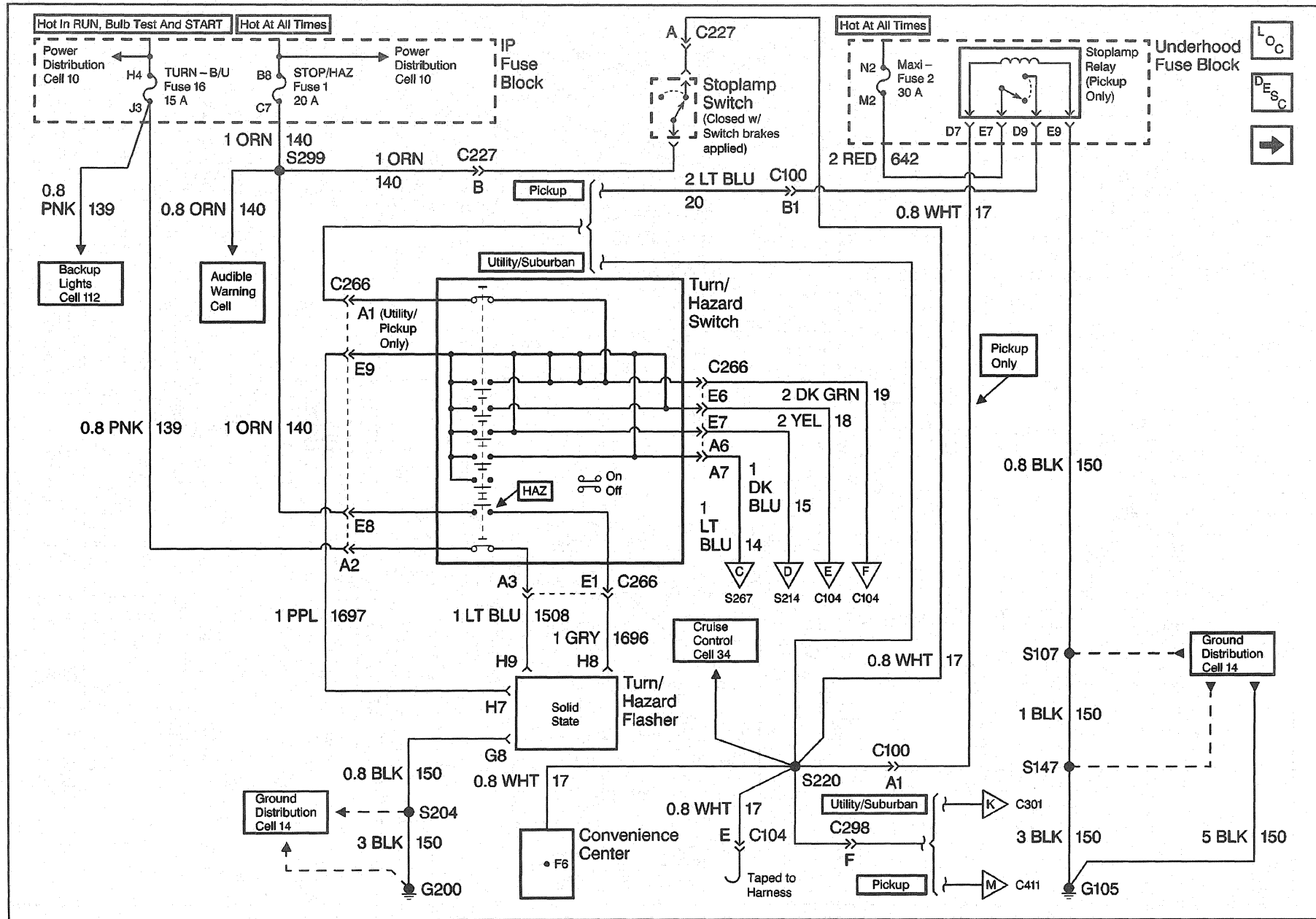


# Fog Lights Schematics (Z71 Tahoe / Limited)

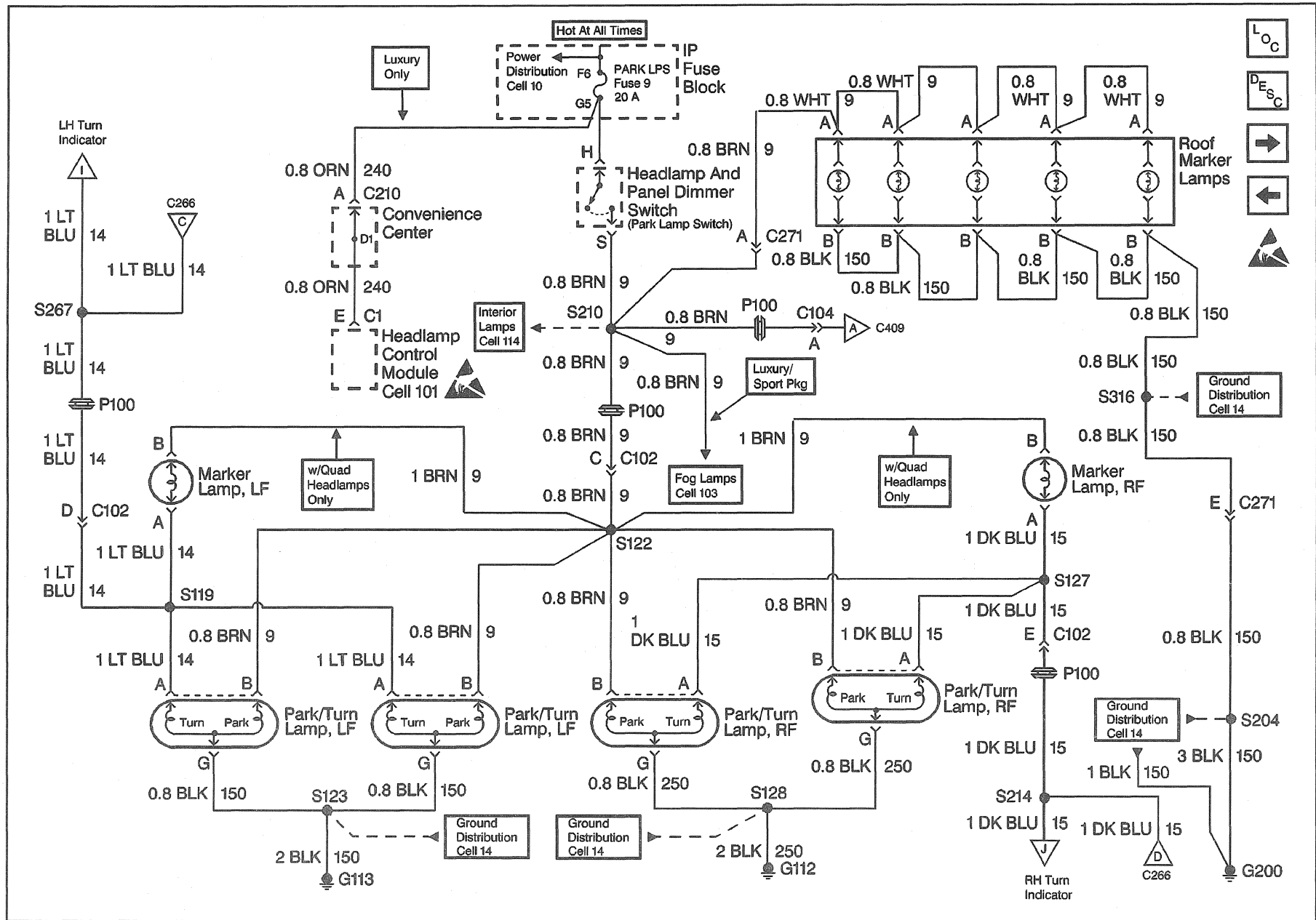


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# Exterior Lights Schematics (Cell 110: STOP/HAZ Fuse 1, Turn/Hazard Switch, Turn/Hazard Flasher)

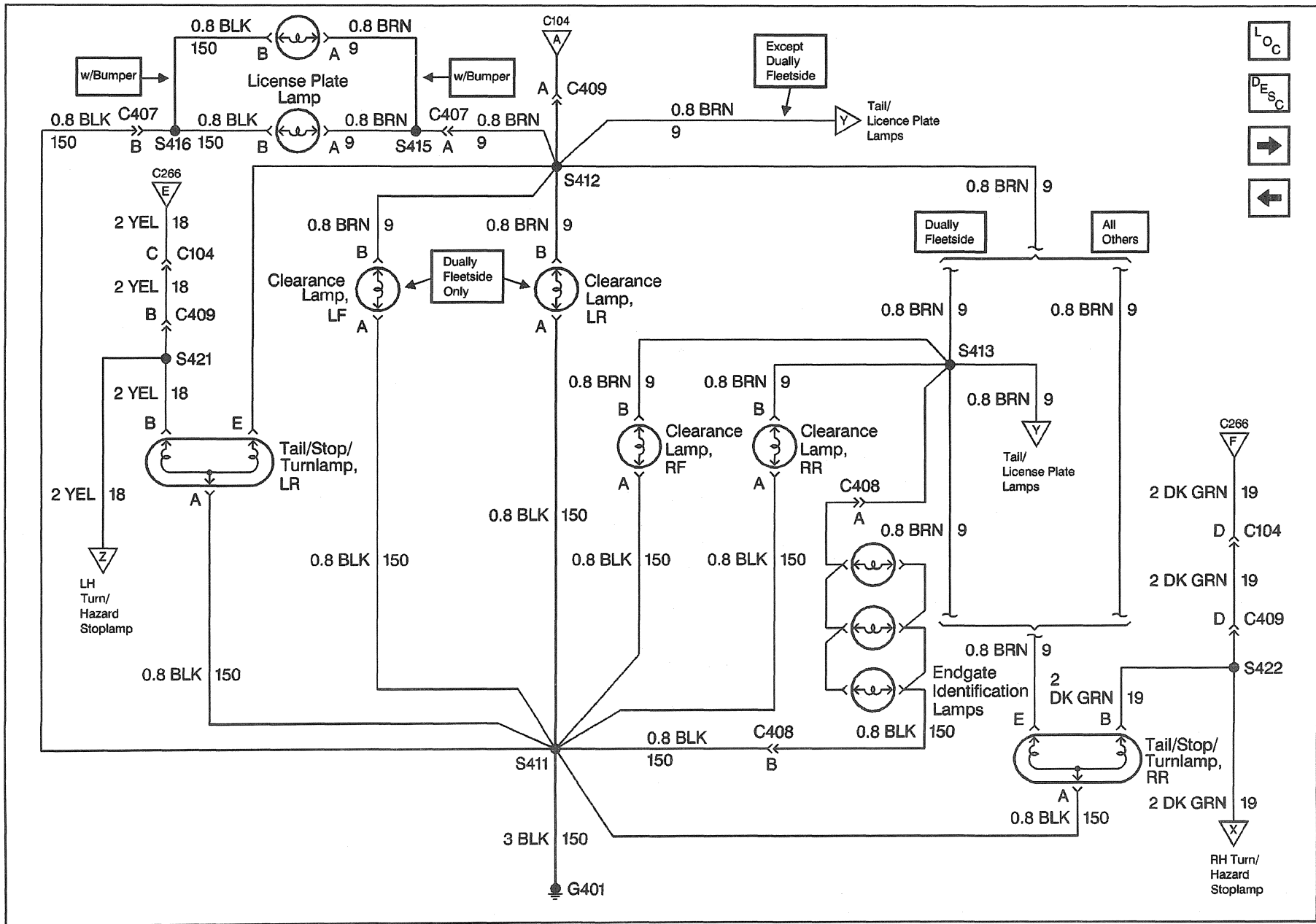


# Exterior Lights Schematics (Cell 110: Front Park and Turn Lamps, Roof Marker Lamps)

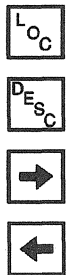
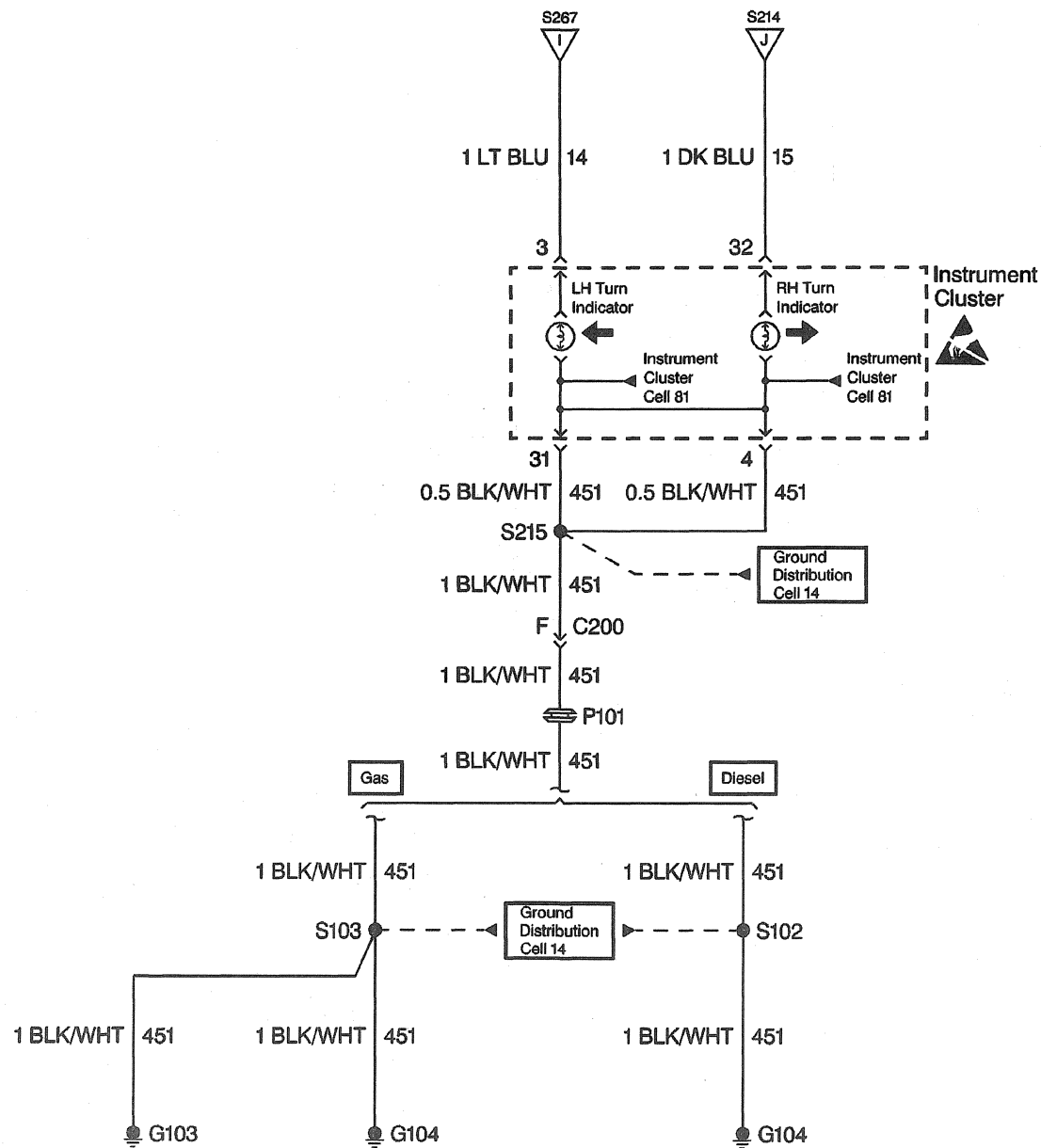




# Exterior Lights Schematics (Cell 110: Tail/Stop-Turn Lamps, Endgate Marker Lamps)



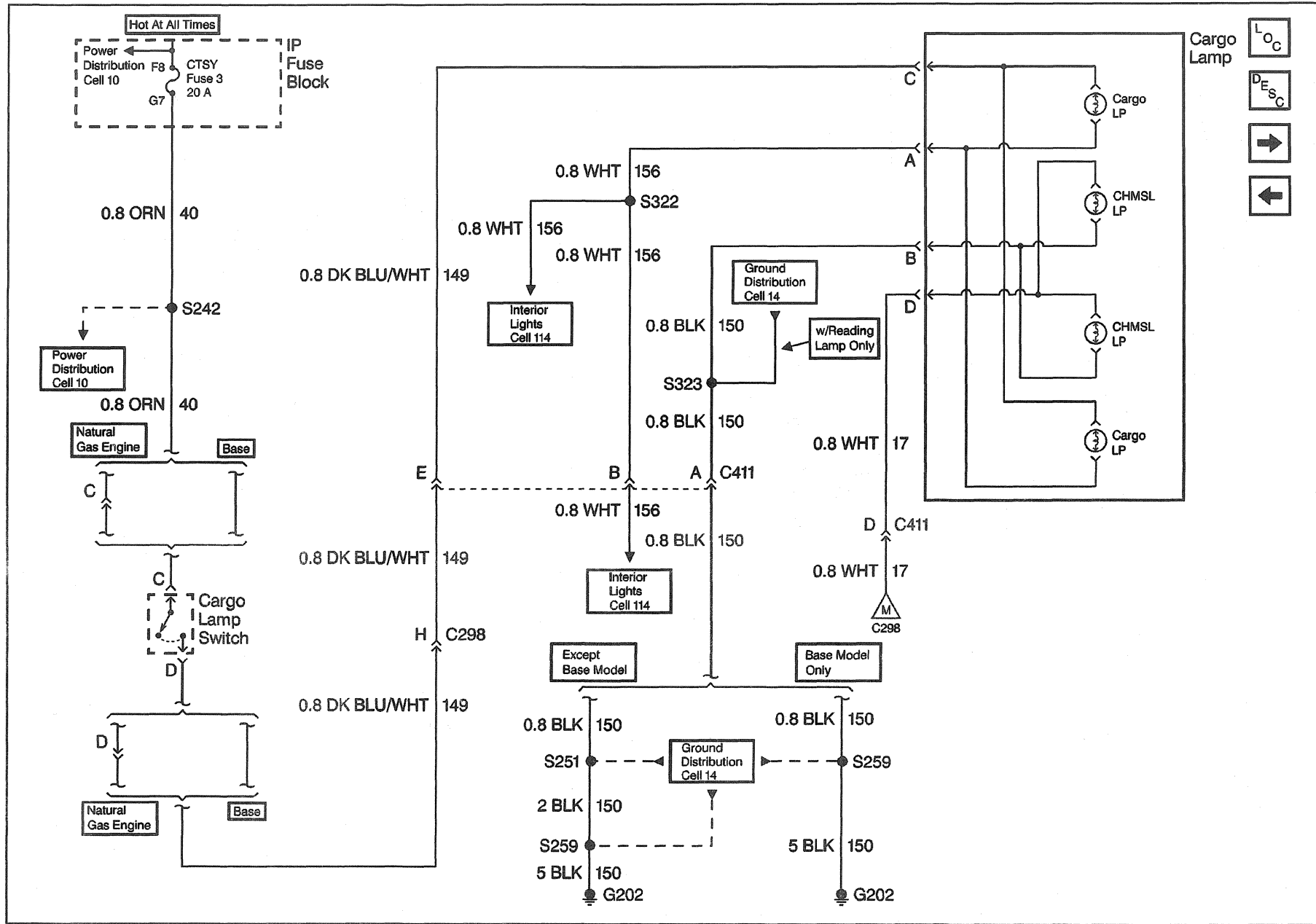
# Exterior Lights Schematics (Cell 110: Instrument Cluster, G103 and G104)



## Body and Accessories

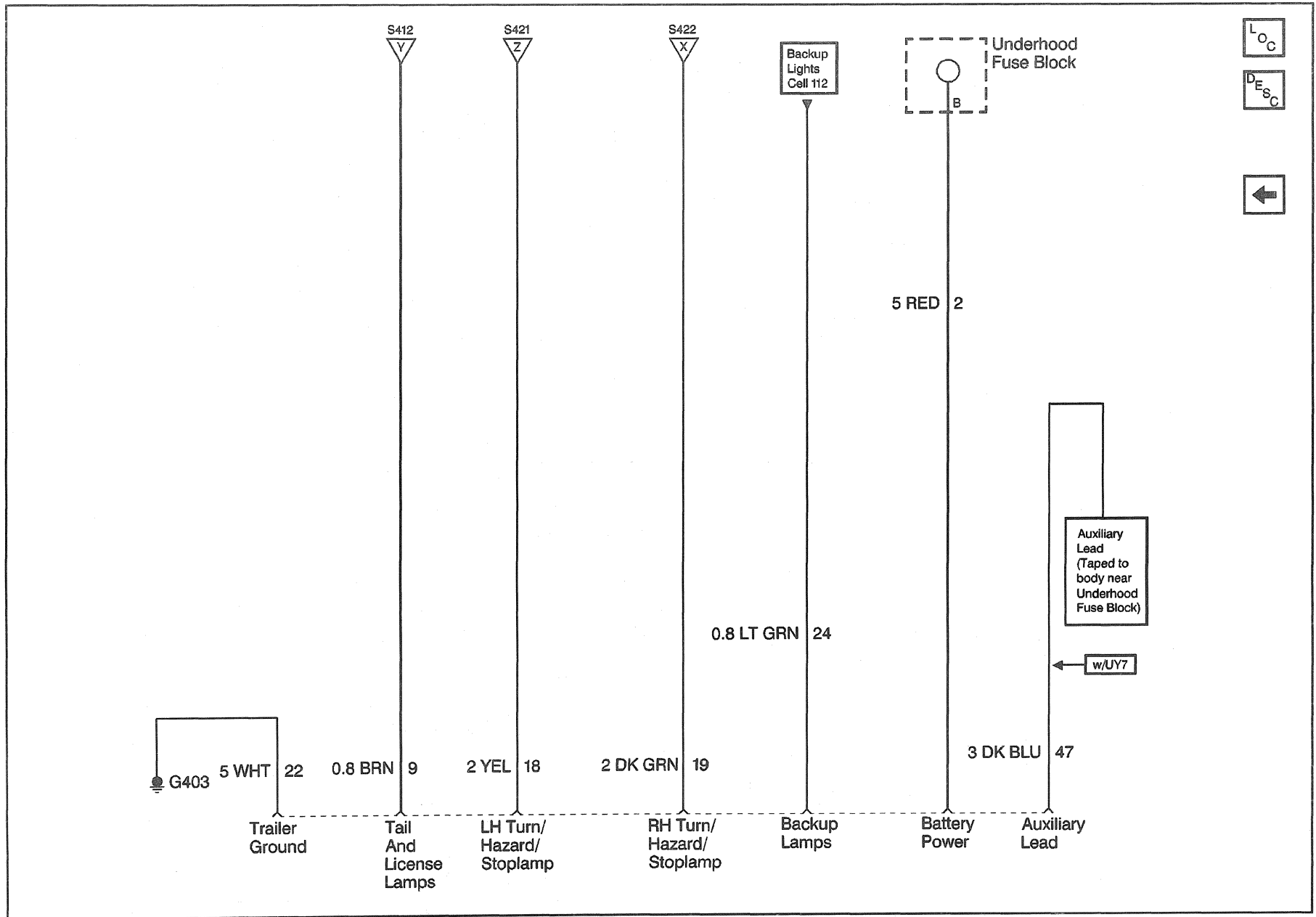


# Exterior Lights Schematics (Cell 110: CTSY Fuse 3, Cargo Lamp (Pickup Only))

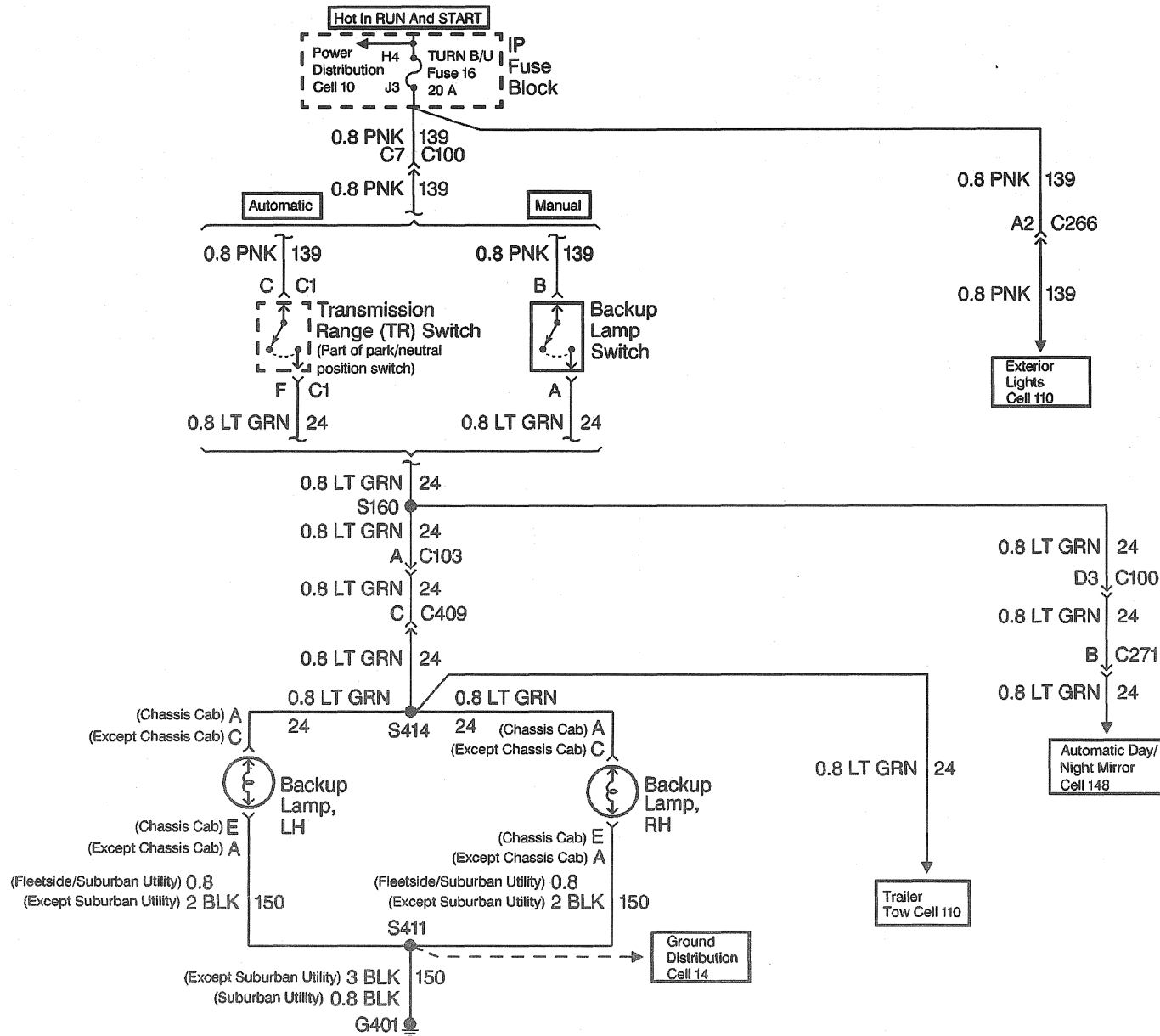


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# Exterior Lights Schematics (Cell 110: Trailer Tow)



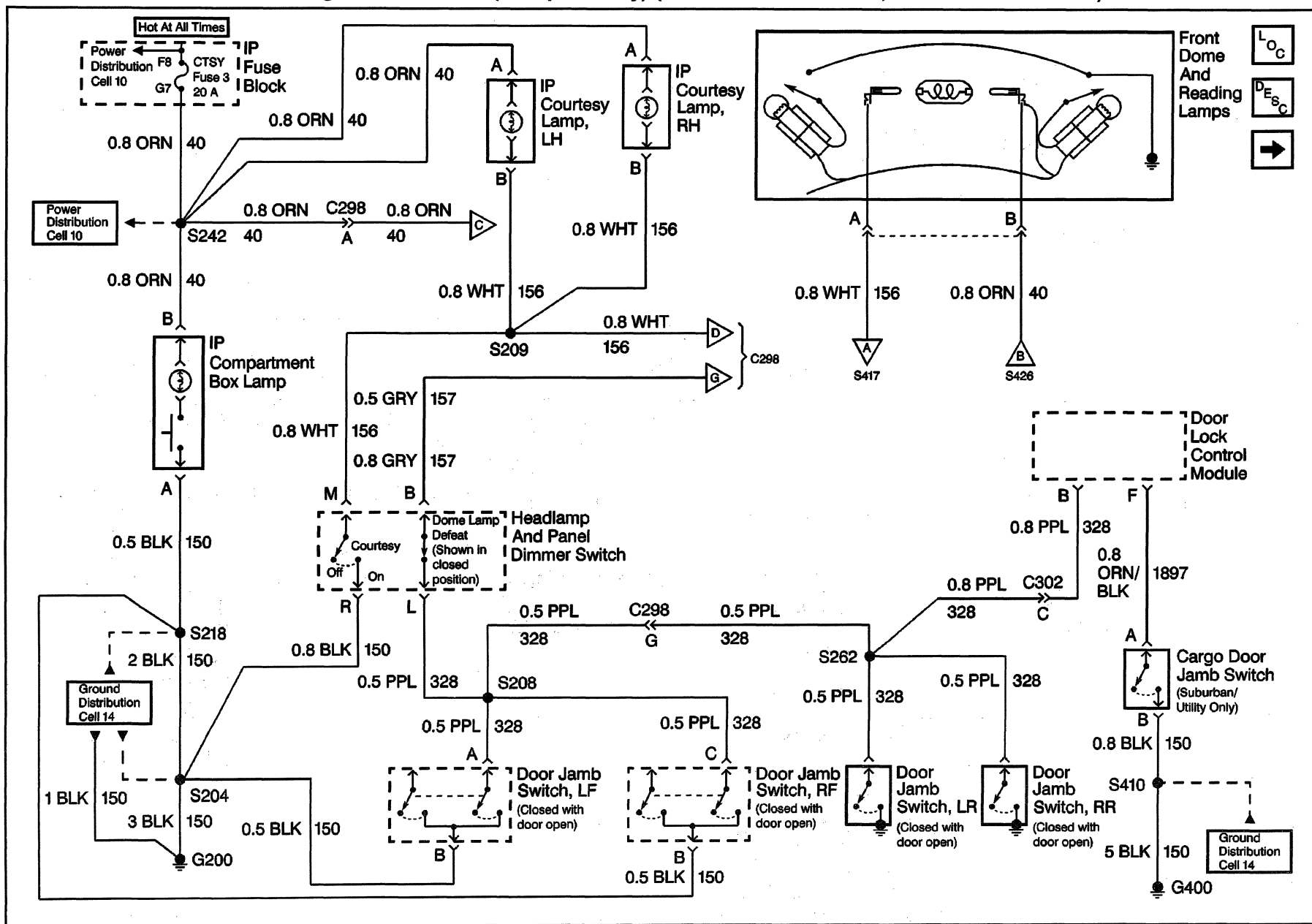
# Backup Lights Schematics (Cell 112: Backup Lamps, Backup Switch)



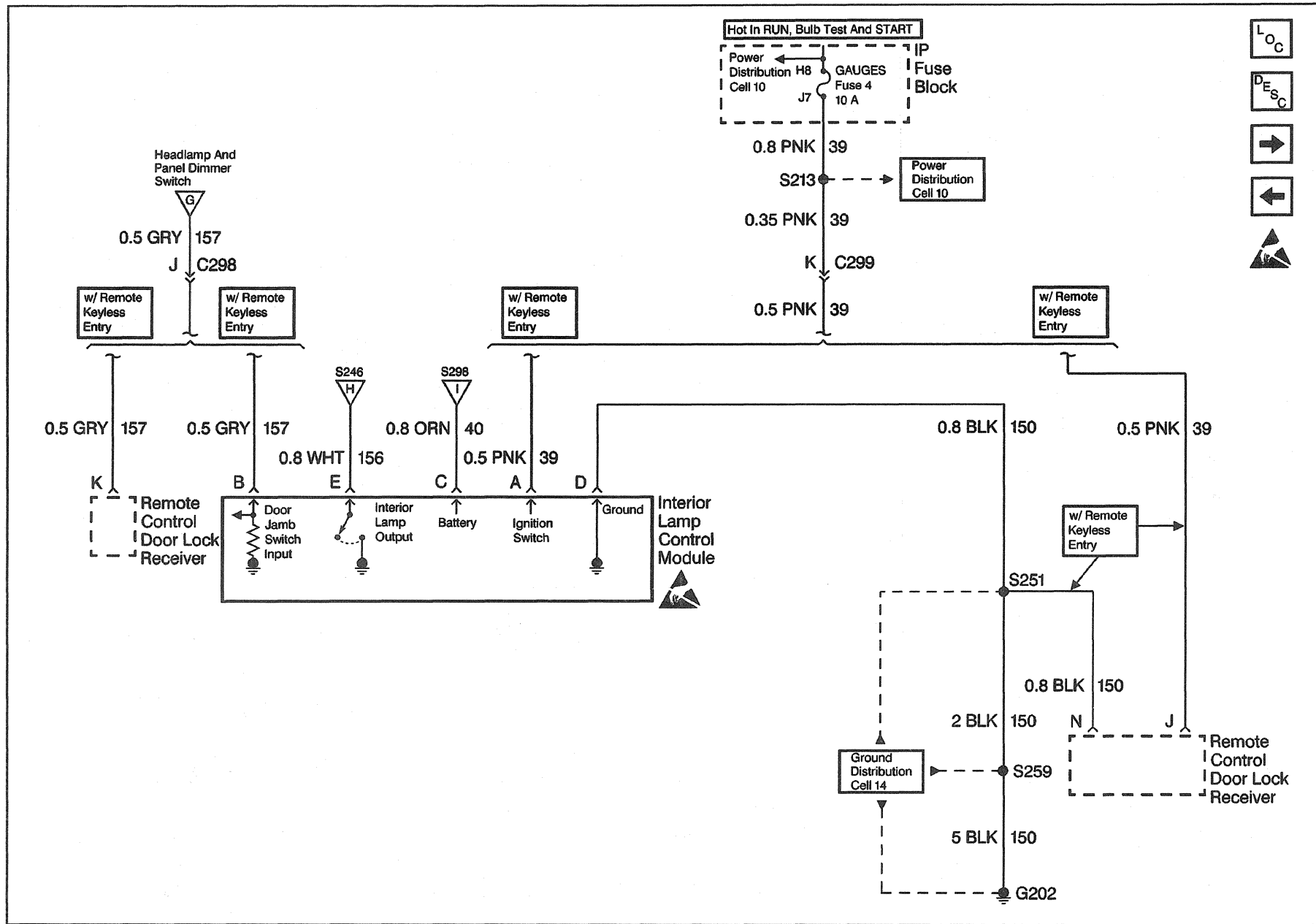
LOC

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# Interior Lights Schematics (Except Luxury) (Cell 114: CTSY Fuse 3, Door Jamb Switches)



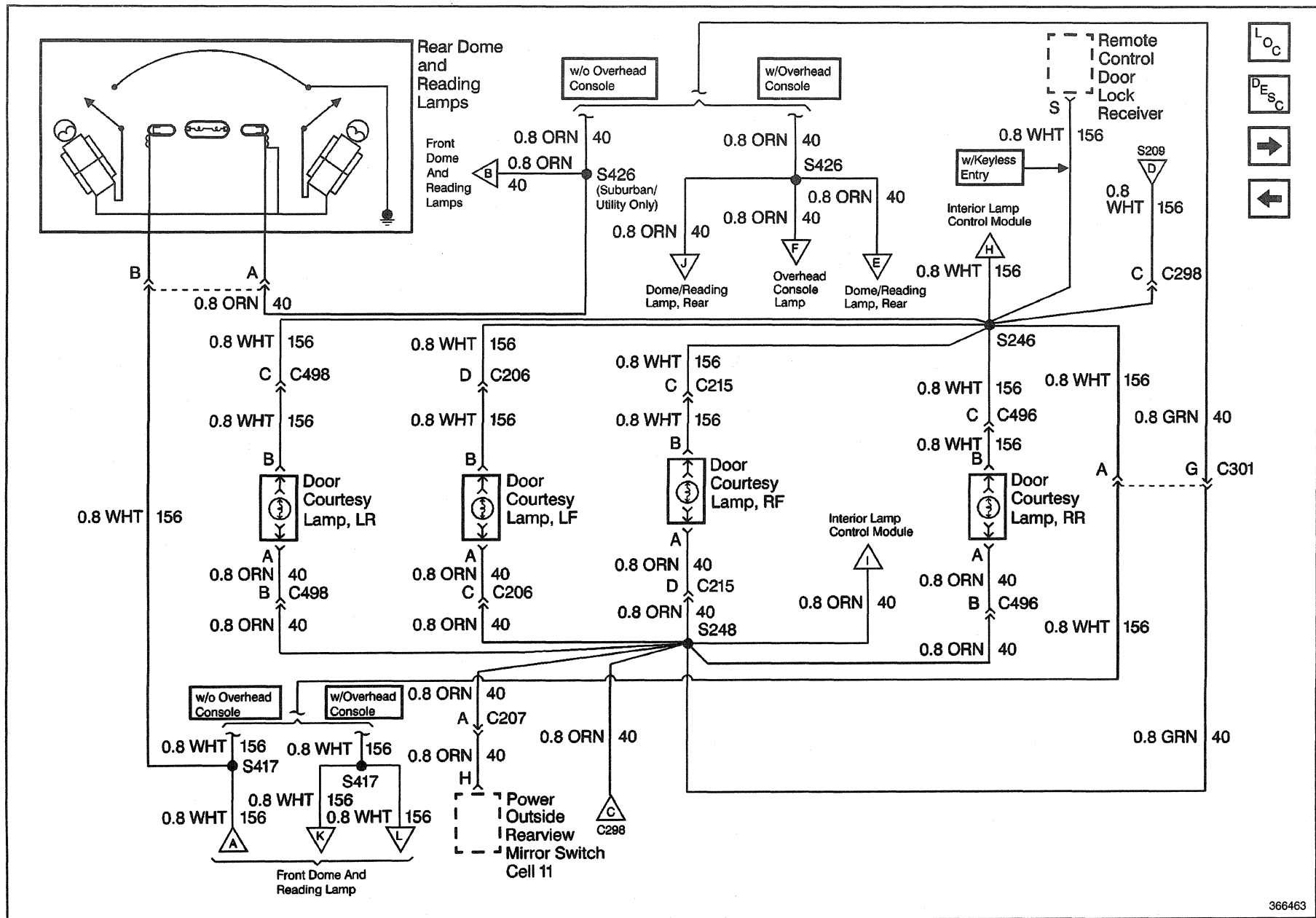
# Interior Lights Schematics (Except Luxury) (Cell 114: GAUGES Fuse 4, Interior Lamp Control Module)



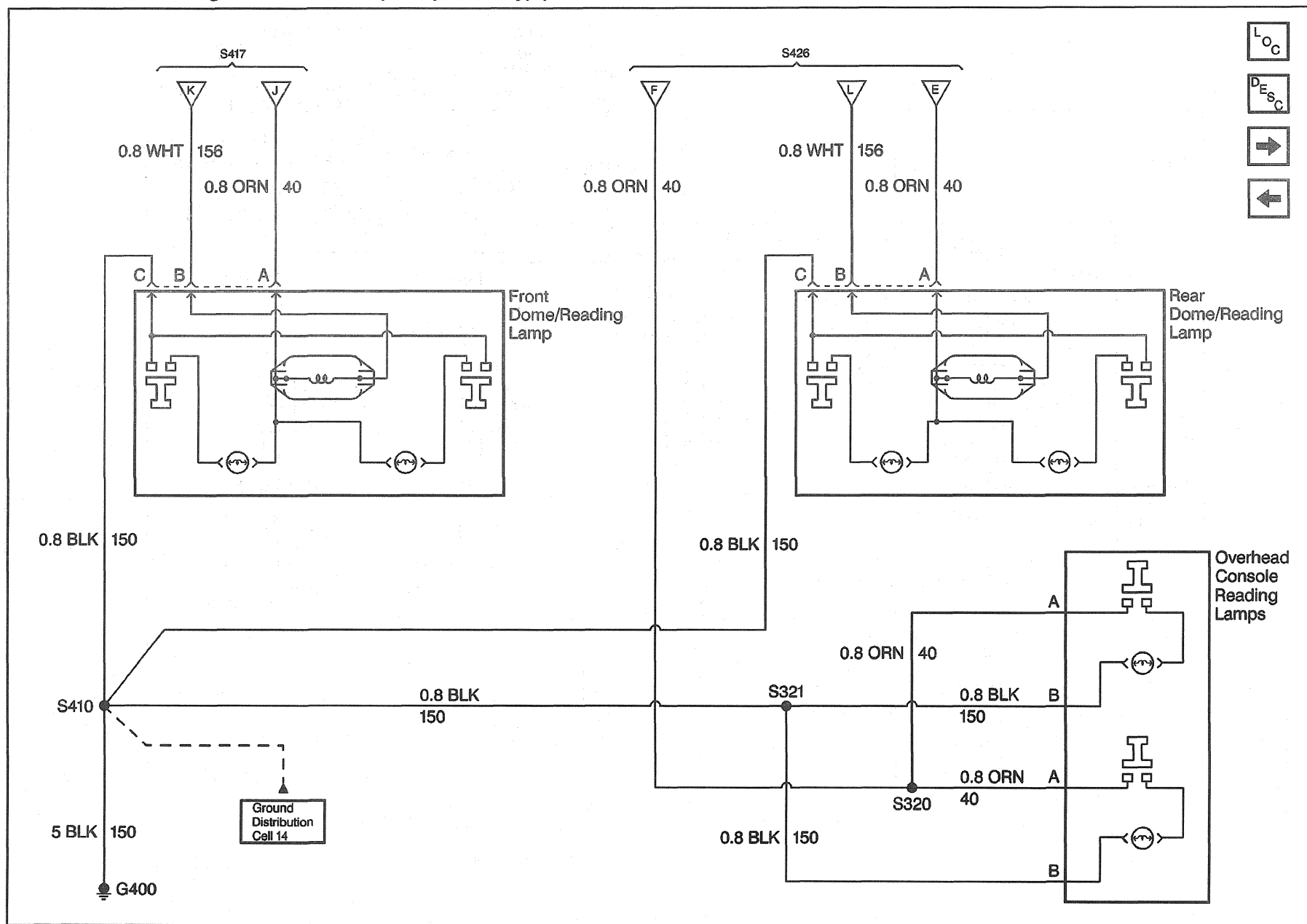
366442



**Interior Lights Schematics (Except Luxury) (Cell 114: Rear Dome and Reading Lamps, Door Courtesy Lamps  
(Suburban/Utility/Crew Cab w/ Auxiliary Lighting))**

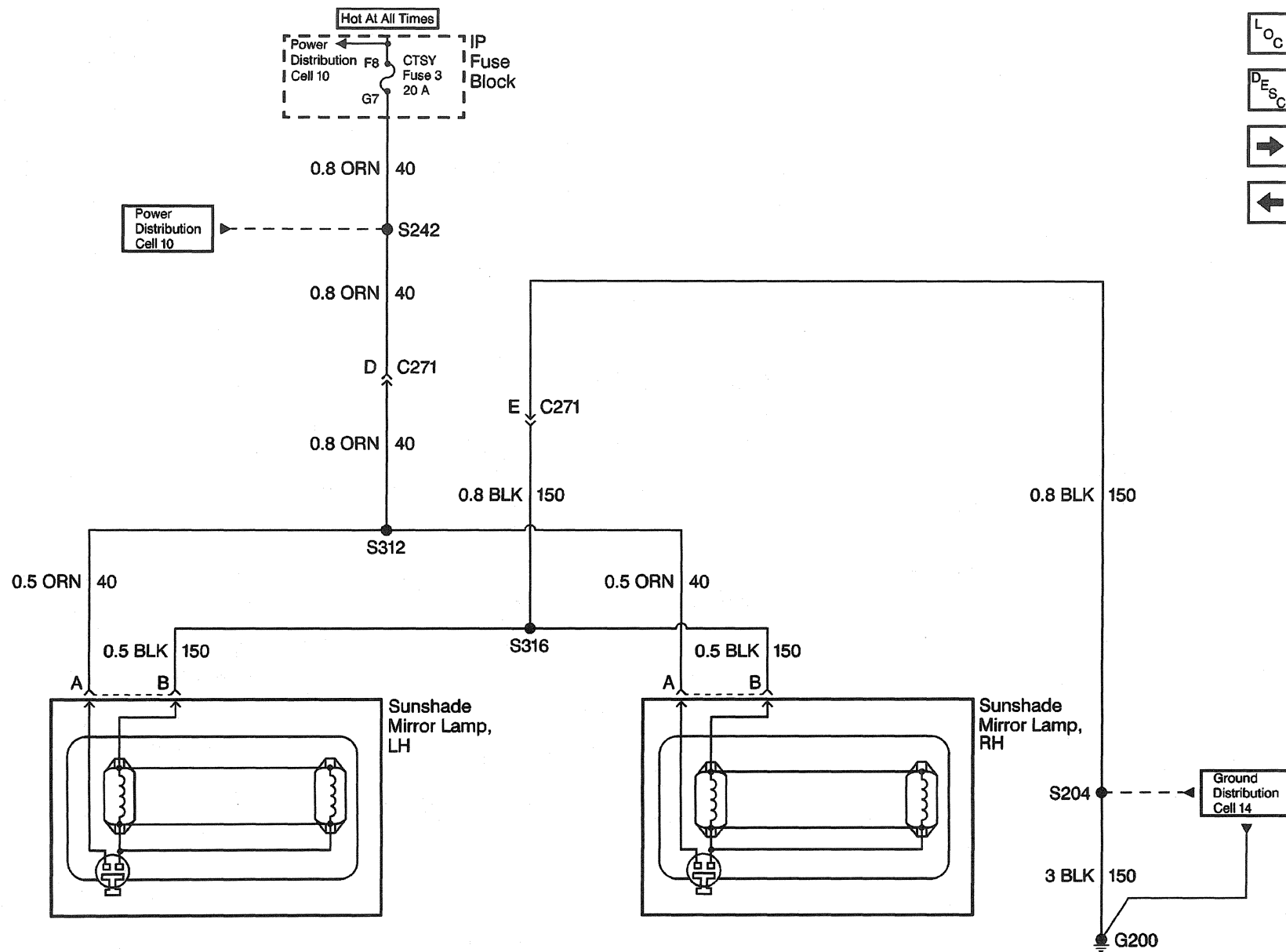


# Interior Lights Schematics (Except Luxury) (Cell 114: Overhead Console Reading Lamps, Dome/Reading Lamps)



366424

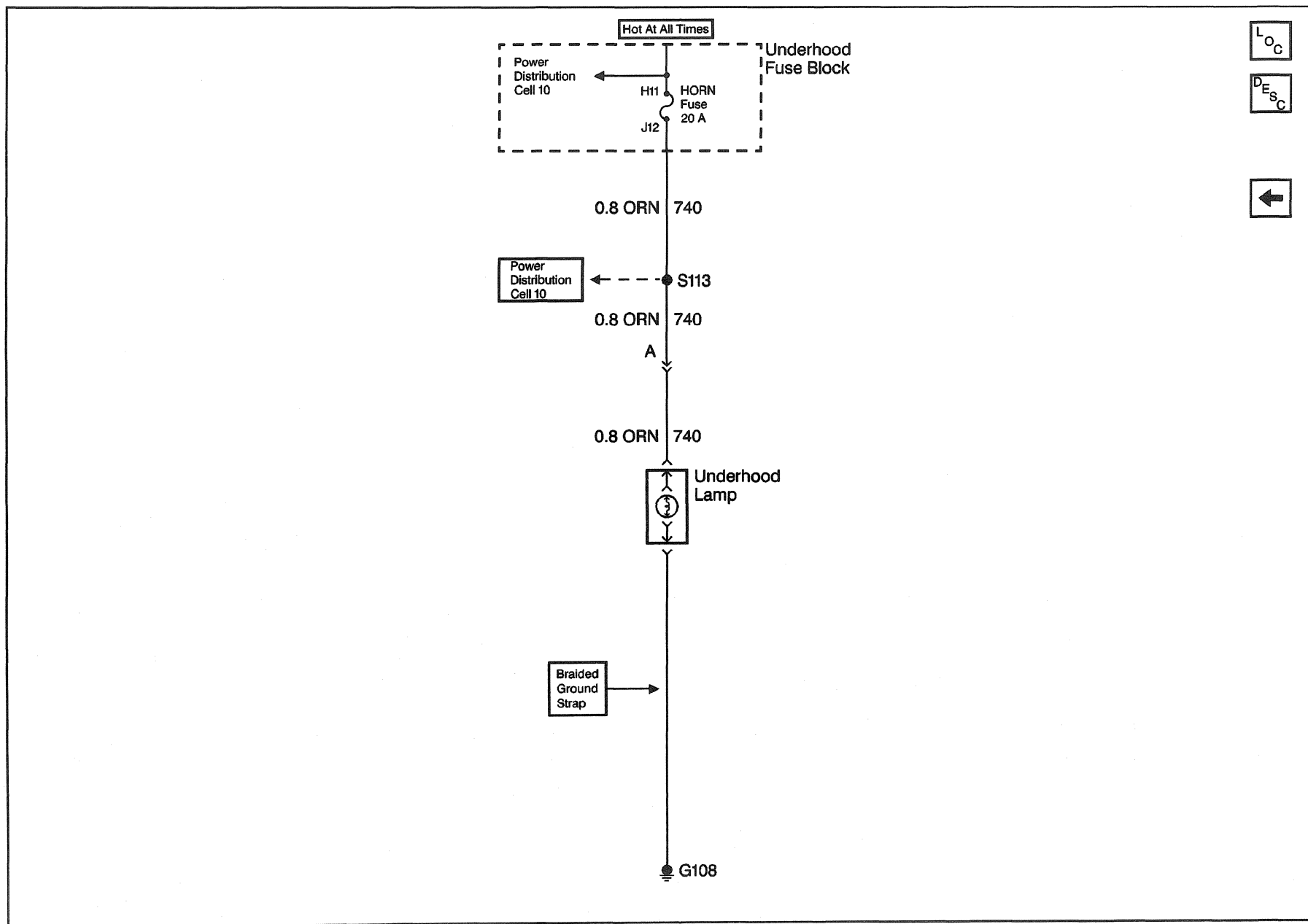
# Interior Lights Schematics (Except Luxury) (Cell 114: CTSY Fuse 3, Illuminated Vanity Mirrors)



## 8-70 Lighting Systems



# Interior Lights Schematics (Except Luxury) (Cell 114: HORN Fuse, CIG LTR Fuse 13, Underhood and Reel Lamps)



L<sub>OC</sub>

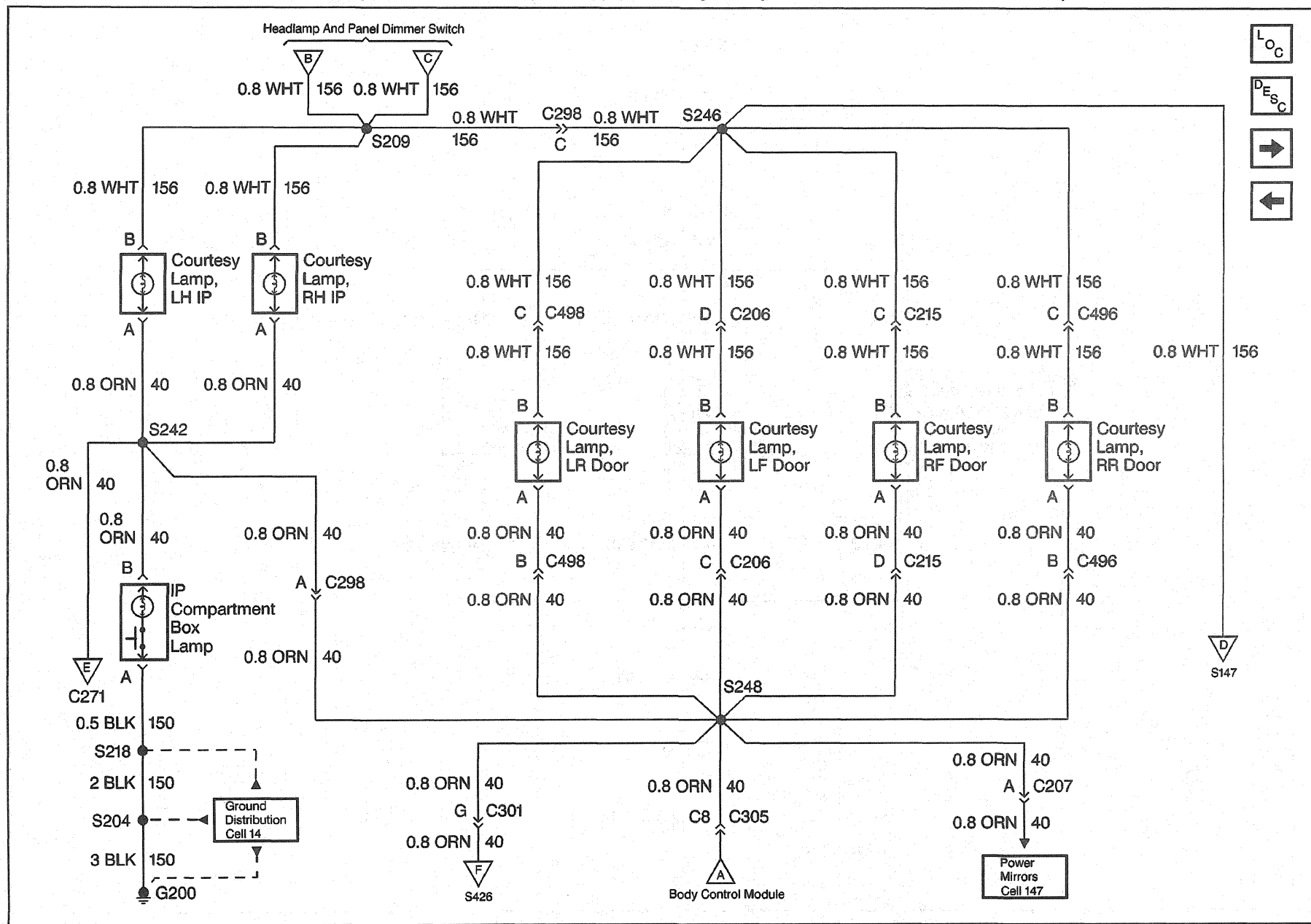
D<sub>ESC</sub>



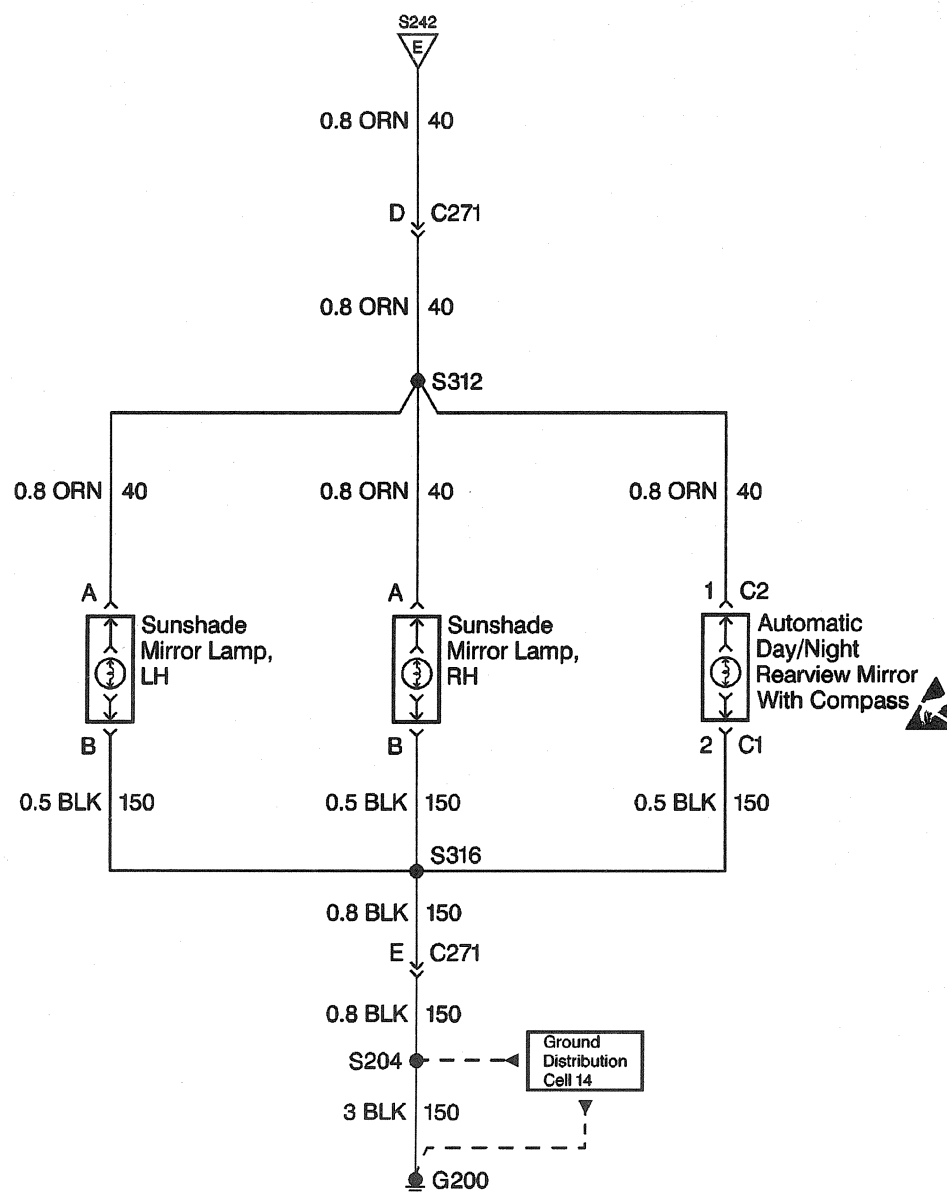
## 8-72 Lighting Systems



# Interior Lights Schematics (Luxury) (Courtesy Lamps and Rearview Mirror Switch)



# Interior Lights Schematics (Luxury) (Illuminated Mirrors)



L<sub>OC</sub>

D<sub>ESC</sub>

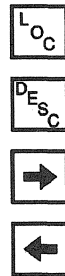
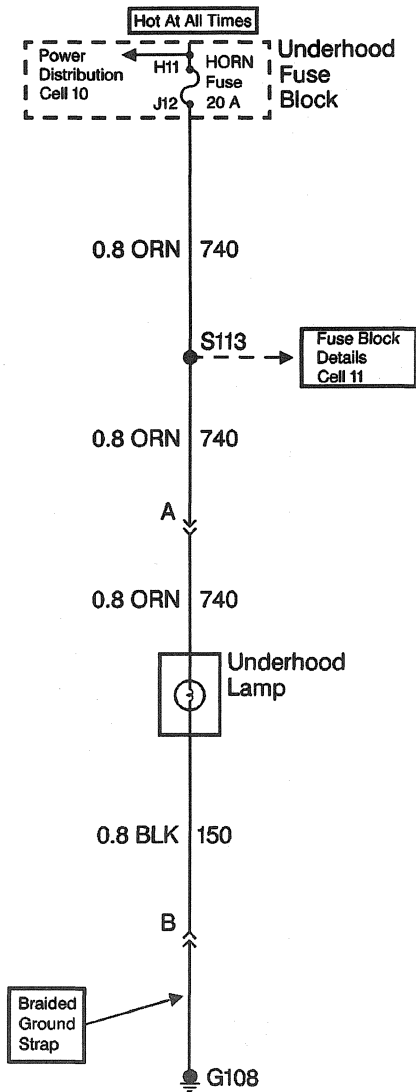




## Body and Accessories



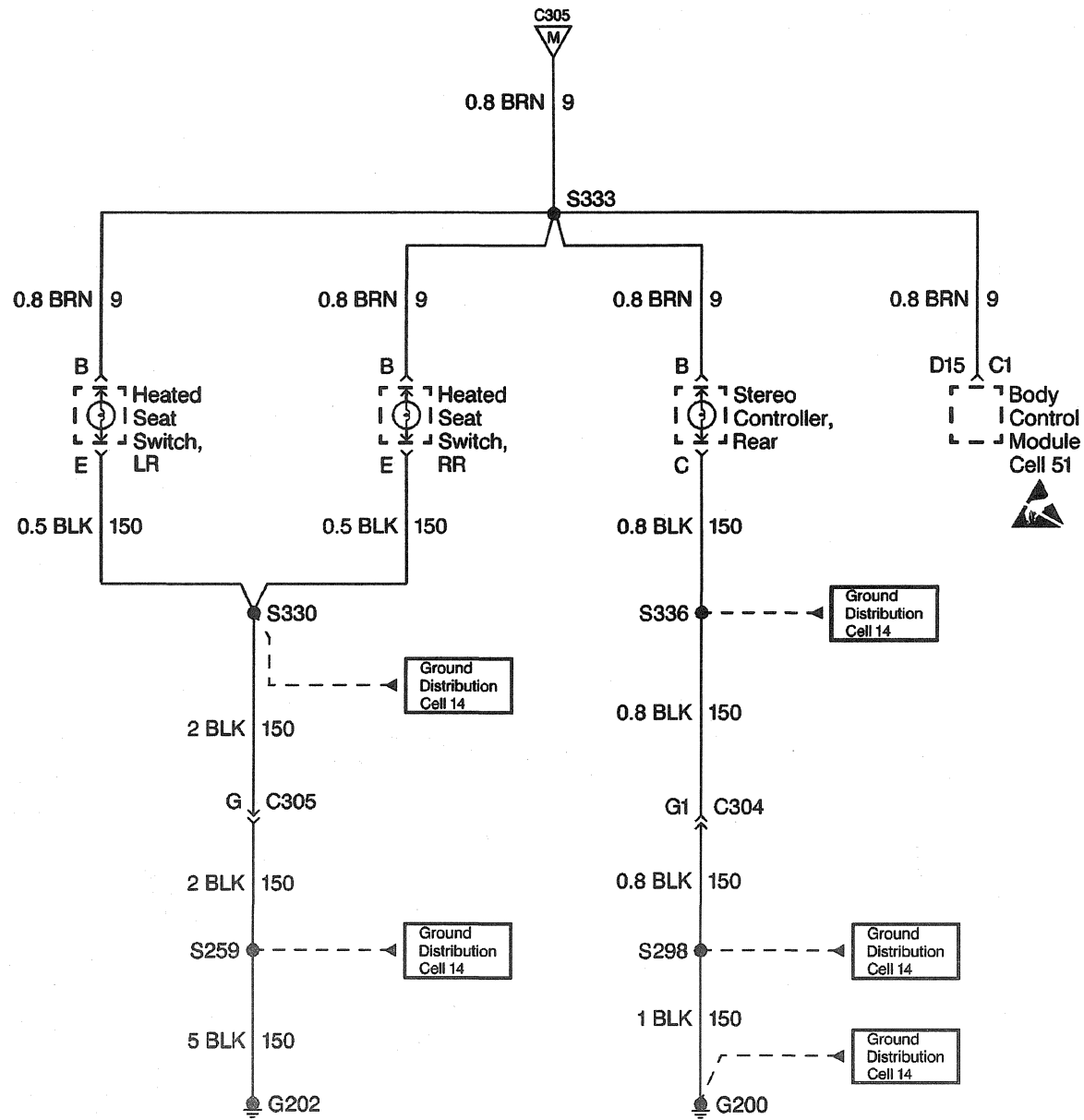
# Interior Lights Schematics (Luxury) (Underhood Reel Lamps)



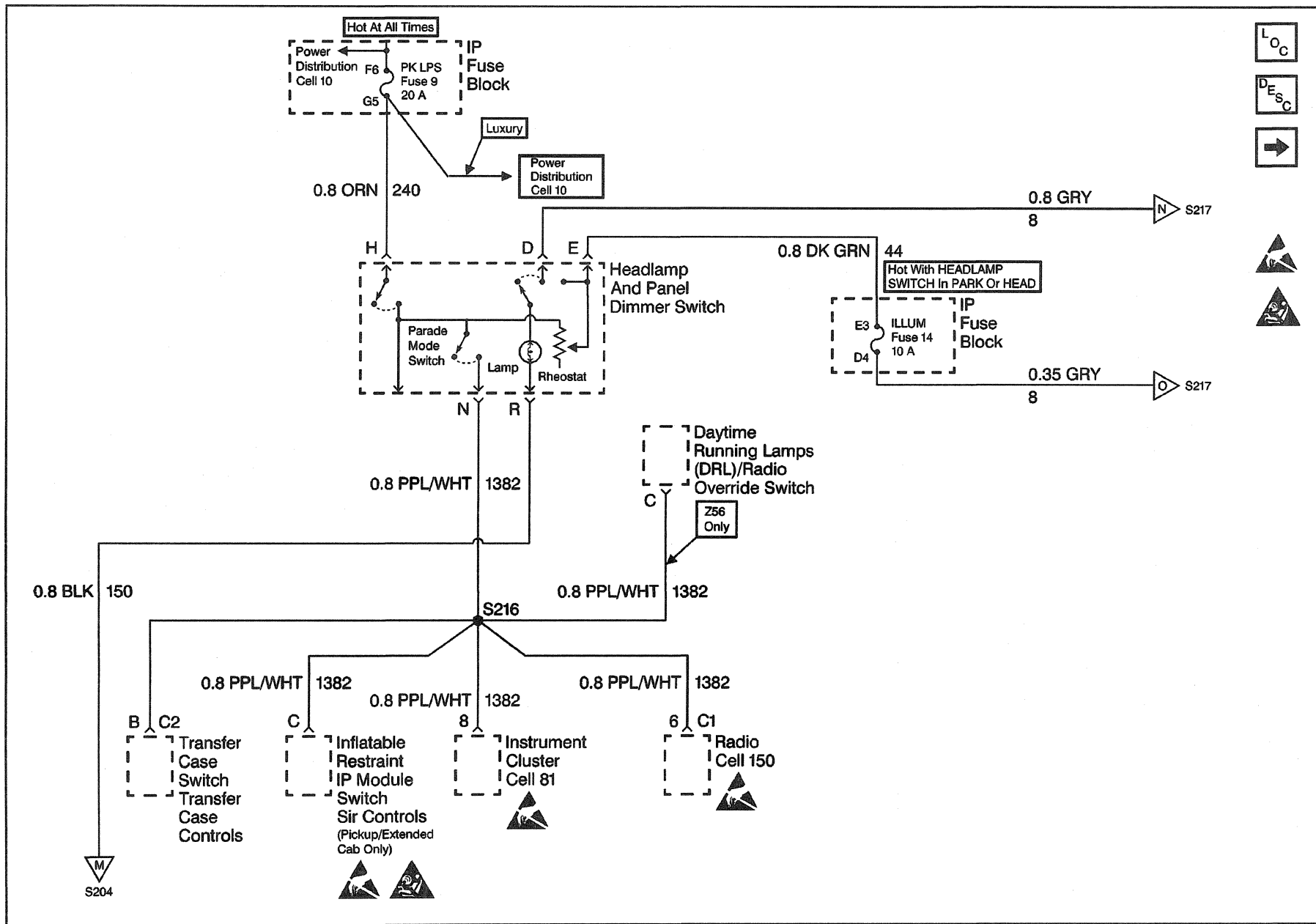
## Body and Accessories



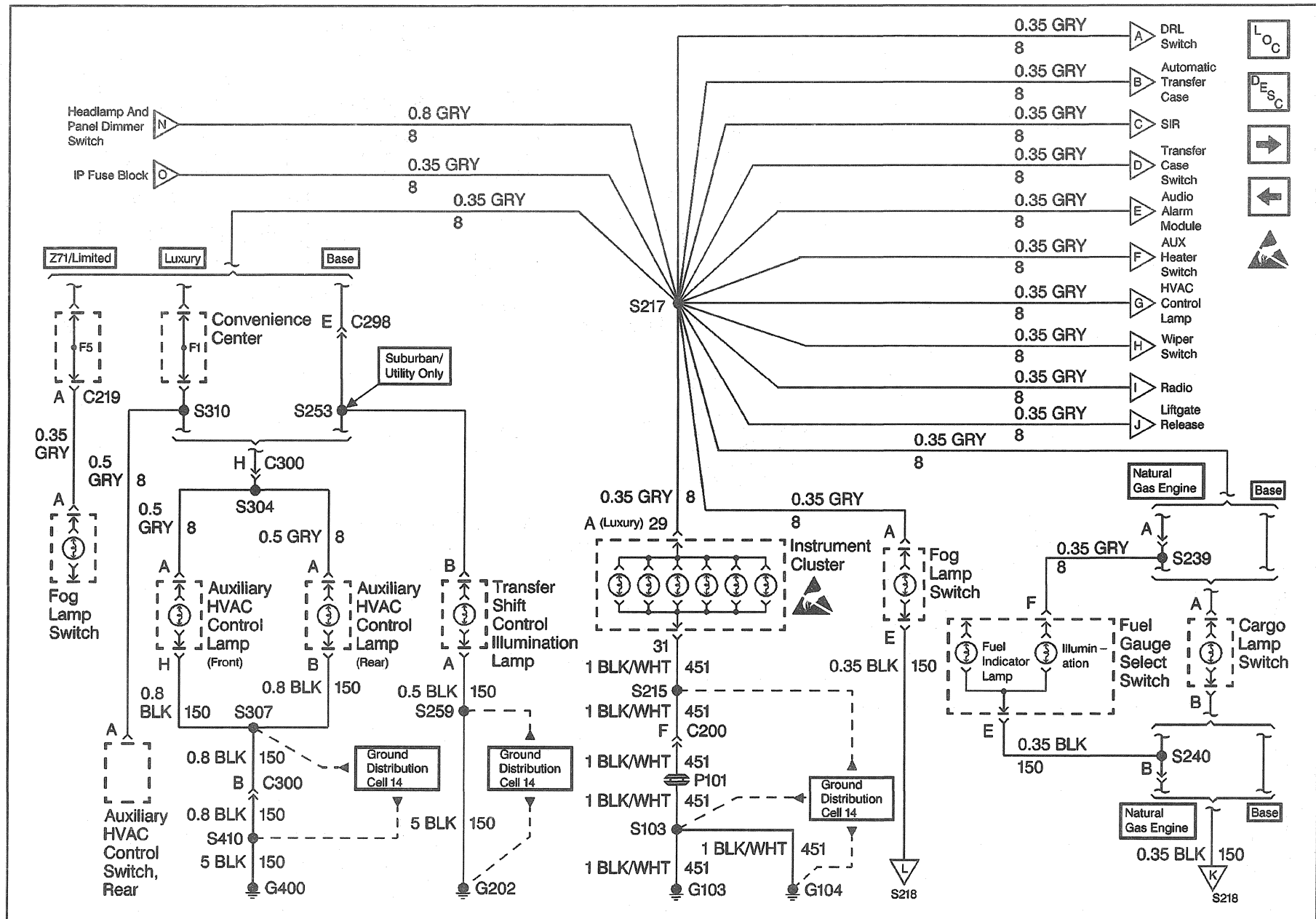
# Interior Lights Schematics (Luxury) (Heated Seat Switches and Body Control Module)



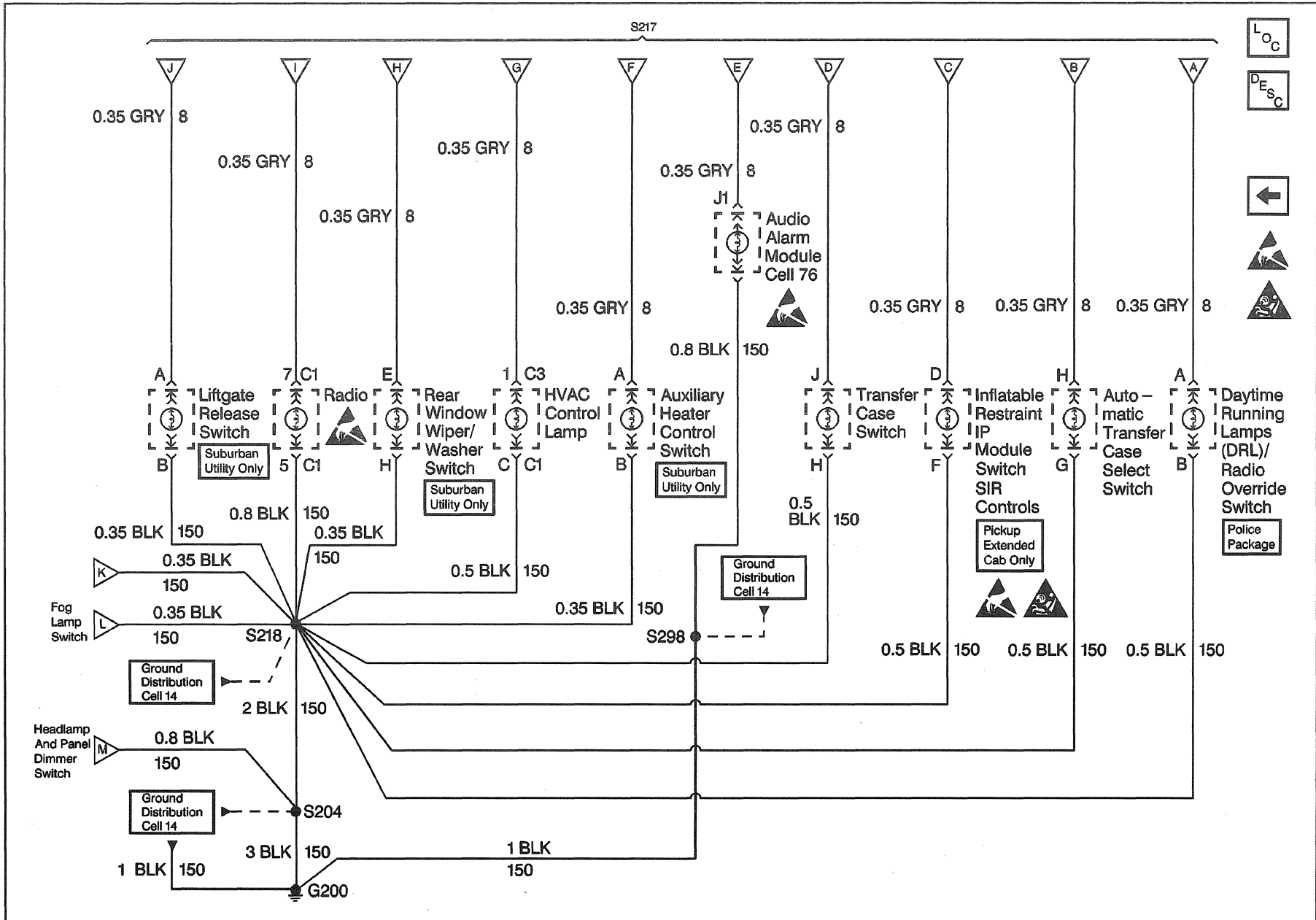
# Interior Lights Dimming Schematics (Cell 117: PK LPS Fuse 9, ILLUM Fuse 14, Headlamp and Panel Dimmer Switch (1 of 2))



# Interior Lights Dimming Schematics (Cell 117: PK LPS Fuse 9, ILLUM Fuse 14, Headlamp and Panel Dimmer Switch (2 of 2))



# Interior Lights Dimming Schematics (Cell 117: IP Ground G200)



## Component Locator

## Lighting Systems Components

Name	Location	Locator View	Connector End View
Ash Tray Lamp	In the ash tray housing	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Audio Alarm Module	In the convenience center	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Automatic Day-Night Mirror with Compass	On the top inside center of the windshield, part of the inside rearview mirror	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Auxiliary Heater Control Switch	At the rear of overhead console molding, in the headliner, part of HVAC controls	<i>Heater Blower Controls Component Views in Heater and Ventilation (Non-A/C)</i>	<i>Heater Blower Controls Connector End Views in Heater and Ventilation (Non-A/C)</i>
Auxiliary HVAC Control Lamp, Front	On the front of the overhead console, part of the HVAC controls	<i>HVAC Component Views in HVAC Systems w/ A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems w/ A/C Manual</i>
Auxiliary HVAC Control Lamp, Rear	At the rear of the overhead console molding, in the headliner, part of the HVAC controls	<i>HVAC Component Views in HVAC Systems w/ A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems w/ A/C Manual</i>
Backup Lamp, Left Side (Cab Chassis)	At the rear of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Backup Lamp, Left Side (Pickup/Utility)	At the rear of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Backup Lamp, Right Side (Cab Chassis)	At the rear of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Backup Lamp, Right Side (Pickup/Utility)	At the rear of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Backup Lamp Switch (MG5)	On the left side of the transmission, below the shift tower	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Backup Lamp Switch (MW3)	On the left top of the transmission	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Body Control Module (Luxury)	Located Within the Center Floor Console	<i>Body Control Module Component Views in Body Control Systems</i>	<i>Body Control Module Connector End Views in Body Control Systems</i>
Cargo Lamp (Pickup)	At the rear center of the cab, above the rear window, part of the center high mounted stop lamp	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Cargo Lamp Switch (Pickup)	In the center of the IP, to the left of the radio	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Center High Mount Stoplamp (Pickup)	Center High Mount Stoplamp (Pickup)	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Center High Mount Stoplamp (Suburban/Utility)	Center High Mount Stoplamp (Suburban/Utility)	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Clearance Lamp, Left Front	In the front of the left rear fender	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Clearance Lamp, Left Rear	In the rear of the left rear fender	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Clearance Lamp, Right Front	In the front of the right rear fender	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Clearance Lamp, Right Rear	In the rear of the right rear fender	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Convenience Center	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Courtesy Lamp, IP LH	Located under the left side of the IP near the knee bolster	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>



## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
Courtesy Lamp, IP RH	Located under the right side of the IP near the knee bolster	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Courtesy Lamp, Door LF	Located within the left front door assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Courtesy Lamp, Door LR	Located within the left rear door assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Courtesy Lamp, Door RF	Located within the right front door assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Courtesy Lamp, Door RR	Located within the right rear door assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Daytime Running Lamps (DRL) Module	Under the left side of the IP, taped to the IP harness	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Daytime Running Lamps (DRL) Relay	Under the left side of the IP, at the lower center of the convenience center	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Daytime Running Lamps (DRL)/Radio Override Switch (Z56)	In the center of the IP, to the left side of the radio	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Dome Lamp, Front	Approximately 22 cm (8.7 in) from the windshield centerline, in the headliner	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Dome Lamp, Rear	Approximately 22 cm (8.7 in) from the windshield centerline, in the headliner	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Jamb Switch, Cargo	At the rear body opening, part of the right rear cargo door contactor	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Jamb Switch, Left Front	At the left end of the IP	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Jamb Switch, Left Rear	At the center inside edge of the left side B Pillar	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Jamb Switch, Right Front	At the right end of the IP	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Jamb Switch, Right Rear	At the center inside edge of the right side B pillar	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Door Lock Control Module	Middle up the Left "C" Pillar	<i>Power Door Systems Component Views in Power Door Systems</i>	<i>Power Door Systems Connector End Views in Power Door Systems</i>
Endgate Identification Lamps (Dually, Fleetside)	Beneath Tailgate	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Fog Lamp Relay	Under the left end of the IP, on the lower left side of the convenience center	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Fog Lamp Relay (Z71 Tahoe/Limited)	Under the left end of the IP, on the the fog lamp harness	—	<i>Lighting Systems Connector End Views</i>
Fog Lamp Switch	On the center of the IP, to the right of the steering column shift lever	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Fog Lamp, Left Side	At the left lower edge of the front bumper and the air deflector	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Fog Lamp, Right Side	At the right lower edge of the front bumper and the air deflector	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Garage Door Opener	Located within the Overhead Console	<i>Garage Door Opener Component Views in Garage Door Opener</i>	<i>Garage Door Opener Connector End Views in Garage Door Opener</i>
Headlamp and Panel Dimmer Switch	Lower Left side of the IP	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp Control Module (Luxury)	Lower Left of the IP	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp Dimmer Switch	Part of the malfunction lever	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
Headlamp, High Beam (Composite), Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp, High Beam (Composite), Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp, High/Low Beam, Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp, High/Low Beam, Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp, Low Beam (Composite), Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Headlamp, Low Beam (Composite), Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Heated Seat Switch, LF	At the LF of the LF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Switch, RF	At the RF of the RF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
HVAC Control Switch	Center of IP below the Radio	<i>HVAC Component Views in HVAC Systems w/ A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems w/ A/C Manual</i>
Ignition Switch	IP Steering Column, under Lock Cylinder	<i>Standard Wheel/Column Component Views in Steering Wheel and Column</i>	<i>Standard Wheel/Column Connector End Views in Steering Wheel and Column</i>
Inflatable Restraint IP Module Switch (Pickup)	RH of IP Cluster	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Interior Lamp Control Module	Under the center of the IP	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
IP Cluster	Above the Steering Column	<i>Instrument Cluster Component Views in Instrument Panel, Gauges and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel, Gauges and Console</i>
IP Compartment Box Lamp	In the IP compartment box	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
License Lamps, Left and Right Side	At the rear of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Liftgate Release Switch	In the center of the IP, to the left of the radio	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Marker Lamps, Roof	Across the top front of the roof	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Marker Lamp, LF	Left front fender assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Marker Lamp, RF	Right front fender assembly	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Park/Turn Lamp, LF	At the LF corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Park /Turn Lamp, RF	At the LF corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
Park Brake Warning Switch	Mounted on Park Brake, under LH end of IP	<i>Park Brake System Component Views in Parking Brakes</i>	<i>Park Brake System Connector End Views in Parking Brakes</i>
Power Outside Rearview Mirror Switch	Drivers Door Panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Left Front	On the left front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Left Rear	On the left front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Right Front	On the right front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Right Rear	On the right rear door, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Radio	In the center of the IP	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Reading Lamps, Overhead Console	Near the windshield centerline	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Remote Control Door Lock Reciever	Right side of the Steering Column support bracket underneath the IP	<i>Power Door Systems Component Views In Power Door Systems</i>	<i>Power Door Systems Connector End Views In Power Door Systems</i>
Stereo Controller, Rear	In the center Console	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Spotlamp, LH (Z56)	Located on the outside of the left "A" Pillar	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Spotlamp, RH (Z56)	Located on the outside of the right "A" Pillar	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Stoplamp Relay	In the underhood fuse relay center, left rear side of the engine compartment, on the fender	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Stoplamp Switch	On the top of the brake pedal	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Sunshade Mirror Lamp, Left Side	Part of the left side sunvisor	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Sunshade Mirror Lamp, Right Side	Part of the right side sunvisor	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Tail/Stop Turn Lamp (Cab Chassis), Left Rear	On the left rear corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Tail/Stop Turn Lamp (Pickup/Utility), Left Rear	On the right rear corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Tail/Stop Turn Lamp (Cab Chassis), Right Rear	On the right rear corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Tail/Stop Turn Lamp (Pickup/Utility), Right Rear	On the left rear corner of the vehicle	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Transfer Case Mode Selector Illumination Lamp	In Transfer Case Select Switch	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
Transfer Case Switch (M30)	Top LH of Transfer Case	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Switch (MG5)	Top LH of Transfer Case	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Switch (MT1)	Top LH of Transfer Case	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Switch (MW3)	Top LH of Transfer Case	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transmission Range Switch	On the left side of the Transmission	<i>Automatic Transmission Electronic Component Views (Internal)(4L80E), Automatic Transmission Electronic Component Views (Internal) (4L60E) in Transmission/Transaxle</i>	<i>Automatic Transmission Inline Harness Connector End View(4L80E), Automatic Transmission Inline Harness Connector End View (4L60E) in Transmission/Transaxle</i>
Turn/Hazard Flasher	Mounted to the convenience center, under the left side of the IP, to the left side of the steering column, on the bulkhead	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Turn/Hazard Switch	Part of the multifunction switch, on the upper left side of the steering column	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views</i>
Underhood Fuse Block	In the left rear side of the engine compartment, on the fender	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Underhood Lamp	Under the right side of the hood	<i>Lighting Systems Component Views</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Vehicle Interface Unit (VIU)	Underneath the Right Rear Seat Assembly	<i>Cellular Communication Component Views in Cellular Communication</i>	<i>Cellular Communication Connector End Views in Cellular Communication</i>
Window Lockout Switch, Rear	On the left front door, below the inside door handle, part of the power window master switch	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Window Wiper/Washer Switch, Rear	Center of the IP, right of the radio	<i>Wiper/Washer System Component Views in Wiper Washer Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper Washer Systems</i>
C100	Part of the engine harness to IP harness, in the left rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C102	Part of the forward lamps harness to IP harness, in the left rear side of the engine compartment, near the underhood fuse-relay center, mounted on the fender	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C103	Part of the engine harness to fuel pump motor, in the left rear side of the engine compartment, under the brake master cylinder	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C104	Part of the IP harness to front to rear harness, in the left rear side of the engine compartment, under the brake master cylinder	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C106	LH rear of engine compartment	—	<i>Inline Harness Connector End Views in Wiring Systems</i>

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
C200	Behind the right side of the IP, near the heater motor, in foam wrap	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C206	Inside the lower left side A pillar	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C207	Inside the lower left side A pillar	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C209	Inside the lower left side A pillar	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C210	At the convenience center	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C215	Inside the lower right side A pillar	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C218	At the convenience center	—	<i>Inline Harness Connector End Views</i> in Wiring Systems
C219	At the convenience center	—	<i>Inline Harness Connector End Views</i> in Wiring Systems
C227 (Stoplamp Switch)	IP harness, Inline to the Stoplamp Switch	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C242 (Z56)	Part of the IP Harness, at the left side of the steering column, near the bulkhead	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C266	Part of the IP harness to steering column harness, to the left side of the steering column, near the bulkhead	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C271	IP harness to Roof Lamp & Mirror harness	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C272 (Z56 Police Package)	Inline to spotlamps	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C298	Behind the left side of the IP, near the convenience center	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C299	Behind RH of IP, above HVAC evaporator, housing	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C300	In the overhead console	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C301	At the left front kick panel	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C302	At the LF kick panel	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems
C304 (Luxury)	IP harness, Inline to Floor Console harness	<i>Harness Routing Views</i> in Wiring Systems	<i>Inline Harness Connector End Views</i> in Wiring Systems

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
C305 (Luxury)	Cross Body harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C307	Front to Rear Harness, Inline to the Overhead Console Harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C407 (Pickup)	Below the left rear edge of the bed	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C407 (Suburban/Utility)	Lower center outside of the endgate	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C408 (Pickup/Cab)	Below the center rear edge of the bed	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C409	Below the rear center of the bed, near the bumper	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C411 (Luxury)	At the left side of the cab	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C411 (Pickup)	Crossbody harness, Inline to Rear Cargo Lamp harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C496	In the right side B pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C498	In the left side B pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
D203	Part of the IP harness, at the right side of the steering column support	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G103 (Gas)	On the right front side of the engine, near the thermostat housing	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G104 (5.0L/5.7L)	Backside of the right cylinder head	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G104 (6.5L)	Top rear of the right cylinder head	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G104 (7.4L)	Backside of the engine block, below the right cylinder head	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G105 (Gas)	On the right front side of the engine block	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G105 (Diesel)	Right Rear of the cylinder head, cylinder #7 intake bolt	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G108	Located in the Engine Compartment on the top side of the Bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G112	Engine Compartment, Behind the right side battery	<i>Power and Grounding Component Views in Wiring Systems</i>	—

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
G113	On the radiator support, near the left side headlamp	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G202	On the right side of the instrument panel, mounted to the HVAC plenum bracket	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G400 (Utility/Suburban)	On the right side B pillar, near the door striker	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G401	Left side rear frame rail behind the bumper	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G403	Left side rear frame rail behind the bumper	<i>Power and Grounding Component Views in Wiring Systems</i>	—
P100	In the left rear side of the engine compartment, at the bulkhead, above C100	<i>Harness Routing Views in Wiring Systems</i>	—
P101	In the right side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	—
P103	In the left rear side of the engine compartment, at the bulkhead	—	—
P500	Passthrough between the left "A" Pillar and the left front door	<i>Harness Routing Views in Wiring Systems</i>	—
P600	Passthrough between the right "A" Pillar and the right front door	<i>Harness Routing Views in Wiring Systems</i>	—
P700	Passthrough between the left "B" Pillar and the left rear door	<i>Harness Routing Views in Wiring Systems</i>	—
S102 (6.5L)	Engine harness approx. 6.5 cm (2.5 in) from trans connector breakout, towards the Starter Solenoid harness breakout	—	—
S103 (5.0L, 5.7L)	Engine harness, approx. 8 cm (3 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S103 (6.5L)	Engine harness, approx. 12 cm (4.7 in) from starter solenoid breakout, towards the Underhood Lamp harness breakout	—	—
S103 (7.4L - A/T)	Engine harness, approx. 8 cm (3 in) from the EGR Valve harness breakout, towards the Ignition Coil harness breakout	—	—
S103 (7.4L - M/T)	Engine Harness, approx. 4 cm (1.5 in) from the Fuel Injector harness breakout, towards the Taillamp harness breakout	—	—
S107 (5.0L, 5.7L)	Engine harness, approx. 20 cm (8 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S107 (6.5L, HD)	Engine harness, approx. 40 cm (15 in) from EBCM breakout, toward Transmission harness breakout	—	—
S107 (7.4L)	Engine harness, approx. 18 cm (7 in) from EBCM breakout, toward the EGR harness breakout	—	—
S113	Engine harness, approx. 19 cm (7.5 in) from EBCM breakout, into the Underhood Fuse Relay Center harness	—	—



## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
S119	Forward lamps harness, approx. 16 cm (6 in) from Windshield Wiper harness breakout, towards the left fog lamp	—	—
S120	Forward lamps harness, approx. 22 cm (8.5 in) from windshield washer pump breakout, toward LH headlamp	—	—
S121	Forward lamps harness, approx. 12 cm (4.5 in) from LH headlamp breakout, toward windshield washer pump	—	—
S122	Forward lamps harness, approx. 35.5 cm (14 in) from Windshield Wiper harness breakout, towards the left fog lamp	—	—
S123	Forward lamps harness, approx. 23 cm (9 in) from LH park lamp breakout, toward windshield washer pump	—	—
S126 (Luxury)	Forward lamps harness, approx. 30 cm (12 in) G113 harness breakout, towards the left fog lamp	—	—
S126 (Z71 Tahoe/Limited)	In the fog lamp harness	—	—
S127	Forward lamps harness, approx. 5 cm (2 right side lights harness breakout, towards the SIR Front Sensor harness breakout	—	—
S128	Forward lamps harness, approx. 5 cm (2 in) from RH headlamp breakout, toward G112	—	—
S147 (Gas)	engine harness, approx. 5 cm (2 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S147 (Diesel)	Engine harness, approx. 4 cm (1.5 in) from starter motor solenoid breakout	—	—
S160 (5.0L, 5.7L)	Engine harness, approx. 23 cm (9 in) from EBCM breakout, toward taillamp harness	—	—
S160 (6.5L)	Engine harness, approx. 17 cm (6.5 in) from EBCM breakout, toward EGR valve breakout	—	—
S160 (7.4L)	Engine harness, approx. 28 cm (11 in) from fuel injector breakout, toward taillamp harness breakout	—	—
S165	Engine compartment, IP harness, approx. 9 cm (3.5 in) from P100, toward forward lamps harness connector	—	—
S167 (All Except Z56, Police Package/Luxury)	Engine harness, approx. 18 cm (7 in) from G115	—	—
S167 (Z56 Police Package/Luxury Only)	Battery harness, approx. 35 cm (13.5 in) from C121	—	—
S202	IP harness approx. 6.5 cm (2.5 in) from Convenience Center breakout toward DRL module	—	—
S204	IP harness, approx. 10 cm (4 in) from C100, towards Data Link Connector (DLC)	—	—
S205	IP harness, approx. 12 cm (4.5 in) from steering column harness breakout	—	—
S208	IP harness, approx. 6 cm (2.5 in) from IP compartment box lamp breakout	—	—
S209	IP harness, approx. 13 cm (5 in) from IP compartment box lamp breakout	—	—



## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
S210 (Diesel)	IP harness, approx. 14 cm (5.5 in) from steering column harness breakout	—	—
S210 (Gas)	IP harness, approx. 4 cm (1.5 in) from auxiliary power outlet breakout	—	—
S213	IP harness, approx. 4 cm (1.5 in) from steering column harness breakout, towards the DLC	—	—
S214	IP harness, approx. 8 cm (3 in) from the Instrument Cluster connector harness breakout, towards the Instrument Cluster	—	—
S215	IP harness, approx. 8 cm (3 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S216 (Diesel and Uplevel)	IP harness, approx. 12 cm (4.5 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S216 (Gas, all except uplevel)	IP harness, approx. 16 cm (6 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S217	IP harness, approx. 16 cm (6 in) from instrument cluster harness breakout, toward radio connectors breakout	—	—
S218	IP harness, approx. 16 cm (6 in) from inflatable restraint switch breakout	—	—
S220	IP harness, approx. 6 cm (2.5 in) from steering column harness breakout, toward C100	—	—
S225	IP harness, approx. 12 cm (4.5 in) from radio harness breakout	—	—
S239	In fuel select switch jumper harness	—	—
S240	In fuel select switch jumper harness	—	—
S242	IP harness, approx. 12 cm (4.5 in) from inflatable restraint switch breakout, towards the Auxiliary Power Connectors	—	—
S246	Crossbody harness, approx. 22 cm (8.5 in) from LF door harness breakout	—	—
S247	Crossbody harness, approx. 6 cm (2.5 in) into LH door harness breakout	—	—
S248	Crossbody harness, approx. 35 cm (13 in) before the LF door harness breakout, from C301	—	—
S251	Crossbody harness, approx. 13 cm (5 in) from LF Door harness breakout, toward IP harness breakout	—	—
S253	Crossbody harness, approx. 4 cm (1.5 in) from C210 and C298 harness breakout, toward IP harness right door harness'	—	—
S259	Crossbody harness, approx. 7 cm (2.5 in) into seat belt switch harness, toward C212	—	—
S262 (Crew Cab)	Crossbody harness, approx. 19 cm (7.5 in) from seat belt switch breakout, toward IP harness breakout	—	—
S262 (Suburban/Utility)	Crossbody harness, approx. 25 cm (10 in) from seat belt switch breakout, toward IP harness breakout	—	—
S267	IP harness, approx. 4 cm (1.5 in) from Instrument Cluster harness breakout, toward Instrument Cluster connector	—	—

## Lighting Systems Components (cont'd)

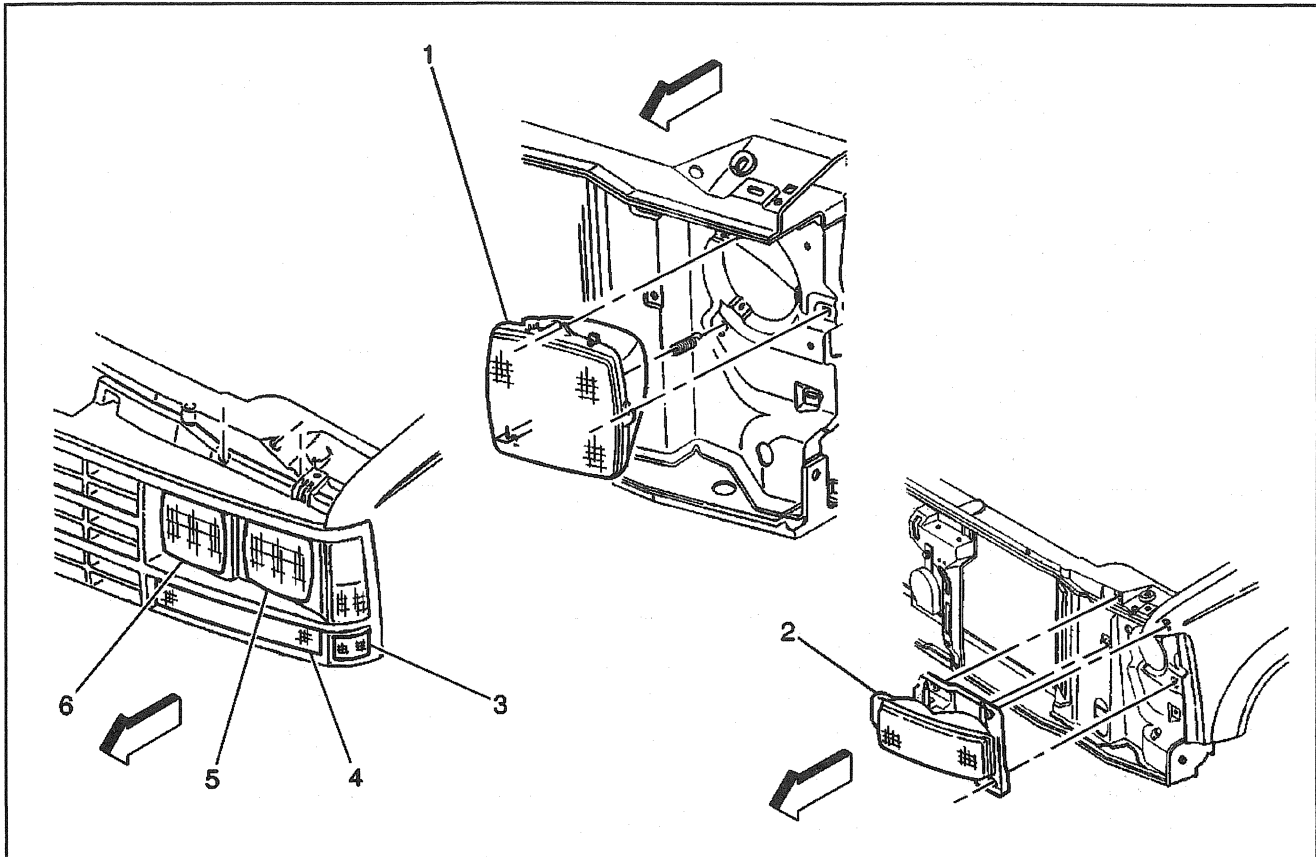
Name	Location	Locator View	Connector End View
S283 (Z56)	Spotlamp Extension harness, approx. 35 cm (13.5 in) from C272 harness breakout, towards the RH Spotlight	—	—
S298	IP harness, approx. 24 cm (9.5 in) from instrument cluster breakout, toward radio breakout	—	—
S299	IP harness, approx. 4 cm (1.5 in) into the steering column harness breakout, toward C266	—	—
S304 (4-Door Utility/Suburban)	Rear HVAC control harness, approx. 31 cm (12 in) from auxiliary HVAC control logic module breakout, toward front auxiliary HVAC control module	—	—
S307 (4-Door Utility/Suburban)	Rear HVAC control harness, approx. 10 cm (4 in) from auxiliary HVAC control logic module breakout, toward front auxiliary HVAC control module	—	—
S310 (4-Door Utility)	Front-to-rear body harness approx. 5 cm (2 in) from auxiliary HVAC fan switch breakout	—	—
S312	Illuminated Vanity mirror jumper harness, approx. 4 cm (1.5 in) from inside rearview mirror breakout, toward LH Illuminated vanity mirror	—	—
S316	Illuminated vanity mirror jumper harness, approx. 8 cm (3 in) toward LH illuminated vanity mirror	—	—
S322	Dome/Reading CHMSL harness, approx. 15 cm (5.5 in) from connector C411 towards front dome lamp	—	—
S323	Dome/Reading CHMSL harness, approx. 6.5 cm (2.5 in) from CHMSL harness breakout towards front dome lamp	—	—
S330 (Luxury)	Floor console harness approx. 13 cm (5 in) from LH heated seat switch breakout	—	—
S333 (Luxury)	Floor console harness approx. 12 cm (4.5 in) from CD player harness breakout	—	—
S336 (Luxury)	Floor console harness approx. 5 cm (2 in) from cross body incline connector harness breakout	—	—
S410 (2-door Utility)	Front-to-rear body harness, approx. 37 cm (14.5 in) from RR door jamb switch breakout, toward RH door speaker breakout	—	—
S410 (4-Door Utility/Suburban)	Front-to-rear body harness, approx. 12 cm (4.5 in) from RR door speaker breakout, toward RR door jamb breakout	—	—
S411 (Chassis Cab)	Taillamp harness, approx. 33 cm (13 in) from taillamp extension harness breakout, towards the RH Tail & Stoplamp Connector	—	—
S411 (Fleetside)	Taillamp harness, approx. 7 cm (2.5 in) from taillamp extension harness breakout, toward LH taillamp	—	—
S411 (Suburban/Utility/Stepside)	Taillamp harness, approx. 7 cm (2.5 in) from taillamp trailer tow harness breakout, toward RH taillamp	—	—
S412 (Chassis Cab)	Taillamp harness, approx. 23 cm (9 in) from taillamp extension harness breakout, toward RH taillamp	—	—

## Lighting Systems Components (cont'd)

Name	Location	Locator View	Connector End View
S412 (Fleetside/Stepside)	Taillamp harness, approx. 16 cm (6 in) from taillamp extension harness breakout, toward RH taillamp	—	—
S412 (Fleetside/Stepside w/Dual Rear Wheels)	Taillamp harness, approx. 23 cm (9 in) from taillamp extension harness breakout, toward RH taillamp	—	—
S413 (Fleetside/Stepside)	Taillamp harness, approx. 27 cm (10.5 in) from trailer harness breakout, toward RH taillamp	—	—
S414 (Chassis Cab)	Taillamp harness, approx. 5 cm (2 in) from taillamp extension harness breakout, toward RH taillamp	—	—
S414 (Chassis Cab, HD)	Taillamp harness, approx. 15 cm (6 in) from taillamp extension harness breakout, toward RH taillamp	—	—
S414 (Fleetside/Stepside)	Taillamp harness, approx. 10 cm (4 in) from taillamp extension harness breakout, toward LH taillamp	—	—
S415	License Plate Lamp harness, approx. 8 cm (3 in) from connector C407 harness breakout, toward LH license plate lamp	—	—
S416	License Plate Lamp harness, approx. 8 cm (3 in) from connector C407 harness breakout, toward RH license plate lamp	—	—
S417 (2-Door Utility)	Front-to-rear body harness, approx. 34 cm (13.5 in) from front dome lamp breakout, toward C301 breakout	—	—
S417 (4-Door Utility/ Suburban)	Front-to-rear body harness, approx. 23 cm (9 in) into convenience center	—	—
S419	Front to Rear harness, located at the CHMSL inline resistor	—	—
S421	Tail/Stop Lamp harness, approx. 6.5 cm (2.5 in) from ground G401 harness breakout, towards RH taillamp	—	—
S422	Tail/Stop Lamp harness, approx. 6.5 cm (2.5 in) from trailer harness breakout, towards RH taillamp	—	—
S424	Front to Rear harness, located at the CHMSL inline resistor	—	—
S426	Front to Rear harness, approx. 12 cm (4.5 in) from C302 and C302 harness breakout, towards Auxiliary HVAC Module Switches	—	—
S500	Left Front Door harness, after the Power Window Master Switch	—	—
S502	Left Front Door harness, before the Power Window Master Switch	—	—

## Lighting Systems Component Views

## Headlamps, LH (RH Typical)

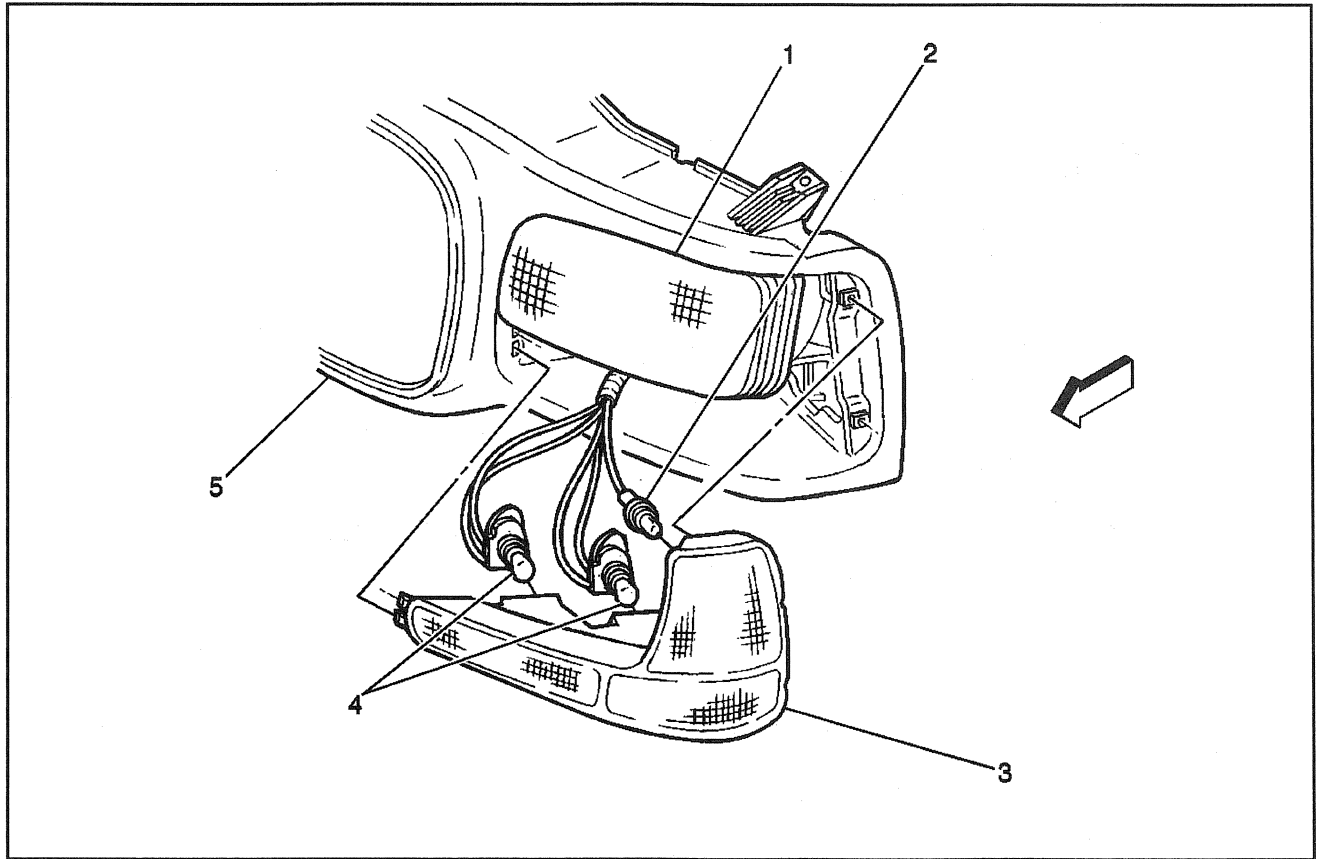


468823

## Legend

- |                          |                         |
|--------------------------|-------------------------|
| (1) Headlamp (Export)    | (4) Park/Turn Lamp      |
| (2) Headlamp (Composite) | (5) Headlamp, Low Beam  |
| (3) Marker Lamp          | (6) Headlamp, High Beam |

## Headlight Composite, LH/RH Typical (Luxury)

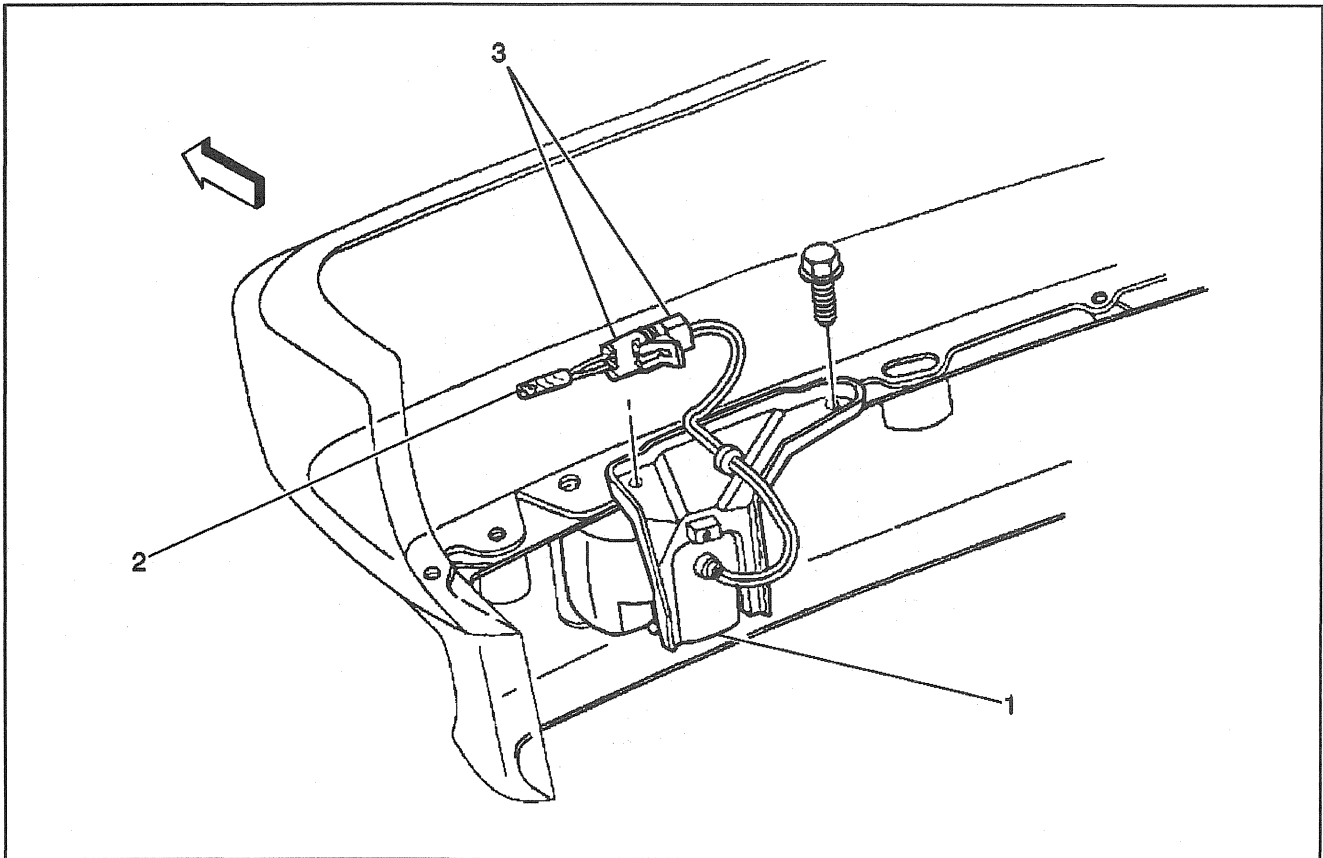


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**Legend**

- |                                      |                     |
|--------------------------------------|---------------------|
| (1) Headlamp                         | (4) Park/Turn Lamps |
| (2) Marker Lamp                      | (5) Grille          |
| (3) Park/Turn and Marker Lamp Lenses |                     |

## Fog Lamps



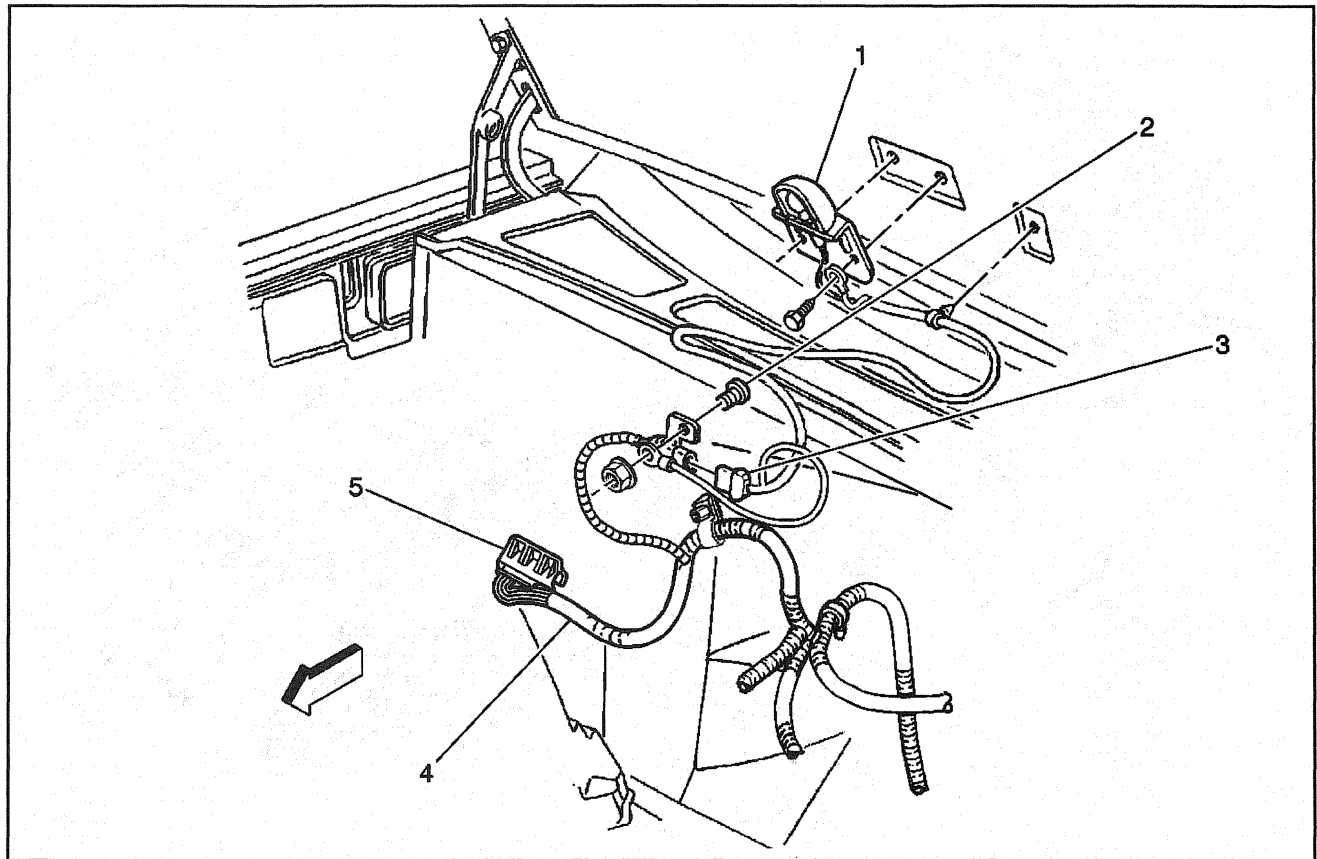
278124

## Legend

- (1) Fog Lamp (Rear View)
- (2) Forward Lamp Harness

- (3) Fog Lamp Connector

## Underhood Lamp



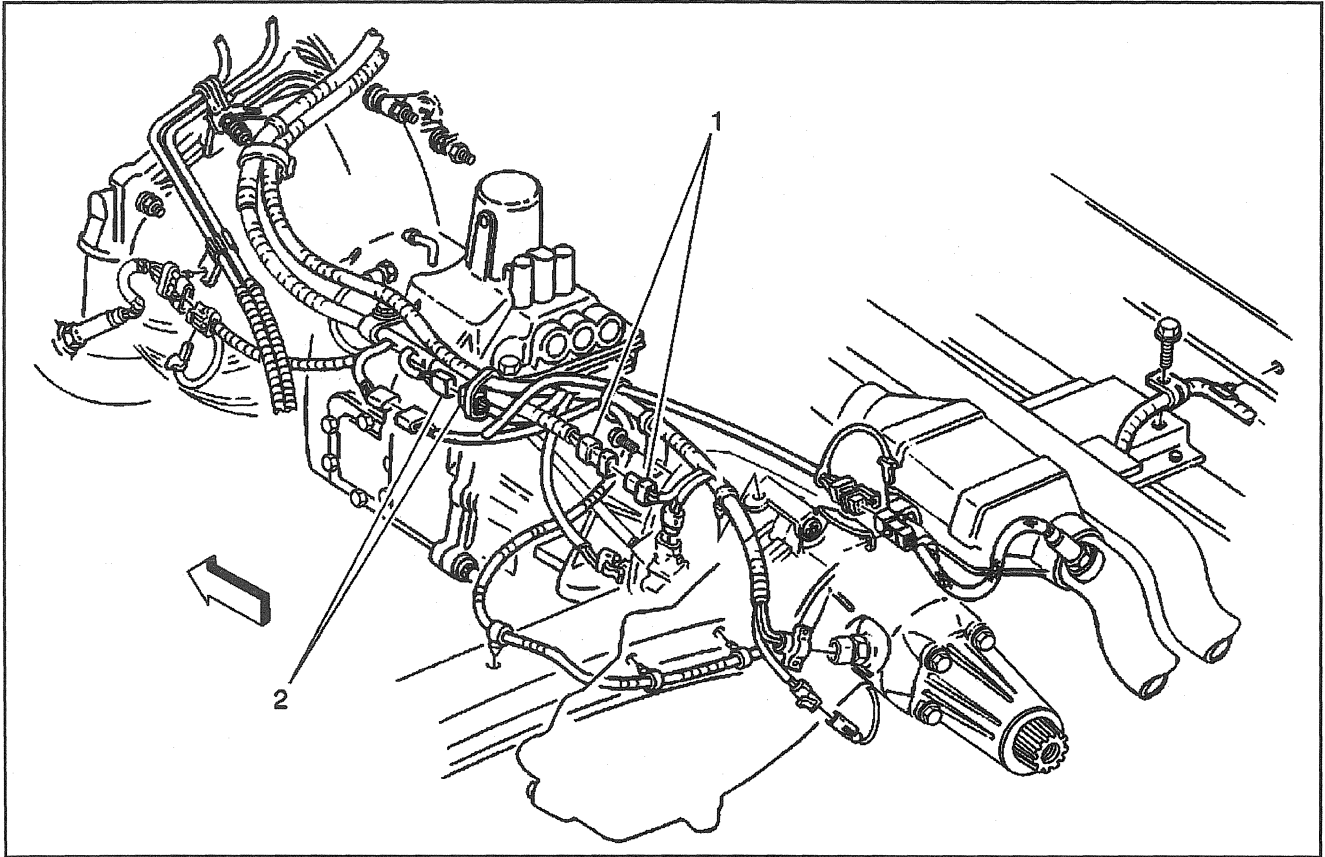
405594

## Legend

- (1) Underhood Lamp
- (2) G108
- (3) Underhood Lamp Connector

- (4) Engine Harness
- (5) P101

## Connectors: C107, C120 (5-Speed Manual)



276778

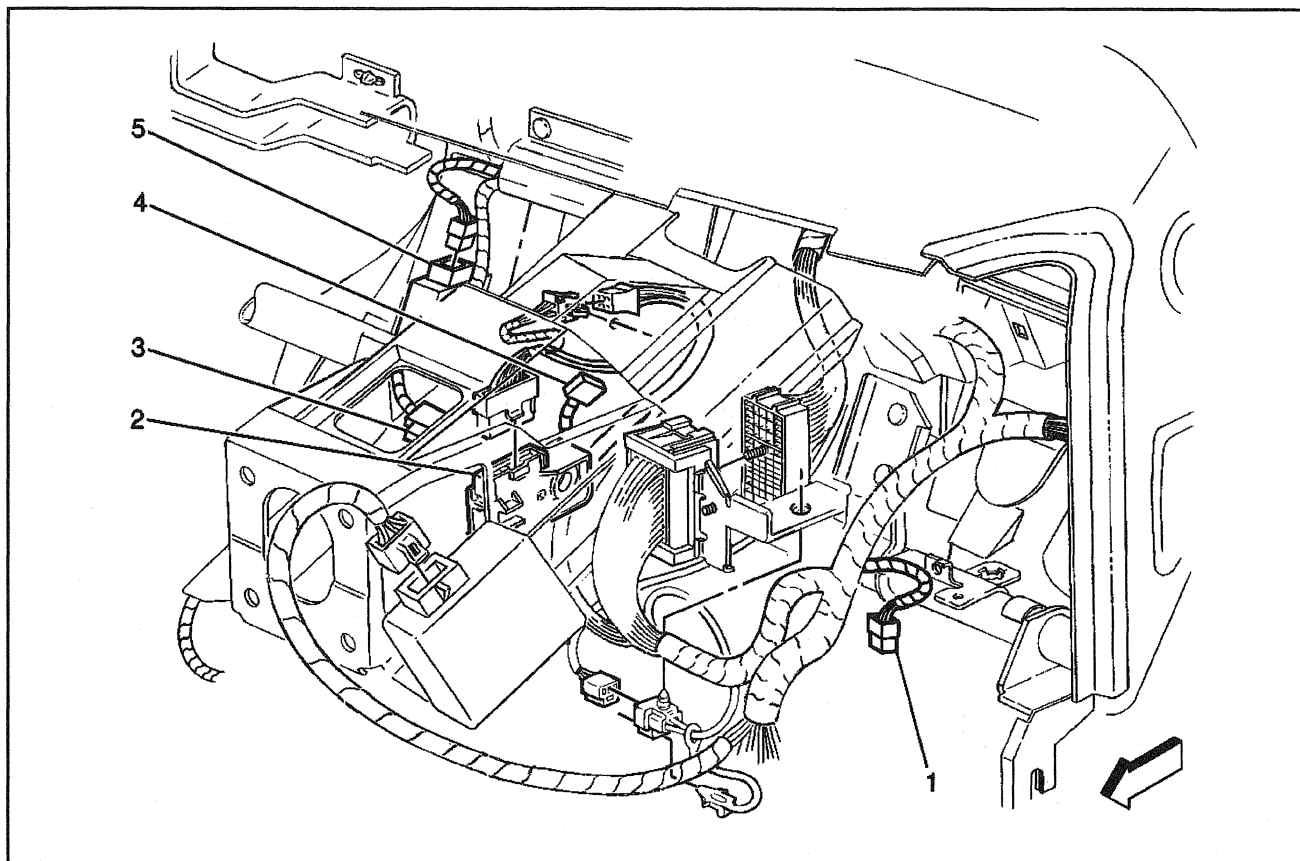
## Legend

(1) C120

(2) C107



## DRL Module, Stoplamp Switch

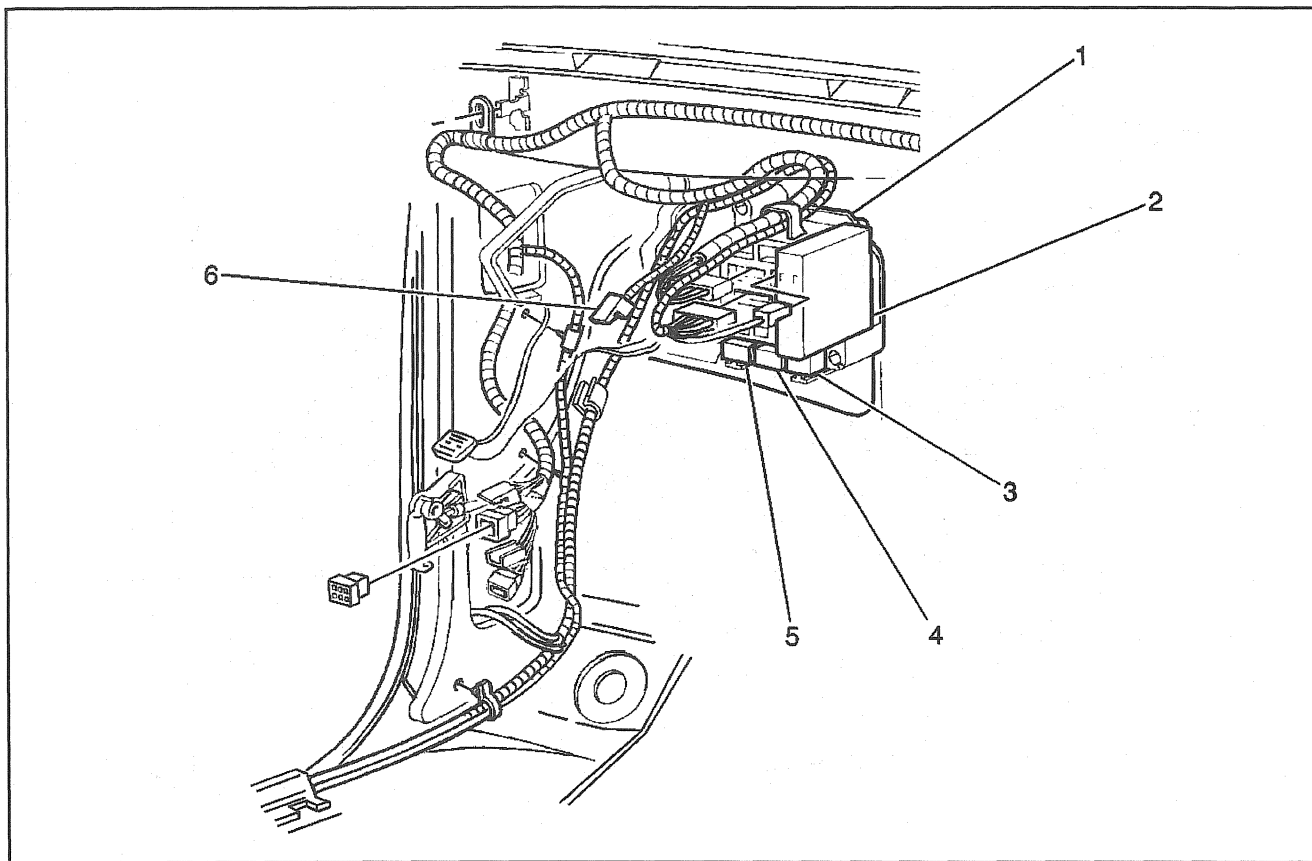


278093

## Legend

- |  |                                       |
|--|---------------------------------------|
| (1) Daytime Running Lamps (DRL) Module                 | (4) Stoplamp Switch                   |
| (2) Ignition Switch                                    | (5) Daytime Running Lamps (DRL) Diode |
| (3) Brake/Transmission Shift Interlock (BTSI) Solenoid |                                       |

## Convenience Center

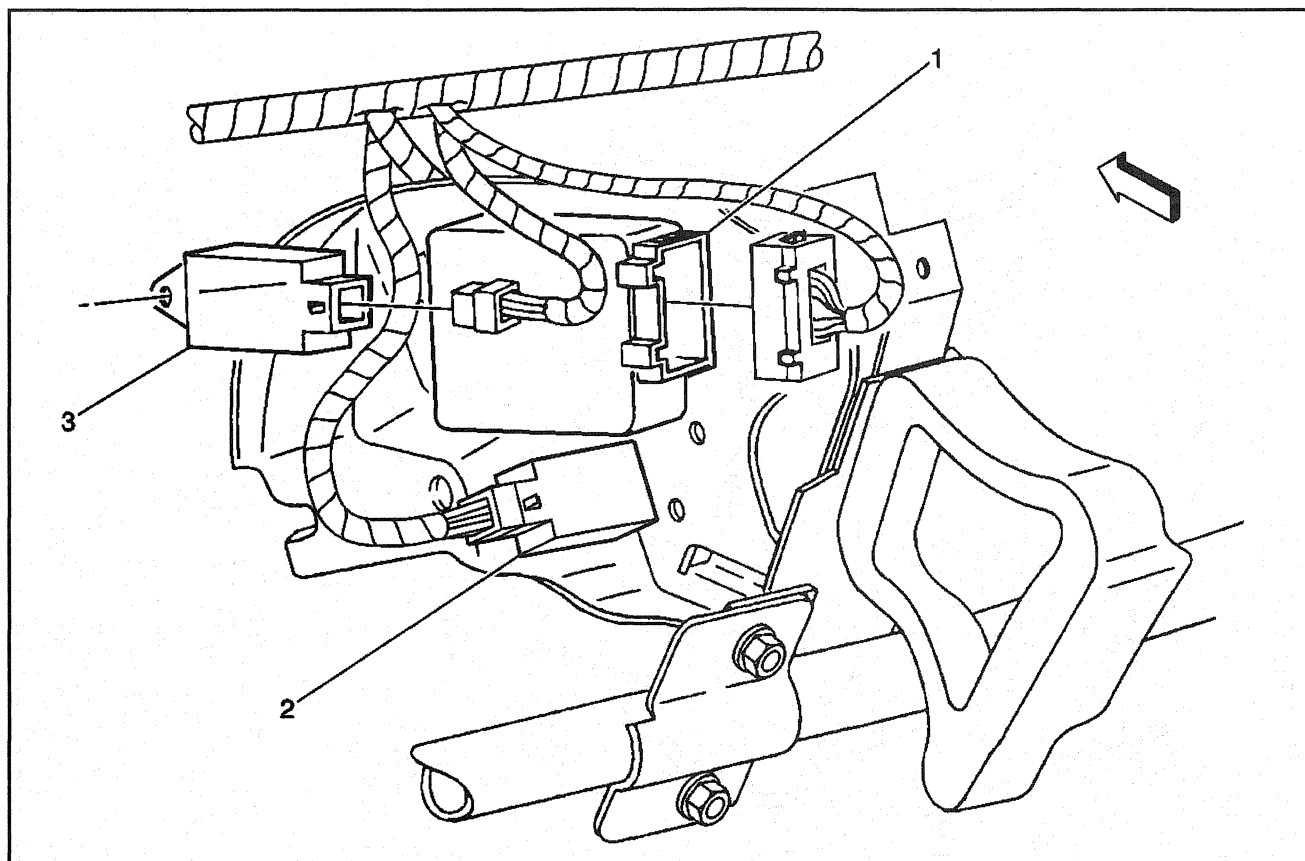


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## Legend

- |                         |                               |
|-------------------------|-------------------------------|
| (1) Convenience Center  | (4) DRL Relay                 |
| (2) Audio Alarm Module  | (5) Fog Lamp Relay            |
| (3) Turn/Hazard Flasher | (6) Park Brake Warning Switch |

## Interior Lamp Control Module



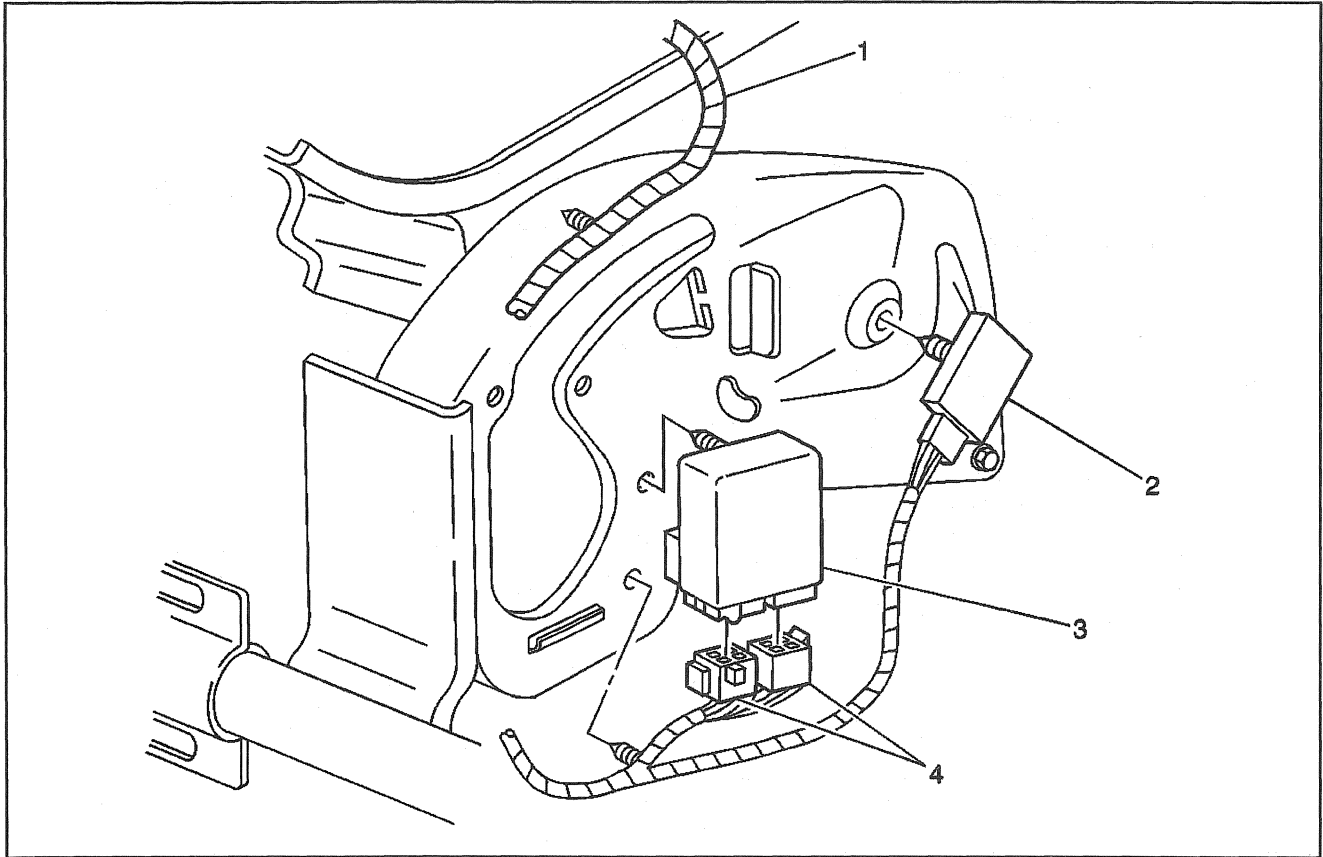
278106

## Legend

- (1) Remote Control Door Lock Receiver Module
- (2) Interior Lamp Control Module

- (3) Transfer Case Control Module

## Headlamp Control Module

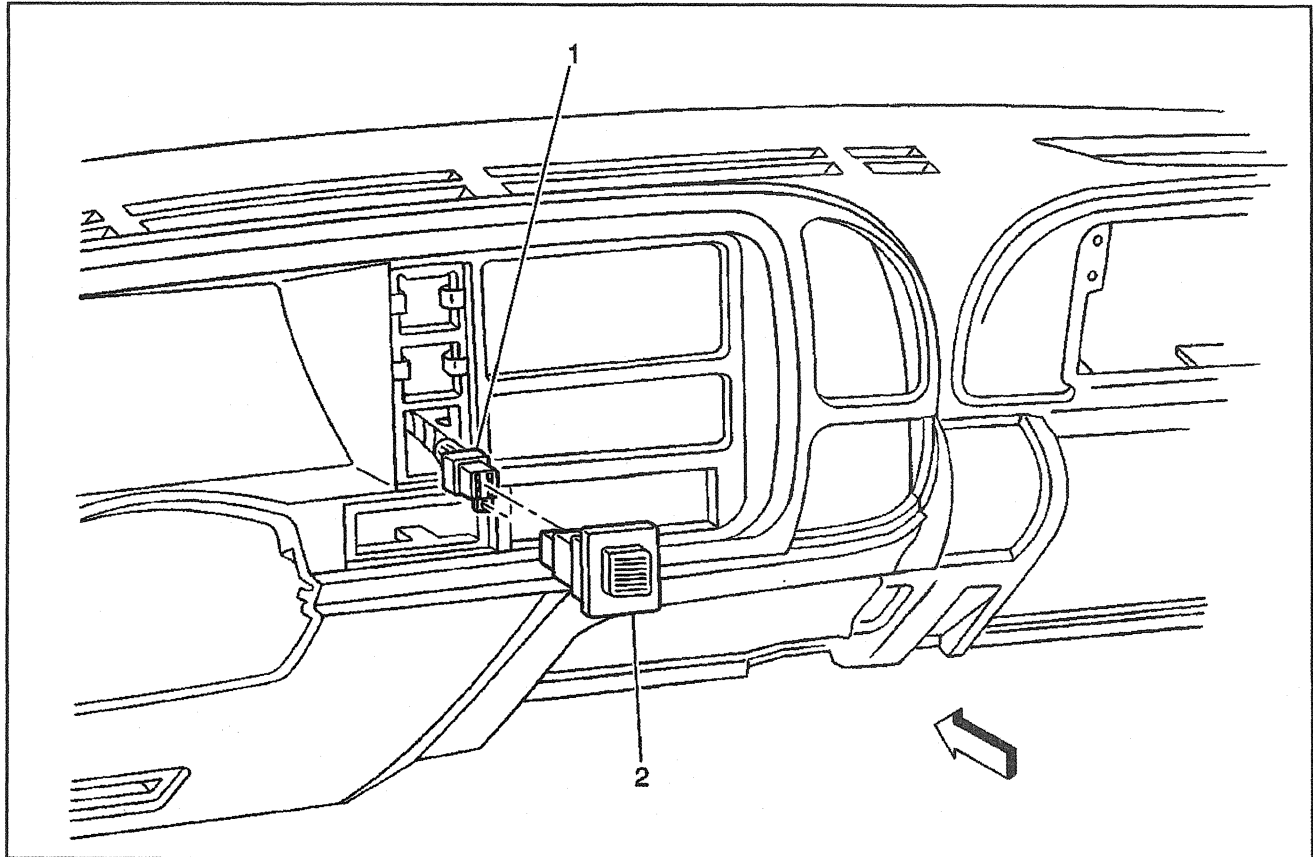


311392

## Legend

- |                             |                             |
|-----------------------------|-----------------------------|
| (1) Cross Body Harness      | (4) Headlamp Control Module |
| (2) Door Lock Relay         | Connectors, C1 and C2       |
| (3) Headlamp Control Module |                             |

Fog Lamp Switch



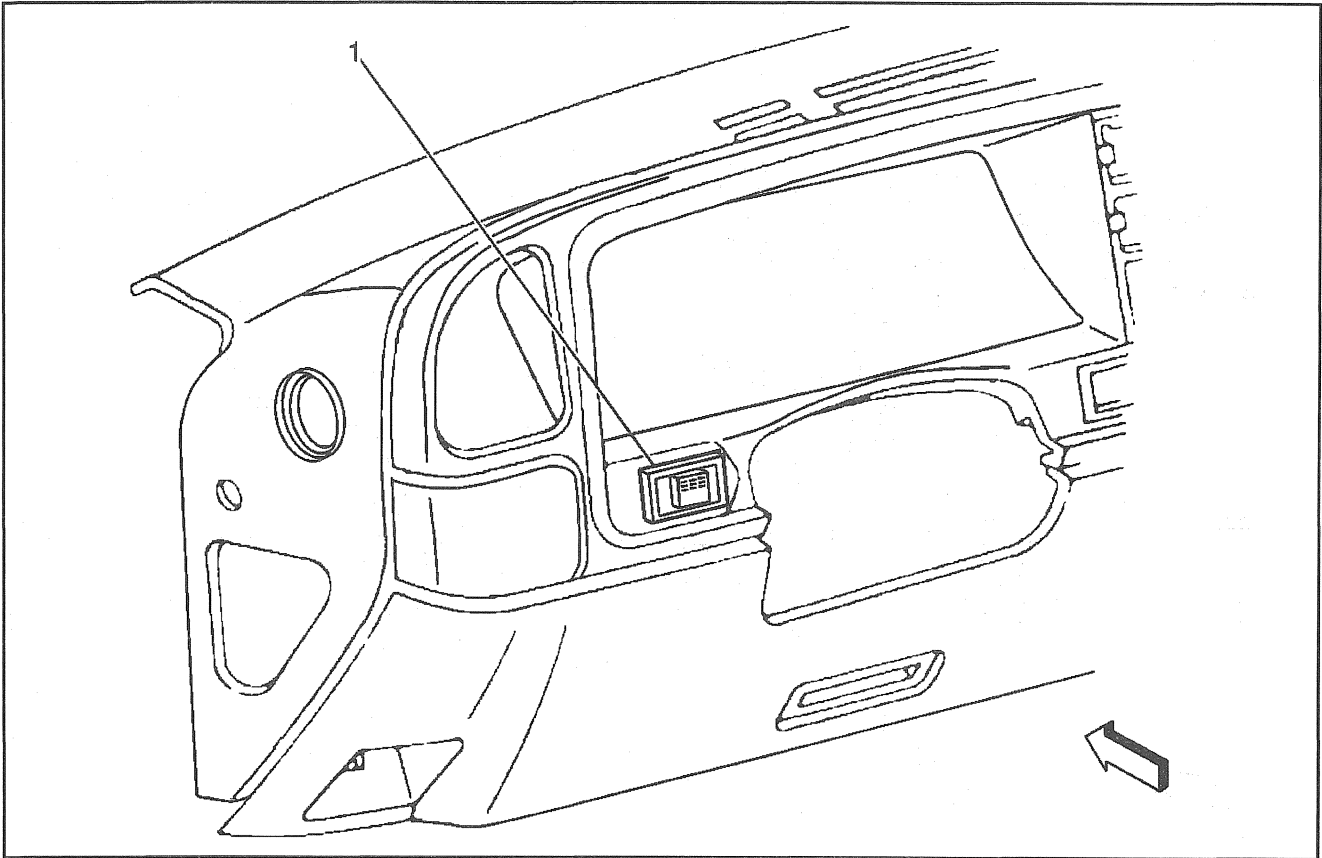
331841

Legend

(1) Forward Lamp Harness

(2) Fog Lamp Connector

Emergency Roof Lamp Switch (Z56)

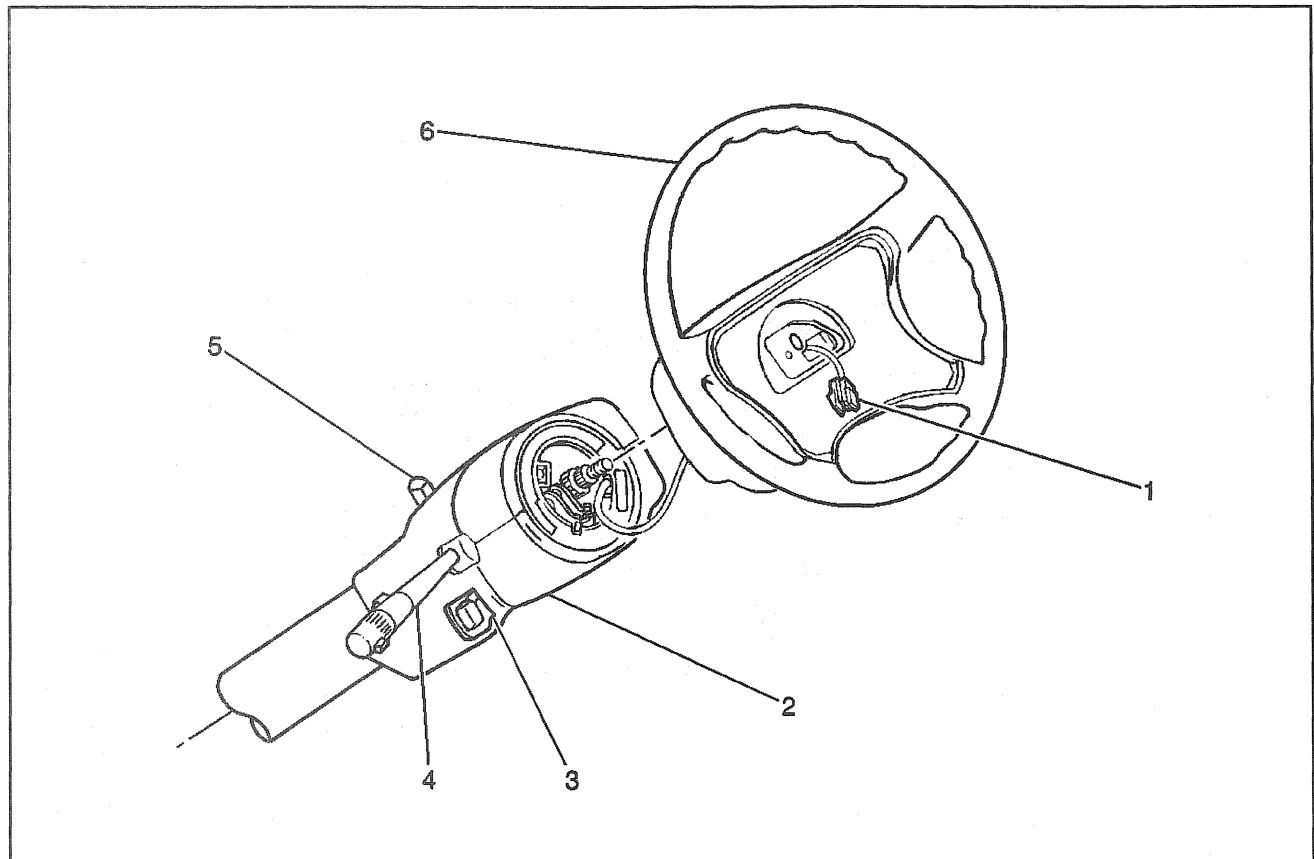


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Legend

- (1) Emergency Roof Lamp Switch

## Turn Signal and Hazard Switch



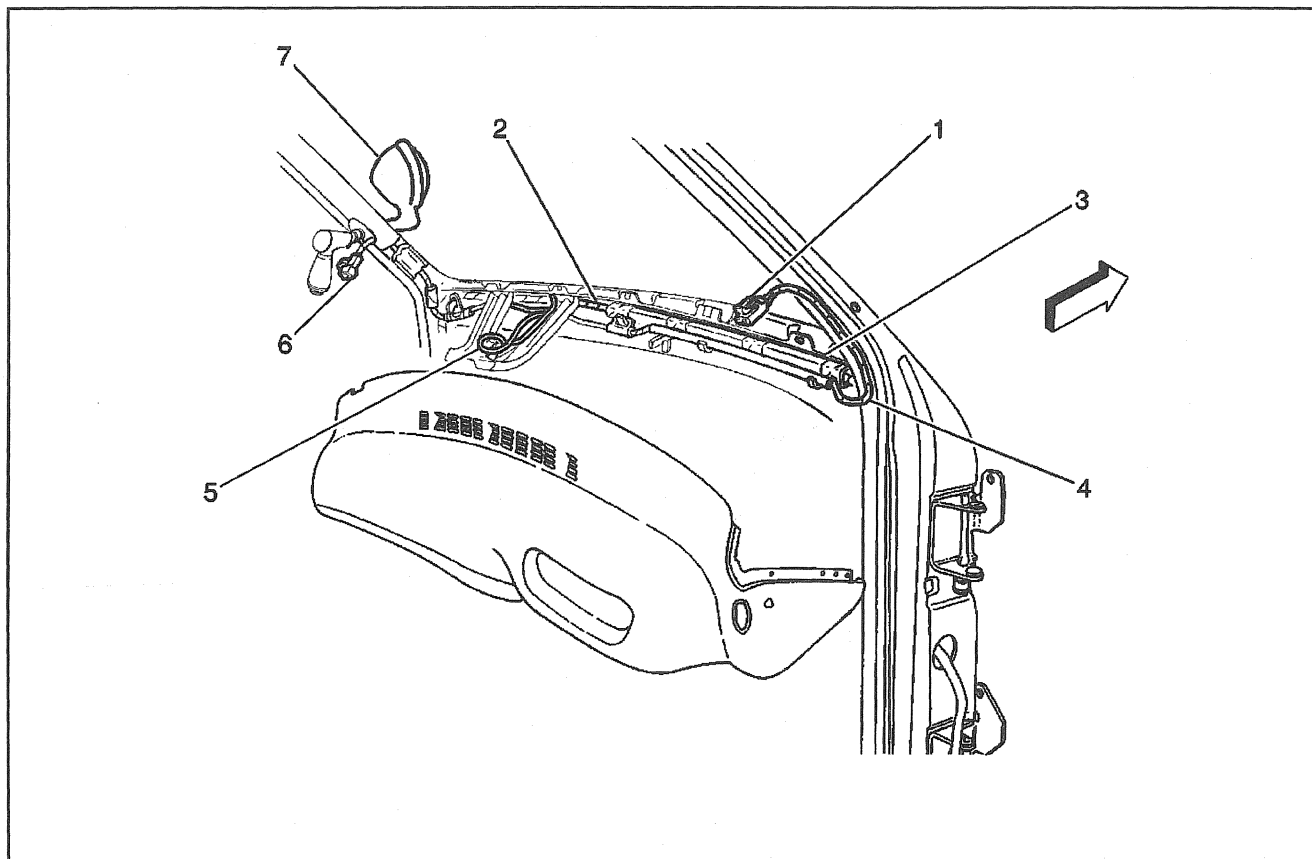
468790

## Legend

- (1) Inflatable Restraint Steering Wheel Module Connector
- (2) Steering Column
- (3) Tilt Lever

- (4) Turn Signal Lever
- (5) Emergency Flasher Switch
- (6) Steering Wheel

## Spotlamp (Police Package)



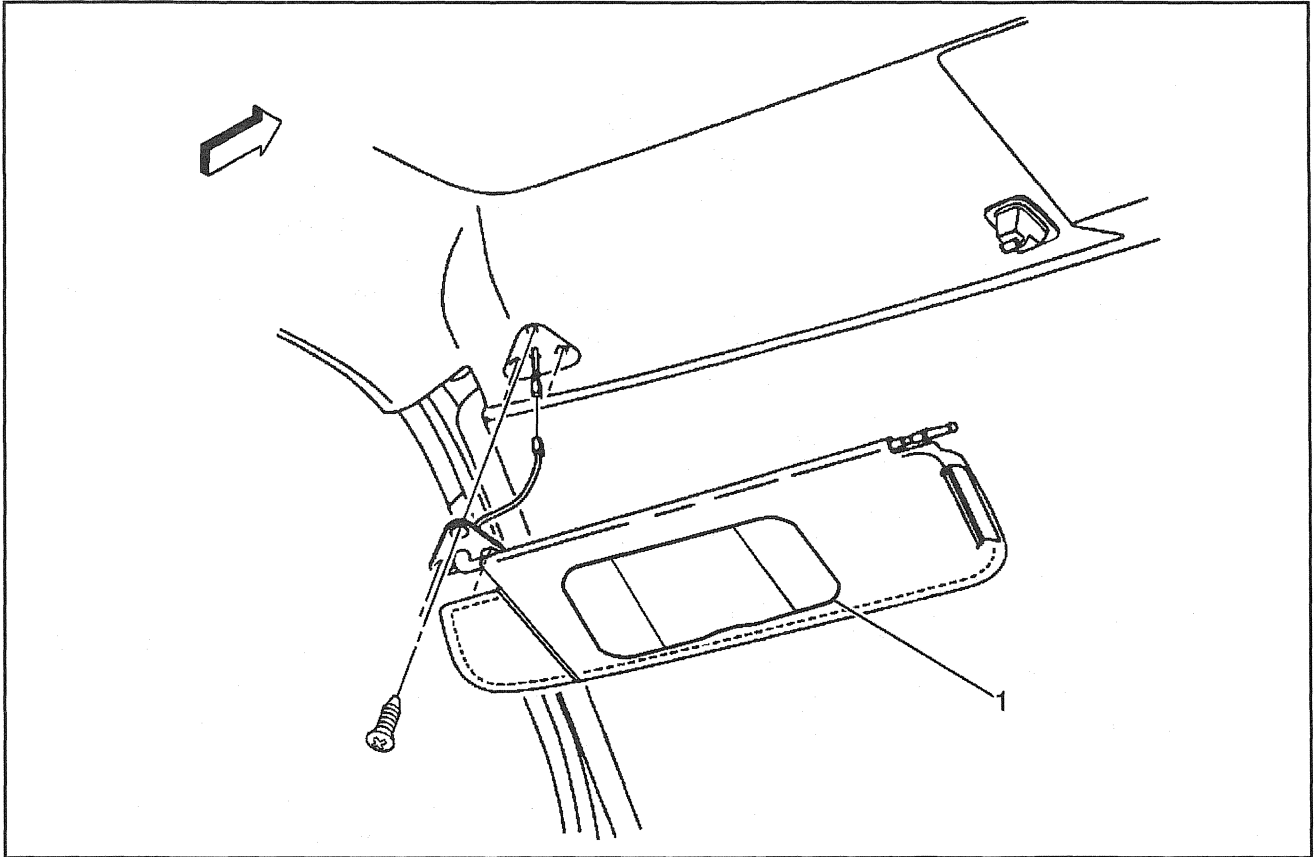
375593

## Legend

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| (1) Spotlamp Connector, Right Side | (5) C272                          |
| (2) Spotlamp Harness               | (6) Spotlamp Connector, Left Side |
| (3) Crossbody Harness              | (7) Spotlamp, Left                |
| (4) Spotlamp Harness               |                                   |



## Sunshade Mirror Lamp

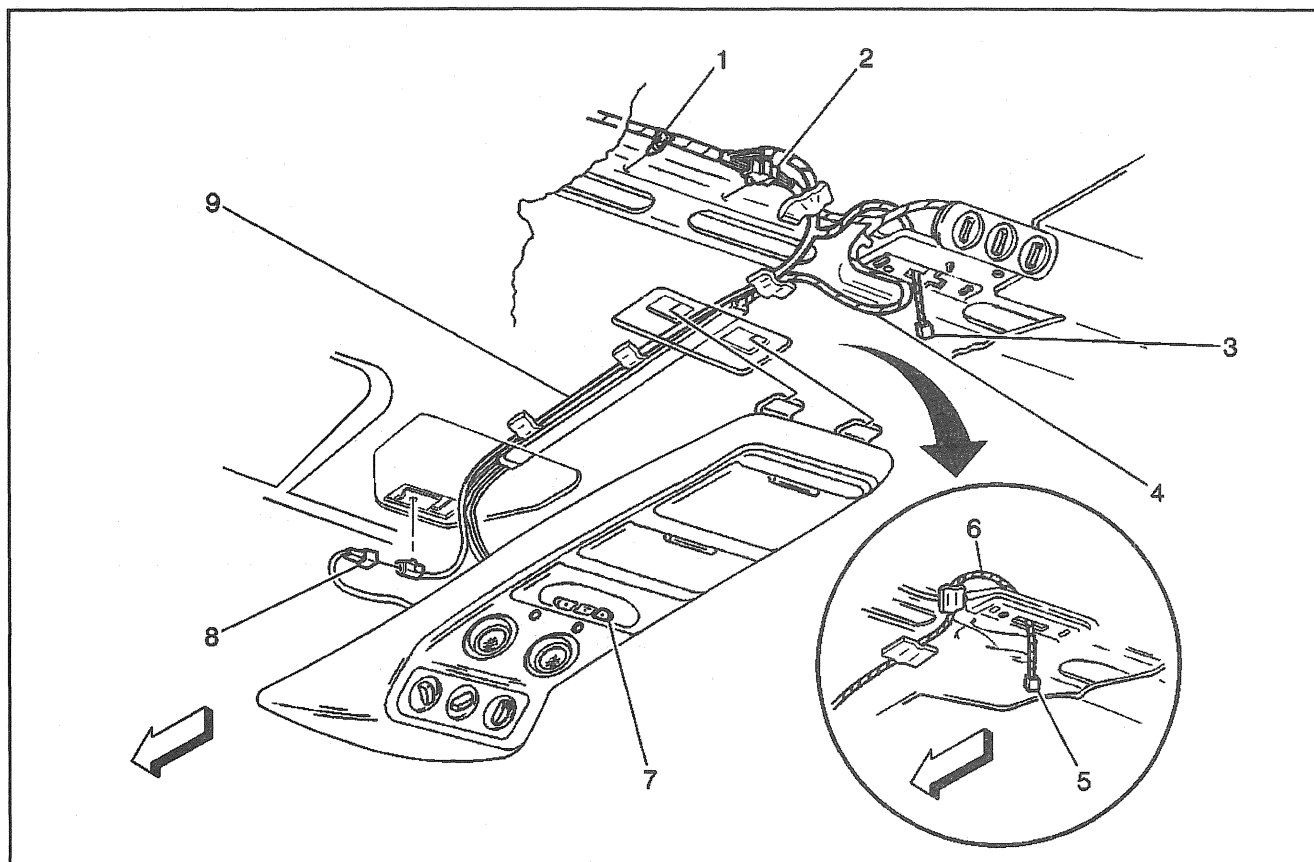


314703

## Legend

- (1) Sunshade Mirror Lamp, Left (Right Opposite)

## Connectors: C300, C307 (Overhead Console)

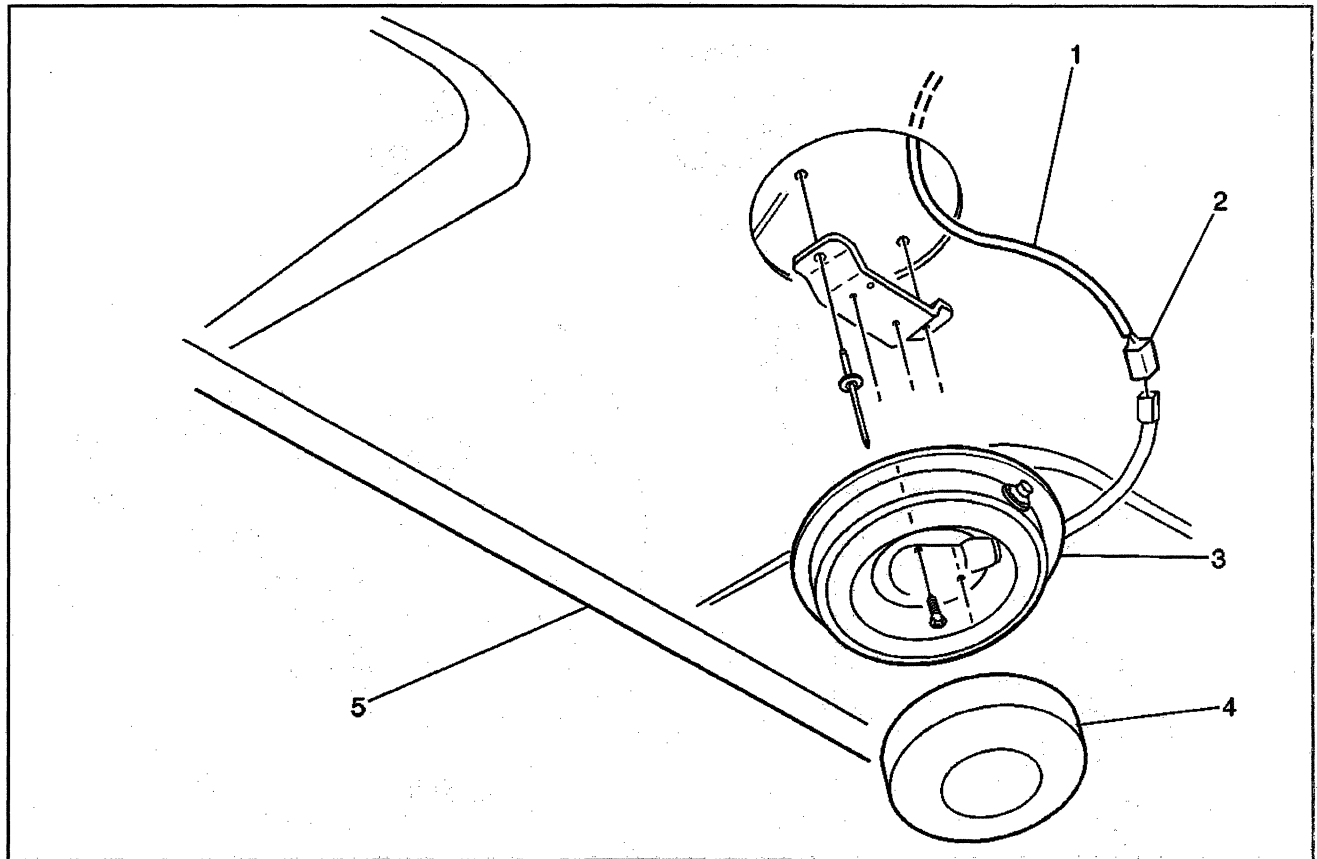


375523

## Legend

- |   |  |
|---|--|
| (1) Front-to-Rear Body Harness            | (6) Dome Lamp Harness                              |
| (2) C307                                  | (7) Garage Door Lamp Switch                        |
| (3) Dome Lamp Connector, Front            | (8) Auxiliary HVAC Control Module Connector, Front |
| (4) Auxiliary HVAC Control Module Harness | (9) Overhead Console Harness                       |
| (5) Dome Lamp Connector, Front            |  |

## Dome Lamp (Z56)

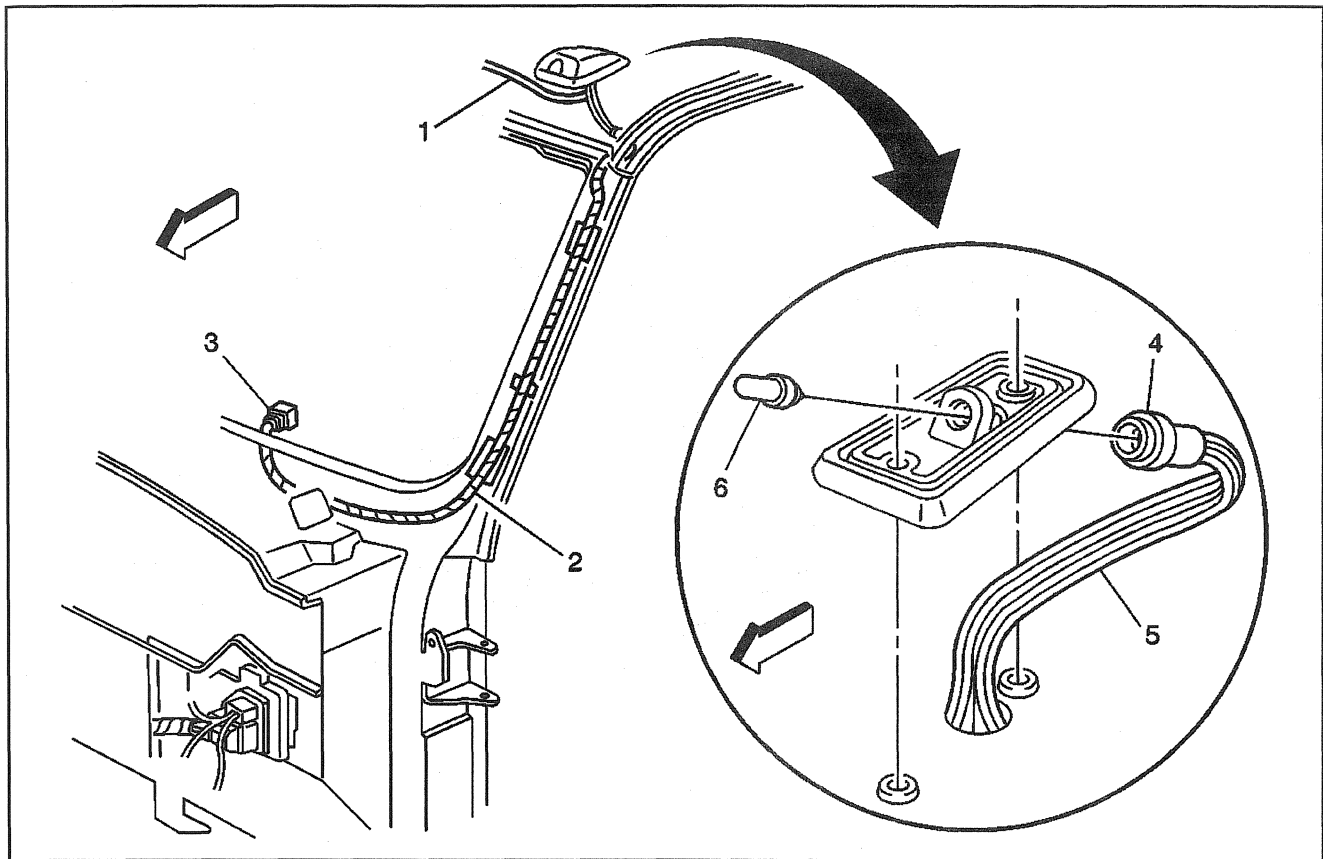


278142

## Legend

- |                         |                    |
|-------------------------|--------------------|
| (1) Wiring Harness      | (4) Dome Lamp Lens |
| (2) Dome Lamp Connector | (5) Windshield     |
| (3) Dome Lamp (Z56)     |                    |

## Roof Marker Lamps

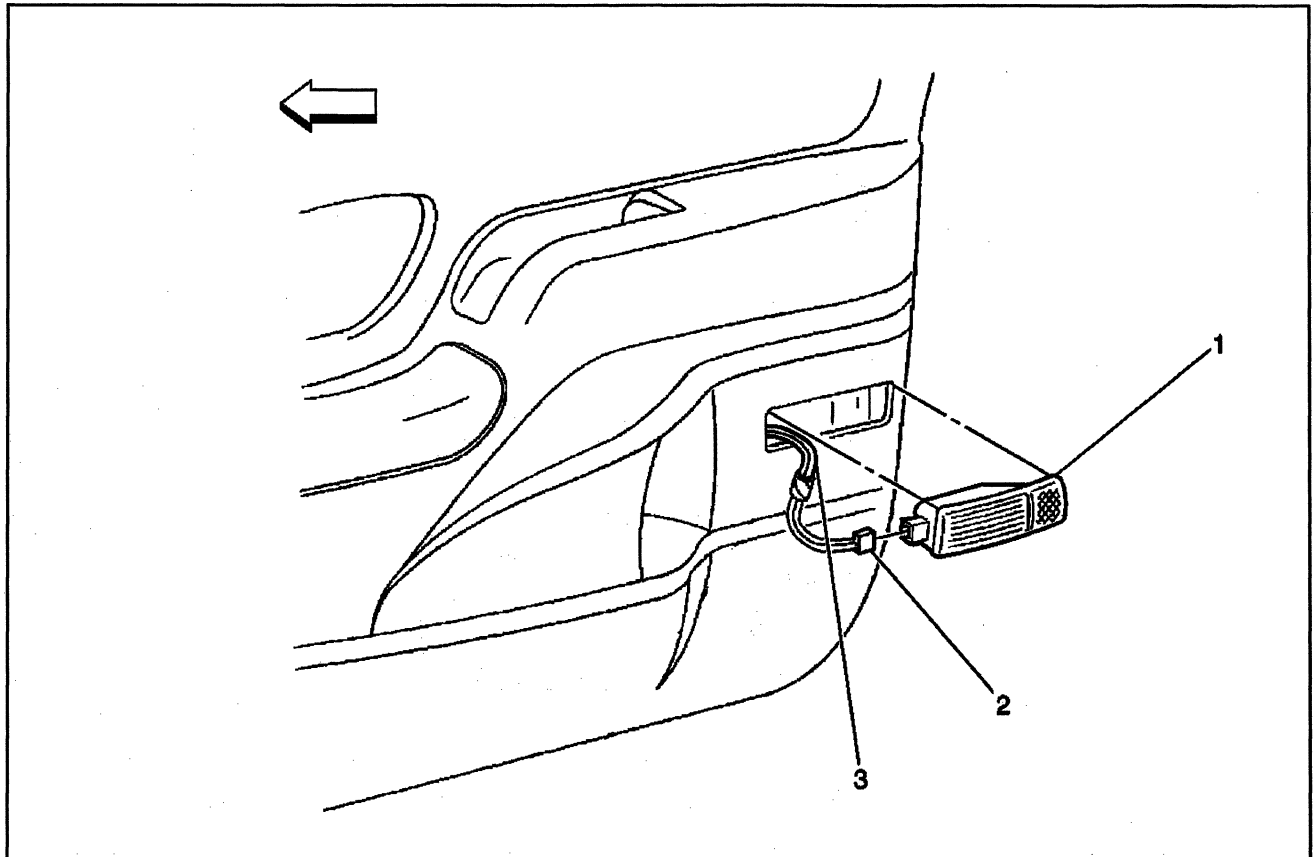


376143

## Legend

- |                                   |                                  |
|-----------------------------------|----------------------------------|
| (1) Clearance Lamps Harness, Roof | (4) Clearance Lamp Connector     |
| (2) Clearance Lamps Harness, Roof | (5) Clearance Lamp Harness, Roof |
| (3) C271                          | (6) Clearance Lamp               |

## Courtesy Lamp, All Doors



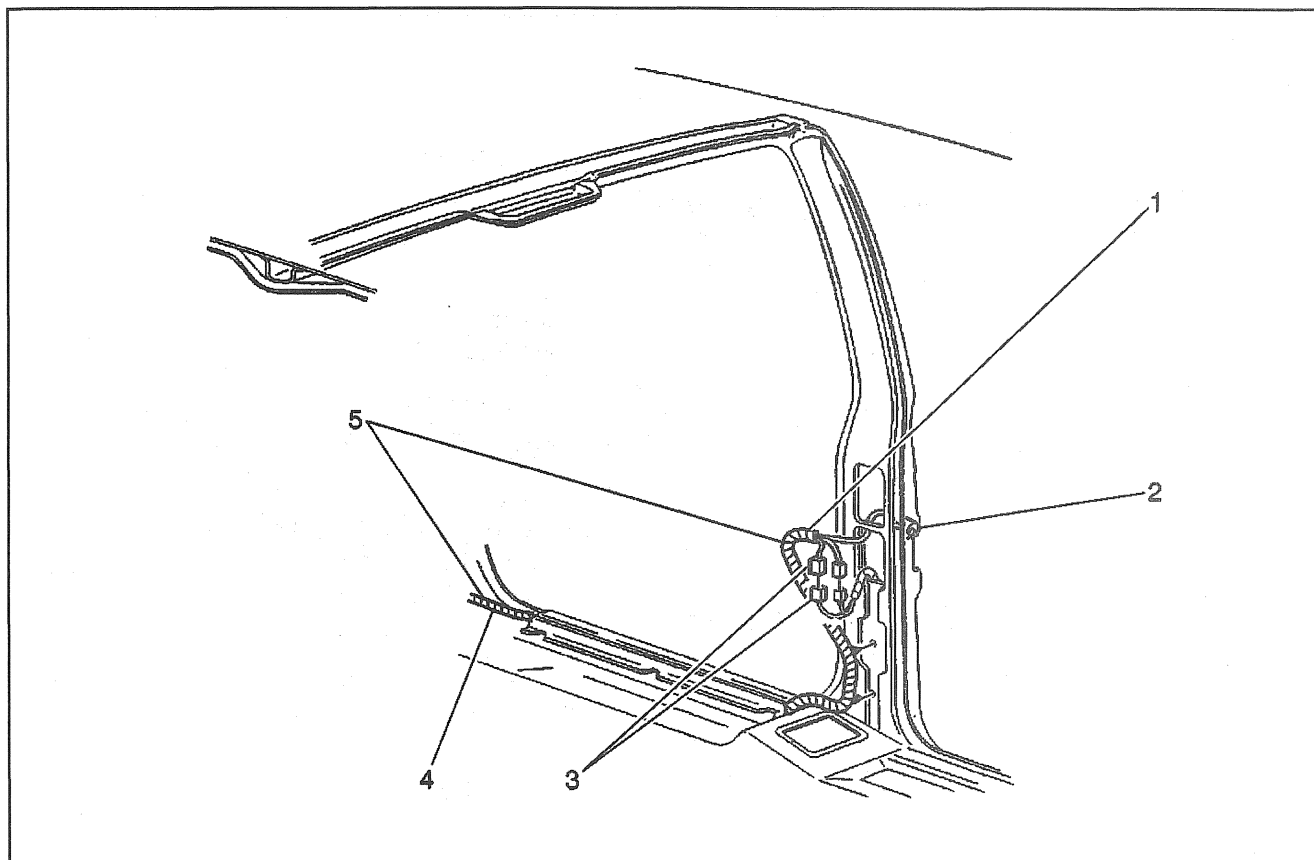
375560

## Legend

- (1) Courtesy Lamp, Door
- (2) Courtesy Lamp Connector

- (3) Door Harness

## Crossbody Harness Inline to RR Door (LR Typical)

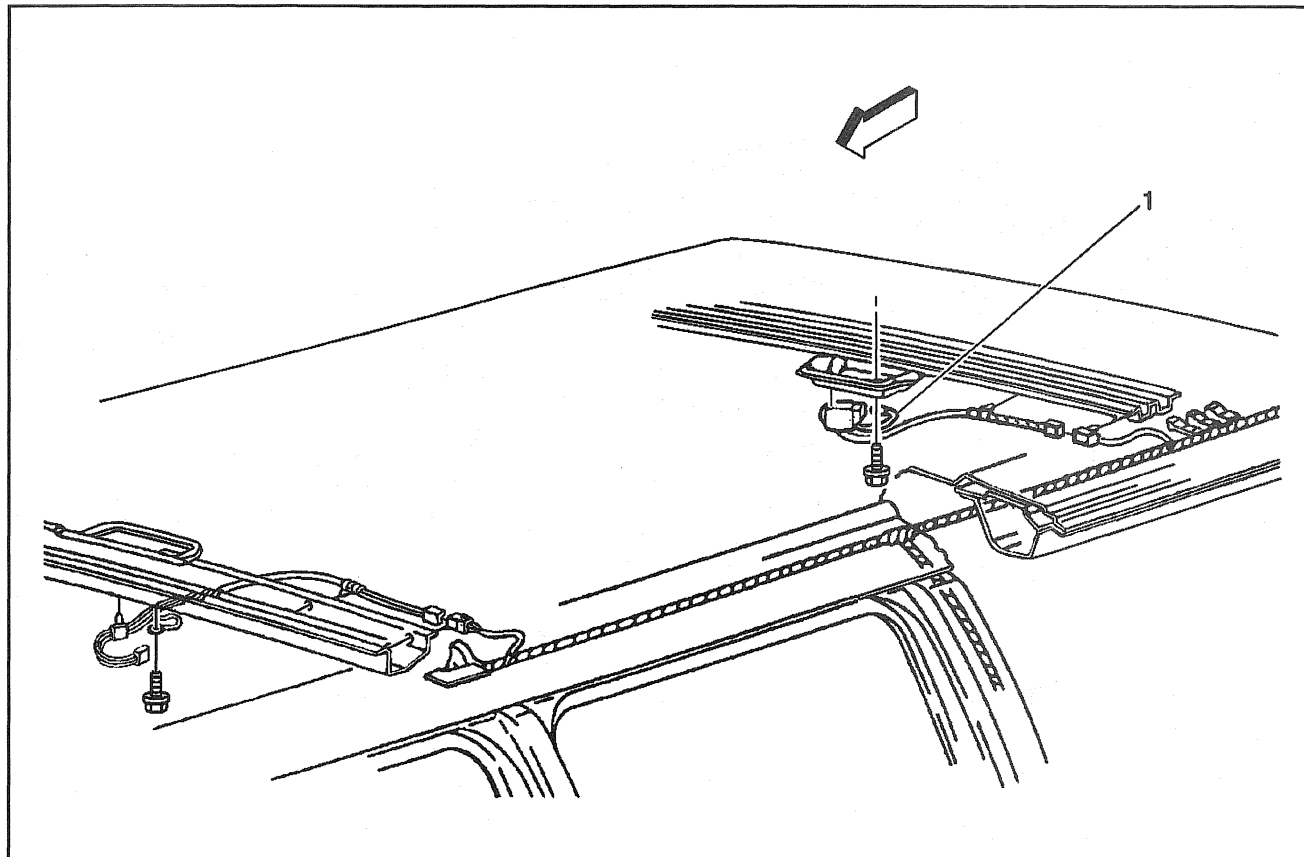


376164

**Legend**

- |                                       |                       |
|---------------------------------------|-----------------------|
| (1) Crossbody Harness                 | (4) Crossbody Harness |
| (2) Door Jamb Switch, RR/LR           | (5) Crossbody Harness |
| (3) C496 & C497 (RR)/C498 & C499 (LR) |                       |

Rear Dome Lamp

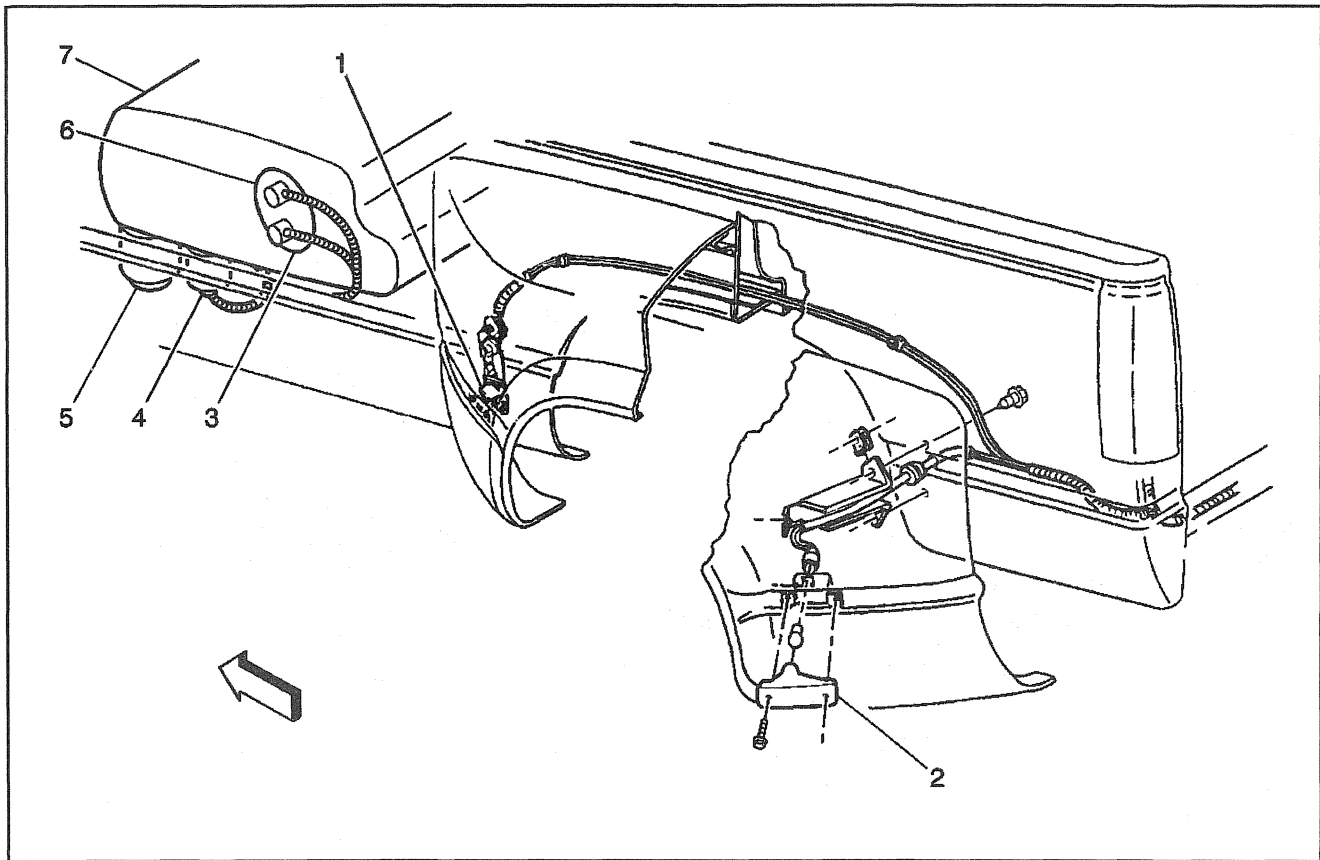


278139

Legend

(1) Rear Dome Lamp

## Clearance Lamps (with Dual Rear Wheels)



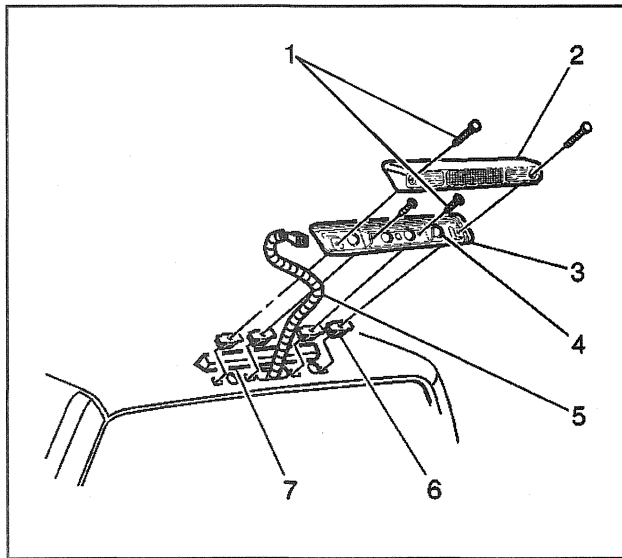
278167

**Legend**

- |   |                                   |
|---|-----------------------------------|
| (1) Left and Right Front Clearance Lamp                           | (5) Fuel Pump Balance Module      |
| (2) Left and Right Rear Clearance Lamp                            | (6) Fuel Pump (Dual Tanks-Diesel) |
| (3) Fuel Gauge Sender (w/Dual Tanks-Diesel) (Dual Tanks-Gasoline) | (7) Primary Fuel Tank             |
| (4) Fuel Pump Balance Relay                                       |                                   |



### Center High Mount Stoplamp and Cargo Lamp (except Suburban/Utility)

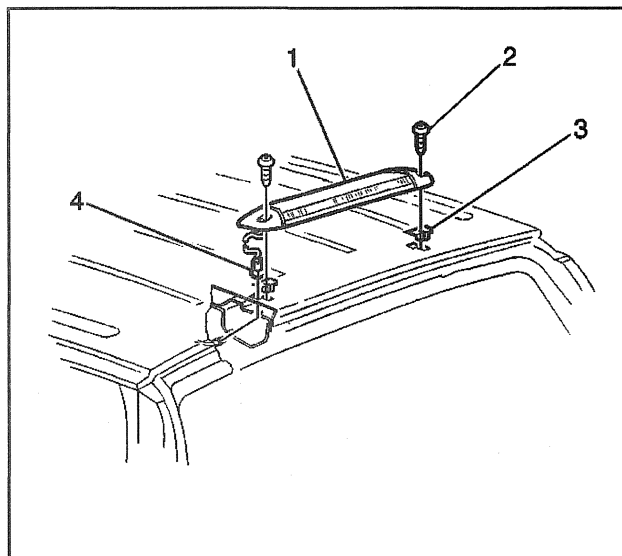


277171

#### Legend

- (1) Bolt
- (2) Center High Mount Stoplamp Lens
- (3) Base
- (4) Socket
- (5) Center High Mount Stoplamp Connector
- (6) Insulators
- (7) Center High Mount Stoplamp Mount

### Center High Mount Stoplamp Wiring (Suburban/Utility)

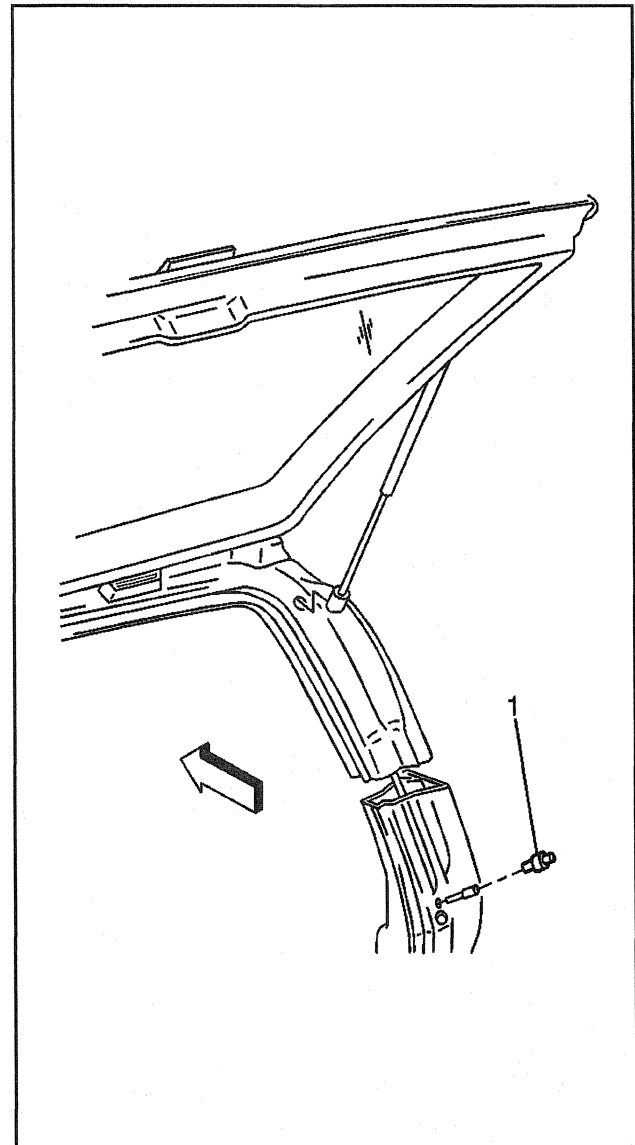


277175

#### Legend

- (1) Center High Mounted Stoplamp Lens
- (2) Bolt
- (3) Center High Mount Stoplamp Mount
- (4) Center High Mount Stoplamp Connector

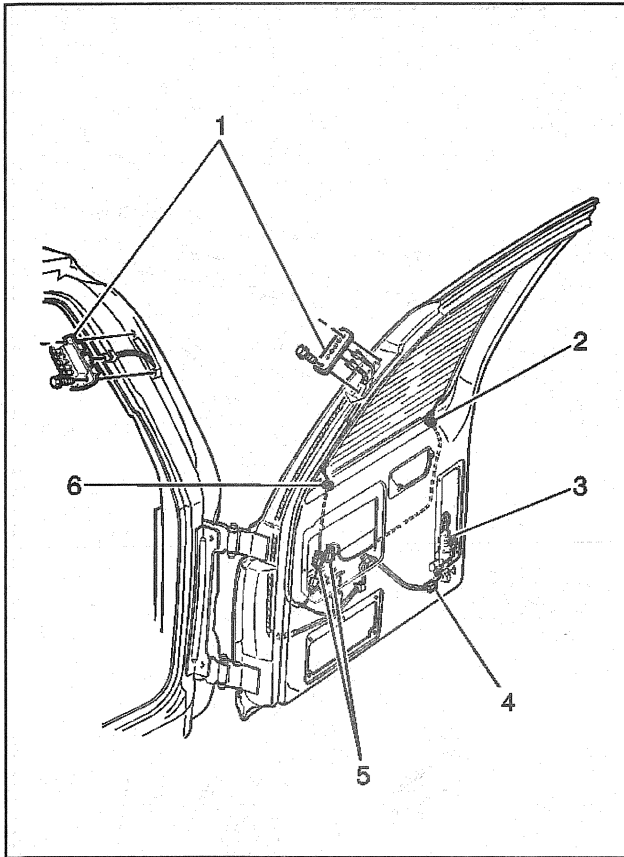
### Door Jamb Switch, Liftgate Right Rear



278002

#### Legend

- (1) Door Jamb Switch, Liftgate RR

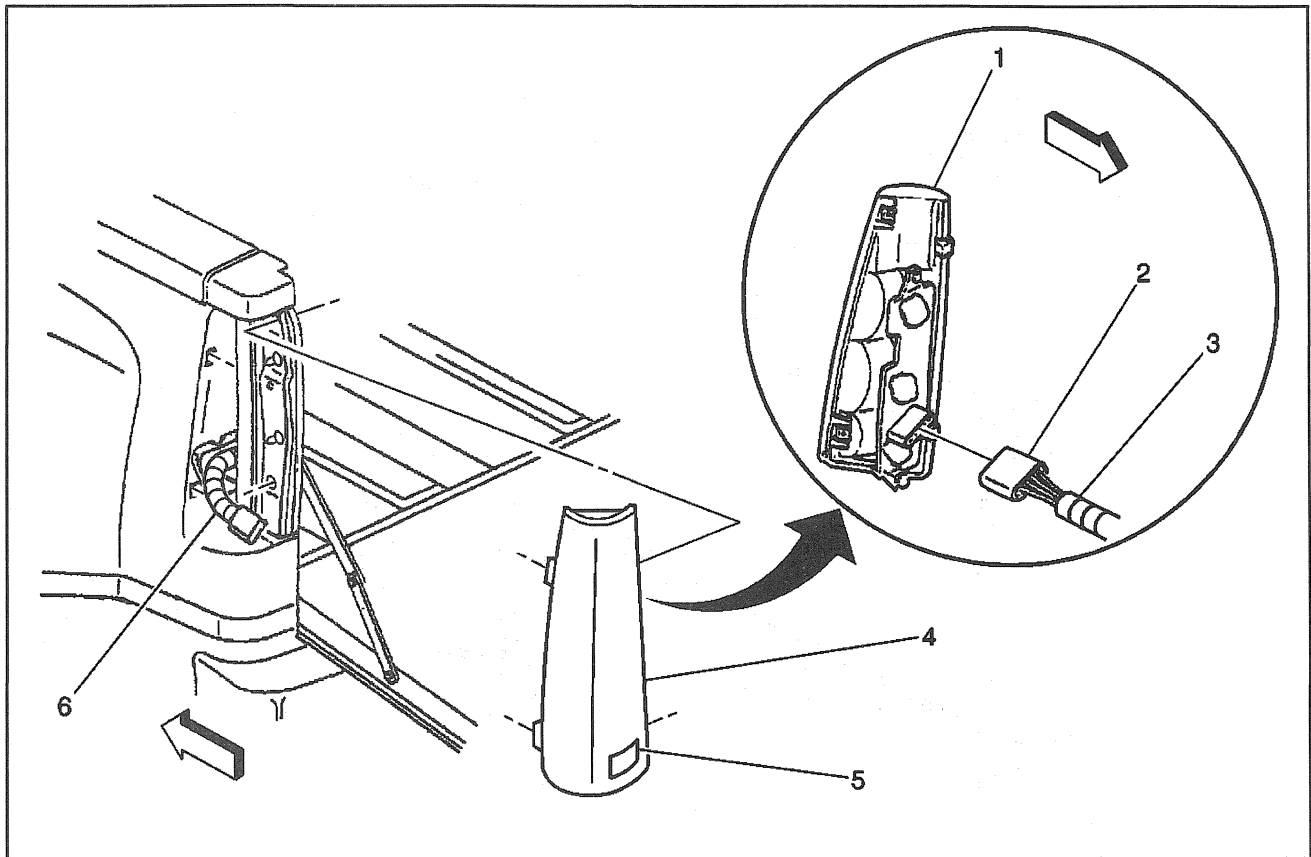
**Cargo Door Wiring (Right Side)**

277850

**Legend**

- (1) Cargo Door Contactor and Door Jamp Switch
- (2) P900
- (3) Cargo Door Lock Actuator
- (4) Cargo Door Lock Actuator, Connector
- (5) Rear Window Defogger Connectors
- (6) P901

### Tail/Stop Lamp, LH (RH Typical)

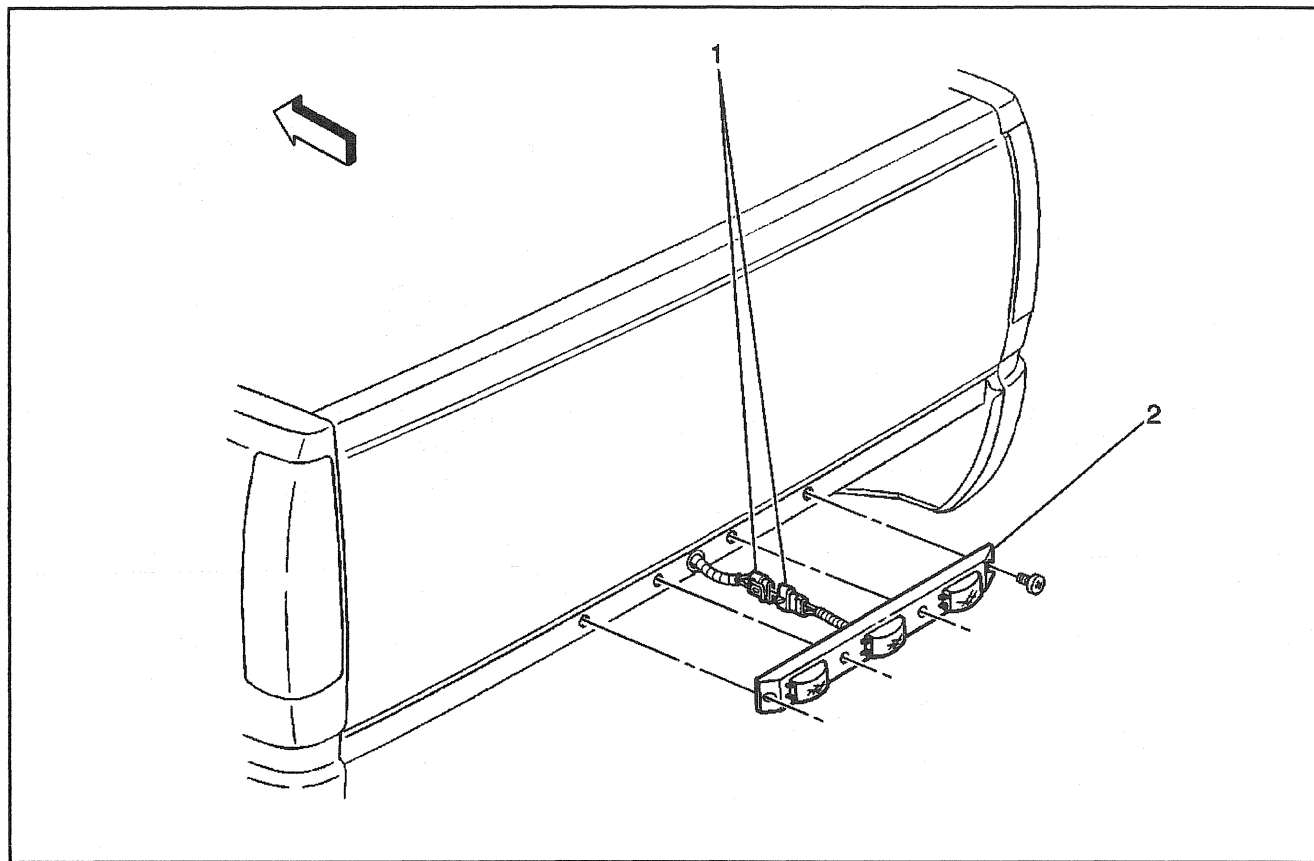


468323

### Legend

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| (1) Tail Lamp Assembly (Rear View) | (4) Tail Lamp Assembly (Front View) |
| (2) Tail Lamp Connector            | (5) Backup Lamp                     |
| (3) Tail Lamp Harness              | (6) Tail Lamp Harness               |

## Endgate Marker Lamps



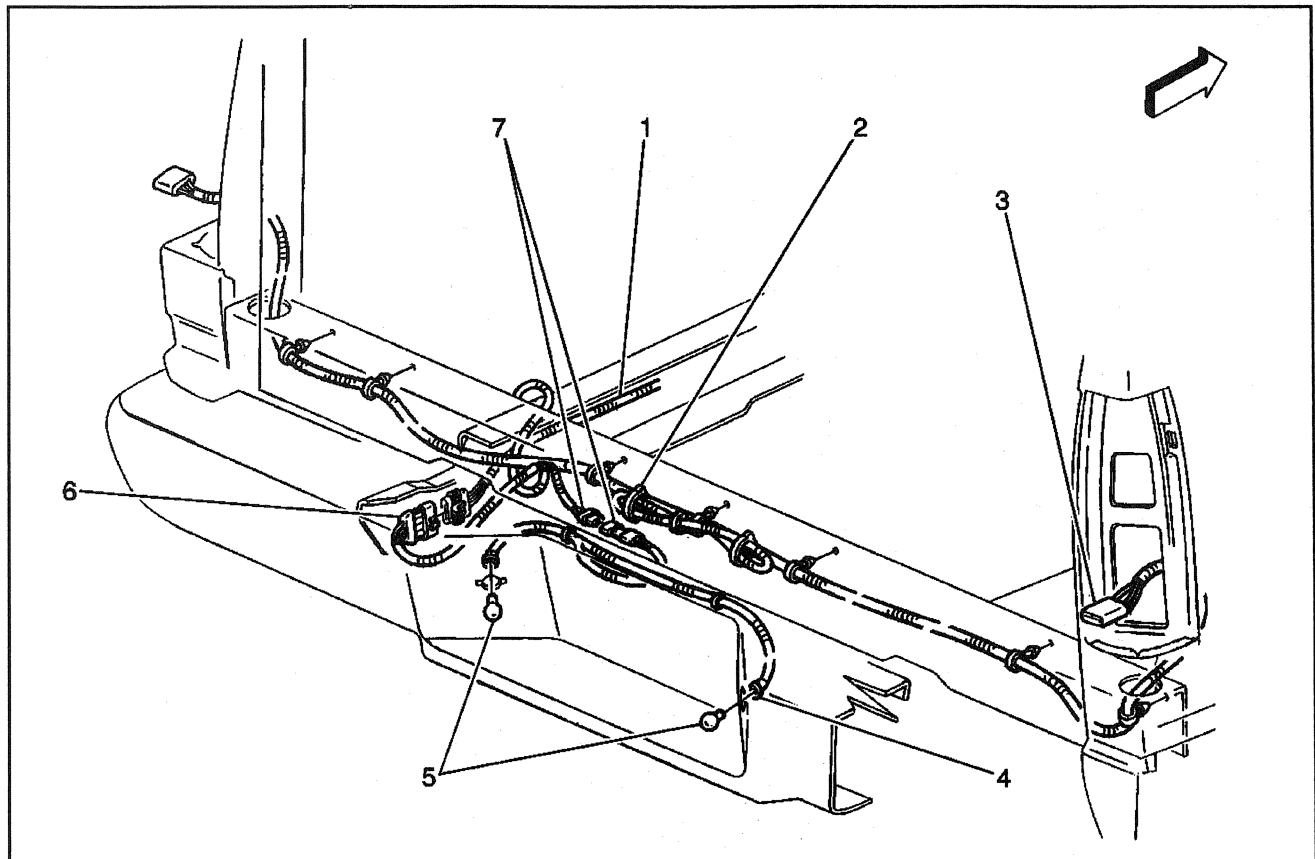
375553

## Legend

(1) C408

(2) Endgate Marker Lamps

## Tail and Stoplamp Harness Connectors

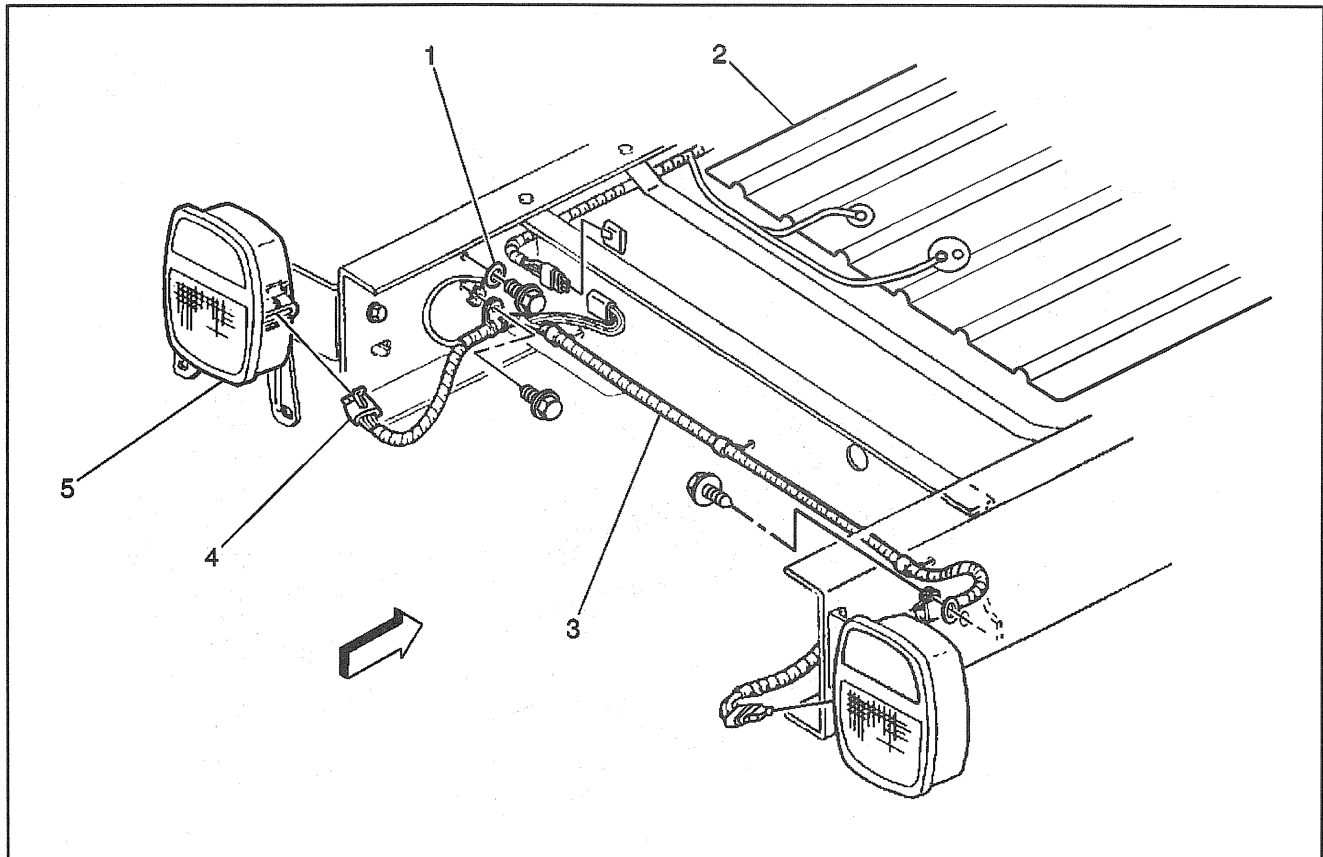


375538

## Legend

- |                                      |                         |
|--------------------------------------|-------------------------|
| (1) Tail/Stop Lamp Extension Harness | (5) License Plate Lamps |
| (2) Tail/Stop Lamp Harness           | (6) C409                |
| (3) Tail/Stop Lamp Connector, RH     | (7) C407                |
| (4) License Plate Lamp Harness       |                         |

## Taillamp Harness (Cab Chassis)

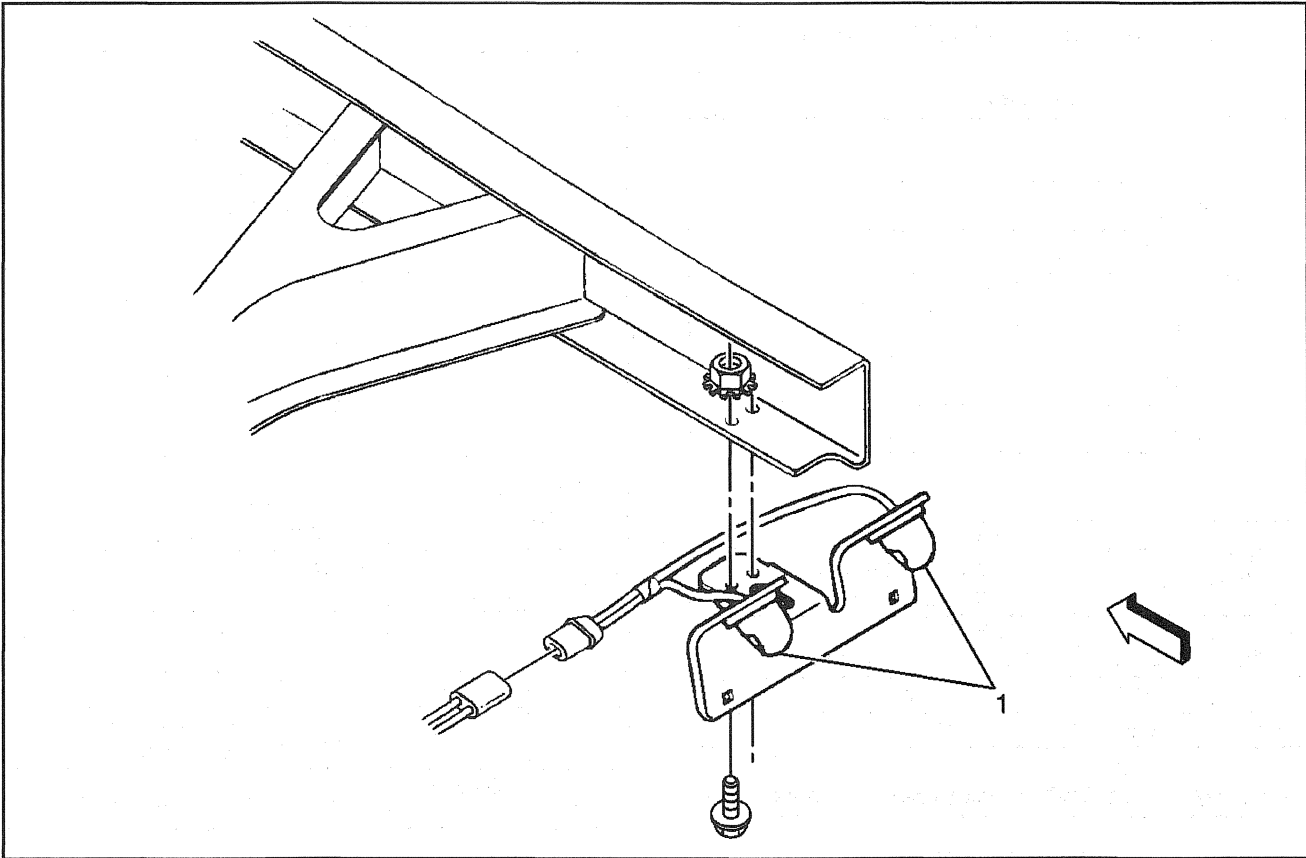


405724

**Legend**

- |   |                                  |
|---|----------------------------------|
| (1) G401                                  | (4) Tail/Stop Lamp Connector, LH |
| (2) Auxiliary Fuel Tank (Dual Tanks Only) | (5) Tail/Stop Lamp Assembly, LH  |
| (3) Tail/Stop Lamp Harness                |                                  |

License Lamps (Pickup)



278099

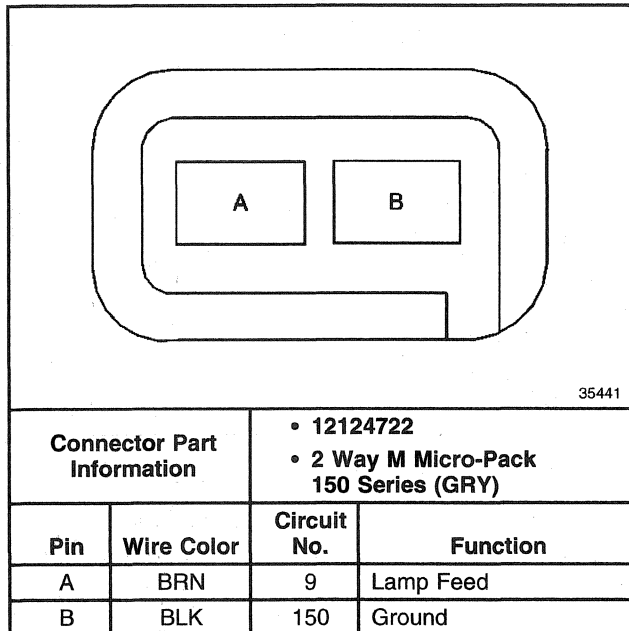
Legend

- (1) License Lamps

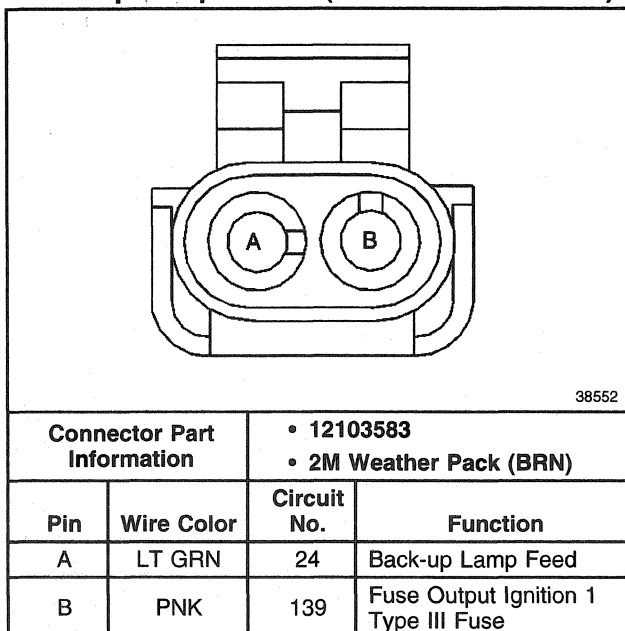
## Visual Identification

## Lighting Systems Connector End Views

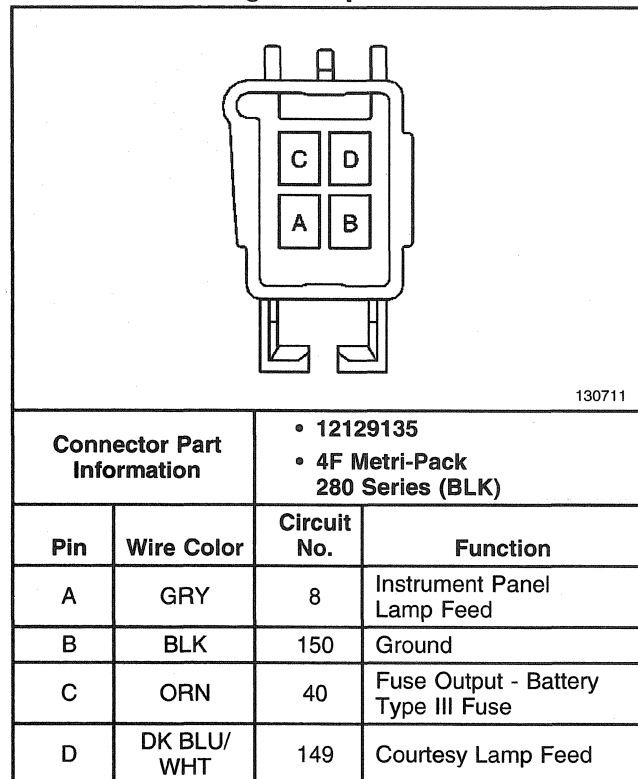
Ashtray Lamp



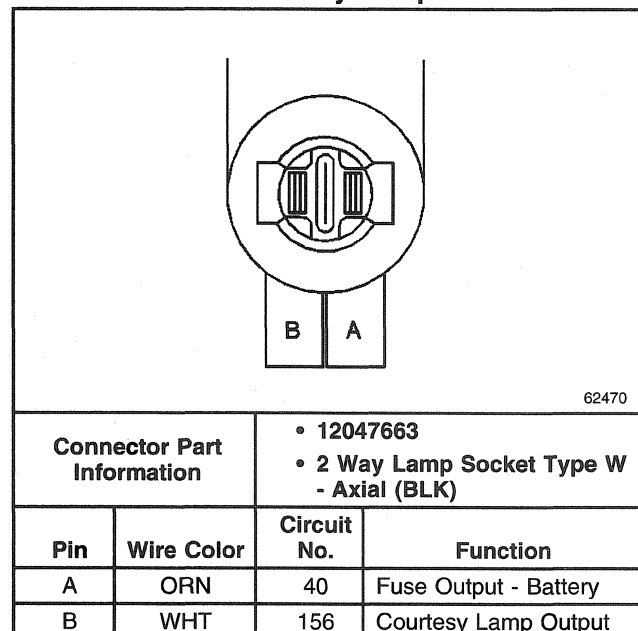
Backup Lamp Switch (Manual Transmission)



Cargo Lamp Switch

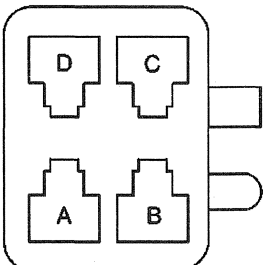


Courtesy Lamp





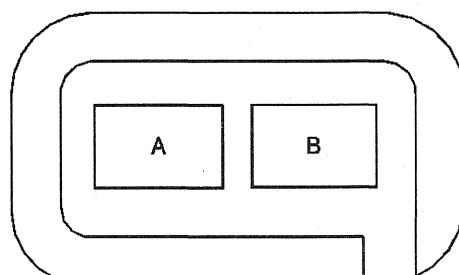
### Cargo Lamp and Center High Mounted Stop Lamp (03, 43, 53)



39660

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047785</li> <li>• 2 Way Lamp Socket Type W - Axial (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	156	Courtesy Lamp Output
B	WHT	150	Ground
C	DK BLU/ WHT	149	Courtesy Lamp Feed
D	WHT	17	Stop Lamp Switch Output

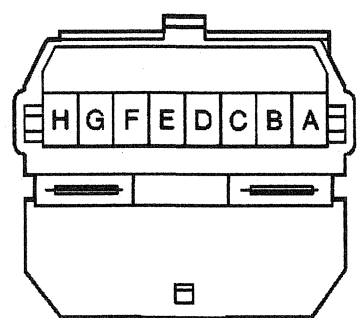
### Center High Mounted Stoplamp (06,16)



35441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• Lamp Socket Wedge Base W2 Right Angle (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	WHT	17	Stop Lamp Switch Output
B	BLK	150	Ground

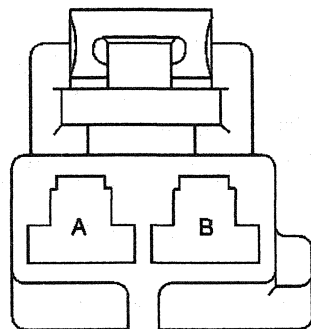
### Daytime Running Lamp Control Module



283863

Connector Part Information		<ul style="list-style-type: none"> <li>• 12160938</li> <li>• 8 Way P/C Edgeboard (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT BLU	1134	Park Brake Switch Signal Input
B	LT BLU	1134	Park Brake Switch Signal Input
C	PNK	39	Fuse Output - Ignition 1 - Type III Fuse
C	PNK/BLK	939	Aux-Fuse Output Z56 (Only)
D	YEL	10	Headlamp Switch Output
E	TAN/WHT	33	Park Lamp Feed
F	TAN/WHT	33	DRL Lamp Feed
G	LT GRN/ BLK	592	DRL Relay Output
H	BLK	150	Ground

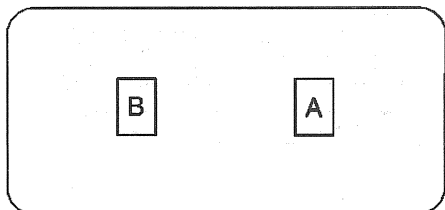
### Daytime Running Lamp Diode Module



35456

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064749</li> <li>• 2 Way F Metri-Pack 480 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	340	Fuse Output - Battery - Type III Fuse
B	YEL	634	Reduced Voltage Feed

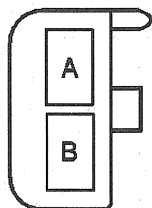
## Dome Lamps



68722

Connector Part Information		<ul style="list-style-type: none"> <li>• 15528758</li> <li>• 2-Way Base (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output - Battery Type II Fuse
B	WHT	156	Courtesy Lmap Output

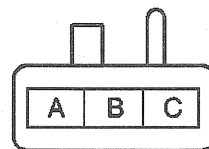
## Door Jamb Switch, Cargo



35451

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059251</li> <li>• 2 Way F Metri-Pack 150 (RED)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRN/BLK	1897	Dome Lamp Defeat Switch Output (w/o Keyless Entry)
B	BLK	150	Ground

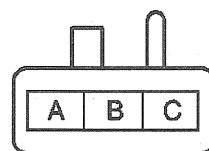
## Door Jamb Switch, LF



333035

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047781</li> <li>• 3 Way Dome Lamp Base (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PPL	328	Dome Lamp Defeat Switch Output (w/o Keyless Entry)
B	BLK	150	Ground
C	TAN	159	Key Reminder Switch Output

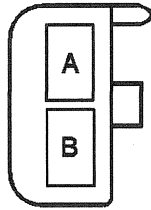
## Door Jamb Switch, RF



333035

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047781</li> <li>• 3 Way Dome Lamp Base (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PPL	328	Dome Lamp Defeat Switch Output (w/o Keyless Entry)
B	BLK	150	Ground
C	—	—	Not Used

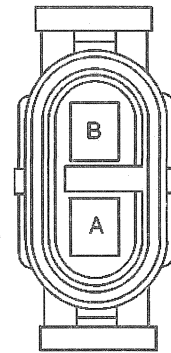
Door Jamb Switch, Liftgate



35451

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059251</li> <li>• 2 Way Dome Lamp Base (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PPL	328	Interior Lamp Defeat Switch Output
B	BLK	150	Ground

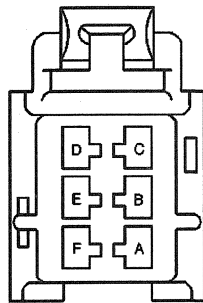
Fog Lamp, LH



38554

Connector Part Information		<ul style="list-style-type: none"> <li>• 12015792</li> <li>• 2F Weather Pack TWR (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	PPL	34	Fog Lamp Feed

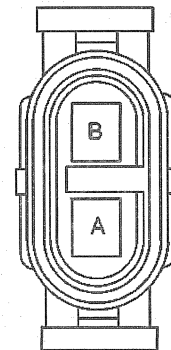
DRL &amp; Radio Override (Z56 Only)



62456

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6F Metri-Pack Series 280 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRY	8	Instrument Panel Lamp Feed
B	BLK	150	Ground
C	PPL/WHT	1382	LED Dimming Switch
D	PNK	39	Fuse Output - Ignition 1 Type III Fuse
E	PNK/BLK	939	Fuse Output - Ignition 1 Type III Fuse
F	PPL/WHT	982	Radio Park Lamp Feed

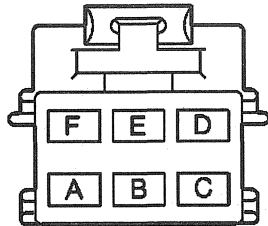
Fog Lamp, RH



38554

Connector Part Information		<ul style="list-style-type: none"> <li>• 12015792</li> <li>• 2F Weather Pack TWR (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	250	Ground
B	PPL	34	Fog Lamp Feed

## Fog Lamp Switch (Except Luxury)



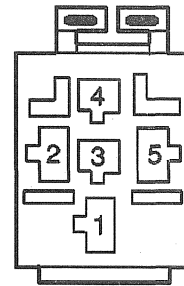
40422

## Connector Part Information

- 12064762
- 6 Way F Metri-Pack 150 Series (GRY)

Pin	Wire Color	Circuit No.	Function
A	YEL	317	Fog Lamp Relay Feed - Coil
B	—	—	Not Used
C	BRN	9	Park Lamp Feed
D	PPL	34	Fog lamp Feed
E	BLK	150	Ground
F	GRY	8	Instrument Panel Lamp Feed

## Fog Lamp Relay (Z71 Tahoe/Limited)



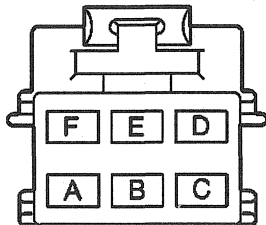
281199

## Connector Part Information

- 12034003
- 5 Way F Metri-Pack 630 Series (BLK)

Pin	Wire Color	Circuit No.	Function
1	ORN	40	Fuse Output - Battery - Type III Fuse
2	YEL	317	Fog Lamp Relay Feed - Coil
3	—	—	Not Used
4	PPL	34	Fog Lamp Feed
5	LT GRN	11	High Beam Headlamp Feed

## Fog Lamp Switch (Luxury)



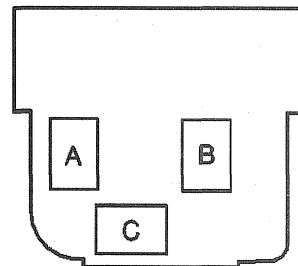
40422

## Connector Part Information

- 12064762
- 6 Way F Metri-Pack 150 Series (GRY)

Pin	Wire Color	Circuit No.	Function
A	GRY	8	Instrument Panel Lamp Feed
B	YEL	317	Fog Lamp Relay Feed - Coil
C	—	—	Not Used
D	BRN	9	Park Lamp Feed
E	PPL	34	Fog lamp Feed
F	BLK	150	Ground

## Headlamp, LH



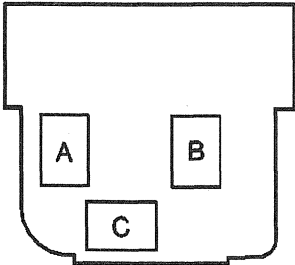
306269

## Connector Part Information

- 12034372
- 3 Way F Metri-Pack 800 Series (BLK)

Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	LT GRN	11	High Beam Headlamp Feed
C	TAN	12	Low Beam Headlamp Feed

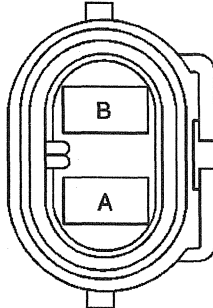
Headlamp, RH



306269

Connector Part Information		<ul style="list-style-type: none"> <li>• 12034372</li> <li>• 3 Way F Metri-Pack 800 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	250	Ground
B	LT GRN	11	High Beam Headlamp Feed
C	TAN	12	Low Beam Headlamp Feed

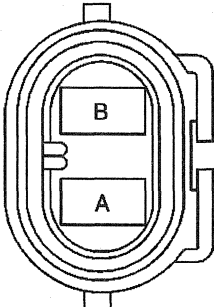
Headlamp Low Beam, LH



35447

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059181</li> <li>• 2F Metri-Pack 280 Series (GRA)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	TAN	12	Low Beam Headlamp Feed
B	BLK	150	Ground

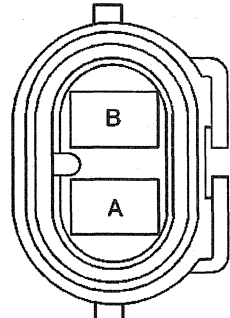
Headlamp, Left High Beam



35447

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059183</li> <li>• 2 Way F Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT GRN	11	High Beam Headlamp Feed
B	BLK	150	Ground

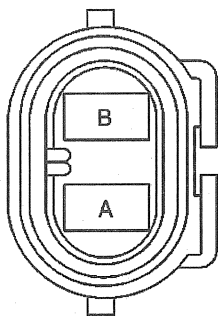
Headlamp Low Beam, RH



35444

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059181</li> <li>• 2F Metri-Pack 280 Series (GRA)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	TAN	12	Low Beam Headlamp Feed
B	BLK	250	Ground

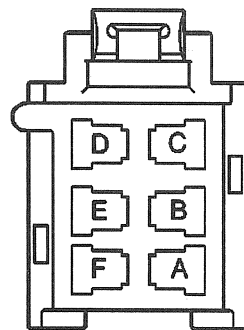
Headlamp, Right High Beam



35447

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059183</li> <li>• 2 Way F Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT GRN	11	High Beam Headlamp Feed
B	BLK	250	Ground

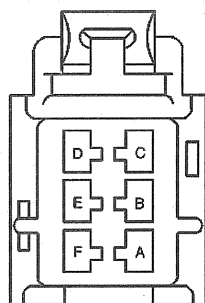
Headlamp Control Module C2



62480

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089527</li> <li>• 6F M/P 280 Series (GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	YEL	10	Headlamp Switch
B	BLK/WHT	624	Vehicle anti-Theft System Signal - Headlamp Alarm
C	ORN	2040	Fuse Output - Battery - Type III Fuse
D	LT BLU	1346	Headlamp Relay Output - N.O. Contact
E	YEL/BLK	1784	Twilight Sentinel Enable Signal
F	—	—	Not Used

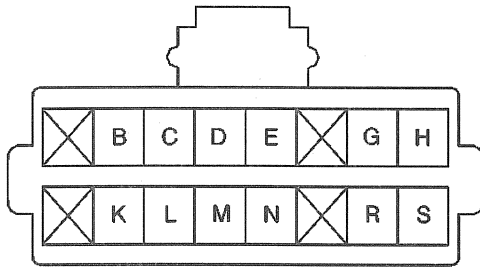
Headlamp Control Module C1



62456

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6F M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PNK	39	Fuse Output - Ignition I - Type III Fuse
B	—	—	Not Used
C	LT BLU	1134	Park Brake Switch Signal
D	BRN	9	Park Lamp Feed
E	ORN	240	Fuse Output - Battery Type III Fuse
F	BLK	150	Ground

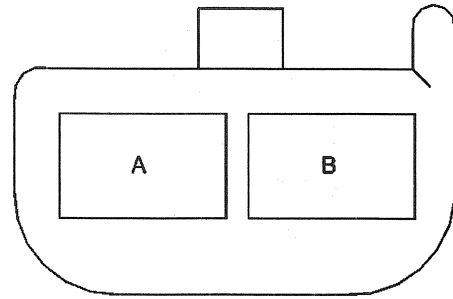
## Headlamp Panel Dimmer Switch



68785

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146952</li> <li>• 12-Way F Metri-Pack 280 Series Flex Lock (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	—	—	Not Used
B	GRA	157	Interior Lamp Output
C	RED	42	Fuse Output-Battery-Type II Fuse
D	PNK	39	Fuse Output-IGN 1-Type III Fuse
E	DK GRN	44	Instrument Panel Lamps Dimmer Switch Output
F	—	—	Not Used
G	YEL	10	Headlamp Switch Output
H	ORN	240	Fuse Output-Battery-Type III Fuse
J	—	—	Not Used
K	—	—	Not Used
L	PPL	328	Interior Lamp Defeat Switch Output
M	WHT	156	Courtesy Lamp Output
N	PPL/WHT	1382	LED Dimming Signal
P	—	—	Not Used
R	BLK	150	Ground
S	BRN	9	Park Lamp Feed

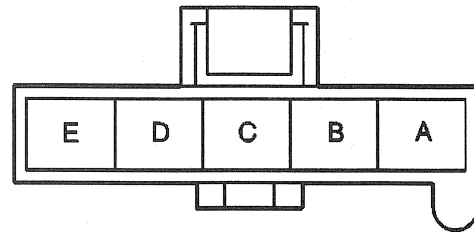
## Instrument Panel (IP) Compartment Lamp



82383

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047662</li> <li>• 2 Way M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	ORN	40	Fuse Output - Battery - Type III Fuse

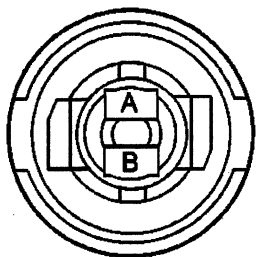
## Interior Lamp Control Module



62432

Connector Part Information		<ul style="list-style-type: none"> <li>• 12041429</li> <li>• 5 Way F Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PNK	39	Fuse Output-IGN 1-Type III Fuse
B	GRA	157	Interior Lamp Output
C	ORN	40	Fuse Output-Battery-Type III Fuse
D	BLK	150	Ground
E	WHT	156	Courtesy Lamp Output

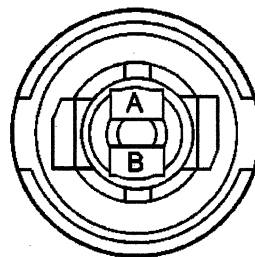
License Lamps LH, RH



287977

Connector Part Information		<ul style="list-style-type: none"> <li>• 12020348</li> <li>• Lamp Socket Type W-2</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BRN	9	Lamp Feed
B	BLK	150	Ground

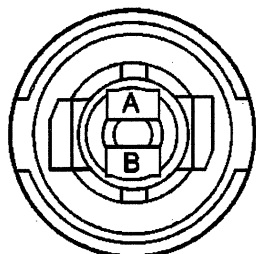
Marker Lamp, Right



287977

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110053</li> <li>• Lamp Socket Type W-2 Axial Bulb Bases (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK BLU	15	Turn Signal Lamp Feed, Right Front
B	BRN	9	Park Lamp Feed

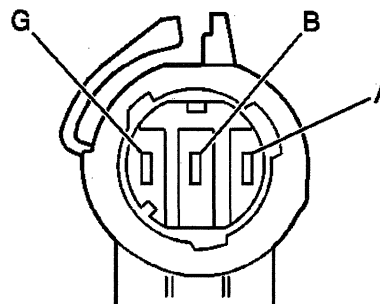
Marker Lamp, Left



287977

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110053</li> <li>• Lamp Socket Type W-2 Axial Bulb Bases (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT BLU	14	Turn Signal Lamp Feed, Left Front
B	BRN	9	Park Lamp Feed

Park and Turn Signal Lamps, Left Front

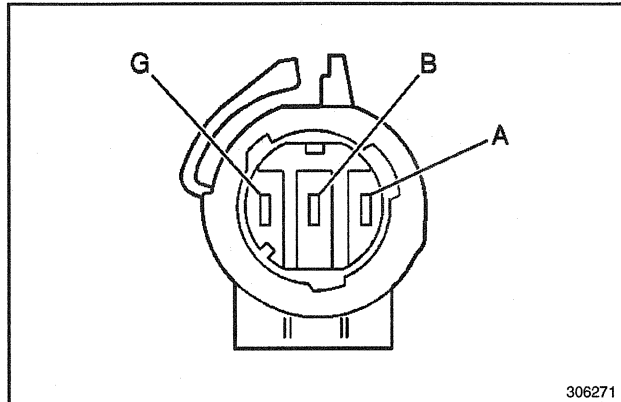


306271

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089345</li> <li>• Lamp Socket C2 Base Right Angle (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT BLU	14	Turn Signal Lamp Feed
B	BRN	9	Lamp Feed
G	BLK	150	Ground



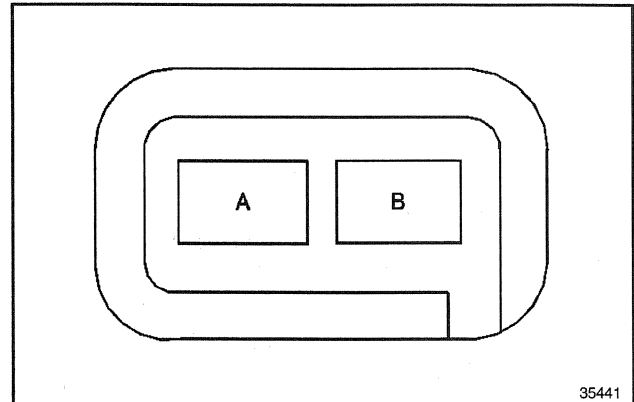
## Park and Turn Signal Lamps, Right Front



306271

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089345</li> <li>• Lamp Socket C2 Base Right Angle (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK BLU	15	Turn Signal Lamp Feed
B	BRN	9	Lamp Feed
G	BLK	250	Ground

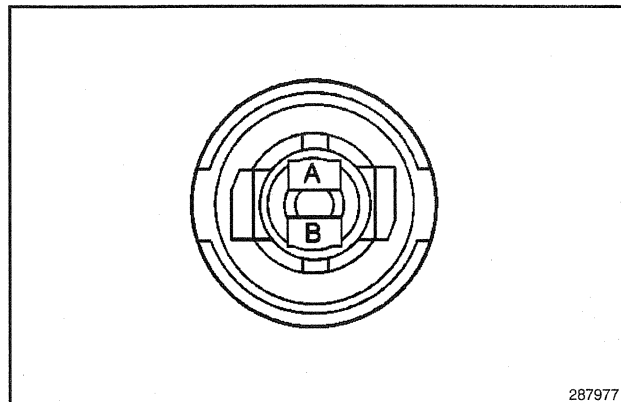
## Sunshade Mirror Lamp, Left



35441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• 2 Way F Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output-Battery-Type III Fuse
B	BLK	150	Ground

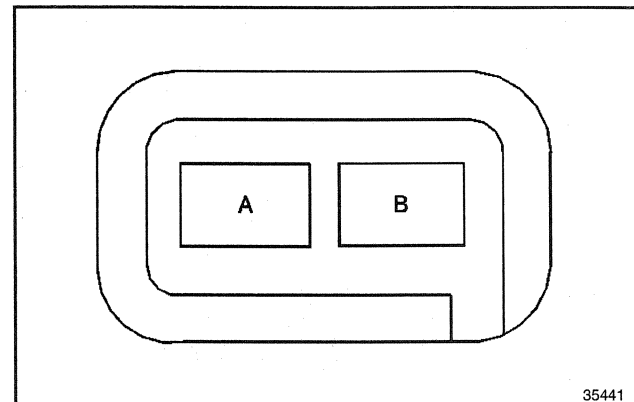
## Roof Marker Lamps



287977

Connector Part Information		<ul style="list-style-type: none"> <li>• 06294702</li> <li>• 2-Way Base (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	WHT	9	Park Lamp Feed
B	BLK	150	Ground

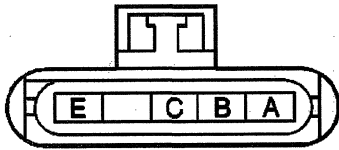
## Sunshade Mirror Lamp, Right



35441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• 2 Way F Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output-Battery-Type III Fuse
B	BLK	150	Ground

## Tail and Stop Lamp, Left



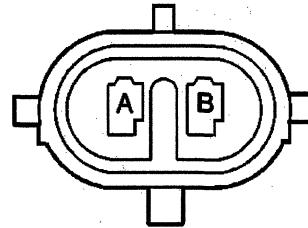
236398

## Connector Part Information

- 12065861
- 5F Metri-Pack 280 Series (BLK)

Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	YEL	18	Stop/Turn Lamp Feed - Left Rear
C	LT GRN	24	Back - Up Lamp Feed
D	—	—	Not Used
E	BRN	9	Park Lamp Feed

## Underhood Lamp



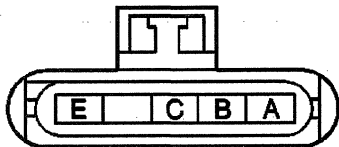
333041

## Connector Part Information

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

Pin	Wire Color	Circuit No.	Function
A	ORN	740	Fuse Output - Battery - Type III Fuse
B	—	—	Not Used

## Tail and Stop Lamp, Right



236398

## Connector Part Information

- 12065861
- 5F Metri-Pack 280 Series (BLK)

Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	GRN	19	Stop/Turn Lamp Feed - Right Rear
C	LT GRN	24	Back - Up Lamp Feed
D	—	—	Not Used
E	BRN	9	Park Lamp Feed

## Diagnostic Information and Procedures

## Headlight System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	<ol style="list-style-type: none"> <li>1. Turn the headlamp switch to the HEAD position.</li> <li>2. Position the headlamp dimmer switch to the LOW beam position.</li> </ol>	<ul style="list-style-type: none"> <li>• The low beam headlamps are on.</li> <li>• The high beam headlamps are off.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Headlamps Inoperative - Left Low Beam</i></li> <li>• <i>Headlamps Inoperative - Low and High Beams (Daytime Running Lamps)</i></li> <li>• <i>Headlamps Inoperative - High Beams (Daytime Running Lamps)</i></li> <li>• <i>Headlamps Inoperative - Right Low Beam</i></li> <li>• <i>Headlamps Inoperative - One Lamp</i></li> <li>• <i>Headlamps Inoperative - Low and High Beams (Headlamps)</i></li> </ul>
2	Position the headlamp dimmer switch to the HIGH beam position.	<ul style="list-style-type: none"> <li>• The high beam headlamps are on.</li> <li>• The high beam indicator is on.</li> <li>• The low beam headlamps are off.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Headlamps Inoperative - One Lamp</i></li> <li>• <i>Headlamps Inoperative - High Beams (Daytime Running Lamps)</i></li> <li>• <i>Headlamps Inoperative - High Beams (Headlamps)</i></li> <li>• <i>Headlamps Inoperative - Left High Beam</i></li> <li>• <i>High Beam Indicator Inoperative (Headlamps)</i></li> <li>• <i>Headlamps Inoperative - Low and High Beams (Headlamps)</i></li> </ul>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## DRL System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	<ol style="list-style-type: none"> <li>1. Ensure headlamp switch is in the OFF position.</li> <li>2. Ensure park brake is disengaged.</li> <li>3. Turn ignition switch to the ON position.</li> </ol>	<ul style="list-style-type: none"> <li>• DRL indicator illuminates</li> <li>• LOW beam headlamps illuminate.</li> <li>• Park and tail lamps remain OFF.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>DRL Headlamps Inoperative</i></li> <li>• <i>DRL Indicator Inoperative</i></li> </ul>
2	<ol style="list-style-type: none"> <li>1. Turn headlamp switch to the ON position.</li> <li>2. Alternate dimmer switch between HIGH and LOW beam positions.</li> </ol>	<ul style="list-style-type: none"> <li>• DRL indicator turns OFF.</li> <li>• Headlamps alternate between HIGH and LOW beams.</li> <li>• Park and tail lamps illuminate.</li> <li>• High beam indicator illuminates in the high beam position.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>High Beam Indicator Inoperative (Daytime Running Lamps)</i></li> <li>• <i>DRL Headlamps Always On</i></li> <li>• <i>Headlamps Inoperative - High Beams (Daytime Running Lamps)</i></li> </ul>
3	<ol style="list-style-type: none"> <li>1. Turn the headlamp switch to the OFF position.</li> <li>2. Engage the parking brake.</li> </ol>	<ul style="list-style-type: none"> <li>• Headlamps turn OFF.</li> <li>• DRL headlamps turn OFF.</li> <li>• DRL indicator turns OFF</li> </ul>	<ul style="list-style-type: none"> <li>• <i>DRL Headlamps Always On</i></li> <li>• <i>Headlamps, DRL On With Park Brake Applied</i></li> </ul>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

**Twilight Sentinel System Check**

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	1. Cover ambient light sensor with a dark cloth or tape. 2. Ensure park brake is OFF. 3. Turn ignition to ON position.	Headlamp control module applies power to the parklamps and headlamps.	<i>Twilight Sentinel Inoperative.</i>
2	1. Cover ambient light sensor with a dark cloth or tape. 2. Ensure park brake is OFF. 3. Turn ignition to ON position. 4. Turn ignition to OFF position.	Headlamp control module applies power to the parklamps and headlamps with ignition ON and turns parklamps OFF and continues to power headlamps (for a predetermined period amount of time) when ignition is turned to OFF.	<i>Twilight Sentinel Inoperative.</i>
3	1. Cover ambient light sensor with a dark cloth or tape. 2. Set the parking brake. 3. Turn ignition to ON position. 4. Release the parking brake. 5. Set the parking brake. 6. Turn ignition to OFF position.	Parklamps and headlamps remain OFF until park brake is released, at which time they turn ON.  When park brake is set again, parklamps and headlamps remain ON until ignition is turned to OFF position, at which time parklamps turn OFF and headlamps remain ON.	<i>Twilight Sentinel Inoperative.</i>

**Fog Lights System Check**

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	1. On Luxury vehicles, place headlamp switch in the PARK position. 2. On Z71/Limited vehicles, place the ignition to the ON position. 3. On all vehicles, Depress the top portion of the fog lamp switch.	<ul style="list-style-type: none"> <li>• Park lamps light.</li> <li>• Fog lamps light.</li> <li>• Fog lamp switch indicator lights.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Fog Lamp Indicator Inoperative - Front</i></li> <li>• <i>Fog Lamps Inoperative - All (Luxury)</i></li> <li>• <i>Fog Lamps Inoperative - All (Z71 Tahoe/Limited)</i></li> </ul>
2	1. Place the headlamp switch in the headlamp position. 2. Alternate the headlamp dimmer switch between the HIGH and LOW beam positions.	<ul style="list-style-type: none"> <li>• Headlamps light and alternate between the HIGH and LOW beams.</li> <li>• Fog lamps light in the LOW beam position and turn off in the HIGH beam position.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Fog Lamps Inoperative - All (Luxury)</i></li> <li>• <i>Fog Lamps Inoperative - All (Z71 Tahoe/Limited)</i></li> <li>• <i>Fog Lamps Always On</i></li> </ul>
3	1. Depress the bottom portion of the fog lamp switch. 2. Turn the headlamp switch OFF.	<ul style="list-style-type: none"> <li>• Fog lamps turn OFF.</li> <li>• Fog lamp indicator turns OFF.</li> <li>• Headlamps and park lamps turn OFF.</li> </ul>	<i>Fog Lamps Always On</i>

\* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.

## Exterior Lights System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	Turn the headlamp switch to the PARK position.	<ul style="list-style-type: none"> <li>• Park and side marker lamps light.</li> <li>• Tail lamps light.</li> <li>• License lamps light.</li> <li>• Clearance lamps light (if equipped).</li> <li>• Roof marker lamps light (if equipped).</li> <li>• Endgate identification lamps light (if equipped).</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Park and Tail Lamps Inoperative</i></li> <li>• <i>Clearance Lamps Inoperative</i></li> <li>• <i>Endgate Identification Lamps Inoperative</i></li> <li>• <i>License Lamps Inoperative (One Lamp)</i></li> <li>• <i>License Lamps Inoperative (Both Lamps)</i></li> <li>• <i>Roof Marker Lamps Inoperative</i></li> <li>• <i>Marker Lamps Inoperative</i></li> </ul>
2	1. Depress the brake pedal. 2. Release the brake pedal.	<ul style="list-style-type: none"> <li>• Stoplamps and the CHMSL light when the brake pedal is depressed.</li> <li>• Stoplamps and the CHMSL turn OFF when the brake pedal is released.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Stop Lamps Inoperative - All (Pickup)</i></li> <li>• <i>Stop Lamps Inoperative - All (Suburban/Utility)</i></li> <li>• <i>Stop Lamps Always On (Pickup)</i></li> <li>• <i>Stop Lamps Always On (Suburban/utility)</i></li> <li>• <i>Stop Lamps Inoperative - Center High Mounted</i></li> <li>• <i>Stop Lamps Always On - Center High Mounted</i></li> </ul>
3	Depress the hazard lamp switch.	Front and rear hazard lamps flash.	<i>Hazard Lamps Inoperative</i>
4	1. Turn the ignition switch to the ON position. 2. Position the turn signal lever to the LH turn position. 3. Position the turn signal lever to the RH turn position.	<ul style="list-style-type: none"> <li>• LH turn signals and indicator flash while in the LH turn position.</li> <li>• RH turn signals and indicator flash while in the RH turn position.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Turn Signal Lamps Inoperative - Left or Right Side</i></li> <li>• <i>Turn Signal Indicators Inoperative</i></li> </ul>
5	Place the spotlamp switch in the ON position (if equipped).	The spotlamp lights.	<i>Spotlamp Inoperative</i>
6	Open the vehicles hood.	The underhood lamp lights.	<i>Underhood Lamp Inoperative</i>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Backup Lights System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	1. Turn the ignition switch to the ON position. 2. Automatic transmissions - Depress the brake pedal and move the control lever to the REVERSE position. Manual transmissions - Depress the clutch pedal and place the shifter into REVERSE position.	Both of the backup lamps illuminate.	<i>Backup Lamps Inoperative</i>
2	Automatic transmissions - depress brake pedal and move the control lever to the PARK position. Manual transmissions - depress the clutch pedal and place the shifter into NETURAL.	Both of the backup lamps turn OFF.	<i>Backup Lamps Always On</i>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Interior Lamps System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	Place the courtesy lamp switch in OFF.	All of the interior lamps are off.	<ul style="list-style-type: none"> <li>Courtesy or Dome Lamps Always On (Except Luxury)</li> <li>Courtesy or Dome Lamps Always On (Luxury)</li> </ul>
2	Place the courtesy lamp switch in ON.	The courtesy lamps turn on.	<ul style="list-style-type: none"> <li>Courtesy or Dome Lamps Inoperative (Except Luxury)</li> <li>Courtesy or Dome Lamps Inoperative (Luxury)</li> </ul>
3	Open and close each door one at a time.	<ul style="list-style-type: none"> <li>The courtesy lamps turn on for approximately 25 seconds.</li> <li>The courtesy lamps fade out each time.</li> </ul>	<ul style="list-style-type: none"> <li>Courtesy or Dome Lamps Always On (Except Luxury)</li> <li>Courtesy or Dome Lamps Always On (Luxury)</li> <li>Courtesy or Dome Lamps Inoperative (Except Luxury)</li> <li>Courtesy or Dome Lamps Inoperative (Luxury)</li> <li>Courtesy Lamps Inoperative with Doors Open</li> </ul>
4	Press the unlock button on the keyless entry transmitter.	<ul style="list-style-type: none"> <li>Courtesy lamps turn on for approximately 40 seconds.</li> <li>Courtesy lamps fade out.</li> </ul>	<ul style="list-style-type: none"> <li>Courtesy or Dome Lamps Always On (Except Luxury)</li> <li>Courtesy or Dome Lamps Always On (Luxury)</li> <li>Courtesy or Dome Lamps Inoperative (Except Luxury)</li> <li>Courtesy or Dome Lamps Inoperative (Luxury)</li> <li>Illuminated Entry Lamps Inoperative</li> </ul>
5	1. Open the IP compartment. 2. Close the IP compartment.	The IP compartment lamp turns on once the compartment is open, then turns off when the compartment is shut.	IP Compartment Lamp Inoperative
6	1. Turn each reading switch to ON. 2. Open each sunshade mirror cover. 3. Close each sunshade mirror cover.	<ul style="list-style-type: none"> <li>The reading lamps turn on.</li> <li>The sunshade mirrors lamp turn on.</li> <li>The sunshade mirror lamp goes out.</li> </ul>	Vanity Mirror Lamps Inoperative
7	Place the headlamlamp switch in the PARK position.	<ul style="list-style-type: none"> <li>The component illumination lamps light.</li> <li>The ashtray lamp lights.</li> </ul>	<ul style="list-style-type: none"> <li>Component Illumination Lamps Inoperative</li> <li>Courtesy Lamps Inoperative - Ashtray</li> </ul>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Interior Lights Dimming System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	Place the headlamp and panel dimmer switch in the PARK position.	<ul style="list-style-type: none"> <li>Park lamps light.</li> <li>The dimmable interior lamps light.</li> </ul>	<ul style="list-style-type: none"> <li>Instrument Panel Lamps Inoperative.</li> <li>Instrument Panel Lamps Inop in Parade Mode.</li> </ul>
2	Rotate the panel dimmer switch in both directions to increase and decrease the brightness of the interior lamps.	The dimmable interior lamps increase and decrease brightness in direct response to the panel dimmer switch position.	Instrument Panel Lamps Do Not Dim.
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

**Backup Lamps Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the Backup Lights System Check?	—	Go to Step 2	Go to <i>Backup Lights System Check</i>
2	1. Disconnect the park/neutral position switch (automatic) backup lamp switch (manual) connector. 2. Place the ignition switch in the RUN position. 3. Connect a <i>J 34142-B</i> test lamp from terminal C (automatic) or terminal B (manual) to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Connect a <i>J 39200</i> DMM from the switch connector, terminal F (automatic) or terminal A (manual) to ground. Is there continuity?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 139 (PNK) between the instrument panel fuse block and the park/neutral position switch (automatic), backup lamp switch (manual). Is the repair complete?	—	Go to <i>Backup Lights System Check</i>	—
5	<ul style="list-style-type: none"> <li>• Replace the backup lamp switch (manual).</li> <li>• Replace the park/neutral position switch and the backup lamp switch (automatic).</li> </ul> Is the repair complete?	—	Go to <i>Backup Lights System Check</i>	—
6	1. Inspect for an open in CKT 24 (LT GRN) between the backup lamp switch and the backup lamps. 2. Repair the open in CKT 24 (LT GRN), as necessary. Did you find and correct a condition?	—	Go to <i>Backup Lights System Check</i>	Go to Step 7
7	Repair the open in CKT 150 (BLK) between the backup lamps and ground G401. Is the repair complete?	—	Go to <i>Backup Lights System Check</i>	—

**Backup Lamps Always On**

Step	Action	Value(s)	Yes	No
1	Did you perform the Backup Lights System Check?	—	Go to Step 2	Go to <i>Backup Lights System Check</i>
2	1. Place the ignition switch in the RUN position. 2. Place the gear selector in REVERSE. 3. Disconnect the park/neutral position switch (automatic), backup lamp switch (manual). Do the backup lamps turn off?	—	Go to Step 4	Go to Step 3
3	Locate and repair the short to B+ in CKT 24 (LT GRN) between the park/neutral position switch (automatic), backup lamp switch (manual) and the backup lamps. Is the repair complete?	—	Go to <i>Backup Lights System Check</i>	—
4	Replace the park/neutral position switch (automatic), backup lamp switch (manual). Is the repair complete?	—	Go to <i>Backup Lights System Check</i>	—

## Clearance Lamps Inoperative

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used if the park and tail lamp are inoperative and one or more clearance lamps are inoperative.				
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to Exterior Lights System Check
2	1. One at a time, remove the bulb from the affected clearance lamp(s). 2. Connect a J 39200 DMM between CKT 150 (BLK) and ground. Is there continuity?	—	Go to Step 3	Go to Step 5
3	1. Connect a J 39200 DMM between cavity B for CKT 9 (BRN) at each lamp and ground. 2. Place the headlamp and panel dimmer switch in the PARK lamps position. Is there battery voltage?	—	Go to Step 4	Go to Step 6
4	Replace the affected clearance lamp bulbs. Is the repair complete?	—	Go to Exterior Lights System Check	—
5	Repair the open in CKT 150 (BLK) between the affected clearance lamp and G401. Is the repair complete?	—	Go to Exterior Lights System Check	—
6	Repair the open in CKT 9 (BRN) between the affected clearance lamp and S412 (LH) or S413 (RH) Is the repair complete?	—	Go to Exterior Lights System Check	—

## Component Illumination Lamps Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lamps System Check?	—	Go to Step 2	Go to Interior Lamps System Check
2	Turn the headlamp and the panel dimmer switch to the PARK position. Are the park lamps and all of the component illumination lamps inoperative?	—	Go to Step 3	Go to Step 4
3	Connect a J 34142-B test lamp between the headlamp and the panel dimmer switch CKT 9 (BRN) cavity 5 to ground. Does the test lamp light?	—	Go to Step 12	Go to Step 9
4	Connect a J 34142-B test lamp between CKT 9 (BRN) at the affected illumination lamp(s) and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 7
5	Connect a J 34142-B test lamp between CKT 150 (BLK) at the affected illumination lamp(s) and B+. Does the test lamp light?	—	Go to Step 6	Go to Step 8
6	Replace the affected component illumination lamp(s). Is the repair complete?	—	Go to Interior Lamps System Check	—
7	Repair the open in CKT 9 (BRN) between the headlamp and the panel dimmer switch and the affected component illumination lamp(s). Is the repair complete?	—	Go to Interior Lamps System Check	—



**Component Illumination Lamps Inoperative (cont'd)**

Step	Action	Value(s)	Yes	No
8	Repair the open in CKT 150 (BLK) between the affected lamp(s) and ground. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
9	Connect a <i>J 34142-B</i> test lamp between the headlamp and the panel dimmer switch CKT 240 (ORN) cavity H and ground. Does the test lamp light?	—	Go to <i>Step 10</i>	Go to <i>Step 11</i>
10	Replace the headlamp and the panel dimmer switch. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
11	Repair the open in CKT 240 (ORN) between the IP fuse block and the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
12	Repair the open in CKT 9 (BRN) between the headlamp and the panel dimmer switch and splice S210. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

**Courtesy Lamps Inoperative - Ashtray**

Step	Action	Value(s)	Yes	No
DEFINITION: Use this diagnostic in order to diagnose the ashtray lamp only if the other component illumination lamps are operative.				
1	Did you perform the Interior Lamps System Check?	—	Go to <i>Step 3</i>	Go to <i>Interior Lamps System Check</i>
2	1. Remove the ashtray lamp bulb. 2. Place the headlamp switch in the Park position. 3. Connect a <i>J 34142-B</i> test lamp between the ashtray lamp terminal A and ground. Does the test lamp light?	—	Go to <i>Step 3</i>	Go to <i>Step 5</i>
3	Connect a <i>J 34142-B</i> test lamp between the ashtray lamp terminals A and B. Does the test lamp light?	—	Go to <i>Step 4</i>	Go to <i>Step 6</i>
4	Replace the ashtray lamp assembly. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
5	Repair the open in CKT 9 (TAN) between the ashtray lamp and splice S210. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
6	Repair the open in CKT 150 (BLK) between the ashtray lamp and splice S218. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

## Courtesy or Dome Lamps Always On (Except Luxury)

Step	Action	Value(s)	Yes	No
DEFINITION: Use this diagnostic in order to diagnose the Dome and/or Courtesy Lamps Always On with all vehicle doors closed and the dome lamp switch in the OFF position. On vehicles equipped with remote keyless entry or an interior lamp control module will cause the interior lamps to remain in the ON position after the door is opened for approximately 40 seconds or until an ignition ON cycle has occurred.				
1	Did you perform the Interior Lamps System Check?	—	Go to Step 2	Go to Interior Lamps System Check
2	1. Close the vehicle doors. 2. Disconnect the headlamp and the panel dimmer switch. Do the courtesy and/or dome lamps turn OFF?	—	Go to Step 3	Go to Step 7
3	1. Close the vehicle doors. 2. Connect a J 39200, set on Ohms, between the headlamp and the panel dimmer switch connector cavity L and ground. Is there continuity?	—	Go to Step 5	Go to Step 6
4	Is the vehicle a suburban/utility with cargo doors?	—	Go to Step 12	Go to Step 5
5	1. Repair the short to ground in CKT 328 (PPL) between the headlamp and the panel dimmer switch and door jamb switches. 2. If no short to ground is found, replace the faulty door jamb switches. Is the repair complete?	—	Go to Interior Lamps System Check	—
6	Replace the headlamp and the panel dimmer switches. Is the repair complete?	—	Go to Interior Lamps System Check	—
7	Disconnect the interior lamp control module or the keyless entry module. Do the courtesy and/or dome lamps turn OFF?	—	Go to Step 8	Go to Step 11
8	Connect a J 39200, set on Ohms, between CKT 157 (GRY) at cavity B of the interior lamp control or cavity K of the keyless entry module and ground. Is there continuity?	—	Go to Step 9	Go to Step 10
9	Repair the short to ground in CKT 157 (GRY) between the headlamp and the panel dimmer switch and wither the interior lamp control module or the keyless entry module. Is the repair complete?	—	Go to Interior Lamps System Check	—
10	Replace the interior lamp control module or the keyless entry module. Is the repair complete?	—	Go to Interior Lamps System Check	—
11	Repair the short to ground in CKT 156 (WHT) between the headlamp and the panel dimmer switch and the dome and/or courtesy lamps, the interior lamp control module or the keyless entry module. Is the repair complete?	—	Go to Interior Lamps System Check	—
12	With a J 39200 still connected at the headlamp and the panel dimmer switch cavity L and ground, disconnect the door lock control module. Is there still continuity?	—	Go to Step 5	Go to Step 13

**Courtesy or Dome Lamps Always On (Except Luxury) (cont'd)**

Step	Action	Value(s)	Yes	No
13	Connect a <i>J 39200</i> , set on Ohms, between the door lock control module connector cavity F and ground. Is there continuity?	—	Go to <i>Step 14</i>	Go to <i>Step 15</i>
14	1. Repair the short to ground in CKT 1897 (ORN/BLK) between the door lock control module and the rear door jamb switch. 2. If no short to ground is found, replace the rear door jamb switch. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
15	Replace the door lock control module. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

**Courtesy or Dome Lamps Always On (Luxury)**

Step	Action	Value(s)	Yes	No
1	1. Close all vehicle doors. 2. Connect a <i>J 39200</i> DMM between connector C304 cavity F9 (drivers door) and connector C305 cavity D3 (passengers door) to ground. Is there continuity?	—	Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	Check for a short to ground in CKT 328 (PPL) (passengers door) or CKT (TAN) (drivers door). If no short was found, replace door jamb switch(s) as necessary. Is the repair complete?	—	System OK	—
3	1. Disconnect connector C304. 2. Connect a <i>J 39200</i> DMM between connector C304 cavity E7 on body control module side and ground. Is there continuity?	—	Go to <i>Step 4</i>	Go to <i>Step 5</i>
4	Check for a short to ground in CKT 157 (GRY) between C304 and the body control module. If no short was found, replace body control module. Is the repair complete?	—	System OK	—
5	1. Disconnect headlamp and panel dimmer switch. 2. Connect a <i>J 39200</i> DMM between connector C304 cavity E7 on IP harness side to ground. Is there continuity?	—	Go to <i>Step 6</i>	Go to <i>Step 7</i>
6	Repair short to ground in CKT 157 (GRY) between connector C304 cavity E7 and headlamp and panel dimmer switch. Is the repair complete?	—	System OK	—
7	Repair short to ground. Is repair complete?	—	System OK	—

## Courtesy or Dome Lamps Inoperative (Except Luxury)

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lamps System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	Move the courtesy lamp switch to the ON position. Do all of the lamps light?	—	Go to Step 4	Go to Step 3
3	Do some of the lamps light?	—	Go to Step 14	Go to Step 6
4	1. Move the courtesy lamp switch to the OFF position. 2. Move the dome lamp defeat switch to the OFF position. 3. While opening and closing each door, observe the lamps. Do all of the lamps light when each door is open?	—	Go to <i>Interior Lamps System Check</i>	Go to Step 5
5	Are the lamps inoperative only when certain doors are open?	—	Go to Step 15	Go to Step 8
6	Using a <i>J 34142-B</i> test lamp, backprobe the front dome lamp connector from CKT 40 (ORN) to ground. Does the test lamp light?	—	Go to Step 7	Go to Step 16
7	Using a <i>J 34142-B</i> test lamp, backprobe the headlamp and panel dimmer switch connector from cavity M to ground. Does the test lamp light?	—	Go to Step 17	Go to Step 18
8	1. Open the door. 2. Ensure that the dome defeat switch is in the OFF position. 3. Disconnect the interior lamp control module connector. 4. Connect a <i>J 34142-B</i> self-powered test lamp from the interior lamp control module connector, cavity B, to ground. Does the test lamp light?	—	Go to Step 11	Go to Step 9
9	1. Disconnect the headlamp and panel dimmer switch connector. 2. Connect a <i>J 34142-B</i> self-powered test lamp from the headlamp and panel dimmer switch, cavity B, to the interior lamp control module connector, cavity B. Does the test lamp light?	—	Go to Step 10	Go to Step 19
10	1. Reconnect the headlamp and panel dimmer switch connector. 2. Using a <i>J 34142-B</i> self-powered test lamp, backprobe from cavity B to cavity L. Does the test lamp light?	—	Go to Step 20	Go to Step 21
11	With the interior lamp control module connector disconnected, connect a <i>J 34142-B</i> test lamp from cavity E to ground. Does the test lamp light?	—	Go to Step 12	Go to Step 22
12	Connect a <i>J 34142-B</i> test lamp between the interior lamp control module, cavity C, and ground. Does the test lamp light?	—	Go to Step 13	Go to Step 23
13	Connect a <i>J 34142-B</i> self-powered test lamp between the interior lamp control module, cavity D, and ground. Does the test lamp light?	—	Go to Step 24	Go to Step 25

## Courtesy or Dome Lamps Inoperative (Except Luxury) (cont'd)

Step	Action	Value(s)	Yes	No
14	1. Inspect for an open in the appropriate circuit: <ul style="list-style-type: none"> <li>• CKT 40 (ORN) between the splice and the affected lamp</li> <li>• CKT 156 (WHT) between the splice and the affected lamp</li> <li>• CKT 150 (BLK) between the affected lamp and ground G400.</li> </ul> 2. Repair the circuit, as necessary. Did you find and correct a condition?	—	Go to Interior Lamps System Check	Go to Step 26
15	1. Inspect for an open in CKT 328 (PPL) between the splice and the affected door jamb switch. 2. Repair the circuit, as necessary. Did you find and correct a condition?	—	Go to Interior Lamps System Check	Go to Step 27
16	Repair the open in CKT 40 (ORN) between splice S242 and the instrument panel fuse block. Is the repair complete?	—	Go to Interior Lamps System Check	—
17	Repair the open in CKT 156 (WHT) between the headlamp and panel dimmer switch and splice S209. Is the repair complete?	—	Go to Interior Lamps System Check	—
18	1. Inspect for an open in CKT 150 (BLK) between the headlamp and panel dimmer switch and ground G200. 2. Repair the circuit, necessary. Did you find and correct the condition?	—	Go to Interior Lamps System Check	Go to Step 21
19	Repair the open in CKT 157 (GRY) between the headlamp and panel dimmer switch and the interior lamp control module. Is the repair complete?	—	Go to Interior Lamps System Check	—
20	Repair the open in CKT 150 (BLK) between the headlamp and panel dimmer switch and ground G200. Is the repair complete?	—	Go to Interior Lamps System Check	—
21	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to Interior Lamps System Check	—
22	Repair the open in CKT 156 (BLK) between the interior lamp control module and splice S246. Is the repair complete?	—	Go to Interior Lamps System Check	—
23	Repair the open in CKT 40 (ORN) between the interior lamp control module and splice S248. Is the repair complete?	—	Go to Interior Lamps System Check	—
24	Replace the interior lamp control module. Is the repair complete?	—	Go to Interior Lamps System Check	—
25	Repair the open in CKT 150 (BLK) between the interior lamp control module and ground G202. Is the repair complete?	—	Go to Interior Lamps System Check	—
26	Replace the affected lamp. Is the repair complete?	—	Go to Interior Lamps System Check	—
27	Replace the affected door jamb switch. Is the repair complete?	—	Go to Interior Lamps System Check	—

## Courtesy or Dome Lamps Inoperative (Luxury)

Step	Action	Value(s)	Yes	No
DEFINITION: This Diagnostic Chart should be used if some or all of the courtesy/dome lamps are inoperative with the Courtesy Lamp Switch.				
1	1. Move dome lamp defeat switch to OFF position. 2. Move the courtesy lamp switch to the ON position Do some of the lamps light?	—	Go to Step 2	Go to Step 7
2	1. Go to suspect courtesy/dome lamp. 2. Connect a <i>J 34142-B</i> test lamp between cavity A, of suspect connector and ground. Does test lamp light?	—	Go to Step 3	Go to Step 5
3	Connect a <i>J 39200</i> DMM, set on Ohms, between cavity B of suspect connector and ground. Is continuity present?	—	Go to Step 4	Go to Step 6
4	Replace suspect bulb or lamp socket. Is the repair complete?	—	System OK	—
5	Locate and repair open in CKT 40 (ORN) between suspect connector and the body control module. Is the repair complete?	—	System OK	—
6	1. Disconnect headlamp and panel dimmer switch. 2. Connect a <i>J 39200</i> DMM, set on Ohms, between suspect connector cavity B and the headlamp and panel dimmer switch connector cavity M. Is continuity present?	—	Go to Step 7	Go to Step 11
7	Was the BCM Diagnostic System Check performed?	—	Go to Step 8	Go to BCM Diagnostic System Check
8	Connect a <i>J 34142-B</i> test lamp between connector C305 cavity C8 and ground. Does test lamp light?	—	Go to Step 10	Go to Step 9
9	Check for an open in CKT 40 (ORN) between connector C305 and splice S248, repair as necessary. Did you find and repair an open circuit?	—	System OK	Go to Step 11
10	1. Check for an open in CKT 40 (ORN) between connector C305 and the body control module, repair as necessary. 2. If no open was found, replace the BCM. Is the repair completed?	—	System OK	—
11	1. Disconnect the headlamp and panel dimmer switch. 2. Connect a <i>J 39200</i> DMM, set on Ohms, between headlamp and panel dimmer switch terminal R, and ground. Is continuity present?	—	Go to Step 12	Go to Step 15
12	Connect a <i>J 39200</i> DMM, set on Ohms, between headlamp and panel dimmer switch terminals M and R. Is continuity present?	—	Go to Step 14	Go to Step 13
13	Replace headlamp and panel dimmer switch. Is the repair complete?	—	System OK	—
14	Locate and repair open in CKT 156 (WHT) between suspect connector and headlamp and panel dimmer switch. Is the repair complete?	—	System OK	—
15	Locate and repair open in CKT 150 (BLK) between headlamp and panel dimmer switch and ground G200. Is the repair complete?	—	System OK	—

## Courtesy Lamps Inoperative with Doors Open

Step	Action	Value(s)	Yes	No
DEFINITION: This Diagnostic Chart should be used when the dome lamps are operating with the courtesy lamp switch but not operating with the door jamb switch(es).				
1	Did you perform the BCM Diagnostic System Check?	—	Go to Step 2	Go to DTC 12 Diagnostic System Check
2	Do the courtesy/dome lamps function from any of the doors?	—	Go to Step 12	Go to Step 3
3	1. Connect a J 39200 DMM between connector C305 cavity D3 (passengers door) or connector C304 cavity F9 (driver door) to ground. 2. Open the drivers door and the passenger door. Is there continuity?	—	Go to Step 5	Go to Step 4
4	Locate and repair open in CKT 328 (PPL) passengers doors or CKT 159 (TAN) drivers door between connector C304/C305 and door jamb switches. Is the repair complete?	—	Go to DTC 12 Diagnostic System Check	—
5	Connect a J 39200 DMM between connector C304 cavity E7 and ground with the door still open. Is there continuity?	—	Go to Step 6	Go to Step 11
6	1. Disconnect C304 and the headlamp and panel dimmer switch connector. 2. Connect a J 39200 DMM between connector C304 cavity E7 and cavity L at headlamp and panel dimmer switch connector. Is there continuity?	—	Go to Step 8	Go to Step 7
7	Locate and repair open in CKT 157 (GRY) between C304 and headlamp and panel dimmer switch connector cavity L. Is the repair completed?	—	Go to DTC 12 Diagnostic System Check	—
8	1. Connect a J 39200 DMM across headlamp and panel dimmer switch terminals L and B. 2. Ensure dome lamp defeat switch is OFF. Is there continuity?	—	Go to Step 10	Go to Step 9
9	Replace headlamp and panel dimmer switch. Is repair complete?	—	Go to DTC 12 Diagnostic System Check	—
10	Locate and repair open in CKT 156 (WHT) between the headlamp and the panel dimmer switch and S209. Is the repair complete?	—	Go to DTC 12 Diagnostic System Check	—
11	1. Check for an open in CKT 157 (GRY) between C304 and body control module, repair as necessary. 2. If no open is found, replace the BCM. Is repair completed?	—	Go to DTC 12 Diagnostic System Check	—
12	Connect a J 39200 DMM between the suspect door jamb switch and ground. Is there continuity?	—	Go to Step 13	Go to Step 14
13	Repair open in CKT 328 (PPL) passengers doors or CKT 159 (GRY) drivers door between door jamb switch and connectors C304/C305. Is the repair complete?	—	Go to DTC 12 Diagnostic System Check	—
14	Replace door jamb switch. Is repair completed?	—	Go to DTC 12 Diagnostic System Check	—

## DRL Headlamps Always On

Step	Action	Value(s)	Yes	No
1	Did you perform the DRL System Check?	—	Go to Step 2	Go to DRL System Check
2	Turn the ignition switch to the RUN position. Is the daytime running lamps (DRL) indicator lit?	—	Go to Step 3	Go to Step 5
3	Disconnect the DRL module. Is the DRL indicator lit?	—	Go to Step 4	Go to Step 6
4	Disconnect the instrument cluster connector. Do the DRL disable?	—	Go to Step 7	Go to Step 8
5	Remove the DRL relay from the convenience center. Do the DRL disable?	—	Go to Step 9	Go to Step 10
6	Replace the DRL module. Refer to <i>DRL Control Module Replacement</i> . Is the repair complete?	—	Go to DRL System Check	—
7	Replace the instrument cluster. Refer to <i>IP Cluster Replacement</i> in Instrument Panel, Gauges and Console. Is the repair complete?	—	Go to DRL System Check	—
8	Repair the short to ground in CKT 592 between the instrument cluster and the convenience cluster. Is the repair complete?	—	Go to DRL System Check	—
9	Replace the DRL relay. Refer to <i>DRL Relay Replacement</i> . Is the repair complete?	—	Go to DRL System Check	—
10	Repair the short to voltage in CKT 12 (TAN) between the convenience center and the left high/low beam headlamp (base headlamps) and the left high beam headlamp (quad headlamps). Is the repair complete?	—	Go to DRL System Check	—

## DRL Headlamps Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the DRL System Check?	—	Go to Step 2	Go to DRL System Check
2	1. Ensure that the park brake is not engaged. 2. Turn the ignition switch to the RUN position. Does the brake indicator lamp light?	—	Go to Step 12	Go to Step 3
3	1. Turn the ignition switch to the LOCK position. 2. Disconnect the daytime running lamps (DRL) module connector. 3. Turn the ignition switch to the RUN position. 4. Connect a <i>J 34142-B</i> test lamp from the DRL module connector, cavity C, to ground. Does the test lamp light?	—	Go to Step 4	Go to Step 13
4	Connect a <i>J 34142-B</i> test lamp from cavity C to cavity H of the DRL module connector. Does the test lamp light?	—	Go to Step 5	Go to Step 14
5	1. Remove the DRL relay from the convenience center. 2. Connect a <i>J 34142-B</i> test lamp the DRL relay, cavity G6, to ground. Does the test lamp light?	—	Go to Step 6	Go to Step 15



## DRL Headlamps Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
6	Connect a <i>J 34142-B</i> test lamp from the DRL relay, cavity G4, to ground. Does the test lamp light?	—	Go to Step 7	Go to Step 16
7	1. Turn the ignition switch to the LOCK position. 2. Reconnect the DRL module connector. 3. Turn the ignition switch to the RUN position. Does the DRL indicator lamp light?	—	Go to Step 8	Go to Step 17
8	1. Connect a <i>J 39200</i> DMM from the DRL relay, cavity H6, to B+. 2. Measure the voltage. Is there battery voltage?	Battery Voltage	Go to Step 9	Go to Step 18
9	Connect a fused jumper from cavity G6 to cavity H4 of the DRL relay. Do the low beam headlights light?	—	Go to Step 19	Go to Step 10
10	1. Re-install the DRL relay. 2. Turn the ignition switch to the RUN position. 3. Disconnect the headlamp connector. 4. Connect a <i>J 34142-B</i> test lamp from cavity C (base) or cavity A (quad) to ground. Does the test lamp light?	—	Go to Step 11	Go to Step 20
11	Connect a <i>J 39200</i> DMM, set on ohms, between cavity A and ground. Is there continuity?	—	Go to Step 21	Go to Step 22
12	Refer to Park Brake for diagnosis. Did you find and correct the condition?	—	Go to DRL System Check	—
13	Repair the open in CKT 39 (PNK) between the instrument panel (IP) fuse block and the DRL module. Is the repair complete?	—	Go to DRL System Check	—
14	Repair the open in CKT 150 (BLK) between the DRL module and ground G200. Is the repair complete?	—	Go to DRL System Check	—
15	1. Inspect for an open in CKT 340 (ORN) between the IP fuse block and D203. 2. If an open is not found, inspect for an open in CKT 634 (YEL) between D203 and the convenience center. 3. If an open is not found, locate and replace diode D203. Is the repair complete?	—	Go to DRL System Check	—
16	Repair the open in CKT 39 (PNK) between splice S213 and the convenience center. Is the repair complete?	—	Go to DRL System Check	—
17	1. Inspect for a poor connection or damaged terminals at the DRL module connector. 2. Repair the DRL module connector, as necessary. 3. If you do not find a condition at the connector, replace the DRL module. Is the repair complete?	—	Go to DRL System Check	—
18	Repair the open in CKT 592 (LT GRN/BLK) between the DRL module and the convenience center. Is the repair complete?	—	Go to DRL System Check	—

**DRL Headlamps Inoperative (cont'd)**

Step	Action	Value(s)	Yes	No
19	Replace the DRL relay. Refer to <i>DRL Relay Replacement</i> . Is the repair complete?	—	Go to <i>DRL System Check</i>	—
20	Repair the open in CKT 12 (TAN) between the DRL relay and left high/low beam headlamps. Is the repair complete?	—	Go to <i>DRL System Check</i>	—
21	Replace the left and/or the right high/low beam headlamp. Refer to <i>Headlamp Replacement (Base)</i> . Is the repair complete?	—	Go to <i>DRL System Check</i>	—
22	Repair the open in CKT 150 between the left high/low beam headlamp and ground G113, and/or repair the open in CKT 250 (BLK) between the right high/low beam headlamp and ground G112. Is the repair complete?	—	Go to <i>DRL System Check</i>	—

**DRL Indicator Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the DRL System Check?	—	Go to <i>Step 2</i>	Go to <i>DRL System Check</i>
2	1. Turn the ignition switch to the LOCK position. 2. Disconnect the instrument cluster connector. 3. Connect a <i>J 34142-B</i> test lamp from the instrument cluster connector, cavity 4, to B+. Does the test lamp light?	—	Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	1. Turn the ignition switch to the RUN position. 2. Connect a <i>J 34142-B</i> test lamp from the instrument cluster connector, cavity 17, to ground. Does the test lamp light?	—	Go to <i>Step 5</i>	Go to <i>Step 6</i>
4	Repair the open in CKT 150 (BLK) between the instrument cluster and splice S204. Is the repair complete?	—	Go to <i>DRL System Check</i>	—
5	Replace the instrument cluster. Refer to <i>IP Cluster Replacement</i> in Instrument Panel, Gauges and Console. Is the repair complete?	—	Go to <i>DRL System Check</i>	—
6	Repair open in the CKT 592 (LT GRN/BLK) between the instrument cluster and daytime running lamps (DRL) module. Is the repair complete?	—	Go to <i>DRL System Check</i>	—

**Endgate Identification Lamps Inoperative**

Step	Action	Value(s)	Yes	No
DEFINITION: Use this diagnostic in order to diagnose the endgate identification lamps only if the rear taillights are operative.				
1	Did you perform the Exterior Lamps System Check?	—	Go to <i>Step 2</i>	Go to <i>Exterior Lights System Check</i>
2	1. Disconnect connector C408. 2. Place the headlamp switch in the Park Lamps position. 3. Connect a <i>J 34142-B</i> test lamp between connector C408, cavity A and ground. Does the test lamp light?	—	Go to <i>Step 3</i>	Go to <i>Step 5</i>
3	Connect a <i>J 34142-B</i> test lamp across cavities A and B of connector C408. Does the test lamp light?	—	Go to <i>Step 4</i>	—

**Endgate Identification Lamps Inoperative (cont'd)**

Step	Action	Value(s)	Yes	No
4	Replace the endgate identification lamp assembly. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	Repair the open in CKT 9 (BRN) between the endgate identification lamps and splice S413. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the open in CKT 150 (BLK) between the endgate identification lamps and splice S411. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

**Fog Lamp Indicator Inoperative - Front**

Step	Action	Value(s)	Yes	No
1	Did you perform the Fog Lights System Check?	—	Go to <i>Step 2</i>	Go to <i>Fog Lights System Check</i>
2	1. Access the fog lamp switch connector. 2. Connect a <i>J 34142-B</i> test lamp from the fog lamp switch connector, cavity E, to ground. 3. Depress the fog lamp switch. Does the test lamp light?	—	Go to <i>Step 4</i>	Go to <i>Step 3</i>
3	Repair the open in CKT 34 (PPL) between the fog lamp switch and splice S165 or the fog lamp relay. Is the repair complete?	—	Go to <i>Fog Lights System Check</i>	—
4	Inspect CKT 150 (BLK) between the fog lamp switch and G200 for an open circuit and repair as necessary. Did you find and correct the condition?	—	Go to <i>Fog Lights System Check</i>	Go to <i>Step 5</i>
5	Replace the fog lamp switch. Is the repair complete?	—	Go to <i>Fog Lights System Check</i>	—

**Fog Lamps Always On**

Step	Action	Value(s)	Yes	No
1	Did you perform the Fog Lights System Check?	—	Go to <i>Step 2</i>	Go to <i>Fog Lights System Check</i>
2	Remove the fog lamp relay. Do the fog lamps turn off?	—	Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	Disconnect the fog lamp switch connector. Do the fog lamps turn off?	—	Go to <i>Step 5</i>	Go to <i>Step 6</i>
4	Repair the short to voltage in CKT 34 (PPL) between the fog lamp switch, the left fog lamp, the right fog lamp and the convenience center. Is the repair complete?	—	Go to <i>Fog Lights System Check</i>	—
5	Replace the fog lamp switch. Is the repair complete?	—	Go to <i>Fog Lights System Check</i>	—
6	Repair the short to voltage in CKT 317 (YEL) between the fog lamp switch and the fog lamps. Is the repair complete?	—	Go to <i>Fog Lights System Check</i>	—

## Fog Lamps Inoperative - All (Luxury)

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used if the headlamp and the park lamp systems are functioning properly. If any faults are present with those systems, they must be repaired first.				
1	Did you perform the Fog Lights System Check?	—	Go to Step 2	Go to Fog Lights System Check
2	1. Remove the fog lamp relay from the convenience center. 2. Turn the ignition switch to the RUN position. 3. Place the headlamp and panel dimmer switch in the PARK position. 4. Press the fog lamp switch to the ON position. 5. Connect a J 34142-B test lamp from the fog lamp relay, cavity G1, to ground. Does the test lamp light?	—	Go to Step 7	Go to Step 3
3	Backprobe the fog lamp switch connector with a J 34142-B test lamp from cavity B to ground. Does the test lamp light?	—	Go to Step 10	Go to Step 4
4	Backprobe the fog lamp switch connector with a J 34142-B test lamp from cavity D to ground. Does the test lamp light?	—	Go to Step 6	Go to Step 5
5	Repair the open in CKT 9 (BRN) between the fog lamp switch and S210. Is the repair complete?	—	Go to Fog Lights System Check	—
6	Replace the fog lamp switch. Is the repair complete?	—	Go to Fog Lights System Check	—
7	Connect a J 34142-B test lamp from cavity G1 to cavity H3 of the fog lamp relay. Does the test lamp light?	—	Go to Step 8	Go to Step 11
8	Connect a J 34142-B test lamp from fog lamp relay, cavity H1, to ground. Does the test lamp light?	—	Go to Step 9	Go to Step 12
9	Connect a fuse jumper from cavity H1 to cavity G3 of the fog lamp relay. Do the fog lamps light?	—	Go to Step 13	Go to Step 14
10	Repair the open in CKT 317 (YEL) between the fog lamp switch and the convenience center. Is the repair complete?	—	Go to Fog Lights System Check	—
11	Repair the open in CKT 11 (LT GRN) between the fog lamp relay and S225. Is the repair complete?	—	Go to Fog Lights System Check	—
12	Repair the open in CKT 340 (ORN) between the instrument panel fuse block and the convenience center. Is the repair complete?	—	Go to Fog Lights System Check	—
13	Replace the fog lamp relay. Is the repair complete?	—	Go to Fog Lights System Check	—
14	Repair the open in CKT 34 (PPL) between the convenience center and splice S126. Is the repair complete?	—	Go to Fog Lights System Check	—

## Fog Lamps Inoperative - All (Z71 Tahoe/Limited)

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used if the headlamp system is functioning properly. If any faults are present with those systems, they must be repaired first.				
1	Did you perform the Fog Lights System Check?	—	Go to Step 2	Go to Fog Lights System Check
2	1. Remove the fog lamp relay. 2. Turn the ignition switch to the RUN position. 3. Press the fog lamp switch to the ON position. 4. Connect a J 34142-B test lamp from the fog lamp relay, cavity 2, to ground. Does the test lamp light?	—	Go to Step 7	Go to Step 3
3	Backprobe the fog lamp switch connector with a J 34142-B test lamp from cavity B to ground. Does the test lamp light?	—	Go to Step 10	Go to Step 4
4	Backprobe the fog lamp switch connector with a J 34142-B test lamp from cavity D to ground. Does the test lamp light?	—	Go to Step 6	Go to Step 5
5	Repair the open in CKT 241 (BRN) between the fog lamp switch and the IP fuse block. Is the repair complete?	—	Go to Fog Lights System Check	—
6	Replace the fog lamp switch. Is the repair complete?	—	Go to Fog Lights System Check	—
7	Connect a J 34142-B test lamp from cavity 2 to cavity 5 of the fog lamp relay. Does the test lamp light?	—	Go to Step 8	Go to Step 11
8	Connect a J 34142-B test lamp from fog lamp relay, cavity 1, to ground. Does the test lamp light?	—	Go to Step 9	Go to Step 12
9	Connect a fuse jumper from cavity 1 to cavity 4 of the fog lamp relay. Do the fog lamps light?	—	Go to Step 13	Go to Step 14
10	Repair the open in CKT 317 (YEL) between the fog lamp switch and the convenience center. Is the repair complete?	—	Go to Fog Lights System Check	—
11	Repair the open in CKT 11 (LT GRN) between the fog lamp relay and the high beam headlamp. Is the repair complete?	—	Go to Fog Lights System Check	—
12	Repair the open in CKT 40 (ORN) between the instrument panel fuse block and the convenience center. Is the repair complete?	—	Go to Fog Lights System Check	—
13	Replace the fog lamp relay. Is the repair complete?	—	Go to Fog Lights System Check	—
14	Repair the open in CKT 34 (PPL) between the fog lamp relay and the fog lamps. Is the repair complete?	—	Go to Fog Lights System Check	—

## Hazard Lamps Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lamps System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Turn the ignition switch to the RUN position. 2. Place the turn signal in the ON position. Does the turn signal operate?	—	Go to Step 8	Go to Step 3
3	Connect a <i>J 34142-B</i> test lamp from CKT 139 (PNK) at connector C266, terminal A2, to ground. Does the test lamp light?	—	Go to Step 4	Go to Step 12
4	1. Ensure that the turn signal is in the ON position. 2. Connect a <i>J 34142-B</i> test lamp from CKT 1508 (LT BLU) at connector C266, terminal A3, to ground. Does the test lamp light?	—	Go to Step 5	Go to Step 13
5	Connect a <i>J 34142-B</i> test lamp from CKT 1508 (LT BLU) and CKT 150 (BLK) at the turn/hazard flasher, terminal H9 to terminal G8. Does the test lamp light?	—	Go to Step 7	Go to Step 6
6	1. Ensure that the turn signal is in the ON position. 2. Connect a <i>J 34142-B</i> test lamp from CKT 1508 (LT BLU) at the turn signal/hazard flasher, terminal H9, to ground. Does the test lamp light?	—	Go to Step 14	Go to Step 15
7	1. Turn the turn signal to the OFF position. 2. Connect a <i>J 34142-B</i> self-powered test lamp from CKT 1697 (PPL) from the turn/hazard flasher, terminal H7, to connector C266, terminal E9. Does the test lamp light?	—	Go to Step 11	Go to Step 16
8	Connect a <i>J 34142-B</i> test lamp from CKT 140 (ORN) at connector C266, terminal E8, to ground. Does the test lamp light?	—	Go to Step 9	Go to Step 17
9	1. Turn the hazard switch to the ON position. 2. Connect a <i>J 34142-B</i> test lamp from CKT 1696 (GRY) at connector C266, terminal E1, and ground. Does the test lamp light?	—	Go to Step 10	Go to Step 13
10	Connect a <i>J 34142-B</i> test lamp from CKT 1696 (GRY) at the turn/hazard flasher, terminal H8, and ground. Does the test lamp light?	—	Go to Step 18	Go to Step 19
11	1. Turn the hazard switch to the ON position. 2. Reconnect the turn/hazard flasher. 3. Connect a <i>J 34142-B</i> test lamp from CKT 1697 (PPL) at connector C266, terminal E9, and ground. Does the test lamp light?	—	Go to Step 13	Go to Step 18
12	Repair the open in CKT 139 (PNK) between the instrument panel fuse block and connector C266. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
13	Replace the turn/hazard switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Hazard Lamps Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
14	Repair the open in CKT 150 (BLK) between the turn/hazard flasher and ground G200. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
15	Repair the open in CKT 1508 (LT BLU) between the turn/hazard flasher and ground G200. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
16	Repair the open in CKT 1697 (PPL) between the turn/hazard flasher and connector C266. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
17	Repair the open in CKT 139 (ORN) between connector C266 and the instrument panel fuse block. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
18	Replace the run/hazard flasher. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
19	Repair the open in CKT 1696 (GRY) between the turn/hazard flasher and connector C266. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Headlamps, DRL On With Park Brake Applied

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlight System Check?	—	Go to <i>Step 2</i>	Go to <i>Headlight System Check</i>
2	1. Ensure that the park brake is applied. 2. Turn the ignition switch to the RUN position. Does the BRAKE indicator light?	—	Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	1. Turn the ignition switch to the LOCK position. 2. Disconnect the DRL module connector. 3. Connect a <i>J 34142-B</i> test lamp from the DRL module connector, cavity A, to B+. Does the test lamp light?	—	Go to <i>Step 5</i>	Go to <i>Step 6</i>
4	Refer to <i>PARK BRAKE Indicator Lamp Does Not Light</i> . Did you find and correct a condition?	—	Go to <i>Headlight System Check</i>	—
5	Replace the DRL module. Refer to <i>DRL Control Module Replacement</i> . Is the repair complete?	—	Go to <i>Headlight System Check</i>	—
6	Repair the open in CKT 1134 (LT BLU) between the park brake switch and the DRL module. Is the repair complete?	—	Go to <i>Headlight System Check</i>	—

**Headlamps Inoperative - High Beams (Daytime Running Lamps)**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should be used only if the low beam headlamps are operating properly and the high beams are inoperative.				
1	Did you perform the Headlight System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Turn the headlamp and panel dimmer switch to the ON position. 2. Place the headlamp dimmer switch to the HIGH position. 3. Backprobe the headlamp dimmer switch connector with a J 34142-B test lamp from cavity C to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 5
3	1. Disconnect high beam headlamp connector. 2. Connect a J 34142-B test lamp between cavity B (base), cavity A (quad), and ground. Does test lamp light?	—	Go to Step 6	Go to Step 4
4	Repair the open in CKT 11 (LT GRN) between the headlamp dimmer switch and the headlamp. Is the repair complete?	—	Go to Headlight System Check	—
5	Replace the headlamp dimmer switch. Is the repair complete?	—	Go to Headlight System Check	—
6	Connect a J 34142-B test lamp between headlamp connector cavity A and cavity B. Does test lamp light?	—	Go to Step 7	Go to Step 8
7	Replace high beam headlamps. Is the repair complete?	—	Go to Headlight System Check	—
8	Locate and repair open in CKT 150 (BLK) (LH), and CKT 250 (BLK), (RH), between headlamp connector and ground. Is the repair complete?	—	Go to Headlight System Check	—

**Headlamps Inoperative - High Beams (Headlamps)**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlight System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect connector C266 at the steering column. 2. Connect a J 34142-B self-powered test lamp between cavity E13 for CKT 10 (YEL) and cavity E11 for CKT 11 (LT GRN) of connector C266. 3. Operate the headlamp switch at least twice. 4. Select the high beam position. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Repair the open in CKT 11 (LT GRN) between connector C266 and splice S121. Is the repair complete?	—	Go to Headlight System Check	—
4	Repair the open in CKT 11 (LT GRN) in the steering column. Did you find and correct a condition?	—	Go to Headlight System Check	Go to Step 5
5	If the circuit is not open, replace the headlamp switch. Refer to <i>Headlamp Switch Replacement</i> . Is the repair complete?	—	Go to Headlight System Check	—



**Headlamps Inoperative - Left High Beam**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect the left high beam headlamp connector. 2. Connect a <i>J 39200</i> DMM between the left high beam headlamp connector, cavity A (base), cavity B (quad) for CKT 150 (BLK), and ground. Is there continuity?	—	Go to Step 3	Go to Step 4
3	1. Place the headlamp and the panel dimmer switch in the headlamp position. 2. Operate the headlamp and dimmer switch in order to select the high beam position. 3. Connect a <i>J 34142-B</i> test lamp between the left high beam headlamp connector, cavity B (base), cavity A (quad) for CKT 11 (GRN), and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 150 (BLK) between the left high beam headlamp and G113. Is the repair complete?	—	Go to Headlight System Check	—
5	Replace the left high beam headlamp socket if the filament is not open. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 11 (LT GRN) between S121 and the left high beam headlamp. Is the repair complete?	—	Go to Headlight System Check	—

**Headlamps Inoperative - Left Low Beam**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlight System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect the left low beam headlamp connector. 2. Connect a <i>J 39200</i> DMM between the left low beam headlamp connector, cavity A (base), cavity B (quad) for CKT 150 (BLK) and ground. Is there continuity?	—	Go to Step 3	Go to Step 4
3	1. Place the headlamp and panel dimmer switch in the headlamp position. 2. Operate the headlamp dimmer switch in order to select the low beam position. 3. Connect a <i>J 34142-B</i> test lamp between the left low beam headlamp connector, cavity C (base) cavity A (quad) for CKT 12 (TAN) and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 150 (BLK) between the left low beam headlamp and G113. Is the repair complete?	—	Go to Headlight System Check	—
5	If the filament is not open, replace the left low beam headlamp socket. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 12 (TAN) between S120 and the left low beam headlamp. Is the repair complete?	—	Go to Headlight System Check	—

**Headlamps Inoperative - Low Beams**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used if the high beam headlamps are operating properly and the low beams are inoperative.				
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Turn the headlamp and panel dimmer switch to the ON position. 2. Move the headlamp dimmer switch to the LOW position. 3. Backprobe the headlamp dimmer switch connector with a J 34142-B test lamp from cavity A to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 5
3	1. Remove the daytime running lamp relay. 2. Connect a J 34142-B test lamp at cavity G5 to ground. Does the test lamp light?	—	Go to Step 4	Go to Step 6
4	1. Re-install the daytime running lamp relay. 2. Backprobe cavity B at the high/low beam headlamp with the headlamp dimmer switch in the LOW position. Does the test lamp light?	—	Go to Step 7	Go to Step 8
5	Replace the headlamp dimmer switch. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 359 (PPL) between the headlamp dimmer switch and the daytime running lamp relay. Is the repair complete?	—	Go to Headlight System Check	—
7	Replace the high/low beam headlamps. Is the repair complete?	—	Go to Headlight System Check	—
8	1. Inspect for an open in CKT 12 (TAN) between the daytime running lamp relay and S120, repair as necessary. 2. Replace the daytime running lamp relay if no open was found in CKT 12 (TAN) between the daytime running lamp relay and S120. Is the repair complete?	—	Go to Headlight System Check	—

**Headlamps Inoperative - Low and High Beams (Daytime Running Lamps)**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Turn the headlamp switch to the ON position. 2. Backprobe the headlamp and panel dimmer switch connector with a J 34142-B test lamp from cavity G to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Disconnect the headlamp dimmer switch connector. 2. Connect a J 34142-B test lamp from the headlamp dimmer switch connector, cavity D, to ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to Headlight System Check	—
5	Replace the headlamp dimmer switch. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 10 (YEL) between the headlamp and panel dimmer switch. Is the repair complete?	—	Go to Headlight System Check	—

**Headlamps Inoperative - Low and High Beams (Headlamps)**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect connector C266. 2. Connect a <i>J 39200</i> DMM, set on ohms, between connector C266, cavity E13 for CKT 10 (YEL), and cavity E12 for CKT 12 (TAN). 3. Operate the headlamp switch at least twice. Is there continuity?	—	Go to Step 3	Go to Step 5
3	1. Disconnect the headlamp switch connector. 2. Connect a <i>J 39200</i> DMM between C266, cavity E13, and the headlamp and panel dimmer switch connector, cavity G for CKT 10 (YEL). Is there continuity?	—	Go to Step 4	Go to Step 6
4	Connect a <i>J 34142-B</i> test lamp between the headlamp and panel dimmer switch connector, cavity C for CKT 42 (RED), and ground. Does the test lamp light?	—	Go to Step 7	Go to Step 8
5	Repair an open in CKT 10 (YEL) or in CKT 12 (TAN) in the steering column. Did you find and repair the condition?	—	Go to Headlight System Check	Go to Step 7
6	Repair the open in CKT 10 (YEL) between the headlamp and panel dimmer switch and connector C266. Did you find and repair the condition?	—	Go to Headlight System Check	—
7	Replace the headlamp switch. Refer to <i>Headlamp Switch Replacement</i> . Is the repair complete?	—	Go to Headlight System Check	—
8	Repair the open in CKT 42 (RED) between the underhood fuse-relay center and the headlamp and panel dimmer switch. Did you find and repair the condition?	—	Go to Headlight System Check	—

**Headlamps Inoperative - Right High Beam**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect the right high beam headlamp connector. 2. Connect a <i>J 39200</i> DMM between the right high beam headlamp connector, cavity A (base), cavity B (quad) for CKT 250 (BLK), and ground. Is there continuity?	—	Go to Step 3	Go Step 4
3	1. Place the headlamp and panel dimmer switch in the headlamp position. 2. Operate the headlamp dimmer switch in order to select the high beam position. 3. Connect a <i>J 34142-B</i> test lamp between the right high beam headlamp connector, cavity B (base), cavity A (quad) for CKT 11 (LT GRN), and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 250 (BLK) between the right high beam headlamp and G112. Is the repair complete?	—	Go to Headlight System Check	—
5	Replace the right high beam headlamp socket if the filament is not open. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 11 (LT GRN) between S121 and the right high beam headlamp. Is the repair complete?	—	Go to Headlight System Check	—

## Headlamps Inoperative - One Lamp

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	Connect a <i>J 34142-B</i> test lamp from the inoperative headlamp connector, cavity B in vehicles with quad headlamps, or cavity A in vehicles with base headlamps, to B+. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Is the inoperative headlamp a low beam headlamp?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 150 (BLK) (LH), or CKT 250 (BLK), (RH) between the affected headlamp and ground. Is the repair complete?	—	Go to Headlight System Check	—
5	1. Inspect for an open in CKT 12 (TAN) between the headlamp and splice S120. 2. Repair the wiring, as necessary. Did you find and correct a condition?	—	Go to Headlight System Check	Go to Step 7
6	1. Inspect for an open in CKT 11 (LT GRN) between the headlamp and splice S120. 2. Repair the wiring, as necessary. Did you find and correct a condition?	—	Go to Headlight System Check	Go to Step 7
7	Replace the headlamp. Refer to <i>Headlamp Replacement (Base)</i> . Is the repair complete?	—	Go to Headlight System Check	—

## Headlamps Inoperative - Right Low Beam

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlights System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Disconnect the right low beam headlamp connector. 2. Connect a <i>J 39200</i> DMM between the right low beam headlamp connector, cavity A (base), cavity B (quad) for CKT 250 (BLK), and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Place the headlamp and panel dimmer switch in the headlamp position. 2. Operate the headlamp dimmer switch in order to select the low beam position. 3. Connect a <i>J 34142-B</i> test lamp between the right low beam headlamp connector, cavity B (base), cavity A (quad) for CKT 12 (TAN), and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 250 (BLK) between the right low beam headlamp and G112. Is the repair complete?	—	Go to Headlight System Check	—
5	If the filament is not open, replace the right low beam headlamp socket. Is the repair complete?	—	Go to Headlight System Check	—
6	Repair the open in CKT 12 (TAN) between S120 and the right low beam headlamp. Is the repair complete?	—	Go to Headlight System Check	—

**High Beam Indicator Inoperative (Daytime Running Lamps)**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used to diagnose the high beam indicator only if the high beam headlamps are operational.				
1	Did you perform the DRL System Check?	—	Go to Step 2	Go to DRL System Check
2	1. Disconnect the instrument cluster connector. 2. Connect a J 34142-B test lamp from the instrument cluster connector, cavity 4, to B+. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Move the headlamp and panel dimmer switch to the ON position. 2. Move the headlamp dimmer switch to the HIGH position. 3. Connect a J 34142-B test lamp from the instrument cluster connector, cavity 5, to ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 451 (BLK/WHT) between the instrument panel connector and ground. Is the repair complete?	—	Go to DRL System Check	—
5	Inspect the high beam indicator beam bulb in order to determine if the bulb is operative. Is the bulb operative?	—	Go to Step 7	Go to Step 8
6	Repair the open in CKT 11 (LT GRN) between the instrument cluster connector and splice S225. Is the repair complete?	—	Go to DRL System Check	—
7	Replace the instrument cluster. Is the repair complete?	—	Go to DRL System Check	—
8	Replace the high beam indicator bulb. Is the repair complete?	—	Go to DRL System Check	—

**High Beam Indicator Inoperative (Headlamps)**

Step	Action	Value(s)	Yes	No
1	Did you perform the Headlight System Check?	—	Go to Step 2	Go to Headlight System Check
2	1. Place the headlamp and panel dimmer switch in the headlamps position. 2. Observe that the headlamps are lit. 3. Operate the headlamp dimmer switch in order to select the high beam position. 4. Disconnect the instrument cluster connector. 5. Connect a J 34142-B test lamp between the instrument cluster connector, cavity 5 for CKT 11 (LT GRN), and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Connect a J 34142-B self-powered test lamp between the instrument cluster connector, cavity 4 for CKT 451 (BLK/WHT), and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 11 (LT GRN) between splice S125 and the instrument cluster. Is the repair complete?	—	Go to Headlight System Check	—
5	Is the high beam indicator bulb good?	—	Go to Step 7	—
6	Repair the open in CKT 451 (BLK/WHT) between the instrument cluster and ground G103 or ground G104. Is the repair complete?	—	Go to Headlight System Check	—
7	Replace the instrument cluster. Is the repair complete?	—	Go to Headlight System Check	—

**Illuminated Entry Lamps Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lights System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	1. Close the doors. 2. Place the ignition switch in the OFF position. 3. Using a J 34142-B test lamp, backprobe cavity A of the interior lamp control module. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Repair the short to voltage in CKT 39 (PNK) to the instrument panel fuse block. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
4	Replace the interior lamp control module. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

**Instrument Panel Lamps Do Not Dim**

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lights System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	Disconnect the instrument panel dimmer switch connector. Are the instrument panel lamps lit?	—	Go to Step 4	Go to Step 3
3	Replace the instrument panel dimmer switch. Refer to <i>Headlamp Switch Replacement</i> . Is the replacement complete?	—	Go to <i>Interior Lamps System Check</i>	—
4	Remove ILLUM Fuse 14 from the instrument panel fuse block. Are the instrument panel lamps lit?	—	Go to Step 5	Go to Step 6
5	Repair the short to B+ in CKT 8 (GRY). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
6	Repair the short to B+ in CKT 44 (DK GRN). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

**Instrument Panel Lamps Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lights System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	Turn the headlamp and panel dimmer switch to the PARK position. Do all the instrument cluster illumination lamps light?	—	Go to Step 3	Go to Step 4
3	Move the headlamp and panel dimmer switch from the dimmest position to the brightest position. Does the intensity of the instrument cluster illumination lamps change with the turning of the switch?	—	System OK	Go to Step 5
4	Are all of the instrument cluster illumination lamps inoperative?	—	Go to Step 6	Go to Step 7
5	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

## Instrument Panel Lamps Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
6	1. Turn the headlamp and panel dimmer switch to the brightest position. 2. Using a <i>J 39200</i> DMM, measure the voltage from cavity D4 of the instrument panel fuse block, the ILLUM fuse 14, to ground. Does the DMM measure less the specified voltage?	10.0 V	Go to Step 8	Go to Step 9
7	1. Inspect for an open in the following circuits between splice S217 and the affected lamps: <ul style="list-style-type: none"> <li>• CKT 8 (GRY)</li> <li>• CKT 150 (BLK)</li> </ul> 2. Repair the open, as necessary. Did you find and correct a condition?	—	Go to Interior Lamps System Check	Go to Step 10
8	1. Inspect for an open or high resistance in CKT 44 (DK GRN) or in CKT 8 (GRY) between the headlamp and panel dimmer switch and splice S217. 2. Repair the circuit, as necessary. Did you find and correct a condition?	—	Go to Interior Lamps System Check	Go to Step 5
9	Repair the open in CKT 451 (BLK) and ground G103 or ground G104. Is the repair complete?	—	Go to Interior Lamps System Check	—
10	Replace the affected lamps. Is the repair complete?	—	Go to Interior Lamps System Check	—

## Instrument Panel Lamps Inop in Parade Mode

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lights System Check?	—	Go to Step 2	Go to Interior Lamps System Check
2	1. Disconnect the headlamp and panel dimmer switch connector. 2. Place the headlamp and panel dimmer switch in the PARK position. 3. Adjust the headlamp and panel dimmer switch to the parade mode detent position. 4. Connect a <i>J 34142-B</i> self-powered test lamp between cavity H and cavity N of the headlamp and panel dimmer switch connector. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Repair the open in CKT 1382 (WHT) between the headlamp and panel dimmer switch and splice S216. Is the repair complete?	—	Go to Interior Lamps System Check	—
4	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to Interior Lamps System Check	—

## IP Compartment Lamp Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lights System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	1. Disconnect the instrument panel (IP) compartment box lamp connector. 2. Connect a <i>J 34142-B</i> test lamp from the IP compartment box lamp connector, cavity A, to B+. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Inspect for an open in CKT 40 (ORN) between the IP compartment box lamp and the IP fuse block. 2. Repair the circuit, as necessary. Did you find and correct a condition?	—	Go to <i>Interior Lamps System Check</i>	Go to Step 5
4	Repair the open in CKT 150 (BLK) between the IP compartment box lamp and G200. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
5	Replace the IP compartment box lamp. Refer to <i>IP Compartment Lamp Replacement</i> . Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

## License Lamps Inoperative (One Lamp)

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Disconnect connector C407. 2. Connect a test lamp between the license lamp connector, cavity B for CKT 150 (BLK), and B+. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Connect a <i>J 34142-B</i> test lamp between the license lamp connector, cavity A for CKT 9 (BRN), and ground. 2. Place the headlamp and panel dimmer switch in the park lamps position. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 150 (BLK) between the license lamp connector and ground G401. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	Replace the license lamp bulb. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the open in CKT 9 (BRN) between splice S415 and the license lamp connector. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—



## License Lamps Inoperative (Both Lamps)

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	Connect a <i>J 34142-B</i> test lamp between the headlamp and panel dimmer switch, cavity H for CKT 240 (BRN), and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Place the headlamp and panel dimmer switch in the park lamps position. 2. Connect a <i>J 34142-B</i> test lamp between the headlamp and panel dimmer switch connector, cavity S, and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 240 (BRN) between the instrument panel fuse block and the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	Repair the open in CKT 9 (BRN) between the headlamp and panel dimmer switch and splice S210. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Marker Lamps Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Remove each roof marker lamp, one at a time. 2. Connect a self-powered test lamp between cavity B for CKT 250 (BLK) and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 6
3	1. Connect a <i>J 34142-B</i> test lamp between cavity A for CKT 9 (BRN) at each roof marker lamp and ground. 2. Place the headlamp and panel dimmer switch in the park lamps position. Does the test lamp light?	—	Go to Step 7	Go to Step 8
4	Connect a <i>J 34142-B</i> test lamp between the headlamp and panel dimmer switch connector, cavity H, for CKT 240 (BRN) and ground. Does the test lamp light?	—	Go to Step 5	Go to Step 9
5	1. Place the headlamp switch in the park lamps position. 2. Connect a <i>J 34142-B</i> test lamp between the headlamp and panel dimmer switch connector, cavity S, and ground. Does the test lamp light?	—	Go to Step 10	Go to Step 11
6	Repair the open in CKT 250 (BLK) between the malfunctioning lamp and ground G200. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
7	Replace the malfunctioning bulb. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Marker Lamps Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
8	Repair the open in CKT 9 (BRN) between splice S210 and the lamps. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
9	Repair the open in CKT 240 (BRN) between the instrument panel fuse block and headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
10	Repair the open in CKT 9 (BRN) between the headlamp and panel dimmer switch and splice S225. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
11	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Park and Tail Lamps Inoperative

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used to diagnose a complete failure of the park lamp system.				
1	Was the Exterior Lamp System Check performed?	—	Go to <i>Step 2</i>	Go to <i>Exterior Lights System Check</i>
2	1. Disconnect the headlamp and panel dimmer switch. 2. Connect a DMM, set on volts, between cavity H and ground. Is there Battery voltage?	—	Go to <i>Step 3</i>	Go to <i>Step 5</i>
3	1. With the headlamp and panel dimmer switch disconnected, place the switch in the park lamp position. 2. Connect a DMM, set on ohms, between cavity H and cavity S. Is there continuity?	—	Go to <i>Step 4</i>	Go to <i>Step 6</i>
4	Repair open in CKT 9 (BRN) between headlamp and panel switch and S210. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	Repair open in CKT 240 (ORN) between headlamp and panel switch and The I/P fuse block. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Replace the headlamp and panel dimmer switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Roof Marker Lamps Inoperative

Step	Action	Value(s)	Yes	No
<b>DEFINITION:</b> Use this diagnostic in order to diagnose the roof marker lamps only if the park and the tail lamps are operative.				
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	Place the headlamp switch in the Park position. Are all the roof marker lamps inoperative?	—	Go to Step 3	Go to Step 8
3	1. Remove the left outside roof marker lamp bulb. 2. Connect a <i>J 34142-B</i> test lamp between cavity A and ground. Does the test lamp light?	—	Go to Step 4	Go to Step 6
4	Connect a <i>J 34142-B</i> test lamp across cavities A and B. Does the test lamp light?	—	Go to Step 5	Go to Step 7
5	Replace the inoperative roof marker lamp bulbs and/or sockets. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the open in CKT 9 (BRN) between the roof marker lamps and splice S210. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
7	Repair the open in CKT 150 (BLK) between the roof marker lamps and splice S316. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
8	1. Inspect the inoperative roof marker lamp bulb(s). 2. Replace the roof marker lamp bulb(s) as needed. 3. Inspect the lamp sockets and the related wiring. 4. Replace or repair the lamp sockets and related wiring as needed. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Spotlamp Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	Connect a <i>J 34142-B</i> test lamp between cavity A at the inoperative spotlamp and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Connect a <i>J 34142-B</i> test lamp between the body of the spotlamp and B+. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 940 (BLK) between the spotlamp and the IP fuse block. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	1. Inspect the spotlamp bulb and replace as necessary. 2. Replace the spotlamp assembly if the spotlamp bulb is OK. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the ground between the spotlamp assembly and the body of the vehicle. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Stop Lamps Inoperative - All (Pickup)

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic should only be used if all brake lamps are inoperative.				
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to Exterior Lights System Check
2	Disconnect the Stop, TCC, and Cruise Switch. Measure voltage at pin B of the connector. Was voltage present?	V	Go to Step 4	Go to Step 3
3	Repair open in Ckt 140 (ORN). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is repair complete?	—	Go to Exterior Lights System Check	—
4	Depress the Brake pedal while measuring continuity from pin A to pin B of the connector. Is continuity present?	$\Omega$	Go to Step 6	Go to Step 5
5	Replace the Stop, TCC, and Cruise Switch. Refer to <i>Stoplamp Switch Replacement</i> in Hydraulic Brakes Is the repair complete?	—	Go to Exterior Lights System Check	—
6	1. Reconnect the connector at the Stop, TCC, and Cruise Switch. 2. Disconnect the connector at the Brake Lamp Relay. 3. Measure voltage at D7 of the relay connector. Is voltage present?	V	Go to Step 8	Go to Step 7
7	Repair open in Ckt 17 (WHT). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Exterior Lights System Check	—
8	1. Reconnect the connector at the Brake Lamp Relay. 2. Disconnect the connector at the Directional Signal Switch. 3. Apply the Brake Pedal. Measure voltage at pin E2 of the Directional Signal Connector. Is voltage present?	V	Go to Step 9	Go to Step 10
9	Replace the Directional Signal Switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> in Steering. Is the repair complete?	—	Go to Exterior Lights System Check	—
10	Inspect for an open in Ckt 20 (LT BLU). Refer to <i>Wiring Repairs</i> in Wiring Systems Was an open found?	—	Go to Step 11	Go to Step 12
11	Repair the open in Ckt 20 (LT BLU). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Exterior Lights System Check	—
12	Replace the Brake Lamp Relay. Is the repair complete?	—	Go to Exterior Lights System Check	—

**Stop Lamps Inoperative - All (Suburban/Utility)**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic is only to be used when the rear stop lamps are all inoperative.				
1	Was the Exterior Lights System Check performed?	—	Go to Step 2	Go to Exterior Lights System Check
2	Disconnect the Stoplamp, TCC, and Cruise Control Switch Connector. Measure voltage at pin B. Was there voltage?	V	Go to Step 4	Go to Step 3
3	Repair the open in CKT 140 (ORN). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Exterior Lights System Check	—
4	Depress the Brake pedal and measure continuity across Pin A and Pin B. Was there continuity?	Ω	Go to Step 6	Go to Step 5
5	Replace the Stoplamp, TCC, and Cruise Control Switch. Is the repair complete?	—	Go to Exterior Lights System Check	—
6	1. Reconnect the Stoplamp, TCC, and Cruise Control Switch Connector 2. Disconnect the Directional Signal Switch Connector. 3. Depress the Brake Pedal Measure voltage at A1 of the connector Was voltage present?	V	Go to Step 8	Go to Step 7
7	Repair the open in CKT 17 (WHT). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Exterior Lights System Check	—
8	Replace the Directional Signal Switch. Is the repair complete?	—	Go to Exterior Lights System Check	—

**Stop Lamps Inoperative - Center High Mounted**

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to Exterior Lights System Check
2	1. Remove the center high-mounted stoplamp. 2. Connect a <i>J 34142-B</i> test lamp between the center high-mounted stoplamp, cavity A for CKT 17 (WHT), and ground. 3. Depress the brake pedal. Does the test lamp light?	—	Go to Step 3	Go to Step 5
3	1. Connect a <i>J 34142-B</i> test lamp between cavity A and cavity B. 2. Depress the brake pedal. Does the test lamp light?	—	Go to Step 6	Go to Step 4
4	Repair the open in CKT 150 (BLK) between splice S421 and ground G400. Is the repair complete?	—	Go to Exterior Lights System Check	—
5	Repair the open in CKT 17 (WHT) between splice S410 and splice S422. Is the repair complete?	—	Go to Exterior Lights System Check	—
6	Replace the center high-mounted stoplamp. Is the repair complete?	—	Go to Exterior Lights System Check	—

**Stop Lamps Always On (Pickup)**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic is only to be performed when the rear stoplamps remain illuminated at all times.				
1	Was the Exterior Lights System Check performed?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	Remove the Brake Lamp Relay. Do the brake lights go out?	—	Go to Step 3	Go to Step 8
3	Measure voltage at D& of the Brake Lamp Relay Connector. Was voltage present?	V	Go to Step 4	Go to Step 5
4	Disconnect the Stoplamp, TCC, and Cruise Control Switch Connector. Is voltage still present at D7 of the Brake Lamp Relay Connector?	V	Go to Step 6	Go to Step 7
5	Replace the Brake Lamp Relay. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the short to voltage in CKT 17 (WHT). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
7	Replace the Stoplamp, TCC, and Cruise Control Switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
8	Repair the short to voltage in CKT 20 (LT BLU). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

**Stop Lamps Always On (Suburban/utility)**

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used when the rear stop lamps both stay illuminated at all times.				
1	Was the Exterior Lights System Check performed?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	Disconnect the Stop, TCC, and Cruise Control Switch. Do the lamps turn off?	—	Go to Step 3	Go to Step 4
3	Replace the Stop, TCC, and Cruise Control Switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
4	Disconnect the Directional Signal Switch. Do the lamps turn off?	—	Go to Step 5	Go to Step 8
5	Measure voltage at pin A1 of the Directional Signal Switch. Is voltage present?	—	Go to Step 6	Go to Step 8
6	Repair the short to voltage on CKT 17 (WHT). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
7	Replace the Directional Signal Switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
8	Repair the short to voltage on CKT 18 (YEL) and CKT 19 (DK GRN). Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

**Stop Lamps Always On - Center High Mounted**

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Disconnect the connector at the torque converter clutch (TCC)/stoplamp switch. 2. Connect a <i>J 34142-B</i> test lamp between the TCC/stoplamp switch connector, cavity F for CKT 17 (WHT), and ground. 3. Place the ignition switch in the RUN position. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Adjust the TCC/stoplamp switch. 2. Replace the TCC/stoplamp switch, as necessary. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
4	Repair the short to voltage in CKT 17 (WHT) between the TCC/stoplamp switch and the center high-mounted lamps. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

**Turn Signal Lamps Inoperative - Left or Right Side**

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Turn the hazard flasher switch to the ON position. 2. Observe the lights on the malfunctioning side. Do all the lights flash?	—	Go to Step 3	Go to Step 4
3	1. Turn the hazard flasher switch to the OFF position. 2. Place the ignition switch in the RUN position. 3. Place the turn/hazard switch to the side that is not operating. 4. Connect a <i>J 34142-B</i> test lamp from CKT 14 (LT BLU) or CKT 15 (DK BLU) at connector C266 to ground. Does the test lamp light?	—	System OK	Go to Step 6
4	Connect a <i>J 34142-B</i> test lamp from CKT 14 (LT BLU) or CKT 15 (DK BLU) at the park/turn or marker lamp connector to ground. Does the test lamp light?	—	Go to Step 5	Go to Step 7
5	Connect a <i>J 34142-B</i> test lamp from CKT 14 (LT BLU) or CKT 15 (DK BLU) to CKT 150 (BLK) or CKT 250 (BLK) at the park/turn or marker lamp. Does the test lamp light?	—	Go to Step 8	Go to Step 9
6	Replace the turn/hazard switch. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
7	Repair the open in CKT 14 (LT BLU) or CKT 15 (DK BLU) between the affected park/turn or marker lamp and connector C102, or between connector C102 and connector C266. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
8	1. Inspect the condition of the bulb sockets. 2. Repair the bulb sockets, as necessary. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
9	Repair the open in CKT 150 (BLK), CKT 250 (BLK), or CKT 9 (BRN) between the affected park/turn or marker lamp and ground G113 or ground G112. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Turn Signal Indicators Inoperative

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic procedure should only be used to diagnose the turn signal indicators only if the turn signals and the other I/P cluster indicators are operative.				
1	Was the Exterior Lamp System Check performed?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Remove the instrument cluster. 2. Connect a test lamp between cavity 3 or 32 and ground. 3. Turn the ignition to the ON position. 4. Place the turn signal switch to the LH or RH turn position. Does the test lamp flash?	—	Go to Step 3	Go to Step 4
3	1. Check the condition of the indicator bulb(s) and replace as necessary. 2. If the indicator bulb(s) are good, replace the instrument cluster. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
4	Repair open(s) in CKT(s) 14 (LT BLU) and/or 15 (DK BLU). Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

## Twilight Sentinel Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Twilight Sentinel System Check?	—	Go to Step 2	Go to <i>Twilight Sentinel System Check</i>
2	1. Ensure park brake is released and park brake indicator is OFF. 2. Place headlamps in ON position. 3. Switch headlamp dimmer between HIGH and LOW beams. Does the headlamp system function properly?	—	Go to Step 3	Go to Step 11
3	1. Turn headlamps OFF. 2. Disconnect connector C1 at headlamp control module. 3. Turn ignition to ON. 4. Connect a <i>J 34142-B</i> test lamp between connector C1 cavity A and ground Does test lamp light?	—	Go to Step 4	Go to Step 12
4	Connect a <i>J 34142-B</i> test lamp between connector C1 cavity E and ground. Does test lamp light?	—	Go to Step 5	Go to Step 13
5	Connect a <i>J 34142-B</i> test lamp between connector C1 cavity F and B+. Does test lamp light?	—	Go to Step 6	Go to Step 14
6	Connect a <i>J 34142-B</i> test lamp between connector C1 cavity C and B+. Does test lamp light?	—	Go to Step 15	Go to Step 7
7	1. Disconnect connector C2 at headlamp control module. 2. Connect a <i>J 34142-B</i> test lamp between connector C2 cavity C and ground. Does test lamp light?	—	Go to Step 8	Go to Step 16



## Twilight Sentinel Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
8	1. Connect both connectors C1 and C2 at headlamp control module. 2. Turn ignition ON. 3. Cover ambient light sensor with a dark cloth or tape. 4. Backprobe with a <i>J 39200</i> DMM between connector C2 cavity E at headlamp control module and ground Is there continuity?	—	Go to Step 9	Go to Step 16
9	Replace headlamp control module. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	—
10	1. Refer to <i>Headlamps Inoperative - Low and High Beams (Headlamps)</i> . 2. Make necessary repairs. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 3
11	Locate and repair open in CKT 39 (PNK) between headlamp control module and IP fuse block. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 4
12	Locate and repair open in CKT 240 (ORN) between headlamp control module and IP fuse block. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 5
13	Locate and repair open in CKT 150 (BLK) between headlamp control module and ground G202. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 6
14	1. Locate and repair short to ground in CKT 1134 (LT BLU) between headlamp control module and park brake warning switch. 2. Repair faulty park brake warning indicator lamp. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 7
15	Locate and repair open in CKT 2040 (ORN) between headlamp control module and IP fuse block. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 8
16	1. Disconnect connector C2 at headlamp control module. 2. Disconnect connector C2 at automatic day-night mirror. 3. Connect a <i>J 39200</i> DMM between automatic day-night mirror connector C2 cavity 2 and headlamp control module connector C2 cavity E. Is there continuity?	—	Go to Step 17	Go to Step 18
17	Replace inside automatic day-night mirror. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	—
18	Locate and repair open in CKT 1784 (YEL/BLK) between automatic day-night mirror and headlamp control module. Is the repair complete?	—	Go to <i>Twilight Sentinel System Check</i>	Go to Step 8

**Underhood Lamp Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the Exterior Lights System Check?	—	Go to Step 2	Go to <i>Exterior Lights System Check</i>
2	1. Disconnect the underhood lamp connector. 2. Connect a <i>J 34142-B</i> test lamp between the underhood lamp connector, cavity A, to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Connect a <i>J 34142-B</i> test lamp between the underhood lamp connector, cavity B and B+. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 740 (ORN) between the underhood lamp and the underhood fuse-relay center. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
5	Replace the underhood (reel) lamp. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—
6	Repair the open in CKT 150 (BLK) between the underhood lamp and ground. Is the repair complete?	—	Go to <i>Exterior Lights System Check</i>	—

**Vanity Mirror Lamps Inoperative**

Step	Action	Value(s)	Yes	No
1	Did you perform the Interior Lamps System Check?	—	Go to Step 2	Go to <i>Interior Lamps System Check</i>
2	Connect a <i>J 34142-B</i> test lamp from CKT 40 (ORN) from the affected sunshade mirror lamp connector cavity A to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 4
3	Connect a self-powered test lamp from cavity B to B+. Does the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 40 (ORN) from the affected sunshade mirror lamp to the instrument panel fuse block. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
5	Replace the sunshade mirror lamp. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—
6	Repair the open in CKT 150 (BLK) from the sunshade mirror lamp to ground G200. Is the repair complete?	—	Go to <i>Interior Lamps System Check</i>	—

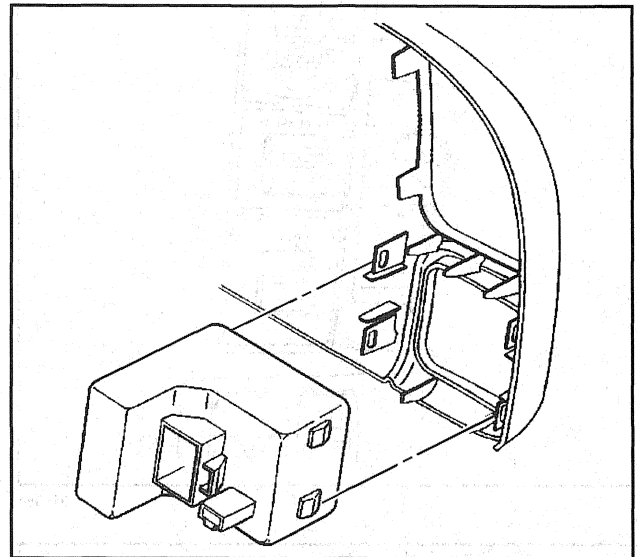
## Repair Instructions

### Headlamp Switch Replacement

#### Removal Procedure

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

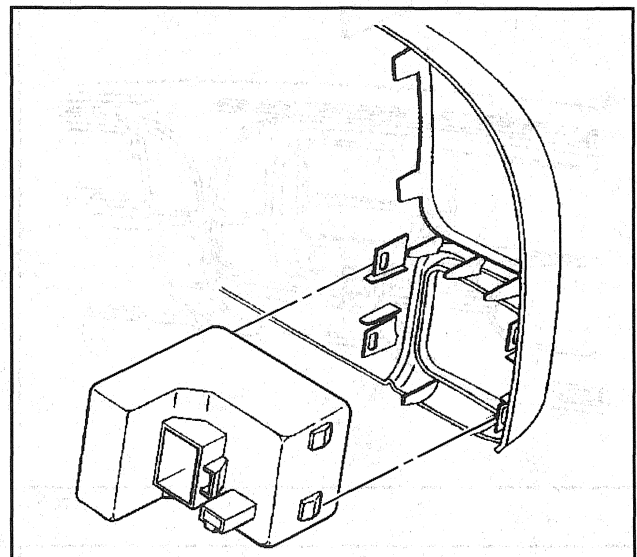
1. Disconnect the negative battery cable.
2. Remove the instrument cluster bezel. Refer to *IP Cluster Replacement* in Instrument Panel, Gauges and Console.
3. Disconnect the electrical connectors.
4. Unsnap the switch.  
Remove the switch.



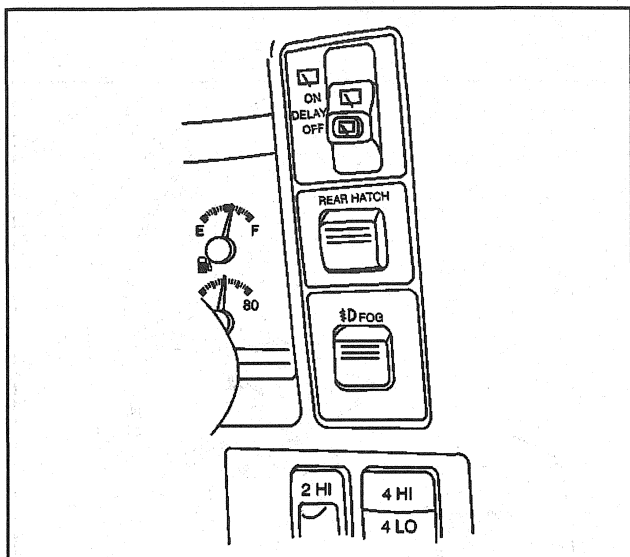
277259

#### Installation Procedure

1. Install the headlamp switch and/or the panel dimmer switch to the bezel.
2. Connect the electrical connectors.
3. Install the bezel to the instrument panel. Refer to *IP Cluster Replacement* in Instrument Panel, Gauges and Console.
4. Connect the negative battery cable.



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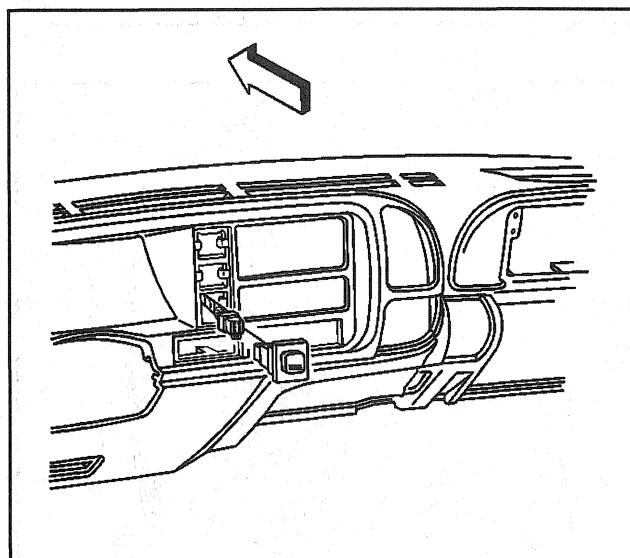
318954

## Fog Lamp Switch Replacement - Front

### Removal Procedure

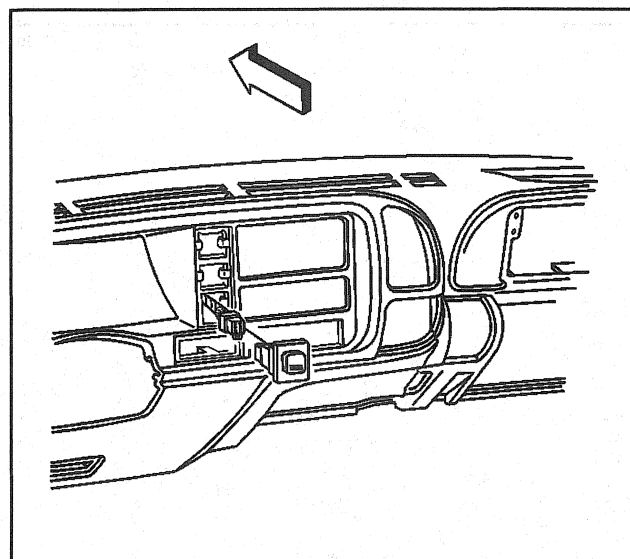
**Caution:** Refer to *Battery Disconnect Caution in Cautions and Notices*.

1. Remove the negative battery cable.
2. Remove the IP cluster trim bezel. Refer to *Bezel Replacement - IP Cluster*.
3. Remove the fog lamp switch connector.



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4. Remove the fog lamp switch from the bezel by pressing in on the two tabs on each side of the switch behind the bezel.

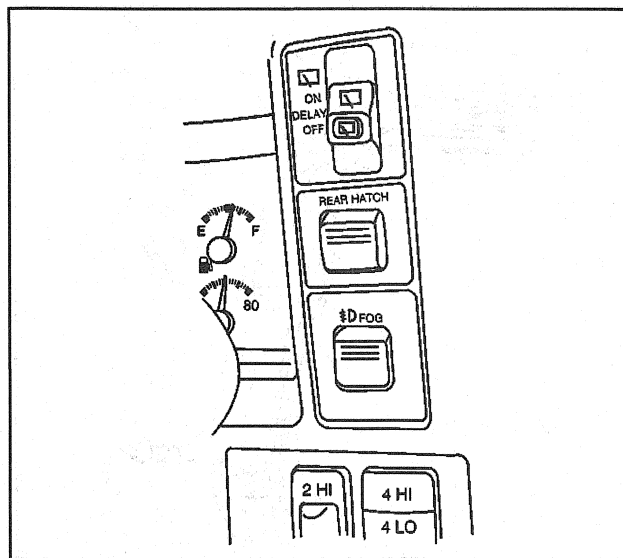


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### Installation Procedure

1. Install the fog lamp switch to the bezel.
2. Install the fog lamp switch connector.

3. Install the IP cluster trim bezel. Refer to *Bezel Replacement - IP Cluster* in IP Gauges, and Console.
4. Install the negative battery cable.



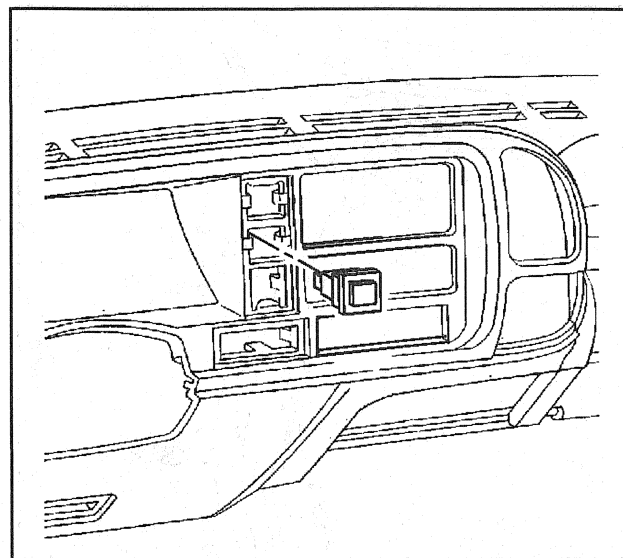
318954

## Cargo Lamp Switch Replacement

### Removal Procedure

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

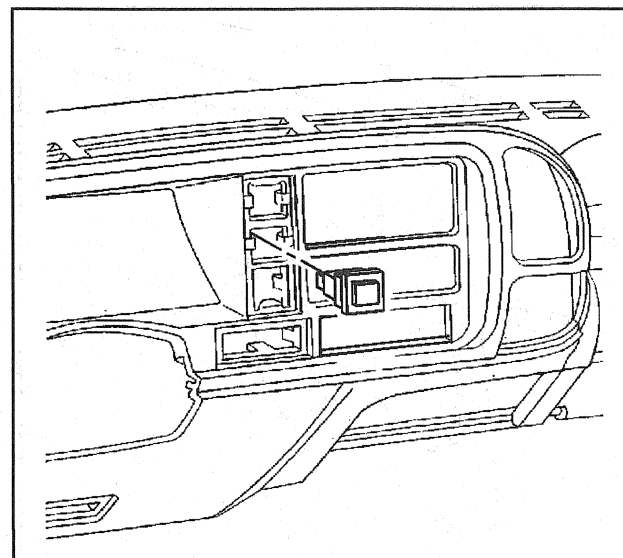
1. Disconnect the negative battery cable.
2. Remove the instrument cluster bezel. Refer to *Bezel Replacement - IP Cluster* in IP Gauges, and Console.
3. Disconnect the electrical connectors.
4. Squeeze the tangs together at the side of the switch in order to remove the switch from the bezel.



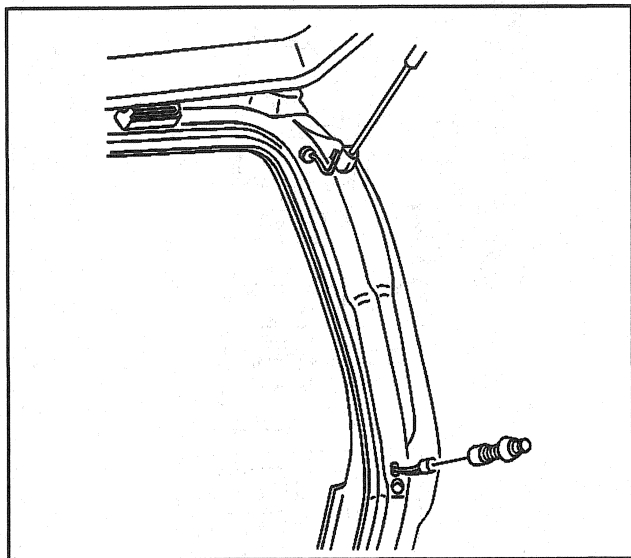
277246

### Installation Procedure

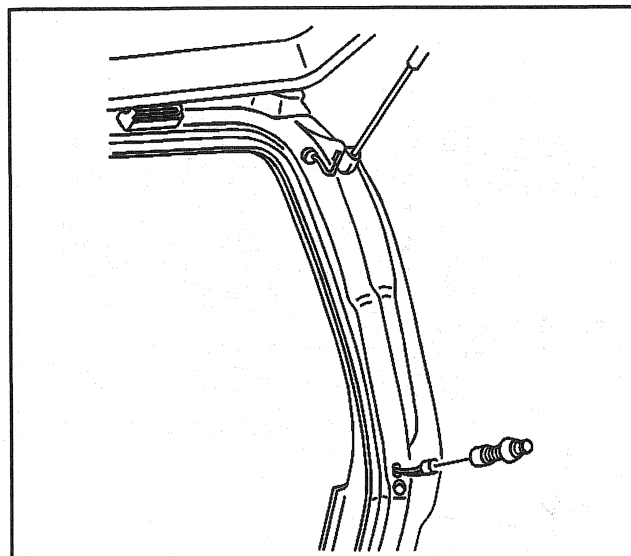
1. Squeeze together the tangs at the sides of the switch.
2. Press the switch into the front of the bezel.
3. Connect the electrical connectors.
4. Install the bezel to the instrument panel. Refer to *Bezel Replacement - IP Cluster* in IP Gauges, and Console.
5. Connect the negative battery cable.



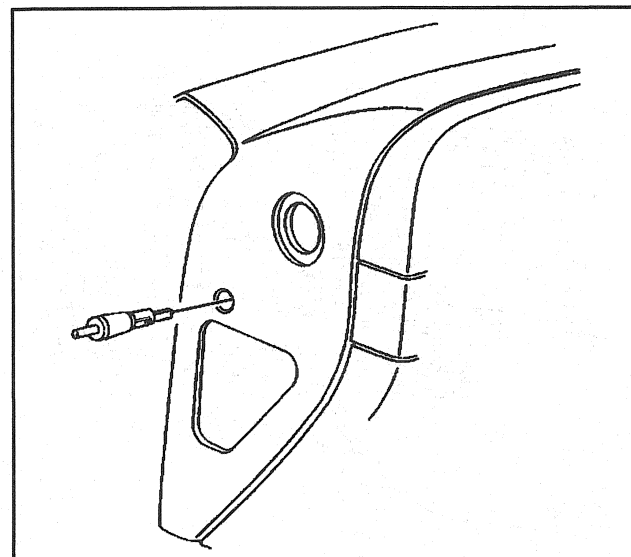
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## Door Jamb Switch Replacement (Liftgate)

### Removal Procedure

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

1. Disconnect the negative battery cable(s).
2. Unthread the switch from the vehicle.  
Remove the switch.
3. Disconnect the electrical connector.

### Installation Procedure

1. Connect the electrical connector.
2. Install the switch to the vehicle.
3. Connect the negative battery cable(s).

## Door Jamb Switch Replacement (Door)

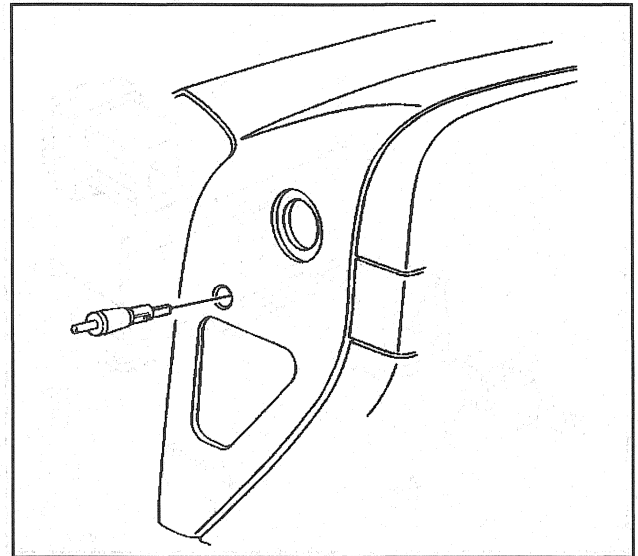
### Removal Procedure

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

1. Disconnect the negative battery cable.
2. Locate the door jamb switch.  
The switch is under the left side of the instrument panel.
3. Squeeze together the tangs of the switch.
4. Push the switch through the side of the instrument panel.
5. Disconnect the electrical connector of the door jamb switch.
6. Remove the door jamb switch.

**Installation Procedure**

1. Connect the electrical connector of the door jamb switch.
2. Squeeze together the tangs of the switch.
3. Push the switch through the side of the instrument panel.
4. Connect the negative battery cable.

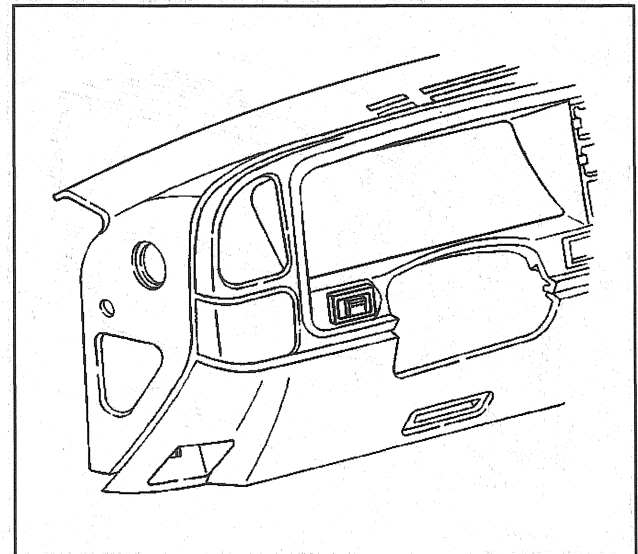


277254

**Emergency Roof Lamp Switch Replacement****Removal Procedure**

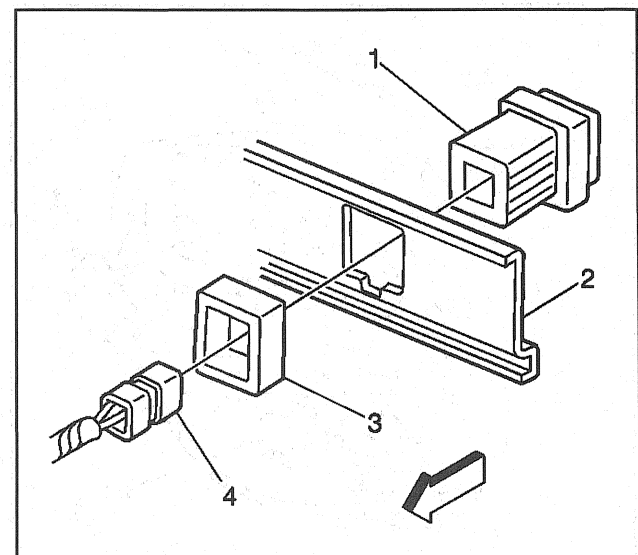
**Caution:** Refer to *Battery Disconnect Caution in Cautions and Notices*.

1. Disconnect the negative battery cable.
2. Remove the knee bolster. Refer to *Knee Bolster Replacement* in IP, Gauges and Console.

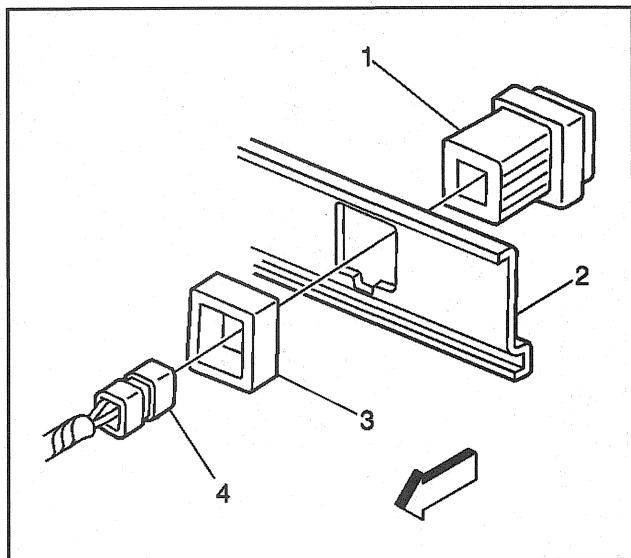


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3. Disconnect the electrical connector (4).
4. Remove the retainer (3) from the rear of the faceplate.
5. Remove the switch from the faceplate.



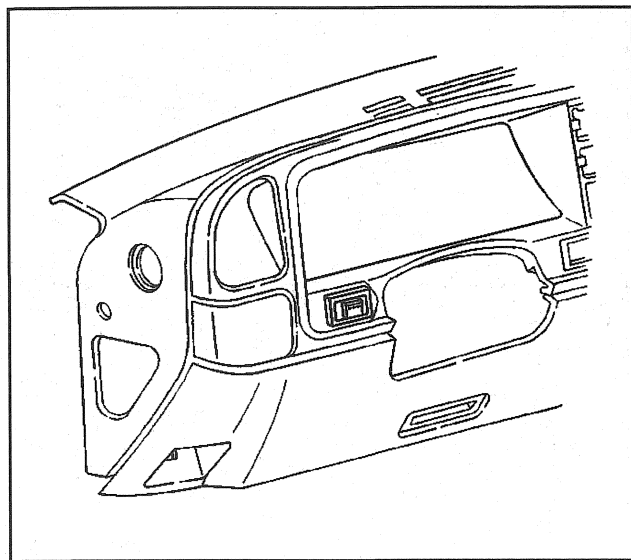
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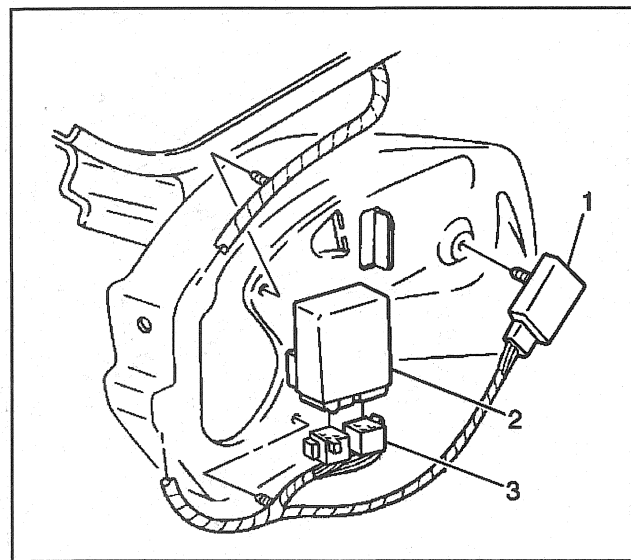
**Installation Procedure**

1. Install the switch to the faceplate.
2. Install the retainer (3).
  - 2.1. Align the indexing tab on the nut to the tab on the switch (1).
  - 2.2. Slide the nut to the faceplate until the nut snaps into position.
3. Connect the electrical connector (4).



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4. Install the knee bolster. Refer to *Knee Bolster Replacement* in IP, Gauges and Console.
5. Connect the negative battery cable.



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**Headlamp Control Module Replacement****Removal Procedure**

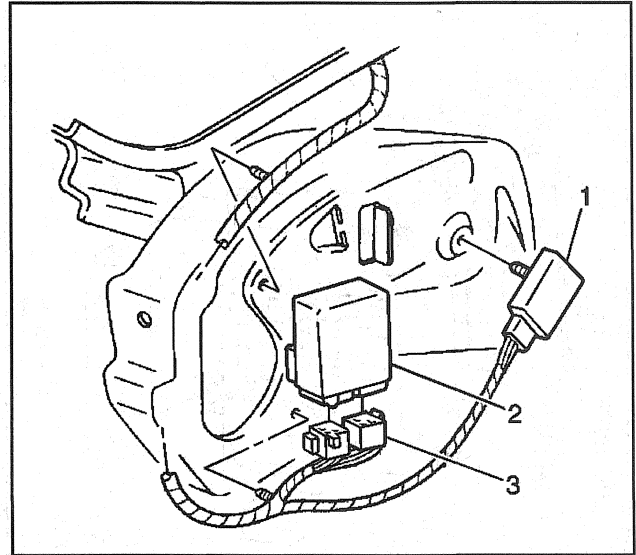
**Caution:** Refer to *Battery Disconnect Caution* in *Cautions and Notices*.

1. Remove the negative battery cable.
2. Remove the control module from the retainer.
3. Disconnect the electrical connectors (3).
4. Remove the control module (2).



### Installation Procedure

1. Connect the electrical connectors (3).
2. Install the control module (2).
3. Install the control module to the retainer.
4. Install the negative battery cable.



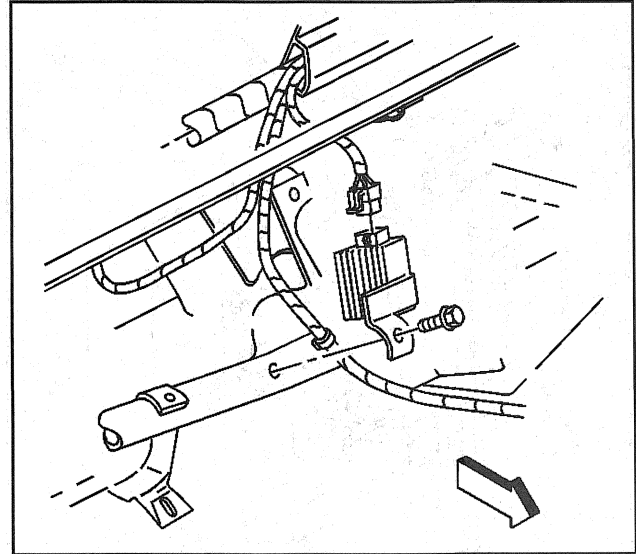
311560

### DRL Control Module Replacement

#### Removal Procedure

**Important:** The daytime running lamps (DRL) module consists of a circuit board in a black aluminum case with fins. The module attaches to the instrument panel (IP) harness behind the left side of the IP.

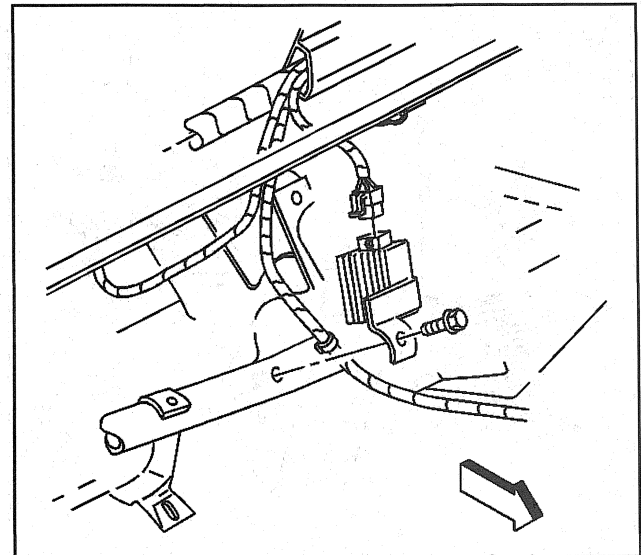
1. Make sure the ignition switch is in the OFF position.
2. Make sure the headlamp switch is in the OFF position.
3. Remove the knee bolster. Refer to *Knee Bolster Replacement* in IP, Gauges and Console.
4. Remove the DRL module from the bracket.
5. Disconnect the electrical connector.
6. Remove the module from the vehicle.



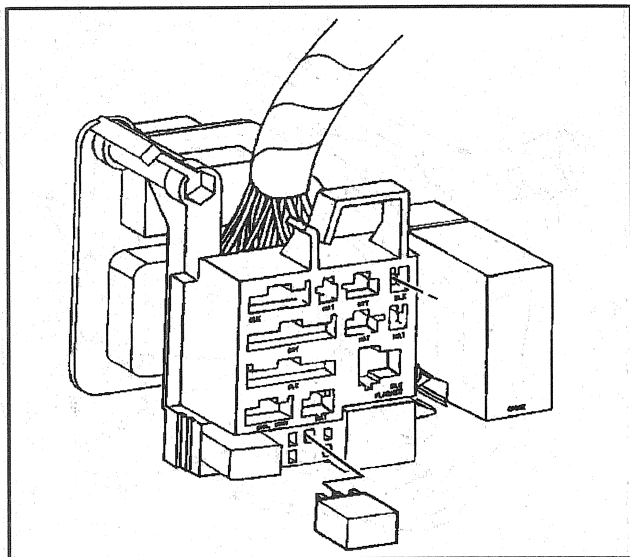
277249

#### Installation Procedure

1. Install the module to the vehicle.
2. Connect the electrical connector.
3. Install the knee bolster. Refer to *Knee Bolster Replacement* in IP, Gauges and Console.



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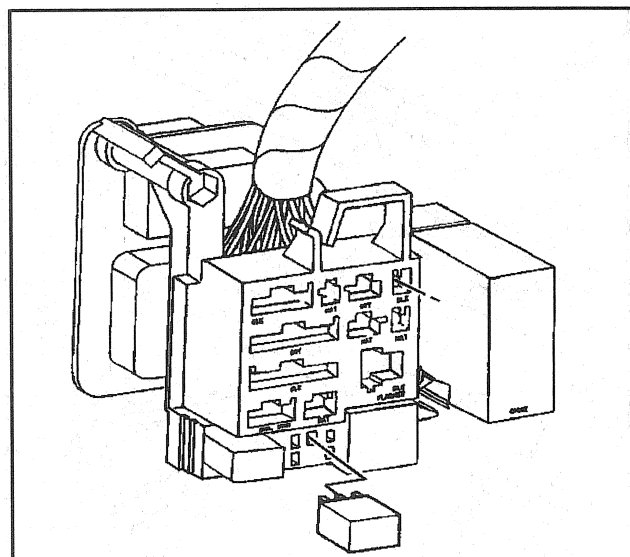
277251

## DRL Relay Replacement

### Removal Procedure

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

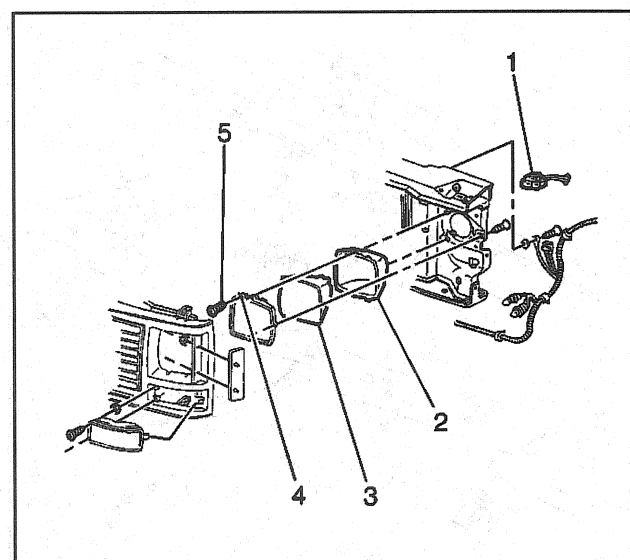
1. Disconnect the negative battery cable(s).
2. Remove the relay from the convenience center.



277251

### Installation Procedure

1. Install the relay to the convenience center.
2. Connect the negative battery cable(s).



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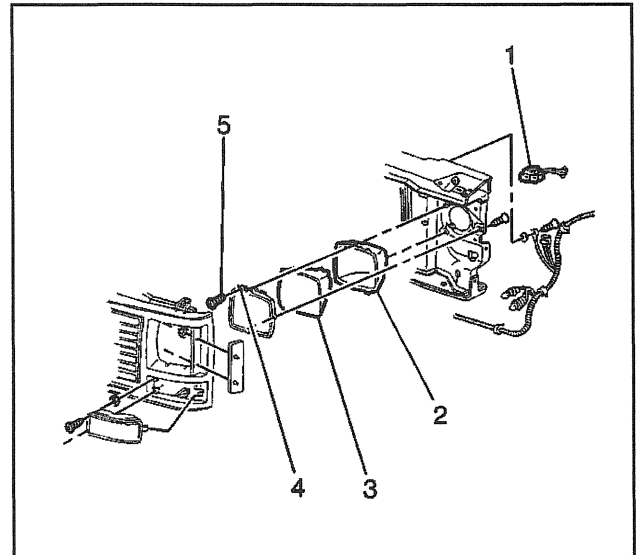
## Headlamp Replacement (Base)

### Removal Procedure

1. Make sure the headlamp switch in the OFF position.
2. Remove the retaining ring screws (5) from the retaining ring (4).
3. Remove the retaining ring from the headlamp (3).
4. Remove the headlamp from the headlamp mounting bracket (2).
5. Disconnect the electrical connector (1) from the headlamp.

**Installation Procedure**

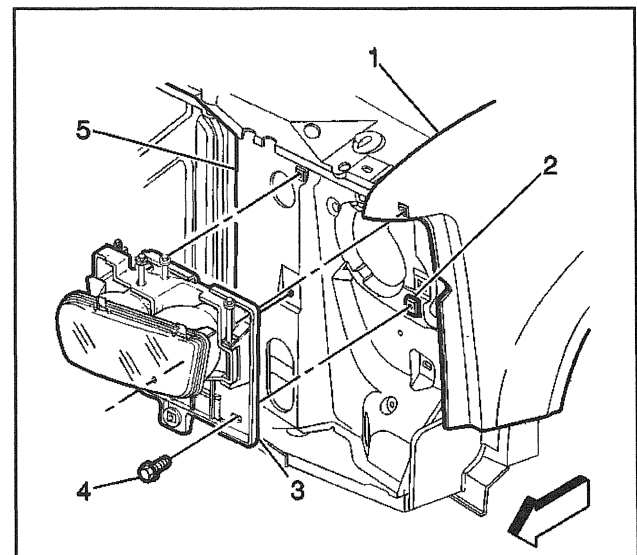
1. Connect the electrical connector (1) to the headlamp (3).
2. Install the headlamp to the headlamp mounting bracket (2).
3. Install the retaining ring (4) to the headlamp.
4. Install the retaining ring screws (5) to the retaining ring.



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**Headlamp Replacement (Luxury)****Removal Procedure**

1. Make sure the headlamp switch in the OFF position.
2. Remove the park/turn signal lamp assembly. Refer to *Park/Turn Signal Lamp Replacement (Luxury)*
3. Remove the headlamp assembly pins from the top of the radiator support.
4. Pull forward the headlamp from the assembly (3).
5. Disconnect the electrical connector from the headlamp.
6. Remove the headlamp from the vehicle.



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**Installation Procedure**

1. Connect the electrical connector to the headlamp.
2. Install the headlamp assembly to the vehicle..

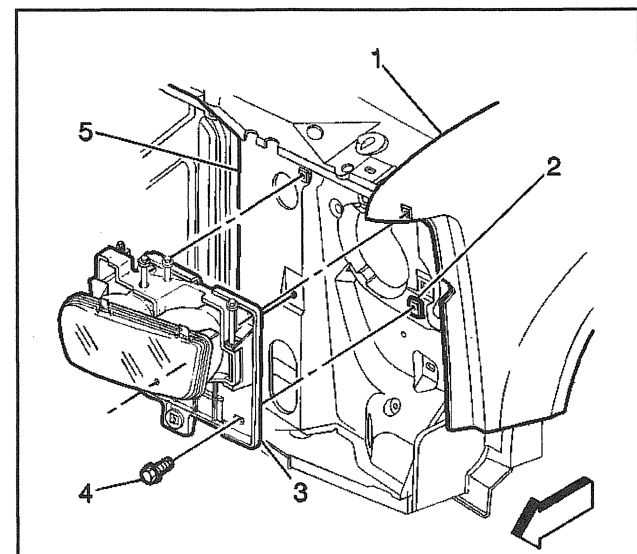
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

3. Install the headlamp assembly pins.

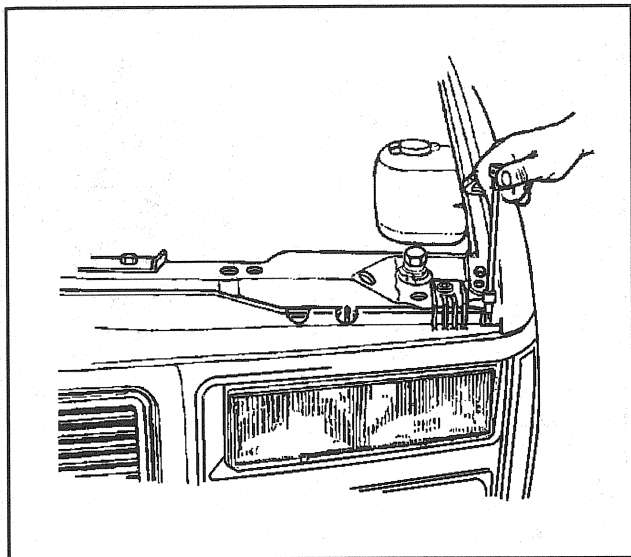
**Tighten**

Tighten the assembly pins to 5 N·m (44 lb in).

4. Install the park/turn signal lamp assembly (3). Refer to *Park/Turn Signal Lamp Replacement (Luxury)*



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## Headlamp Bulb Replacement (Base)

### Removal Procedure

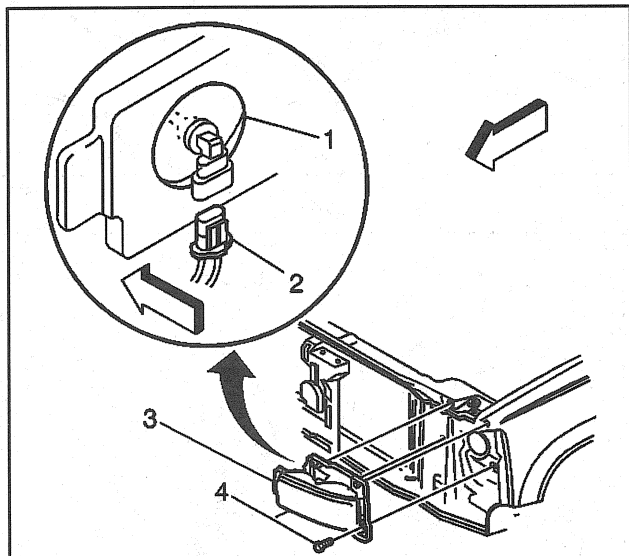
1. Make sure the headlamp switch is in the OFF position.

**Caution:** Halogen bulbs contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying glass fragments. To help avoid personal injury:

- Turn off the lamp switch and allow the bulb to cool before changing the bulb.
- Leave the lamp switch OFF until the bulb change is complete.
- Always wear eye protection when changing a halogen bulb.
- Handle the bulb only by its base. Avoid touching the glass.
- Keep dirt and moisture off the bulb.
- Properly dispose of the used bulb.
- Keep halogen bulbs out of the reach of children.

**Notice:** Avoid touching the bulb or letting the bulb come in contact with anything damp. Oil from your skin or moisture on the bulb can cause the bulb to explode when the bulb is turned on. If either comes in contact with the bulb, clean the bulb with alcohol or a suitable degreaser and wipe the bulb dry.

2. Remove the bulbs from the headlamp capsules by reaching from the engine compartment and by twisting the bulb counterclockwise.
3. Remove the 2 long screws from the top of the radiator support.
4. Pull forward the headlamp assembly (3).
5. Disconnect the electrical connector (2) from the burned out bulb assembly (1).

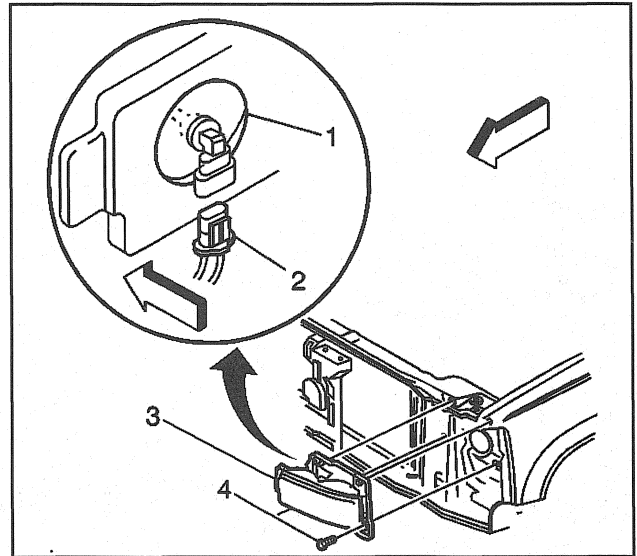


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### Installation Procedure

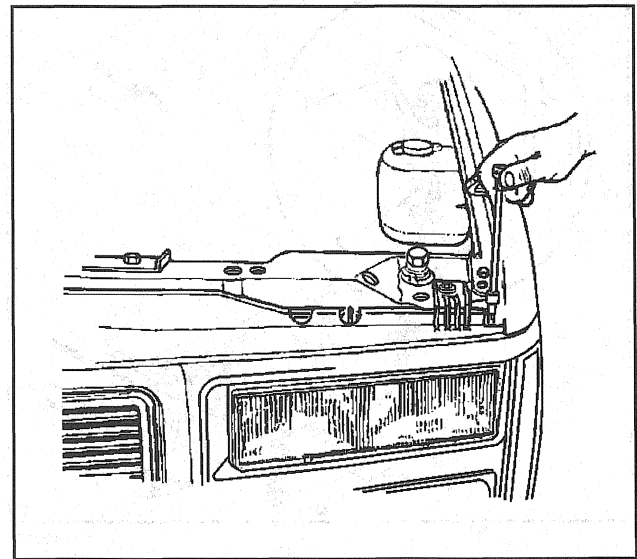
#### Important:

- Replace a high beam bulb with another high beam bulb. The high beam bulb has a red gasket.
  - Replace a low beam bulb with another low beam bulb. The low beam bulb has a gray tip and a yellow gasket at the base.
1. Install the new bulb assembly (1) into the headlamp assembly (3).  
Twist clockwise the bulb assembly.
  2. Seat the bulb assembly with the connector facing down.
  3. Connect the electrical connector (2) to the bulb assembly.
  4. Install the headlamp assembly.



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5. Install the 2 long screws through the top of the radiator support.
6. Tighten the screws.



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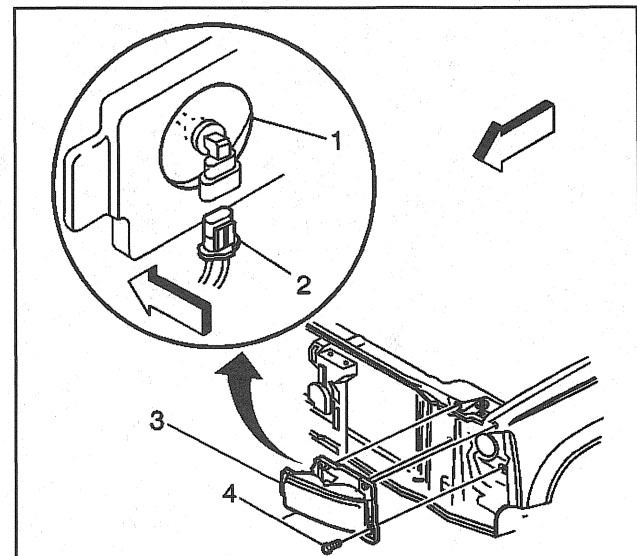
### Headlamp Bulb Replacement (Luxury)

#### Removal Procedure

1. Make sure the headlamp switch is in the OFF position.

**Caution:** Halogen bulbs contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying glass fragments. To help avoid personal injury:

- Turn off the lamp switch and allow the bulb to cool before changing the bulb.
- Leave the lamp switch OFF until the bulb change is complete.
- Always wear eye protection when changing a halogen bulb.
- Handle the bulb only by its base. Avoid touching the glass.
- Keep dirt and moisture off the bulb.



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- **Properly dispose of the used bulb.**
- **Keep halogen bulbs out of the reach of children.**

**Notice:** Avoid touching the bulb or letting the bulb come in contact with anything damp. Oil from your skin or moisture on the bulb can cause the bulb to explode when the bulb is turned on. If either comes in contact with the bulb, clean the bulb with alcohol or a suitable degreaser and wipe the bulb dry.

2. Remove the park/turn signal lamp assembly. Refer to *Park/Turn Signal Lamp Replacement (Luxury)*.
3. Remove the headlamp assembly pins from the top of the radiator support.
4. Pull forward the headlamp from the assembly.
5. Disconnect the electrical connector (2) from the burned out bulb assembly (1).
6. Remove the bulb from the rear of the headlamp.

### Installation Procedure

#### Important:

- Replace a high beam bulb with another high beam bulb. The high beam bulb has a red gasket.
- Replace a low beam bulb with another low beam bulb. The low beam bulb has a gray tip and a yellow gasket at the base.

1. Install the new bulb assembly into the headlamp assembly.
2. Twist clockwise the bulb assembly.
3. Seat the bulb assembly with the connector facing down.
4. Connect the electrical connector (2) to the bulb assembly (1).
5. Install the headlamp assembly. Refer to *Headlamp Replacement (Luxury)*.

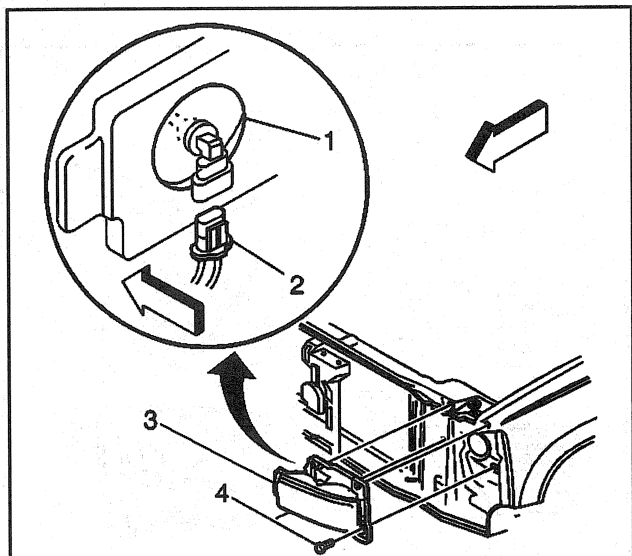
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

6. Install the headlamp assembly pins.

#### Tighten

Tighten the assembly pins to 5 N·m (44 lb in).

7. Install the park/turn signal lamp assembly. Refer to *Park/Turn Signal Lamp Replacement (Luxury)*



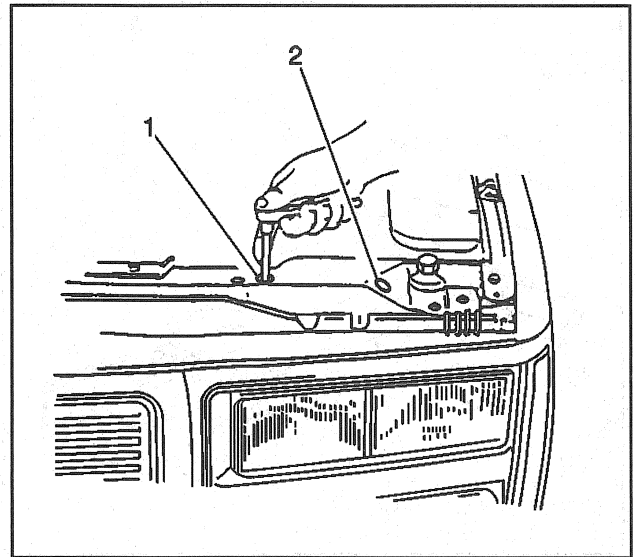
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## Headlamp Aiming

### Composite Headlamps

Two adjusting screws control the horizontal and vertical aiming of each headlamp assembly.

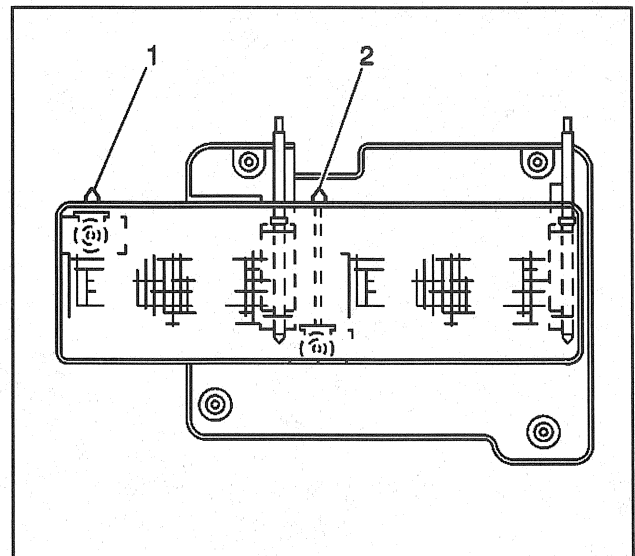
The screws (1, 2) are in the radiator support. The location is not readily visible.



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The 2 holes in the radiator support for each headlamp assembly provide access to the recessed adjusting screws (1, 2). Using a T15 TORX® head bit, turn the screws.

Adjust the headlamps to the specifications required by the state and/or the local authorities.

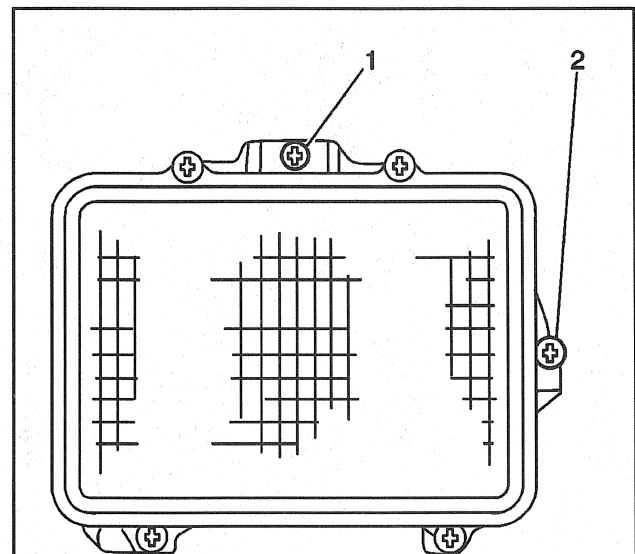


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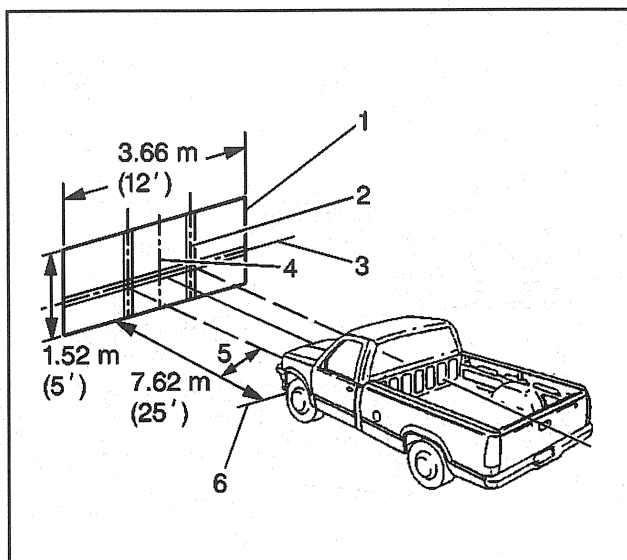
### Sealed Beam Headlamps

Correct the horizontal aiming and the vertical aiming of each headlamp by adjusting the screws. The screws move the mounting bracket against the tension of the coil spring. The screws are in the headlamp bezel area on the models with the sealed beam headlamp.

The screw (1) directly above the headlamp adjusts the vertical position. The screw (2) to the side of the headlamp adjusts the horizontal position.



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### Visual Aiming Procedure

- All equipment for testing headlamps must comply with the SAE Recommended Practice for Headlamp Inspection Equipment.
- If you use a headlamp testing machine, the machine should give results equivalent to the results obtained using the screen procedure.
- The machine should be in good condition and be properly adjusted.

Use the machine in accordance with the manufacturer's instructions.

- Machines that use a photoelectric cell or cells to determine aim, should also include a visual screen on which you can project a beam pattern proportional to the beam appearance, and aim on a screen at 7.62 m (25 ft).
  - The screen should be plainly visible to the technician who is adjusting the headlamps.
  - The screen should have horizontal and vertical reference lines in order to permit visual evaluation of the headlamp beam.

### Headlamp Aiming Location (Using Screen Method)

- The aiming area should be darkened and large enough to allow for the vehicle and an additional 7.62 m (25 ft), measured from the face of the headlamps to the front of the screen.
- The floor on which the vehicle rests must be parallel with the bottom of the screen.  
If the floor is not level, compensate accordingly.

### Headlamp Aiming Screen

- If you use a screen, the screen should be at least 1.52 m (5 ft) high x 3.66 m (12 ft) wide with a matte white finish, well shaded from extraneous light.
- Properly adjust the screen to the floor on which the vehicle rests.
- The screen should be moveable so that you can align the screen parallel to the rear axle of the vehicle.
- Position the screen so that a horizontal line drawn perpendicular to the centerline of the screen will pass an equal distance midway between the two headlamps.
- The screen should have the following items:
  - A vertical centerline (4)
  - Two laterally adjustable vertical tapes (2)
  - One vertically adjustable horizontal tape (3)
- If a regular commercial aiming screen is not available, the screen may consist of a wall having a clear, uninterrupted area at least 1.83 m (6 ft) x 3.66 m (12 ft) wide. The surface should be finished with a no-gloss white paint.
- After the aiming screen has been set up and located, paint or tape a reference line (6) on the floor 7.62 m (25 ft) from the screen. Park the vehicle with the front of the headlamps directly over this reference line.



**Headlamp Aiming Procedure**

1. Park the vehicle square with the screen, with the headlamps directly over this reference line.
2. Ensure that the components are in place if other work has been done on the vehicle.
3. Ensure that the vehicle is on a level surface.
4. Stop all other work on the vehicle.
5. Ensure that the vehicle has half a tank, or less, of fuel.
6. Close all of the doors.
7. Rock the vehicle sideways.
8. Line up the centerline of the vehicle with the centerline of the aiming screen.
  - Mark the vertical center of the rear and front windows using tape.
  - Use these lines as sights in order to line up the centerline of the vehicle and the screen.
9. Adjust the vertical tapes on the screen in order to match the vertical centerline of each low beam headlamp.

Measure the distance from the centerline of the low beam lamp.
10. Adjust the horizontal tapes on the screen in order to match the horizontal centerline of each low beam headlamp.

Measure the height from the floor to the center of the low beam.
11. Turn on the low beam headlamps.
12. Observe the left and the top edges of the high intensity zone on the screen.

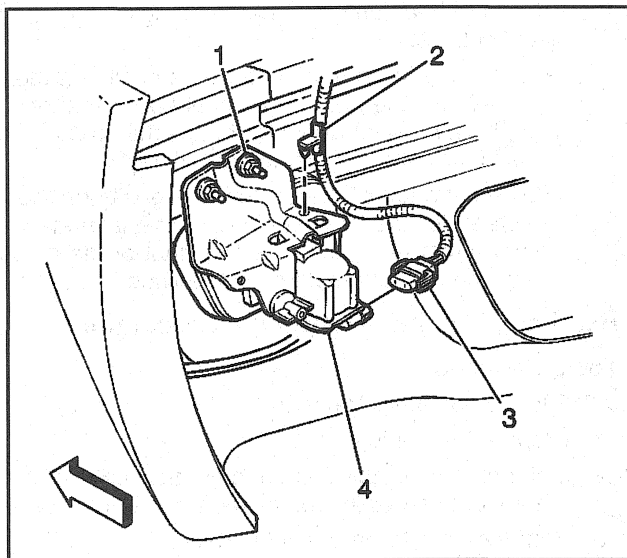
13. Adjust the headlamps to the following specifications:

- The top edge of the center of intensity on the screen for the low beam should be less than 101.6 mm (4 in) above or below the cross section of the headlamp centerlines.
- The left edge of the center of intensity on the screen for the low beam should be less than 101.6 mm (4 in) to the left or right of the cross section of the headlamp centerlines.

**Headlamp Aiming Alternative Procedure****Tools Required**

*J 25300-E* Headlamp Aimer

1. Prepare the vehicle.
2. Make sure all of the components are in place, if other work has been completed on the vehicle.
3. Park the vehicle on a level surface.
4. Stop all of the other work on the vehicle.
5. Make sure the vehicle has one-half tank of fuel or less.
6. Close the doors.
7. Rock sideways the vehicle.
8. Make sure the headlamps are not illuminated.
9. Using the *J 25300-E*, adjust the headlamps to the specifications required by the state and/or local authorities.
  - Follow the instructions accompanying the tool for aiming the headlamps.
  - The kit contains special adapters for use with the composite headlamps.

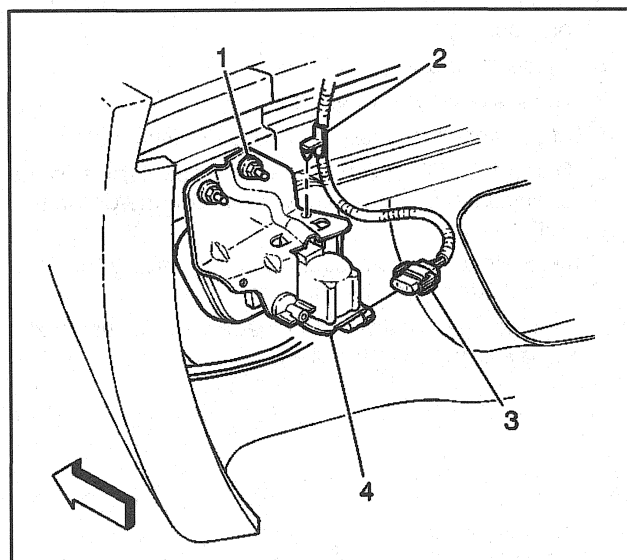


311568

### Fog Lamp Replacement - Front (Base)

#### Removal Procedure

1. Disconnect the electrical connector (3) from the fog lamp.
2. Remove the push pin retainers that attach the fog lamp to the bracket.
3. Remove the fog lamp adjuster bolt and spring from the adjuster nut.
4. Remove the fog lamp from the fog lamp bracket.
5. Remove the fog lamp bracket bolts and bracket, as needed.



311568

#### Installation Procedure

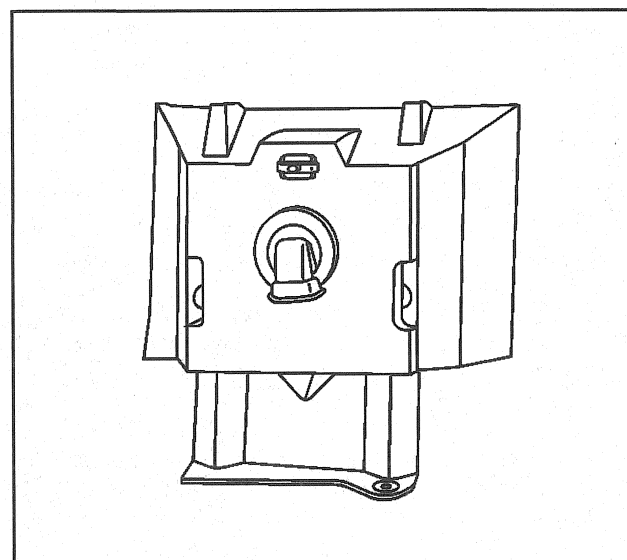
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

1. Install the fog lamp bracket bolts and bracket, as needed.

#### Tighten

Tighten the fog lamp bolt to 25 N·m (18 lb ft).

2. Install the fog lamp to the fog lamp bracket.
3. Install the fog lamp adjuster bolt and spring to the adjuster nut.
4. Install the push pin retainers that attach the fog lamp to the bracket.
5. Connect the electrical connector (3) to the fog lamp.
6. Reaim the fog lights. Refer to *Fog Lamp Aiming Procedure (Base, Luxury)*.



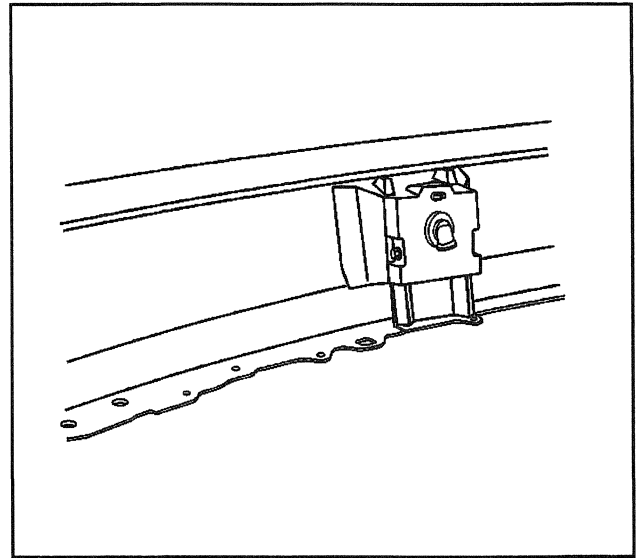
519954

### Fog Lamp Replacement - Front (Limited-Z-71 Tahoe)

#### Removal Procedure

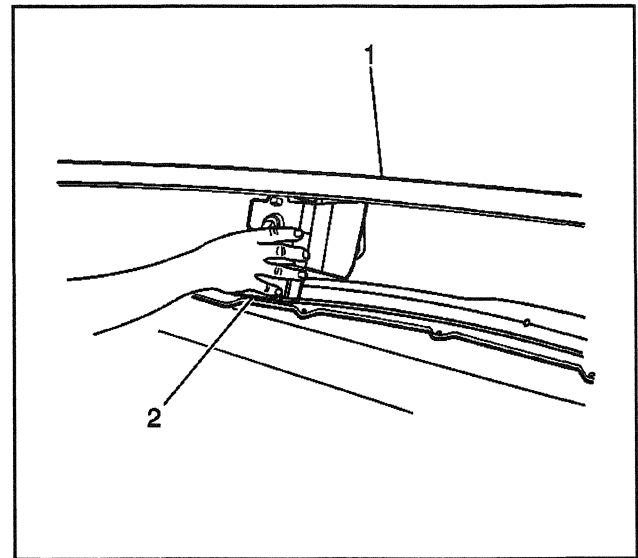
1. Disconnect the electrical connector from the fog lamp.

2. Remove the bolt from the bumper securing the fog lamp assembly housing.



519955

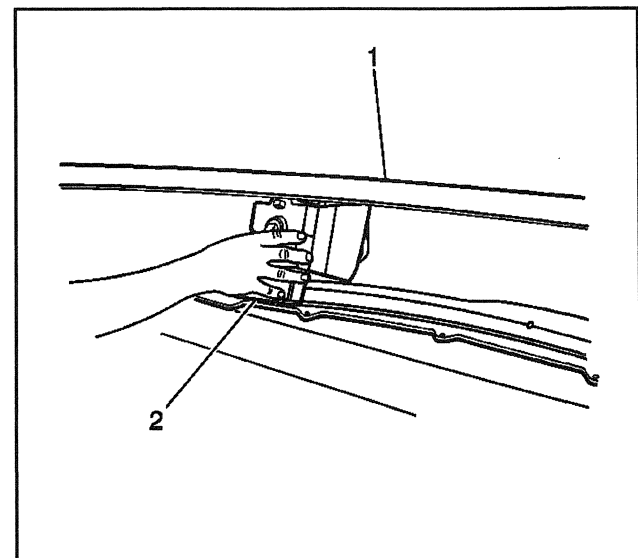
3. Rotate the fog lamp housing assembly (2) from under the bumper lip (1).
4. Remove the fog lamp assembly from the bumper.
5. Remove the foam backed tape from inside the bumper where the fog lamp mounts.



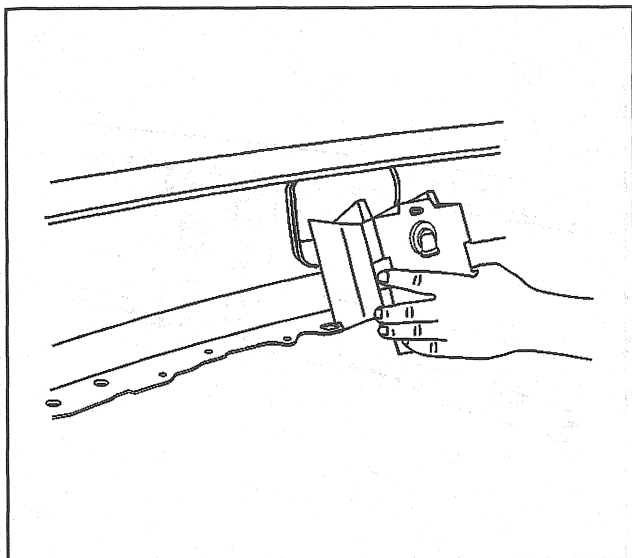
519959

### Installation Procedure

1. Install the foam backed tape around the inside of the bumper where the fog lamp mounts for vibration control.
2. Install the fog lamp assembly housing (2) by sliding top of assembly under the inside upper bumper lip (1).

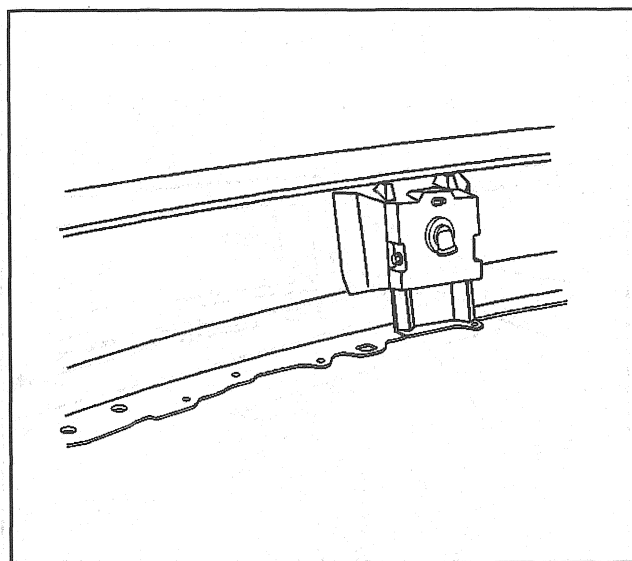


519959



519956

3. Rotate the bottom of the housing assembly into the bumper for a tight fit.



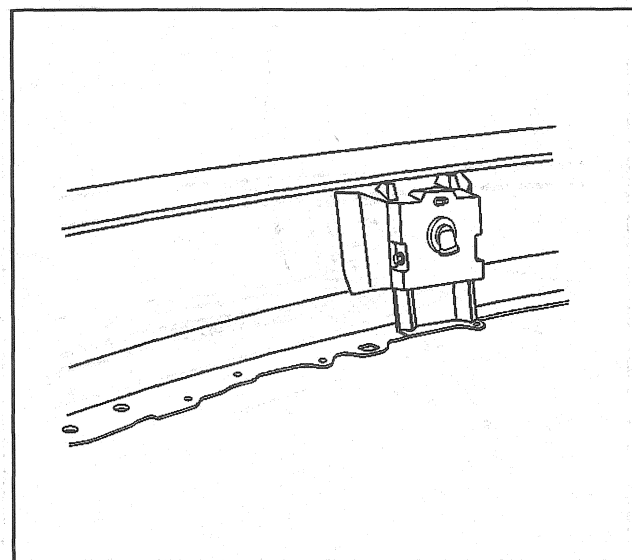
519955

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

4. Tighten the fog lamp housing assembly bracket bolt.

**Tighten**

Tighten the fog lamp housing assembly bracket bolt to 25 N·m (18 lb ft).



519955

5. Connect the electrical connector to the fog lamp.

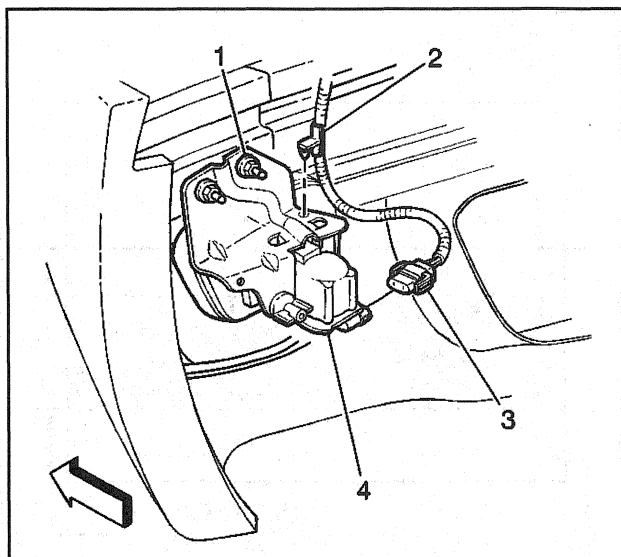
**Important:** Only vertical fog lamp aiming can be performed.

6. Reaim the fog lights. Refer to *Fog Lamp Aiming Procedure* (Z-71, Limited Tahoe).

**Fog Lamp Bulb Replacement - Front****Removal Procedure**

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

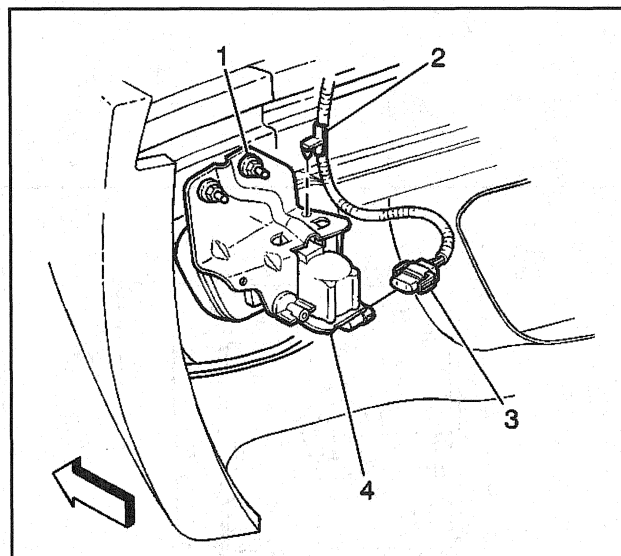
1. Remove the negative battery cable.
2. Remove the bulb from the bottom of the fog lamp assembly (4) by twisting counterclockwise and pulling out.



311568

**Installation Procedure**

1. Install the bulb to the bottom of the fog lamp assembly (4) by inserting the bulb and twisting clockwise.
2. Install the negative battery cable.

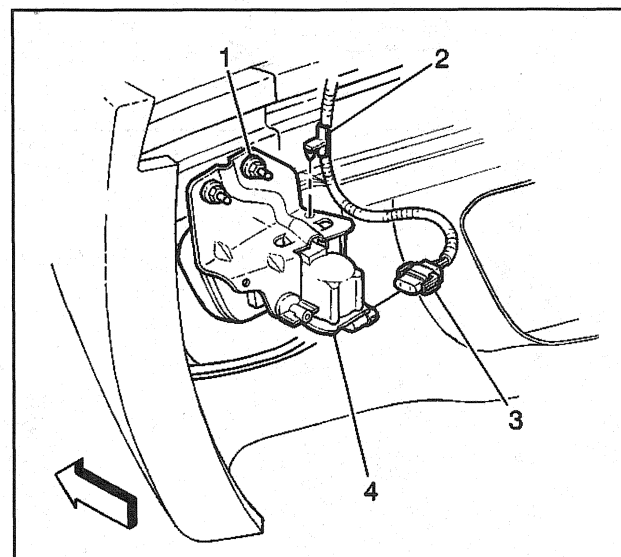


311568

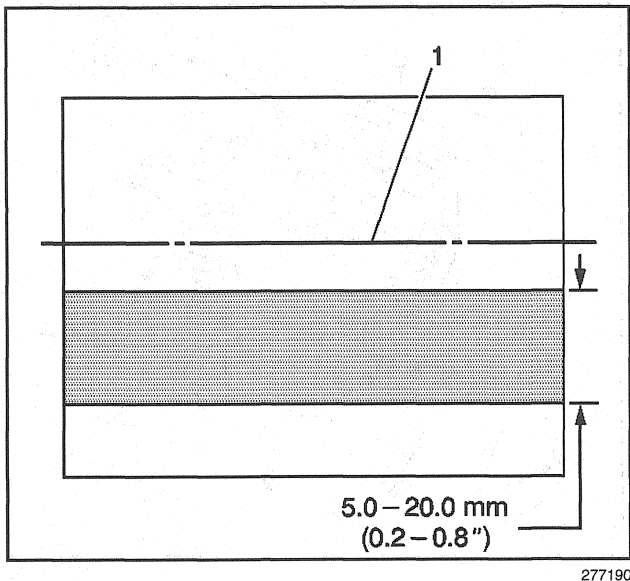
**Fog Lamp Aiming Procedure  
(Base, Luxury)**

The fog lamps are bracket-mounted (1) to the bumper. Prior to checking the aim of the fog lamps, prepare the vehicle by completing the following steps:

1. Make sure that all of the components are in place, if other work has been completed on the vehicle.
2. Park the vehicle on a level surface.
3. Stop all of the other work on the vehicle.
4. Make sure the vehicle has one-half tank of fuel or less.
5. Close the doors.
6. Rock sideways the vehicle.
7. Make sure the vehicle has no load other than the driver.



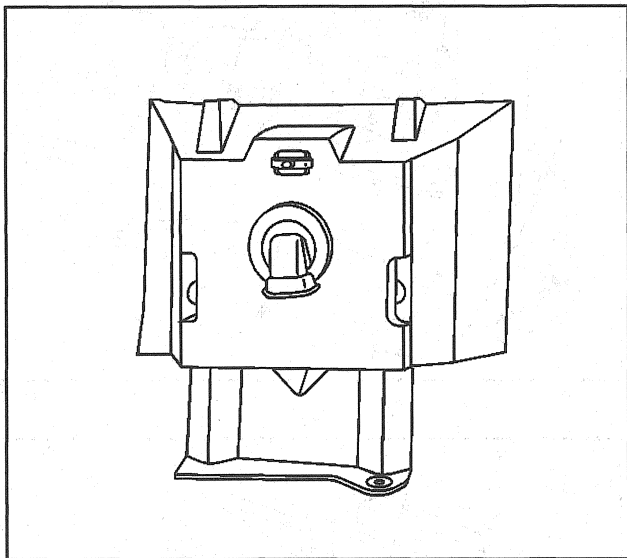
311568



1. Place a screen 760 mm (2.5 ft) in front of the vehicle.
2. Draw a horizontal line (1) at the same height as the centerline of the lamps.
3. Illuminate the fog lamps.  
The top edge of the high intensity zone should be 5–20 mm (0.2–0.8 in) below the centerline of the lamps.
4. Vertically adjust the headlamps by turning the adjuster on the rear of the fog lamp assembly.  
Horizontal adjustment of the lamps is not possible.
5. You can adjustment the fog lamps using the screen method. Refer to *Headlamp Aiming*.  
In order to adjust the fog lamps using the screen method, complete the following steps:

- 5.1. Park the vehicle 7.62 m (25 ft) in front of the screen.
- 5.2. Using tape, make a horizontal line on the screen at the same height as the centerline of the lamps.
- 5.3. Illuminate the fog lamps.

The top edge of the high intensity zone should be 101.6 mm (4 in) below the horizontal centerline of the fog lamps.



### Fog Lamp Aiming Procedure (Z-71, Limited Tahoe)

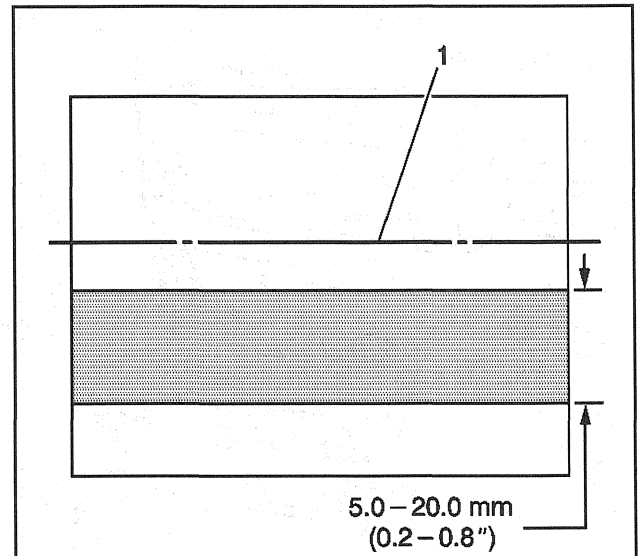
The fog lamp housing assemblies are bracket-mounted to the bumper.

Prior to checking the aim of the fog lamps, prepare the vehicle by completing the following steps:

1. Make sure that all of the components are in place, if other work has been completed on the vehicle.
2. Park the vehicle on a level surface.
3. Stop all of the other work on the vehicle.
4. Make sure the vehicle has one-half tank of fuel or less.
5. Close the doors.
6. Rock sideways the vehicle.
7. Make sure the vehicle has no load other than the driver.

1. Place a screen 760 mm (2.5 ft) in front of the vehicle.
2. Draw a horizontal line (1) at the same height as the centerline of the lamps.
3. Illuminate the fog lamps.  
The top edge of the high intensity zone should be 5–20 mm (0.2–0.8 in) below the centerline of the lamps.
4. Vertically adjust the headlamps by turning the adjuster on the front of the fog lamp assembly.  
Horizontal adjustment of the lamps is not possible.
5. You can adjustment the fog lamps using the screen method. Refer to *Headlamp Aiming*.  
In order to adjust the fog lamps using the screen method, complete the following steps:
  - 5.1. Park the vehicle 7.62 m (25 ft) in front of the screen.
  - 5.2. Using tape, make a horizontal line on the screen at the same height as the centerline of the lamps.
  - 5.3. Illuminate the fog lamps.

The top edge of the high intensity zone should be 101.6 mm (4 in) below the horizontal centerline of the fog lamps.

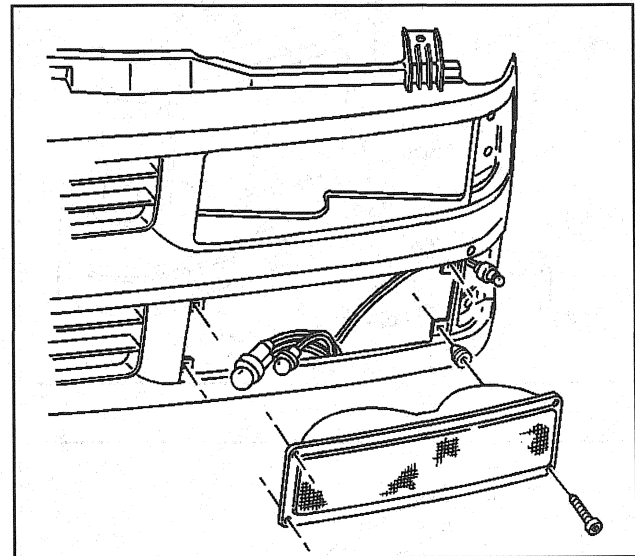


277190

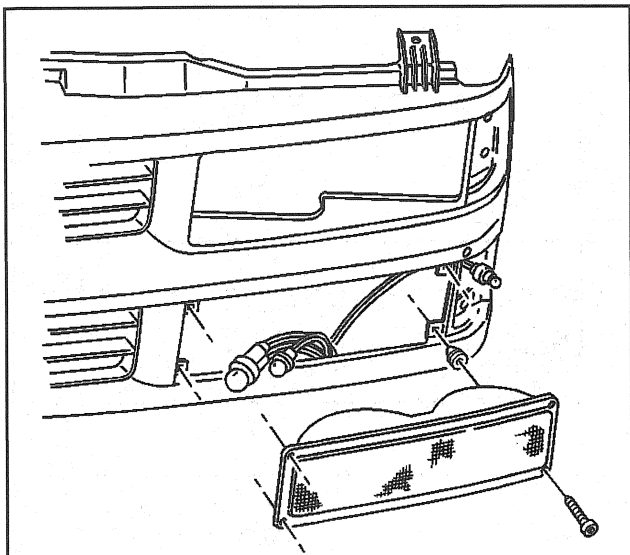
### Park/Turn Signal Lamp Replacement (Base with Composite)

#### Removal Procedure

1. Make sure the headlamp switch is in the OFF position.
2. Remove the screws.
3. Remove the park/turn signal lamp assembly.
4. Disconnect the electrical connector.
5. Remove the bulbs from the assembly.



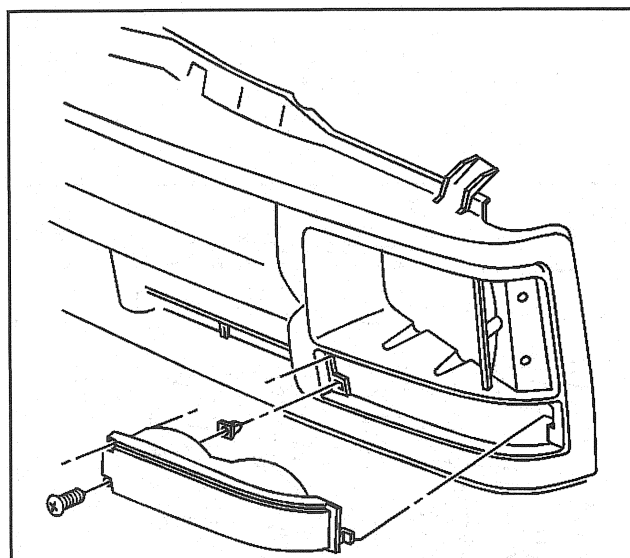
277195



277195

**Installation Procedure**

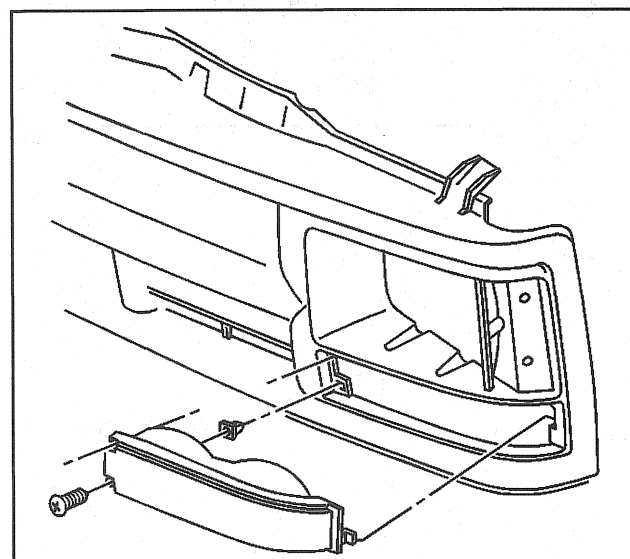
1. Install the bulbs to the park/turn signal lamp assembly.
2. Install the lamp assembly.
3. Connect the park/turn signal lamp connector.
4. Install the screws.



277198

**Park/Turn Signal Lamp Replacement (Base with Sealed Beam)****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Remove the screws.
3. Remove the park/turn signal lamp assembly.
4. Disconnect the electrical connector.
5. Remove the bulbs from the assembly.



277198

**Installation Procedure**

1. Install the bulbs to the park/turn signal lamp assembly.
2. Insert the tab into the grille.
3. Install the lamp assembly.
4. Connect the park/turn signal lamp connector.
5. Install the screws.

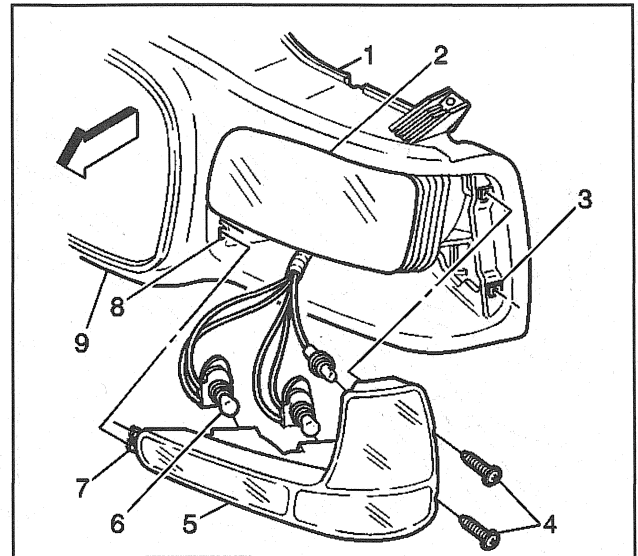


## Park/Turn Signal Lamp Replacement (Luxury)

### Removal Procedure

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

1. Remove the negative battery cable.
2. Remove the park/turn signal lamp assembly (5).
3. Remove the park/turn signal bulbs/connectors (6) from the lamp assembly.



288174

### Installation Procedure

1. Install the park/turn signal bulbs/connectors (6) to the lamp assembly.
2. Install the park/turn signal lamp assembly by sliding the tabs (7) into the grille slots.

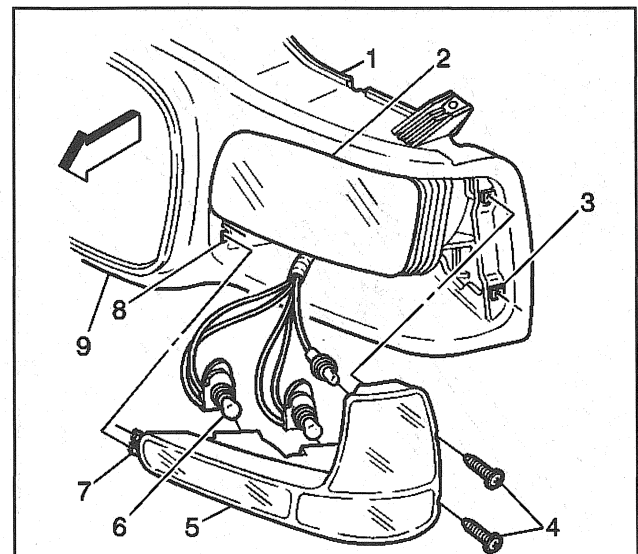
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

3. Install the screws (4).

#### Tighten

Tighten the screws to 1.5 N·m (13 lb in).

4. Install the negative battery cable.



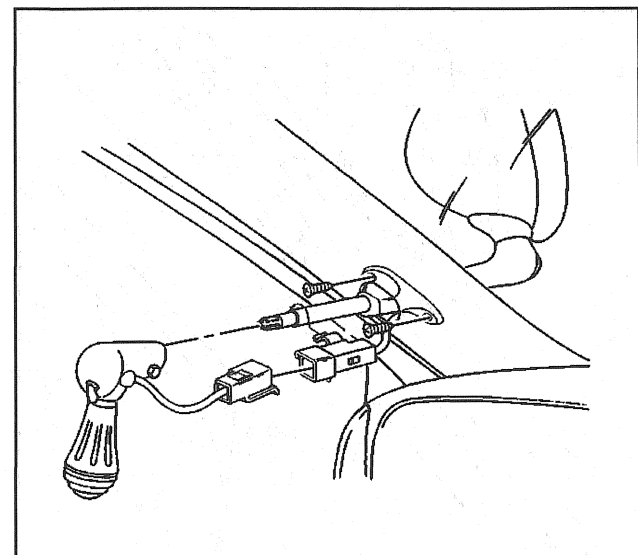
288174

## Spotlamp Replacement

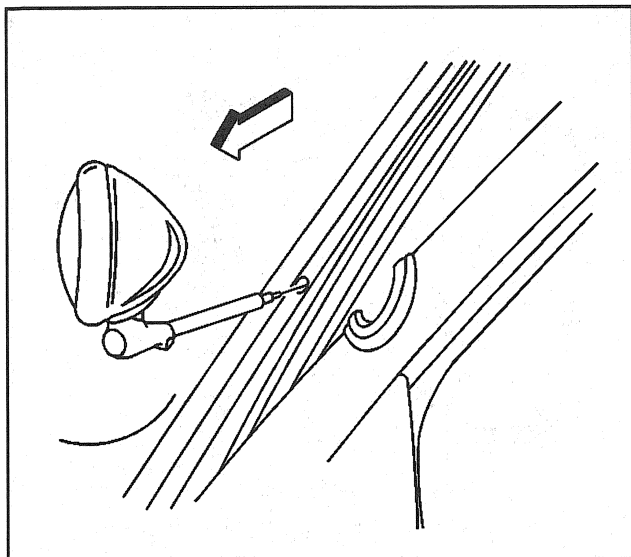
### Removal Procedure

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

1. Disconnect the negative battery cable(s).
2. Remove the spotlamp wedge key screw.
3. Remove the handle from the outer tube shaft.
4. Remove the collar.
5. Remove the wire clip.
6. Disconnect the electrical connector.
7. Remove the bracket set screw.

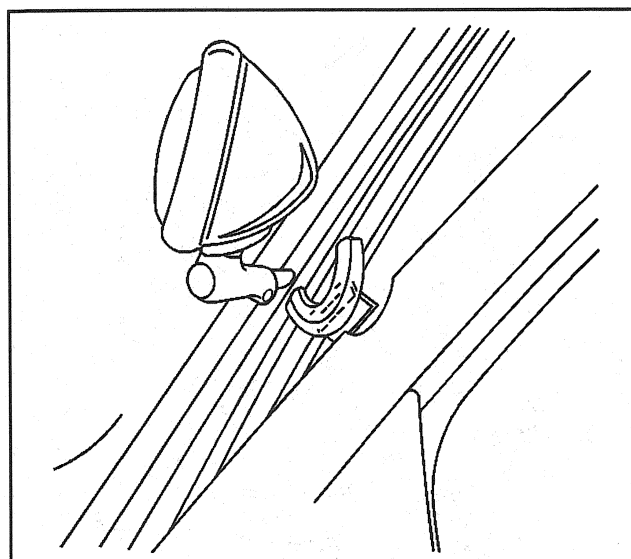


277218



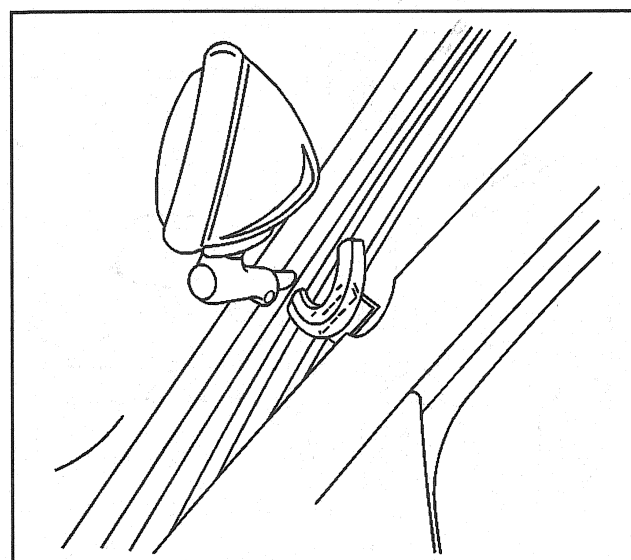
277216

8. Pull the spotlamp and shaft out of the bracket.
9. Remove the spotlamp mounting bracket screws.



277219

10. Remove the mounting bracket from the A pillar.
11. Remove the gasket from the A pillar.



277219

### Installation Procedure

1. Install the gasket to the A pillar.
2. Install the mounting bracket to the A pillar.

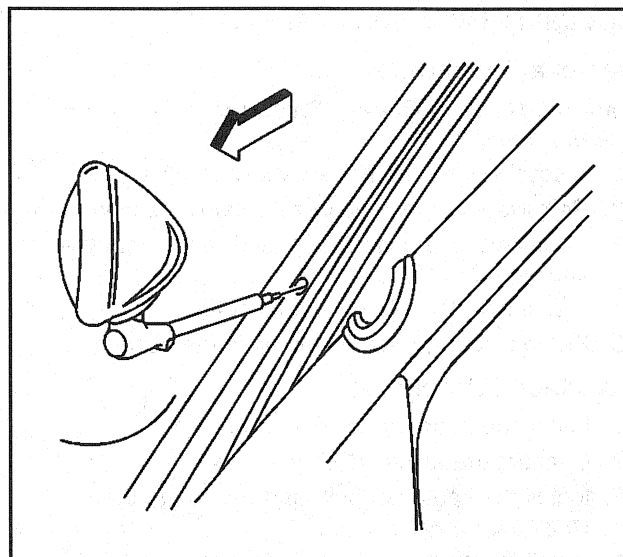
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

3. Install the mounting bracket screws.

### Tighten

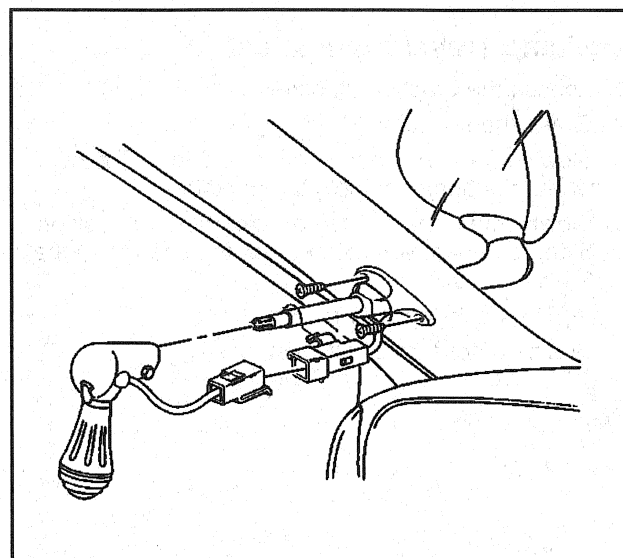
Tighten the mounting bracket screws to 15 N·m (11 lb ft).

4. Install the spotlight and shaft through the A pillar into the mounting bracket.
5. Rotate the spotlight to the upright position. Point the spotlight forward.



277216

6. Install the bracket set screw.
7. Tighten the set screw just enough in order to firmly hold the spotlight in the upright position.
8. Install the wire clip.
9. Install the collar.
10. Connect the electrical connector.
11. Install the handle onto the outer tube shaft.
12. Install the spotlight wedge key screw.
13. Connect the negative battery cable(s).



277218

## Spotlamp Bulb Replacement

### Removal Procedure

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

1. Disconnect the negative battery cable(s).
2. Remove the spotlamp bezel retaining screw.
3. Remove the spotlamp bulb and bezel from the spotlamp housing.
4. Disconnect the electrical connectors.
5. Remove the spotlamp bulb from the bezel.

### Installation Procedure

1. Install the spotlamp bulb into the bezel.
2. Connect the electrical connectors.
3. Install the spotlamp bulb and bezel into the spotlamp housing.
4. Install the spotlamp bezel retaining screw.
5. Connect the negative battery cable(s).

## Spotlamp Travel Adjustment

1. Loosen the bracket set screw.
2. Grasp the spotlamp.  
Slowly rotate the spotlamp inboard to the point where the shaft contacts the parkstop.
3. Slowly rotate the spotlamp outboard to a position 5 degrees past vertical in order to accomplish the following results:
  - The backstop is in motion.
  - The outer tube shaft rotates.

4. Tighten the bracket set screw enough in order to prevent the shaft tube from rotating while the stoplamp moves between stop positions.
5. Rotate the spotlamp head inboard in order to position the parkstop.

This prevents the stoplamp from making contact with the body components.

6. Position the parkstop of the shaft in order to accomplish the following results:
  - Rotation of the spotlamp on the axis
  - Clearance of the spotlamp from the nearest body components by 0.5–13.0 mm (0.02–0.50 in)
7. Tighten the bracket set screw in order to prevent rotation of the spotlamp shaft.

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

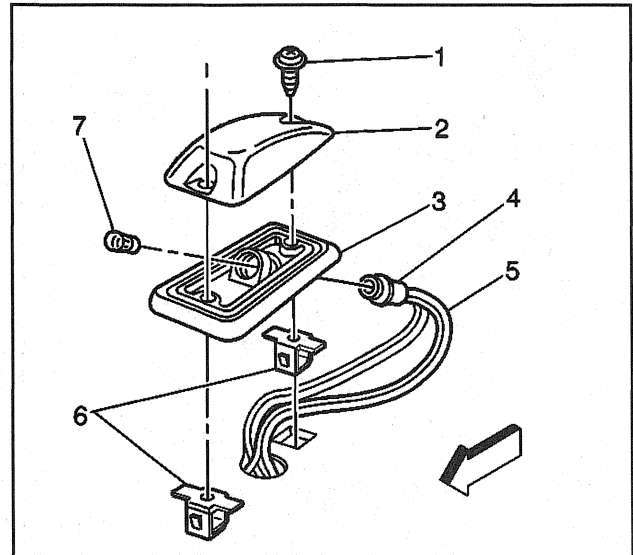
8. Adjust the spotlamp head clamping screw in order to accomplish the following results:
  - The spotlamp rotates easily on the shaft.
  - The spotlamp head clamping screw holds the spotlamp in any adjusted position between the parkstop and the backstop.
  - The total range of motion of the spotlamp head is approximately 90 degrees.

### Tighten

Tighten the head clamping screw to 3 N·m (27 lb in).

**Marker Lamp Replacement - Roof****Removal Procedure**

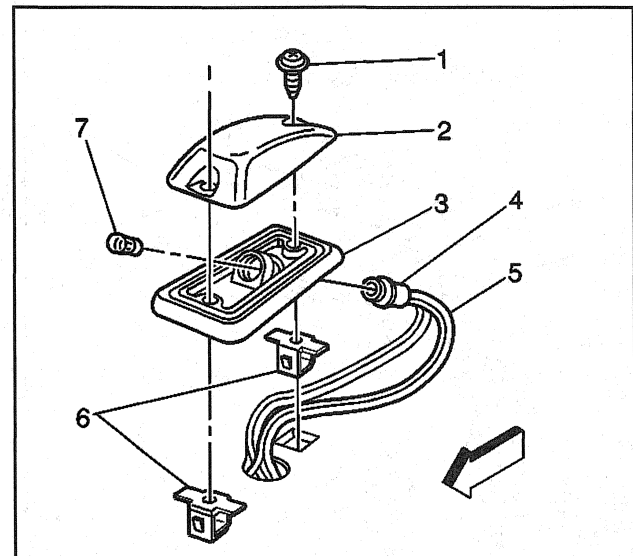
1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens screws (1).
3. Remove the lens (2).
4. Remove the insulator (3).
5. Remove the bulb (7).



277236

**Installation Procedure**

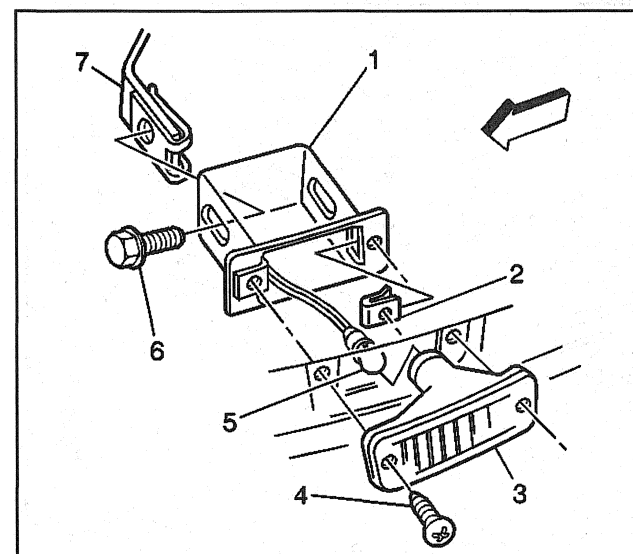
1. Install the bulb (7).
2. Install the insulator (3).
3. Install the lens (2).
4. Install the lens screws (1).



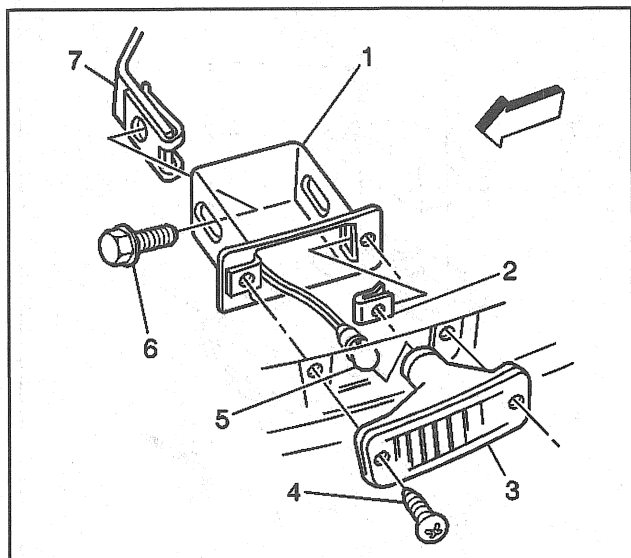
277236

**Clearance Lamp Replacement****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lamp assembly screws (4).
3. Remove the lamp assembly (3) from the fender.
4. Disconnect the electrical connector and bulb (5) from the lamp.
5. Remove the bulb from the socket.



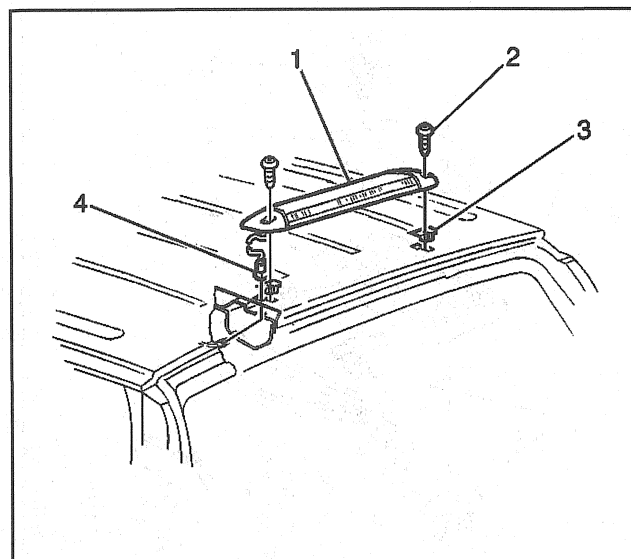
277233



277233

### Installation Procedure

1. Install the bulb (5) to the socket.
2. Connect the electrical connector and bulb to the lamp (3).
3. Install the lamp assembly to the fender.
4. Install the lamp assembly screws (4).

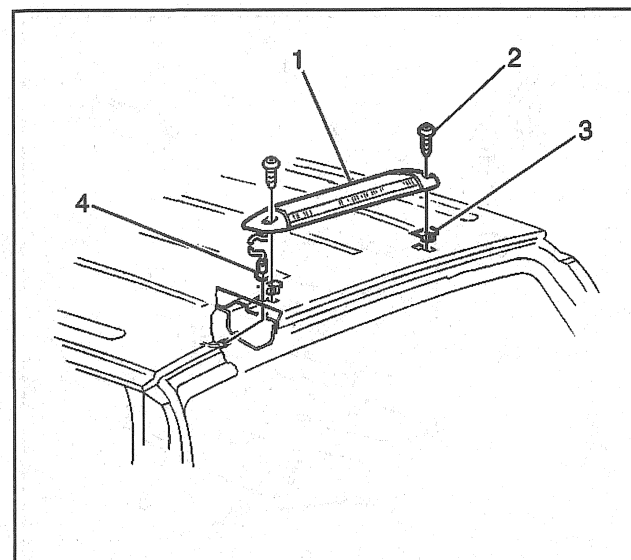


277175

### High Mounted Stoplamp Replacement

#### Removal Procedure

1. Make sure the headlamp switch is in the OFF position.
2. Remove the upper garnish molding at the headliner.
3. Pull back the right and left side rear window garnish molding.
4. Lower the rear of the headliner in order to access the electrical connector.
5. Disconnect the electrical connector (4).
6. Attach a short piece of wire to the high mounted stoplamp connector in order to assist the guiding of the harness through the body.
7. Remove the high mounted stoplamp screws (2).
8. Remove the high mounted stoplamp (1) from the vehicle.



277175

#### Installation Procedure

1. Attach the harness to the guide wire.
2. Using the guide wire, pull the lamp wire through the hole in the roof panel.
3. Remove the guide wire.

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

4. Install the high mounted stoplamp (1) to the vehicle with the screws (2).

#### Tighten

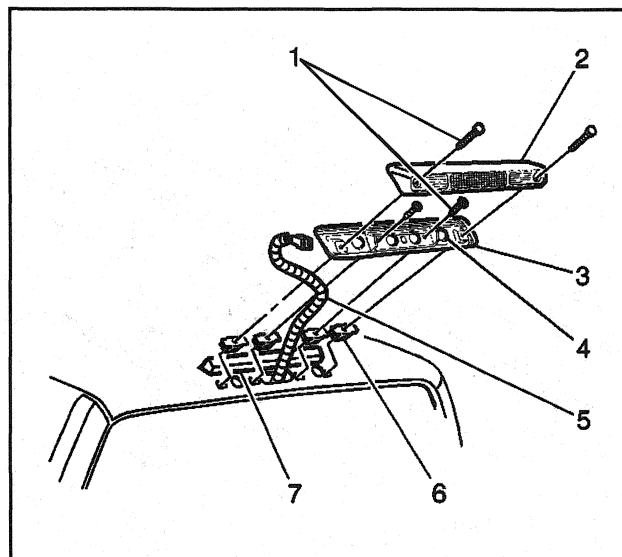
Tighten the high mounted stoplamp screws to 2 N·m (17 lb in).

5. Connect the electrical connector (4).
6. Install the headliner.
7. Install the left and right side rear window garnish molding.
8. Install the rear upper garnish molding.

## Cargo Lamp Replacement

### Removal Procedure

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens screws (1).
3. Remove the lens (2).
4. Remove the bulb (4).
5. Remove the lamp assembly screws (1).
6. Remove the lamp assembly (3) from the roof.
7. Disconnect the wiring harness (5) from the lamp assembly.
8. Remove the gasket (7) from the roof.



277171

### Installation Procedure

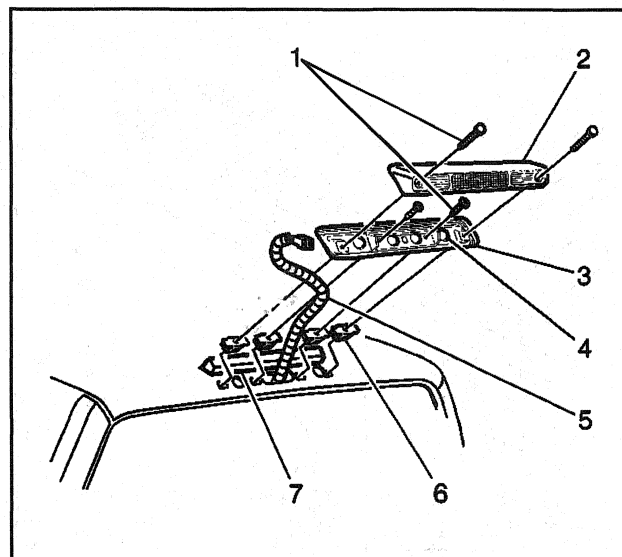
1. Install the gasket (3) to the roof.
2. Connect the wiring harness (5) to the lamp assembly (3).
3. Install the lamp assembly to the roof.
4. Install the lamp assembly screws (1).
5. Install the bulb (4).
6. Install the lens (2).

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

7. Install the cargo lamp retaining screws (1).

#### Tighten

Tighten the cargo lamp retaining screws to 2.0 N·m (17 lb in).

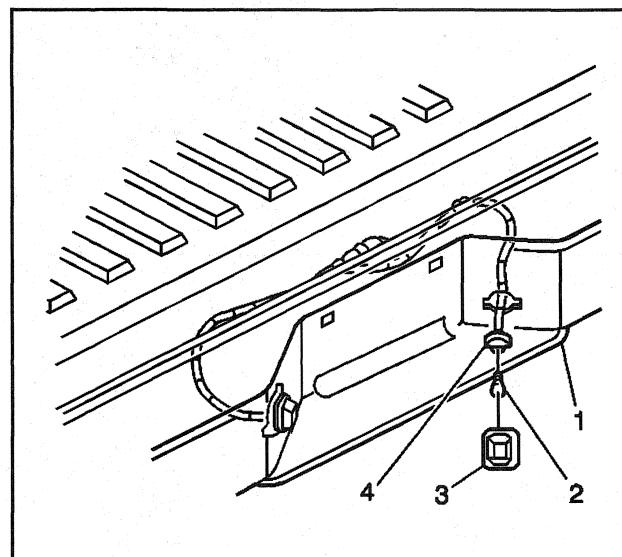


277171

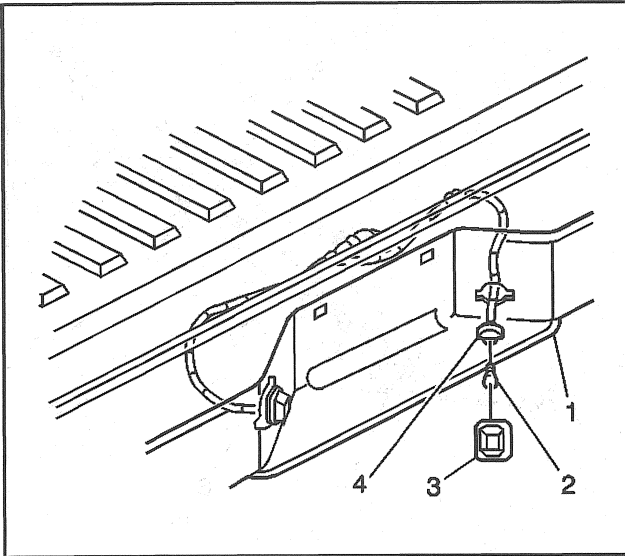
## License Lamp Replacement (W/ Step Bumper)

### Removal Procedure

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens (3) from the lamp assembly.
3. Remove the bulb (2).



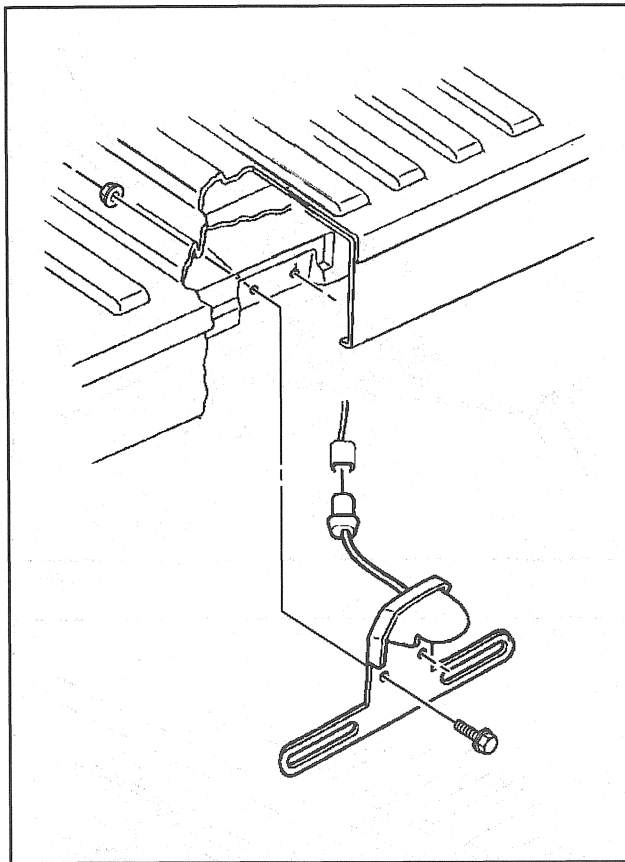
277223



277223

**Installation Procedure**

1. Install the bulb (2).
2. Install the lens (3) to the lamp assembly.
3. Install the wiring (4) to the back of the lens assembly.



277225

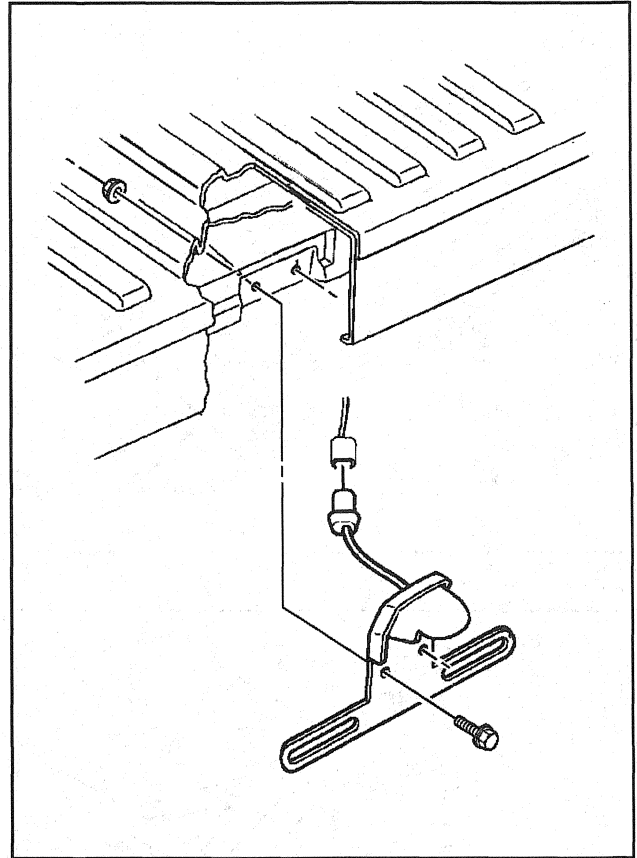
**License Lamp Replacement (W/O Step Bumper)****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens from the lamp assembly.
3. Remove the bulb.



**Installation Procedure**

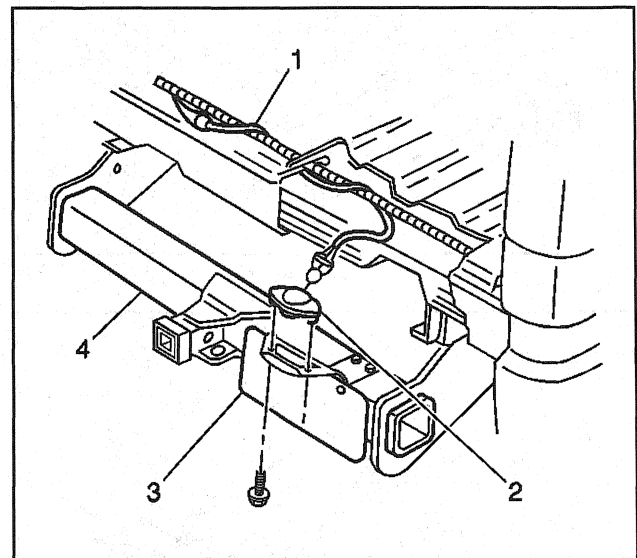
1. Install the bulb.
2. Install the lens to the lamp assembly.
3. Install the wiring to the back of the lens assembly.



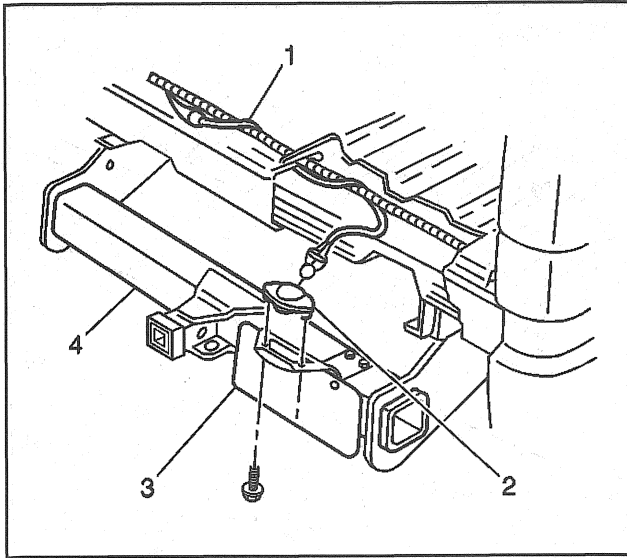
277225

**License Lamp Replacement  
(Pickup w/ Platform Hitch)****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens (2) from the lamp assembly.
3. Remove the bulb.



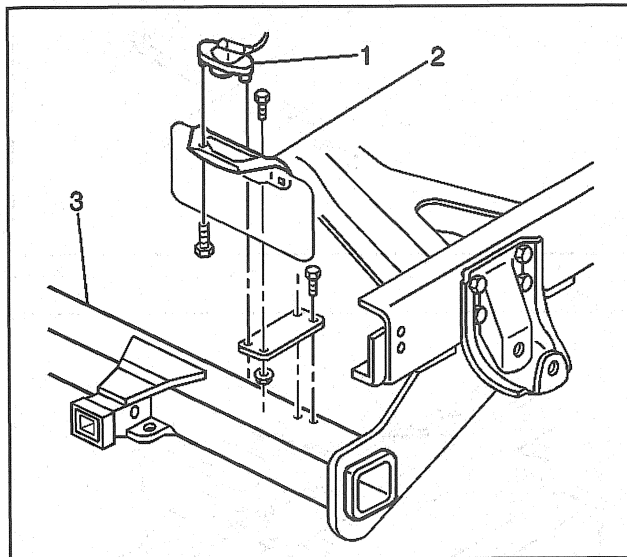
277227



277227

**Installation Procedure**

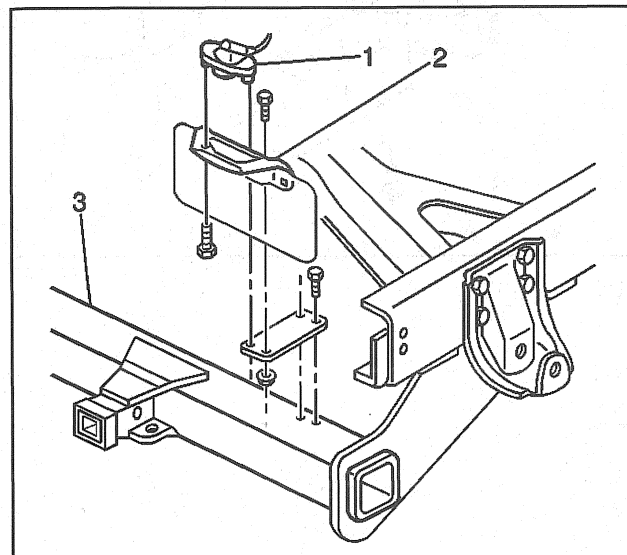
1. Install the bulb.
2. Install the lens (2) to the lamp assembly.
3. Install the wiring (1) to the back of the lens assembly.



277229

**License Lamp Replacement  
(Cab/Chassis w/ Platform Hitch)****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens (1) from the lamp assembly.
3. Remove the bulb.



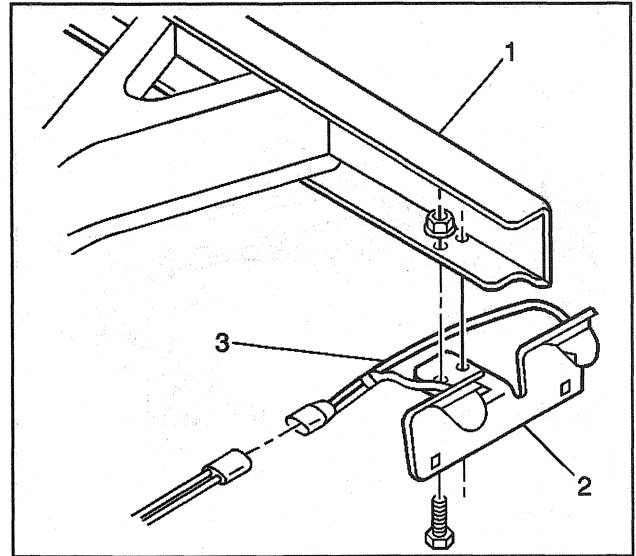
277229

**Installation Procedure**

1. Install the bulb.
2. Install the lens (1) to the lamp assembly.
3. Install the wiring to the back of the lens assembly.

**License Lamp Replacement  
(Pickup w/o Bumper)****Removal Procedure**

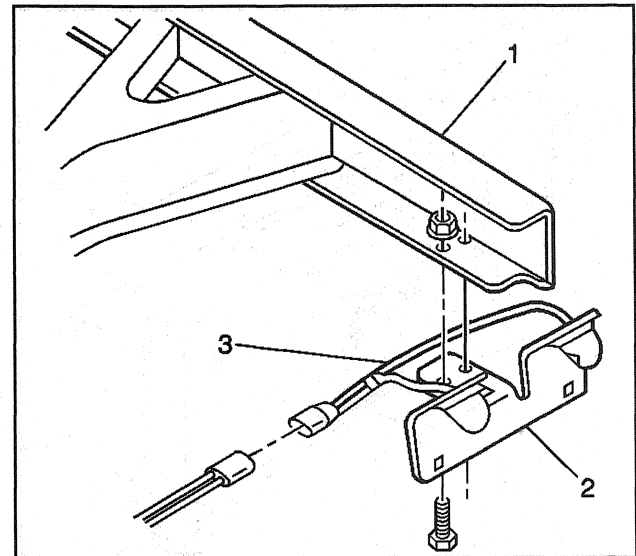
1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens from the lamp assembly (2).
3. Remove the bulb.



277232

**Installation Procedure**

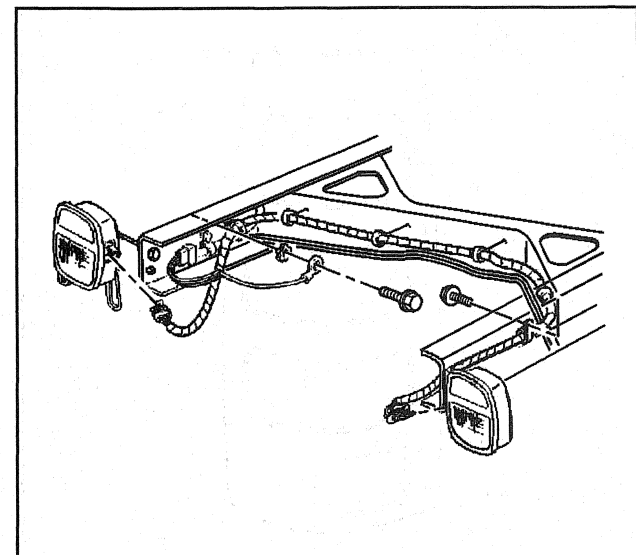
1. Install the bulb.
2. Install the lens to the lamp assembly (2).
3. Install the wiring (3) to the back of the lens assembly.



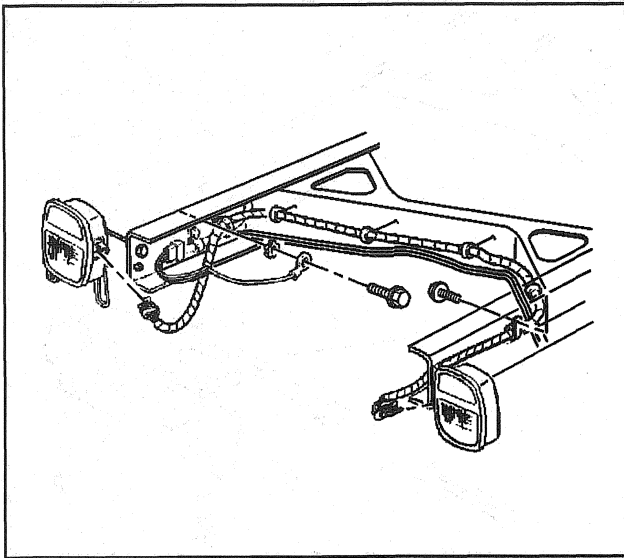
277232

**Tail/Turn Signal Lamp  
Replacement (Cab/Chassis)****Removal Procedure**

1. Disconnect the lamp electrical connector from the lamp assembly.
2. Remove the nuts from the back of the bracket.
3. Remove the lamp assembly from the bracket.
4. Remove the 4 lens screws.
5. Remove the lens.
6. Remove the gasket.
7. Remove the bulb.



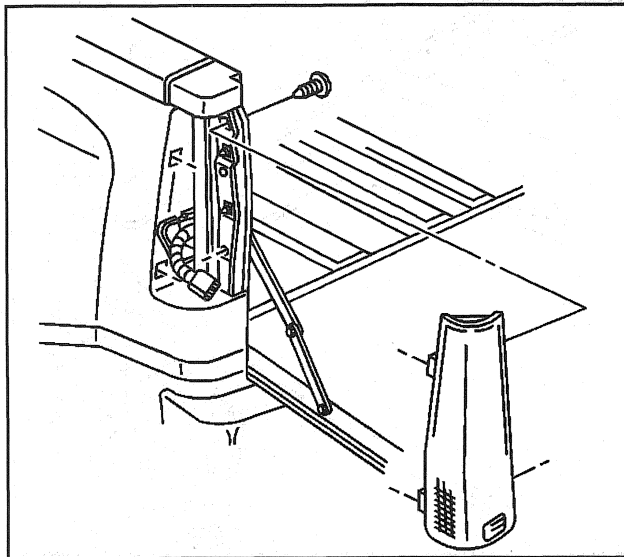
277239



277239

**Installation Procedure**

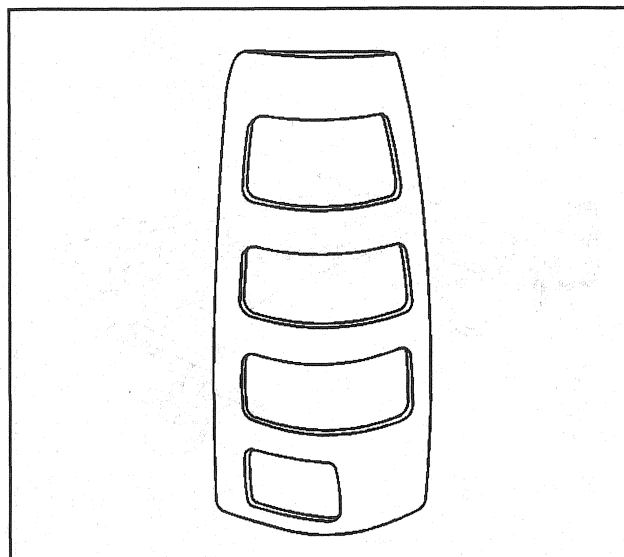
1. Install the lamp assembly to the bracket.
2. Install the nuts.
3. Connect the electrical connector to the lamp assembly.
4. Install the bulb.
5. Install the gasket.
6. Install the lens.
7. Install the 4 screws.



277240

**Tail/Turn Signal Lamp Replacement (Pickup, Suburban, Utility, Z-71 Tahoe)****Removal Procedure**

1. Make sure the headlamp switch is in the OFF position.
2. Lower the endgate or open the cargo doors.

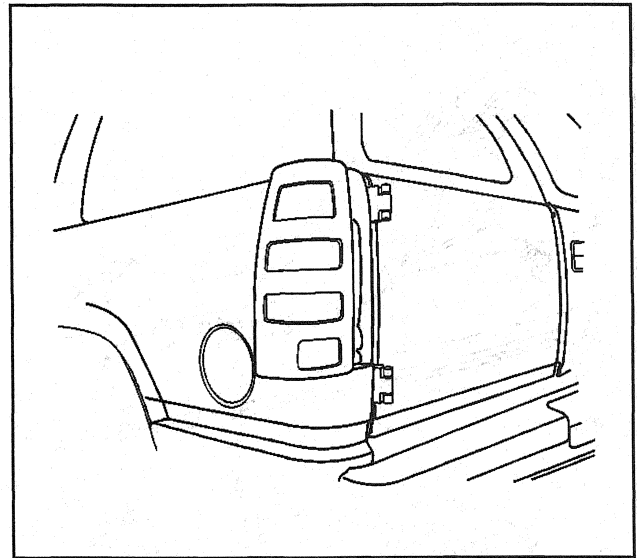


519971

**Important:** Z-71 Tahoes have a rear tail lamp cover. Once the cover is installed removal will result in breakage of the cover.

3. Remove the 2 screws retaining the tail/turn signal lamp assembly to the body.

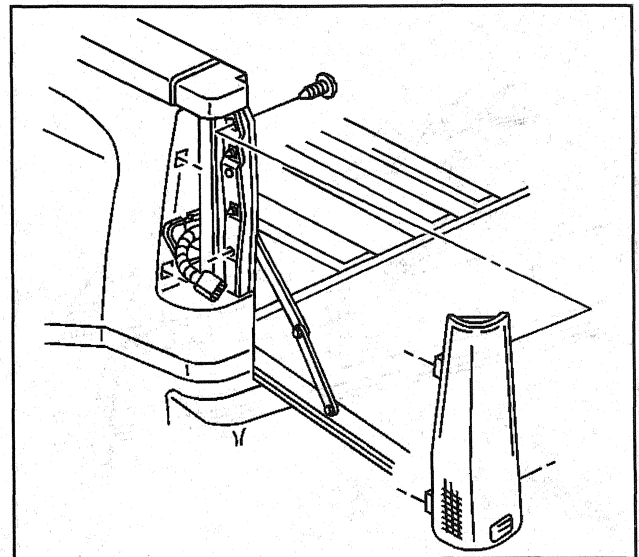
4. Rotate the tail/turn signal lamp assembly from the vehicle.
5. Disconnect the electrical connector from the assembly.
6. Identify the bulb in need of replacement.
  - The top bulb is a parking lamp.
  - The center bulb is a parking, brake, and turn indicator lamp.
  - The lower bulb is a backup lamp.
7. Pull the bulb straight out by the tabs on the base of the bulb in order to remove the bulb.



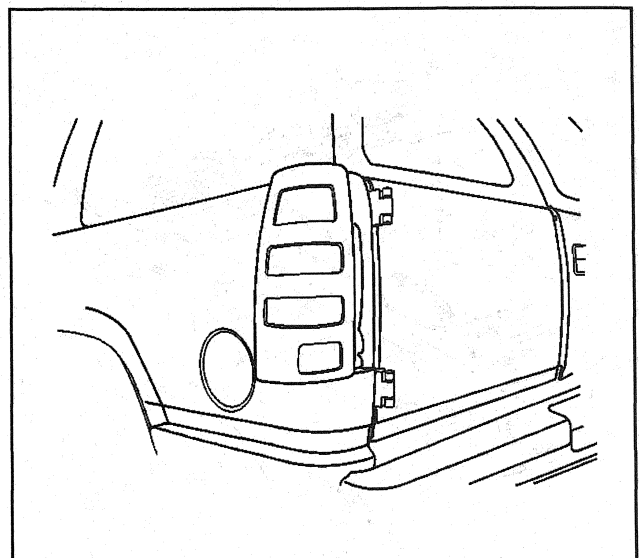
519972

### Installation Procedure

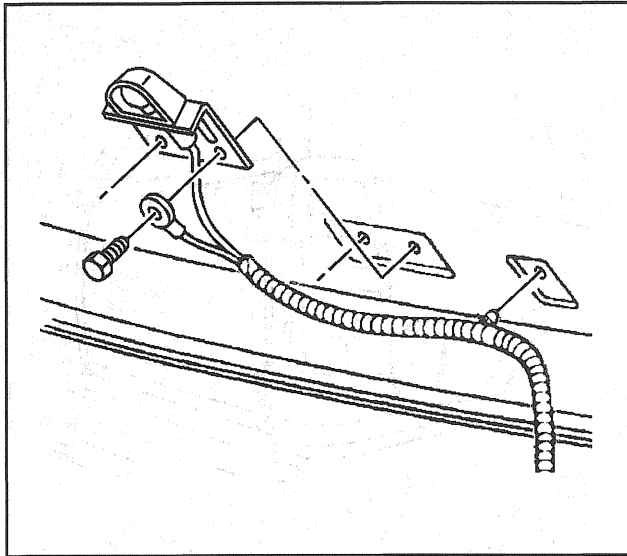
1. Push the bulb straight into the lamp assembly in order to install the bulb.
  2. Install the lamp base to the lens assembly with the 2 screws.
  3. Connect the electrical connector.
- 
4. Install the tail/turn signal lamp assembly to the vehicle with the 2 screws.



277240



519972



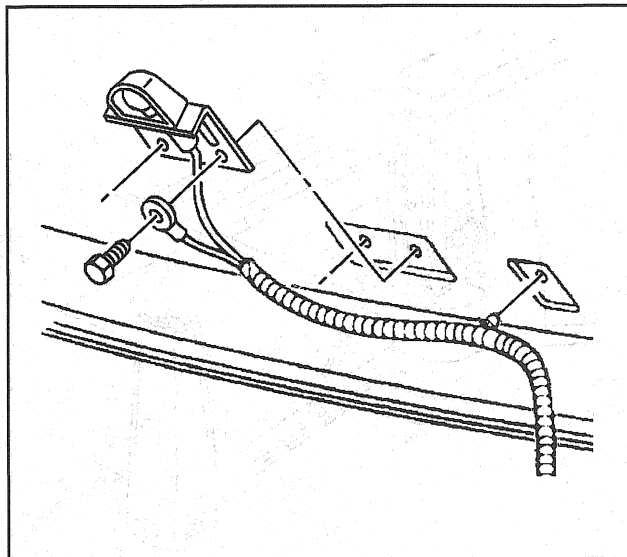
277242

## Underhood Lamp Replacement

### Removal Procedure

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

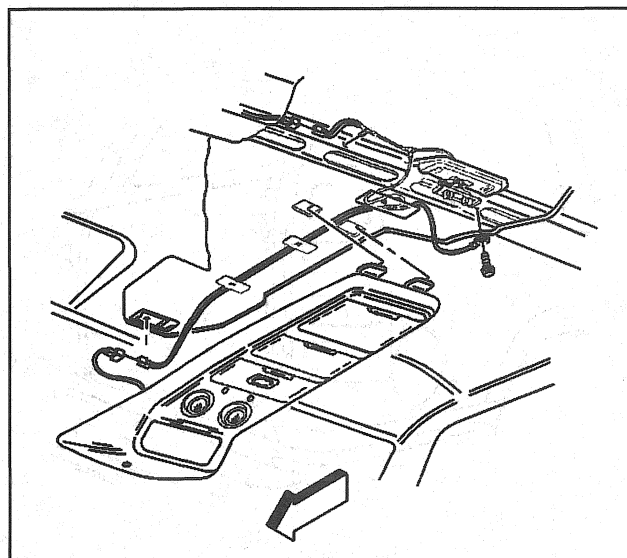
1. Disconnect the negative battery cable(s).
2. Disconnect the in-line electrical connector.
3. Remove the screws.
4. Remove the underhood lamp from the hood.



277242

### Installation Procedure

1. Install the underhood lamp to the hood.
2. Install the screws.
3. Connect the in-line electrical connector.
4. Connect the negative battery cable(s).



277266

## Console Lamp Replacement

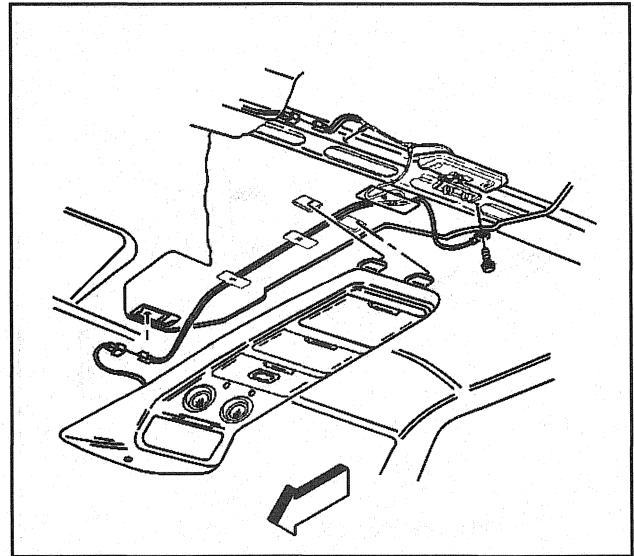
### Removal Procedure

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

1. Disconnect the negative battery cable(s).
2. Remove the lamp assembly by completing the following steps:
  - 2.1. Push upward against the reading lamp assembly.
  - 2.2. Turn the reading lamp assembly counterclockwise.
  - 2.3. Lower the assembly from the console.
3. Remove the bulb and base assembly from the back of the assembly.
4. Remove the bulb from the base by pulling the bulb straight out of the base.

**Installation Procedure**

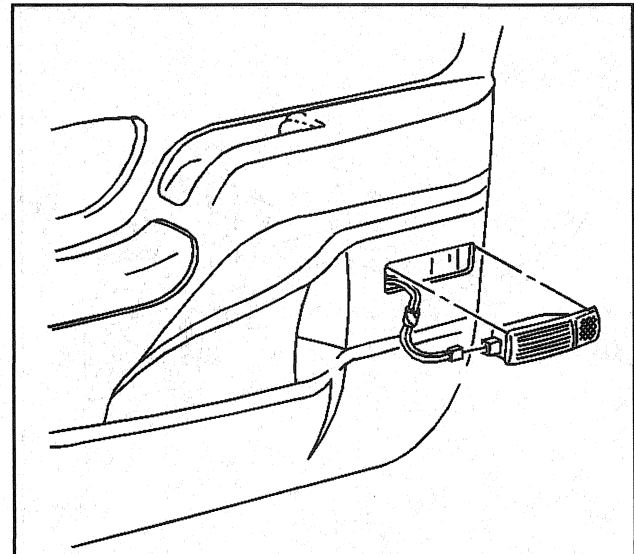
1. Install the bulb into the base by pushing the bulb straight into the base.
2. Install the bulb and base assembly into the lens and socket assembly.
3. Install the lamp assembly into the console by pushing the lamp assembly into the console.
4. Turn the lamp assembly clockwise.
5. Connect the negative battery cable(s).



277266

**Courtesy Lamp/Reflector Replacement - Door****Removal Procedure**

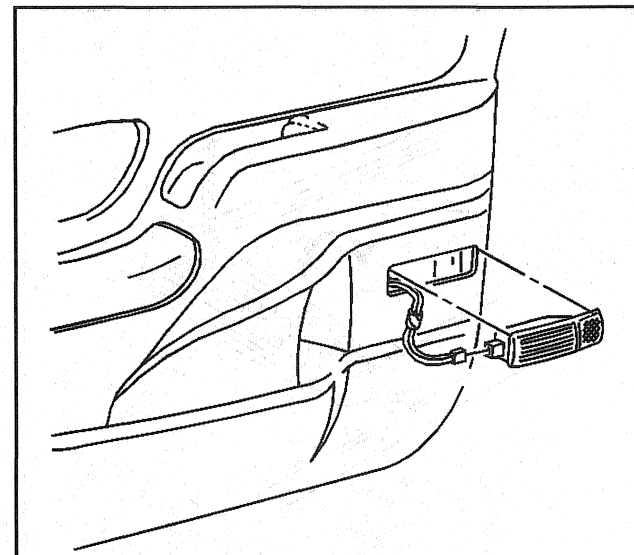
1. Remove the trim panel. Refer to *Trim Panel Replacement - Side Rear Door*.
  2. Disconnect the wiring connector to the courtesy lamp.
  3. Carefully release the lamp assembly retainers with a flat-blade tool.
- Remove the lamp from the trim panel.



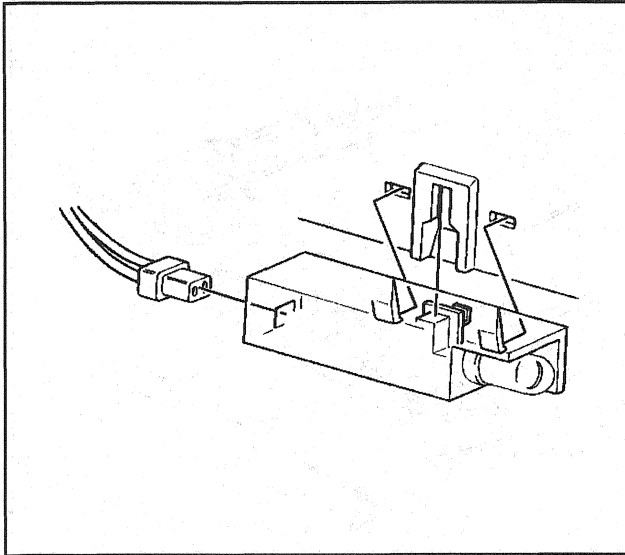
277811

**Installation Procedure**

1. Snap the lamp assembly into the trim panel.
2. Connect the wiring connector.
3. Install the trim panel. Refer to *Trim Panel Replacement - Side Rear Door*.



277811

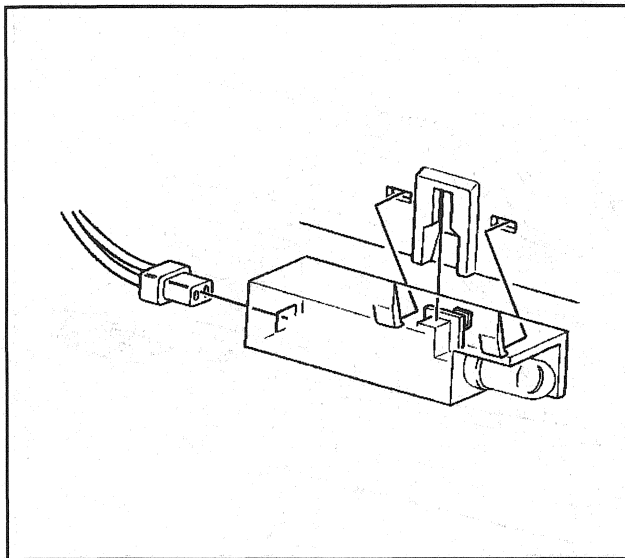


277264

## IP Compartment Lamp Replacement

### Removal Procedure

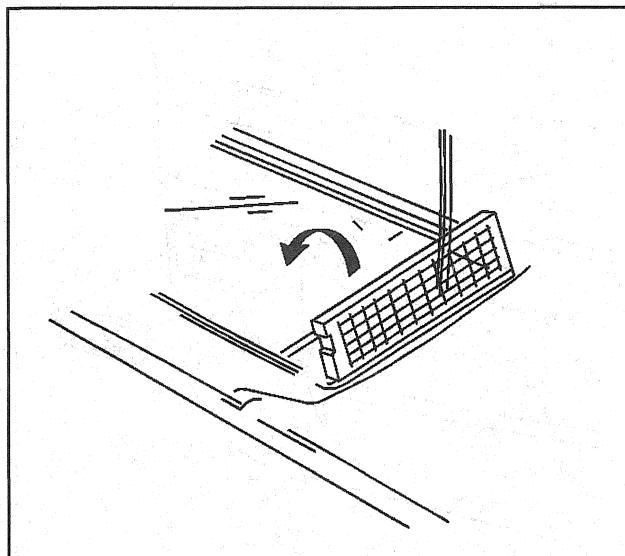
1. Make sure the headlamp switch is in the OFF position.
2. Remove the instrument panel storage compartment.
3. Depress the switch plunger.
4. Pull the switch assembly downward from the retainer.
5. Disconnect the electrical connector.
6. Remove the shield from the switch assembly.
7. Remove the bulb from the switch assembly.



277264

### Installation Procedure

1. Install the bulb into the socket.
2. Install the shield to the switch assembly.
3. Connect the electrical connector.
4. Depress the switch plunger.
5. Slide the assembly upward into the retainer.
6. Install the instrument panel storage compartment.



277269

## Vanity Mirror Lamp Replacement

### Removal Procedure

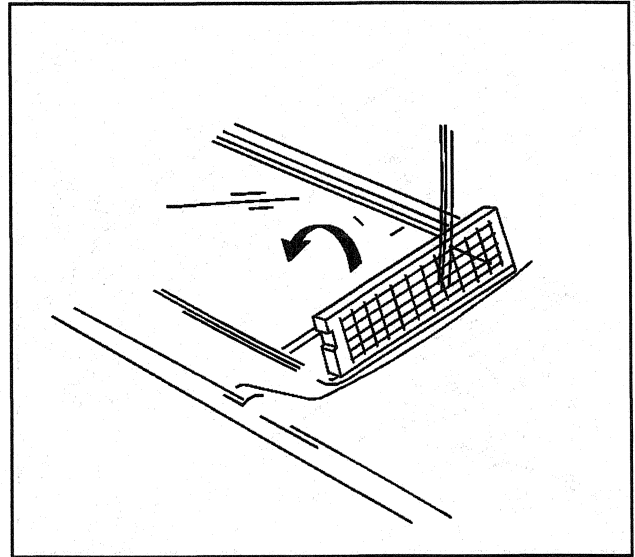
The vanity mirror is an integral part of the sunshade. If the vanity mirror is damaged, replace the sunshade assembly. Replace separately only the bulbs.

1. Lift the cover on the vanity mirror.
2. Pry out the lamp lens.
3. Gently pry out the lamp bulb.



**Installation Procedure**

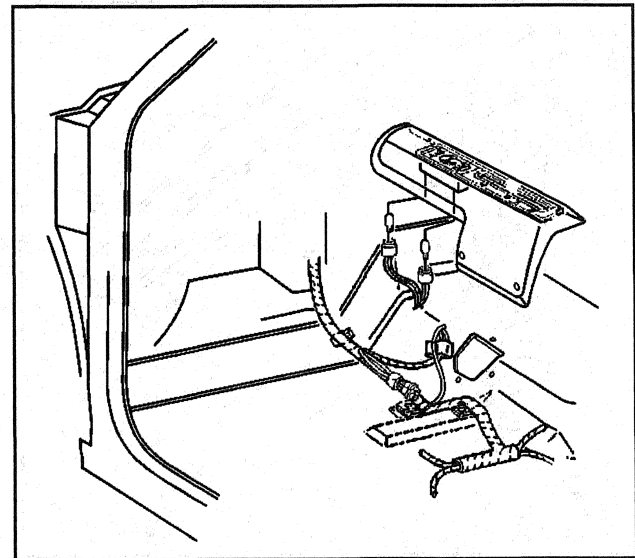
1. Press in the lamp bulb.
2. Snap in the lamp lens.



277269

**Trans Flr Shift Control Indicator Lamp Replacement****Removal Procedure**

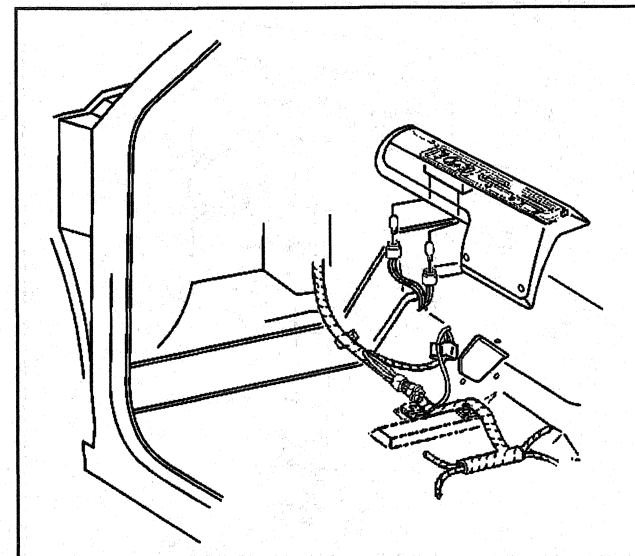
1. Make sure the headlamp switch is in the OFF position.
2. Unscrew the shift lever knob.  
Remove the shift lever knob.
3. Remove the 4 bezel screws.
4. Remove the transfer case bezel.
5. Pull the bulbs straight out of the sockets.



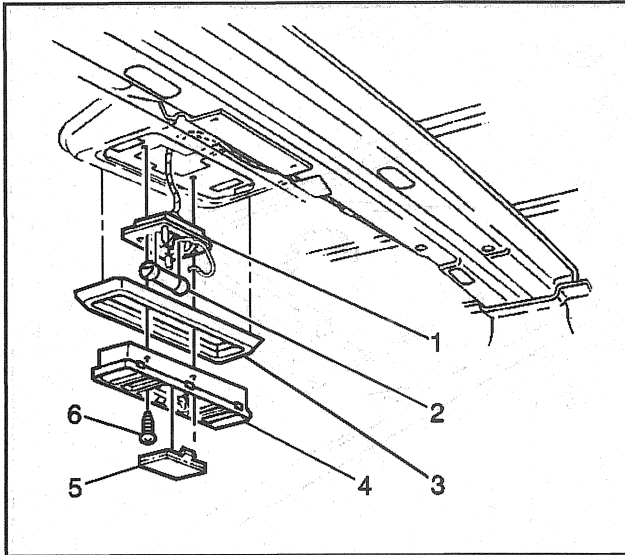
277257

**Installation Procedure**

1. Push the bulbs straight into the sockets.
2. Install the bulbs and sockets into the back of the bezel.
3. Install the bezel to the floor with the 4 screws.
4. Install the shift lever knob.



277257



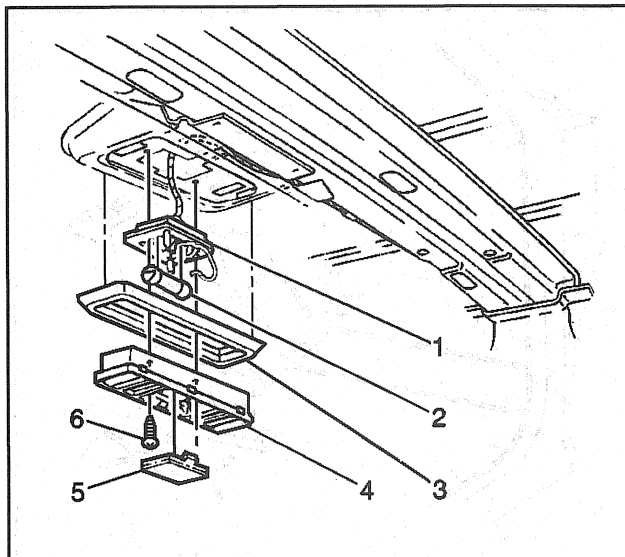
277252

### Dome Lamp Replacement (All Models except Suburban)

#### Removal Procedure

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

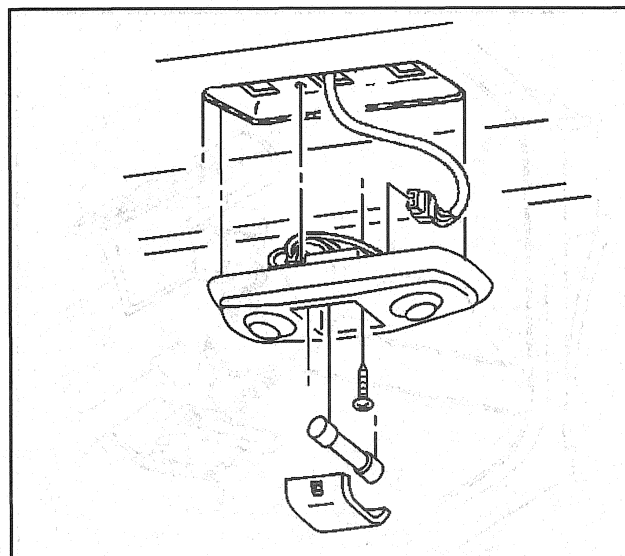
1. Disconnect the negative battery cable(s).
2. Remove the lens (5).
3. Remove the bulb (2).
4. Remove the housing screws (6).
5. Remove the lamp assembly (4).
6. Disconnect the electrical connector (1).
7. Remove the bezel (3).



277252

#### Installation Procedure

1. Install the bezel (3).
2. Connect the electrical connector (1).
3. Install the lamp assembly (4).
4. Install the housing screws (6).
5. Install the bulb (2).
6. Install the lens (5).
7. Connect the negative battery cable(s).



277253

### Dome Lamp Replacement (Suburban)

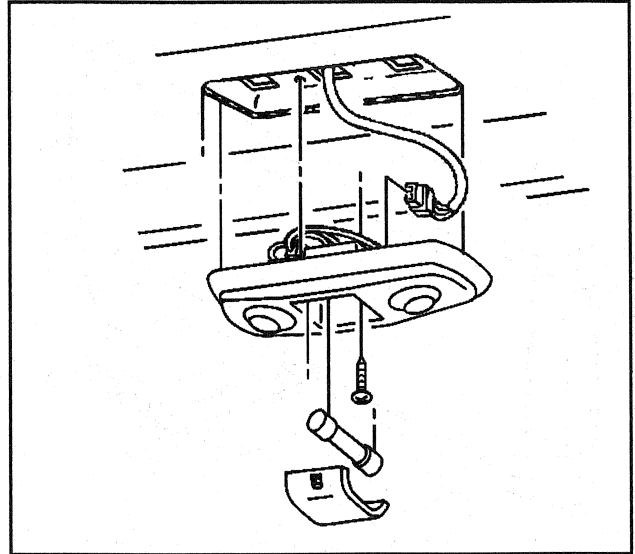
#### Removal Procedure

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

1. Disconnect the negative battery cable(s).
2. Remove the lens.
3. Remove the bulb.
4. Remove the housing screws.
5. Remove the housing assembly.
6. Disconnect the electrical connector.
7. Remove the bezel.

**Installation Procedure**

1. Install the bezel.
2. Connect the electrical connector.
3. Install the housing assembly.
4. Install the housing screws.
5. Install the bulb.
6. Install the lens.
7. Connect the negative battery cable(s).

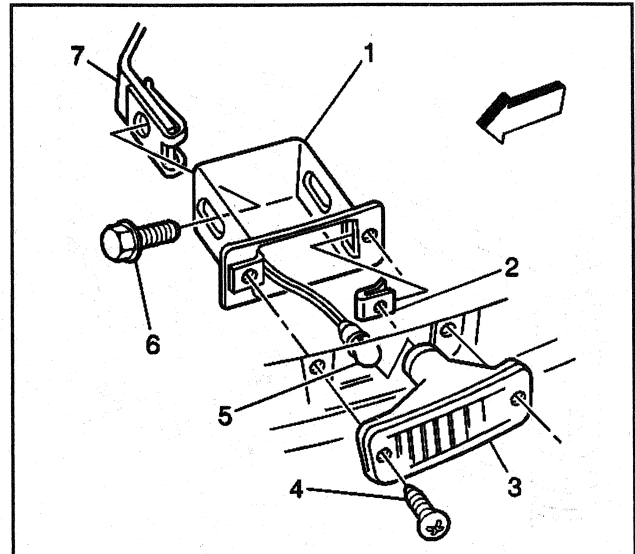


277253

**Side Marker Lamp Replacement**

**Removal Procedure**

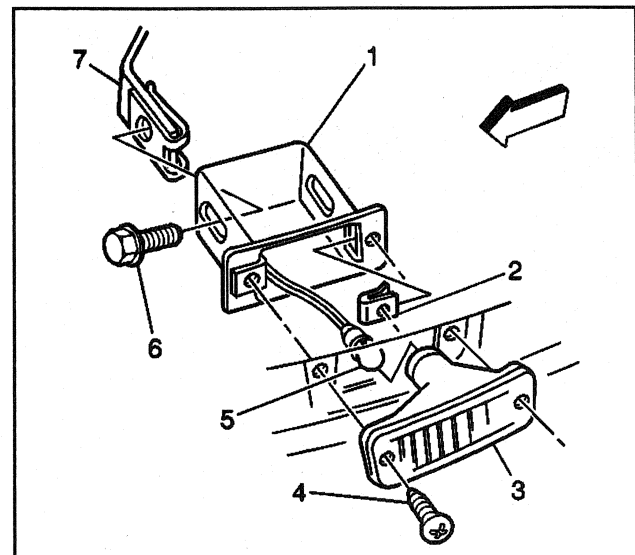
1. Make sure the headlamp switch is in the OFF position.
2. Remove the lamp assembly screws (4).
3. Remove the lamp assembly (3) from the fender.
4. Disconnect the electrical connector and bulb (5) from the lamp.
5. Remove the bulb from the socket.



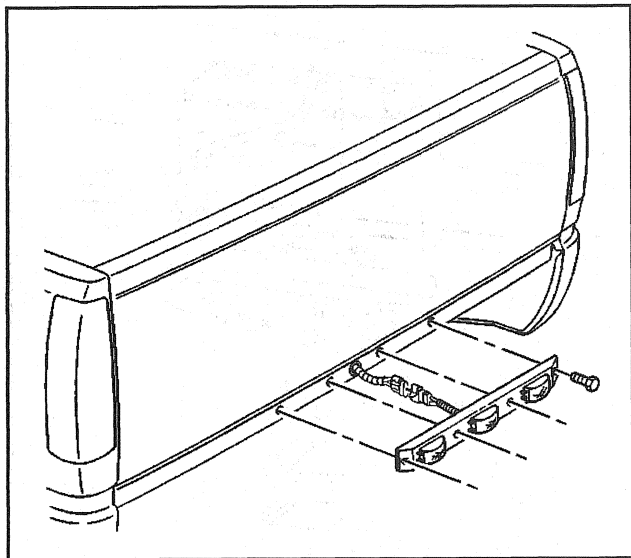
277233

**Installation Procedure**

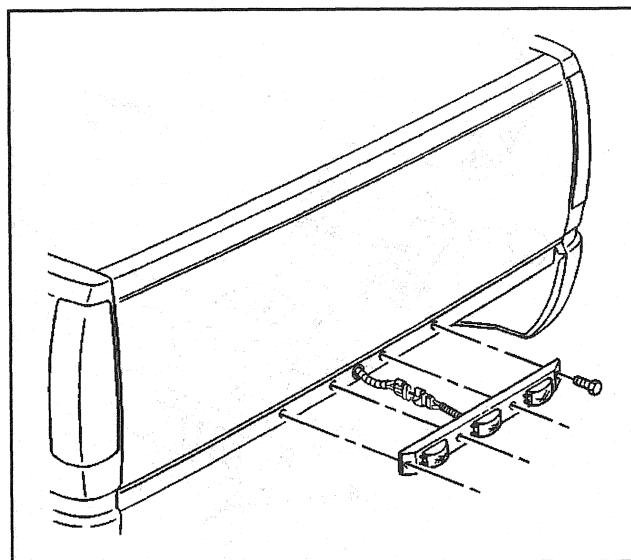
1. Install the bulb (5) to the socket.
2. Connect the electrical connector and bulb to the lamp (3).
3. Install the lamp assembly to the fender.
4. Install the lamp assembly screws (4).



277233



277187



277187

## Endgate Identification Lamp Replacement

### Removal Procedure

Replace the lens, the lamp, and the base as one assembly.

1. Make sure the headlamp switch is in the OFF position.
2. Remove the lens.
3. Remove the 2 screws.
4. Remove the lamp assembly.
5. Disconnect the electrical connector.

### Installation Procedure

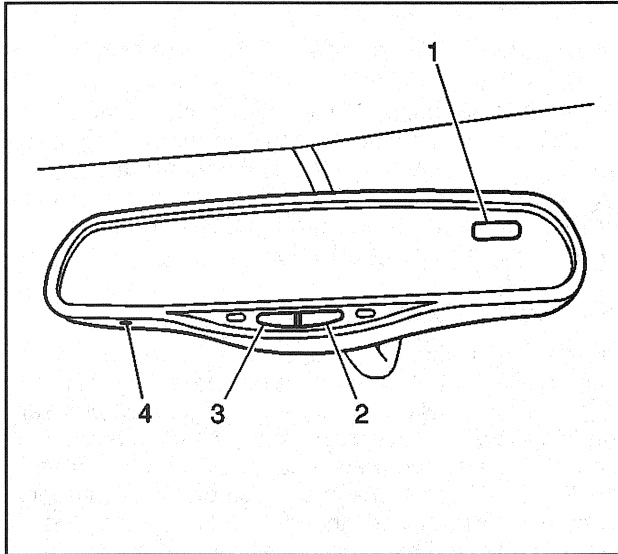
1. Connect the electrical connector.
2. Install the lamp assembly to the endgate.
3. Install the 2 screws.
4. Install the lens.

## Description and Operation

### Lighting System Description

#### Headlamp Delay

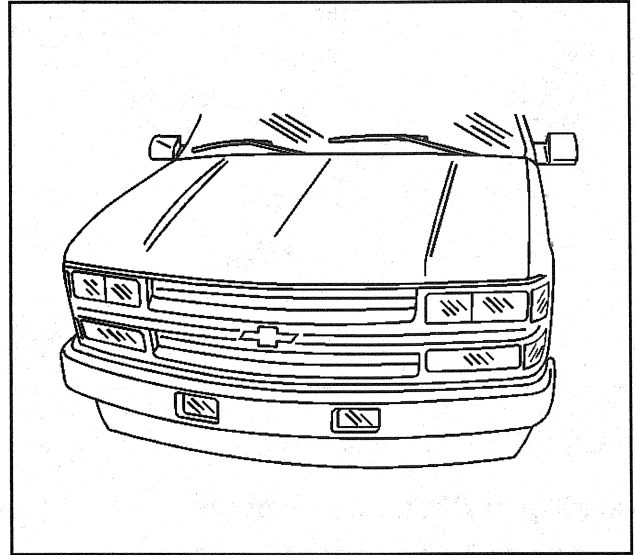
This vehicle is equipped with a headlamp delay feature that holds the headlamps on for a short period of time after the ignition is turned off.



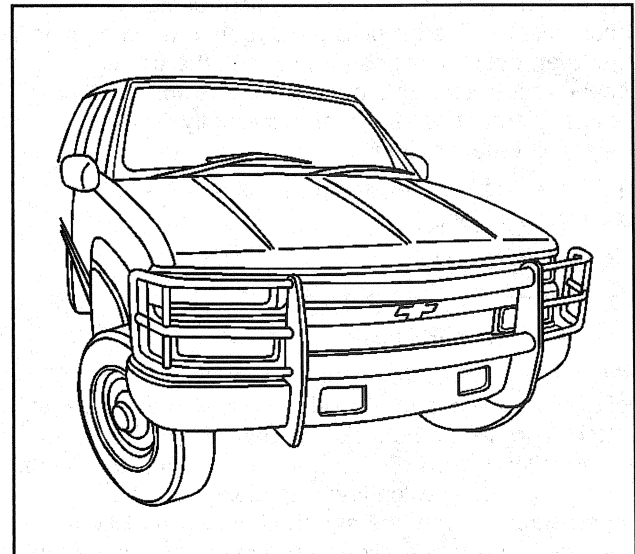
The length of time that the headlamps stay on after the ignition is turned off can be adjusted by pressing and holding the headlamp delay button (4), which is located on the lower left side of the inside rearview mirror. The delay can be varied in five steps (0,15,30,60 and 90 seconds). When the headlamp delay button is held in, the Light Emitting Diode (LED) on the mirror will show five step changes in brightness. When the LED is at its brightest, the headlamp delay will be 90 seconds and when it is most dim the delay will be zero seconds.

#### Fog Lamp Assemblies

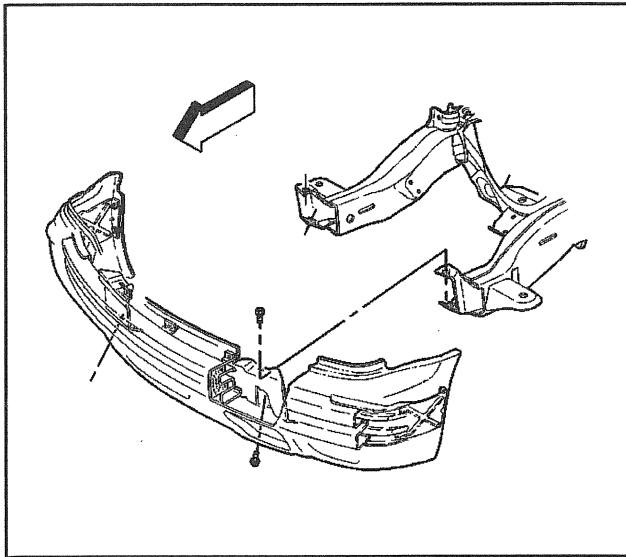
Vehicles equipped with Fog lamp Assemblies can only be adjusted vertically.



Limited Tahoe front fog lamp assembly.



Z-71 Tahoe front fog lamp assembly.



Luxury front fog lamp assembly.

### Headlights Circuit Description

Voltage is available at all times to the headlamp switch from the LIGHTING MaxiFuse® through CKT 42 (RED). Within the headlamp and panel dimmer switch is a 17A circuit breaker which resets automatically. The circuit breaker opens upon heating due to an overcurrent condition. With the circuit breaker open, current stops, and the circuit breaker's thermal element cools. When sufficiently cooled, the circuit breaker closes.

The three-position headlamp switch has the following positions:

- An OFF position
- A PARKING LAMPS position
- A HEADLAMPS position

When the switch is in the HEADLAMPS position, voltage is available on CKT 10 (YEL) to the headlamp switch. The headlamp switch is part of the multifunction switch on the steering column. By pulling the multifunction switch lever up along the axis of the steering column, the switch changes selections. Repeated switch operations alternate between the high beam selection and the low beam selection.

With the selection of the low beams, voltage is available on CKT 12 (TAN) to the low beam connector pins, or to the low beam headlamps on vehicles with composite headlamps. Because the headlamps are grounded, current flows through the low beam filaments. Then the headlamps emit light.

- CKT 250 (BLK) grounds the right headlamp at ground G112.
- CKT 150 (BLK) grounds the left low beam headlamp at ground G113.
- CKT 250 (BLK) grounds the right low beam headlamp at ground G112.

With the selection of high beams, voltage is available on CKT 11 (LT GRN) to the high beam connector pins, or to the high beam headlamps in vehicles with composite headlamps. Because the headlamps are grounded, the lamps operate.

- CKT 150 (BLK) grounds the left headlamp at ground G113.
- CKT 150 (BLK) grounds the left high beam headlamp at ground G113.
- CKT 250 (BLK) grounds the right high beam headlamp at ground G112.

CKT 11 (LT GRN) also makes high beam voltage available at the instrument cluster for the lighting of the blue headlamp high beam indicator lamp. Since CKT 451 (BLK) grounds the instrument cluster's lamp circuits at ground G103 or ground G104, the lamp lights when voltage is available.

### DRL Circuit Description

Voltage is available to the headlamp and panel dimmer switch at all times. The headlamp and panel dimmer switch includes a self-resetting circuit breaker. The circuit breaker opens when the headlamp and panel dimmer switch draws too much current. When the circuit breaker opens, the circuit breaker interrupts the current flow. Without the current flow, the circuit breaker cools and resets automatically.

When the headlamp and panel dimmer switch is in the HEAD position, the headlamp and panel dimmer switch directs voltage to either the low beam headlamps or the high beam headlamps. This depends on the headlamp and panel dimmer switch position. When the headlamp and panel dimmer switch is in the HEAD position, not only is voltage available for the headlamps, but the daytime running lamps (DRL) module receives a HEADLAMPS ON signal. When the DRL module receives this signal, the module disables the DRL operation, if the ignition switch is in the RUN position, the BULB TEST position, or the START position.

When the headlamp and panel dimmer switch is in the HEAD position and the headlamp and panel dimmer switch is in the LOW position, voltage is available through the closed contacts of the headlamp and panel dimmer switch to the left low beam headlamp and the right low beam headlamp. Ground G112 supplies ground to the right low beam headlamp Ground G113 supplies ground to the left low beam headlamp in vehicles with the base headlamps and in vehicles with the quad headlamps. With both power and ground applied, the low beam headlamps light.

When the headlamp dimmer switch is moved to the HIGH position and the headlamp and panel dimmer switch is in the HEAD position, voltage is available through the closed contacts of the headlamp and panel dimmer switch, and the headlamp and panel dimmer switch to the DRL module, the left high beam headlamp, and the right high beam headlamp. With the headlamp dimmer switch in the HIGH position, voltage is available to the high beam indicator.

With ground G103 in vehicles with gasoline engines, or ground G104 in vehicles with diesel engines, supplying a ground to the high beam indicator, the indicator lights. Ground G112 supplies a ground for the right high beam headlamp. Ground G113 supplies a ground to the left high beam headlamp. With both power and ground applied, the high beam headlamps light at full intensity.

### Twilight Sentinel Circuit Description

Voltage is applied from the PK LPS fuse #9 at all times through CKT 240 (ORN) to the Headlamp and Panel Dimmer Switch and the Headlamp Control Module. Within the Headlamp and Panel Dimmer Switch is a 17A circuit breaker which receives power from the LIGHTING fuse #8 through CKT 42 (RED). The circuit breaker opens upon heating due to an overcurrent condition. Once the thermal elements cool the circuit breaker will reset itself, closing the contacts. Headlamp and Panel Dimmer Switch has three positions.

The three-position headlamp switch has the following positions:

- An OFF position
- A PARKING LAMPS position
- A HEADLAMPS position

When the switch is in the HEADLAMPS position, voltage is sent through CKT 1396 (LT BLU) to the Headlamp Input of the Headlamp Control Module and CKT 9 (BRN) going into the Park Lamp Input terminal of the Headlamp Control Module. The module will then send power out through CKT 10 (YEL) to the Headlamp Dimmer Switch and Daytime Running Lamp Module, turning on the headlights and overriding the daytime running lamps. When the Headlamp and Panel Dimmer Switch is in the PARK LAMPS, current is present only in the Park Lamps circuit.

The Headlamp Control Module receives power at all times also through CKT 2040 (ORN) from the AUX PWR AUTO HEADLAMPS fuse #22, and ground from CKT 150 (BLK) to ground G202. The Headlamp Control Module has the ability to turn the headlights on, when the Body Control Module (BCM) sends a command or the Vehicle Interface Unit (VIU) sends a command through CKT 624 (BLK/WHT).

Other inputs for the Headlamp Control Module include; Ignition Sense through CKT 39 (PNK) from the GAUGES fuse #4. This lets the module know that the Ignition is ON. When the module senses the Ignition ON, the Ambient Light Sensor Input through CKT 1784 (YEL/BLK) is sensed. When the signal sent from the Ambient Light Sensor reaches the predetermined setting the Headlamp Control Module will automatically send power out through CKT 10 (YEL) to the Headlamp Dimmer Switch and Daytime Running Lamp Module, turning on the headlights and overriding the daytime running lamps. The Park Brake Warning Switch also sends input to the module through CKT 1134 (LT BLU).

The Headlamp Dimmer Switch is part of the multifunction switch on the steering column. By pulling the multifunction switch lever up along the axis of the steering column, the switch changes selections. Repeated switch operations alternate between the high beam selection and the low beam selection. With the selection of the low beams, voltage is available on CKT 12 (TAN) to the Daytime Running Lamps (DRL) Relay. When the headlights are on the relay is de-energized sending the voltage from the Headlamp Dimmer Switch through the relay to CKT 359 (PPL) to the left and right low beam headlamps. With the selection of high beams, voltage is available on CKT 11 (LT GRN) to the high beam headlamps. Voltage is also sent to the Instrument Cluster and Fog Lamp Relay. Because the headlamps are grounded through CKT 150 (BLK) to G113 for the left and G112 for the right, current flows through the low beam filaments. The headlamps light.

### Fog Lights Circuit Description (Luxury)

Fog lamp operation is possible with the headlamp and panel dimmer switch in the PARK position or in the HEAD position. However, if the headlamp and panel dimmer switch is in the HEAD position, the fog lamps are only operational if the headlamp dimmer switch is in the LOW position.

With the headlamp and panel dimmer switch in the PARK position or the HEAD position (if the switch is in the HEAD position, the headlamp dimmer switch must be in the LOW position), voltage is available through the closed contacts of the park lamp switch to the fog lamp switch. With the fog lamp switch in the ON position, voltage is available through the closed contacts of the fog lamp switch to the coil (power side) of the fog lamp relay. Voltage is available to the contact side of the relay through the DRL-FOG fuse 15.

Ground is available from the daytime running lamps (DRL) module to the coil (ground side) of the fog lamp relay, provided that the headlamp dimmer switch is in the LOW position, if the headlamp and panel dimmer switch is in the ON position.

With both power and ground available to the coil of the fog lamp relay, the relay energizes. Then, voltage is available through the closed contacts of the relay to the fog lamp ON indicator, the left fog lamp, and the right fog lamp.

The indicator lamp and the fog lamps light. If the selection of the headlamp dimmer switch changes to the HIGH position when the headlamp and panel dimmer switch is in the HEAD position and the fog lamp switch is in the ON position, then the DRL module receives a high beam headlamp operation signal. Then the DRL module disables the fog lamp relay. This extinguishes the fog lamps.



### Fog Lights Circuit Description (Z71 Tahoe/Limited)

This system incorporates a fog lamp switch, fog lamp relay and two fog lamps. This system will operate whenever the ignition switch is in the ON position and does not have to have the park lamps on. However, if the headlamps are on and in the high beam position, the ground to the fog lamp relay coil is interrupted and the fog lamps turn off.

Voltage is supplied to the fog lamp switch through CKT 241 (BRN) from the 4WD fuse 24 in the IP fuse block. When the fog lamp switch is in the ON position, voltage is supplied to the fog lamp relay coil through CKT 317 (YEL). Since the relay coil is connected to the high beam headlamp through CKT 11 (LT GRN) to ground the relay energizes. Since the input side of the relay is connected to the CTSY fuse 3 in the IP fuse block through CKT 40 (ORN), voltage is supplied to CKT 34 (PPL) to the fog lamps and to the ON indicator in the fog lamp switch. Ground for the fog lamps is supplied from G113 and the ON indicator from G200 through CKT 150 (BLK) and the fog lamps and the indicator illuminate. Backlighting for the fog lamp switch is provided through CKT 8 (GRY) to the headlamp and panel dimmer switch and grounds to G200 through CKT 150 (BLK).

### Exterior Lights Circuit Description

#### Park, Turn, and License Lamps

Voltage is available through the PARK LP fuse to the headlamp and panel dimmer switch at all times. When the headlamp and panel dimmer switch is in the PARK position or in the HEAD position, voltage is available to the following components:

- The tail/stop-turn lamps
- The marker lamps
- The endgate clearance lamps
- The park/turn lamps
- The license lamps

#### Stoplamps

Voltage is available at all times through the STOP/HAZ fuse to the torque converter clutch (TCC)/stemplamp switch. With the depression of the brake pedal, the contacts in the TCC/stemplamp switch close. Voltage is available from the stoplamp relay on pickups, or the TCC/stemplamp switch on all of the other vehicles, through the turn/hazard switch to the left stoplamp, the right stoplamp, and the stoplamp lights. If a turn signal is in operation, the stoplamp on that side flashes as a turn signal. The other stoplamp serves as a stoplamp.

### Turn Signal Lamps

With the ignition switch in the RUN position or the START position, voltage is available through the TURN-B/U fuse and through the turn/hazard flasher to the normally-closed contact of the hazard flasher switch in the turn/hazard switch.

With the turn signal switch in the left turn position, voltage is available to both the left turn indicator and to CKT 14 (LT BLU) of the left park/turn lamp. Voltage is available to CKT 18 (YEL) of the left rear turn lamp.

The lamps illuminate immediately. The lamps begin flashing when the current flow heats the timing element in the flasher. The timing element repeatedly opens and closes the circuit.

The voltage to the left front park/turn lamp is also available to the left front marker lamp. If the headlamp and panel dimmer switch is in the OFF position, the left front marker lamp finds a path to ground through splice S122 and through the many lamps connected in parallel to ground. These lamps provide low resistance paths to ground. The marker lamp flashes with the turn lamps. The lamps used for the ground path do not flash, however, because the voltage drop across the marker lamp is much higher than across the other lamps.

When the headlamp and panel dimmer switch is in either PARK or HEAD, voltage is available through the PARK LP fuse, the headlamp and panel dimmer switch, and splice S122 to the marker lamps and the park lamps. If the turn/hazard switch is in the TURN LEFT position, the left front marker lamp has voltage at both connections and the lamp extinguishes. When the flasher removes voltage to the turnlamp, the marker lamp grounds through the turnlamp and the marker lamp illuminates. In this manner, the left front marker lamp flashes when the left front park/turn lamp extinguishes.

With the turn/hazard switch in the TURN RIGHT position, voltage is available to the right lamps in the same manner.

#### Hazard

Voltage is available at all times through the STOP/HAZ fuse and the turn/hazard flasher to the normally open contact of the hazard flasher switch in the turn/hazard switch. With the hazard switch in the HAZARD FLASH position, voltage is available to both the front turn lamps and the rear turn lamps. All of the turn lamps and the turn indicators flash on and off.

The front marker lamps flash in the HAZARD FLASH position in the same manner these lamps flash in the TURN RIGHT position and the TURN LEFT position. If the headlamp and panel dimmer switch is in the OFF position, the front marker lamps flash when the hazard lamps are in operation. If the headlamp and panel dimmer switch is in either the PARK position or the HEAD position, the front marker lamps flash ON when the hazard lamps are not in operation; and the front marker lamps flash OFF when the hazard lamps are in operation.

In the HAZARD position, the circuit is always open, and the turn/hazard flasher controls the lamps.



**Cargo Lamp**

Voltage is available at all times through the CTSY fuse 3 to the cargo lamp switch. When the cargo lamp switch is in the ON position, voltage flows through the switch to the lamp. Ground is available at the following components:

- The courtesy lamp switch, part of the headlamp and panel dimmer switch
- The illuminated entry module
- The remote keyless entry module through the power door jamb switch(es)

**Spot Lamp (Z56)**

If the vehicle has either option 7X6 or 7X7 as part of the police package Z56, one or 2 spot lamps are on the A pillar. Voltage is available at all times from fuse BLANC through CKT 940 (BLK) to the spot lamps. The spot lamps are permanently case-grounded. When the spot lamp thumb switch located on the inside end of the spotlight assembly moves, the circuit completes.

**Roof Wiring (Z56)**

If the vehicle is equipped with option 6F5 as part of the police package Z56, an extra wiring harness is available for any roof-mounted aftermarket accessories. The harness begins under the right side of the instrument panel in a coil on the floor. The harness route then proceeds under the right front door sill plate, up the right B pillar, and across the roof bow. The harness loops 81.3 cm (32 in) to the rear of the windshield centerline.

**Grille (Z56)**

As part of the police package Z56, an extra wiring harness and a relay are available for any aftermarket accessories, which would include grille lights and a grille speaker. The harness starts under the right side of the instrument panel in a coil on the floor. The harness route then proceeds through a grommet in the bulkhead and down the right side of the engine compartment. The harness then loops behind the right side of the grille.

**Backup Lights Circuit Description**

When the ignition switch is in the RUN position, voltage is available through the TURN B/U fuse to the backup lamp switch. With the transaxle in reverse, voltage is available to the left and right backup lamps, which are permanently grounded. When voltage is available to CKT 24 (LT GRN), the backup lamps illuminate. CKT 24 (LT GRN) also supplies input to the electrochromatic rearview mirror dimming function. Connection is also available for the trailer-tow capability.

**Interior Lights Circuit Description**

Voltage is available at all times from the CTSY fuse 3 to the courtesy lamps, the dome and reading lamps, and the instrument panel (IP) compartment box lamp. The courtesy lamps and the dome and reading lamps illuminate when the headlamps and panel dimmer switch or one of the door jamb switches provides a ground path.

The IP compartment box lamp and the vanity lamps have switches that provide ground paths when the switches close.

**Interior Lights Dimming Circuit Description**

The Headlamp and Panel Dimmer Switch is the controlling component for the interior dimming function. This switch uses an internal rheostat to allow the customer to set the dimming to a desired setting.

Power is available to the Headlamp and Panel Dimmer Switch at all times from the PK LMPS fuse #9 through CKT 240 (ORN). Once the switch is turned to either the Park Lamp or Headlamp function, parade dimming is capable through CKT 1382 (PPL/WHT) to the illumination lamps of the following components:

- Transfer Case Switch Transfer Case Controls.
- Radio
- Instrument Cluster

Power is also available for controlled dimming through the rheostat to the ILLUM fuse #14 through CKT 44 (DK GRN) when in one of the lighting functions. From the ILLUM fuse power is sent through CKT 8 (GRY) to the following components:

- Headlamp and Panel Dimmer Switch.
- Liftgate Release Switch
- Radio
- Window Wiper/Washer Switch, Rear
- Automatic Transfer Case Controls
- Automatic Transfer Case Select Switch
- Fog Lamp Switch

Ground for the above components is G200, through CKT 150 (BLK).

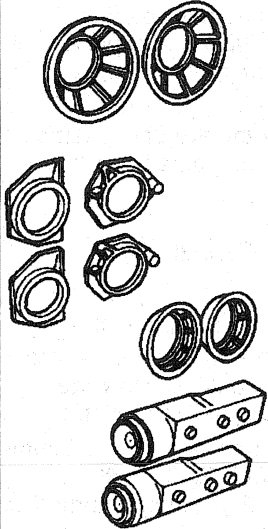
- Front and Rear, Auxiliary HVAC Control Switch Lamps
- Rear AC Selector Switch

Ground for the HVAC Controls is G400, through CKT 150 (BLK)

- Instrument Cluster

Ground for the Instrument Cluster runs through CKT 451 (BLK/WHT) to both ground G103 and G104.

**Special Tools and Equipment**

Illustration	Tool Number/ Description
 202825	J 25300-B Headlight Aimer

# Wipers/Washer Systems

## Specifications

### Fastener Tightening Specifications

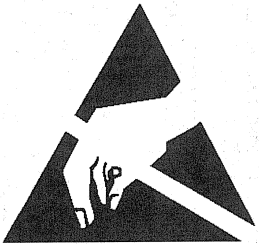
Application	Specification	
	Metric	English
Washer Solvent Container Bolts	6 N·m	53 lb in
Wiper Module Cover Screws	2.6 N·m	23 lb in
Transmission Assembly Drive Link Nuts	5 N·m	44 lb in
Transmission to Cowl Bolts	7 N·m	62 lb in
Wiper Motor to Cowl Bolts	7 N·m	62 lb in
Wiper Motor Shaft Nut — Rear	6 N·m	53 lb in
Wiper Motor Bolt — Rear	6 N·m	53 lb in

## Schematic and Routing Diagrams

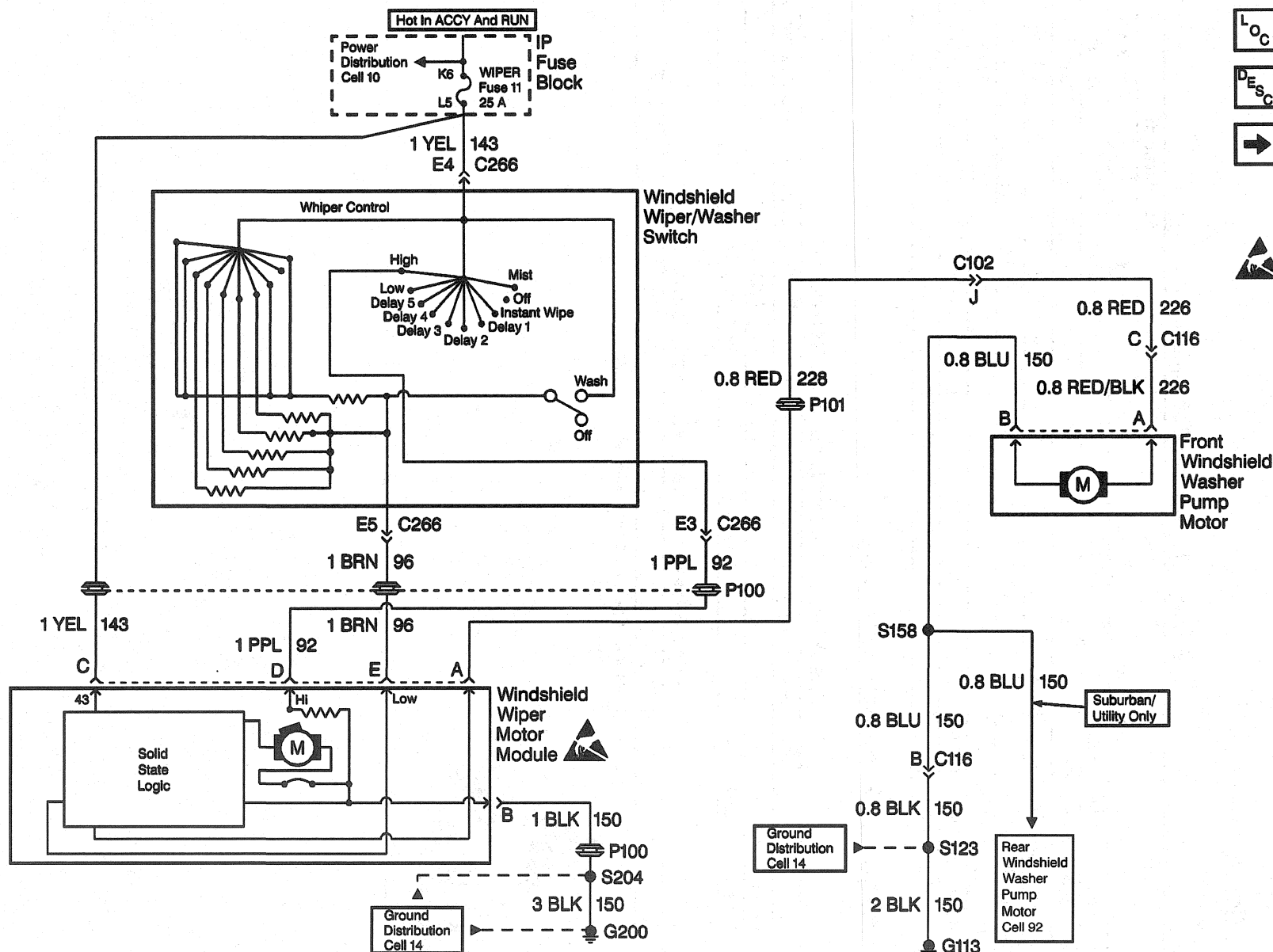
### Wiper/Washer System Schematic References

Reference on Schematic	Section Number - Subsection Name
Ground Distribution-Cell 14	8-Wiring Systems
Power Distribution-Cell 10	8-Wiring Systems

### Wiper/Washer System Schematic Icons

Icon	Icon Definition
 19384	Refer to <i>ESD Notice</i> in Cautions and Notices.

# Wiper/Washer System (Pulse) Schematics (Cell 91: WIPER Fuse, Windshield Wiper/Washer Switch, Wiper Module and Pump Motor)

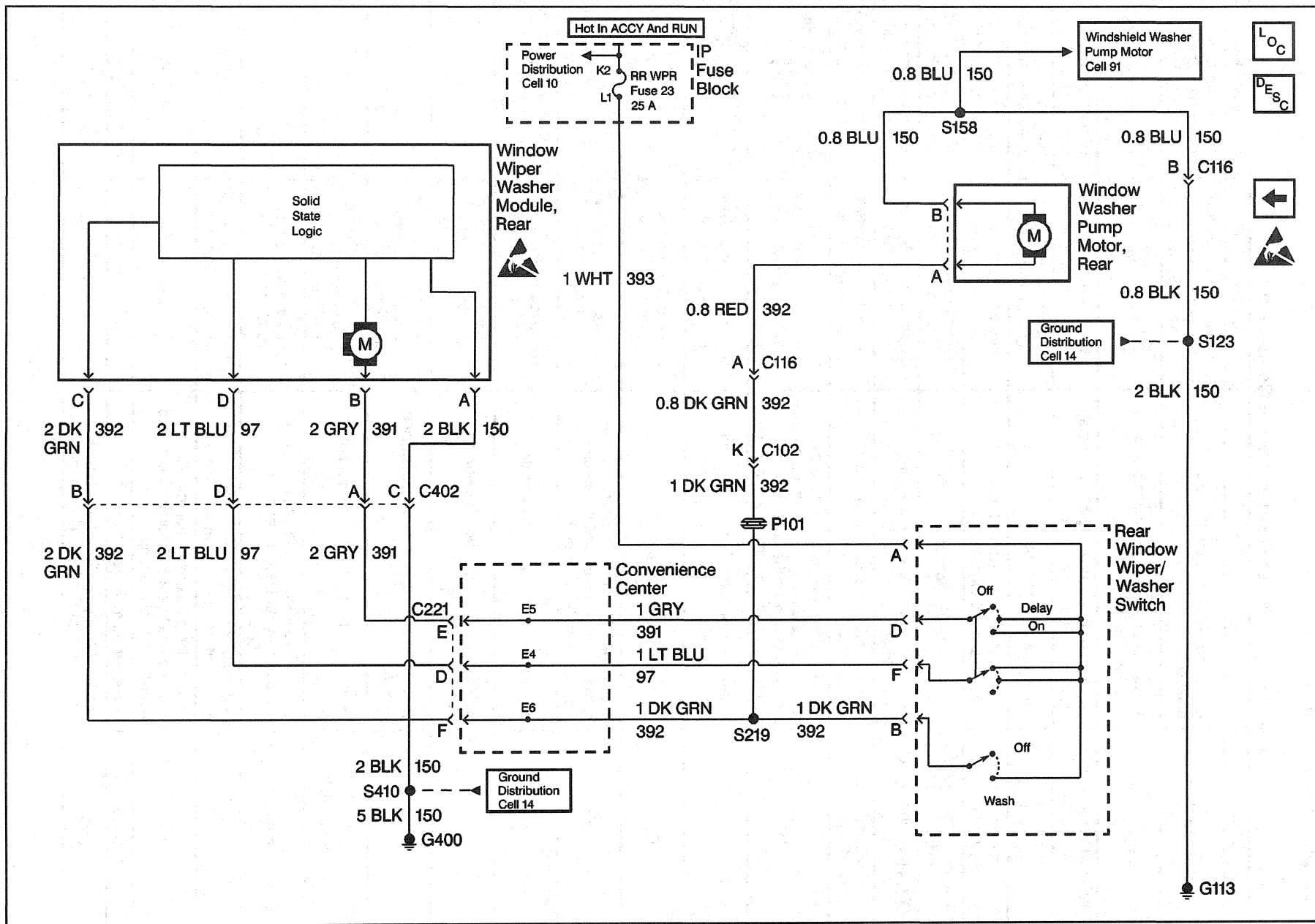


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# Wiper/Washer System (Rear) Schematics (Cell 92: RR WIPER Fuse, Rear Window Wiper/Washer Module and Pump Motor)



## Component Locator

## Wiper/Washer System Components

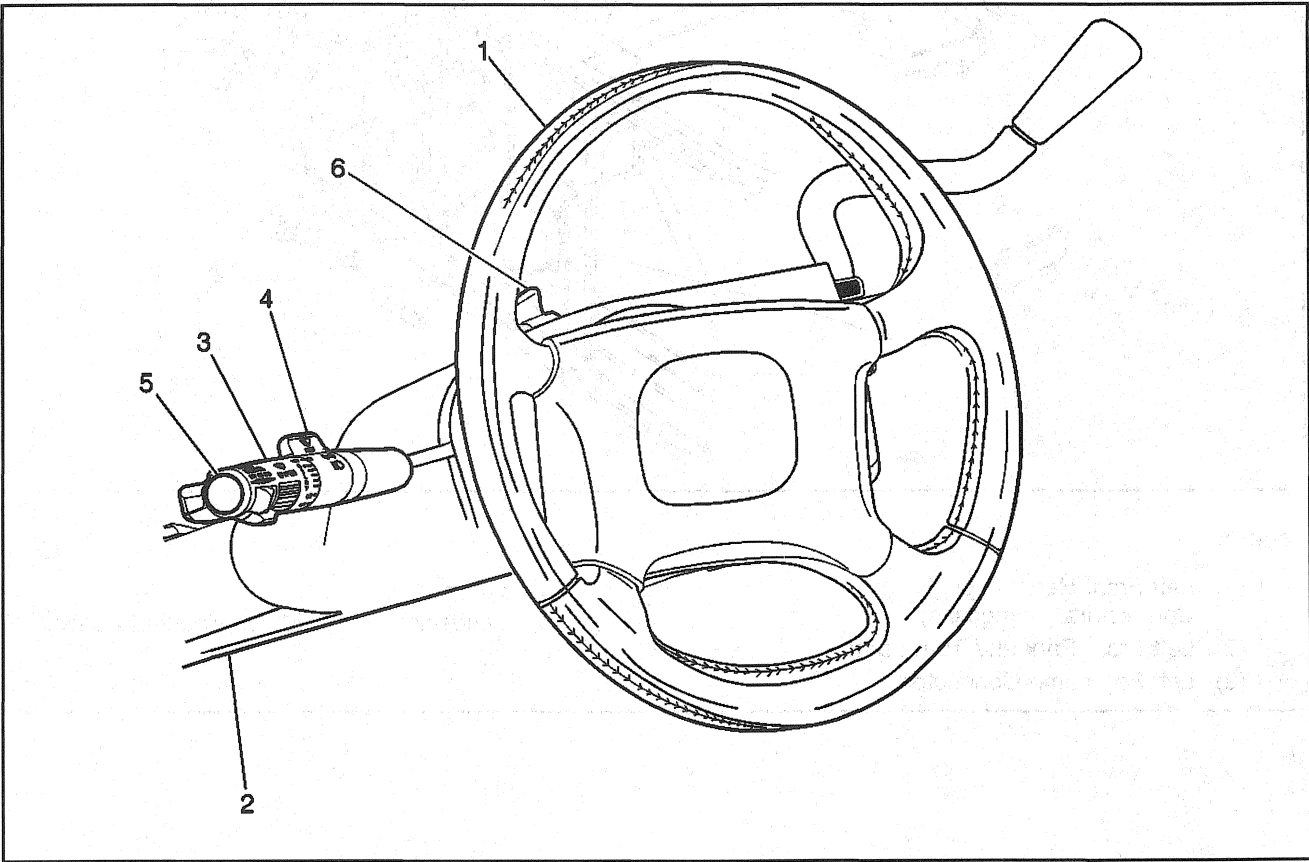
Name	Location	Locator View	Connector End View
Convenience Center	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Window Washer Pump Motor, Rear	In the washer reservoir, right front of the vehicle, behind the support	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
Window Wiper Motor Module, Rear	On the lower liftgate glass	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
Windshield Washer Pump Motor, Front	At the washer reservoir, left rear of the radiator support bracket	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
Window Wiper/Washer Switch, Rear	Center of the IP, right of the radio	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
Windshield Wiper Motor Module	At the center and rear of the engine compartment, at the bulkhead	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
Windshield Wiper/Washer Switch	At the steering column, part of the multifunction lever	<i>Wiper/Washer System Component Views</i>	<i>Wiper/Washer System Connector End Views</i>
C102	Part of the forward lamps harness to IP harness, in the left rear side of the engine compartment, near the underhood fuse-relay center, mounted on the fender	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C116	In the left front of the vehicle, near the core support	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C221	At the convenience center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C266	Part of the IP harness to steering column harness, to the left side of the steering column, near the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C402	At the top, center rear of the vehicle	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G113	On the radiator support, near the left side headlamp	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G400 (Utility/Suburban)	On the right side B pillar, near the door striker	<i>Power and Grounding Component Views in Wiring Systems</i>	—
P100	In the left rear side of the engine compartment, at the bulkhead, above C100	<i>Harness Routing Views in Wiring Systems</i>	—
P101	In the right rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	—
S123	Forward lamps harness, approx. 23 cm (9 in) from LH park lamp breakout, toward windshield washer pump	—	—
S158	In washer pump jumper harness	—	—
S204	IP harness, approx. 10 cm (4 in) from C100, towards Data Link Connector (DLC)	—	—

Wiper/Washer System Components (cont'd)

S219	IP harness, approx. 5 cm (2 in) from DLC breakout	—	—
S410 (2-door Utility)	Front-to-rear body harness, approx. 37 cm (14.5 in) from RR door jamb switch breakout, toward RH door speaker breakout	—	—
S410 (4-Door Utility/Suburban)	Front-to-rear body harness, approx. 12 cm (4.5 in) from RR door speaker breakout, toward RR door jamb breakout	—	—

Wiper/Washer System Component Views

Steering Column Switches

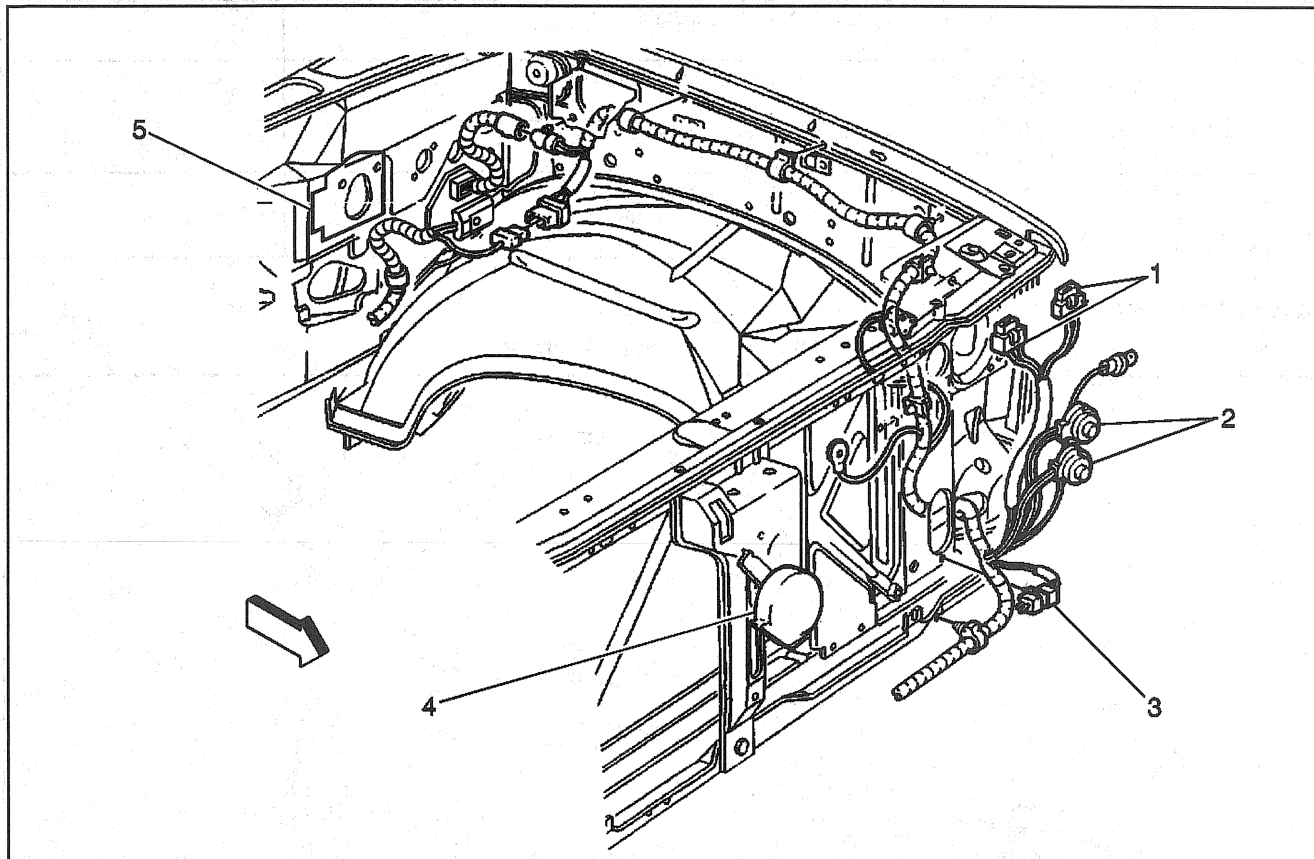


314701

Legend

- |                             |                              |
|-----------------------------|------------------------------|
| (1) Steering Wheel          | (4) Windshield Washer Switch |
| (2) Steering Column         | (5) Cruise Control Switch    |
| (3) Windshield Wiper Switch | (6) Hazard Warning Switch    |

## Horn, Wiper Motor Module, Park/Turn, Fog and Headlamp



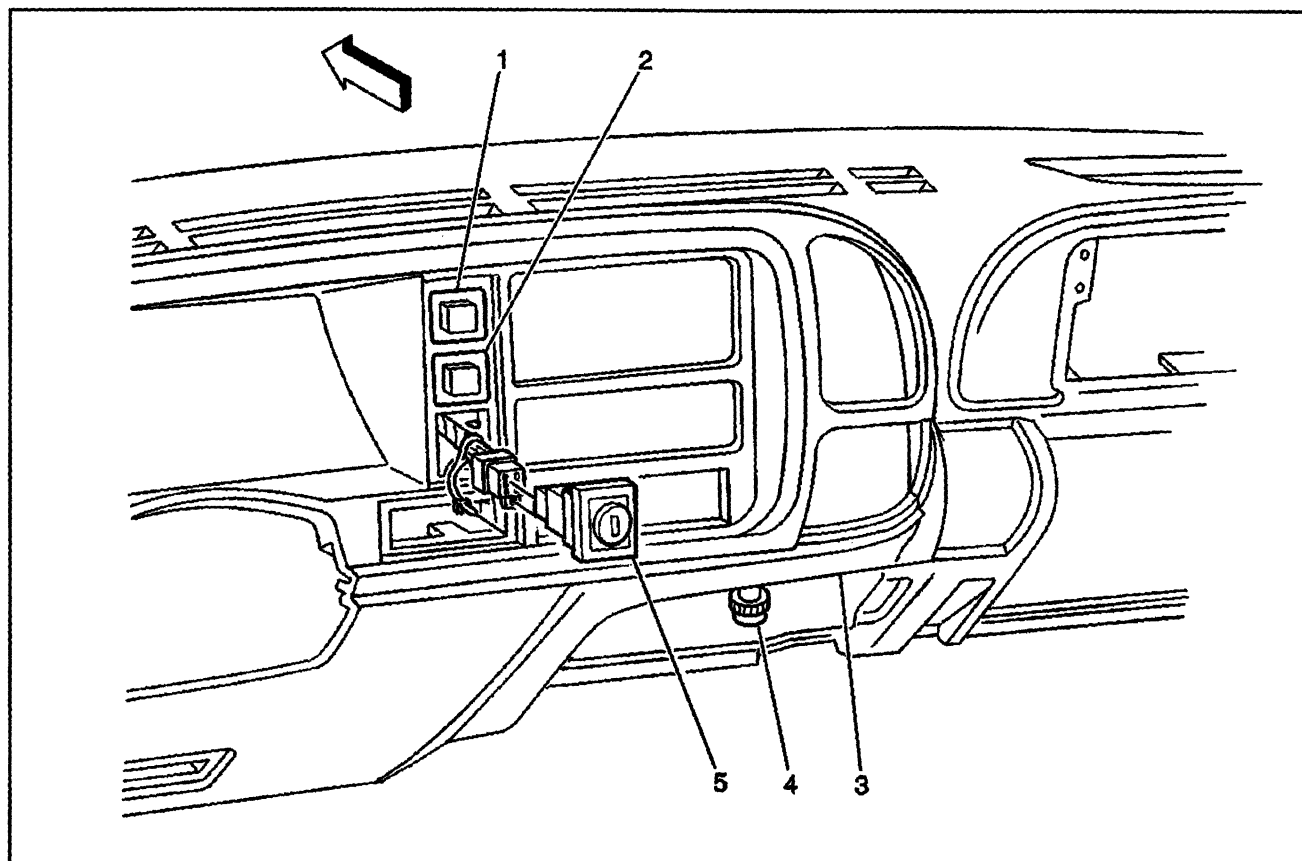
278089

**Legend**

- |  |  |
|--|--|
| (1) Left Front Headlamp Connectors (Composite) | (4) Left Horn                              |
| (2) Left Front Park and Turn Lamp              | (5) Windshield Wiper Motor Module location |
| (3) Left Fog Lamp Connector                    |  |



## Inflatable Restraint IP Module Switch

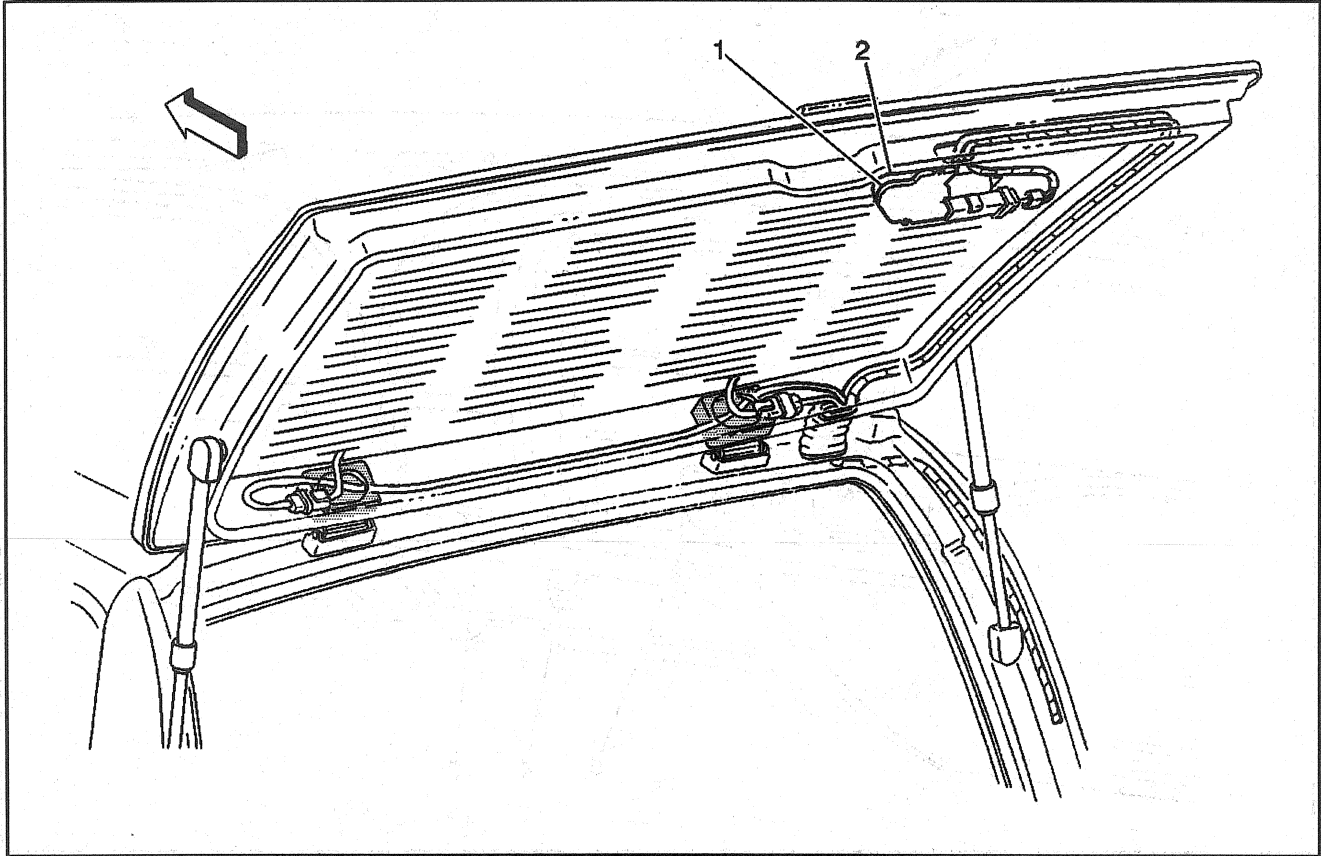


278181

## Legend

- |                                     |   |
|-------------------------------------|---|
| (1) Rear Window Wiper/Washer Switch | (5) Inflatable Restraint IP Module        |
| (2) Liftgate Release Switch         | Switch (Pickup) / Daytime Running         |
| (3) Ashtray Lamp                    | Lamps (DRL) Radio Override Switch (Z56) / |
| (4) Cigar Lighter                   | Auxiliary Heater Fan Switch               |

## Rear Wiper/Washer Motor Module



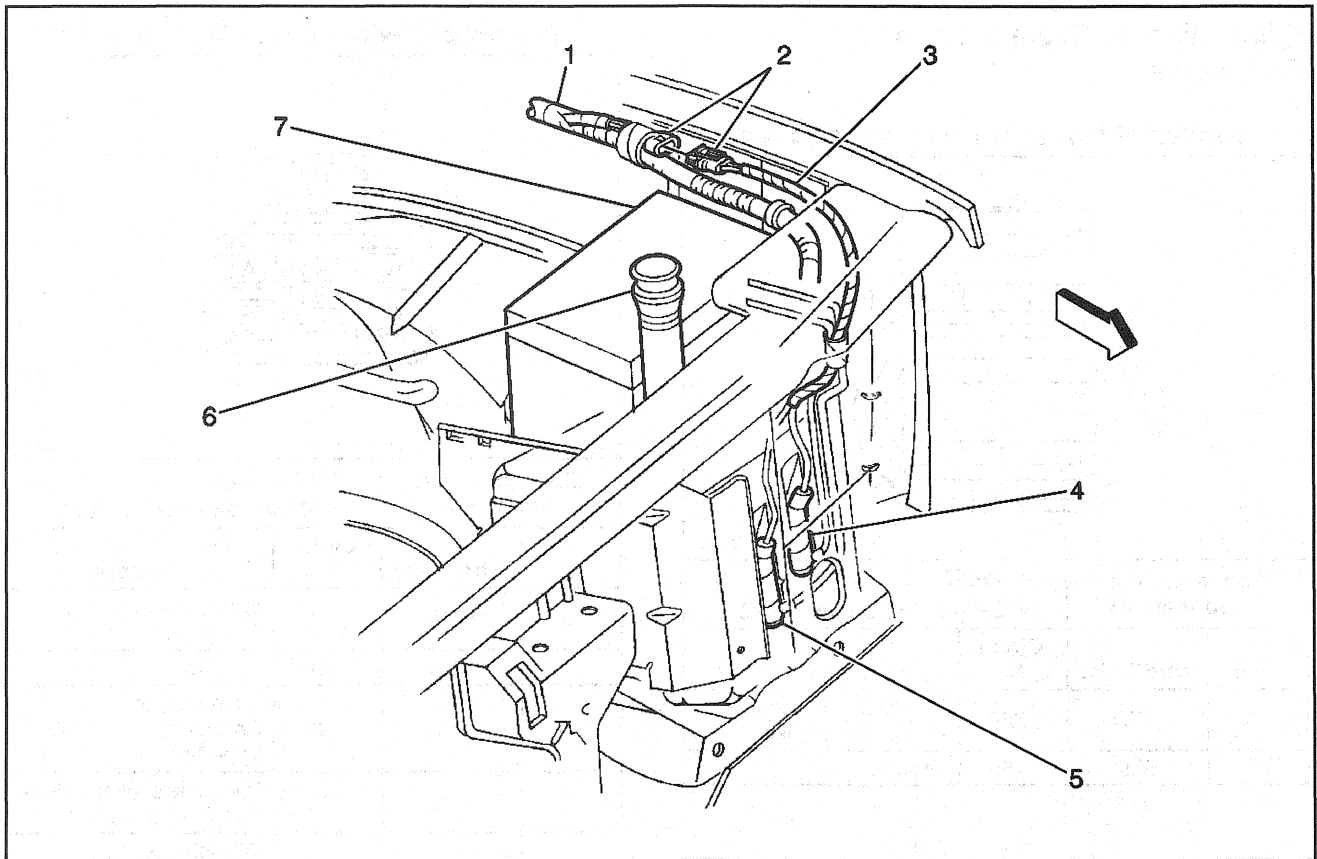
277992

## Legend

(1) Rear Window Wiper Motor Module

(2) Rear Window Washer Hose

## Windshield Washer and Forward Lamp Harness



465195

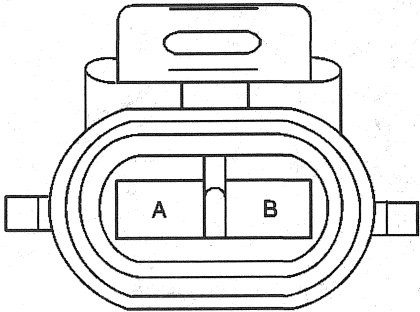
## Legend

- |  |   |
|--|---|
| (1) Forward Lamp Harness                   | (5) Windshield Washer Motor, Rear       |
| (2) C116                                   | (6) Windshield Washer Reservoir         |
| (3) Windshield Washer Motor Wiring Harness | (7) Battery, LH (Auxiliary/Diesel Only) |
| (4) Windshield Washer Motor, Front         |   |

Visual Identification

Wiper/Washer System Connector  
End Views

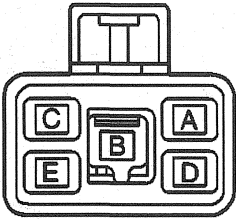
Windshield Washer Pump Motor, Front



35437

Connector Part Information		• 12052641 • 2F M/P 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	RED	228	Windshield Washer Pump Motor Feed
B	BLK	150	Ground

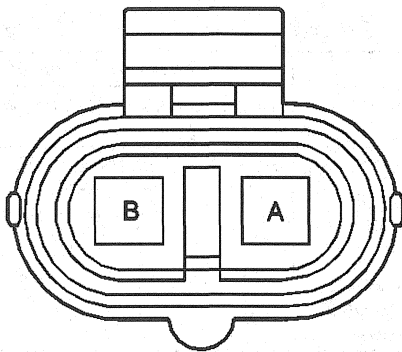
Windshield Wiper Motor Module, Front



68703

Connector Part Information		• 12124634 • 5F M/P 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	RED	228	Windshield Washer Pump Motor - Feed
B	BLK	150	Ground
C	YEL	143	Fuse Output - Accessory - Type III Fuse
D	PPL	92	Windshield Wiper Motor Feed - High Speed
E	BRN	96	Windshield Wiper Switch Signal - Pulse Delay

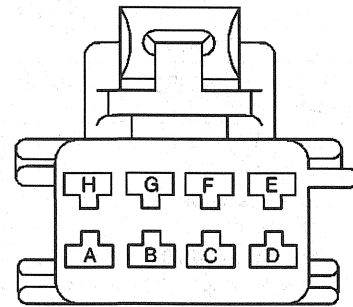
## Window Washer Pump Motor, Rear



35430

Connector Part Information		<ul style="list-style-type: none"> <li>• 12020599</li> <li>• 2F M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK GRN	392	Rear Window Washer Pump Motor - Feed
B	BLK	150	Ground

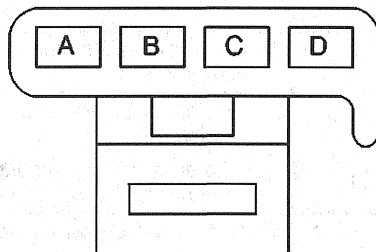
## Window Wiper/ Washer Switch, Rear



62463

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8F M/P 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	WHT	393	Rear Window Wiper Motor - Feed
B	DK GRN	392	Rear Window Washer Pump Motor - Feed
C	—	—	Not Used
D	GRA	391	Rear Window Wiper Switch Output
E	GRA	8	Instrument Panel Lamp Feed
F	LT BLU	97	Windshield Wiper Switch Signal MIST/OFF/LOW
G	—	—	Not Used
H	BLK	150	Ground

## Window Wiper Motor Module, Rear



62450

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052856</li> <li>• 4F M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	GRA	391	Rear Window Wiper Switch Output
C	DK GRN	392	Rear Window Washer Pump Motor - Feed
D	LT BLU	97	Windshield Wiper Switch MIST/OFF/LOW

## Diagnostic Information and Procedures

## Wiper/Washer System Check (Front)

Step	Action	Normal Result(s)	Abnormal Result(s)*
IMPORTANT: When performing the following checks, maintain some moisture on the front windshield so that the wiper motor does not overheat.			
1	1. Turn the ignition switch to the ON position. 2. Leave the Wiper Switch in the OFF position. 3. Depress the washer switch for 2 to 4 seconds and release.	<ul style="list-style-type: none"> <li>Wipers operate at low speed.</li> <li>Washer sprays windshield as long as washer switch is held in the ON position.</li> <li>After releasing switch, washer stops and wipers return to park position after 2 to 4 sweeps.</li> </ul>	Refer to <i>Washers Inoperative</i> .
2	1. Move the wiper switch to the INT position. 2. Rotate the INT ADJ switch from the high to low delay position.	<ul style="list-style-type: none"> <li>Wipers make one complete sweep, then pause before making next sweep.</li> <li>The pause time is adjusted by turning the INT ADJ switch through the delay range.</li> </ul>	Refer to <i>Wipers Delay Mode Inoperative (Front)</i> .
3	1. Leave the wiper switch in the INT position. 2. Depress the washer switch for 2 to 4 seconds and release.	<ul style="list-style-type: none"> <li>Washer sprays windshield as long as washer switch is held in the ON position.</li> <li>Wipers run at low speed while spraying and continue for 2 to 4 sweeps after washer switch is released.</li> <li>Wipers then return to pulse operation.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to <i>Washers Inoperative</i>.</li> <li>Refer to <i>Wipers Delay Mode Inoperative (Front)</i>.</li> </ul>
4	Move the wiper switch to the LO position.	Wipers run continuously at low speed.	Refer to <i>Wipers All Modes Inoperative</i>
5	Move the wiper switch to the HI position.	Wipers run continuously at high speed.	<ul style="list-style-type: none"> <li>Refer to <i>Wipers All Modes Inoperative</i>.</li> <li>Refer to <i>Wipers High Mode Inoperative, Low Mode Operates</i></li> </ul>
6	Move the wiper switch to the OFF position.	Wipers return to the park position at low speed.	Refer to <i>Wipers Always On</i> .
7	Move the wiper switch to the MIST position and then release.	Wipers make one complete sweep, then return to the park position.	<ul style="list-style-type: none"> <li>Refer to <i>Wipers Always On</i>.</li> <li>Refer to <i>Wipers All Modes Inoperative</i></li> </ul>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Wiper/Washer System Check (Rear)

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	Place the rear wiper/washer switch in the DELAY position.	Wiper makes one complete sweep and pauses before making the next sweep	Refer to <i>Wipers Delay Mode Inoperative (Rear)</i>
2	Place the rear wiper/washer switch in the ON position.	The rear wiper operates in full continuous sweeps.	Refer to <i>Wipers Inoperative - Rear</i>
3	Depress the rear washer switch for 2 to 4 seconds and release.	The rear washer sprays as long as the rear washer switch is depressed.	Refer to <i>Washers Inoperative - Rear</i>
4	Place the rear wiper/washer switch in the OFF position.	The rear wiper returns to the PARK position.	Refer to <i>Wipers Always On - Rear</i>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Washers Inoperative

Step	Action	Value(s)	Yes	No
1	1. Disconnect the windshield washer pump motor connector. 2. Connect a <i>J 34142-B</i> test lamp from CKT 228 (RED) at the windshield washer pump motor connector to ground. 3. Turn the ignition switch to the ACC or RUN position. 4. Push the wiper/washer switch in the WASH position. Did the test lamp light?	—	Go to Step 2	Go to Step 3
2	1. Connect a <i>J 34142-B</i> test lamp from CKT 228 (RED) to CKT 150 (BLK) at the windshield washer pump motor connector. 2. Push the washer switch to the WASH position. Did the test lamp light?	—	Go to Step 6	Go to Step 7
3	Connect a <i>J 39200</i> DMM between the windshield washer pump motor connector cavity A and wiper motor module connector cavity A. Is there continuity?	—	Go to Step 5	Go to Step 4
4	Repair open in CKT 228 (RED) between windshield wiper motor module and windshield washer pump motor. Is the repair complete?	—	System OK	—
5	1. Connect a <i>J 34142-B</i> test lamp from CKT 96 (BRN) at the windshield wiper motor module connector cavity E to ground. 2. Push the washer switch to the WASH position. Did the test lamp light?	—	Go to Step 8	Go to Step 9
6	Replace the windshield washer pump motor. Is the repair complete?	—	System OK	—
7	Repair the open in CKT 150 (BLK) from the windshield washer pump motor connector to ground. Is the repair complete?	—	System OK	—
8	Replace the windshield wiper motor module. Is the repair complete?	—	System OK	—
9	1. Repair the open in CKT 96 (BRN) between the windshield wiper motor module connector to the windshield wiper/washer switch connector. 2. If the wire is OK, replace the wiper/washer switch. Is the repair complete?	—	System OK	—

## Washers Inoperative - Rear

Step	Action	Value(s)	Yes	No
1	Was the Wiper/Washer System Check performed?	—	Go to Step 2	Go to Wiper/Washer System Check (Rear)
2	1. Turn ignition to the RUN position. 2. Connect a <i>J 34142-B</i> test lamp between rear window wiper / washer switch connector cavity A and ground. Does the test lamp light?	—	Go to Step 4	Go to Step 3
3	Repair open in CKT393(WHT) between rear window wiper / washer switch and the I/P fuse block. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—

## Washers Inoperative - Rear (cont'd)

Step	Action	Value(s)	Yes	No
4	1. Connect a <i>J 34142-B</i> test lamp between rear window wiper / washer switch cavity B and ground. 2. Depress the rear washer switch. Does the test lamp light?	—	Go to Step 6	Go to Step 5
5	Replace the rear window wiper / washer switch. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
6	1. Connect a <i>J 34142-B</i> test lamp between rear window washer pump motor connector cavity A and ground. 2. Depress the rear window washer switch. Does the test lamp light?	—	Go to Step 8	Go to Step 7
7	Repair open in CKT392(DK GRN) between rear window washer pump and rear window wiper / washer switch. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
8	Connect a <i>J 39200</i> DMM, set on Ohms, between rear window washer pump motor connector cavity B and ground. Is continuity present?	—	Go to Step 9	Go to Step 10
9	Replace the rear window washer pump motor. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
10	Repair open in CKT150(BLK) between rear window washer pump motor and G113. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—

## Wipers All Modes Inoperative

Step	Action	Value(s)	Yes	No
1	Did you perform the Front Wiper/Washer System Check?	—	Go to Step 2	Go to Wiper/Washer System Check (Front)
2	1. Disconnect the windshield wiper washer switch connector C266. 2. Connect a <i>J 34142-B</i> test lamp between C266 cavity E4 and ground. 3. Turn ignition switch to the RUN position. Does the test lamp light?	—	Go to Step 4	Go to Step 3
3	Repair the open in CKT 143 (YEL) between the windshield wiper washer switch and the I/P fuse block. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—
4	1. Connect connector C266. 2. Disconnect windshield wiper motor module. 3. Connect a <i>J 34142-B</i> test lamp between windshield wiper motor module connector cavity E and ground. 4. Place the wiper switch in the LO position. Does the test lamp light?	—	Go to Step 5	Go to Step 8



**Wipers All Modes Inoperative (cont'd)**

Step	Action	Value(s)	Yes	No
5	1. Connect a <i>J 34142-B</i> test lamp between windshield wiper motor module connector cavity D and ground. 2. Placethe wiper switch in the HI position. Does the test lamp light?	—	Go to <i>Step 6</i>	Go to <i>Step 9</i>
6	Connect a <i>J 34142-B</i> test lamp between windshield wiper motor module connector cavity B and B+. Does the test lamp light?	—	Go to <i>Step 7</i>	Go to <i>Step 10</i>
7	Replace the windshield wiper motor module. Refer to <i>Wiper Motor Replacement</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Front)</i>	—
8	1. Repair open in CKT 96 (BRN) between windshield wiper / washer switch and windshield wiper motor module. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . 2. If no open was found, replace the windshield wiper / washer switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> in <i>Steering</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Front)</i>	—
9	1. Repair open in CKT 92 (PPL) between windshield wiper / washer switch and windshield wiper motor module. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . 2. If no open was found, replace the windshield wiper motor module. Refer to <i>Wiper Motor Replacement</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Front)</i>	—
10	Repair open in CKT 150 (BLK) between windshield wiper motor module and ground. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Front)</i>	—

**Wipers Always On**

Step	Action	Value(s)	Yes	No
1	Did you perform the Front Wiper/Washer System Check	—	Go to <i>Step 2</i>	Go to <i>Wiper/Washer System Check (Front)</i>
2	1. Disconnect the windshield wiper/washer motor module connector. 2. Turn the ignition switch to the RUN position. 3. Place the windshield wiper/washer switch in the OFF position. 4. Connect a <i>J 34142-B</i> test lamp from CKT 96 (BRN) at the windshield wiper motor module connector cavity E to ground. Did the test lamp light?	—	Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	1. Repair the short to voltage in CKT 96 (BRN) from the windshield wiper motor module connector to the windshield wiper/washer switch connector. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . 2. If no short is found, replace the windshield wiper/washer switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> in <i>Steering</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Front)</i>	—

## Wipers Always On (cont'd)

Step	Action	Value(s)	Yes	No
4	Connect a <i>J 34142-B</i> test lamp from CKT 92 (PPL) at the windshield wiper motor module connector cavity D to ground. Did the test lamp light?	—	Go to <i>Step 5</i>	Go to <i>Step 6</i>
5	1. Repair the short to voltage in CKT 92 (PPL) from the windshield wiper motor module connector to the windshield wiper/washer switch connector. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . 2. If no short is found, replace the windshield wiper/washer switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> in <i>Steering</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—
6	Replace the windshield wiper motor module. Refer to <i>Wiper Motor Replacement</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—

## Wipers Delay Mode Inoperative (Rear)

Step	Action	Value(s)	Yes	No
DEFINITION: Use this diagnostic table only if the rear wipers operate in the standard operating mode.				
1	Did you perform the Rear Wiper/Washer System Check?	—	Go to <i>Step 2</i>	Go to Wiper/Washer System Check (Rear)
2	1. Turn the ignition switch to the RUN position. 2. Connect a <i>J 34142-B</i> test lamp between rear window wiper/washer switch cavity D, and ground. 3. Move the switch to DELAY. Did the test lamp light?	—	Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	1. Disconnect the rear window wiper/washer module. 2. Connect a <i>J 34142-B</i> test lamp between cavity B and ground. 3. Move the switch to DELAY. Did the test lamp light?	—	Go to <i>Step 5</i>	Go to <i>Step 6</i>
4	Replace the rear window wiper/washer switch. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
5	Replace the rear window wiper/washer module. Refer to <i>Wiper Motor Replacement - Rear</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
6	Repair the open in CKT 391 (GRY) between the rear window wiper/washer module and the rear window wiper / washer switch. Refer to <i>Wiring Repairs</i> in <i>Wiring Systems</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—

**Wipers Delay Mode Inoperative (Front)**

Step	Action	Value(s)	Yes	No
1	Did you perform the Front Wipers/Washers System Check?	—	Go to Step 2	Go to Wiper/Washer System Check (Front)
2	1. Disconnect the windshield wiper/washer switch connector c266. 2. Place the windshield wiper switch in the LO position. 3. Connect a <i>J 39200</i> DMM between cavity E5 for CKT 96 (BRN) and cavity E4 for CKT 143 (YEL) at the windshield wiper/washer switch. Is the resistance near or equal to the specified value?	680 $\Omega$	Go to Step 3	Go to Step 5
3	With the <i>J 39200</i> DMM still connected, move the windshield wiper/washer switch through the delay range to the maximum delay position while observing the meter. Do the readings increase in steps to the approximate value?	450 k $\Omega$	Go to Step 4	Go to Step 5
4	1. Repair the open in CKT 96 (BRN) or CKT 143 (YEL) between the wiper/washer switch connector and the windshield wiper motor module. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the wires are OK, replace the windshield wiper motor module. Refer to <i>Wiper Motor Replacement</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—
5	Replace the windshield wiper/washer switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—

**Wipers High Mode Inoperative, Low Mode Operates**

Step	Action	Value(s)	Yes	No
1	Did you perform the Front Wiper/Washer System Check?	—	Go to Step 2	Go to Wiper/Washer System Check (Front)
2	1. Disconnect the windshield wiper motor module connector. 2. Turn the ignition switch to the RUN position. 3. Place the windshield wiper/washer switch in the HI position. 4. Connect a <i>J 34142-B</i> test lamp between CKT 92 (PPL) at the windshield wiper motor module connector and ground. Did the test lamp light?	—	Go to Step 3	Go to Step 4
3	Replace the windshield wiper motor module. Refer to <i>Wiper Motor Replacement</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—
4	Connect a <i>J 34142-B</i> test lamp between CKT 92 (PPL) at the windshield wiper/washer switch connector C266 cavity E5 and ground. Did the test lamp light?	—	Go to Step 5	Go to Step 6
5	Repair the open in CKT 92 (PPL) between the windshield wiper/washer switch connector and the windshield wiper motor module connector. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—
6	Replace the windshield wiper/washer switch. Refer to <i>Multifunction, Turn Signal and Hazard Switch Replacement - On Vehicle</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Front)	—

## Wipers Always On - Rear

Step	Action	Value(s)	Yes	No
DEFINITION: This diagnostic should only be used when the rear wiper motor runs continuously with the ignition switch is in ACC or RUN and the switch is in the OFF position.				
1	Did you perform the Rear Wiper/Washer System Check?	—	Go to Step 2	Go to Wiper/Washer System Check (Rear)
2	Disconnect the rear window wiper / washer switch connector. Did the rear wiper turn OFF?	—	Go to Step 3	Go to Step 4
3	Replace the rear window wiper / washer switch. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—
4	1. Repair short to power in CKT391(GRY between rear window wiper / washer switch and rear window wiper / washer module. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If no short was found, replace the rear window wiper / washer module. Refer to <i>Wiper Motor Replacement - Rear</i> . Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—

## Wipers Inoperative - Rear

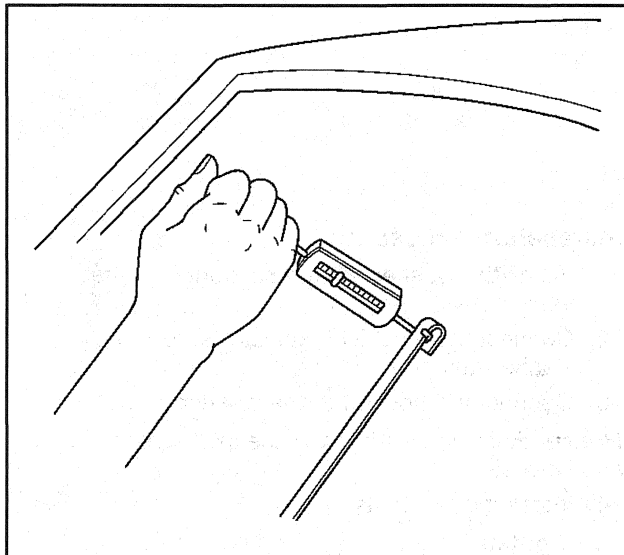
Step	Action	Value(s)	Yes	No
1	Did you perform the Rear Wiper/Washer System Check?	—	Go to Step 2	Go to Wiper/Washer System Check (Rear)
2	1. Disconnect the rear window wiper/washer switch. 2. Turn the ignition switch to the RUN position. 3. Connect a <i>J 34142-B</i> test lamp between cavity A and ground. Did the test lamp light?	—	Go to Step 3	Go to Step 4
3	1. Connect the rear window wiper/washer switch. 2. Disconnect the rear window wiper/washer motor module. 3. Connect a <i>J 34142-B</i> test lamp from cavity B and ground. 4. Place the rear window wiper/washer switch to the ON position. Did the test lamp light?	—	Go to Step 5	Go to Step 6
4	Repair the open in CKT 393 (WHT) between the IP fuse block and the rear window wiper/washer switch. Refer to <i>Wiring Repairs</i> in Wiring Systems. Are the rear wipers still inoperative?	—	Go to Step 5	System OK
5	Connect a <i>J 34142-B</i> test lamp between rear window wiper/washer module connector cavity A and B+. Did the test lamp light?	—	Go to Step 7	Go to Step 8
6	1. Check for an open in CKT 391 (GRY) between the rear window wiper/washer module and the rear window wiper/washer switch. Make the necessary repairs. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the circuit is OK, replace the rear window wiper/washer switch. Is the repair complete?	—	Go to Wiper/Washer System Check (Rear)	—

## Wipers Inoperative - Rear (cont'd)

Step	Action	Value(s)	Yes	No
7	Replace the rear window wiper/washer module. Refer to <i>Wiper Motor Replacement - Rear</i> . Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Rear)</i>	—
8	Repair the open in CKT 150 (BLK) between the module and ground. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to <i>Wiper/Washer System Check (Rear)</i>	—

## Wiper Arm Tip Pressure Check, Blade Element Check

## Wiper Arm Tip Pressure Check



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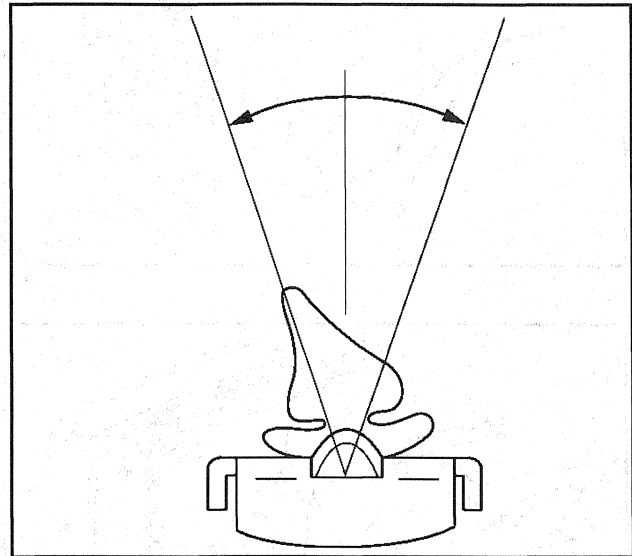
1. Run the wiper arms to the mid-wipe position.
2. Remove the wiper blades from the wiper arms. Refer to *Wiper Arm Blade Replacement*.
3. Attach a scale to the end of the wiper arm and measure the force required to lift the wiper arm perpendicular to the windshield to normal working height (height with the blade attached).
4. Replace the wiper arm if the measurement is not within the specification. Refer to *Wiper Arm Replacement*.

**Tip Pressure**

7.8–9.5 Newtons (28–34 oz)

5. Install the wiper blades on the wiper arms. Refer to *Wiper Arm Blade Replacement*.

## Blade Element Check



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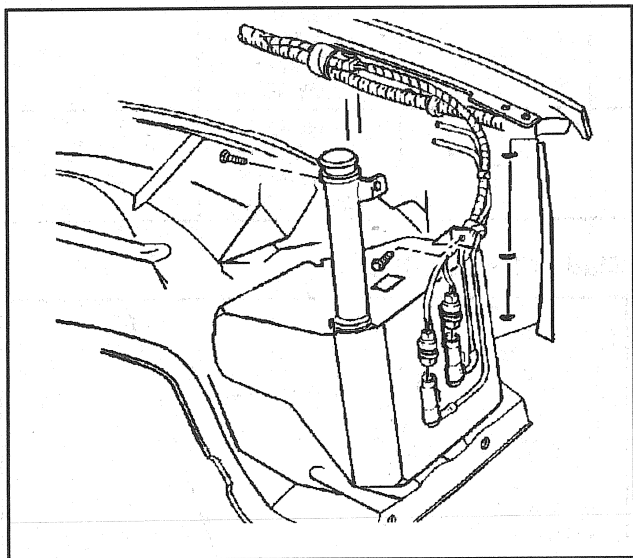
1. Remove the wiper blades from the wiper arms. Refer to *Wiper Arm Blade Replacement*.
2. Look down the length of the blade element.
3. Replace the wiper blade element if the rubber element which contacts the glass is not on the centerline of the blade  $\pm 15$  degrees. Refer to *Wiper Blade Element Replacement*.
4. Install the wiper blades on the wiper arms. Refer to *Wiper Arm Blade Replacement*.

## Repair Instructions

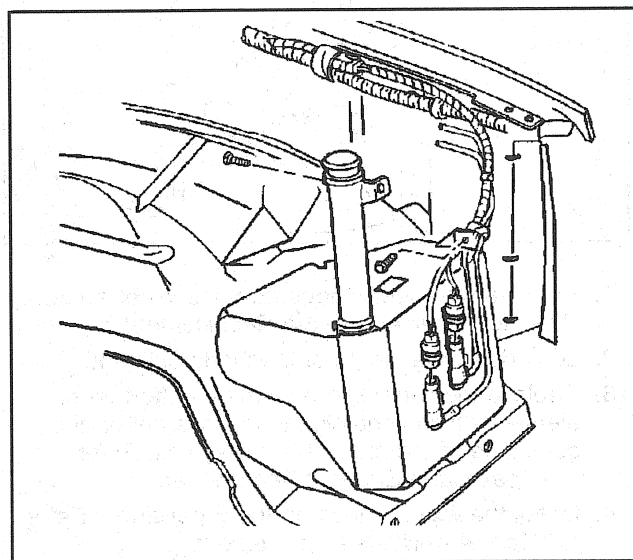
### Washer Solvent Container Replacement

#### Removal Procedure

1. Remove the auxiliary battery and battery tray, if equipped. Refer to *Battery Tray Replacement (With Auxiliary)*.
2. Remove the two bolts.
3. Disconnect the hose(s) from the washer pump(s).
4. Disconnect the electrical connector(s) from the washer pump(s).
5. Remove the washer solvent container from the vehicle.



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#### Installation Procedure

1. Install the washer solvent container on the vehicle.
2. Connect the electrical connector(s) to the washer pump(s).
3. Connect the hose(s) to the washer pump(s).

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

4. Install the two bolts.

#### Tighten

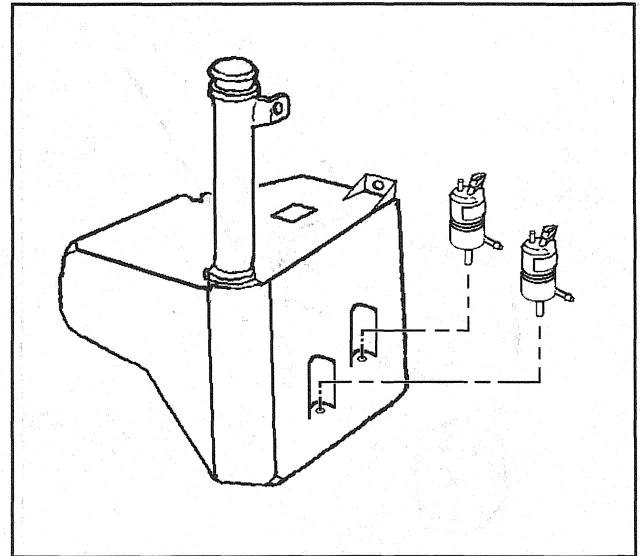
Tighten the two bolts to 6 N·m (53 lb in).

5. Install the auxiliary battery and battery tray, if equipped. Refer to *Battery Tray Replacement (With Auxiliary)*.

## Washer Pump Replacement

### Removal Procedure

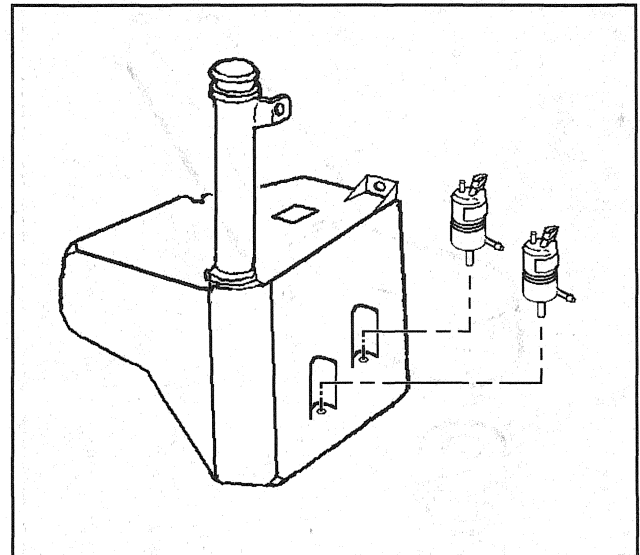
1. Remove the washer solvent container from the vehicle. Refer to *Washer Solvent Container Replacement*.
2. Remove the washer pump(s) from the washer solvent container.



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### Installation Procedure

1. Install the washer pump(s) in the washer solvent container.
2. Install the washer solvent container on the vehicle. Refer to *Washer Solvent Container Replacement*.

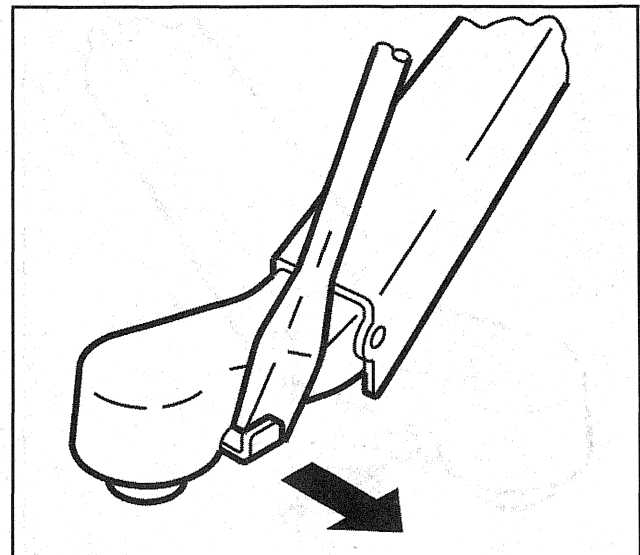


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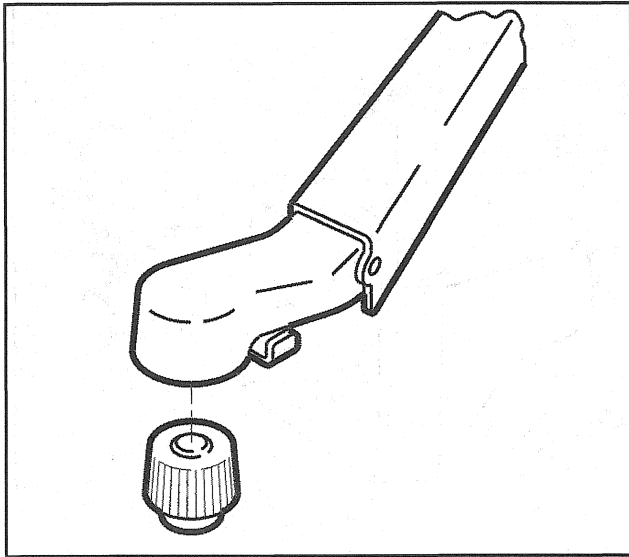
## Wiper Arm Replacement

### Removal Procedure

1. Mark the position of the wiper blade on the windshield with a suitable marker or a piece of masking tape.
2. Remove the washer hose.
3. Lift the wiper arm from the windshield.
4. Disengage the retaining latch with a screwdriver.

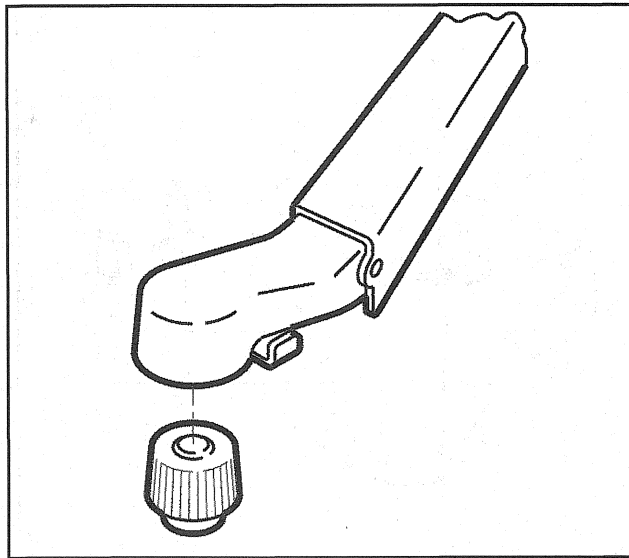


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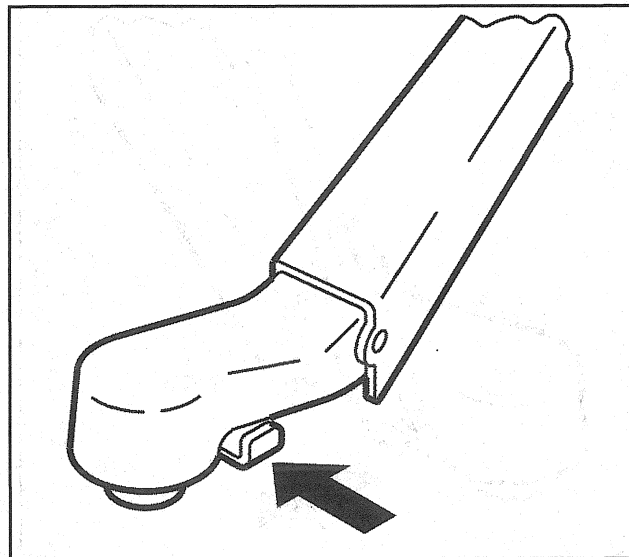
5. Remove the wiper arm from the transmission drive shaft.



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### Installation Procedure

1. Position the wiper arm on the transmission drive shaft so that the wiper blade aligns with the mark made on the windshield before removal.
2. Seat the arm assembly on the drive shaft.



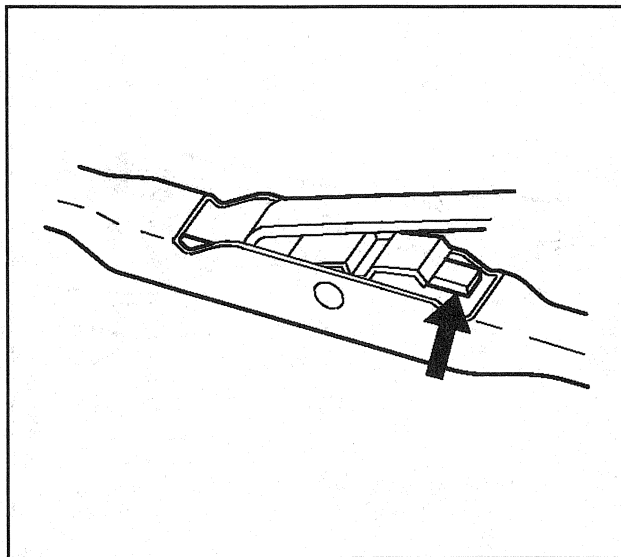
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3. Press in the retaining latch.
4. Connect the washer hose.
5. Clean the position mark or masking tape from the windshield.
6. Operate the wipers and check for proper operation.



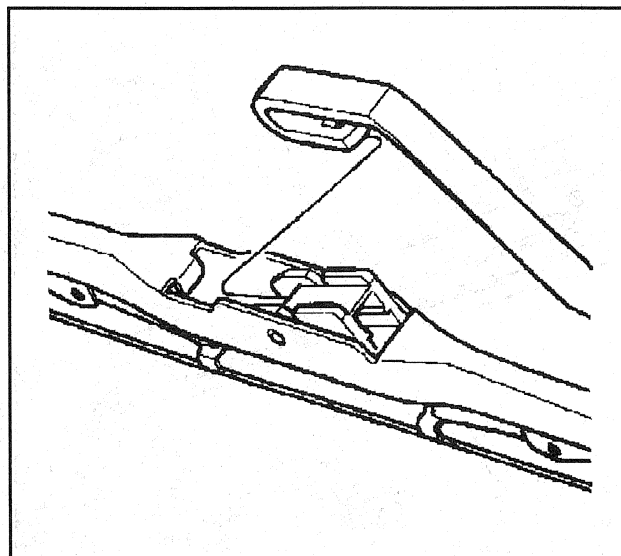
**Wiper Arm Blade Replacement****Removal Procedure**

1. Turn the ignition switch to the ACCY position.
2. Set the wiper switch to the PULSE position.
3. Turn the ignition off when the wipers are in the innerwipe position and not moving.
4. Push in the button of the wiper blade clip and remove the wiper blade from the inside radius of the wiper arm.



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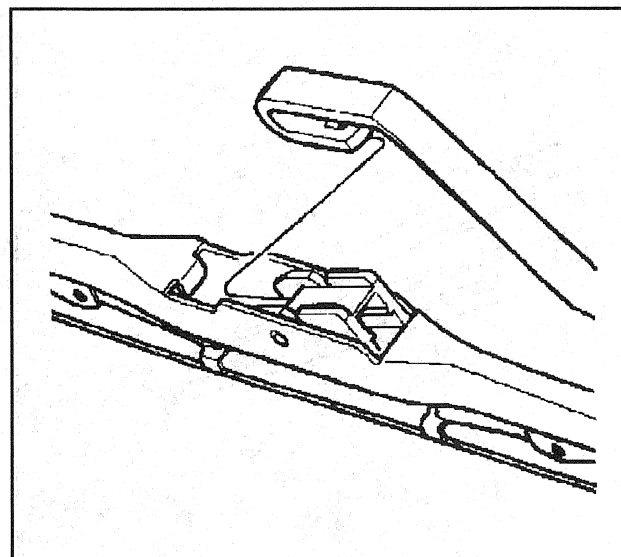
5. Bring the wiper arm out through the opening in the wiper blade.



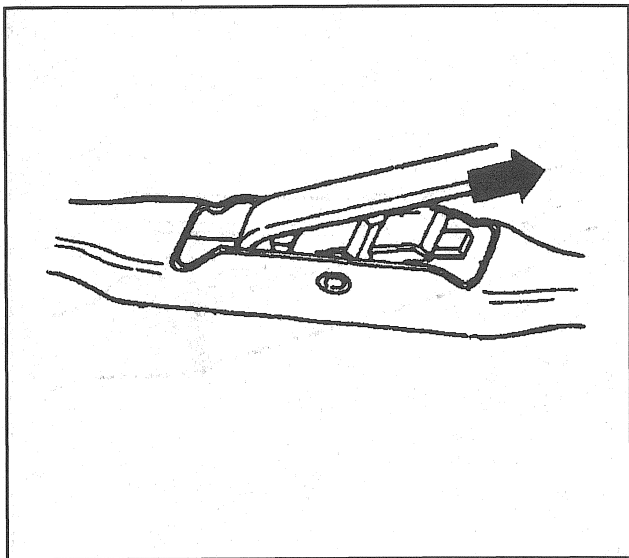
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**Installation Procedure**

1. Insert the hook of the wiper arm through the opening in the wiper blade.

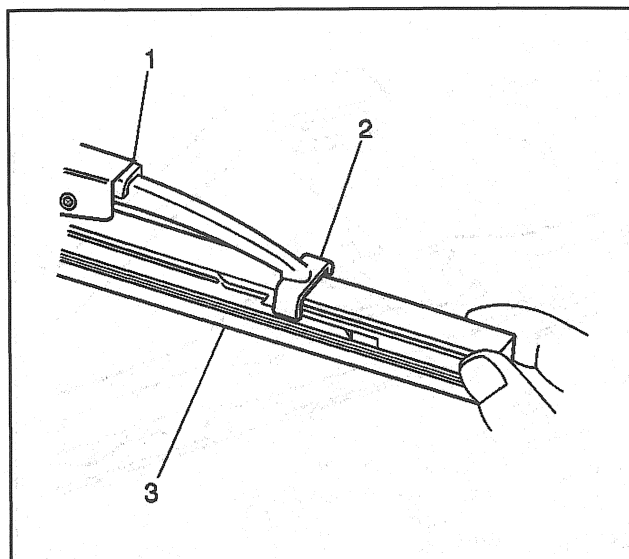


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2. Position the wiper blade pivot in the inside radius of the wiper arm hook.
3. Pull the wiper blade pivot into the wiper arm hook until the pivot locks into the hook.
4. Operate the wipers and check for proper operation.



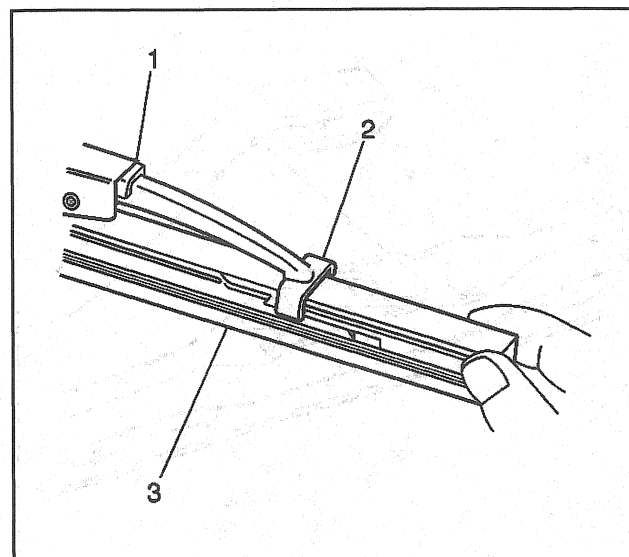
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## Wiper Blade Element Replacement

### Removal Procedure

**Important:** Replace the wiper blade element if it is removed from the wiper blade.

1. Remove the wiper blade from the wiper arm. Refer to *Wiper Arm Blade Replacement*.
2. Remove the bottom claws (2) of the wiper blade (1) from the notches in the wiper blade element (3).
3. Pull the wiper blade element (3) out through the wiper blade claws (2).



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### Installation Procedure

**Important:** Keep the wiper blade claws in the rubber claw channel of the wiper blade element. Do not allow the claws of the wiper blade to contact the metal spline of the wiper blade element.

1. Insert the open end of the wiper blade element (3) into the bottom claws of the wiper blade (2).
2. Guide the wiper blade element (3) through the wiper blade (1) claw sets.
3. Engage the bottom claw (2) of the wiper blade (1) into the notches in wiper blade element (3).
4. Install the wiper blade onto the wiper arm. Refer to *Wiper Arm Blade Replacement*.

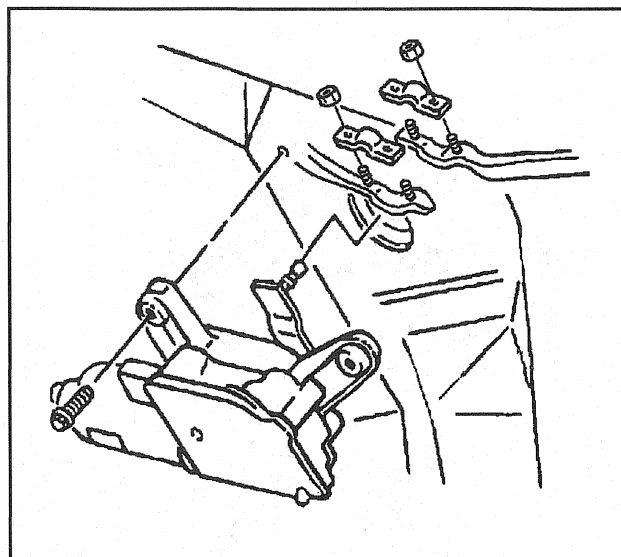
## Wiper Motor Replacement

### Removal Procedure

1. Remove the wiper arms. Refer to *Wiper Arm Replacement*.
2. Remove the air inlet grille panel. Refer to *Air Inlet Grille Panel Replacement*.
3. Disconnect the electrical connector from the motor.

**Important:** Do not remove the crank arm.

4. Loosen the nuts attaching the drive link brackets to the crank arm.
5. Remove the brackets from the wiper motor crank arm.
6. Remove the three bolts and the wiper motor from the vehicle.



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### Installation Procedure

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

1. Install the wiper motor on the vehicle.
2. Install the three bolts.

#### **Tighten**

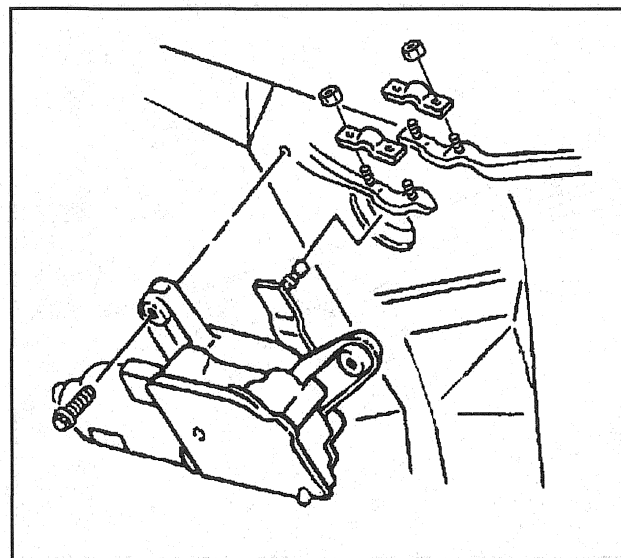
Tighten the three bolts to 7 N·m (62 lb in).

3. Install the drive link brackets to the wiper motor crank arm with the right side linkage closest to the wiper motor.

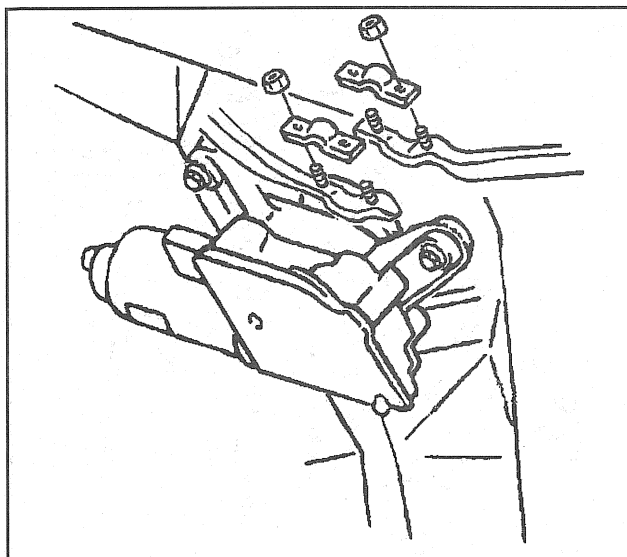
#### **Tighten**

Tighten the link nuts to 5 N·m (44 lb in).

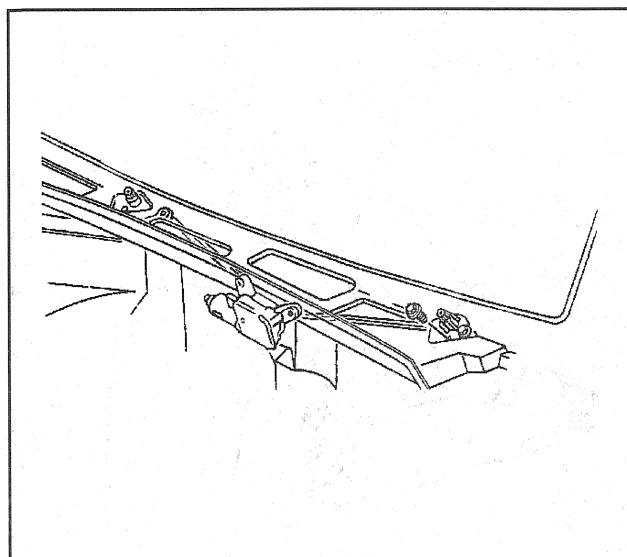
4. Connect the electrical connector to the wiper motor.
5. Install the air inlet grille panel. Refer to *Air Inlet Grille Panel Replacement*.
6. Install the wiper arms. Refer to *Wiper Arm Replacement*.



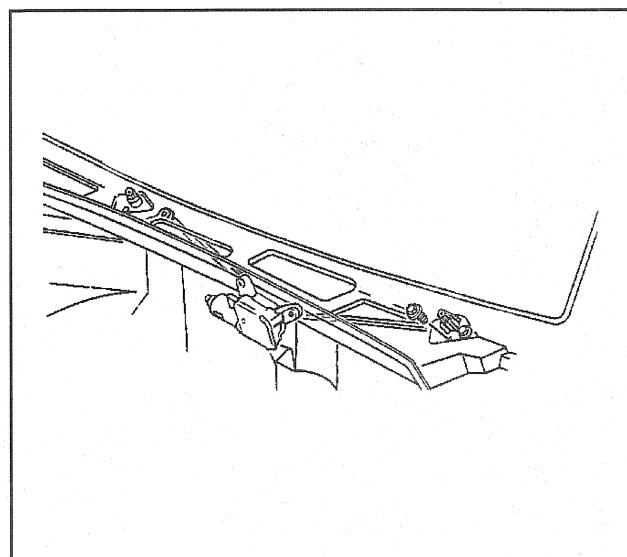
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## Wiper Transmission Replacement

### Removal Procedure

1. Remove the wiper arms. Refer to *Wiper Arm Replacement*.
2. Remove the air inlet grille panel. Refer to *Air Inlet Grille Panel Replacement*.
3. Loosen the nuts attaching the drive link brackets to the crank arm.
4. Remove the brackets from the wiper motor crank arm.

**Important:** Note the position of the right and left transmission links for reassembly.

5. Remove the transmission to cowl bolts.
6. Remove the transmission assembly from the vehicle.

### Installation Procedure

1. Install the wiper transmission assembly to the vehicle.

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

2. Install the transmission to cowl bolts.

#### Tighten

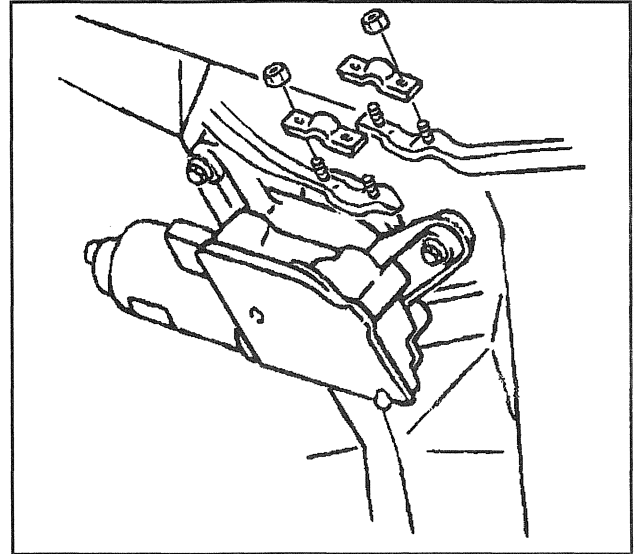
Tighten the bolts to 7 N·m (62 lb in).

3. Install the transmission brackets to the wiper motor crank arm.

**Tighten**

Tighten the drive link nuts to 5 N·m (44 lb in).

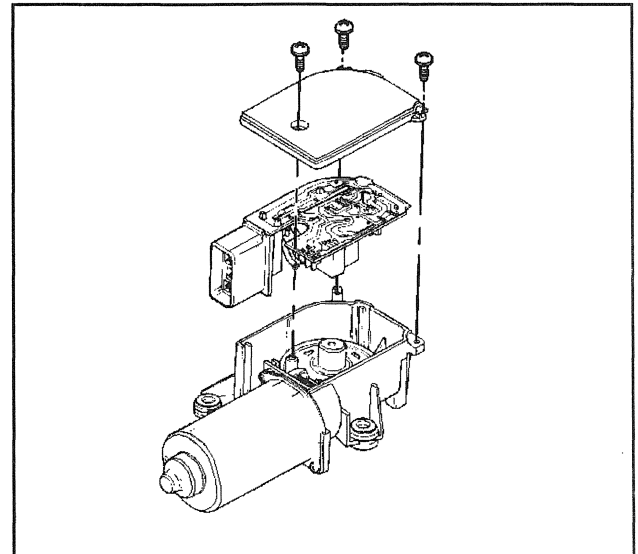
4. Install the air inlet grille panel. Refer to *Air Inlet Grille Panel Replacement*.
5. Install the wiper arms. Refer to *Wiper Arm Replacement*.



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**Wiper Motor Module Replacement****Removal Procedure**

1. Disconnect the electrical connector from the wiper motor.
2. Remove the three screws and the wiper motor cover.
3. Remove the module from the wiper motor.



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**Installation Procedure**

1. Install the module in the wiper motor.

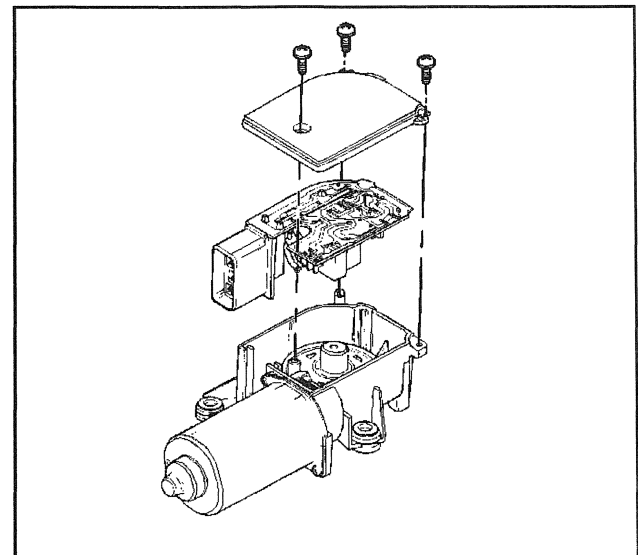
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

2. Install the wiper motor cover with the three screws.

**Tighten**

Tighten the three screws to 2.6 N·m (23 lb in).

3. Connect the electrical connector to the wiper motor.



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### Wiper Chatter Repair

Some vehicles may exhibit a condition where the windshield wipers chatter and/or wipe unevenly. Several items may contribute to this condition. To completely repair this condition, ALL the items listed below should be checked and repaired as necessary.

- Windshield Glass Cleaning
- Blade Element Cleaning
- Wiper Arm Pressure Check
- Blade Element Set Check

### Windshield Glass Cleaning

Clean the windshield with windshield cleaner, GM PN 1050011 or equivalent. The cleaner used should be one which will not harm the paint finish or scratch the glass. The glass is clean when the water no longer beads, but sheets across the entire glass surface.

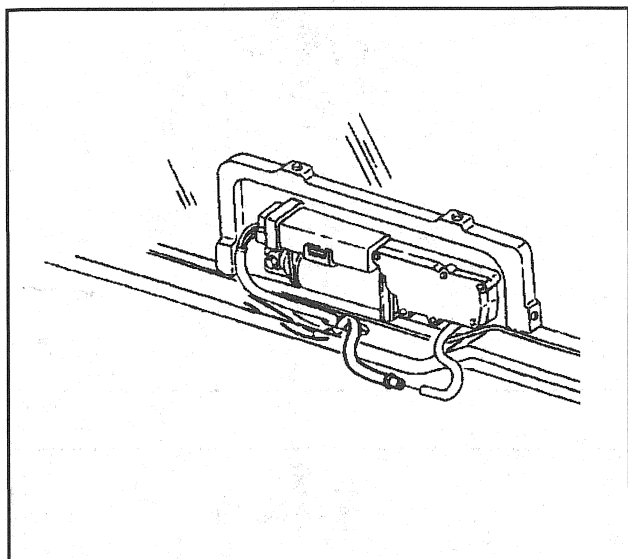
### Blade Element Cleaning

Lift each blade assembly off the windshield and clean the element with a cloth saturated in full strength washer solution. Rinse the blade assemblies with water.

### Wiper Arm Replacement - Rear

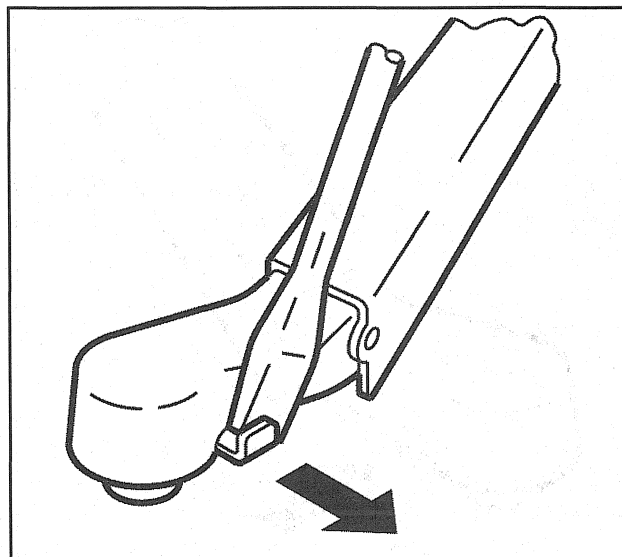
#### Removal Procedure

1. Disconnect the washer hose.



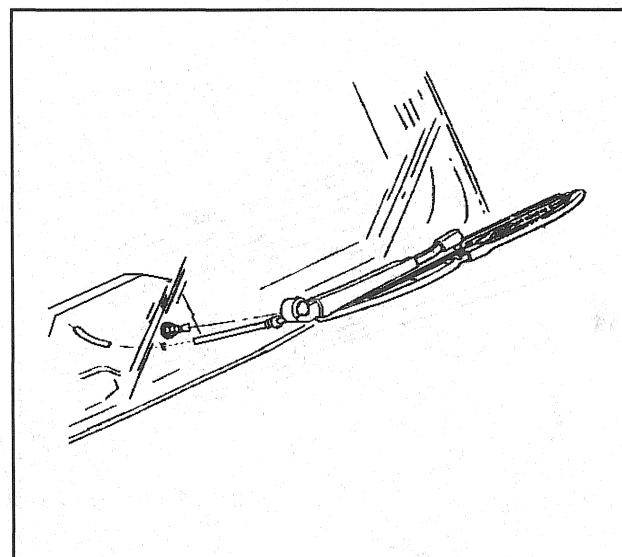
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2. Lift the wiper arm from the windshield.
3. Disengage the retaining latch with a screwdriver.



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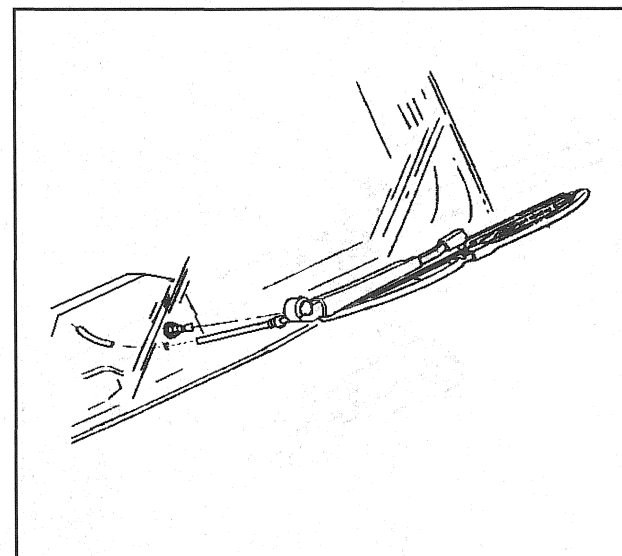
4. Disengage the washer hose and grommet from the liftglass.
5. Remove the wiper arm from the wiper motor drive shaft.



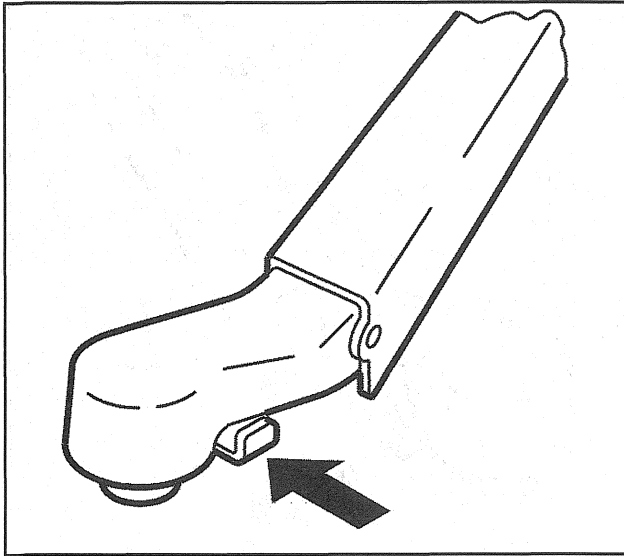
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### Installation Procedure

1. Install the wiper arm assembly onto the wiper motor driveshaft with the wiper blade in parked position (blade parallel to the edge of the glass).
2. Install the washer hose and grommet in the liftglass.

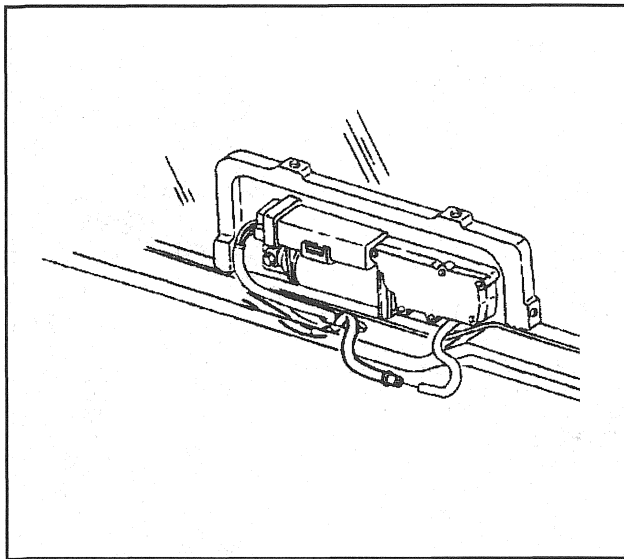


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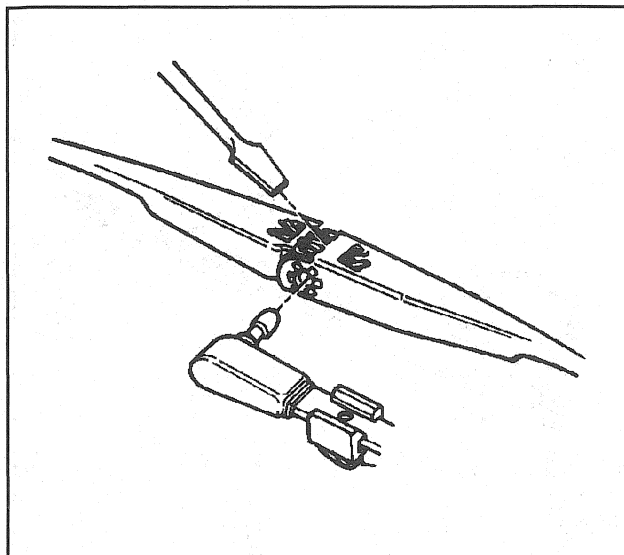
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3. Lift the wiper arm extension and push in the retaining latch when the head is fully seated onto the driveshaft.



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4. Connect the washer hose.



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### Wiper Arm Blade Replacement - Rear

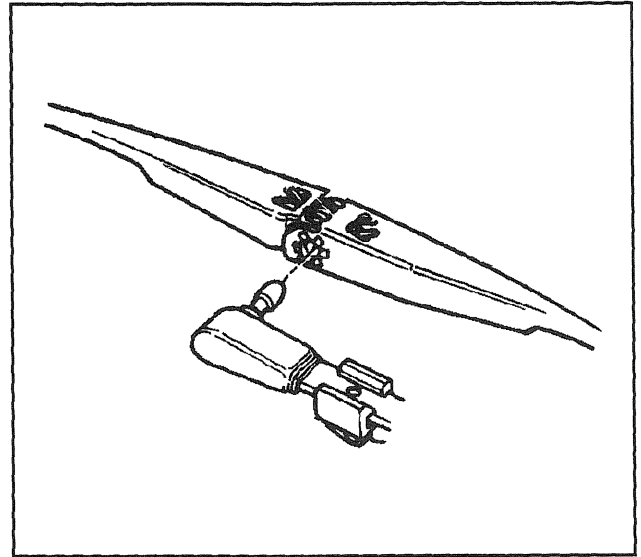
#### Removal Procedure

1. Insert a narrow-bladed screwdriver into the release slot over the wiper blade retainer spring.
2. Pivot the screwdriver so that the blade tip presses downward on the retainer spring and releases the wiper blade from the pin of the wiper arm.
3. Remove the wiper blade from the wiper arm.



**Installation Procedure**

1. Install the wiper blade on the wiper arm pin.
2. Snap the wiper blade into place.

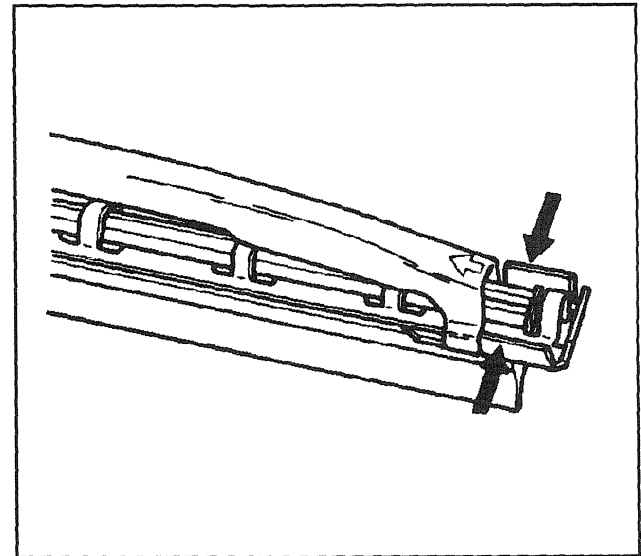


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**Blade Element Replacement - Rear****Removal Procedure**

**Important:** Replace the wiper blade element if it is removed from the wiper blade.

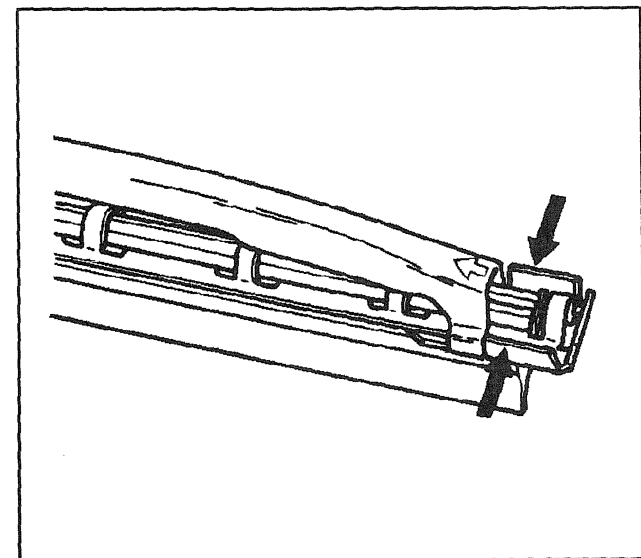
1. Remove the wiper blade from the wiper arm. Refer to *Wiper Arm Blade Replacement - Rear*.
2. Squeeze the wiper blade element tabs together.
3. Pull the wiper blade element out through the wiper blade claws.



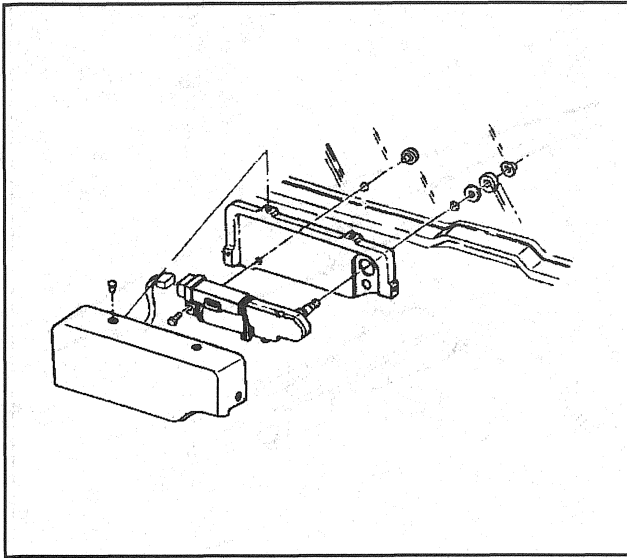
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**Installation Procedure**

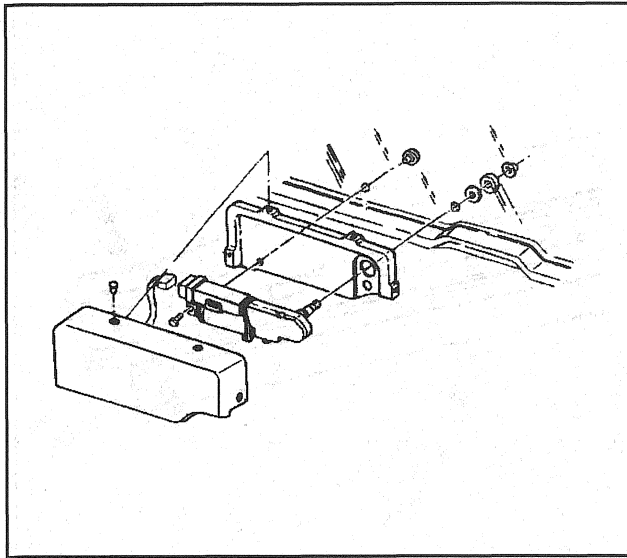
1. Slide the wiper blade element through the bottom claw of the wiper blade.
2. Guide the wiper blade element through the wiper blade claws until both of the locking tabs engage the bottom claw set.
3. Install the wiper blade on the wiper arm. Refer to *Wiper Arm Blade Replacement - Rear*.



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## Wiper Motor Replacement - Rear

### Removal Procedure

1. Remove the wiper arm. Refer to *Wiper Arm Replacement - Rear*.
2. Remove four retainers from the wiper motor cover.
3. Remove the cover from the wiper motor.
4. Disconnect the electrical connector from the wiper motor.
5. Remove the bolt from the wiper motor.
6. Remove the nut from the liftglass.
7. Remove the nut, the spacer, and the washer from the wiper motor drive shaft.
8. Remove the wiper motor from the vehicle.

### Installation Procedure

1. Install the wiper motor onto the vehicle.

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

2. Install the washer, the spacer, and the nut on the wiper motor drive shaft.

#### Tighten

Tighten the nut to 6 N·m (53 lb in).

3. Install the nut in the liftglass.
4. Install the bolt to the wiper motor.

#### Tighten

Tighten the bolt to 6 N·m (53 lb in).

5. Connect the electrical connector.
6. Install the cover onto the wiper motor.
7. Install four retainers in the cover.
8. Install the wiper arm. Refer to *Wiper Arm Replacement - Rear*.

## Description and Operation

### Wiper/Washer System Circuit Description

#### Wiper/Washer System

In addition to the features of a conventional (non-pulse) wiper system (mist, low, and high speeds), the pulse-type windshield wiper/washer system includes an operating mode in which the wipers make single sweeps with a time interval between sweeps. The time interval is controlled by a solid-state timer in the wiper motor cover assembly. The duration of the delay interval is determined by the delay resistor in the wiper/washer switch assembly.

When the wiper switch is turned off, the wiper motor returns the wipers to the park position.

**Pulse Description**

With the ignition in the ACC or RUN position, battery voltage is applied to the wiper motor module connector cavity C and the windshield wiper / washer switch through CKT 143 (YEL). With the wiper switch in the DELAY (pulse) position, voltage is also applied to the windshield wiper motor module connector cavity E through CKT 96 (BRN)

For variable-pulse systems, the length of delay time between sweeps is controlled by the variable-pulse delay resistor. Delay is adjustable from 1–22 seconds, nominally.

**Mist Description**

When the wiper switch is moved to MIST and released, the wipers make one sweep at low speed and return to the park position. If the wiper switch is held in MIST, the wipers will continue to operate until the switch is released. The circuit operation is the same as that of low speed.

**Low-Speed Description**

In the LO position of the wiper switch, voltage is applied, through a fixed resistor in the switch, to the wiper motor connector cavity E through CKT 96 (BRN).

The internal circuit board supplies power to the wiper motor and ground is supplied through CKT 150 (BLK) from G200 and the motor runs continuously through the low-speed relay.

**High-Speed Description**

In the HI position of the wiper switch, battery voltage is applied at cavity D of the wiper motor assembly through CKT 92 (PPL).

The internal circuit board supplies power to the wiper motor and ground is supplied through CKT 150 (BLK) from G200 and the motor runs continuously in hi-speed.

**Park Position Description**

When turned OFF from any position, the wipers complete the last sweep and park. When the wiper switch is in OFF, the wiper motor assembly has battery voltage applied to cavity C only, from CKT 143 (YEL). The wiper motor continues to run until the internal motor park switch opens.

**Washer Description**

When the washer switch is turned to ON, battery voltage is applied to cavity E of the wiper motor assembly through CKT 96 (BRN). The solid state circuit applies voltage to the washer pump connector cavity A through CKT 228 (RED). The wiper motor has voltage applied through the low-speed relay and operates at low or high speed for 3–5 wipes.

If the wipers had been in DELAY, LO, or HI, they would return to that operation after the wash cycle. If they had been in the OFF position, they would then return to the park position after 3–5 wipes.

**Rear Wiper/Washer System Circuit Description****Rear Wiper / Washer System**

The rear wiper / washer system has three operating modes (delay, normal and wash). This system incorporate a wiper motor, washer pump, a solid-state control board in the rear wiper/washer module, and the rear wiper/washer switch. The system will operate any time the ignition is in ACC or RUN.

**Delay Description**

Voltage is provided to the switch through CKT 393 (WHT). When the switch is placed in the DELAY position, voltage is provided to the rear wiper motor through CKT 391 (GRY) and to the rear wiper/washer module through CKT 97 (LT BLU). Since the rear wiper/washer module is grounded through CKT 150 (BLK) to G400, the wiper motor takes a single sweep and returns to the park position until signaled by the rear wiper/washer module to make another sweep.

The solid state control board, in the rear window wiper/washer module, controls the time interval. This time interval is approximately 9 seconds and is non-adjustable.

**Wiper Description**

In the ON position, the rear window wiper/washer switch supplies voltage to the wiper motor through CKT 391 (GRY) and to the rear wiper/washer module through CKT 97 (LT BLU), since the wiper motor is grounded through the rear wiper/washer module, the wiper runs at normal speed.

When the rear window wiper/washer switch is turned to OFF, the rear window wiper/washer motor runs at normal speed until the wiper blade reaches the PARK position. Then, the park/run relay opens and signals the rear window wiper/washer to stop the wiper blade immediately. The wiper blade remains in the PARK position.

The rear window wiper motor has a circuit breaker that protects the motor when the wipers are blocked. The resulting high current opens the circuit breaker which resets upon cooling.

**Washer**

When the rear window washer switch is pressed, voltage is supplied through CKT 392 (DK GRN) to the solid state control board in the rear window wiper/washer module. The rear window wiper/washer switch also supplies battery voltage through CKT 392 (DK GRN) to the rear window washer pump motor. This starts the wiper cycle and the wash cycle. The washer continues to run as long as the switch is held down. The solid state control board keeps the wipers on for six seconds after the washer goes off.

If the washer is switched on during DELAY operation, the wipers run in low speed for six seconds. When the wash cycle is completed, the wipers return to the DELAY operation.

# Entertainment

## Specifications

### Fastener Tightening Specifications

Application	Specification	
	Metric	English
Antenna Cable Mounting Screw	5 N·m	58 lb in
Antenna Mounting Nut	5 N·m	58 lb in
Front Speaker Mounting Screw	2 N·m	18 lb in
Rear Overhead Speaker Mounting Screw	2 N·m	18 lb in
Rear Speaker Mounting Screw	2 N·m	18 lb in

### GM SPO Group Numbers

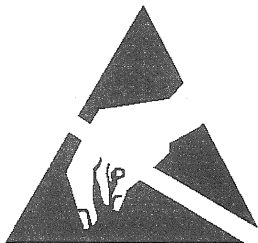
Application	GM SPO Group Number
Amplifier	9.650
Antenna	9.647
Radio	9.650
Rear Seat Audio Control	9.650
Remote CD Player	9.670
Speakers	9.665

## Schematic and Routing Diagrams

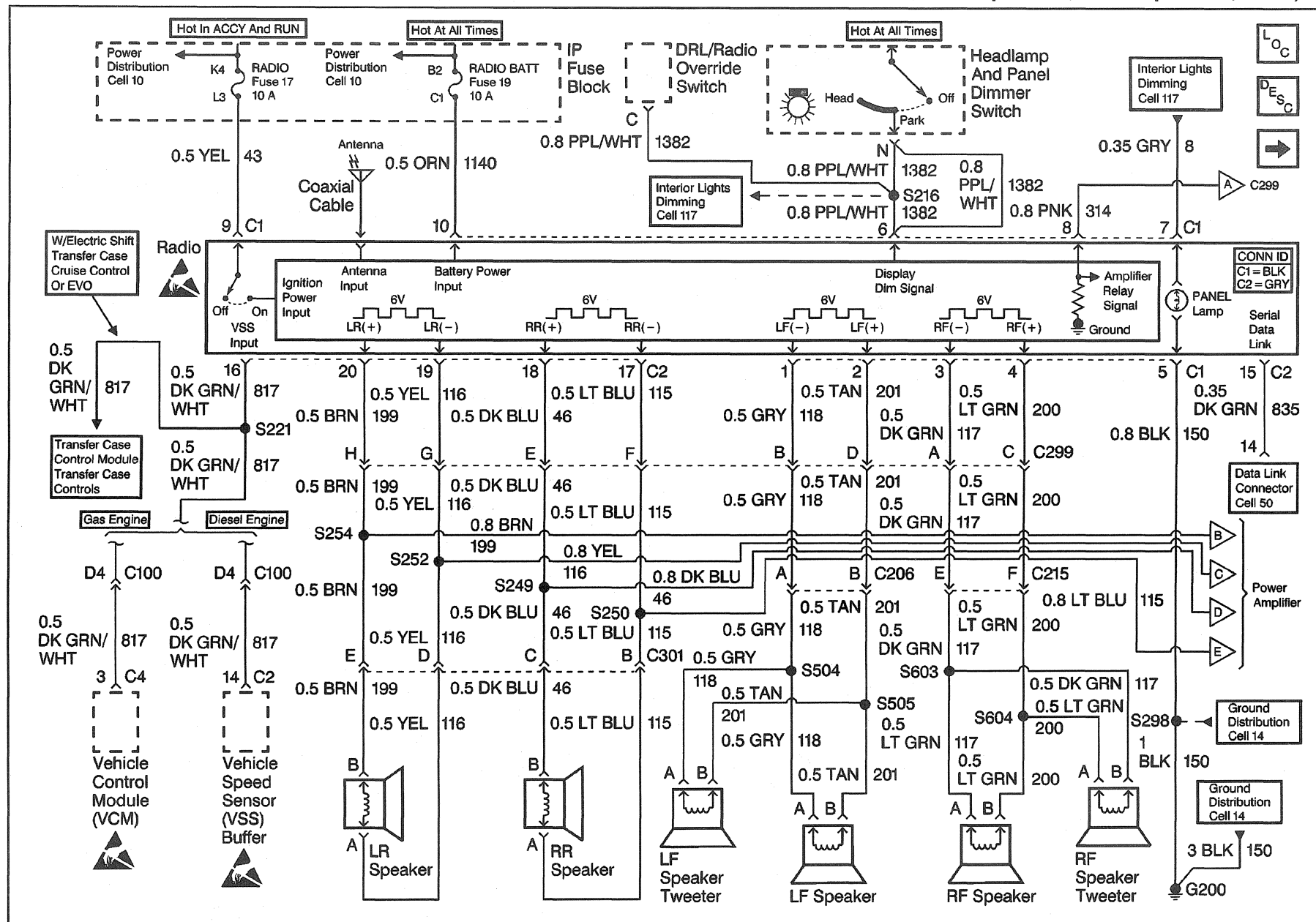
### Entertainment Schematic References

Reference on Schematic	Section Number - Subsection Name
Data Link Connector Cell - 50	8 - Wiring Systems
Ground Distribution Cell - 14	8 - Wiring Systems
Interior Lights Diming Cell - 117	8 - Wiring Systems
On-Star Cell - 154	8 - Cellular Communication
Power Distribution Cell - 10	8 - Wiring Systems

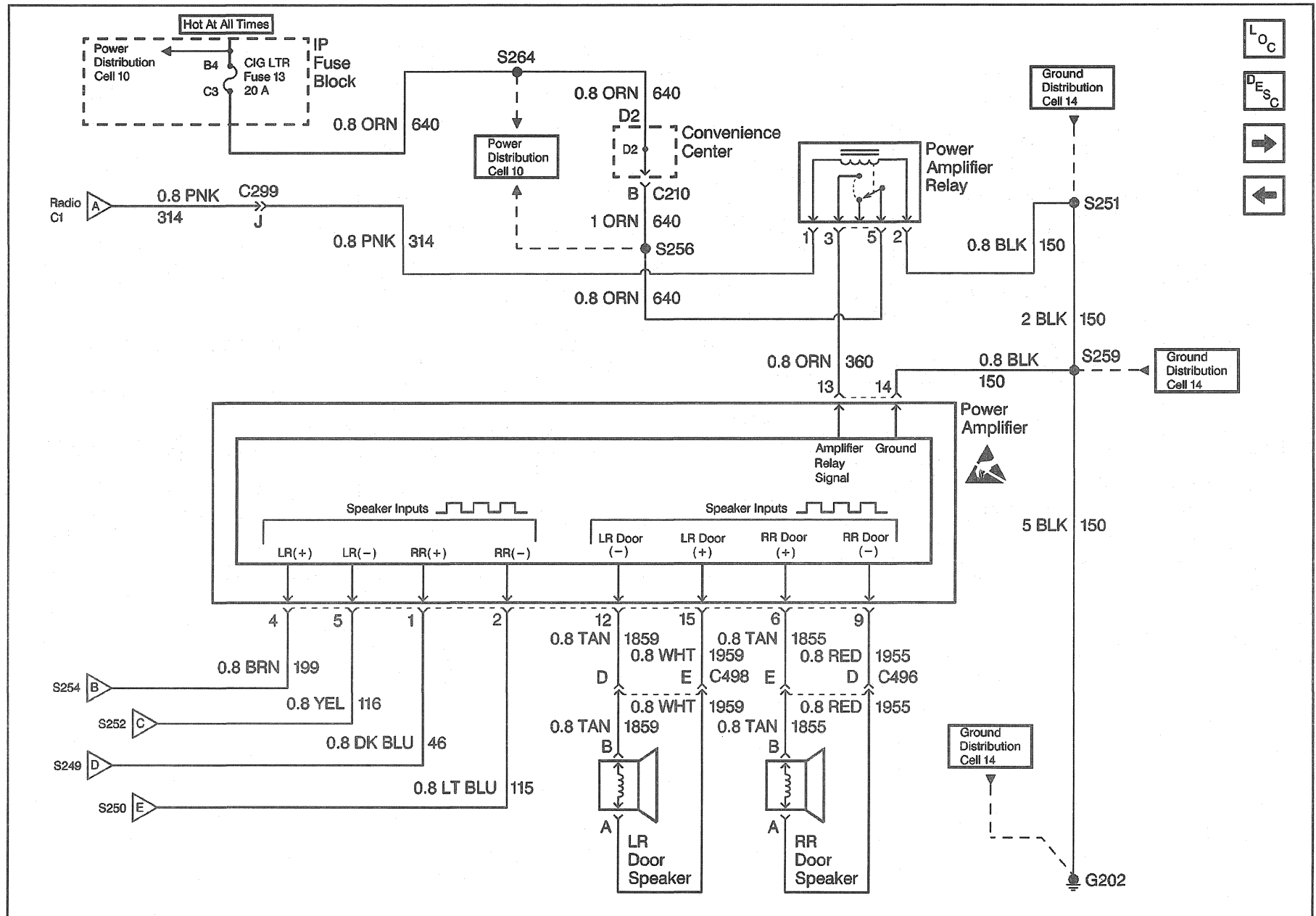
### Entertainment Schematic Icons

Icon	Icon Definition
 330402	Refer to <i>ESD Notice</i> in Cautions and Notices.

# Radio/Audio System Schematics (Base) (Cell 150: RADIO and RADIO BATT Fuses, Radio, Roof Speakers, Front Speakers, G200)

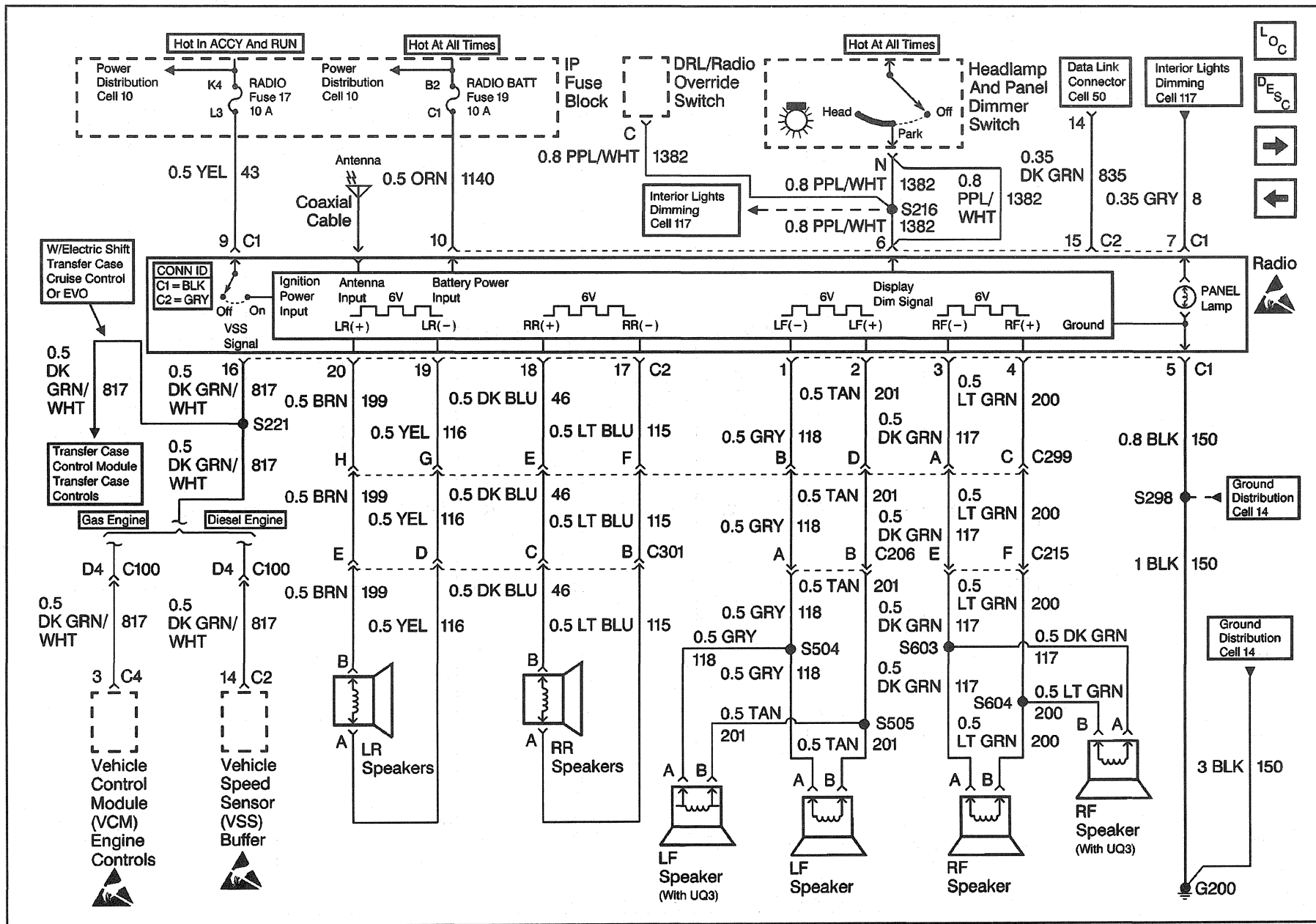


# Radio/Audio System Schematics (Base) (Cell 150: CIG LTR Fuse, Power Amplifier Relay, Power Amplifier, Rear Door Speakers, G202)

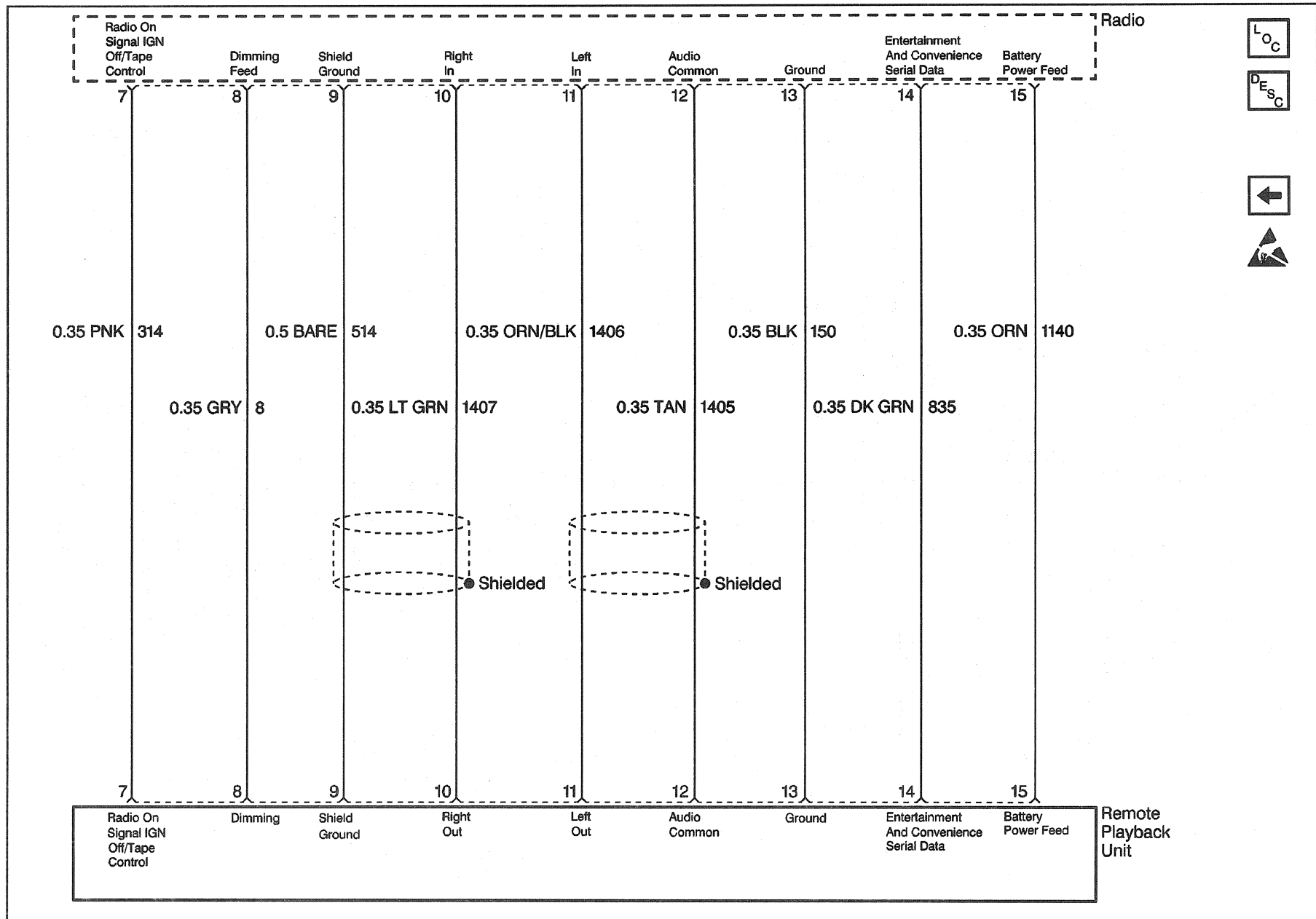


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# Radio/Audio System Schematics (Base) (Cell 150: RADIO and RADIO BATT Fuses, Radio, Speakers, G200)



# Radio/Audio System Schematics (Base) (Cell 150: Remote Playback Unit)



LOC

DESC





## Body and Accessories



## 8-260 Entertainment



## Body and Accessories



## Component Locator

## Entertainment Components

Name	Location	Locator View	Connector End View
Antenna, Radio	On the right fender	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Audio Amplifier	Underneath the Center Floor Console	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
CD Changer	In the center floor console	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
CD Player	In the center floor console	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Headlamp and Panel Dimmer Switch	Lower Left side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Power Amplifier	Under the left of the IP, right of the brake pedal bracket	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Power Amplifier Relay	Under the left of the IP, right of the brake pedal bracket	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Radio, Connector C1	In the center of the IP	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Radio, Connector C2	In the center of the IP	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Radio, Connector C3	In the center of the IP, jumper from the radio to the cassette player	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Remote CD Player	In the center of the IP, under the heater controls	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Remote Playback Unit	In the center of the IP, under the heater controls	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, LF Door	At the lower RH of the LF door	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, LF Door Tweeter	In the LF door panel	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, LR	Behind the LR seat in the pillar	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker LR Door	At the lower RH of the LR door	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, LR Tweeter	In the LF door panel	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, LR Headliner Tweeter	In the headliner, near the LR door opening	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, RF Door	At the lower RF door panel	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, RF Door Tweeter	In the RF door panel	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, RR Door	At the lower left of the RR door	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, RR Tweeter	Behind RR seat, in B pillar	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, RR Headliner Tweeter	In the headliner, near the RR door opening	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Speaker, Subwoofer (Luxury)	In the center console	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>

## Entertainment Components (cont'd)

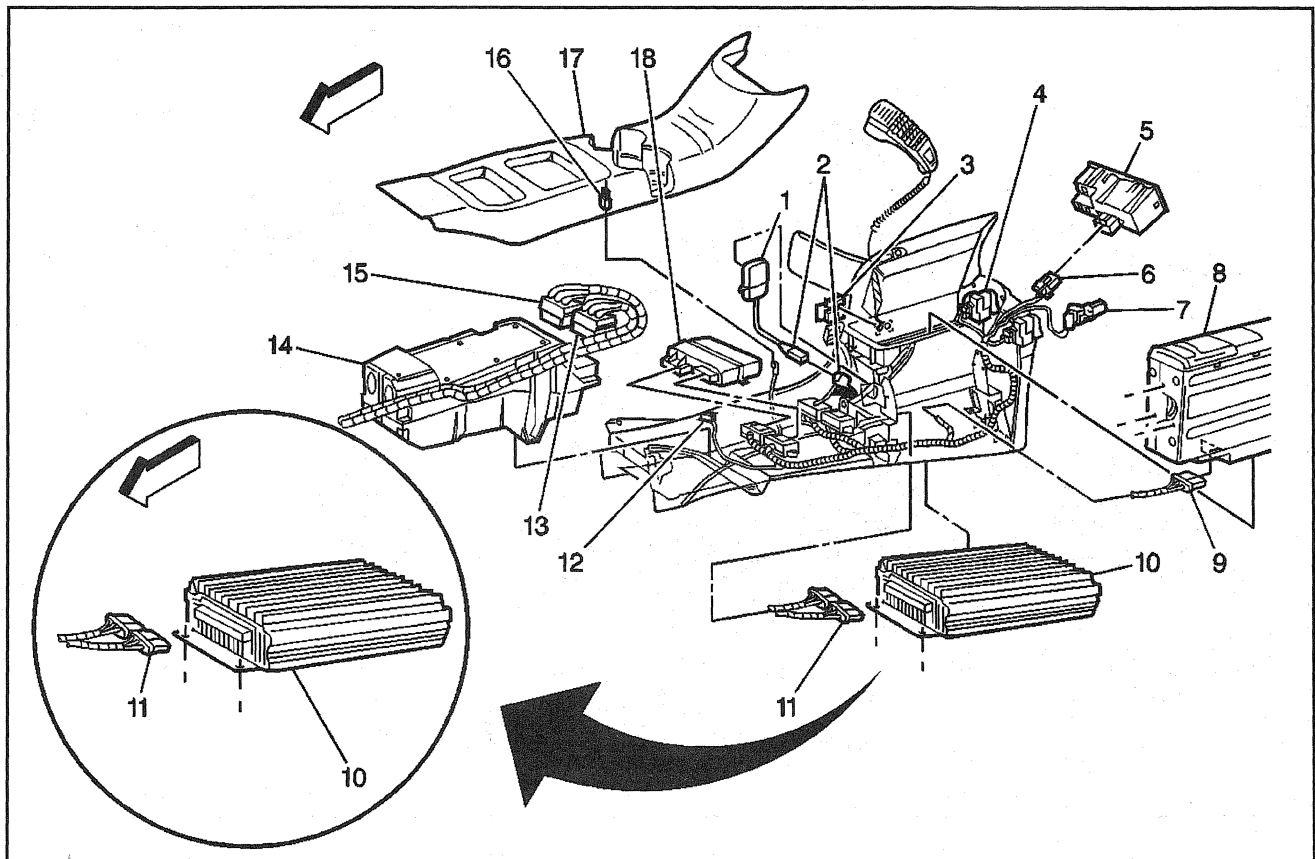
Stereo Controller, Rear	In the center Console	<i>Entertainment Component Views</i>	<i>Entertainment Connector End Views</i>
Vehicle Control Module (VCM) (Gas)	Engine Compartment, near EBCM	<i>Engine Controls Component Views in Engine Controls</i>	<i>VCM Connector End Views in Engine Controls</i>
C206	Inside the lower left side A pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C215	Inside the lower right side A pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C298	Behind the left side of the IP, near the convenience center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C301	At the left front kick panel	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C304 (Luxury)	IP harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C305 (Luxury)	Cross Body harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C498	In the left side B pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G202	On the right side of the instrument panel, mounted to the HVAC plenum bracket	<i>Power and Grounding Component Views in Wiring Systems</i>	—
S210 (Diesel)	IP harness, approx. 14 cm (5.5 in) from steering column harness breakout	—	—
S210 (Gas)	IP harness, approx. 4 cm (1.5 in) from auxiliary power outlet breakout	—	—
S210 (Diesel)	IP harness, approx. 16 cm (6 in) into instrument cluster breakout	—	—
S216 (Diesel and Uplevel)	IP harness, approx. 12 cm (4.5 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S216 (Gas, all except uplevel)	IP harness, approx. 16 cm (6 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S217	IP harness, approx. 16 cm (6 in) from instrument cluster harness breakout, toward radio connectors breakout	—	—
S247	Crossbody harness, approx. 6 cm (2.5 in) into LH door harness breakout	—	—
S259	Crossbody harness, approx. 7 cm (2.5 in) into seat belt switch harness, toward C212	—	—
S264	IP harness, approx. 4 cm (1.5 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S292	IP harness, approx. 22 cm (8.5 in) before the radio harness breakout, from C304	—	—

## Entertainment Components (cont'd)

S298	IP harness, approx. 24 cm (9.5 in) from instrument cluster breakout, toward radio breakout	—	—
S330	Floor console harness approx. 13 cm (5 in) from LH heated seat switch breakout	—	—
S331	Floor console harness approx. 22 cm (8.5 in) from LH heated seat switch breakout	—	—
S336	Floor console harness approx. 5 cm (2 in) from cross body incline connector harness breakout	—	—
S504	Inside LF door harness, approx. 11 cm (4 in) into window regulator breakout	—	—
S505	Inside LF door harness, approx. 11 cm (4 in) from tweeter speaker breakout, toward LF window regulator	—	—
S603 (Suburban/Utility w/RKE, Pickup/ Extended Cab w/o RKE)	Inside RF door harness, approx. 4 cm (1.5 in) from window regulator motor breakout, toward door lock motor	—	—
S604 (Pickup/Extended Cab w/RKE)	Inside RF door harness, approx. 4 cm (1.5 in) from window regulator motor breakout, toward door lock motor	—	—

## Entertainment Component Views

## Audio Amplifier

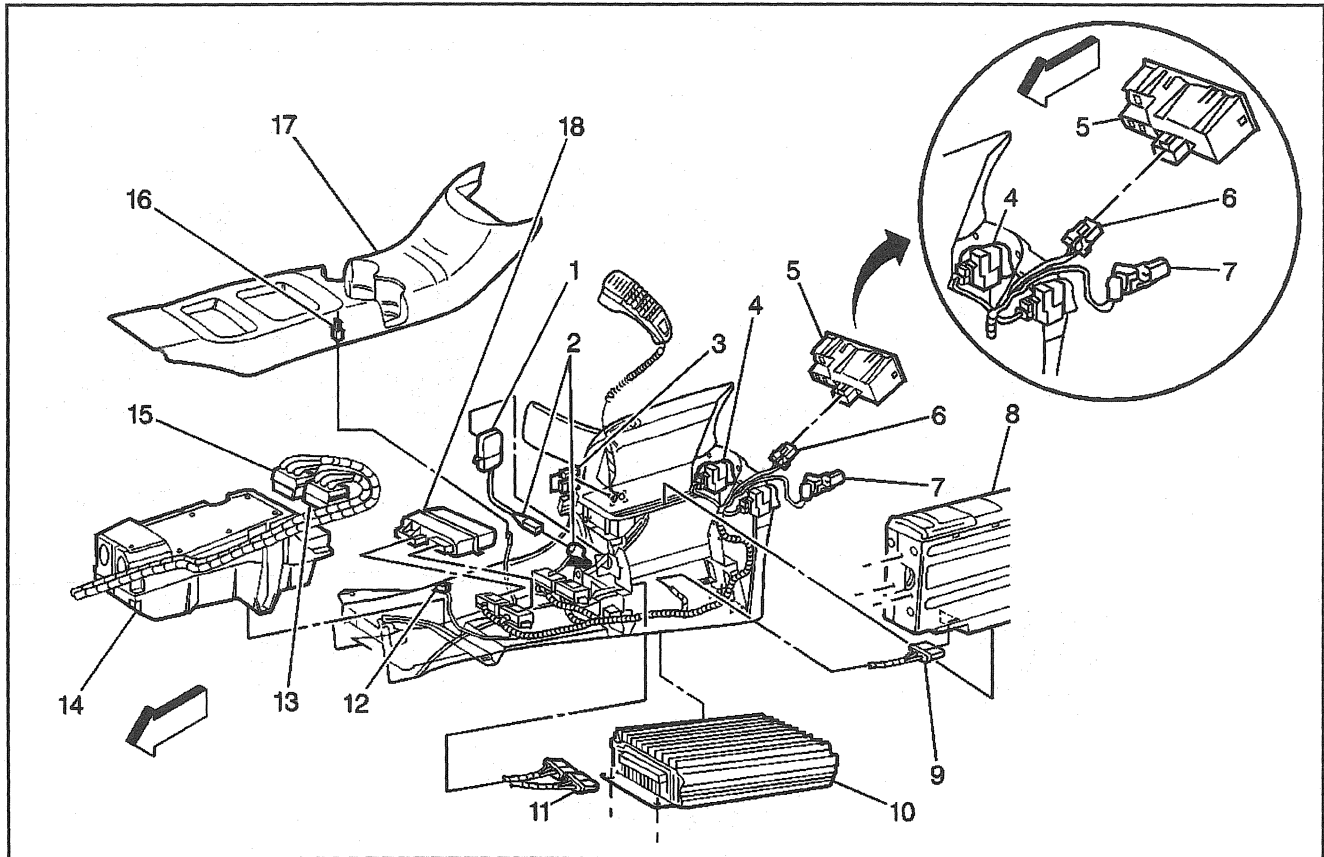


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## Legend

- |   |                                 |
|---|---------------------------------|
| (1) Shock Sensor                            | (10) Audio Amplifier            |
| (2) Shock Sensor Connector                  | (11) Audio Amplifier Connectors |
| (3) Vehicle Communication Unit              | (12) Sub Woofer Connector C304  |
| (4) Heated Seat Switch Rear Connector       | (14) Sub Woofer                 |
| (5) Stereo Controller, Rear                 | (15) C305                       |
| (6) Stereo Controller, Rear Connector       | (16) Security LED               |
| (7) Auxiliary Power Connector, Rear Console | (17) Console Trim Cover         |
| (8) CD Changer                              | (18) Body Control Module        |
| (9) CD Changer Connector                    |                                 |

## Auxiliary Power and Stereo Controller



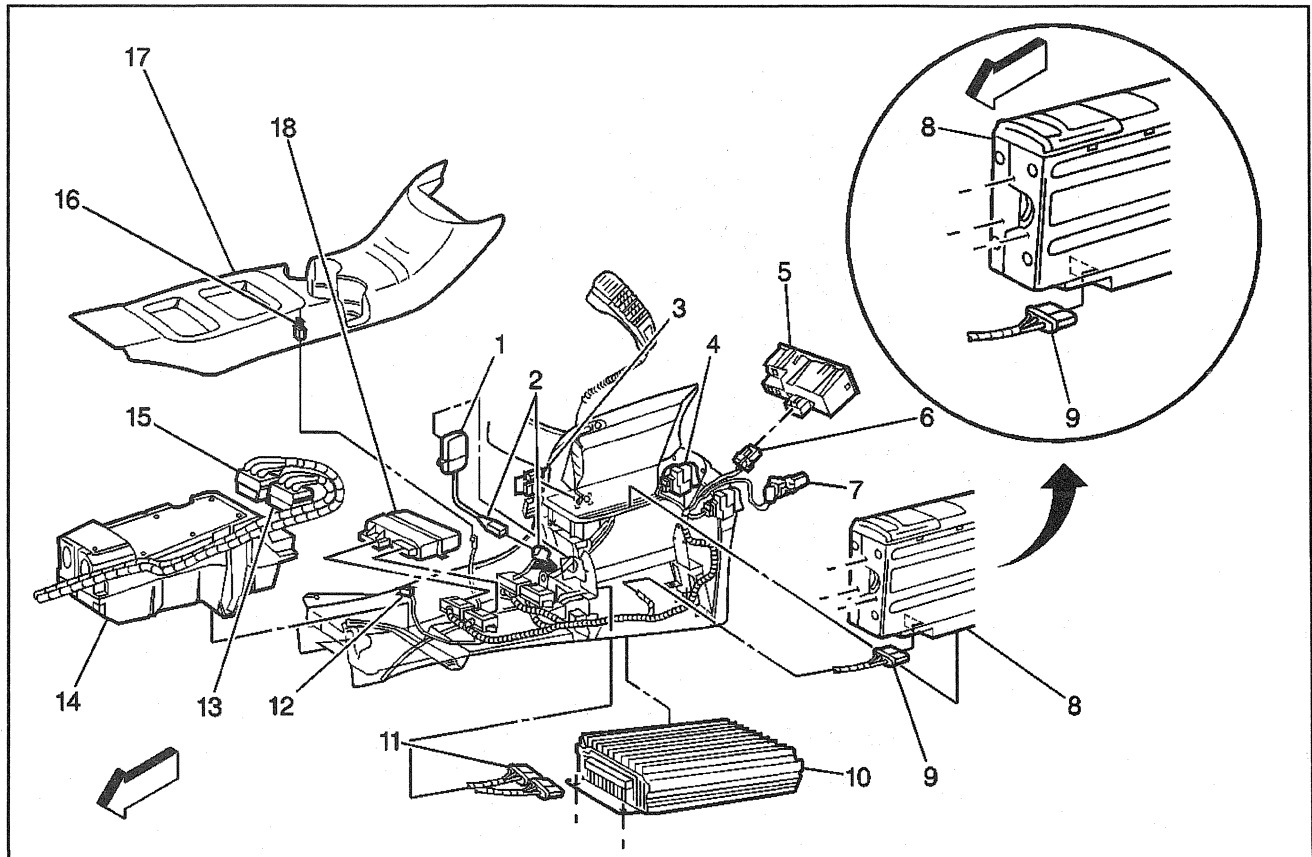
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## Legend

- |   |   |
|---|---|
| (1) Shock Sensor                            | (10) Audio Amplifier                    |
| (2) Shock Sensor Connector                  | (11) Audio Amplifier Connectors         |
| (3) Vehicle Communication Unit              | (12) Sub Woofer Connector               |
| (4) Heated Seat Switch Rear Connector       | (13) C304                               |
| (5) Stereo Controller, Rear                 | (14) Sub Woofer                         |
| (6) Stereo Controller, Rear Connector       | (15) C305                               |
| (7) Auxiliary Power Connector, Rear Console | (16) Security LED                       |
| (8) CD Changer                              | (17) Console Trim Cover                 |
| (9) CD Changer Connector                    | (18) Body Control Module C1, C2, and C3 |



## CD Changer

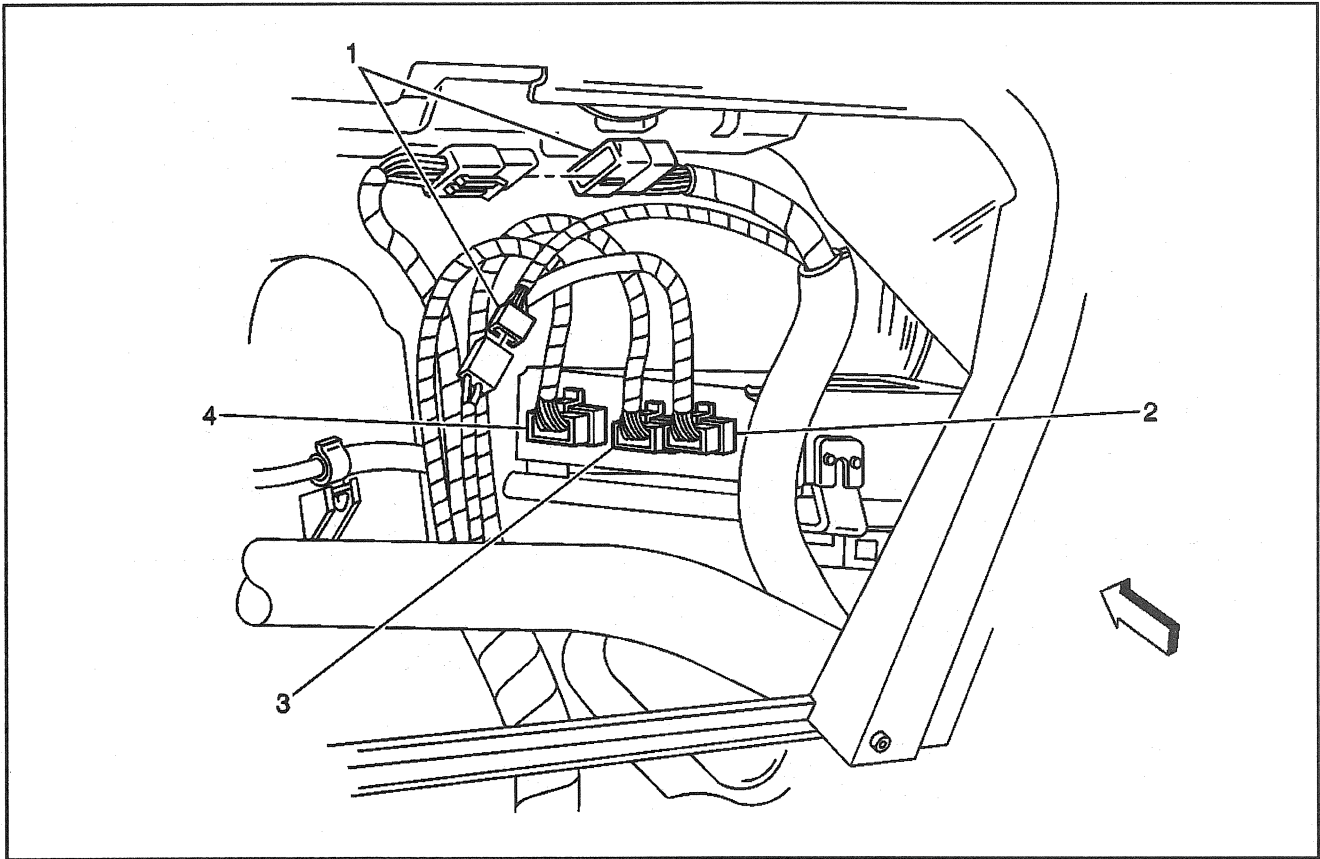


340133

## Legend

- |   |   |
|---|---|
| (1) Shock Sensor                            | (10) Audio Amplifier                    |
| (2) Shock Sensor Connector                  | (11) Audio Amplifier Connectors         |
| (3) Vehicle Communication Unit              | (12) Sub Woofer Connector               |
| (4) Heated Seat Switch Rear Connector       | (13) C304                               |
| (5) Stereo Controller, Rear                 | (14) Sub Woofer                         |
| (6) Stereo Controller, Rear Connector       | (15) C305                               |
| (7) Auxiliary Power Connector, Rear Console | (16) Security LED                       |
| (8) CD Changer                              | (17) Console Trim Cover                 |
| (9) CD Changer Connector                    | (18) Body Control Module C1, C2, and C3 |

## Radio Wiring

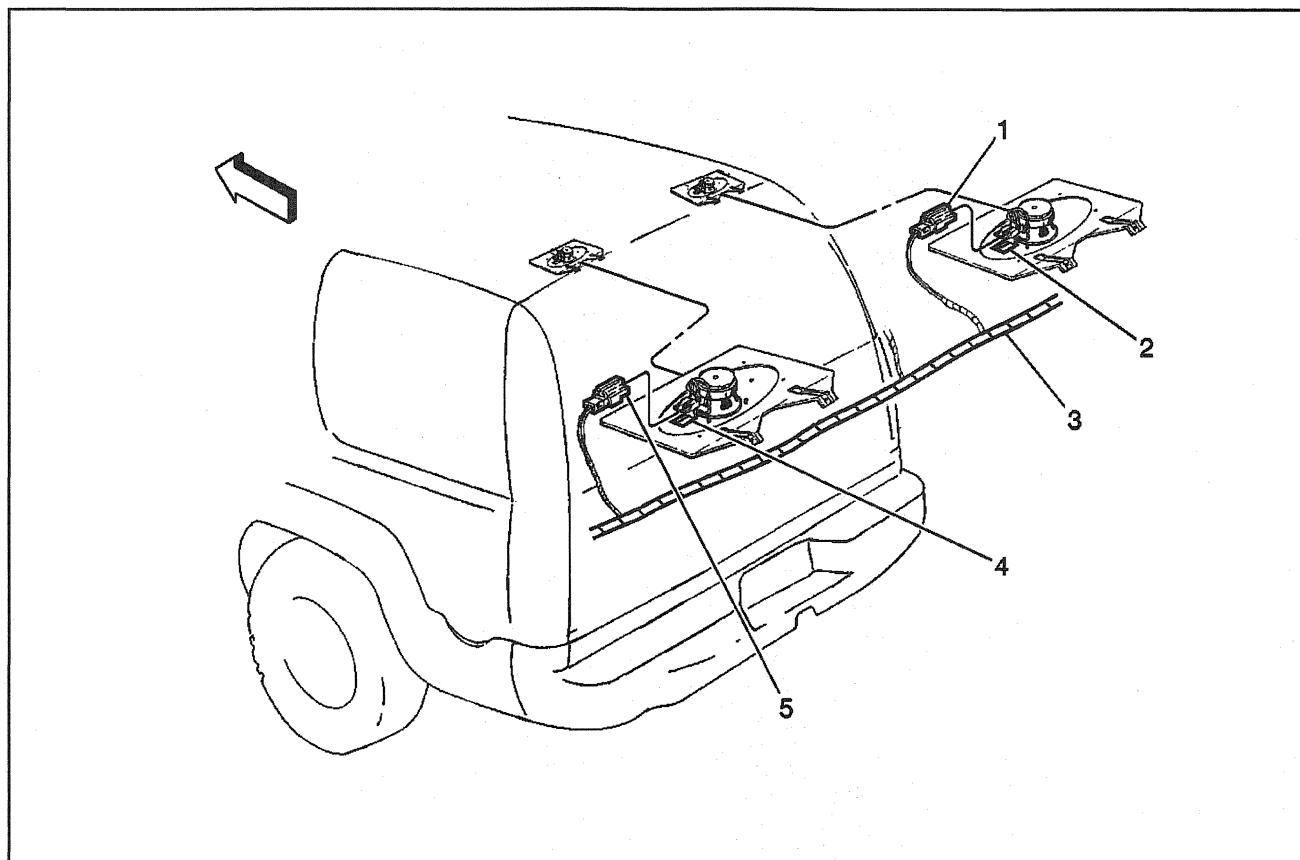


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**Legend**

- |                         |                         |
|-------------------------|-------------------------|
| (1) IP Harness          | (3) Radio Connector, C1 |
| (2) Radio Connector, C2 | (4) Radio Connector, C3 |

## Rear Speakers

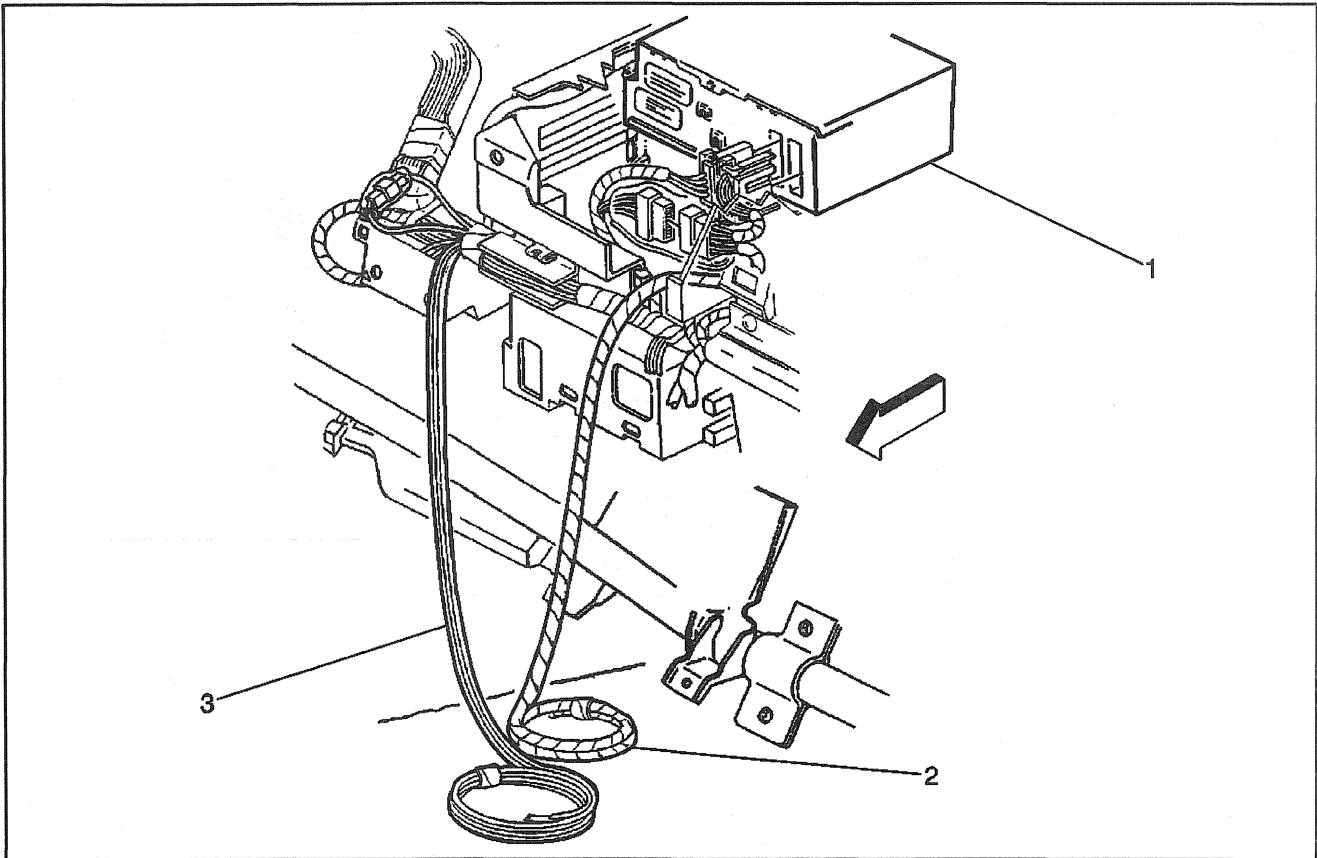


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## Legend

- |                                |                                |
|--------------------------------|--------------------------------|
| (1) Rear Speaker Connector, RR | (4) Rear Speaker, LR           |
| (2) Rear Speaker, RR           | (5) Rear Speaker Connector, LR |
| (3) Front to Rear Body Harness |                                |

## Radio Speaker Jumper Harness



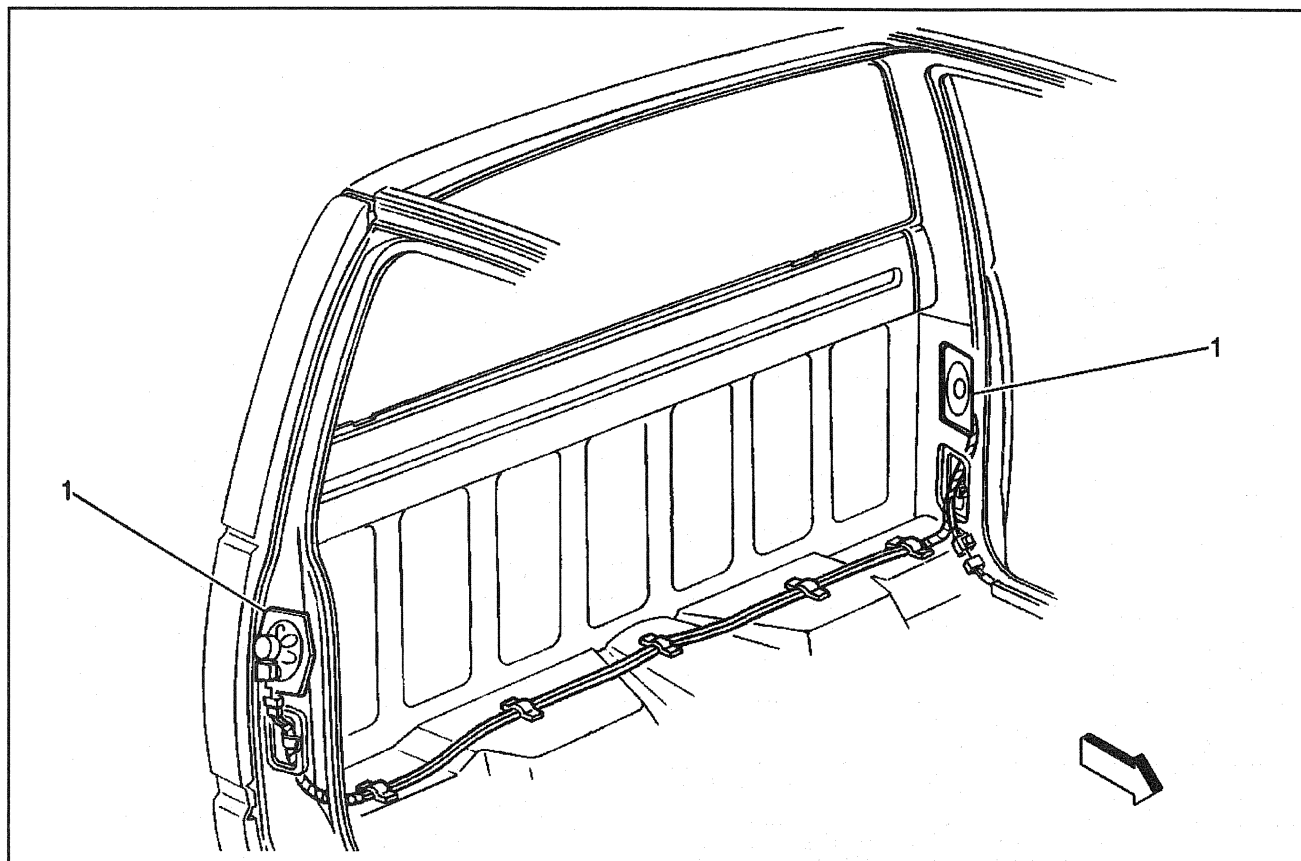
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## Legend

- (1) Radio
- (2) Speaker Harness

- (3) Turn/Hazard Flasher Wiring

## Rear Speakers (Regular Cab)



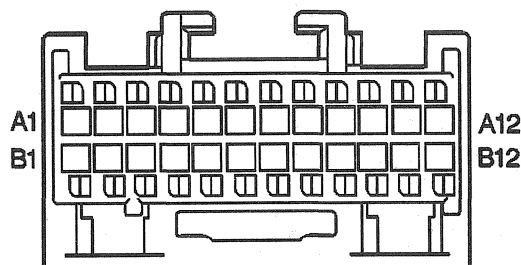
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## Legend

(1) Left and Right Rear Speakers

## Entertainment Connector End Views

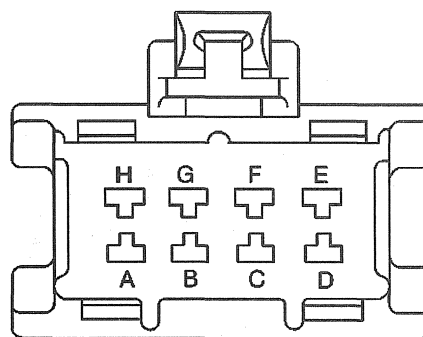
Audio Amplifier C1 (Luxury)



73156

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110088</li> <li>• 8F M/P 100 Series (GRA)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A1	DK GRN	145	Ignition Feed - + 12 Volt
A2	BRN/WHT	367	Rear Seat - Left Audio Output
A3	BLK/WHT	372	Rear Seat Audio - Common
A4	DK GRN/ WHT	368	Rear Seat Audio - Right Output
A5	YEL	1949	Right Headliner Feed
A6	WHT	1854	Tight Headliner Return
A7	DK GRN	117	Speaker Return - RF
A8	LT GRN	200	Speaker Feed - Door, RF
A9	TAN	1855	Left Headliner Return
A10	RED	1955	Not Used
A11	GRA	118	Speaker Return - Door, LF
A12	TAN	201	Speaker Feed - RF
B1	BARE	514	Drain Wire Return
B2	—	—	Not Used
B3	BARE	514	Drain Wire Return
B4	PNK	314	Rear Seat Audio Signal - ON
B5	TAN	511	Audio Signal - Left Front - Low Level
B6	LT BLU	1874	Audio Signal - Right Front
B7	BRN	199	Speaker Feed - LR
B8	DK BLU	46	Speaker Feed - RR
B9	LT GRN	1948	Front Low Level Common
B10	YEL	116	Speaker Return - Left Rear
B1 - B12	—	—	Not Used

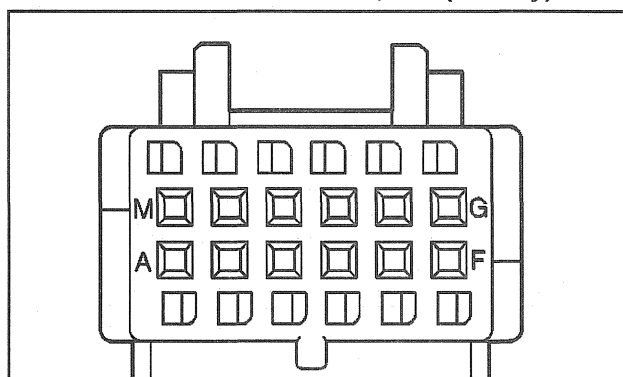
Audio Amplifier C2 (Luxury)



73158

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110626</li> <li>• 8F M/P 280 FLXLK Series (GRA)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	WHT	1959	Speaker Return - Left Rear - Midrange
C	DK BLU/ WHT	346	Subwoofer Speaker Feed - Left Rear - Tweeter
D	RED	1858	Speaker Feed - Left Rear - Tweeter
E	PPL	1958	Speaker Return - Left Rear - Tweeter
F	LT GRN/ BLK	1794	Subwoofer Speaker Return - Left or Rear
G	TAN	1859	Speaker Feed - Left Rear - Midrange
H	ORN	640	Fuse Output - Battery - Type III Fuse

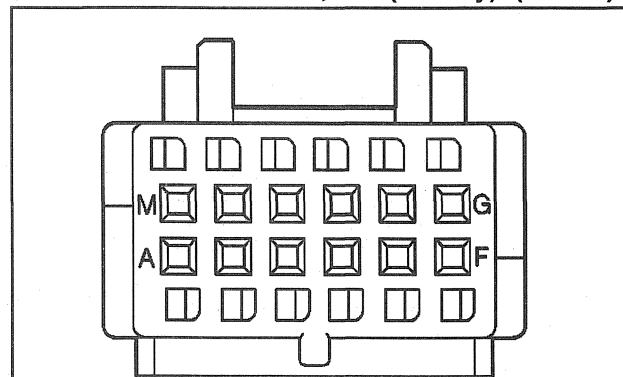
## Audio Control Switch, RR (Luxury)



73151

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064799</li> <li>• 12F M/P (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	YEL	43	Fuse Output - Accessory Type III Fuse
B	BRN	9	Park Lamp Feed
C	BLK	150	Ground
D	PNK	314	Radio Signal - ON
E - H	—	—	Not Used

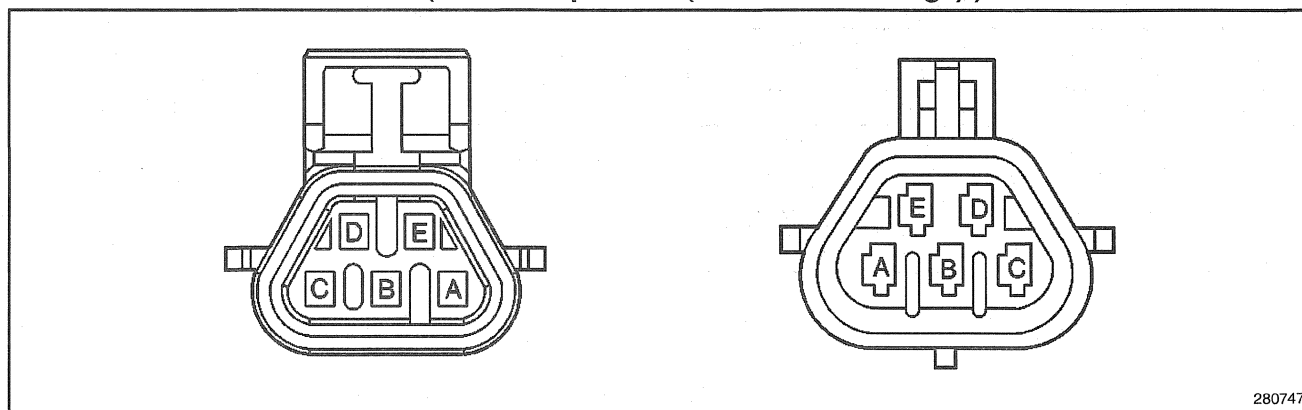
## Audio Control Switch, RR (Luxury) (cont'd)



73151

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064799</li> <li>• 12F M/P (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
J	DK GRN/ WHT	368	Remote Radio Signal Right Audio
K	BLK/WHT	372	Remote Radio Return - Audio
L	BRN/WHT	367	Remote Radio Signal - Left Audio
M	LT GRN	1011	Remote Radio Control Signal

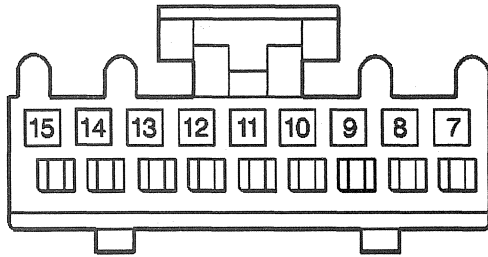
## C108 (Inline to Speakers (Z56 Police Package) )



280747

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146045</li> <li>• 5-Way F Metri-Pack 150 (Natural)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12103974</li> <li>• 5-Way M Metri-Pack 150 (Natural)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK GRN	961	Speaker Return, RF	A	DK GRN	961	Speaker Return, RF
B	LT BLU	962	Speaker Return, RR	B	LT BLU	962	Speaker Return, RR
C	GRY	963	Speaker Return, LF	C	GRY	963	Speaker Return, LF
D	BRN	964	Speaker Return, LR	D	BRN	964	Speaker Return, LR
E	BLK	965	Ground	E	BLK	965	Ground

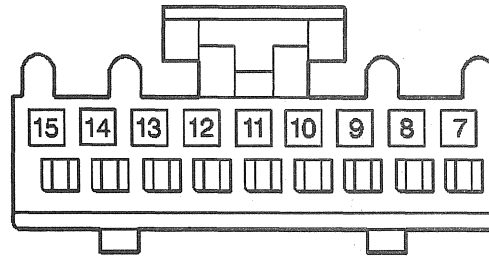
## CD Player (Indash)



62467

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064980</li> <li>• 9F M/P 100 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
7	BRN	180	Remote Compact Dis/Cassette Player Feed
8	GRA	8	Instrument Panel Lamp Feed
9	BARE	514	Drain Wire Feed
10	LT GRN	1407	Tape Player Signal - Remote - Audio Communication
11	ORN/BLK	1406	Drain Wire Feed Right Audio
12	LT BLU	1405	Drain Wire Feed Left Audio
13	BLK	150	Ground
14	DK GRN	835	Diagnostic Signal - Entertainment and Comfort
15	ORN	1140	Fuse Output - Baattery - Type III Fuse

## CD Changer (Luxury)

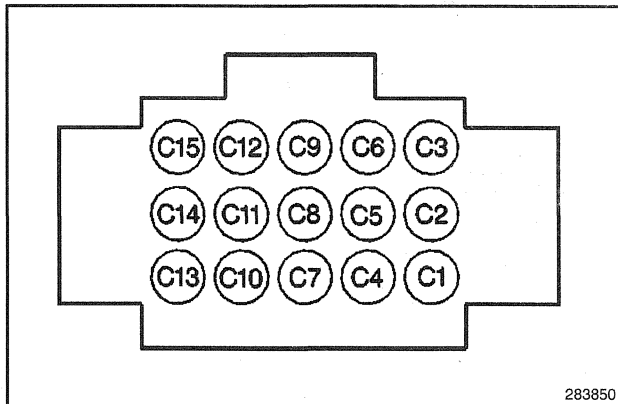


62467

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064980</li> <li>• 9F M/P 100 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
7-8	—	—	Empty
9	BARE	514	Drain Wire Feed
10	LT GRN	1407	Tape Player Signal - Remote - Audio Communication
11	ORN/BLK	1406	Drain Wire Feed Right Audio
12	LT BLU	1405	Drain Wire Feed Left Audio
13	BLK	150	Ground
14	DK GRN	835	Diagnostic Signal - Entertainment and Comfort
15	ORN	1140	Fuse Output - Baattery - Type III Fuse



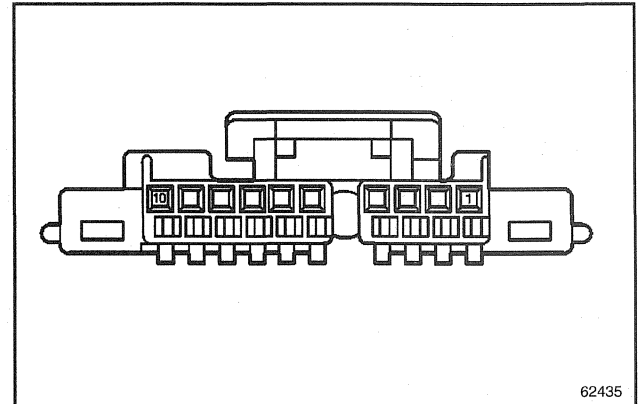
## Power Amplifier



283850

Connector Part Information		<ul style="list-style-type: none"> <li>• 12034325</li> <li>• Conn 15 M Metri-Pack 280 Series NAT</li> </ul>	
Pin	Wire Color	Circuit No.	Function
C1	DK BLU	46	Speaker Feed, Right Rear
C2	LT BLU	115	Speaker Return, Right Rear
C3	—	—	Not Used
C4	BRN	199	Speaker Feed, Left Rear
C5	YEL	116	Speaker Return, Left Rear
C6	TAN	1855	Speaker Feed, Right Rear Midrange
C7–C8	—	—	Not Used
C9	RED	1955	Speaker Return, Right Rear Midrange
C10–C11	—	—	Not Used
C12	TAN	1859	Speaker Feed, Left Rear Midrange
C13	ORN	360	Amplifier Feed
C14	BLK	150	Ground
C15	WHT	1959	Speaker Return, Left Rear Midrange

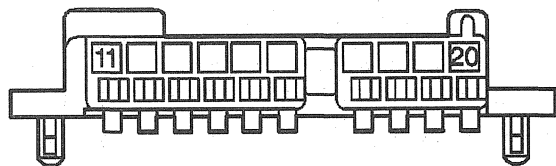
## Radio, Connector C1 (Except Luxury)



62435

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047531</li> <li>• 10 Way F Metri-Pack Series 100 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
1	GRY	118	Speaker Return, Left Front
2	TAN	201	Speaker Feed, Left Front
3	DK GRN	117	Speaker Return, Right Front
4	LT GRN	200	Speaker Feed, Right Front
5	BLK	150	Ground
6	PPL/WHT	1382	LED Dimming Signal
7	GRY	8	Instrument Panel Lamp Feed
8	PNK	314	Radio On Signal (Suburban/Utility)
9	YEL	43	Fuse Output Accessory, Type III Fuse
10	ORN	1140	Fuse Output Battery, Type III Fuse

## Radio, Connector C2 (Except Luxury)



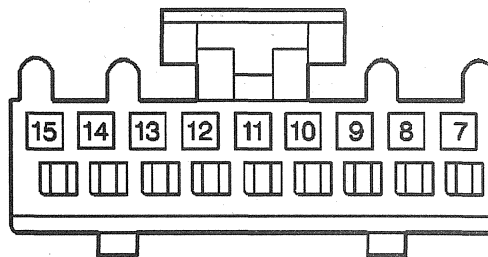
62477

## Connector Part Information

- 12065785
- 10 Way F Metri-Pack 100 Series (GRY)

Pin	Wire Color	Circuit No.	Function
11-14	—	—	Not Used
15	DK GRN	835	Diagnostic Signal—Entertainment and Comfort
16	DK GRN/WHT	817	Vehicle Speed Signal—4000 Pulses per Mile
17	LT BLU	115	Speaker Return, Right Rear
18	DK BLU	46	Speaker Feed, Right Rear
19	YEL	116	Speaker Return, Left Rear
20	BRN	199	Speaker Feed, Left Rear

## Radio C3 Connector (Except Luxury)



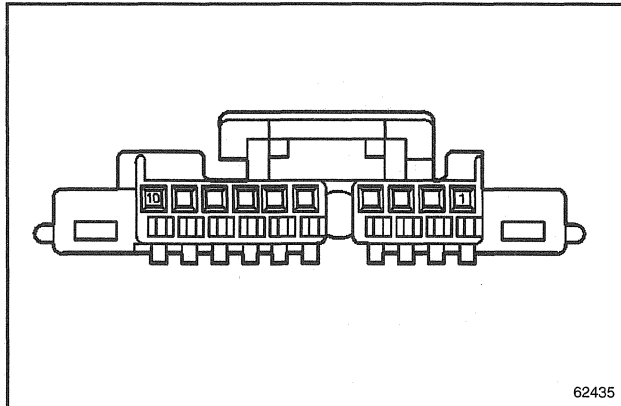
62467

## Connector Part Information

- 12064980
- 9F MIC/P 100 (BLK)

Pin	Wire Color	Circuit No.	Function
7	LT BLU	180	Remote Compact Disc/Cassette Player Feed
8	GRA	8	Instrument Panel Lamp Feed
9	BARE	514	Drain Wire Return
10	LT GRN	1407	Tape Player Signal - Remote - Right Audio
11	ORN/BLK	1406	Tape Player Signal - Remote - Left Audio
12	TAN	1405	Tape Player Signal - Remote - Audio Communication
13	BLK	150	Ground
14	LT GRN	835	Diagnostic Entertainment and Comfort
15	ORN	1140	Fuse Output - Battery - Type III Fuse

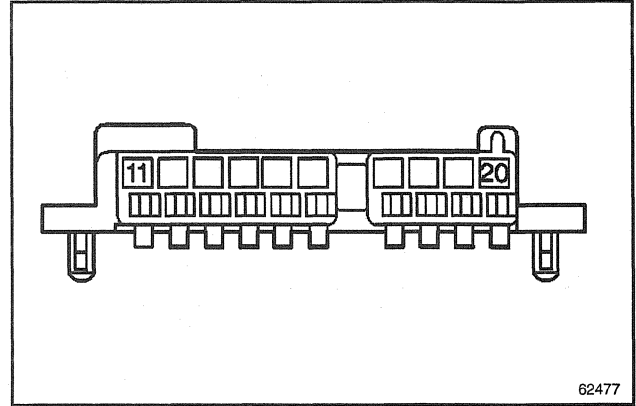
## Radio, Connector C1 (Luxury)



62435

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047531</li> <li>• 10 Way F Metri-Pack Series 100 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
1	TAN	118	Speaker Return, Left Front
2	LT GRN	201	Speaker Feed, Left Front
3	LT BLU	117	Speaker Return, Right Front
4	BARE	200	Speaker Feed, Right Front
5	BLK	150	Ground
6	PPL/WHT	1382	LED Dimming Signal
7	GRY	8	Instrument Panel Lamp Feed
8	DK GRN	314	Radio On Signal (Suburban/Utility)
9	YEL	43	Fuse Output Accessory, Type III Fuse
10	ORN	1140	Fuse Output Battery, Type III Fuse

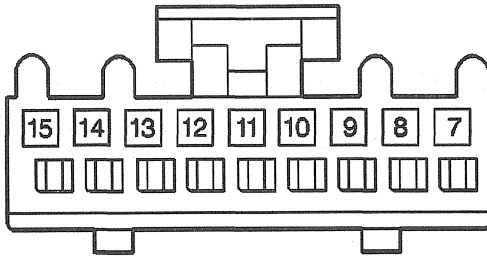
## Radio, Connector C2 (Luxury)



62477

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065785</li> <li>• 10 Way F Metri-Pack 100 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
11	—	—	Not Used
12	PNK	314	Radio Signal-On
13	LT GRN	1011	Remote Radio Control Signal
14	—	—	Not Used
15	DK GRN	835	Diagnostic Signal—Entertainment and Comfort
16	DK GRN/WHT	817	Vehicle Speed Signal—4000 Pulses per Mile
17	DK BLU	115	Speaker Return, Right Rear
18	YEL	46	Speaker Feed, Right Rear
19	BRN	116	Speaker Return, Left Rear

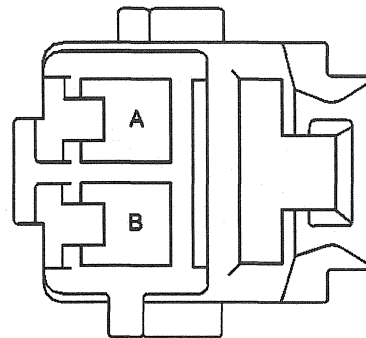
## Radio C3 Connector (Luxury)



62467

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064980</li> <li>• 9F MIC/P 100 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
7	PNK	180	Remote Compact Disc/Cassette Player Feed
8	GRA	8	Instrument Panel Lamp Feed
9	BARE	514	Drain Wire Return
10	LT GRN/ WHT	1407	Tape Player Signal - Remote - Right Audio
11	BRN/ WHT	1406	Tape Player Signal - Remote - Left Audio
12	BLK/ WHT	1405	Tape Player Signal - Remote - Audio Communication
13	BLK	150	Ground
14	DK GRN	835	Diagnostic Entertainment and Comfort
15	ORN	1140	Fuse Output - Battery - Type III Fuse

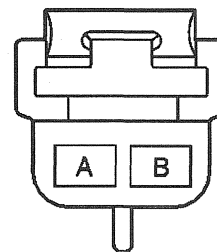
## Subwoofer Speaker Connector (Luxury)



153645

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129081</li> <li>• 2F (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT GRN/ BLK	1794	Subwoofer Speaker Return - Left or Rear
B	DK BLU/ WHT	346	Subwoofer Speaker Feed - Left or Rear

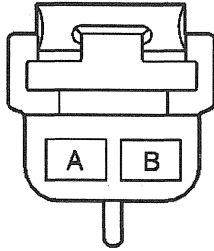
## Door Speaker, RR



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	RED	1955	Speaker Return-Right Rear-Midrange.
B	TAN	1855	Speaker Feed-Right Rear-Midrange.

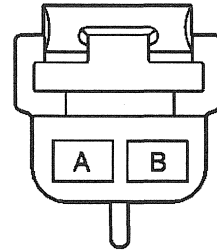
Door Speaker, LF, Tweeter



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRY	118	Speaker Return, Left Front, Tweeter.
B	TAN	201	Speaker Feed, Left Front, Tweeter.

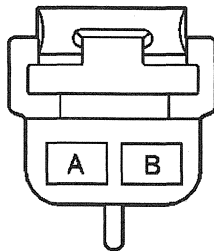
Door Speaker, RF, Tweeter



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK GRN	117	Speaker Return, Right Front, Mid-range.
B	LT GRN	200	Speaker Feed, Right Front, Mid-range.

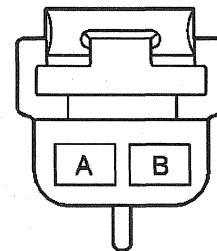
Door Speaker, LF, Midrange



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRY	118	Speaker Return, Left Front, Mid-range.
B	TAN	201	Speaker Feed, Left Front, Mid-range.

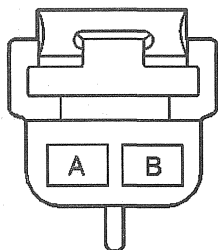
Door Speaker, RF, Midrange



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK GRN	117	Speaker Return, Right Front, Mid-range.
B	LT GRN	200	Speaker Feed, Right Front, Mid-range.

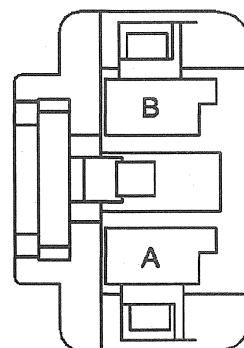
## Door Speaker, LR, Midrange



288384

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052832</li> <li>• 2F M/P 150 BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	WHT	1959	Speaker Return, Left Rear, Mid-range.
B	TAN	1859	Speaker Feed, Left Rear, Mid-range.

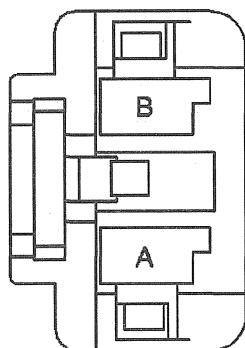
## Roof Speaker, RR



35457

Connector Part Information		<ul style="list-style-type: none"> <li>• 12077887</li> <li>• 2F PAC/ON I BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	LT BLU	115	Speaker Return, Right Rear.
B	DK BLU	46	Speaker Feed, Right Rear.

## Roof Speaker, LR



35457

Connector Part Information		<ul style="list-style-type: none"> <li>• 12077887</li> <li>• 2F PAC/ON I BLK</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	YEL	116	Speaker Return, Left Rear.
B	BRN	199	Speaker Feed, Left Rear.

## Diagnostic Information and Procedures

## Radio/Audio System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	<ol style="list-style-type: none"> <li>1. Turn the ignition switch to the ON position, with the engine OFF.</li> <li>2. Turn the radio ON.</li> <li>3. Position tuner on a strong radio station.</li> <li>4. Set the volume control to medium.</li> </ol>	Radio display illuminates and sound is heard from speakers.	<ul style="list-style-type: none"> <li>• <i>Speakers Inoperative - One</i></li> <li>• <i>Radio Memory Inoperative</i></li> <li>• <i>Radio Display Inoperative, No Sound from Speakers</i></li> </ul>
2	<ol style="list-style-type: none"> <li>1. Turn the FADE control to the front speakers and then to the rear speakers.</li> <li>2. Return FADE control to the neutral position.</li> </ol>	<ul style="list-style-type: none"> <li>• Only front speakers are heard.</li> <li>• Only rear speakers are heard.</li> <li>• Front and rear speakers are heard.</li> </ul>	<i>Speakers Inoperative - One</i>
3	<ol style="list-style-type: none"> <li>1. Turn the BAL control to the left side speakers and then to the right side speakers.</li> <li>2. Return BAL control to the neutral position.</li> </ol>	<ul style="list-style-type: none"> <li>• Only left side speakers are heard.</li> <li>• Only right side speakers are heard.</li> <li>• Left and right side speakers are heard.</li> </ul>	<i>Speakers Inoperative - One</i>
4	<ol style="list-style-type: none"> <li>1. Depress the RECALL button.</li> <li>2. Adjust BASS control to the high and low position.</li> <li>3. Adjust TREB control to the high and low position.</li> <li>4. Return BASS and TREB control buttons to the neutral position.</li> </ol>	<ul style="list-style-type: none"> <li>• Radio display toggles between the tuner and the clock.</li> <li>• Music attenuates between high and low bass frequencies.</li> <li>• Music attenuates between high and low treble frequencies.</li> <li>• Music returns to nominal bass and treble frequencies.</li> </ul>	<i>Speakers Inoperative - One</i>
5	<ul style="list-style-type: none"> <li>• Place the headlamp and dimmer switch in the PARK position.</li> <li>• Rotate dimming switch left to right.</li> </ul>	Radio Display and the button illumination intensity vary.	<ul style="list-style-type: none"> <li>• <i>Radio Illumination Inoperative with Park Lamps On (Luxury)</i></li> <li>• <i>Radio Display Inoperative, No Sound from Speakers</i></li> </ul>
7	<ol style="list-style-type: none"> <li>1. Place a cassette tape in the tape player.</li> <li>2. Operate all of the available features.</li> <li>3. Eject the cassette.</li> </ol>	<ul style="list-style-type: none"> <li>• The cassette tape plays.</li> <li>• All features operate.</li> <li>• The cassette tape ejects.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Tape Player Weak, Slow, or Garbled Output</i></li> <li>• <i>Tape Player Inoperative</i></li> </ul>
8	<ol style="list-style-type: none"> <li>1. Play a compact disc (CD).</li> <li>2. Operate all of the available features.</li> <li>3. Eject the CD</li> <li>4. Turn the headlamp and panel dimmer switch to the park position.</li> <li>5. Adjust the dimming switch to the maximum intensity and then to the minimum intensity.</li> </ol>	<ul style="list-style-type: none"> <li>• CD plays.</li> <li>• All features operate.</li> <li>• The CD ejects.</li> <li>• Remote CD player illumination varies intensity.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Compact Disc Inoperative</i></li> <li>• <i>Compact Disc Inoperative - Remote (Dash)</i></li> <li>• <i>Compact Disc Inoperative - Remote (CD Changer (Luxury))</i></li> </ul>

## Radio/Audio System Check (cont'd)

Step	Action	Normal Result(s)	Abnormal Result(s)*
9	<ol style="list-style-type: none"> <li>1. Press the power button on the rear stereo audio controller.</li> <li>2. Operate the available features.</li> <li>3. Place the headlamp and panel dimmer switch to the PARK position.</li> <li>4. Connect headphones to the rear stereo audio controller.</li> </ol>	<ul style="list-style-type: none"> <li>• Power illuminates.</li> <li>• Rear door speakers and the rear headliner speakers mute.</li> <li>• The rear stereo audio controller backlights.</li> <li>• Sound is heard from the headphones.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Radio Illumination Inoperative with Park Lamps On (Luxury)</i></li> <li>• <i>Radio Controls Inoperative - Rear Seat (Luxury)</i></li> </ul>
9	<ol style="list-style-type: none"> <li>1. Insert CD(s) into the CD changer.</li> <li>2. Select CD to be played.</li> </ol>	<ul style="list-style-type: none"> <li>• CD changer will shuffle the CD(s).</li> <li>• CD will be heard through the speakers or headphones.</li> </ul>	<i>Compact Disc Inoperative - Remote (CD Changer (Luxury))</i>

## Amplifier Inoperative (Luxury)

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	<ol style="list-style-type: none"> <li>1. Place the ignition in the ACC or the RUN position.</li> <li>2. Connect a J 39200 DMM from cavity H CKT 640 of amplifier connector C2 to ground.</li> </ol> Does the voltage equal the specified value?	12 Volts	Go to Step 4	Go to Step 3
3	Repair the open in CKT 640 (ORN) from cavity C3 of the IP fuse block to cavity H connector C2 of the audio amplifier. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—
4	Connect a J 39200 DMM from connector C1 cavity B4 CKT 314 (PNK) to ground. Does the voltage equal the specified value?	12 Volts	Go to Step 6	Go to Step 5
5	Repair open in CKT 314 (PNK) from cavity B4 connector C1 of the audio amplifier to cavity 12 connector C2 of radio. Refer to <i>Wiring Repairs</i> . Is repair complete?	—	Go to Radio/Audio System Check	—
6	Connect a J 39200 DMM from connector C2 cavity A CKT 150 (BLK) of the audio amplifier to ground. Is continuity present?	—	Go to Step 8	Go to Step 7
7	Repair open in CKT 150 (BLK) between cavity A connector C2 of audio amplifier to G202. Refer to <i>Wiring Repairs</i> . Is repair complete?	—	Go to Radio/Audio System Check	—
8	Remove the power amplifier and send the power amplifier in for repair. Is repair complete?	—	Go to Radio/Audio System Check	—



## Amplifier Inoperative (Base)

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Turn the ignition to the OFF position. 2. Disconnect the power amplifier connector. 3. Turn the ignition to the ON position with the engine OFF. 4. Turn the radio to the ON position. 5. Measure the voltage from the amplifier connector cavity 13 to ground using a <i>J 39200</i> Is there battery voltage.	—	Go to Step 12	Go to Step 3
3	1. Turn the ignition OFF. 2. Disconnect the amplifier relay connector. 3. Connect a <i>J 39200</i> between pin 5 and ground. Is there battery voltage?	—	Go to Step 5	Go to Step 4
4	Locate and repair the open in CKT 640 (BRN) between the IP fuse block and the power amplifier relay connector. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
5	Connect a <i>J 39200</i> from pin 3 of the Amplifier Relay Connector to pin 13 of the Amplifier Connector. Is there continuity?	—	Go to Step 7	Go to Step 6
6	Locate and repair the open in CKT 360 (ORN) between the amplifier connector and the amplifier relay connector. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
7	Connect a <i>J 39200</i> from pin 2 of the Amplifier Relay Connector to ground. Is there continuity?	—	Go to Step 8	Go to Step 10
8	Connect a <i>J 39200</i> from pin 1 of the Amplifier Relay to pin 2 of the Amplifier Relay. Is there continuity?	—	Go to Step 11	Go to Step 9
9	Replace the amplifier relay. Is the repair complete?	—	Go to Radio/Audio System Check	—
10	Locate and repair the open in CKT 150 (BLK) between the amplifier relay and ground. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
11	Replace the amplifier. Refer to <i>Amplifier Replacement (Base)</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
12	Connect a <i>J 39200</i> from pin 14 of the Amplifier Connector to ground. Is there continuity?	—	Go to Step 11	Go to Step 13
13	Locate and repair the open in CKT 150 (BLK) between the amplifier connector and G202. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—

### Antenna Diagnostic Check

1. Disconnect the antenna from the extension cable.
2. Plug in a test antenna.
3. Ground the antenna to the vehicle chassis.
4. Do not touch the antenna.
5. Test the radio reception in an area away from electrical interference such as the following items:
  - Tall buildings
  - Metal structures
  - Power lines
  - Florescent lighting
  - Power tools
6. Tune into the high and the low ends of the radio dial on both FM and AM, checking for weak and strong station reception.
7. If the reception is satisfactory, the problem exists in the antenna and/or the lead-in cable.
8. If the reception is still poor, refer to Diagnosis earlier in this section.

### Testing for Good Ground of Antenna Mounting and Connections

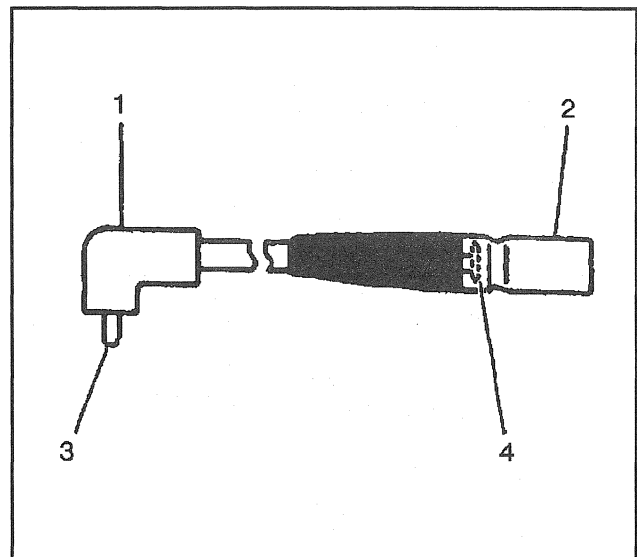
- Poor grounds at the antenna mounting, or any other connection in the antenna/lead-in system, can result in seriously reduced radio performance.
- A poor ground can be a reason for excess ignition noise on AM or bad audio.
- Make sure that the lead-in connectors are free of dirt and corrosion, and are tightly fastened.
- Possible ground loss or high-resistance ground points include the following steps:
  - Antenna upper mounting (loose screws, paint overspray, etc.)
  - Lead-in cable connector at the antenna, (loose or internally corroded)
  - Lead-in cable connector at the antenna (loose or internally corroded)
  - Quick connect connector (corroded)
  - Missing ground lead

### Measuring Resistance With a Digital Multimeter

#### Antenna Diagnostic Check

Probes On	Indication (Ohms)
3 and 4	Less than 0.2
1 and 2	Less than 0.2
2 and 4	infinite
1 and 3	infinite
1 and 4	infinite
2 and 3	infinite

\*While measuring, wiggle lead - in tip and cable; the indications should not vary.



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- Usually, a broken center conductor of the lead-in cable will result in no AM and weak FM radio stations.
  - In case of continued reception or noise complaints, always check the lead-in with an ohmmeter.
  - When checking resistance, wiggle the lead-in tip (3) and cable (4).
1. If the readings shown in the accompanying table are not obtained, some portion of the lead-in is intermittent.
  2. Replace the lead-in.

## Compact Disc Inoperative

Condition	Action
The CD player skips or mutes.	<ul style="list-style-type: none"> <li>• Verify the proper insertion.</li> <li>• Inspect the disc for scratches, dirt, or fingerprints. Clean the disc, as necessary.</li> <li>• Duplicate the complaint condition on a good road surface.</li> <li>• Verify the complaint condition using a known good disc, preferably a new disc.</li> <li>• Service the radio, if previous actions do not determine the cause of the condition.</li> </ul>
The CD player displays ERR or ejects the disc.	<ul style="list-style-type: none"> <li>• Verify the proper insertion.</li> <li>• Inspect the disc for dirt, scratches or wetness. ERR appears if moisture condenses on the disc, if a cold disc is inserted in a hot disc player, or if a hot disc is inserted in a cold disc player.</li> <li>• Allow one hour for the evaporation of any moisture.</li> <li>• Verify the complaint condition using a known good disc, preferably a new disc.</li> <li>• Verify the complaint condition with the customer.</li> <li>• Determine whether very high internal temperatures in the instrument panel cause the ejection of the disc.</li> <li>• Service the radio, if previous actions do not determine the cause of the condition.</li> </ul>

## Compact Disc Inoperative - Remote (CD Changer (Luxury))

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Disconnect radio connector C3. 2. Disconnect the CD changer connector. 3. Connect a J 39200 Is there continuity?	—	Go to Step 4	Go to Step 3
3	Locate and repair the open in CKT 150 (BLK) between the CD changer connector and the radio connector C3. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
4	1. Reconnect radio connector C3. 2. Turn ON the ignition with the engine OFF. 3. connect a J 39200 Is there battery voltage?	—	Go to Step 8	Go to Step 5
5	1. Disconnect radio connector C3. 2. Connect a J 39200 Is there continuity?	—	Go to Step 6	Go to Step 7
6	Send radio for repair. Is the repair complete?	—	Go to Radio/Audio System Check	—
7	Locate and repair the open in CKT 1140 (ORN) between the radio connector C3 and the CD changer connector. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Send CD changer in for service. Is the repair complete?	—	Go to Radio/Audio System Check	—

## Compact Disc Inoperative - Remote (Dash)

Step	Action	Value(s)	Yes	No
1	Has the radio/audio system check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Remove remote CD player. 2. Turn ON the ignition with the engine OFF. 3. Turn the radio ON. 4. Backprobe the remote CD player connector with a J 39200 from cavity 15 to ground. Is there battery voltage?	—	Go to Step 4	Go to Step 3
3	Locate and repair the open in CKT 1140 (ORN) between the remote CD player connector and the radio connector. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to Radio/Audio System Check	—
4	Backprobe cavity 15 and cavity 13 of the remote CD player connector with a J 39200. Is there battery voltage?	—	Go to Step 6	Go to Step 5
5	Locate and repair the open CKT 150 (BLK) between the radio and the remote CD player. Refer to <i>Wiring Repairs</i> in wiring.	—	Go to Radio/Audio System Check	—
6	With a J 39200 backprobe cavity 7 of the remote CD player connector to ground. Is there battery voltage?	—	Go to Step 8	Go to Step 7
7	Locate and repair the open in CKT 314 (PNK) between the radio connector and the remote CD player. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to Radio/Audio System Check	—
8	With a J 39200 backprobe cavity 14 of the remote CD player connector to ground. Is there battery voltage?	—	Go to Step 10	Go to Step 9
9	Locate and repair the open in CKT 835 DK GRN) between the remote CD player connector and the radio connector. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to Radio/Audio System Check	—
10	With a J 39200 backprobe cavity 10 of the remote CD player connector to ground and cavity 11 of the remote CD player connector to ground. Is the voltage the specified value?	3–4 Volts	Go to Step 11	Go to Step 12
11	Send the remote CD player for repair. Is the repair complete?	—	Go to Radio/Audio System Check	—
12	1. Disconnect the remote CD player connector. 2. Disconnect the radio connectors. 3. Connect a J 39200 between the remote CD player connector and the radio connector C3. Is there continuity?	—	Go to Step 14	Go to Step 13
13	Locate and repair the open in CKT 1407 (LT GRN) between the radio connector C3 and the remote CD player connector. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to Radio/Audio System Check	—
14	Connect a J 39200 between the remote CD connector cavity 11 and the radio connector C3 cavity 11. Is there continuity?	—	Go to Step 16	Go to Step 15

**Compact Disc Inoperative - Remote (Dash) (cont'd)**

Step	Action	Value(s)	Yes	No
15	Locate and repair the open in CKT 1406 (BRN/BLK) between the radio connector C3 and the remote CD player connector. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to <i>Radio/Audio System Check</i>	—
16	Connect a <i>J 39200</i> from cavity 10 of the remote CD player connector to ground and from cavity 11 of the remote CD player connector to ground. Is the resistance the specified value?	OL	Go to Step 18	Go to Step 17
17	Locate and repair the short to ground in CKT 1407 (LT GRN) or CKT 1406 (ORN/PNK) between the remote CD player connector and the radio connector C3. Refer to <i>Wiring Repairs</i> in wiring. Is the repair complete?	—	Go to <i>Radio/Audio System Check</i>	—
18	Send radio for service. Is the repair complete?	—	Go to <i>Radio/Audio System Check</i>	—

**Radio Displays LOC**

Step	Action	Value(s)	Yes	No
1	1. Turn Ignition off 2. Disconnect negative battery cable for 1 minute. 3. Reconnect battery cable 4. Turn ignition to run 5. Turn radio on Does radio now operate?	—	—	Go to Step 2
2	Does the Radio have Theftlock? NOTE: It will say Theftlock on the face of the radio.	—	Go to Step 3	—
3	Is it possible to get the security code from the customer?	—	Refer to <i>Radio/Audio System Operation (UNO/ULO)</i>	Go to Step 4
4	1. Turn ignition off. 2. Turn radio off. 3. Depress and hold Pre-set buttons 2 and 3. 4. Write down the first three digits that appear on the radio display. 5. Depress AM/FM, write down the second three digits that appear on the radio display Did you receive the 6 digit Radio Display Code?	—	Go to Step 5	Send Radio in for repair
5	Contact Delco Assistance to obtain a "Radio Back-up Code"	—	Go to Step 6	—
6	1. Use the hours and minutes buttons on radio and install the 4 digit "Radio Back-up Code". 2. Depress the AM/FM button. 3. "SEC" should display. Did the radio unlock?	—	Go to Step 7	Repeat Step 6
7	NOTE: Step 6 only unlocked the radio, if the original code is not known, repeat step 6. This will remove the original owners code. The owner will then be able to reinstall their own personal security code. Did the radio display?	—	—	Repeat Step 7

## Radio Controls Inoperative - Rear Seat (Luxury)

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Place ignition in ACC or RUN. 2. Disconnect rear stereo audio controller connector. 3. Connect a <i>J 39200</i> DMM from cavity A CKT 43 (YEL) to ground. Is the voltage equal to the specified value?	12 Volts	Go to Step 4	Go to Step 3
3	Repair open in CKT 43 (YEL) between the rear stereo audio controller and the IP fuse block. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
4	Connect a <i>J 39200</i> DMM from cavity C CKT 150 (BLK) to ground. Does continuity exist?	—	Go to Step 6	Go to Step 5
5	Repair open in CKT 150 (BLK) wire between rear stereo audio controller and G200. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
6	Remove rear stereo audio controller and send in for service. Is the repair complete?	—	Go to Radio/Audio System Check	—

## Radio Display and/or Buttons Do Not Illuminate

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Disconnect the radio connector C1. 2. Connect a <i>J 34142-B</i> test lamp from CKT 1140 (ORN) at the radio connector cavity 10 to ground. Does the test lamp light?	—	Go to Step 4	Go to Step 3
3	Repair the open in CKT 1140 (ORN) located between radio connector cavity 7 and the fuse block. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—
4	1. Place the ignition to the RUN position. 2. Connect a <i>J 34142-B</i> test lamp from cavity 9 of connector C1 to ground. Does the test lamp light?	—	Go to Step 6	Go to Step 5
5	Locate and repair the open in CKT 43 (YEL) between the IP fuse block and the radio connector C1. Is the repair complete?	—	Go to Radio/Audio System Check	—
6	Connect a <i>J 34142-B</i> test lamp from cavity 5 of the radio connector C1 and B+. Does the test lamp light?	—	Go to Step 8	Go to Step 7
7	Locate and repair the open in CKT 150 (BLK) between the radio and ground G200. Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Send the radio in for repair. Is the repair complete?	—	Go to Radio/Audio System Check	—

**Radio Display Does Not Dim with IP Dimmer Switch**

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	Does the radio display vary with the dimming control?	—	Go to Step 3	Go to Step 4
3	Inspect the radio display buttons. Does the radio display respond when you press the buttons?	—	Go to Step 6	Go to Step 7
4	1. Remove the radio. Refer to <i>Radio Replacement</i> . 2. Turn the ignition to the RUN position. 3. Turn the radio to the ON position. 4. Use a <i>J 39200</i> in order to backprobe from the radio connector C1, cavity 6 to ground. 5. Turn the Headlamp Switch to the PARK position. Is battery voltage present?	—	Go to Step 5	Go to Step 8
5	1. Place the ignition in the RUN position. 2. Turn the radio to the ON position. 3. Use a <i>J 39200</i> in order to backprobe from the radio connector C1, cavity 7 to ground. 4. Turn the headlamp dimmer switch back and forth. Is voltage within the specified range?	0–10 Volts	Go to Step 7	Go to Step 9
6	Refer to <i>Intermittents and Poor Connections Diagnosis</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
7	Send the radio in for repair. Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Repair the open in CKT 1382 (PPL/WHT) between the radio connector C2 and the headlamp panel dimmer switch. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
9	Repair the open in CKT 8 (GRY) between the radio connector C1 and the IP fuse block. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—

**Radio Display Inoperative, No Sound from Speakers**

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Remove the radio from the dash. 2. Disconnect radio connector C1. 3. Place the ignition switch in the RUN position, with the engine in the OFF position. 4. With a <i>J 39200</i> DMM, measure the voltage in CKT 1140 (ORN) at the radio connector C1, cavity 10 to ground. Is the voltage approximately equal to the battery voltage?	B+	Go to Step 3	Go to Step 5
3	With a <i>J 39200</i> DMM, measure the voltage between cavities 10 and 5 of radio connector C1. Is the voltage approximately equal to the battery voltage?	B+	Go to Step 4	Go to Step 6

**Radio Display Inoperative, No Sound from Speakers (cont'd)**

Step	Action	Value(s)	Yes	No
4	With a <i>J 39200</i> DMM, measure the voltage between cavities 9 and 5 of radio connector C1. Is the voltage approximately equal to the battery voltage?	B+	Go to Step 7	Go to Step 8
5	Repair the open in CKT 1140 between radio connector C1 and the IP fuse block. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
6	Repair the open in CKT 150 (BLK) between radio connector C1 and ground 200. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—
7	Send the radio in for service. Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Repair the poor connection or open in CKT 43 (YEL), between radio connector C1, cavity 9 and the IP fuse block. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—

**Radio Illumination Inoperative with Park Lamps On (Luxury)**

Step	Action	Value(s)	Yes	No
1	Has the radio/audio system check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Remove the rear stereo controller. 2. Disconnect the rear stereo controller connector. 3. Place the headlamp and panel dimmer switch in the park position. 4. Connect a <i>J 39200</i> between connector C1 Pin 6 and ground. Is there battery voltage?	—	Go to Step 3	Go to Step 4
3	Remove the rear stereo controller and send for service. Is the repair complete?	—	Go to Radio/Audio System Check	—
4	1. Remove the headlamp and panel dimmer switch. 2. Disconnect the headlamp and panel dimmer switch connector. 3. Connect a <i>J 39200</i> Is there battery voltage?	—	Go to Step 6	Go to Step 5
5	Locate and repair the open in CKT 240 (ORN) between the IP fuse block and the headlamp and panel dimmer switch. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
6	Connect a <i>J 39200</i> Is there continuity?	—	Go to Step 8	Go to Step 7
7	Replace the headlamp and panel dimmer switch. Refer to <i>Headlamp Switch Replacement</i> Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Locate and repair the open in CKT 9 (BRN) between the rear stereo controller and the headlamp and panel dimmer switch. Refer to <i>Wiring Repairs</i> Is the repair complete?	—	Go to Radio/Audio System Check	—



## Radio Memory Inoperative

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Remove the radio from the dash. 2. Disconnect the radio connector C1. 3. Connect a <i>J 39200</i> from radio connector C1, cavity 10 to ground. Is battery voltage present?	—	Go to Step 3	Go to Step 4
3	Remove the radio. Send the radio for repair. Is the repair complete?	—	Go to Radio/Audio System Check	—
4	Repair the open in the CKT 1140 (ORN) between radio connector C1 and the IP fuse block. Refer to <i>Wiring Repairs</i> in Wiring Systems. Is the repair complete?	—	Go to Radio/Audio System Check	—

## Speakers Inoperative - One

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	1. Turn the ignition switch off. 2. Disconnect the speaker connector. 3. With a <i>J 39200</i> DMM, measure the resistance of the speaker. Is the resistance within the specified range?	4–15 $\Omega$	Go to Step 3	Go to Step 6
3	1. Disconnect the radio connectors. 2. With a <i>J 39200</i> DMM, measure the resistance at the speaker from cavity A to ground. Is the resistance infinite?	—	Go to Step 4	Go to Step 7
4	With a <i>J 39200</i> DMM, measure the resistance of the speaker feed circuits at the radio. Is the resistance infinite?	—	Go to Step 5	Go to Step 7
5	1. Reconnect the speaker 2. With a <i>J 39200</i> DMM, measure the resistance of the speaker feed circuits at the radio. Is the resistance within the specified range?	4–15 $\Omega$	Go to Step 10	Go to Step 9
6	Replace the speaker. Is the repair complete?	—	Go to Radio/Audio System Check	—
7	Repair the short to ground in the speaker feed circuit. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—
8	Repair the poor connections at the radio or speaker. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	Go to Step 10
9	1. Repair any poor connections at the speaker. Refer to <i>Wiring Repairs</i> . 2. Repair any poor connections at the in-line connectors. Refer to <i>Wiring Repairs</i> . 3. Repair any opens in the speaker feed circuits. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Radio/Audio System Check	—
10	Service the radio Is the repair complete?	—	Go to Radio/Audio System Check	—

**Tape Player Inoperative**

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	Inspect for obstruction through the tape door. Is there an obstruction?	—	Go to Step 3	Go to Step 4
3	1. Remove the obstruction. 2. Play a tape in the tape player. Does the tape player perform correctly?	—	Go to Radio/Audio System Check	Go to Step 4
4	Service the radio. Is the repair complete?	—	Go to Radio/Audio System Check	—

**Tape Player Weak, Slow, or Garbled Output**

Step	Action	Value(s)	Yes	No
1	Has the Radio/Audio System Check been performed?	—	Go to Step 2	Go to Radio/Audio System Check
2	Clean all moving parts and the tape head using a cleaning cassette. Does the tape play back?	—	Go to Step 4	Go to Step 3
3	Perform a motor speed test with diagnostic test tape from J 39916 as described in Audio Systems. Is the motor speed OK?	—	Go to Step 5	Go to Step 6
4	Advise the customer about cleaning the tape player periodically. Is repair complete?	—	Go to Radio/Audio System Check	—
5	Use a different tape. Does the tape player operate correctly?	—	Go to Radio/Audio System Check	Go to Step 6
6	Service radio. Is the repair complete?	—	Go to Radio/Audio System Check	—

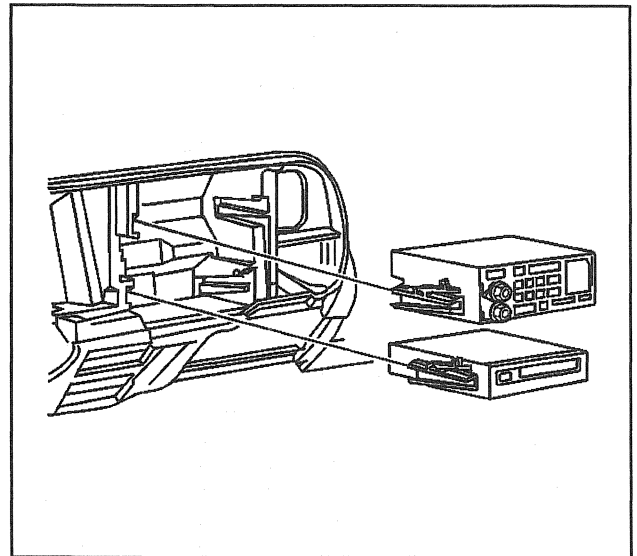
## Repair Instructions

### Radio Replacement

#### Removal Procedure

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

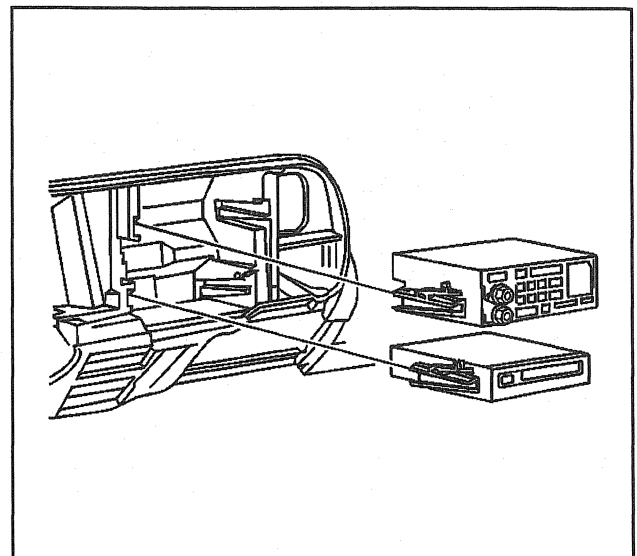
1. Disconnect the negative battery cable.
2. Remove the instrument panel trim. Refer to Instrument Panel, Gauges and Console.
3. Use a small screwdriver in order to release the radio retainers.
4. Slide the radio forward in order to remove the radio.
5. Remove the electrical connectors.
6. Remove the antenna connection.



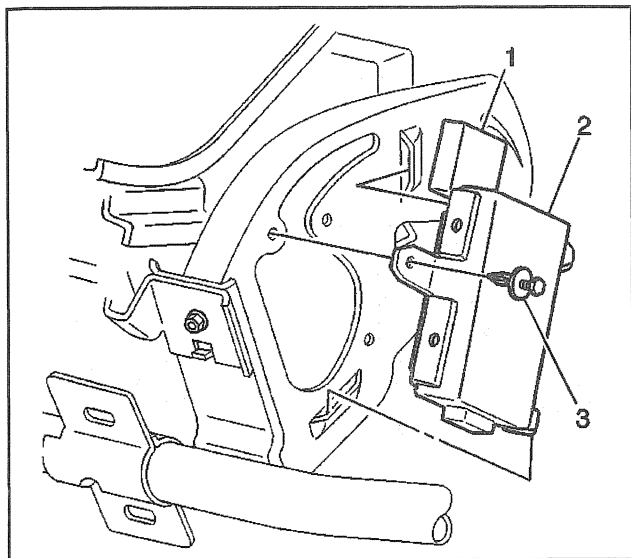
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#### Installation Procedure

1. Install the antenna connection.
2. Install the electrical connectors.
3. Slide the radio into the instrument panel in order to install the radio.  
The unit should snap into the retainers when the unit is fully seated.
4. Install the instrument panel trim.
5. Install the negative battery cable.
6. Verify the component's operation.



264160



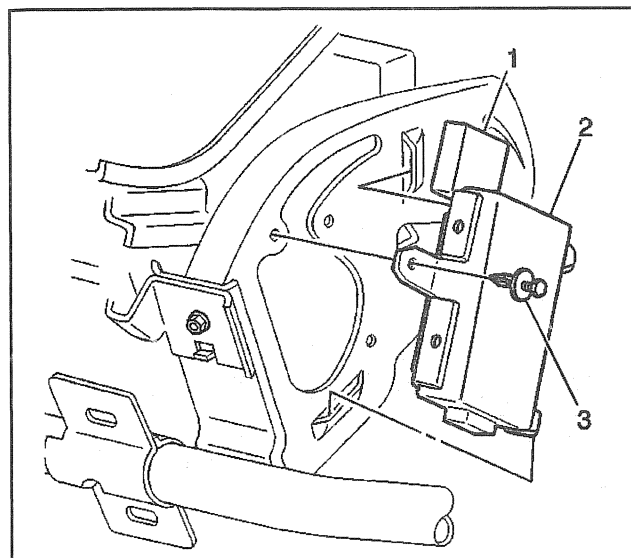
264162

## Amplifier Replacement (Base)

### Removal Procedure

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

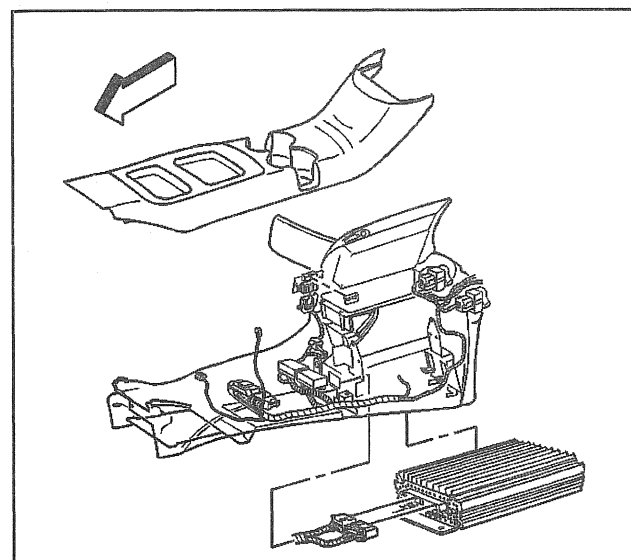
1. Disconnect the negative battery cable.
2. Disconnect the electrical connectors, as needed.
3. Disconnect the amplifier (2) from the bracket.



264162

### Installation Procedure

1. Connect the amplifier (2) to the bracket.
  2. Connect the electrical connectors, as needed.
  3. Connect the negative battery cable.
- Inspect the circuit operation.



288411

## Amplifier Replacement (Luxury)

### Removal Procedure

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

1. Remove the negative battery cable.
2. Remove the front floor console from the vehicle. Refer to *Console Replacement - Front Floor (Luxury)*.
3. Remove the amplifier screws.
4. Remove the amplifier from the console through the bottom of the console.
5. Disconnect the electrical connector from the amplifier.

**Installation Procedure**

1. Install the electrical connector to the amplifier.
2. Install the amplifier to the console.

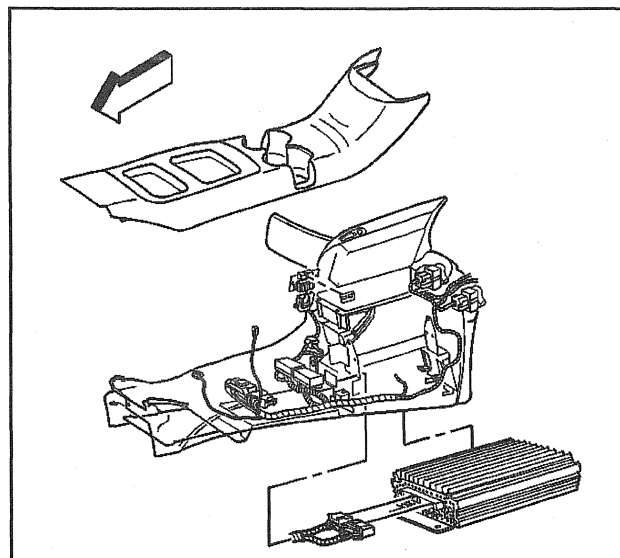
**Notice:** Refer to Fastener Notice in Cautions and Notices.

3. Install the amplifier to console screws (4).

**Tighten**

Tighten the amplifier to console screws to 6 N·m (53 lb in).

4. Install the front floor console to the vehicle. Refer to *Console Replacement - Front Floor (Luxury)*.
5. Install the negative battery cable.



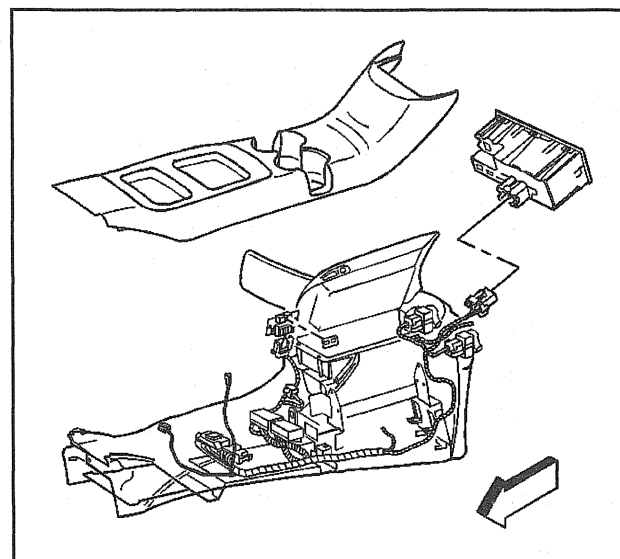
288411

## Rear Seat Audio Control Replacement (Luxury)

**Removal Procedure**

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

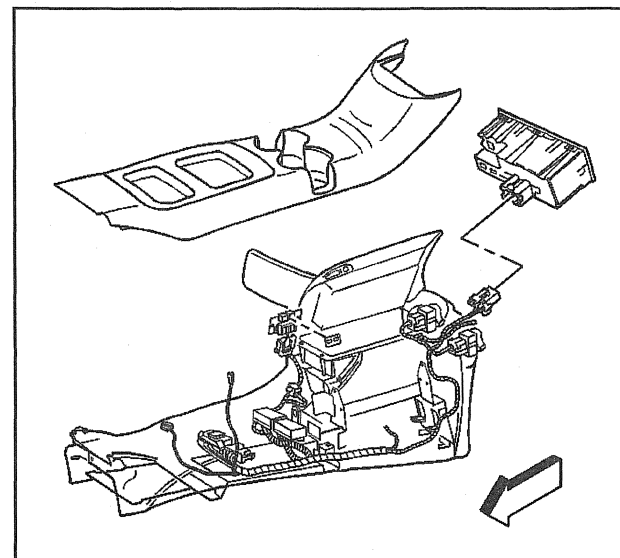
1. Remove the negative battery cable.
2. Remove the console storage bin. Refer to *Console Storage Bin Replacement*.
3. Remove the RSA controls from the console by pressing in the 6 tabs. There are 2 tabs on the top, 2 tabs on the bottom, 1 tab on the right, and 1 tab on the left of the RSA.
4. Remove the rear seat audio (RSA) connectors.



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**Installation Procedure**

1. Install the rear seat audio connectors.
2. Install the rear seat audio control into the console.
3. Install the console storage bin. Refer to *Console Storage Bin Replacement*.
4. Install the negative battery cable.



288157

## Cassette Player Care and Cleaning

### Tools Required

*J 39916* Audio System Diagnostic Kit

If you do not regularly clean the tape player, the tape player is subject to the following conditions:

- Reduced sound quality
- Ruined cassettes
- A damaged tape mechanism

Cassette tapes may not operate properly if they are not stored in their cases away from the following conditions:

- Contaminants
- Direct sunlight
- Extreme heat

### Cleaning Intervals

Clean the cassette tape player after every 15 hours of operation for optimum performance.

Clean the cassette tape player at a maximum of every 50 hours of playing time. This will prevent damage to the cassette tape player mechanism. The radio may display CLN, CLEAN, or CLEAN TAPE (depending on the type of radio being used), if equipped with the clean tape indicator feature. This indicates that you have used the tape player for 50 hours without resetting the tape clean timer. If this message appears on the display, clean the cassette tape player. The player can still play tapes but the player should be cleaned as soon as possible in order to prevent damage to the tapes and/or the player.

Cassettes are subject to wear and the sound quality may degrade over time. If you notice a reduction in sound quality, play a different cassette. A new cassette may indicate whether the tape or the tape player is at fault.

If the sound quality does not improve when the second tape is played, clean the cassette player. Perform this step regardless of when you last cleaned the cassette player.

If a noticeable improvement is not achieved after cleaning the player, remove the radio assembly for repair.

## Head and Capstan Cleaning

The following 2 components are cleaned on a cassette player:

- The head
- The capstan

**Important:** Do not contact the tape head with magnetized tools. If the head becomes magnetized, every cassette played in the player will be degraded.

In order to properly clean a tape player, use the cleaning cassette in *J 39916* in order to clean the head and the capstan. The cleaning cassette is a scrubbing action, non-abrasive cassette with pads which scrub the tape head as the hubs of the cleaner cassette turn. When using a scrubbing action, non-abrasive cleaning, the cassette may eject. The unit is equipped with a cut tape detection feature. The feature than may detected as a broken tape.

In order to prevent the cleaning cassette from being ejected, perform the following steps:

1. Turn the ignition switch to one of the following positions (depending upon the vehicle):
  - ON
  - RUN
  - ACC
  - ACCESSORY
2. Turn OFF the radio.
3. Press and hold the TAPE button for 5 seconds. The tape symbol on the display will flash for 2 seconds.
4. Insert the scrubbing action cleaning cassette.
5. Eject the cleaning cassette after the manufacturer's recommended cleaning time. When the cleaning cassette has been ejected, the cut tape detection feature is active again.

The alternative method is to use a non-scrubbing action, wet type cleaning cassette. This cassette uses a fabric belt to clean the tape head. This type of cleaning cassette does not eject on its own. A non-scrubbing action cassette may not clean as thoroughly as the scrubbing type cleaning cassette. The use of this cassette is not recommended.

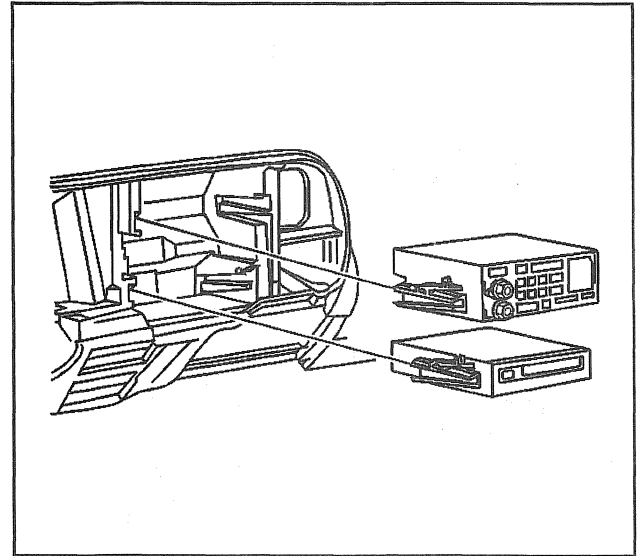
After you clean the player, press and hold the EJECT button for 5 seconds to reset the CLEAN indicator. The radio display shows that the indicator has been reset.

## Remote CD Player Replacement

### Removal Procedure

**Caution:** Refer to *Battery Disconnect Caution in Cautions and Notices*

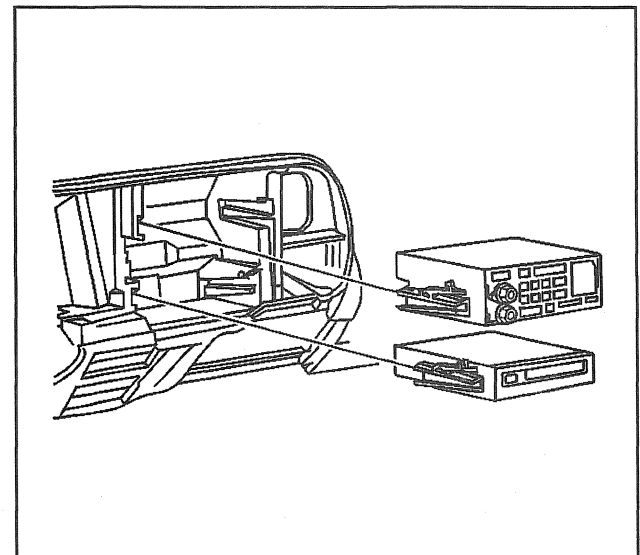
1. Disconnect the negative battery cable.
2. Remove the instrument panel trim. Refer to Instrument Panel, Gauges and Console.
3. Use a small screwdriver in order to release the radio retainers.
4. Remove the playback device.
5. Remove the electrical connectors.



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### Installation Procedure

1. Connect the electrical connectors.
2. Install the playback device.
3. When the playback device is fully seated, snap the unit into the retainers.
4. Install the accessory trim plate.
5. Connect the negative battery cable.
6. Verify the component operation.



264160

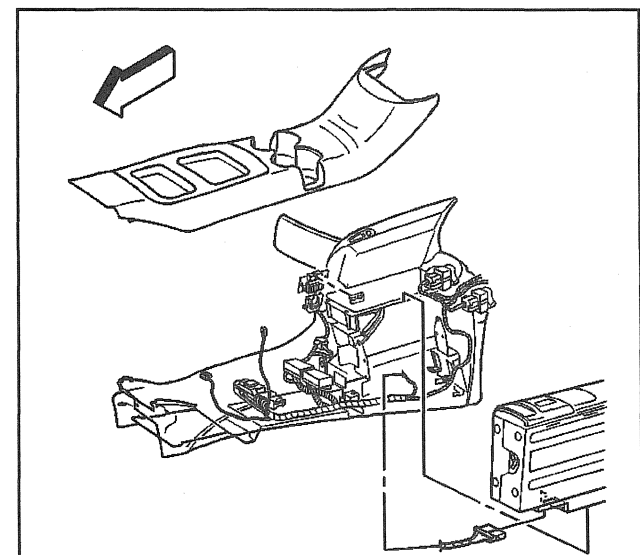
## Remote CD Changer Replacement

### Removal Procedure

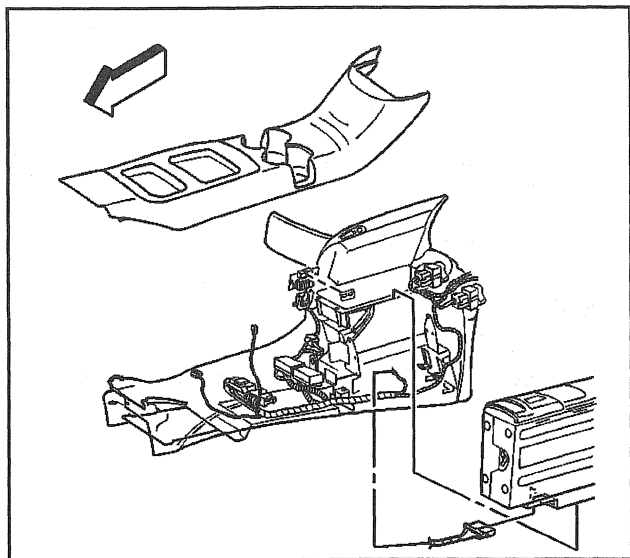
1. Remove the CD magazine if one is inserted in the CD changer by pressing the EJECT button.

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

2. Remove the negative battery cable.
3. Remove the console storage bin. Refer to *Console Storage Bin Replacement*.
4. Remove the CD changer to console screws.
5. Remove the CD changer from the console.  
Slide the CD changer up and toward the center of the console.
6. Remove the electrical connector from the CD changer.



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288156

**Installation Procedure**

1. Install the electrical connector to the CD changer.
2. Install the CD changer to the console.

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

3. Install the CD changer to console screws.

**Tighten**

Tighten the screws to 6 N·m (53 lb in).

4. Install the console storage bin. Refer to *Console Storage Bin Replacement*.
5. Install the negative battery cable.

**Compact Disc Care and Cleaning**

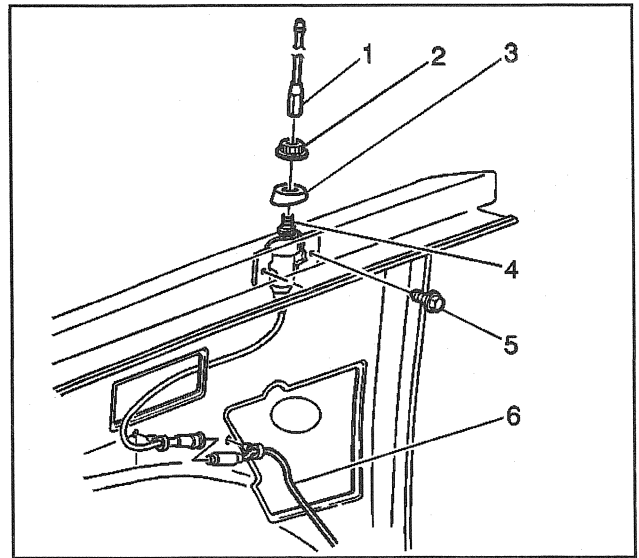
- No maintenance is required for the compact disc player.
- Do not use a CD lens cleaner.  
Use of a CD lens cleaner may contaminate the lens.
- Handle CD's carefully.  
Store CD's in their original cases, or other protective cases, and away from direct sunlight and dust.
  - If the surface of a disc becomes soiled, dampen a cloth in a mild detergent solution in order to clean the disc.  
Wipe the cloth from the center of the CD to the edge of the CD.  
Never touch the signal surface when handling discs.
  - Pick up the edge of the center hole and the outer edge.



## Fixed Antenna Replacement

### Removal Procedure

1. Disconnect the antenna mast (1).
2. Remove the nut (2).
3. Remove the bezel (3).
4. Disconnect the antenna cable from the extension cable (6).
5. Remove the screws (5).
6. Disconnect the cable assembly.



264191

### Installation Procedure

1. Connect the antenna cable assembly.

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

2. Install the screws (5).

#### Tighten

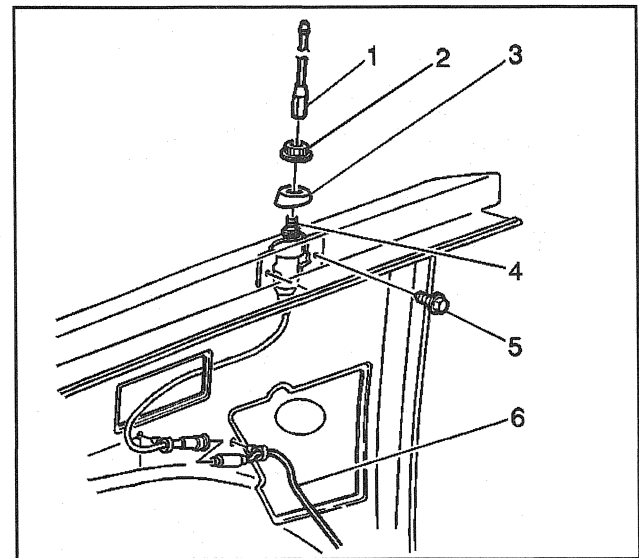
Tighten the screws to 5 N·m (58 lb in).

3. Connect the antenna cable to the extension cable (6).
4. Install the bezel (3).
5. Install the nut (2).

#### Tighten

Tighten the nut to 5 N·m (58 lb in).

6. Install the antenna mast (1).

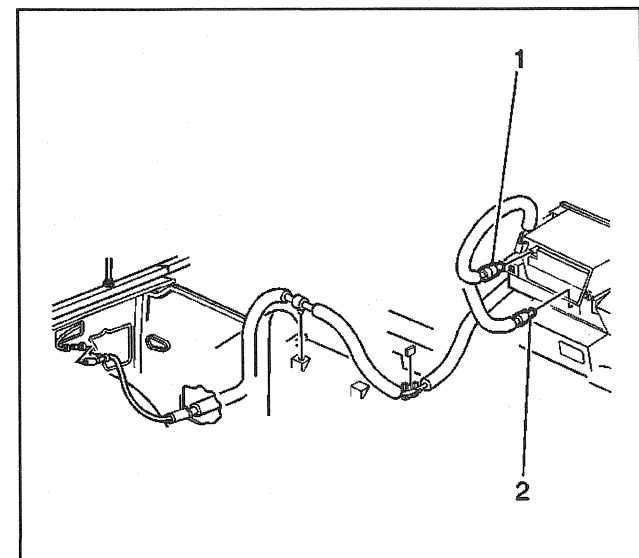


264191

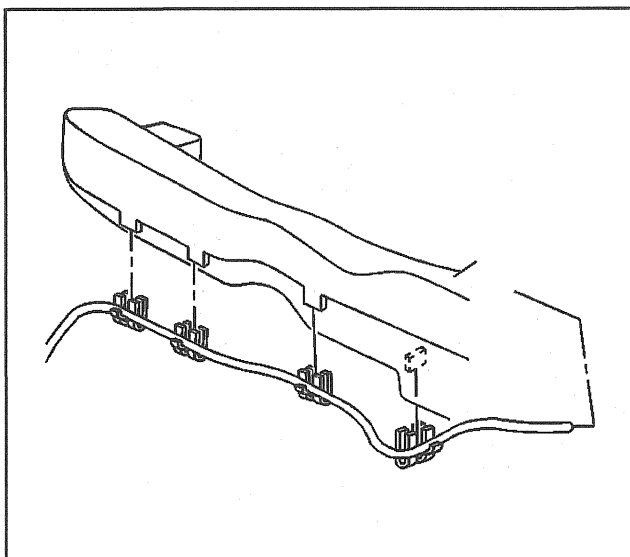
## Antenna Extension Cable Replacement

### Removal Procedure

1. Remove the roll out instrument panel. Refer to *IP Carrier Replacement*.
2. Disconnect the extension cable (1, 2) from the radio.

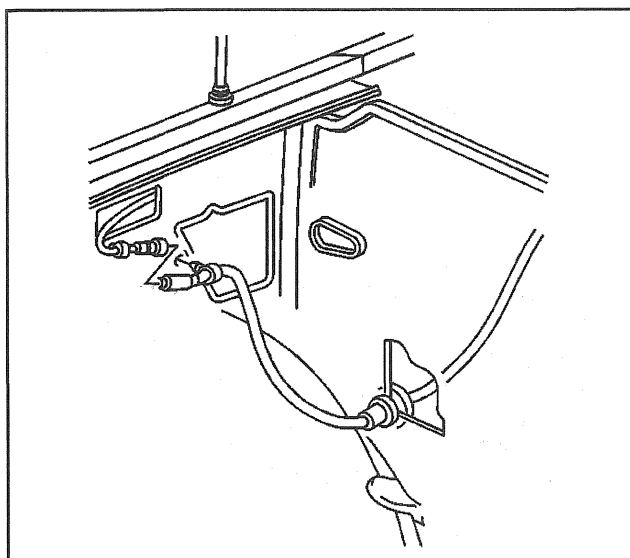


264195



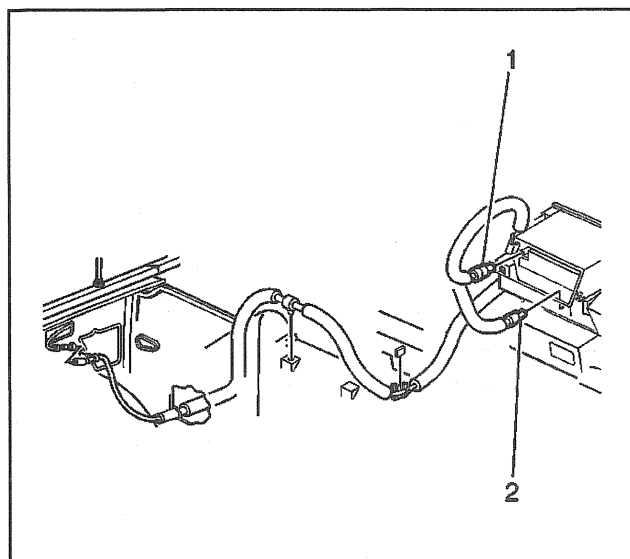
264199

3. Disconnect the extension cable from the HVAC duct.



264201

4. Disconnect the extension cable from the antenna.

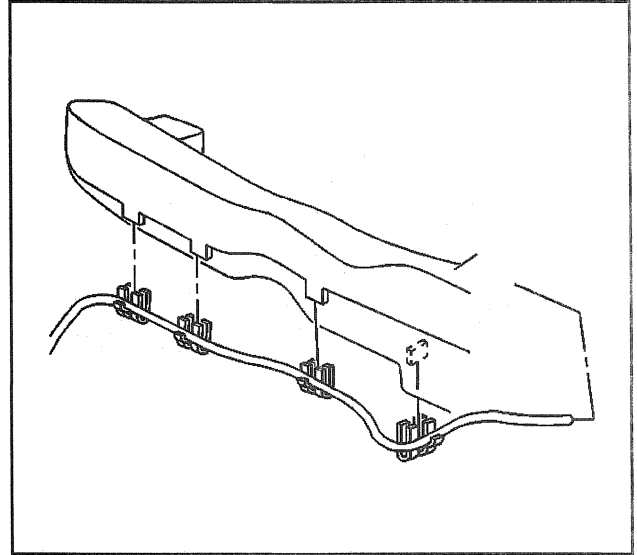


264195

### Installation Procedure

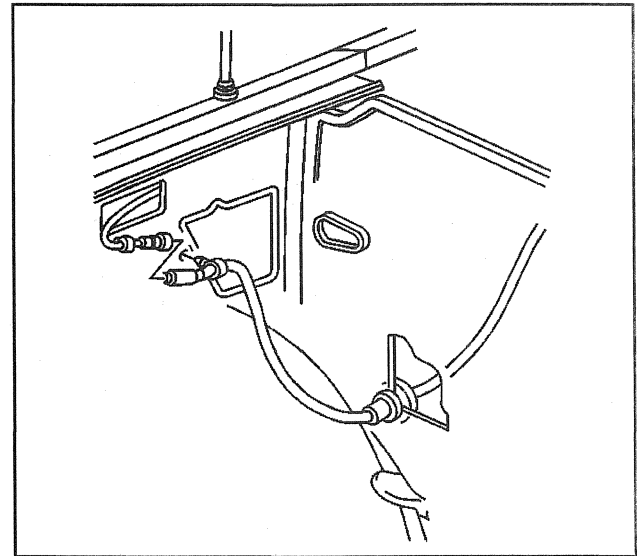
1. Connect the extension cable (1, 2) to the radio.

2. Connect the extension cable to the HVAC duct.



264199

3. Connect the extension cable to the antenna.
4. Roll the instrument panel back into place.
5. Secure the instrument panel.

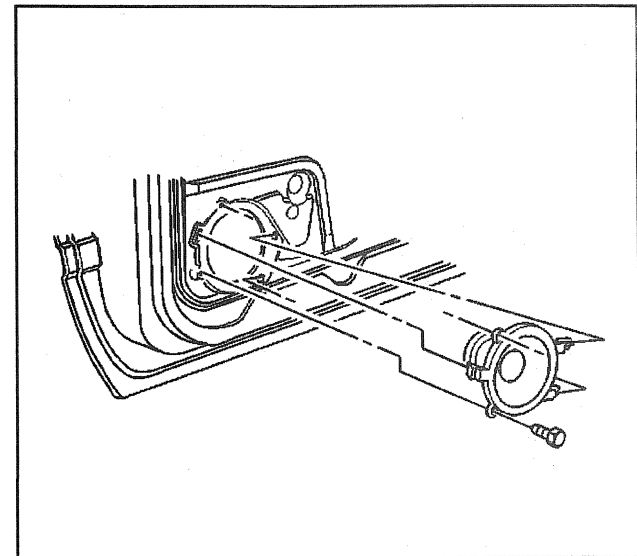


264201

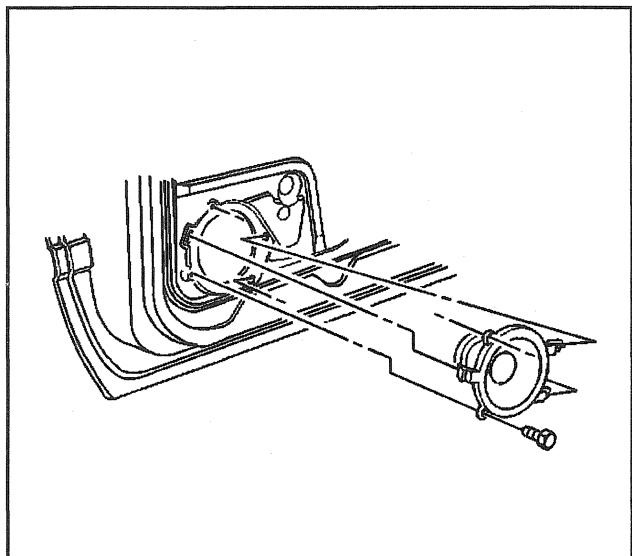
## Speaker Replacement (Front Side Door)

### Removal Procedure

1. Remove the trim panel. Refer to *Trim Panel Replacement - Side Front Door* in Doors.
2. Remove the screws.
3. Use a small screwdriver in order to release the speaker retainer.
4. Remove the speaker.
5. Disconnect the electrical connector.



264164



264164

**Installation Procedure**

1. Connect the electrical connector.
2. Install the speaker.  
Snap the speaker into the retainer when the speaker is fully seated.

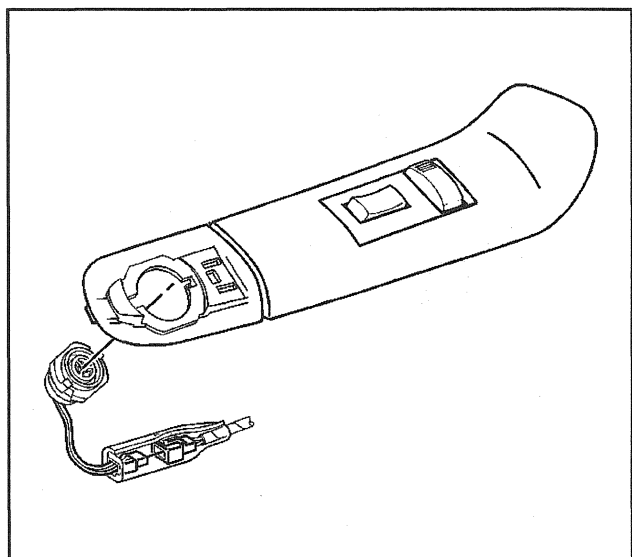
**Notice:** Refer to *Fastener Notice* in Cautions and Notices.

3. Install the screws

**Tighten**

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

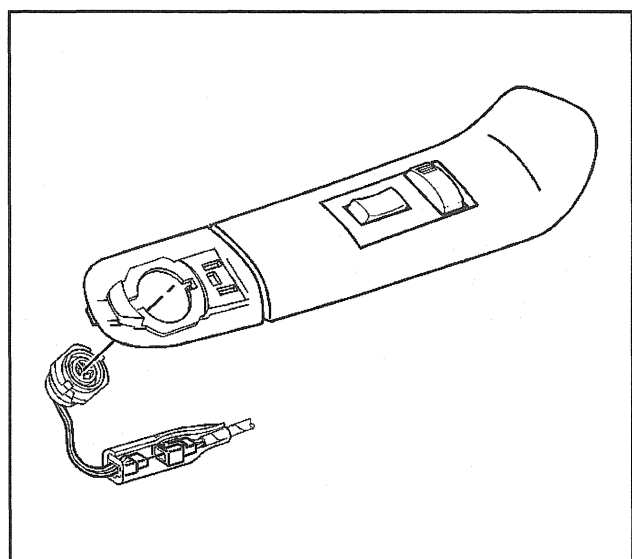
4. Install the trim panel.
5. Inspect the component's operation.



264167

**Speaker Replacement  
(Front Door Armrest)****Removal Procedure**

1. Lift the armrest speaker cover at the rear edge in order to remove the armrest speaker.
2. Slide the cover back from the armrest speaker in order to disconnect the front retainer.
3. Disconnect the electrical connector.
4. Rotate the speaker in order to remove the speaker.



264167

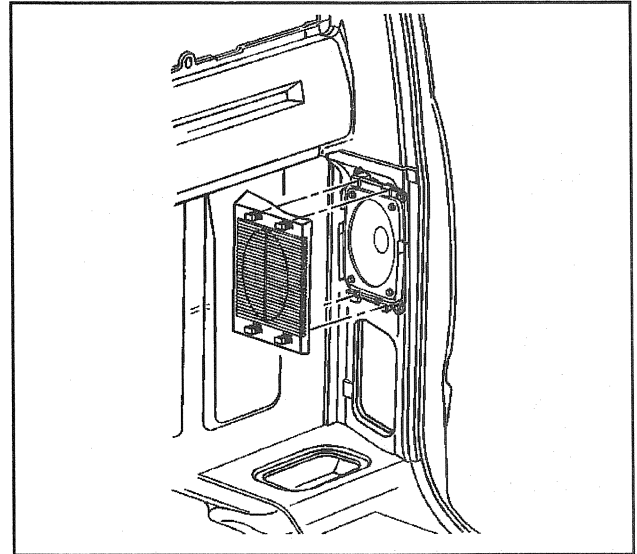
**Installation Procedure**

1. Connect the speaker to the cover by rotating the speaker.  
The speaker should snap into the retainer when it is fully seated.
2. Connect the electrical connector.
3. Slide the speaker cover into the front slots.
4. Lower the armrest speaker cover in order to connect the retainers.

## Speaker Replacement (Rear)

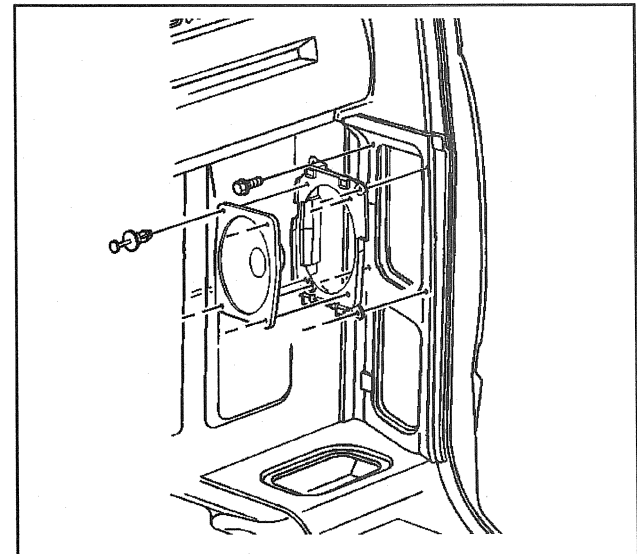
### Removal Procedure

1. Remove the speaker grille.



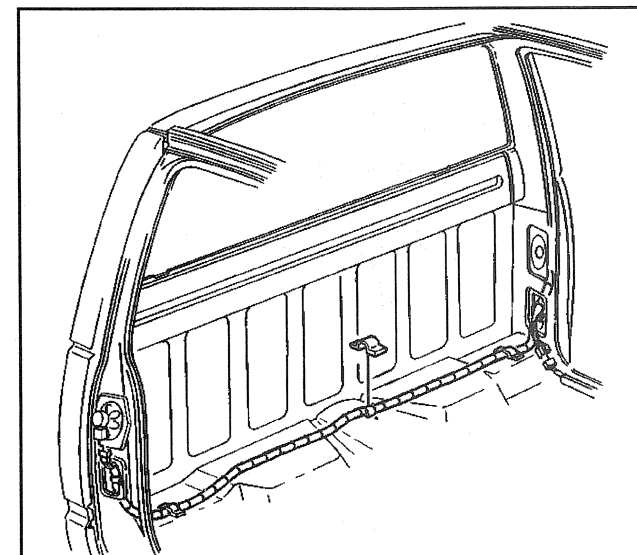
264171

2. Remove the screws.
3. Remove the speaker.

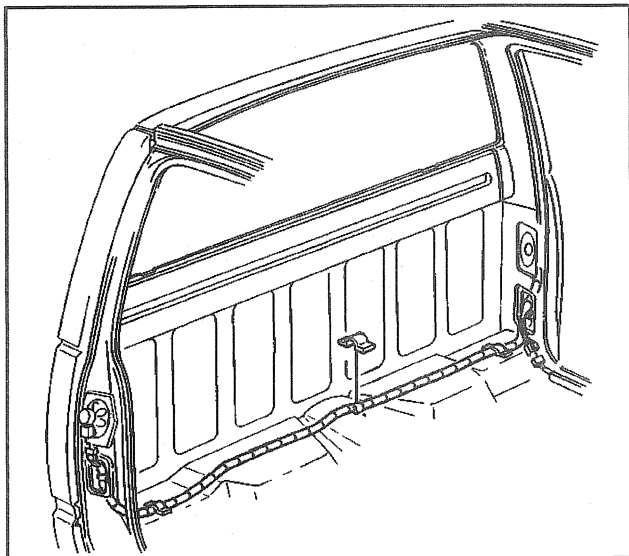


264169

4. Disconnect the electrical connectors.



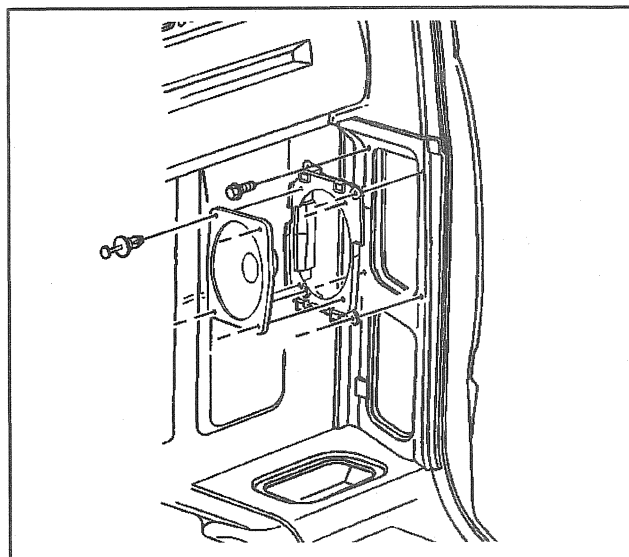
264173



264173

**Installation Procedure**

1. Connect the electrical connectors.



264169

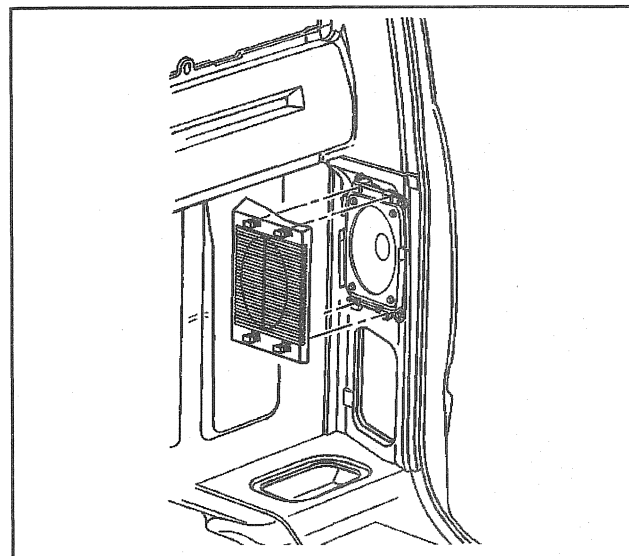
2. Install the speaker.

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

3. Install the screws.

**Tighten**

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

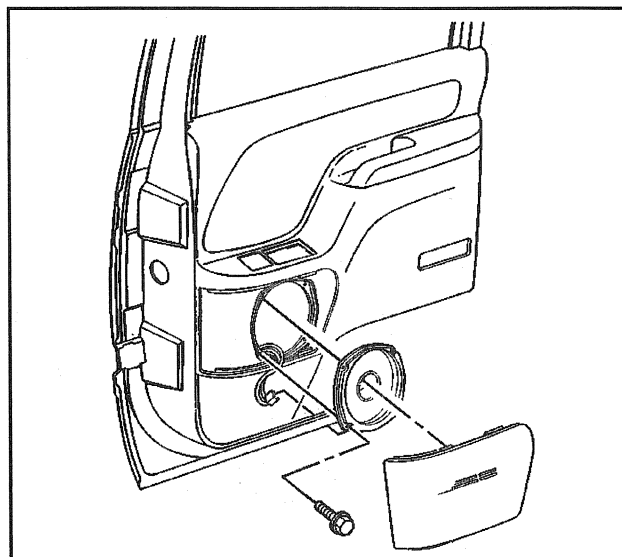


264171

4. Install the speaker grille.  
Verify the component's operation.

**Speaker Replacement (Side Door)****Removal Procedure**

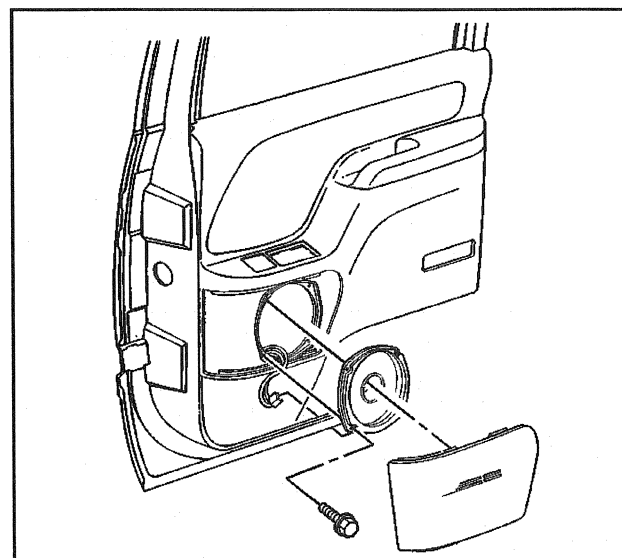
1. Remove the speaker grille.
2. Remove the retainers.
3. Remove the speaker.
4. Disconnect the electrical connectors.



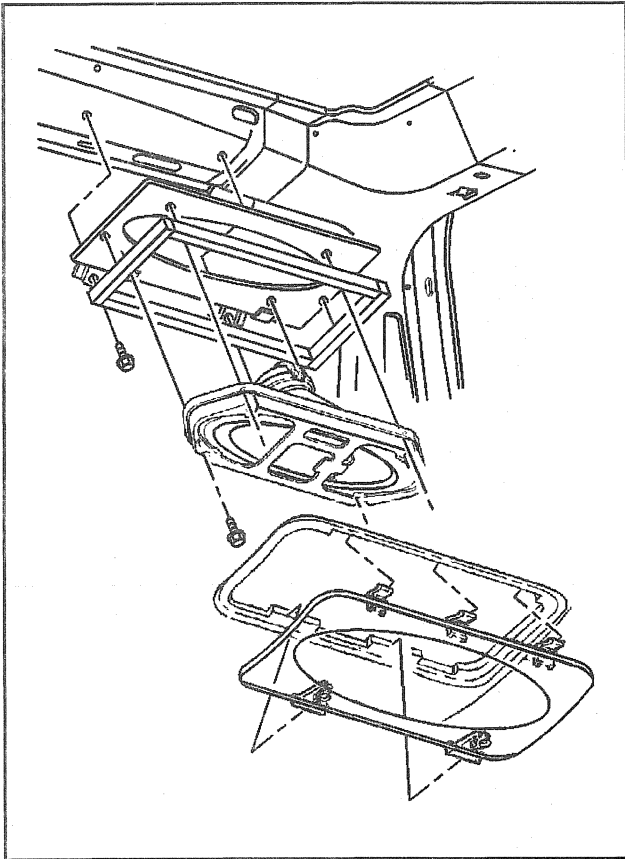
264181

**Installation Procedure**

1. Install the electrical connectors.
2. Install the speaker.
3. Install the retainers.
4. Install the speaker grille.
5. Verify the component's operation.



264181

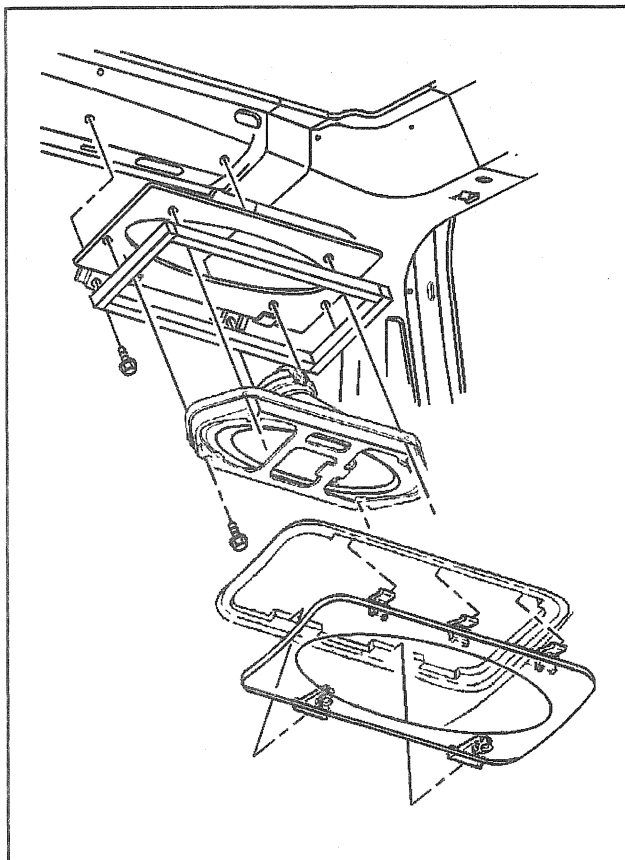


264184

## Speaker Replacement (Rear Overhead)

### Removal Procedure

1. Remove the speaker grille.
2. Remove the roof inner trim panel, if necessary. Refer to *Headliner Replacement (Suburban)* or *Headliner Replacement (Utility)* in Interior Trim.
3. Remove the screws.
4. Remove the speaker from the bracket.
5. Disconnect the electrical connectors, as necessary.



264184

### Installation Procedure

1. Connect the electrical connectors, as necessary.
2. Install the speaker to the bracket.

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

3. Install the screws.

#### Tighten

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

4. Install the roof inner trim panel, if necessary.
5. Install the speaker grille.
6. Verify the component's operation.

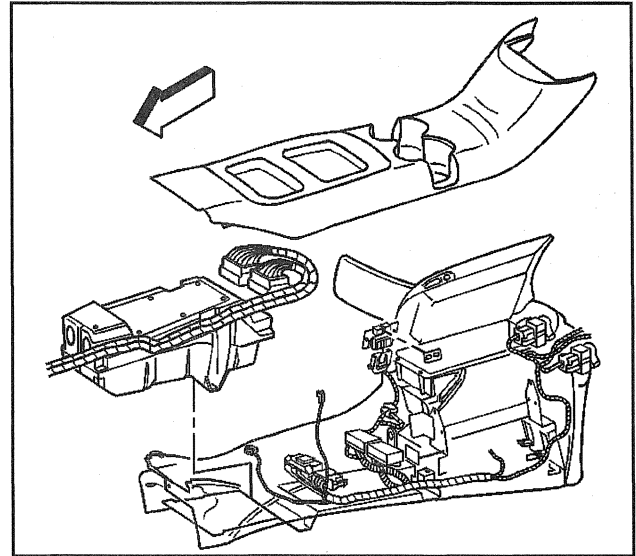


## Speaker Replacement - Front Floor Console (Luxury)

### Removal Procedure

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

1. Remove the negative battery cable.
2. Remove the floor console from the vehicle. Refer to *Console Replacement - Front Floor (Luxury)*.
3. Remove the console to speaker bolts.
4. Disconnect the electrical connector from the front floor console speaker, this is a small 2 pin connector located on the end of the speaker.
5. Remove the speaker from the console.



288161

### Installation Procedure

1. Install the front floor console speaker to the console.

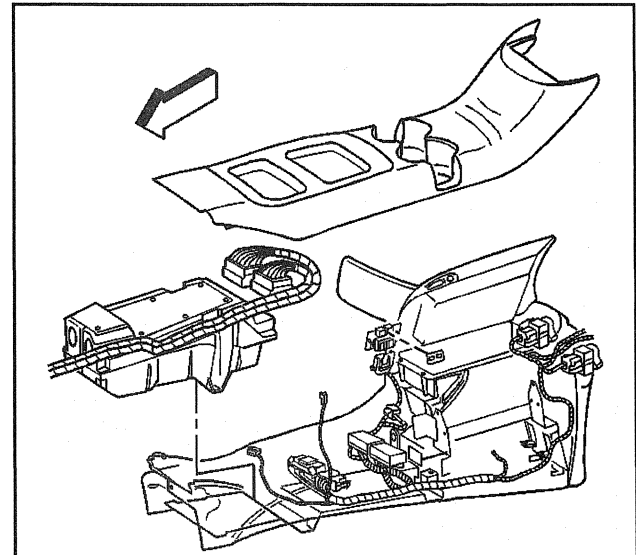
**Notice:** Refer to Fastener Notice in Cautions and Notices.

2. Install the console to speaker bolts.

#### Tighten

Tighten the console to speaker bolts to 6 N·m (53 lb in).

3. Install the electrical connector to the console speaker.
4. Install the floor console to the vehicle. Refer to *Console Replacement - Front Floor (Luxury)*
5. Install the negative battery cable.



288161

## Description and Operation

### Radio/Audio System Description

The radio receiver mounts in the instrument panel using snap-fit retainers.

The radio receiver and the amplifier are an integral design.

No remote amplifier is used.

The following radio systems are available:

#### UM7

- AM/FM Stereo
- Seek and Scan
- Clock
- 7 FM and 7 AM Preset Stations

#### UM6

- AM/FM Stereo
- Seek and Preset Scan
- Auto-Reverse Cassette
- Clock
- 14 FM and 7 AM Preset Stations

#### ULO

- AM/FM Stereo
- Seek and Scan
- Auto-Reverse Cassette
- Automatic Tone Control
- Music Search
- Clock
- Preset Scan
- Speed Compensated Volume
- 12 FM and 6 AM Preset Stations

#### UN0

- AM/FM Stereo
- Seek and Scan
- Compact Disc
- Automatic Tone Control
- Clock
- Preset Scan
- Speed Compensated Volume
- 12 FM and 6 AM Preset Stations

#### RMCD-1

Remote Compact Disc Player

### Radio/Audio System Operation (UM7)

#### Clock

In order to set the clock, perform the following steps:

1. Press the SET push button.
2. Within 5 seconds, press and hold the SEEK right arrow key until the correct minute appears on the display.
3. In order to set the hour, press and hold the SEEK left arrow key until the correct hour appears on the display.

### Volume (VOLUME)

- The radio power switch is the same knob as the volume control. Use the radio power switch/volume control knob in order to turn the system ON and OFF and in order to control the volume.
- In order to increase the volume and in order to turn the radio ON, turn the knob clockwise.
- In order to decrease the volume or in order to turn the radio OFF, turn the knob counterclockwise.
- The ignition lock cylinder must be in the ACCESSORY or the RUN position in order for the radio to operate.

### Recall (RECALL)

- Press the volume control push button in order to alternately cause the display to change from the time of day (TOD) to the radio frequency display when the radio is ON.
- Press the volume control knob in order to display the TOD with the ignition OFF.

### Band Switching (AM/FM)

- Depress the lower knob in order to change the radio band between AM and FM.
- Depress the lower knob in order to tune into the last frequency selected on the opposite band. The display will indicate the frequency and AM or FM mode.

### Tuning (TUNE)

- Rotate the TUNE knob clockwise in order to increase the AM or FM frequency.
- Rotate the TUNE knob counterclockwise in order to decrease the AM or FM frequency.

### Treble/Bass (TREB/BASS)

- Slide the TREB level up in order to increase the treble response.
- Slide the TREB lever down in order to reduce the noise if the station is weak or noisy.
- Slide the BASS lever up in order to increase the bass response.  
Adjust the BASS lever in order to create a pleasing sound to your ear.

### Balance (BAL)

- Turn the control behind the upper knob in order to move the sound to the left or the right speakers.
- Use the middle position in order to balance the sound between the speakers.

### Fade (FADE)

- Turn the control behind the lower knob in order to move the sound to the front or the rear speakers.
- Use the middle position in order to balance the sound between the speakers.

**Seek (SEEK)**

1. Press the right arrow button in order to tune into the next station higher in frequency that has sufficient signal strength to be listenable.
2. Press the left arrow button in order to tune into the next station lower in frequency that has sufficient strength to be listenable.

**Scan (SCAN)**

1. Press both SEEK buttons in order to listen to a few seconds of each radio station. SCAN will light up on the display.
2. Press the right arrow button in order to tune into the next higher station
3. Press the left arrow button in order to tune into the next lower station.
4. Press VOLUME or both SEEK buttons in order to stop scanning.

**Set (SET) Push button**

Use the SET button along with the radio station preset push buttons in order to program the radio frequencies into the memory locations. Refer to Radio Frequency Preset Pushbuttons for instructions on presetting radio stations.

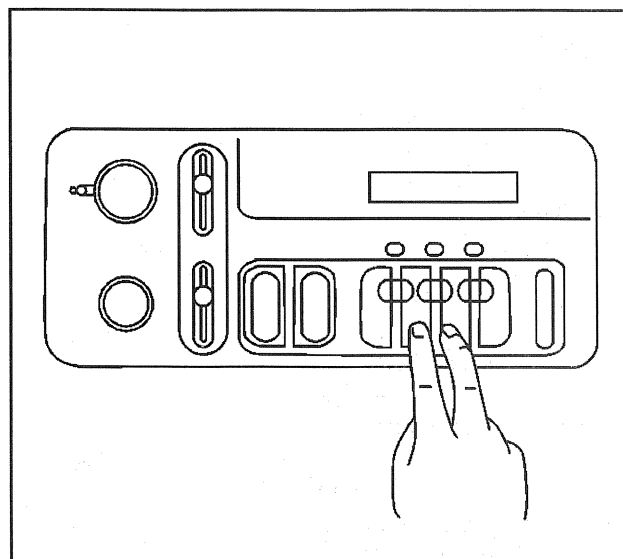
**Radio Frequency Preset Push buttons**

Up to 14 stations can be preset into the radio's memory. In order to preset 4 AM and 4 FM stations, perform the following steps:

1. Tune into the desired radio station.
2. Press the SET push button.  
SET will appear on the display.
3. Press any station push button.  
The SET on the display will go out. The radio will then tune into the selected station whenever that push-button is pressed.
4. If electrical power is interrupted (by a open fuse, discharged battery, service procedure, etc.), the station(s) and time of day must be reset.

In order to preset 3 additional AM, FM1, and FM2 stations, perform the following steps:

1. Tune into the desired radio station.
2. Press the SET push-button.  
SET will appear on the display.



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Press any 2 adjacent station push buttons at the same time.

The SET on the display will go out. The station will return when the same two push buttons are pressed again.

**Loudness**

The UM7 stereos contain an auto-loudness feature.

The auto-loudness feature boosts low-frequency audio response to compensate for the inability of the ear to hear low-level, low-frequency tones.

This compensation varies inversely with the volume control setting.

That is, at low volume settings, the low frequencies are boosted much more than at high volume settings.

**Radio/Audio System Operation (UM6)****Clock**

In order to set the clock, perform the following steps:

1. Press the SET push button.
2. Within 5 seconds, press and hold the SEEK right arrow key until the correct minute appears on the display.
3. In order to set the hour, press and hold the SEEK left arrow key until the correct hour appears on the display.

**Volume (VOLUME)**

- The radio power switch is integral with the volume control.
- Use the radio power switch/volume control knob in order to turn the system ON and OFF.
- Use the radio power switch in order to control the volume.
- The ignition lock cylinder must be in the ACCESSORY or RUN position in order for the radio to operate.
- Turn the radio power switch clockwise in order to turn the system ON.
- Turn the radio power switch clockwise in order to increase the volume.
- Turn the radio power switch counterclockwise in order to turn the system OFF.
- Turn the radio power switch counterclockwise in order to decrease the volume.

**Recall (RECALL)**

- Press the volume control push button in order to alternately cause the display to change from the time of day (TOD) to the radio frequency display. The radio must be turned ON in order to perform the RECALL procedure.
- Press the volume control knob in order to display the time of day while the radio is turned OFF.

**Band Switching (AM/FM)**

Press the lower knob in order to switch between AM, FM1, and FM2. The display indicates the current band.

**Tuning (TUNE)**

- Rotate the TUNE knob clockwise in order to increase the AM or FM frequency.
- Rotate the TUNE knob counterclockwise in order to decrease the AM or FM frequency.

**Treble/Bass (TREB/BASS)**

- Slide the TREB lever up in order to increase the treble response.
- Slide the TREB lever down in order to reduce noise if the station is weak or noisy.
- Slide the BASS lever up in order to increase the bass response
- Adjust the BASS lever in order to create a pleasing sound to your ear.

**Balance (BAL)**

- Turn the control behind the upper knob in order to move the sound to the left or the right speakers
- Use the middle position in order to balance the sound between the speakers.

**Fade (FADE)**

- Turn the control behind the lower knob in order to move the sound to the front or rear speakers.
- Use the middle position in order to balance the sound between the speakers.

**Seek (SEEK)**

1. Press the right arrow button in order to tune into the next station higher in frequency.
2. Press the left arrow button in order to tune into the next station lower in frequency.

In order to tune into a radio station of higher or lower frequency, the station must have sufficient strength in order for the station to be listenable.

**Set/Eject (SET/EJECT) Push buttons**

Use the SET/EJECT button along with the radio station preset push buttons in order to program the radio frequencies into the memory locations. Refer to Radio Frequency Preset Push buttons for instructions on presetting radio stations.

**Radio Frequency Preset Push buttons**

1. Up to 21 stations (7 AM, 7 FM1, and 7 FM2 stations) can be preset into the radio's memory.
2. In order to preset 4 AM, 4 FM1, and 4 FM2 stations, perform the following steps:

- 2.1. Tune into the desired radio station
- 2.2. Press the SET push button.

Set will appear on the display.

- 2.3. Press a station push button.

The SET on the display will go out. The radio will then tune into the selected station whenever that push button is pressed.

1. If electrical power is interrupted (by an open fuse, discharged battery, service procedure, etc.), the station(s) and time of day must be reset.
2. In order to preset 3 additional AM, FM1, and FM2 stations, perform the following steps:

- 2.1. Tune into the desired radio station.
- 2.2. Press the SET push button.

SET will appear on the display.

- 2.3. Press any 2 station adjacent push buttons at the same time.

The SET on the display will go out.

The station will return when the same 2 push buttons are pressed again.

**Preset Scan (PSCAN)**

Any stations already stored on the preset push buttons can be sampled by the PSCAN mode.

1. In order to use PSCAN, press both SEEK push buttons in order to scan through each of the preset stations.

The system will scan through and play each preset station for a few seconds.

2. Press either SEEK or RECALL in order to stop scanning through the preset stations.

**Loudness**

The auto-loudness feature boosts low-frequency audio response in order to compensate for the inability of the ear to hear low-level, low-frequency tones.

The auto-loudness compensation varies inversely with the volume control setting.

At low volume settings, the low frequencies are boosted much more than at high volume settings.

**Cassette Tape Player**

1. In order to play a tape, the ignition lock cylinder must be in the ACCESSORY or RUN position and the receiver must be turned ON.  
Tapes are end-loaded into the cassette player.
2. Insert the tape squarely through the door, exposed tape side of the cassette facing to the right.
3. When the tape is fully inserted, the AM/FM portion of the radio will turn off and the tape will begin playing.
4. The tape players works best with tapes that are 30-45 minutes long on each side.  
Longer running tapes may not work well in these players because they are usually too thin.
5. Once the tape is playing, use the upper and lower knobs for the volume, the balance and the fade just as with the radio.  
An arrow indicates which side of the tape is being played.
6. Press the SEEK right arrow key in order to fast forward the tape.  
The tape will advance rapidly until the SEEK left arrow is pressed.
7. Press the SEEK left arrow key in order to rewind the tape.  
The tape will rewind rapidly until the SEEK right arrow is pressed.
8. Press the upper knob in order to go from one side of the tape to the other.
9. Press the EJECT push button in order to remove the tape or in order to stop the tape and switch to the radio.

**Radio/Audio System Operation (UN0/ULO)**

The ignition lock cylinder must be in the ACCESSORY or RUN position in order to operate the radio.

Push the PWR knob in order to turn the radio ON.

**Clock**

In order to set the clock, perform the following steps:

1. Push and hold the HR button until the correct hour appears on the display.
2. Press and hold the MN button until the correct minute appears on display.  
There is an initial 2 second delay before the clock goes into the time-set mode.
3. Press RECALL or HR/MN in order to display the clock with the ignition OFF.  
The time will be displayed for a few seconds.

**Volume (VOL)**

Rotate the volume control in order to increase or decrease the volume.

The volume knob is capable of rotating continuously.

**Speed Control Volume (SCV)**

- The AM/FM stereo with Integral Cassette Tape Player (UM) features Speed Control Volume (SCV).  
The volume level automatically adjusts to compensate for road and wind noise as you drive.
- In order to use the SCV, adjust the volume to the listening level you want at any time.
- As you drive, the volume will change in order to match the noise present at any particular speed.  
The volume should always sound the same level to you as you drive.
- Each detent on the SCV allows a little more compensation at a faster rate.

**Band Switching (AM/FM)**

Press the AM/FM push-button to switch between AM, FM1, and FM2. The display indicates the current band.

**Recall (RECALL)**

- Press the RECALL push-button in order to display the station when the radio is ON and in the clock mode.
- When the ignition is OFF, press the RECALL push-button in order to recall the time of day.
- The RECALL push button switches between the station and the time of day.

**Tuning**

- Press lightly on the TUNE control in order to release the tune control from the tune control's recessed position.
- Rotate the TUNE knob to the right in order to increase the frequency.
- Rotate the TUNE knob to the left in order to decrease the frequency.
- Push the TUNE control back while not in use.

**Seek (SEEK)**

- Press the right arrow key in order to tune into the next higher station.
- Press the left arrow key in order to tune into the next lower station.  
Audio is muted during the SEEK operation.

**Scan (SCAN)**

- Press and hold SEEK for 2 seconds. SCAN will appear on the display.
- Use SCAN in order to listen to each radio station for a few seconds.
- Press SEEK again in order to stop scanning.  
Audio is muted during the SCAN operation.

**Automatic Tone Control (ATC)**

- The automatic tone control (ATC) feature tailors the equalization to the type of broadcast being received.
- Press AUTO TONE in order to step through the six preset equalization settings of CLASSIC, NEWS, ROCK, POP, JAZZ, or C/W (Country Western).  
Note the graph and words in the display for each press of the push button.
- One or more presses of the AUTO TONE push-button will bring up manual (MAN) and return the control of tone back to the TREB and BASS controls.
- Any time that a BASS or TREBLE control is rotated, tone is automatically set to MAN.

**Bass (BASS)**

1. Depress the BASS control in order to remove the control from the control's recessed position.
2. Rotate the BASS control to the right in order to increase bass response.
3. If less bass is desired, rotate the BASS control to the left.
4. This control has a center detent position. Push the button back in to store the button when not in use.

Operation of this control will switch the radio's AUTO TONE feature to MAN.

**Treble (TREB)**

1. Depress the TREB control in order to remove the TREB control from the TREB control's recessed position.
2. Pull the TREB control out to a fully extended position in order to make TREB adjustments.
3. Rotate the TREB control to the right in order to increase the treble response.
4. In order to decrease the amount of treble desired, rotate the TREB control to the left.
5. The TREB control has a center detent position. Push the button back in to store the button when not in use.

Operation of the TREB control will switch the radio's AUTO TONE feature to MAN.

**Station Presets**

- Six push buttons store stations in preset memory. You can set the push buttons for up to 18 stations (6 AM, 6 FM1, and 6 FM2).
- In order to store a station in preset memory, perform the following steps:
  1. Tune into the desired station, using the TUNE knob or SEEK.
  2. Press TONE in order to select the graph that best suits the type of station selected.

3. Press and hold one of the 6 push buttons until audio returns (approximately 2 seconds).
4. Whenever you press that push button, the preset station will return.

The AUTO TONE that you selected will also be automatically selected for that push button.

**Preset Scan (PSCAN)**

- Any stations already stored in preset memory can be sampled by the PSCAN mode.
- In order to use PSCAN, press the PSCAN push button.  
PSCAN will scan each of the presets and stop for a few seconds.
- The AUTO TONE setting stored for that station will be automatically chosen.
- The tuner will pause momentarily, then continue scanning until PSCAN or one of the preset push buttons is pressed again.

PSCAN will appear in the display whenever the tuner is in the PSCAN mode.

The channel number (P1-P6) will appear momentarily just before the frequency is displayed.

**Balance (BAL)**

1. Depress the BAL control in order to remove the control from the control's recessed position.
2. Rotate the balance in order to adjust the sound between the right and left speakers.
3. This control features a center detent. Push the button back in to store the BAL control when not in use.

**Fade (FADE)**

1. Depress the FADE control in order to remove the FADE control from the FADE control's recessed position.
2. Rotate the FADE control knob in order to adjust the sound between the front and back speakers.
3. This control features a center detent. Push the back button in to store the FADE control settings when not in use.
4. Rotate the FADE control knob in order to adjust the sound between the front and back speakers.

**Clock**

In order to set the clock, Perform the following steps:

1. Press and hold the HR or MIN push button until the clock begins to change.
2. There will be an initial 2 second delay before the clock goes into the time-set mode.
3. Release the push button when the correct time is displayed.
4. The clock may be set with the vehicle turned OFF.

**Cassette Player (ULO)**

- If the ignition is ON but the radio is OFF, and a tape is inserted, the tape will begin playing.  
A tape symbol, accompanied by tape direction arrows, is shown in the center of the graphic display whenever a tape is playing.
- Tapes are end-loaded into these players. Insert the tape squarely through the door, exposed tape side of the cassette facing the right.
- When the tape is fully inserted, the AM/FM portion of the radio will turn OFF and the tape will begin playing.
- The tape player works best with tapes that are 30-45 minutes long on each side. Longer tapes may not work well in the cassette player because the tapes are so thin.
- The player automatically senses the tape cartridge for metal or CR02 tape media and presets the pre-emphasis.  
For metal tapes, a metal tape indicator will be displayed.
- Any time a tape is playing, use the volume, balance, fade, treble, and bass just as with the radio.  
An arrow indicates which side of the tape is being played.

**Previous (PREV)**

- Press the SEEK or the PREV push buttons in order to search for the previous selection.  
The tape direction arrow blinks during SEEK operation.
- A minimum 3 second blank gap is required for proper operation.
- Audio is muted during SEEK.

**Program (PROG)**

Press the PROG push button in order to play the other side of a tape.

The tape direction will reverse automatically.

**Next (NEXT)**

Press the SEEK or NEXT push buttons in order to search for the next selection.

If you hold this push button, or press the push button more than once, the tape will advance further.

Audio is muted during NEXT command.

**Reverse (REV)**

Press REV in order to rewind the tape. The tape will rapidly reverse to the beginning of the cassette or until you press the REV push-button a second time.

The radio will play the last selected radio station during the REV operation.

**Dolby® Noise Reduction**

Press the Dolby push-button in order to reduce inherent tape noise such as hiss. The Dolby® symbol will appear in the display.

**Fast Forward (FWD)**

Press FWD in order to fast-forward the tape. The tape will rapidly advance to the end of the tape or until you press the FWD push-button again.

The radio will play the last selected station during the FWD operation.

**Tape/Auxiliary (TAPE/AUX)**

Press the AM/FM push buttons after inserting a tape in order to switch between tape and radio. The radio will play.

In order to return to tape, press TAPE AUX. The display will show the proper tape direction indicator.

**Eject (EJECT)**

In order to remove the tape, press EJECT.

EJECT may be activated with either the ignition or the radio OFF.

Cassettes may be loaded with the radio OFF, and the ignition off.

**CD Adapter Kits**

- Although not a recommended practice, you may use a CD adapter kit with a cassette tape player.
- The adapter kit cassette should begin playing like a regular audio cassette tape once inserted.
- If the cassette immediately ejects, perform the following steps:
  1. Turn the radio off.
  2. Turn the ignition on.
  3. Press and hold the TAPE AUX button.
  4. Wait for the tape icon to flash on the display while holding the TAPE AUX button.
  5. Insert the adapter cassette again.

The adapter cassette will power up the radio and begin playing.

This override routine will remain active until EJECT is pressed.

**Tape Clean Indicator**

ULO models have an indicator that appears every 50 hours or so of tape operation, as a reminder that the capstan and pinch roller need to be cleaned. This cleaning does not require that the tape player be removed from the vehicle.

**Compact Disk Player (UNO)**

1. In order to operate the Compact Disc player, perform the following steps:
  - 1.1. Press the PWR knob to turn the system On.
  - 1.2. Insert a disk part way into the slot, label side up.
  - 1.3. Wait a few seconds.
  - 1.4. The disk should then begin to play, and a CD symbol will appear in the display.
  - 1.5. If the disc is very hot, or if you're driving on a very rough road, a disc may come out or just not play.  
When the disc player is too hot to play a disc, ERR will appear on the display.
2. When the disc player returns to normal temperature, the disc should play again.  
If the disc still will not play, check for the following possible problems:
  - An upside down disc
  - A dirty, scratched, or wet disc
  - Too much moisture in the air  
If there is too much moisture in the air, wait about one hour and try again.
  - The vehicle is operating on a very rough road.

**Previous Track (PREV)**

Press SEEK down or PREV in order to search for the previous selection.

Hold the push button or press it more than once to back up the disc further.

Audio is muted during SEEK.

**Random Playback (RDM)**

The random playback feature allows the tracks on the compact disc to be played in random order rather than in sequential order.

In order to start or stop the random playback feature, press RDM.

During random playback, a RANDOM indicator appears in the display.

**Next Selection (NEXT)**

Press SEEK up or NEXT in order to search for the next selection. Hold the push-button or press it more than once in order to advance the disc further.

Audio is also muted during NEXT.

**Reverse (REV)**

Press and hold the REV button in order to return rapidly to a favorite passage. This is an audible search at a high rate of speed.

Release REV in order to resume play at a normal speed.

**Forward (FWD)**

Press and hold FWD in order to advance quickly within a track. This is an audible search at a high rate of speed.

Release FWD in order to resume play at normal speed.

**Recall (RECALL)**

- Press RECALL in order to see what track is playing.
- Press RECALL again within 5 seconds in order to view elapsed time.  
The elapsed time is displayed in minutes and seconds.
- Press RECALL again in order to return to the time of day.
- The track number appears when a new track starts to play.

**Band Switching (AM/FM)**

While a compact disc is playing, press the AM/FM push button in order to cancel the CD player and return to the radio.

The CD symbol will still be displayed, but the word CD will be replaced by FM1, FM2, or AM in the display.

If the radio is turned OFF during compact disc playback, the disc stays in the player. The CD will resume playing at the point where the CD stopped.

**Compact Disc/Auxiliary (CD/AUX)**

The CD/AUX push-button switches between CD play mode and radio operation.

When a CD is inserted, the CD plays until the AM/FM push-button is pressed.

The CD will cease playback and the radio will play after the AM/FM push button is pressed.

**Ejecting a Compact Disk (EJECT)**

Press EJECT in order to release the disc from the CD player. The disc will eject and the radio will play. The disc will start at track 1 when you reinsert it.

**Theft Deterrent (THEFTLOCK)**

- The UN0 and ULO radios are equipped with THEFTLOCK theft deterrent.  
The THEFTLOCK theft deterrent causes the unit to be inoperative should the radio be removed from the vehicle.
- The theft deterrent is enabled (SECURE mode) by entering a user-selected code into the unit.
- The user-selected code must be re-keyed into the unit following any interruption of battery voltage to resume normal operations.
- When battery power is disconnected from a secured radio, the radio will not turn On and LOC will appear on the display.
- If the correct code is not entered, the unit will become inoperable and remain in the LOCKED mode.
- Any theft deterrent input mode may be exited by cycling either the radio power or ignition.



### Activating Theftlock

In order to activate the THEFTLOCK theft deterrent, perform the following steps:

1. Write down any number from 000 to 1999.
2. Turn the ignition to the ACC or the RUN position.
3. Turn the radio OFF.
4. Press the 1 and 4 push-buttons together. Hold them down until — shows on the display.
5. You are now ready to enter your code. Do not wait more than 15 seconds between each step.
6. Press MIN 000.  
MIN 000 will appear on the display.
7. Press the MIN push button again in order to make the last 2 digits agree with your code.
8. Press the HR push button in order to make the first 1 or 2 digits agree with your code.
9. Press the AM/FM push button after you have confirmed that the code matches the code you wrote down. REP appears on the display, indicating that steps 5–7 need to be repeated.
10. Press AM/FM. This time the display will show SEC. SEC means that your radio is secure.
11. Note: With the ignition OFF, the THEFTLOCK indicator will flash.

### To Unlock THEFTLOCK After a Power Loss

- In order to unlock the THEFTLOCK system after a power loss, enter the user code as follows; Do not wait more than 15 seconds between steps.
  1. Press MIN.  
000 will appear on the display.
  2. Press the MIN push button again in order to make the last two digits agree with your code.
  3. Press the HR push button in order to make the first one or two digits agree with your code.
  4. Press the AM/FM push button after you have confirmed that the code matches the one you wrote down.  
SEC will appear in the display indicating that the radio is now operable.
- If the code is entered incorrectly, SEC will appear on the display.
- The radio will remain secured until the correct code is entered.
- If the correct code is not available, the dealer will need to Dial Delco or Technical Assistance.
- When battery power is removed and later applied to a secured radio, the radio will not turn on and LOC will appear in the display.

### Disabling the Theft-Deterrent Feature

In order to disable the theft-deterrent feature, enter the user code as follows; Do not wait more than 15 seconds between steps.

1. Turn the ignition to ACCESSORY or RUN.
2. Turn the radio OFF.
3. Press the 1 and 4 buttons together. Hold then down until SEC appears on the display.

4. Press MIN.  
000 will appear on the display.
5. Press MIN again in order to make sure the last two digits agree with the user code.
6. Press AM/FM after you have confirmed that the code matches the user code you have.
7. The display will show —, indicating that the radio is no longer secured.
8. If the code is entered incorrectly, SEC will appear on the display.
9. The radio will remain secured until the correct code is entered. If the correct code is not available, the dealer will need to Dial Delco or Technical Assistance.

### Remote Compact Disc Player

- With the remote compact disk player option, a single compact disc (CD) can be played.
- In order to load a CD into the player, hold the disc label side up and insert it approximately halfway into the player.  
The disc will automatically be pulled the rest of the way into the player.
- If the radio is OFF and the ignition is ON when a CD is inserted, the radio will turn on and begin playing the CD.
- It is possible to load and unload CD's with the ignition OFF.  
In order to load a disc with the ignition OFF, press the eject button on the remote player and then insert the disc.
- In order to remove the disc, press the EJECT button and remove the disc from the player.
- A disc that has been ejected but is still sitting in the remote CD player will be pulled back into the player after approximately 30 seconds.
- This protects the disc and player from damage. The disc will not start playing.
- All of the compact disc functions are controlled by the radio buttons except for EJECT.
- When a disc is in the player, a CD symbol will appear on the display.
- When a disc is playing, the letters CD will appear next to the CD symbol in the bottom left corner. The track number will also be displayed.
- If the disc comes back out and ERR appears on the display, the problem could include one of the following reasons:
  - Upside down disc
  - A dirty, scratched, or wet disc
  - There is too much moisture in the air.  
Wait an hour and try again.
  - The vehicle is operating on a very rough road.

**Previous Track (PREV)**

Press SEEK down or PREV in order to search for the previous selection. Hold the push button or press it more than once to back up the disc further.

Audio is muted during SEEK.

**Random Playback (RDM)**

The random playback (RDM) feature allows the tracks on the compact disc to be played in random order rather than in sequential order.

In order to start or stop the random playback feature, press PSCAN.

During random playback, a RANDOM indicator appears in the display.

**Next Selection (NEXT)**

Press SEEK up or NEXT in order to search for the next selection.

If you hold the SEEK up or NEXT push button or press the SEEK or NEXT push button more than once, the disc will advance further.

Audio is muted during NEXT.

**Reverse (REV)**

Press and hold the REV push-button in order to return rapidly to a favorite passage. This is an audible search at a high rate of speed. Release REV in order to resume play at normal speed.

**Forward (FWD)**

Press and hold FWD in order to advance quickly within a track. This is an audible search at a high rate of speed. Release FWD in order to resume play at normal speed.

**Recall (RECALL)**

Press RECALL to see what track is playing. Press RECALL again within 5 seconds to view elapsed time. Elapsed time is displayed in minutes and seconds. Press RECALL again to return to the time of day. The track number appears when a new track starts to play.

**Tape/Auxiliary (TAPE/AUX)**

With a disc loaded in the player and the radio playing, press the TAPE/AUX once in order to play the compact disc. In order to return to playing the radio, press AM/FM. If both a cassette tape and the CD are loaded, press TAPE/AUX to switch between the tape and the compact disc.

**Ejecting a Compact Disc (EJECT)**

Press the EJECT button on the remote player in order to eject the compact disc. The disc will start at track one when the disc is reinserted.

**Radio/Audio System Circuit Description****Radio**

- Voltage to the radio is available at all times through CKT 1140 (ORN).
- CKT 1140 provides voltage for radio station memory storage and for the clock memory.
- With the ignition switch in ACC or RUN, voltage is supplied to the radio through the RADIO fuse and CKT 43 (YEL).
- Each speaker has its own pair of leads.
- The radio/clock display brightness is at full intensity with the ignition switch in ACC or RUN. The voltage is supplied by CKT 43 (YEL).
- When the parklamps or headlamps are turned ON, voltage is supplied to the radio through CKT 1382 (PPL/WHT).
- When the radio senses the signal, the radio switches voltage for the display from CKT 43 (YEL) to CKT 8 (GRY). The display brightness is then controlled by the panel and interior lamps control switch.
- The radio illumination bulb voltage is supplied by CKT 8 (GRY).

**Power Amplifier (Suburban Only)**

- The optional amplifier boosts the sound of the 4 rear speakers in the Suburban when equipped with the premium sound system.
- With the ignition switch in the ACC or RUN position and the radio control head ON, battery voltage is supplied to the power amplifier relay. Voltage is supplied through CKT 143 (PNK/BLK) and CKT 40 (ORN). The relay is grounded through CKT 150 (BLK) at IP ground 200.
- When the relay contacts close, battery voltage is supplied to the power amplifier through CKT 140 (ORN). The ground is completed through CKT 150 (BLK) at IP ground 200.

**Auxiliary Speaker-Z56**

If the vehicle is equipped with option WX7 as part of the police package Z56, the front door speakers are not connected to the radio. The speakers are connected to a jumper harness blunt cut and coiled under the center of the IP. The speaker connection allows the front door speakers to be connected directly up to any aftermarket radio/communication equipment.

# Wiring Systems

## Diagnostic Information and Procedures

### Where to Find Electrical Schematics

Because more than one electrical system is located in each subsection, each electrical system's schematics are further broken down into operating systems, or cells. Each set of electrical system schematics will have a cell number that remains common across all vehicle platforms. Cells are organized by subsystems with most containing a circuit schematic

and the associated text. For example, the cruise control schematic will be located in the cruise control subsection and the schematic title will begin with cell 34.

Some subsections may have more than one circuit schematic such as Power Distribution, Interior Lights and Air Conditioning.

**Electrical Schematic Locations**

Cell No.	System Name	Section	Subsection
10	Power Distribution Schematics	Body and Accessories	Wiring Systems
14	Ground Distribution Schematics	Body and Accessories	Wiring Systems
15	Retained Accessory Power Schematics	Body and Accessories	Retained Accessory Power
17	Auxiliary Battery Schematics	Body and Accessories	Wiring Systems
18	Upfitter Provision Schematics	Body and Accessories	Wiring systems
19	Cigar Lighter/Auxiliary Outlet Schematics	Body and Accessories	Wiring Systems
20	Engine Controls Schematics	Engine	Engine Controls
30	Starting and Charging Schematics	Engine	Engine Electrical
31	Cooling fan Schematics	Engine	Engine Cooling
32	Radiator Shutter Schematics	Engine	Engine Cooling
33	Engine Exhaust Brake Schematics	Brakes	Engine Exhaust
34	Cruise Control Schematics	Body and Accessories	Cruise Control
35	Manual Transmission Schematics	Transmission Transaxle	Manual Transmission
36	Inter-Axle Differential Lock Schematics	Driveline/Axle	Rear Axle Controls
37	Two Speed Rear Axle Schematics	Driveline/Axle	Rear Axle Controls
38	Transfer Case Control Schematics	Driveline/Axle	Transfer Case
39	Automatic Transmission Controls Schematics	Transmission/Transaxle	Automatic Transmission or Automatic Transaxle
40	Horn Schematics	Body and Accessories	Horns
41	Brake Warning System Schematics	Brakes	Hydraulic Brakes or Air Brakes
42	ALC Suspension Schematics	Suspension	Automatic Level Control
43	Suspension Controls Schematics	Suspension	Road Sensing Suspension - RSS Real Time Dampening - RTD Air Suspension
44	ABS Schematics ABS/TCS Schematics	Brakes	ABS Traction Control

## Electrical Schematic Locations (cont'd)

Cell No.	System Name	Section	Subsection
45	Steering Control Schematics	Steering	Variable Effort Steering
46	Park Brake System Schematics	Brakes	Park Brakes
47	SIR Schematics SRS Schematics	Restraints	SIR
48	Tire Pressure Monitor System	Suspension	Tire Pressure Monitor
49	Tilt/Telescoping Steering Column Schematics	Steering	Steering Wheel and Column Tilt
50	Data Link Connector (DLC) Schematics	Body and Accessories	Data Link Communications
51	Body Control Module Schematics	Body and Accessories	Body Control System
55	Door Control Module Schematics	Body and Accessories	Doors
57	Brake Booster Pump Schematics	Brakes	Hydraulic Brakes
58	Air Brake System Schematics	Brakes	Air Brakes
60	Heater Blower Controls Schematics	HVAC	Heater and Ventilation (Non-A/C)
61	Defogger Schematics	Body and Accessories	Stationary Windows
62	Heated Windshield Schematics	Body and Accessories	Stationary Windows
63	HVAC Blower Controls Schematics	HVAC	HVAC Systems with A/C Manual
64	HVAC Compressor Controls Schematics HVAC Compressor/Condenser Fan Controls Schematics	HVAC	HVAC Systems with A/C Manual
65	HVAC Air Delivery Controls Schematics	HVAC	HVAC Systems with A/C Manual
66	HVAC Blower Controls Schematics	HVAC	HVAC Systems with A/C-Automatic (Includes Electronic and Dual Zone)
67	HVAC Compressor Controls Schematics HVAC Compressor/Condensers Fan Controls Schematics	HVAC	HVAC Systems with A/C Automatic (Includes Electronic and Dual Zone)
68	HVAC Air Delivery Controls Schematics	HVAC	HVAC Systems with A/C-Automatic (Includes Electronic and Dual Zone)
70	Collision Avoidance Schematic	Body and Accessories	Collision Avoidance
76	Audible Warnings Schematics	Body and Accessories	Instrument Panel, Gauges and Console
79	Backup Alarm System Schematics	Body and Accessories	Backup Alarm
81	Instrument Cluster: Analog Schematics	Body and Accessories	Instrument Panel, Gauges and Console
82	Instrument Cluster: Digital Schematics	Body and Accessories	Instrument Panel, Gauges and Console
83	Head Up Display Schematics	Body and Accessories	Instrument Panel, Gauges and Console

**Electrical Schematic Locations (cont'd)**

Cell No.	System Name	Section	Subsection
85	Navigation System Schematic	Body and Accessories	Instrument Panel, Gauges and Console
86	Driver Information System Schematics	Body and Accessories	Instrument Panel, Gauges and Console
90	Wiper/Washer System (Standard) Schematics	Body and Accessories	Wiper/Washer Systems
91	Wiper/Washer System (Pulse) Schematics	Body and Accessories	Wiper/Washer Systems
92	Wiper/Washer System (Rear) Schematics	Body and Accessories	Wiper/Washer Systems
93	Headlamp Washer Schematics	Body and Accessories	Wiper/Washer Systems
100	Headlights Schematics	Body and Accessories	Wiper/Washer Systems
101	Headlights Twilight Sentinel/DRL Schematics	Body and Accessories	Lighting Systems
102	Headlights DRL Schematics	Body and Accessories	Lighting Systems
103	Fog Lights Schematics	Body and Accessories	Lighting Systems
104	Headlight Doors Schematics	Body and Accessories	Lighting Systems
105	Headlight Leveling Schematics	Body and Accessories	Lighting Systems
110	Exterior Lights Schematics	Body and Accessories	Lighting Systems
112	Backup Lights Schematics	Body and Accessories	Lighting Systems
114	Interior Lights Schematics	Body and Accessories	Lighting Systems
117	Interior Lights Dimming Schematics	Body and Accessories	Lighting Systems
120	Power Windows Schematics	Body and Accessories	Doors
121	Power Folding Top Schematics	Body and Accessories	Roof
122	Power Sunroof Schematics	Body and Accessories	Roof
130	Door Locks Schematics	Body and Accessories	Door Locks
132	Keyless Entry Schematics	Body and Accessories	Keyless Entry
133	Theft Deterrent System Schematics	Body and Accessories	Theft Deterrent
134	Release System Schematics	Body and Accessories	Body Rear End
135	Pull down Systems Schematics	Body and Accessories	Body Rear End
136	Garage Door Opener Schematics	Body and Accessories	Garage Door Opener
137	Power Sliding Door (PSD) Schematics	Body and Accessories	Doors
138	BTSI Schematics	Steering	Steering Wheel and Column Standard Steering Wheel and Column Tilt
139	Column/Ignition	Steering	Steering Wheel and Column Standard Steering Wheel and Column Tilt
140	Power Seat Schematics	Body and Accessories	Seats
141	Memory Seats Schematics	Body and Accessories	Seats
142	Lumbar Support Schematics	Body and Accessories	Seats
143	Heated Seats Schematics	Body and Accessories	Seats

**Electrical Schematic Locations (cont'd)**

Cell No.	System Name	Section	Subsection
146	Power Seat Schematics	Restraints	Seat Belts
147	Outside Mirrors Schematics	Body and Accessories	Doors
148	Automatic Day-Night Mirror	Body and Accessories	Stationary Windows
150	Radio/Audio Systems Schematics	Body and Accessories	Entertainment
151	Power Antenna Schematics	Body and Accessories	Entertainment
152	Steering Wheel Controls Schematics	Body and Accessories	Entertainment
153	Cellular Telephone Schematics	Body and Accessories	Cellular Communications
154	On Star Schematics	Body and Accessories	Cellular Communications

**How to Use Electrical Diagnosis**

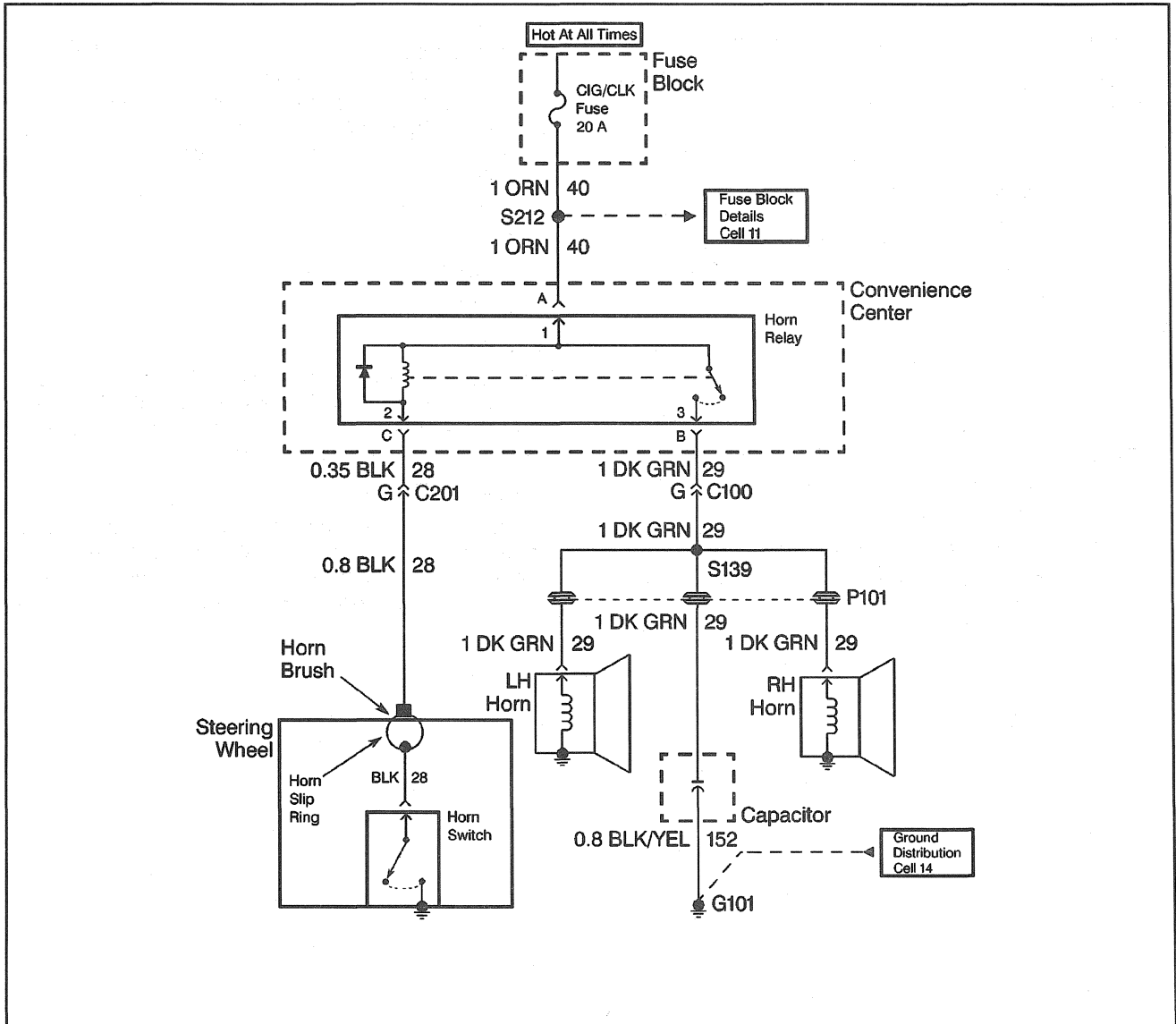
Electrical Diagnosis contains the following types of diagnostic information. Using these elements together makes the electrical diagnosis of the various vehicle systems faster and easier:

- *How to Use Schematic Reference Tables*
- *How to Use Schematic Icon Tables*
- *Where to Find Electrical Schematics*
- *How to Use Component Location Tables*
- *How to Use Connector End Views*
- *How to Use Component Location Views*
- *How to Use Diagnostic System Checks*
- *How to Use Diagnostic Tables*
- *How to Use Circuit Descriptions*

## How to Use Electrical Schematics

**Important:** The schematic does not represent the components and wiring as they physically appear on the vehicle. For example, a 4-foot length of wire is treated no differently in a schematic from one which is only a few inches long.

When diagnosing a horn problem use the service information located in the Horns (cell 40) service category. The following schematic is a typical example of a schematic with its supporting text.



61199

The wiring schematic is the cornerstone of electrical diagnosis. Schematics break the entire electrical system into individual circuits, showing the electrical current paths when a circuit is operating properly. Wiring which is not part of the circuit of interest is referenced to another page where the circuit is shown complete. Schematics use a top (power) to bottom (ground) sequence to present electrical information.

### How to Use Schematic Reference Tables

The schematic reference table is used when a circuit continues into another electrical system's schematic. The schematic reference table matches all references made on schematics to the appropriate service category type number and service category where the schematic's continuation is shown.

### How to Use Schematic Icon Tables

The schematic icon table shows all icons on schematic with their definition or references.

### How to Use Component Location Tables

The component location table shows a list of all the electrical components within a systems electrical schematics. The table consists of the following information within a system's electrical schematic:

- All components
- Grounds
- Pass-through grommets
- Splices

The table consists of 4 columns which describe the following information:

- The component name
- The component location
- The reference to the component view
- The reference to the connector end view (if applicable)

### Name

The name cells provide the name of the components that are used on the schematic(s). If a connector is listed the number of cavities are also provided. This represents the total number of cavities in the connector regardless of how many connectors are actually used.

### Location

The location cell provides a written location of where the component is in the vehicle with respect to vehicle landmarks. Nearly all of the following information shown on a schematic can be pinpointed visually using the component location view illustrations:

- Components
- Connectors
- Grounds
- Splices

### Locator View

This column contains the reference to the appropriate component view. The reference contains the location within the subsection and the section. Refer to *How to Use Component Location Views*.

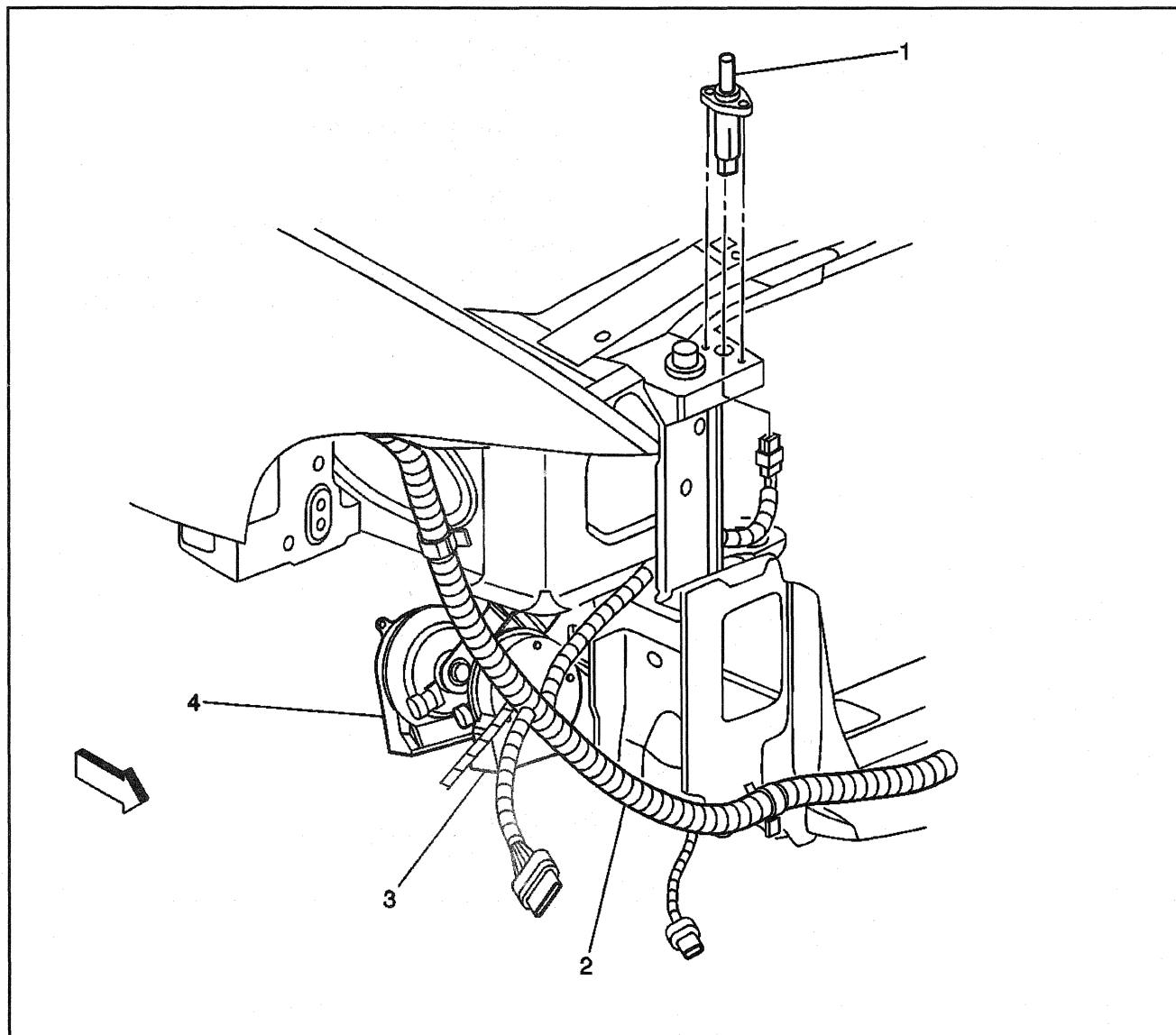
### Connector End View

This column contains the reference to the appropriate connector end view. The reference contains the location within the subsection and the section. Refer to *How to Use Connector End Views*.



**How to Use Component Location Views**

Component location views are line illustrations that indicate all of the vehicle's electrical components within each electrical system.

**RH Front Corner of Vehicle**

154362

**Legend**

- (1) Hood Ajar Switch (Export)
- (2) S114

- (3) Right Horn A Note
- (4) Right Horn F Note

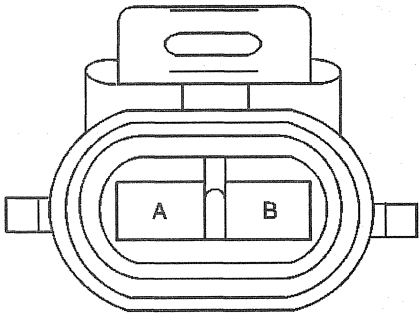
### How to Use Connector End Views

Connector end views show the cavity or terminal locations for all the related 2-pin or larger connectors shown in the system schematic(s). The drawings show the connector's face as seen after the harness connector has been disconnected from a component or mating connector. Unused cavities are left blank in the table.

In addition, the color and part number of the connector body is provided along with the family/series name.

Below is an example of a typical connector end view.

**RH Horn A Note**

			
35437			
<b>Connector Part Information</b>		<ul style="list-style-type: none"> <li>• 12052644</li> <li>• 2 Way F Metri-Pack 150 Series Sealed (GRY)</li> </ul>	
<b>Pin</b>	<b>Wire Color</b>	<b>Circuit No.</b>	<b>Function</b>
A	BLK	250	Ground
B	DK GRN	29	Horn Feed

### How to Use Diagnostic System Checks

**Important:** Misdiagnosis could occur if the diagnostic system check is not performed before using the diagnostic tables.

The diagnostic system check determines the diagnostic trouble codes (DTCs) present, verifies proper communication, and navigates to the appropriate diagnostic table.

### How to Use Diagnostic Tables

Diagnostic tables provide a procedure that will help you locate the condition in a circuit that is causing a malfunction. All diagnostic procedures are symptom based, to assist you in locating the condition as fast as possible. Diagnostic tables should exist for all possible (realistic) symptoms and diagnostic trouble codes (DTCs).

### Horns Inoperative

Step	Action	Value(s)	Yes	No
DEFINITION: Horns will not sound when horn button is pressed.				
1	Was the Diagnostic System Check performed?	—	Go to Step 2	Go to Horns System Check
2	1. Turn ignition switch to OFF. 2. Remove the horn relay. 3. Connect a fused jumper across the horn relay terminals 30 and 87. Do the horns sound?	—	Go to Step 3	Go to Step 6
3	Connect a test lamp between the horn relay terminals 85 and ground. Does the test lamp light?	—	Go to Step 4	Go to Power Distribution
4	1. Connect a test lamp between the horn relay terminal 86 and battery (B+). 2. Press and hold the horn switch. Does the test lamp light?	—	Go to Step 5	Go to Step 11
5	Replace the horn relay. Is the repair completed?	—	Go to Horns System Check	—
6	Connect a test lamp between the underhood junction block terminal A12 or B12 (CKT 29) and ground. Does the test lamp light?	—	Go to Step 8	Go to Step 7

## Horns Inoperative (cont'd)

Step	Action	Value(s)	Yes	No
7	Replace the underhood junction block, refer to underhood junction block replacement. Is repair completed?	—	Go to <i>Horns System Check</i>	—
8	Connect a test lamp between the Ground Splice Pack G104 (CKT 250) and battery (B+). Does the test lamp light?	—	Go to <i>Step 9</i>	Go to <i>Step 10</i>
9	Replace horns. Is repair completed?	—	Go to <i>Horns System Check</i>	—
10	Inspect G104 ground, if OK replace Ground Splice Pack G104. Is repair completed?	—	Go to <i>Horns System Check</i>	—
11	1. Disconnect the underhood junction block connector C2. 2. Connect a test lamp between the underhood junction block terminal D1 and battery (B+). 3. Press and hold the horn switch. Does the test lamp light?	—	Go to <i>Step 7</i>	Go to <i>Step 12</i>
12	1. Disconnect the Dash Integration Module (DIM). 2. Connect a test lamp between the underhood junction block terminal D1 and battery (B+). 3. Press and hold the horn switch. Does the test lamp light?	—	Go to <i>Step 13</i>	Go to <i>Step 14</i>
13	Replace the Dash Integration Module (DIM), refer to DIM replacement. Is the repair completed?	—	Go to <i>Horns System Check</i>	—
14	1. Disconnect C202. 2. Connect a test lamp between connector C202 terminal B12 of the steering column side and battery (B+). 3. Press and hold the horn switch. Does the test lamp light?	—	Go to <i>Step 15</i>	Go to <i>Step 16</i>
15	Repair short to ground in CKT 28 (BLK). Is repair completed?	—	Go to <i>Horns System Check</i>	—
16	Repair open in CKT 28 in the steering column. Is the repair completed?	—	Go to <i>Horns System Check</i>	—

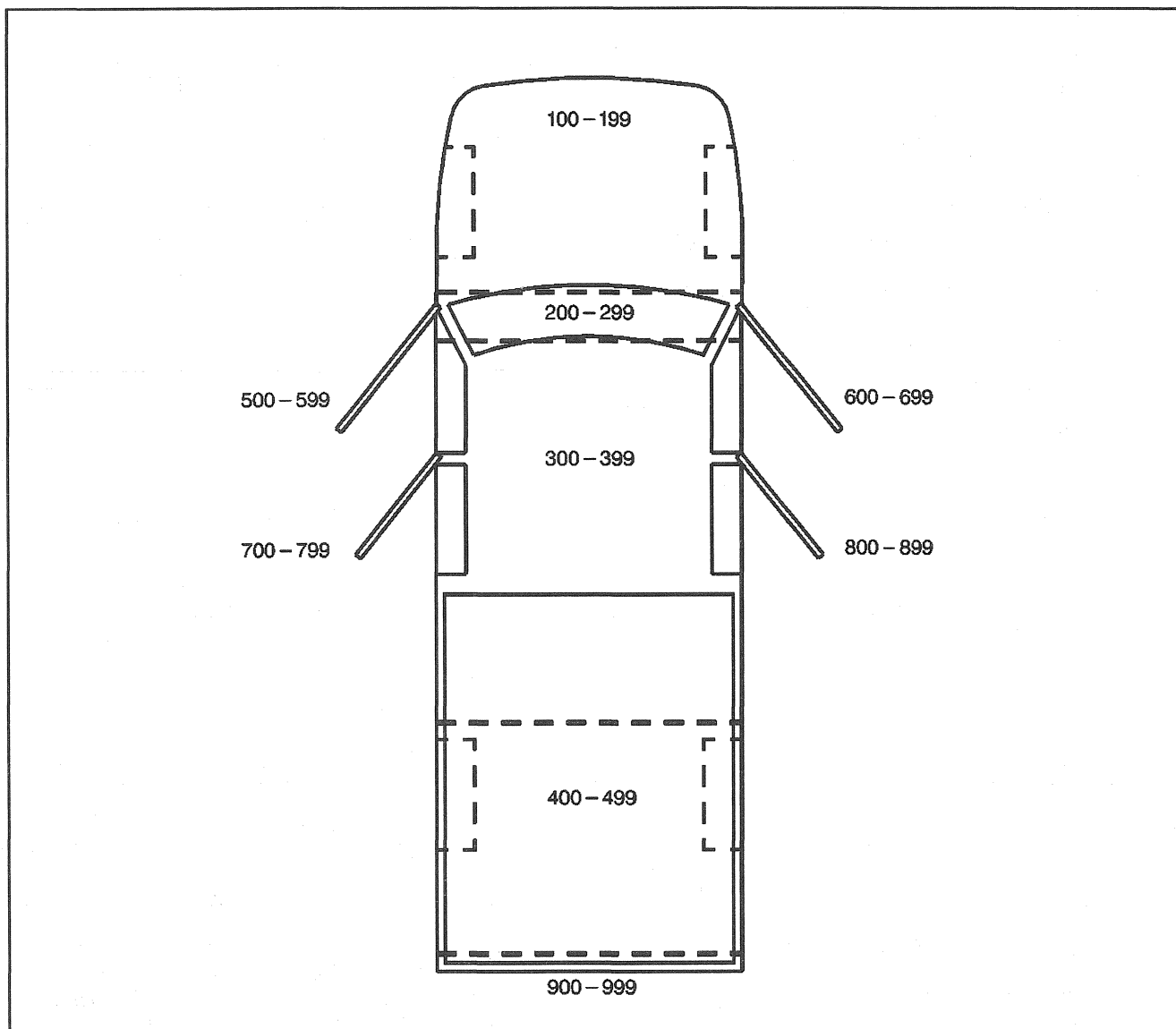
## How to Use Circuit Descriptions

The circuit description describes how the system works electrically. It details how power, ground, inputs, and outputs are supplied to the system's related components. The circuit description also explains the communication and interaction of all components that affect the operation of the system.

Battery positive voltage is applied at all times to the horn relay terminals 85 and 30. Pressing the horn switch grounds the horn relay coil on CKT 28 (BLK). The relay coil can also be grounded on CKT 28 (BLK) by the Dash Integration Module (DIM). The horn relay applies battery positive voltage to the horns on CKT 29 (DK GRN) when energized. The horns sound until the horn switch is released or the DIM signal is gone.

### Truck Zoning

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



160995





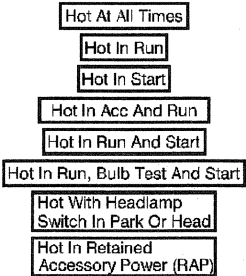
**Truck Zoning Table**

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






**Truck Zoning Table (cont'd)**

Callout Numbers	Zone Description
400-499	Truck bed (From the instrument panel to the rear wheelhouse)
500-599	Within the left front door
600-699	Within the right front door
700-799	Within the left rear door
800-899	Within the right rear door
900-999	Within the endgate door

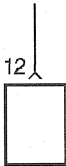
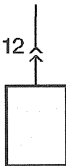
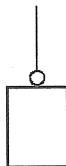

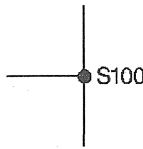
## Electrical Symbols

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

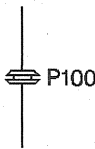
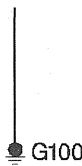

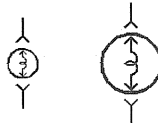
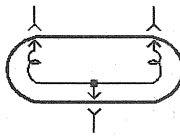
## Electrical Symbols (cont'd)

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

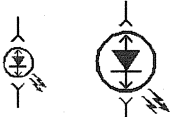




## Electrical Symbols (cont'd)

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



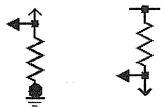
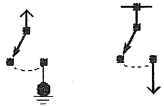

## Electrical Symbols (cont'd)

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






## Electrical Symbols (cont'd)

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

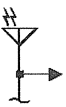
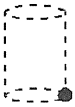

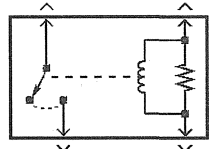
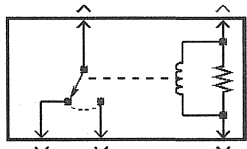
## Electrical Symbols (cont'd)

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

Electrical Symbols (cont'd)

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

Electrical Symbols (cont'd)

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



## General Electrical Diagnosis Procedures

### Basic Knowledge Required

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

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

### Symptom Diagnostic Example

The following is an example of a symptom and the correct course of action taken by the technician.

**Important:** Research for possible bulletins, DTCs and the vehicle's service history. Also, thoroughly screen the customer regarding the problem in order to complete the repair of the vehicle and completely satisfy the customer when a DTC or a symptom diagnosis is not available.

### Verify the Customer Concern, Check the Problem

Customer complaint is the headlamps are inoperative. Verify the normal operating procedure of the circuit and the components that share that circuit. Refer to *Strategy Based Diagnosis*.

### Review the Headlamps Electrical Schematic (Preliminary Checks)

Review the schematic, it is essential to understand how a circuit should work before trying to figure out why it doesn't. After understanding how a circuit should operate, read the schematic again, this time keeping in mind what has been learned by operating the circuit. Since both the low beam headlamps are inoperative, ensure that the following components are operating properly.

- The headlamp Switch.
- The YEL wire.
- Low contacts of the Headlamp Dimmer Switch.
- C100 terminal 1E.
- The TAN wires.
- Grounds G105 and G109.

Refer to *Strategy Based Diagnosis*.

### Perform the System Check

The system check indicates that the low beam headlamps operate when the high beam switch is in high. Also, the high beam indicator illuminates but neither high beam headlamp operates. Refer to *Strategy Based Diagnosis*.

### Check for Bulletins

Utilizing a combination of Techline tools and the information accumulated from the Preliminary Checks, check for bulletins.

### Isolate the Root Cause

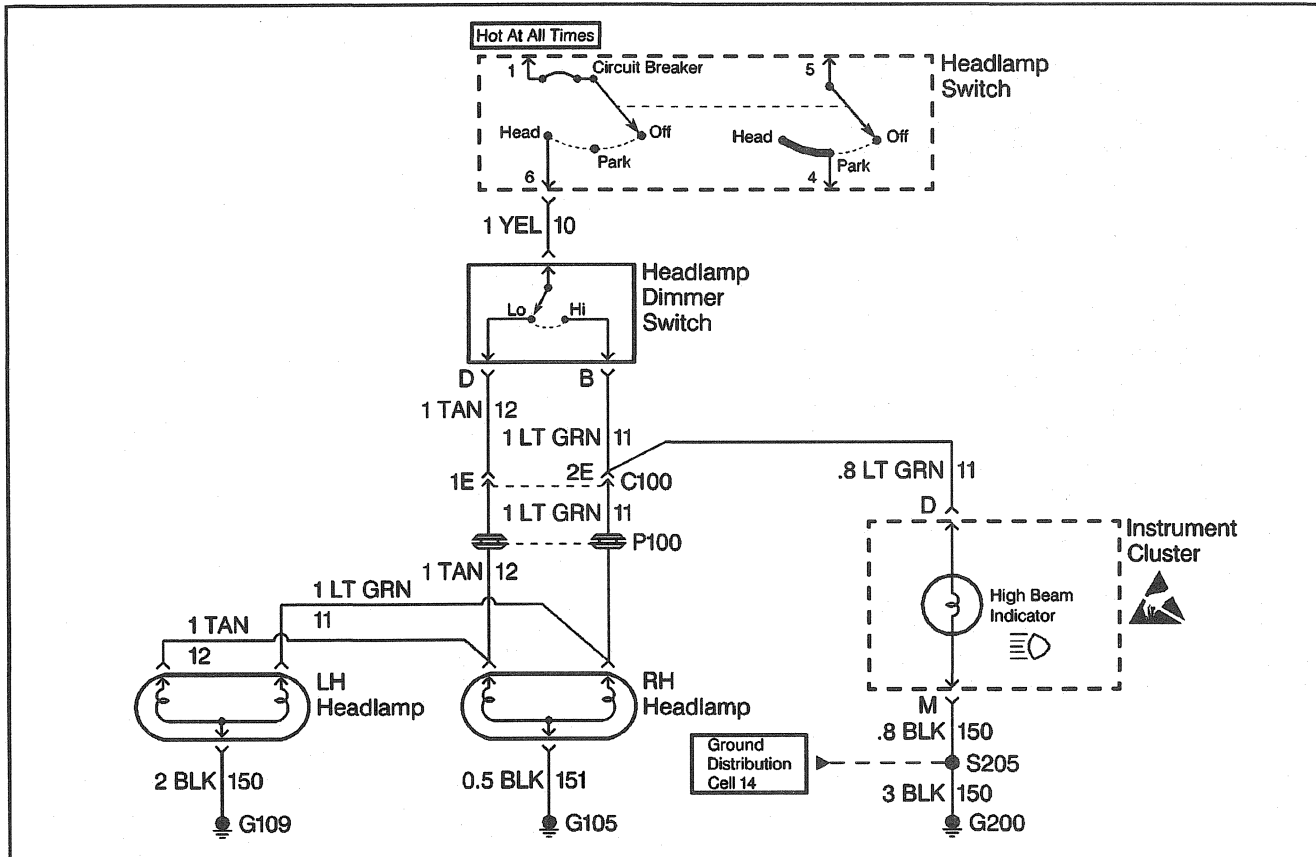
At this point analyze and (diagnose the problem), and develop text. Since the high beam indicator illuminated when the headlamp dimmer switch was in the high position, the high contacts of the headlamp dimmer switch and the LT GRN wire between the headlamp dimmer switch and C100 are good.

At this point, it is extremely unlikely that the high beam filaments in the RH and LH headlamps are both open or that both headlamp connections are bad. The cause must be a bad connection at C100 or an open in the LT GRN wire between C100 and the RH headlamp.

### Repair and Verify Fix

From isolating the root cause, basically the problem has been diagnosed. Using the Component Location Table and the corresponding figure, quickly find C100 and the LT GRN wire, locate the exact trouble point and make the repair.

Check the thoroughness of the repair by performing a final system check on the headlamp circuit. This of course means making sure that both high beams, both low beams, and the high beam indicator are working.



61699

### Checking Aftermarket Accessories

Do not connect aftermarket accessories into the following circuits:

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

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

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

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

Always check for aftermarket accessories (non-OEM) as the first step in diagnosing electrical problems. If the vehicle is so equipped, disconnect the system to verify that these add-on accessories are not the cause of the problems.

Possible causes of vehicle problems related to aftermarket accessories include:

- Power feeds connected to points other than the battery.
- Antenna location.
- Transceiver wiring located too close to vehicle electronic modules or wiring.
- Poor shielding or poor connectors on antenna feed line.
- Check for recent service bulletins detailing installation guidelines for aftermarket accessories.

## Using Connector Test Adapters

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

## Probing Electrical Connectors

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

### Frontprobe

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

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

### Backprobe

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

#### Important:

- Backprobe connector terminals only when specifically required in diagnostic procedures.
- Do not backprobe a sealed (Weather Pack®) connector, less than a 280 series Metri-Pack connector, a Micro-Pack connector, or a flat wire (dock and lock) connector.
- Backprobing can be a source of damage to connector terminals. Use care in order to avoid deforming the terminal, either by forcing the test probe too far into the cavity or by using too large of a test probe.
- After backprobing any connector, inspect for terminal damage. If terminal damage is suspected, test for proper terminal contact.

## Troubleshooting with a Digital Multimeter

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

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

The J 39200 Instruction Manual is a good source of information and should be read thoroughly upon receipt of the DMM as well as kept on hand for future reference.

A DMM should be used instead of a test lamp in order to test for voltage in high impedance circuits. While a test lamp shows whether voltage is present, a DMM indicates how much voltage is present.

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

**Important:** Disconnect the power feed from the suspect circuit when measuring resistance with a DMM. This prevents incorrect readings. DMMs apply such a small voltage to measure resistance that the presence of voltages can upset a resistance reading.

Diodes and solid state components in a circuit can cause a DMM to display a false reading. To find out if a component is affecting a measurement take a reading once, then reverse the leads and take a second reading. If the readings differ the solid state component is affecting the measurement.

Following are examples of the various methods of connecting the DMM to the circuit to be tested:

- Backprobe both ends of the connector and either hold the leads in place while manipulating the connector or tape the leads to the harness for continuous monitoring while you perform other operations or test driving. Refer to *Probing Electrical Connectors*.
- Disconnect the harness at both ends of the suspected circuit where it connects either to a component or to other harnesses.
- If the system that is being diagnosed has a specified pinout or breakout box, it may be used in order to simplify connecting the DMM to the circuit or for testing multiple circuits quickly.

### Troubleshooting with a Test Lamp

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

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

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

To properly operate this tool use the following procedure.

1. Attach one lead to ground.
2. Touch the other lead to various points along the circuit where voltage should be present.
3. When the bulb illuminates, there is voltage at the point being tested.

### Troubleshooting with a Short Finder

The J 8681-A can locate hidden shorts to ground. The short finder creates a pulsing magnetic field in the shorted circuit and shows the location of the short through the body trim or sheet metal.

### Using Fused Jumper Wires

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

The J 36169-A fused jumper includes small clamp connectors that provide adaptation to most connectors without damage. This fused jumper wire is supplied with a 20 A fuse which may not be suitable for some circuits. Do not use a fuse with a higher rating than the fuse that protects the circuit being tested.

### Measuring Voltage

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

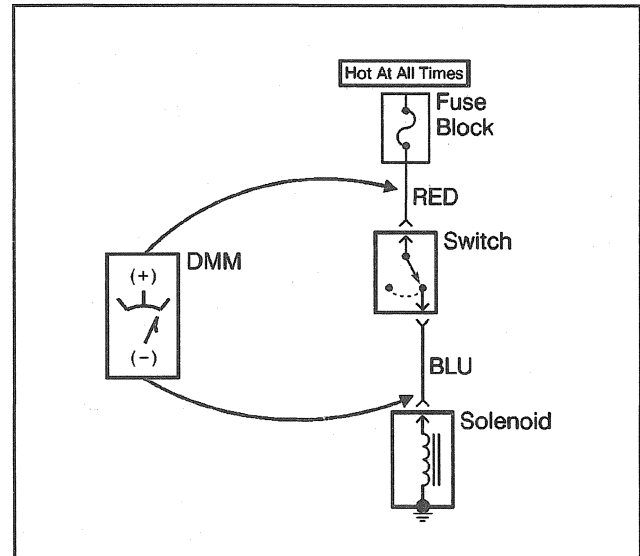
The following procedure measures the voltage at a selected point in a circuit.

1. Apply power to the circuit.
2. Set the rotary dial of the DMM into the V (AC) or V (DC) position.
3. Connect the positive lead of the DMM to the point of the circuit to be tested.
4. Connect the negative lead of the DMM to a good ground.
5. Operate the circuit.
6. The DMM displays the voltage measured at that point.

### Measuring Voltage Drop

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

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



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1. Set the rotary dial of the DMM to the V (DC) position.
2. Connect the positive lead of the DMM to one point of the circuit to be tested.
3. Connect the negative lead of the DMM to the other point of the circuit.
4. Operate the circuit.
5. The DMM displays the difference in voltage between the two points.

### Testing for Continuity

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

The following procedures verify good continuity in a circuit.

#### With a DMM

1. Set the rotary dial of the DMM to the  $\Omega$  position.
2. Disconnect the power feed (i.e. fuse, control module) from the suspect circuit.
3. Disconnect the load.
4. Press the MIN MAX button on the DMM.
5. Connect one lead of the DMM to one end of the circuit to be tested.
6. Connect the other lead of the DMM to the other end of the circuit.
7. If the DMM displays low or no resistance and a tone is heard, the circuit has good continuity.

### With a Test Lamp

**Important:** Only use the test lamp procedure on low impedance power and ground circuits.

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Connect one lead of the test lamp to one end of the circuit to be tested.
4. Connect the other lead of the test lamp to battery positive voltage.
5. Connect the other end of the circuit to ground.
6. If the test lamp illuminates (full intensity), then the circuit has good continuity.

### Testing for Short to Ground

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

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

#### With a DMM

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Set the rotary dial of the DMM to the  $\Omega$  position.
4. Connect one lead of the DMM to one end of the circuit to be tested.
5. Connect the other lead of the DMM to a good ground.
6. If the DMM does NOT display infinite resistance (OL), there is a short to ground in the circuit.

#### With a Test Lamp

1. Remove the power feed (i.e. fuse, control module) from the suspect circuit.
2. Disconnect the load.
3. Connect one lead of the test lamp to battery positive voltage.
4. Connect the other lead of the test lamp to one end of the circuit to be tested.
5. If the test lamp illuminates, there is a short to ground in the circuit.

### Fuse Powering Several Loads

1. Review the system schematic and locate the fuse that is open.
2. Open the first connector or switch leading from the fuse to each load.
3. Connect a DMM across the fuse terminals (be sure that the fuse is powered).
  - When the DMM displays voltage the short is in the wiring leading to the first connector or switch.
  - If the DMM does not display voltage refer to the next step.
4. Close each connector or switch until the DMM displays voltage in order to find which circuit is shorted.

### Intermittents and Poor Connections Diagnosis

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

- Wiring broken inside the insulation.
- Poor connection between the male and female terminal at a connector. Refer to Testing for Proper Terminal Contact below for the specific procedure.
- Poor terminal to wire connection. Some conditions which fall under this description are poor crimps, poor solder joints, crimping over wire the insulation rather than the wire itself and corrosion in the wire to terminal contact area, etc.
- Wire insulation which is rubbed through. This causes an intermittent short as the bare area touches other wiring or parts of the vehicle.
- Refer to *Testing for Electrical Intermittents* for test procedures to detect intermittent open, high resistance, short to ground, and short to voltage conditions.

### Testing for Proper Terminal Contact

It is important to test terminal contact at the component and any in-line connectors before replacing a suspect component. Mating terminals must be inspected to ensure good terminal contact. A poor connection between the male and female terminal at a connector may be the result of contamination or deformation.

Contamination may be caused by the connector halves being improperly connected. A missing or damaged connector seal, damage to the connector itself, or exposing the terminals to moisture and dirt can also cause contamination. Contamination, usually in the underhood or underbody connectors, leads to terminal corrosion, causing an open circuit or intermittently open circuit.

Deformation is caused by probing the mating side of a connector terminal without the proper adapter, improperly joining the connector halves, or repeatedly separating and joining the connector halves. Deformation, usually to the female terminal contact tang, can result in poor terminal contact causing an open or intermittently open circuit.

#### Round Wire Connectors

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

Follow the procedure below in order to test terminal contact.

1. Separate the connector halves.
2. Visually inspect the connector halves for contamination. Contamination may result in a white or green build-up within the connector body or between terminals. This causes high terminal resistance, intermittent contact, or an open circuit. An underhood or underbody connector that shows signs of contamination should be replaced in its entirety: terminals, seals, and connector body.

3. Using an equivalent male terminal from the *J 38125-B*, test that the retention force is significantly different between a good terminal and a suspect terminal. Replace the female terminal in question.

### Flat Wire (Dock and Lock) Connectors

There are no serviceable parts for flat wire (dock and lock) connectors on the harness side or the component side.

Follow the procedure below in order to test terminal contact.

1. Remove the component in question.
2. Visually inspect each side of the connector for signs of contamination. Avoid touching either side of the connector as oil from your skin may be a source of contamination as well.
3. Visually inspect the terminal bearing surfaces of the flat wire circuits for splits, cracks, or other imperfections that could cause poor terminal contact. Visually inspect the component side connector to ensure that all of the terminals are uniform and free of damage or deformation.
4. Insert the appropriate adapter from the *J 42675* Flat Wire Probe Adapter Kit on the flat wire harness connector in order to test the circuit in question.

### Testing for Electrical Intermittents

Perform the following procedures while wiggling the harness from side to side. Continue this at convenient points (about 6 inches apart) while watching the test equipment.

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

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

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

1. Connect the *J 39200* to both sides of a suspected connector (still connected), or from one end of a suspected circuit to the other. Refer to *Troubleshooting with a Digital Multimeter* for information on connecting the *J 39200* to the circuit.
2. Set the rotary dial of the *J 39200* to the V (AC) or V (DC) position.

3. Press the range button of the *J 39200* in order to select the desired voltage range.
4. Press the MIN MAX button of the *J 39200*. The *J 39200* displays 100 ms RECORD and emits an audible tone (beep).

**Important:** The 100 ms RECORD mode is the length of time an input must stay at a new value in order to record the full change.

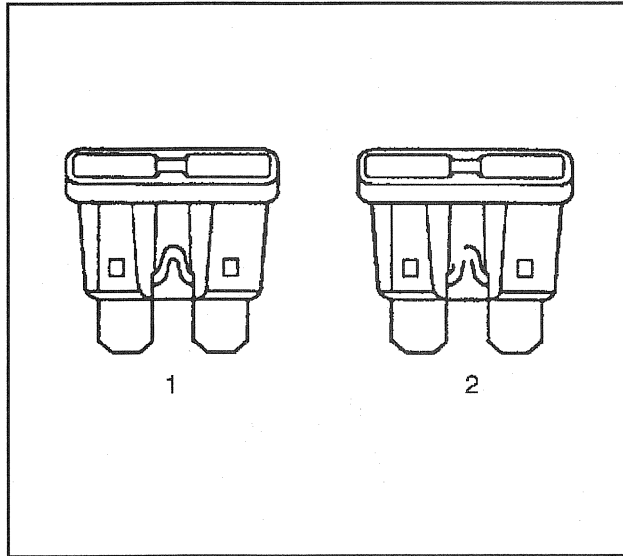
5. Simulate the condition that is potentially causing the intermittent connection, either by wiggling the connections or the wiring, test driving, or performing other operations.
6. Listen for the audible Min Max Alert which indicates that a new minimum or maximum value has been recorded.
7. Press the MIN MAX button once in order to display the MAX value and note the value.
8. Press the MIN MAX button again in order to display the MIN value and note the value.
9. Determine the difference between the MIN and MAX values.
  - If the variation between the recorded MIN and MAX voltage values is 1 volt or greater an intermittent open or high resistance condition exists. Repair the condition as necessary.
  - If the variation between the recorded MIN and MAX voltage values is less than 1 volt an intermittent open or high resistance condition does not exist.

### Wiring Repairs

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

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

## Circuit Protection - Fuses



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The fuse is the most common method of an automotive wiring circuit protection. Whenever there is an excessive amount of current flowing through a circuit the fusible element will melt and create an open or incomplete circuit. Fuses are a one time protection device and must be replaced each time the circuit is overloaded. To determine if a fuse is open, remove the suspected fuse and examine the element in the fuse for an open (break). If not broken, also check for continuity using a *J 39200* DMM or a continuity tester. If the element is open or continuity is suspect, replace the fuse with one of equal current rating.

### Fuse Types

Current Rating Amperes	Color
Auto Fuses, Mini Fuses	
2	Gray
3	Violet
5	Tan
7.5	Brown
10	Red
15	Blue
20	Yellow
25	White or Natural
30	Green
Maxi Fuses	
20	Yellow
30	Light Green
40	Orange or Amber
60	Blue
50	Red

## Circuit Protection - Circuit Breakers

A circuit breaker is a protective device that is designed to open the circuit when a current load is in excess of the rated breaker capacity. If there is a short or other type of overload condition in the circuit, the excessive current will open the circuit between the circuit breaker terminals. Two types of circuit breakers are used.

**Circuit Breaker:** This type opens when excessive current passes through it for a period of time. It closes again after a few seconds, and if the cause of the high current is still present, it will open again. The circuit breaker will continue to cycle open and closed until the condition causing the high current is removed.

**Positive Temperature Coefficient (PTC) Circuit Breaker:** This type greatly increases its resistance when excessive current passes through it. The excessive current heats the PTC device, as the device heats its resistance increases. Eventually the resistance gets so high that the circuit is effectively open. Unlike the ordinary circuit breaker the PTC unit will not reset until the circuit is opened, by removing the voltage from its terminals. Once the voltage is removed the circuit breaker will re-close within a second or two.

## Circuit Protection - Fusible Links

Fusible link is wire designed to melt and break continuity when excessive current is applied. It is often located between or near the battery and starter or electrical center. Use a continuity tester or a *J 39200* DMM at each end of the wire containing the fusible link in order to determine if it is broken. If broken, it must be replaced with fusible link of the same gage size.

### Repairing a Fusible Link

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

Refer to *Splicing Copper Wire Using Splice Clips*.

### Repairing Damaged Wire Insulation

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

Wire Size Conversion Table

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

## Splicing Copper Wire Using Splice Clips

## Tools Required

J 38125-B Terminal Repair Kit

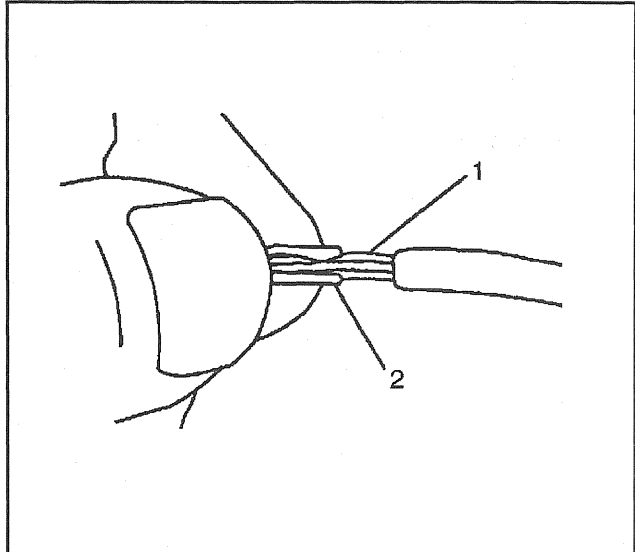
- Open the harness.
  - If the harness is taped, remove the tape.
  - To avoid wiring insulation damage, use a sewing ripper in order to cut open the harness.
  - If the harness has a black plastic conduit, pull out the desired wire.
- Cut the wire.
  - Cut as little wire off the harness as possible.
  - Ensure that each splice is at least 40 mm (1.5 in) away from other splices, harness branches and connectors. This helps prevent moisture from bridging adjacent splices and causing damage.
- Select the proper size and type of wire.
  - The wire must be of equal or greater size than the original (except fusible link).
  - The wire's insulation must have the same or higher temperature rating.
    - Use general purpose insulation for areas that are not subject to high temperatures.
    - Use a cross-linked polyethylene insulated wire for areas where high temperatures are expected.

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

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

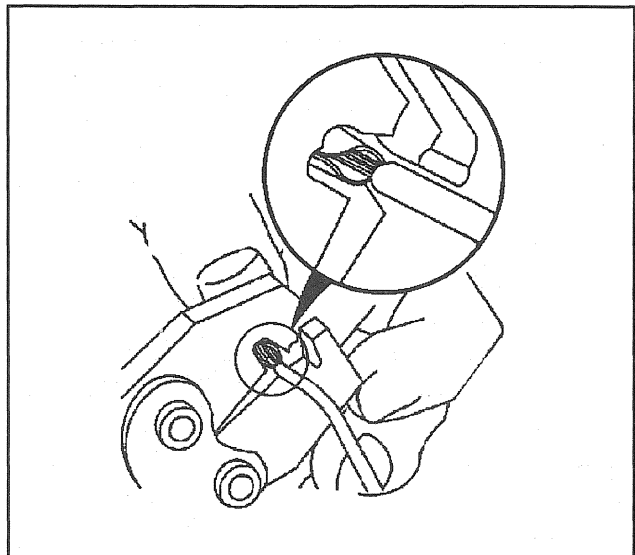
- Strip the insulation.
  - Select the correct size opening in the wire stripper or work down from the largest size.
  - Strip approximately 7.5 mm (5/16 inches) of insulation from each wire to be spliced.

- Select the proper clip to secure the splice. Follow the instructions in the J 38125-B Terminal Repair Kit in order to determine the proper clip size crimp tool and anvil.
- Overlap the two stripped wire ends and hold them between thumb and forefinger.



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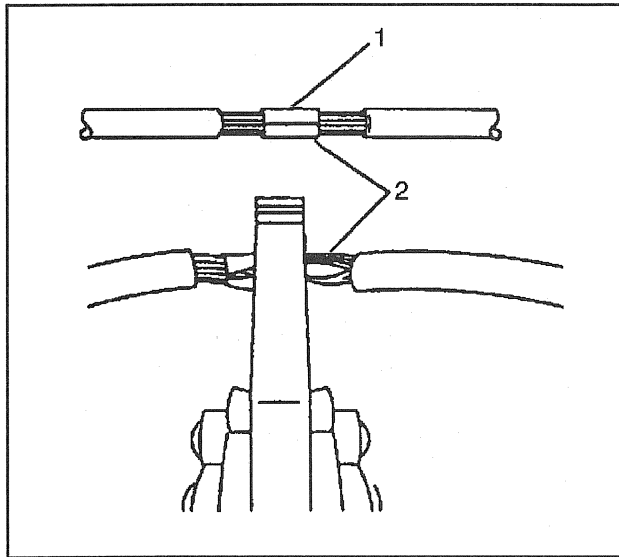
- Center the splice clip (2) over the stripped wires (1) and hold the clip in place.
  - Ensure that the wires extend beyond the clip in each direction.
  - Ensure that no insulation is caught under the clip.



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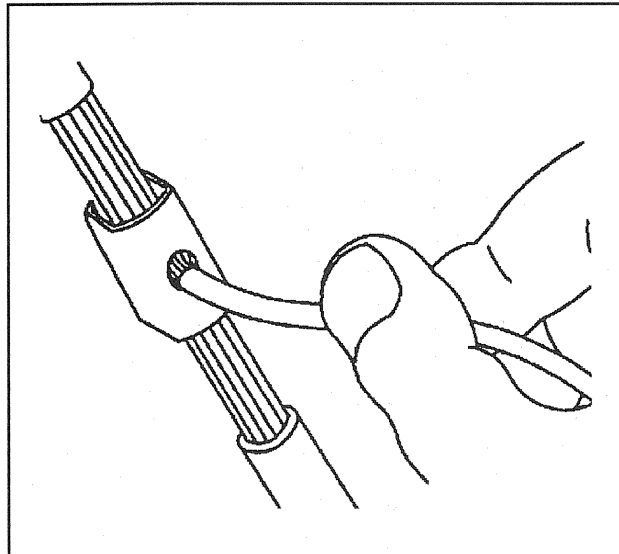
- Center the crimp tool over the splice clip and wires.
- Apply steady pressure until the crimp tool closes. Ensure that no strands of wire are cut.





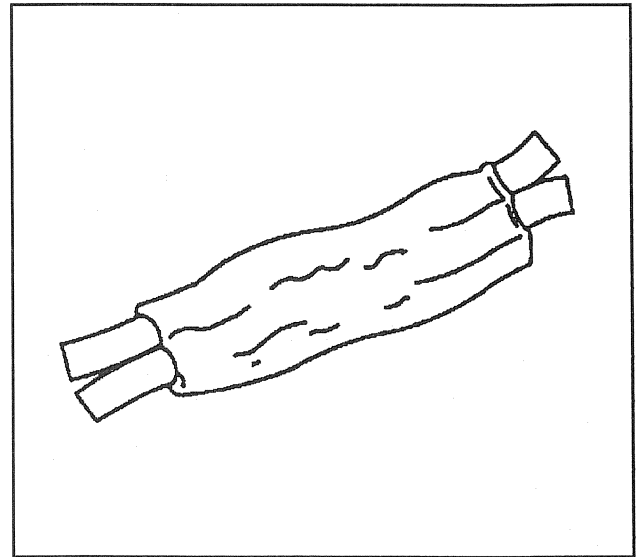
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10. Crimp the splice on each end (2).



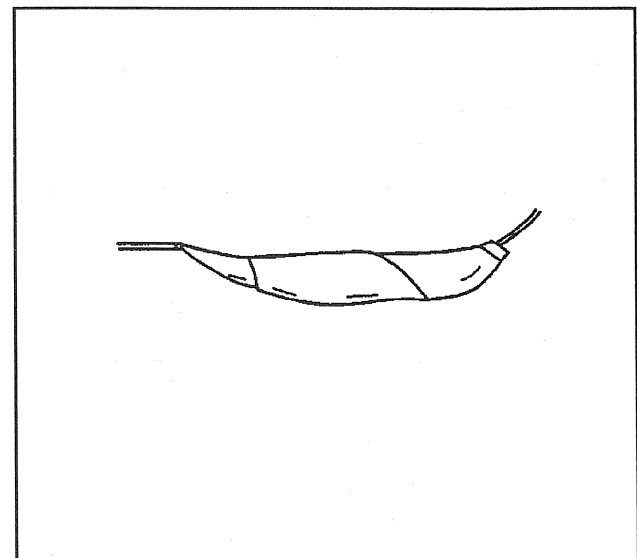
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11. Apply 60/40 rosin core solder to the opening in the back of the clip. Follow the manufacturer's instructions for the solder equipment.



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



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

### Splicing Copper Wire Using Splice Sleeves

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

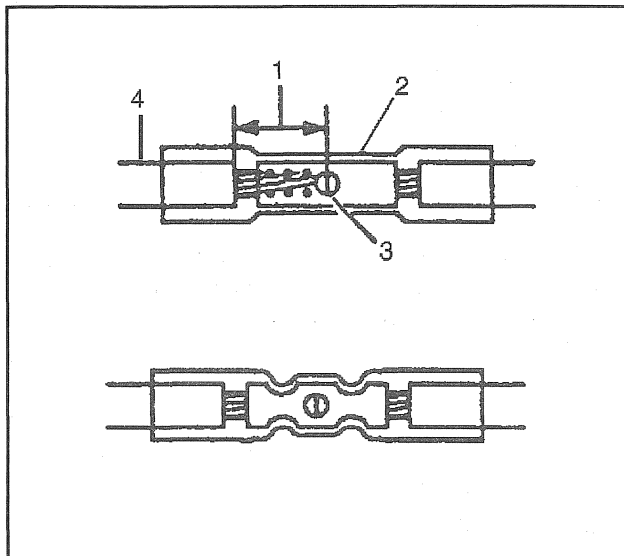
**Crimp and Seal Splice Table**

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

#### Tools Required

*J 38125-B* Terminal Repair Kit

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



8796

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

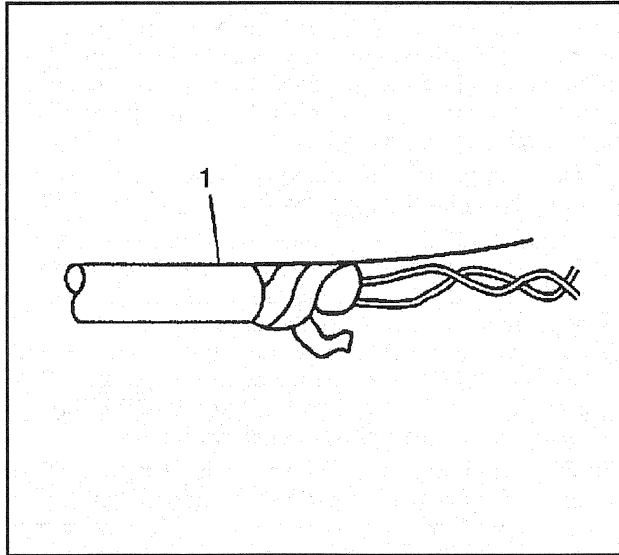
**Important:** Use Cross-linked polyethylene wire to replace PVC, but do not replace cross-linked polyethylene with PVC.

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

- Strip the insulation.
  - Select the correct size opening in the wire stripper or work down from the largest size.
  - Strip approximately 7.5 mm (5/16 inches) of insulation from each wire to be spliced (1).
- Select the proper splice sleeve (2) and the required crimp nest tool, refer to the Crimp and Seal Splice Table.
- Place the nest tool in the *J 38125* crimp tool.
- Place the splice sleeve in the crimp tool nest so that the crimp falls at point 1 on the splice.
- Close the hand crimper handles slightly in order to hold the splice sleeve firmly in the proper crimp tool nest.
- Insert the wires into the splice sleeve until the wire hits the barrel stop. The splice sleeve has a stop in the middle of the barrel in order to prevent the wire from passing through the splice (3).
- Close the handles of the *J 38125* until the crimper handles open when released. The crimper handles will not open until the proper amount of pressure is applied to the splice sleeve.
- Shrink the insulation around the splice.
  - Using the heat torch apply heat to the crimped area of the barrel.
  - Gradually move the heat barrel to the open end of the tubing.
    - The tubing will shrink completely as the heat is moved along the insulation.
    - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

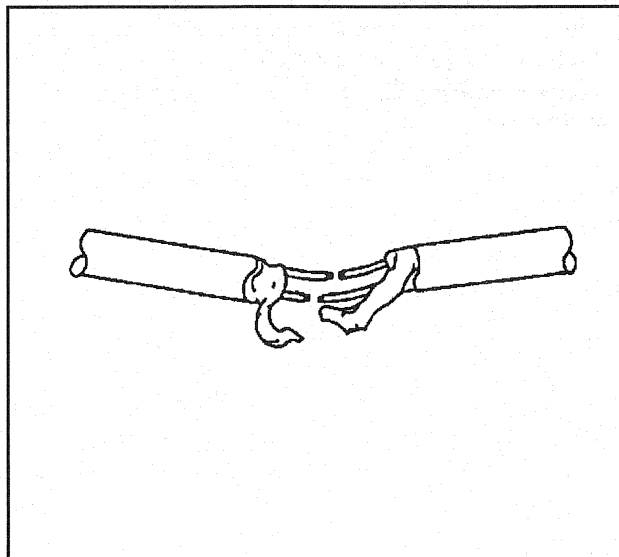
### Splicing Twisted or Shielded Cable

Twisted/shielded cable is used in order to protect wiring from electrical noise. Two-conductor cable of this construction is used between the radio and the Delco-Bose® speaker/amplifier units and other applications where low level, sensitive signals must be carried. Follow the instructions below in order to repair the twisted/shielded cable.



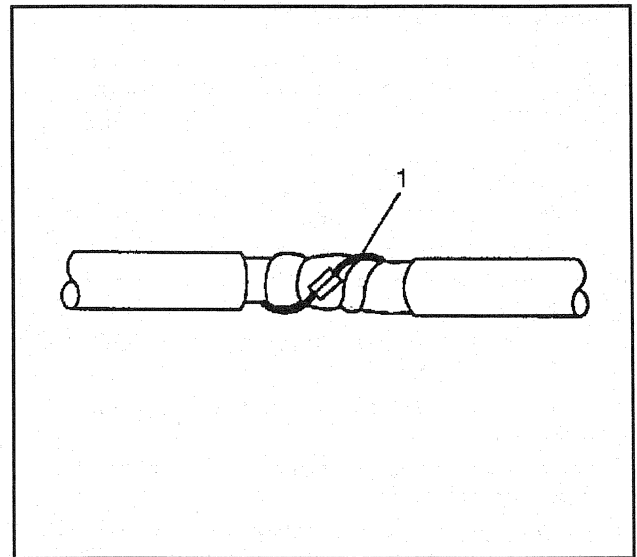
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1. Remove the outer jacket (1). Use care not to cut into the drain wire of the mylar tape.
2. Unwrap the tape. Do not remove the tape. Use the tape in order to rewrap the twisted conductors after the splice is made.



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

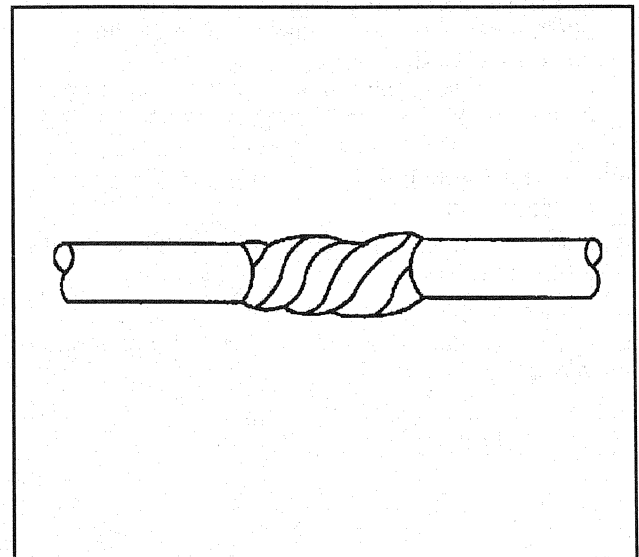


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4. Re-assemble the cable.

- Rewrap the conductors with the mylar tape.
- Use caution not to wrap the drain wire in the tape (1).
- Follow the splicing instructions for copper wire and splice the drain wire.
- Wrap the drain wire around the conductors and tape with mylar tape.

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



8801

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

### Splicing Inline Harness Diodes

Many vehicle electrical systems use a diode to isolate circuits and protect the components from voltage spikes. When installing a new diode use the following procedure.

1. Open the harness.
  - If the harness is taped, remove the tape.
  - To avoid wiring insulation damage, use a sewing ripper in order to cut open the harness.
  - If the harness has a black plastic conduit, pull out the diode.
2. If the diode is taped to the harness, remove all of the tape.
3. Check and record the current flow direction and orientation of diode.
4. Remove the inoperative diode from the harness with a suitable soldering tool.

**Important:** If the diode is located next to a connector terminal remove the terminal(s) from the connector to prevent damage from the soldering tool.

5. Carefully strip away a section of insulation next to the old soldered portion of the wire(s). Do not remove any more than is needed to attach the new diode.
6. Check current flow direction of the new diode, being sure to install the diode with correct bias. Reference the appropriate service manual wiring schematic to obtain the correct diode installation position.
7. Attach the new diode to the wire(s) using 60/40 rosin core solder. Before soldering attach some heat sinks (aluminum alligator clips) across the diode wire ends to protect the diode from excessive heat. Follow the manufacturer's instruction for the soldering equipment.
8. Reinstall terminal(s) into the connector body if previously removed
9. Tape the diode to the harness or connector using electrical tape.

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

### HO2S Wiring Repairs

**Notice:** Do not solder repairs under any circumstances as this could result in the air reference being obstructed.

If the heated oxygen sensor pigtail wiring, connector, or terminal is damaged the entire oxygen sensor assembly must be replaced. Do not attempt to repair the wiring, connector, or terminals. In order for the sensor to function properly it must have a clean air reference. This clean air reference is obtained by way of the oxygen sensor signal and heater wires. Any attempt to repair the wires, connectors or terminals could result in the obstruction of the air reference and degrade oxygen sensor performance.

The following guidelines should be used when servicing the heated oxygen sensor:

- Do not apply contact cleaner or other materials to the sensor or vehicle harness connectors. These materials may get into the sensor, causing poor performance. Also, the sensor pigtail and harness wires must not be damaged in such a way that the wires inside are exposed. This could provide a path for foreign materials to enter the sensor and cause performance problems.
- Neither the sensor nor vehicle lead wires should be bent sharply or kinked. Sharp bends, kinks, etc., could block the reference air path through the lead wire.
- Do not remove or defeat the oxygen sensor ground wire (where applicable). Vehicles that utilize the ground wire sensor may rely on this ground as the only ground contact to the sensor. Removal of the ground wire will also cause poor engine performance.
- To prevent damage due to water intrusion, be sure that the peripheral seal remains intact on the vehicle harness connector.

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

## SIR Wiring Repairs

The supplemental inflatable restraint (SIR) system requires special wiring repair procedures due to the sensitive nature of the circuitry. Follow the specific procedures and instructions when working with the SIR system wiring, and the wiring components (such as connectors and terminals).

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

### Tools Required

*J 38125-B* Terminal Repair Kit

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

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

The sealed splices have the following 2 critical features:

- A special heat shrink sleeve environmentally seals the splice. The heat shrink sleeve contains a sealing adhesive inside.
- A cross hatched (knurled) core crimp provides necessary contact integrity for the sensitive, low energy circuits.

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

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

## SIR Connector (Plastic Body and Terminal Metal Pin) Repair

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

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

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

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

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

## SIR Wire Pigtail Repair

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

A wire pigtail is a wire or wires attached directly to the device (not by a connector). If a wiring pigtail is damaged, you must replace the entire component (with pigtail). The inflatable restraint steering wheel module coil is an example of a pigtail component.

## SIR Wire Repair

### Tools Required

*J 38125-B* Terminal Repair Kit

**Important:** Refer to *Wiring Repairs* in Wiring Systems in order to determine the correct wire size for the circuit you are repairing. You must obtain this information in order to ensure circuit integrity.

If any wire except the pigtail is damaged, repair the wire by splicing in a new section of wire of the same gauge size (0.5 mm, 0.8 mm, 1.0 mm etc.). Use the sealed splices and splice crimping tool from the *J 38125-B*. Use the following wiring repair procedures in order to ensure the integrity of the sealed splice.

**Important:** You must perform the following procedures in the listed order. Repeat the procedure if any wire strands are damaged. You must obtain a clean strip with all of the wire strands intact.

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

1. Open the harness by removing any tape:

- Use a sewing seam ripper (available from sewing supply stores) in order to cut open the harness in order to avoid wire insulation damage.
- Use the crimp and sealed splice sleeves on all types of insulation except tefzel and coaxial.
- Do not use the crimp and sealed splice sleeve to form a splice with more than 2 wires coming together.

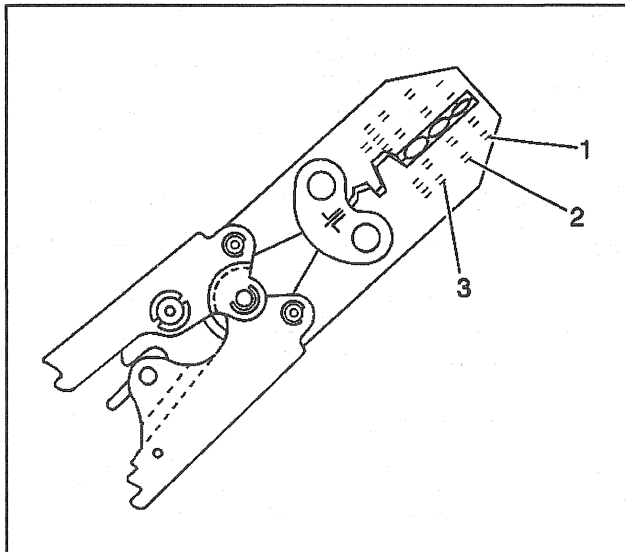
2. Cut as little wire off the harness as possible. You may need the extra length of wire in order to change the location of a splice.

Adjust splice locations so that each splice is at least 40 mm (1.5 in) away from the other splices, harness branches, or connectors.

3. Strip the insulation:

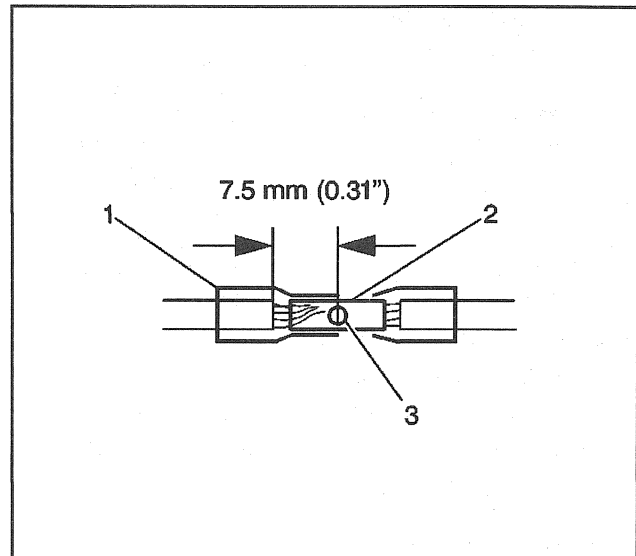
- When adding a length of wire to the existing harness, use the same size wire as the original wire.
- Perform one of the following items in order to find the correct wire size:
  - Find the wire on the schematic and convert the metric size to the equivalent AWG size.
  - Use an AWG wire gauge.
  - If you are unsure of the wire size, begin with the largest opening in the wire stripper and work down until achieving a clean strip of the insulation.
- Strip approximately 7.5 mm (0.313 in) of insulation from each wire to be spliced.
- Do not nick or cut any of the strands. Inspect the stripped wire for nicks or cut strands.
- If the wire is damaged, repeat this procedure after removing the damaged section.

4. Select the proper sealed splice sleeve according to the wire size. Refer to the above table at the beginning of the repair procedure for the color coding of the splice sleeves and the crimp tool nests.



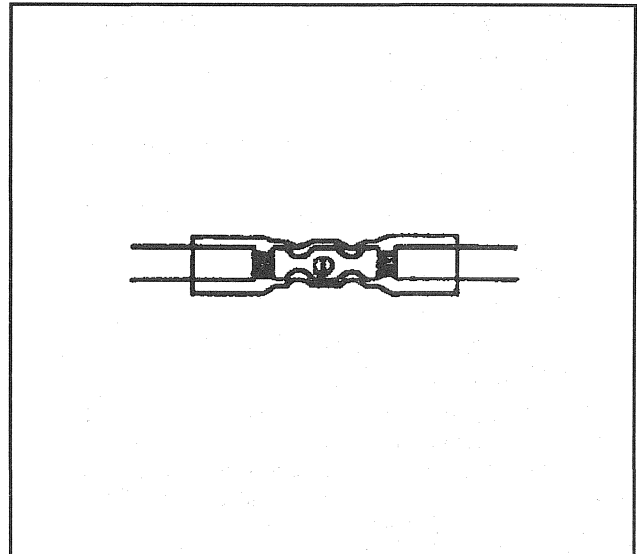
68642

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



68639

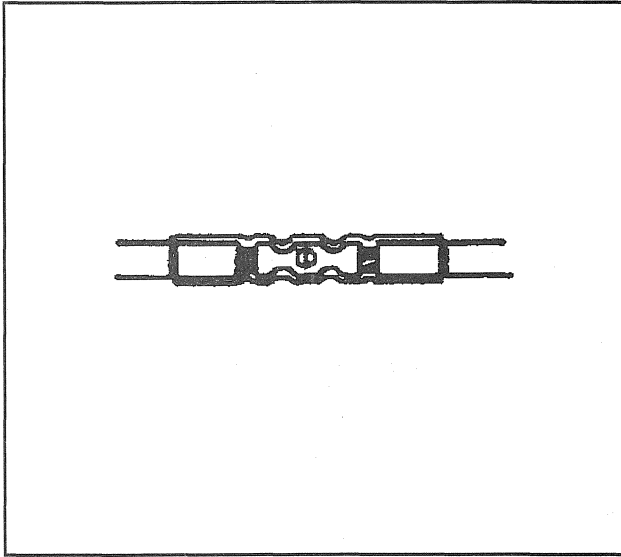
6. Place the splice sleeve in the nest. Ensure that the crimp falls midway between the end of the barrel and the stop. The sleeve has a stop (3) in the middle of the barrel (2) in order to prevent the wire (1) from going further. Close the hand crimper handles slightly in order to firmly hold the splice sleeve in the proper nest.



9502

7. Insert the wire into the splice sleeve barrel until the wire hits the barrel stop.
8. Tightly close the handles of the crimp tool until the crimper handles open when released.

The crimper handles will not open until you apply the proper amount of pressure to the splice sleeve. Repeat steps 4 and 5 for the opposite end of the splice.



9503

9. Using the heat torch, apply heat to the crimped area of the barrel.
10. Gradually move the heat barrel to the open end of the tubing:
  - The tubing will shrink completely as the heat is moved along the insulation.
  - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

### SIR System Wire Splice Repair

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

### Connector Position Assurance (CPA)

The connector position assurance (CPA) is a small plastic insert that fits through the locking tabs of all the SIR system electrical connectors. The CPA ensures that the connector halves cannot vibrate apart. You must have the CPA in place in order to ensure good contact between the SIR mating terminals.

### Terminal Position Assurance (TPA)

The terminal position assurance (TPA) insert resembles the plastic combs used in the control module connectors. The TPA keeps the terminal securely seated in the connector body. Do not remove the TPA from the connector body unless you remove a terminal for replacement.

### Flat Wire Repairs

**Notice:** The flat wire within the flex wiring harness is not serviceable. If an open or short exists within the flex wiring harness the complete harness must be replaced.

### Connector Repairs

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

- *Connector Position Assurance Locks.*
- *Terminal Position Assurance Locks.*
- *Push to Seat Connectors.*
- *Repairing Damaged Wire Insulation.*
- *Wiring Repairs.*
- *Splicing Copper Wire Using Splice Clips.*
- *Splicing Copper Wire Using Splice Clips.*
- *Splicing Twisted or Shielded Cable.*

### Connector Position Assurance Locks

The Connector Position Assurance (CPA) is a small plastic insert that fits through the locking tabs of all the SIR system electrical connectors. The CPA ensures that the connector halves cannot vibrate apart. You must have the CPA in place in order to ensure good contact between the SIR mating terminals.

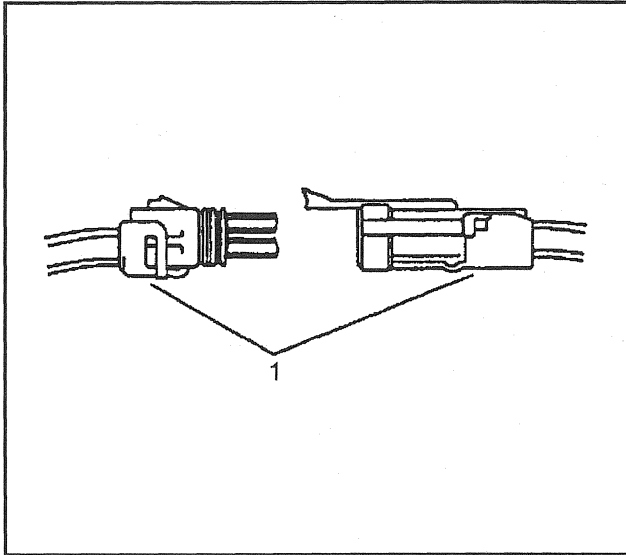
### Terminal Position Assurance Locks

The Terminal Position Assurance (TPA) insert resembles the plastic combs used in the control module connectors. The TPA keeps the terminal securely seated in the connector body. Do not remove the TPA from the connector body unless you remove a terminal for replacement.

## Push to Seat Connectors

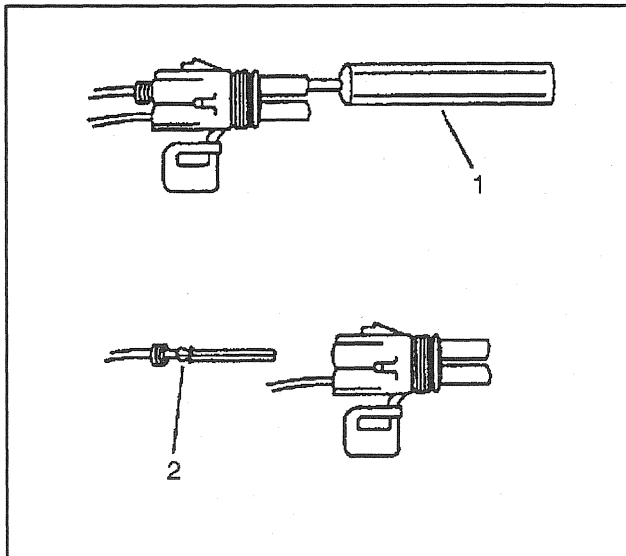
### Terminal Removal

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



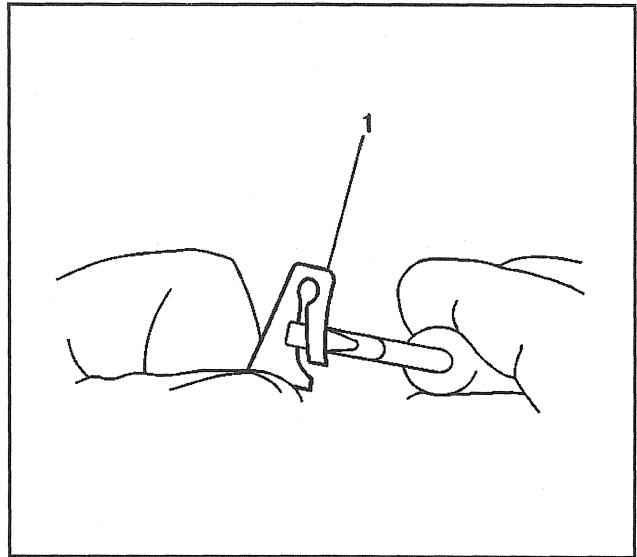
8802

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



8803

3. Use the proper pick or removal tool (1) in order to release the terminal.
4. Gently pull the cable and the terminal (2) out of the back of the connector.



8804

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

### Terminal Repair

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

### Reinstalling Terminal

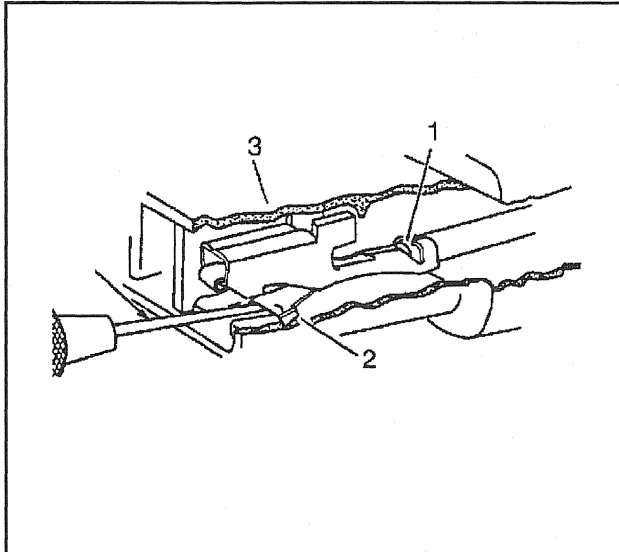
1. In order to reuse a terminal or lead assembly. Refer to *Wiring Repairs*.
2. Ensure that the cable seal is kept on the terminal side of the splice.
3. Insert the lead from the back until it catches.
4. Install the TPA, CPA and/or the secondary locks.



## Pull to Seat Connectors

### Terminal Removal

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



8805

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

### Terminal Repair

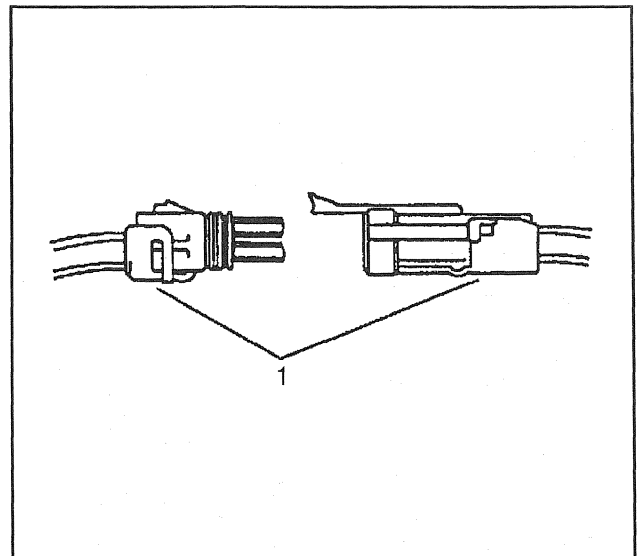
1. Slip the cable seal away from the terminal.
2. Cut the wire as close to the terminal as possible.
3. Slip a new cable seal onto the wire.
4. Strip 5 mm (3/16 in) of insulation from the wire.
5. Crimp a new terminal to the wire.
6. Solder the crimp with rosin core solder.
7. Slide the cable seal toward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

### Terminal Installation

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

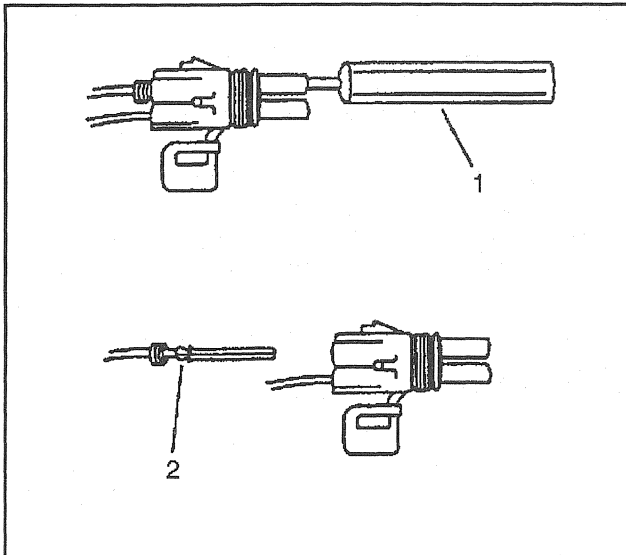
### Weather Pack Connectors

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



8802

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



8803

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

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

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

### Repairing Connector Terminals

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

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

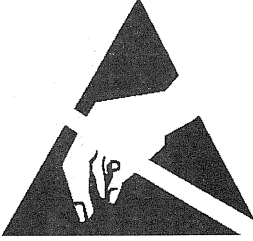

Some terminals do not require all of the steps shown. Skip the steps that do not apply for your immediate terminal repair. The *J 38125-B Terminal Repair Kit* contains further information.

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

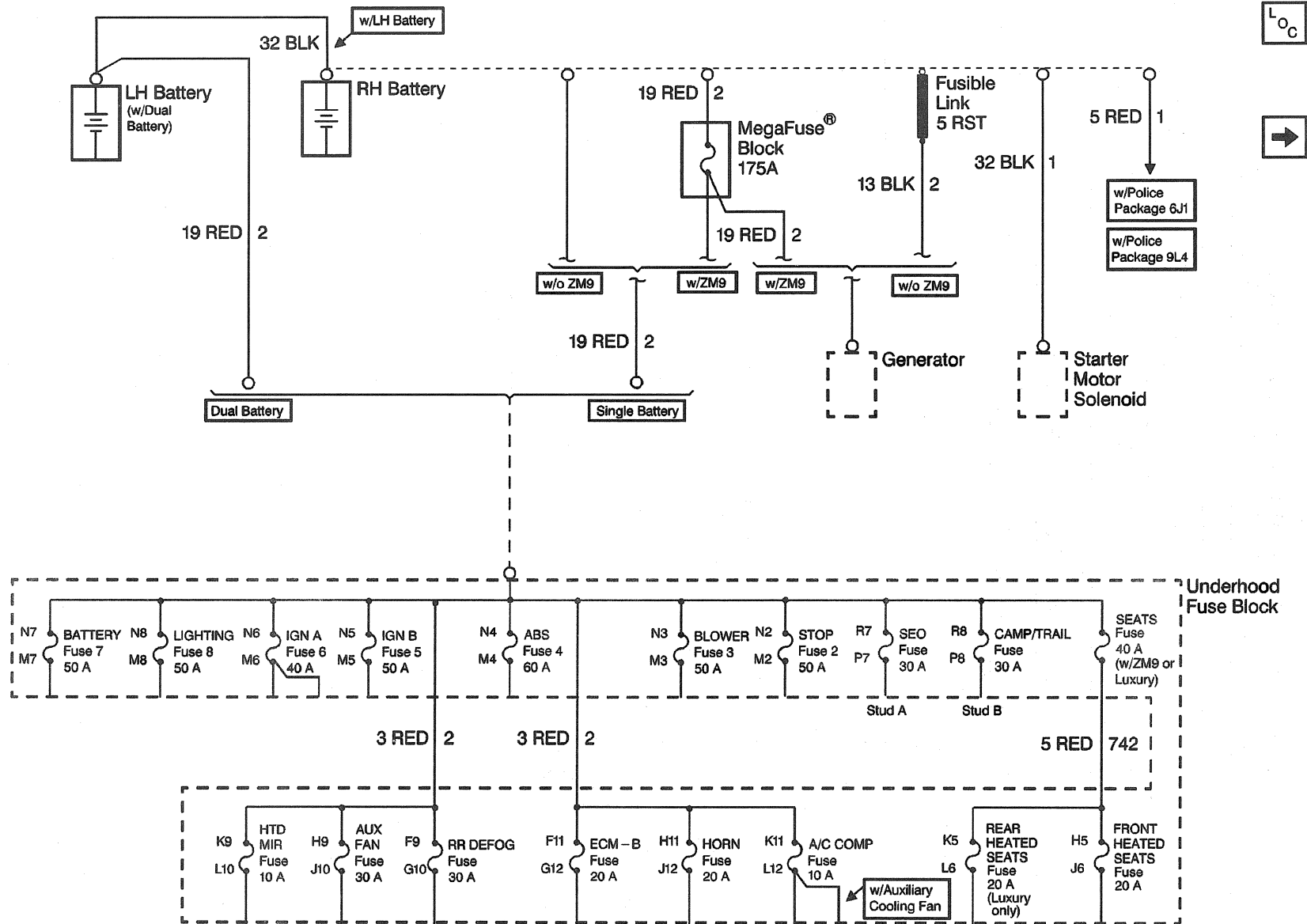
**Schematic and Routing Diagrams****Power and Grounding Schematic References**

Reference on Schematic	Section Number - Subsection Name
Ground Distribution Cell - 14	8-Wiring Systems
Headlights Cell - 101	8-Lighting Systems
Headlights Cell - 102	8-Lighting Systems
Power Distribution Cell - 10	8-Wiring Systems
Radio Systems Cell - 150	8-Entertainment

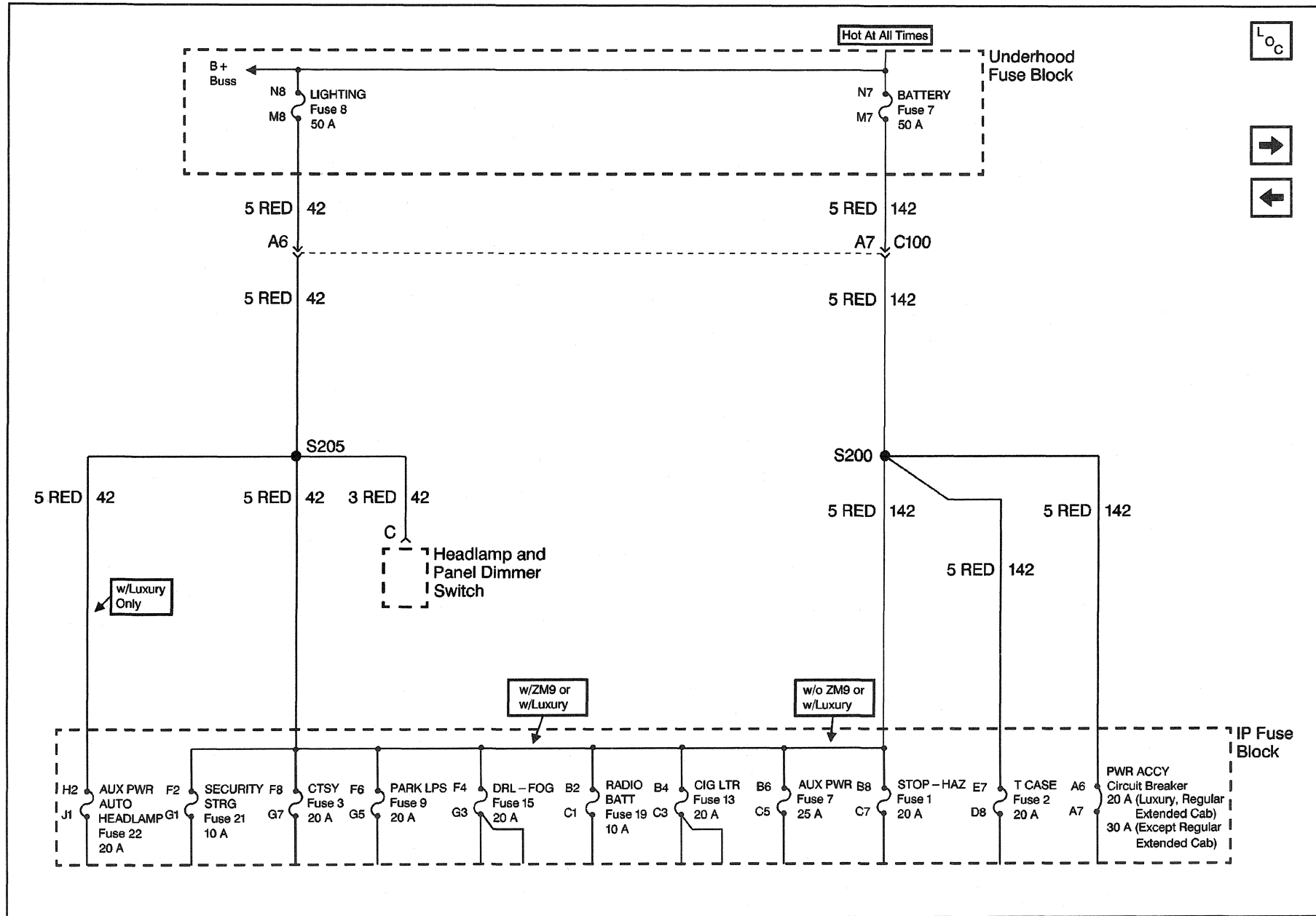
**Power and Grounding Schematic Icons**

Icon	Icon Definition
 19384	Refer to <i>ESD Notice</i> in Cautions and Notices.
 19386	Refer to <i>Servicing The SIR System Caution</i> in Cautions and Notices.

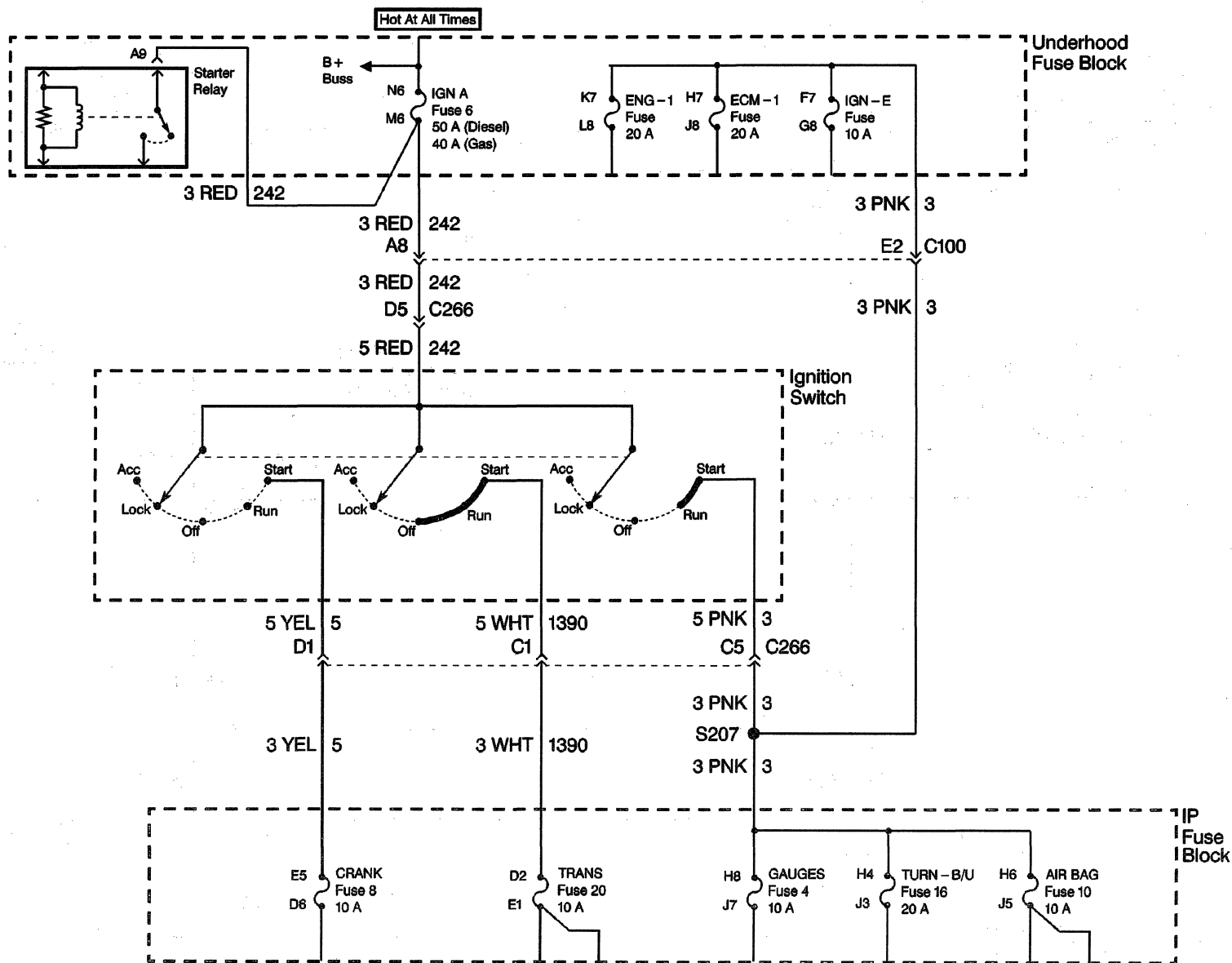
# Power Distribution Schematics (Cell 10: Battery, and Underhood Fuse Block)



# Power Distribution Schematics (Cell 10: LIGHTING and BATTERY Fuses)



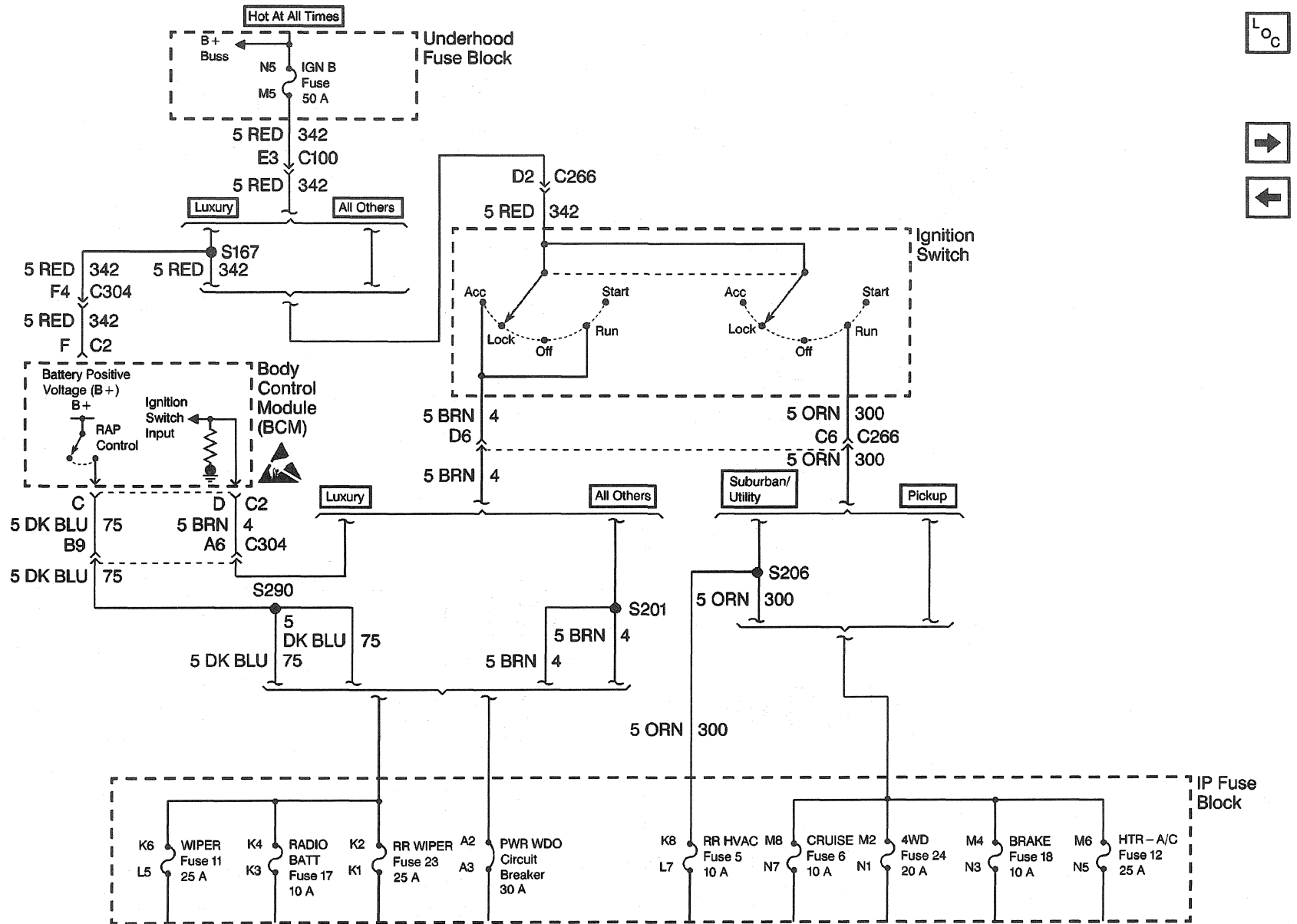
# Power Distribution Schematics (Cell 10: IGN A Fuse and Ignition Switch)



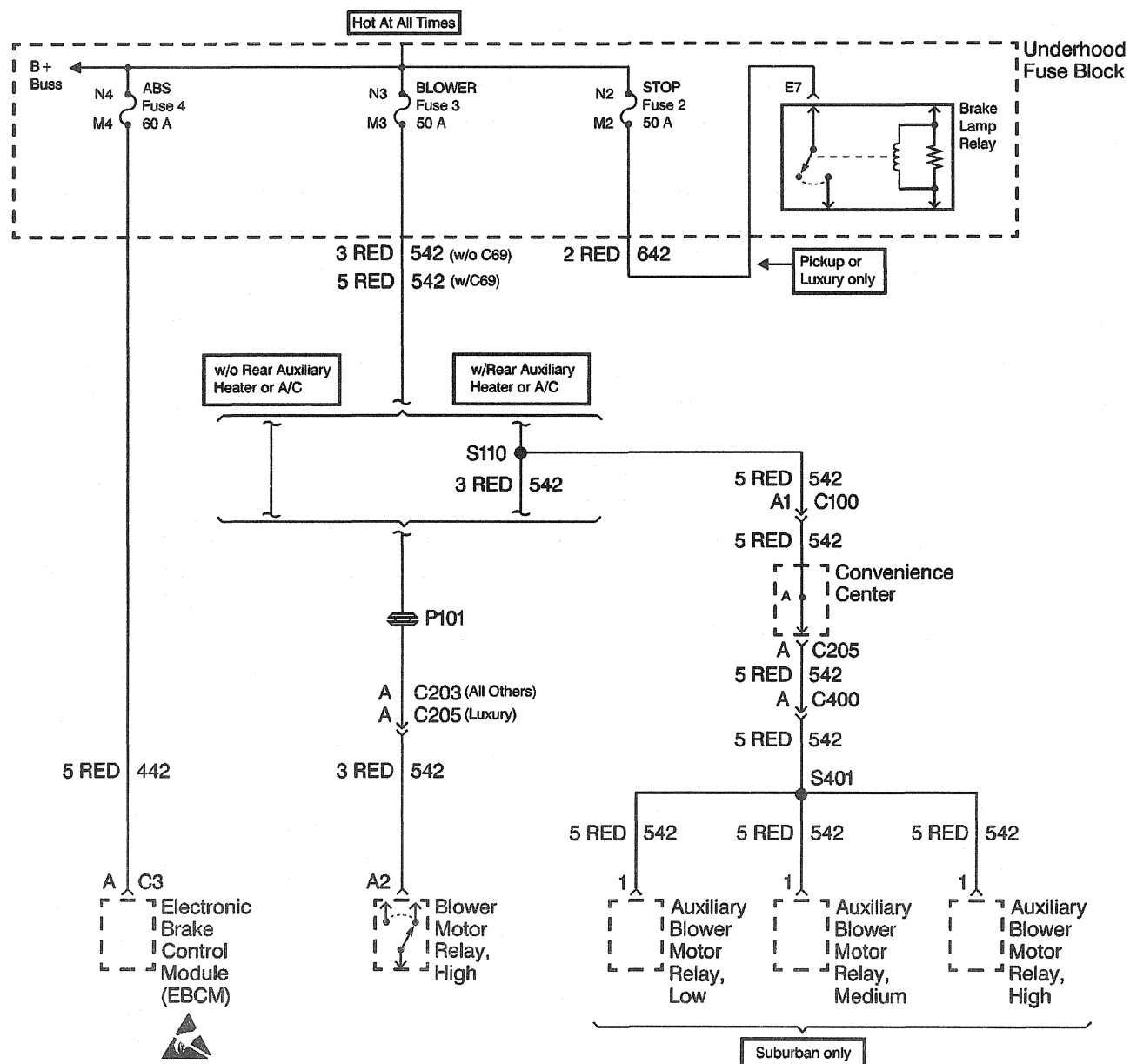
L<sub>O</sub>C



# Power Distribution Schematics (Cell 10: IGN B Fuse and Ignition Switch)



# Power Distribution Schematics (Cell 10: ABS, BLOWER, STOP Fuses and Brake Lamp Relay)

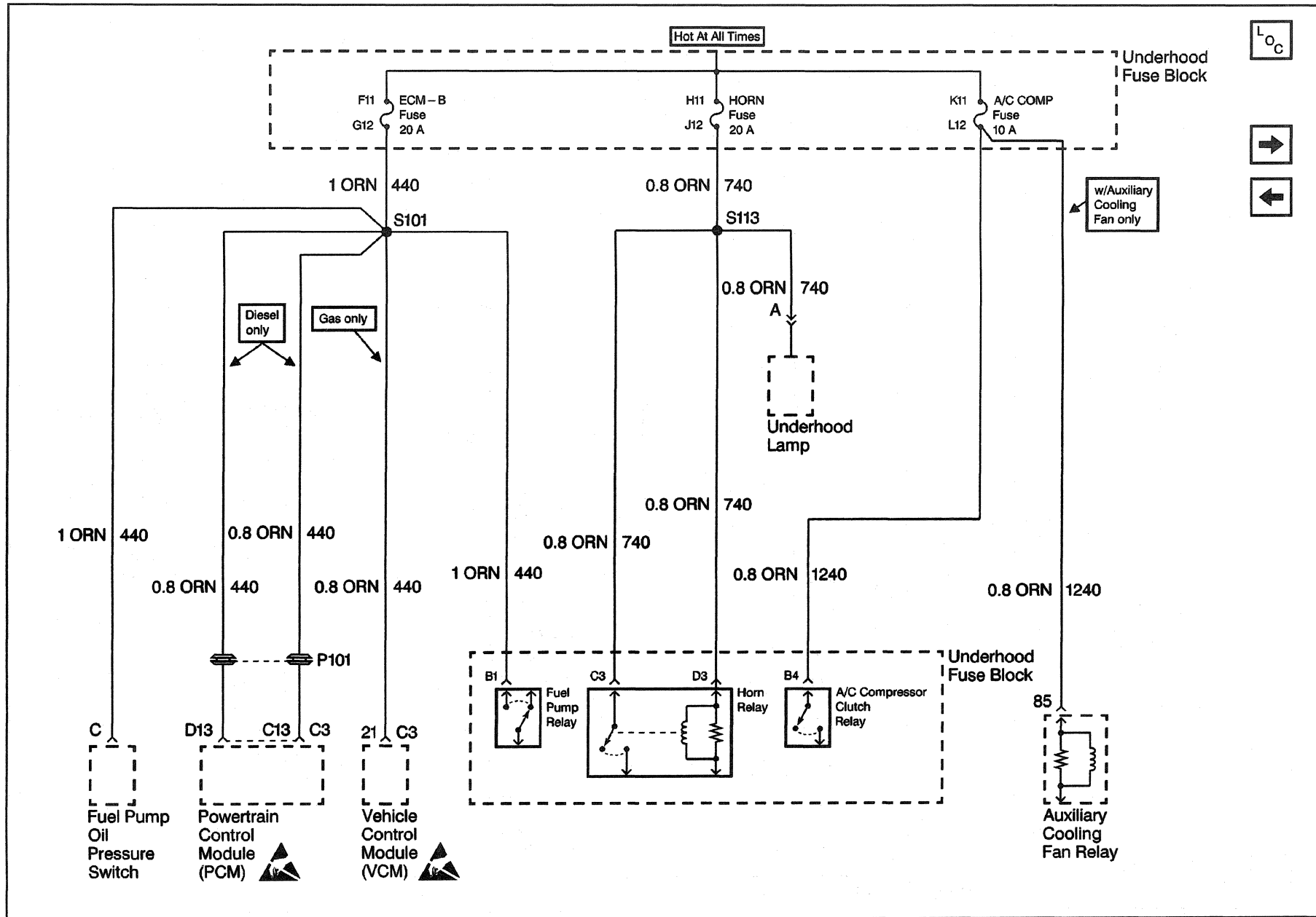


L<sub>O</sub>C

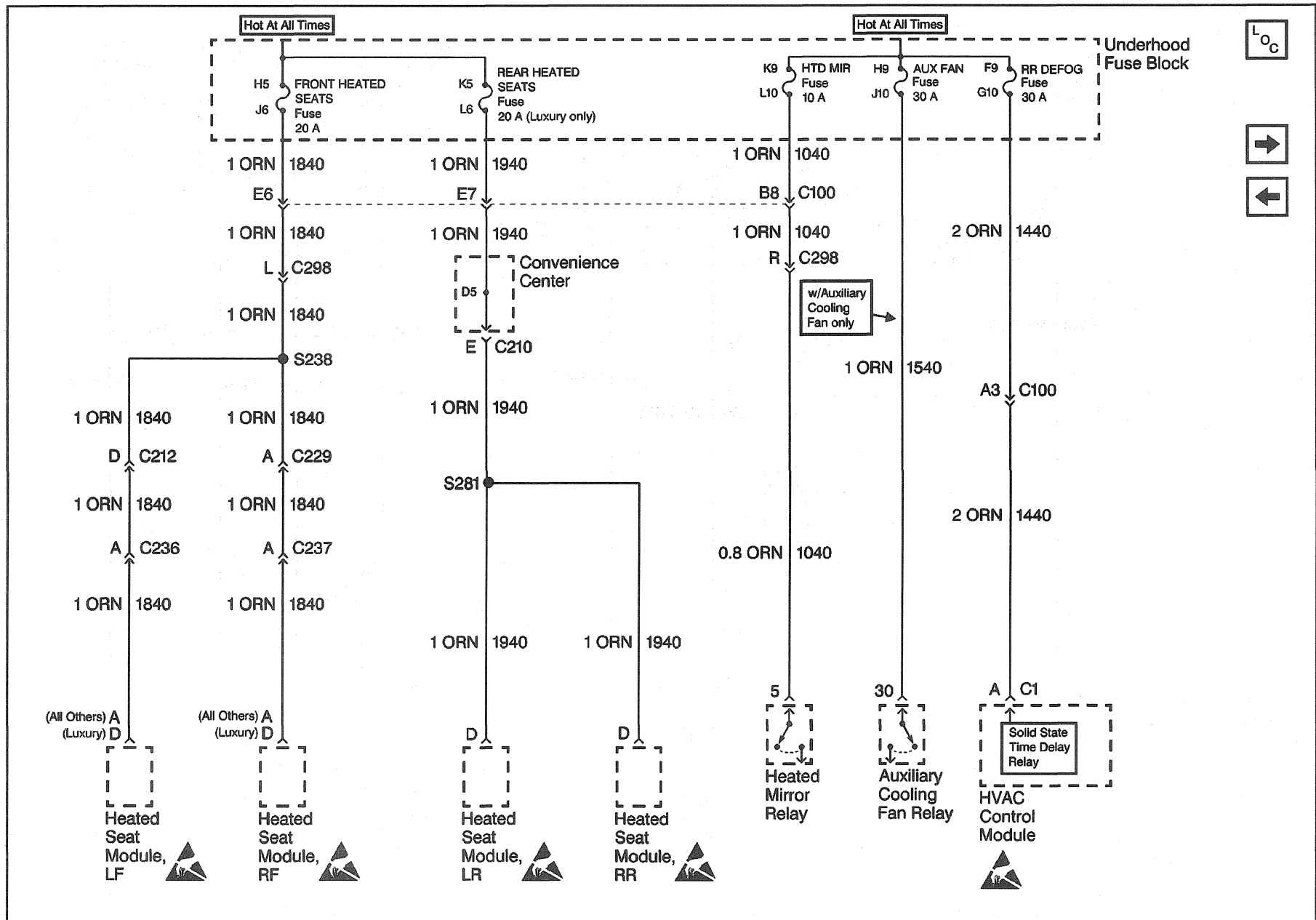




# Power Distribution Schematics (Cell 10: ECM-B, HORN and A/C COMP Fuses)



# Power Distribution Schematics (Cell 10: FRONT HEATED SEATS, REAR HEATED SEATS, HTD MIR, AUX FAN, and RR DEFOG Fuses)



358270

## Body and Accessories



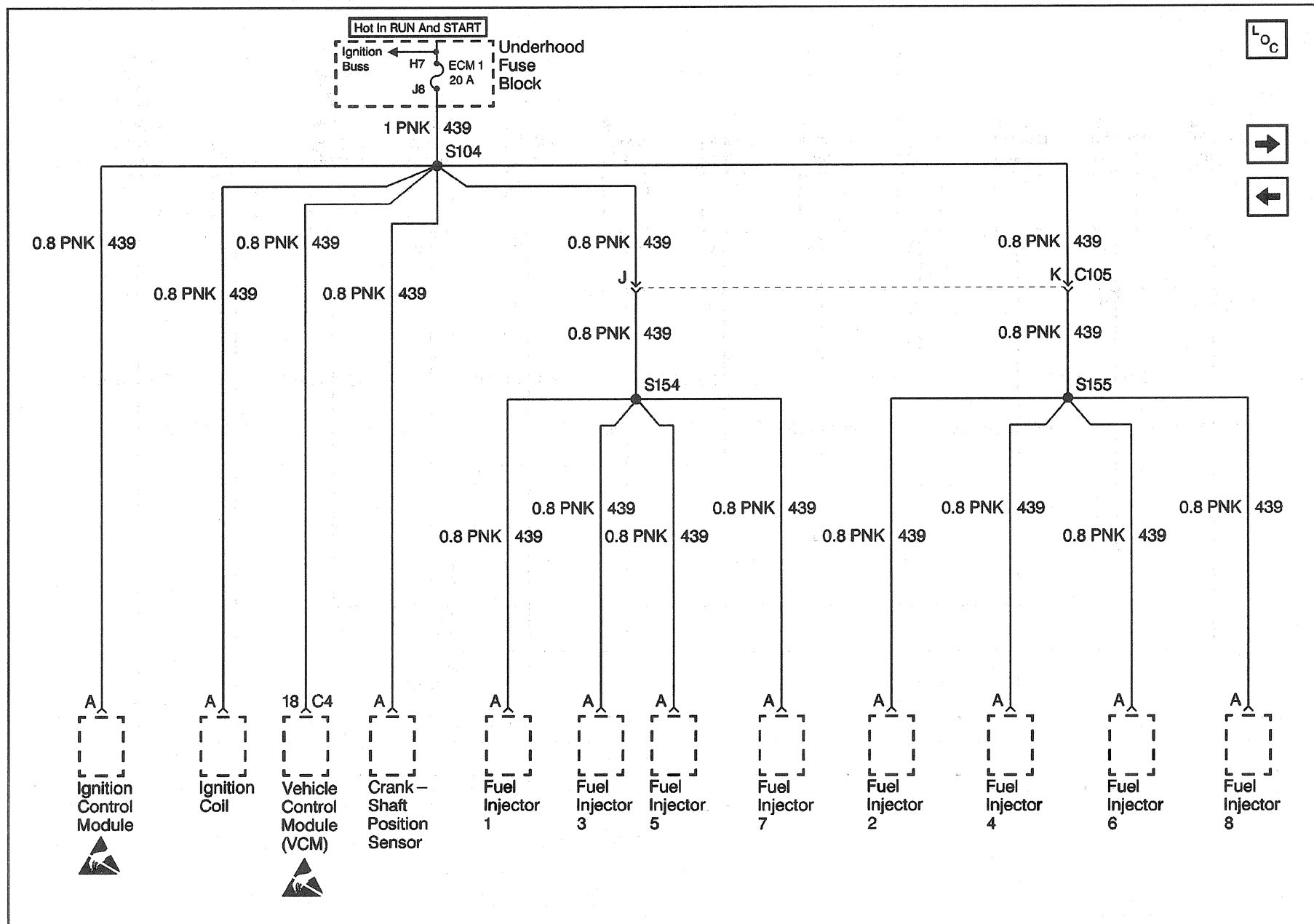
## 8-358 Wiring Systems



## Body and Accessories



Power Distribution Schematics (Cell 10: ECM 1 Fuse (7.4L))



## **Body and Accessories**

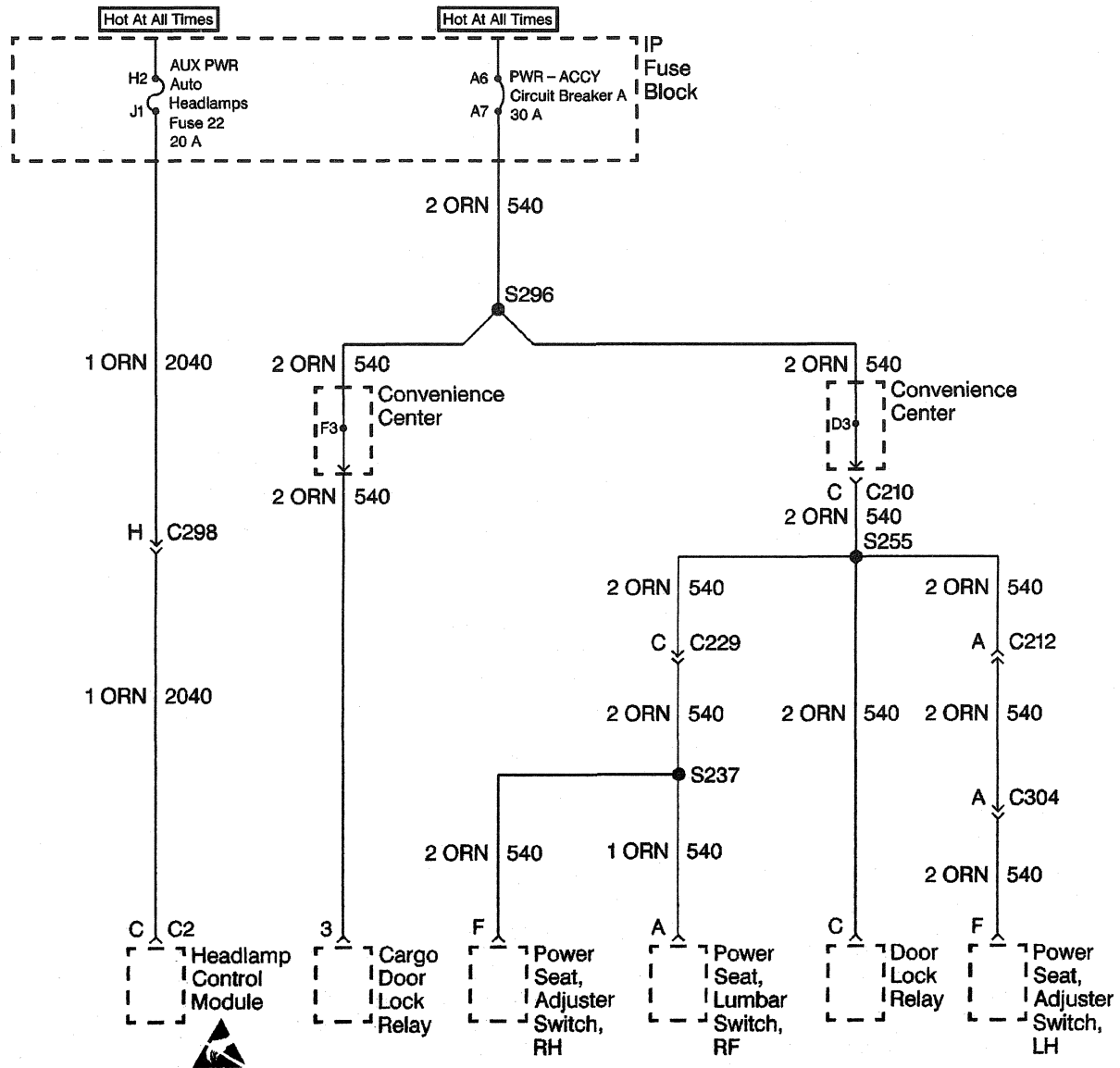


## 8-362 Wiring Systems





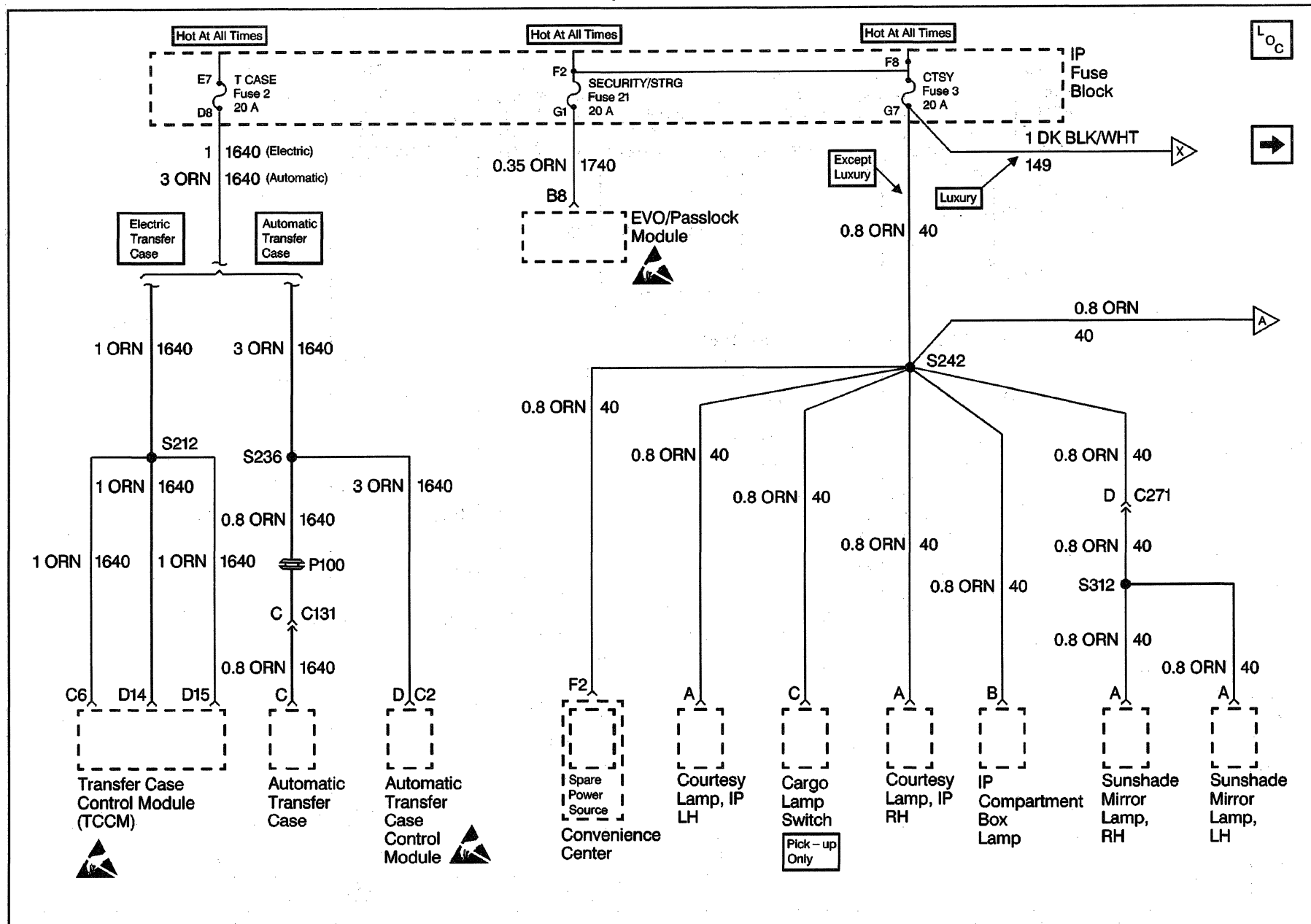
# Power Distribution Schematics (Cell 10: AUX PWR Fuse, PWR — ACCY Circuit Breaker (Luxury))



L<sub>OC</sub>

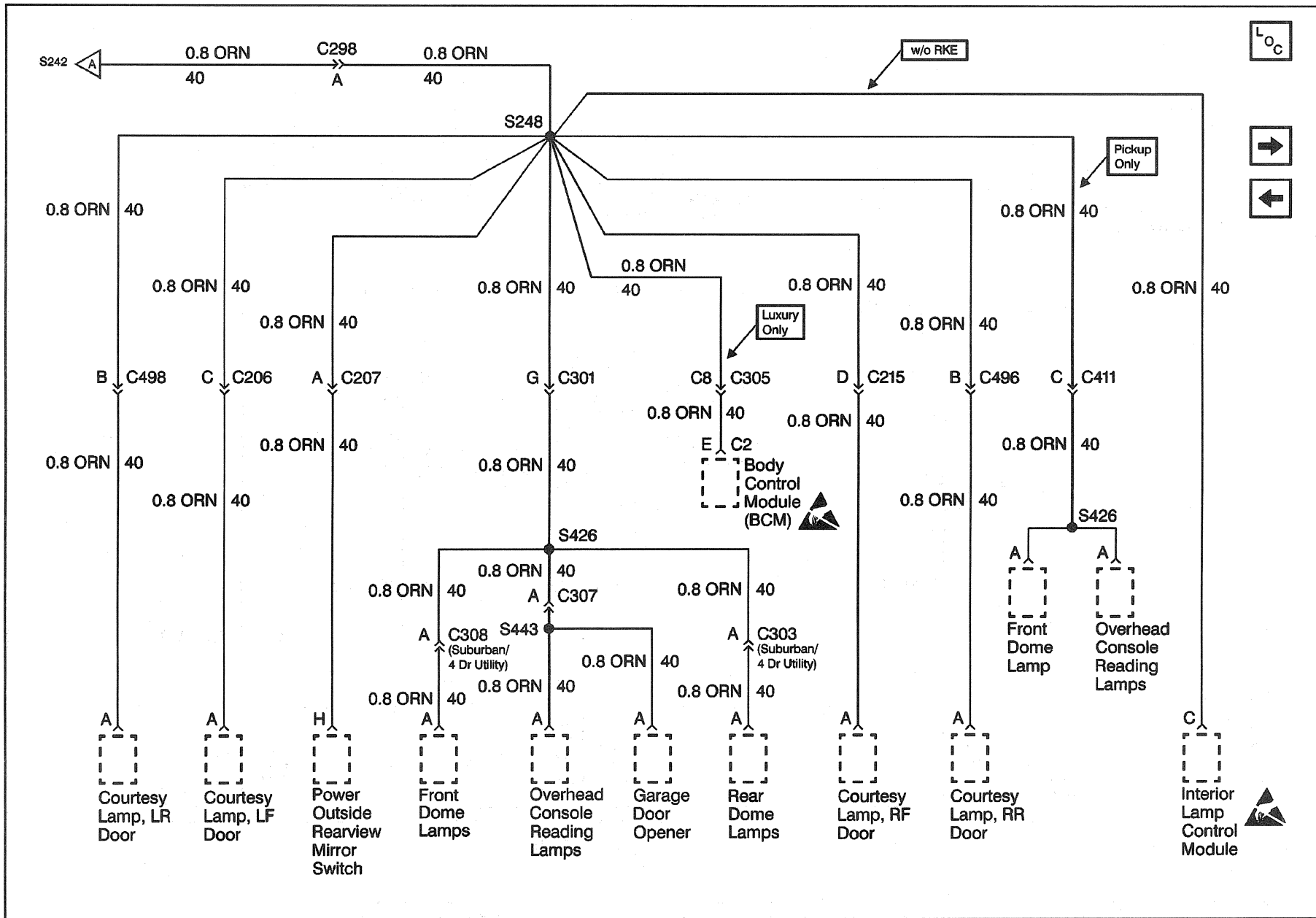


Power Distribution Schematics (Cell 10: T CASE, and CTSY Fuses (1 of 2))

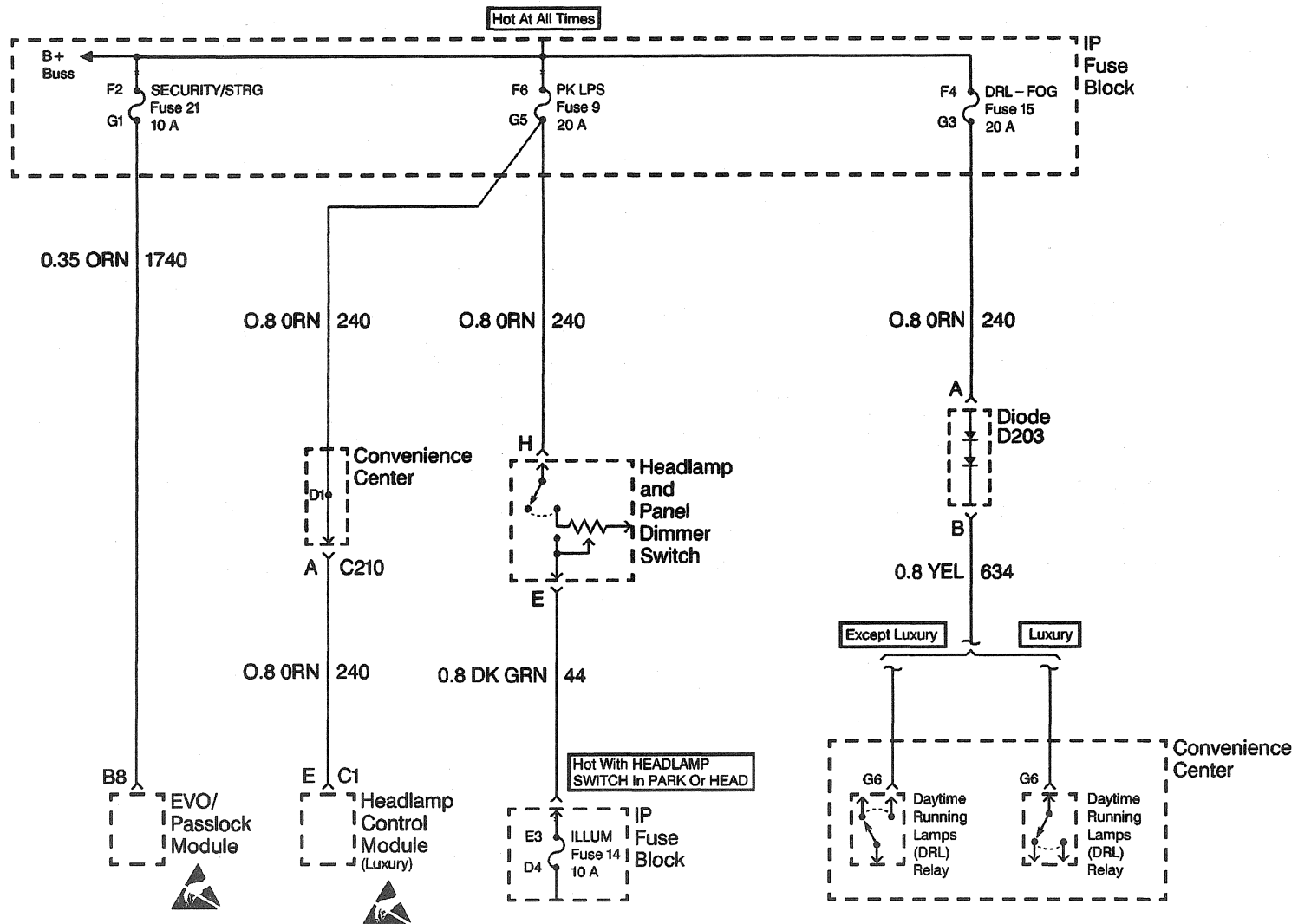


364088

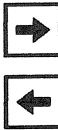
# Power Distribution Schematics (Cell 10: T CASE, and CTSY Fuses (2 of 2))



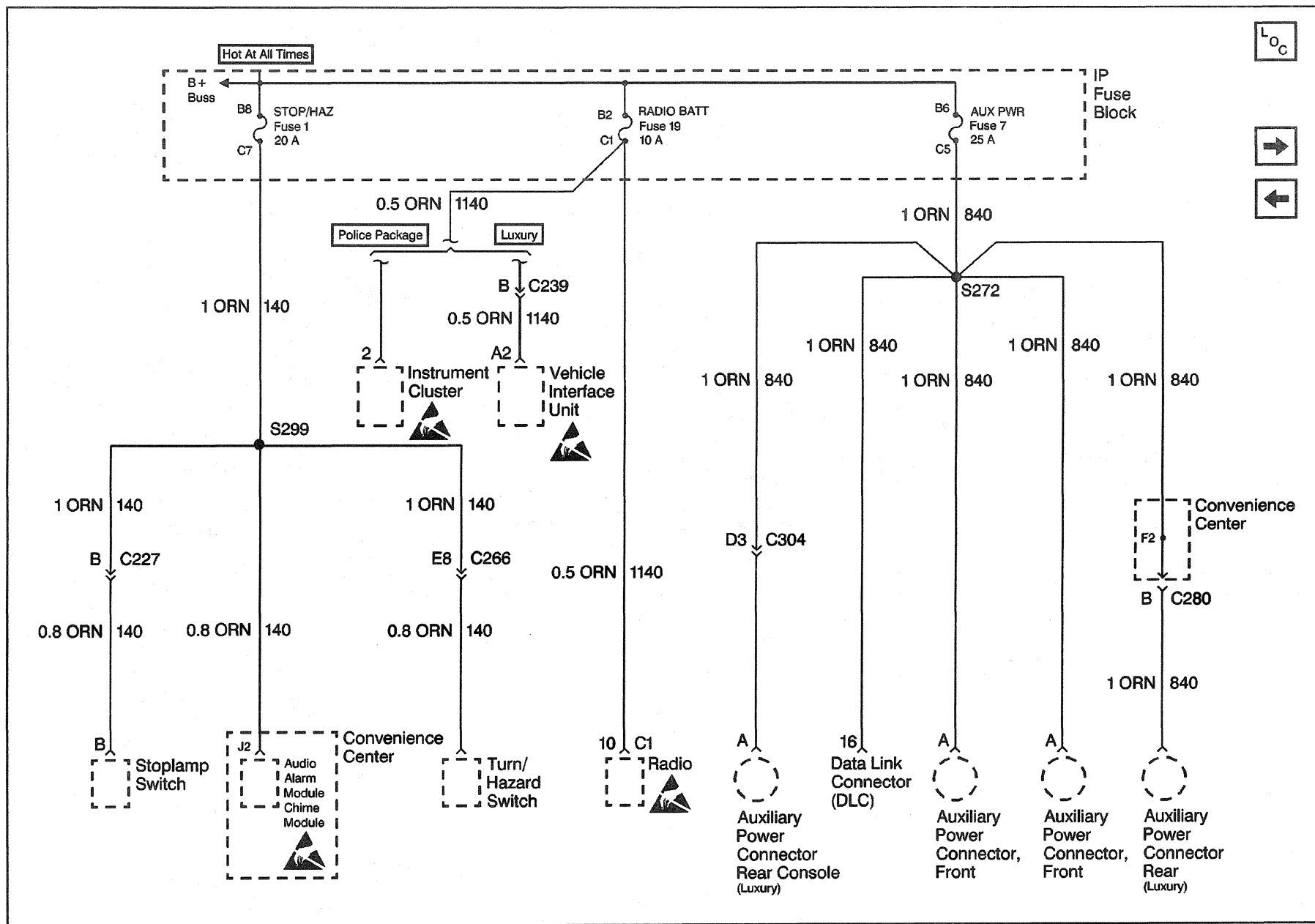
# Power Distribution Schematics (Cell 10: SECURITY/STRG, PK LPS, and DRL-FOG Fuses)



L<sub>OC</sub>



# Power Distribution Schematics (Cell 10: STOP/HAZ, RADIO BATT, and AUX PWR Fuses)



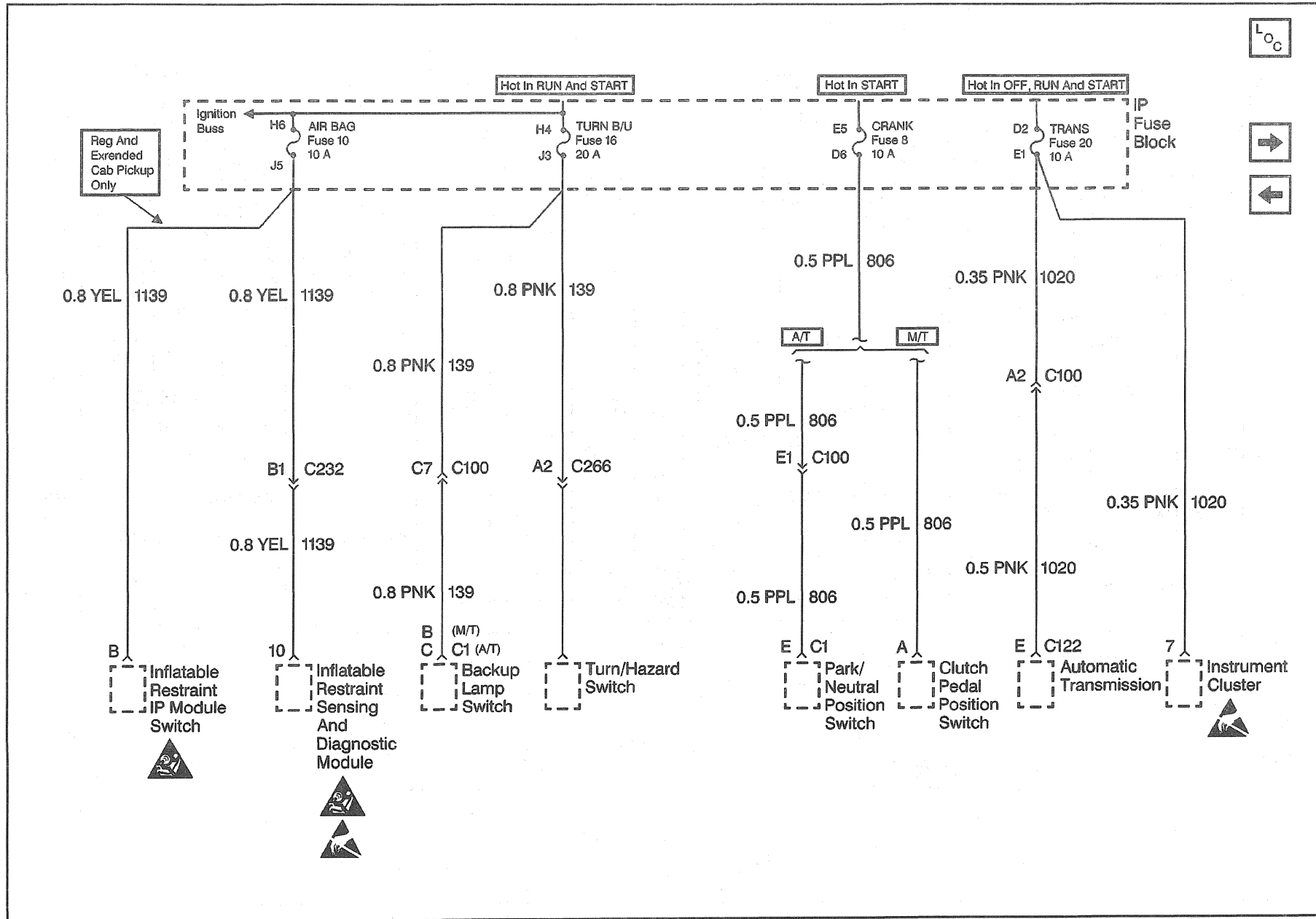
364095

## 8-368 Wiring Systems

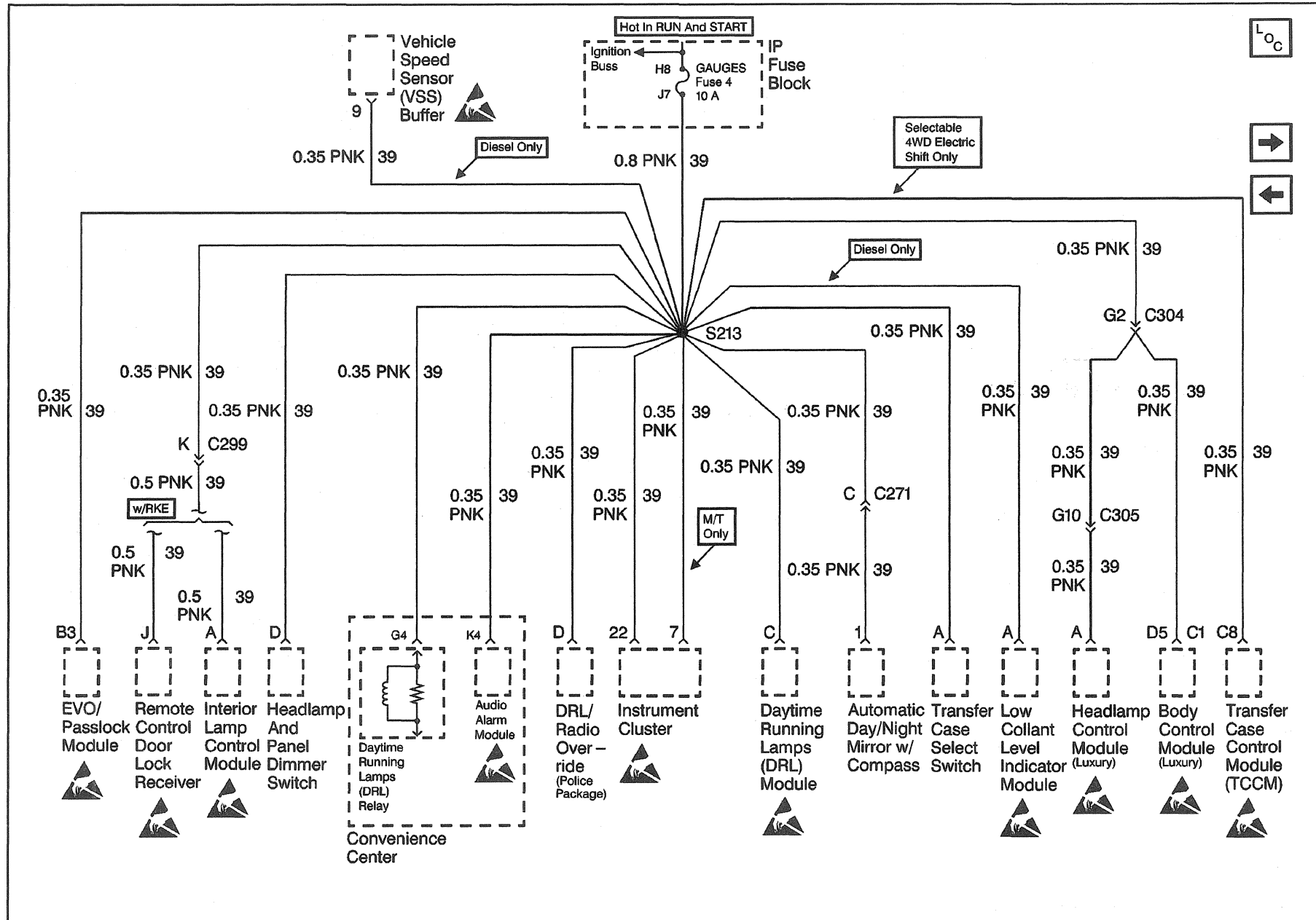


364097

# Power Distribution Schematics (Cell 10: AIR BAG, TURN B/U, CRANK, and TRANS Fuses)



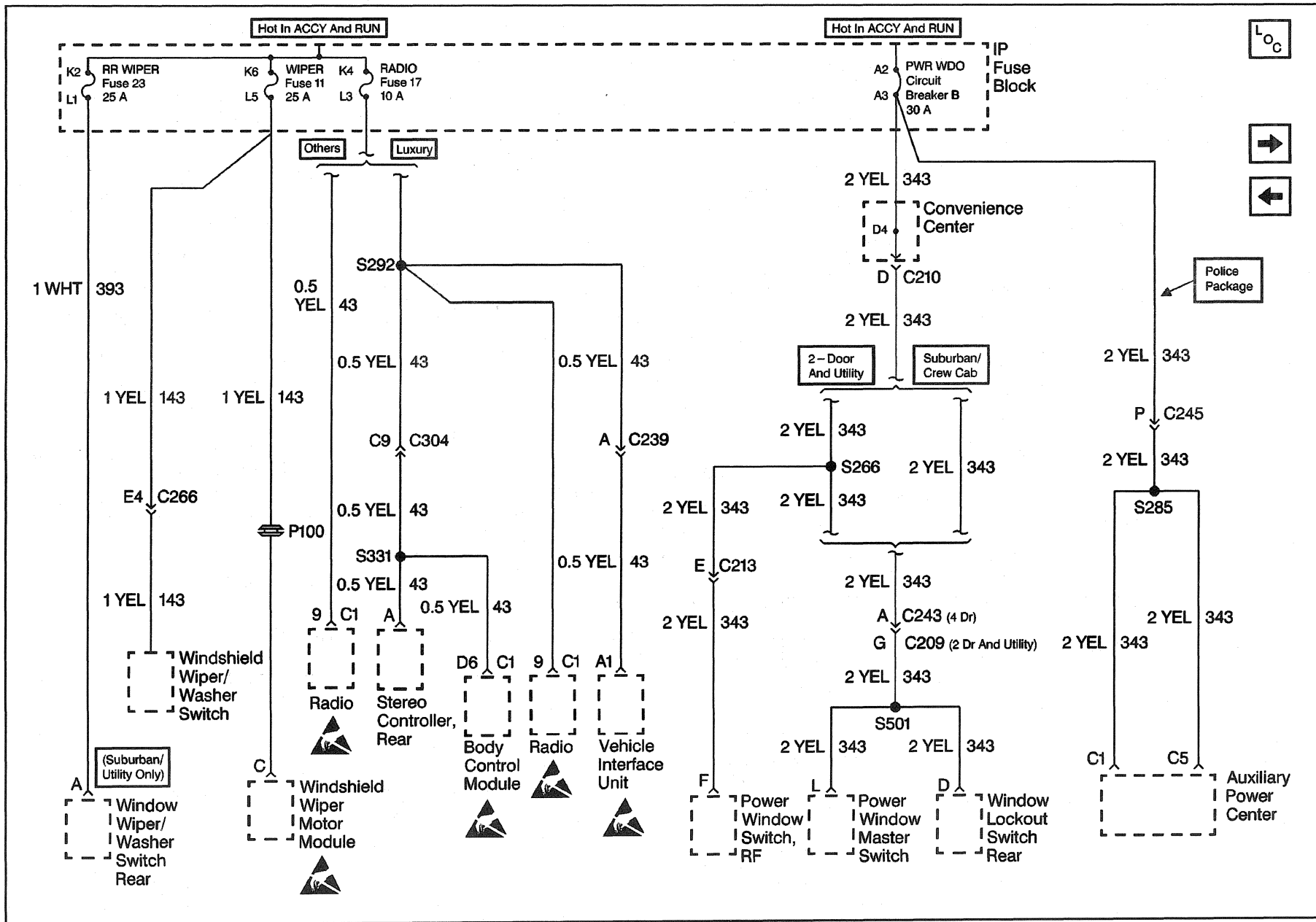
# Power Distribution Schematics (Cell 10: GAUGES Fuse)



364104



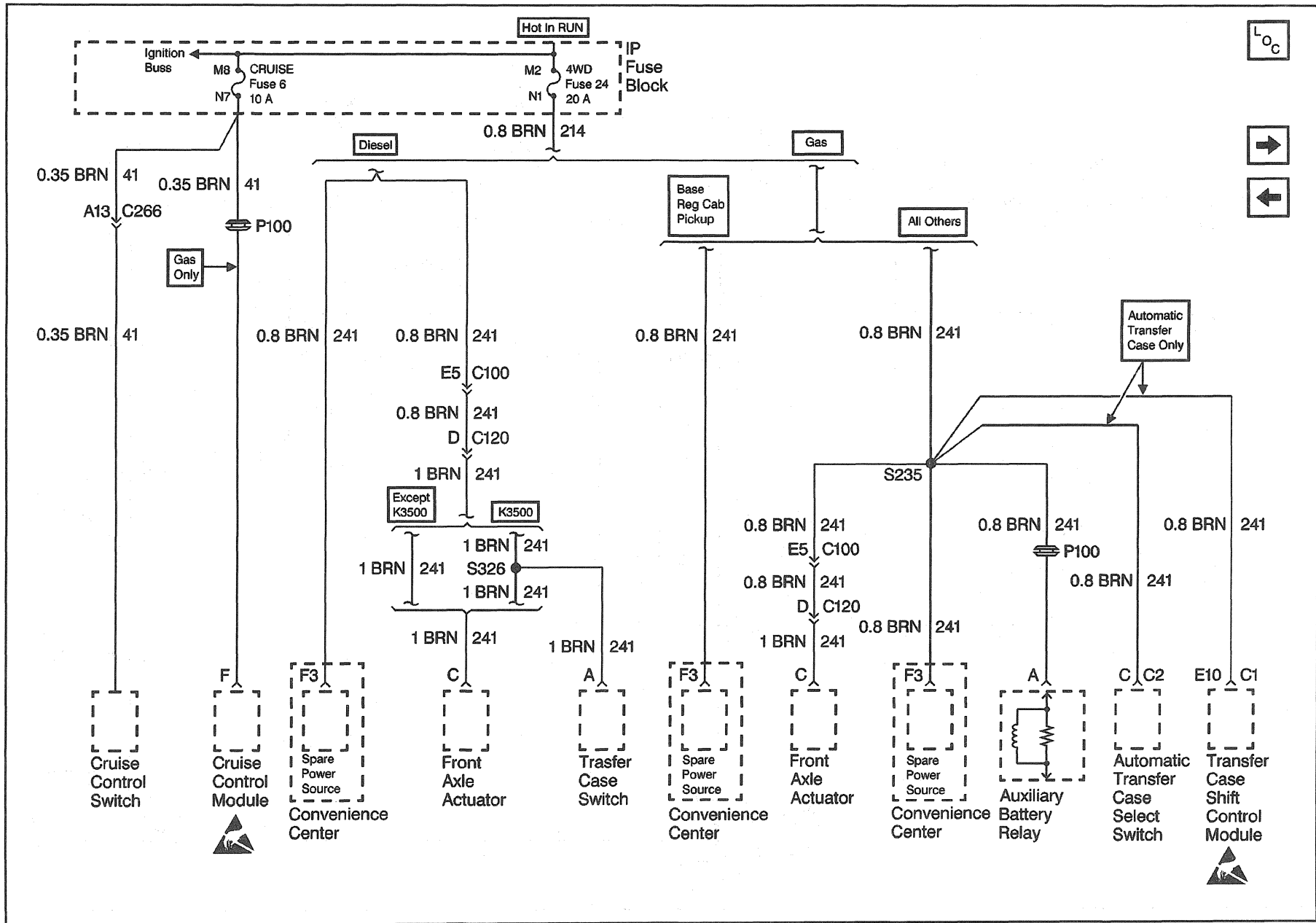
Power Distribution Schematics (Cell 10: RR WIPER, WIPER, RADIO, and PWR WDO Circuit Breaker)



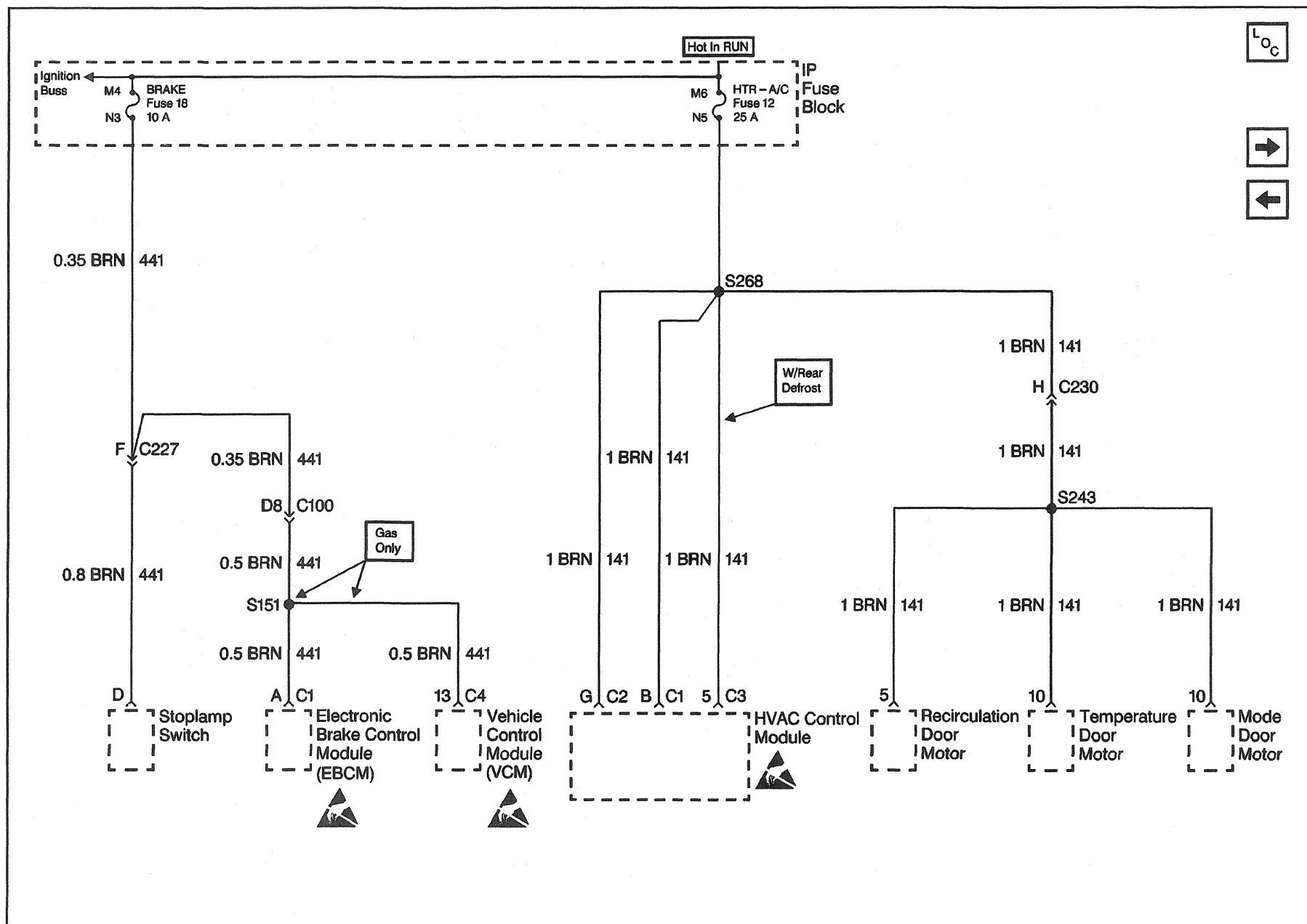
## 8-372 Wiring Systems



# Power Distribution Schematics (Cell 10: CRUISE and 4WD Fuses)



# Power Distribution Schematics (Cell 10: BRAKE and HTR-A/C Fuses)

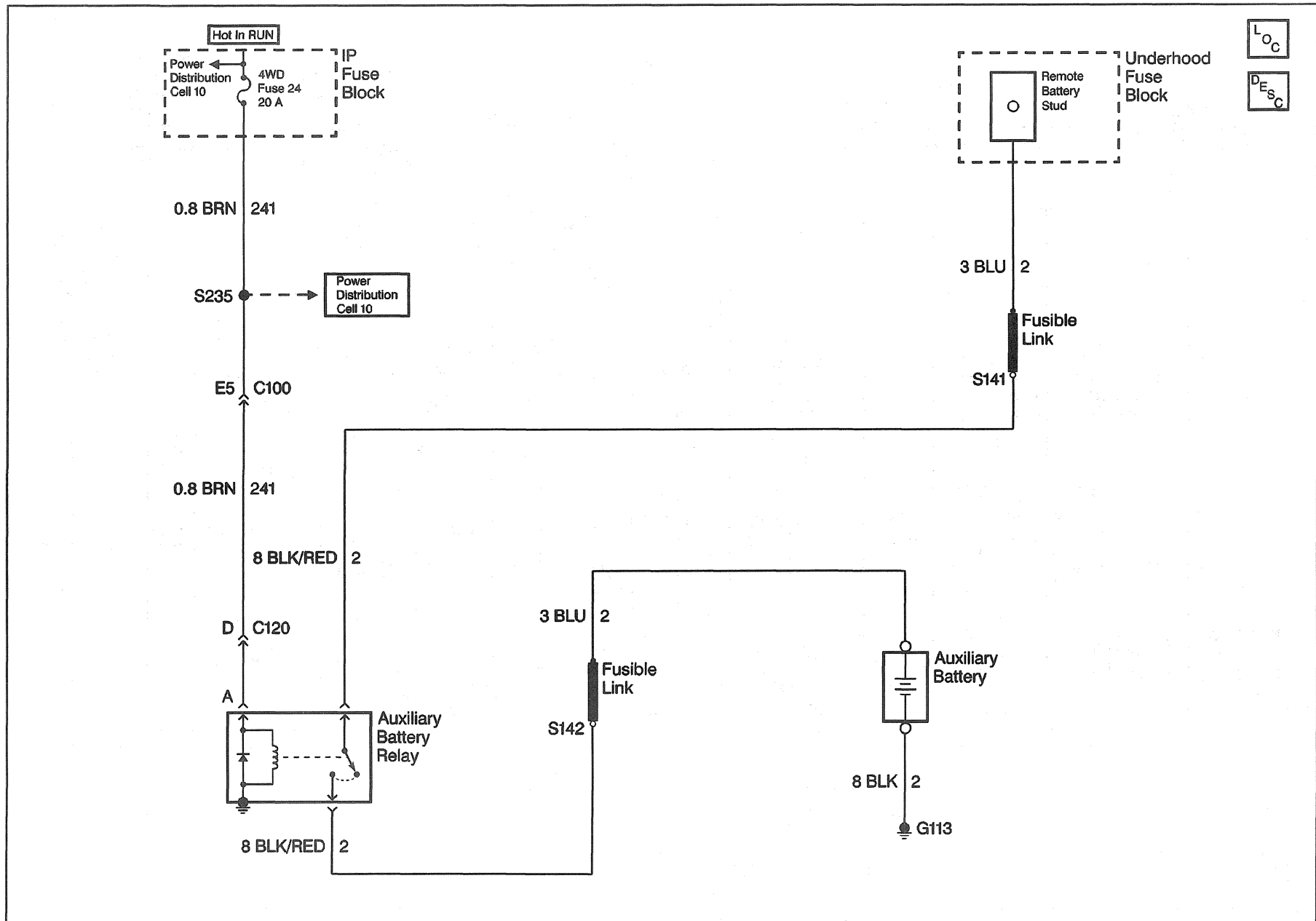


364130

## Body and Accessories

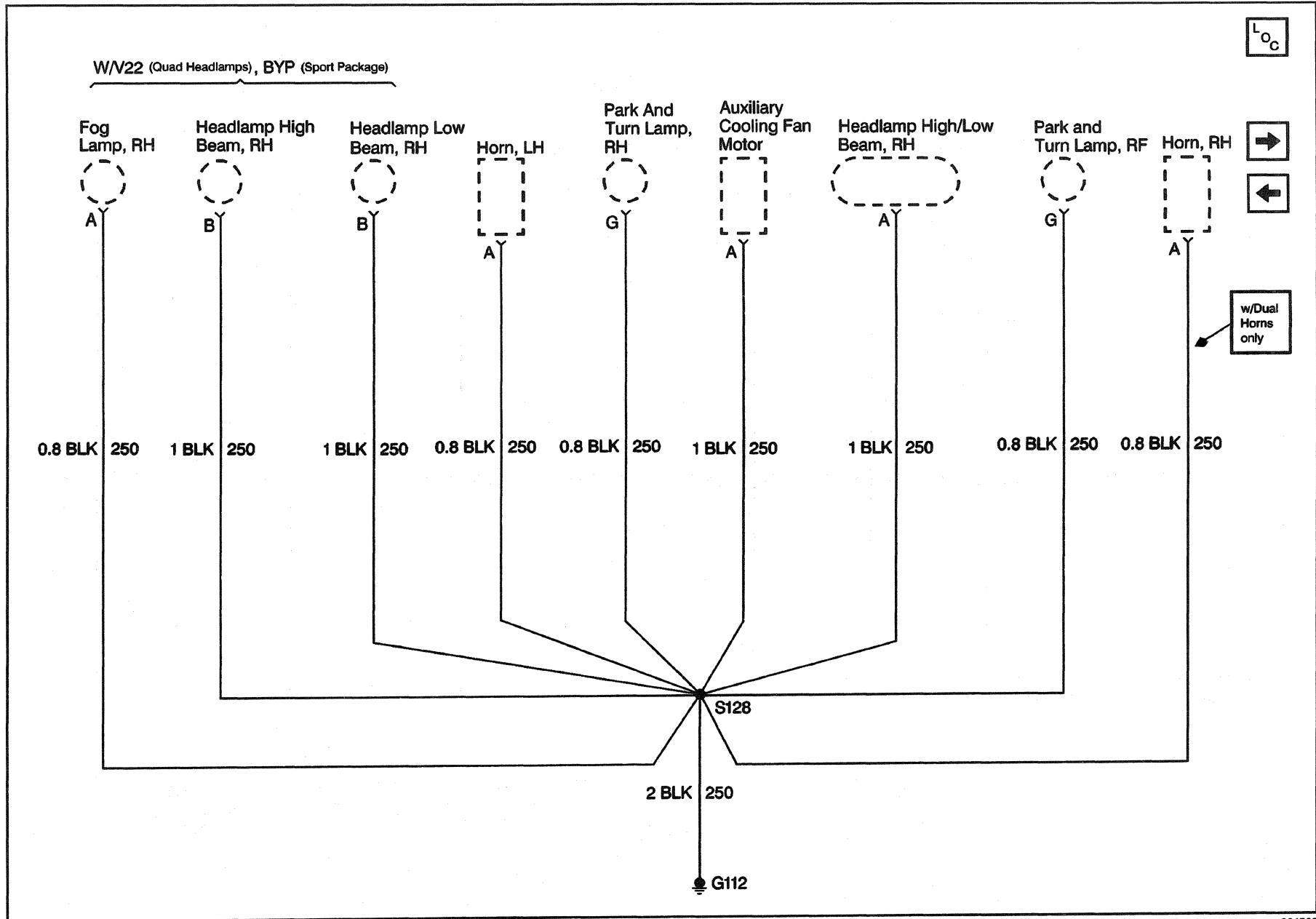


# Auxiliary Battery Schematics (Cell 17: Auxiliary Battery, Relay, Remote Battery Stud and Fusible Links)

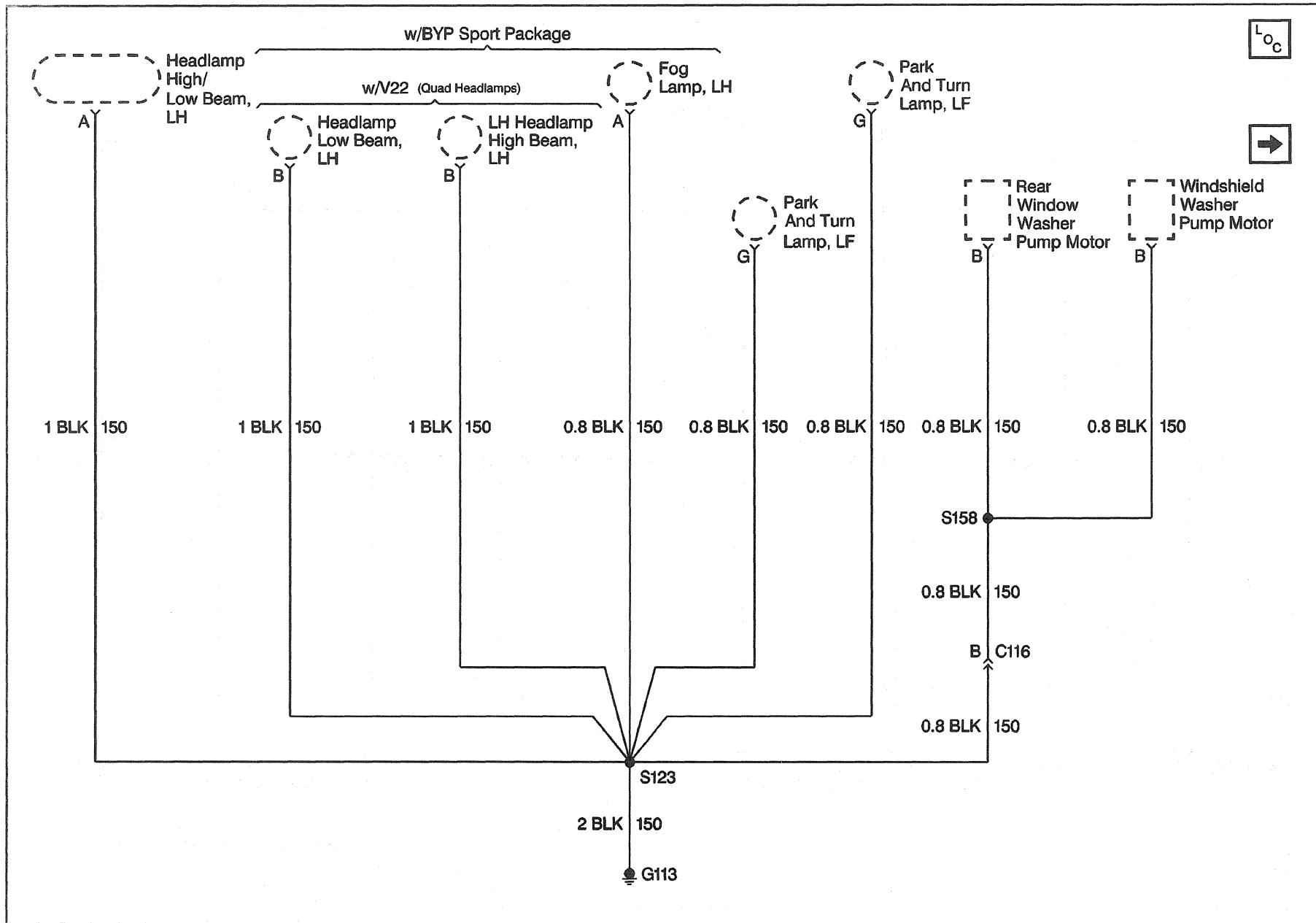


259797

# Ground Distribution Schematics (Cell 14: G112)

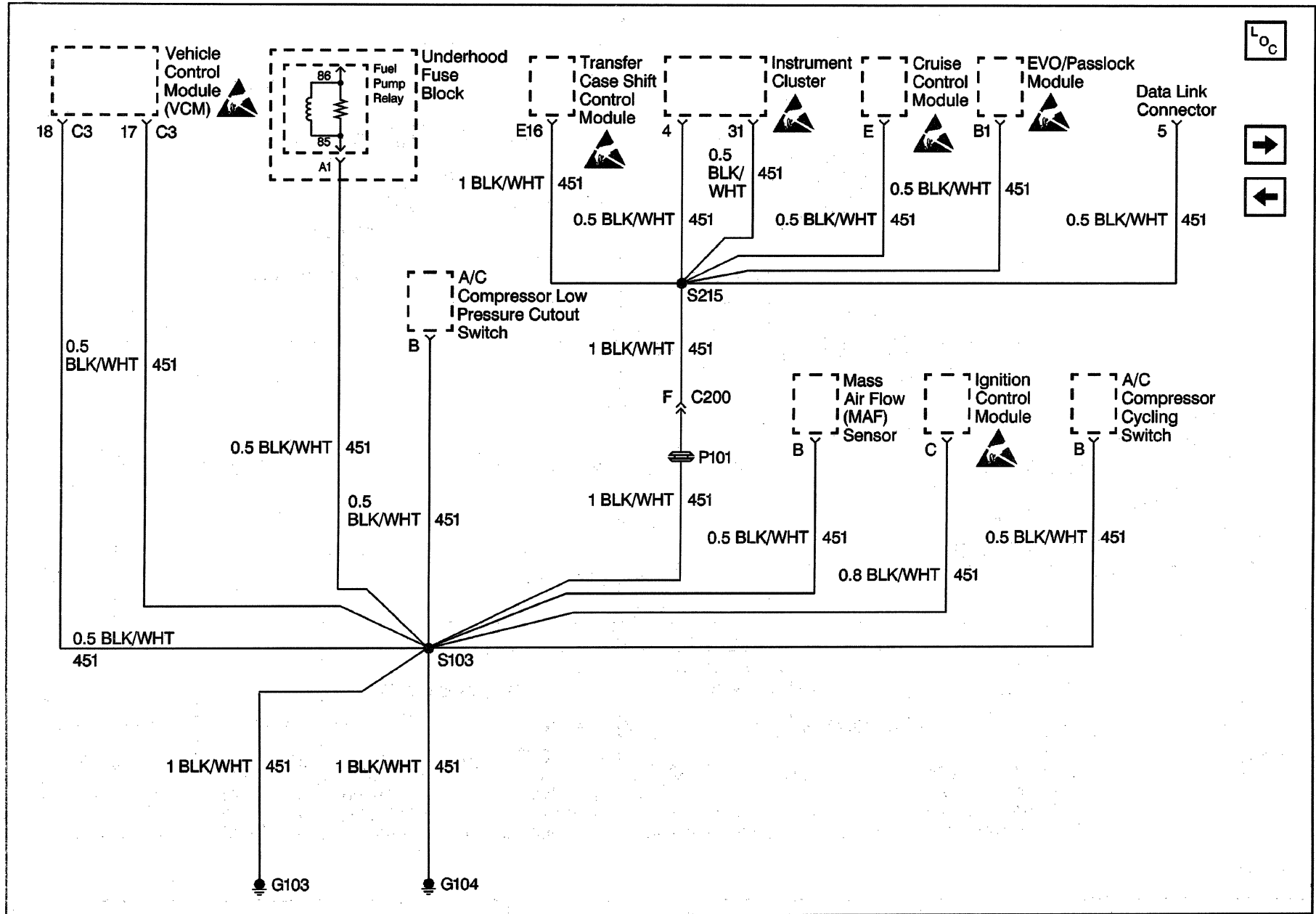


# Ground Distribution Schematics (Cell 14: G113)

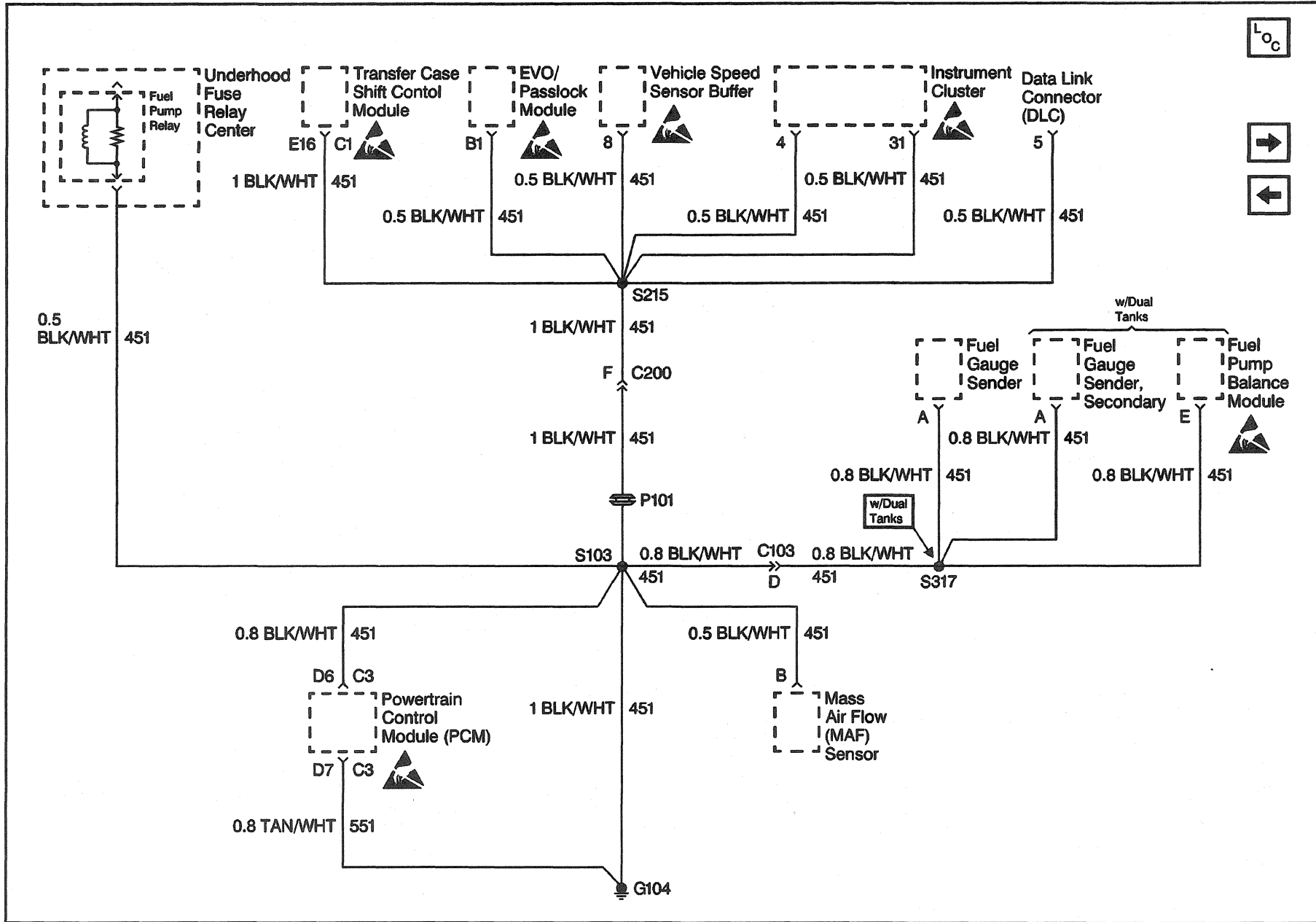




Ground Distribution Schematics (Cell 14: G103 and G104)



# Ground Distribution Schematics (Cell 11: G104 Diesel)

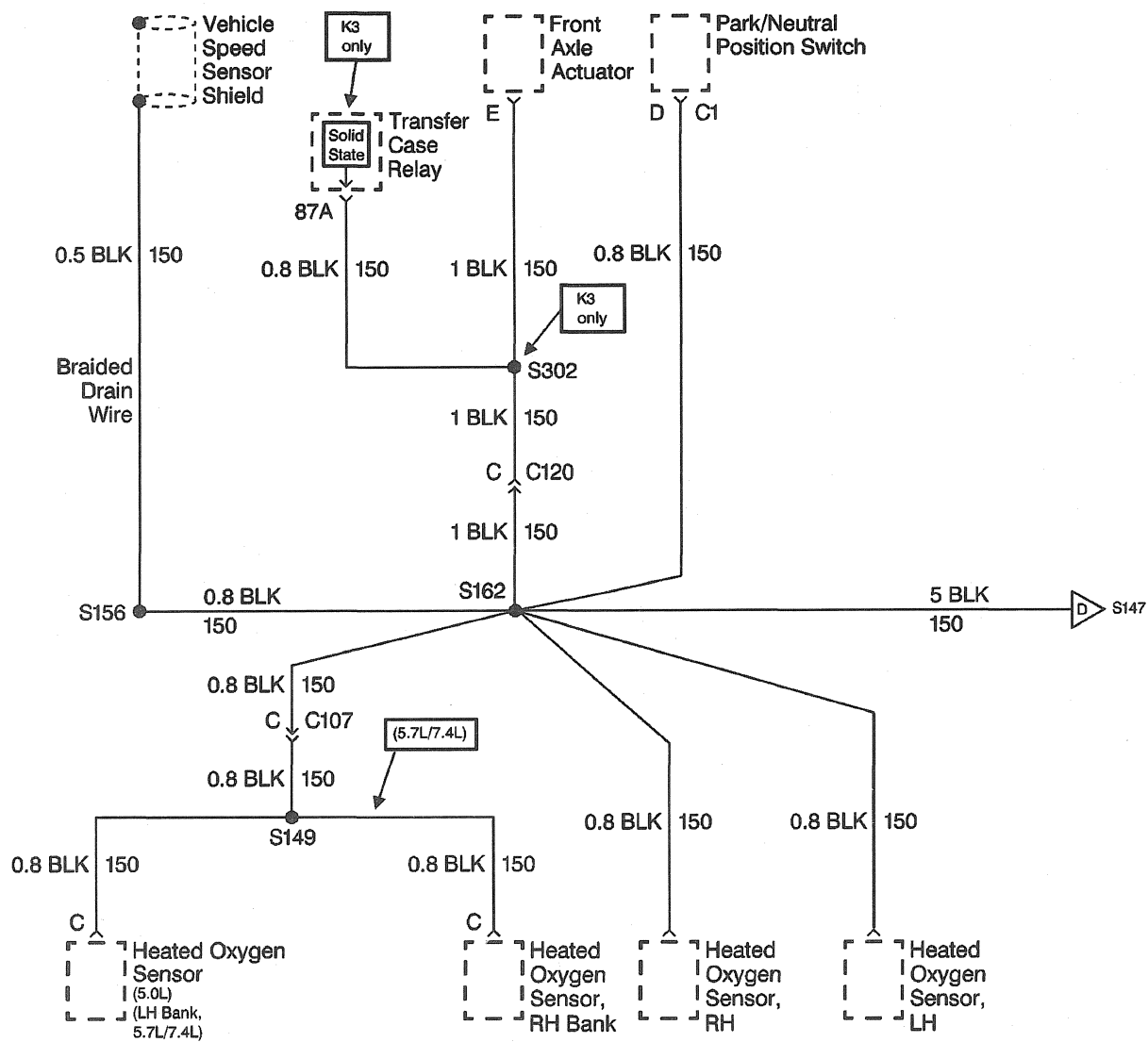


364605

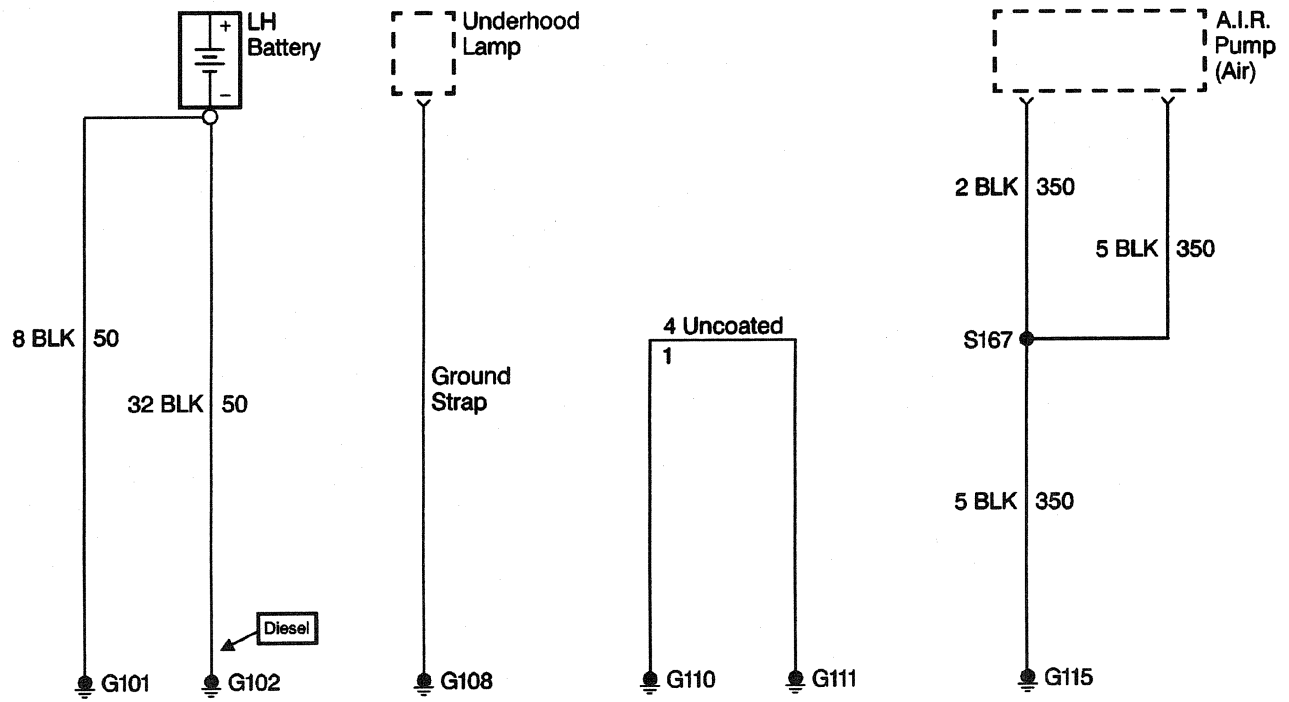
## Body and Accessories



## LOC



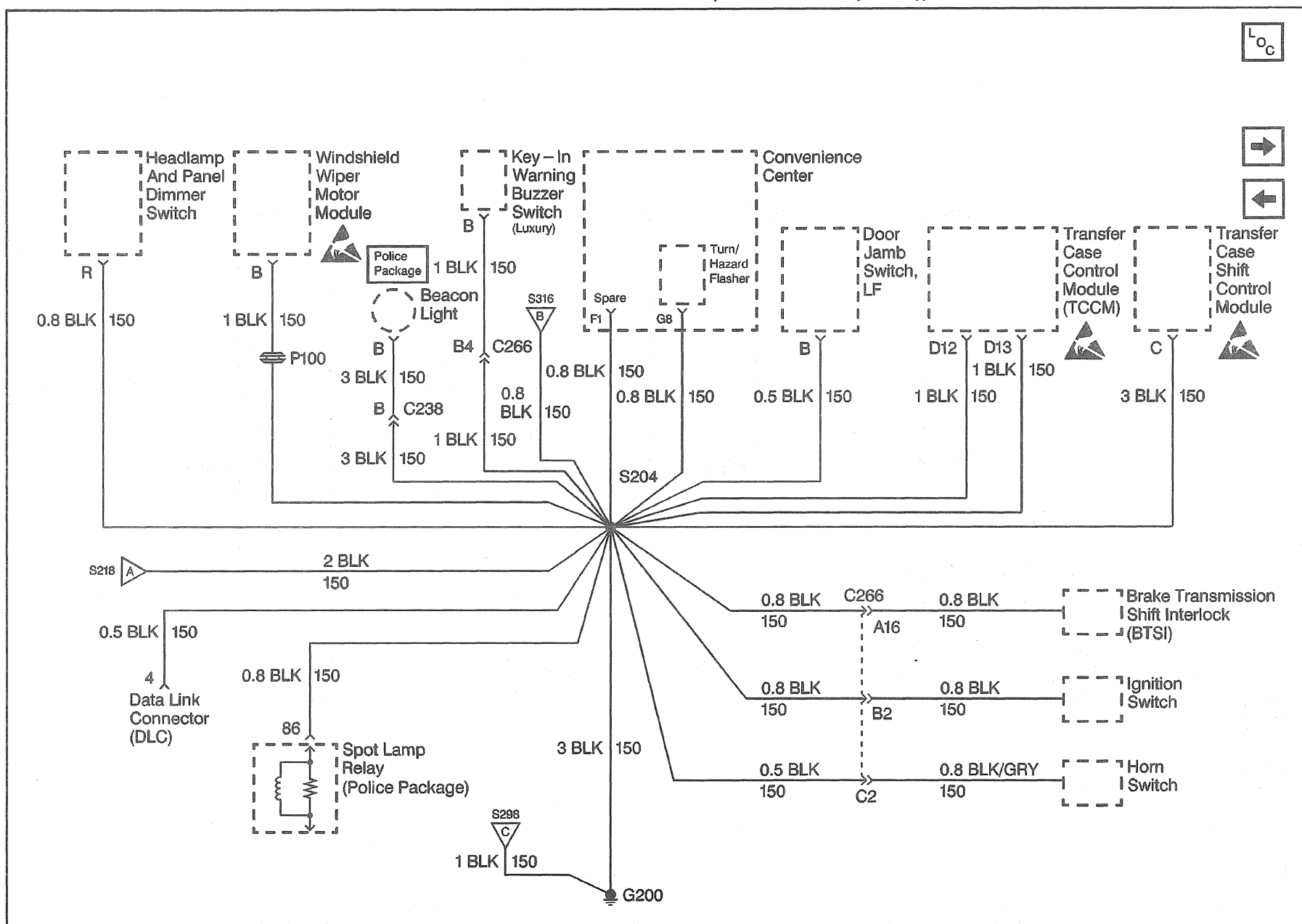
Ground Distribution Schematics (Cell 14: G101, G102, G108, G110, G111 and G115)



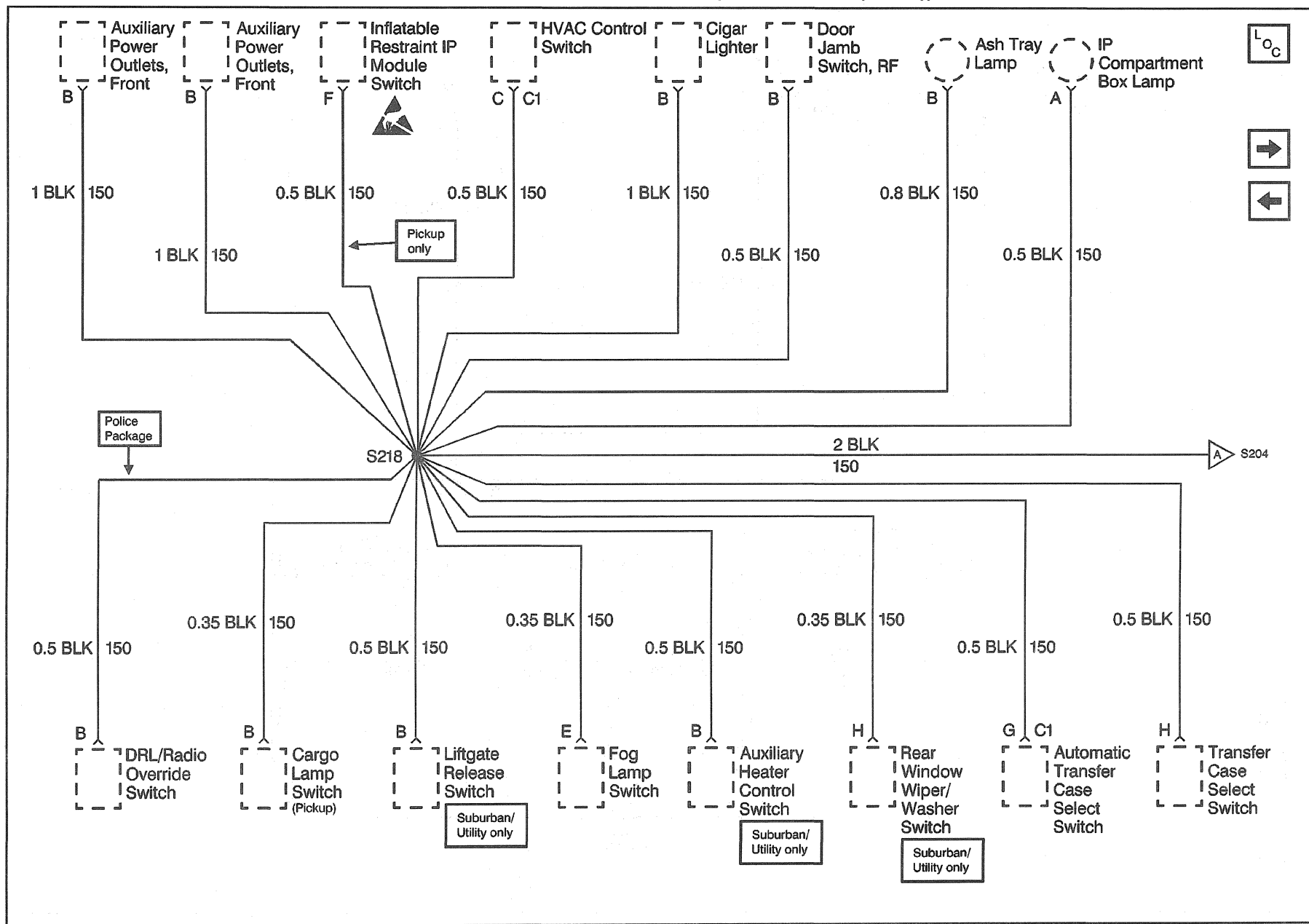
L<sub>O</sub>C



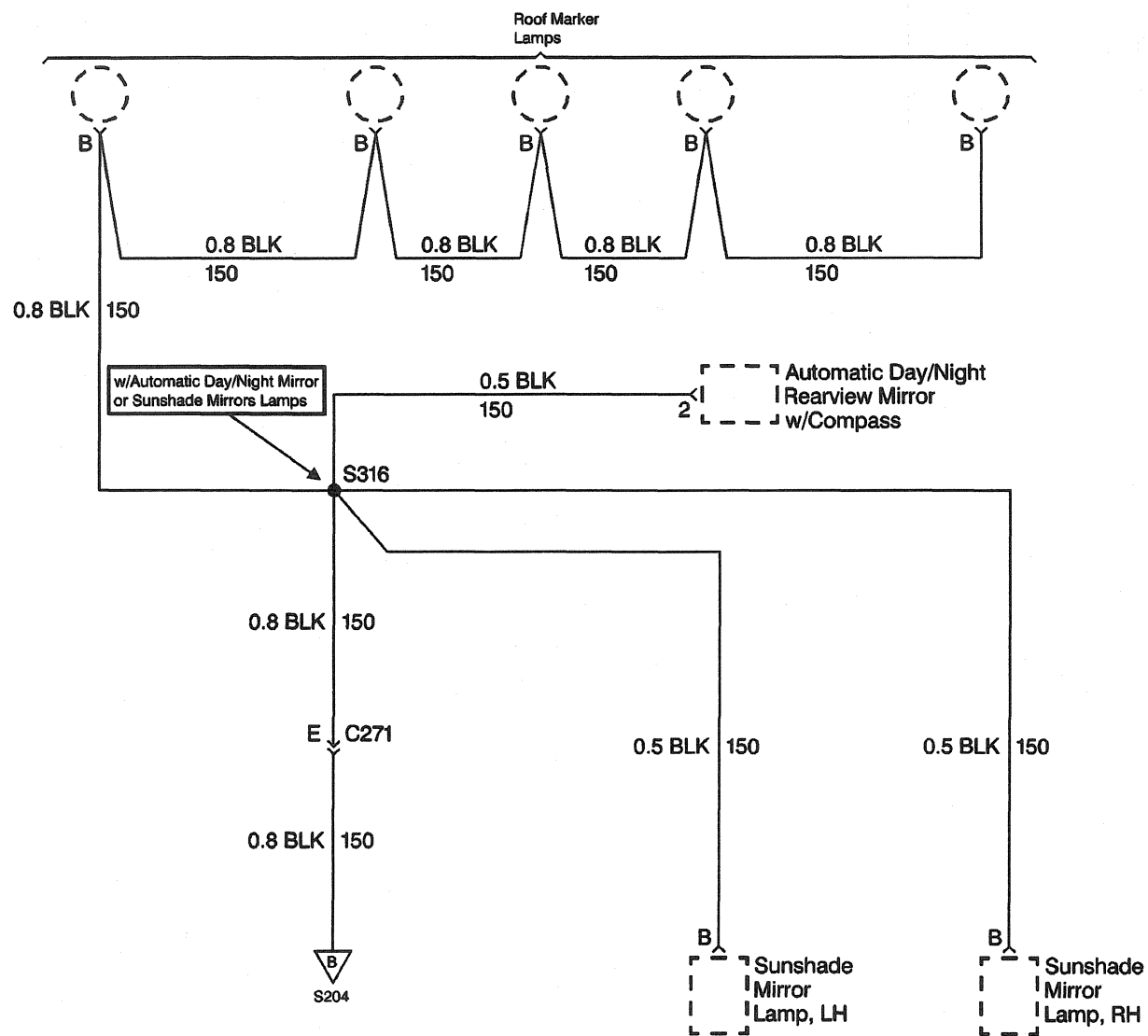
# Ground Distribution Schematics (Cell 14: G200 (1 of 4))



# Ground Distribution Schematics (Cell 14: G200 (2 of 4))



# Ground Distribution Schematics (Cell 14: G200 (3 of 4))

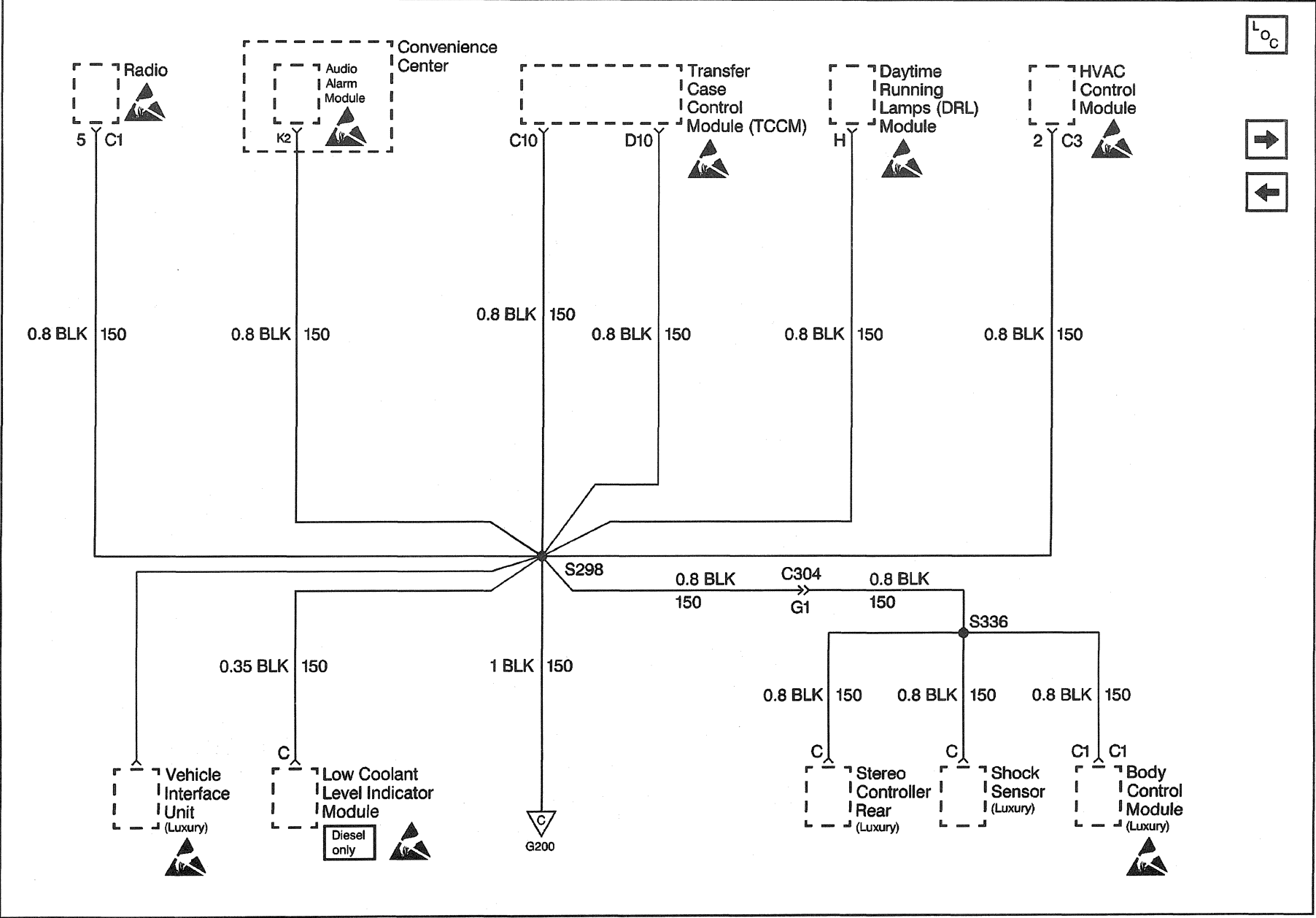


L<sub>OC</sub>





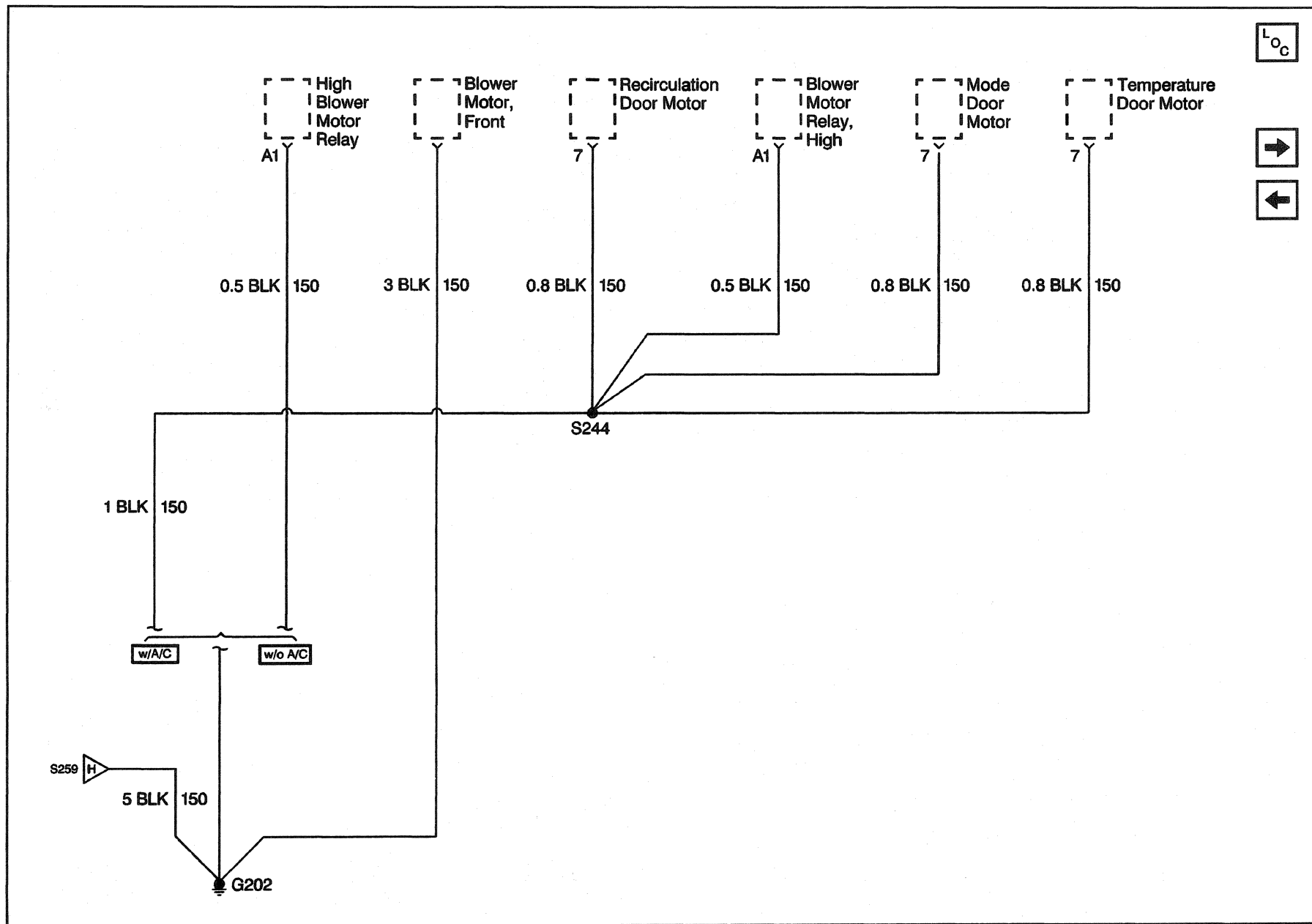
Ground Distribution Schematics (Cell 14: G200 (4 of 4))



## 8-388 Wiring Systems

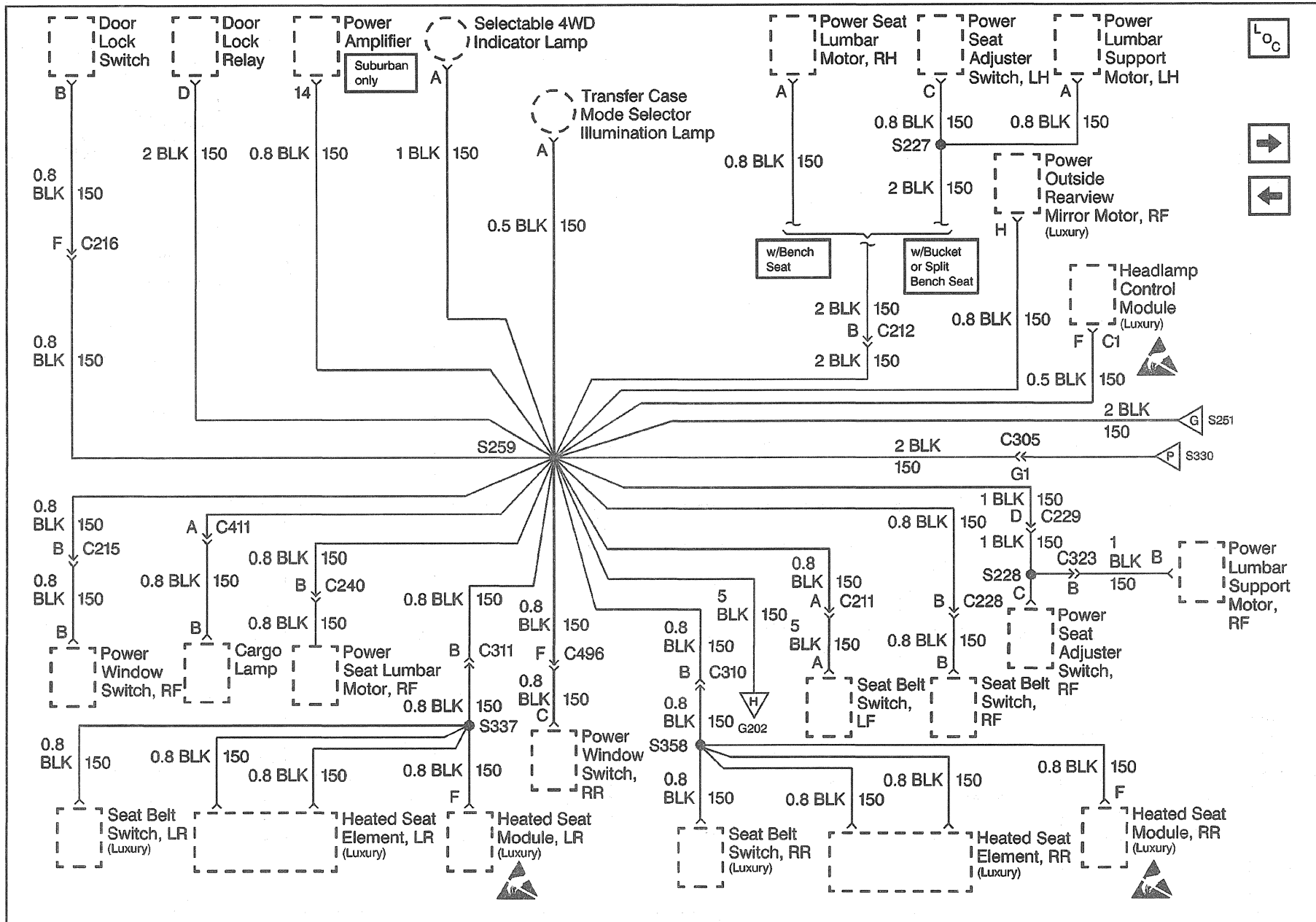


# Ground Distribution Schematics (Cell 14: G202 (1 of 4))



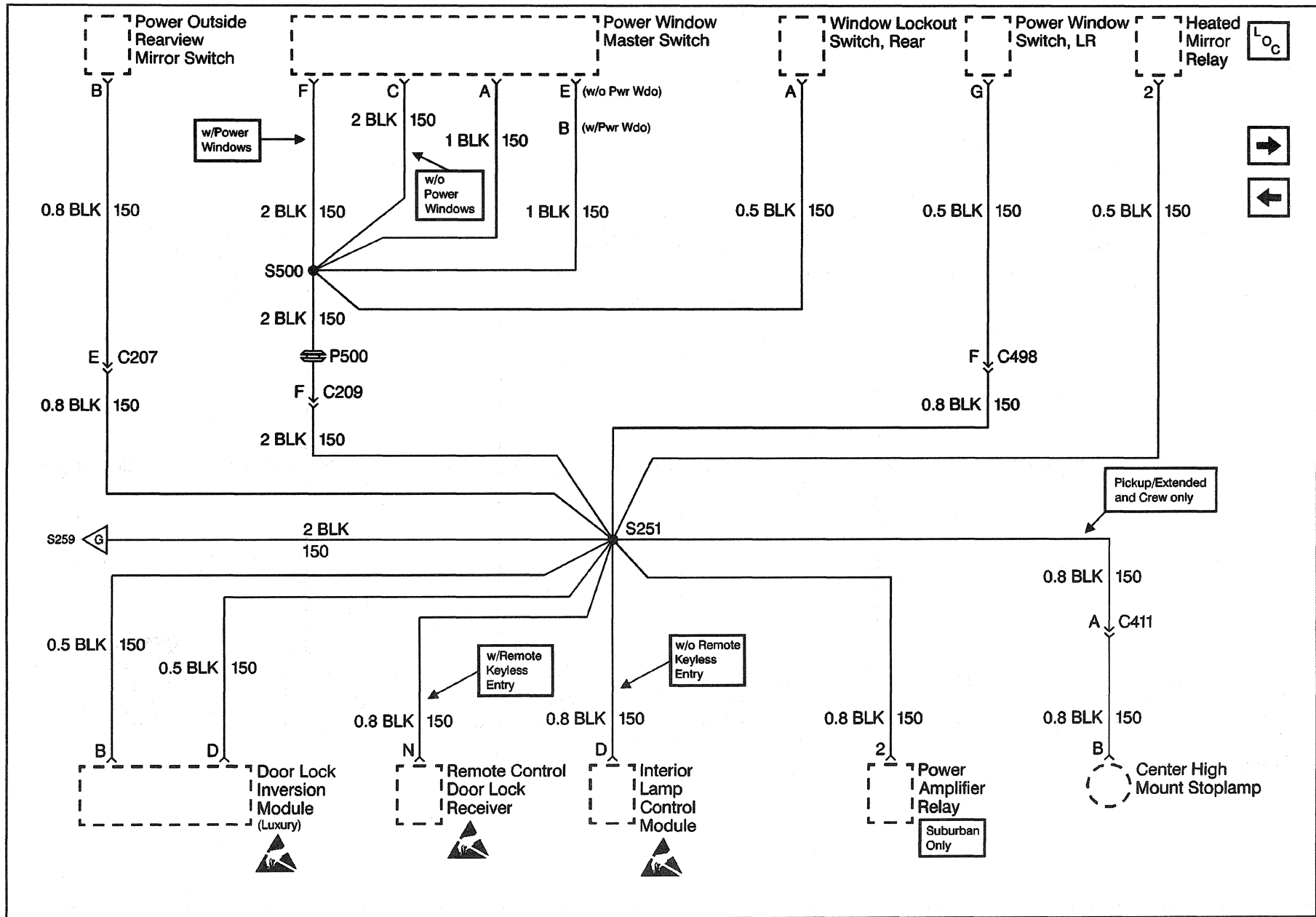
364637

Ground Distribution Schematics (Cell 14: G202 (2 of 4))

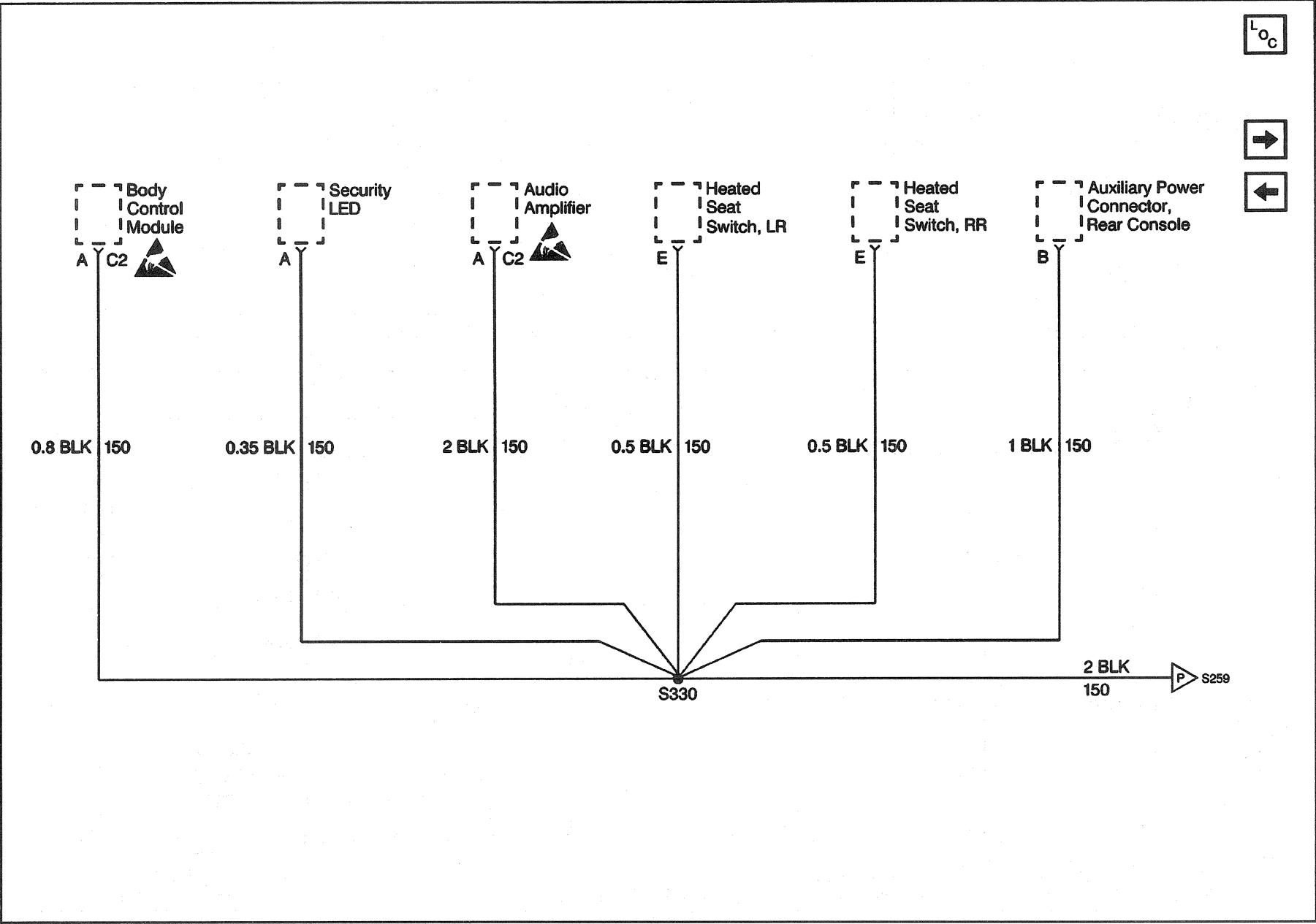


364633

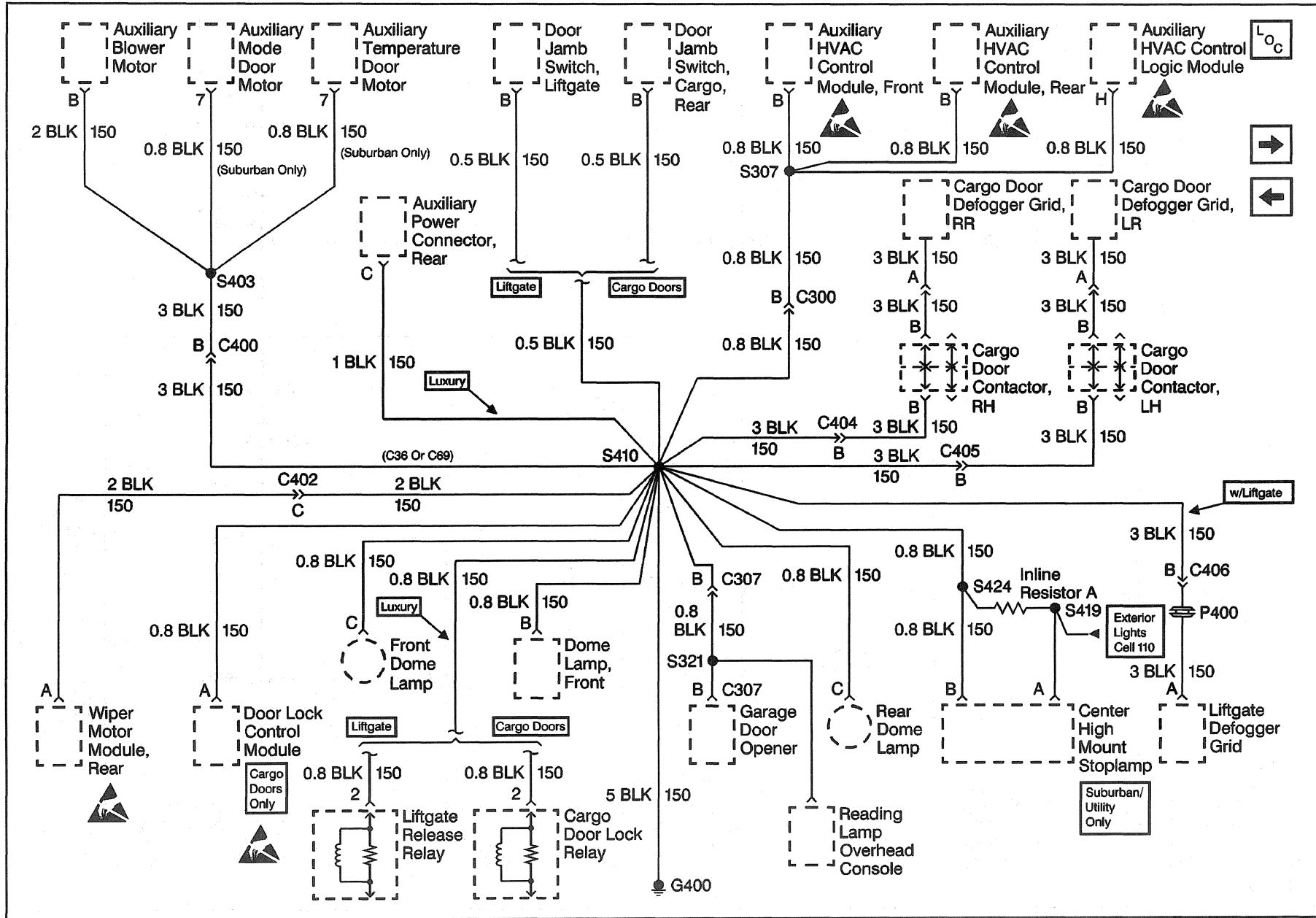
Ground Distribution Schematics (Cell 14: G202 (3 of 4))



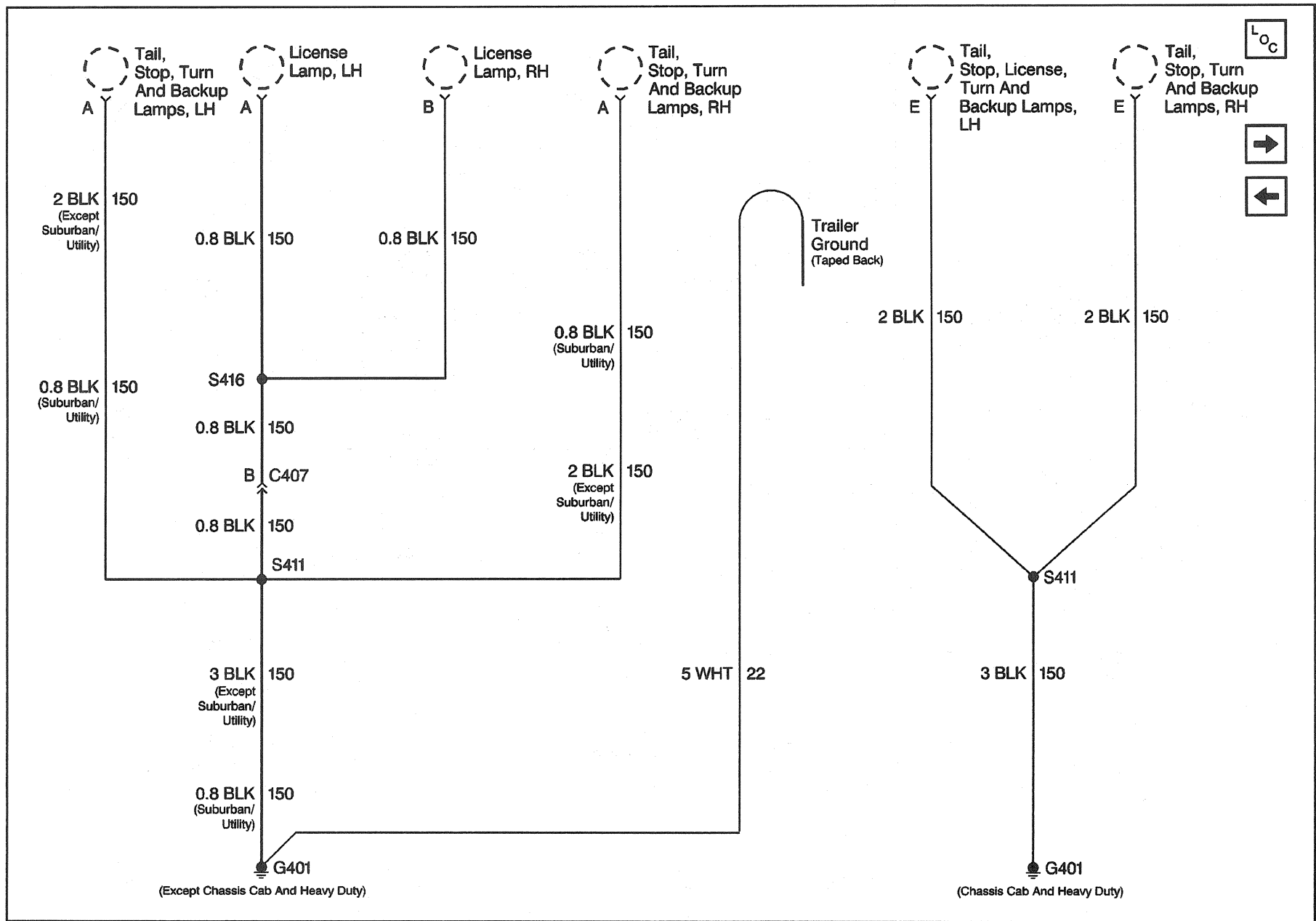
Ground Distribution Schematics (Cell 14: G202 (4 of 4))



Ground Distribution Schematics (Cell 14: G400)



# Ground Distribution Schematics (Cell 14: G401 and G403)

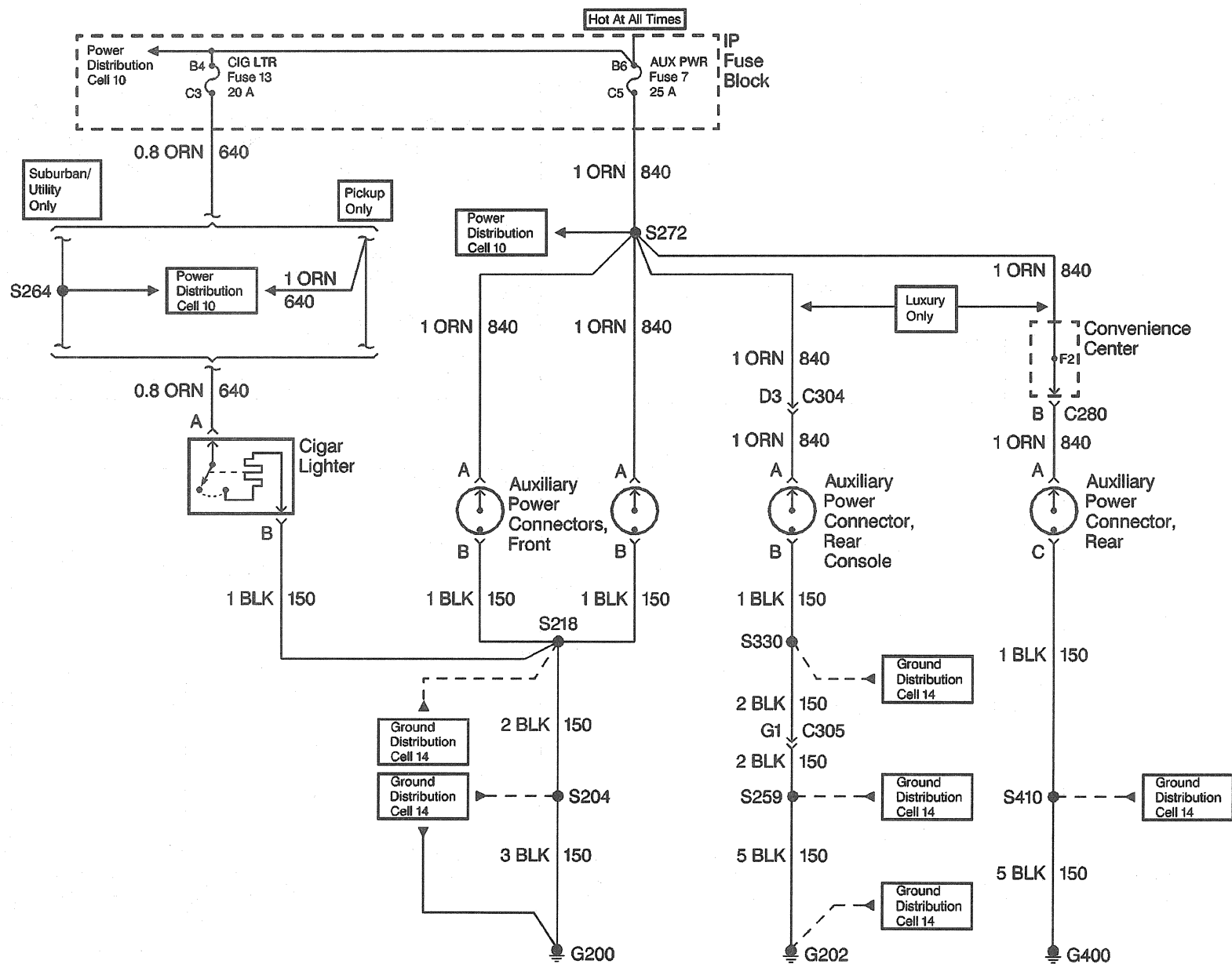




## Body and Accessories



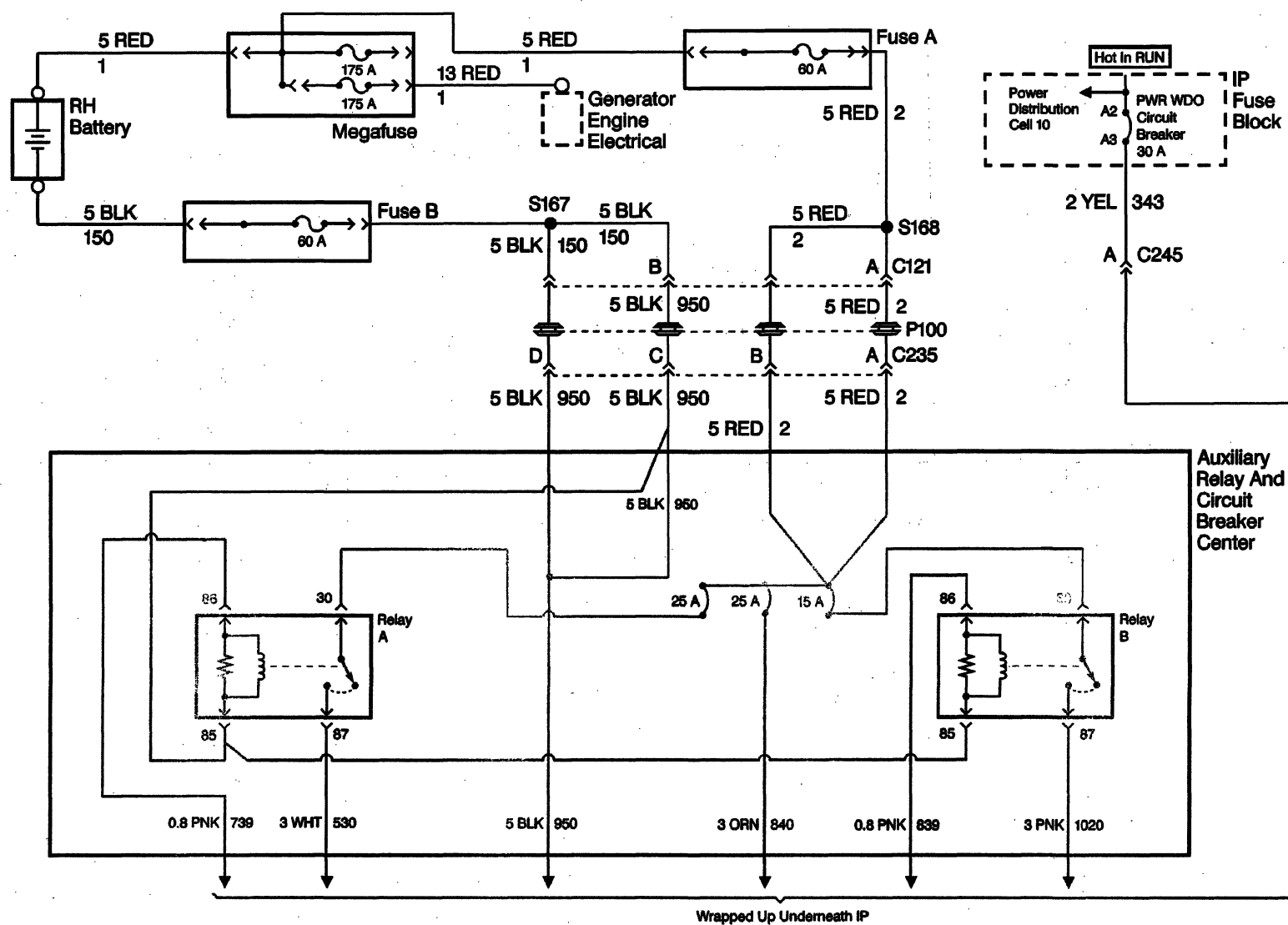
# Cigar Lighter/Auxiliary Outlets Schematics (Fuses, Auxiliary Power Connectors and Cigar Lighter)



## Body and Accessories



# Upfitter Provision Schematics (Cell 10: Megafuse, Auxiliary Relay Center (w/6J1))



LOC

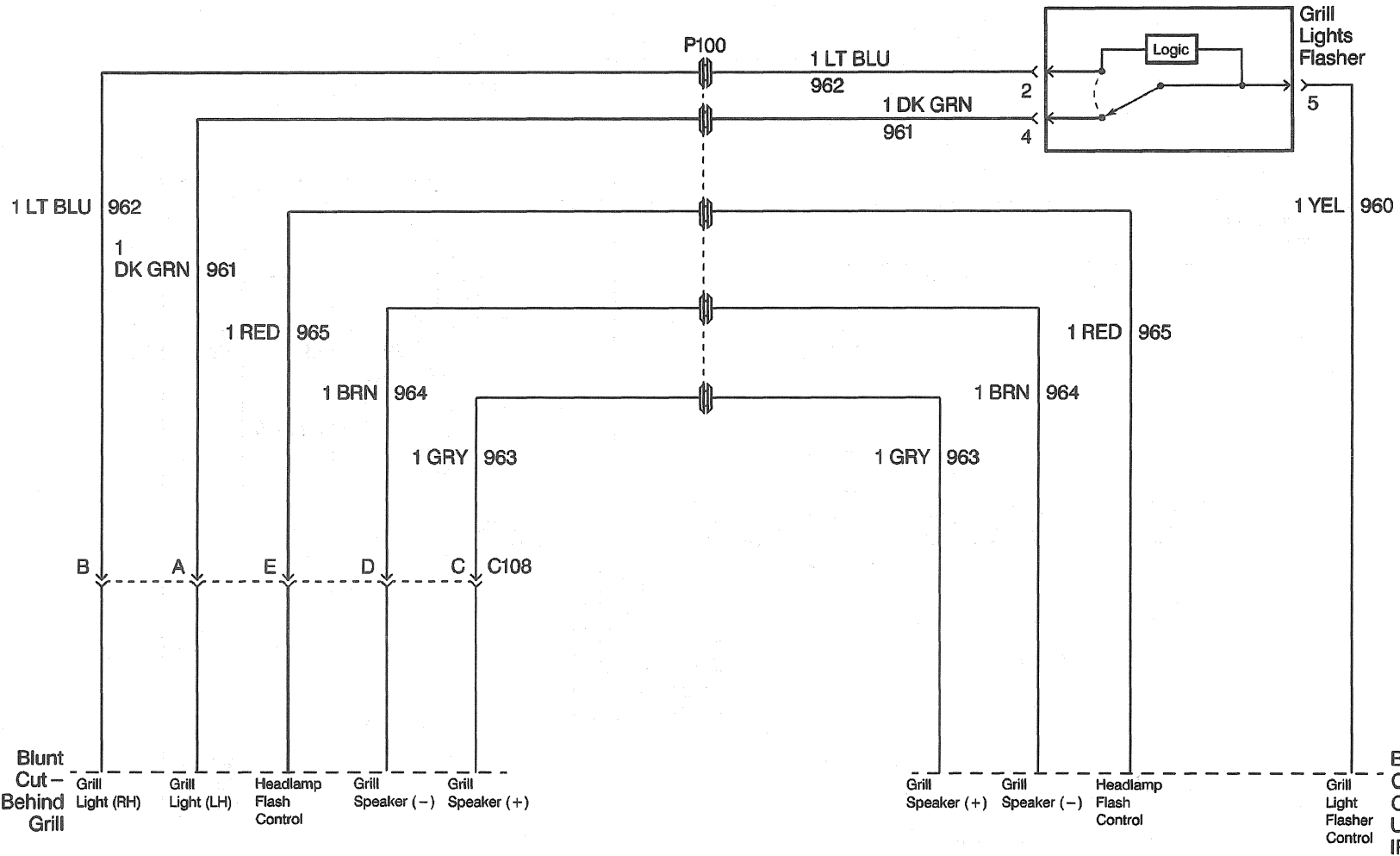


## Body and Accessories



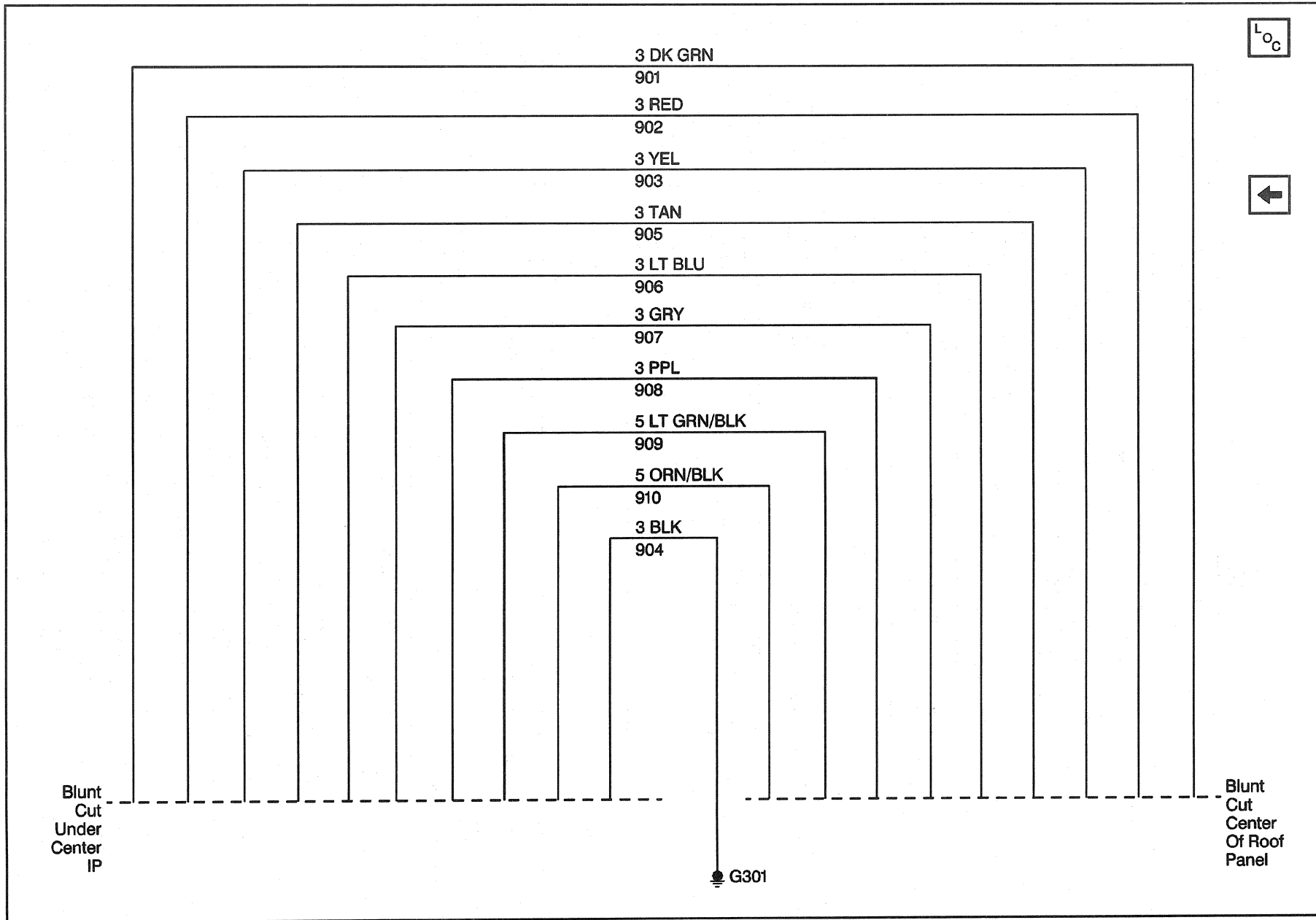
# Upfitter Provision Schematics (Grill Lights and Speaker Wiring)

Loc



411553

## Upfitter Provision Schematics (Roof Mounted Accessories)



## Component Locator

## Power and Grounding Components

Name	Location	Locator View	Connector End View
A/C Compressor Clutch	On the front of the A/C compressor, in the left front side of the engine	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
A/C Compressor Clutch Relay	In the Underhood Fuse Block, in the left rear side of the engine compartment, on the fender	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
A/C Compressor Cycling Switch	On the top right of the A/C accumulator, in the right side of the engine compartment, on the bulkhead	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
A/C Compressor High Pressure Cutout Switch	On the rear of the A/C compressor, in the left front side of the engine	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
A/C Compressor Low Pressure Cutout Switch	On the top of the A/C compressor, in the high pressure refrigerant line	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Air Injection Reaction (A.I.R.) Pump (5.7L)	LF of Engine Compartment	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Air Injection Reaction (A.I.R.) Pump Clutch (7.4L)	Lower RF of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Air Injection Reaction (A.I.R.) Pump Relay	In Underhood Fuse Block Center, LR of Engine Compartment, on Fender	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Ash Tray Lamp	In the ash tray housing	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Audio Alarm Module	In the convenience center	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Audio Amplifier (Luxury)	Underneath the Center Floor Console	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Automatic Day-Night Mirror with Compass	On the top inside center of the windshield	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Automatic Transfer Case Select Switch	At the center of IP, right of the Steering Column	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Auxiliary Battery (Diesel)	In the left front side of the engine compartment	<i>Power and Grounding Component Views in Wiring Systems</i>	—
Auxiliary Battery Relay	In the left rear of the engine compartment, on the fender, near the underhood fuse-relay center	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views</i>
Auxiliary Blower Motor	Behind the right rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Auxiliary Blower Motor Relay, High	On the top of the auxiliary HVAC plenum, near the right rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Auxiliary Blower Motor Relay, Low	On the top of the auxiliary HVAC plenum, near the right rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>



## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Auxiliary Blower Motor Relay, Medium	On the top of the auxiliary HVAC plenum, near the right rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Auxiliary Cooling Fan Motor	RH of Engine Compartment, front of Radiator	<i>Cooling System Component Views in Engine Cooling</i>	<i>Cooling System Connector End Views in Engine Cooling</i>
Auxiliary Cooling Fan Relay	LH of Engine Compartment	<i>Cooling System Component Views in Engine Cooling</i>	<i>Cooling System Connector End Views in Engine Cooling</i>
Auxiliary Heater Control Switch	Center of IP, left of the Steering Column	<i>Heater Blower Controls Component Views in Heater and Ventilation (Non-A/C)</i>	<i>Heater Blower Controls Connector End Views in Heater and Ventilation (Non-A/C)</i>
Auxiliary HVAC Control Logic Module	In the rear Overhead Console, behind the controls	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C Manual</i>
Auxiliary HVAC Control Module, Front	On the front of the overhead console, near the windshield	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C Manual</i>
Auxiliary HVAC Control Module, Rear	On the rear of the overhead console molding, in the headliner	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C Manual</i>
Auxiliary Mode Door Motor	In the Auxiliary HVAC plenum, forward of the left rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C Manual</i>
Auxiliary Power Center (Police Package)	Center of dash	<i>Power and Grounding Component Views</i>	—
Auxiliary Power Connectors, Front	In the center, lower right side of the IP, to the left of the ash tray	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Auxiliary Power Connector, Rear	Top rear of the Right Rear wheel well	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Auxiliary Power Connector, Rear Console (Luxury)	Center rear of the Rear Center Console	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Auxiliary Temperature Door Motor	In the auxiliary HVAC plenum, near the right rear wheelhousing	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Backup Lamp, Left Side	At the left rear of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Backup Lamp, Right Side	At the right rear of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Backup Lamp Switch (MG5)	On the left side of the transmission, below the shift tower	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Backup Lamp Switch (MW3)	On the left top of the transmission	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Battery, LH (w/Dual Battery Option)	In the left front of the engine compartment	<i>Power and Grounding Component Views</i>	—
Battery, RH	In the right front of the engine compartment	<i>Power and Grounding Component Views</i>	—
Blower Motor, Front	To the right of the IP, behind the IP compartment box	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Blower Motor Relay, High	Behind the IP compartment box, on the HVAC plenum	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Body Control Module (BCM) (Luxury)	In the center floor console	<i>Body Control Module Component Views in Body Control System</i>	<i>Body Control Module Connector End Views in Body Control System</i>
Brake Lamp Relay (Pick-up)	In the underhood fuse-relay center, in the left rear side of the engine compartment, on the fender	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Brake Pressure Warning Switch	On rear of EBCM casting, near Brake Master Cylinder, at LF Wheelhousing	<i>ABS Component Views in ABS/Traction Control</i>	<i>ABS Connector End Views in ABS/Traction Control</i>
Camshaft Position Sensor	Top rear center of the engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Cargo Door Contactor, Left Side	On the rear body opening and the door, on the upper left side	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Cargo Door Contactor, Right Side	On the rear body opening and the door, on the upper right side	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Cargo Door Defogger Grid, Left Rear	On the left rear cargo door glass	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Cargo Door Defogger Grid, Right Rear	On the right rear cargo door glass	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Cargo Door Lock Relay (Luxury)	Left C Pillar	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Cargo Lamp (Pickup)	At the rear center of the cab, above the rear window, part of the center high mounted stop lamp	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Cargo Lamp Switch (Pickup)	In the center of the IP, to the left of the radio	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Center High Mount Stoplamp (Pickup)	Top center rear of the cab)	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Center High Mount Stoplamp (Suburban/Utility)	Rear of the vehicle, top center of the rear door(s)	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Cigar Lighter	In the lower right center of the IP, to the left of the ash tray	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Clearance Lamp, Left Front (Dually)	In the front of the left rear fender	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Clearance Lamp, Left Rear (Dually)	In the rear of the left rear fender	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Clearance Lamp, Right Front (Dually)	In the front of the right rear fender	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Clearance Lamp, Right Rear (Dually)	In the rear of the right rear fender	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Clutch Pedal Position Switch	At top of Clutch Pedal	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Convenience Center	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Courtesy Lamp, Left Front Door	On the middle left side of the left front door	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Left Rear Door	On the middle left side of the left rear door trim	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Left Side IP	Under the left side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Right Front Door	On the middle right side of the right front door	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Right Rear Door	On the middle right side of the right rear door trim	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Right Side IP	Under the right side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Cruise Control Module (CCM)	LR of Engine Compartment, on Bulkhead	<i>Cruise Control Component Views in Cruise Control</i>	<i>Cruise Control Connector End Views in Cruise Control</i>
Cruise Control Switch	In Turn Signal Lever	<i>Cruise Control Component Views in Cruise Control</i>	<i>Cruise Control Connector End Views in Cruise Control</i>
Data Link Connector (DLC)	Under LH of IP, LH of Steering Column, mounted to bottom of Knee Bolster	<i>Data Link Communications Component Views in Data Link Communications</i>	<i>Data Link Communications Connector End Views in Data Link Communications</i>
Daytime Running Lamps (DRL) Module	Under the left side of the IP, taped to the IP harness	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Daytime Running Lamps (DRL) Relay	Under the left side of the IP, at the lower center of the convenience center	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Daytime Running Lamps (DRL)/Radio Override Switch (Police Package)	In the center of the IP, to the left side of the radio	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Dome Lamp, Front	In the Overhead Console, Front	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Dome Lamp, Rear	Rear Overhead of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Cargo	At the rear body opening, part of the right rear cargo door contactor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Liftgate	Inside the liftgate door	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Left Front	At the left end of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Right Front	At the right end of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Lock Control Module	Left C Pillar	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Door Lock Inversion Module (Luxury)	Left side of the IP, Inside the IP Support Bracket	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Door Lock Relay	Under the center of the IP, near the remote control door lock receiver	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Door Lock Switch, Cargo	On top of the right D pillar	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Door Lock Switch, Left Front	On the left front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Door Lock Switch, Right Front	On the right front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Electronic Brake Control Module (EBCM)	Near Brake Master Cylinder, at LF Wheelhousing	<i>ABS Component Views in ABS/Traction Control</i>	<i>ABS Connector End Views in ABS/Traction Control</i>
Electronic Variable Orifice (EVO)/Passlock Module	Under the center of the IP	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Endgate Identification Lamps	On the center, bottom of the endgate	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Engine Shutoff Solenoid	Top left center of the engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Evaporative Emissions Canister Purge Solenoid	At top RH of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Evaporative Emissions Canister Vent	LF of EBCM, near Brake Master Cylinder, at LF Wheelhousing	<i>Engine Controls Component Views in Engine Controls</i>	—
Exhaust Gas Recirculation (EGR) Boost Solenoid (Diesel)	Top LH center of Engine, above Valve Cover	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Exhaust Pressure Regulator (EGR) PWM Valve Solenoid	Top of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Exhaust Pressure Regulator (EGR) Solenoid	Top LH center of engine, above Valve Cover	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fog Lamp Switch (Luxury)	On the center of the IP, to the right of the steering column shift lever	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Fog Lamp, Left Side (Luxury)	At the left lower edge of the front bumper and the air deflector	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Fog Lamp, Right Side (Luxury)	At the right lower edge of the front bumper and the air deflector	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Front Axle Actuator	RF of Front Drive Axle	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Fuel Gauge Sender	In Fuel Tank	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Fuel Gauge Sender, Secondary	In Auxiliary Fuel Tank	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Fuel Heater (Diesel)	Top rear of Engine in the fuel filter assembly	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fuel Injectors (5.0L, 5.7L, 7.4L)	In Intake Manifold	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fuel Pump (Diesel)	Inside LH Frame Rail, below LF Door	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fuel Pump, Secondary (Diesel)	In Auxiliary Fuel Tank	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fuel Pump and Sender	In Fuel Tank	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fuel Pump Balance Module (Dual Tanks)	Inside LH Frame Rail, near Transmission Crossmember	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Fuel Pump Balance Relay (Dual Tanks)	On Fuel Pump Balance Module, inside LH Frame Rail, near Transmission Crossmember	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Fuel Pump Relay	In Underhood Fuse Block, LR of Engine Compartment, on Fender	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Fusible Link	Molded into the battery positive connector	<i>Power and Grounding Component Views</i>	—
Garage Door Opener	In the overhead console	<i>Garage Door Opener Component Views</i>	<i>Garage Door Opener Connector End Views</i>
Generator	LH Front of Engine	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Glow Plug Controller	LR of Engine, near Bulkhead	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Glow Plug Relay	LR of Engine, near Bulkhead	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Headlamp and Panel Dimmer Switch	Lower Left side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp Control Module (Luxury)	Lower center of the IP, to the right of the right side steering column support bracket	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp, High Beam (Composite), Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp, High Beam (Composite), Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp, High/Low Beam, Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Headlamp, High/Low Beam, Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp, Low Beam (Composite), Left Side	On the left front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Headlamp, Low Beam (Composite), Right Side	On the right front of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Heated Mirror Relay	Left side of the IP, Inside the IP Support Bracket	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Heated Oxygen Sensor (5.0L)	Exhaust pipe, after Catalytic Converter	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Heated Oxygen Sensor, LH Bank (5.7L/7.4L)	Left Exhaust Manifold	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Heated Oxygen Sensor, RH Bank (5.7L/7.4L)	Right Exhaust Manifold	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views</i>
Heated Seat Element, LF	Inside the Left Front Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Element, RF	Inside the Right Front Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Element, LR (Luxury)	Inside the Left Rear Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Element, RR (Luxury)	Inside the Right Rear Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Module LF	Under the LF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Module, LR (Luxury)	Under the LR power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Module, RF	Under the RF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Module, RR (Luxury)	Under the RR power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Switch, LF	At the LF of the LF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Switch LR (Luxury)	In the back LR of the center console	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Switch, RF	At the RF of the RF power seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Switch, RR (Luxury)	In the back RR of the center console	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>

**Power and Grounding Components (cont'd)**

<b>Name</b>	<b>Location</b>	<b>Locator View</b>	<b>Connector End View</b>
Heated Seat Temperature Sensor, LF	Inside the Left Front Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Heated Seat Temperature Sensor, RF	Inside the Right Front Seat Cushion	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Horn Relay	In the Underhood Fuse Block	<i>Horns Component Views in Horns</i>	<i>Horns Connector End Views in Horns</i>
Horn, Left	At the front of the vehicle	<i>Horns Component Views in Horns</i>	<i>Horns Connector End Views in Horns</i>
Horn, Right	At the front of the vehicle	<i>Horns Component Views in Horns</i>	<i>Horns Connector End Views in Horns</i>
HVAC Control Lamp	Part of the heater controls, in the center of the IP, under the radio	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
HVAC Control Module	Part of the heater controls, in the center of the IP, under the radio	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Ignition Coil	RR of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Ignition Control Module	RR of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Ignition Switch	IP Steering Column, under Lock Cylinder	<i>Standard Wheel/Column Component Views in Steering Wheel and Column</i>	<i>Standard Wheel/Column Connector End Views in Steering Wheel and Column</i>
Inflatable Restraint Front End Discriminating Sensor	Under front outside center of Radiator	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Inflatable Restraint IP Module	RH of IP, above IP Compartment Box	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Inflatable Restraint IP Module Switch (Pickup)	Center of IP	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Inflatable Restraint Sensing and Diagnostic Module (SDM)	Under Carpet Beneath Drivers Seat	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Instrument Cluster	On the upper left end of the IP, above the steering column	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Interior Lamp Control Module	Under the center of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
IP Compartment Box Lamp	In the IP compartment box	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Key-In Warning Buzzer Switch	In the steering column	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
License Lamps, Left and Right Side	At the rear of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>



## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Liftgate Defogger Grid	On the liftgate glass	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Liftgate Release Relay	Right center of liftgate	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Liftgate Release Switch	In the center of the IP, to the left of the radio	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Low Coolant Level Indicator Module (Diesel)	Back side of the IP passenger side	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Low Coolant Level Sensor (Diesel)	In Coolant Reservoir, RH of Engine Compartment	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Manifold Absolute Pressure (MAP) Sensor (Diesel)	On Bulkhead, RH of Steering Column	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Marker Lamps, Roof	Across the top front of the roof	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Mass Air Flow (MAF) Sensor	At Air Intake Duct, near Air Filter, RH of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Mega Fuse Block	In the RF of the vehicle	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Mode Door Motor	Under the IP, on the left side of the HVAC plenum	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Park/Turn Lamp, LF	At the LF corner of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Park /Turn Lamp, RF	At the LF corner of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Park/Neutral Position (PNP) Switch	At LH center of Transmission	<i>Automatic Transmission Electronic Component Views (Internal) in Automatic Transmission</i>	<i>Automatic Transmission Internal Connector End Views in Automatic Transmission</i>
Power Amplifier	Under the left of the IP, right of the brake pedal bracket	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Power Amplifier Relay	Under the left of the IP, right of the brake pedal bracket	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Power Outside Rearview Mirror, LH	Outside Left Front Door	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Outside Rearview Mirror Motor, LH	On the LF door, near the center of the A Pillar	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Outside Rearview Mirror Switch	Drivers Door Panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Seat Adjuster Switch LH	In the LF seat, on the bottom, mounted to the frame	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>



## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Power Seat Adjuster Switch, RH	In the RF seat, on the bottom, mounted to the frame	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Power Seat Lumbar Motor, Left Front	Under the left front seat, mounted to the seat frame	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Power Seat Lumbar Motor, Right Front	Under the right front seat, mounted to the seat frame	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Power Seat Lumbar Switch, Left Front	On the lower left front of the left front seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Power Seat Lumbar Switch, Right Front	On the lower right front of the right front seat	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Powertrain Control Module (PCM) (Diesel)	Under RH end of IP, above Blower Motor, behind IP Compartment Box	<i>Engine Controls Component Views in Engine Controls</i>	<i>PCM Connector End Views in Engine Controls</i>
Power Window Master Switch	On the left front door, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Left Rear	On the left rear door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Right Front	On the right front door trim panel, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Power Window Switch, Right Rear	On the right rear door, below the inside door handle	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Radio	In the center of the IP	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Reading Lamps, Overhead Console	Near the windshield centerline	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Recirculation Door Motor	Under the IP, on the HVAC plenum	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Remote Battery Stud	Part of the Underhood Fuse Block, in the left rear side of the engine compartment, on the fender	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Remote Control Door Lock Receiver	Under the IP, inside the right of the right steering column support bracket	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Seat Belt Switch, LF	Inside the Left Front Seat Belt Buckle	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Seat Belt Switch, LR (Luxury)	Inside the Left Rear Seat Belt Buckle	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Seat Belt Switch, RF	Inside the Right Front Seat Belt Buckle	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Seat Belt Switch, RR (Luxury)	Inside the Right Rear Seat Belt Buckle	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Security LED (Luxury)	Top Center of the Center Floor Console	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Selectable Four-Wheel Drive (S4WD) Indicator Lamp	Part of the transfer case selector lever	—	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Shock Sensor (Luxury)	In the Center Floor Console	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Spare Power Source (Convenience Center)	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Spotlamp Relay (Police Package)	Behind the IP, near the convenience center	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Spotlam, Left Side (Police Package)	Mounted in the left side A pillar, near the windshield	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Spotlamp, Right Side (Police Package)	Mounted in the right side A pillar, near the windshield	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Starter Motor	Lower RR of Engine	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Starter Motor Solenoid	On Starter Motor	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Starter Relay	In Underhood Fuse Block, LR of Engine Compartment, on Fender	<i>Engine Electrical Component Views in Engine Electrical</i>	<i>Engine Electrical Connector End Views in Engine Electrical</i>
Stereo Controller, Rear (Luxury)	In the center Console	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Stoplamp Switch	On the top of the brake pedal	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Sunshade Mirror Lamp, Left Side	Part of the left side sunvisor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Sunshade Mirror Lamp, Right Side	Part of the right side sunvisor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Tail/Stop Turn Lamp, Left Rear	On the left rear corner of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Tail/Stop Turn Lamp, Right Rear	On the right rear corner of the vehicle	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Temperature Door Motor	Under the IP, on the center of the HVAC plenum	<i>HVAC Component Views in HVAC Systems with A/C Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Transfer Case Control Module (TCCM) (Selectable 4WD)	Under IP, near the convenience center	—	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Mode Selector Illumination Lamp	In Transfer Case Select Switch	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
Transfer Case Relay	RR of Engine Compartment, near center of Bulkhead	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Select Switch	Center of IP, RH of Steering Column Shift Lever	<i>Transfer Case Control Component Views in Transfer Case</i>	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Transfer Case Shift Control Module (Auto 4WD)	Under LH of IP, near Convenience Center	—	<i>Transfer Case Control Connector End Views in Transfer Case</i>
Turn/Hazard Switch	Part of the multifunction switch, on the upper left side of the steering column	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Underhood Fuse Block	In the left rear side of the engine compartment, on the fender	<i>Power and Grounding Component Views</i>	<i>Power and Grounding Connector End Views</i>
Underhood Lamp	Under the right side of the hood	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Vehicle Control Module (VCM) (Gas)	Engine Compartment, near EBCM	<i>Engine Controls Component Views in Engine Controls</i>	<i>VCM Connector End Views(5.0L/5.7L) VCM Connector End Views (7.4L)</i>
Vehicle Interface Unit (VIU) (Luxury)	Behind the IP Compartment Box, above the HVAC Plenum	<i>Cellular Communication Component Views in Cellular Communication</i>	<i>Cellular Communication Connector End Views in Cellular Communication</i>
Water-in-Fuel Sensor (Diesel)	Top near of Engine	<i>Engine Controls Component Views in Engine Controls</i>	<i>Engine Controls Connector End Views in Engine Controls</i>
Water Valve (4-Door Utility/Suburban)	In the engine compartment, right rear of the inner fender	<i>HVAC Component Views in HVAC Systems with A/C - Manual</i>	<i>HVAC Connector End Views in HVAC Systems with A/C - Manual</i>
Window Defogger Grid, Rear	On the rear window	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Window Lockout Switch, Rear	On the left front door, below the inside door handle, part of the power window master switch	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Window Washer Pump Motor, Rear	In the washer reservoir, right front of the vehicle, behind the support	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
Window Wiper Motor Module, Rear	On the lower liftgate glass	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
Windshield Washer Pump Motor, Front	At the washer reservoir, left rear of the radiator support bracket	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
Window Wiper/Washer Switch, Rear	Center of the IP, right of the radio	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
Windshield Wiper Motor Module, Front	At the center and rear of the engine compartment, at the bulkhead	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
Windshield Wiper/Washer Switch	At the steering column, part of the multifunction lever	<i>Wiper/Washer System Component Views in Wiper/Wahser Systems</i>	<i>Wiper/Washer System Connector End Views in Wiper/Wahser Systems</i>
C100	IP harness inline to the Engine harness, in the left rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
C103	Engine harness inline to the Tailamp Ext. harness, in the left rear side of the engine compartment, under the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C105 (7.4L)	Engine harness inline to Fuel Injector harness, at the rear of the intake manifold	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C107	Engine harness inline to the Oxygen Sensor jumper harness, on the left front of the transmission	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C108 (Police Package)	IP harness, inline to the Front Grill Lights/Speaker harness, left rear of the engine compartment underneath the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C109 (Police Package)	IP harness, inline to the Dash harness, left rear of the engine compartment underneath the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C110	IP harness inline to the Forward Lamps harness, LR of engine compartment	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C112 (Diesel)	Engine harness inline to the Engine Jumper harness, center rear of the engine	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C113 (Diesel)	Engine harness inline to the Engine Jumper harness, center rear of the engine	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C115 (Diesel)	Engine harness, inline to the Alternator Jumper harness, top front center of the engine	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C116	Forward Lamps harness, inline to the Windshield Washer harness, front left side of engine compartment	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C118 (Natural Gas Conversion)	Engine harness inline to the Natural Gas harness, located along side the Underhood Fuse Block	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C119 (Natural Gas Conversion)	Engine harness inline to the Natural Gas harness, located along side the Underhood Fuse Block	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C120	Engine harness, inline to the 4WD Transfer Case Harness, in the rear of the engine, near the transmission	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C122 (M30)	Engine Harness inline to the Transmission, on the right side of the transmission	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C122 (MT1)	Engine Harness inline to the Transmission, on the right side of the transmission	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C130 (Gas)	Engine harness, inline to the Tail and Stop lamp Ext. harness, located below the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C131 (w/Automatic Transfer Case)	IP harness, Inline to Active Transfer Case Control harness, located below the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C132 (w/Automatic Transfer Case)	IP harness, Inline to Active Transfer Case Control harness, located below the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C140 (w/Selectable Transfer Case)	IP harness, Inline to Active Transfer Case Control harness, located below the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C142 (w/Selectable Transfer Case)	IP harness, Inline to Active Transfer Case Control harness, located below the brake master cylinder	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C200	IP harness inline to the Engine harness, behind the right side of the IP, near the heater motor, in foam wrap	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
C203	IP harness inline to the the front HVAC harness, behind the right side of the IP, near the heater motor, in foam wrap	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C204 (Diesel)	IP harness inline to the Engine harness, located behind the passenger side IP	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C205	At the convenience center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C206	Inside the lower left side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C207	Inside the lower left side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C208	Inside the lower left side A pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views</i>
C209	Inside the lower left side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C210	At the convenience center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C211	Under the left front seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C212	Under the left front seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C213	Inside the lower right side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C214	Inside the lower right side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C215	Inside the lower right side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C216	Inside the lower right side A pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C221	At the Convenience Center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C222	At the Convenience Center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C223	At the Convenience Center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C227 (Stoplamp Switch)	IP harness, Inline to the Stoplamp Switch	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C228	Crossbody harness inline to the right front seat belt switch, under the right front seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C229	Crossbody harness inline to the right front power seat, under the right front seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C230	IP harness inline to the HVAC harness, above the HVAC evaporator housing	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C231	IP harness to SIR harness, behind the right side of the IP	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C232	IP harness to SIR harness, behind the right side of the IP	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C233	IP harness SIR Disable connector, behind the right side of the IP	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C235	IP harness inline to the Auxiliary Fuse Panel harness, near P100	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C236	Power Seat harness inline to the Heated Seat harness, under the LH seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C237	Power Seat harness inline to the Heated Seat harness, under the RH seat	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>

**Power and Grounding Components (cont'd)**

<b>Name</b>	<b>Location</b>	<b>Locator View</b>	<b>Connector End View</b>
C238 (Police Package)	IP harness inline to roof harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C239 (Luxury)	IP harness inline to the Crossbody harness, behind RH of I/P, near heater motor	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C240	Inline to Right Hand Power Seat harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C242 (Police Package)	IP harness inline to the Aux. Horn/Siren harness, behind the radio	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C243	Crossbody harness inline to the crossbody harness, located in the LH lower A Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C245 (Police Package)	IP harness inline to Auxiliary Fuse Panel harness, breaks out from the EVO/Passlock breakout	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C250 (Luxury)	Crossbody Harness inline to the Onstar jumper harness, located above the HVAC Plenum	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C251 (Luxury)	Crossbody Harness inline to the Onstar jumper harness, located above the HVAC Plenum	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C252 (Luxury)	IP harness inline to the Onstar jumper harness, located above the HVAC Plenum	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C266	IP harness inline to steering column harness, to the left side of the steering column, near the bulkhead	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C267	In the Right Front Seat harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C271	IP harness to Roof Lamp & Mirror harness, located at top of the steering column support bracket	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C272 (Police Package)	IP harness inline to the spotlamps harness, located at top of the steering column support bracket	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C280	At the convenience center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C298	IP harness inline to the Crossbody harness, behind the left side of the IP, near the convenience center	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C299	IP harness inline to the Crossbody harness, behind RH of IP, above HVAC evaporator, housing	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C300	Front to Rear Body harness inline to Auxiliary A/C switches, in the overhead console	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C301	Crossbody harness inline to the Front to Rear Body harness, at the left front kick panel	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C302	Crossbody harness inline to the Front to Rear Body harness, at the left front kick panel	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C303 (4Dr Utility/ Suburban)	Front to Rear Body harness inline to the Rear Dome Lamp harness, rear center of vehicle, behind the headliner	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C304 (Luxury)	IP harness, Inline to Floor Console harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C305 (Luxury)	Cross Body harness, Inline to Floor Console harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
C306 (Luxury)	Front to Rear Body harness inline to the Onstar Microphone jumper harness, above the overhead console	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C307	Front to Rear Body harness inline to the Front Overhead Console harness, above the overhead console	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C308	Front to Rear Body harness inline to the Front Dome Lamp harness, located above the overhead console	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C310	RH heated seat harness to Crossbody harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C311	LH heated seat harness to Crossbody harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C314	Front to Rear Body harness inline to the Endgate Window Release Actuator, located at the right rear D Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C320	Power Seat harness inline to the Power Lumbar harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C321	Power Seat harness inline to the Power Lumbar harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C322	Power Seat harness inline to the Power Lumbar harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C323	Power Seat harness inline to the Power Lumbar harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C400	At the right rear of the vehicle, above the auxiliary blower motor	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C401	At the right rear of the vehicle, above the auxiliary blower motor	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C402	At the top, center rear of the vehicle	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C404	Inside the endgate near the liftgate release motor	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C405	Top of the right side D pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views</i>
C406	Top of the right side D pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C407 (Pickup)	Below the left rear edge of the bed	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C407 (Suburban/Utility)	Lower center outside of the endgate	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C408 (Pickup/Cab)	Below the center rear edge of the bed	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C410 (Pick-up)	Crossbody harness inline to the Rear Radio Speaker harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C411 (Luxury)	At the left side of the cab	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C411 (Pickup)	Crossbody harness, Inline to Rear Cargo Lamp harness	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C496	Crossbody harness inline to the Right Rear Door harness, located at the lower right B Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C497	Crossbody harness inline to the Right Rear Door harness, located at the lower right B Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>



## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
C498	Crossbody harness inline to the Left Rear Door harness, located at the lower left B Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
C499	Crossbody harness inline to the Left Rear Door harness, located at the lower left B Pillar	<i>Harness Routing Views</i>	<i>Inline Harness Connector End Views</i>
D104 (5.0L, 5.7L)	Part of the engine harness, approximately 20 cm (8 in) from the A/C compressor clutch connector	<i>Harness Routing Views</i>	—
D104 (6.5L)	Part of the engine harness, approximately 28 cm (11 in) from the A/C compressor clutch connector	<i>Harness Routing Views</i>	—
D104 (7.4L)	Part of the engine harness, approximately 17 cm (6.5 in) from the A/C compressor clutch connector	<i>Harness Routing Views</i>	—
D203	Part of the IP harness, at the right side of the steering column support	<i>Harness Routing Views</i>	—
G101	On the sheet metal at the right front wheelhousing	<i>Power and Grounding Component Views</i>	—
G102 (Diesel)	On the left front side of the intake manifold	<i>Power and Grounding Component Views</i>	—
G103 (Gas)	On the right front side of the engine, near the thermostat housing	<i>Power and Grounding Component Views</i>	—
G104 (5.0L/5.7L)	Backside of the right cylinder head	<i>Power and Grounding Component Views</i>	—
G104 (6.5L)	Top rear of the right cylinder head	<i>Power and Grounding Component Views</i>	—
G104 (7.4L)	Backside of the engine block, below the right cylinder head	<i>Power and Grounding Component Views</i>	—
G105 (Gas)	On the right front side of the engine block	<i>Power and Grounding Component Views</i>	—
G105 (Diesel)	Right Rear of the cylinder head, cylinder #7 intake bolt	<i>Power and Grounding Component Views</i>	—
G108	Top Center of the bulkhead	<i>Power and Grounding Component Views</i>	—
G110	In the right rear of the engine compartment, below the heater lines	<i>Power and Grounding Component Views</i>	—
G111	On the right rear side of the engine	<i>Power and Grounding Component Views</i>	—
G113	On the radiator support, near the left side headlamp	<i>Power and Grounding Component Views</i>	—
G115 (NC1)	At the AIR pump ground, mounted on the frame rail	<i>Power and Grounding Component Views</i>	—
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views</i>	—
G201	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views</i>	—
G202	On the right side of the instrument panel, mounted to the HVAC plenum bracket	<i>Power and Grounding Component Views</i>	—
G300 (Extended/ Crew Cab)	Halfway up the right side of the C pillar	<i>Power and Grounding Component Views</i>	—
G400 (Utility/Suburban)	On the right side B pillar, near the door striker	<i>Power and Grounding Component Views</i>	—
G401	At the rear of the left side frame rail, behind the bumper	<i>Power and Grounding Component Views</i>	—
G404	Inside the left side frame rail, near the rear crossmember	<i>Power and Grounding Component Views</i>	—



## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
P100	In the left rear side of the engine compartment, at the bulkhead, above C100	<i>Harness Routing Views</i>	—
P101	In the right rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views</i>	—
P400	On the top rear of the body, at the right side liftgate hinge	<i>Harness Routing Views</i>	—
P500	At the left front door	<i>Harness Routing Views</i>	—
P600	At the right front door	<i>Harness Routing Views</i>	—
S101 (Gas)	Engine harness approx 12 cm (5 in) from EBCM harness breakout, in the Underhood Fuse Relay Center harness breakout	—	—
S101 (Diesel)	Engine harness approx 6.5 cm (2.5 in) from EBCM harness breakout into the PCM harness	—	—
S103 (5.0L, 5.7L)	Engine harness, approx 8 cm (3 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S103 (6.5L)	Engine harness, approx 12 cm (4.7 in) from starter solenoid breakout, towards the Underhood Lamp harness breakout	—	—
S103 (7.4L - A/T)	Engine harness, approx 8 cm (3 in) from the EGR Valve harness breakout, towards the Ignition Coil harness breakout	—	—
S103 (7.4L - M/T)	Engine Harness, approx 4 cm (1.5 in) from the Fuel Injector harness breakout, towards the Taillamp harness breakout	—	—
S104 (5.0L - A/T, 5.7L - M/T)	Engine Harness, approx 12 cm (4.7 in) into the fuel injector breakout	—	—
S104 (7.4L)	Engine harness, approx 10 cm (11.8 in) from EBCM breakout, towards C200	—	—
S107 (5.0L, 5.7L)	Engine harness approx 25 cm (8 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S107 (6.5L, HD)	Engine harness, approx 40 cm (15 in) from EBCM breakout, toward Transmission harness breakout	—	—
S107 (7.4L)	Engine harness, approx 18 cm (7 in) from EBCM breakout, toward the EGR harness breakout	—	—
S108 (Gas)	Engine harness, approx 12 cm (4.5 in) from Ignition coil breakout, toward starter solenoid	—	—
S108 (Diesel)	Engine harness, approx 6 cm (2.5 in) from Transmission harness breakout, towards the PCM	—	—
S110 (5.0L, 5.7L)	Engine harness, approx 23 cm (9 in) from EBCM breakout, toward taillamp harness	—	—
S110 (6.5L)	Engine harness, approx 4 cm (1.5 in) from the EBCM breakout, towards the Taillamp harness breakout	—	—
S110 (7.4L-A/T)	Engine harness, approx 26 cm (10 in) from EBCM breakout, near taillamp harness breakout	—	—
S112 (6.5L)	Engine jumper harness, approx 9 cm (3.5 in) from oil pressure sensor breakout, towards C112	—	—

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S113	Engine harness, approx. 19 cm (7.5 in) from EBCM breakout, into the Underhood Fuse Relay Center harness	—	—
S115 (6.5L)	Engine jumper harness, approx. 5 cm (2 in) from oil pressure sensor breakout	—	—
S123	Forward lamps harness, approx. 23 cm (9 in) from LH park lamp breakout, toward windshield washer pump	—	—
S128	Forward lamps harness, approx. 5 cm (2 in) from RH headlamp breakout, toward G112	—	—
S129	Engine jumper harness, approx. 43 cm (17 in) from oil pressure sensor breakout	—	—
S146 (7.4L)	Engine harness, approx. 22 cm (8.5 in) into the Underhood Fuse Relay Center harness	—	—
S147 (Gas)	Engine harness, approx. 5 cm (2 in) from EGR valve breakout, toward taillamp harness breakout	—	—
S147 (Diesel)	Engine harness, approx. 4 cm (1.5 in) from starter motor solenoid breakout	—	—
S148 (w/LeadedFuel)	Oxygen Sensor Harness, approx. 7 cm (2.5 in) from RH bank oxygen sensor breakout, toward engine harness	—	—
S148 (w/o Leaded Fuel)	Approx. 19 cm (7.5 in) into oxygen sensor harness	—	—
S149 (w/o Leaded Fuel)	Oxygen sensor harness, approx. 7 cm (2.5 in) from RH bank oxygen sensor breakout, toward LH bank oxygen sensor	—	—
S151	Engine Harness, approx. 7 cm (2.5 in) inside EBCM harness breakout	—	—
S154 (7.4L)	Left Bank Fuel Injector harness	—	—
S155 (7.4L)	Right Bank Fuel Injector harness	—	—
S156 (5.0L - M/T, 5.7L - M/T, 7.4L - M/T)	Engine harness, approx. 16 cm (6 in) from VSS connector	—	—
S156 (5.0L, 5.7L - A/T, HD)	Engine harness, approx. 12 cm (4.5 in) from VSS connector	—	—
S156 (5.0L, 5.7L - A/T, LD)	Engine harness, approx. 20 cm (8 in) from VSS connector	—	—
S156 (7.4L - A/T)	Engine harness, approx. 13 cm (5 in) from VSS connector	—	—
S158	In washer pump jumper harness	—	—
S161	Engine harness, approx. 8 cm (3 in) from EGR valve breakout, toward fuel injector harness breakout	—	—
S162 (5.0L, 5.7L )	Engine harness, approx. 17 cm (6.5 in) from starter solenoid breakout, toward LH oxygen sensor breakout	—	—
S162 (7.4L)	Engine harness, approx. 15 cm (6 in) from RH bank oxygen sensor breakout, toward starter solenoid breakout	—	—
S167 (All Except Z56, Police Package/Luxury)	Engine harness, approx. 18 cm (7 in) from G115	—	—

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S167 (Z56 Police Package/Luxury Only)	Battery harness, approx. 35 cm (13.5 in) from C121	—	—
S168 (Z56, Police Package Only)	Battery harness, approx. 25 cm (10 in) from C121	—	—
S185	At Diode D104	—	—
S186	At Diode D104	—	—
S192	4WD Indicator harness, approx. 10 cm (4 in) from the ABS harness breakout, towards the Front-Axle Acuator	—	—
S200	IP harness, approx. 10 cm (4 in) from steering column harness breakout	—	—
S201	IP harness, approx. 8 cm (3 in) from steering column harness breakout, toward the Steering Column	—	—
S204	IP harness, approx. 10 cm (4 in) from C100, towards Data Link Connector (DLC)	—	—
S205	IP harness, approx. 12 cm (4.5 in) from steering column harness breakout	—	—
S206	IP harness, approx. 6 cm (2.5 in) from steering column harness breakout, toward the Steering Column	—	—
S207	IP harness, approx. 12 cm (4.5 in) from steering column harness breakout, toward the Steering Column	—	—
S212	IP harness, approx. 8 cm (3 in) from inflatable restraint switch breakout	—	—
S213	IP harness, approx. 4 cm (1.5 in) from steering column harness breakout, towards the DLC	—	—
S215	IP harness, approx. 8 cm (3 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S217	IP harness, approx. 16 cm (6 in) from instrument cluster harness breakout, toward radio connectors breakout	—	—
S218	IP harness, approx. 16 cm (6 in) from inflatable restraint switch breakout	—	—
S233	Crossbody harness, approx. 25 cm (10 in) from LH Power Seat harness breakout	—	—
S235	IP harness, approx. 4 cm (1.5 in) from steering column harness breakout, C100	—	—
S236	IP harness, approx. 10 cm (4 in) into steering column harness towards the Steering Column	—	—
S237	RF seat harness, approx. 4 cm (1.5 in) from power seat lumbar switch breakout	—	—
S238	Crossbody harness, approx. 26 cm (10 in) into the LH Seat harness breakout	—	—
S242	IP harness, approx. 12 cm (4.5 in) from inflatable restraint switch breakout, towards the Auxiliary Power Connectors	—	—
S243	HVAC Harness, approx. 4 cm (1.5 in) from recirculation door breakout, toward blower motor relay	—	—
S244	HVAC Harness, approx. 8 cm (3 in) from recirculation door breakout, toward high blower motor relay	—	—

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S248	Crossbody harness, approx. 35 cm (13 in) before the LF door harness breakout, from C301	—	—
S251	Crossbody harness, approx. 13 cm (5 in) from LF Door harness breakout, toward IP harness breakout	—	—
S254 (Suburban/Utility)	Crossbody harness, approx. 12 cm (4.5 in) from C210 breakout, toward power amplifier breakout	—	—
S255	Crossbody Harness, approx. 20 cm (8 in) from C210 breakout, toward the LH Seat harness breakout	—	—
S256 (Pickup/Extended Cab)	Crossbody harness, approx. 12 cm (4.5 in) from C210 breakout, toward LH Seat harness breakout	—	—
S256 (Utility/Suburban)	Crossbody harness, approx. 11 cm (4 in) from C210 breakout, toward the LH Seat harness breakout	—	—
S256 (Crew Cab)	Crossbody harness, approx. 1 cm (0.5 in) before door lock relay breakout, toward the LH Seat harness breakout	—	—
S259	Crossbody harness, approx. 7 cm (2.5 in) into seat belt switch harness, toward C212	—	—
S264	IP harness, approx. 4 cm (1.5 in) from instrument cluster breakout, toward radio connectors breakout	—	—
S266 (Utility/Pickup/Extended Cab)	Crossbody harness, approx. 8 cm (3 in) from C210 breakout, toward the LH Seat harness breakout	—	—
S268	IP harness, approx. 7 cm (2.5 in) into the HVAC Control Switch harness breakout	—	—
S272	IP harness, approx. 4 cm (1.5 in) from auxiliary power outlet breakout	—	—
S281	Crossbody harness approx. 70 cm (24.5 in) from RH heated seat breakout	—	—
S283 (Z56)	Spotlamp Extension harness, approx. 35 cm (13.5 in) from C272 harness breakout, towards the RH Spotlight	—	—
S288 (9L4)	Auxiliary Power harness	—	—
S289 (9L4)	Auxiliary Power harness	—	—
S290	IP harness, approx. 8 cm (3 in) before the radio harness breakout, from C304	—	—
S292	IP harness, approx. 22 cm (8.5 in) before the radio harness breakout, from C304	—	—
S298	IP harness, approx. 24 cm (9.5 in) from instrument cluster breakout, toward radio breakout	—	—
S299	IP harness, approx. 4 cm (1.5 in) into the steering column harness breakout, toward C266	—	—
S300 (w/Bench Seat)	Lumbar Seat harness	—	—
S302	Selectable 4WD harness, approx. 10 cm (4 in) from the Transfer Case Relay breakout, toward the Front Axle Switch	—	—

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S303	Power lumbar seat jumper, approx. 20 cm (8 in) from RH power seat breakout, toward C299	—	—
S304 (4-Door Utility/Suburban)	Rear HVAC control harness, approx. 31 cm (12 in) from auxiliary HVAC control logic module breakout, toward front auxiliary HVAC control module	—	—
S307 (4-Door Utility/Suburban)	Rear HVAC control harness, approx. 10 cm (4 in) from auxiliary HVAC control logic module breakout, toward front auxiliary HVAC control module	—	—
S308 (4-Door Utility/Suburban)	Rear HVAC control harness, approx. 5 cm (2 in) from auxiliary HVAC control logic module breakout, toward rear auxiliary HVAC control module	—	—
S312	Illuminated Vanity mirror jumper harness, approx. 4 cm (1.5 in) from inside rearview mirror breakout, toward LH Illuminated vanity mirror	—	—
S315	Taillamp extension harness, approx. 40 cm (15 in) from fuel pump balance module breakout, toward engine harness	—	—
S316	Illuminated vanity mirror jumper harness, approx. 8 cm (3 in) toward LH illuminated vanity mirror	—	—
S317	Taillamp extension harness, approx. 10 cm (4 in) from fuel pump and sender breakout, toward engine harness	—	—
S318	Taillamp extension harness, approx. 10 cm (4 in) from fuel pump balance module breakout, toward engine harness	—	—
S319 (Gas)	Taillamp extension harness, approx. 7 cm (2.5 in) from fuel pump and sender breakout, toward balance fuel pump balance module breakout	—	—
S324	Taillamp extension harness, approx. 10 cm (4 in) from G404 breakout, toward engine harness	—	—
S330	Floor console harness approx. 13 cm (5 in) from LH heated seat switch breakout	—	—
S331	Floor console harness approx. 22 cm (8.5 in) from LH heated seat switch breakout	—	—
S332	Floor console harness approx 28 cm (11 in) from LH heated seat switch breakout	—	—
S335	Floor console harness approx. 5 cm (2 in) from C304 harness breakout, towards the BCM	—	—
S336	Floor console harness approx. 5 cm (2 in) from cross body incline connector harness breakout	—	—
S337	LH rear heated 150	—	—
S358	—	—	—

## Power and Grounding Components (cont'd)

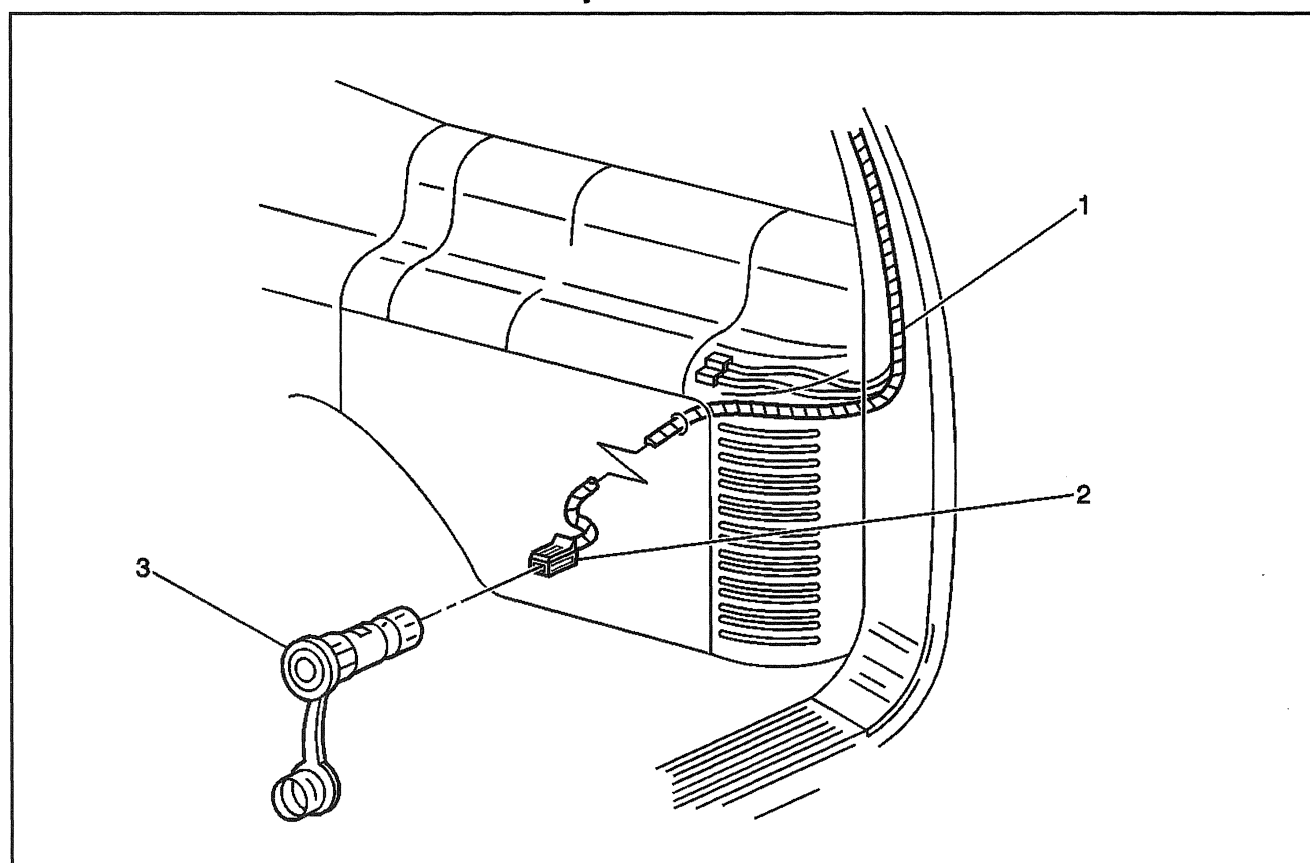
Name	Location	Locator View	Connector End View
S400 (w/Auxiliary A/C)	Auxiliary A/C harness, approx. 17 cm (6.5 in) from blower motor Relays, toward blower motor	—	—
S401 (w/Auxiliary A/C)	Auxiliary A/C harness, approx. 40 cm (15 in) from blower motor relays, toward blower motor	—	—
S401 (w/Auxiliary HVAC)	Auxiliary HVAC harness, approx. 13 cm (5 in) from blower motor relays breakout, toward blower motor	—	—
S403 (w/Auxiliary HVAC)	Auxiliary HVAC harness, approx. 7 cm (2.5 in) from blower motor resistor breakout, toward blower motor	—	—
S410 (2-door Utility)	Front-to-rear body harness, approx. 37 cm (14.5 in) from RR door jamb switch breakout, toward RH door speaker breakout	—	—
S410 (4-Door Utility/Suburban)	Front-to-rear body harness, approx. 12 cm (4.5 in) from RR door speaker breakout, toward RR door jamb breakout	—	—
S411 (Chassis Cab)	Taillamp harness, approx. 33 cm (13 in) from taillamp extension harness breakout, towards the RH Tail & Stoplamp Connector	—	—
S411 (Fleetside)	Taillamp harness, approx. 7 cm (2.5 in) from taillamp extension harness breakout, toward LH taillamp	—	—
S411 (Suburban/Utility/Stepside)	Taillamp harness, approx. 7 cm (2.5 in) from taillamp trailer tow harness breakout, toward RH taillamp	—	—
S416	License lamps harness, approx. 4 cm (1.5 in) from taillamp harness breakout, toward RH license lamp	—	—
S419	Front-to-rear body harness, approx. 13 cm (5 in) from CHMSL breakout	—	—
S424	Front-to-rear body harness, approx. 13 cm (5 in) from CHMSL breakout	—	—
S426 (Utility/Suburban w/o C36/C69)	Front-to-rear body harness, approx. 13 cm (5 in) from front dome lamp breakout, toward rear dome lamp breakout	—	—
S426 (Pickup/Extended Cab w/Overhead Console)	Dome lamp harness, approx. 13 cm (5 in) from CHMSL breakout, toward C411	—	—
S426 (CrewCab)	Dome Lamp harness, approx. 7 cm (2.5 in) from Front Dome Lamp harness breakout, toward C301	—	—
S426 (4-Door Utility/Suburban w/ZW9/C69 & C36)	Front-to-rear body harness, approx. 62 cm (24.5 in) from rear dome lamp breakout, toward front dome lamp breakout	—	—
S434 (2-Door Utility)	Front-to-rear body harness, approx. 7 cm (2.5 in) from front dome lamp breakout, toward crossbody harness breakout	—	—
S434 (4-Door Utility/Suburban)	Front-to-rear body harness, approx. 20 cm (8 in) before the Rear Dome Lamp harness breakout, towards the HVAC Module	—	—

## Power and Grounding Components (cont'd)

Name	Location	Locator View	Connector End View
S434 (4-Door Utility/Suburban w/o C69)	Front-to-rear body harness, approx. 25 cm (10 in) into crossbody harness breakout, towards C301	—	—
S443	In the Overhead Console harness, between the Garage Door Opener and Reading Lamps	—	—
S500	Inside LF door harness, approx. 8 cm (3 in) from tweeter speaker breakout, toward LF window regulator	—	—
S501	Inside LF door harness, at breakout to window motor regulator	—	—

## Power and Grounding Component Views

## Auxiliary Power Outlet Rear



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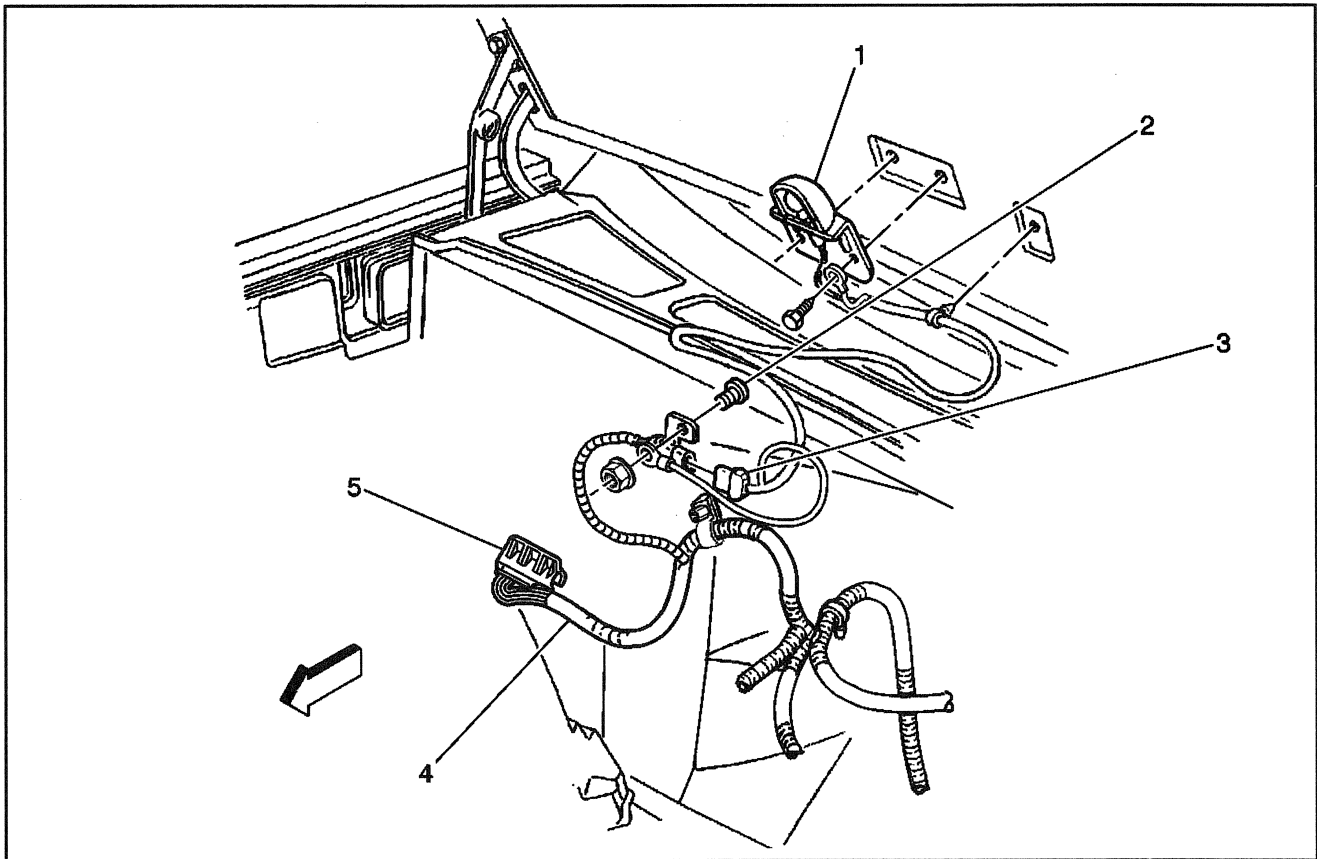
## Legend

(1) Front to Rear Harness

(2) Auxiliary Power, Rear Connector

(3) Auxiliary Power Outlet, Rear

## Underhood Lamp



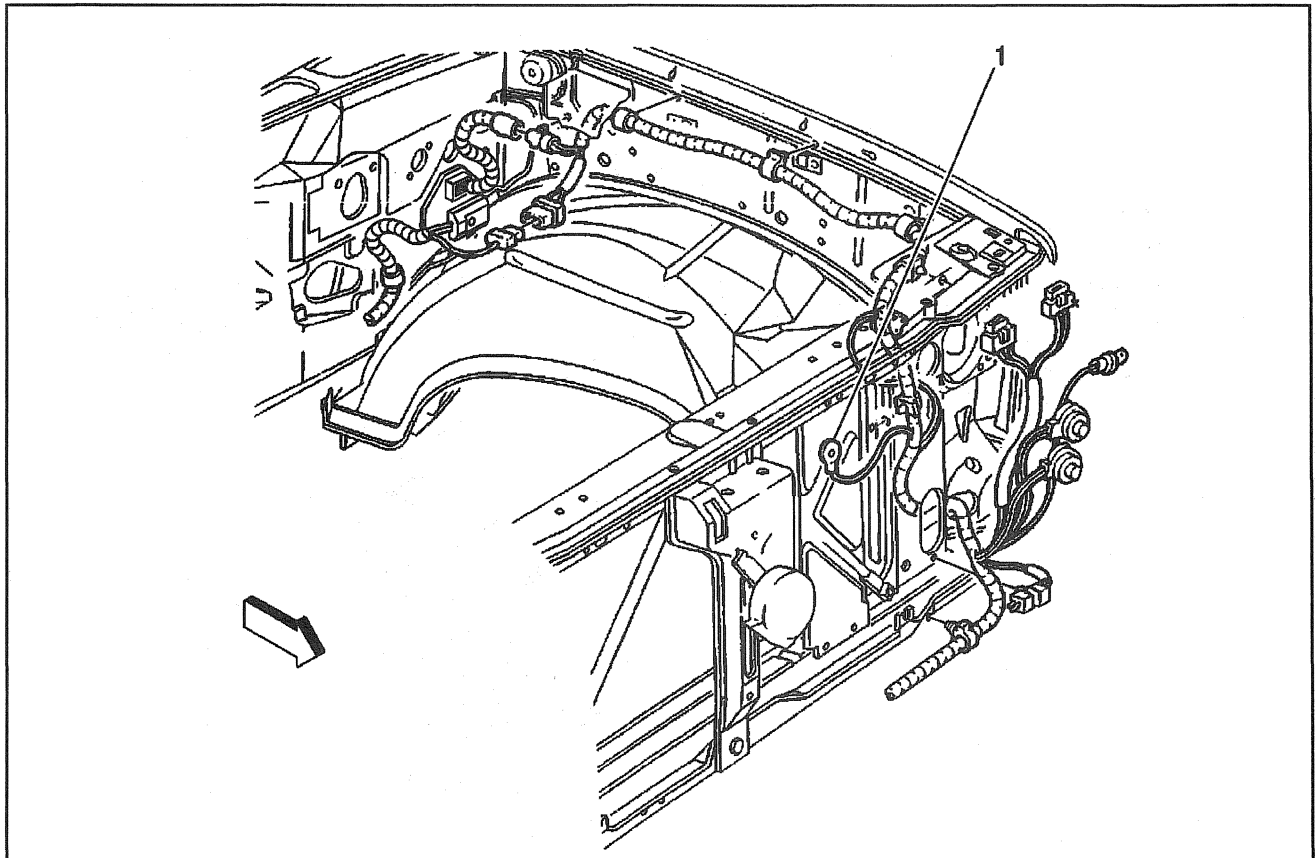
405594

## Legend

- |                              |                    |
|------------------------------|--------------------|
| (1) Underhood Lamp           | (4) Engine Harness |
| (2) G108                     | (5) P101           |
| (3) Underhood Lamp Connector |                    |



## Ground G113

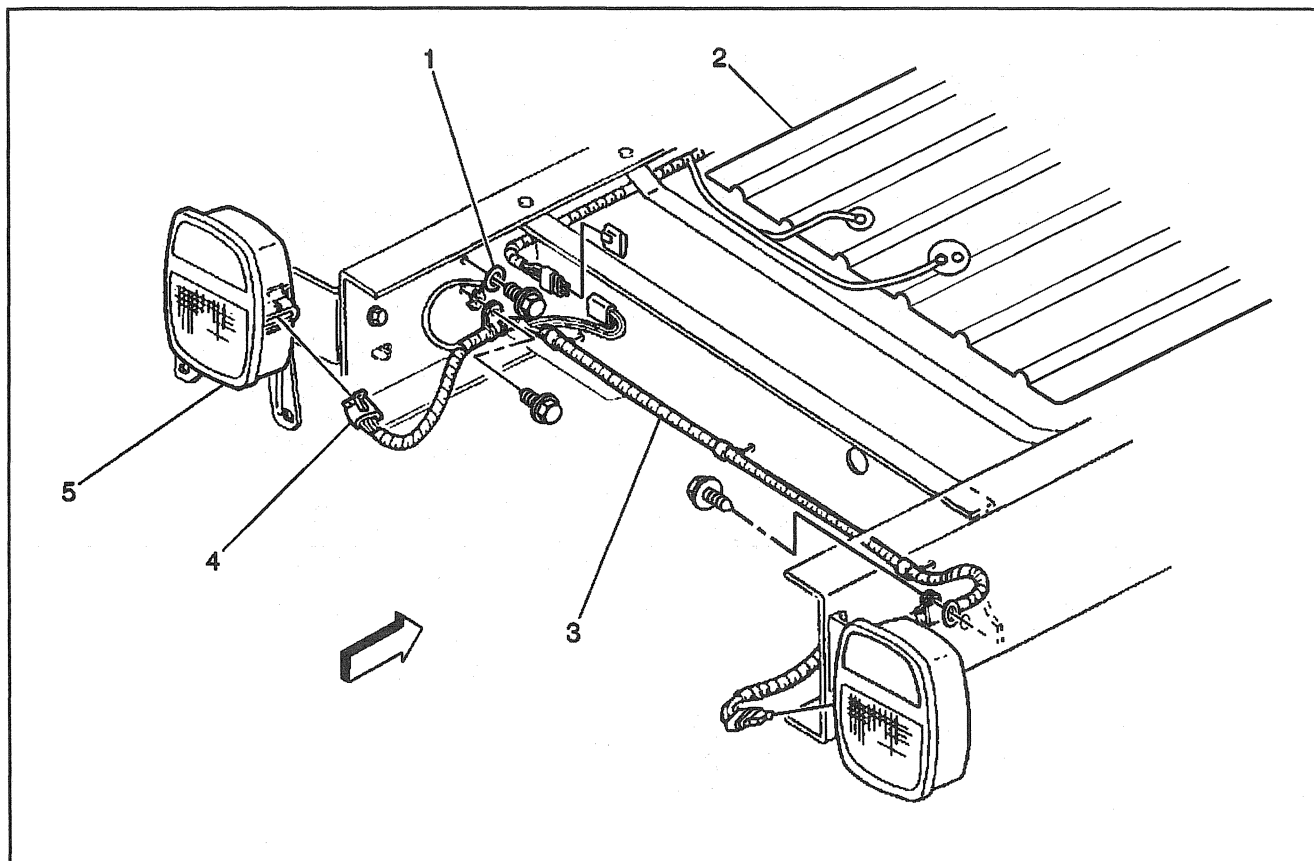


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## Legend

(1) G113

## Taillamp Harness (Cab Chassis)

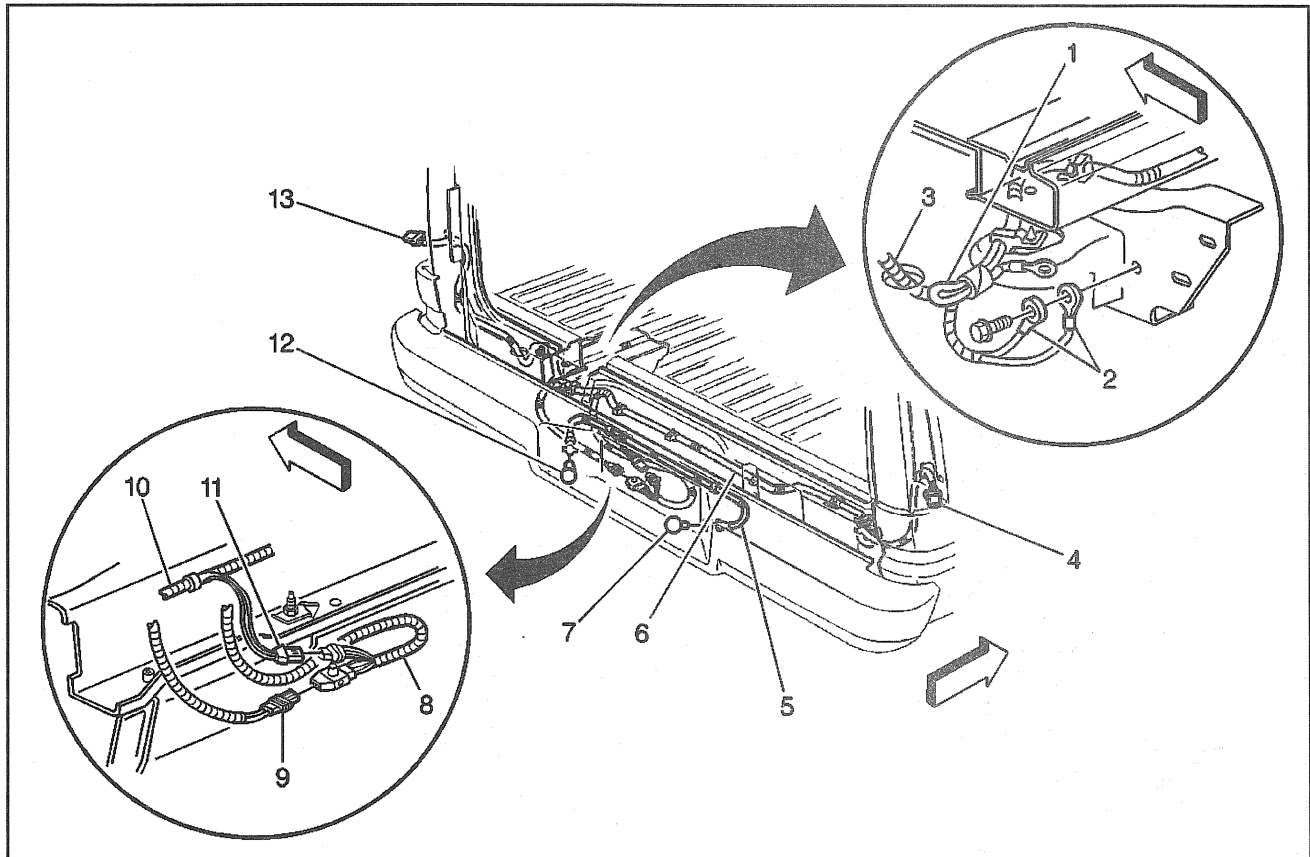


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## Legend

- |   |                                  |
|---|----------------------------------|
| (1) G401                                  | (4) Tail/Stop Lamp Connector, LH |
| (2) Auxiliary Fuel Tank (Dual Tanks Only) | (5) Tail/Stop Lamp Assembly, LH  |
| (3) Tail/Stop Lamp Harness                |                                  |

## Taillamp Harness (w/Trailer Harness, Except Cab Chassis)

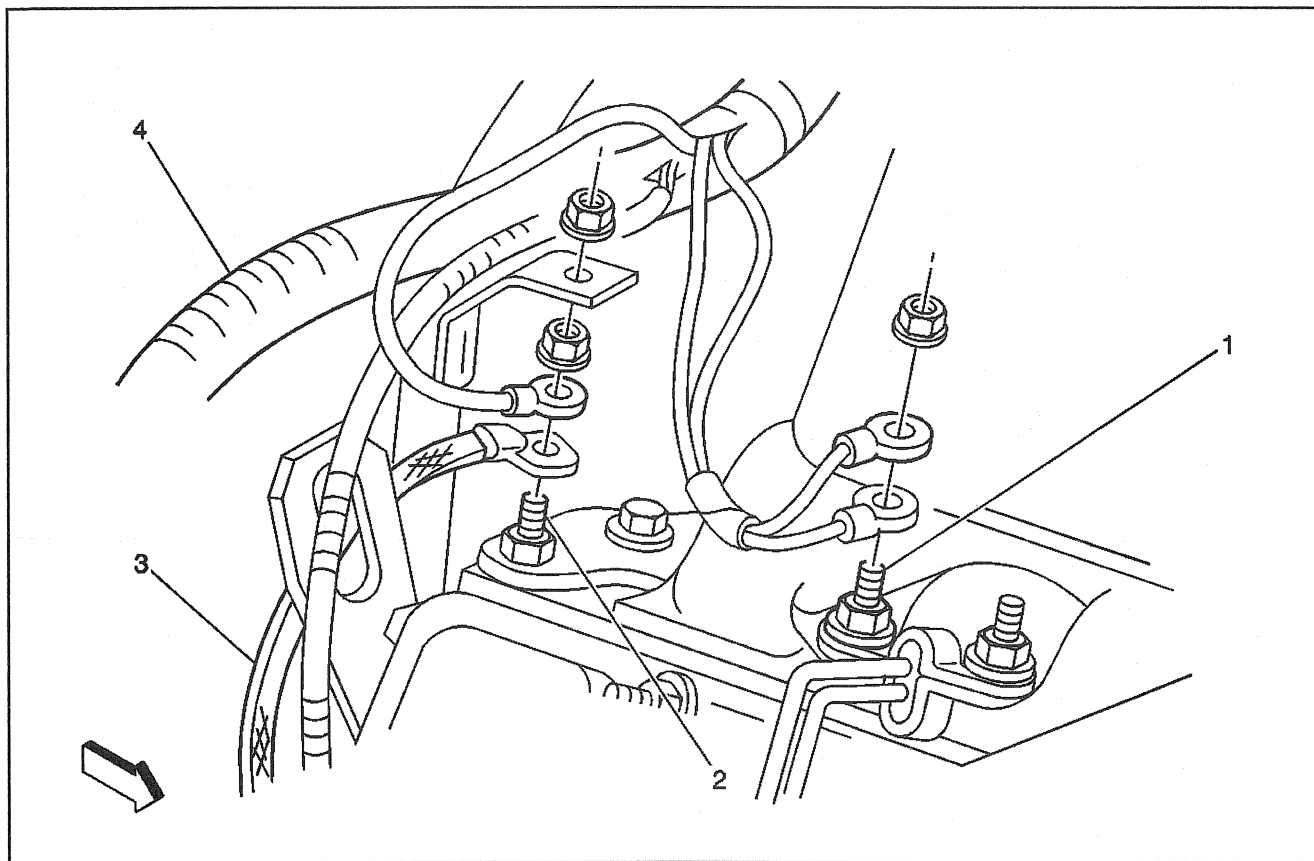


375529

## Legend

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| (1) Ground Harness               | (8) Tail/Stop Lamp Harness        |
| (2) G401                         | (9) C409                          |
| (3) Tail/Stop Lamp Harness       | (10) License Plate Lamp Harness   |
| (4) Tail/Stop Lamp Connector, RH | (11) C407                         |
| (5) License Plate Lamp Harness   | (12) License Plate Lamp, LH       |
| (6) Rear Extension Lamp Harness  | (13) Tail/Stop Lamp Connector, LH |
| (7) License Plate Lamp, RH       |                                   |

## Grounds G104 and G105 (Diesel)



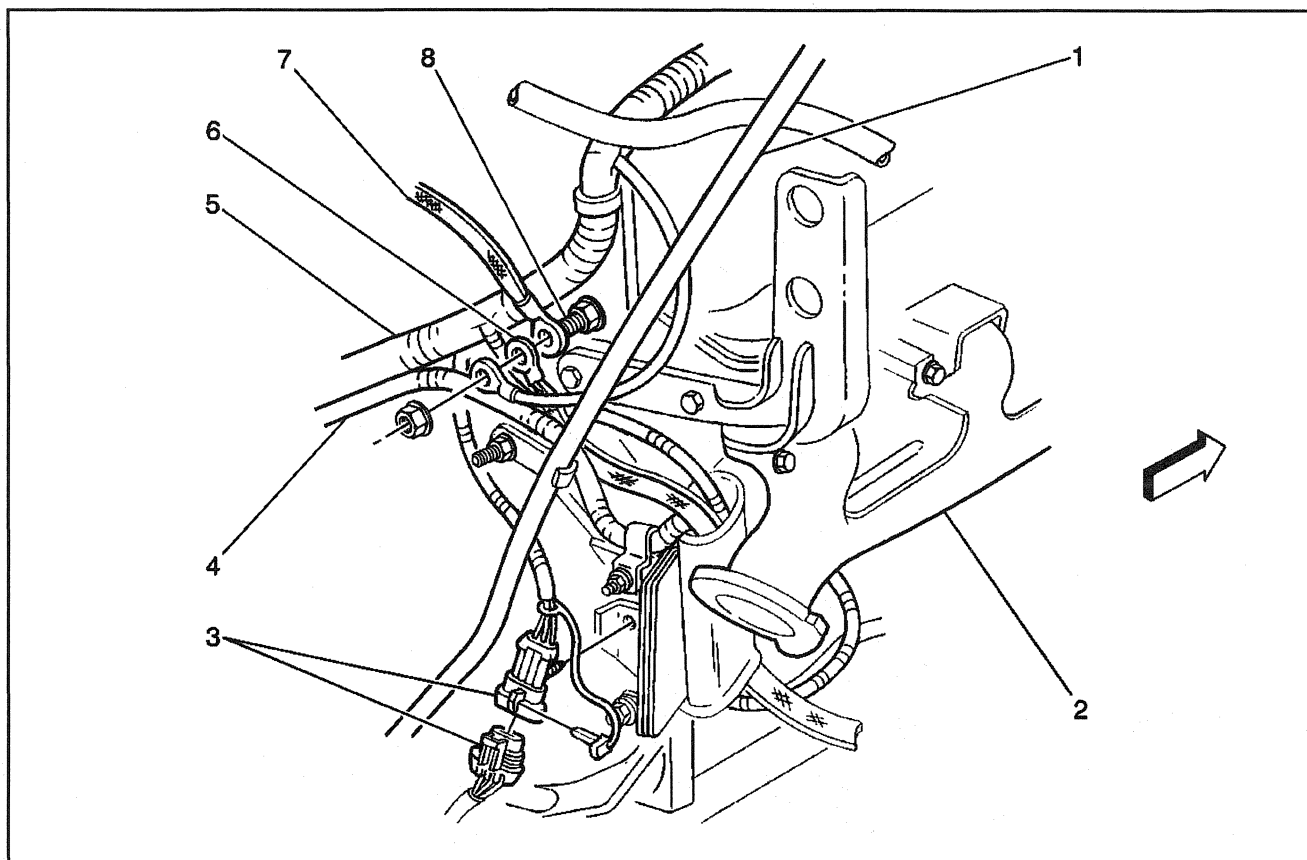
374092

## Legend

- (1) G105
- (2) G104

- (3) Ground Strap
- (4) Engine Harness

## Engine Harness, Right Rear (5.0L/5.7L)

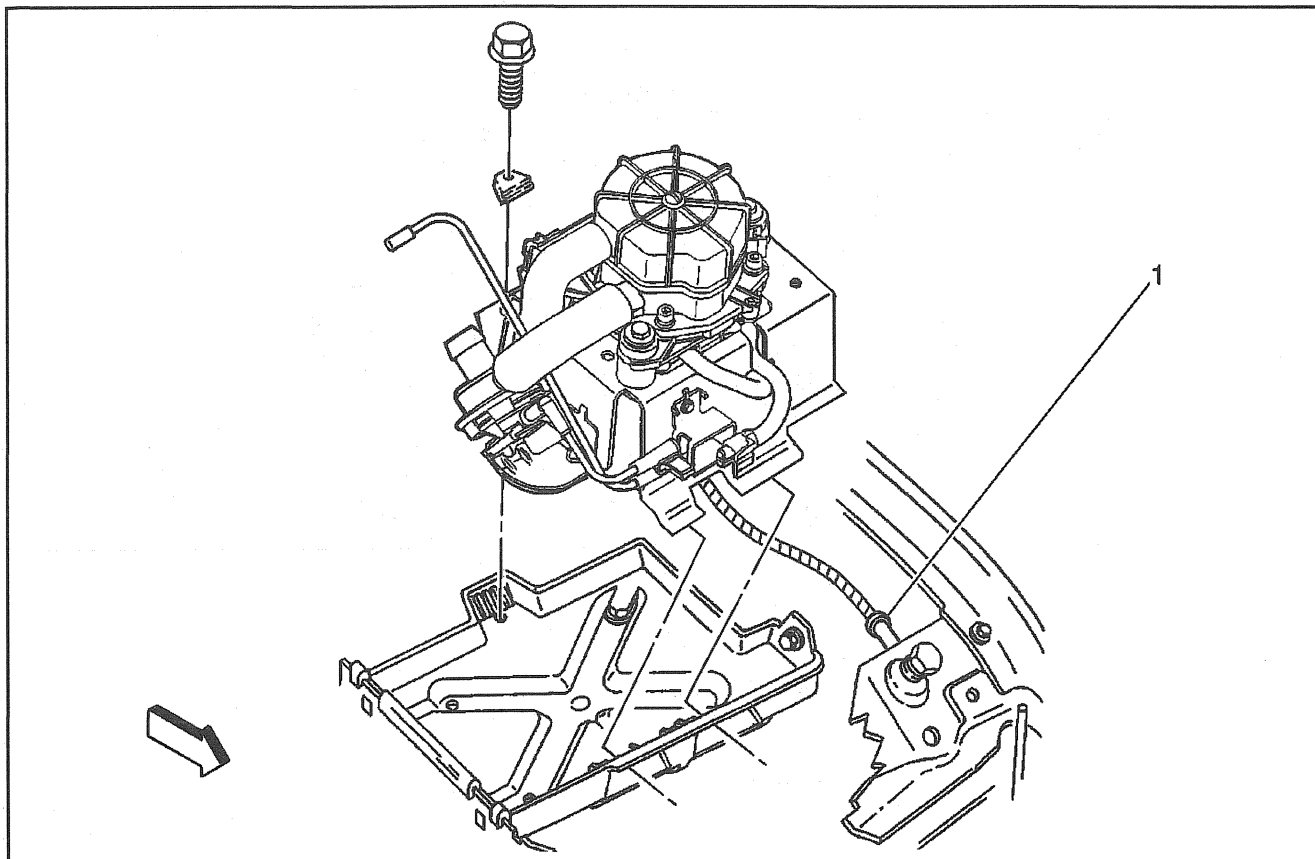


461190

## Legend

- |                              |                    |
|------------------------------|--------------------|
| (1) Transmission Filler Tube | (5) Engine Harness |
| (2) Engine Manifold, RH      | (6) G110           |
| (3) C107                     | (7) Ground Strap   |
| (4) 4WD Harness              | (8) G104           |

## Secondary Air Injection (AIR) Pump, G115 (L31)

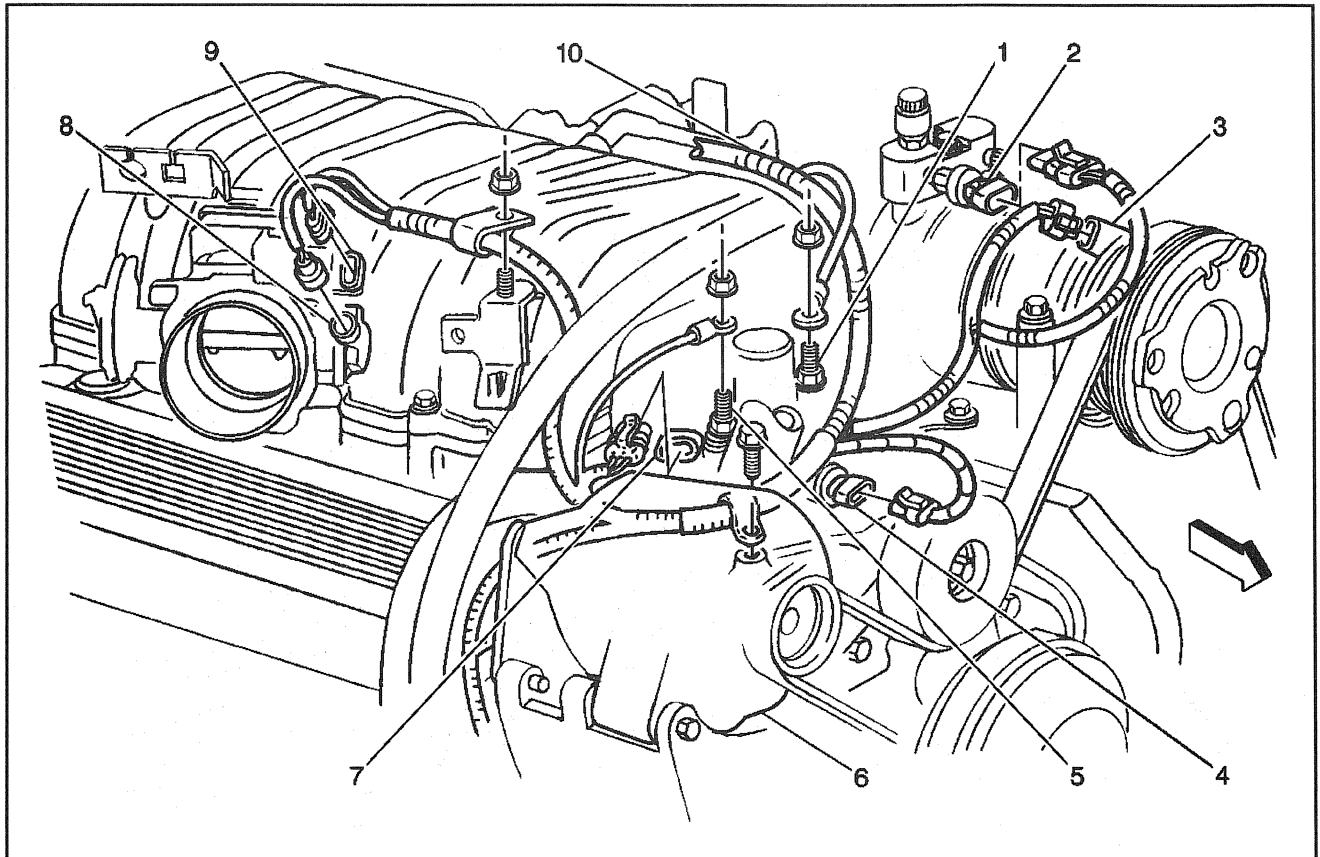


276736

## Legend

(1) G115

## Engine Harness, Front (7.4L)

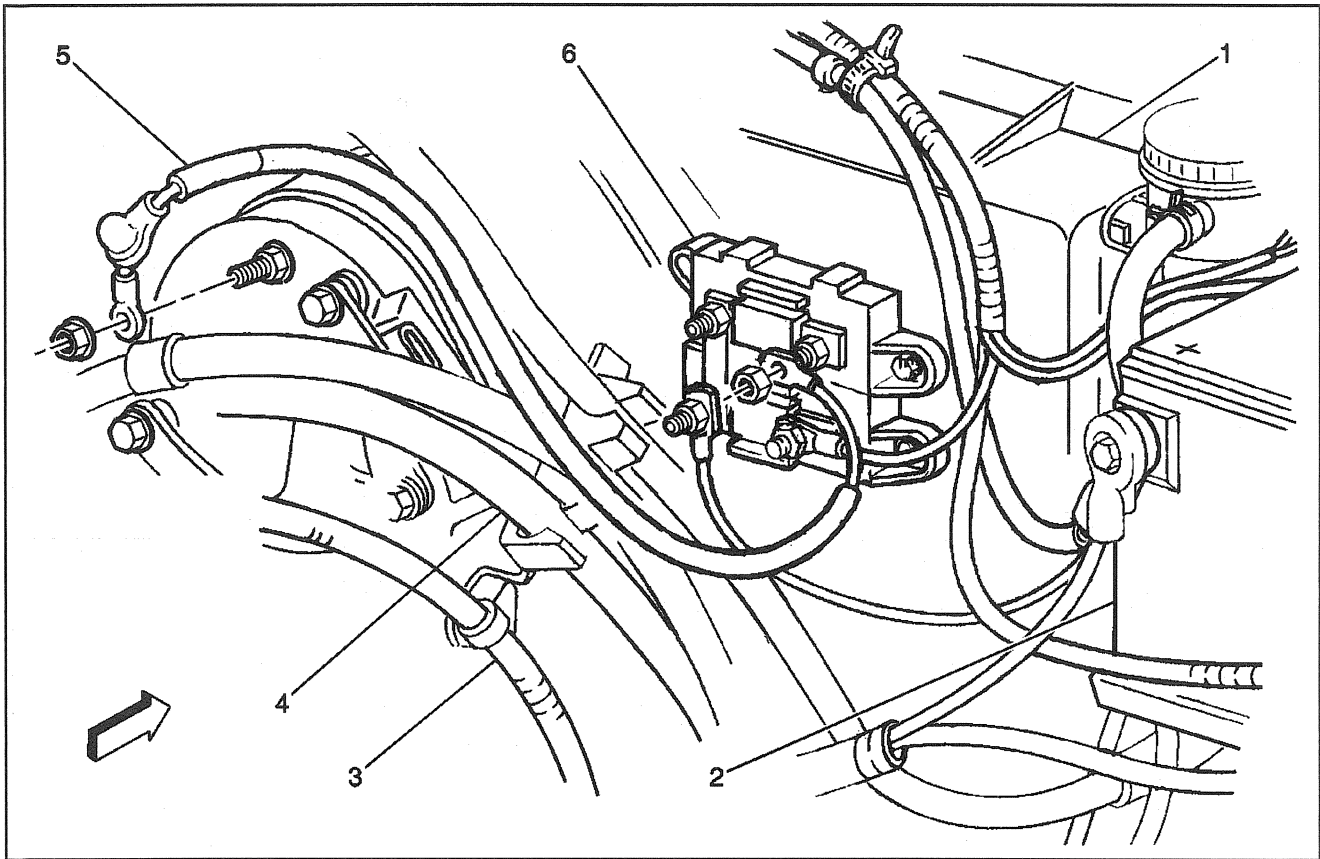


461193

## Legend

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| (1) G104                              | (6) Generator                     |
| (2) A/C Low Pressure Cutout Switch    | (7) Manifold Air Pressure Sensor  |
| (3) A/C Compressor Clutch             | (8) Throttle Position Sensor      |
| (4) Engine Coolant Temperature Sensor | (9) Intake Air Temperature Sensor |
| (5) G103                              | (10) Engine Harness               |

## Mega Fuse



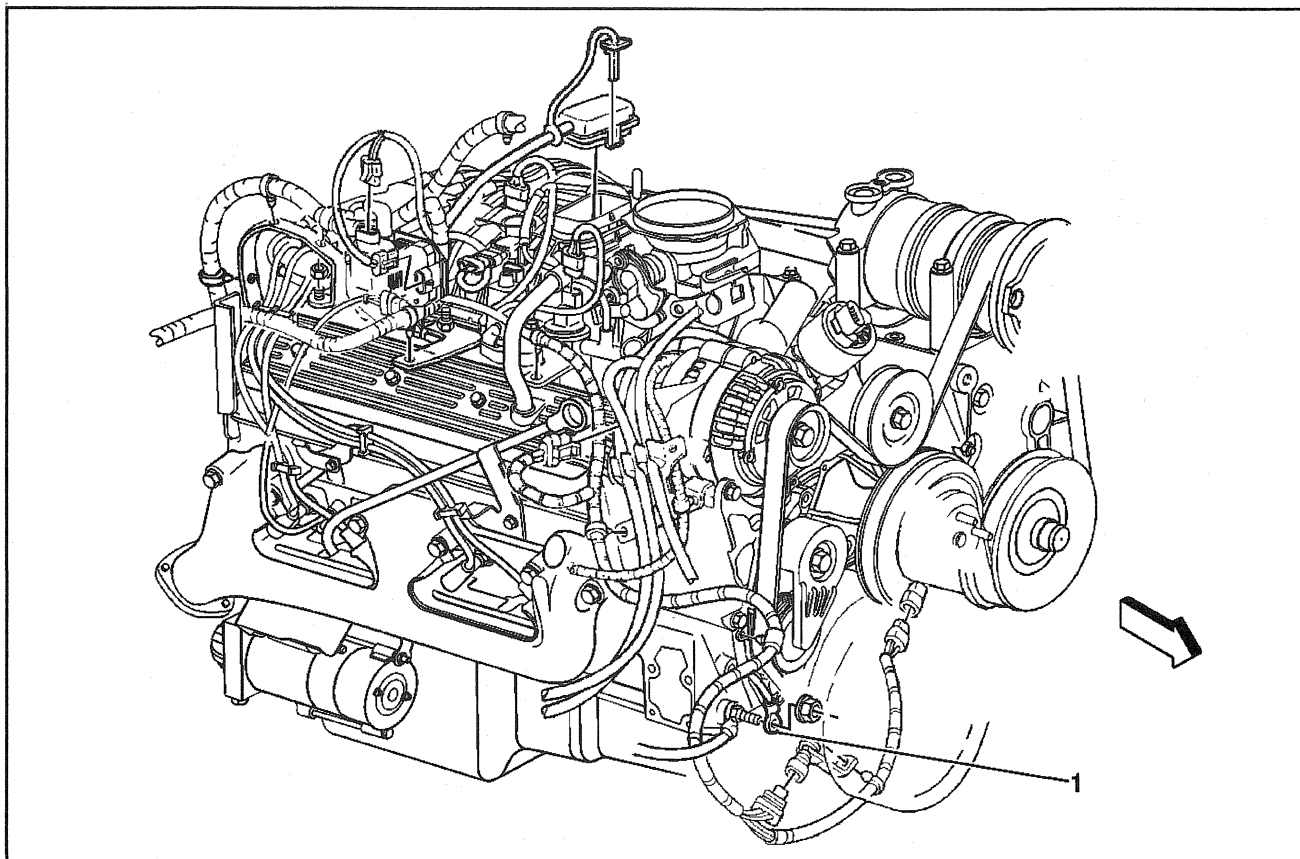
461185

## Legend

- |                    |                       |
|--------------------|-----------------------|
| (1) Fan Shroud     | (4) Heater Hose       |
| (2) Battery, RH    | (5) Generator Harness |
| (3) Engine Harness | (6) Mega Fuse         |



## Ground G105 (Gas)

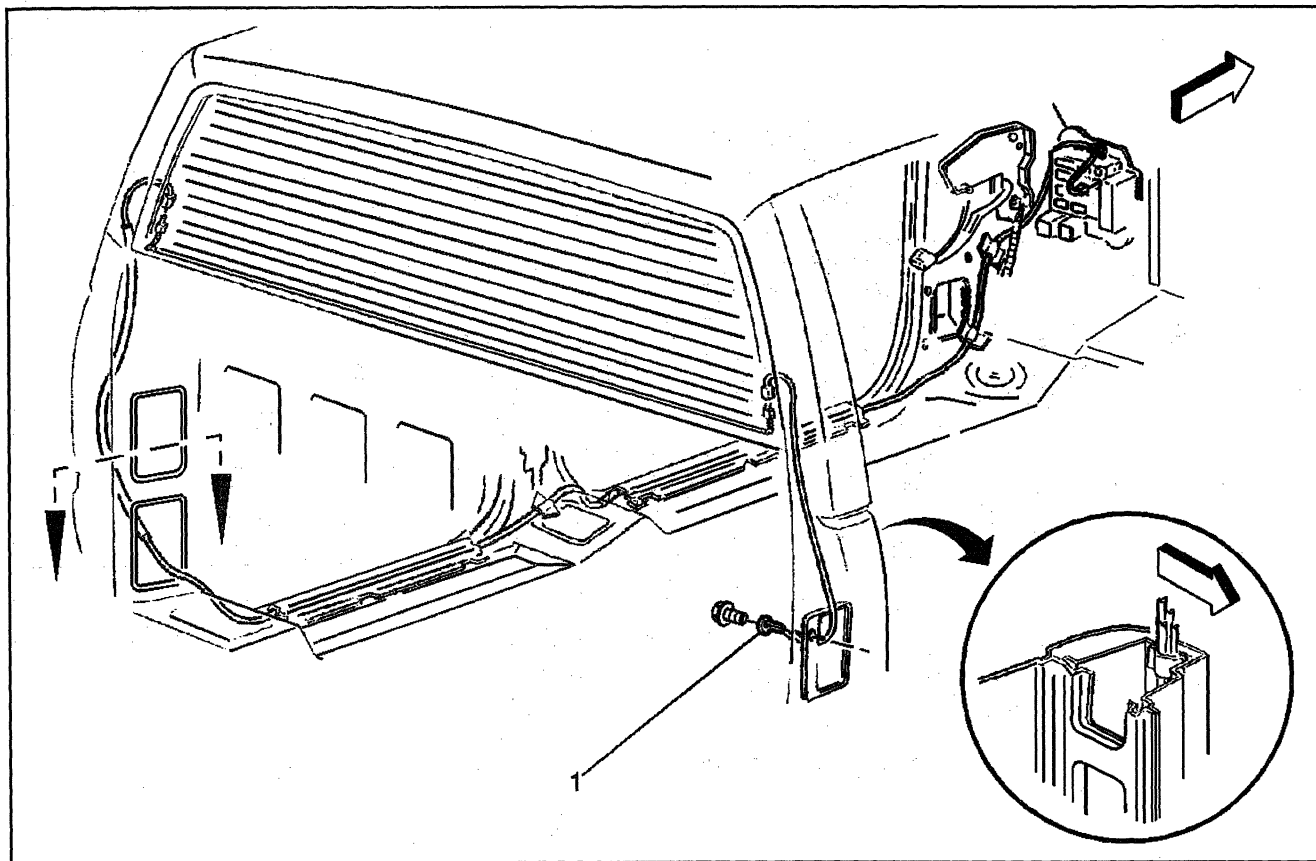


276742

## Legend

(1) G105

## Ground G300 (Pick-Up)

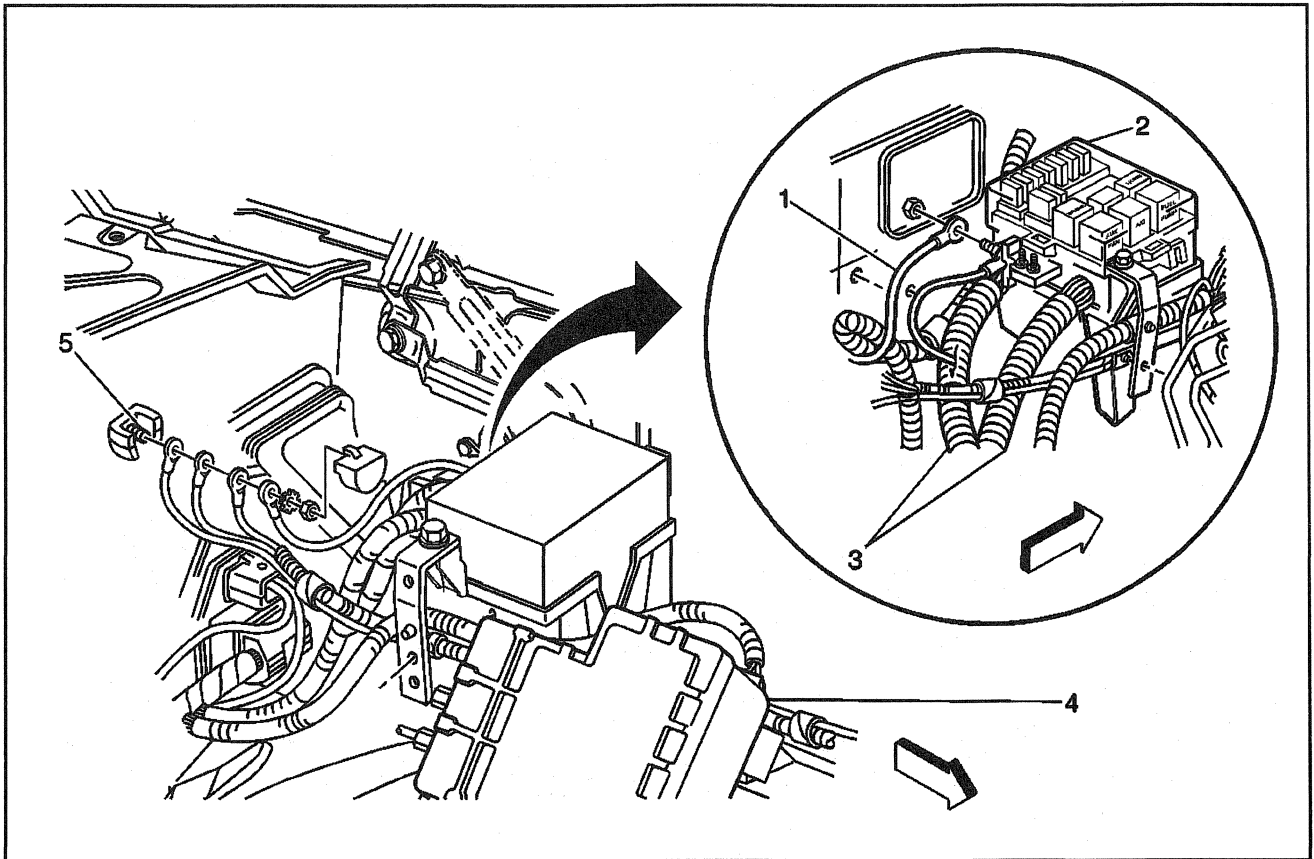


277052

## Legend

(1) G300

## Underhood Fuse Block

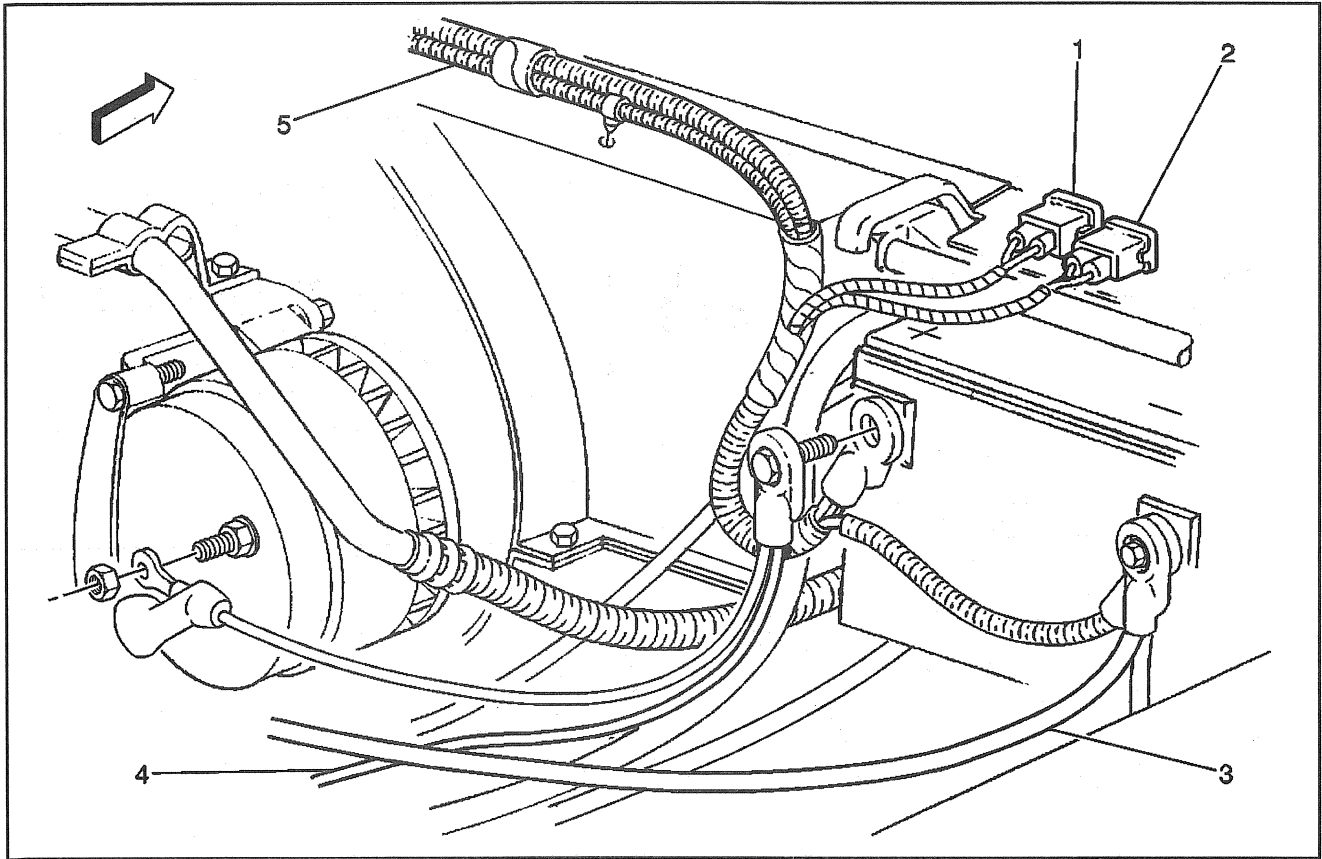


374115

## Legend

- |                          |                         |
|--------------------------|-------------------------|
| (1) Battery Cable        | (4) EBCM                |
| (2) Underhood Fuse Block | (5) Remote Battery Stud |
| (3) Engine Harness       |                         |

## Fuse A and Fuse B (Police Package)

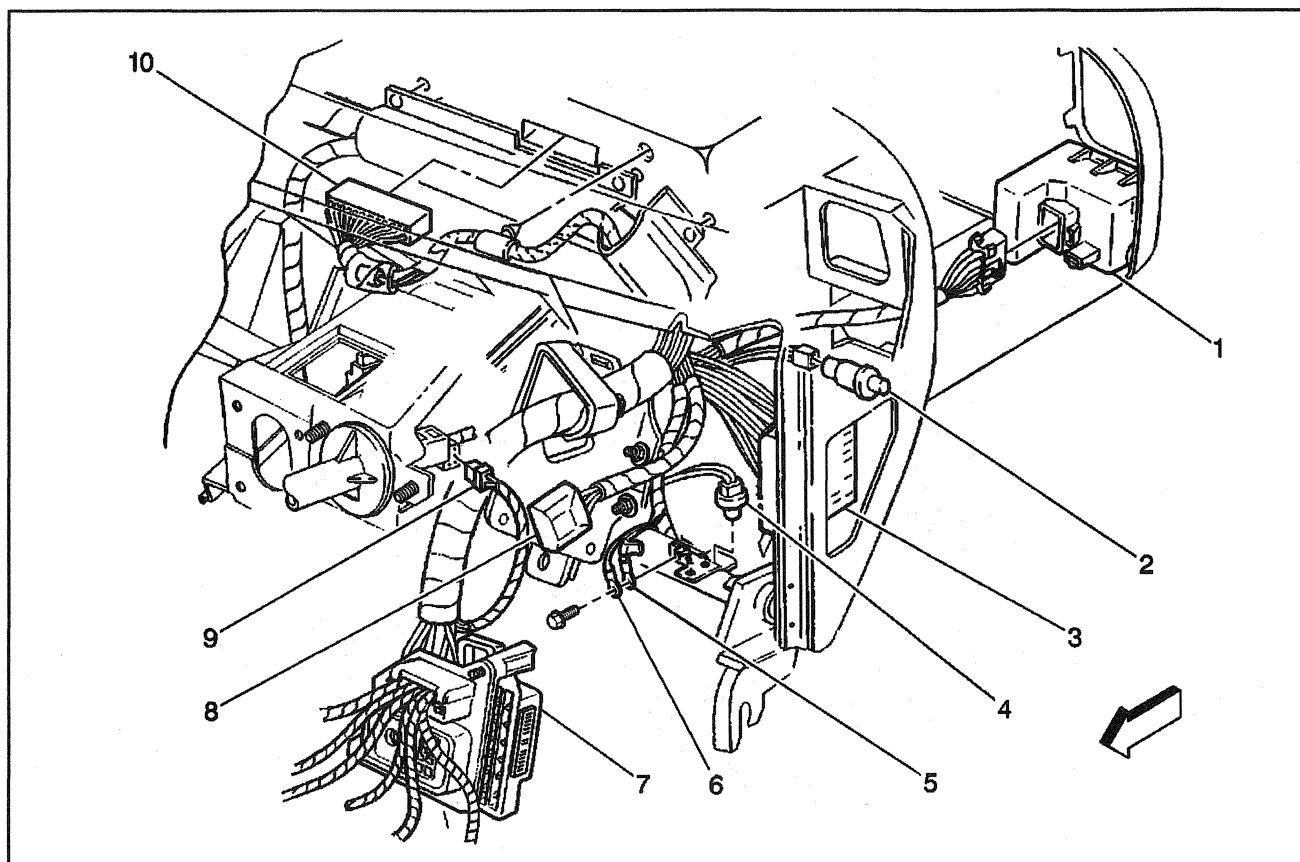


376127

## Legend

- |                            |                            |
|----------------------------|----------------------------|
| (1) Fuse A                 | (4) Positive Battery Cable |
| (2) Fuse B                 | (5) Battery Cable Harness  |
| (3) Negative Battery Cable |                            |

IP Harness, Left Rear View

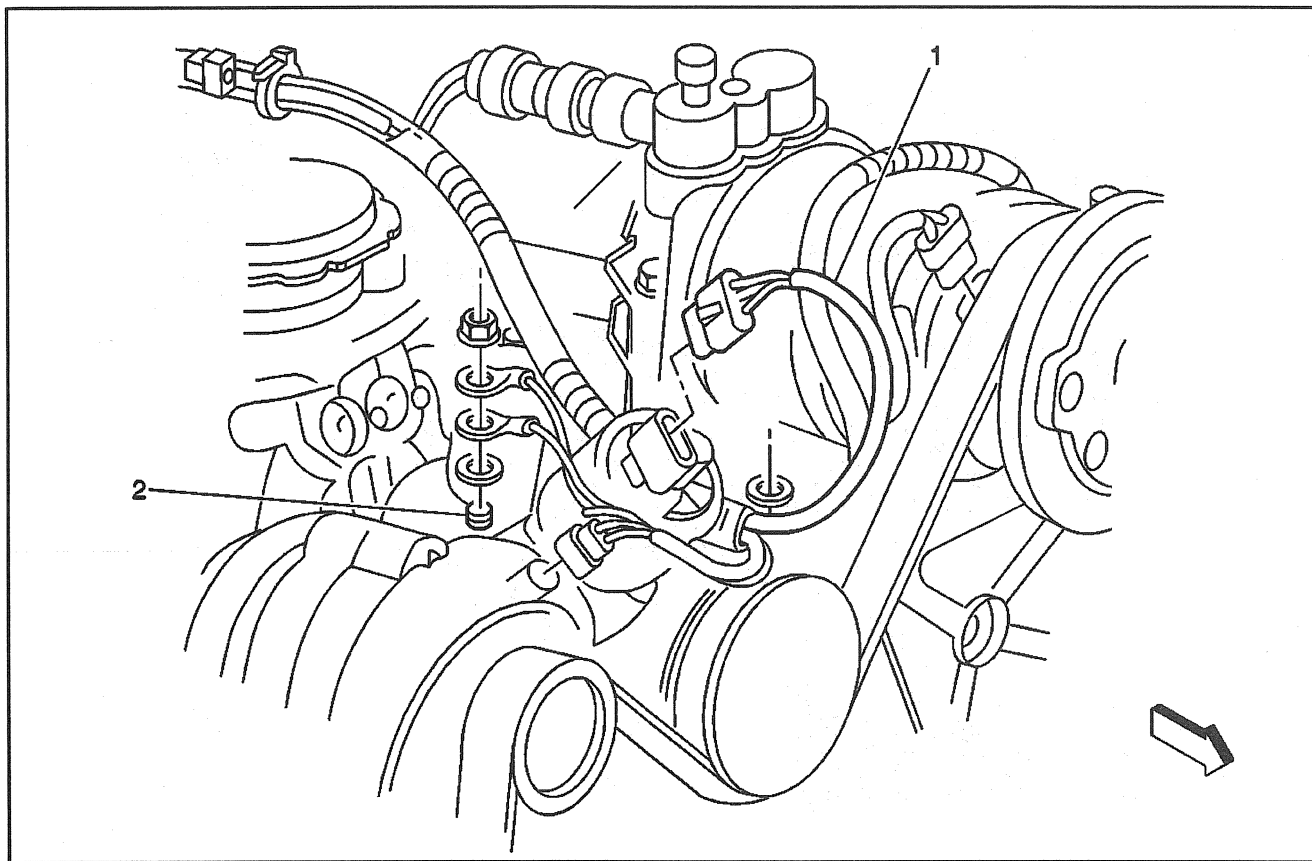


376140

**Legend**

- |                                      |                           |
|--------------------------------------|---------------------------|
| (1) Headlamp and Panel Dimmer Switch | (6) G201                  |
| (2) Door Jamb Switch, LH             | (7) C100                  |
| (3) IP Fuse Block                    | (8) DRL Module            |
| (4) Courtesy Lamp, LH                | (9) C227                  |
| (5) G200                             | (10) IP Cluster Connector |

## Ground G103 (Gas, Except 7.4L)



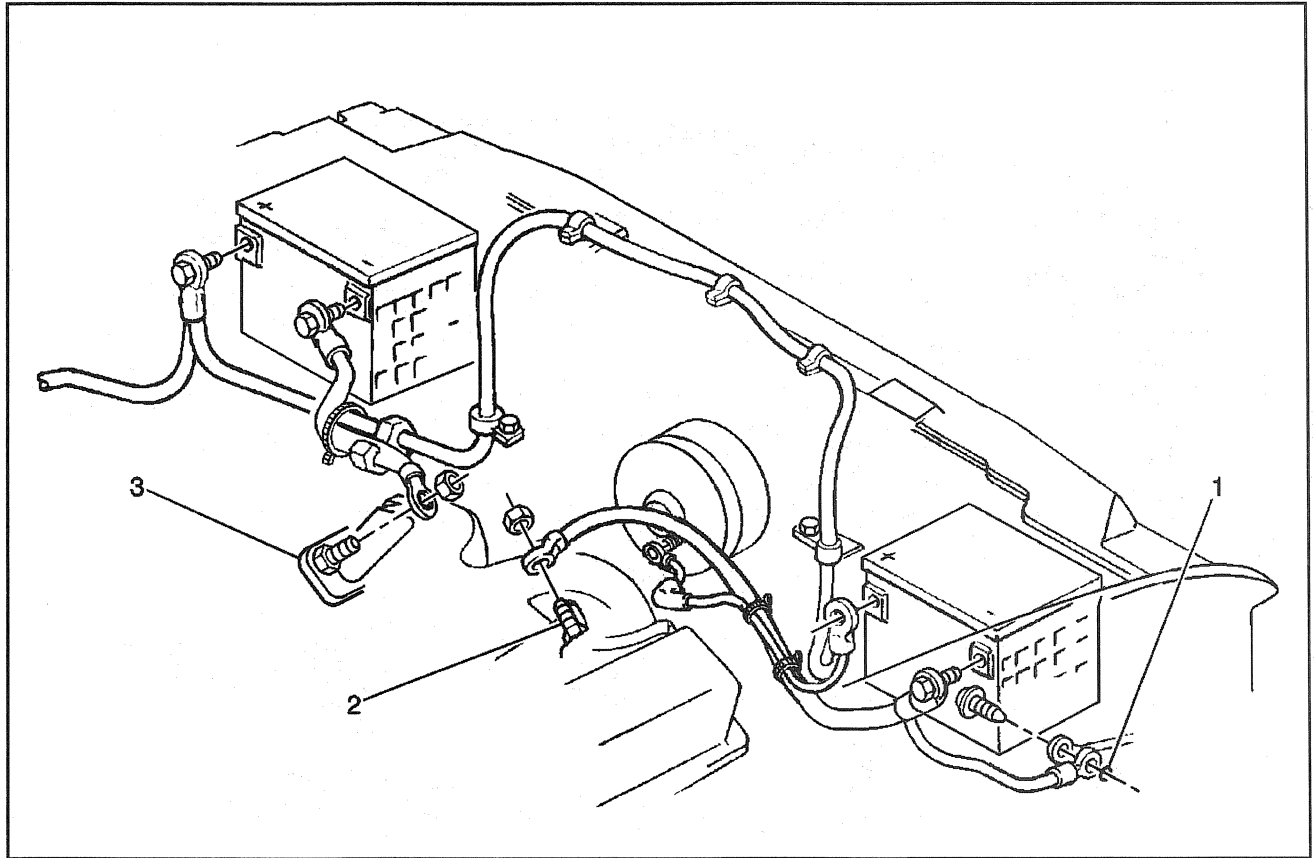
405860

## Legend

(1) EGR Valve Electrical Harness

(2) G103

## Grounds G101, G102, and G103 (Diesel)



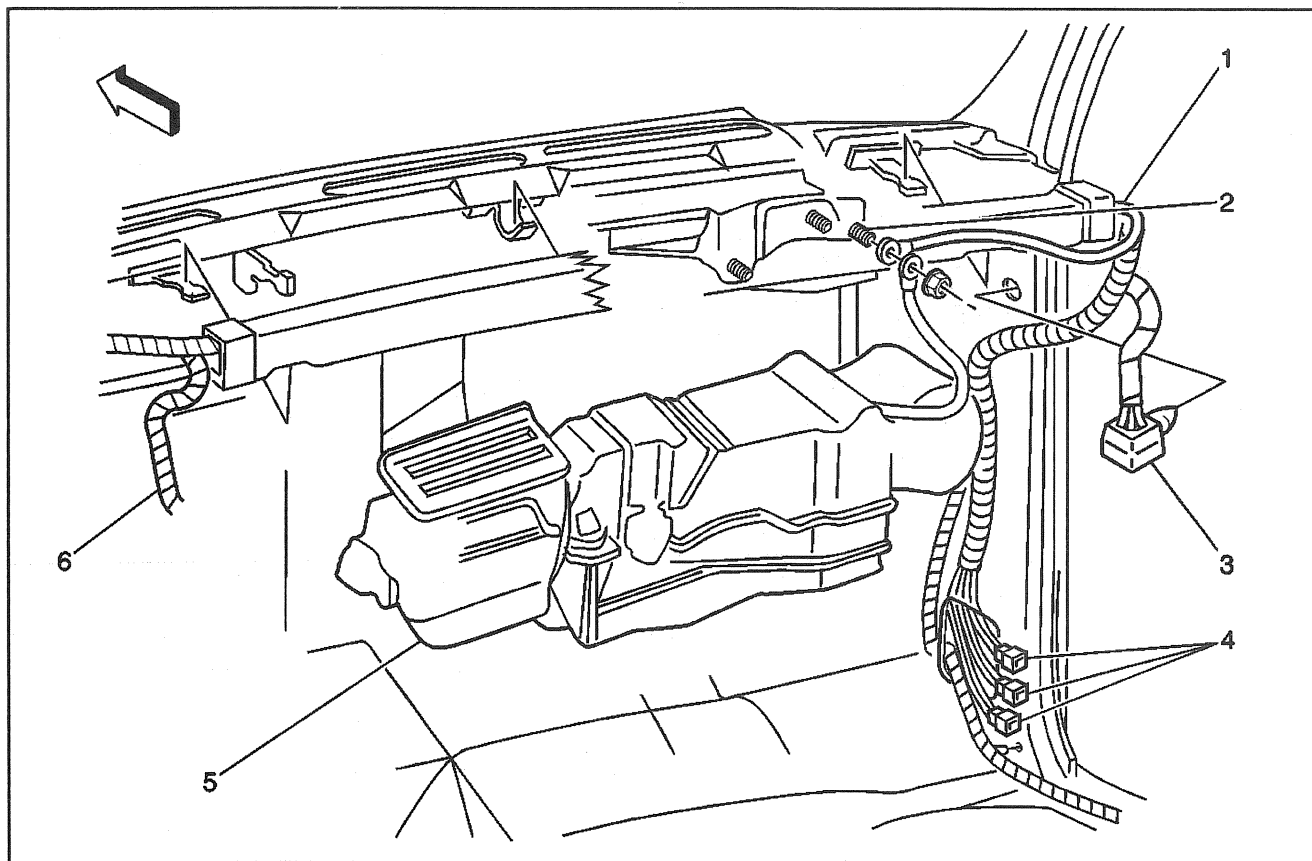
405858

## Legend

- (1) G101
- (2) G102

- (3) G103

## HVAC Harness, Bulkhead, Right Side



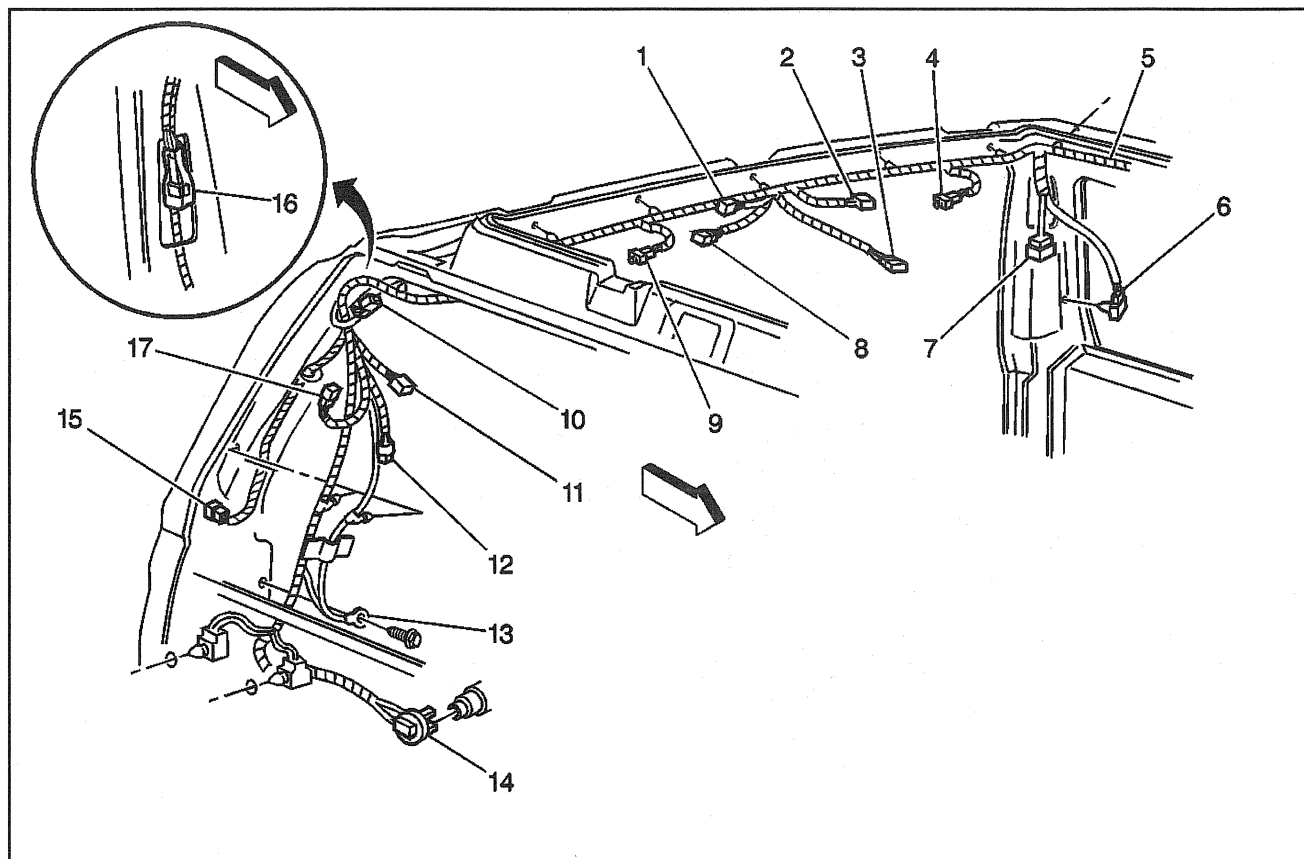
461812

**Legend**

- |                        |                                   |
|------------------------|-----------------------------------|
| (1) .Crossbody Harness | (4) Right Door Harness Connectors |
| (2) G202               | (5) HVAC Plenum                   |
| (3) C299               | (6) Crossbody Harness             |



## Rear Body Harness

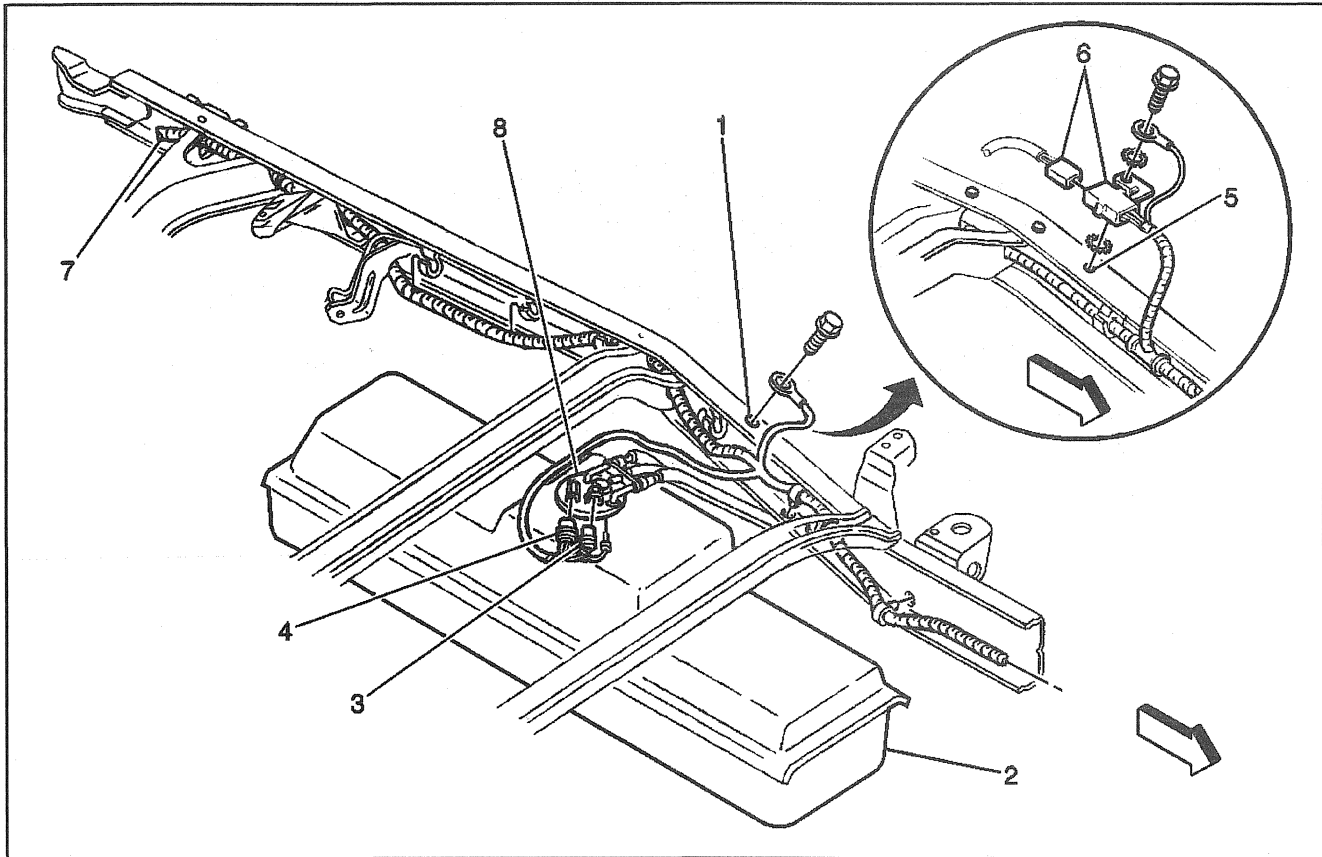


372228

## Legend

- |                                |   |
|--------------------------------|---|
| (1) CHMSL Connector            | (10) C406 (Cargo Doors)                           |
| (2) C402                       | (11) Door Lock Switch Connector, Rear             |
| (3) C303                       | (12) Door Lock Actuator Connector, Rear           |
| (4) Speaker Connector, LR      | (13) G400   |
| (5) Front to Rear Body Harness | (14) Auxiliary Power Connector, Rear              |
| (6) C314 (Liftgate)            | (15) Door Jamb Switch Connector, Rear (Liftgate)  |
| (7) C405 (Cargo Doors)         | (16) C406 (Cargo Doors)                           |
| (8) C406 (Liftgate)            | (17) Door Jamb Switch Connector, RR (Cargo Doors) |
| (9) Speaker Connector, RR      |   |

## Fuel Pump and Sender (Single Tank)



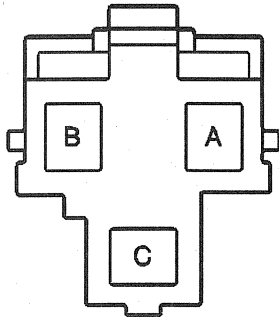
372212

## Legend

- |                                |   |
|--------------------------------|---|
| (1) G404                       | (5) G404                                    |
| (2) Fuel Tank                  | (6) Fuel Pump and Sender connector (Diesel) |
| (3) Fuel Tank Sender connector | (7) Rear Lamp Extension Harness             |
| (4) Fuel Pump connector        | (8) Fuel Pump and Sender Assembly           |

## Power and Grounding Connector End Views

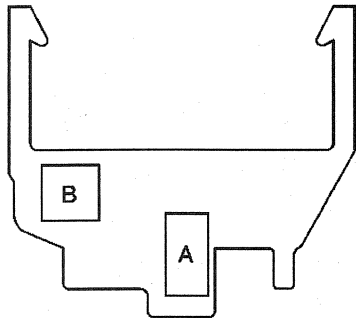
### Auxiliary Power Outlet, Rear



320518

Connector Part Information		<ul style="list-style-type: none"> <li>• 12176446</li> <li>• 3F M/P 280 FLXLK Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	840	Fuse Output - Battery - Type III Fuse
B	—	—	Not Used
C	BLK	150	Ground

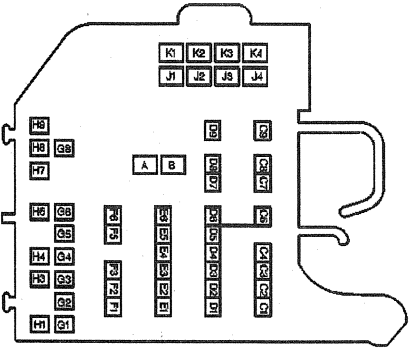
### Auxiliary Power, Rear Console Connector



38228

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047699</li> <li>• 2F (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	ORN	840	Fuse Output - Battery - Type III Fuse
B	BLK	150	Ground

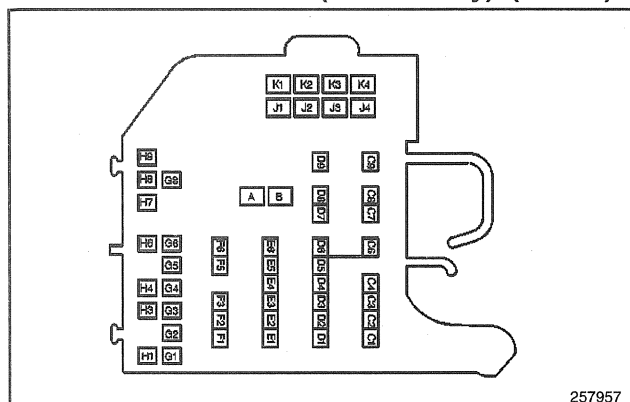
### Convenience Center (Non-Luxury)



257957

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146452</li> <li>• Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	RED	542	Fuse Output - Battery - Type II Fuse
B	BRN	341	Fuse Output - Ignition 3 Type III Fuse
C1-C8	—	—	Not Used
C9	DK GRN	389	Vehicle Speed Signal - 4000 Pulses Per Mile
D1	BLK/WHT	1695	4SWD Front Wheel-lock Telltale - Feed
D2	ORN	640	Fuse Output - Battery - Type III Fuse
D3	ORN	540	Fuse Output - Battery - Type III Fuse
D4	YEL	343	Fuse Output - Accessory - Type III Fuse
D5	BLK	1576	Liftgate Release Switch Output
D6	BLK	28	Fuse Output - Battery - Type III Fuse
D7-D8	—	—	Not Used
D9	PPL	2930	Rear Defogger Element Feed
E1	DK BLU	1926	Auxiliary HVAC Switch Output-Low
E2	REd	1925	Auxiliary HVAC Switch Output-Medium
E3	WHT	1924	Auxiliary HVAC Switch Output-High
E4	LT BLU	97	Windshield Wiper Switch Signal-Mist/Off/Low
E5	GRA	391	Rear Window Wiper Switch Output
E6	DK GRN	392	Rear Window Wiper Pump Motor-Feed
F1	BLK	150	Ground
F2	ORN	40	Fuse Output-Battery-Type III Fuse

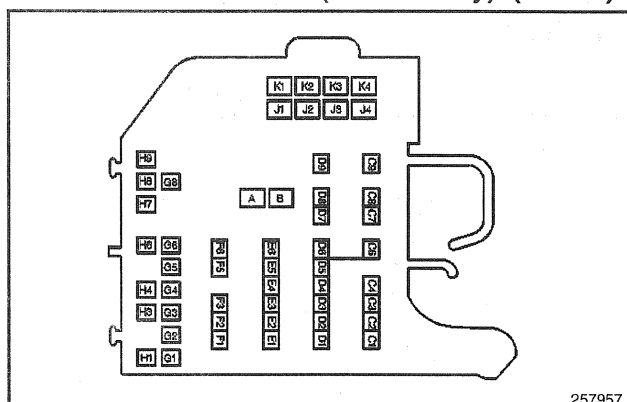
## Convenience Center (Non-Luxury) (cont'd)



257957

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146452</li> <li>• Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
F3	BRN	241	Fuse Output-Ignition 3-Type III Fuse
F5	GRA	8	Instrument Lamp Feed
F6	WHT	17	Stop Lamp Switch Output
F7-F11	—	—	Not Used
G1-G3	—	—	Not Used
G4	PNK	39	Fuse Output - Ignition 1 - Type III Fuse
G5	PPL	359	Headlamp Feed-Daytime Running Lamps
G6	YEL	634	Daytime Running Lamp Diode Feed
G8	BLK	150	Ground
H1-H3	—	—	Not Used
H4	TAN	12	Low Beam Headlamp Feed
H	—	—	Not Use
H6	LT GRN/BLK	592	Daytime Running Lamp Relay Output-Coil
H7	PPL	1697	Turn/Hazard Module Output
H8	GRA	1696	Turn/Hazard Module Feed-Secondary
H9	LT BLU	1508	Turn/Hazard Module Feed
J1	GRA	8	Instrument Panel Lamp Feed
J2	ORN	140	Fuse Output-Battery-Type III Fuse
J3	LT GRN	80	Key Reminder Switch Signal
J4	—	—	Not Used
K1	BLK/WHT	238	Seat Belt Switch Signal
K2	BLK	150	Ground

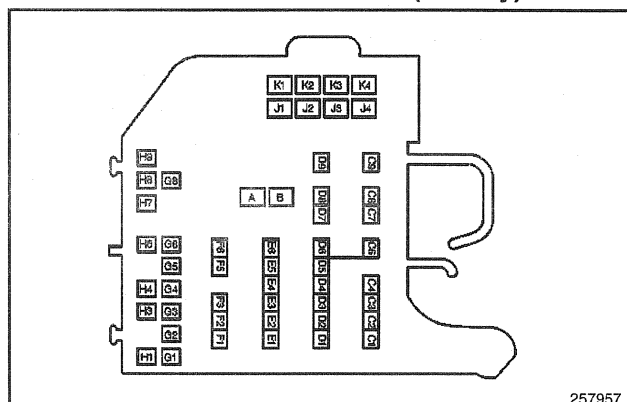
## Convenience Center (Non-Luxury) (cont'd)



257957

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146452</li> <li>• Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
K3	YEL	234	Seat Belt Indicator Lamp Output
K4	PNK	39	Fuse Output - Ignition - Type II Fuse

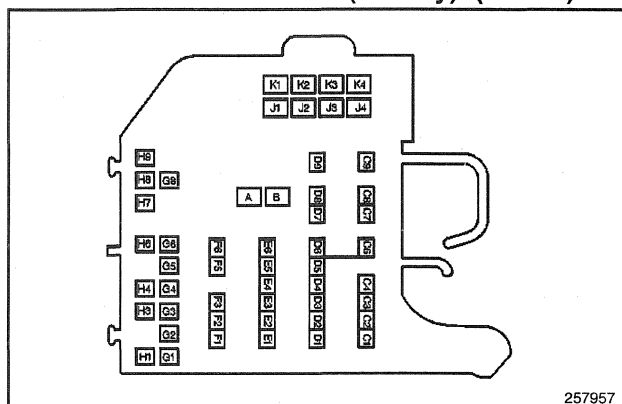
## Convenience Center (Luxury)



257957

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146452</li> <li>• Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	RED	542	Fuse Output - Battery - Type II Fuse
B	BRN	341	Fuse Output - Ignition 3 Type III Fuse
C1-C8	—	—	Not Used
C9	DK GRN	389	Vehicle Speed Signal - 4000 Pulses Per Mile
D1	ORN	240	Fuse Output-Battery-Type III Fuse
D2	ORN	640	Fuse Output - Battery - Type III Fuse
D3	ORN	540	Fuse Output - Battery - Type III Fuse

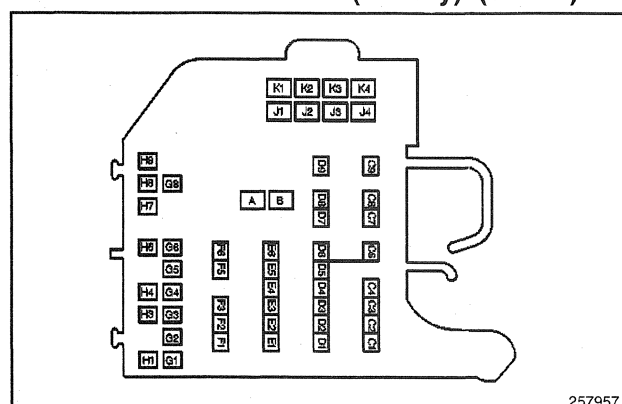
## Convenience Center (Luxury) (cont'd)



257957

Connector Part Information		<ul style="list-style-type: none"> <li>12146452</li> <li>Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
D4	YEL	343	Fuse Output - Accessory - Type III Fuse
D5	ORN	1940	Fuse Output - Battery - Type III Fuse
D6	BLK	28	Fuse Output - Battery - Type III Fuse
D7-D8	—	—	Not Used
D9	PPL	293	Rear Defogger Element Feed
E1	BLK	1576	Liftgate Release Switch Output
E2	YEL	1737	Transmission Mounted Neutral Safety Switch Output-Park/Neutral
E3	—	—	Not Used
E4	LT BLU	97	Windshield Wiper Switch Signal-Mist/Off/Low
E5	GRA	391	Rear Window Wiper Switch Output
E6	DK GRN	392	Rear Window Wiper Pump Motor-Feed
F1	GRY	8	Instrument Panel lamp Feed
F2	ORN	840	Fuse Output-Battery-Type III Fuse
F3	ORN	540	Fuse Output-Battery-Type III Fuse
F5-F11	—	—	Not Used
G1	YEL	317	Fog Lamp Relay Feed-Coil (Luxury)

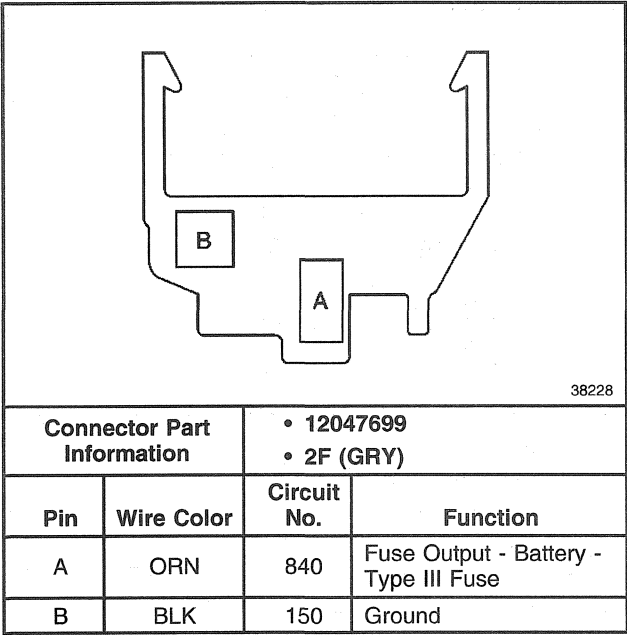
## Convenience Center (Luxury) (cont'd)



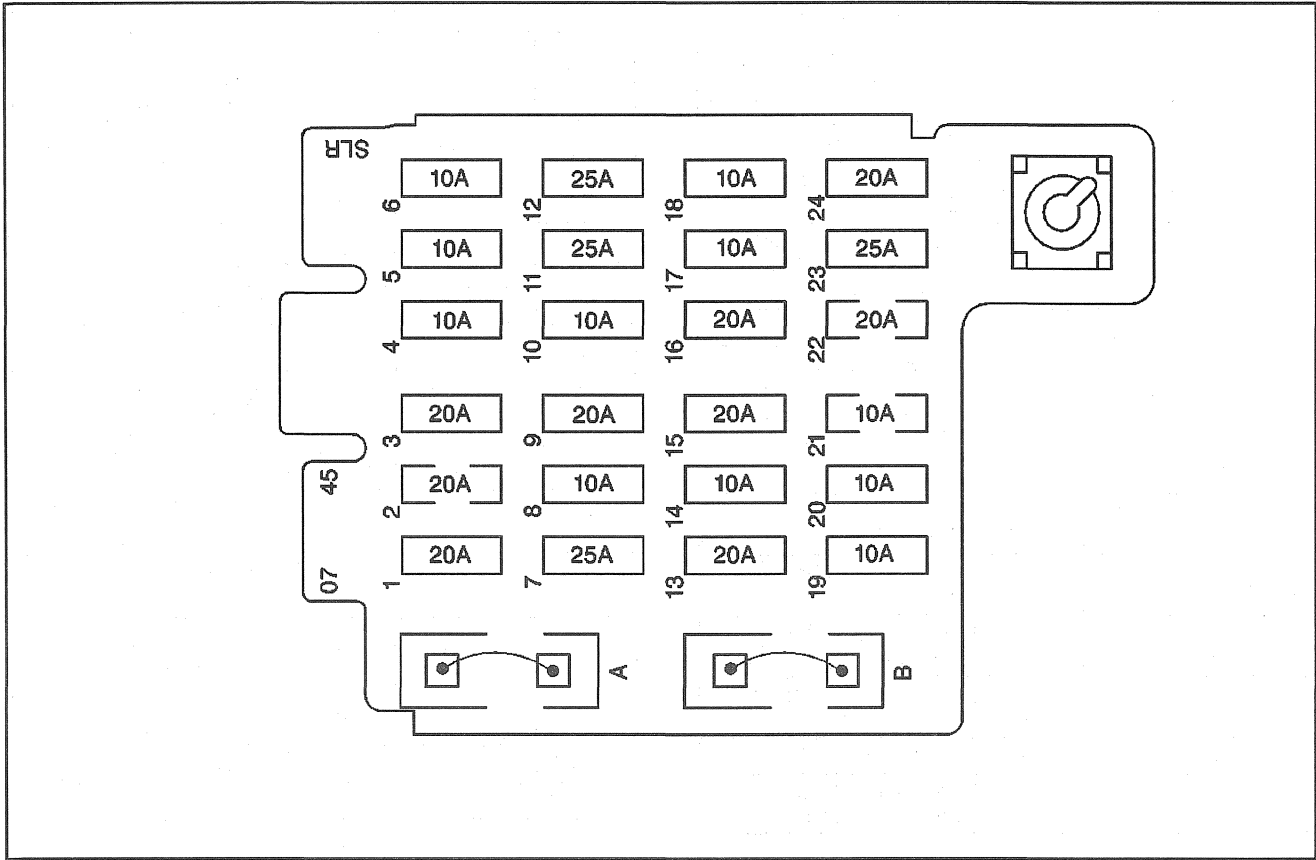
257957

Connector Part Information		<ul style="list-style-type: none"> <li>12146452</li> <li>Convenience Center PRTD (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
G2	—	—	Not Used
G3	PPL	34	Fog Lamp Feed (Luxury)
G4	PNK	39	Fuse Output - Ignition 1 - Type III Fuse
G5	PPL	359	Headlamp Feed-Daytime Running Lamps
G6	YEL	634	Daytime Running Lamp Diode Feed
G8	BLK	150	Ground
H1	ORN	340	Fuse Output-Battery-Type III Fuse
H2	—	—	Not Used
H3	LT GRN	11	High Beam Headlamp Feed
H4	TAN	12	Low Beam Headlamp Feed
H5	—	—	Not Used
H6	LT GRN/BLK	592	Daytime Running Lamp Relay Output-Coil
H7	PPL	1697	Turn/Hazard Module Output
H8	GRA	1696	Turn/Hazard Module Feed-Secondary
H9	LT BLU	1508	Turn/Hazard Module Feed
J1-J4	—	—	Not Used
K1-K4	—	—	Not Used

Cigar Lighter Connector



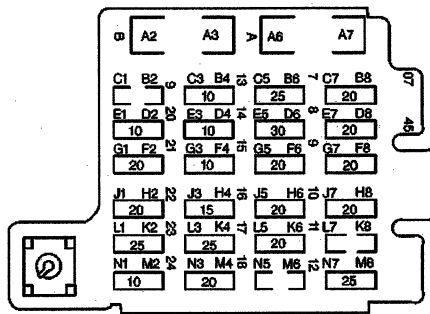
IP Fuse Block, Front View



## Instrument Panel Fuse Block

Fuse/Circuit Breaker	Rating	Description
STOP/HAZ Fuse #1	20A	Audio Alarm Module, Center High-Mounted Stoplamp, Flasher, Hazard Lamps, Stoplamps, TCC/Stoplamp Switch
T CASE Fuse #2	20A	Electric Transfer Case Feed/ATC
CTYS Fuse #3	20A	Cargo Lamp, Courtesy Lamps, Dome/Reading Lamps, IP Compartment Lamp, Power Mirrors, Vanity Mirrors
GAUGES Fuse #4	10A	Audio Alarm Module, DRL Module and Relay, EVO/Passlock™ Module, Headlamps Switch, IP Cluster, I/S Mirror, Low Coolant Module, Remote Control Door Lock Receiver, Transfer Case Control Module
RR HVAC Fuse #5	10A	RR HVAC Controls (Suburban and Utility)
CRUISE Fuse #6	10A	Cruise Control Module and Switch
AUX PWR Fuse #7	25A	Auxiliary Power Outlets, DLC
CRANK Fuse #8	10A	Diesel Fuel Pump, Inflatable Restraint Control Module, PCM/VCM
PARK LPS Fuse #9	20A	Ashtray Lamp, Door Switch Illumination, Fender Lamps, Fog Lamp Relay, Front Side Markers, Headlamps Switch Illumination, License Lamp, Panel Lamps, Park Lamp, Roof Marker, Taillamp, Tailgate Lamp, Trailer Taillamps
AIR BAG Fuse #10	10A	Inflatable Restraint Control Module (SIR), Inflatable Restraint IP Module Enable Switch
WIPER Fuse #11	25A	Washer Pump, Wiper Motor
HTR-A/C Fuse #12	25A	A/C Compressor; HVAC Indicator Lamp; L, M1, M2 Blower; MODE/TEMP/AIR in ACT
CIG LTR Fuse #13	20A	Cigar Lighter, Door Lock Switch and Relay, Power Amplifier, Power Lumbar Seat, Rear Liftgate
ILLUM Fuse #14	10A	Audio Alarm Module, Cluster, HVAC Controls, IP Switches, Radio Illumination, RR HVAC Controls, S4WD
DRL/FOG Fuse #15	20A	DRL Relay, Fog Lamps
TURN-B/U Fuse #16	20A	Back-up Lamps, Brake Transmission Shift Interlock Solenoid, Front Turn Lamps, Right Rear Turn Lamps, Trailer Turn Lamps
RADIO Fuse #17	10A	Radio (IGN)
BRAKE Fuse #18	10A	Antilock Brake System, Four-wheel ABS, Cruise, DRAC
RADIO, BATT Fuse #19	15A	Radio (Battery)
TRANS Fuse #20	10A	Automatic Transmission, CHECK GAUGES, PRNDL, SPEEDO, Tell Tale
SECURITY/STRG Fuse #21	10A	EVO/Passlock™ Module Feed
AUX Fuse #22	20A	Spot Lamp
RR WIPER Fuse #23	25A	Rear Washer Pump, Rear Wiper (Suburban and Utility)
4WD Fuse #24	20A	Auxiliary Battery Relay, 4WD Indicator Lamp, Front Axle ACT, Spare Power Source
PWR ACC Circuit Breaker A	30A	Keyless Entry Module, Power Door Locks, 6-Way Power ST
PWR WINDOWS Circuit Breaker B	30A	Power Windows

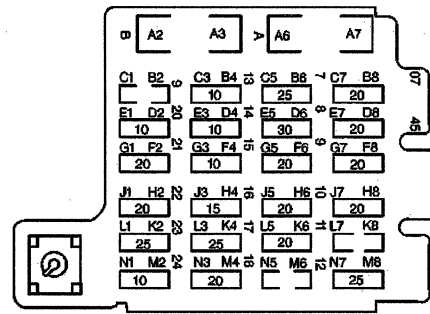
IP Fuse Block (Rear View)



39797

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110746</li> <li>• Fuse Block Metri-Pack 280</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A2	BRN	4	Ignition Switch Output - Accessory
A2	DK BLU	75	Delayed Accessory Bus Relay Output-Common Contact-Accessory (Luxury)
A3	YEL	343	Fuse Output-Accessory-Type II Fuse
A6	RED	142	Fuse Output-Battery-Type II Fuse
A7	ORN	540	Fuse Output-Battery-Type III Fuse
B2-B6	—	—	Not Used
B8	RED	142	Fuse Output-Battery-Type II Fuse
C1	ORN	1140	Fuse Output-Battery-Type III Fuse
C3	ORN	640	Fuse Output-Battery-Type III Fuse
C5	ORN	840	Fuse Output-Battery-Type III Fuse
C7	ORN	140	Fuse Output-Battery-Type III Fuse
D2	WHT	1390	Ignition Switch Output-Off/Run/Crank (Automatic Transmission Only)
D4	GRY	8	Instrument Panel Lamp Feed
D6	PPL	806	Fuse Output-Crank-Type III Fuse
D8	ORN	1640	Fuse Output-Battery-Type III Fuse (Auto and Selectable 4WD Only)
E1	PNK	1020	Fuse Output-Off/Run/Crank (Automatic Transmission Only)
E3	DK GRN	44	Instrument Panel Lamps Dimmer Switch Output
E5	YEL	5	Ignition Switch Output-Crank

IP Fuse Block (Rear View) (cont'd)

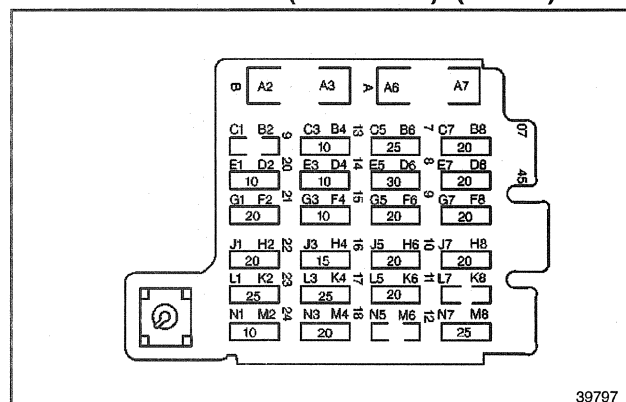


39797

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110746</li> <li>• Fuse Block Metri-Pack 280</li> </ul>	
Pin	Wire Color	Circuit No.	Function
E7	RED	142	Fuse Output-Battery-Type II Fuse (Auto and Selectable 4WD Only)
F2-F6	—	—	Not Used
F8	RED	42	Fuse Output-Battery-Type II Fuse
G1	ORN	1740	Fuse Output-Battery-Type III Fuse
G3	ORN	340	Fuse Output-Battery-Type III Fuse
G5	ORN	240	Fuse Output-Battery-Type III Fuse
G7	ORN	40	Fuse Output-Battery-Type III Fuse (Except Luxury)
G7	DK BLU/ WHT	149	Courtesy Lamp Feed (Luxury)
H2	RED	1042	Fuse Output-Battery-Type II Fuse (Police Package Only)
H2	RED	42	Fuse Output-Battery-Type II Fuse (Luxury Only)
H4-H6	—	—	Not Used
H8	PNK	3	Ignition Switch Output-Ignition 1
J1	ORN	940	Fuse Output-Battery-Type III Fuse (Police Package Only)
J1	ORN	2040	Fuse Output-Battery-Type III Fuse (Luxury Only)
J3	PNK	139	Fuse Output-Ignition 1-Type III Fuse
J5	YEL	1139	Fuse Output-Ignition 1-Type III Fuse-SIR (Except Base Pick-Up)
J7	PNK	39	Fuse Output-Ignition 1-Type III Fuse
K2	BRN	4	Ignition Switch Output - Accessory (Except Luxury)

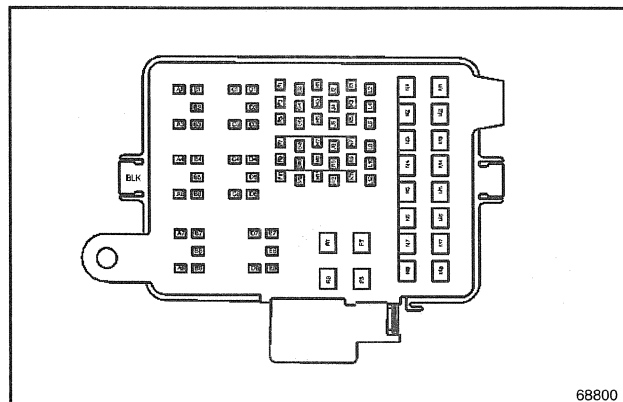


IP Fuse Block (Rear View) (cont'd)



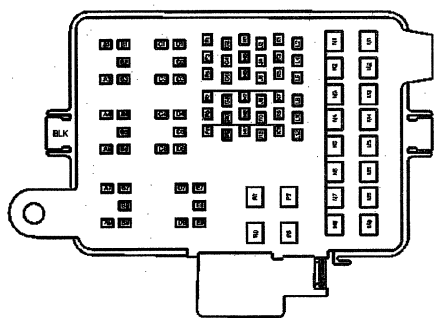
Connector Part Information		<ul style="list-style-type: none"> <li>• 12110746</li> <li>• Fuse Block Metri-Pack 280</li> </ul>	
Pin	Wire Color	Circuit No.	Function
K2	DK BLU	75	Delayed Accessory Bus Relay Output-Common Contact-Accessory (Luxury)
K4-K6	—	—	Not Used
K8	ORN	300	Ignition Switch Output-Ignition 3 (4dr Utility/ Suburban Only)
L1	WHT	393	Rear Window Wiper Motor Feed (4dr Utility/ Suburban Only)
L3	YEL	43	Fuse Output-Accessory-Type III Fuse
L5	YEL	143	Fuse Output-Accessory-Type III Fuse
L7	BRN	341	Fuse Output-Ignition 3-Type III Fuse (4dr Utility/ Suburban Only)
M2-M6	—	—	Not Used
M8	ORN	300	Ignition Switch Output-Ignition 3
N1	BRN	241	Fuse Output-Ignition 3-Type III Fuse
N3	BRN	441	Fuse Output-Ignition 3-Type III Fuse
N5	BRN	141	Fuse Output-Ignition 3-Type III Fuse
N7	BRN	41	Fuse Output-Ignition 3-Type III Fuse

Underhood Fuse Block



Connector Part Information		<ul style="list-style-type: none"> <li>• 12146281</li> <li>• Electrical Center (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A1	BLK/WHT	451	Engine Control Module Ground
A3	GRY	120	Fuel Pump Motor Feed
A4	PNK	639	Fuse Output - IGN 1 - Type III Fuse
A6	DK GRN	59	A/C Compressor Clutch Solenoid Feed
A7	BLK	150	Ground
A9	RED	242	Fuse Output - Battery - Type II Fuse (7.4L Only)
B1	ORN	440	Fuse Output - Battery - Type III Fuse
B2	RED	490	Fuel Pump Relay Feed - Primer
B3	DK GRN/ WHT	465	Fuel Pump Relay Feed (Coil)
B4	ORN	1240	Fuse Output - Battery - Type III Fuse
B5	—	—	Not Used
B6	DK GRN/ WHT	459	A/C Compressor Control Relay Output - Coil
B7	PPL	6	Starter Solenoid Feed
B8	—	—	Not Used
B9	PPL/WHT	1035	Starter Relay Feed - Coil
C1	BLK	28	Horn Relay Output-(Coil)
C3	ORN	740	Fuse Output - Battery - Type III Fuse
C4	BRN	436	Air Injection Reaction Pump Motor Relay Output-Coil (7.4L Only)
C6	PNK	639	Fuse Output - IGN 1 - Type III Fuse
D1	DK GRN	29	Horn Feed
D2	—	—	Not Used
D3	ORN	740	Fuse Output - Battery - Type III Fuse (7.4L Only)
D4	RED	78	Air Injection Reaction Pump Motor Feed (7.4L Only)

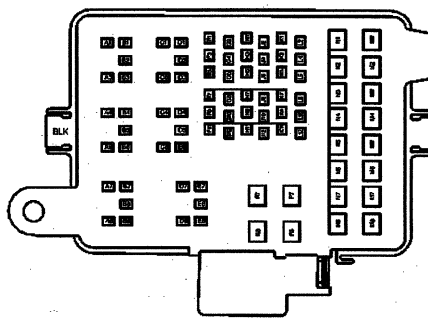
Underhood Fuse Block (cont'd)



68800

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146281</li> <li>• Electrical Center (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
D5	—	—	Not Used
D6	PNK	639	Fuse Output-Ignition 1-Type III Fuse (7.4L Only)
D7	WHT	17	Stop Lamp Switch Output (Pick-Up Only)
D9	LT BLU	20	Stop Lamp Feed (Pick-Up Only)
E7	RED	642	Fuse Output - Battery Type III Fuset (Pick-Up Only)
E8	—	—	Not Used
E9	BLK	150	Ground
F1-F11	—	—	Not Used
G2-G6	—	—	Not Used
G8	PNK	639	Fuse Output - IGN 1-Type III Fuse
G10	ORN	1440	Fuse Output - Battery - Type III Fuse
G12	ORN	440	Fuse Output - Battery - Type III Fuse
H1-H5	—	—	Not Used
H7	PNK	3	Ignition Swith Output - Ignition 1
H9	RED	2	Fuse Output - Battery - Type 1 Fuse
H11	RED	2	Fuse Output - Battery - Type 1 Fuse
J2	—	—	Not Used
J4	—	—	Not Used
J6	ORN	1840	Fuse Output - Battery - Type III Fuse (5.0L, 5.7L Only)
J8	PNK	439	Fuse Output - IGN 1 - Type III Fuse
J10	ORN	1540	Fuse Output - Battery - Type III Fuse (w/Auxiliary Cooling Fan Only)
J12	ORN	740	Fuse Output - Battery - Type III Fuse

Underhood Fuse Block (cont'd)



68800

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146281</li> <li>• Electrical Center (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
K1	PPL	680	ABS pressure Differential Sensor Signal (7.4L Only)
K3	—	—	Not Used
K5	RED	742	Fuse Output - Battery - Type II Fuse (Luxury Only)
K7-K11	—	—	Not Used
L2	TAN/WHT	33	Brake Warning Indicator Lamp Output (15,000 GVW Only)
L4	—	—	Not Used
L6	ORN	1940	Fuse Output - Battery - Type III Fuse (Luxury Only)
L8	PNK	539	Fuse Output - IGN 1 - Type II Fuse
L10	ORN	1040	Fuse Output - Battery - Type III Fuse (5.0L, 5.7L Only)
L12	ORN	1240	Fuse Output - Battery - Type III Fuse
M1	RED	742	Fuse Output - Battery - Type II Fuse (5.0L, 5.7L Only)
M2	RED	642	Fuse Output - Battery - Type II Fuse (Pick-Up Only)
M3	RED	542	Fuse Output - Battery - Type II Fuse
M4	RED	442	Fuse Output - Battery - Type II Fuse
M5	RED	342	Fuse Output - Battery - Type II Fuse
M6	RED	242	Fuse Output - Battery - Type II Fuse
M7	RED	142	Fuse Output - Battery - Type II Fuse
M8	RED	42	Fuse Output - Battery - Type II Fuse

## Diagnostic Information and Procedures

## Cigar Lighter/Auxiliary Outlets System Check

Step	Action	Normal Result(s)	Abnormal Result(s)*
1	Push in the Cigar Lighter insert into the Cigar Lighter receptacle.	The insert should pop out of the receptacle once the filament is hot	<i>Cigar Lighter Inoperative</i>
2	Using the Cigar Lighter insert. Push the insert into the Auxiliary outlet(s).	The insert should pop out of the receptacle once the filament is hot	<i>Auxiliary Outlets Inoperative</i>
3	Push in the Cigar Lighter insert into the Cigar Lighter receptacle located in the rear console	The insert should pop out of the receptacle once the filament is hot	<i>Cigar Lighter Inoperative - Console</i>
* Refer to the appropriate symptom diagnostic table for the applicable abnormal result.			

## Auxiliary Outlets Inoperative

Step	Action	Value(s)	Yes	No
1	Has the Cigar/Lighter/Auxiliary Outlets System Check been performed?	—	Go to Step 2	Go to <i>Cigar Lighter/Auxiliary Outlets System Check</i>
2	1. Disconnect the auxiliary power connector. 2. Connect a test lamp between the auxiliary power connector, cavity A, and ground. Does the test lamp light?	—	Go to Step 3	Go to Step 6
3	Connect test lamp between auxiliary power connector, cavity B and B+ Does test lamp light?	—	Go to Step 4	Go to Step 5
4	Replace auxiliary power connector assembly. Is the repair complete?	—	Go to <i>Cigar Lighter/Auxiliary Outlets System Check</i>	—
5	Locate and repair open CKT 150 BLK between auxiliary power connector and ground G200 (front), G202 (console) or G400 (rear). Is the repair complete?	—	Go to <i>Cigar Lighter/Auxiliary Outlets System Check</i>	—
6	Locate and repair open in CKT 840 (ORN) between auxiliary power connector and instrument panel fuse block. Is the repair complete?	—	Go to <i>Cigar Lighter/Auxiliary Outlets System Check</i>	—

## Cigar Lighter Inoperative

Step	Action	Value(s)	Yes	No
1	Has the Cigar/Lighter/Auxiliary Outlets System Check been performed?	—	Go to Step 2	Go to Cigar Lighter/Auxiliary Outlets System Check
2	1. Disconnect the cigar lighter connector. 2. Connect a test lamp from the cigar lighter connector, cavity A, to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 5
3	Connect a test lamp between cavity B of the cigar lighter connector and B+. Does the test lamp light?	—	Go to Step 4	Go to Step 6
4	Replace the cigar lighter. Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—
5	Locate and repair the open in CKT 640 (ORN) between the instrument panel fuse block and the cigar lighter. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—
6	Locate and repair the open in CKT 150 (BLK) between the cigar lighter and ground G202. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—

## Cigar Lighter Inoperative - Console

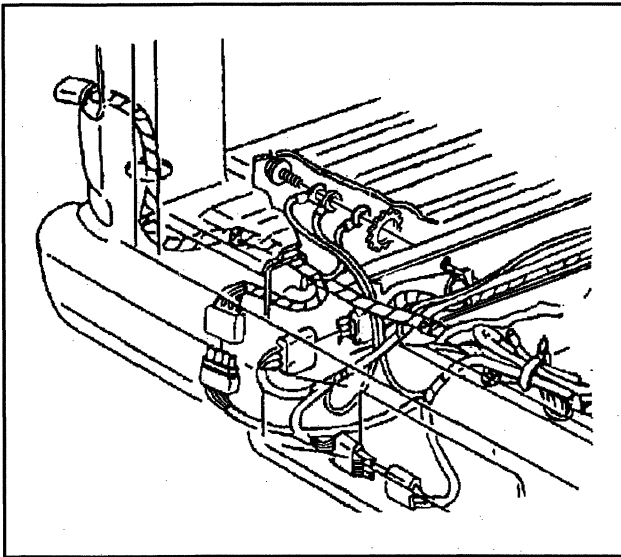
Step	Action	Value(s)	Yes	No
1	Has the Cigar/Lighter/Auxiliary Outlets System Check been performed?	—	Go to Step 2	Go to Cigar Lighter/Auxiliary Outlets System Check
2	1. Disconnect the cigar lighter connector. 2. Connect a test lamp from the cigar lighter connector, cavity A, to ground. Does the test lamp light?	—	Go to Step 3	Go to Step 5
3	Connect a test lamp between cavity B of the cigar lighter connector and B+. Does the test lamp light?	—	Go to Step 4	Go to Step 6
4	Replace the cigar lighter. Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—
5	Locate and repair the open in CKT 640 (ORN) between the instrument panel fuse block and the cigar lighter. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—
6	Locate and repair the open in CKT 150 (BLK) between the cigar lighter and ground G202. Refer to <i>Wiring Repairs</i> . Is the repair complete?	—	Go to Cigar Lighter/Auxiliary Outlets System Check	—

## Description and Operation

### Camper and Trailer Wiring Description

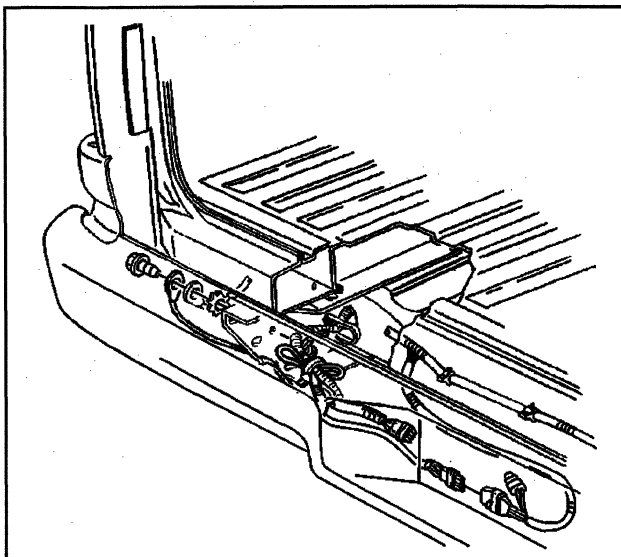
Two trailer harnesses are available: the heavy-duty trailer towing (UY7) harness and the camper (UY1) harness.

#### Pickup Trailer Harness Routing



291724

#### Suburban/Utility Trailer Harness Routing



291726

The option UY7 trailer harness is for heavy-duty towing applications. A 30-amp fused battery feed wire and auxiliary circuit routes from the cowl-mounted junction block, along the body side rail, to the rear bumper crossmember. The harness for the brake/parking lamps is spliced from the rear lamp harness. The harness is at the rear bumper crossmember. A plastic strap binds the harness. Tape wrapped around the harness prevents short circuits.

The 8 wires have the following functions:

- Orange — The 30-amp fused battery feed
- Blue — An auxiliary circuit for electric trailer brakes
- Brown — The taillamps and the license lamps
- Light green — The backup lamps
- Dark green — The right turn signal and the stoplamp
- Yellow — The left turn signal and the stoplamp
- White (heavy gage) — Ground
- White (light gage) — The center high-mounted stop lamp

The UY7 option does not include a connector at the end of the harness. A qualified technician must wire the connector following production.

1. Attach the trailer harness wiring to the trailer
2. Strap the harness wiring to the vehicle in a manner that allows slack in order to prevent the following conditions:
  - Bending
  - Binding
  - Breaking
  - The harness drags on the ground.
3. Secure with tape or straps the trailer portion of the harness to the trailer tongue in order to prevent the harness from dragging on the ground.
4. Secure the harness when the harness is not in use.
  - 4.1. Wrap the harness together.
  - 4.2. Bind the harness with a tie strap in order to avoid damage.
  - 4.3. Store the harness behind the rear bumper on the fuel tank.
  - 4.4. Strap the harness with a band or a tie strap.

The second wiring harness option is the UY1 camper wiring harness. The UY1 harness is under the vehicle. The harness is inside the frame rail. The harness is even with the front of the pickup box on the driver's side.

The UY1 harness is for the brake/parking lamps. The harness has an auxiliary power feed.

The wires have the following functions:

- Dark blue — A 30-amp fused auxiliary power circuit. The other end of the wire is taped to the wiring near the junction block on the cowl.
  - Dark green — The right turn signal and the stoplamp
  - Light green — The backup lamps
  - Yellow — The left turn signal and the stoplamp
  - Brown — The taillamps
  - White — Ground
1. Route the trailer harness wiring between the frame and the bumper, or the camper and the body, in such a manner that slack remains in the harness in order to prevent the following conditions:
    - Bending
    - Binding
    - Breaking
    - The harness drags on the ground.
  2. Tape or strap the trailer portion of the harness (if used) to the vehicle in order to prevent the harness from dragging.
  3. Secure the harness when the wiring is not in use.
    - 3.1. Wrap the harness together.
    - 3.2. Bind the harness with a tie strap in order to prevent damage.

## Power and Grounding Circuit Description

### Power Distribution

Power supply for the vehicle originates from the battery(s). From the battery(s), voltage is supplied to the Generator, Starter Motor Solenoid, Mega Fuse Block (Luxury/Police Package), Underhood Fuse Block and Auxiliary Fuse Block (Police Package) through CKT 2 (RED).

The Underhood Fuse Block supplies power to various components within the vehicle. From the Underhood Fuse Block, power is sent to the IP Fuse Block through either CKT 42, 142, or 242 (RED). The Underhood Fuse Block along with the IP Fuse Block distribute power to all the major and minor electrical systems within the vehicle. See the Power Distribution Schematics for other components.

### Ground Distribution

Circuitry for grounding is used to complete the path for current flow. Grounding circuits are primarily 150 or 451 circuit numbers. See Ground Distribution Schematics for component grounding breakdown.

### Auxiliary Battery

The auxiliary battery circuit uses a relay to complete the connection between the Auxiliary Battery and the Remote Battery Stud located on the Underhood Fuse Block.

Power to activate the Auxiliary Battery Relay comes from the 4WD Fuse 24, through CKT 241 (BRN) when the ignition switch is in the RUN position. The relay is case grounded to complete the path for current flow. With the relay activated, power from the Auxiliary Battery runs through CKT 2 (BLK/RED) onto the Remote Battery Stud.

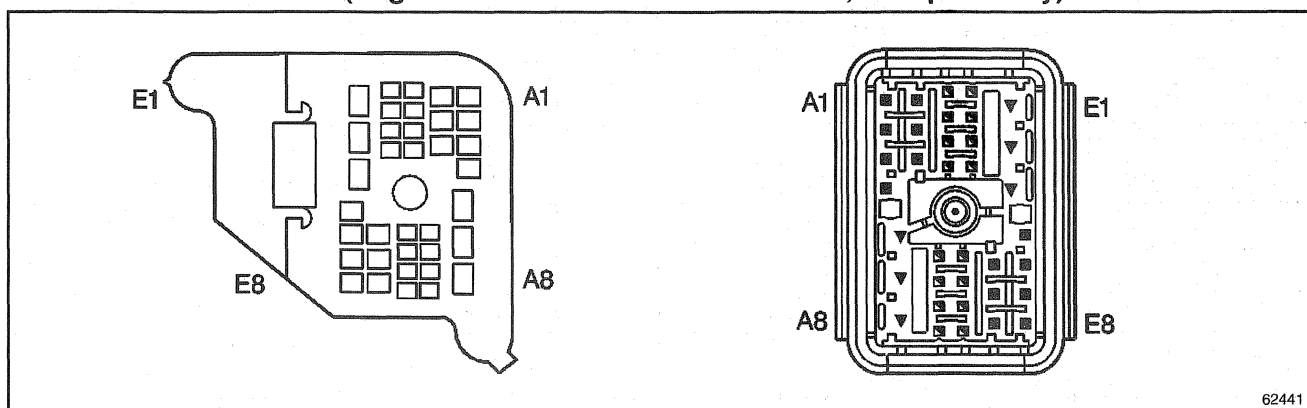
## Cigar Lighter/Auxiliary Outlet Circuit Description

The Cigar Lighter/Auxiliary Power Circuit allows for one cigar lighter for the front passengers, and four auxiliary power connectors to supply power for accessory equipment.

The cigar lighter is located at the bottom of the instrument panel and is supplied power through CKT 640 (ORN). The first two auxiliary power connectors are mounted underneath the cigar lighter, and powered through CKT 840 (ORN). Next auxiliary power connector is located in the center floor console for rear passenger use, also powered through CKT 840 (ORN). Last auxiliary power connector is located in the rear cargo area, passenger side, powered through CKT 840 (ORN), connected through the convenience center, connector C280.

## Inline Harness Connector End Views

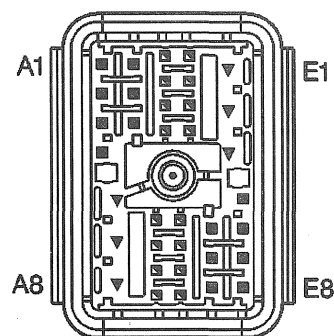
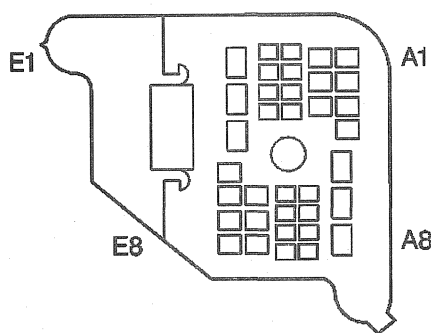
**C100 (Engine Harness Inline to I/P Harness, Except Luxury)**



62441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146331</li> <li>• 36 Way F Metri-Pack 150, 180, 630 Series (LT GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12176348</li> <li>• 36 Way M Metri-Pack 150, 180, 630 Series (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1	WHT	17	Stoplamp Switch Output (Pickup)	A1	WHT	17	Stoplamp Switch Output (Pickup)
A1	RED	542	Fuse Output Battery, Type II Fuse (Suburban/Utility)	A1	RED	542	Fuse Output Battery, Type II Fuse (Suburban/Utility)
A2	PNK	1020	Ignition Feed - Off, Run, Crank (Automatic Transmission)	A2	PNK	1020	Ignition Feed - Off, Run, Crank (Automatic Transmission)
A3	ORN	1440	Fuse Output Battery, Type III Fuse	A3	ORN	1440	Fuse Output Battery, Type III Fuse
A4	DK GRN	29	Horn Feed	A4	DK GRN	29	Horn Feed
A6	RED	42	Fuse Output Battery, Type II Fuse	A6	RED	42	Fuse Output Battery, Type II Fuse
A7	RED	142	Fuse Output Battery, Type II Fuse	A7	RED	142	Fuse Output Battery, Type II Fuse
A8	RED	242	Fuse Output Battery, Type II Fuse	A8	RED	242	Fuse Output Battery, Type II Fuse
B1	LT BLU	20	Stop Lamp Feed (Pick-Up Only)	B1	LT BLU	20	Stop Lamp Feed (Pick-Up Only)

## C100 (Engine Harness Inline to I/P Harness, Except Luxury) (cont'd)

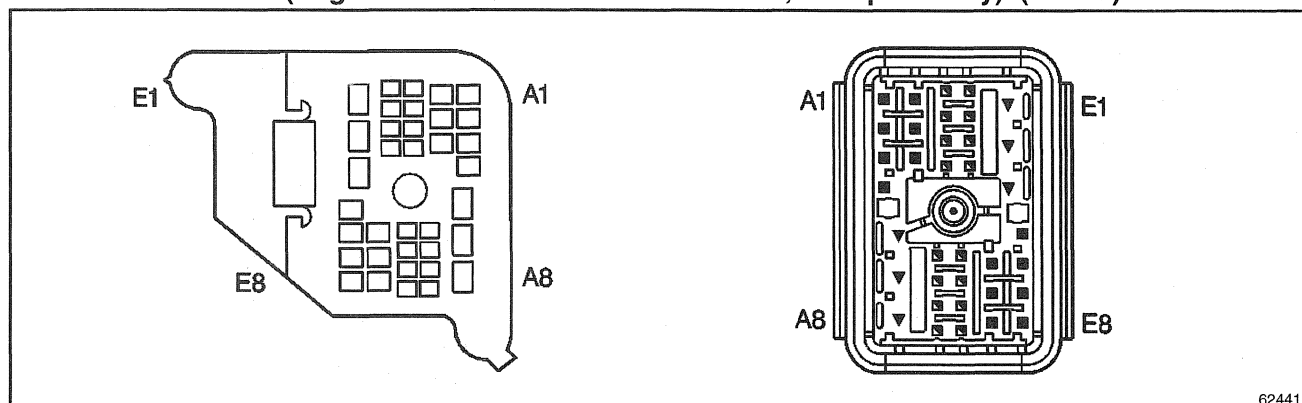


62441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146331</li> <li>• 36 Way F Metri-Pack 150, 180, 630 Series (LT GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12176348</li> <li>• 36 Way M Metri-Pack 150, 180, 630 Series (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
B2	WHT	1294	EVO Solenoid Feed	B2	WHT	1294	EVO Solenoid Feed
B3	BRN	1295	EVO Solenoid Output	B3	BRN	1295	EVO Solenoid Output
B5	DK GRN	389	Vehicle Speed Signal (Gas)	B5	DK GRN	399	Vehicle Speed Signal (Gas)
B6	—	—	Not Used	B6	—	—	Not Used
B7	PPL	1807	Serial Data Class 2	B7	PPL	1807	Serial Data Class 2
B8	ORN	1040	Fuse Output Battery, Type III Fuse (Suburban/Utility)	B8	ORN	1040	Fuse Output Battery, Type III Fuse (Suburban/Utility)
C1	BLK	28	Horn Relay Output Coil	C1	BLK	28	Horn Relay Output Coil
C2	PPL	30	Fuel Gauge Sensor Signal (Gas)	C2	PPL	30	Fuel Gauge Sensor Signal (Gas)
C2	YEL	1737	Transmission Mounted Neutral Safety Switch Output-Park/Neutral (Diesel)	C2	YEL	1737	Transmission Mounted Neutral Safety Switch Output-Park/Neutral (Diesel)
C3	BRN	25	Charge Indicator Lamp Output	C3	BRN	25	Charge Indicator Lamp Output
C4	GRY/BLK	1596	Water Heater Control Solenoid Output (Suburban/Utility) (Gas)	C4	GRY/BLK	1596	Water Heater Control Solenoid Output (Suburban/Utility) (Gas)
C4	PPL/WHT	821	Vehicle Speed Sensor Signal (Diesel)	C4	PPL/WHT	821	Vehicle Speed Sensor Signal (Diesel)
C5	LT GRN/BLK	822	Transmission Mounted Neutral Safety Switch Output, Park/Neutral (Diesel)	C5	LT GRN/BLK	822	Transmission Mounted Neutral Safety Switch Output, Park/Neutral (Diesel)
C6	TAN/WHT	33	Brake Warning Indicator Lamp Output	C6	TAN/WHT	33	Brake Warning Indicator Lamp Output
C7	PNK	139	Fuse Output Ignition I, Type III Fuse	C7	PNK	139	Fuse Output Ignition I, Type III Fuse
C8	LT GRN	867	ABS Failure Indicator Lamp Output	C8	LT GRN	867	ABS Failure Indicator Lamp Output
D1	TAN/WHT	799	Diagnostic Signal, ABS (Diesel)	D1	TAN/WHT	799	Diagnostic Signal, ABS (Diesel)
D2	LT BLU/BLK	396	Cruise Control Signal, Engaged (Automatic Transmission)	D2	LT BLU/BLK	396	Cruise Control Signal, Engaged (Automatic Transmission)



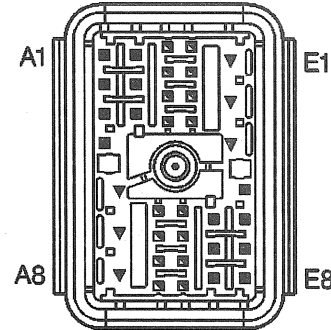
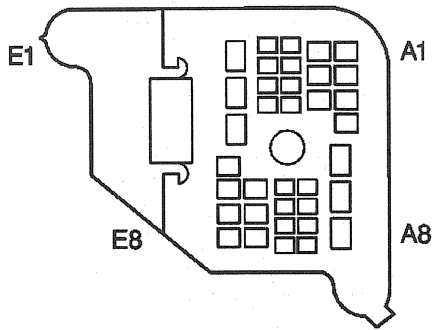
## C100 (Engine Harness Inline to I/P Harness, Except Luxury) (cont'd)



62441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146331</li> <li>• 36 Way F Metri-Pack 150, 180, 630 Series (LT GRN)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12176348</li> <li>• 36 Way M Metri-Pack 150, 180, 630 Series (LT GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D2	BRN/WHT	379	Cruise Control, Clutch Pedal Switch Output (Manual Transmission)	D2	BRN/WHT	379	Cruise Control, Clutch Pedal Switch Output (Manual Transmission)
D2	YEL/BLK	1827	Vehicle Speed Signal, 128,000 Pulses Per Mile (Diesel)	D2	YEL/BLK	1827	Vehicle Speed Signal, 128,000 Pulses Per Mile (Diesel)
D3	LT GRN	24	Backup Lamp Feed	D3	LT GRN	24	Backup Lamp Feed
D4	DK GRN/WHT	817	Vehicle Speed Signal, 4000 Pulses Per Mile (Gas)	D4	DK GRN/WHT	817	Vehicle Speed Signal, 4000 Pulses Per Mile (Gas)
D4	DK BLU	507	Glow Plug Indicator Lamp Signal (Diesel)	D4	DK BLU	507	Glow Plug Indicator Lamp Signal (Diesel)
D6	BLK/WHT	1695	S4WD Front Wheel Lock Telltale Feed	D6	BLK/WHT	1695	S4WD Front Wheel Lock Telltale Feed
D7	LT GRN	66	Air Conditioning Switch Output	D7	LT GRN	66	Air Conditioning Switch Output
D8	BRN	441	Fuse Output Ignition 3, Type III Fuse	D8	BRN	441	Fuse Output Ignition 3, Type III Fuse
E1	PPL/WHT	1035	Starter Relay Feed For Relay Coil (Manual Transmission)	E1	PPL/WHT	1035	Starter Relay Feed For Relay Coil (Manual Transmission)
E1	PPL	806	Fuse Output Crank, Type III Fuse (Automatic Transmission)	E1	PPL	806	Fuse Output Crank, Type III Fuse (Automatic Transmission)
E2	PNK	3	Ignition Switch Output, Ignition 1	E2	PNK	3	Ignition Switch Output, Ignition 1
E3	RED	342	Fuse Output Battery, Type II Fuse	E3	RED	342	Fuse Output Battery, Type II Fuse
E5	BRN	241	Fuse Output Ignition 3, Type III Fuse	E5	BRN	241	Fuse Output Ignition 3, Type III Fuse
E6	ORN	1840	Fuse Output Battery, Type III Fuse (w/Heated Seats)	E6	ORN	1840	Fuse Output Battery, Type III Fuse (w/Heated Seats)
E7	—	—	Not Used	E7	—	—	Not Used
E8	WHT	121	Tachometer Signal	E8	WHT	121	Tachometer Signal

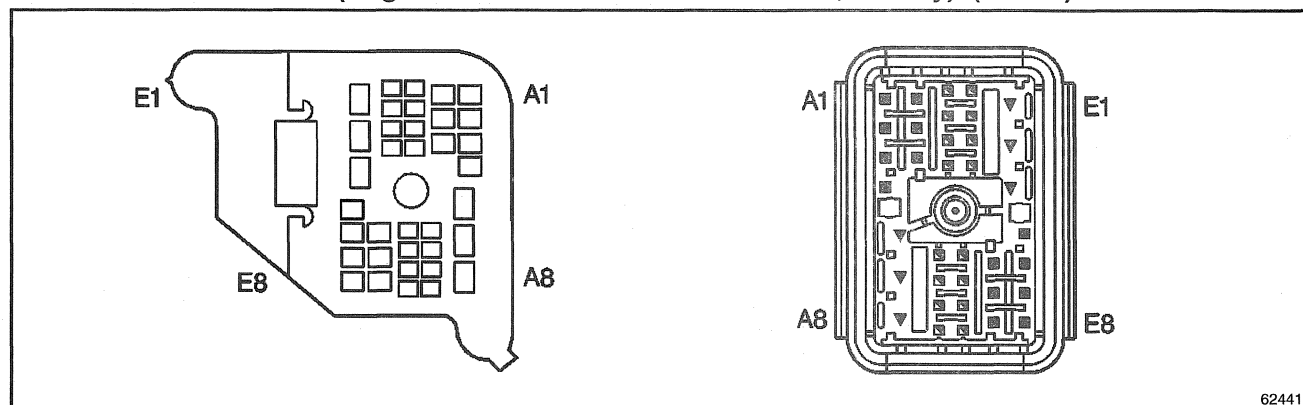
## C100 (Engine Harness Inline to I/P Harness, Luxury)



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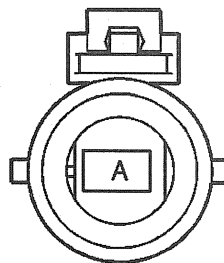
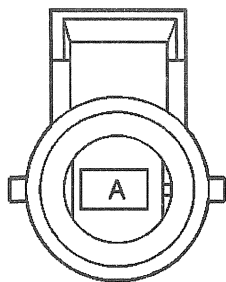
Connector Part Information		<ul style="list-style-type: none"> <li>• 12146331</li> <li>• 36F M/P 150, 180, 630 Series (LT GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12176348</li> <li>• 36M M/P 150, 180, 630 Series (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1	RED	542	Fuse Output Battery, Type II Fuse	A1	RED	542	Fuse Output Battery, Type II Fuse
A2	PNK	1020	Ignition Feed - Off, Run, Crank	A2	PNK	1020	Ignition Feed - Off, Run, Crank
A3	ORN	1440	Fuse Output Battery, Type III Fuse	A3	ORN	1440	Fuse Output Battery, Type III Fuse
A4	DK GRN	29	Rear Window Washer Pump Motor Feed	A4	DK GRN	29	Rear Window Washer Pump Motor Feed
A6	RED	42	Fuse Output Battery, Type II Fuse	A6	RED	42	Fuse Output Battery, Type II Fuse
A7	RED	142	Fuse Output Battery, Type II Fuse	A7	RED	142	Fuse Output Battery, Type II Fuse
A8	RED	242	Fuse Output Battery, Type II Fuse	A8	RED	242	Fuse Output Battery, Type II Fuse
B1	—	—	Not Used	B1	—	—	Not Used
B2	WHT	1294	EVO Solenoid Feed	B2	WHT	1294	EVO Solenoid Feed
B3	BRN	1295	EVO Solenoid Output	B3	BRN	1295	EVO Solenoid Output
B5	DK GRN	389	Vehicle Speed Signal	B5	DK GRN	389	Vehicle Speed Signal
B6	—	—	Not Used	B6	—	—	Not Used
B7	PPL	1807	Serial Data Class 2	B7	PPL	1807	Serial Data Class 2
B8	ORN	1040	Fuse Output Battery, Type III Fuse	B8	ORN	1040	Fuse Output Battery, Type III Fuse
C1	BLK	28	Horn Relay Output Coil	C1	BLK	28	Horn Relay Output Coil
C2	PPL	30	Fuel Gauge Sensor Signal	C2	PPL	30	Fuel Gauge Sensor Signal
C3	BRN	25	Charge Indicator Lamp Output	C3	BRN	25	Charge Indicator Lamp Output
C4	GRY/BLK	1596	Water Heater Control Solenoid Output	C4	GRY/BLK	1596	Water Heater Control Solenoid Output
C5	—	—	Not Used	C5	—	—	Not Used
C6	TAN/WHT	33	Brake Warning Indicator Lamp Output	C6	TAN/WHT	33	Brake Warning Indicator Lamp Output
C7	PNK	139	Fuse Output Ignition I, Type III Fuse	C7	PNK	139	Fuse Output Ignition I, Type III Fuse
C8	LT GRN	867	ABS Failure Indicator Lamp Output	C9	LT GRN	867	ABS Failure Indicator Lamp Output
D1	—	—	Not Used	D1	—	—	Not Used

## C100 (Engine Harness Inline to I/P Harness, Luxury) (cont'd)



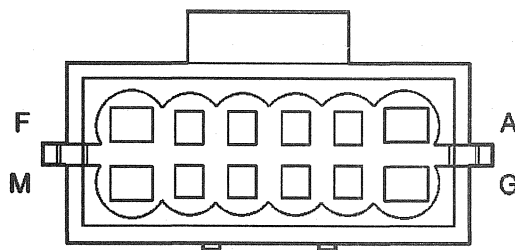
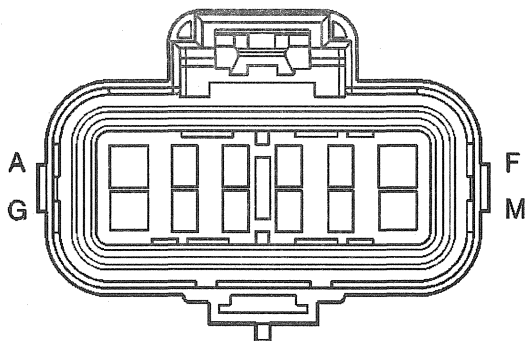
62441

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146331</li> <li>• 36F M/P 150, 180, 630 Series (LT GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12176348</li> <li>• 36M M/P 150, 180, 630 Series (LT GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D2	LT BLU/BLK	396	Cruise Control Signal, Engaged	D2	LT BLU/BLK	396	Cruise Control Signal, Engaged
D3	LT GRN	24	Backup Lamp Feed	D3	LT GRN	24	Backup Lamp Feed
D4	DK GRN/WHT	817	Vehicle Speed Signal, 4000 Pulses Per Mile	D4	DK GRN/WHT	817	Vehicle Speed Signal, 4000 Pulses Per Mile
D6	—	—	Not Used	D6	—	—	Not Used
D7	LT GRN	66	Air Conditioning Switch Output	D7	LT GRN	66	Air Conditioning Switch Output
D8	BRN	441	Fuse Output Ignition 3, Type III Fuse	D8	BRN	441	Fuse Output Ignition 3, Type III Fuse
E1	PPL	806	Fuse Output Crank, Type III Fuse (Automatic Transmission)	E1	PPL	806	Fuse Output Crank, Type III Fuse (Automatic Transmission)
E2	PNK	3	Ignition Switch Output, Ignition 1	E2	PNK	3	Ignition Switch Output, Ignition 1
E3	RED	342	Fuse Output Battery, Type II Fuse	E3	RED	342	Fuse Output Battery, Type II Fuse
E5	BRN	241	Fuse Output Ignition 3, Type III Fuse	E5	BRN	241	Fuse Output Ignition 3, Type III Fuse
E6	ORN	1840	Water Heater Control Solenoid Output	E6	ORN	1840	Water Heater Control Solenoid Output
E7	ORN	1940	Fuse Output Battery, Type III Fuse	E7	ORN	1940	Fuse Output Battery, Type III Fuse
E8	WHT	121	Tachometer Signal	E8	WHT	121	Tachometer Signal

**C101 (Engine Harness Inline to Forward Lamp Harness)**

95827

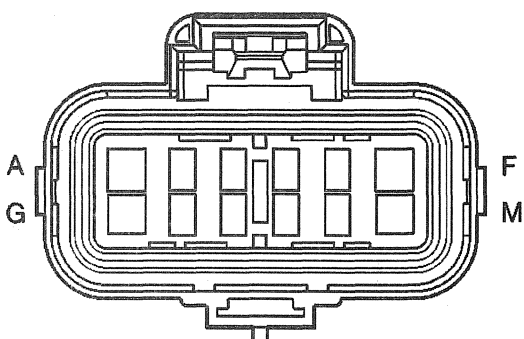
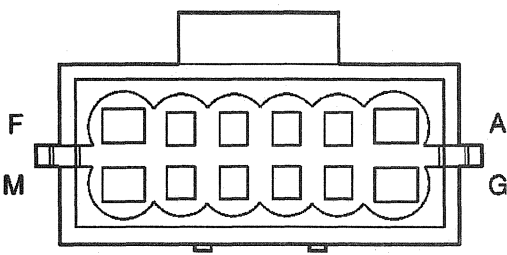
Connector Part Information		<ul style="list-style-type: none"> <li>• 12065170</li> <li>• 1 Way F Metri-Pack (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065172</li> <li>• 1 Way M Metri-Pack (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED	702	Fuse Output - Battery Type I Fuse	A	RED	702	Fuse Output - Battery Type I Fuse

**C102 (IP Harness Inline to Forward Lamp Harness, Suburban/Utility)**

366150

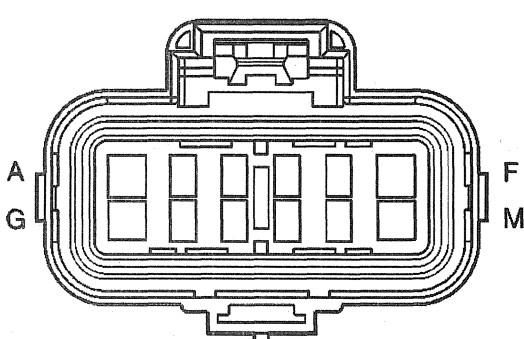
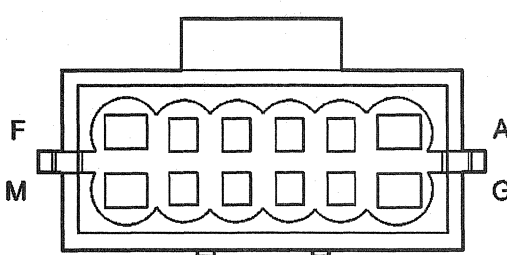
Connector Part Information		<ul style="list-style-type: none"> <li>• 15305054</li> <li>• 12 Way F Metri-Pack (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15305057</li> <li>• 12 Way M Metri-Pack (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT GRN	11	High Beam Headlamp Feed	A	LT GRN	11	High Beam Headlamp Feed
B	—	—	Not Used	B	—	—	Not Used
C	BRN	9	Park Lamp Feed	C	BRN	9	Park Lamp Feed
D	LT BLU	14	Turn Signal Lamp Feed, Left Front	D	LT BLU	14	Turn Signal Lamp Feed, Left Front
E	DK BLU	15	Turn Signal Lamp Feed, Right Front	E	DK BLU	15	Turn Signal Lamp Feed, Right Front
F	TAN	12	Low Beam Headlamp Feed	F	TAN	12	Low Beam Headlamp Feed
G	DK GRN	29	Horn Feed	G	DK GRN	29	Horn Feed
H	BRN	718	Sensor Return (Utility and Suburban)	H	BRN	718	Sensor Return (w/Outside Temperature Sensor)
J	RED	228	Windshield Washer Pump Motor Feed	J	RED	228	Windshield Washer Pump Motor Feed

## C102 (IP Harness Inline to Forward Lamp Harness, Suburban/Utility) (cont'd)

							
<b>Connector Part Information</b> • 15305054 • 12 Way F Metri-Pack (BLK)				<b>Connector Part Information</b> • 15305057 • 12 Way M Metri-Pack (BLK)			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
K	DK GRN	392	Rear Window Washer Pump Motor Feed	K	DK GRN	392	Rear Window Washer Pump Motor Feed
L	LT GRN/ BLK	735	Outside Ambient Temperature Sensor Signal (Utility and Suburan)	L	LT GRN/ BLK	735	Outside Ambient Temperature Sensor Signal (w/Outside Temperature Sensor)
M	—	—	Not Used	M	—	—	Not Used

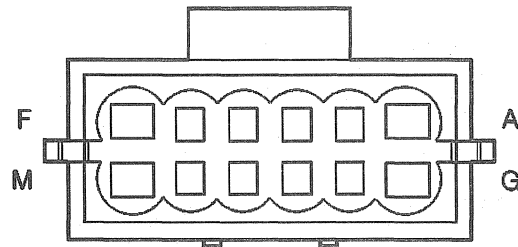
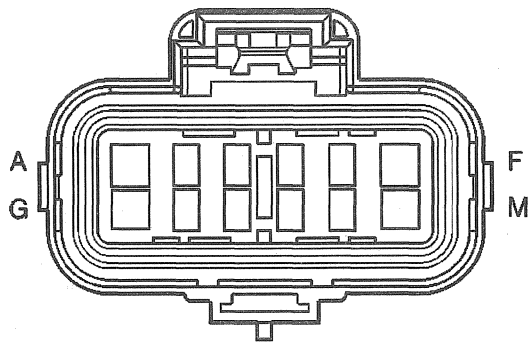
366150

## C102 (IP Harness Inline to Forward Lamp Harness, Pick-Up)

							
<b>Connector Part Information</b> • 15305056 • 12 Way F Metri-Pack (BLK)				<b>Connector Part Information</b> • 15305048 • 12 Way M Metri-Pack (BLK)			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT GRN	11	High Beam Headlamp Feed	A	LT GRN	11	High Beam Headlamp Feed
B	—	—	Not Used	B	—	—	Not Used
C	BRN	9	Park Lamp Feed	C	BRN	9	Park Lamp Feed
D	LT BLU	14	Turn Signal Lamp Feed, Left Front	D	LT BLU	14	Turn Signal Lamp Feed, Left Front
E	DK BLU	15	Turn Signal Lamp Feed, Right Front	E	DK BLU	15	Turn Signal Lamp Feed, Right Front
F	TAN	12	Low Beam Headlamp Feed	F	TAN	12	Low Beam Headlamp Feed
G	DK GRN	29	Horn Feed	G	DK GRN	29	Horn Feed
H	—	—	Not Used	H	—	—	Not Used

366150

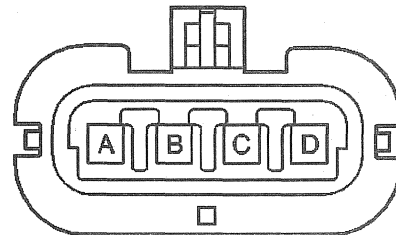
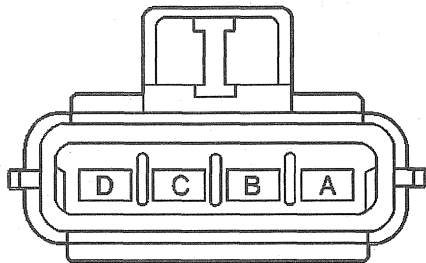
## C102 (IP Harness Inline to Forward Lamp Harness, Pick-Up) (cont'd)



366150

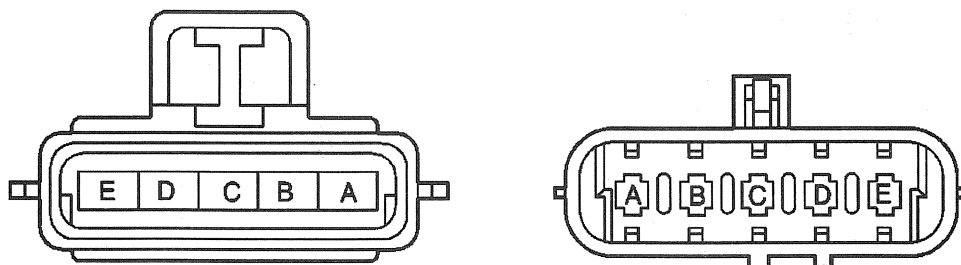
Connector Part Information		<ul style="list-style-type: none"> <li>• 15305056</li> <li>• 12 Way F Metri-Pack (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15305048</li> <li>• 12 Way M Metri-Pack (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
J	RED	228	Windshield Washer Pump Motor Feed	J	RED	228	Windshield Washer Pump Motor Feed
K	DK GRN	392	Rear Window Washer Pump Motor Feed	K	DK GRN	392	Rear Window Washer Pump Motor Feed
L-M	—	—	Not Used	L-M	—	—	Not Used

## C103 (Engine Harness Inline to Tail Lamp Harness)



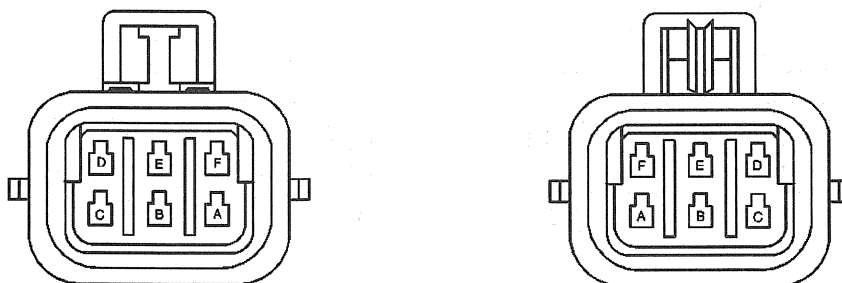
246476

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129565</li> <li>• 4 Way F Metri-Pack 280 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129566</li> <li>• 4 Way M Metri-Pack 280 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT GRN	24	Back Up Lamp Feed	A	LT GRN	24	Back Up Lamp Feed
B	GRY	120	Fuel Pump Motor Feed	B	GRY	120	Fuel Pump Motor Feed
C	PNK	639	Fuse Output - Ignition I Type III Fuse (Diesel)	C	PNK	639	Fuse Output - Ignition I Type III Fuse (Diesel)
D	BLK/WHT	451	Engine Control Module Ground (Diesel)	D	BLK/WHT	451	Engine Control Module Ground (Diesel)

**C104 (IP Harness Inline to Rear Lamp Harness)**

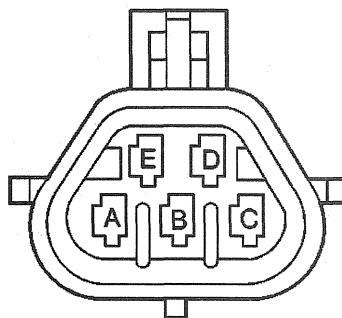
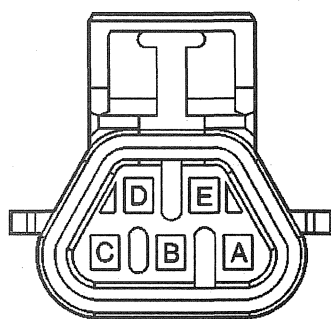
280746

Connector Part Information		<ul style="list-style-type: none"> <li>• 12084891</li> <li>• 5 Way F Metri-Pack 280 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12186400</li> <li>• 5 Way M Metri-Pack 280 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	PPL	30	Fuel Gauge Sensor Signal (Diesel Only)	B	PPL	30	Fuel Gauge Sensor Signal (Diesel Only)
C	YEL	18	Stop Lamp Feed, LR	C	YEL	18	Stop Lamp Feed, LR
D	DK GRN	19	Stop Lamp Feed, RR	D	DK GRN	19	Stop Lamp Feed, RR
E	WHT	17	Stop Lamp Switch Output	E	WHT	17	Stop Lamp Switch Output

**C107 (Engine Harness Inline to Oxy Sensor Jumper)**

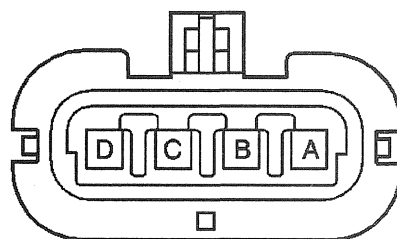
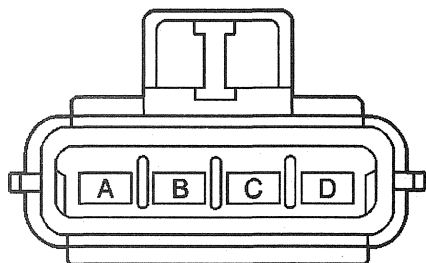
62447

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052848</li> <li>• 6 F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 1214107</li> <li>• 6 M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN/WHT	1669	Oxygen Sensor Return Left Rear of Catalytic Converter	A	TAN/WHT	1669	Oxygen Sensor Return Left Rear of Catalytic Converter
B	PPL/WHT	1668	Oxygen Sensor Signal Left Rear of Catalytic Converter	B	PPL/WHT	1668	Oxygen Sensor Signal Left Rear of Catalytic Converter
C	BLK	150	Ground	C	BLK	150	Ground
D	PNK	539	Fuse Output - Ignition 1 - Type III Fuse	D	PNK	539	Fuse Output - Ignition 1 - Type III Fuse
E	TAN	1671	Oxygen Sensor Return Right Rear of Catalytic Converter	E	TAN	1671	Oxygen Sensor Return Right Rear of Catalytic Converter
F	PPL	1670	Oxygen Sensor Signal Right Rear of Catalytic Converter	F	PPL	1670	Oxygen Sensor Signal Right Rear of Catalytic Converter

**C108 (IP Harness Inline to Grill Lights/Speakers) Police Package**

280747

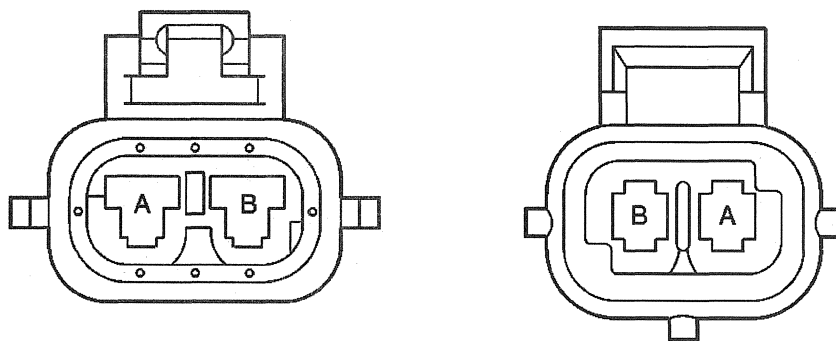
Connector Part Information		<ul style="list-style-type: none"> <li>• 12146045</li> <li>• 5-Way F Metri-Pack 150 (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12103974</li> <li>• 5-Way M Metri-Pack 150 (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK GRN	961	Speaker Return, RF	A	DK GRN	961	Speaker Return, RF
B	LT BLU	962	Speaker Return, RR	B	LT BLU	962	Speaker Return, RR
C	GRY	963	Speaker Return, LF	C	GRY	963	Speaker Return, LF
D	BRN	964	Speaker Return, LR	D	BRN	964	Speaker Return, LR
E	BLK	965	Ground	E	BLK	965	Ground

**C109 (IP Harness Inline to Dash Harness) Police Package**

40394

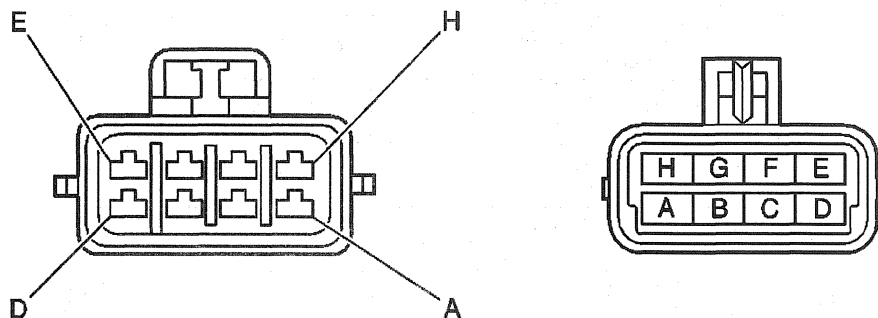
Connector Part Information		<ul style="list-style-type: none"> <li>• 1219565</li> <li>• 4-Way F Metri-Pack 280 (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 1219600</li> <li>• 4-Way M Metri-Pack 280 (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED	902	Fuse Output - Battery Type I Fuse	A	RED	902	Fuse Output - Battery Type I Fuse
B	RED	902	Fuse Output - Battery Type I Fuse	B	RED	902	Fuse Output - Battery Type I Fuse
C	BLK	950	Ground	C	BLK	950	Ground
D	BLK	950	Ground	D	BLK	950	Ground



**C110 (IP Harness Inline to Inflatable Restraint Arming Sensor)**

283873

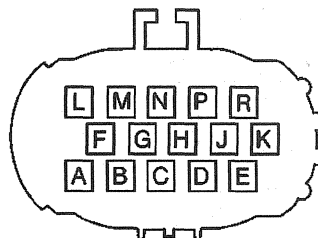
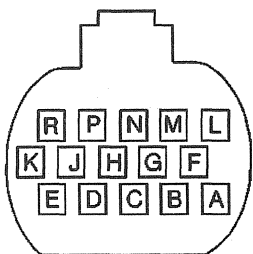
Connector Part Information		• 12077988 • 2 F M/P 280 Series (YEL)		Connector Part Information		• 12084180 • 2 M M/P 280 Series (YEL)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	1834	SIR Forward Sensor Signal	A	YEL	1834	SIR Forward Sensor Signal
B	BLK/WHT	1751	SIR Ground	B	BLK/WHT	1751	SIR Ground

**C112 (Engine Harness Inline to Engine Jumper Harness, Diesel)**

229958

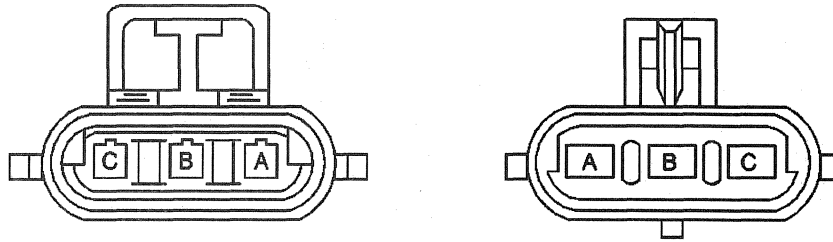
Connector Part Information		• 12047931 • 8 M Metri-Pack 150, (BLK)		Connector Part Information		• 12047937 • 8 F Metri-Pack 150, (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	410	Coolant Temperature Sensor Signal	A	YEL	410	Coolant Temperature Sensor Signal
B	YEL	573	Crankshaft Position Sensor Signal	B	YEL	573	Crankshaft Position Sensor Signal
C	—	—	Not Used	C	—	—	Not Used
D	LT GRN	432	Manifold Absolute Pressure Sensor Signal	D	LT GRN	432	Manifold Absolute Pressure Sensor Signal
E	GRA	416	Reference Voltage Feed-5 volt Reference	E	GRA	416	Reference Voltage Feed-5 volt Reference
F	BLK	491	Fuel Solenoid Return-Closure	F	BLK	491	Fuel Solenoid Return-Closure
G	BLK	452	Sensor Return	G	BLK	452	Sensor Return
H	TAN	472	Manifold Absolute Temperature Sensor Signal	H	TAN	472	Manifold Absolute Temperature Sensor Signal

## C113 (Engine Harness Inline to Engine Jumper Harness, Diesel)



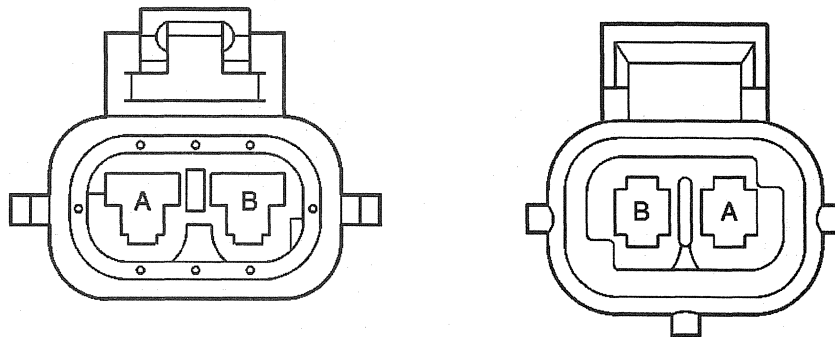
62430

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110779</li> <li>• 15F Metri-Pack 280, (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12041139</li> <li>• 15M Metri-Pack 280, (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU/WHT	259	Engine Shutoff Solenoid Output	A	DK BLU/WHT	259	Engine Shutoff Solenoid Output
B	TAN/BLK	1030	Injection Timing Stepper Motor Feed-Coil A-Low	B	TAN/BLK	1030	Injection Timing Stepper Motor Feed-Coil A-Low
C	RED/BLK	1031	Injection Timing Stepper Motor Feed-Coil A-High	C	RED/BLK	1031	Injection Timing Stepper Motor Feed-Coil A-High
D	ORN/BLK	1032	Injection Timing Stepper Motor Feed-Coil B-Low	D	ORN/BLK	1032	Injection Timing Stepper Motor Feed-Coil B-Low
E	YEL/BLK	1033	Injection Timing Stepper Motor Feed-Coil B-High	E	YEL/BLK	1033	Injection Timing Stepper Motor Feed-Coil B-High
F	PNK	439	Fuse Output-Ignition 1-Type III Fuse	F	PNK	439	Fuse Output-Ignition 1-Type III Fuse
G	BRN/WHT	633	Camshaft Position Sensor Signal	G	BRN/WHT	633	Camshaft Position Sensor Signal
H	ORN	1799	Camshaft Position Sensor Signal-High Resolution	H	ORN	1799	Camshaft Position Sensor Signal-High Resolution
J	PNK/BLK	632	Camshaft Position Sensor Return	J	PNK/BLK	632	Camshaft Position Sensor Return
K	YEL	1578	Fuel Temperature Signal	K	YEL	1578	Fuel Temperature Signal
L	LT GRN	260	Fuel Solenoid Module Feed	L	LT GRN	260	Fuel Solenoid Module Feed
M	LT GRN/BLK	260	Fuel Solenoid Module Feed	M	LT GRN	260	Fuel Solenoid Module Feed
N	GRA	474	Reference Voltage Feed-5 volt Reference	N	GRA	474	Reference Voltage Feed-5 volt Reference
P	RED	313	Fuel Solenoid Closure Signal	P	RED	313	Fuel Solenoid Closure Signal
R	BRN	104	Fuse Output-Glow Plug-Type III Fuse	R	BRN	104	Fuse Output-Glow Plug-Type III Fuse

**C114 (Engine Harness Inline to Engine Oil Pressure Sensor Jumper Harness, Diesel)**

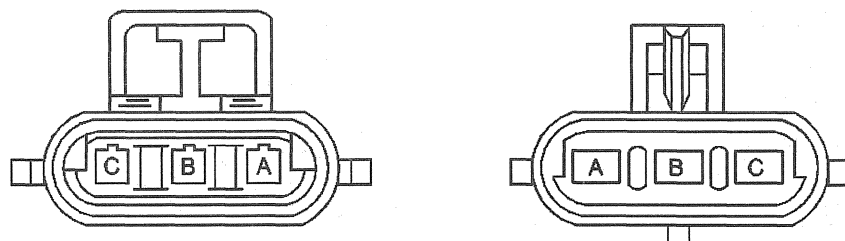
73252

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129615</li> <li>• 3F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12110293</li> <li>• 3M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	31	Oil Pressure Indicator Lamp Output	A	TAN	31	Oil Pressure Indicator Lamp Output
B	GRY	120	Fuel Pump Motor Feed	B	GRY	120	Fuel Pump Motor Feed
C	ORN	440	Fuse Output-Battery-Type III Fuse	C	ORN	440	Fuse Output-Battery-Type III Fuse

**C115 (Engine Harness Inline to Generator Harness, Diesel)**

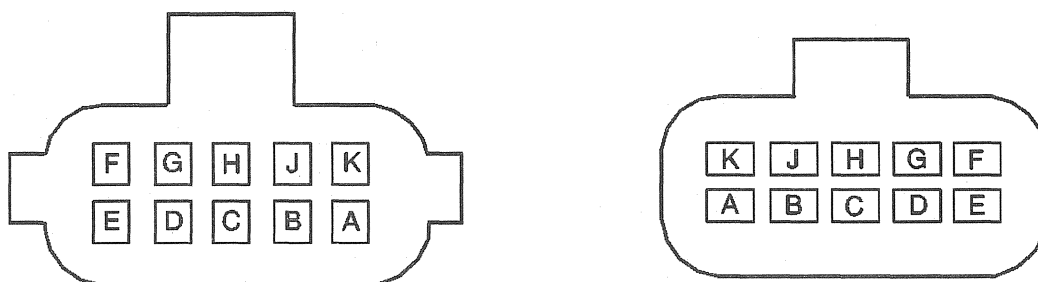
283873

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052641</li> <li>• 2F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12052647</li> <li>• 2M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	121	Tachometer Signal	A	WHT	121	Tachometer Signal
B	BRN	25	Charge Indicator Lamp Output	B	BRN	25	Charge Indicator Lamp Output

**C116 (Engine Harness Inline to Windshield Wiper Jumper Harness)**

73252

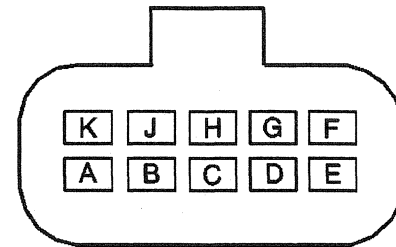
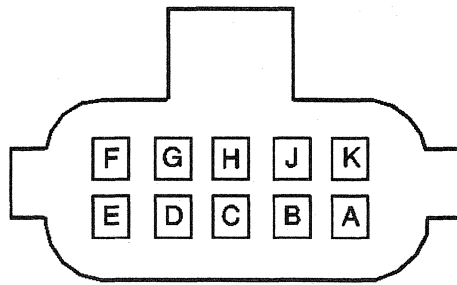
Connector Part Information		<ul style="list-style-type: none"> <li>• 12129615</li> <li>• 3F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12110293</li> <li>• 3M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK GRN	392	Rear Window Washer Pump Motor Feed	A	DK GRN	392	Rear Window Washer Pump Motor Feed
B	BLK	150	Ground	B	BLK	150	Ground
C	RED	228	Windshield Washer Pump Motor Feed	C	RED	228	Windshield Washer Pump Motor Feed

**C117 (Engine Harness, Natural Gas)**

288213

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065426</li> <li>• 10F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12052189</li> <li>• 10M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	492	MAF Sensor Signal	A	YEL	492	MAF Sensor Signal
B	DK GRN	389	Vehicle Speed Signal	B	DK GRN	389	Vehicle Speed Signal
C	PNK	639	Fuse Output	C	PNK	639	Fuse Output
D	YEL	573	CNP Sensor Signal	D	YEL	573	CNP Sensor Signal
E	TAN	1667	Oxygen Sensor Return	E	TAN	1667	Oxygen Sensor Return
F	PPL	1666	Oxygen Sensor Signal	F	PPL	1666	Oxygen Sensor Signal
G	TAN/WHT	1653	Oxygen Sensor Return	G	TAN/WHT	1653	Oxygen Sensor Return
H	PPL/WHT	1665	Oxygen Sensor Signal	H	PPL/WHT	1665	Oxygen Sensor Signal
J	BRN	919	—	J	BRN	919	—
K	BRN/WHT	419	Check Engine Lamp	K	BRN/WHT	419	Check Engine Lamp

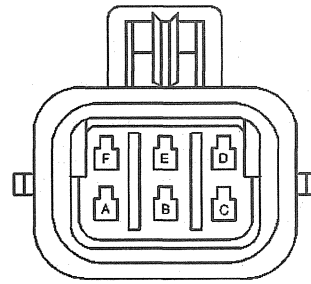
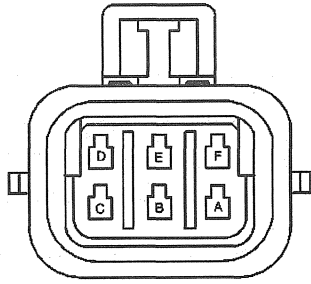
## C118 (Engine Harness, Natural Gas)



288213

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065425</li> <li>• 10F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12045808</li> <li>• 10M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	410	Coolant Temperature Signal	A	YEL	410	Coolant Temperature Signal
B	TAN	472	Manifold Absolute Temperature Signal	B	TAN	472	Manifold Absolute Temperature Signal
C	DK BLU	417	Reference Voltage	C	DK BLU	417	Reference Voltage
D	GRY	474	Reference Voltage	D	GRY	474	Reference Voltage
E	LT GRN	432	MAP Sensor Signal	E	LT GRN	432	MAP Sensor Signal
F	BLK	470	Sensor Signal	F	BLK	470	Sensor Signal
G	BRN	1456	EGR Solenoid Position Signal	G	BRN	1456	EGR Solenoid Position Signal
H	—	—	Not Used	H	—	—	Not Used
J	PNK	902	—	J	PNK	902	—
K	—	—	Not Used	—	—	—	Not Used

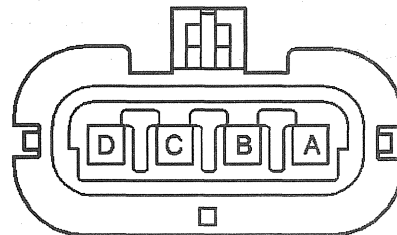
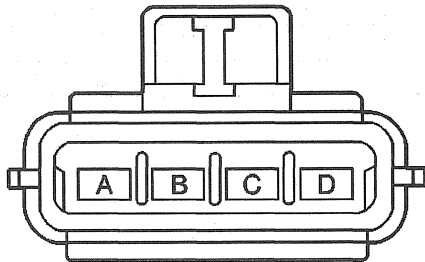
## C119 (Engine Harness, Natural Gas)



62447

Connector Part Information		<ul style="list-style-type: none"> <li>• 12052846</li> <li>• 6F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12124107</li> <li>• 6M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	120	Fuel Pump Motor Feed	A	GRY	120	Fuel Pump Motor Feed
B	GRY/BLK	917	—	B	GRY/BLK	917	—
C	PPL/WHT	918	—	C	PPL/WHT	918	—
D	PPL	30	Fuel Gauge Sensor Signal	D	PPL	30	Fuel Gauge Sensor Signal
E	—	—	Not Used	E	—	—	Not Used
F	ORN	40	Fuse Output	F	ORN	40	Fuse Output

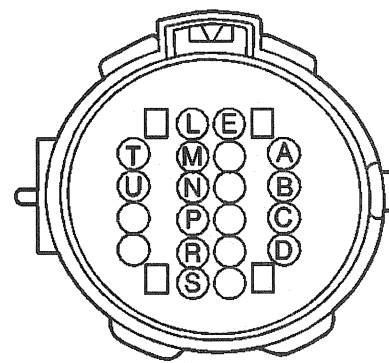
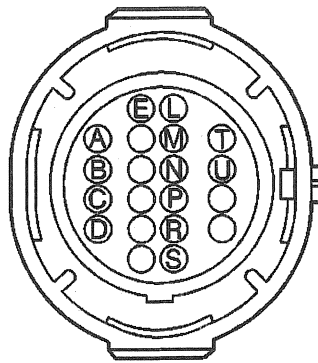
## C120 (Engine Harness Inline to 4WD Indicator Harness)



40394

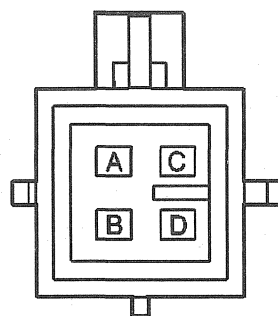
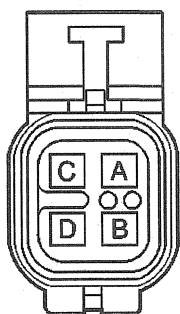
Connector Part Information		<ul style="list-style-type: none"> <li>• 12129566</li> <li>• 4F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129600</li> <li>• 4M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY/BLK	1694	4WD Switch Signal - Low (Automatic Only)	A	GRY/BLK	1694	4WD Switch Signal - Low (Automatic Only)
B	BLK/WHT	1695	4WD Front Wheel Lock Telltale Feed	B	BLK/WHT	1695	4WD Front Wheel Lock Telltale Feed
C	BLK	150	Ground	C	BLK	150	Ground
D	BRN	241	Fuse Output Ignition 3 Type III Fuse	D	BRN	241	Fuse Output Ignition 3 Type III Fuse

## C122 (Engine Harness Inline to Transmission Harness, M30)



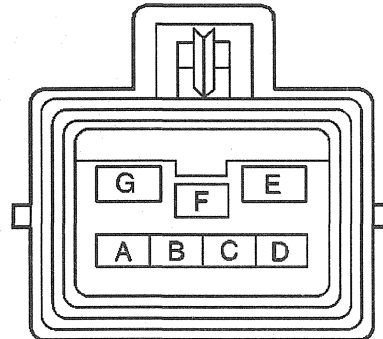
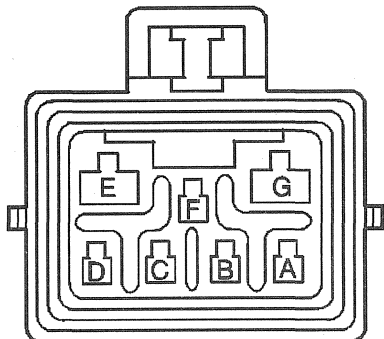
283826

Connector Part Information		<ul style="list-style-type: none"> <li>• 12160490</li> <li>• Harness Side 20 Way F Metri-Pack 100W Series Sealed (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12160545</li> <li>• Transmission Side 20 Way M Metri-Pack 100S Series Sealed (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	LT GRN	1222	Shift Solenoid A Output	A	LT GRN	1222	Shift Solenoid A Output
B	YEL/BLK	1223	Shift Solenoid B Output	B	YEL/BLK	1223	Shift Solenoid B Output
C	RED/BLK	1228	Transmission Force Motor Feed	C	RED/BLK	1228	Transmission Force Motor Feed
D	LT BLU/ WHT	1229	Transmission Force Motor Return	D	LT BLU/ WHT	1229	Transmission Force Motor Return
E	PNK	1020	Fuse Output, Off, Run, Crank - Type III Fuse Sensor	E	PNK	1020	Fuse Output, Off, Run, Crank - Type III Fuse Sensor
L	YEL/BLK	1227	Transmission Temperature Sensor Signal	L	YEL/BLK	1227	Transmission Temperature Sensor Signal
M	BLK	452	Sensor Return (Diesel)	M	BLK	452	Sensor Return (Diesel)
M	BLK	470	Sensor Return (Gas)	M	BLK	470	Sensor Return (Gas)
N	PNK	1224	Transmission Pressure Switch Signal - Bit 1	N	PNK	1224	Transmission Pressure Switch Signal - Bit 1
P	RED	1226	Transmission Pressure Switch Signal - Bit 3	P	RED	1226	Transmission Pressure Switch Signal - Bit 3
R	DK BLU	1225	Transmission Pressure Switch Signal - Bit 2	R	DK BLU	1225	Transmission Pressure Switch Signal - Bit 2
S	WHT	687	Shift Solenoid Output - 3/2 (Light Duty)	S	WHT	687	Shift Solenoid Output - 3/2 (Light Duty)
S	BRN	418	Torque Converter Clutch Solenoid Output, Pulse Width Modulation (Heavy Duty)	S	BRN	418	Torque Converter Clutch Solenoid Output, Pulse Width Modulation (Heavy Duty)
T	TAN/BLK	422	Torque Converter Clutch Solenoid Output (Light Duty)	T	TAN/BLK	422	Torque Converter Clutch Solenoid Output (Light Duty)
U	BRN	418	Torque Converter Clutch Solenoid Output, Pulse Width Modulation (Light Duty)	U	BRN	418	Torque Converter Clutch Solenoid Output, Pulse Width Modulation (Light Duty)

**C130 (Engine Harness Inline to Tail and Stop Lamp Ext. Harness, Gas)**

362720

Connector Part Information		<ul style="list-style-type: none"> <li>• 12160482</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12160825</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	474	Reference Voltage Feeds Volt Reference	A	GRY	474	Reference Voltage Feeds Volt Reference
B	DK GRN	890	Fuel Tank Pressure Sensor Signal	B	DK GRN	890	Fuel Tank Pressure Sensor Signal
C	BLK	470	Sensor Return	C	BLK	470	Sensor Return
D	PPL/WHT	1589	Fuel Gauge Sensor Signal	D	PPL/WHT	1589	Fuel Gauge Sensor Signal

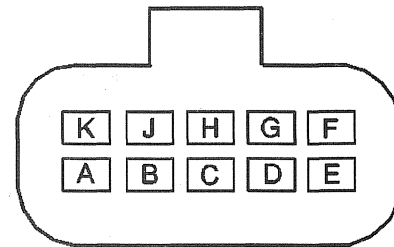
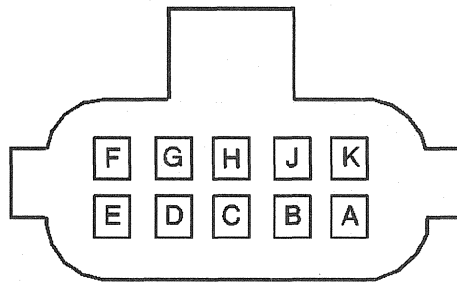
**C131 (IP Harness Inline to Active Transfer Case Shift Control Harness)**

73194

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059472</li> <li>• 7F Metri-Pack MXD (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12052200</li> <li>• 7M Metri-Pack MXD (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	1569	Transfer Case Lock Solenoid Output	A	TAN	1569	Transfer Case Lock Solenoid Output
B	GRY/BLK	1570	Front Axle Actuator Output	B	GRY/BLK	1570	Front Axle Actuator Output
C	ORN	1640	Fuse Output Battery, Type III Fuse	C	ORN	1640	Fuse Output Battery, Type III Fuse
D	GRY/BLK	1694	S4WD Switch Signal, Low	D	GRY/BLK	1694	S4WD Switch Signal, Low
E	BLK	1552	Transfer Case Motor Feed, Clockwise	E	BLK	1552	Transfer Case Motor Feed, Clockwise
F	BLK/WHT	1695	S4WD Front Wheel Lock Telltale Feed	F	BLK/WHT	1895	S4WD Front Wheel Lock Telltale Feed
G	RED	1553	Transfer Case Motor Feed, Counter Clockwise	G	RED	1553	Transfer Case Motor Feed, Counter Clockwise

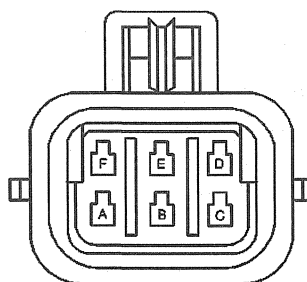
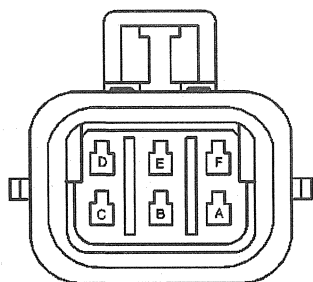


## C132 (IP Harness Inline to Active Transfer Case Shift Control Harness)



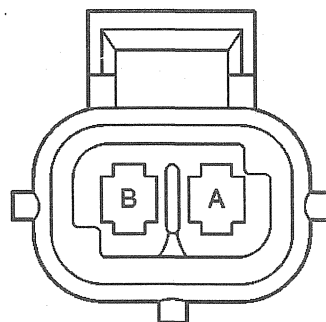
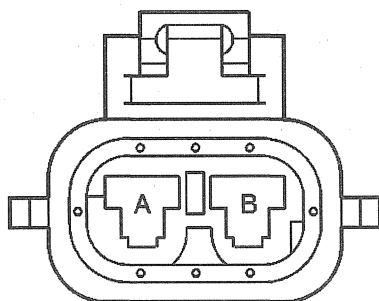
288213

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065426</li> <li>• 10F Metri-Pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12186882</li> <li>• 10M Metri-Pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	400	Vehicle Speed Sensor Signal	A	YEL	400	Vehicle Speed Sensor Signal
B	PPL	401	Vehicle Speed Sensor Return	B	PPL	401	Vehicle Speed Sensor Return
C	LT GRN/BLK	431	Reference Voltage Feed, 8 Volt Reference	C	LT GRN/BLK	431	Reference Voltage Feed, 8 Volt Reference
D	BLK/WHT	1554	Transfer Case Encoder Signal Return	D	BLK/WHT	1554	Transfer Case Encoder Signal Return
E	BRN/WHT	1555	Transfer Case Position Switch Encoder Signal, Channel P	E	BRN/WHT	1555	Transfer Case Position Switch Encoder Signal, Channel P
F	RED/WHT	1556	Transfer Case Position Switch Encoder Signal, Channel C	F	RED/WHT	1556	Transfer Case Position Switch Encoder Signal, Channel C
G	DK BLU/WHT	1557	Transfer Case Encoder Signal, Channel A	G	DK BLU/WHT	1557	Transfer Case Encoder Signal, Channel A
H	YEL/BLK	1558	Transfer Case Encoder Signal, Channel B	H	YEL/BLK	1558	Transfer Case Encoder Signal, Channel B
J	LT BLU	2221	Vehicle Speed Sensor Signal	J	LT BLU	2221	Vehicle Speed Sensor Signal
K	DK GRN	2222	Vehicle Speed Sensor Return	K	DK GRN	2222	Vehicle Speed Sensor Return

**C140 (IP Harness Inline to Transfer Case Shift Control Harness)**

62447

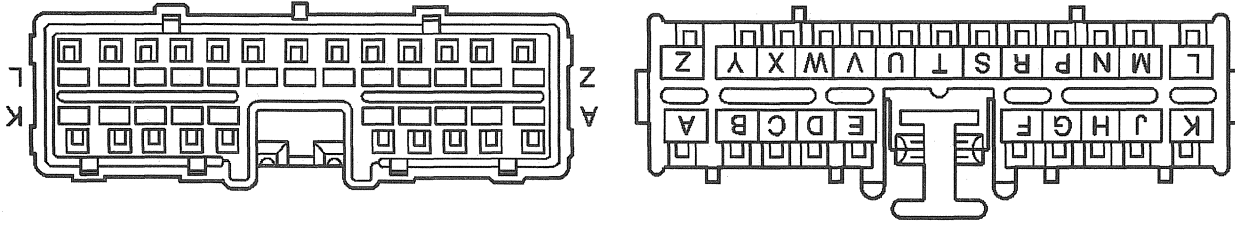
Connector Part Information		<ul style="list-style-type: none"> <li>• 12052848</li> <li>• 6F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12124107</li> <li>• 6M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	1554	Transercase Encoder Signal Return	A	BLK/WHT	1554	Transercase Encoder Signal Return
B	BRN/WHT	1555	Transercase Position Switch Encoder Signal - Channel P	B	BRN/WHT	1555	Transercase Position Switch Encoder Signal - Channel P
C	RED/WHT	1556	Transercase Position Switch Encoder Signal - Channel C	C	RED/WHT	1556	Transercase Position Switch Encoder Signal - Channel C
D	DK BLU/WHT	1557	Transercase Position Switch Encoder Signal - Channel A	D	DK BLU/WHT	1557	Transercase Position Switch Encoder Signal - Channel B
E	YEL/BLK	1558	Transercase Position Switch Encoder Signal - Channel B	E	YEL/BLK	1558	Transercase Position Switch Encoder Signal - Channel B
F	LT GRN/BLK	431	Reference Voltage Feed - 8Volt Reference	F	LT GRN/BLK	431	Reference Voltage Feed - 8 Volt Reference

**C142 (IP Harness Inline to Transfer Case Shift Control Harness)**

283873

Connector Part Information		<ul style="list-style-type: none"> <li>• 15300002</li> <li>• 2F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15300027</li> <li>• 2F Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	1552	Transfer Case Motor Feed Clockwise	A	BLK	1552	Transfer Case Motor Feed Clockwise
B	RED	1553	Transfer Case Motor Feed Counter Clockwise	B	RED	1553	Transfer Case Motor Feed Counter Clockwise

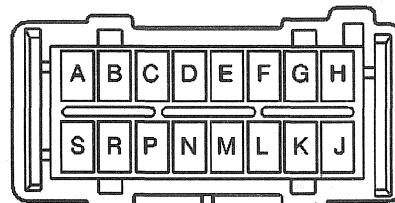
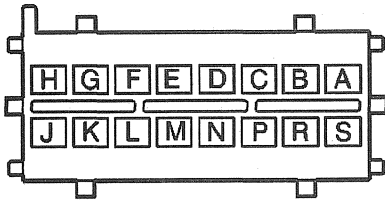
C200 (IP Harness Inline to Engine Harness, Diesel)



62492

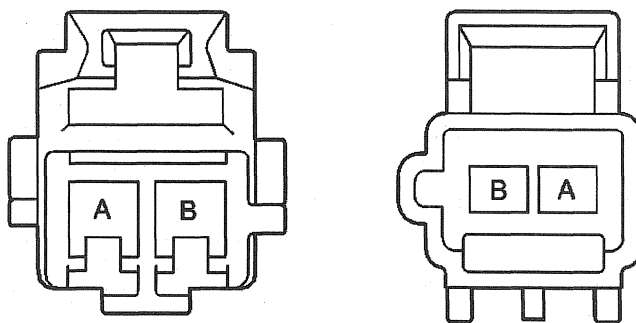
Connector Part Information				Connector Part Information			
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	17	Stop Lamp Switch Output	A	WHT	17	Stop Lamp Switch Output
B	DK BLU	84	Cruise Control Set/Coast Switch Signal	B	DK BLU	84	Cruise Control Set/Coast Switch Signal
C	GRY/BLK	87	Cruise Control Resume/Accel Switch Signal	C	GRY/BLK	87	Cruise Control Resume/Accel Switch Signal
D	—	—	Not Used	D	—	—	Not Used
E	WHT/BLK	176	Service Throttle Soon Indicator Lamp Output	E	WHT/BLK	176	Service Throttle Soon Indicator Lamp Output
F	LT GRN	275	Transmission Mounted Neutral Safety Switch Output, Park (Automatic Transmission)	F	LT GRN	275	Transmission Mounted Neutral Safety Switch Output, Park (Automatic Transmission)
G	DK GRN	389	Vehicle Speed Signal - 4000 Pulses per mile	G	DK GRN	389	Vehicle Speed Signal - 4000 Pulses per mile
H	PPL	420	Brake Pedal Switch Output, Torque Converter Clutch	H	PPL	420	Brake Pedal Switch Output, Torque Converter Clutch
J	BRN	437	Engine Control Module Ground	J	BRN	437	Engine Control Module Ground
K	BLK/WHT	451	Engine Control Module Ground	K	BLK/WHT	451	Engine Control Module Ground
L	YEL/BLK	508	Water In Fuel Indicator Lamp Output	L	YEL/BLK	508	Water In Fuel Indicator Lamp Output
M	BLK/WHT	771	Transmission Position Switch Signal, Bit 1	M	BLK/WHT	771	Transmission Position Switch Signal, Bit 1
N	YEL	772	Transmission Position Switch Signal, Bit 2	N	YEL	772	Transmission Position Switch Signal, Bit 2
P	GRY	773	Transmission Position Switch Signal, Bit 3	P	GRY	773	Transmission Position Switch Signal, Bit 3
R	WHT	776	Transmission Position Switch Signal, Parity Bit	R	WHT	776	Transmission Position Switch Signal, Parity Bit
S	LT GRN	1478	Fuse Output - OFF/RUN - Type III Fuse	S	LT GRN	147	Fuse Output - OFF/RUN - Type III Fuse
T	DK GRN	35	Coolant Temperature Indicator Lamp Output	T	DK GRN	35	Coolant Temperature Indicator Lamp Output
U	TAN	31	Oil Pressure Indicator Lamp Output	U	TAN	31	Oil Pressure Indicator Lamp Output
V	BRN/WHT	419	Check Engine Indicator Lamp Output	V	BRN/WHT	419	Check Engine Indicator Lamp Output
W	DK GRN	1614	Air Inlet Valve Motor Feed	W	DK GRN	1614	Air Inlet Valve Motor Feed
X - Z	—	—	Not Used	X - Z	—	—	Not Used

## C200 (IP Harness Inline to Engine Harness, Gas)



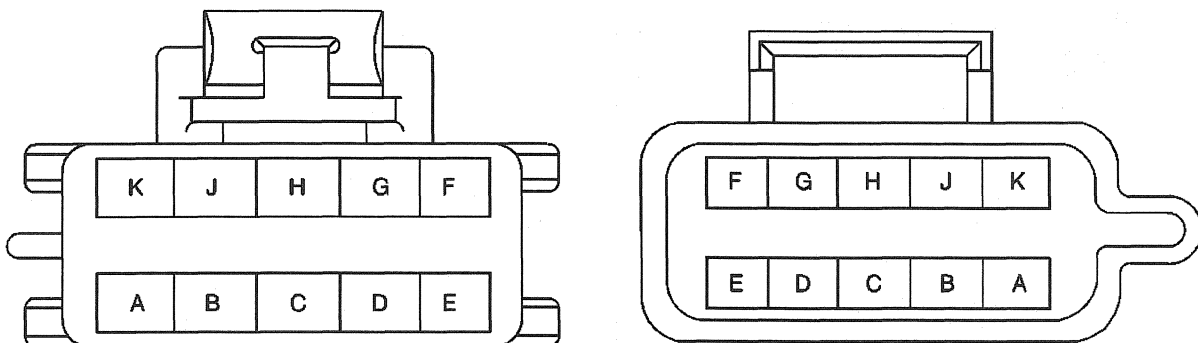
280749

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129430</li> <li>• 16F Metri-Pack 280 Series ACT (WHT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129429</li> <li>• 16M Metri-Pack 280 Series ACT (WHT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	1737	Transmission Mounted Neutral Safety Switch Output, Park, Neutral	A	YEL	1737	Transmission Mounted Neutral Safety Switch Output, Park, Neutral
B - C	—	—	Not Used	B - C	—	—	Not Used
D	LT GRN	275	Transmission Mounted Neutral Safety Switch Output-Park	D	LT GRN	275	Transmission Mounted Neutral Safety Switch Output-Park
E	PPL	420	Brake Pedal Switch Output, Torque Converter Clutch	E	PPL	420	Brake Pedal Switch Output, Torque Converter Clutch
F	BLK/WHT	451	Engine Control Module Ground	F	BLK/WHT	451	Engine Control Module Ground
G	BLK/WHT	771	Transmission Position Switch Signal, Bit 1 (Automatic Transmission)	G	BLK/WHT	771	Transmission Position Switch Signal, Bit 1 (Automatic Transmission)
H	YEL	772	Transmission Position Switch Signal, Bit 2 (Automatic Transmission)	H	YEL	772	Transmission Position Switch Signal, Bit 2 (Automatic Transmission)
J	GRY	773	Transmission Position Switch Signal, Bit 3 (Automatic Transmission)	J	GRY	773	Transmission Position Switch Signal, Bit 3 (Automatic Transmission)
K	WHT	776	Transmission Position Switch Signal, Parity Bit (Automatic Transmission)	K	WHT	776	Transmission Position Switch Signal, Parity Bit (Automatic Transmission)
L	DK GRN	35	Coolant Temperature Indicator Lamp Output	L	DK GRN	35	Coolant Temperature Indicator Lamp Output
M	TAN	31	Oil Pressure Indicator Lamp Output	M	TAN	31	Oil Pressure Indicator Lamp Output
N	BRN/WHT	419	Check Engine Indicator Lamp Output	N	BRN/WHT	419	Check Engine Indicator Lamp Output
P	DK GRN	1614	Air Inlet Valve Motor Feed	P	DK GRN	1614	Air Inlet Valve Motor Feed
R - S	—	—	Not Used	R - S	—	—	Not Used

**C203 (Engine Harness Inline to A/C Harness)**

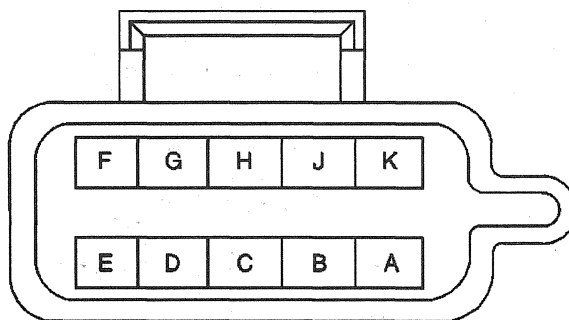
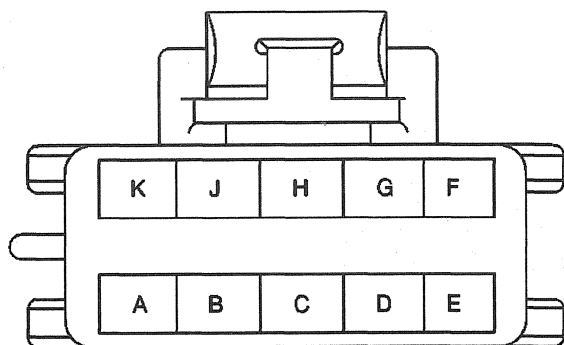
38267

Connector Part Information		<ul style="list-style-type: none"> <li>• 12199081</li> <li>• 2F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129155</li> <li>• 2M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED	542	Fuse Output - Battery - Type II Fuse	A	RED	542	Fuse Output - Battery - Type II Fuse
B	—	—	Not Used	B	—	—	Not Used

**C204 (IP Harness Inline to Engine Harness, Diesel)**

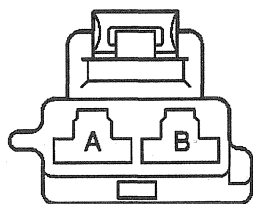
39763

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064769</li> <li>• 10F Metri-Pack 150 Series (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064770</li> <li>• 10M Metri-Pack 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT/BLK	1164	Electronic Throttle Pedal Position 5V Reference 1	A	WHT/BLK	1164	Electronic Throttle Pedal Position 5V Reference 1
B	DK BLU	1161	Electronic Throttle Pedal Position Signal 1	B	DK BLU	1161	Electronic Throttle Pedal Position Signal 1
C	LT BLU	1162	Electronic Throttle Pedal Position Signal 2	C	LT BLU	1162	Electronic Throttle Pedal Position Signal 2
D	BRN	1271	Electronic Throttle Pedal Position Return 1	D	BRN	1271	Electronic Throttle Pedal Position Return 1
E	TAN	1274	Electronic Throttle Pedal Position 5V Reference 2	E	TAN	1274	Electronic Throttle Pedal Position 5V Reference 2
F	YEL/BLK	1275	Electronic Throttle Pedal Position 5V Reference 3	F	YEL/BLK	1275	Electronic Throttle Pedal Position 5V Reference 3
G	DK GRN	1163	Electronic Throttle Pedal Position Signal 3	G	DK GRN	1163	Electronic Throttle Pedal Position Signal 3

**C204 (IP Harness Inline to Engine Harness, Diesel) (cont'd)**

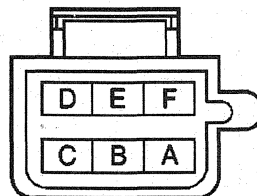
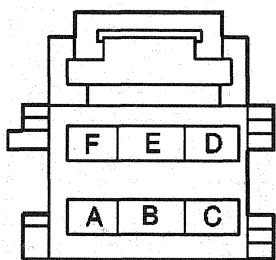
39763

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064769</li> <li>• 10F Metri-Pack 150 Series (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064770</li> <li>• 10M Metri-Pack 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
H	PPL	1272	Electronic Throttle Pedal Position Return 2	H	PPL	1272	Electronic Throttle Pedal Position Return 2
J	GRY	1273	Electronic Throttle Pedal Position Return 3	J	GRY	1273	Electronic Throttle Pedal Position Return 3
K	GRY	397	Cruise Control On Switch Output	K	GRY	397	Cruise Control On Switch Output

**C205 (Convenience Center Inline to Front to Rear Harness)**

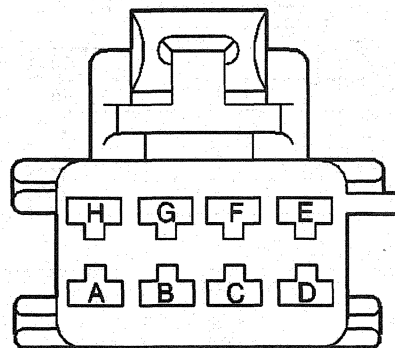
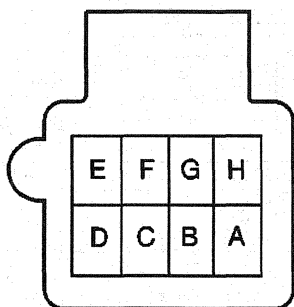
493694

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129939</li> <li>• 2M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	RED	542	Fuse Output - Battery - Type II Fuse
B	BRN	341	Fuse Output - Ignition 3 Type III Fuse

**C206 (Crossbody Harness Inline to Drivers Door Harness)**

62460

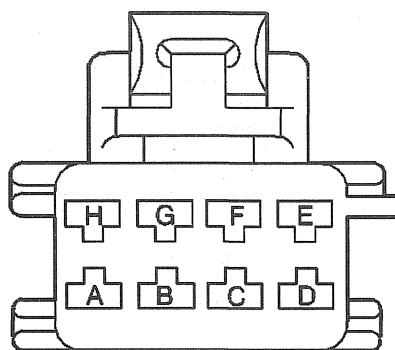
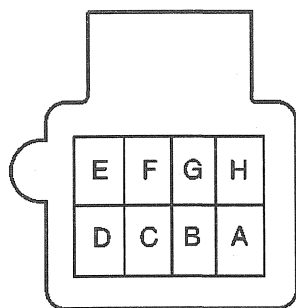
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6F Metri-Pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064763</li> <li>• 6M Metri-Pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	118	Speaker Return - Left Front	A	GRY	118	Speaker Return - Left Front
B	TAN	201	Speaker Feed - Left Front	B	TAN	201	Speaker Feed - Left Front
C	ORN	40	Fuse Output - Battery - Type III Fuse	C	ORN	40	Fuse Output - Battery - Type III Fuse
D	WHT	156	Courtesy Lamp Output	D	WHT	156	Courtesy Lamp Output
E	BRN	9	Park Lamp Feed	E	BRN	9	Park Lamp Feed
F	LT BLU	167	Power Window Master Switch Output - Right Front Window Down	F	LT BLU	167	Power Window Master Switch Output - Right Front Window Down

**C207 (Crossbody Harness Inline to Drivers Door Harness, w/o O/S Day/Night Mirror)**

62461

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064766</li> <li>• 8F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064767</li> <li>• 8M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output - Battery - Type III Fuse	A	ORN	40	Fuse Output - Battery - Type III Fuse
B	YEL	1496	Power Mirror Motor Feed - Common	B	YEL	1496	Power Mirror Motor Feed - Common
C	GRY	90	Power Mirror Motor Feed - Right Horizontal Motor Left Direction	C	GRY	90	Power Mirror Motor Feed - Right Horizontal Motor Left Direction

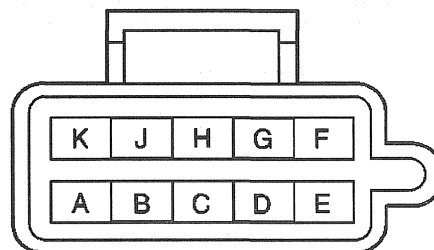
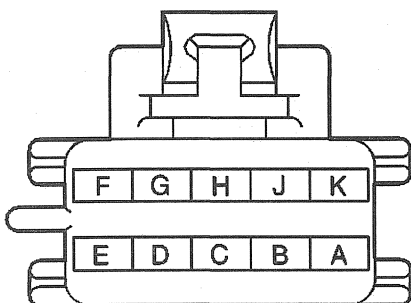
## C207 (Crossbody Harness Inline to Drivers Door Harness, w/o O/S Day/Night Mirror) (cont'd)



62461

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064766</li> <li>• 8F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064767</li> <li>• 8M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D	PPL/WHT	889	Power Mirror Motor Feed - Right Vertical Motor Down Direction	D	PPL/WHT	899	Power Mirror Motor Feed - Right Vertical Motor Down Direction
E	BLK	150	Ground	E	BLK	150	Ground
F	BRN	9	Park Lamp Feed	F	BRN	9	Park Lamp Feed
G - H	—	—	Not Used	G	—	—	Not Used

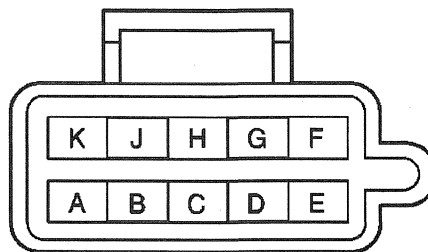
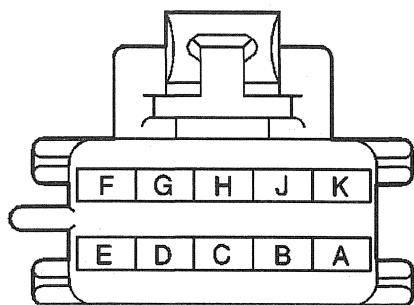
## C207 (Crossbody Harness Inline to Drivers Door Harness, w/ O/S Day/Night Mirror)



258237

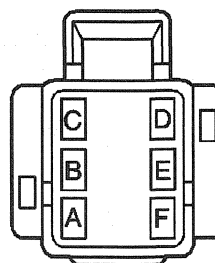
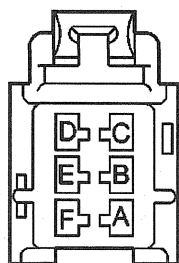
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064871</li> <li>• 10F Metri-Pack 150 Series (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064872</li> <li>• 10M Metri-Pack 150 Series (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery, Type III Fuse	A	ORN	40	Fuse Output Battery, Type III Fuse
B	YEL	1496	Power Mirror Motor Feed, Common	B	YEL	1496	Power Mirror Motor Feed, Common
C	GRY	90	Power Mirror Motor Feed, Right Hand Horizontal Motor, Inward Direction	C	GRY	90	Power Mirror Motor Feed, Right Hand Horizontal Motor, Inward Direction
D	PPL/WHT	899	Power Mirror Motor Feed, Right Hand Vertical Motor, Downward Direction	D	PPL/WHT	889	Power Mirror Motor Feed, Right Hand Vertical Motor, Downward Direction
E	BLK	150	Ground	E	BLK	150	Ground
F	BRN	9	Park Lamp Feed	F	BRN	9	Park Lamp Feed



**C207 (Crossbody Harness Inline to Drivers Door Harness, w/ O/S Day/Night Mirror) (cont'd)**

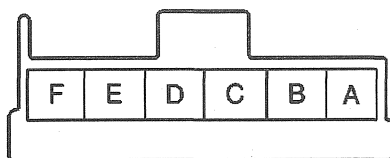
258237

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064871</li> <li>• 10F Metri-Pack 150 Series (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064872</li> <li>• 10M Metri-Pack 150 Series (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
G	GRY	1690	Automatic Day/Night Mirror Signal, Outside	G	GRY	1690	Automatic Day/Night Mirror Signal, Outside
H	PNK	1691	Automatic Day/Night Mirror Return, Outside	H	PNK	1691	Automatic Day/Night Mirror Return, Outside
J	ORN	267	Heated Mirror Element Feed	J	ORN	267	Heated Mirror Element Feed
K	—	—	Not Used	K	—	—	Not Used

**C209 (Crossbody Harness Inline to Drivers Door Harness)**

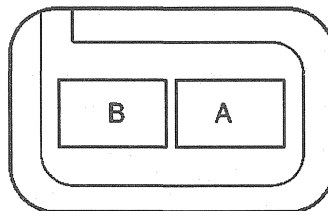
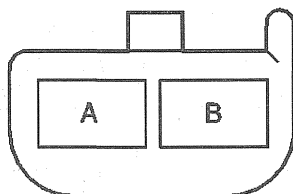
62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 6F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066195</li> <li>• 6M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	640	Fuse Output - Battery Type III Fuse	A	ORN	640	Fuse Output - Battery Type III Fuse
B	WHT	194	Power Door Lock Relay Feed - Unlock Coil	B	WHT	194	Power Door Lock Relay Feed - Unlock Coil
C	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock	C	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock
D	GRY	295	Power Door Lock Motor Feed - Lock	D	GRY	295	Power Door Lock Motor Feed - Lock
E	LT BLU	195	Power Door Lock Relay Feed - Lock - Coil	E	LT BLU	195	Power Door Lock Relay Feed - Lock - Coil
F	BLK	150	Ground	F	BLK	150	Ground

**C210 (Crossbody Harness Inline to Convenience Center)**

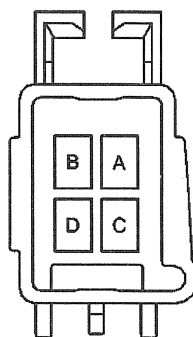
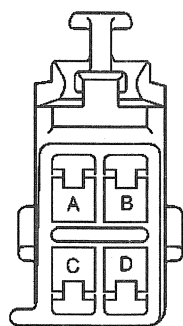
283914

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110747</li> <li>• ASM 6 Way F Metri- Pack 280 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	1695	4WD Front Wheel Lock Telltale Feed
A	ORN	240	Fuse Output-Battery - Type III Fuse (Luxury)
B	ORN	640	Fuse Output - Battery Type III Fuse
C	ORN	540	Fuse Output - Battery Type III Fuse
D	YEL	343	Fuse Output - Accessory - Type
E	BLK	1576	Trunk Release Switch Output
E	ORN	1940	Fuse Output-Battery - Type III Fuse (Luxury)
F	BLK	28	Horn Relay Output - Coil

**C211 (Crossbody Harness Inline to Seat Belt Switch, LH)**

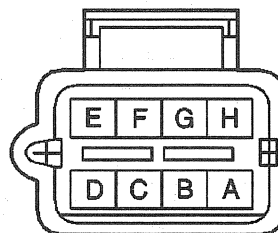
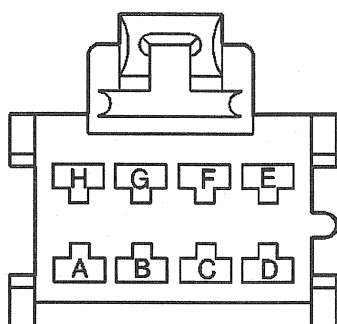
35424

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047662</li> <li>• 2 F M/P 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• 2 M M/P 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground	A	BLK	150	Ground
B	BLK/WHT	238	Seat Belt Switch Signal	B	BLK/WHT	238	Seat Belt Switch Signal

**C212 (Crossbody Harness Inline to Power Seat, LH)**

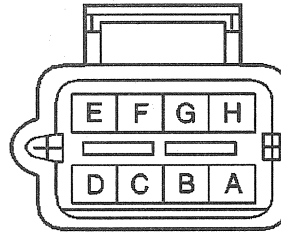
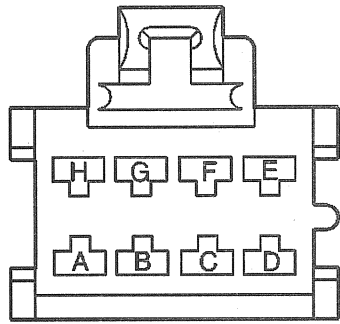
95855

Connector Part Information		• 12129135 • 4 F M/P 280 Series (BLK)		Connector Part Information		• 12129136 • 4 M M/P 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	540	Fuse Output - Battery - Type III Fuse	A	ORN	540	Fuse Output - Battery - Type III Fuse
B	BLK	150	Ground	B	BLK	150	Ground
C	ORN	341	Fuse Output - Battery - Type III Fuse (with Heated Seats)	C	ORN	341	Fuse Output - Battery - Type III Fuse (with Heated Seats)
D	ORN	1840	Fuse Output - Battery - Type III Fuse (with Heated Seats)	D	ORN	1840	Fuse Output - Battery - Type III Fuse (with Heated Seats)
D	ORN	640	Fuse Output - Battery - Type III Fuse	D	ORN	640	Fuse Output - Battery - Type III Fuse

**C213 (Crossbody Harness Inline to Door Harness RH)**

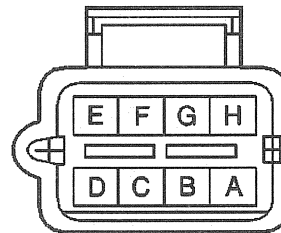
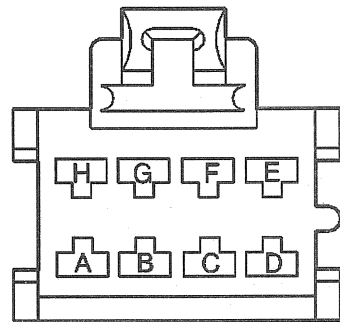
62468

Connector Part Information		• 12064998 • 8 F M/P 280 Series (BLK)		Connector Part Information		• 12066195 • 8 M M/P 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	294	Power Door Lock Motor Feed - Unlock	A	TAN	294	Power Door Lock Motor Feed - Unlock
B	GRY	295	Power Door Lock Motor Feed - Lock	B	GRY	295	Power Door Lock Motor Feed - Lock
C	WHT	194	Power Door Lock Relay Feed - Unlock Coil	C	WHT	195	Power Door Lock Relay Feed - Unlock Coil
D	LT BLU	195	Power Door Lock Relay Feed - Lock Coil	D	LT BLU	195	Power Door Lock Relay Feed - Lock Coil

**C213 (Crossbody Harness Inline to Door Harness RH) (cont'd)**

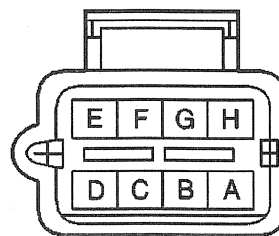
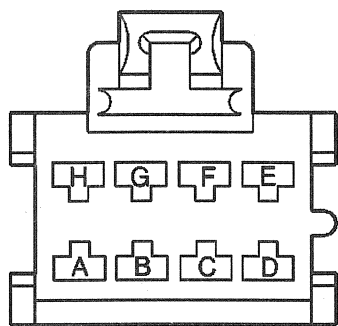
62468

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8 F M/P 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066195</li> <li>• 8 M M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
E	DK BLU	1307	Power Window Master Switch Output - Lockout	E	DK BLU	1307	Power Window Master Switch Output - Lockout
F	ORN	640	Fuse Output Battery - Type III Fuse	F	ORN	640	Fuse Output Battery - Type III Fuse
G	LT BLU	166	Power Window Master Switch Output - RF Window - Up Power Window	G	LT BLU	166	Power Window Master Switch Output - RF Window - Up Power Window
H	TAN	167	Power Window Master Switch Output - Right Front Window Power	H	TAN	167	Power Window Master Switch Output - Right Front Window Power

**C214 (Crossbody Harness Inline to Door Harness RH, UpLevel and Luxury)**

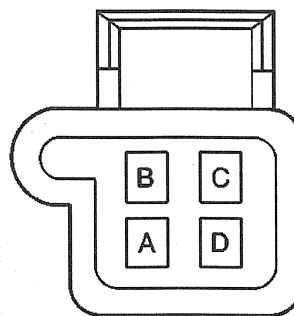
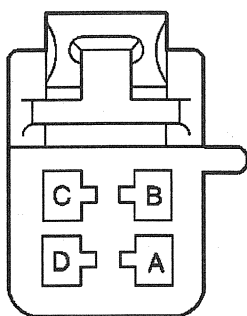
62468

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065398</li> <li>• 8 F M/P 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12045688</li> <li>• 8 M M/P 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	1496	Power Mirror Motor Feed - Common	A	YEL	1496	Power Mirror Motor Feed - Common
B	PPL/WHT	889	Power Mirror Motor Feed - Right - Vertical Motor - Down Direction	B	PPL/WHT	889	Power Mirror Motor Feed - Right - Vertical Motor - Down Direction
C	GRY	90	Power Mirror Motor Feed - Right - Horizontal Motor Left Direction	C	GRY	90	Power Mirror Motor Feed - Right - Horizontal Motor Left Direction

**C214 (Crossbody Harness Inline to Door Harness RH, UpLevel and Luxury) (cont'd)**

62468

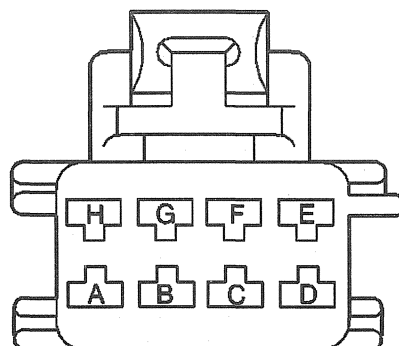
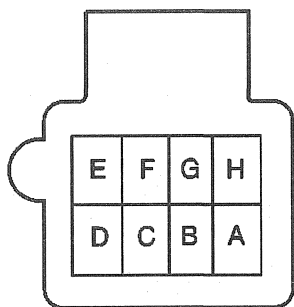
Connector Part Information		<ul style="list-style-type: none"> <li>• 12065398</li> <li>• 8 F M/P 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12045688</li> <li>• 8 M M/P 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D	DK BLU	267	Power Seat Motor Feed - Driver - Front Vertical Down	D	DK BLU	267	Power Seat Motor Feed - Driver - Front Vertical Down
E	BLK	150	Ground	E	BLK	150	Ground
F	GRY	1690	Automatic Day/Night Mirror Signal - Outside	F	GRY	1690	Automatic Day/Night Mirror Signal - Outside
G	PNK	1691	Automatic Day/Night Mirror Return - Outside	G	PNK	1691	Automatic Day/Night Mirror Return - Outside
H	—	—	Not Used	H	—	—	Not Used

**C214 (Crossbody Harness Inline to Door Harness RH, Except UpLevel and Luxury)**

62458

Connector Part Information		<ul style="list-style-type: none"> <li>• 12146407</li> <li>• 4 F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064761</li> <li>• 4 M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	1496	Power Mirror Motor Feed - Common	A	YEL	1496	Power Mirror Motor Feed - Common
B	PPL/WHT	889	Power Mirror Motor Feed - Right- Vertical Motor - Down Direction	B	PPL/WHT	889	Power Mirror Motor Feed - Right- Vertical Motor - Down Direction
C	GRY	90	Power Mirror Motor Feed - Right - Horizontal Motor Left Direction	C	GRY	90	Power Mirror Motor Feed - Right - Horizontal Motor Left Direction
D	—	—	Not Used	D	—	—	Not Used

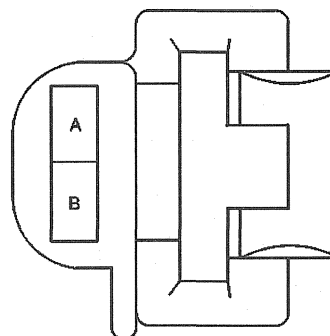
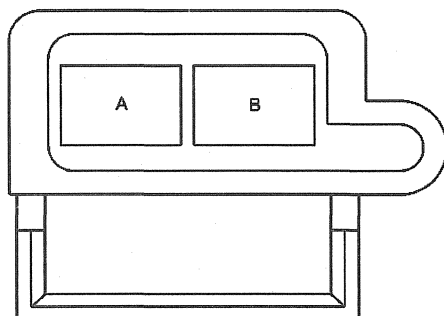
## C215 (Crossbody Harness Inline to RH Door Harness)



62461

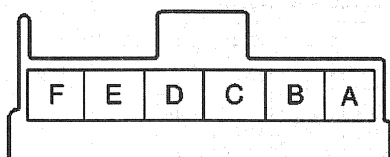
Connector Part Information		• 12064766 • 8 F M/P 280 Series (BLU)		Connector Part Information		• 12064767 • 8 M M/P 280 Series (BLU)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	BLK	150	Ground	B	BLK	150	Ground
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output
D	ORN	40	Fuse Output Battery - Type III Fuse	D	ORN	40	Fuse Output Battery - Type III Fuse
E	DK GRN	117	Speaker Return - Right Front	E	DK GRN	117	Speaker Return - Right Front
F	LT GRN	200	Speaker Feed - Right Front	F	LT GRN	200	Speaker Feed - Right Front
G-H	—	—	Not Used	G-H	—	—	Not Used

## C216 (Crossbody Harness Inline to RH Door Harness)



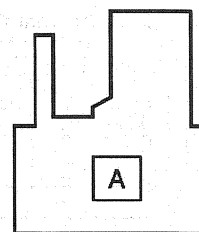
130728

Connector Part Information		• 12064867 • 2 F M/P 150 Series (NAT)		Connector Part Information		• 12064868 • 2 M M/P 150 Series (NAT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK GRN	117	Speaker Return - RF	A	DK GRN	117	Speaker Return - RF
B	LT GRN	200	Speaker Feed - RF	B	LT GRN	200	Speaker Feed - RF

**C221 (Crossbody Harness Inline to Convenience Center)**

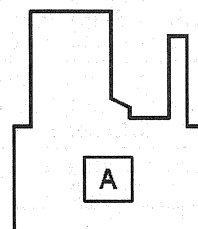
283914

Connector Part Information		<ul style="list-style-type: none"> <li>• Convenience Center</li> <li>• ASM 6 Way F Metri-Pack (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK BLU	1926	Auxiliary HVAC Switch Output - Low
A	BLK	1576	Rear Hatch Release (Luxury)
B	RED	1925	Auxiliary HVAC Switch Output - Medium
B	YEL	1737	Neutral Safety Switch Output-Park/Neutral (Luxury)
C	WHT	1924	Auxiliary HVAC Switch Output - High
D	LT BLU	97	Windshield Wiper Switch Signal - Mist/Off Low
E	GRY	391	Rear Window Wiper Switch Output
F	DK GRN	392	Rear Window Washer Pump Motor - Feed

**C222 (Crossbody Harness Inline to Convenience Center)**

283927

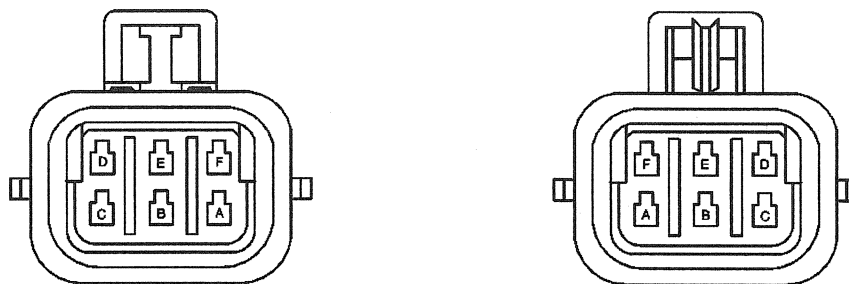
Connector Part Information		<ul style="list-style-type: none"> <li>• 12033713</li> <li>• 1 Way F Metri-Pack 280 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	PPL	293	Rear Defogger Element Feed

**C223 (Crossbody Harness Inline to Convenience Center)**

283929

Connector Part Information		<ul style="list-style-type: none"> <li>• 12015203</li> <li>• 2 Way F Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	DK GRN/ WHT	817	Vehicle Speed Signal 4000 Pulses Per Mile

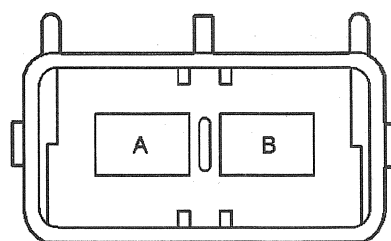
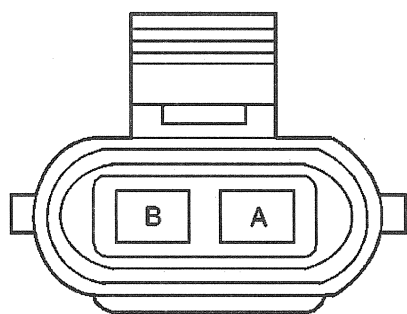
## C224 (IP Harness Inline to Transfer Case Harness)



62447

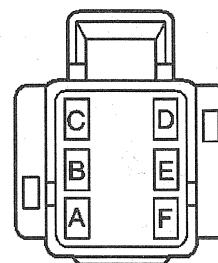
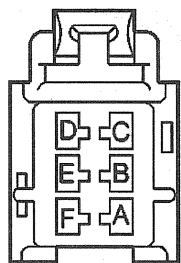
Connector Part Information		<ul style="list-style-type: none"> <li>• 12052848</li> <li>• 6F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12124107</li> <li>• 6M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	1554	Transfer Case Encoder Signal Return	A	BLK/WHT	1554	Transfer Case Encoder Signal Return
B	BRN/WHT	1555	Transfer Case Position Switch Encoder Signal - Channel "P"	B	BRN/WHT	1555	Transfer Case Position Switch Encoder Signal - Channel "P"
C	RED/WHT	1556	Transfer Case Position Switch Encoder Signal - Channel "C"	C	RED/WHT	1556	Transfer Case Position Switch Encoder Signal - Channel "C"
D	DK BLU/WHT	1557	Transfer Case Position Switch Encoder Signal - Channel "A"	D	DK BLU/WHT	1557	Transfer Case Position Switch Encoder Signal - Channel "A"
E	YEL/BLK	1558	Transfer Case Position Switch Encoder Signal - Channel "B"	E	YEL/BLK	1558	Transfer Case Position Switch Encoder Signal - Channel "BC"
F	LT GRN/BLK	431	Reference Voltage Feed - 8 Volt	F	LT GRN/BLK	431	Reference Voltage Feed - 8 Volt



**C225 (IP Harness Inline to Transfer Case Harness)**

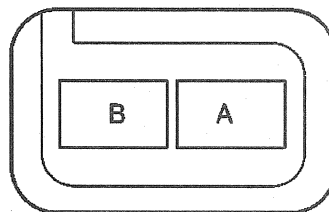
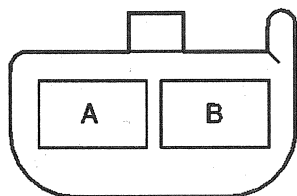
277418

Connector Part Information		<ul style="list-style-type: none"> <li>• 15300027</li> <li>• 2M M/P 280 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15300002</li> <li>• 2F M/P 280 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	1552	Transfer Case Motor Feed - Clockwise	A	BLK	1552	Transfer Case Motor Feed - Clockwise
B	RED	1553	Transfer Case Motor Feed - Counter Clockwise	B	RED	1553	Transfer Case Motor Feed - Counter Clockwise

**C227 (IP Harness Inline to Stoplamp Switch)**

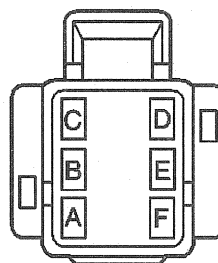
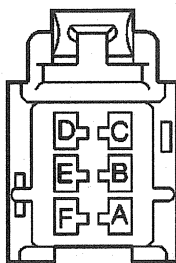
62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• ASM 6 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• ASM 6 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	17	Stop Lamp Switch Output	A	WHT	17	Stop Lamp Switch Output
B	ORN	140	Fuse Output - Battery - Type III Fuse	B	ORN	140	Fuse Output - Battery - Type III Fuse
C	LT GRN	275	Transmission Mounted Neutral Safety Switch Output - Park	C	LT GRN	275	Transmission Mounted Neutral Safety Switch Output - Park
D	DK GRN/ WHT	1135	Brake Transmission Shift Interlock Solenoid Feed	D	DK GRN/ WHT	1135	Brake Transmission Shift Interlock Solenoid Feed
E	PPL	420	Brake Pedal Switch Output - Torque Converter Clutch	E	PPL	420	Brake Pedal Switch Output - Torque Converter Clutch
F	BRN	441	Fuse Output - Ignition 3 Type III Fuse	F	BRN	441	Fuse Output - Ignition 3 Type III Fuse

**C228 (Crossbody Harness Inline to Seat Belt Switch, RH)**

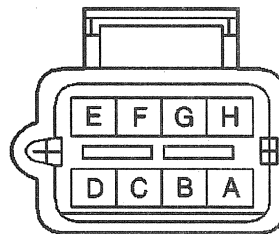
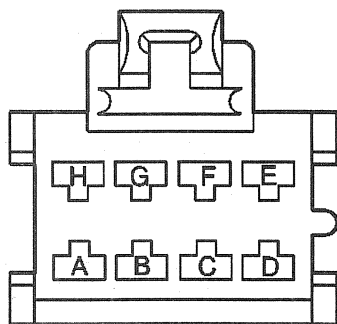
35424

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047662</li> <li>• 2 Way F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• 2 Way M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	182	Heated Seats Control Module	A	YEL	182	Heated Seats Control Module
B	BLK	150	Ground	B	BLK	150	Ground

**C229 (Crossbody Harness Inline to Power Seat RH)**

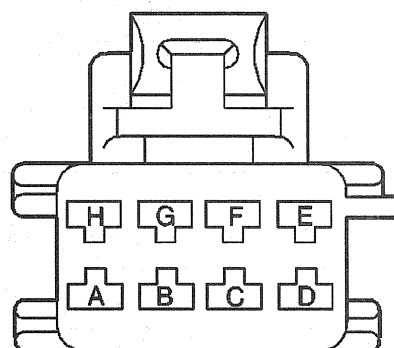
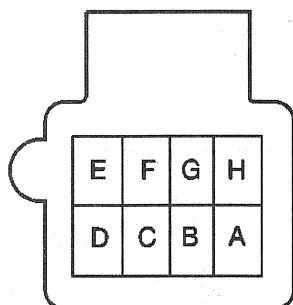
62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• 6 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1840	Fuse Output Battery - Type III Fuse	A	ORN	1840	Fuse Output Battery - Type III Fuse
B	—	—	Not Used	B	—	—	Not Used
C	ORN	540	Fuse Output Battery - Type III Fuse	C	ORN	540	Fuse Output Battery - Type III Fuse
D	BLK	150	Ground	D	BLK	150	Ground
E	BRN	341	Fuse Output Ignition 3 Type III Fuse	E	BRN	341	Fuse Output Ignition 3 Type III Fuse
F	YEL	182	Heated Seats Control Module	F	YEL	182	Heated Seats Control Module

**C230 (IP Harness Inline to Front HVAC Harness)**

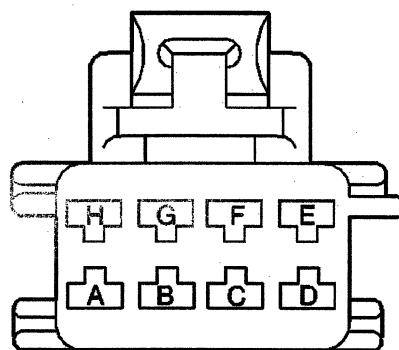
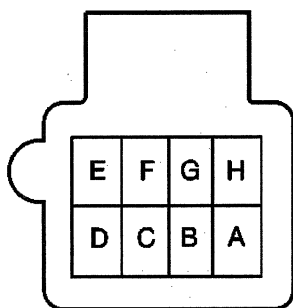
62468

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8F Metri-Pack Series 280 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066251</li> <li>• 8M Metri-Pack Series 280 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	60	Blower Switch Output-Low	A	YEL	60	Blower Switch Output-Low
B	TAN	63	Blower Switch Output-Medium 1	B	TAN	63	Blower Switch Output-Medium 1
C	LT BLU	72	Blower Switch Output-Medium 2	C	LT BLU	72	Blower Switch Output-Medium 2
D	ORN	52	Blower Switch Output-High	D	ORN	52	Blower Switch Output-High
E	WHT	454	Mode Switch Output	E	WHT	454	Mode Switch Output
F	DK GRN	1614	Air Inlet Valve Motor Feed	F	DK GRN	1614	Air Inlet Valve Motor Feed
G	LT BLU	733	Air Temperature Valve Position Sensor Signal	G	LT BLU	733	Air Temperature Valve Position Sensor Signal
H	BRN	141	Fuse Output-Ignition 3-Type III Fuse	H	BRN	141	Fuse Output-Ignition 3-Type III Fuse

**C231 (IP Harness Inline to Crossbody Harness)**

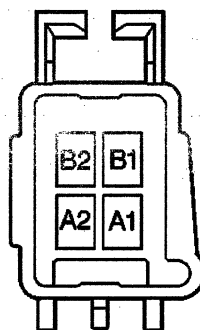
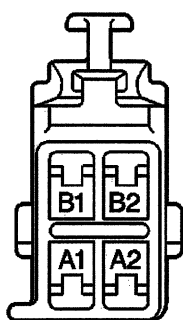
62461

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110216</li> <li>• 8F Metri-Pack 280 (YEL)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12110214</li> <li>• 8M Metri-Pack 280 (YEL)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	353	SIR Indicator Lamp Output (Pickup Only)	A	BRN	353	SIR Indicator Lamp Output (Pickup Only)
B	BLK/WHT	238	Seat Belt Switch Signal	B	BLK/WHT	238	Seat Belt Switch Signal
C	WHT	347	SIR Inflator Feed Driver	C	WHT	347	SIR Inflator Feed Driver
D	DK GRN	348	SIR Inflator Output Driver	D	DK GRN	348	SIR Inflator Output Driver
E	WHT/BLK	1403	SIR Inflator Feed Passenger	E	WHT/BLK	1403	SIR Inflator Feed Passenger

**C231 (IP Harness Inline to Crossbody Harness) (cont'd)**

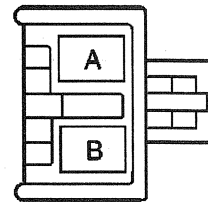
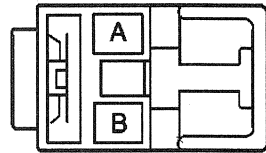
62461

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110216</li> <li>• 8F Metri-Pack 280 (YEL)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12110214</li> <li>• 8M Metri-Pack 280 (YEL)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
F	DK GRN/ WHT	1404	SIR Inflator Output Passenger	F	DK GRN/ WHT	1404	SIR Inflator Output Passenger
G	TAN	800	Serial Data Signal - UART - 8192 BAUD - Primary	G	TAN	800	Serial Data Signal - UART - 8192 BAUD - Primary
H	YEL	1834	SIR Forward Sensor Signal	H	YEL	1834	SIR Forward Sensor Signal

**C232 (IP Harness Inline to SIR Harness)**

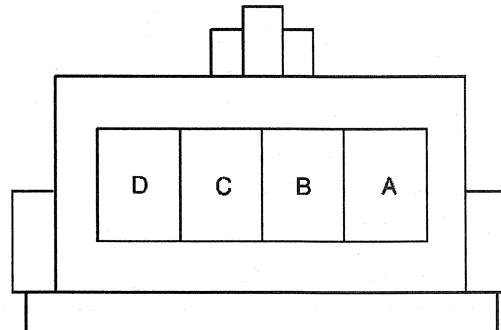
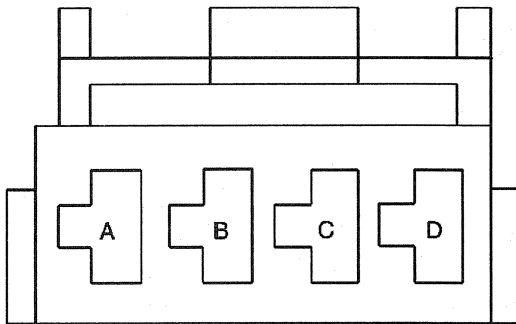
455830

Connector Part Information		<ul style="list-style-type: none"> <li>• 12151740</li> <li>• 4F Metri-Pack 280 Series (YEL)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15304974</li> <li>• 4M Metri-Pack 280 Series (YEL)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1	BRN	358	SIR Indicator Lamp Output	A1	BRN	358	SIR Indicator Lamp Output
A2	BLK/WHT	1751	SIR Ground	A2	BLK/WHT	1751	SIR Ground
B1	YEL	1139	Fuse Output - Ignition 1, Type III Fuse - SIR	B1	YEL	1139	Fuse Output - Ignition 1, Type III Fuse - SIR
B2	—	—	Not Used	B2	—	—	Not Used

**C233 (IP Harness Inline to Passenger Inflatable Restraint Module)**

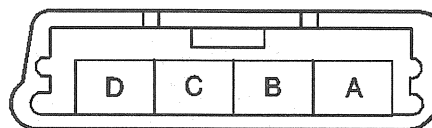
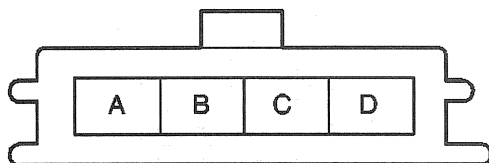
288135

Connector Part Information		<ul style="list-style-type: none"> <li>• 12124124</li> <li>• 2F Metri-Pack 280 Series (YEL)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12186799</li> <li>• 2M Metri-Pack 280 Series (YEL)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT/BLK	1403	SIR Inflator Feed - Passenger	A	WHT/BLK	1403	SIR Inflator Feed - Passenger
B	DK GRN/ WHT	1404	SIR Inflator Output - Passenger	B	DK GRN/ WHT	1404	SIR Inflator Output - Passenger

**C235 (IP Harness Inline to Auxiliary Fuse Panel Harness, Police Package)**

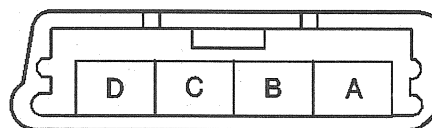
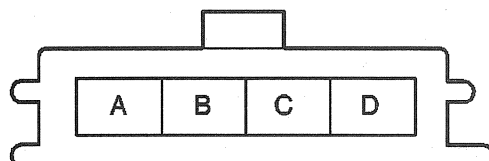
73196

Connector Part Information		<ul style="list-style-type: none"> <li>• 12015664</li> <li>• 4 F Metri-Pack 630 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12034295</li> <li>• 4 M Metri-Pack 630 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED	2	Fuse Output Battery - Type I Fuse	A	RED	2	Fuse Output Battery - Type I Fuse
B	RED	2	Fuse Output Battery - Type I Fuse	B	RED	2	Fuse Output Battery - Type I Fuse
C	BLK	150	Ground	C	BLK	150	Ground
D	BLK	150	Ground	D	BLK	150	Ground

**C236 (Power Seat Harness Inline to Heated Seat Harness, LH)**

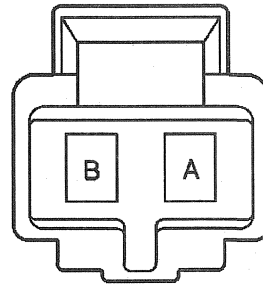
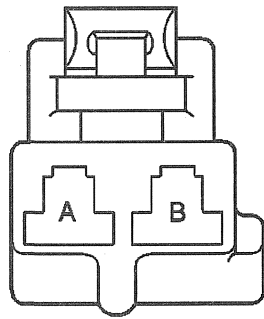
280756

Connector Part Information		<ul style="list-style-type: none"> <li>• 12045813</li> <li>• 4F Metri-Pack 150 Series (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12052054</li> <li>• 4M Metri-Pack 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1840	Fuse Output - Battery - Type III Fuse	A	ORN	1840	Fuse Output - Battery - Type III Fuse
B	BRN	341	Fuse Output - Ignition 3 - Type III Fuse	B	BRN	341	Fuse Output - Ignition 3 - Type III Fuse
C	BLK	150	Ground	C	BLK	150	Ground
D	YEL	182	Heated Seat Control Module Enable	D	—	—	Not Used

**C237 (Power Seat Harness Inline to Heated Seat Harness, RH)**

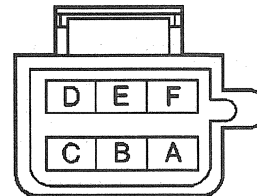
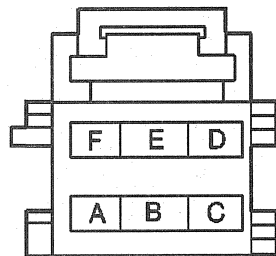
280756

Connector Part Information		<ul style="list-style-type: none"> <li>• 12045813</li> <li>• 4F Metri-Pack 150 Series (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12052054</li> <li>• 4M Metri-Pack 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1840	Fuse Output - Battery - Type III Fuse	A	ORN	1840	Fuse Output - Battery - Type III Fuse
B	BRN	341	Fuse Output - Ignition 3 - Type III Fuse	B	BRN	341	Fuse Output - Ignition 3 - Type III Fuse
C	BLK	150	Ground	C	BLK	150	Ground
D	YEL	182	Heated Seat Control Module Enable	D	YEL	182	Heated Seat Control Module Enable

**C238 (IP Harness Inline to Roof Harness, Police Package)**

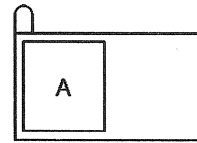
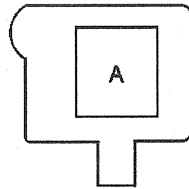
62454

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064749</li> <li>• 2 F M/P (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064750</li> <li>• 2 M M/P (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	940	Fuse Output - Battery - Type III Fuse	A	ORN	940	Fuse Output - Battery - Type III Fuse
B	BLK	150	Ground	B	BLK	150	Ground

**C239 (IP Harness Inline to Crossbody Harness, Luxury)**

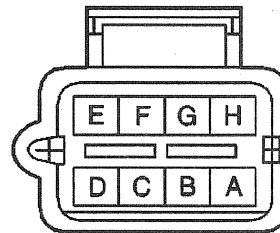
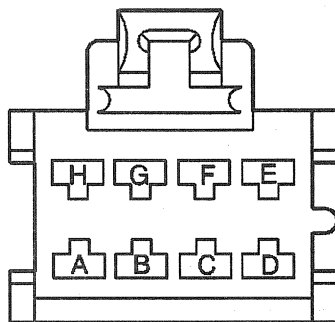
62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6 F M/P 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065781</li> <li>• 6 M M/P 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	43	Fuse Output - Accessory - Type III Fuse	A	YEL	43	Fuse Output-Accessory-Type III Fuse
B	PPL	1807	Serial Data Signal - Class B - 10400 Baud - Primary	B	PPL	1807	Serial Data Signal - Class B - 10400 Baud - Primary
C	DK GRN	835	Diagnostic Signal - Entertainment and Comfort	C	DK GRN	835	Diagnostic Signal - Entertainment and Comfort
D	ORN	1140	Fuse Output - Battery Type III Fuse	D	ORN	1140	Fuse Output - Battery Type III Fuse
E	BLK	150	Ground	E	BLK	150	Ground
F	—	—	Not Used	F	—	—	Not Used

**C242 (IP Harness Inline to Aux. Horn/Siren Harness, Police Package)**

95869

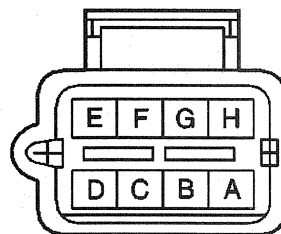
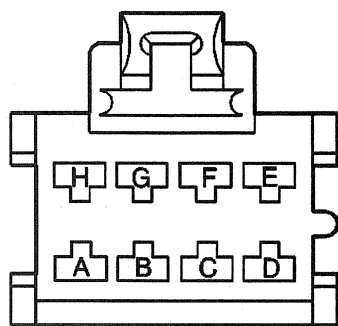
Connector Part Information		<ul style="list-style-type: none"> <li>• 12069885</li> <li>• 1F M/P 480 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 1206984</li> <li>• 1M M/P 480 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	28	Horn Relay Output - Coil	A	BLK	28	Horn Relay Output - Coil

**C243 (Crossbody Harness Inline to Door Harness, LH)**

62468

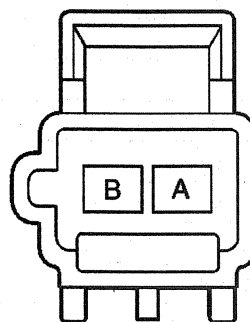
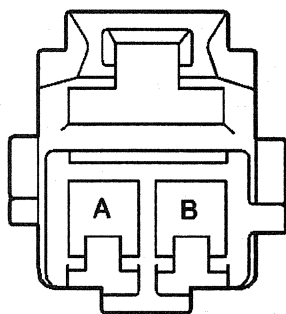
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066195</li> <li>• 8 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	343	Fuse Output - Accessory - Type III Fuse	A	YEL	343	Fuse Output - Accessory - Type III Fuse
B	LT BLU	166	Power Window Master Switch Output - Right Front Window - Up	B	LT BLU	166	Power Window Master Switch Output - Right Front Window - Up
C	TAN	167	Power Window Master Switch Output - Right Front Window - Down	C	TAN	167	Power Window Master Switch Output - Right Front Window - Down
D	DK GRN	168	Power Window Master Switch Output - Left Rear Window - Up	D	DK GRN	168	Power Window Master Switch Output - Left Rear Window - Up
E	PPL	169	Power Window Master Switch Output - Left RR Window - Down	E	PPL	169	Power Window Master Switch Output - Left RR Window - Down



**C243 (Crossbody Harness Inline to Door Harness, LH) (cont'd)**

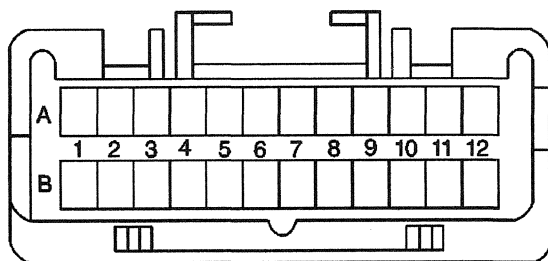
62468

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066195</li> <li>• 8 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
F	LT GRN	170	Power Window Master Switch Output - Right Rear Window - Up	F	LT GRN	170	Power Window Master Switch Output - Right Rear Window - Up
G	PPL	171	Power Window Master Switch Output - Right Rear Window - Down	G	PPL	171	Power Window Master Switch Output - Right Rear Window - Down
H	DK BLU	1307	Power Window Master Switch Output - Lockout	H	DK BLU	1307	Power Window Master Switch Output - Lockout

**C245 (IP Harness Inline to Auxiliary Fuse Panel Harness, Police Package)**

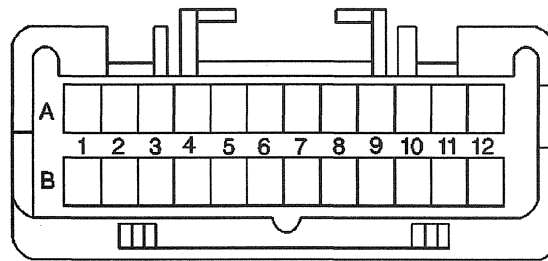
38267

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129082</li> <li>• 2 F M/P 280 (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129156</li> <li>• 2 M M/P 280 (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL	343	Fuse Output - Accessory - Type III Fuse	A	YEL	343	Fuse Output - Accessory - Type III Fuse
B	—	—	Not Used	B	—	—	Not Used

**C250 (Crossbody Harness Inline to Onstar Jumper Harness, Luxury w/o Handset)**

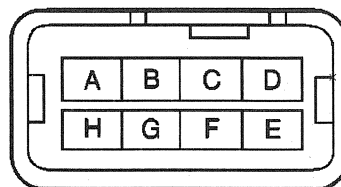
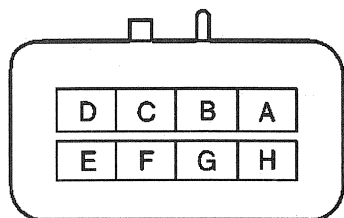
73144

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110088</li> <li>• 24F Metri-Pack 100 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A1	YEL	43	Accessory Power Feed
A2	ORN	1140	Fused Battery Feed
A3	BLK	150	Ground
A4	—	—	Not Used
A5	—	—	Not Used
A6	DK GRN	835	Entertainment and Comfort Data Line
A7	TAN	800	Uart Serial Data Line
A8	PNK	39	Fused Ignition Switch Feed
A9-A12	—	—	Not Used
B1	BLK/WHT	624	Headlight Feed
B2	BLK	28	Horn Feed
B3	WHT	194	Door Unlock Feed
B4	LT BLU	195	Door Lock Signal Ouput
B5-B6	—	—	Not Used
B7	PPL	1807	Class 2 Serial Data
B8-B12	—	—	Not Used

**C250 (Crossbody Harness Inline to Onstar Jumper Harness, Luxury w/ Handset)**

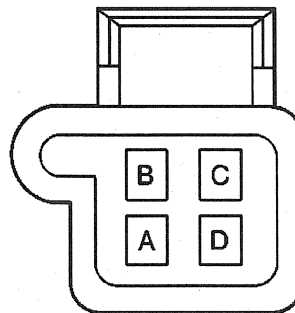
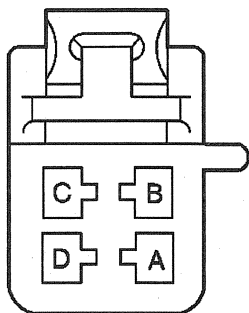
73144

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110088</li> <li>• 24F Metri-Pack 100 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A1	YEL	43	Accessory Power Feed
A2	ORN	1140	Fused Battery Feed
A3	BLK	150	Ground
A4	—	—	Not Used
A5	—	—	Not Used
A6	DK GRN	835	Entertainment and Comfort Data Line
A7	TAN	800	Uart Serial Data Line
A8	—	—	Not Used
A9	BARE	814	Twisted Shield Ground
A10	BARE	814	Twisted Shield Ground
A11	LT BLU	1153	Ear Ground
A12	PNK	1155	Data Ground
B1	BLK/WHT	624	Headlight Feed
B2	BLK	28	Horn Feed
B3	WHT	194	Door Unlock Feed
B4	LT BLU	195	Door Lock Signal Ouput
B5	BRN	1941	Fused Ouput Ignition Type II Fuse
B6	RED	1266	Regulated 8.5 volt Feed
B7	PPL	1807	Class 2 Serial Data
B8	PPL	961	Audio Ground
B9	GRY/BLK	1798	Data Line Ground
B10	YEL	962	Keypad Data Link
B11	TAN	960	Data Display Line
B12	DK BLU	1154	Mouth Audio

**C251 (Crossbody Harness Inline to Onstar Jumper Harness, Luxury)**

73135

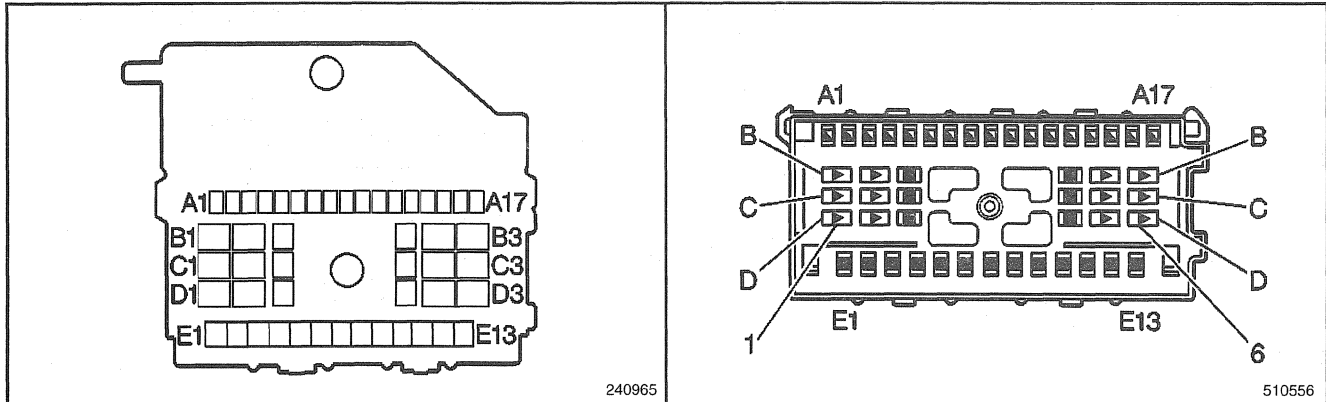
Connector Part Information		<ul style="list-style-type: none"> <li>• 12047886</li> <li>• 8F Metri-Pack Series 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065398</li> <li>• 8F Metri-Pack Series 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BARE	1705	Microphone Ground	A	BARE	1705	Microphone Ground
B	GRY	655	Microphone IN	B	GRY	655	Microphone IN
C	DK GRN/ WHT	974	Keypad Signal Out	C	DK GRN/ WHT	974	Keypad Signal Out
D	LT GRN/ BLK	975	Keypad Power Feed	D	LT GRN/ BLK	975	Keypad Power Feed
E	YEL/BLK	977	Keypad LED Green	E	YEL/BLK	977	Keypad LED Green
F	ORN/BLK	978	Keypad Ground	F	ORN/BLK	978	Keypad Ground
G	BRN/WHT	979	Keypad LED Red	G	BRN/WHT	979	Keypad LED Red
H	—	—	Not Used	H	—	—	Not Used

**C252 (Crossbody Harness Inline to Onstar Jumper Harness, Luxury)**

62458

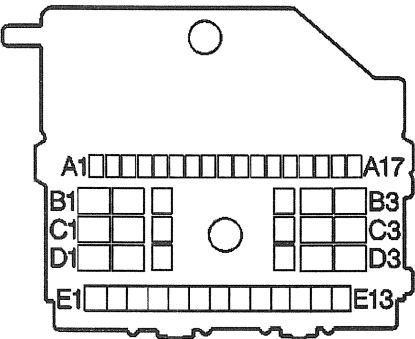
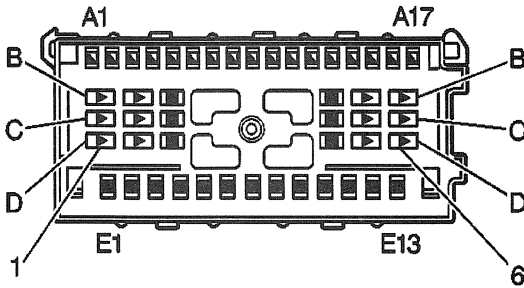
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064760</li> <li>• 4F Metri-Pack Series 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4F Metri-Pack Series 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK/WHT	372	Audio Commone	A	BLK/WHT	372	Audio Commone
B	DK GRN/ WHT	368	Audio RF+	B	DK GRN/ WHT	368	Audio RF+
C	BRN/WHT	367	Audio LF+	C	BRN/WHT	367	Audio LF+
D	BARE	814	Audio Shielded Ground	D	BARE	814	Audio Shielded Ground

## C266 (IP Harness Inline to Steering Column Harness)

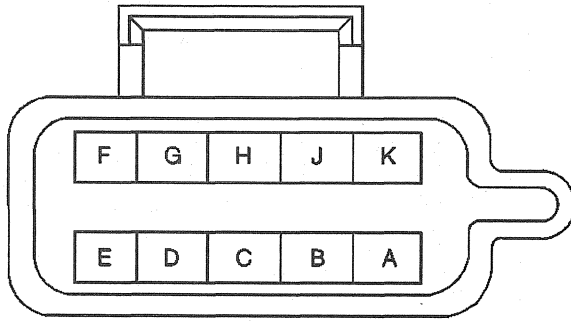
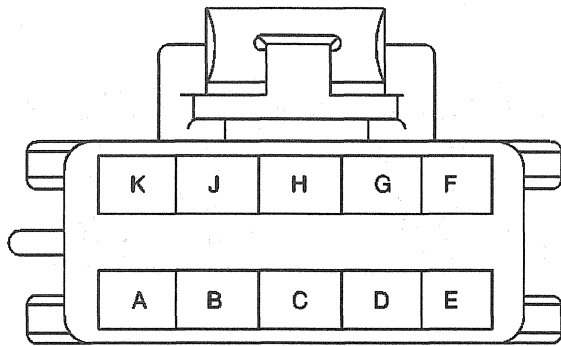


Connector Part Information		• 12047837 • 48 Way M M/P MXD (BLK)		Connector Part Information		• 12077822 • 48 Way M M/P MXD (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1	WHT	17	Stoplamp Switch Output (Suburban Utility)	A1	WHT	17	Stoplamp Switch Output (Suburban Utility)
A2	PNK	139	Fuse Output Ignition I, Type III Fuse	A2	PNK	139	Fuse Output Ignition I, Type III Fuse
A3	LT BLU	150	Turn/Hazard Module Feed	A3	LT BLU	150	Turn/Hazard Module Feed
A4-A5	—	—	Not Used	A4-A5	—	—	Not Used
A6	DK BLU	15	Turn Signal Lamp Feed, Right Front	A6	DK BLU	15	Turn Signal Lamp Feed, Right Front
A7	LT BLU	14	Turn Signal Feed, Left Front	A7	LT BLU	14	Turn Signal Feed, Left Front
A8-A10	—	—	Not Used	A8-A10	—	—	Not Used
A11	BLK	28	Horn Relay Output, Coil	A11	BLK	28	Horn Relay Output, Coil
A12	GRY	397	Cruise Control On Switch Output	A12	GRY	397	Cruise Control On Switch Output
A13	PNK	39	Fuse Output Ignition 3, Type III Fuse	A13	BRN	41	Fuse Output Ignition 3, Type III Fuse
A14	DK BLU	84	Cruise Control Set/Coast Signal	A14	DK BLU	84	Cruise Control Set/Coast Signal
A15	GRY/BLK	87	Cruise Control Resume/Accel Switch Signal	A15	GRY/BLK	87	Cruise Control Resume/Accel Switch Signal
A16	BLK	150	Ground	A16	BLK	150	Ground
A17	DK GRN/ WHT	1135	Brake Transmission Shift Interlock Solenoid Feed	A17	DK GRN/ WHT	1135	Brake Transmission Shift Interlock Solenoid Feed
B1	RED/WHT	812	Reference Voltage Feed, 12V Reference	B1	RED/WHT	812	Reference Voltage Feed, 12V Reference
B2	BLK	150	Ground	B2	BLK	150	Ground
B3	LT GRN	80	Key Reminder Switch Signal	B3	LT GRN	80	Key Reminder Switch Signal
B4	TAN	159	Key Reminder Switch Output	B4	TAN	159	Key Reminder Switch Output
B5	TAN/WHT	33	Brake Warning Indicator Lamp Output	B5	LT BLU	1134	Park Brake Switch Signal
B6	—	—	Not Used	B6	—	—	Not Used
C1	WHT	1390	Ignition Switch Output, Off/Run/Crank	C1	WHT	1390	Ignition Switch Output, Off/Run/Crank
C2	BLK	150	Ground	C2	BLK	150	Ground
C3	GRY	705	Reference Voltage Feed, 5V Reference	C3	GRY	705	Reference Voltage Feed, 5V Reference
C4	ORN/BLK	1057	Sensor Return	C4	ORN/BLK	1057	Sensor Return

## C266 (IP Harness Inline to Steering Column Harness) (cont'd)

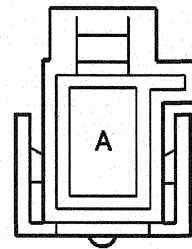
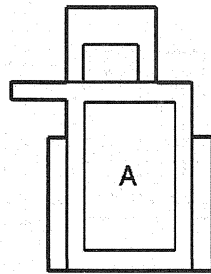
							
240965				510556			
Connector Part Information		• 12047837 • 48 Way M M/P MXD (BLK)		Connector Part Information		• 12077822 • 48 Way M M/P MXD (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
C5	PNK	3	Ignition Switch Output, Ignition 1	C5	PNK	3	Ignition Switch Output, Ignition 1
C6	ORN	300	Ignition Switch Output, Ignition 3	C6	ORN	300	Ignition Switch Output, Ignition 3
D1	YEL	5	Ignition Switch Output, Crank	D1	YEL	5	Ignition Switch Output, Crank
D2	RED	342	Fuse Output Battery, Type II Fuse	D2	RED	342	Fuse Output Battery, Type II Fuse
D3	YEL	1836	Magnetic Rotation Detection Sensor Signal	D3	YEL	1836	Magnetic Rotation Detection Sensor Signal
D4	LT BLU	1059	Steering Wheel Position Sensor Signal	D4	LT BLU	1059	Steering Wheel Position Sensor Signal
D5	RED	1442	Fuse Output Battery, Type II Fuse	D5	RED	242	Fuse Output Battery, Type II Fuse
D6	BRN	4	Ignition Switch Output, Accessory	D6	BRN	4	Ignition Switch Output, Accessory
E1	GRY	1696	Turn/Hazard Module Feed, Secondary	E1	GRY	1696	Turn/Hazard Module Feed, Secondary
E2	LT BLU	20	Stoplamp Feed (Gas)	E2	LT BLU	20	Stoplamp Feed (Gas)
E3	PPL	92	Windshield Wiper Motor Feed, High Speed	E3	PPL	92	Windshield Wiper Motor Feed, High Speed
4	YEL	143	Fuse Output Accessory, Type III Fuse	E4	YEL	143	Fuse Output Accessory, Type III Fuse
E5	BRN	96	Windshield Wiper Switch Signal, Pulse Delay	E5	BRN	96	Windshield Wiper Switch Signal, Pulse Delay
E6	DK GRN	19	Stop/Turn Lamp Feed, Right Rear	E6	DK GRN	19	Stop/Turn Lamp Feed, Right Rear
E7	YEL	18	Stop/Turn Lamp Feed, Left Rear	E7	YEL	18	Stop/Turn Lamp Feed, Left Rear
E8	ORN	140	Battery Feed	E8	ORN	140	Battery Feed
E9	PPL	1697	Turn/Hazard Module Output	E9	PPL	1697	Turn/Hazard Module Output
E10	—	—	Not Used	E10	—	—	Not Used
E11	LT GRN	11	High Beam Headlamp Feed	E11	LT GRN	11	High Beam Headlamp Feed
E12	PPL	359	Headlamp Feed, Daytime Running Lamps	E12	PPL	359	Headlamp Feed, Daytime Running Lamps
E13	YEL	10	Headlamp Switch Output	E13	YEL	10	Headlamp Switch Output

## C271 (IP Harness Inline to 'A' Pillar Harness)



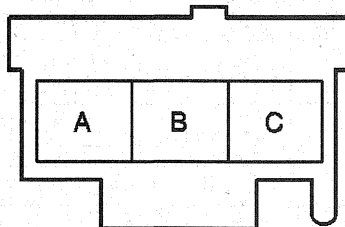
39763

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064871</li> <li>• 10 Way F Metri-Pack 150 Series (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 1204872</li> <li>• 10 Way F Metri-Pack 150 Series (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	LT GRN	24	Back-Up Lamp Feed	B	LT GRN	24	Back-Up Lamp Feed
C	PNK	39	Fuse Output Ignition I, Type III Fuse	C	PNK	39	Fuse Output Ignition I, Type III Fuse
D	ORN	40	Fuse Output Battery, Type III Fuse	D	ORN	40	Fuse Output Battery, Type III Fuse
E	BLK	150	Ground	E	BLK	150	Ground
F	BRN	718	Sensor Return	F	BRN	718	Sensor Return
G	LT GRN/BLK	735	Outside Ambient Temperature Sensor Signal	G	LT GRN/BLK	735	Outside Ambient Temperature Sensor Signal
H	GRA	1690	Automatic Day/Night Mirror Signal-Outside	H	GRA	1690	Automatic Day/Night Mirror Signal-Outside
J	PNK	1691	Automatic Day/Night Mirror Return-Outside	J	PNK	1691	Automatic Day/Night Mirror Return-Outside
K	YEL/BLK	1784	Twilight Sentinel Enable Signal	K	YEL/BLK	1784	Twilight Sentinel Enable Signal

**C272 (IP Harness Inline to Spot Lamp Jumper, Police Package)**

301999

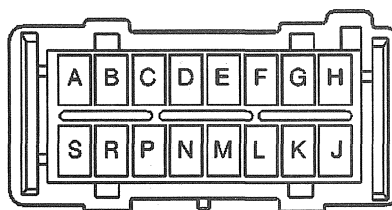
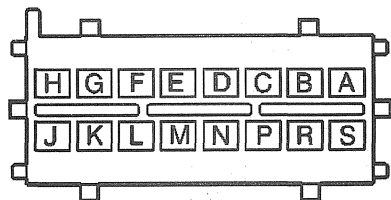
Connector Part Information		<ul style="list-style-type: none"> <li>• 12015952</li> <li>• 1 F M/P 480 (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12015987</li> <li>• 1 M M/P 480 (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	940	Fuse Output Battery III Fuse	A	BLK	940	Fuse Output Battery III Fuse

**C280 (Convenience Center Inline to Front to Rear Body Harness)**

320521

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110777</li> <li>• 3F M/P 280 Series (GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	GRY	8	Instrument Panel Lamp Feed
B	ORN	840	Fuse Output - Battery - Type III Fuse
C	ORN	540	Fuse Output - Battery - Type III Fuse

## C298 (IP Harness Inline to Crossbody Harness, Luxury)

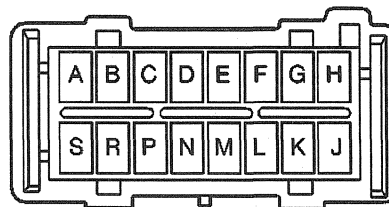
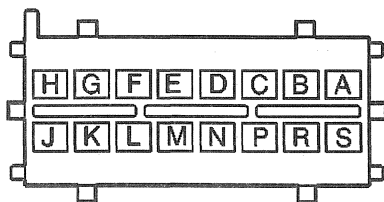


280749

Connector Part Information		<ul style="list-style-type: none"> <li>• 12129430</li> <li>• 16F M/P 150 Series (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12129429</li> <li>• 16M M/P 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery, Type III Fuse	A	ORN	40	Fuse Output Battery, Type III Fuse
B	BRN	9	Park Lamp Feed	B	BRN	9	Park Lamp Feed
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output
D	LT BLU	1246	Seat Belt Switch Signal	D	LT BLU	1346	Seat Belt Switch Signal
E	LT BLU	1134	Instrument Panel Lamp Feed	E	LT BLU	1134	Instrument Panel Lamp Feed
F	WHT	17	Stop Lamp Switch Output	F	WHT	17	Stop Lamp Switch Output
G	PPL	328	Interior Lamp Defeat Switch Output	G	PPL	328	Interior Lamp Defeat Switch Output
H	ORN	2040	Park/Neutral, Position Switch Output	H	ORN	2040	Park/Neutral, Position Switch Output
J	YEL	10	Interior Lamp Output	J	YEL	10	Interior Lamp Output
K	YEL/BLK	1794	Keyless Entry Program Signal	K	YEL/BLK	1784	Keyless Entry Program Signal
L	ORN	1840	Fuse Output—Battery Type 111 Fuse	L	ORN	1840	Fuse Output—Battery Type 111 Fuse
M	BRN	341	Fuse Output—Ignition 3 Type 111 Fuse	M	BRN	341	Fuse Output—Ignition 3 Type 111 Fuse
N	GRY	1690	Automatic Day/Night Mirror Signal—Outside	N	GRY	1690	Automatic Day/Night Mirror Signal—Outside
P	PNK	1691	Automatic Day/Night Mirror Return—Outside	P	PNK	1691	Automatic Day/Night Mirror Return—Outside
R	ORN	1040	Fuse Output—Battery Type 111 Fuse	R	ORN	1040	Fuse Output—Battery Type 111 Fuse
S	PPL	293	Rear Defogger Element Feed	S	PPL	293	Rear Defogger Element Feed

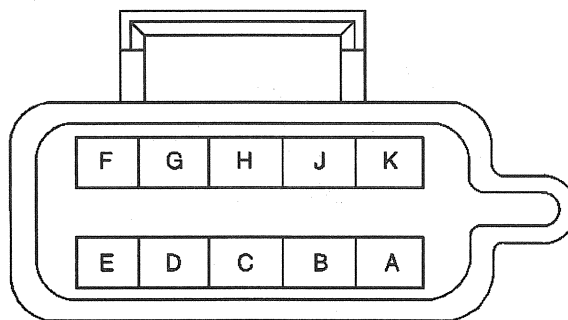
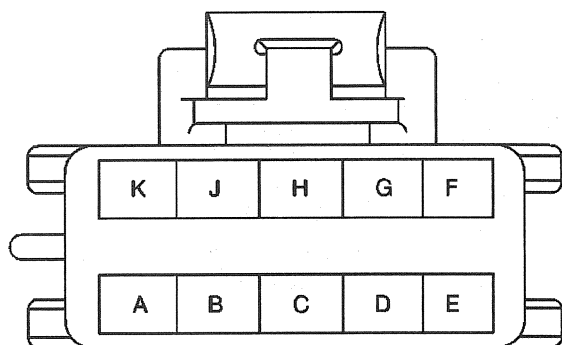


## C298 (IP Harness Inline to Crossbody Harness, Suburban/Utility)



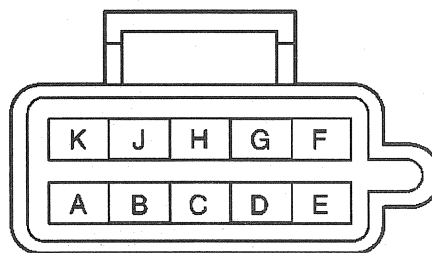
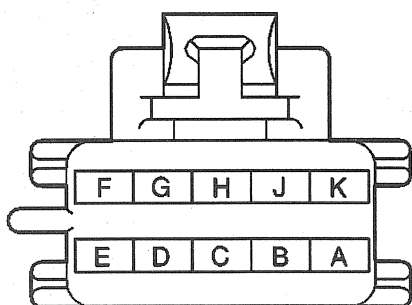
280749

Connector Part Information		• 12129430 • 16 Way F Metri-Pack 150 Series (ACT WHT)		Connector Part Information		• 12129429 • 16 Way M Metri-Pack 150 Series (ACT WHT)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery, Type III Fuse	A	ORN	40	Fuse Output Battery, Type III Fuse
B	BRN	9	Park Lamp Feed	B	BRN	9	Park Lamp Feed
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output
D	BLK/WHT	238	Seat Belt Switch Signal	D	BLK/WHT	238	Seat Belt Switch Signal
E	GRY	8	Instrument Panel Lamp Feed	E	GRY	8	Instrument Panel Lamp Feed
F	WHT	17	Stop Lamp Switch Output	F	WHT	17	Stop Lamp Switch Output
G	PPL	328	Interior Lamp Defeat Switch Output	G	PPL	328	Interior Lamp Defeat Switch Output
H	YEL	1737	Transmission Mounted Neutral Safety Switch Output—Park Neutral	H	YEL	1737	Transmission Mounted Neutral Safety Switch Output—Park Neutral
J	GRY	157	Interior Lamp Output	J	GRY	157	Interior Lamp Output
K	BLK/WHT	1455	Keyless Entry Program Signal	K	BLK/WHT	1455	Keyless Entry Program Signal
L	ORN	1840	Fuse Output—Battery Type 111 Fuse	L	ORN	1840	Fuse Output—Battery Type 111 Fuse
M	BRN	341	Fuse Output—Ignition 3 Type 111 Fuse	M	BRN	341	Fuse Output—Ignition 3 Type 111 Fuse
N	GRY	1690	Automatic Day/Night Mirror Signal—Outside	N	GRY	1690	Automatic Day/Night Mirror Signal—Outside
P	PNK	1691	Automatic Day/Night Mirror Return—Outside	P	PNK	1691	Automatic Day/Night Mirror Return—Outside
R	ORN	1040	Fuse Output—Battery Type 111 Fuse	R	ORN	1040	Fuse Output—Battery Type 111 Fuse
S	PPL	293	Rear Defogger Element Feed	S	PPL	293	Rear Defogger Element Feed

**C298 (IP Harness Inline to Crossbody Harness, Pickup)**

39763

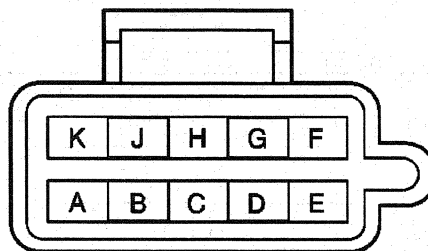
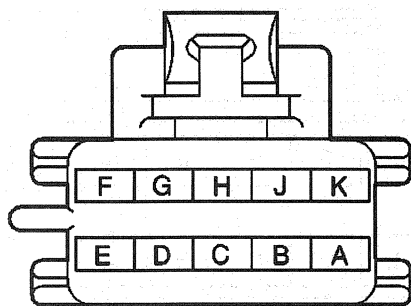
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064769</li> <li>• Conn 10M M/P 150 NAT</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064770</li> <li>• Conn 10M M/P 150 NAT</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery, Type III Fuse	A	ORN	40	Fuse Output Battery, Type III Fuse
B	BRN	9	Park Lamp Feed	B	BRN	9	Park Lamp Feed
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output
D	BLK/WHT	238	Seat Belt Switch Signal	D	BLK/WHT	238	Seat Belt Switch Signal
E	GRY	8	Instrument Panel Lamp Feed	E	GRY	8	Instrument Panel Lamp Feed
F	WHT	17	Stop Lamp Switch Output	F	WHT	17	Stop Lamp Switch Output
G	PPL	318	Interior Lamp Defeat Switch Output	G	PPL	328	Interior Lamp Defeat Switch Output
H	DK BLU/WHT	149	Courtesy Lamp	H	DK BLU/WHT	149	Courtesy Lamp
J	GRY	157	Interior Lamp Output	J	GRY	157	Interior Lamp Output
K	BLK/WHT	1455	Keyless Entry Program Enable Signal	K	BLK/WHT	1455	Keyless Entry Program Enable Signal

**C299 (I/P Harness Inline to Crossbody Harness)**

258237

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064871</li> <li>• 10 F M/P 150 (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064872</li> <li>• 10 M M/P 150 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK GRN	117	Speaker Return - Right Front	A	DK GRN	117	Speaker Return - Left Front
B	GRY	118	Speaker Return - Left Front	B	GRY	118	Speaker Return - Left Front
C	LT GRN	200	Speaker Feed - Right Front	C	LT GRN	200	Speaker Feed - Right Front
D	TAN	201	Speaker Feed - Left Front	D	TAN	201	Speaker Feed - Left Front
E	DK BLU	46	Speaker Feed - Right Rear	E	DK BLU	46	Speaker Feed - Right Rear

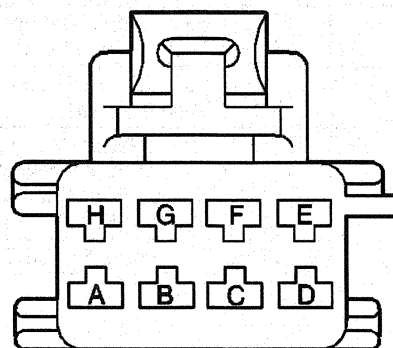
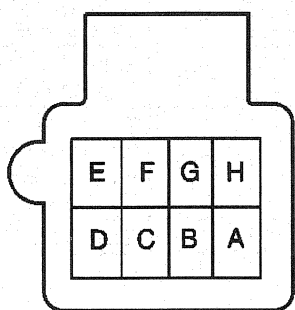
## C299 (I/P Harness Inline to Crossbody Harness) (cont'd)



258237

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064871</li> <li>• 10 F M/P 150 (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064872</li> <li>• 10 M M/P 150 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
F	LT BLU	115	Speaker Return - Right Rear	F	LT BLU	115	Speaker Return - Right Rear
G	YEL	116	Speaker Return - Left Rear	G	YEL	116	Speaker Return - Left Rear
H	BRN	199	Speaker Feed - Left Rear	H	BRN	199	Speaker Feed - Left Rear
J	PNK	314	Radio Signal - ON	J	PNK	314	Radio Signal - ON
K	PNK	39	Fuse Output Ignition 1 Type III Fuse	K	PNK	39	Fuse Output Ignition 1 Type III Fuse

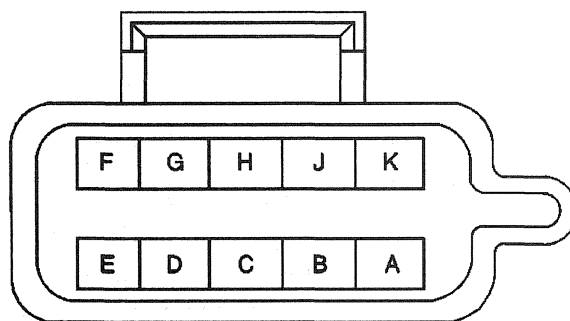
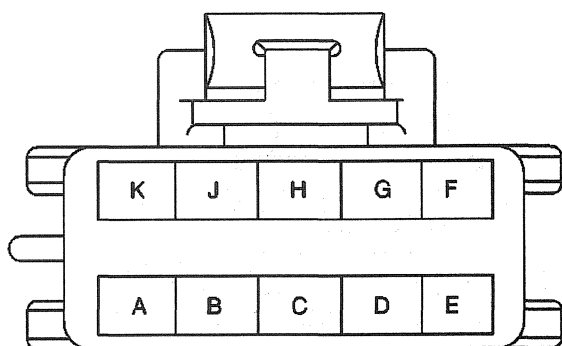
## C300 (Front to Rear Harness Inline to Auxiliary Switch with A/C &amp; Heat)



62461

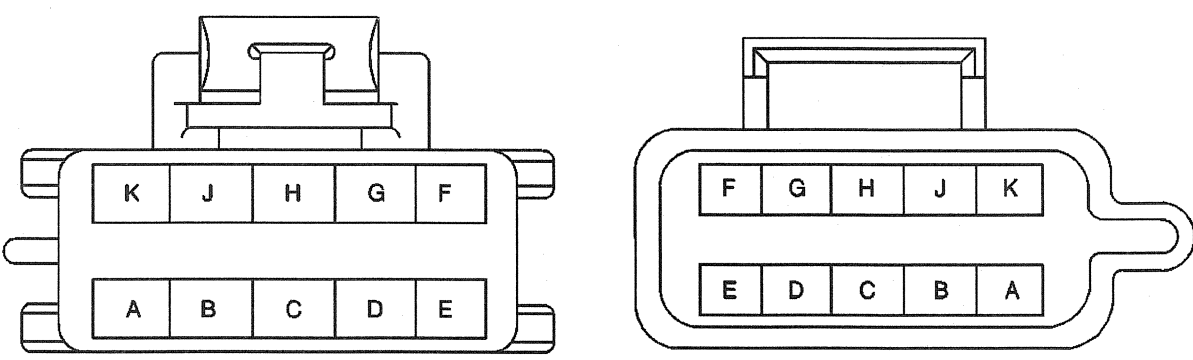
Connector Part Information		<ul style="list-style-type: none"> <li>• 13064766</li> <li>• 8 F M/P 150 (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12089906</li> <li>• 8 M M/P 150 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	341	Fuse Output - Ignition 3 Type III Fuse	A	BRN	341	Fuse Output - Ignition 3 Type III Fuse
B	DK BLU	1926	Auxiliary HVAC Switch Output - Low	B	DK BLU	1926	Auxiliary HVAC Switch Output - Low
C	WHT	1924	Aux HVAC Switch Output - High	C	WHT	1924	Aux HVAC Switch Output - High
D	RED	1925	Aux HVAC Switch Output - Medium	D	RED	1925	Aux HVAC Switch Output - Medium
E	BLK	150	Ground	E	BLK	150	Ground
F	DK BLU	1199	Air Temperature Valve Motor Feed	F	DK BLU	1199	Air Temperature Valve Motor Feed
G	WHT	454	Mode Switch Signal	G	WHT	454	Mode Switch Signal
H	GRY	8	Instrument Panel Lamp Feed	H	GRY	8	Instrument Panel Lamp Feed

## C301 (Crossbody Harness Inline to Front to Rear Body Harness, Except Luxury)




39763

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064769</li> <li>• 10 Way F Metri-Pack 150 Series NAT</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12078169</li> <li>• 10 Way M Metri-Pack 150 Series (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	156	Courtesy Lamp Output	A	WHT	156	Courtesy Lamp Output
B	LT BLU	115	Speaker Return, Right Rear	B	LT BLU	115	Speaker Return, Right Rear
C	DK BLU	46	Speaker Feed, Right Rear	C	DK BLU	46	Speaker Feed, Right Rear
D	YEL	116	Speaker Return, Left Rear	D	YEL	116	Speaker Return, Left Rear
E	BRN	199	Speaker Feed, Left Rear	E	BRN	199	Speaker Feed, Left Rear
F	BLK	1576	Liftgate Release Switch Output	F	BLK	1576	Liftgate Release Switch Output
G	ORN	40	Fuse Output Battery, Type III Fuse Feed	G	ORN	40	Fuse Output Battery, Type III Fuse
H	ORN	640	Fuse Output Battery, Type III Fuse	H	ORN	640	Fuse Output Battery, Type III Fuse
J	YEL	1737	Transmission Mounted Neutral Safety Switch Output, Park/Neutral (Keyless Entry)	J	YEL	1737	Transmission Mounted Neutral Safety Switch Output, Park/Neutral (Keyless Entry)
K	WHT	17	Stop Lamp Switch Output	K	WHT	17	Stop Lamp Switch Output

**C301 (Crossbody Harness Inline to Front to Rear Body Harness, Luxury)**


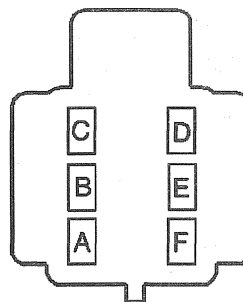
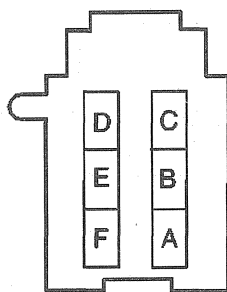
39763

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064769</li> <li>• 10F M/P 150 Series (WHT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064770</li> <li>• 10M M/P 150 Series (WHT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	156	Courtesy Lamp Output	A	WHT	156	Courtesy Lamp Output
B	YEL	1949	Speaker Return, Right Rear	B	YEL	1949	Speaker Return, Right Rear
C	WHT	1854	Speaker Feed, Right Rear	C	WHT	1854	Speaker Feed, Right Rear
D	PPL	1958	Speaker Return, Left Rear	D	PPL	1958	Speaker Return, Left Rear
E	RED	1858	Speaker Feed, Left Rear	E	RED	1858	Speaker Feed, Left Rear
F	—	—	Not Used	F	—	—	Not Used
G	ORN	40	Fuse Output Battery, Type III Fuse Feed	G	ORN	40	Fuse Output Battery, Type III Fuse Feed
H	ORN	640	Fuse Output Battery, Type III Fuse	H	ORN	640	Fuse Output Battery, Type III Fuse
J	—	—	Not Used	J	—	—	Not Used
K	WHT	17	Stop Lamp Switch Output	K	WHT	17	Stop Lamp Switch Output

**C302 (Crossbody Harness Inline to Front to Rear Body Harness, 06 w/Rear Heat Only)**


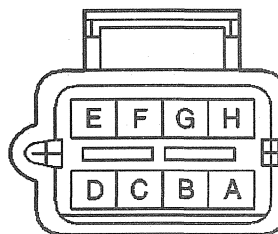
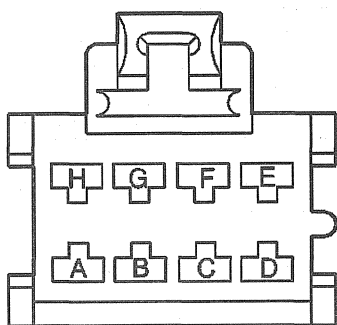
283939

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089527</li> <li>• 6 Way F Metri-Pack 280 Series (LT GRN)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12089745</li> <li>• 6 Way M Metri-Pack 280 Series (LT GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	294	Power Door Lock Motor Feed - Unlock	A	TAN	294	Power Door Lock Motor Feed - Unlock
B	GRY	295	Power Door Lock Motor Feed - Lock	B	GRY	295	Power Door Lock Motor Feed - Lock
C	PPL	328	Int Lamp Defeat Switch Output	C	PPL	328	Int Lamp Defeat Switch Output

**C302 (Crossbody Harness Inline to Front to Rear Body Harness, 06 w/Rear Heat Only) (cont'd)**

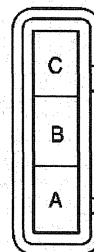
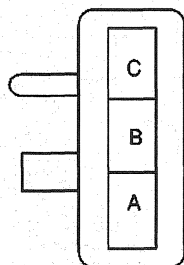
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Connector Part Information		<ul style="list-style-type: none"> <li>• 12089527</li> <li>• 6 Way F Metri-Pack 280 Series (LT GRN)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12089745</li> <li>• 6 Way M Metri-Pack 280 Series (LT GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D	GRY	8	Instrument panel Lamp Feed	D	GRY	8	Instrument panel Lamp Feed
E	WHT	194	Power Door Lock Relay Feed - Unlock Coil	E	WHT	194	Power Door Lock Relay Feed - Unlock Coil
F	LT BLU	195	Power Door Lock Relay Feed - Lock Coil	F	LT BLU	195	Power Door Lock Relay Feed - Lock Coil

**C302 (Crossbody Harness Inline to Front to Rear Body Harness, All Except 06 w/Rear Heat)**

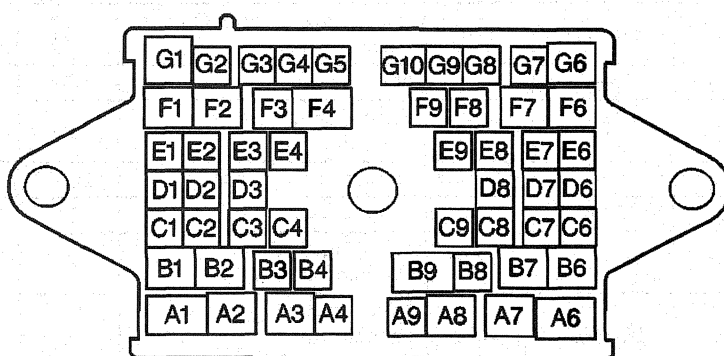
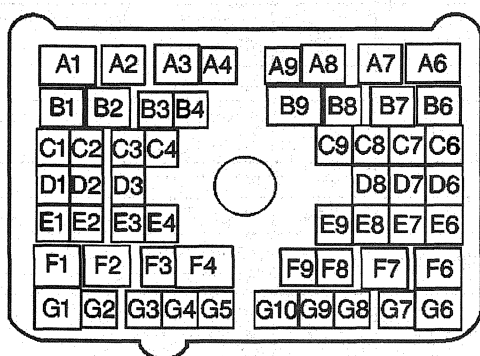
62468

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064998</li> <li>• 8 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12066195</li> <li>• 8 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	TAN	294	Power Door Lock Motor Feed-Unlock	A	TAN	294	Power Door Lock Motor Feed-Unlock
B	GRY	295	Power Door Lock Motor Feed - Lock	B	GRY	295	Power Door Lock Motor Feed - Lock
C	PPL	328	INT Lamp Defeat Switch Output	C	PPL	328	INT Lamp Defeat Switch Output
D	GRY	8	Instrument Panel Lamp Feed	D	GRY	8	Instrument Panel Lamp Feed
E	WHT	194	Power Door Lock Relay Feed - Unlock Coil	E	WHT	194	Power Door Lock Relay Feed - Unlock Coil
F	LT BLU	195	Power Door Lock Relay Feed - Lock Coil	F	LT BLU	195	Power Door Lock Relay Feed - Lock Coil
G	BRN	9	Park Lamp Feed	G	BRN	9	Park Lamp Feed
H	—	—	Not Used	H	—	—	Not Used

**C303 (Front to Rear Body Harness Inline to Dome Lamp — RR)**

95860

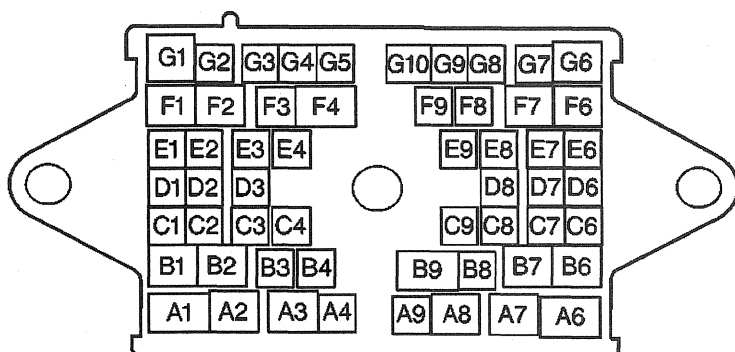
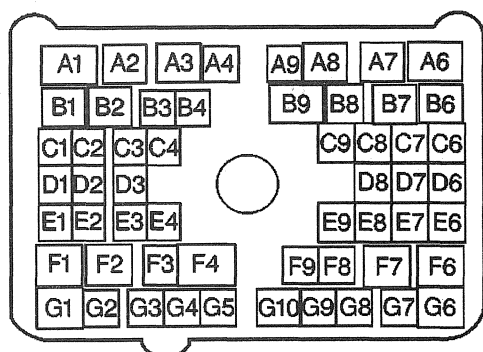
Connector Part Information		<ul style="list-style-type: none"> <li>• 12047781</li> <li>• 3 F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047782</li> <li>• 3 M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery - Type III Fuse	A	ORN	40	Fuse Output Battery - Type III Fuse
B	WHT	156	Courtesy Lamp Output	B	WHT	156	Courtesy Lamp Output
C	BLK	150	Ground	C	BLK	150	Ground

**C304 (IP Harness Inline to Floor Console Harness, Luxury)**

327304

Connector Part Information		<ul style="list-style-type: none"> <li>• 15326227</li> <li>• 56F M/P 280, 480, 630 (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12034262</li> <li>• 56M M/P 280, 480, 630 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1-A4	—	—	Not Used	A1-A4	—	—	Not Used
A6	BRN	4	Ignition Switch Output	A6	BRN	4	Ignition Switch Output
A7-B2	—	—	Not Used	A7-B2	—	—	Not Used
B3	LT BLU	1874	Speaker Feed - Left Front #2	B3	LT BLU	1874	Speaker Feed - Left Front #2
B4	TAN	511	Audio Signal Left Low Level	B4	TAN	511	Audio Signal Left Low Level
B6-B8	—	—	Not Used	B6-B8	—	—	Not Used
B9	DK BLU	75	Delayed Accessory Bus Relay Output - Common Contact	B9	DK BLU	75	Delayed Accessory Bus Relay Output - Common Contact
C1	LT GRN	1948	Audio Return-Right Front-Low Level	C1	LT GRN	1948	Audio Return-Right Front-Low Level
C2	BARE	813	Drain Wire Return	C2	BARE	813	Drain Wire Return
C3	BARE	814	Drain Wire Return	C3	BARE	814	Drain Wire Return

## C304 (IP Harness Inline to Floor Console Harness, Luxury) (cont'd)



327304

Connector Part Information		<ul style="list-style-type: none"> <li>• 15326227</li> <li>• 56F M/P 280, 480, 630 (BLU)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12034262</li> <li>• 56M M/P 280, 480, 630 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
C4	DK BLU	46	Speaker Feed Right Rear	C4	DK BLU	46	Speaker Feed Right Rear
C6	YEL	116	Speaker Return Left Rear	C6	YEL	116	Speaker Return Left Rear
C7	BRN	199	Speaker Feed Left Rear	C7	BRN	199	Speaker Feed Left Rear
C8	LT GRN	1011	Remote Radio Control Signal	C8	LT GRN	1011	Remote Radio Control Signal
C9	YEL	43	Fuse Output - Accessory - Type III Fuse	C9	YEL	43	Fuse Output - Accessory - Type III Fuse
D1	LT GRN	1407	Tape Player Signal Remote Right Audio	D1	LT GRN	1407	Tape Player Signal Remote Right Audio
D2	—	—	Not Used	D2	—	—	Not Used
D3	ORN	840	Fuse Output - Battery Type III Fuse	D3	ORN	840	Fuse Output - Battery Type III Fuse
D6-D7	—	—	Not Used	D6-D7	—	—	Not Used
D8	PNK	314	Radio Signal - ON	D8	PNK	314	Radio Signal - ON
E1	ORN/BLK	1406	Tape Player Signal - Remote Left Audio	E1	ORN/BLK	1406	Tape Player Signal - Remote Left Audio
E2	LT BLU	1405	Tape Player Signal - Remote Audio Communications	E	LT BLU	1405	Tape Player Signal - Remote Audio Communications
E3-E4	—	—	Not Used	E3-E4	—	—	Not Used
E6	YEL	234	Seat Belt Indicator Lamp Output	E6	YEL	234	Seat Belt Indicator Lamp Output
E7	GRY	157	Interior Lamp Output	E7	GRY	157	Interior Lamp Output
E8	BLK	28	Horn Relay Output - Coil	E8	BLK	28	Horn Relay Output - Coil
E9	LT GRN	80	Key Reminder Switch Signal	E9	LT GRN	80	Key Reminder Switch Signal
F1	BARE	514	Drain Wire Return	F1	BARE	514	Drain Wire Return
F2	BLK	150	Ground	F2	BLK	150	Ground
F3	—	—	Not Used	F3	—	—	Not Used
F4	RED	342	Fuse Output - Battery - Type II Fuse	F4	RED	342	Fuse Output - Battery - Type II Fuse
F6	ORN	1140	Fuse Output Type III Fuse	F6	ORN	1140	Fuse Output Type III Fuse
F7	DK GRN	835	Diagnostic Signal - Entertainment and Comfort	F7	DK GRN	835	Diagnostic Signal - Entertainment and Comfort
F8	—	—	Not Used	F8	—	—	Not Used
F9	TAN	159	Key Reminder Switch	F9	TAN	159	Key Reminder Switch
G1	BLK	150	Ground	G1	BLK	150	Ground



## C304 (IP Harness Inline to Floor Console Harness, Luxury) (cont'd)

327304

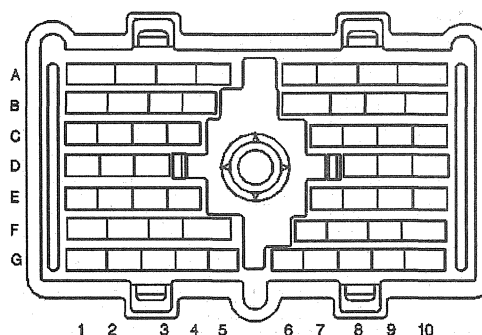
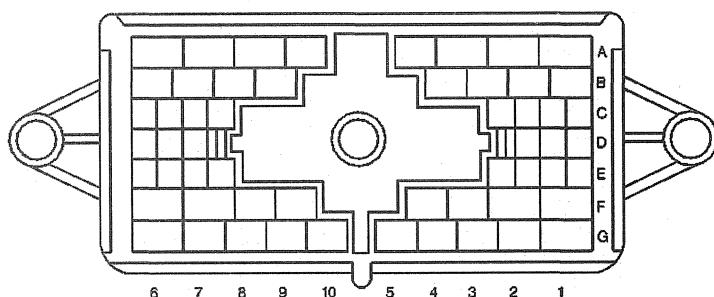
Connector Part Information		• 15326227 • 56F M/P 280, 480, 630 (BLU)		Connector Part Information		• 12034262 • 56M M/P 280, 480, 630 (BLU)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
G2	PNK	39	Fuse Output Ignition - I Type III Fuse	G2	PNK	39	Fuse Output Ignition - I Type III Fuse
G3	DK BLU/ WHT	149	Courtesy Lamp Feed	G3	DK BLU/ WHT	149	Courtesy Lamp Feed
G4	DK GRN	145	Power Antenna Relay Feed - Coil	G4	DK GRN	145	Power Antenna Relay Feed - Coil
G5-G10	—	—	Not Used	G5-G10	—	—	Not Used

## C305 (Crossbody Harness Inline to Floor Console Harness, Luxury)

39794

Connector Part Information		• 12034257 • 56F M/P 280, 480, 630 (BLK)		Connector Part Information		• 12077428 • 56M M/P 280, 480, 630 (BLK)	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A1-A3	—	—	Not Used	A1-A3	—	—	Not Used
A4	DK GRN	900	LED Indicator	A4	DK GRN	900	LED Indicator
A6	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock	A6	TAN	694	Power Door Lock Motor Feed - Driver Door Unlock
A7-A8	—	—	Not Used	A7-A8	—	—	Not Used
A9	DK GRN	903	Fuse Output	A9	DK GRN	903	Fuse Output
B1	RED	1955	Speaker Return - Right	B1	RED	1955	Speaker Return - Right
B2	TAN	1855	Speaker Feed - Right Rear Midrange	B2	TAN	1855	Speaker Feed - Right Rear Midrange
B3	PPL	1958	Speaker Return - Left Rear - Tweeter	B3	PPL	1958	Speaker Return - Left Rear - Tweeter
B4	—	—	Not Used	B4	—	—	Not Used

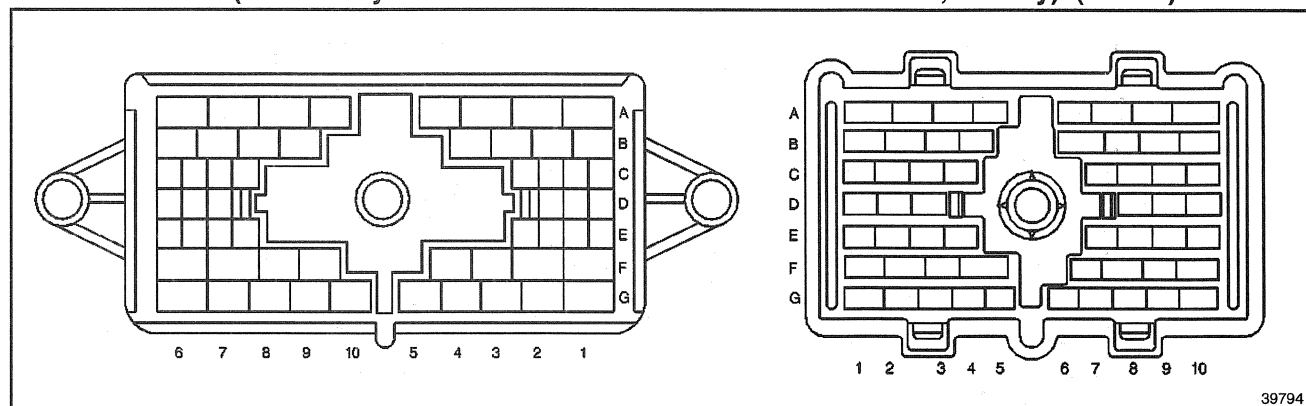
## C305 (Crossbody Harness Inline to Floor Console Harness, Luxury) (cont'd)



39794

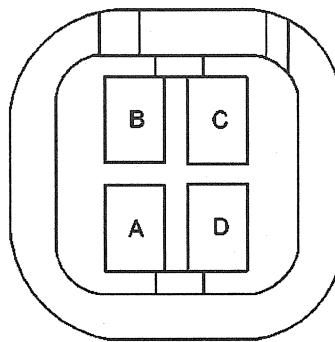
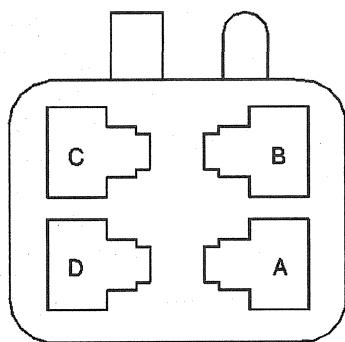
Connector Part Information		<ul style="list-style-type: none"> <li>• 12034257</li> <li>• 56F M/P 280, 480, 630 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12077428</li> <li>• 56M M/P 280, 480, 630 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
B6	WHT	1959	Speaker Return - Left Rear - Midrange	B6	WHT	1959	Speaker Return - Left Rear - Midrange
B7	TAN	1859	Speaker Feed - Left Rear - Midrange	B7	TAN	1859	Speaker Feed - Left Rear - Midrange
B8	RED	1858	Speaker Feed - Left Rear - Midrange	B8	RED	1858	Speaker Feed - Left Rear - Midrange
B9	ORN	640	Fuse Output - Battery - Type III Fuse	B9	ORN	640	Fuse Output - Battery - Type III Fuse
C1	DK GRN	117	Speaker Return - Right Front	C1	DK GRN	117	Speaker Return - Right Front
C2	LT GRN	200	Speaker Feed - Right Front	C2	LT GRN	200	Speaker Feed - Right Front
C3	GRY	118	Speaker Return - Left Front	C3	GRY	118	Speaker Return - Left Front
C4	TAN	201	Speaker Feed - Left Front	C4	TAN	201	Speaker Feed - Left Front
C6	YEL	1949	Speaker Feed - Right Rear Tweeter	C6	YEL	1949	Speaker Feed - Right Rear Tweeter
C7	WHT	1854	Speaker Feed - Right Rear	C7	WHT	1854	Speaker Feed - Right Rear
C8	ORN	40	Fuse Output - Battery - Type III Fuse	C8	ORN	40	Fuse Output - Battery - Type III Fuse
C9	BLK/WHT	624	Vehicle Anti-Theft System Signal - Head Lamp Alarm	C9	BLK/WHT	624	Vehicle Anti-Theft System Signal - Head Lamp Alarm
D1	BLK/WHT	238	Seat Belt Switch Signal	D1	BLK/WHT	238	Seat Belt Switch Signal
D2	BRN	253	Liftgate Release Relay Feed - Coil	D2	BRN	253	Liftgate Release Relay Feed - Coil
D3	PPL	328	Interior Lamp Defeat Switch Output	D3	PPL	328	Interior Lamp Defeat Switch Output
D6	ORN	1897	Door Ajar Switch Signal - Right	D6	ORN	1897	Door Ajar Switch Signal - Right
D7	RED/BLK	780	Power Door Lock Switch Output - Driver Switch - Lock	D7	RED/BLK	780	Power Door Lock Switch Output - Driver Switch - Lock
D8	LT BLU	244	Power Door Lock Switch Output Passenger Switch - Lock	D8	LT BLU	244	Power Door Lock Switch Output Passenger Switch - Lock
E1	TAN	960	Cellular Fax/Data	E1	TAN	960	Cellular Fax/Data
E2	PNK	1155	Cellular Audio Ground	E	PNK	1155	Cellular Audio Ground
E3	DK BLU	1154	Cellular Earpiece Audio	E3	DK BLU	1154	Cellular Earpiece Audio
E4	LT BLU	1153	Cellular Mouthpiece Audio	E4	LT BLU	1153	Cellular Mouthpiece Audio

## C305 (Crossbody Harness Inline to Floor Console Harness, Luxury) (cont'd)



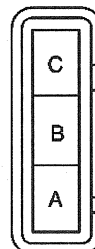
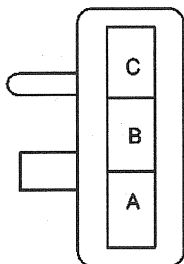
39794

Connector Part Information		<ul style="list-style-type: none"> <li>12034257</li> <li>56F M/P 280, 480, 630 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>12077428</li> <li>56M M/P 280, 480, 630 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
E6	DK BLU	245	Power Door Lock Switch - Passenger Switch - Unlock	E6	DK BLU	245	Power Door Lock Switch - Passenger Switch - Unlock
E7	BRN	1941	Fuse Output - Ignition	E7	BRN	1941	Fuse Output - Ignition
E8	RED	1266	Cellular Regulated 8.5 Volts	E8	RED	1266	Cellular Regulated 8.5 Volts
E9	PPL	961	Cellular Keypad Data	E9	PPL	961	Cellular Keypad Data
F1	—	—	Not Used	F1	—	—	Not Used
F2	BARE	814	Drain Wire Return	F2	BARE	814	Drain Wire Return
F3-F7	—	—	Not Used	F3-F7	—	—	Not Used
F8	GRY	901	Heated Seat Switch HI/LOW Signal	F8	GRY	901	Heated Seat HI/LOW Signal
F9	PPL	902	Heated Seat Switch ON/OFF Signal	F8	PPL	902	Heated Seat Switch ON/OFF Signal
G1	BLK	150	Ground	G1	BLK	150	Ground
G2	BRN	9	Park Lamp Feed	G2	BRN	9	Park Lamp Feed
G3	YEL	962	Cellular Display Data	G3	YEL	962	Cellular Display Data
G4	GRY/BLK	1798	Cellular Return	G4	GRY/BLK	1798	Cellular Return
G5	BRN	341	Fuse Output-Ignition 3-Type III Fuse	G5	BRN	341	Fuse Output-Ignition 3-Type III Fuse
G6	—	—	Not Used	G6	—	—	Not Used
G7	PPL	c	Heated Seat Signal - High	G7	PPL	1460	Heated Seat Signal - High
G8	GRY	1464	Heated Seat Signal - Low	G8	GRY	1464	Heated Seat Signal - Low
G9	ORN/BLK	781	Power Door Lock Switch Output - Driver Switch - Unlock	G9	ORN/BLK	781	Power Door Lock Switch Output - Driver Switch - Unlock
G10	PNK	39	Fuse Output - Battery - Type III Fuse	G10	PNK	39	Fuse Output - Battery - Type III Fuse

**C306 (Front to Rear Body Harness Inline to Microphone Jumper Harness, Luxury)**

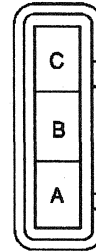
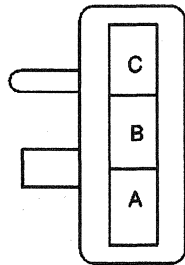
40392

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047785</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047786</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BARE	1705	Microphone Ground	A	BARE	1705	Microphone Ground
B	GRY	655	Microphone IN	B	GRY	655	Microphone IN
C	DK GRN/ WHT	974	Keypad Signal Out	C	DK GRN/ WHT	974	Keypad Signal Out
D	LT GRN/ BLK	975	Keypad Power Feed	D	LT GRN/ BLK	975	Keypad Power Feed

**C307 (Front to Rear Body Harness Inline to Overhead Console Harness)**

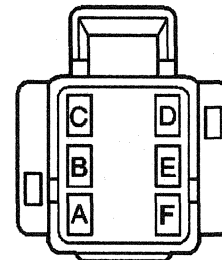
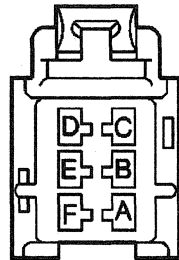
95860

Connector Part Information		<ul style="list-style-type: none"> <li>• 12065422</li> <li>• 3 F M/P 150 (NAT)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065432</li> <li>• 3 M M/P 150 (NAT)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output	A	ORN	40	Fuse Output
B	BLK	150	Ground	B	BLK	150	Ground
C	BRN	9	Park Lamp Feed	C	BRN	9	Park Lamp Feed

**C308 (Front to Rear Body Harness Inline to Dome Lamp — Front)**

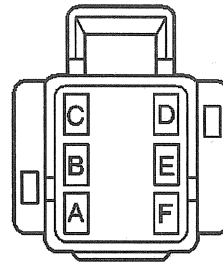
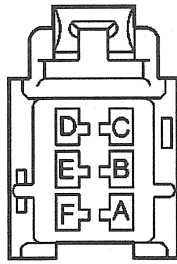
95860

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047781</li> <li>• 3 F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047782</li> <li>• 3 M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	40	Fuse Output Battery - Type III Fuse	A	ORN	40	Fuse Output Battery - Type III Fuse
B	WHT	156	Courtesy Lamp Output	B	WHT	156	Courtesy Lamp Output
C	BLK	150	Ground	C	BLK	150	Ground

**C310 (Crossbody Harness Inline to Heated Set Element, RR (Luxury))**

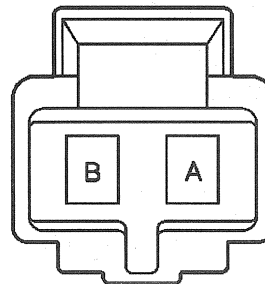
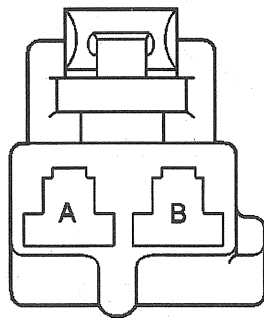
62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6F M/P 280 Series (GRA)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• 6M M/P 280 Series (GRA)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1940	Fuse Output -- Type III Fuse	A	ORN	1940	Fuse Output -- Type III Fuse
B	BLK	150	Ground	B	BLK	150	Ground
C	GRA	901	Heated Seat Signal - Low	C	GRA/BLK	901	Heated Seat Signal - Low
D	PPL	902	Heated Seat Signal - High	D	PPL	902	Heated Seat Signal - High
E	DK GRN	900	Fuse Input - Battery Type III Fuse	E	DK GRN	900	Fuse Input - Battery Type III Fuse
F	—	—	Not Used	F	—	—	Not Used

**C311 (Crossbody Harness Inline to Heated Seat Element, LR, (Luxury))**

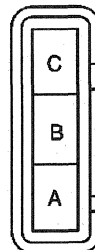
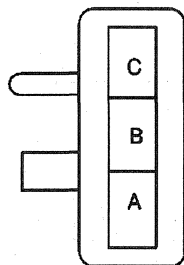
62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6F M/P 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• 6F M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	ORN	1940	Fuse Output - Battery - Type III Fuse	A	ORN	1940	Fuse Output - Battery - Type III Fuse
B	BLK	150	Ground	B	BLK	150	Ground
C	GRA	1464	Heated Seat Signal - Low	C	GRA	1464	Heated Seat Signal - Low
D	PPL	1460	Heated Seat Signal - High	D	PPL	1460	Heated Seat Signal - High
E	DK GRN	903	Fuse Input - Battery Type III Fuse	E	DK GRN	903	Fuse Input - Battery Type III Fuse
F	—	—	Not Used	F	—	—	Not Used

**C314 (Front to Rear Body Harness Inline to Endgate Window Release Actuator)**

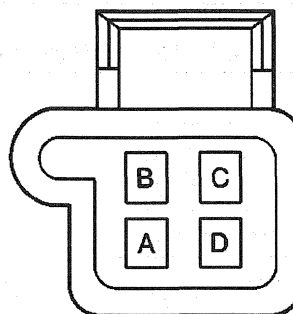
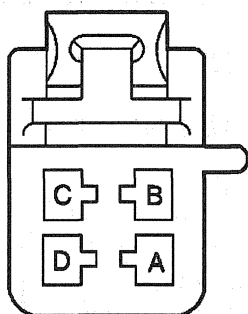
62454

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064749</li> <li>• 2 Way F Metri-Pack 480 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064750</li> <li>• 2 Way M Metri-Pack 480 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	1576	Trunk Release Switch Output	A	BLK	1576	Trunk Release Switch Output
B	YEL	1737	Transmission Mounted Neutral Safety Switch Output - Park/Neutral	B	YEL	1737	Transmission Mounted Neutral Safety Switch Output - Park/Neutral

**C315 (Front to Rear Body Harness Inline to Keypad Jumper Harness, Luxury)**

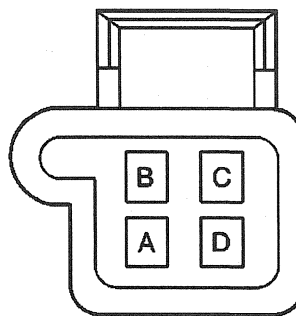
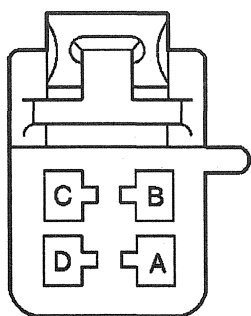
95860

Connector Part Information		<ul style="list-style-type: none"> <li>• 12047781</li> <li>• 3M Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047782</li> <li>• 3F Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	YEL/BLK	977	Keypad LED Green	A	YEL/BLK	977	Keypad LED Green
B	ORN/BLK	978	Keypad Ground	B	ORN/BLK	978	Keypad Ground
C	BRN/WHT	979	Keypad LED Red	C	BRN/WHT	979	Keypad LED Red

**C320 (Power Seat Harness Inline to Lumbar Switch Harness, LH)**

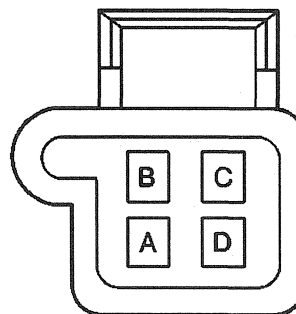
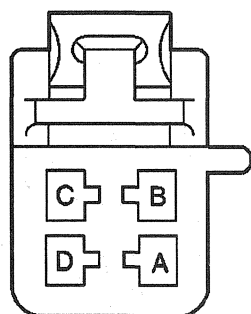
62458

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064761</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	—	—	Not Used	A	—	—	Not Used
B	ORN	540	Fuse Output - Battery Type III Fuse	B	ORN	540	Fuse Output - Battery Type III Fuse
C	GRY	—	Power Seat Motor Feed - Driver Lumbar - Up	C	TAN	768	Power Seat Motor Feed - Driver Lumbar - Up
D	GRY	—	Power Seat Motor Feed - Driver Lumbar - Down	D	PPL	767	Power Seat Motor Feed - Driver Lumbar - Down

**C321 (Power Seat Harness Inline to Lumbar Pump Motor, LH)**

62458

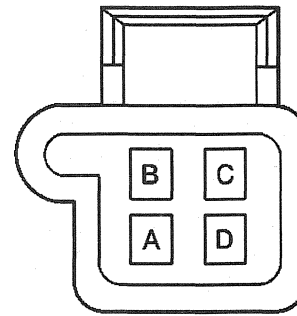
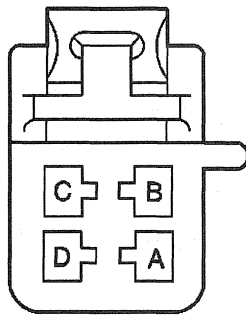
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064760</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	—	—	Not Used	A	—	—	Not Used
B	BLK	150	Ground	B	BLK	150	Ground
C	ORN	—	Power Seat Motor Feed - Driver Lumbar - Up	C	TAN	768	Power Seat Motor Feed - Driver Lumbar - Up
D	RED	—	Power Seat Motor Feed - Driver Lumbar - Down	D	PPL	767	Power Seat Motor Feed - Driver Lumbar - Down

**C322 (Power Seat Harness Inline to Lumbar Switch, RH)**

62458

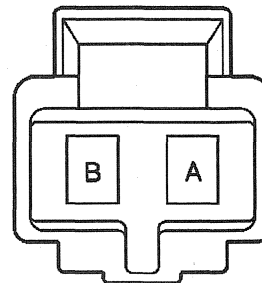
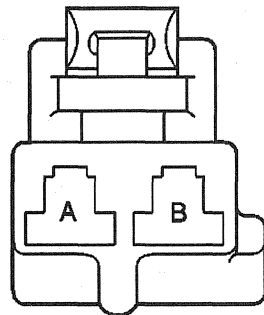
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064761</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	—	—	Not Used	A	—	—	Not Used
B	ORN	540	Fuse Output - Battery Type III Fuse	B	ORN	540	Fuse Output - Battery Type III Fuse
C	GRY	—	Power Seat Motor Feed - Driver Lumbar - Up	C	TAN	768	Power Seat Motor Feed - Driver Lumbar - Up
D	RED	—	Power Seat Motor Feed - Driver Lumbar - Down	D	PPL	767	Power Seat Motor Feed - Driver Lumbar - Down



**323 (Power Seat Harness Inline to Lumbar Pump Motor, RH)**

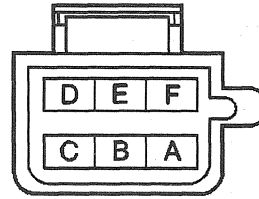
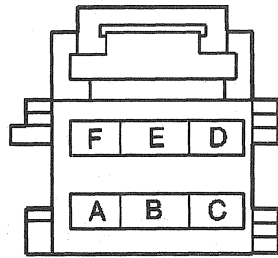
62458

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064760</li> <li>• 4F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	—	—	Not Used	A	—	—	Not Used
B	BLK	150	Ground	B	BLK	150	Ground
C	ORN	—	Power Seat Motor Feed - Driver Lumbar - Up	C	TAN	768	Power Seat Motor Feed - Driver Lumbar - Up
D	RED	—	Power Seat Motor Feed - Driver Lumbar - Down	D	PPL	767	Power Seat Motor Feed - Driver Lumbar - Down

**C400 (Front to Rear Body Harness Inline to Auxiliary HVAC Blower Harness)**

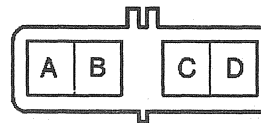
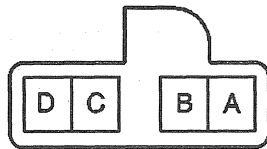
62454

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064749</li> <li>• 2 Way F Metri-Pack Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 15305452</li> <li>• 2 Way M Metri-Pack Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	RED	542	Fuse Output Battery Type II Fuse	A	RED	542	Fuse Output Battery Type II Fuse
B	BLK	150	Ground	B	BLK	150	Ground

**C401 (Front to Rear Body Harness Inline to Auxiliary HVAC Blower Harness)**

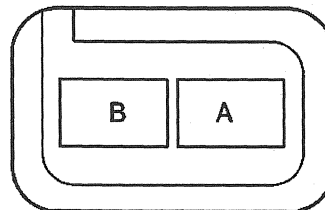
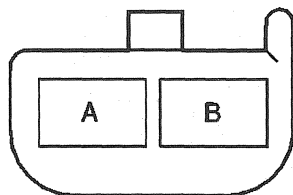
62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6 Way F Metri-Pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12089892</li> <li>• 6 Way M Metri-Pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	454	Mode Switch Output	A	WHT	454	Mode Switch Output
B	DK BLU	1926	Auxiliary HVAC Switch Output - Low	B	DK BLU	1926	Auxiliary HVAC Switch Output - Low
C	WHT	1294	Electronic Variable Orifice Solenoid Feed	C	WHT	1924	Electronic Variable Orifice Solenoid Feed
D	RED	1925	Auxiliary HVAC Switch Output - Medium	D	RED	1925	Auxiliary HVAC Switch Output - Medium
E	BRN	341	Fuse Output Ignition 3 Type III Fuse	E	BRN	341	Fuse Output Ignition 3 Type III Fuse
F	DK BLU	1199	Air Temperature Valve Motor Feed	F	DK BLU	1199	Air Temperature Valve Motor Feed

**C402 (Front to Rear Harness Inline to Windshield Wiper Motor, Rear)**

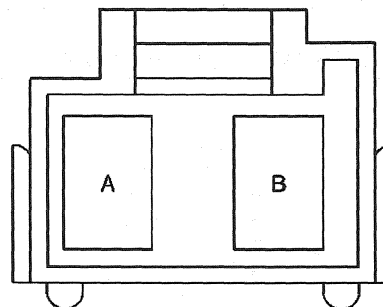
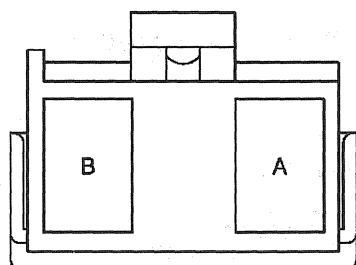
456410

Connector Part Information		<ul style="list-style-type: none"> <li>• 08905206</li> <li>• 4 F PAC/ON (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 08905220</li> <li>• 4 M PAC/ON (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	GRY	391	Rear Window Wiper Switch Output	A	GRY	391	Rear Window Wiper Switch Output
B	DK GRN	392	Rear Window Washer Pump Motor - Feed	B	DK GRN	392	Rear Window Washer Pump Motor - Feed
C	BLK	150	Ground	C	BLK	150	Ground
D	LT BLU	97	Windshield Wiper Switch Signal - Mist/Off/Low	D	LT BLU	97	Windshield Wiper Switch Signal - Mist/Off/Low

**C403 (Front to Rear Harness Inline to CHMSL Jumper Harness)**

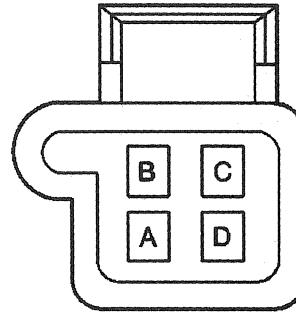
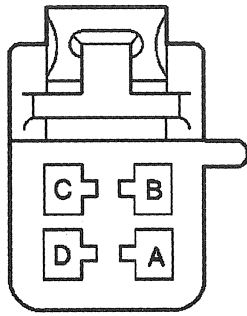
35424

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089868</li> <li>• 2F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047663</li> <li>• 2M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	WHT	17	Stop Lamp Switch Output	A	WHT	17	Stop Lamp Switch Output
B	BLK	150	Ground	B	BLK	150	Ground

**C406 (Front to Rear Harness Inline to Endgate/Rear Window Defogger Jumper Harness)**

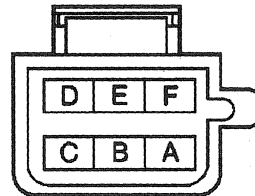
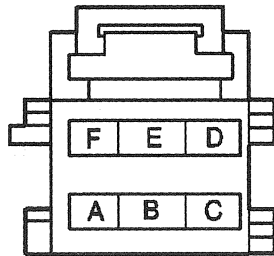
73244

Connector Part Information		<ul style="list-style-type: none"> <li>• 12015199</li> <li>• 2 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12015271</li> <li>• 2 Way M Metri-Pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	PPL	293	Rear Defogger Element Feed	A	PPL	293	Rear Defogger Element Feed
B	BLK	150	Ground	B	BLK	150	Ground

**C410 (Crossbody Harness Inline to Rear Radio Speaker Harness, Pick-up)**

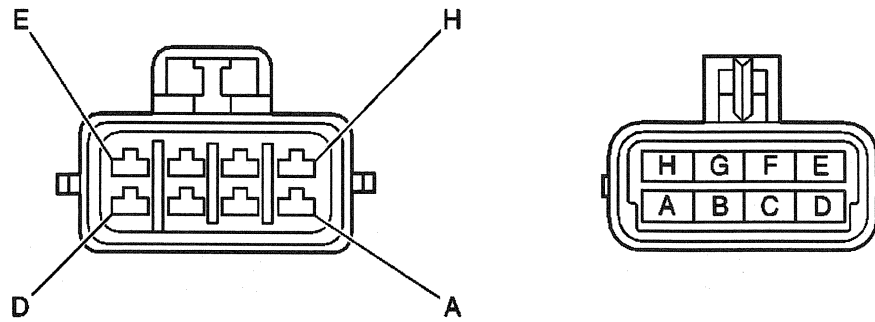
62458

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064760</li> <li>• 4 Way F Metri-Pack 150 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12065658</li> <li>• 4 Way M Metri-Pack 150 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU	46	Speaker Feed, RR	A	DK BLU	46	Speaker Feed, RR
B	LT BLU	115	Speaker Return - Right Rear	B	LT BLU	115	Speaker Return - Right Rear
C	YEL	116	Speaker Return - Left Rear	C	YEL	116	Speaker Return - Left Rear
D	BRN	199	Speaker Feed - Left Rear	D	BRN	199	Speaker Feed - Left Rear

**C411 (Crossbody Harness Inline to Cargo LP Harness, CrewCab)**

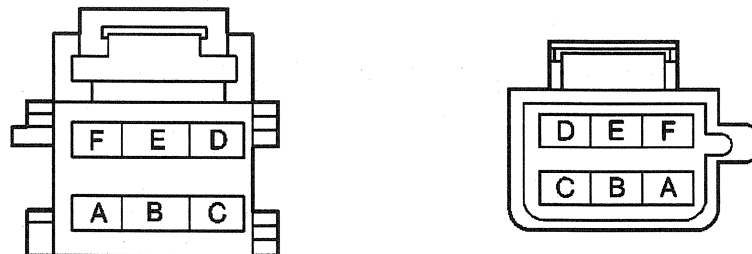
62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 8 F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064763</li> <li>• 8 M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground	A	BLK	150	Ground
B	WHT	156	Courtesy Lamp Output	B	WHT	156	Courtesy Lamp Output
C	ORN	40	Fuse Output - Battery - Type III Fuse	C	ORN	40	Fuse Output - Battery - Type III Fuse
D	WHT	17	Stoplamp Switch Output	D	WHT	17	Stoplamp Switch Output
E	DK BLU/ WHT	149	Courtesy Lamp Feed	E	DK BLU/ WHT	149	Courtesy Lamp Feed
F	—	—	Not Used	F	—	—	Not Used

**C411 (Crossbody Harness Inline to Cargo LP Harness, Pick-Up and Ext. Cab)**

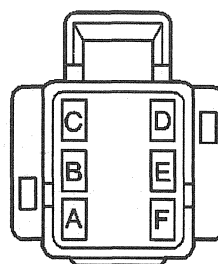
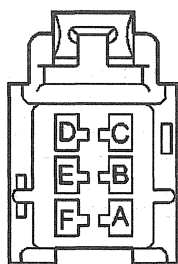
229958

Connector Part Information		<ul style="list-style-type: none"> <li>• 12059558</li> <li>• 8 F M/P 150 (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12047931</li> <li>• 8 M M/P 150 (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground	A	BLK	150	Ground
B	WHT	156	Courtesy Lamp Output	B	WHT	156	Courtesy Lamp Output
C	ORN	40	Fuse Output - Battery - Type III Fuse	C	ORN	40	Fuse Output - Battery - Type III Fuse
D	WHT	17	Stoplamp Switch Output	D	WHT	17	Stoplamp Switch Output
E	DK BLU/ WHT	149	Courtesy Lamp Feed	E	DK BLU/ WHT	149	Courtesy Lamp Feed
F-H	—	—	Not Used	F-H	—	—	Not Used

**C496 (Crossbody Harness Inline to Door Harness — RH, RR)**

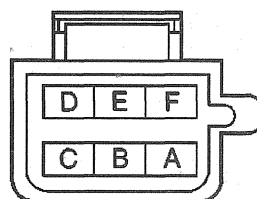
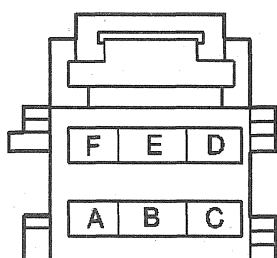
62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6 Way F Metri-pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064763</li> <li>• 6 Way M Metri-pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	ORN	40	Fuse Output - Battery - Type III Fuse	B	ORN	40	Fuse Output - Battery - Type III Fuse
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output
D	RED	1955	Speaker Return-Right Rear-Midrange	D	RED	1955	Speaker Return-Right Rear-Midrange
E	TAN	1855	Speaker Feed - Right Rear - Midrange	E	TAN	1855	Speaker Feed - Right Rear - Midrange
F	BLK	150	Ground	F	BLK	150	Ground

**C497 (Crossbody Harness Inline to Door Harness — RH, RR)**

62455

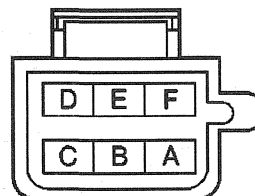
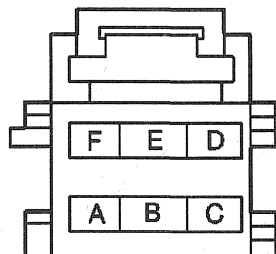
Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• 6 Way M Metri-pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU	1307	Power Window Master Switch output - Lockout	A	DK BLU	1307	Power Window Master Switch output - Lockout
B	LT GRN	170	Power Window Master Switch Output - Right Rear Window - Up	B	LT GRN	170	Power Window Master Switch Output - Right Rear Window - Up
C	PPL	171	Power Window Master Switch Output - Right Rear Window - Down	C	PPL	171	Power Window Master Switch Output - Right Rear Window - Down
D	TAN	294	Power Door Lock Motor Feed - Unlock	D	TAN	294	Power Door Lock Motor Feed - Unlock
E	GRY	295	Power Door Lock Motor Feed - Lock	E	GRY	295	Power Door Lock Motor Feed - Lock
F	—	—	Not Used	F	—	—	Not Used

**C498 (Crossbody Harness Inline to Door Harness LH, RR)**

62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6 Way F Metri-Pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064763</li> <li>• 6 Way M Metri-pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	BRN	9	Park Lamp Feed	A	BRN	9	Park Lamp Feed
B	ORN	40	Fuse Output Battery	B	ORN	40	Fuse Output Battery
C	WHT	156	Courtesy Lamp Output	C	WHT	156	Courtesy Lamp Output

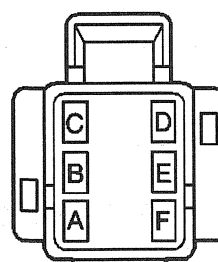
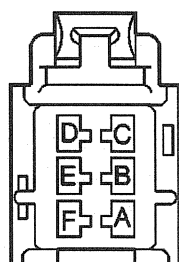
## C498 (Crossbody Harness Inline to Door Harness LH, RR) (cont'd)



62460

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064762</li> <li>• 6 Way F Metri-Pack 150 Series (GRY)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064763</li> <li>• 6 Way M Metri-pack 150 Series (GRY)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
D	TAN	1859	Speaker Feed - Left Rear - Midrange	D	TAN	1859	Speaker Feed - Left Rear - Midrange
E	WHT	1959	Speaker Return - Left Rear - Midrange	E	WHT	1959	Speaker Return - Left Rear - Midrange
F	BLK	150	Ground	F	BLK	150	Ground

## C499 (Crossbody Harness Inline to Door Harness, LH, RR)

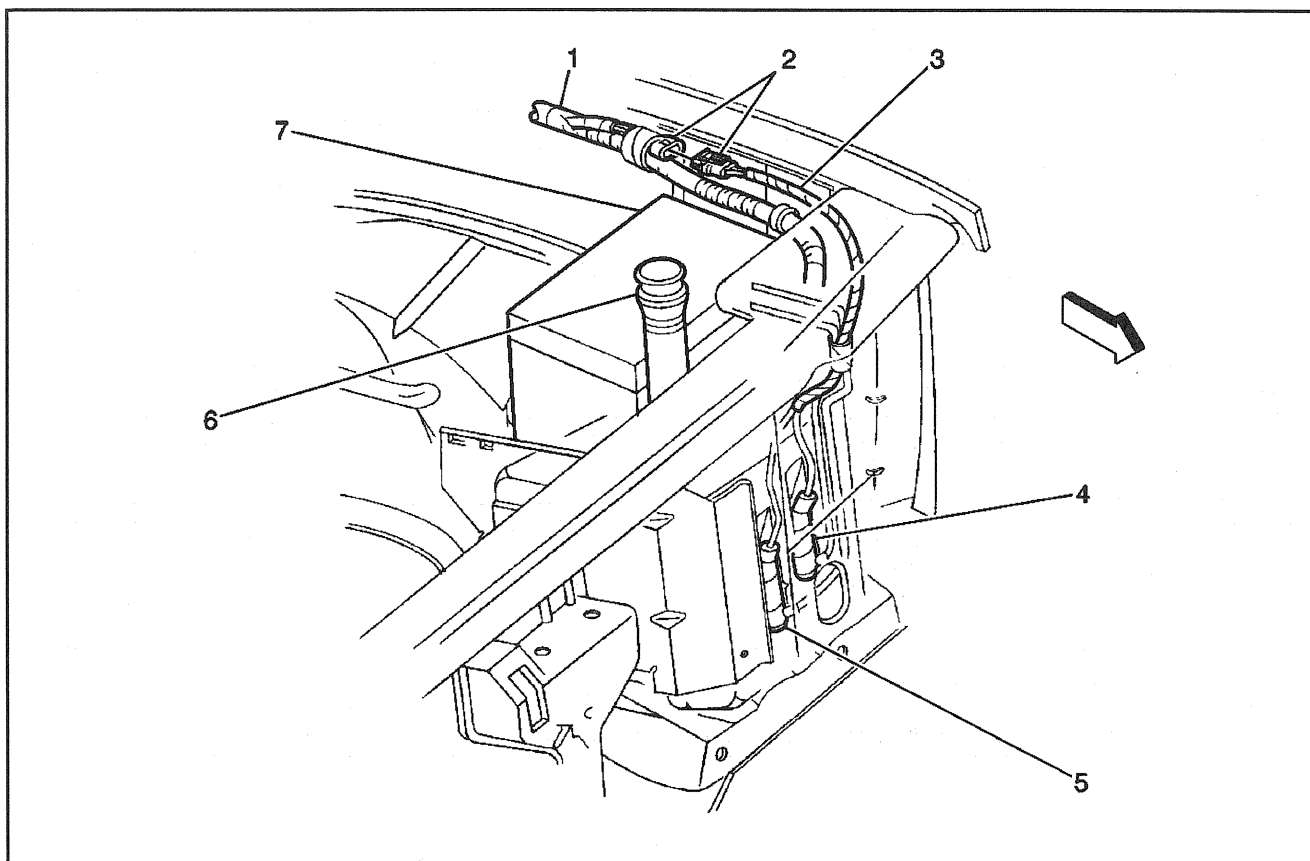


62455

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6 Way F Metri-Pack 280 Series (BLK)</li> </ul>		Connector Part Information		<ul style="list-style-type: none"> <li>• 12064754</li> <li>• 6 Way M Metri-pack 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function	Pin	Wire Color	Circuit No.	Function
A	DK BLU	1307	Power Window Master Switch Output - Lockout	A	DK BLU	1307	Power Window Master Switch Output - Lockout
B	DK GRN	168	Power Window Master Switch Output - Left Rear Window - Up	B	DK GRN	168	Power Window Master Switch Output - Left Rear Window - Up
C	PPL	169	Power Window Master Switch Output - Left Rear Window - Down	C	PPL	169	Power Window Master Switch Output - Left Rear Window - Down
D	TAN	294	Power Door Lock Motor Feed - Unlock	D	TAN	294	Power Door Lock Motor Feed - Unlock
E	GRY	295	Power Door Lock Motor Feed - Lock	E	GRY	295	Power Door Lock Motor Feed - Lock
F	—	—	Not Used	E	—	—	Not Used

## Harness Routing Views

## Windshield Washer and Forward Lamp Harness



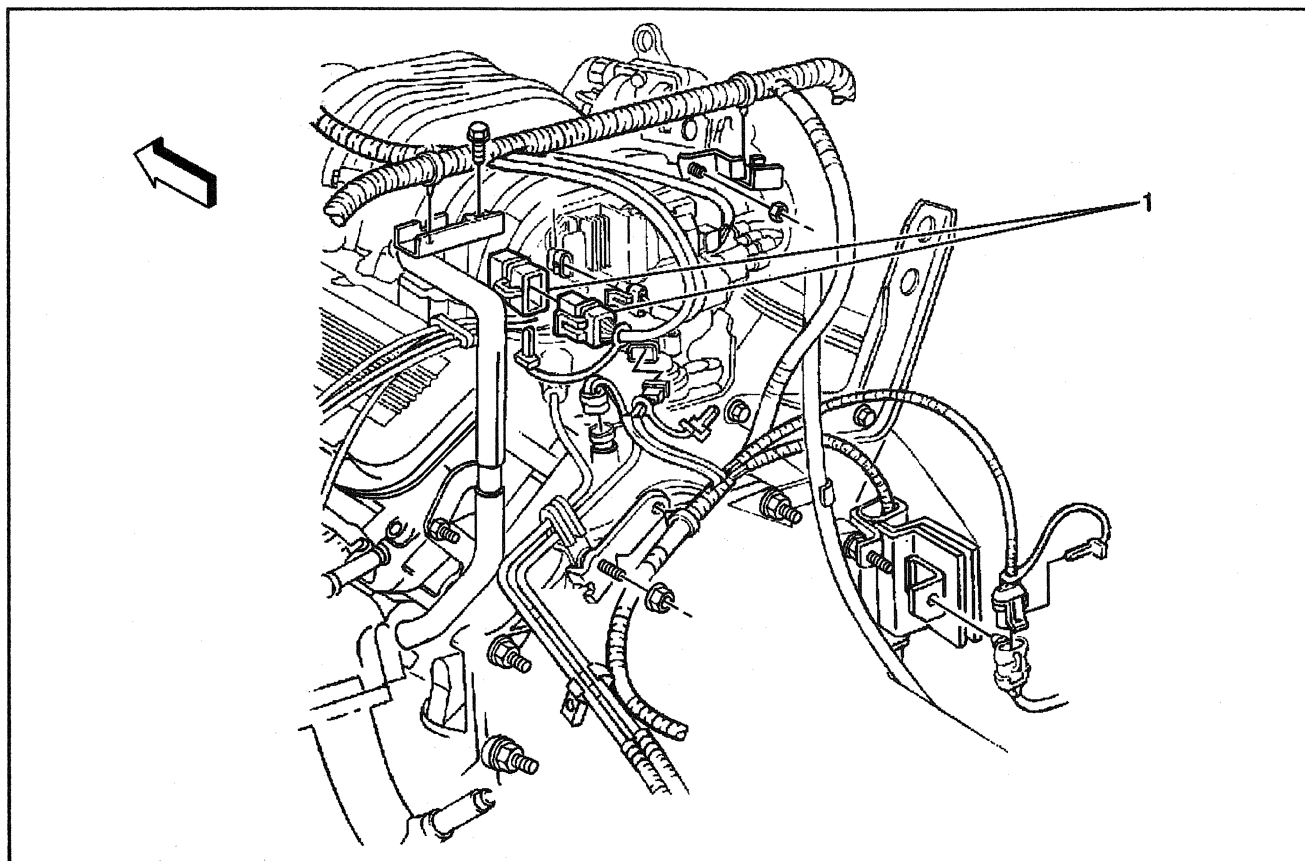
465195

## Legend

- |  |   |
|--|---|
| (1) Forward Lamp Harness                   | (5) Windshield Washer Motor, Rear       |
| (2) C116                                   | (6) Windshield Washer Reservoir         |
| (3) Windshield Washer Motor Wiring Harness | (7) Battery, LH (Auxiliary/Diesel Only) |
| (4) Windshield Washer Motor, Front         |   |



7.4L Engine, C105, Rear View

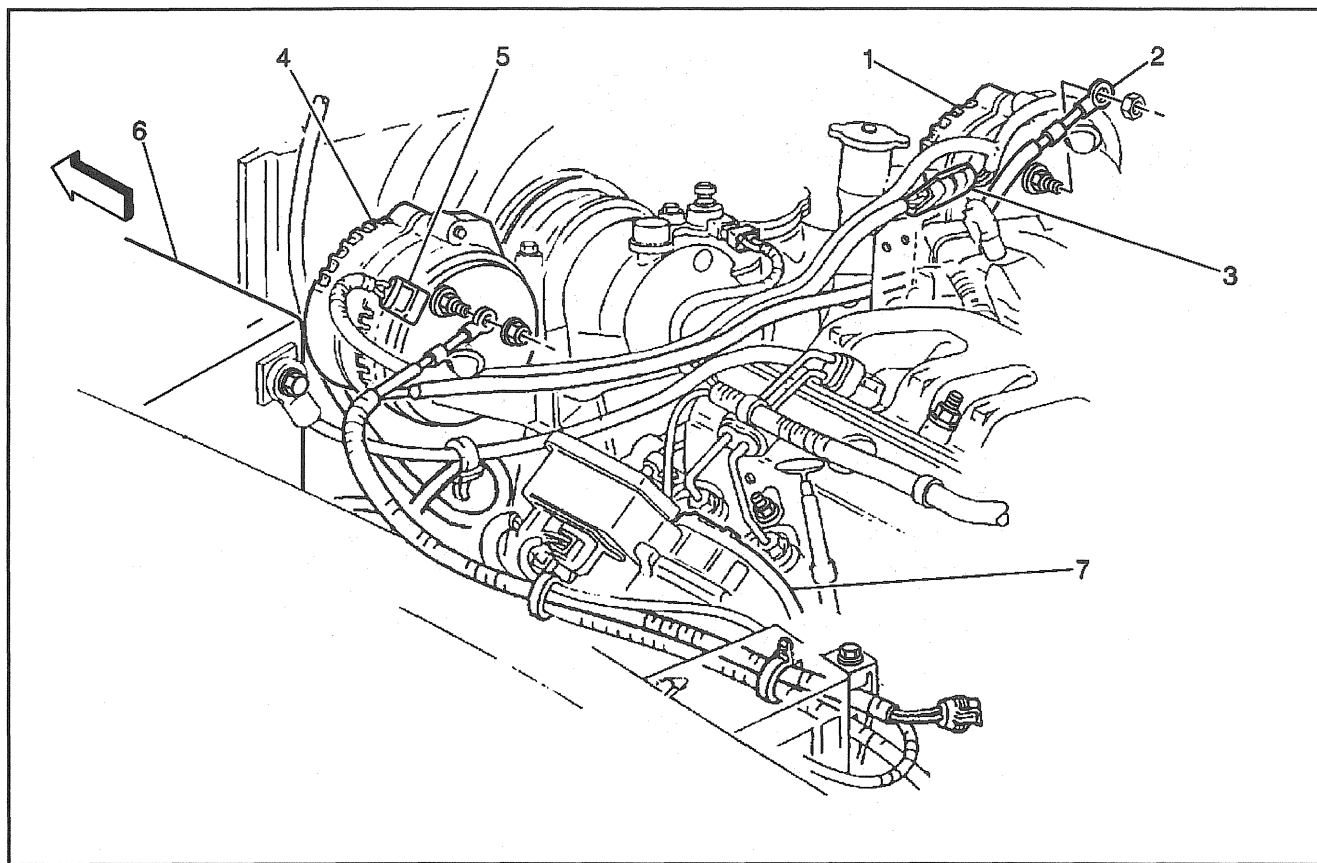


276622

**Legend**

(1) C105

## Dual Generator Support Wiring

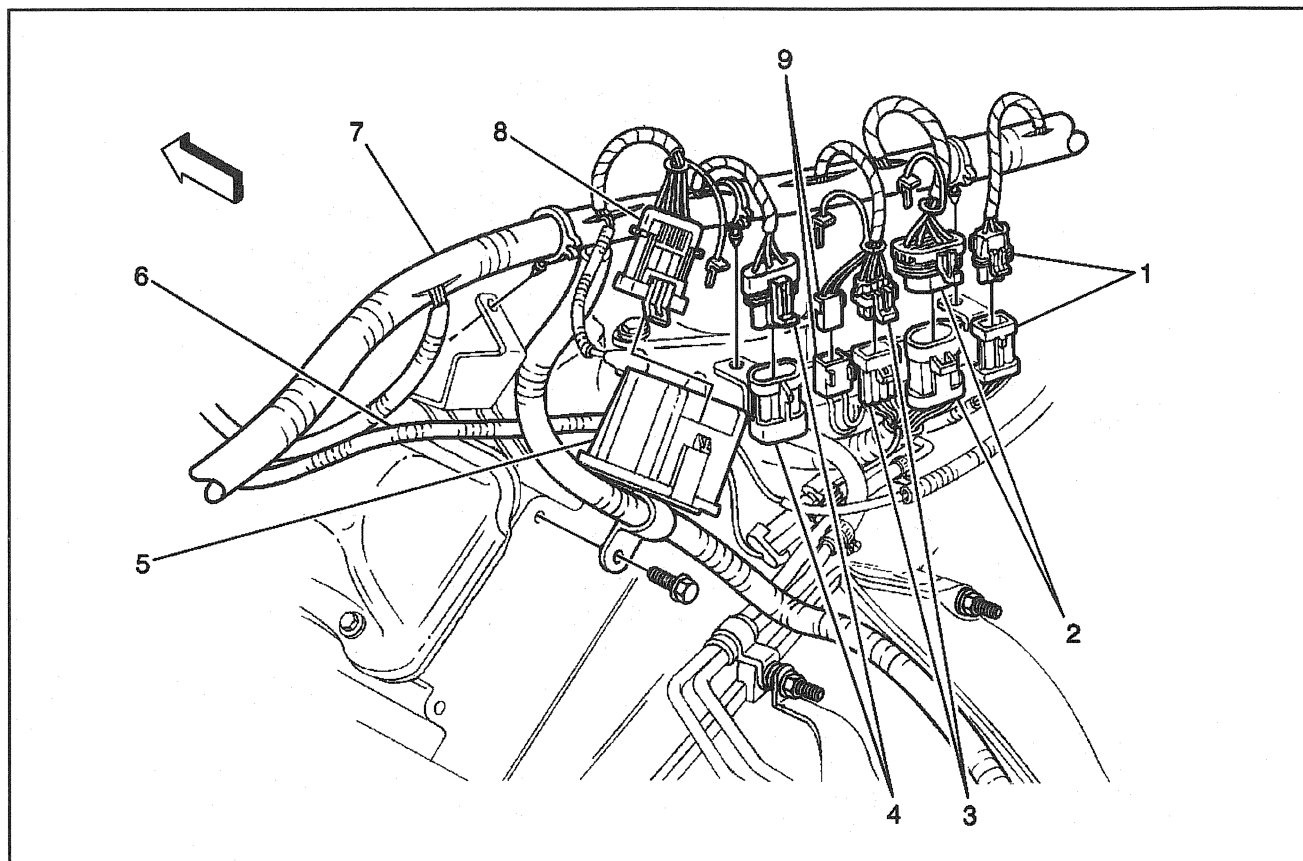


391542

## Legend

- |                     |  |
|---------------------|--|
| (1) Generator, RH   | (5) Generator Connector, LH                |
| (2) Generator Cable | (6) Battery, LH                            |
| (3) C115            | (7) Electronic Brake Control Module (EBCM) |
| (4) Generator, LH   |  |

## Engine Harness, Rear (Diesel)

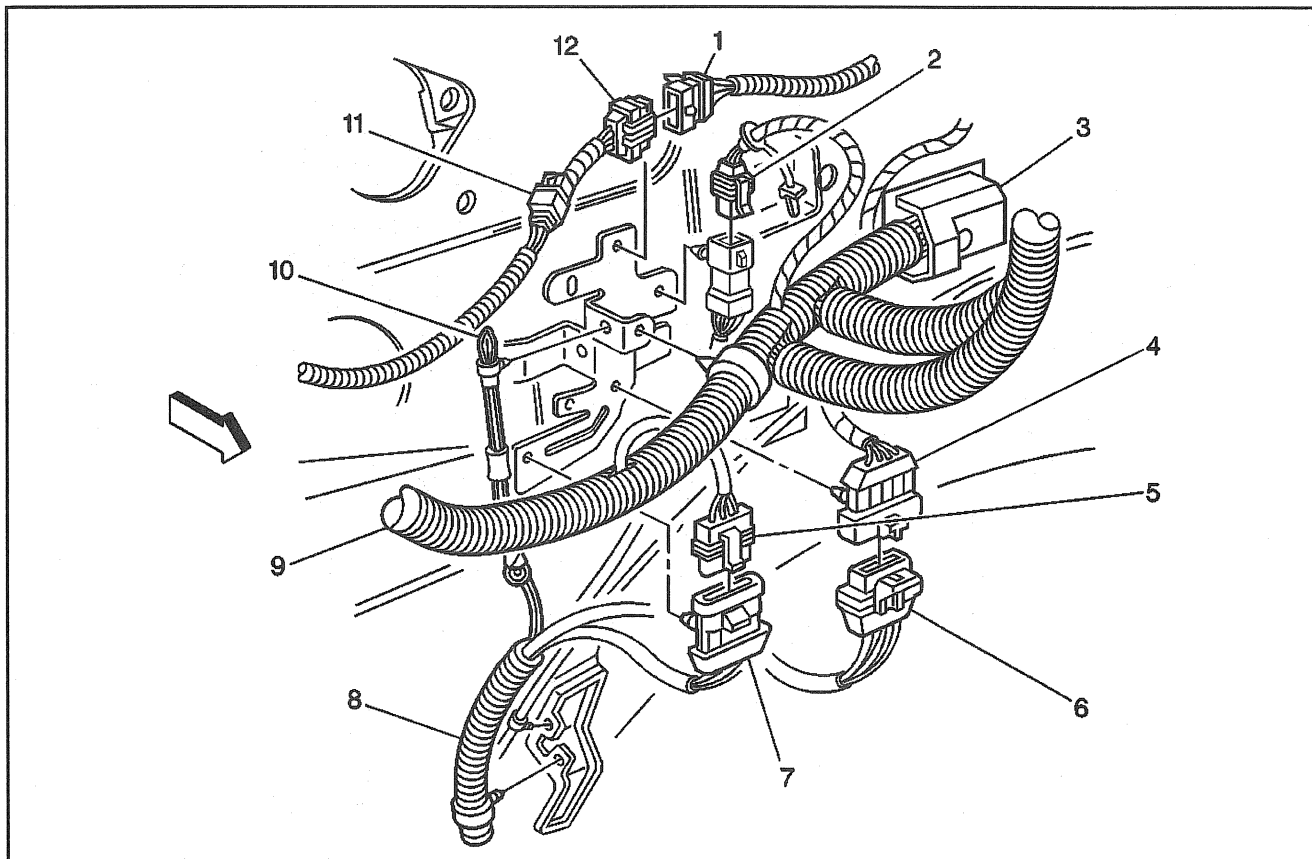


465311

## Legend

- |                           |                                    |
|---------------------------|------------------------------------|
| (1) C114                  | (6) Glow Plug Wiring Harness, LH   |
| (2) C112                  | (7) Engine Harness                 |
| (3) C113                  | (8) Glow Plug Controller Connector |
| (4) Fuel Heater Connector | (9) Water-In-Fuel Sensor Connector |
| (5) Glow Plug Controller  |                                    |

Connectors: C100, C103, C104, C131, C132, C140, C142

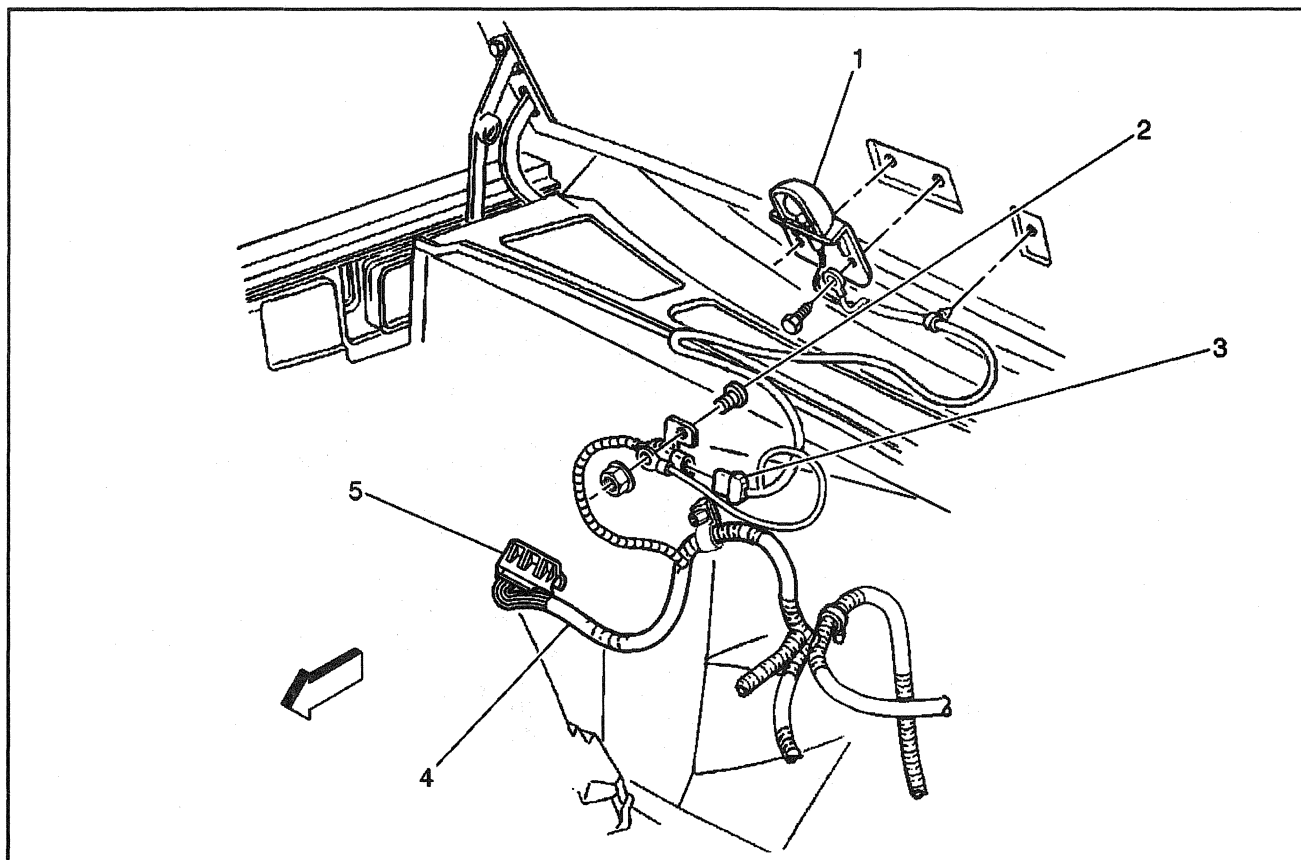


376148

**Legend**

- |  |   |
|--|---|
| (1) C132 (Automatic Transfer Case)/<br>C140 (Selectable Transfer Case) | (8) Taillamp Ext. Harness   |
| (2) C130   | (9) Engine Harness  |
| (3) C100   | (10) Trailer Wiring Harness   |
| (4) C104 (IP Harness)  | (11) C131 (Automatic Transfer Case)/<br>C142 (Selectable Transfer Case) |
| (5) C103 (Engine Harness)  | (12) C132 (Automatic Transfer Case)/<br>C140 (Selectable Transfer Case) |
| (6) C104 (Taillamp Ext. Harness)                                       |   |
| (7) C103 (Taillamp Ext. Harness)                                       |   |

## Underhood Lamp



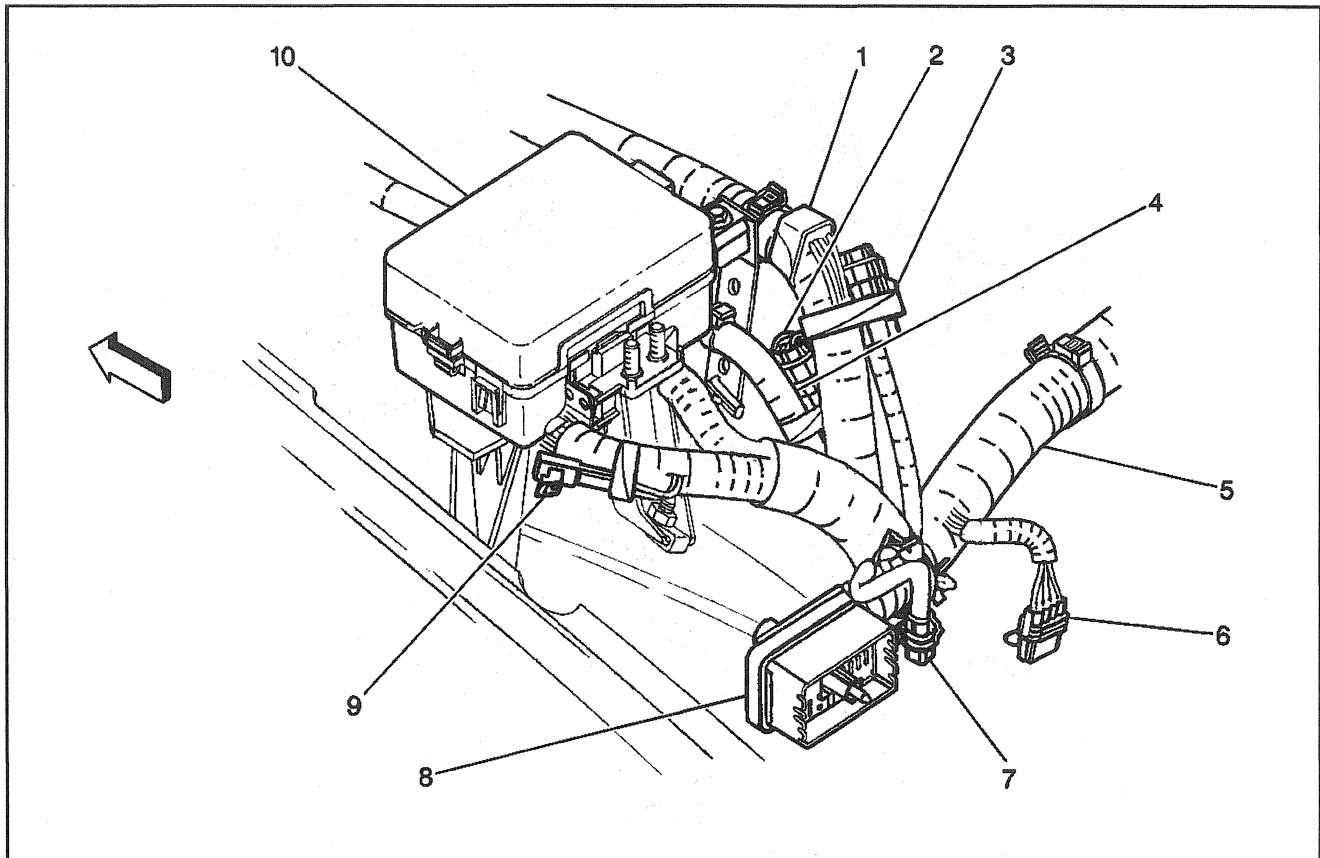
405594

## Legend

- (1) Underhood Lamp
- (2) G108
- (3) Underhood Lamp Connector

- (4) Engine Harness
- (5) P101

## Underhood Fuse Block and Wiring (CNG)

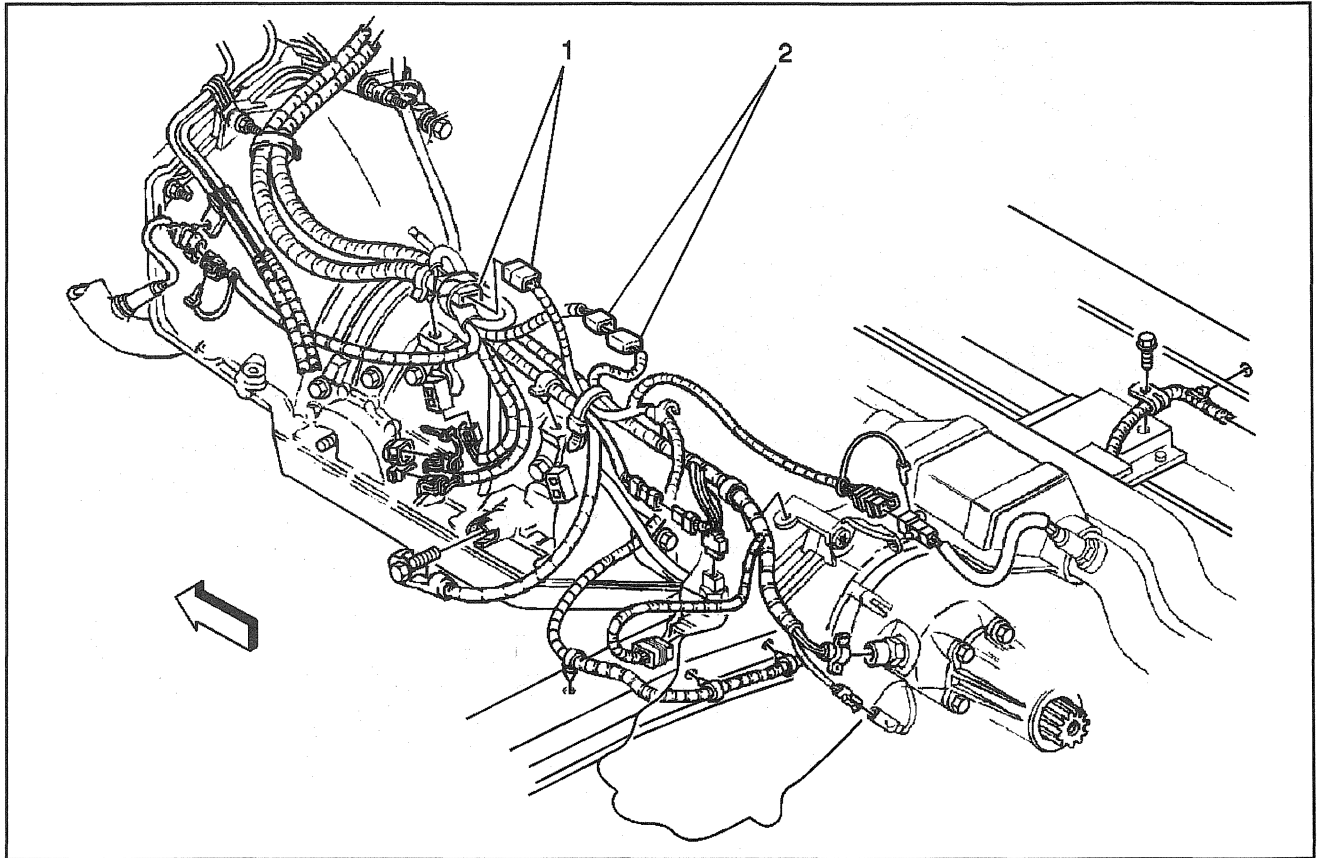


465351

## Legend

- |                           |                           |
|---------------------------|---------------------------|
| (1) C119                  | (6) C103                  |
| (2) C117                  | (7) C130                  |
| (3) C118                  | (8) C100                  |
| (4) ABS Wiring Harness    | (9) C106                  |
| (5) Engine Wiring Harness | (10) Underhood Fuse Block |

Connectors: C107, C120 (4L80E w/S4WD)



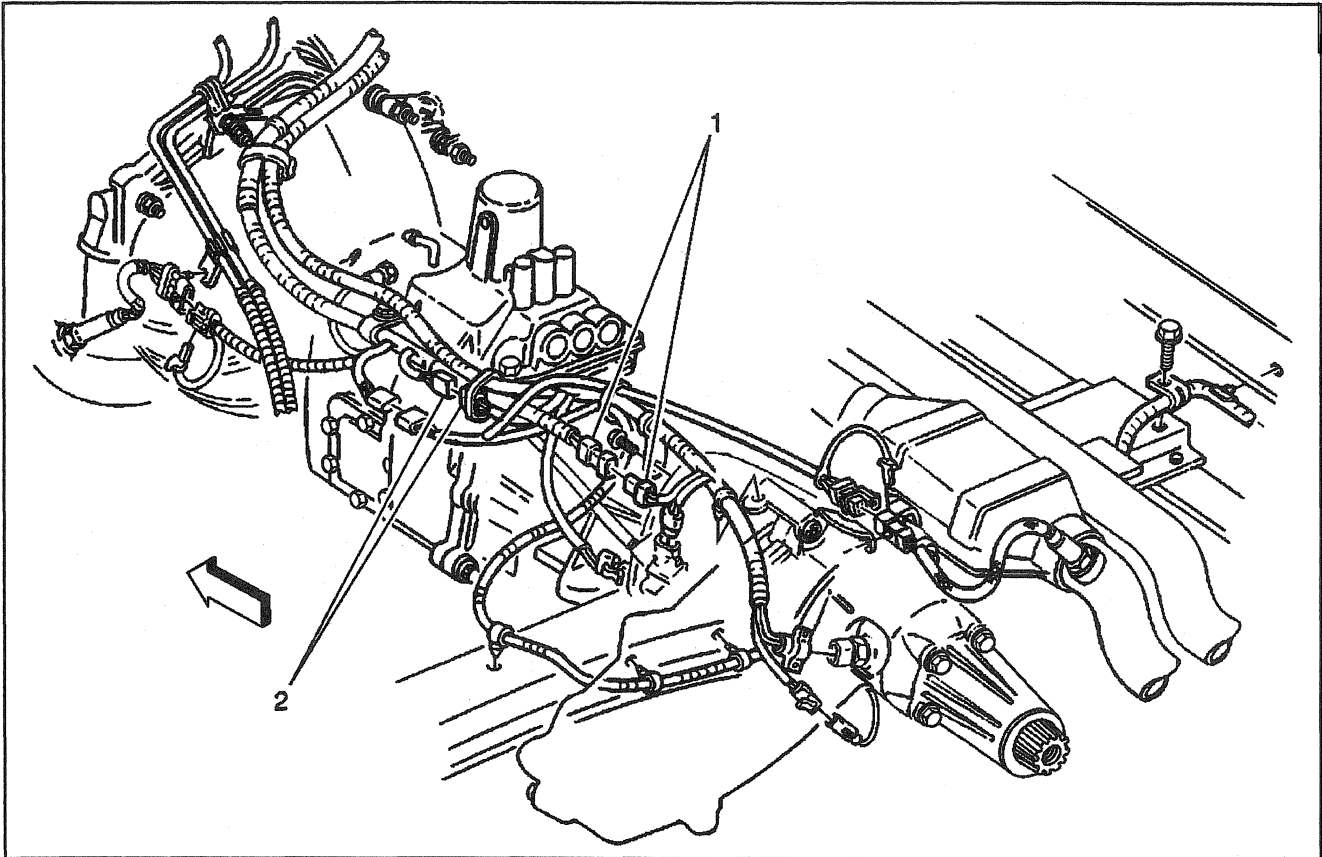
276630

**Legend**

(1) C107

(2) C120

Connectors: C107, C120 (5-Speed Manual)



276778

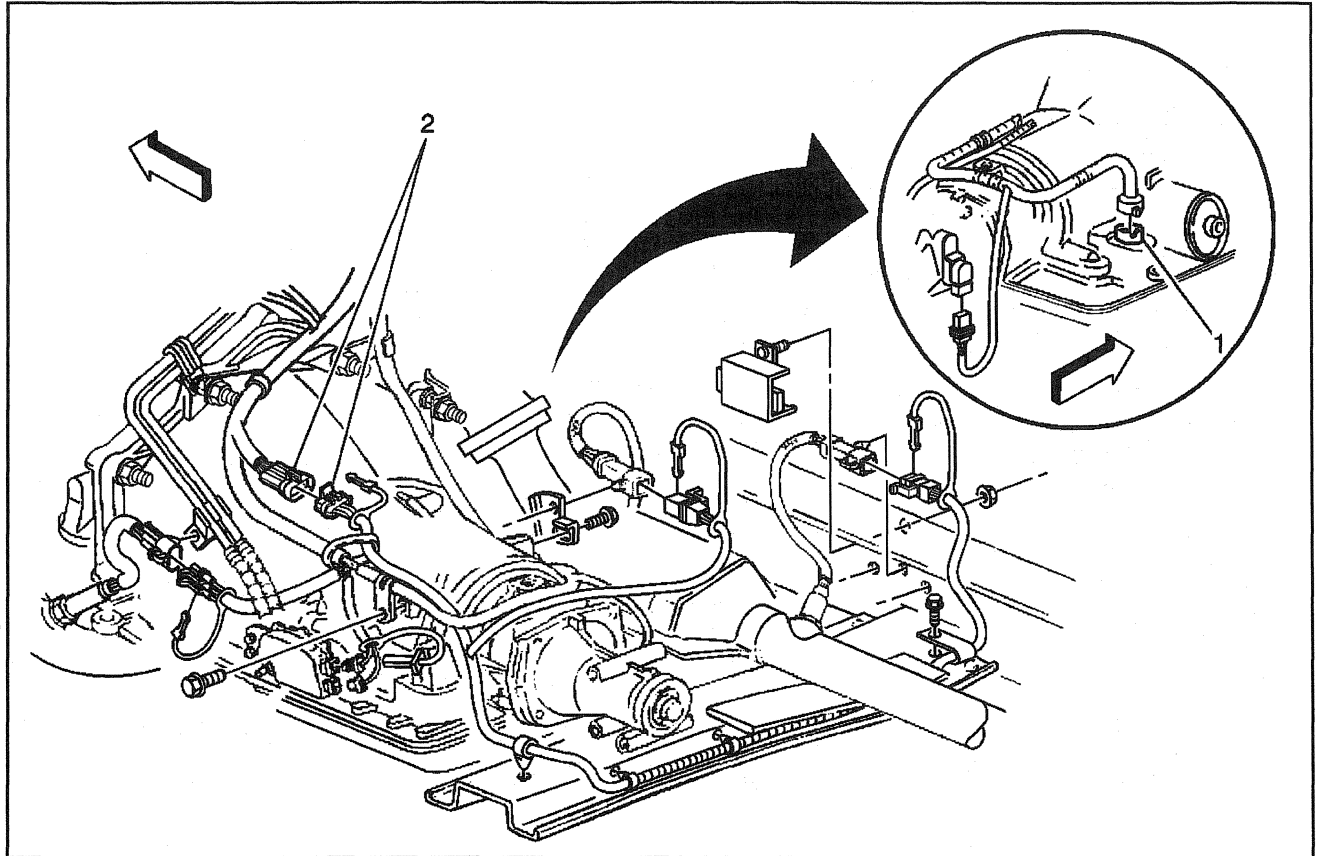
Legend

(1) C120

(2) C107



4L60-E, C122



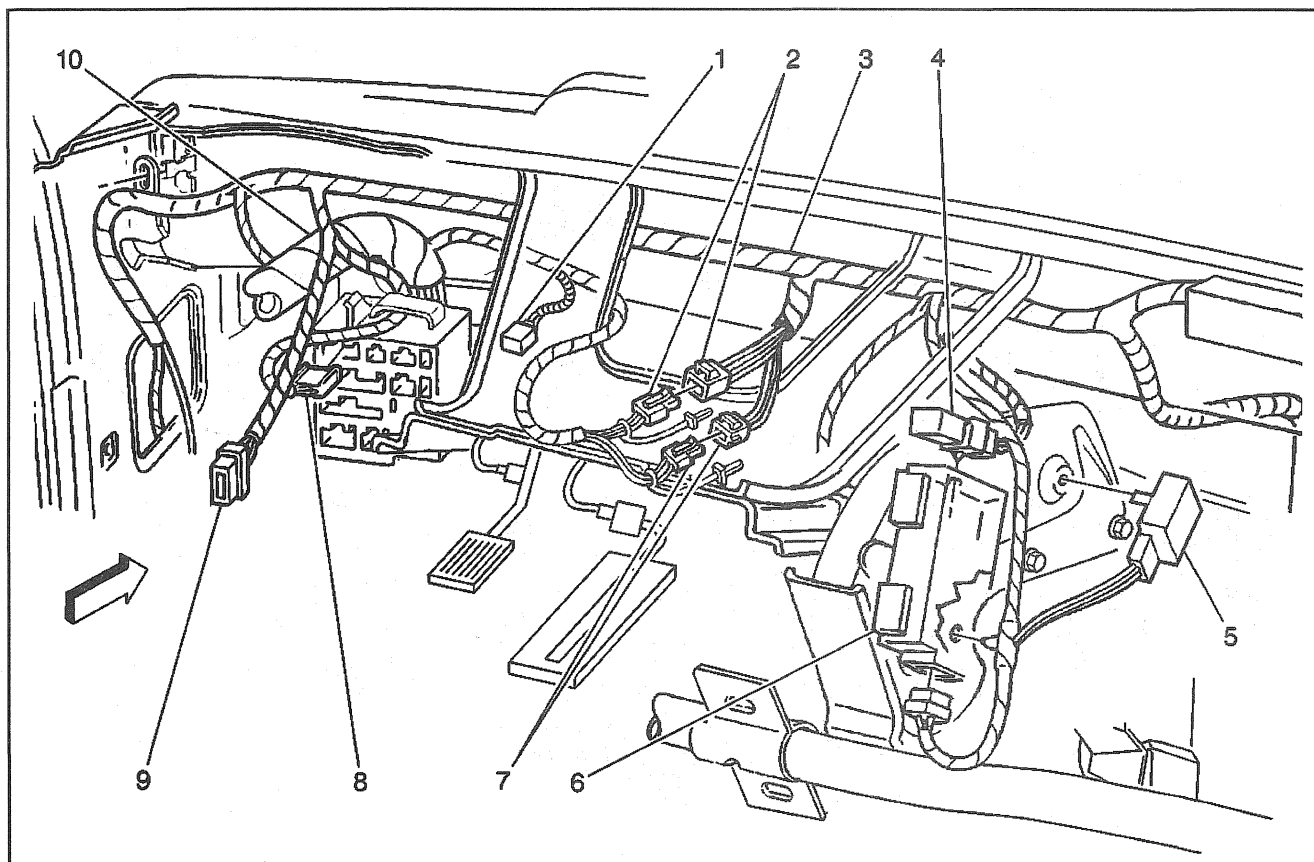
276758

**Legend**

(1) C122

(2) C107

## Connectors: C210, C231, C232, C298 and Diode D203 (Crossbody Harness)

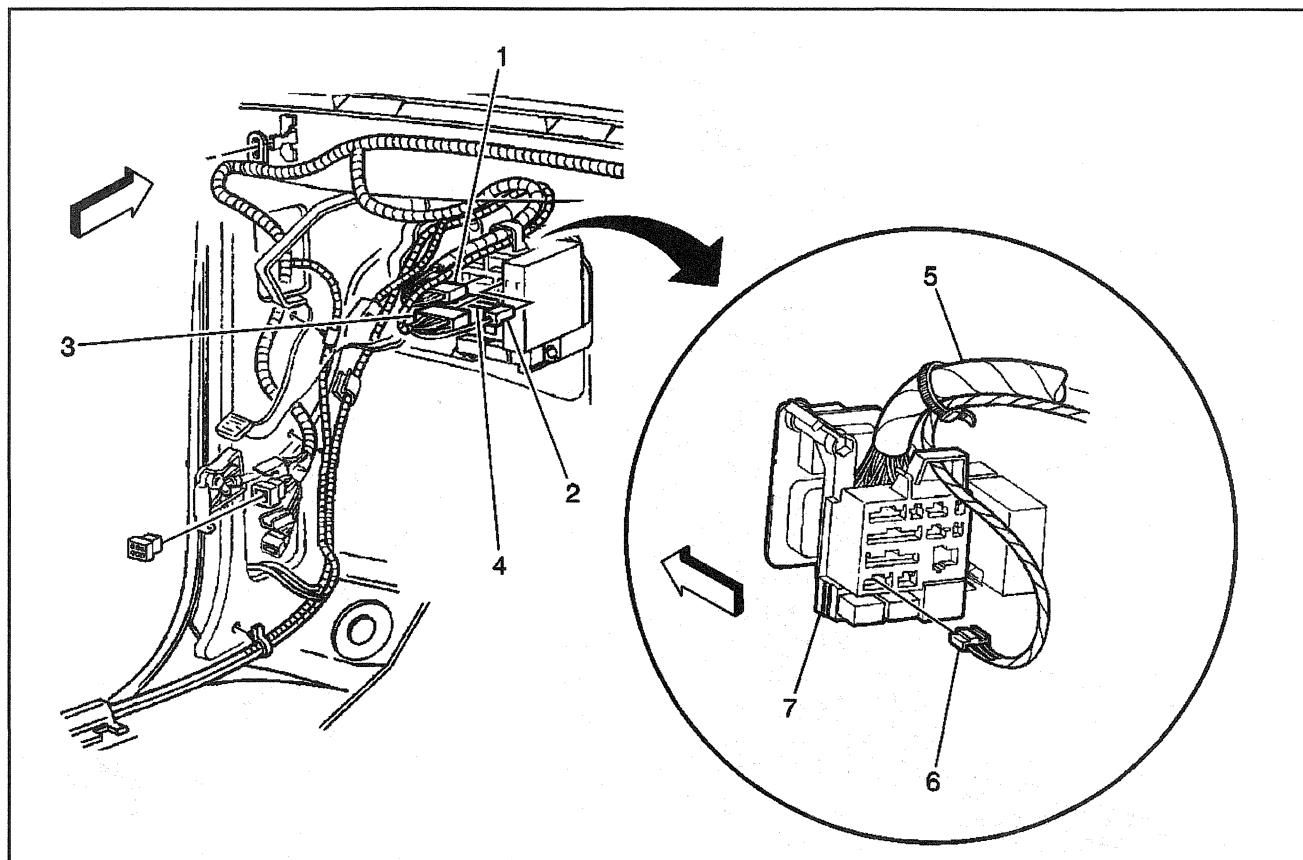


276799

**Legend**

- |                           |                     |
|---------------------------|---------------------|
| (1) D203                  | (6) Audio Amplifier |
| (2) C231                  | (7) C232            |
| (3) Crossbody Harness     | (8) C210            |
| (4) Radio Amplifier Relay | (9) C298            |
| (5) Door Lock Relay       | (10) IP Harness     |

## Convenience Center, C205, C210, C218, C221



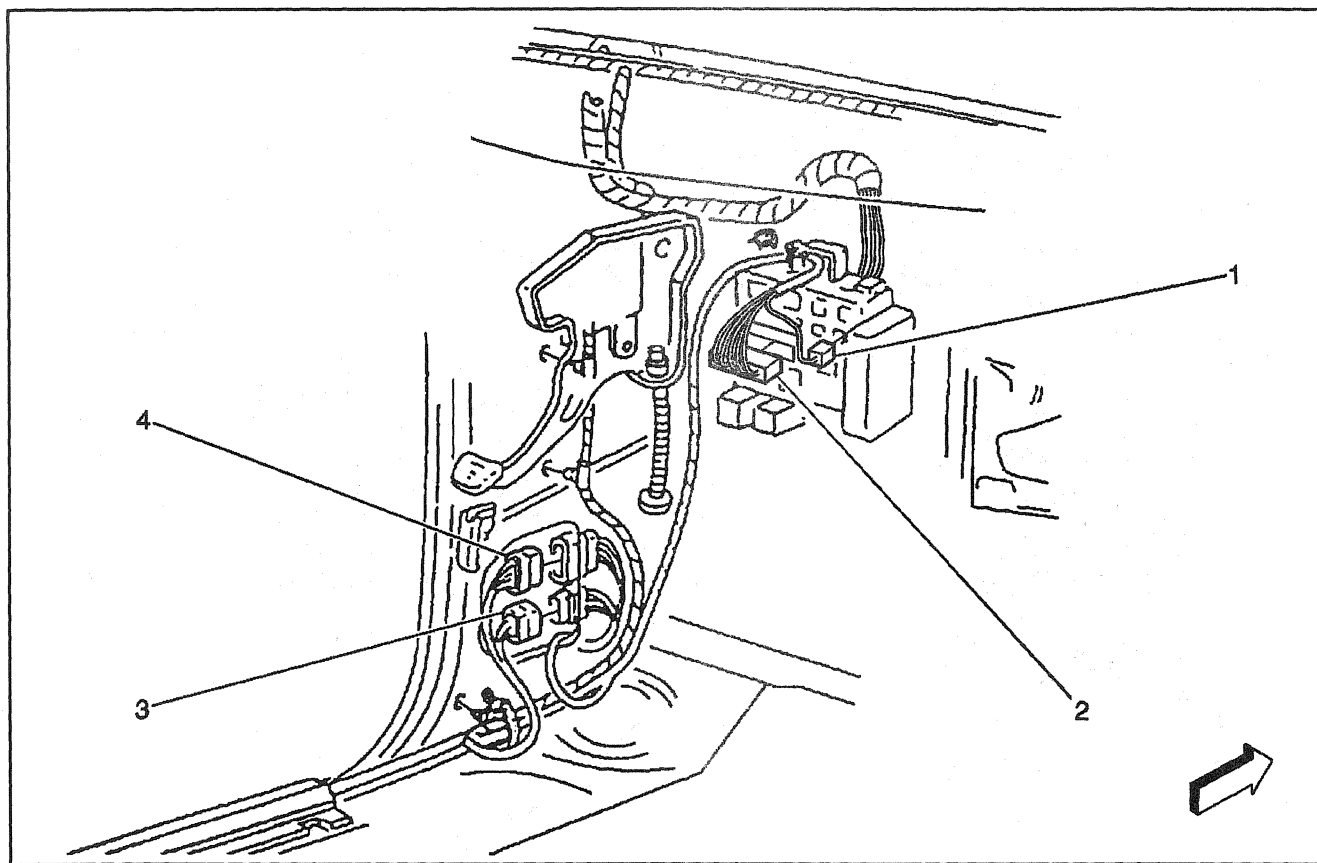
276793

## Legend

- (1) C210
- (2) C218
- (3) C221
- (4) C205

- (5) IP Wiring Harness
- (6) C280
- (7) Convenience Center

Connectors: C221, C222, C301,C302 (Crossbody to Front to Rear Body Harness)



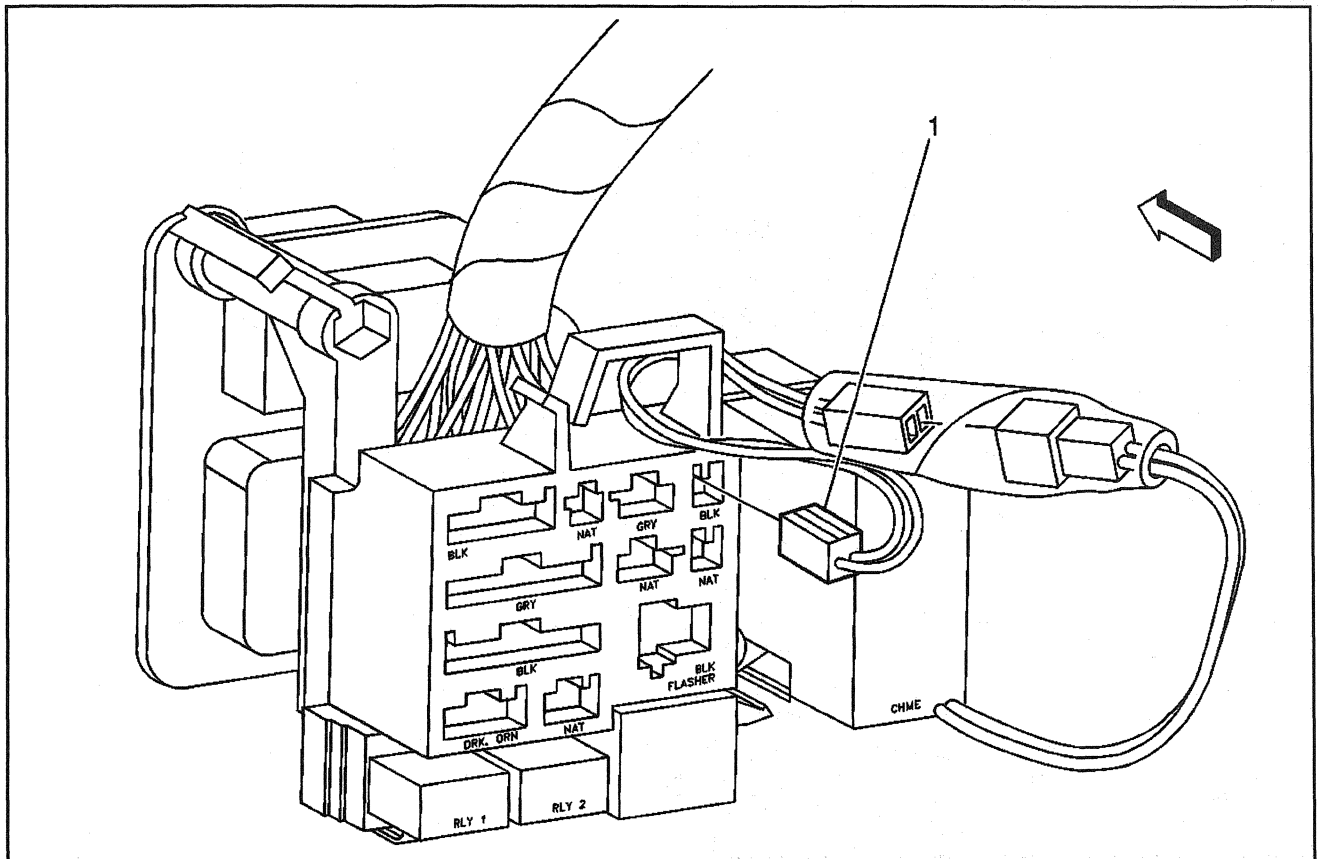
277003

**Legend**

- (1) C222
- (2) C221

- (3) C302
- (4) C301

## Connector: C203 (Convenience Center)

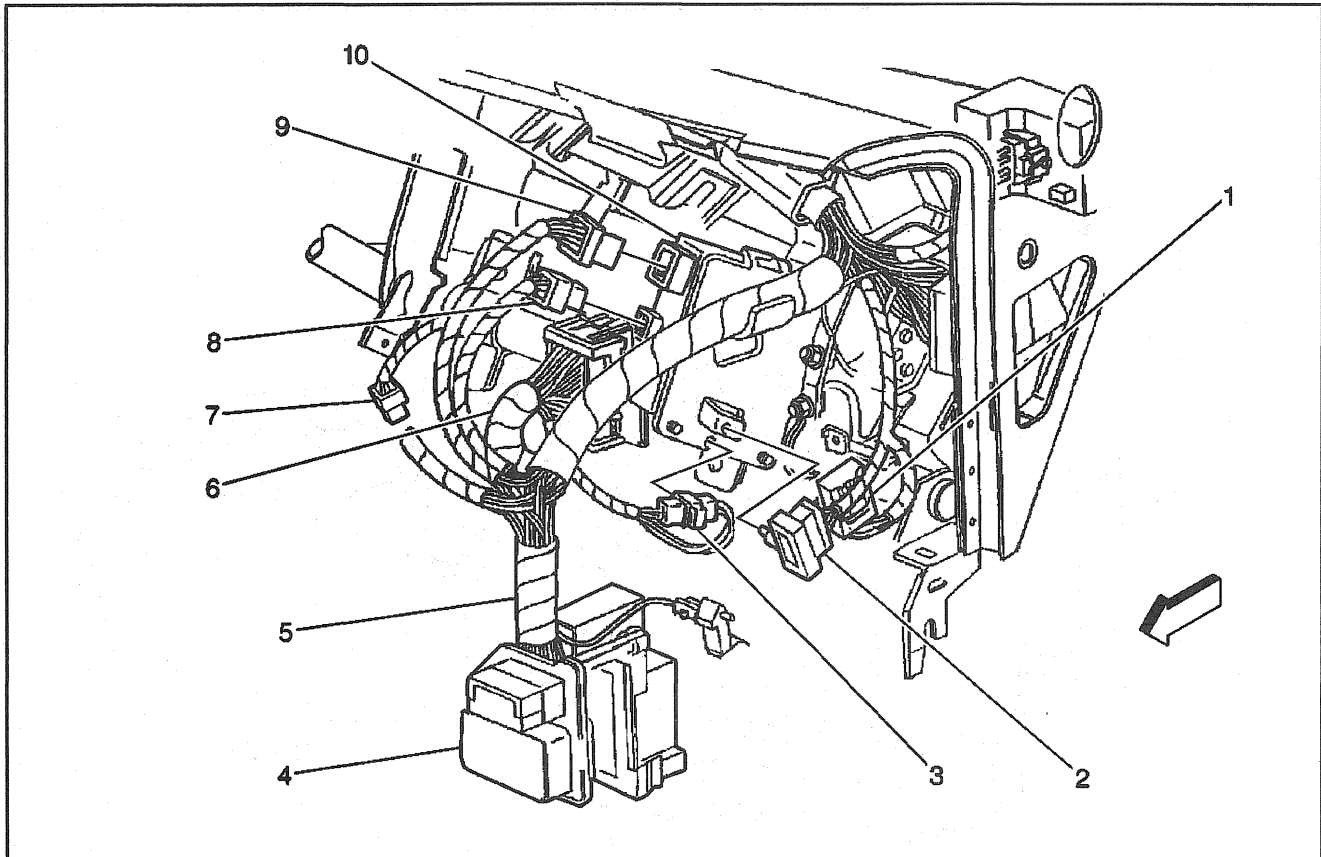


276796

## Legend

(1) C223

## IP Wiring, Transfer Case Shift Control Module

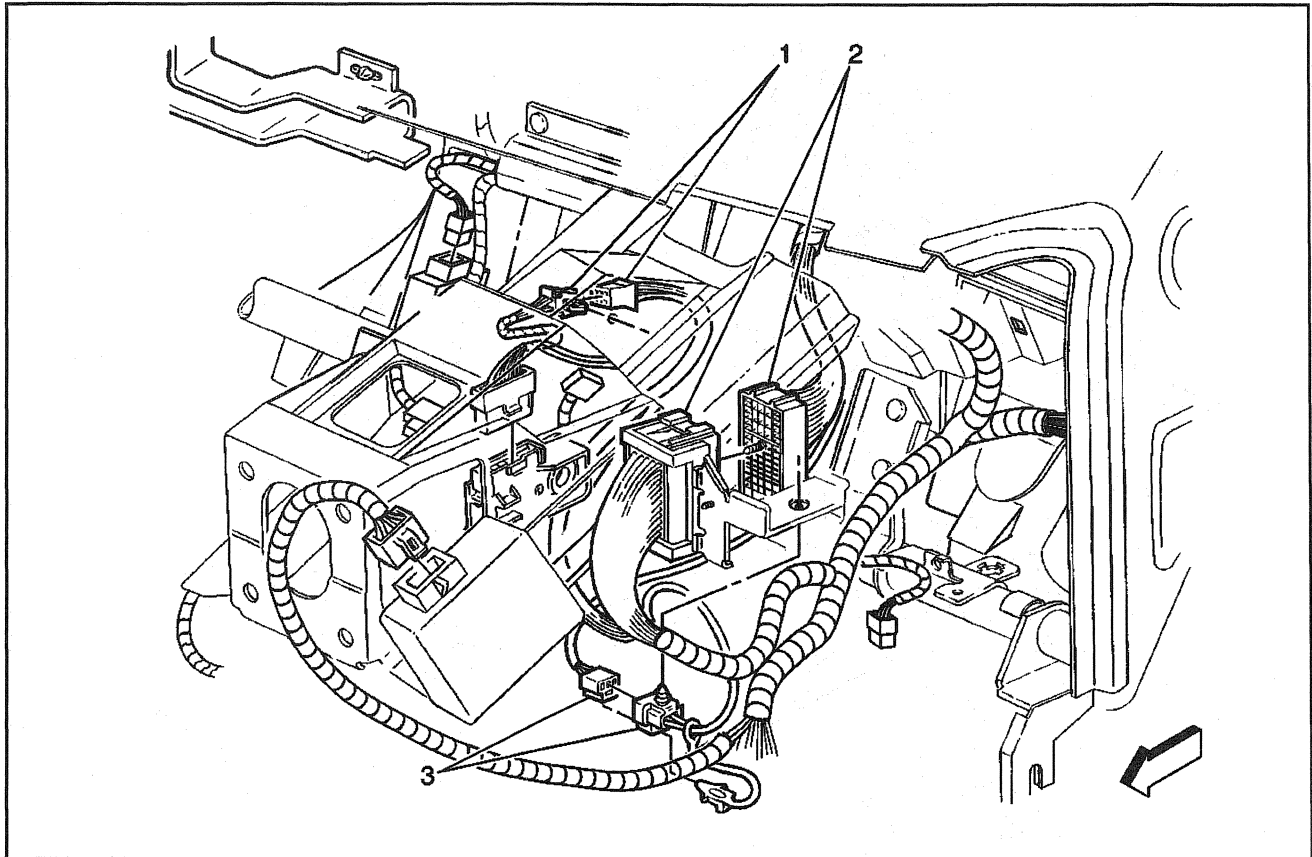


276795

**Legend**

- |                                      |  |
|--------------------------------------|--|
| (1) DRL Module                       | (7) C271   |
| (2) C298                             | (8) Transfer Case Shift Control Module, Connector C1 |
| (3) C233                             | (9) Transfer Case Shift Control Module, Connector C2 |
| (4) C100                             | (10) Transfer Case Shift Control Module              |
| (5) IP Harness                       |  |
| (6) Steering Column Harness and C266 |  |

## Connectors: C227, C233, C266 (IP Left Side)



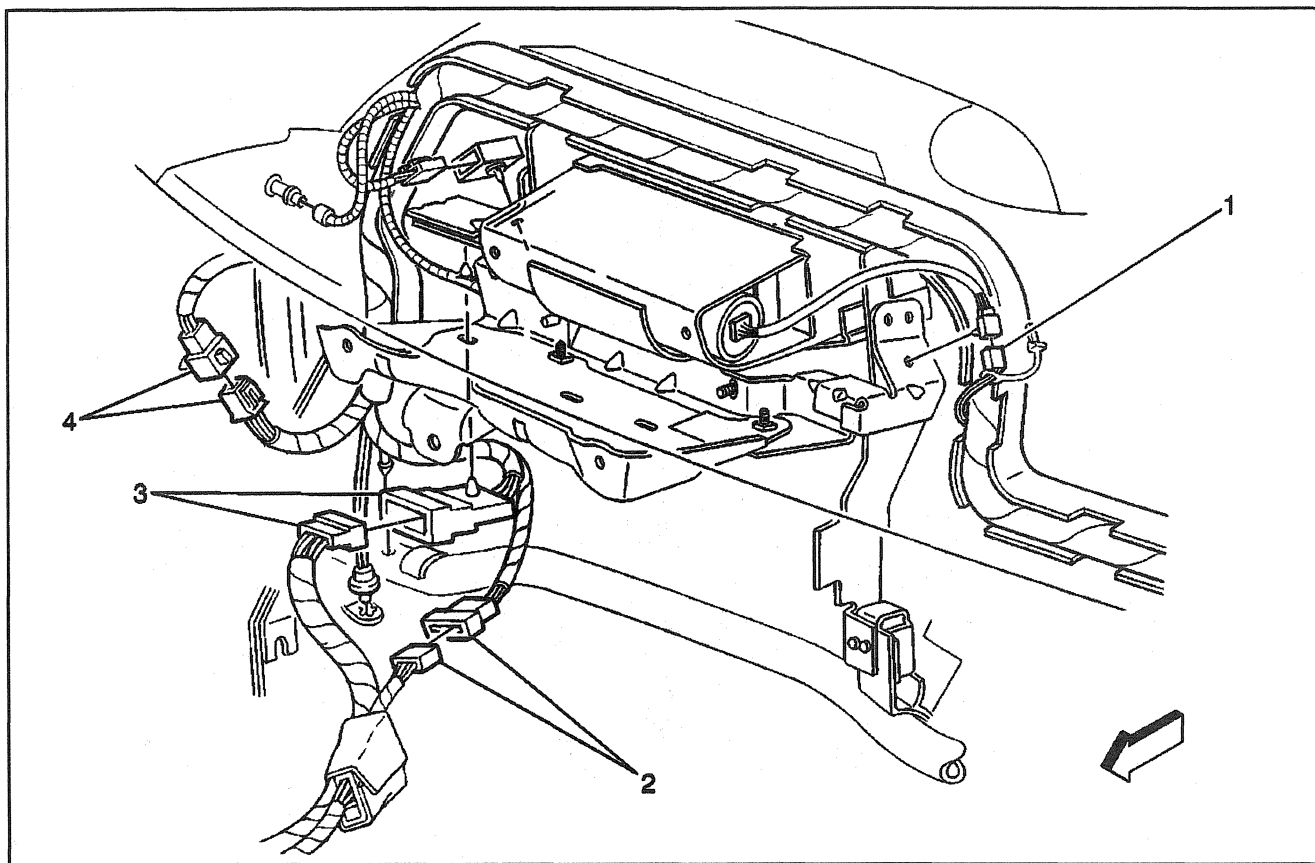
276933

## Legend

- (1) C227
- (2) C266

- (3) C234

## Connectors: C200, C204, C299 (Right Side, Gas)



276910

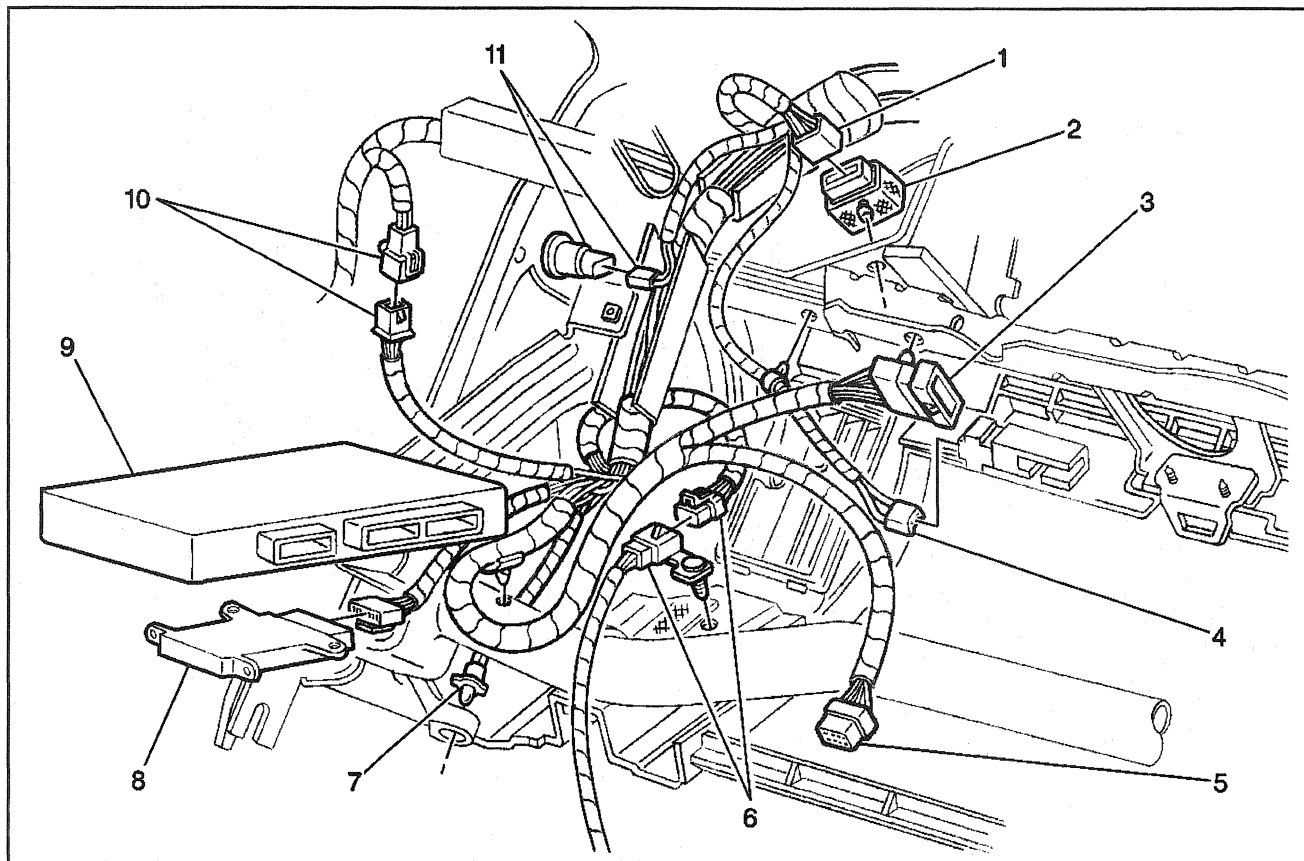
**Legend**

- (1) Passenger IP Inflation Module Connector
- (2) C203

- (3) C200
- (4) C299



## Connectors: C200, C204, C230, C299 (IP Wiring Right Side, Diesel)

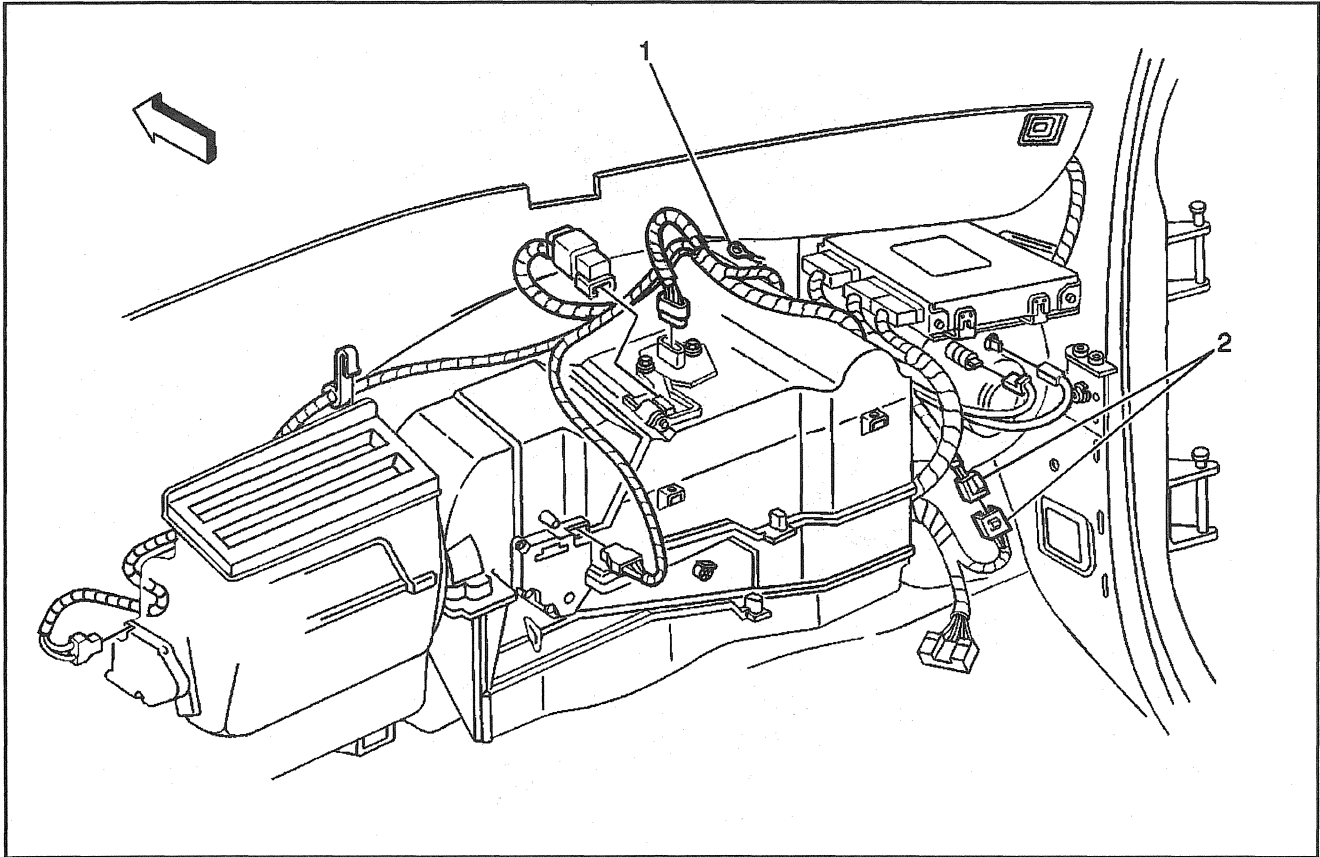


276797

## Legend

- |  |   |
|--|---|
| (1) IP Harness                         | (7) Courtesy Lamp, RF                   |
| (2) Low Level Coolant Level Module     | (8) Vehicle Speed Sensor Buffer (VSSB)  |
| (3) C200                               | (9) Powertrain Control Module (PCM)     |
| (4) IP Compartment Box Light Connector | (10) C299                               |
| (5) C204                               | (11) Door Jamb Switch and Connector, RF |
| (6) C230                               |   |

## Heater and A/C Wiring, C203, G202



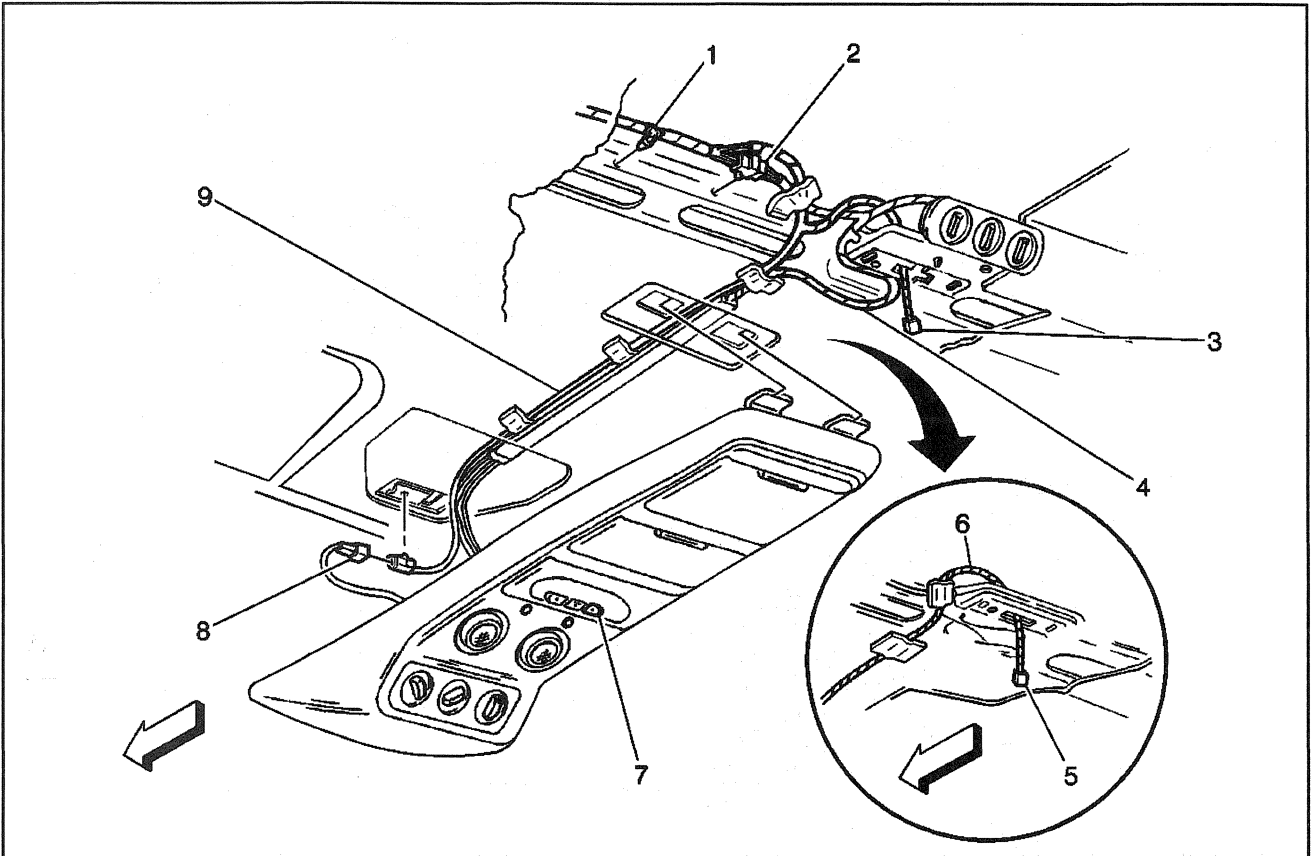
277642

**Legend**

(1) G202

(2) C203

## Connectors: C300, C307 (Overhead Console)

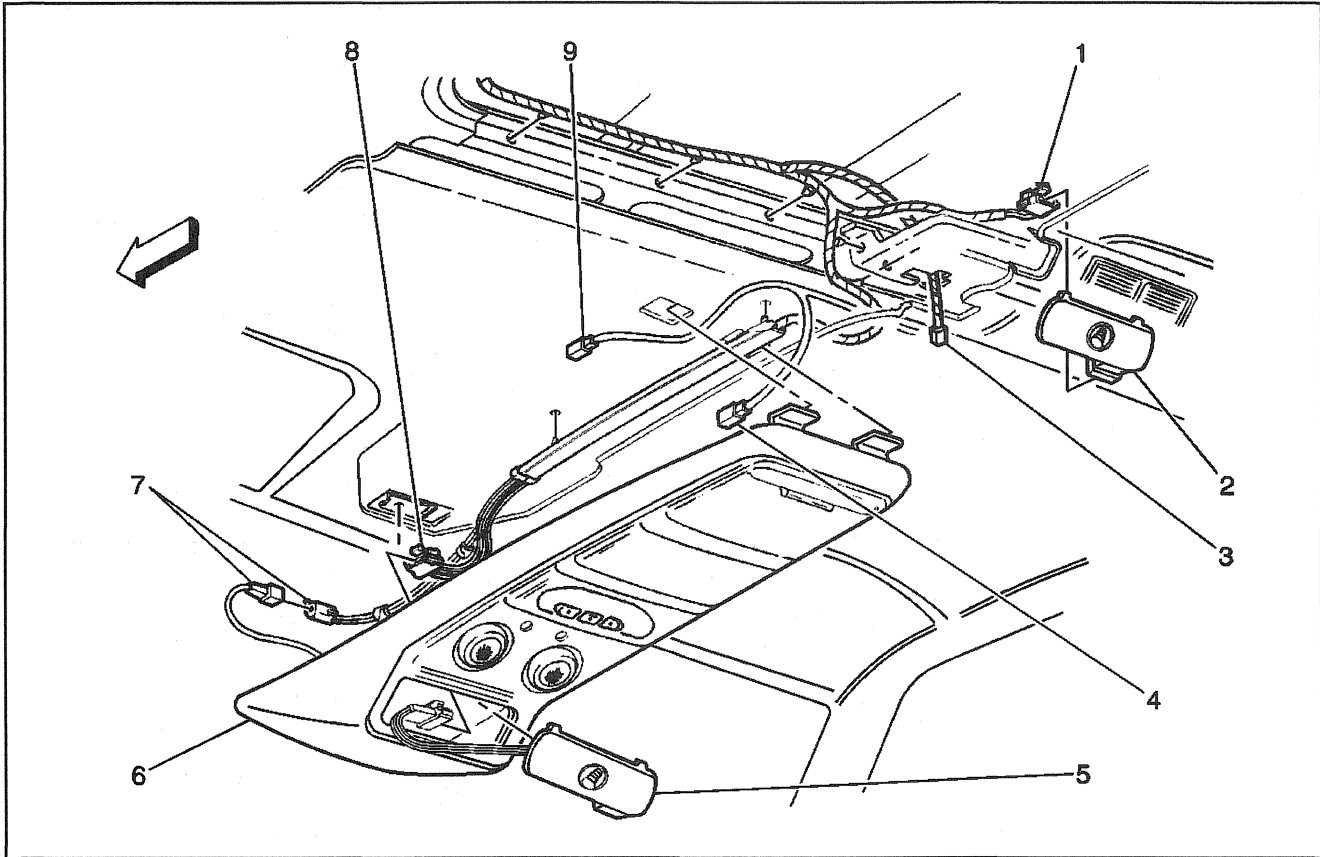


375523

## Legend

- |   |  |
|---|--|
| (1) Front-to-Rear Body Harness            | (6) Dome Lamp Harness                              |
| (2) C307                                  | (7) Garage Door Lamp Switch                        |
| (3) Dome Lamp Connector, Front            | (8) Auxiliary HVAC Control Module Connector, Front |
| (4) Auxiliary HVAC Control Module Harness | (9) Overhead Console Harness                       |
| (5) Dome Lamp Connector, Front            |  |

## Overhead Console Wiring Harness (Luxury)

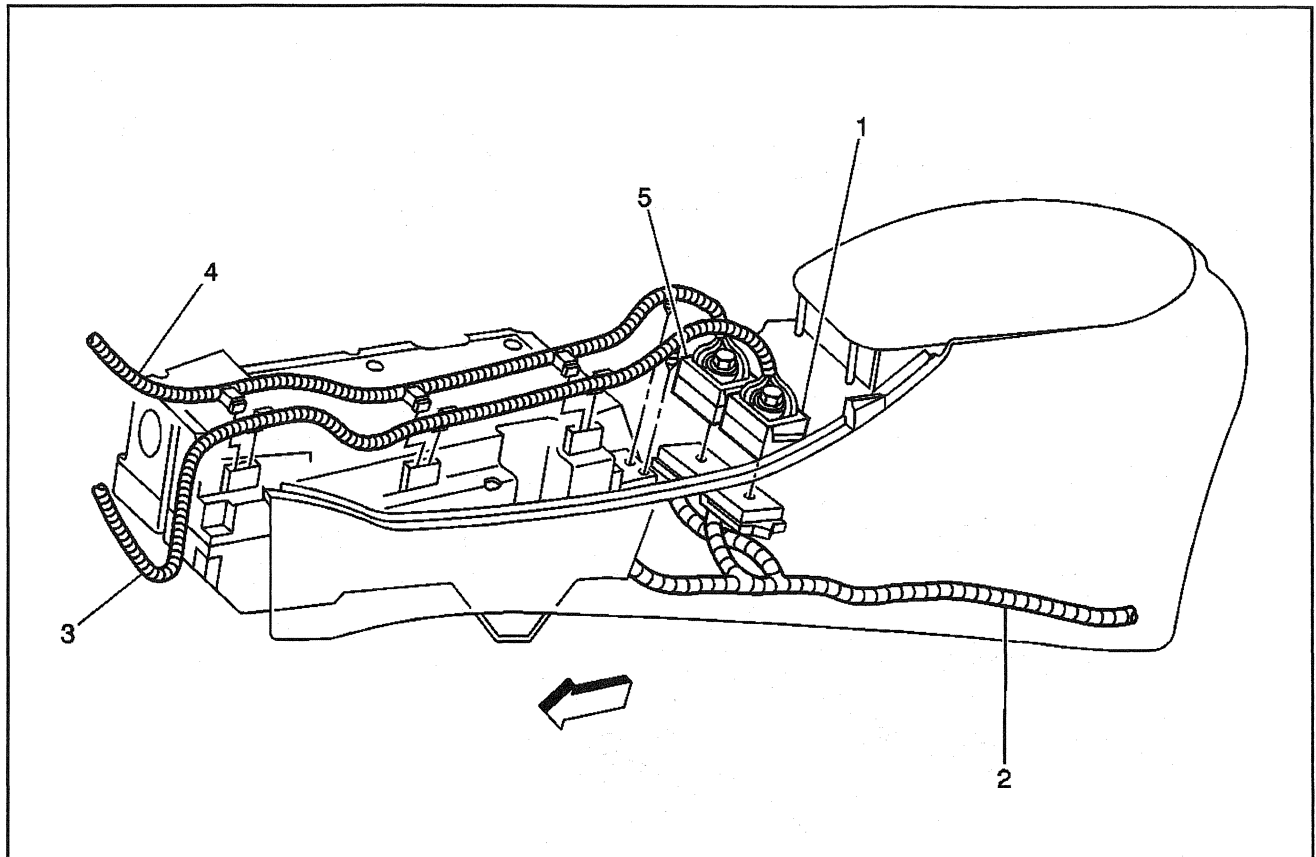


466340

## Legend

- |  |   |
|--|---|
| (1) Auxiliary HVAC Control Module<br>Connector, Rear | (6) Overhead Console                                  |
| (2) Auxiliary HVAC Control Module Switch, Rear       | (7) C307  |
| (3) Dome Lamp Connector, Rear                        | (8) Auxiliary HVAC Control Module<br>Connector, Front |
| (4) C306   | (9) C309  |
| (5) Auxiliary HVAC Control Module Switch, Front      |   |

## Center Floor Console Harness (Luxury)

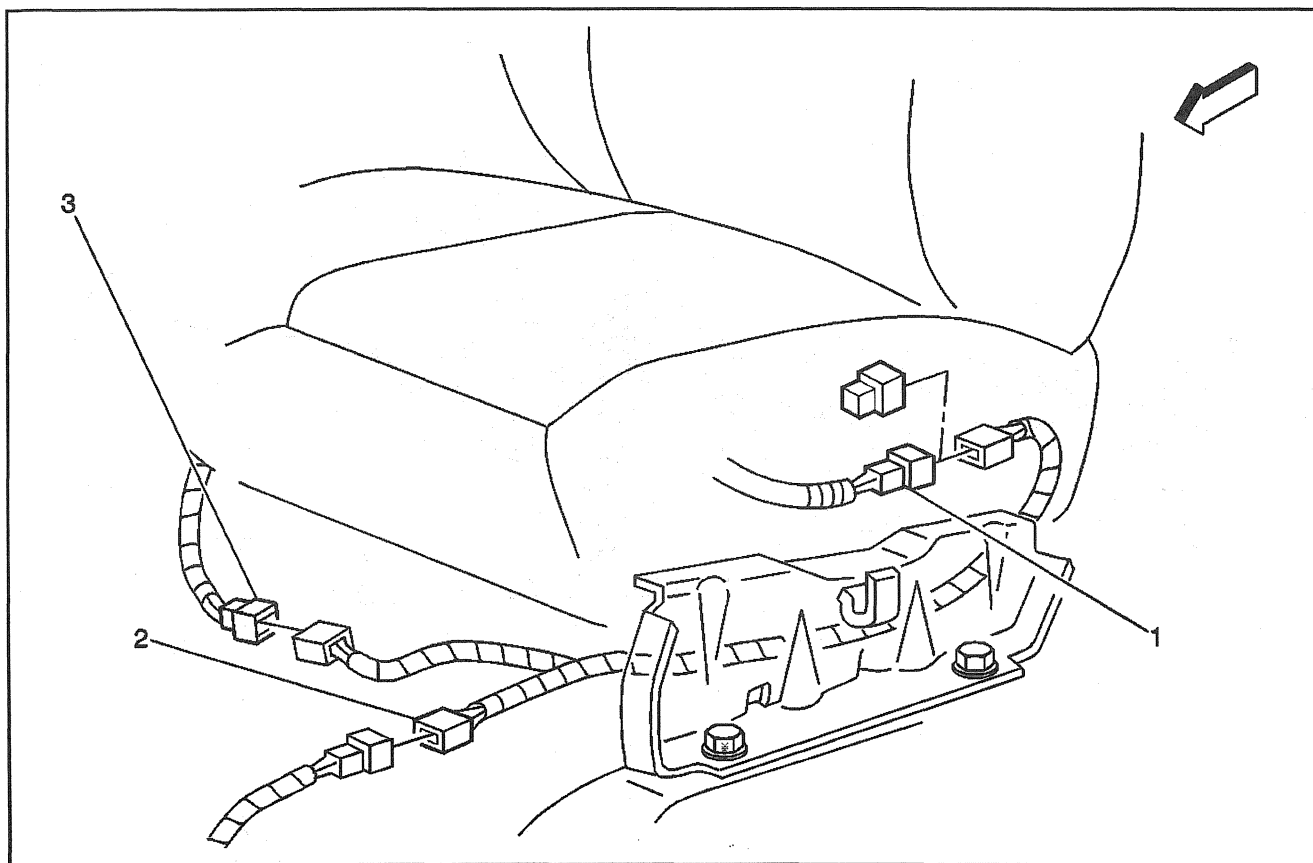


311404

## Legend

- |                       |                |
|-----------------------|----------------|
| (1) C304              | (4) IP Harness |
| (2) Console Harness   | (5) C305       |
| (3) Crossbody Harness |                |

## Power Seat Wiring Harness Connectors



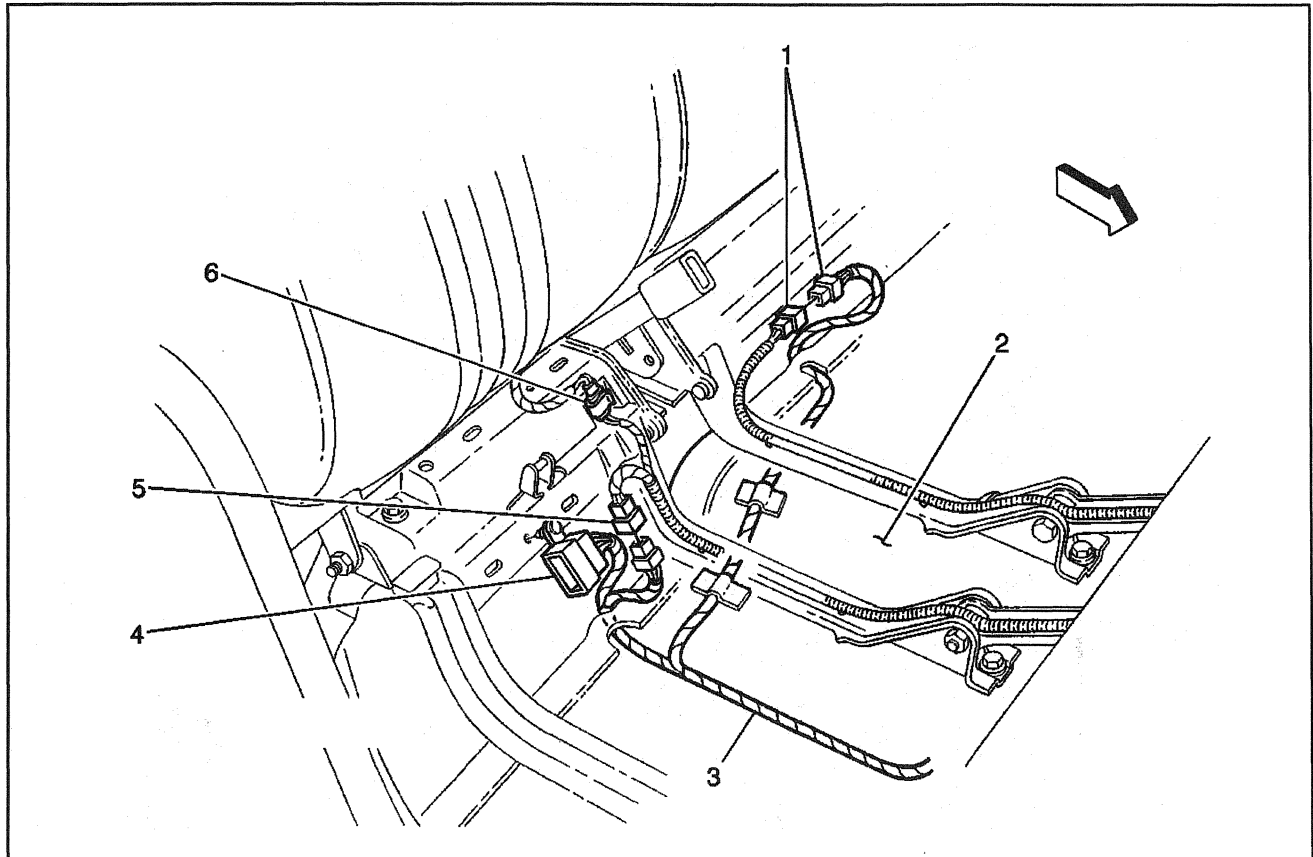
277165

## Legend

- (1) C236 (Left)/C237 (Right)
- (2) C212 (Left)/C229 (Right)

- (3) C211 (Left)/C228 (Left)

## Rear Seat Harness (Luxury)

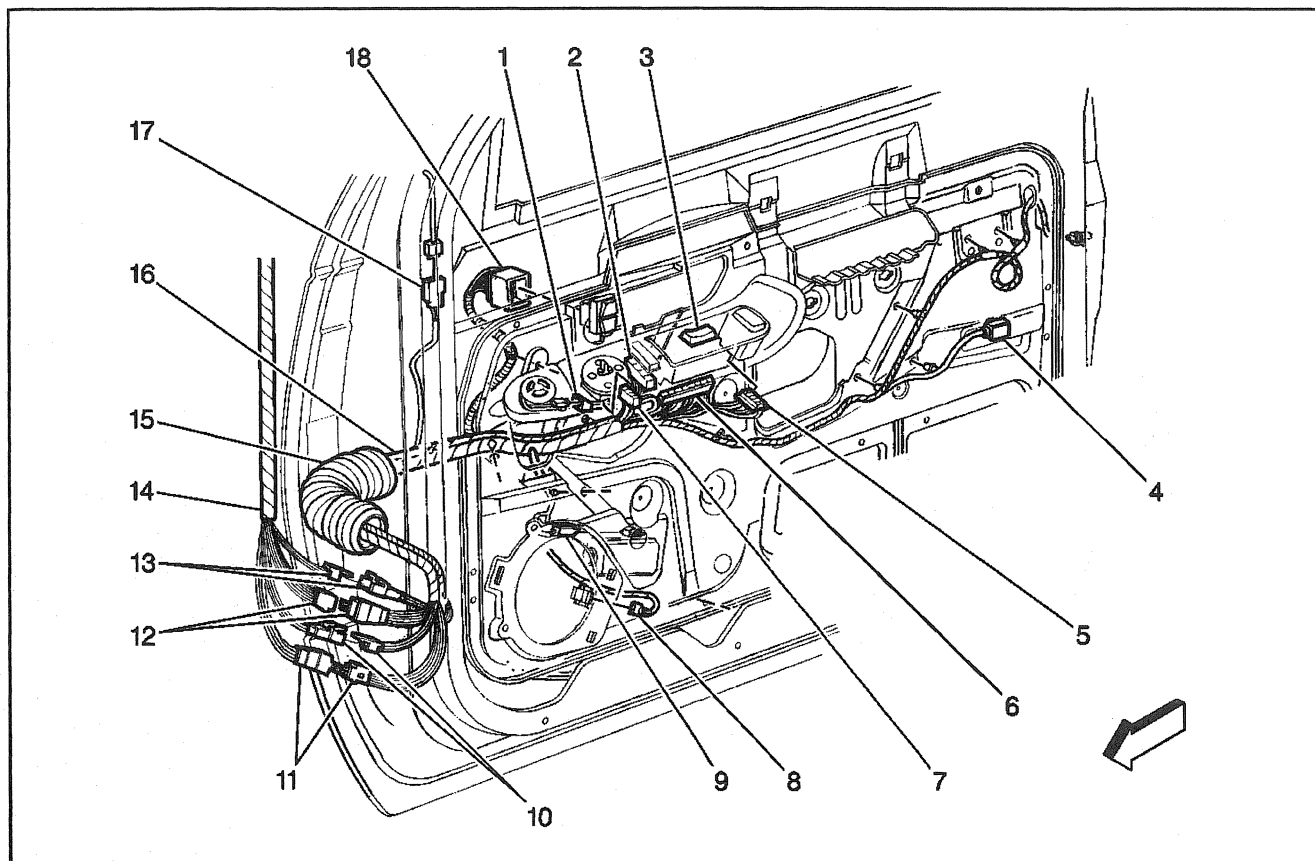


311436

## Legend

- |                       |                                      |
|-----------------------|--------------------------------------|
| (1) C311              | (4) Vehicle Interface Unit Connector |
| (2) Floor             | (5) C310                             |
| (3) Crossbody Harness | (6) Seat Belt Harness Connector      |

## Front Door Wiring



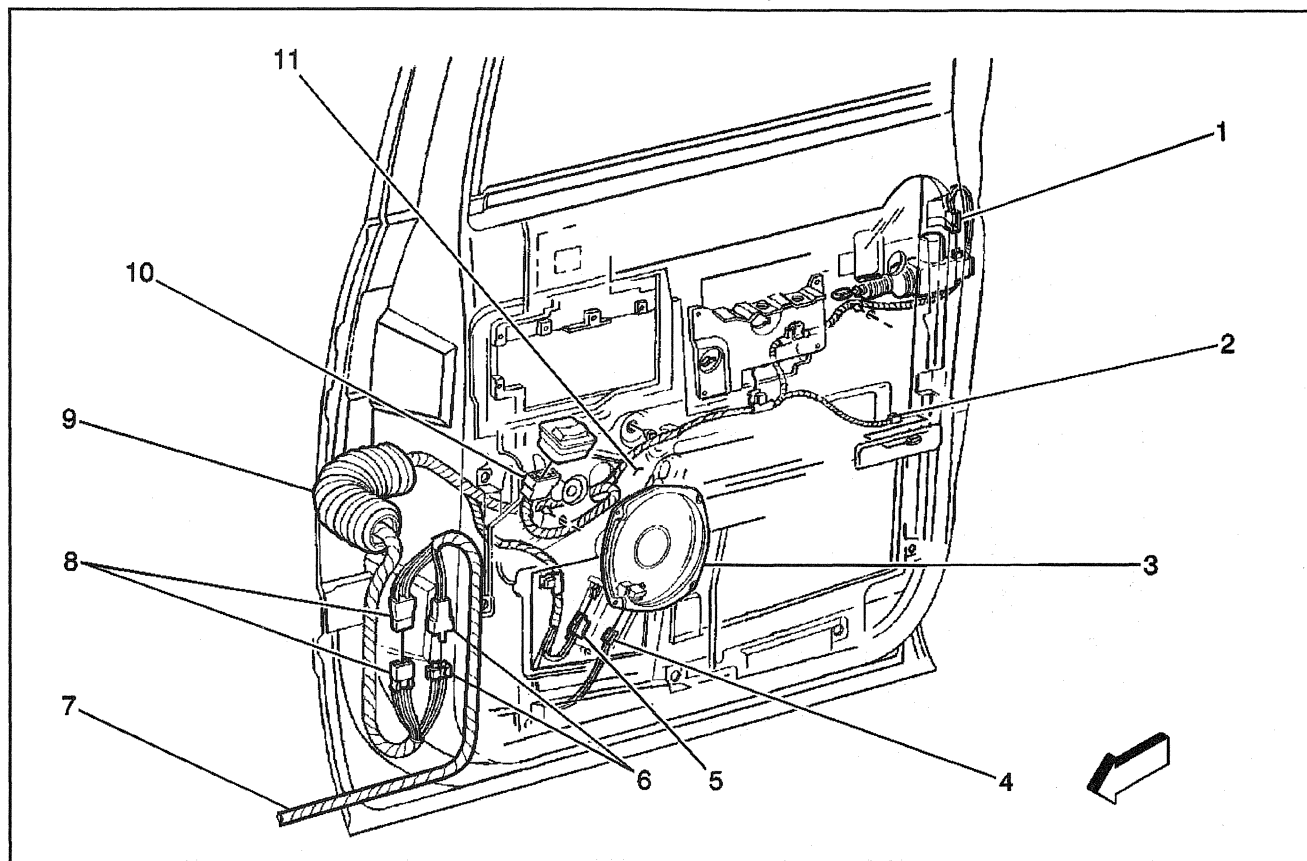
375317

## Legend

- |  |  |
|--|--|
| (1) Speaker Connector, Tweeter           | (10) C206 (Left)/C214 (Right)            |
| (2) Rear Window Lockout Switch Connector | (11) C209 (Left)                         |
| (3) Power Window Switch                  | (12) C208 (Left)/C214 (Right)            |
| (4) Courtesy Light Connector             | (13) C207 (Left)/C213 (Right)            |
| (5) Door Lock Switch Connector           | (14) Crossbody Harness                   |
| (6) Power Window Switch Connector        | (15) P600 (Right Front)/P500 (Left)      |
| (7) Power Mirror Switch Connector        | (16) Door Harness                        |
| (8) Speaker Connector                    | (17) C601 (Right)/C501 (Left)            |
| (9) Power Window Motor Connector         | (18) Door Lock Connector (Keyless Entry) |



## Rear Door Wiring

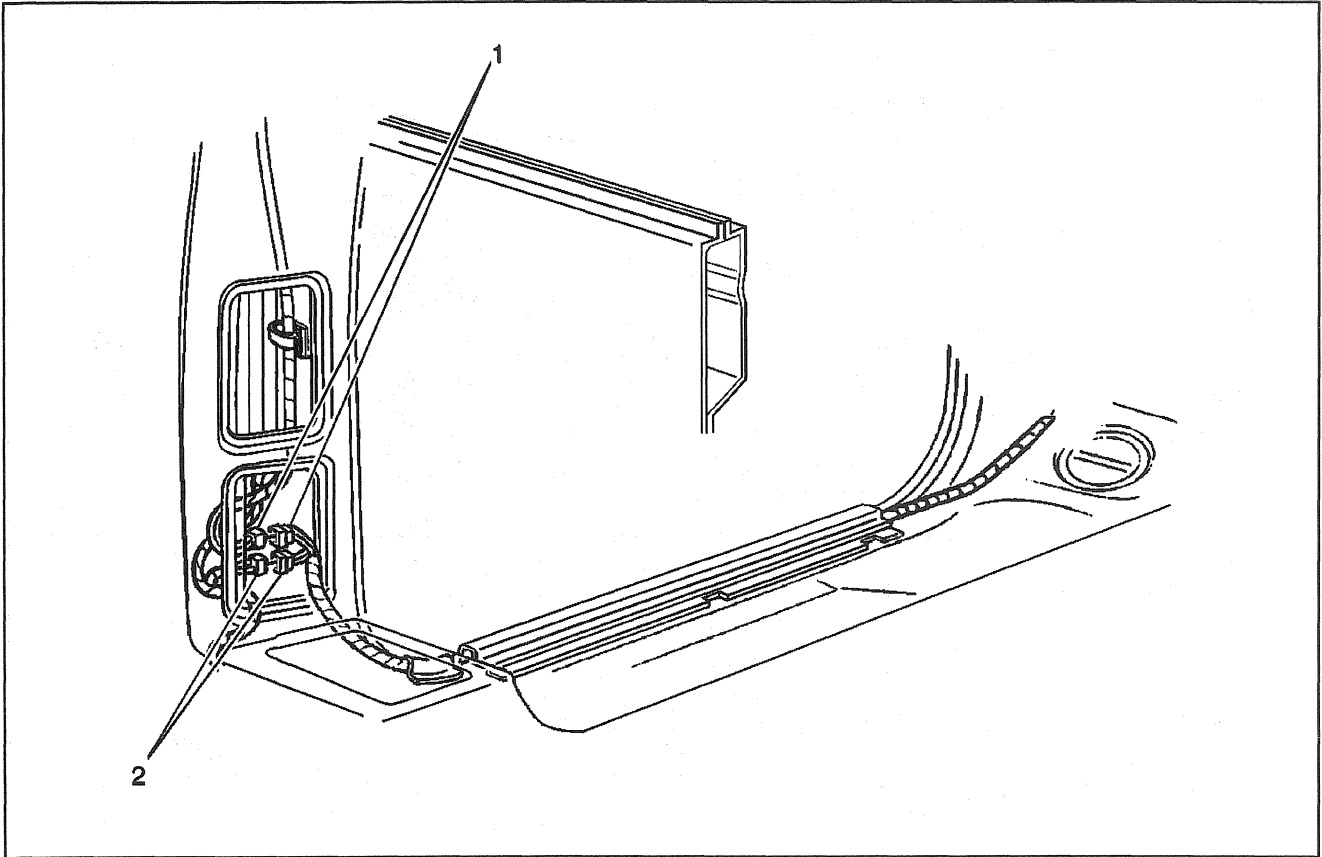


277129

## Legend

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| (1) Power Door Lock Motor Connector | (7) Crossbody Harness              |
| (2) Courtesy Lamp, Door Connector   | (8) C497 (Right)/C499 (Left)       |
| (3) Speaker, Rear Door              | (9) P800 (Right)/P700 (Left)       |
| (4) Speaker Connector               | (10) Power Window Switch Connector |
| (5) Power Window Motor Connector    | (11) Door Wiring Harness           |
| (6) C496 (Right)/C498 (Left)        |                                    |

## Center High Mounted Stop and Cargo Lamp Wiring, C410, C411 (except Suburban/Utility)



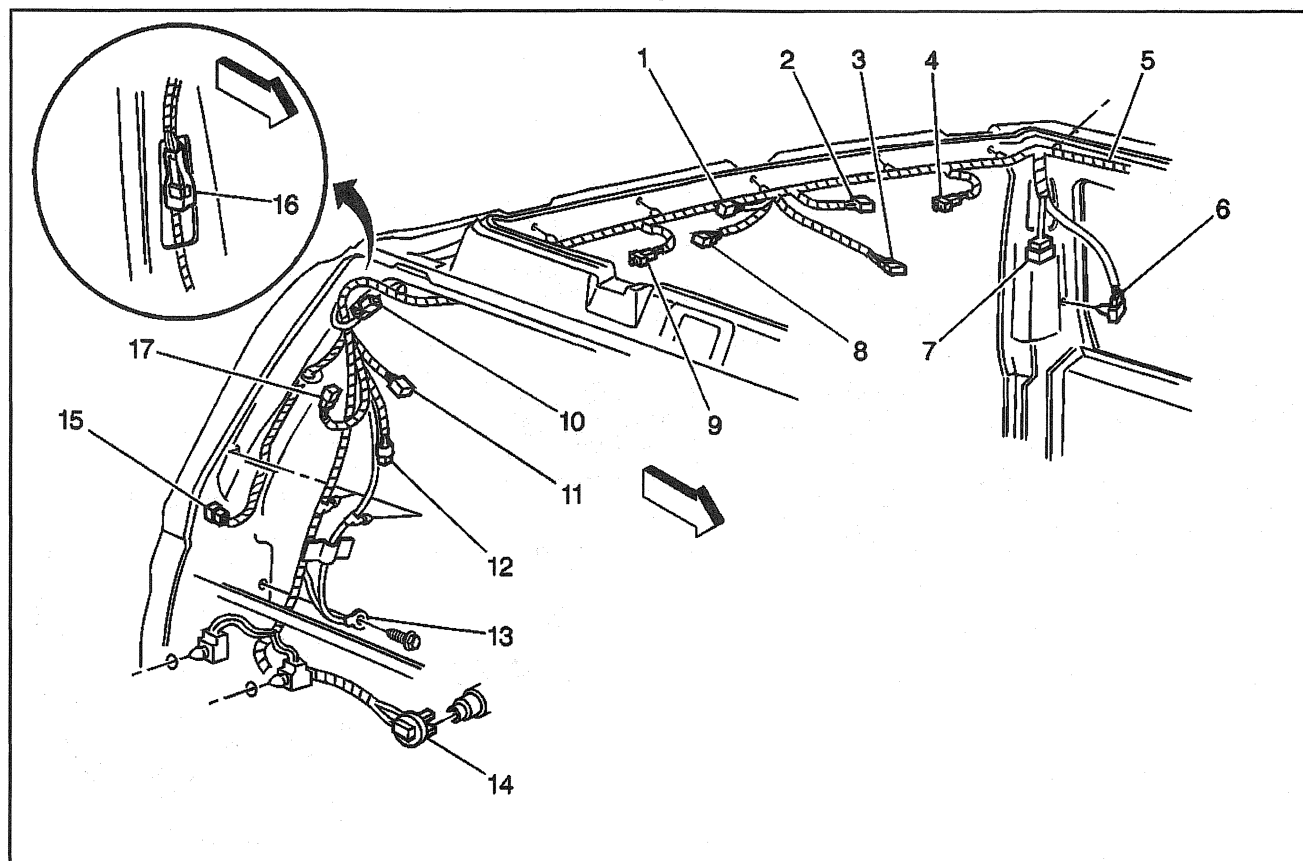
277211

## Legend

(1) C411

(2) C410

## Rear Body Harness

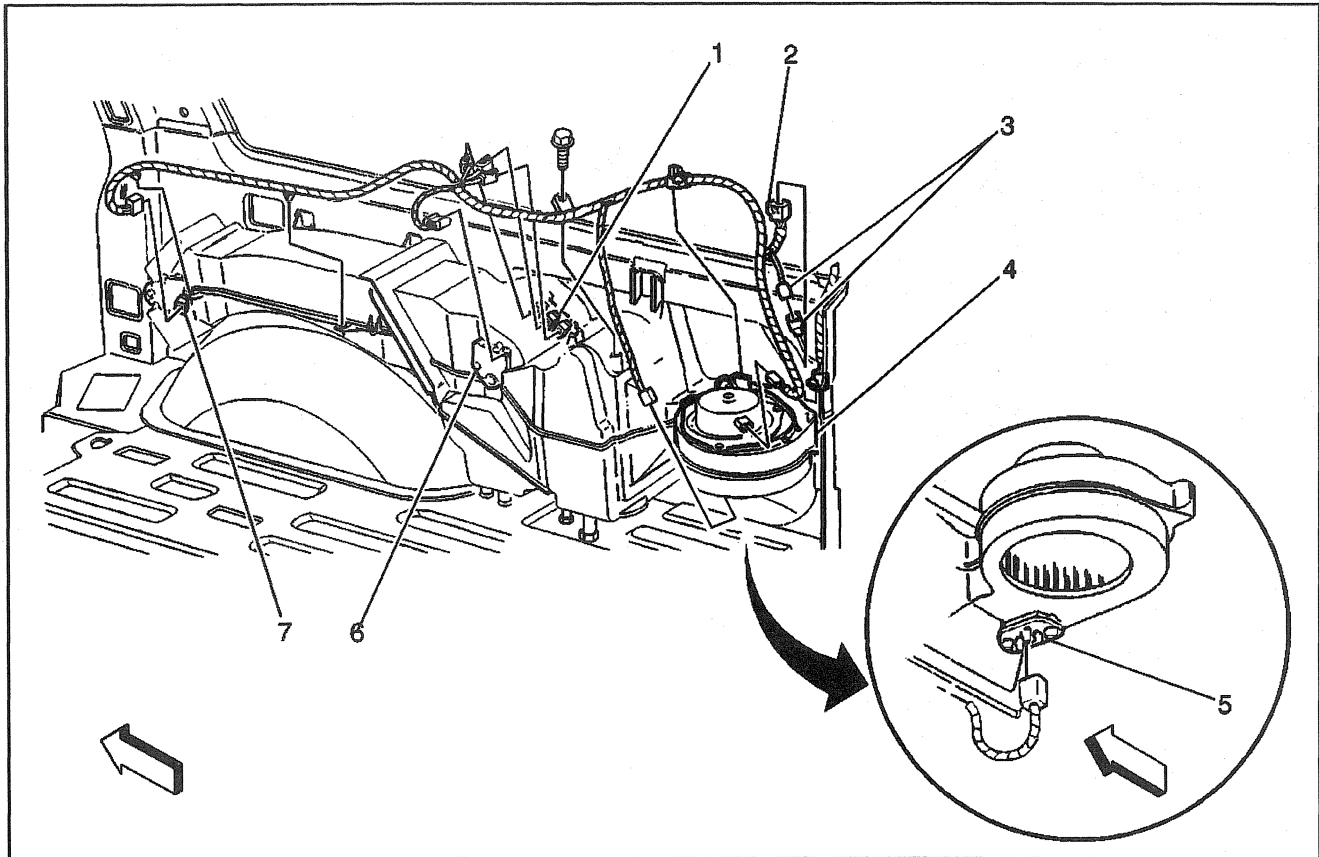


372228

## Legend

- |                                |   |
|--------------------------------|---|
| (1) CHMSL Connector            | (10) C406 (Cargo Doors)                           |
| (2) C402                       | (11) Door Lock Switch Connector, Rear             |
| (3) C303                       | (12) Door Lock Actuator Connector, Rear           |
| (4) Speaker Connector, LR      | (13) G400   |
| (5) Front to Rear Body Harness | (14) Auxiliary Power Connector, Rear              |
| (6) C314 (Liftgate)            | (15) Door Jamb Switch Connector, Rear (Liftgate)  |
| (7) C405 (Cargo Doors)         | (16) C406 (Cargo Doors)                           |
| (8) C406 (Liftgate)            | (17) Door Jamb Switch Connector, RR (Cargo Doors) |
| (9) Speaker Connector, RR      |   |

## Auxiliary A/C Wiring

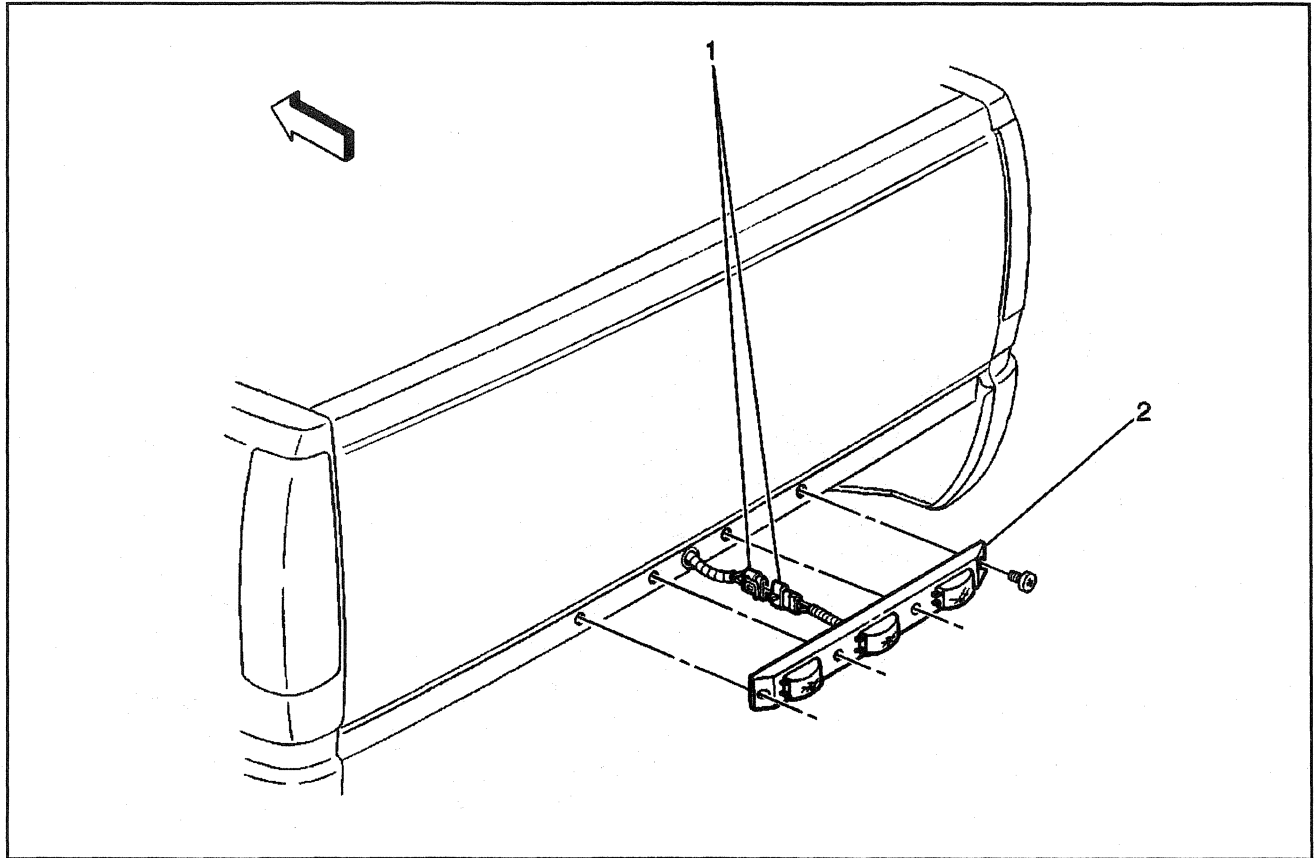


277976

## Legend

- |  |                                      |
|--|--------------------------------------|
| (1) Auxiliary HVAC Blower Relays;<br>Low/Medium/High | (5) Auxiliary Blower Resistor        |
| (2) C401   | (6) Auxiliary Temperature Door Motor |
| (3) C400   | (7) Auxiliary Mode Door Motor        |
| (4) Auxiliary Blower Motor                           |                                      |

Endgate Marker Lamps



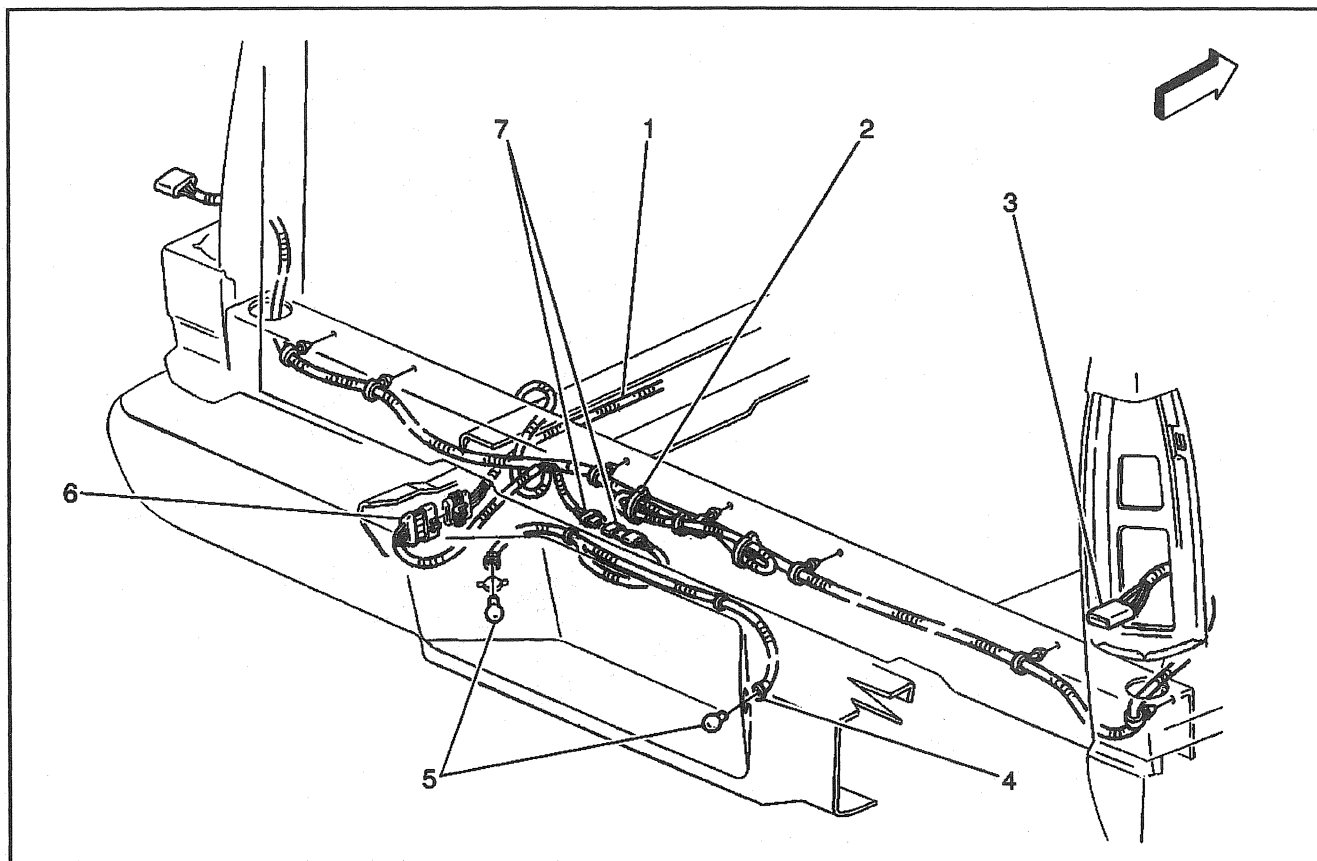
375553

Legend

(1) C408

(2) Endgate Marker Lamps

## Tail and Stoplamp Harness Connectors

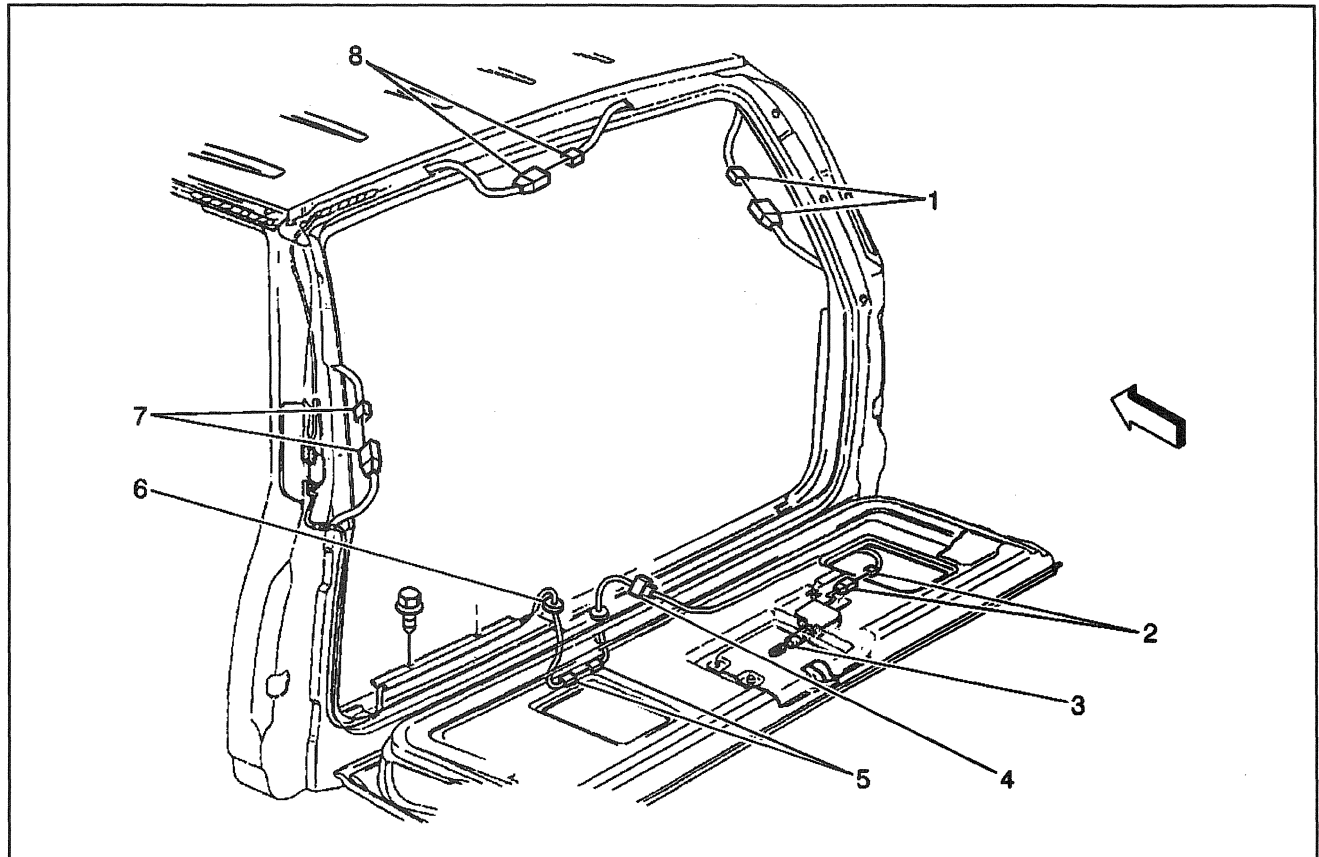


375538

## Legend

- |                                      |                         |
|--------------------------------------|-------------------------|
| (1) Tail/Stop Lamp Extension Harness | (5) License Plate Lamps |
| (2) Tail/Stop Lamp Harness           | (6) C409                |
| (3) Tail/Stop Lamp Connector, RH     | (7) C407                |
| (4) License Plate Lamp Harness       |                         |

## Liftgate Release Motor Wiring

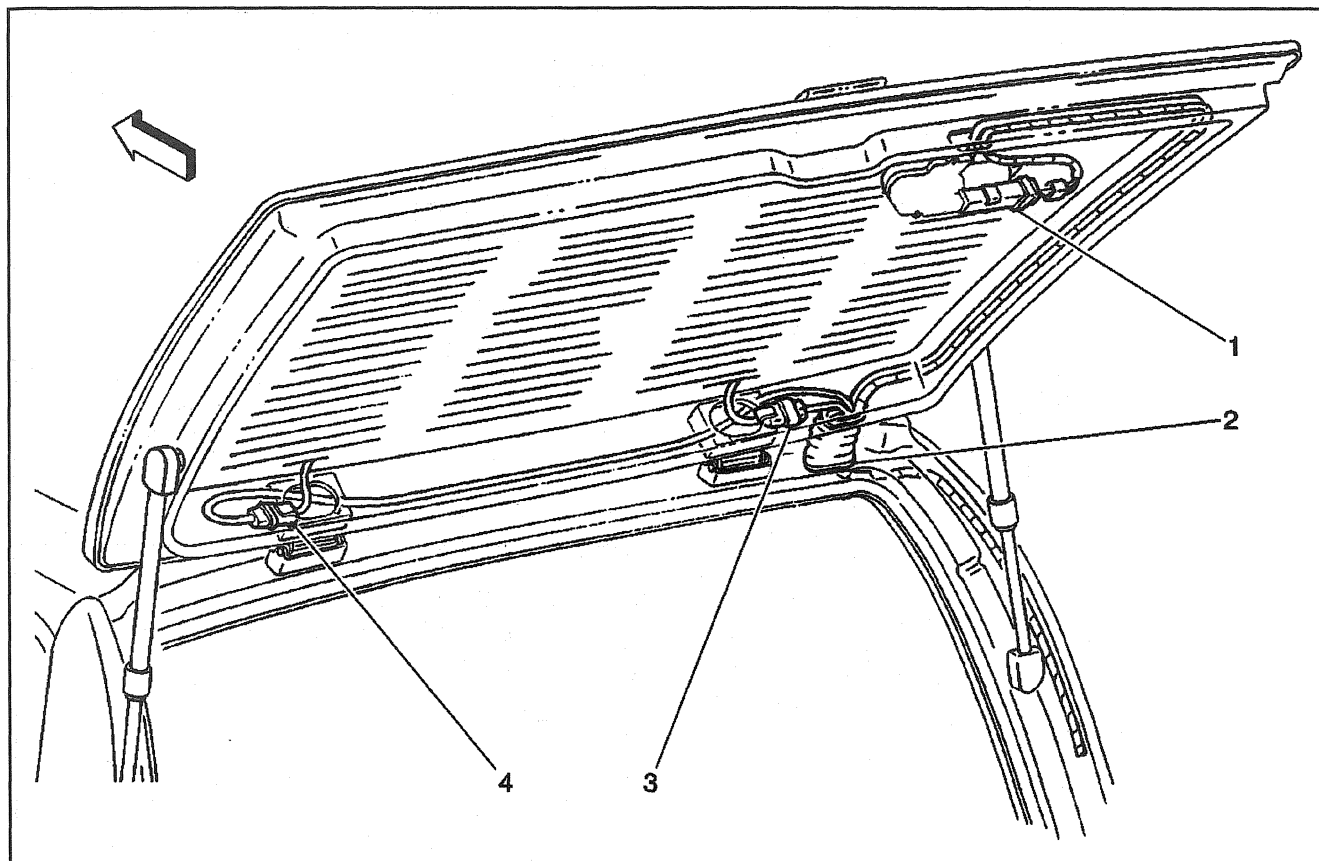


277193

## Legend

- |                            |          |
|----------------------------|----------|
| (1) C406                   | (5) C450 |
| (2) C404                   | (6) P409 |
| (3) Liftgate Release Motor | (7) C314 |
| (4) P410                   | (8) C402 |

## Rear Window Wiring Harness



277220

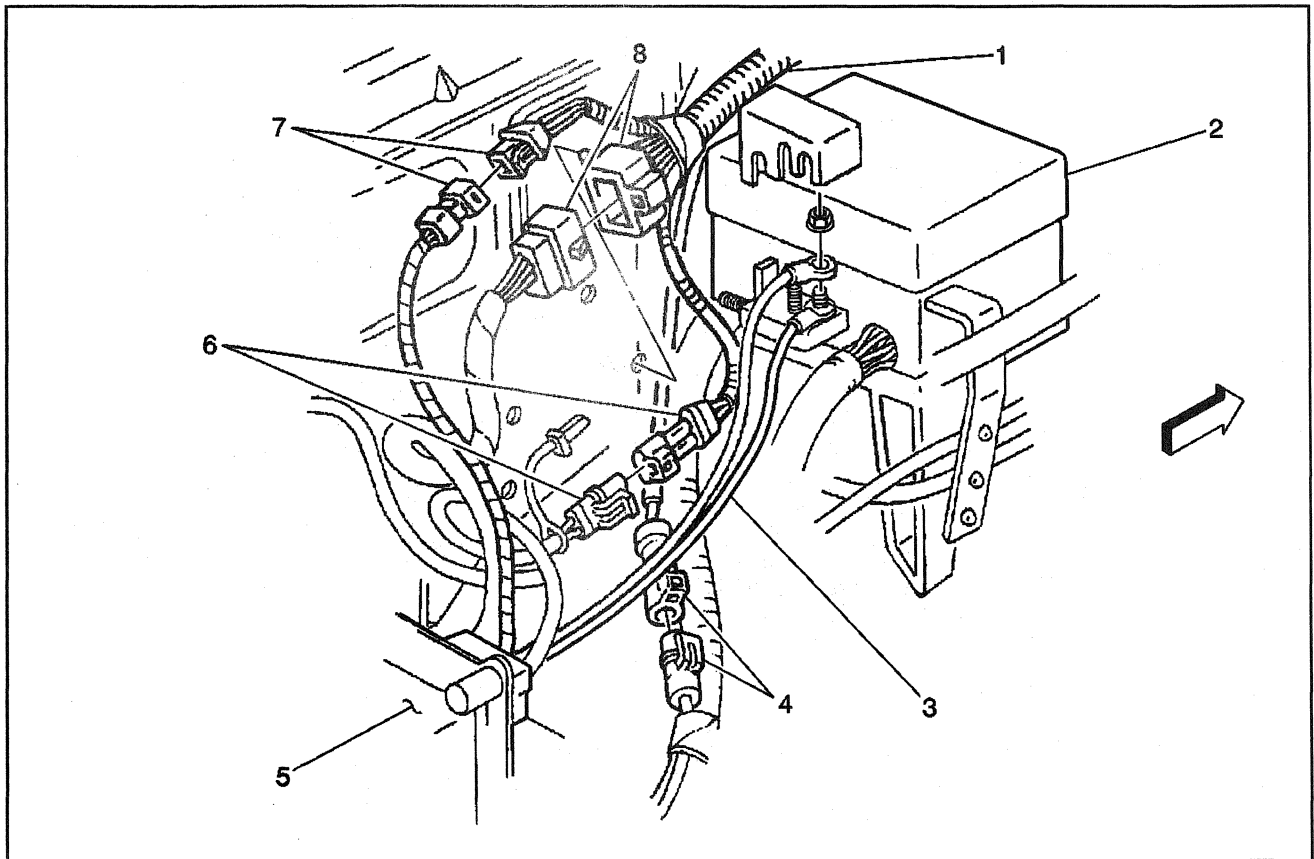
**Legend**

- (1) Rear Window Wiper Motor and Connector
- (2) P400

- (3) Rear Window Defogger Connector, Right
- (4) Rear Window Defogger Connector, Left



## Underhood Fuse Block and Wiring (Police Package) 1 of 2

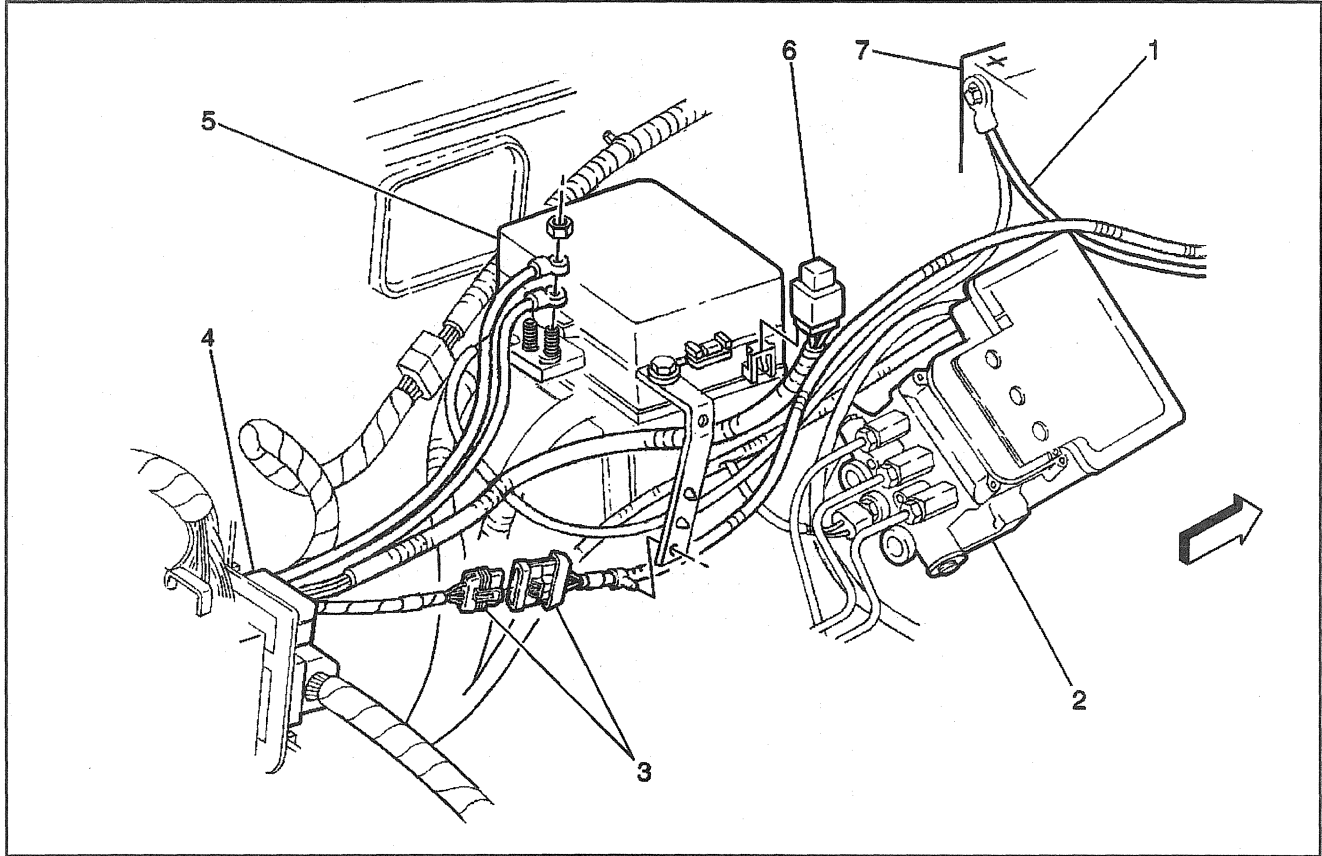


466720

**Legend**

- |                                |                                |
|--------------------------------|--------------------------------|
| (1) Forward Lamp Harness       | (5) Convenience Center         |
| (2) Underhood Fuse Block       | (6) C110                       |
| (3) Emergency Roof Lamp Wiring | (7) C108 (Police Package Only) |
| (4) C101 (Auxiliary Fan Only)  | (8) C102                       |

## Underhood Fuse Block Wiring (Police Package) 2 of 2

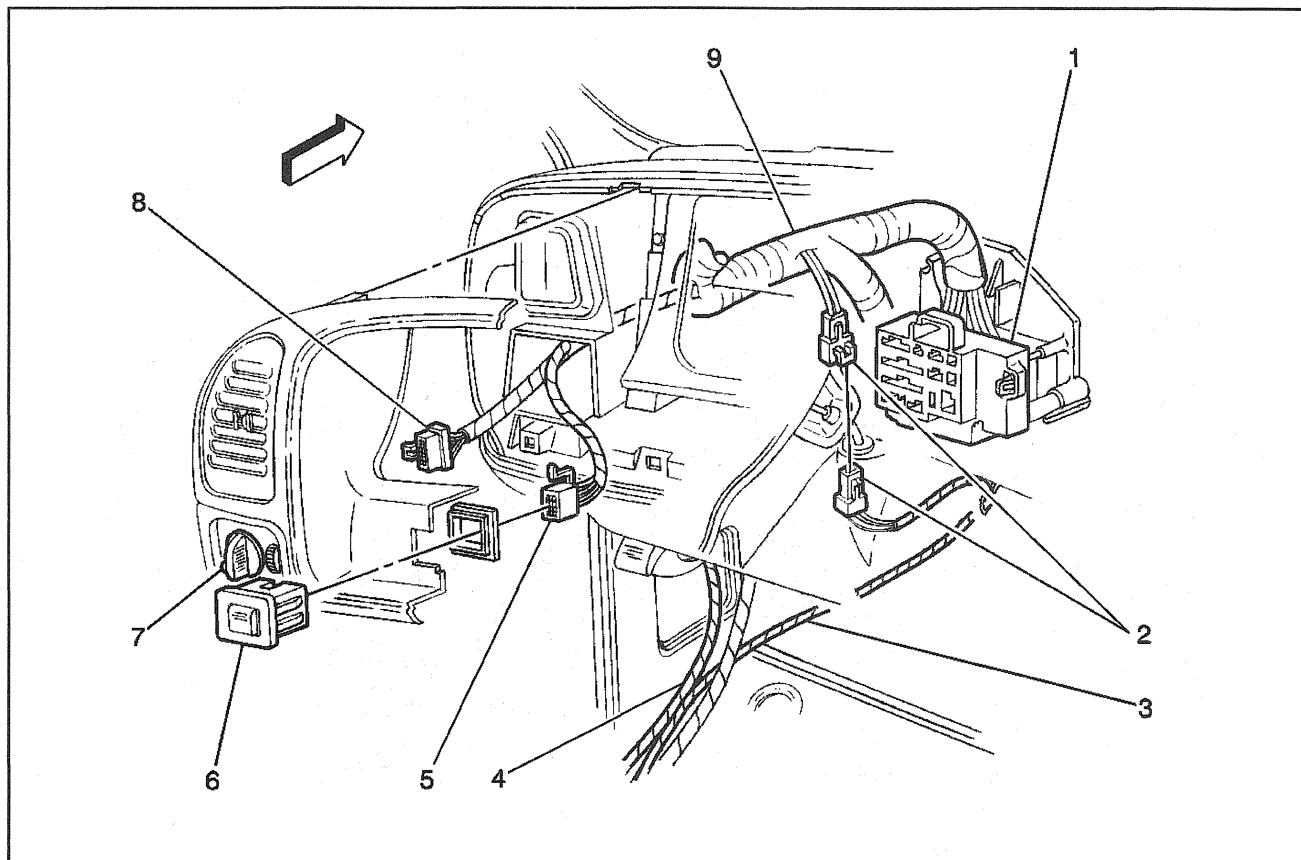


465201

**Legend**

- |  |   |
|--|---|
| (1) Positive Battery Cable                 | (5) Underhood Fuse Block                |
| (2) Electronic Brake Control Module (EBCM) | (6) Emergency Beacon Relay              |
| (3) C109                                   | (7) Battery, LH (Auxiliary/Diesel Only) |
| (4) P100                                   |   |

## IP Wiring Harness, Emergency Rooflamp Switch (Police Package)

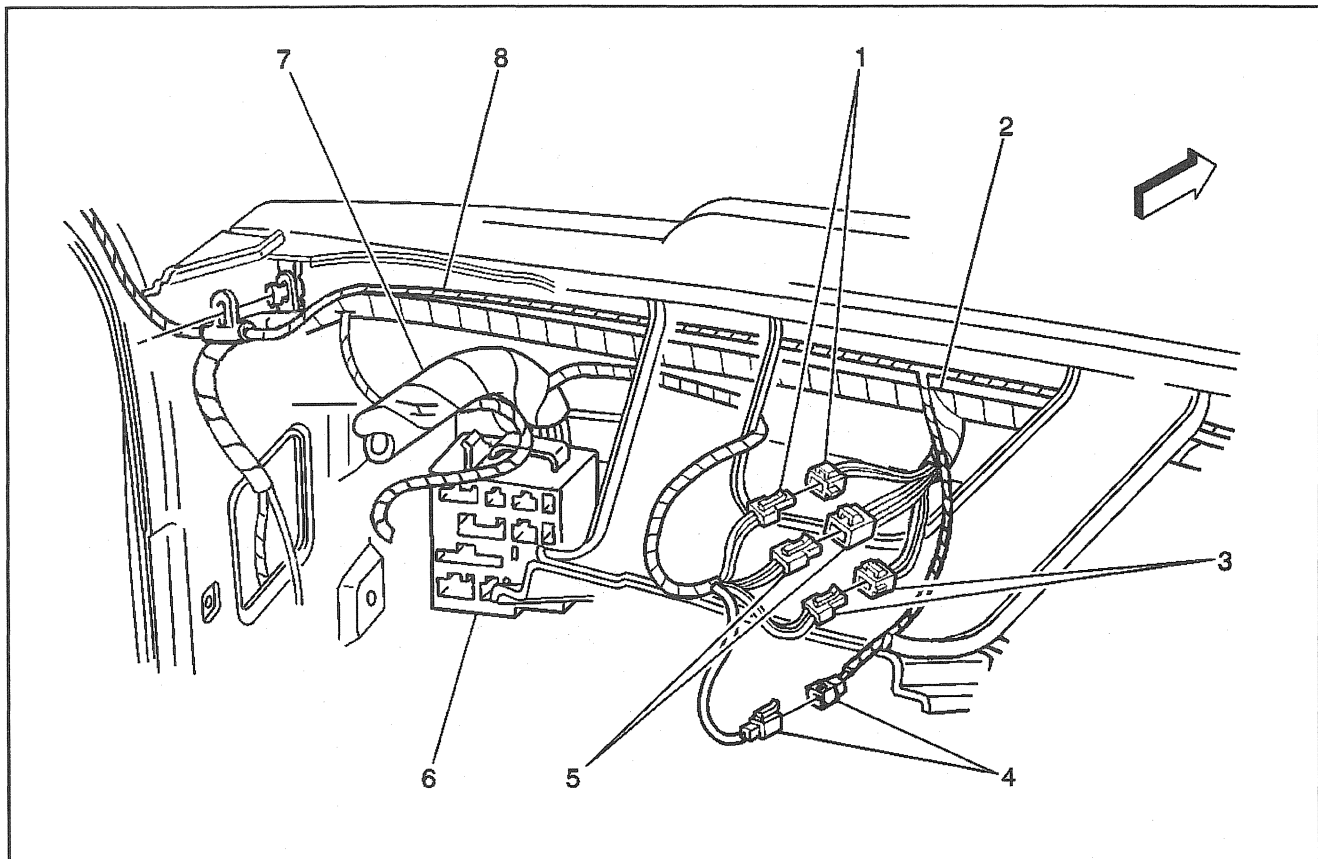


375610

## Legend

- |   |   |
|---|---|
| (1) Convenience Center                    | (6) Emergency Roof Lamp Switch                  |
| (2) C238                                  | (7) Headlamp and Panel Dimmer Switch            |
| (3) Emergency Roof Lamp Harness           | (8) Headlamp and Panel Dimmer Switch, Connector |
| (4) Crossbody Harness                     | (9) IP Harness                                  |
| (5) Emergency Roof Lamp Switch, Connector |   |

## Spotlamp Wiring Harness (Police Package)

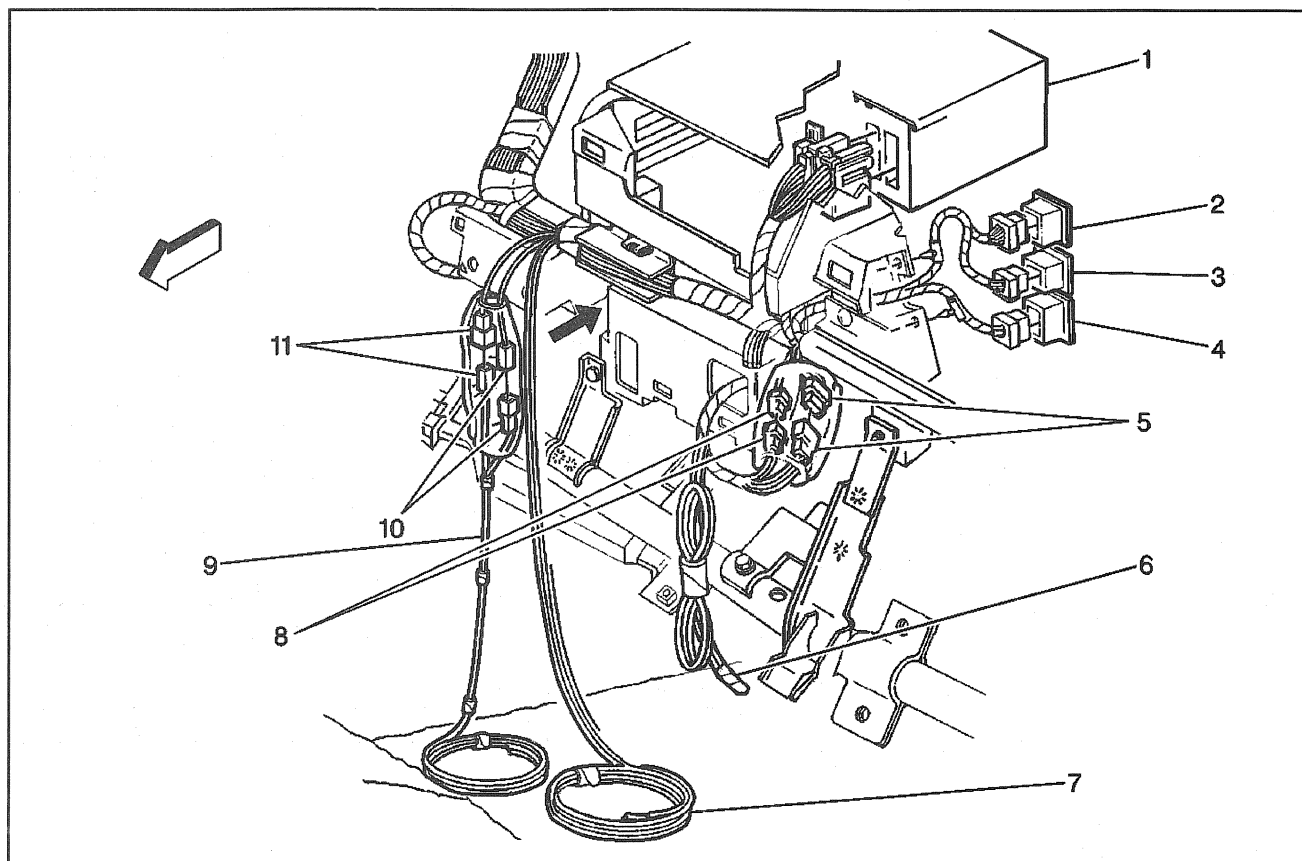


375516

## Legend

- |                       |                             |
|-----------------------|-----------------------------|
| (1) C271              | (5) C232                    |
| (2) Crossbody Harness | (6) Convenience Center      |
| (3) C231              | (7) IP Wiring Harness       |
| (4) C272              | (8) Spotlamp Wiring Harness |

### IP Wiring Harness, Radio (Police Package)



376150

### Legend

- |                               |  |
|-------------------------------|--|
| (1) Radio                     | (7) Speaker and Flasher Wiring Harness |
| (2) Rear Wiper Switch         | (8) C245                               |
| (3) Liftgate Release Switch   | (9) Horn Wiring Harness                |
| (4) DRL/Radio Override Switch | (10) C242                              |
| (5) C235                      | (11) C244                              |
| (6) Auxiliary Power Harness   |  |

# Cellular Communication

## Specifications

### GM SPO Group Numbers

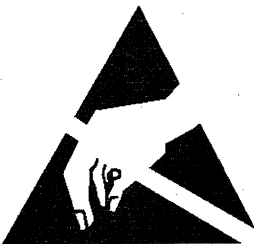
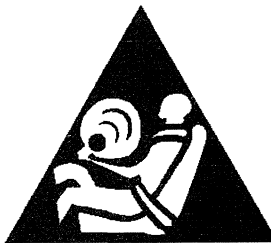
Application	GM SPO Group Number
Cellular Telephone Package	21.444

## Schematic and Routing Diagrams

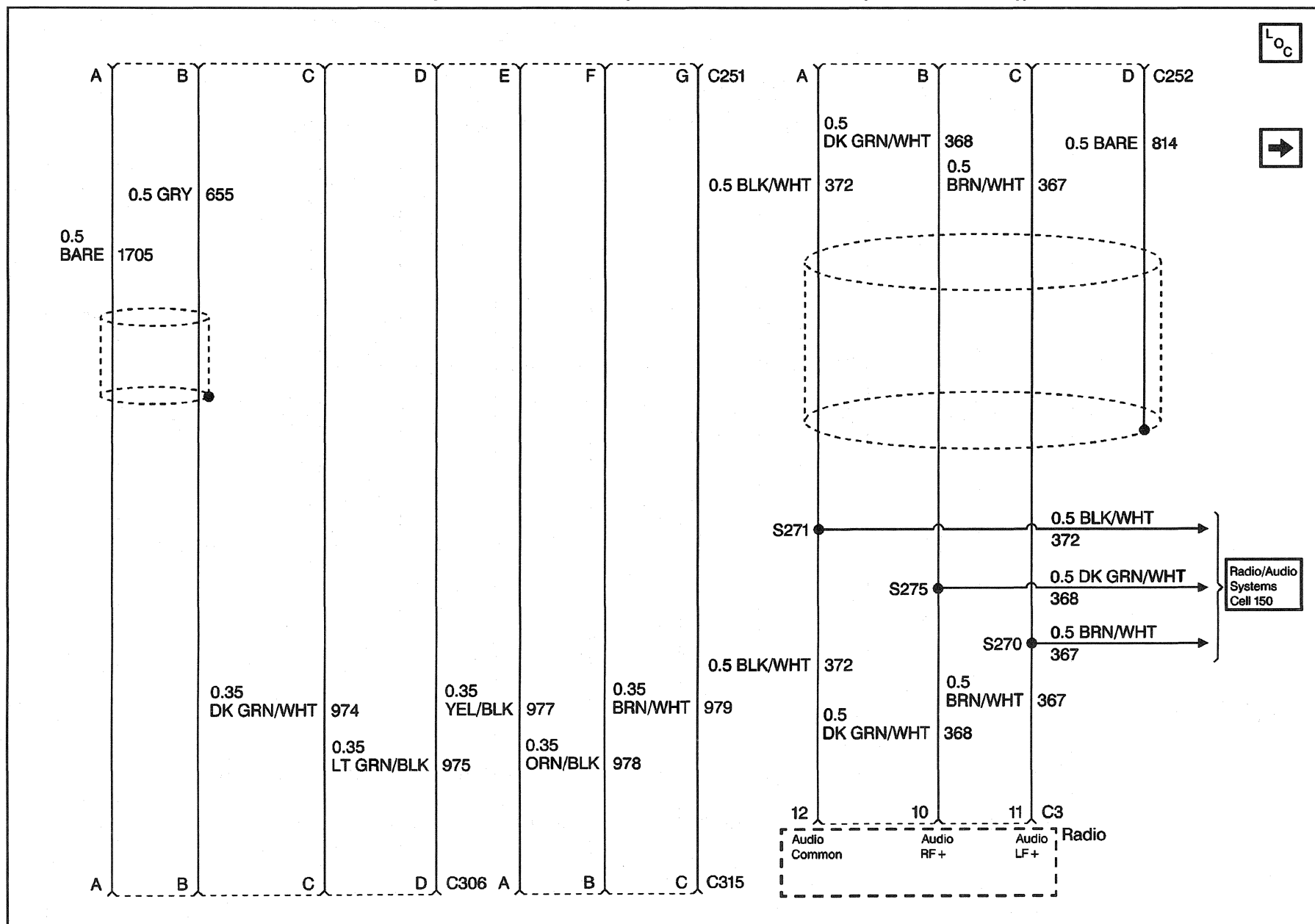
### Cellular Communication Schematic References

Reference on Schematic	Section Number - Subsection Name
Body Control Systems Cell - 51	8 - Wiring Systems
Door Lock Systems Cell - 130	8 - Wiring Systems
Ground Distribution Cell - 14	8 - Wiring Systems
Horns Cell - 40	8 - Wiring Systems
Power Distribution Cell - 10	8 - Wiring Systems
Radio/Audio System Cell - 150	8 - Wiring Systems

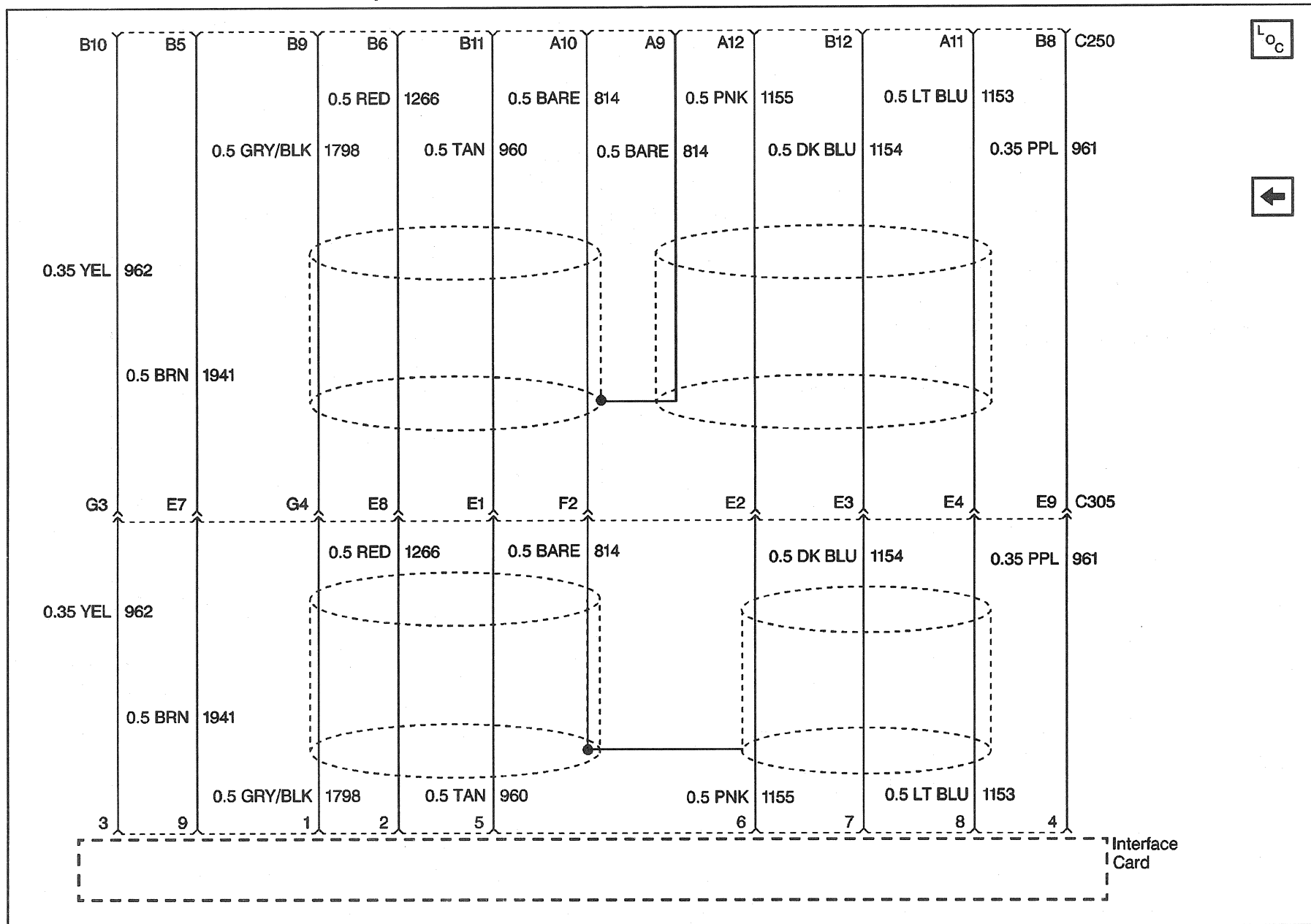
### Cellular Communication Schematic Icons

Icon	Icon Definition
 330402	Refer to <i>ESD Notice</i> in Cautions and Notices.
 19386	Refer to <i>SIR Caution</i> in Caution and Notices.

# Cellular Telephone Schematics (Cellular Inline Harness (C251 and C252))

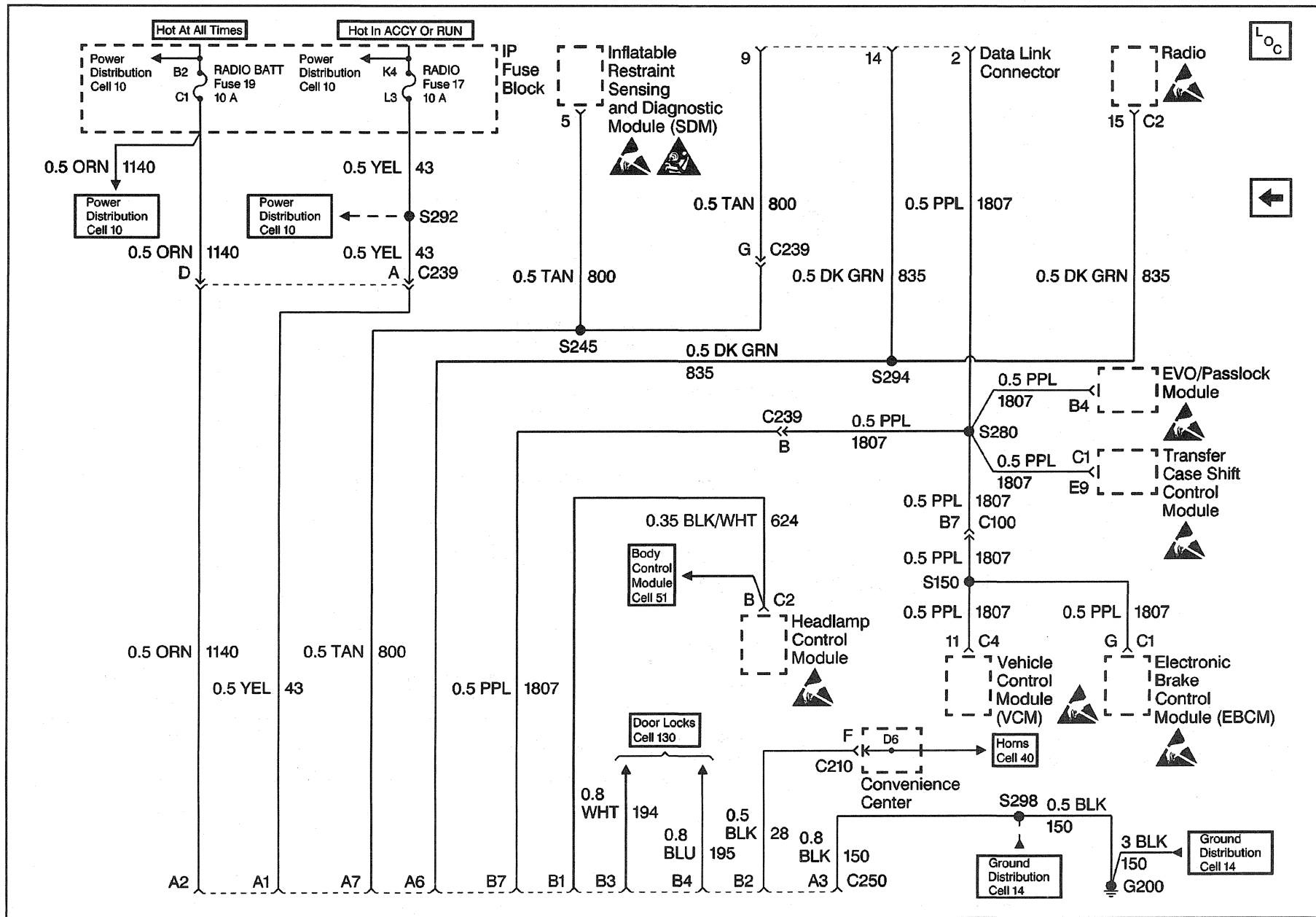


# Cellular Telephone Schematics (Cellular Inline w/Handset (C250 and Interface Card))

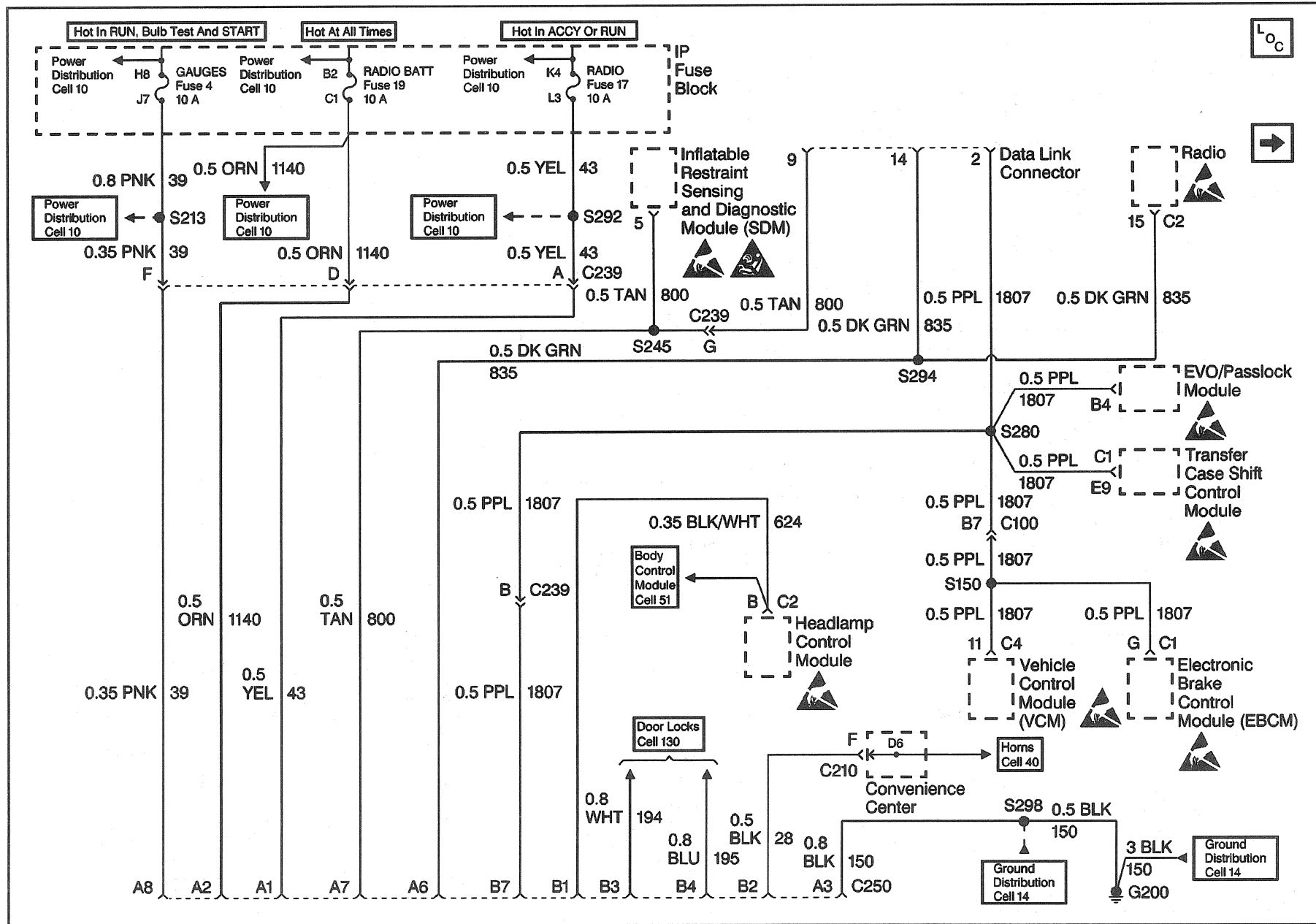




# On-Star Schematics (Luxury w/Handset (C250))



# On-Star Schematics (Escalade 3 Button/Handsfree Cellular (C250))



511636

## Component Locator

## Cellular Communication Components

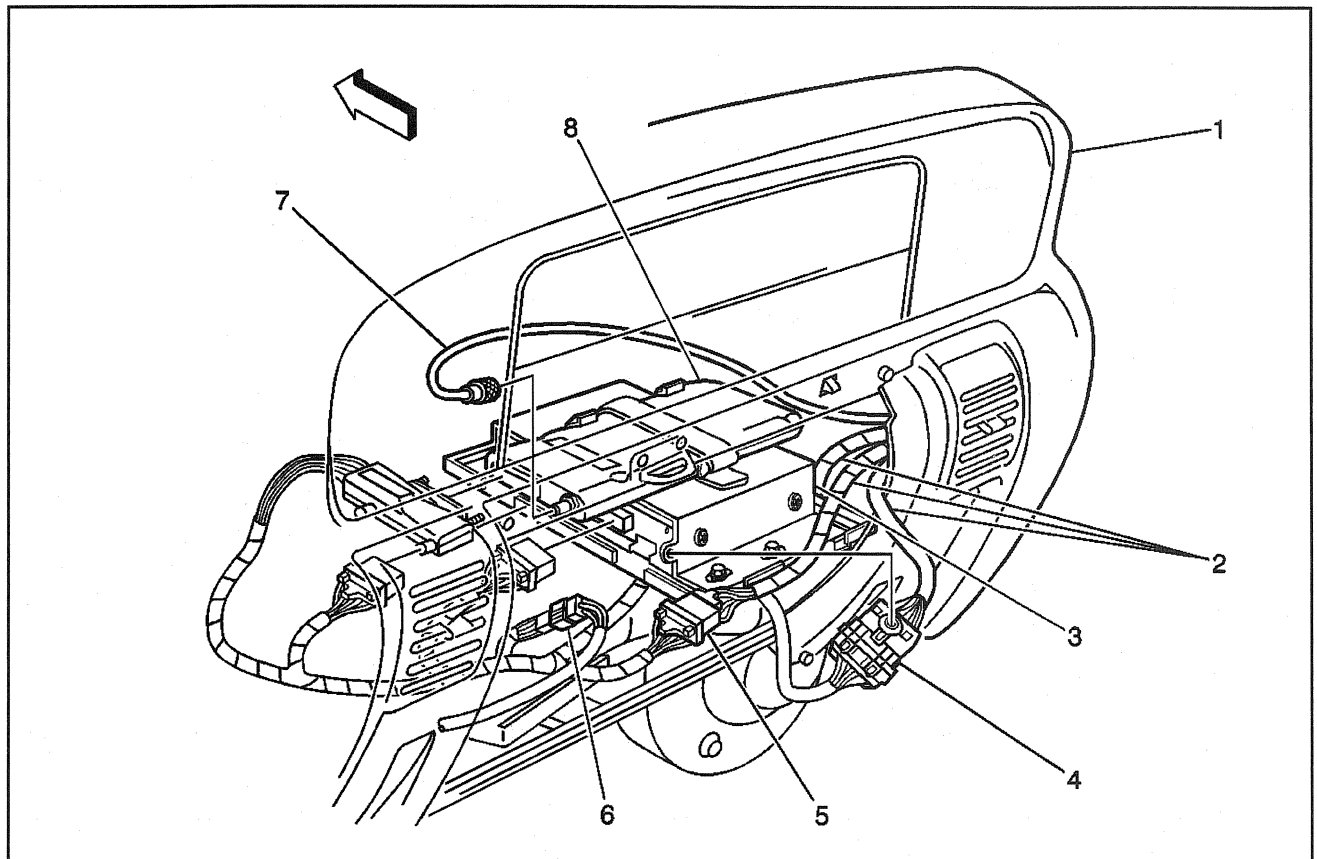
Name	Location	Locator View	Connector End View
Convenience Center	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Data Link Connector (DLC)	Under LH of the IP, left of the steering column, mounted to the bottom of the Knee Bolster	<i>Data Link Communications Component Views in Data Link Communications</i>	<i>Data Link Communications Connector End Views in Data Link Communications</i>
Electronic Brake Control Module (EBCM)	Near Brake Master Cylinder, at LF Wheelhousing	<i>ABS Component Views in ABS/Traction Control</i>	<i>ABS Connector End Views in ABS/Traction Control</i>
Electronic Variable Orifice (EVO)/Passlock Module	Under the center of the IP	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Headlamp Control Module (Luxury)	Lower Left of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Inflatable Restraint Sensing and Diagnostic Module (SDM)	Under Carpet Beneath Drivers Seat	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Interface Card	Inside the Floor Console	<i>Cellular Communication Component Views</i>	<i>Cellular Communication Connector End Views</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Radio	In the center of the IP	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Transfer Case Shift Control Module (ATC)	Under the LH of the IP, near the Convenience Center	<i>Transfer Case Control Component Views in Transfer Case Controls (NP8)</i>	<i>Transfer Case Control Connector End Views in Transfer Case Controls (NP8)</i>
Vehicle Control Module (VCM)	Top of Left inner fender well	<i>Engine Controls Component Views in Engine Controls (5.0L/5.7L)</i>	<i>VCM Connector End Views in Engine Controls (5.0L/5.7L)</i>
C100	Part of the engine harness to IP harness, in the left rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C210	At the Convenience Center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C239	Behind RH of I/P, near heater motor	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C250	Within the IP Dash Assy, behind the IP Compartment Box	<i>Cellular Communication Component Views</i>	<i>Cellular Communication Connector End Views</i>
C251	Within the IP Dash Assy, behind the IP Compartment Box	<i>Cellular Communication Component Views</i>	<i>Cellular Communication Connector End Views</i>
C252	Within the IP Dash Assy, behind the IP Compartment Box	<i>Cellular Communication Component Views</i>	<i>Cellular Communication Connector End Views</i>
C305 (Luxury)	Cross Body harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C306	In the overhead console/to microphone and speaker	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>

## Cellular Communication Components (cont'd)

Name	Location	Locator View	Connector End View
C315	Within the Overhead Console	<i>Cellular Communication Component Views</i>	<i>Cellular Communication Connector End Views</i>
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
S150	Engine harness, approx. 13 cm (5 in) from EBCM breakout	—	—
S213	IP Harness, approx. 4 cm (1.5 in) from the steering column harness breakout, towards the DLC	—	—
S245	Crossbody harness approx. 6.5 cm (2.5 in) from SDM breakout	—	—
S270	Audio Jumper Harness, approx. 27.5 cm (11 in) from the radio harness split, towards the Vehicle Interface Unit (VIU)	—	—
S271	Audio Jumper Harness, approx. 14.5 cm (5.5 in) from the radio harness split, towards the Vehicle Interface Unit (VIU)	—	—
S275	Audio Jumper Harness, approx. 21 cm (8 in) from the radio harness split, towards the Vehicle Interface Unit (VIU)	—	—
S280	IP harness, approx. 5 cm (2 in) from DLC breakout	—	—
S292	IP harness, approx. 22 cm (8.5 in) before the radio harness breakout, from C304	—	—
S294	IP harness, approx. 7 cm (2.5 in) from SIR harness breakout	—	—
S298	IP harness, approx. 24 cm (9.5 in) from instrument cluster breakout, toward radio breakout	—	—

## Cellular Communication Component Views

## Vehicle Communication Unit (VIU) &amp; Vehicle Interface Unit (VIU)

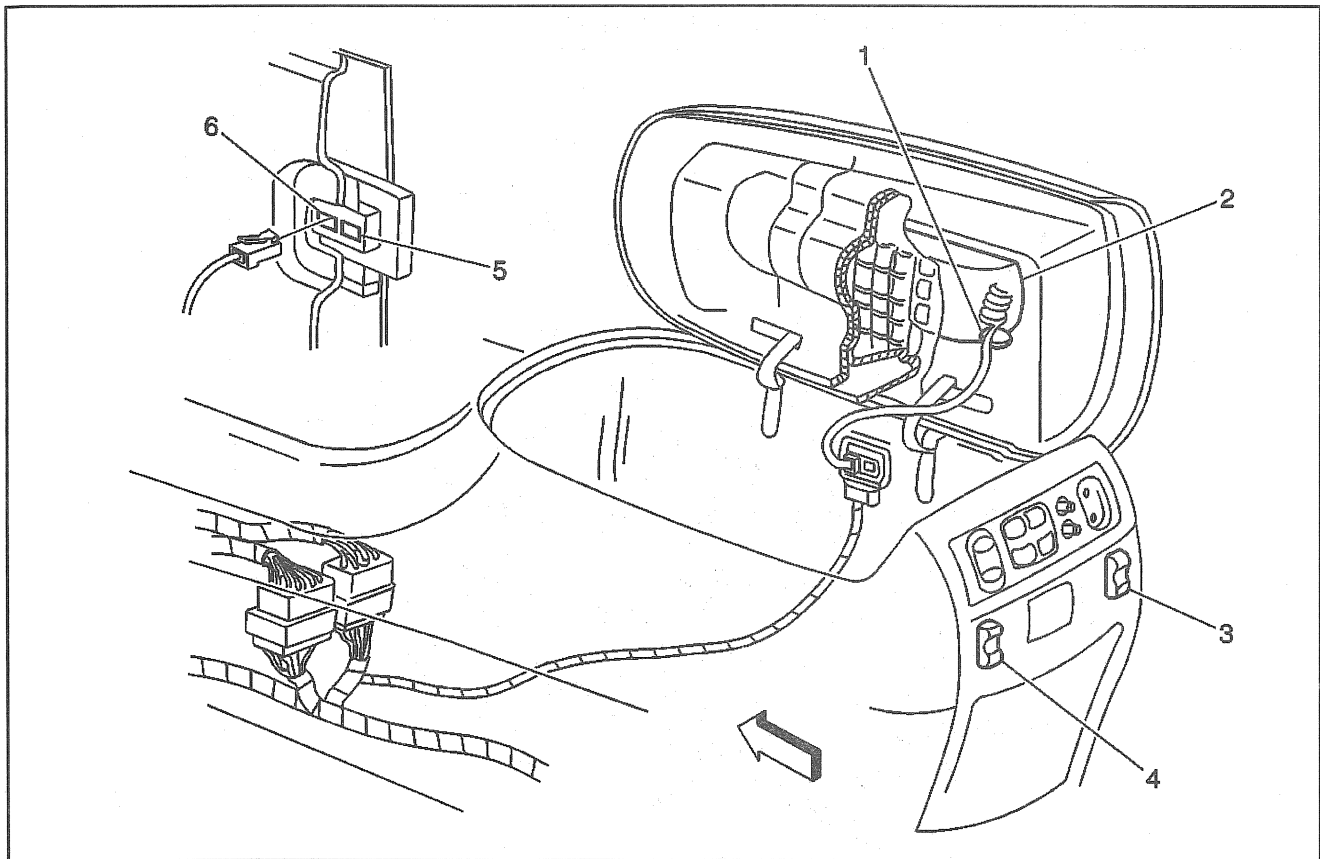


512198

## Legend

- |                                       |                                  |
|---------------------------------------|----------------------------------|
| (1) IP Dash, Passenger Side           | (5) C251                         |
| (2) Crossbody Harness                 | (6) C252                         |
| (3) Vehicle Communications Unit (VCU) | (7) GPS Antenna Cable            |
| (4) C250                              | (8) Vehicle Interface Unit (VIU) |

## Cellular Phone Wiring



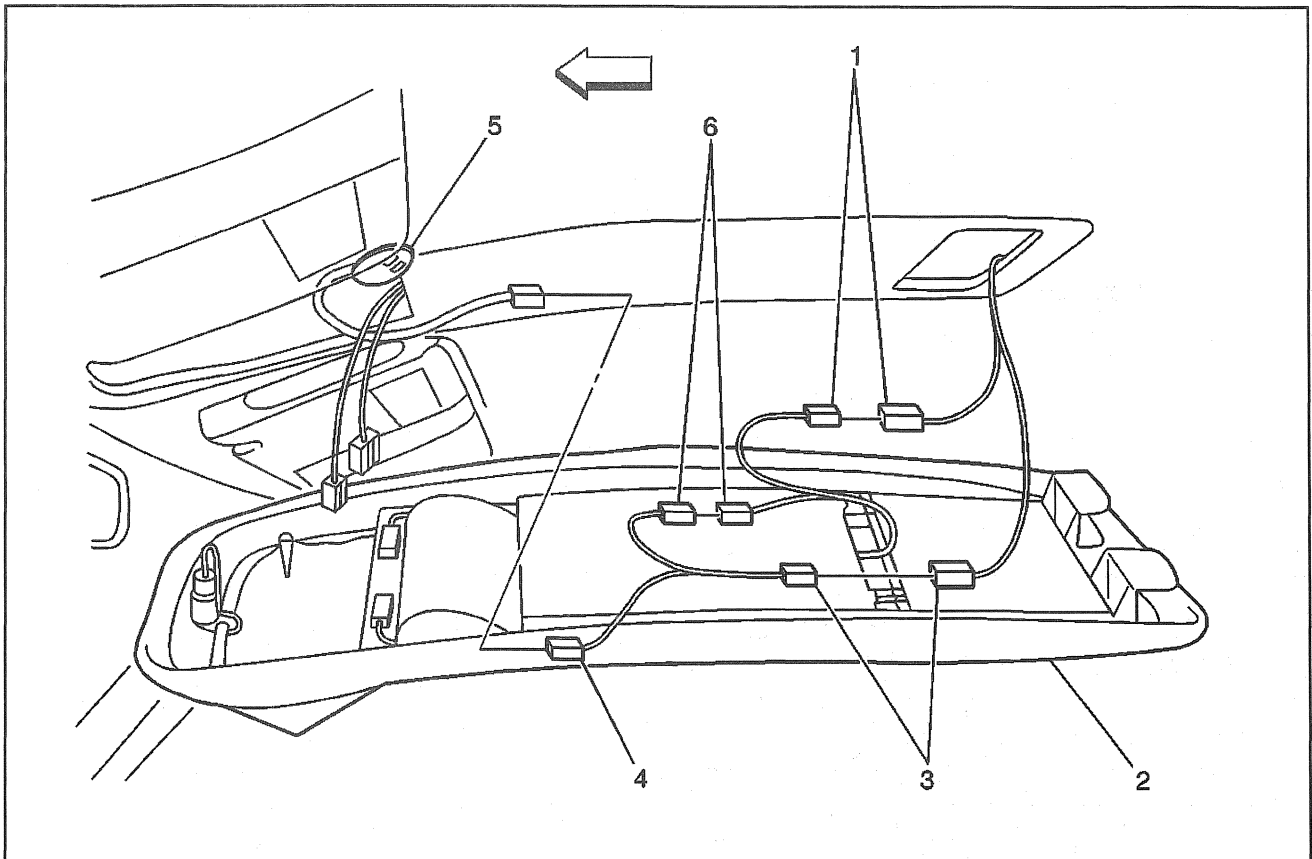
312740

## Legend

- (1) Cellular Phone Connector
- (2) Cellular Phone
- (3) Heated Seat Switch, RR

- (4) Heated Seat Switch, LR
- (5) Modem/Fax Line
- (6) Cellular Phone Connection

## Overhead Console Wiring, Escalade



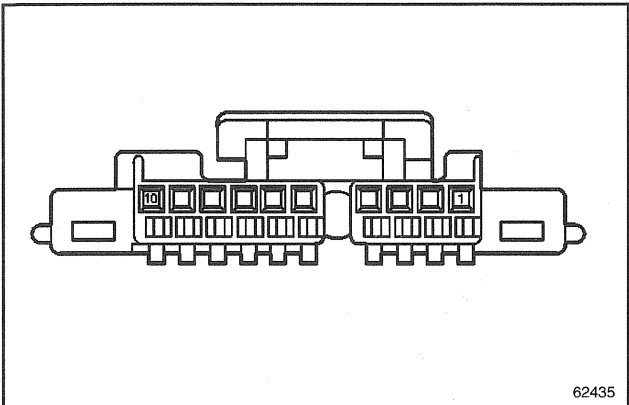
512202

## Legend

- |                      |                          |
|----------------------|--------------------------|
| (1) C315             | (4) Microphone Connector |
| (2) Overhead Console | (5) Microphone           |
| (3) C306             | (6) Keypad Connector     |

Cellular Communication Connector  
End Views

Interface Card Connector



62435

Connector Part Information		• 12047531 • CONN 24F MIC/P 100 (BLK)	
Pin	Wire Color	Circuit No.	Function
1	GRY/BLK	1798	Regulated Power to Handset
2	RED	1266	VCU to Interface Card
3	YEL	962	5v Square Wave
4	PPL	961	Ground
5	TAN	960	5v Square Wave
6	PNK	1155	Ground
7	DK BLU	1154	1v AC Audio Signal Rides on 4v Bias Voltage
8	LT BLU	1153	1v AC Audio Signal Rides on 2.3v Bias Voltage
9	BRN	1941	Fuse Output- Ignition III-Type III Fuse
10	—	—	Not Used

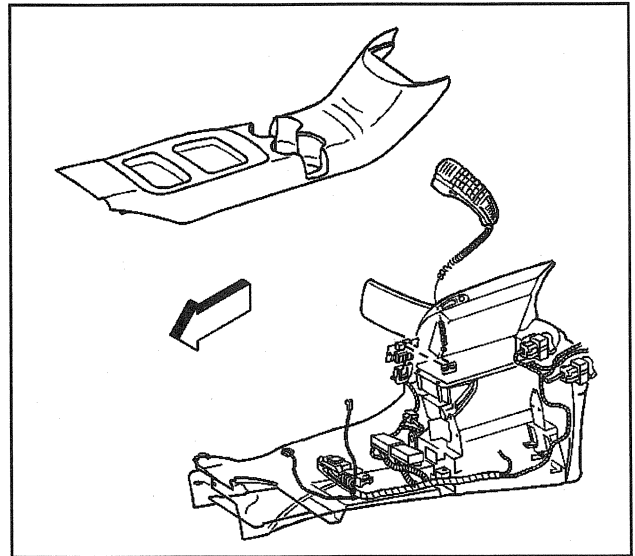


## Repair Instructions

### Cellular Telephone Replacement

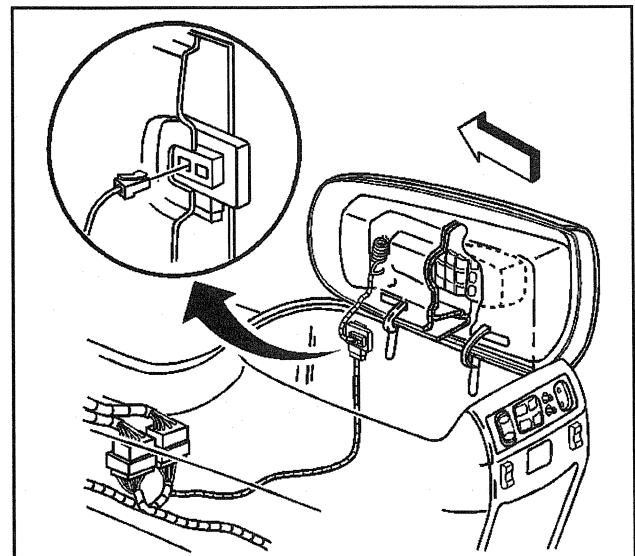
#### Removal Procedure

1. Remove cellular phone from console by opening the top of the console door and lifting phone from console.

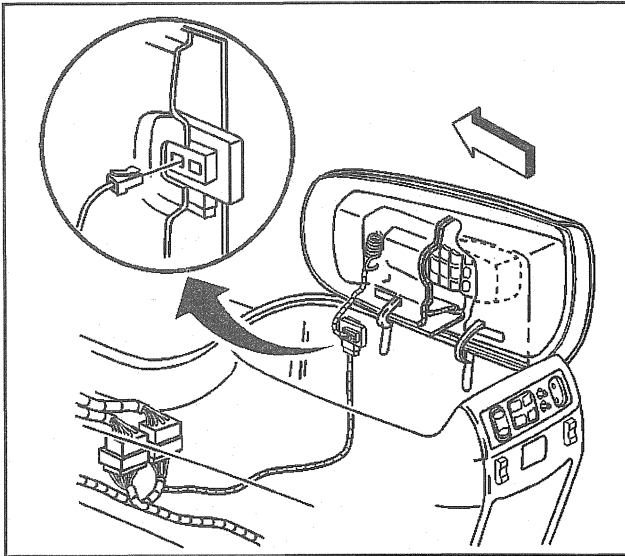


288791

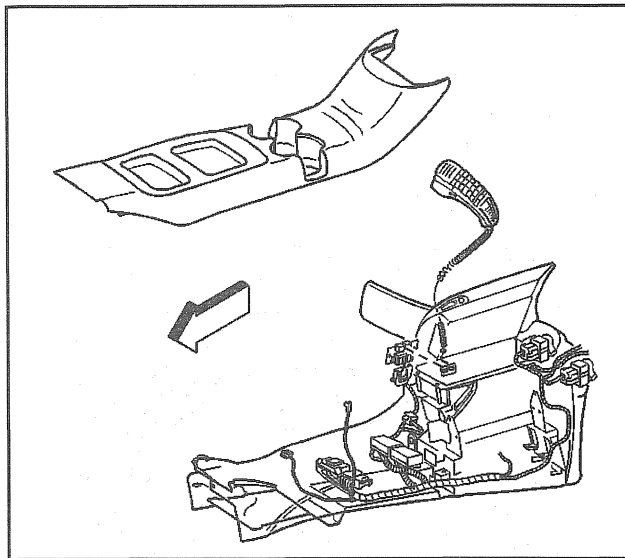
2. Remove cellular phone connector from console.



318969



318969



288791

**Installation Procedure**

1. Install cellular phone connector to console.
2. Install cellular phone to console by opening the top of the console door and placing phone into console.

**Description and Operation****Cellular Telephone Description**

The vehicle has been prewired for the dealer installation of a cellular telephone. A fixed mobile system is available. Voice activation and hands-free operation are standard features. A user's guide is provided with the telephone.

# Body Control System

## Specifications

### GM SPO Group Numbers

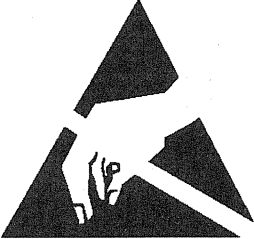

Application	GM SPO Group Number
Body Control Module	3.670

## Schematic and Routing Diagrams

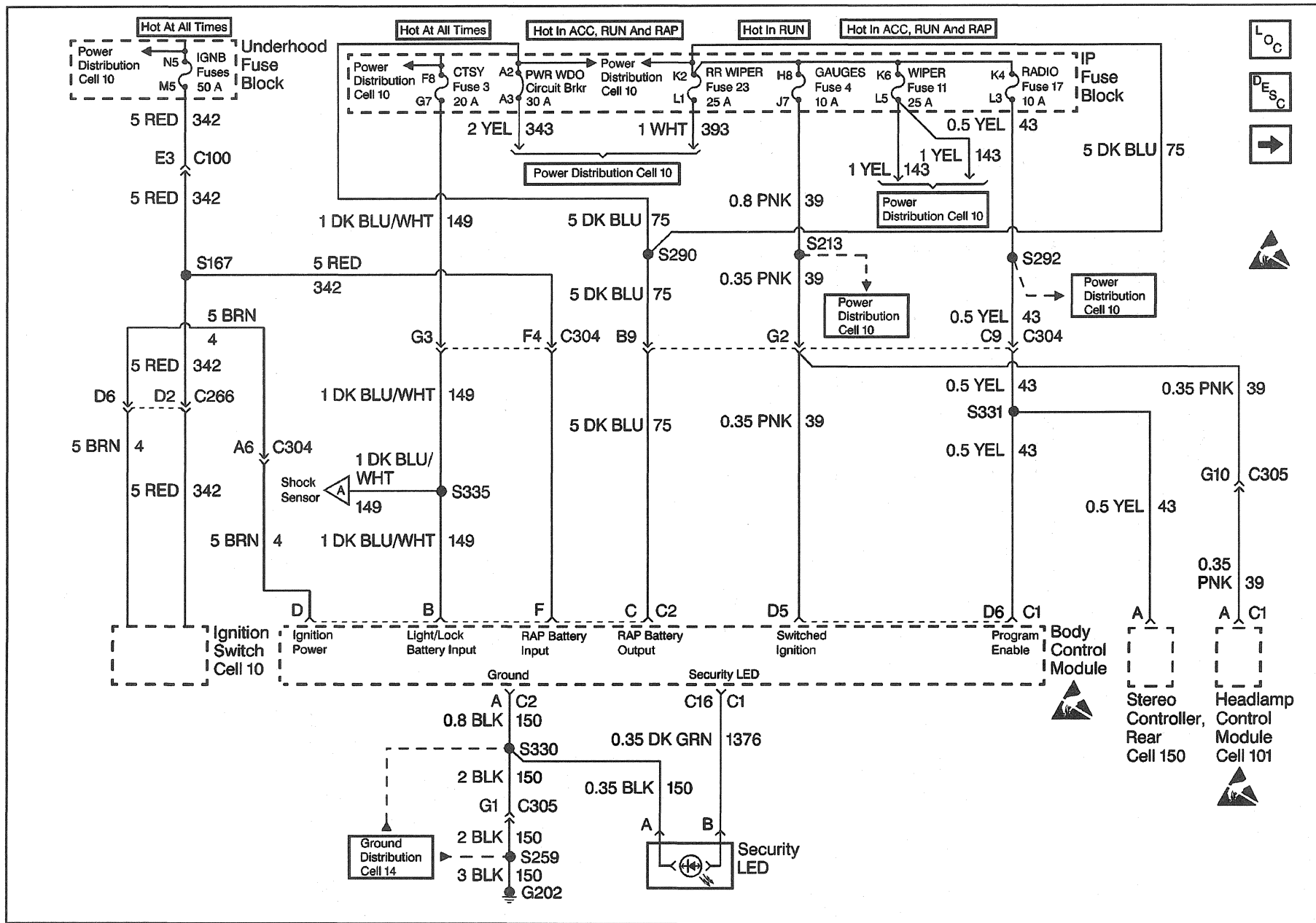
### Body Control Module Schematic References

Reference on Schematic	Section Number - Subsection Name
Exterior Lights Cell - 110	8 - Wiring Systems
Fuse Block Details Cell - 11	8 - Wiring Systems
Ground Distribution Cell - 14	8 - Wiring Systems
Headlights Twilight Sentinel/DRL Cell - 101	8 - Wiring Systems
Horns Cell - 40	8 - Wiring Systems
Interior Lights Cell - 114	8 - Wiring Systems
Power Distribution Cell - 10	8 - Wiring Systems

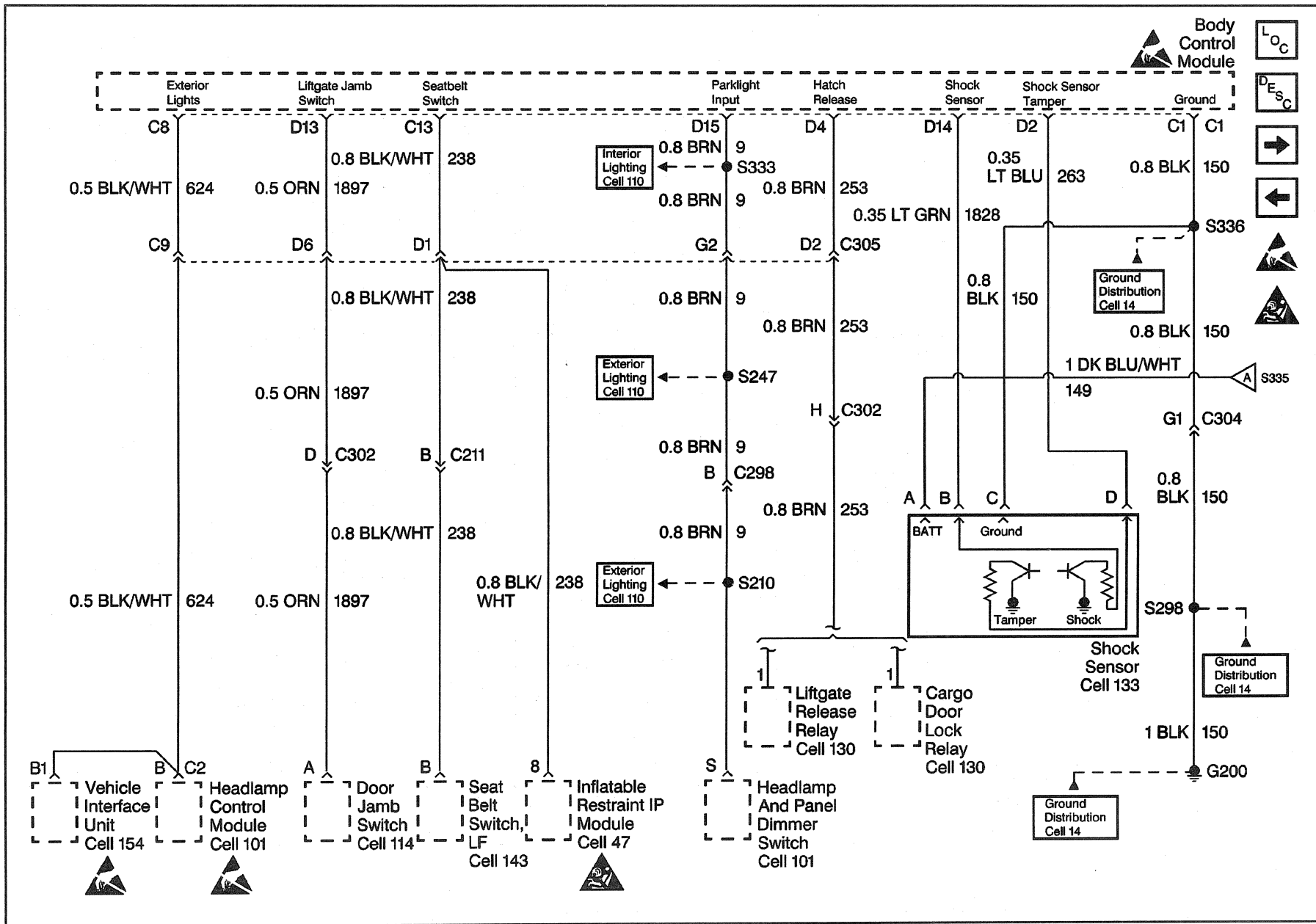
### Body Control Module Schematic Icons

Icon	Icon Definition
 330402	Refer to <i>ESD Notice</i> in Cautions and Notices.
 330405	Refer to <i>SIR Service Precautions Caution</i> in Cautions and Notices.

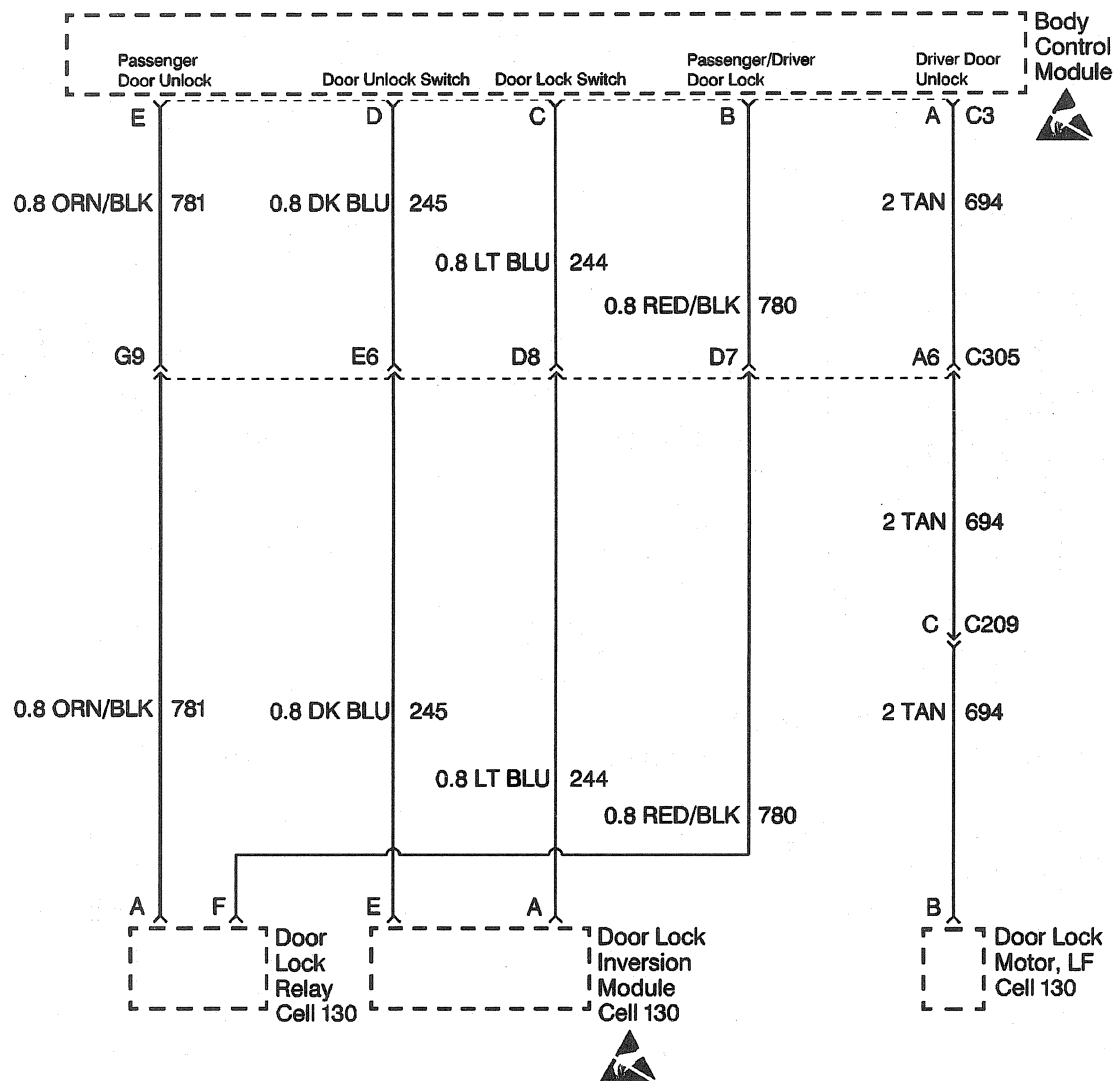
# Body Control Module Schematics (Fuses, Stereo Controller Rear and Headlamp Control Module)



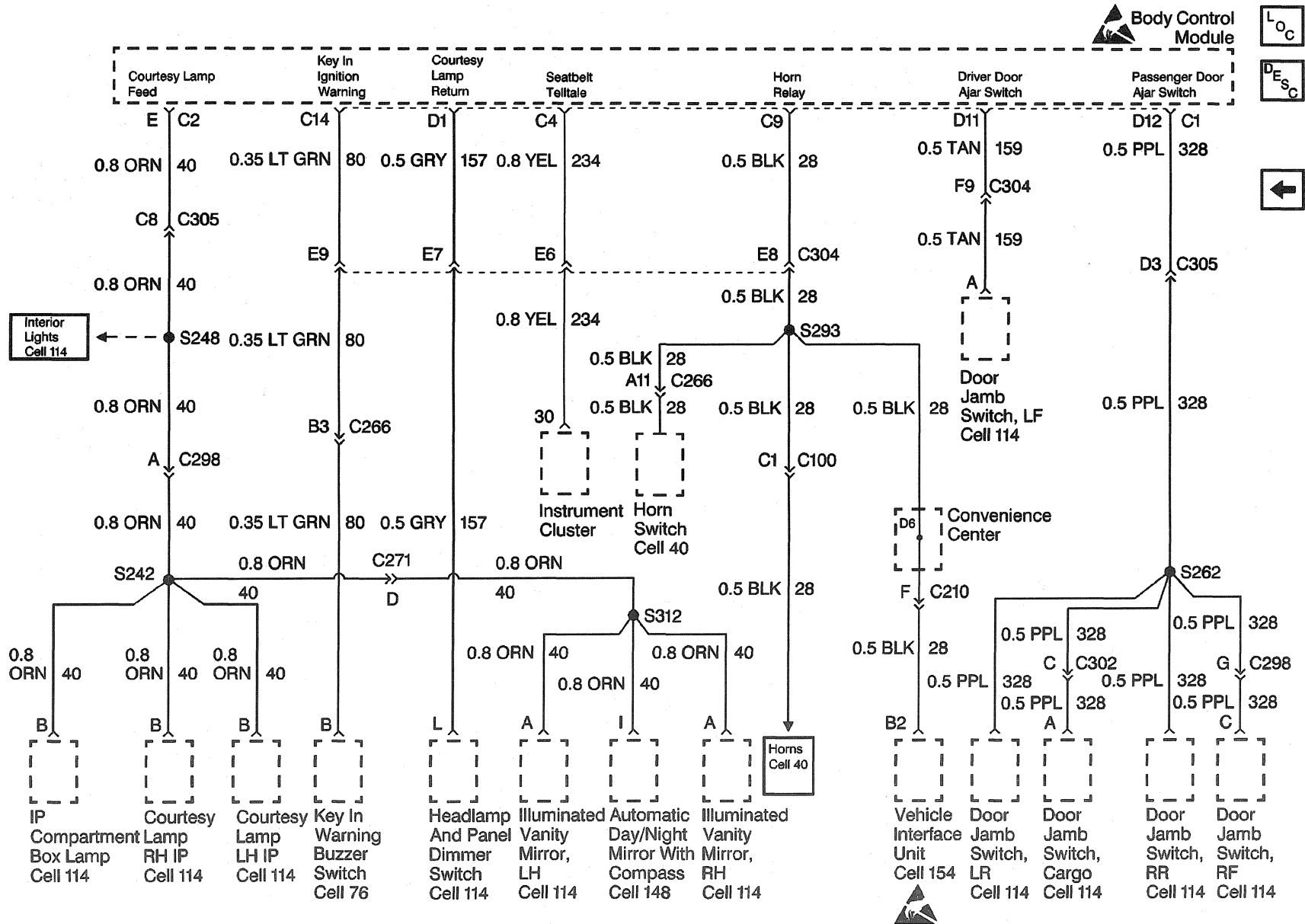
# Body Control Module Schematics (Shock Sensor, Cargo Door Lock and Seat Belt Switch)



# Body Control Module Schematics (Door Lock Motor and Door Lock Inversion Module)



# Body Control Module Schematics (Door Jamb Switches, Vanity Mirrors and Courtesy Lamps)



## Component Locator

## Body Control Module Components

Name	Location	Locator View	Connector End View
Automatic Day-Night Mirror with Compass	On the top inside center of the windshield, part of the inside rearview mirror	<i>Stationary Windows Component Views in Stationary Windows</i>	<i>Stationary Windows Connector End Views in Stationary Windows</i>
Body Control Module (BCM) (Luxury)	In the center floor console	<i>Body Control Module Component Views</i>	<i>Body Control Module Connector End Views</i>
Cargo Door Lock Relay	In the rear door	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Convenience Center	Under the left side of the IP, on the bulkhead	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Courtesy Lamp, Left Side IP	Under the left side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Courtesy Lamp, Right Side IP	Under the right side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Cargo	At the rear body opening, part of the right rear cargo door contactor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Liftgate	Inside the liftgate door	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Left Front	At the left end of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Left Rear	At the center inside edge of the left side B Pillar	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Right Front	At the right end of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Jamb Switch, Right Rear	At the center inside edge of the right side B pillar	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Door Lock Inversion Module	Left side of the IP, Inside the IP Support Bracket	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Door Lock Relay	Under the center of the IP, near the remote control door lock receiver	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Headlamp and Panel Dimmer Switch	Lower Left side of the IP	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Horn Switch	At the top of the steering column, under the steering wheel pad	<i>Horns Component Views in Horns</i>	<i>Horns Connector End Views in Horns</i>
Ignition Switch	IP Steering Column, under Lock Cylinder	<i>Standard Wheel/Column Component Views in Steering Wheel and Column</i>	<i>Standard Wheel/Column Connector End Views in Steering Wheel and Column</i>
Inflatable Restraint IP Module	RH of IP, above IP Compartment Box	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>
Inflatable Restraint IP Module Switch (Pickup)	Center of IP	<i>SIR Component Views in SIR</i>	<i>SIR Connector End Views in SIR</i>



## Body Control Module Components (cont'd)

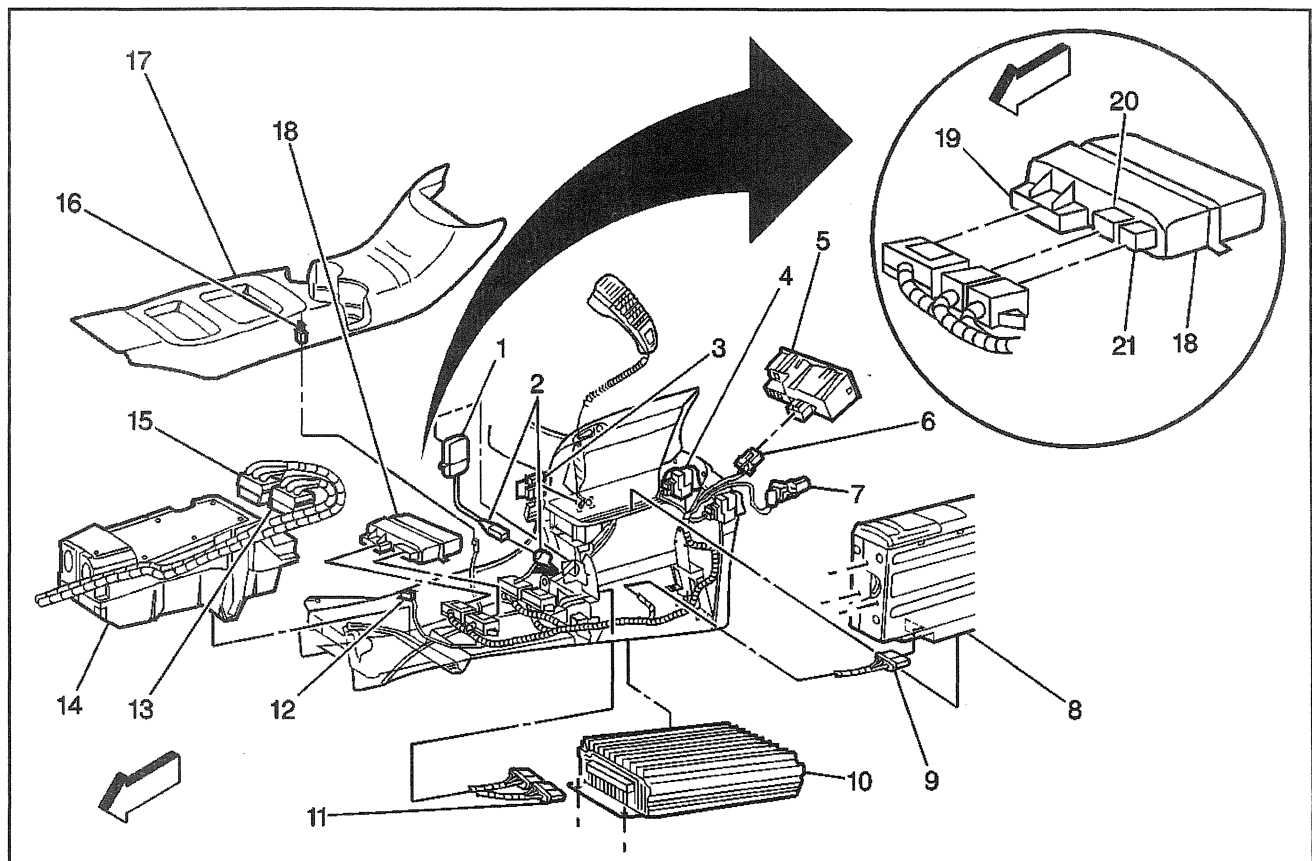
Name	Location	Locator View	Connector End View
Instrument Cluster	On the upper left end of the IP, above the steering column	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
IP Fuse Block	To the left of the IP, near the left front door jamb switch	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Key-In Warning Buzzer Switch	In the steering column	<i>Instrument Cluster Component Views in Instrument Panel and Console</i>	<i>Instrument Cluster Connector End Views in Instrument Panel and Console</i>
Liftgate Release Relay	Right center of liftgate	<i>Power Door Systems Component Views in Doors</i>	<i>Power Door Systems Connector End Views in Doors</i>
Seat Belt Switch, LF	Inside the Left Front Seat Belt Buckle	<i>Power Seat Systems Component Views in Seats</i>	<i>Power Seat Systems Connector End Views in Seats</i>
Security LED (Luxury)	Top Center of the Center Floor Console	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Shock Sensor (Luxury)	In the Center Floor Console	<i>Theft Deterrent System Component Views in Theft Deterrent</i>	<i>Theft Deterrent System Connector End Views in Theft Deterrent</i>
Stereo Controller, Rear	In the center Console	<i>Entertainment Component Views in Entertainment</i>	<i>Entertainment Connector End Views in Entertainment</i>
Sunshade Mirror Lamp, Left Side	Part of the left side sunvisor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Sunshade Mirror Lamp, Right Side	Part of the right side sunvisor	<i>Lighting Systems Component Views in Lighting Systems</i>	<i>Lighting Systems Connector End Views in Lighting Systems</i>
Underhood Fuse Block	In the left rear side of the engine compartment, on the fender	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
Vehicle Interface Unit	Under the RR seat	<i>Power and Grounding Component Views in Wiring Systems</i>	<i>Power and Grounding Connector End Views in Wiring Systems</i>
C100	Part of the engine harness to IP harness, in the left rear side of the engine compartment, at the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C209	Inside the lower left side A pillar	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C210	At the convenience center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C211	Under the left front seat	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C266	Part of the IP harness to steering column harness, to the left side of the steering column, near the bulkhead	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C271	IP harness to Roof Lamp & Mirror harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C298	Behind the left side of the IP, near the convenience center	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>

## Body Control Module Components (cont'd)

Name	Location	Locator View	Connector End View
C302	At the LF kick panel	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C304 (Luxury)	IP harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
C305 (Luxury)	Cross Body harness, Inline to Floor Console harness	<i>Harness Routing Views in Wiring Systems</i>	<i>Inline Harness Connector End Views in Wiring Systems</i>
G200	Behind the left side of the IP, below the fuse block, on the tie bar	<i>Power and Grounding Component Views in Wiring Systems</i>	—
G202	On the right side of the instrument panel, mounted to the HVAC plenum bracket	<i>Power and Grounding Component Views in Wiring Systems</i>	—
S167 (All Except Z56, Police Package/Luxury)	Engine harness, approx. 18 cm (7 in) from G115	—	—
S167 (Z56 Police Package/Luxury Only)	Battery harness, approx. 35 cm (13.5 in) from C121	—	—
S210 (Gas)	IP harness, approx. 4 cm (1.5 in) from auxiliary power outlet breakout	—	—
S210 (Diesel)	IP harness, approx. 14 cm (5.5 in) from steering column harness breakout	—	—
S213	IP harness, approx. 4 cm (1.5 in) from steering column harness breakout, towards the DLC	—	—
S247	Crossbody harness, approx. 6 cm (2.5 in) into LH door harness breakout	—	—
S259	Crossbody harness, approx. 7 cm (2.5 in) into seat belt switch harness, toward C212	—	—
S290	IP harness, approx. 8 cm (3 in) before the radio harness breakout, from C304	—	—
S292	IP harness, approx. 22 cm (8.5 in) before the radio harness breakout, from C304	—	—
S298	IP harness, approx. 24 cm (9.5 in) from instrument cluster breakout, toward radio breakout	—	—
S330	Floor console harness approx. 13 cm (5 in) from LH heated seat switch breakout	—	—
S333	Floor console harness approx. 12 cm (4.5 in) from CD player harness breakout	—	—
S335	Floor console harness approx. 5 cm (2 in) from C304 harness breakout, towards the BCM	—	—
S336	Floor console harness approx. 5 cm (2 in) from cross body incline connector harness breakout	—	—

## Body Control Module Component Views

## Body Control Module



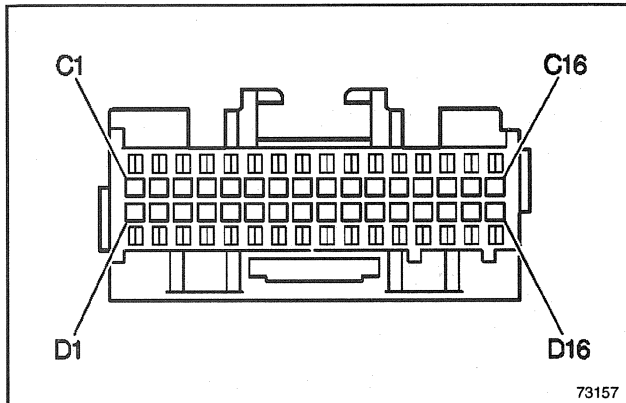
340136

## Legend

- |   |   |
|---|---|
| (1) Shock Sensor                            | (12) Sub Woofer Connector               |
| (2) Shock Sensor Connector                  | (13) C304                               |
| (3) Vehicle Communication Unit              | (14) Sub Woofer                         |
| (4) Heated Seat Switch Rear Connector       | (15) C305                               |
| (5) Stereo Controller, Rear                 | (16) Security LED                       |
| (6) Stereo Controller, Rear Connector       | (17) Console Trim Cover                 |
| (7) Auxiliary Power Connector, Rear Console | (18) Body Control Module C1, C2, and C3 |
| (8) CD Changer                              | (19) BCM, C1                            |
| (9) CD Changer Connector                    | (20) BCM C2                             |
| (10) Audio Amplifier                        | (21) BCM, C3                            |
| (11) Audio Amplifier Connectors             |   |

### Body Control Module Connector End Views

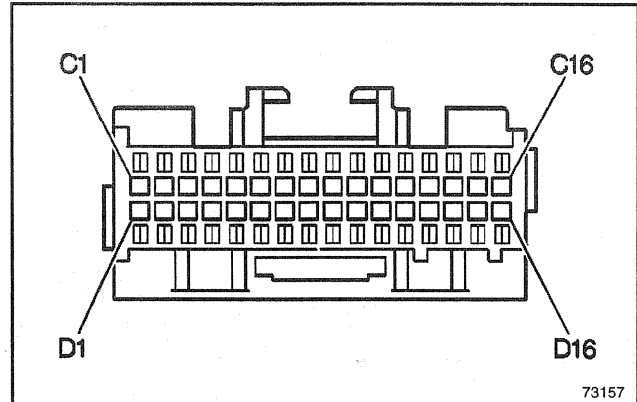
BCM Module C1



73157

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110207</li> <li>• 32F MIC/P 100 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
C1	BLK	150	Ground
C2-C3	—	—	Not Used
C4	Yel	234	Seat Belt Indicator Lamp Output
C5-C7	—	—	Not Used
C8	BLK/WHT	624	Vehicle Anti-Theft System signal - Headlamp Alarm
C9	BLK	28	Horn Relay Output - Coil
C10-C12	—	—	Not Used
C13	BLK/WHT	238	Seat Belt Switch Signal
C14	LT GRN	80	Key Reminder Switch Signal
C15	—	—	Not Used
C16	DK GRN	1376	Security Signal - Alarm Armed
D1	GRA	157	Interior Lamp Output
D2	KT BLU	263	Tamper Switch Signal
D3	—	—	Not Used
D4	BRN	253	Liftgate Release Relay Feed - Coil
D5	PNK	39	Liftgate Release - Ignition 3 Type III Fuse
D6	YEL	43	Fuse Output Accessory Type III Fuse
D7-D10	—	—	Not Used
D11	TAN	159	Key Reminder Switch Output
D12	PPL	328	Interior Lamp Defeat Switch Output

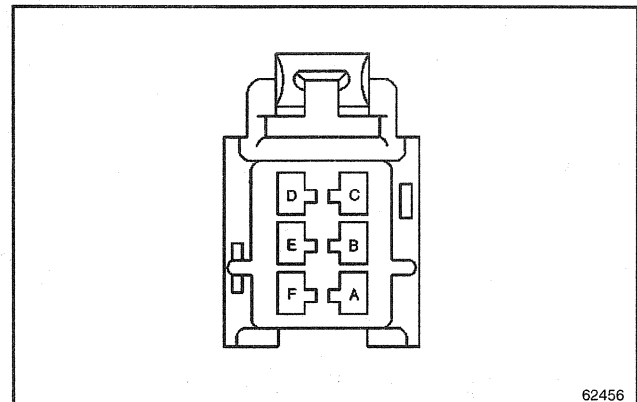
BCM Module C1 (cont'd)



73157

Connector Part Information		<ul style="list-style-type: none"> <li>• 12110207</li> <li>• 32F MIC/P 100 (BLU)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
D13	ORN	1897	Door Ajar Switch Signal - Right
D14	LT GRN	1828	Security Signal - Shock Sensor
D15	BRN	9	Park Lamp Feed
D16	—	—	Not Used

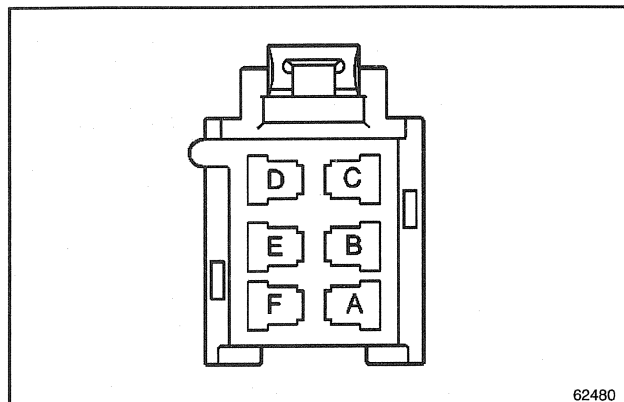
BCM Module C2



62456

Connector Part Information		<ul style="list-style-type: none"> <li>• 12064752</li> <li>• 6F M/P 280 Series (BLK)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	BLK	150	Ground
B	DK BLU/ WHT	149	Courtesy Lamp Feed
C	DK BLU	75	Delayed Accessory Bus Relay Output
D	BRN	4	Ignition Switch Output - Accessory
E	ORN	40	Fuse Output - Battery - Type III Fuse
F	RED	342	Fuse Output - Battery - Type III Fuse

BCM Module C3



62480

Connector Part Information		<ul style="list-style-type: none"> <li>• 12089527</li> <li>• 6F (GRN)</li> </ul>	
Pin	Wire Color	Circuit No.	Function
A	TAN	694	Power Door Lock Motor Feed - Driver Power Door Switch Lock on Lock
B	RED/BLK	680	Power Door Lock Switch - Output Switch - Lock Passenger
C	LT BLU	244	Power Door Lock Switch - Output Switch - Lock Passenger Switch
D	DK BRN	245	Power Door Lock Switch - Output Switch - Unlock Passenger Switch
E	ORN/BLK	781	Power Door Lock Switch - Output Driver Switch - Unlock
F	—	—	Not Used

## Diagnostic Information and Procedures

### Intermittents and Poor Connections

Faulty electrical connections and faulty wiring cause most intermittent faults. However, a damaged Passlock™/electronic variable orifice module can occasionally be the cause. Refer to Intermittent and Poor Connections for a detailed explanation of locating and repairing intermittent conditions.

### Diagnostic Trouble Code (DTC) Displaying

#### Entry Into Diagnostics

In the diagnostic mode, the BCM displays any diagnostic trouble codes (DTCs) that are stored in memory. The DTCs are displayed as flash codes through the security LED indicator lamp on the console. During normal operation, if the BCM detects a fault in a monitored system, there is no flash code to indicate to the customer that a fault has occurred. However, the driver may detect a system malfunction. System faults are stored by the BCM as CURRENT or HISTORY DTCs. A current DTC means that a fault was present when the diagnostic mode was entered. A history DTC indicates that the following conditions occurred:

- A fault occurred sometime after the BCM was installed in the vehicle.
- A fault occurred since the last time the DTCs were cleared.
- The fault may not be currently present.

If a current DTC is stored, the associated history DTC will always be stored.

When working on systems that are controlled by the BCM, the technician should always refer to this section and check for DTCs.

Enter diagnostics by performing the following steps:

- Turn the ignition switch to the RUN position in order to disarm the universal theft deterrent system, if equipped.
- Turn the ignition switch to the OFF position.
- Remove the RADIO fuse 17 from the instrument panel fuse block.
- Turn the ignition switch to the ACC position.  
This action will enter the program mode.  
Two audible warning tones will occur for mode verification.
- Within 5 seconds, turn the ignition switch to the OFF position. Immediately (within one second) turn the ignition switch back to the ACC position.  
This action will enter the diagnostic mode.  
Three audible warning tones will occur for mode verification.

The BCM will begin to flash DTCs 4 seconds after entering the diagnostic mode. Each flash of the security LED indicator lamp on the console represents a number. For example, one flash followed by two quick flashes represents a code 12. Each code is displayed 3 times before the next code is displayed. Stored DTCs are displayed in numerical order. Once the last code is displayed, the list begins over again with the first code. The display continues until the diagnostic mode is exited.

While in the diagnostic mode, a transition of certain BCM inputs from active to inactive, or vice versa, will cause the BCM to actively respond. For example, if a door lock switch is depressed the BCM will perform the following actions:

1. Flash the FASTEN SEATBELT indicator.
2. Sound a single audible warning tone.

The BCM will also respond in the same way if the rear compartment lid or a door is opened or closed. This is due to the transition at the door jamb switch or the rear compartment lid ajar indication switch input. In all cases, the BCM will also attempt to perform the operation normally performed by the switch transition.

The BCM will also respond to a change at either the shock sensor tamper input or the shock sensor shock input. The tamper input is activated by minor blows to the vehicle. The shock input is activated by heavy blows to the vehicle, or by tapping on the exposed shock sensor. In the diagnostic mode, if either the tamper input or the shock input becomes active the following actions will occur:

- The BCM will activate the horn relay.
- The horn relay will cause the horns to chirp.
- The BCM will sound an audible warning tone.

Any transition at the interior lamps command input while in the diagnostic mode will cause the BCM to perform the following actions:

- Flash the FASTEN SEATBELT indicator lamp.
- Sound an audible warning tone.
- Flash the courtesy lamps.

The above actions can be caused by such transitions as switching the interior lamps switch to the ON or OFF position.

On vehicles equipped with universal theft deterrent, each transition at the interior lamps command input will cause the BCM to step through the following actions:

#### Diagnostic Trouble Code (DTC) Displaying

Step	Operation
1	Courtesy lamps flash
2	Horns chirp
3	Exterior lights flash

#### DTC Display Order

In the diagnostic mode, diagnostic trouble codes (DTCs) are displayed in numerical order. The first DTC displayed is always DTC 12, followed by any current DTCs (21 to 24) or any history DTCs (31 to 34). Remote control door lock transmitter diagnostic DTCs (41 to 45) will then be displayed if activated while in the diagnostic mode. The last DTC displayed is the begin configuration display (55). The first number following DTC 55 is the hardware configuration. The second number is the software configuration. DTC 55 and the 2 configuration numbers are always displayed. After the configuration numbers are displayed, the entire list is repeated beginning with DTC 12. System faults are stored as current or history DTCs. When working on systems controlled by the body control module, always refer to this section and test for DTCs.

#### Clearing DTCs

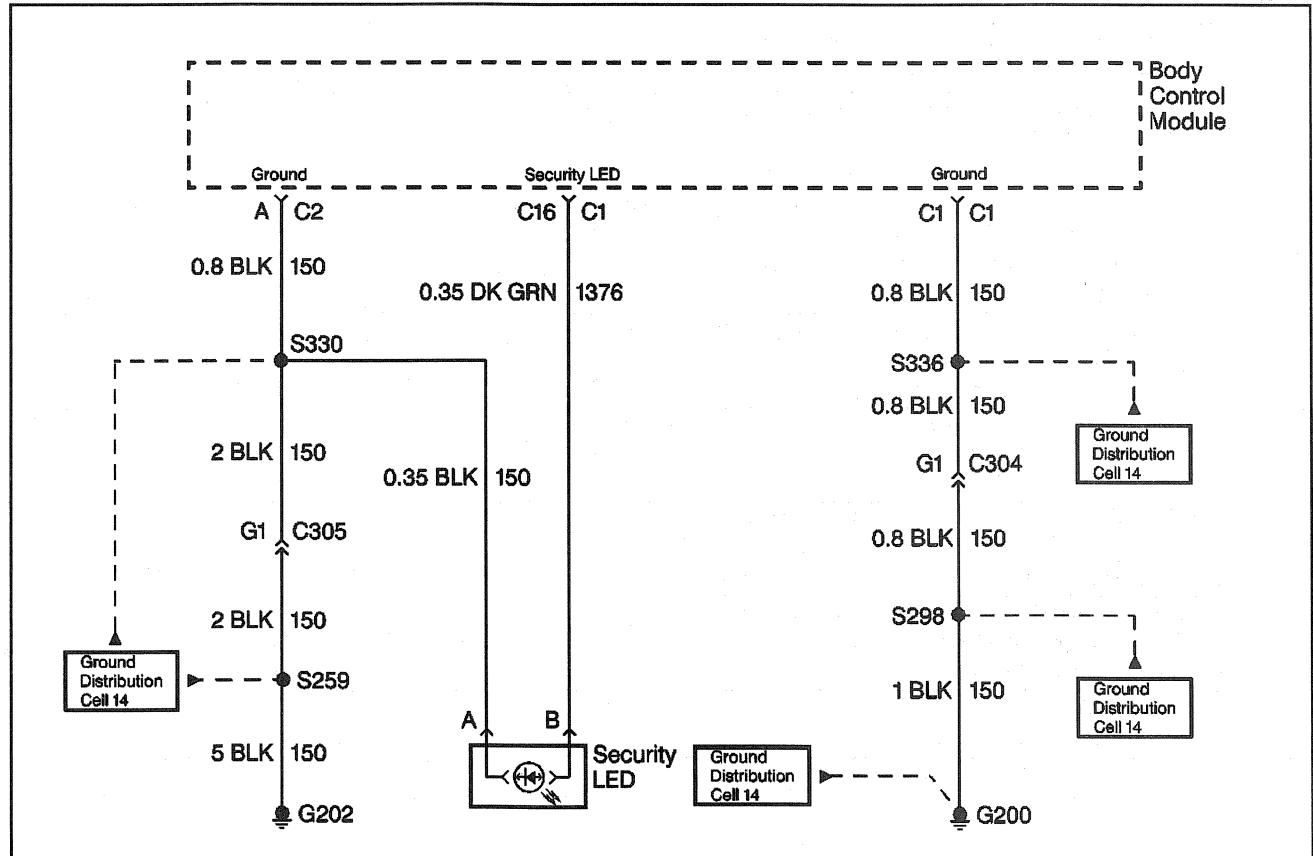
##### Clearing BCM DTCs

Current DTCs (21 to 24) are displayed as long as the BCM detects the fault to be current in the diagnostic mode. History DTCs (31 to 34) remain stored by the body control module (BCM) until cleared. Current and history DTCs can be cleared by depressing and holding the door lock switch in the unlock position for 4 seconds while the BCM is in the diagnostic mode. After 4 seconds, an audible warning tone will sound 3 times confirming that the DTCs have been cleared.

#### Diagnostic Trouble Code (DTC) List/Type

DTC	Description
12	Diagnostic system check
21/31	Courtesy lamps feed (circuit shorted to ground)
22/32	Courtesy lamps return (circuit shorted to B+)
23/33	Retained accessory power (circuit shorted to ground or B+)
24/34	FASTEN SEATBELT indicator lamp (circuit shorted to ground or B+)
41	Last transmitter message received valid
42	Last transmitter message received had invalid ID
43	Last transmitter message received had sumcheck error
44	Last transmitter message received had encryption error
45	Receiver processing currently in 20 second lockout
55	Begin configuration display

## DTC 12 Diagnostic System Check



337121

### Circuit Description

Voltage is supplied to the security LED indicator lamp on the console from the body control module (BCM) thru the following areas:

- The IGN B Fuse in the underhood fuse block 7
- CKT 1376

Voltage is supplied by the body control module (BCM) through CKT 1376 to the security LED indicator lamp when the ignition switch is in one of the following positions:

- BULB TEST
- RUN

The security LED indicator lamp illuminates for approximately 5 seconds in order to verify the circuit operation.

The BCM also utilizes the security LED indicator lamp in order to display the diagnostic trouble code (DTC) flash codes by supplying voltage to CKT 1376.

### Conditions for Setting the DTC

Diagnostic trouble codes (DTC) 12 is always set and displayed when the body control module (BCM) is in the diagnostic mode. This indicates that the diagnostic function is in progress. If DTCs do not display when the BCM is in the diagnostic mode, refer to the following diagnostic chart.

## Test Description

The number(s) below refer to the step number(s) on the diagnostic table.

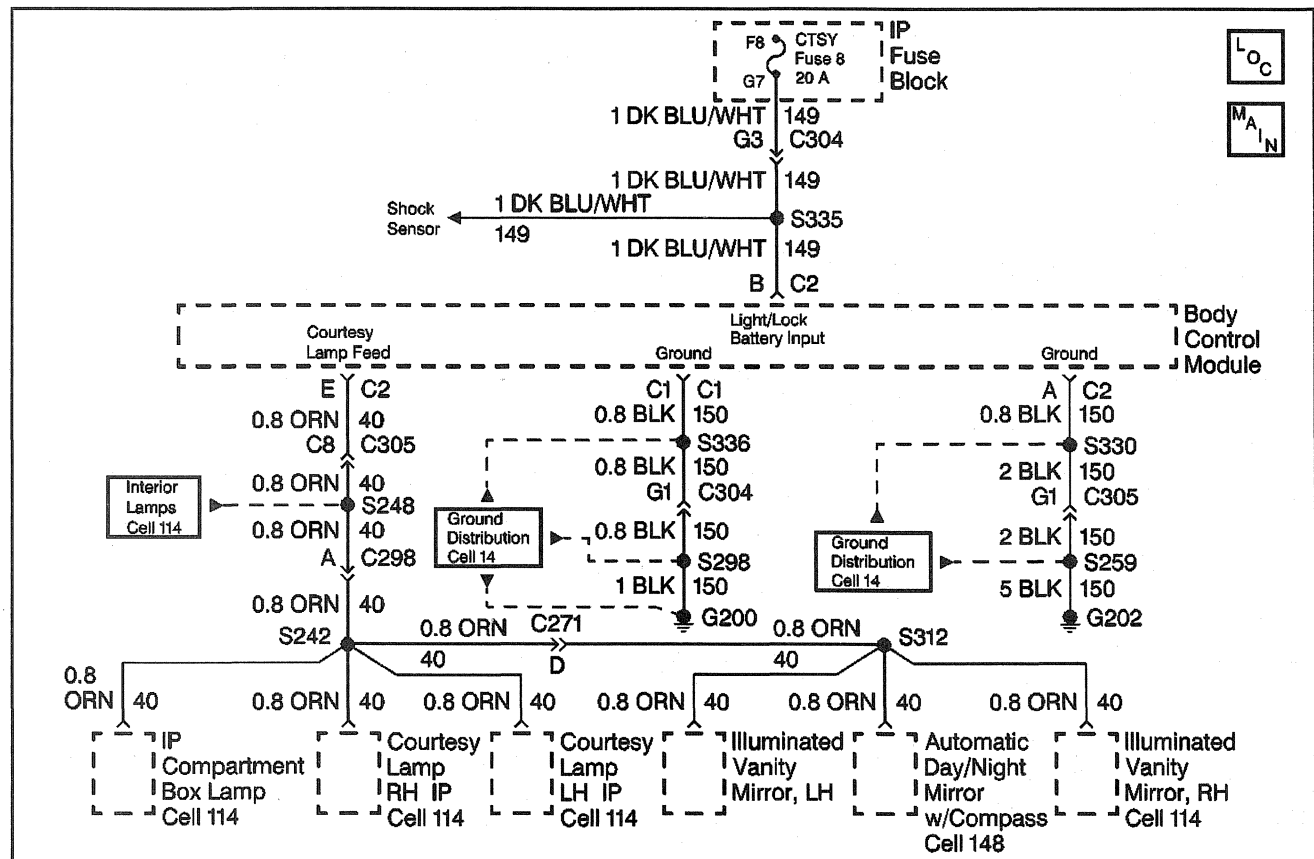
1. This step tests the security LED indicator lamp operation at the BULB TEST.
2. This step attempts to enter the BCM diagnostic mode.
3. This step tests for voltage at the security LED indicator.
4. This step tests for a poor connection at the BCM.
5. This step tests for an open in the ground circuit.
6. This step checks for an open in the ground circuit 150 between the BCM and G202.
7. This step requires a repair to CKT 150.
8. This steps requires replacement of the BCM.

## DTC 12 Diagnostic System Check

Step	Action	Value(s)	Yes	No
1	Turn the ignition switch to the RUN position. Does the security LED indicator illuminate?	—	Go to Step 2	Go to Step 3
2	Attempt to enter the body control module (BCM) diagnostic mode. Does the security LED indicator flash DTCs?	—	System OK	—
3	1. With the ignition switch in the ON position, disconnect the security LED indicator connector. 2. Connect a DMM from cavity B to ground. Is continuity present?	—	Go to Step 5	Go to Step 4
4	Test for a poor connection at BCM connector C1 terminal C16. Is the symptom still present?	—	Go to Step 8	System OK
5	Using a DMM check for continuity at security LED indicator connector terminal A to ground Is continuity present?	—	Go to Step 6	Go to Step 7
6	Check for an open or poor connection in CKT 150, between the BCM connector C2 terminal A and C305. Was a repair made?	—	System OK	Go to Step 8
7	Repair the open in CKT 150, between the security LED indicator terminal A and G202. Is the repair complete?	—	System OK	Go to Step 8
8	Replace BCM. Is repair complete?	—	System OK	—



## DTC 21/31 Courtesy Lamps Feed Shorted to Ground



337127

## Circuit Description

The body control module (BCM) provides a voltage for the courtesy lamps when commanded by one of the following components:

- The instrument panel (IP) dimmer switch
- The left door jamb switch
- The right door jamb switch
- The left rear door jamb switch
- The right rear door jamb switch
- The cargo door jamb switch
- The liftgate jamb switch

S248 distributes power to the following components:

- The dome lamp
- The courtesy/reading lamps
- IP compartment box lamp
- Illuminated vanity mirrors
- automatic day/night mirror

## Conditions for Setting the DTC

- CKT 149 is open due to defective courtesy fuse 3.
- CKT 149 is open due to a short to ground.
- CKT 40 (courtesy lamps feed) is shorted to the ground for greater than 50 milliseconds, while the BCM is attempting to supply voltage to the courtesy lamp circuit.

## Action Taken When the DTC Sets

- DTC 21 will set.
- There will be no courtesy lighting in the vehicle.
- The IP dimmer switch is inoperative.
- The console compartment and the IP compartment lamps are inoperative.
- The BCM will read out a series of flash DTCs upon entering diagnostic mode.

## Conditions for Clearing the MIL/DTC

The fault is corrected and the DTC memory is cleared.

## Diagnostic Aids

If the only DTC that flashes is a history code (DTC 31), the problem may be intermittent. Try performing the test shown while "wiggling" wiring and connectors. This action can often cause the fault to appear. Test for poor connections at the BCM connector, which could cause an open or an intermittent fault. Refer to Intermittent/History DTCs.

**Test Description**

The number(s) below refer to the step number(s) on the diagnostic table.

1. This step tests for an open courtesy fuse 3.
2. If courtesy fuse 3 is open, this step tests for a short to the ground on CKT 149.
4. If courtesy fuse 3 is OK, this step tests for voltage output from the BCM in CKT 40.

5. This step tests for open in CKT 40.

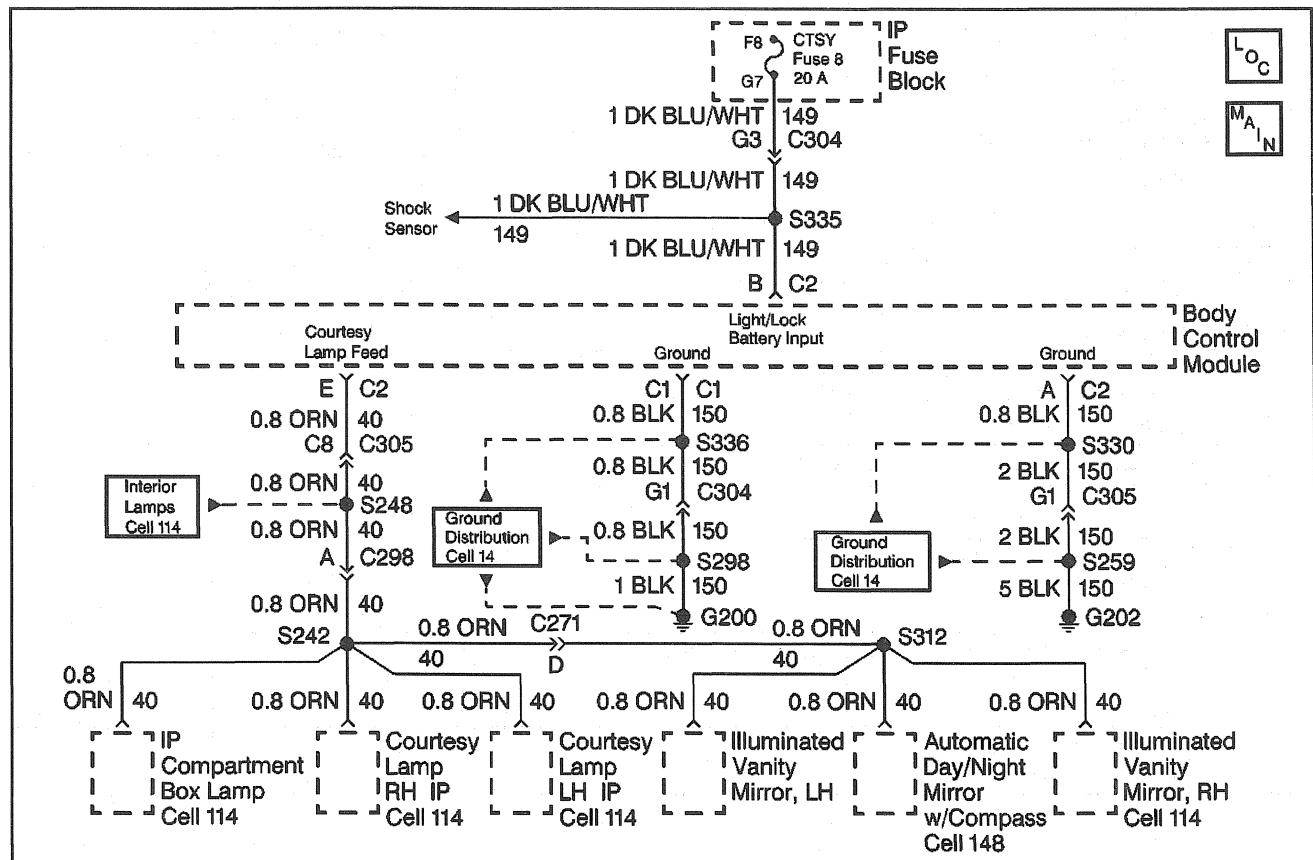
6. Prompts replacement of the BCM.

**Important:** Inspect for the proper installation of aftermarket electronic equipment which may affect the integrity of the system.

**DTC 21/31 Courtesy Lamps Feed Shorted to Ground**

Step	Action	Value(s)	Yes	No
1	Check CTSY Fuse 3. Is Fuse 3 open?	—	Go to Step 2	Go to Step 4
2	Using a DMM check for continuity between connector C304 cavity G3 and ground Is continuity present?	—	Go to Step 3	Go to Step 6
3	Repair short to ground in CKT 149 between IP fuse block and BCM connector C1 cavity B. Is repair complete?	—	System OK	—
4	Using DMM check for voltage at connector C305 cavity C8. Is voltage present?	12 volts	Go to Step 5	Go to Step 6
5	Check for an open in CKT 40 from BCM connector C2 cavity E to S248. Is repair complete?	—	System OK	Go to Step 6
6	Replace the BCM. Is the repair complete?	—	System OK	—

## DTC 22/32 Courtesy Lamps Return Shorted to Battery



337127

## Circuit Description

The body control module (BCM) provides a voltage for the courtesy lamps when commanded by one of the following components:

- The instrument panel (IP) dimmer switch
- The left door jamb switch
- The right door jamb switch
- The left rear door jamb switch
- The right rear door jamb switch
- The cargo door jamb switch input
- The liftgate jamb switch

S248 distributes power to the following:

- The dome lamp
- The courtesy/reading lamps
- IP compartment box lamp
- Illuminated vanity mirrors
- automatic day/night mirror

## Conditions for Setting the DTC

- CKT 157 is shorted to battery.
- CKT 156 (courtesy lamps feed) is shorted to the battery for greater than 50 milliseconds, while the BCM is attempting to ground this circuit.

## Action Taken When the DTC Sets

- DTC 22 will set.
- There will be no courtesy lighting in the vehicle.
- The BCM will read out a series of flash DTCs upon entering diagnostic mode.

## Conditions for Clearing the MIL/DTC

The fault is corrected and the DTC memory is cleared.

## Diagnostic Aids

If the only DTC that flashes is a history code (DTC 32), the problem may be intermittent. Try performing the test shown while "wiggling" wiring and connectors. This action can often cause the fault to appear. Test for poor connections at the BCM connector, which could cause an open or an intermittent fault. Refer to Intermittent/History DTCs.

**Test Description**

The number(s) below refer to the step number(s) on the diagnostic table.

1. This step tests for an open CTSY fuse 3.
2. If CTSY fuse 3 is open, this step tests for a short to the ground on CKT 149.
3. Prompts repair for a short to ground in CKT 149.

4. If CTSY fuse 3 is OK, this step tests for voltage output from the BCM in CKT 40.

5. This step tests for open in CKT 40.

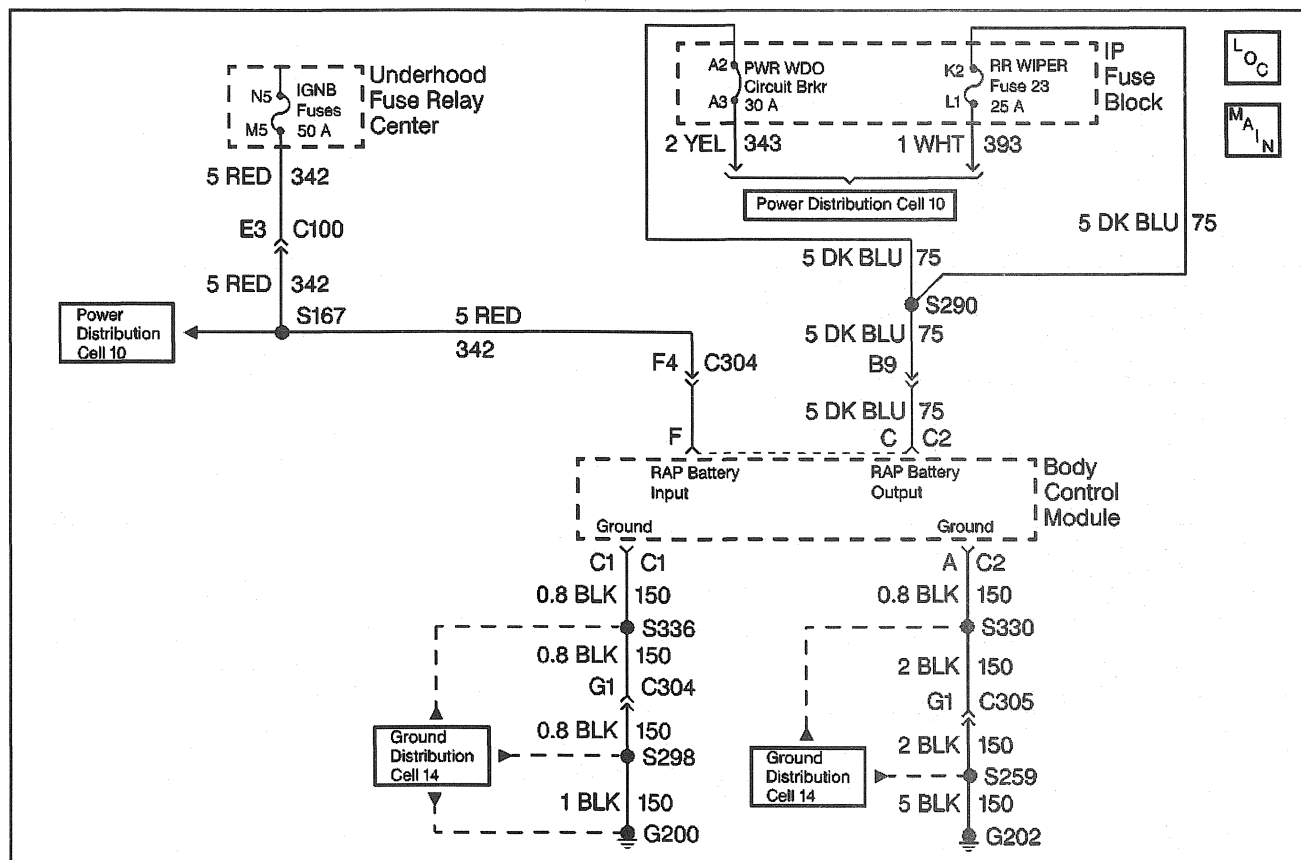
6. Prompts replacement of the BCM.

**Important:** Inspect for the proper installation of aftermarket electronic equipment which may affect the integrity of the system.

**DTC 22/32 Courtesy Lamps Return Shorted to Battery**

Step	Action	Value(s)	Yes	No
1	Check CTSY Fuse 3. Is Fuse 3 open?	—	Go to <i>Step 2</i>	Go to <i>Step 4</i>
2	Using a DMM check for continuity between connector C304 cavity G3 and ground Is continuity present?	—	Go to <i>Step 3</i>	Go to <i>Step 6</i>
3	Repair short to ground in CKT 149 between IP fuse block and BCM connector C1 a cavity B. Is repair complete?	—	System OK	—
4	Using DMM check for voltage at connector C305 cavity C8. Is voltage present?	12 volts	Go to <i>Step 5</i>	Go to <i>Step 6</i>
5	Check for an open in CKT 40 from BCM connector C2 cavity E to S248. Is repair complete?	—	System OK	—
6	Replace the BCM. Is the repair complete?	—	System OK	—

## DTC 23/33 RAP Feed Shorted to Ground or Battery



337141

## Circuit Description

The body control module (BCM) retained accessory power (RAP) function is enabled when the ignition switch is turned to the RUN position. The RAP allows the operation of the following components for up to 10 minutes after the ignition switch is turned to the OFF position:

- The power windows
- The power door locks
- The radio
- The front and rear wipers

The RAP is immediately disabled if any door is opened. The BCM provides the RAP function through CKT 75 to the following components:

- The PWR WDO circuit breaker A in the IP fuse block
- RADIO Fuse 17 in the IP fuse block
- The WIPER Fuse 11 in the IP fuse block
- The RR WIPER Fuse 23 in the IP fuse block

## Conditions for Setting the DTC

- CKT 75 is shorted to B+ while the RAP is disabled for more than 50 milliseconds.
- CKT 342 is open between splice 167 and BCM with ignition on.

## Action Taken When the DTC Sets

- DTC 23 will set.
- The RAP feature will not function if CKT 75 is shorted to the ground.
- The RAP feature will not deactivate when the door is opened if CKT 75 is shorted to B+.
- The BCM will read out a series of flash codes upon entering the diagnostic mode.

## Conditions for Clearing the MIL/DTC

The fault is corrected and the DTC memory clearing procedure is completed.

## Diagnostic Aids

If the only DTC that flashes is a history code (DTC 32), the problem may be intermittent. Perform the test shown while "wiggling" the wiring and connectors. This can often cause the fault to appear. Test for a poor connections at the BCM connector, which could cause an open or an intermittent fault. Refer to Intermittent/History DTCs.