

1-2-3-4 AND 3-5 REVERSE CLUTCH ASSEMBLY AND 4-5-6 CLUTCH ASSEMBLY REMOVAL (6L50/80/90)

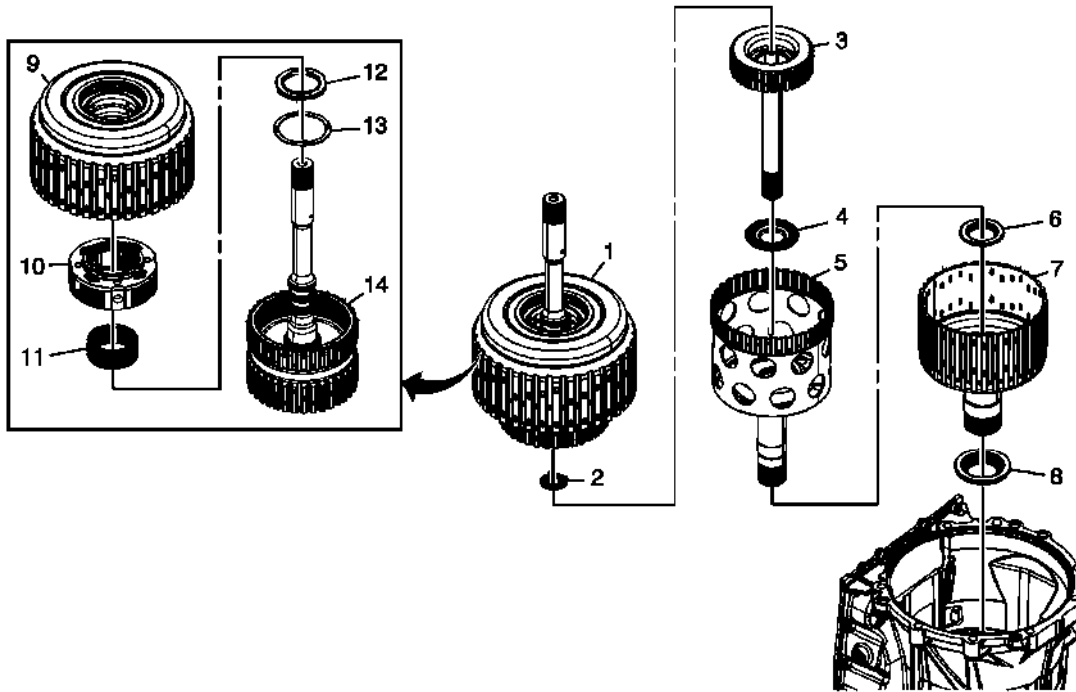


Fig. 18: 1-2-3-4 and 3-5 Reverse Clutch Assembly and 4-5-6 Clutch Assembly (6L45)
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
1	1-2-3-4 and 3-5 Reverse Clutch Assembly and 4-5-6 (With Turbine Shaft) Clutch Assembly
2	Turbine Shaft Thrust Bearing Assembly
3	4-5-6 Clutch (With Output Carrier Shaft and Dampener) Hub Assembly
4	4-5-6 Clutch Hub Thrust Bearing Assembly
5	1-2-3-4 Clutch (With Output Carrier Inner Sun Gear Shaft) Hub Assembly
6	1-2-3-4 Clutch Hub Thrust Bearing Assembly
7	2-6 and 3-5 Reverse Clutch (With Output Carrier Outer Sun Gear Shaft) Hub Assembly
8	2-6 and 3-5 Reverse Clutch Hub Thrust Bearing Assembly
9	1-2-3-4 and 3-5 Reverse Clutch Assembly
10	Input Carrier Assembly
11	Input Sun Gear
12	Input Sun Gear Thrust Bearing

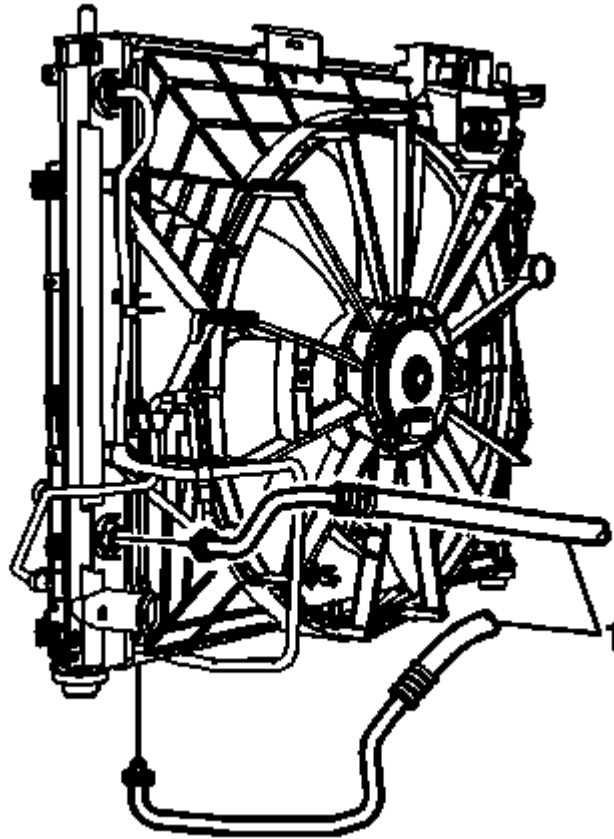


Fig. 33: Identifying Transmission Cooler Lines
Courtesy of GENERAL MOTORS CORP.

4. Connect the transmission cooler lines (1). Refer to **Transmission Fluid Cooler Hose/Pipe Quick-Connect Fitting Disconnection and Connection**
5. Install the front compartment lower noise shield. Refer to **Front Compartment Lower Noise Shield Replacement (All Wheel Drive)** or **Front Compartment Lower Noise Shield Replacement (Rear Wheel Drive)**
6. Install the front air deflector. Refer to **Front Air Deflector Replacement**
7. Lower the vehicle. Refer to **Lifting and Jacking the Vehicle**
8. Install the air cleaner assembly. Refer to **Air Cleaner Assembly Replacement (LF1)** or **Air Cleaner Assembly Replacement (LLT)**

TRANSMISSION FLUID COOLER HOSE/PIPE REPLACEMENT (WITHOUT VO3)

Removal Procedure

1. Remove the air cleaner assembly. Refer to **Air Cleaner Assembly Replacement (LF1)** or **Air Cleaner Assembly Replacement (LLT)**
2. Raise and support the vehicle. Refer to **Lifting and Jacking the Vehicle**

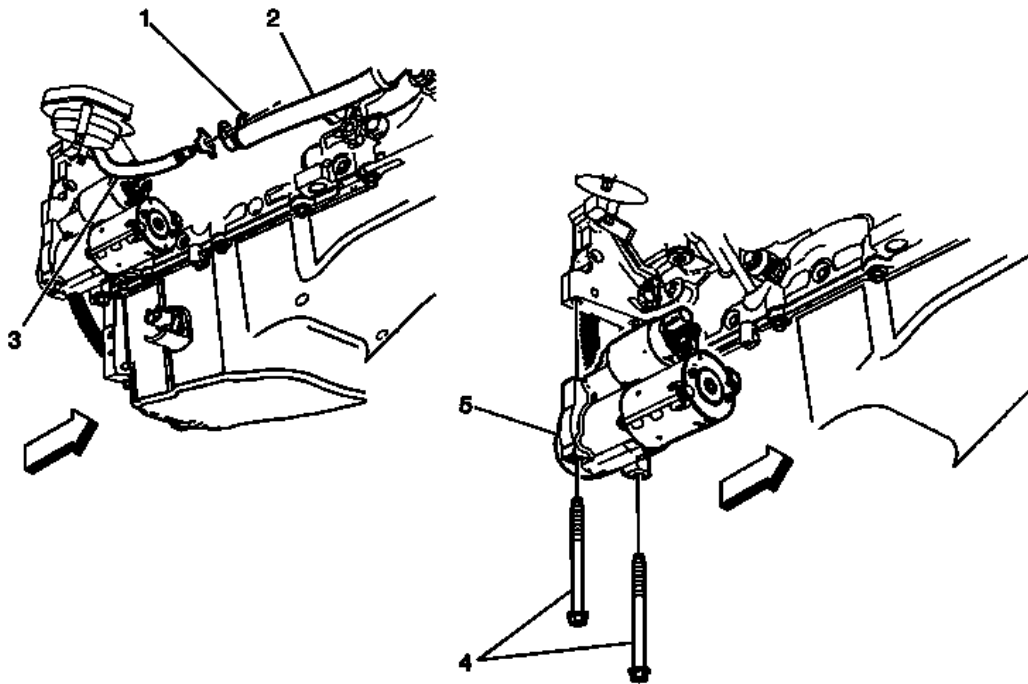


Fig. 33: Starter (LSA)
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
Preliminary Procedure	
1. Disconnect the negative battery cable. Refer to <u>Battery Negative Cable Disconnection and Connection (Sedan, Wagon)</u> or <u>Battery Negative Cable Disconnection and Connection (Coupe)</u> . 2. Remove the right catalytic converter. Refer to <u>Catalytic Converter Replacement - Right Side (LF1)</u> or <u>Catalytic Converter Replacement - Right Side (LLT)</u> or <u>Catalytic Converter Replacement - Right Side (LSA)</u> .	
1	Battery Solenoid Nut CAUTION: Refer to Tighten: 10 N.m (115 lb in)
2	Battery Cable (Fuse Block-Underhood)
3	Battery Cable (Generator)
4	Bolt (Qty: 2) Tighten: 50 N.m (37 lb ft)
5	Starter

Global Positioning System (GPS) Antenna

The global positioning system (GPS) locates the current position of the vehicle using signals sent by GPS satellites. The GPS antenna is attached to the instrument panel (I/P) carrier and can be accessed by removing the I/P retainer. The GPS antenna is powered through the same coaxial cable used to send the signals to the navigation radio. Interference to the system may occur if any of the following exist:

- Signals are obstructed by objects such as, tall buildings or trees.
- Metallic objects located on the dashboard
- Aftermarket glass tinting has been applied to the vehicles windshield.

TV and VICS Antenna

These several antennas are conductive traces placed on the inside of the rear window glass.

TV Antenna Module

The TV antenna module is located under the rear window shelf. The TV antenna module is used by the navigation radio to automatically select the antenna combination that provides the strongest TV signal to the navigation radio. The TV antenna module also provides the vehicle information communication system (VICS) FM signal to the VICS module.

TV Antenna Amplifier

The TV antenna amplifier is mounted behind the trim on 1 side of the rear window. The TV antenna amplifier is powered by the TV antenna module through the same coaxial cable used to carry their signals to the TV antenna module. They are attached to the 4 TV antenna trace patterns in the rear window glass.

VICS Module

The vehicle information communication system (VICS) module, an export only dealer-installed option, uses signals from the optical/microwave beacon antenna and the rear glass VICS antenna via the TV antenna module to convey routing information to the navigation radio. The navigation radio either revises planned routing or relays the VICS information to the operator through the screen of the navigation radio and the voice guidance system.

VICS Optical Beacon Antenna

The vehicle information communication system (VICS) optical beacon antenna is a dealer-installed option. The antenna, which is mounted on the right side of the instrument panel, picks up signals through the front window glass. A coaxial cable carries the power to and signals from this antenna to the navigation radio.

Browser

IMPORTANT: This function is for view files on disk only. The navigation radio cannot get external files from the World-Wide Web or other sources other than an inserted disk.

2. Disconnect the negative battery cable. Refer to **Battery Negative Cable Disconnection and Connection (Sedan, Wagon)** or **Battery Negative Cable Disconnection and Connection (Coupe)** .

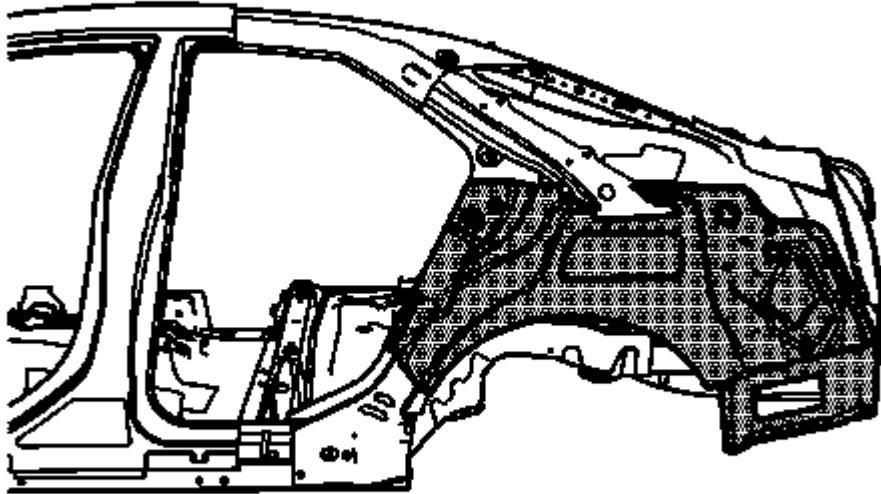


Fig. 119: View of Body Frame and Related Panels
Courtesy of GENERAL MOTORS CORP.

3. Remove all related panels and components.
4. Restore as much of the damage as possible.
5. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to **ANTI-CORROSION TREATMENT AND REPAIR** .

INSTRUMENT CLUSTER REPLACEMENT (LEFT HAND DRIVE)

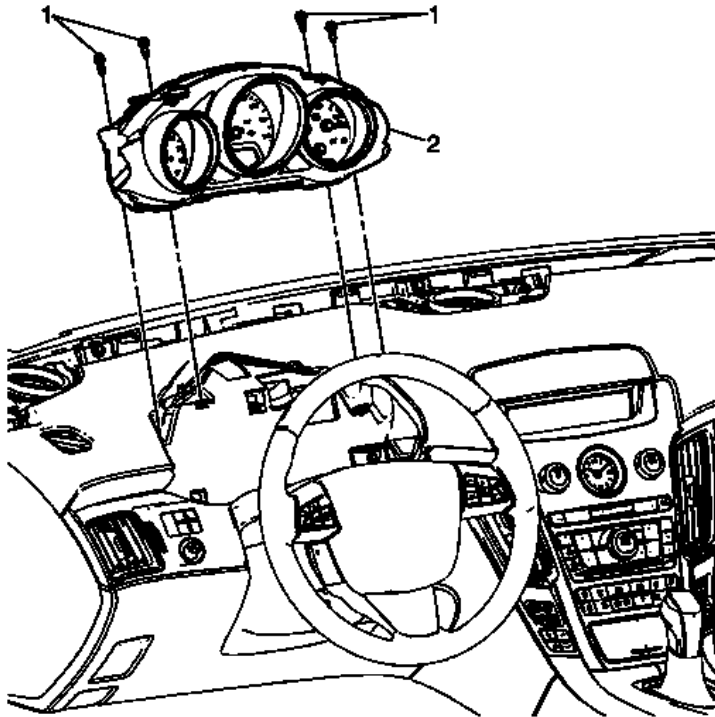


Fig. 11: Instrument Cluster
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
<p>Preliminary Procedure</p> <ol style="list-style-type: none"> Remove the instrument panel trim plate applique - left. Refer to <u>Instrument Panel Trim Plate Applique Replacement - Left Side (Left Hand Drive)</u> or <u>Instrument Panel Trim Plate Applique Replacement - Left Side (Right Hand Drive)</u> . Remove the instrument panel cluster trim plate cover. Refer to <u>Instrument Panel Cluster Trim Plate Cover Replacement (Left Hand Drive)</u> or <u>Instrument Panel Cluster Trim Plate Cover Replacement (Right Hand Drive)</u> . 	
1	<p>Instrument Panel Cluster Screw (Qty: 4)</p> <p>CAUTION: Refer to <u>FASTENER CAUTION</u> .</p> <p>Tighten: 2.5 N.m (22 lb in)</p>
2	<p>Instrument Panel Cluster Assembly</p> <p>Procedure</p> <ol style="list-style-type: none"> Disconnect the electrical connections.

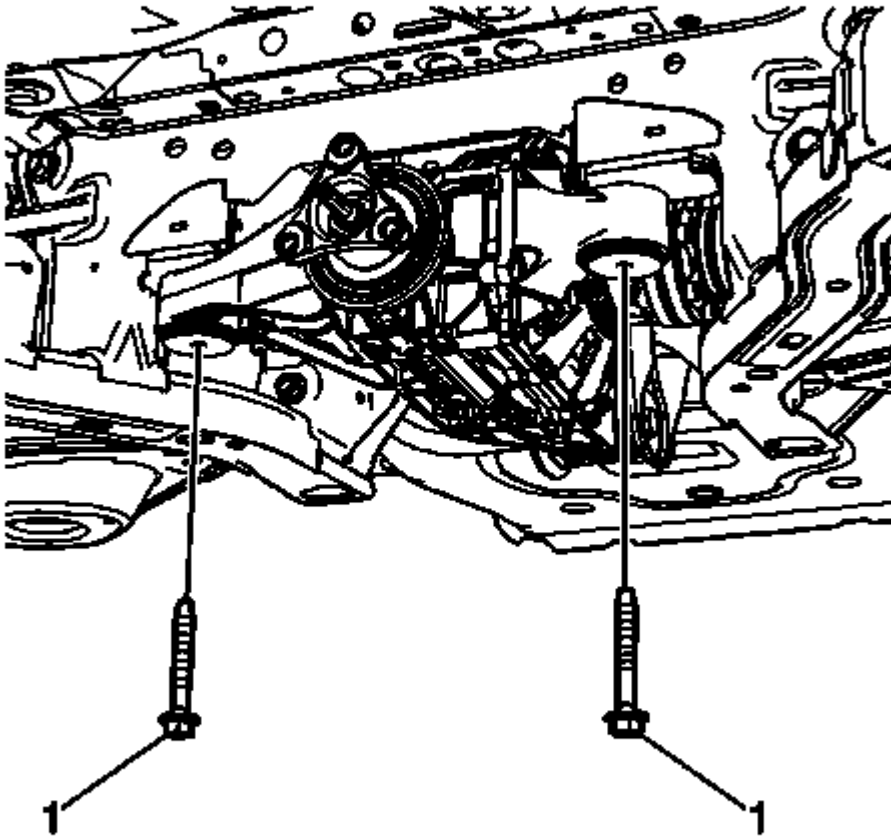


Fig. 155: View of Front Differential Mounting Bolts
Courtesy of GENERAL MOTORS COMPANY

4. Remove the two front differential mounting bolts.
5. Lower the differential slightly to provide additional clearance to the Evap canister
6. Remove the two EVAP canister retaining nuts and lower the rear of the canister enough to clear the weld studs
7. Slide the canister rearward from the body brace to gain access to the canister vent valve

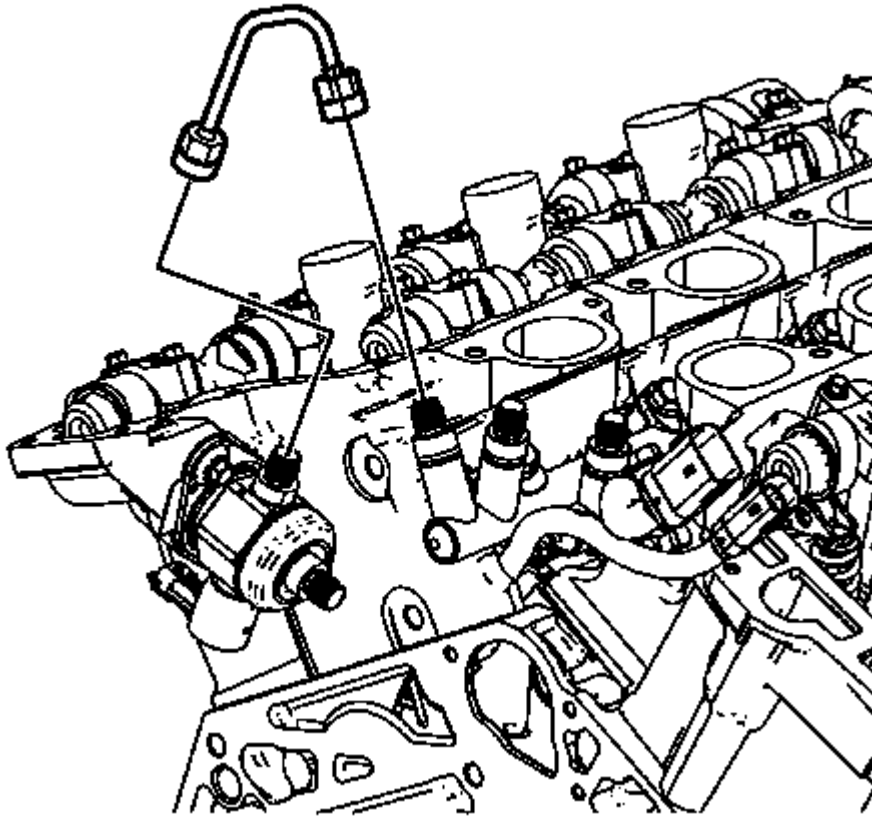


Fig. 89: View of Fuel Line & Cylinder Head
Courtesy of GENERAL MOTORS CORP.

6. Remove and discard high pressure fuel line.

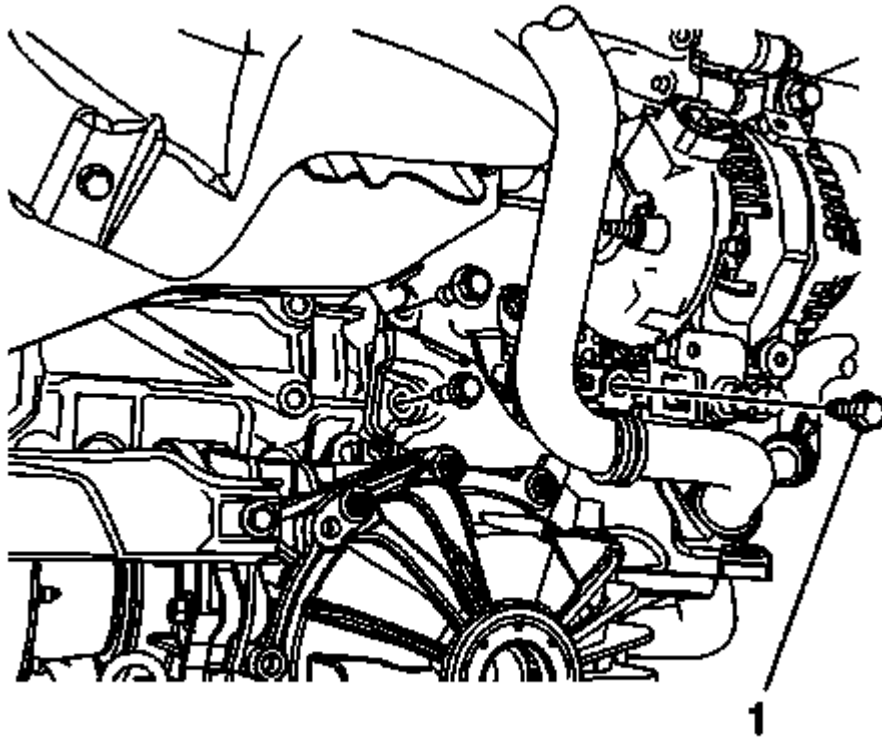


Fig. 51: Identifying Coolant Tube Retaining Clamp Bolt
Courtesy of GENERAL MOTORS CORP.

4. Remove the coolant tube retaining clamp bolt (1).
5. Reposition the coolant tube aside.

2011 Cadillac CTS

2011 ENGINE Engine Mechanical - 2.8L, 3.0L, 3.2L, or 3.6L - CTS

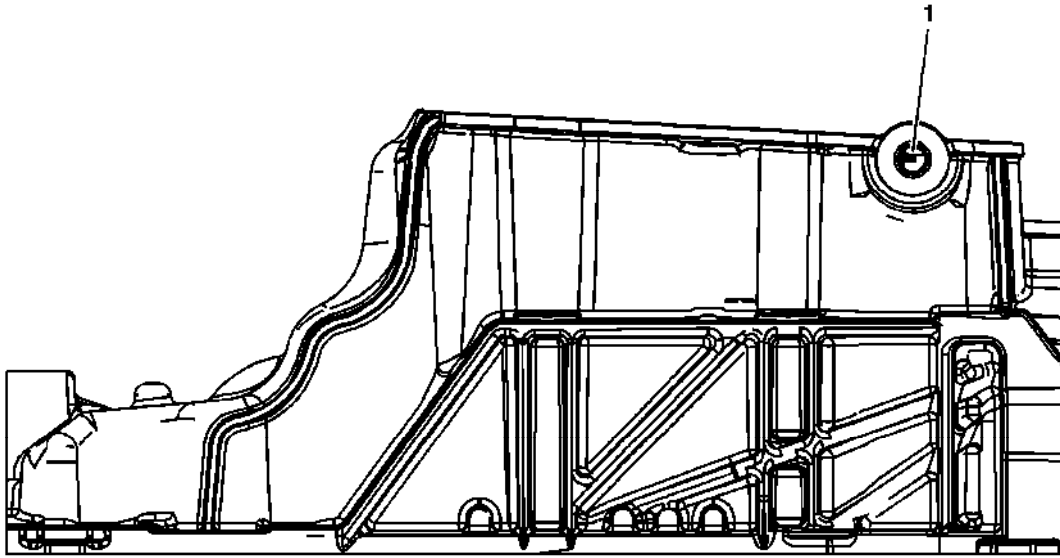


Fig. 31: Oil Pan Right Side (RWD)
 Courtesy of GENERAL MOTORS CORP.

Oil Pan Right Side (RWD)

Hole Location	Thread Size	Drill	Counter Bore Tool	Stop Collar	Tap	Driver	Insert	Drill Depth (Maximum)		Tap Depth (Minimum)	
								MM	(IN)	MM	(IN)
-	-	J 42385-						MM	(IN)	MM	(IN)
1	M12 x 1.75	856	857	N/A	858	859	416	THRU		THRU	

2011 Cadillac CTS

2011 ACCESSORIES & EQUIPMENT Fixed and Moveable Windows - CTS

2. Passenger Window Malfunction
3. Left Rear Window Malfunction
4. Right Rear Window Malfunction

Circuit/System Description

The body control module (BCM) monitors the window lockout command from the driver door module (DDM). When the rear window switch operation is authorized, the BCM signal voltage drops approximately 5 volts to the rear window switches allowing for normal window operation from the rear switches. If the rear window lockout function is commanded, the BCM signal voltage is at B+ voltage which disables the rear window switches and the rear windows will only operate when the BCM receives a command from the driver master control.

Conditions for Running the DTC

- Battery voltage is between 9-16 volts.
- The ignition is ON.

Conditions for Setting the DTC

B3821 00

The BCM detects a fault in the left rear window lockout circuit.

B3824 00

The BCM detects a fault in the right rear window lockout circuit.

Action Taken When the DTC Sets

The left or right rear power window will be inoperative.

Conditions for Clearing the DTC

- The DTC will be current for as long as the fault is present.
- When the fault is no longer present, the DTC will be a history DTC.
- A history DTC will clear after 50 ignition cycles

Reference Information

Schematic Reference

Moveable Window Schematics

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

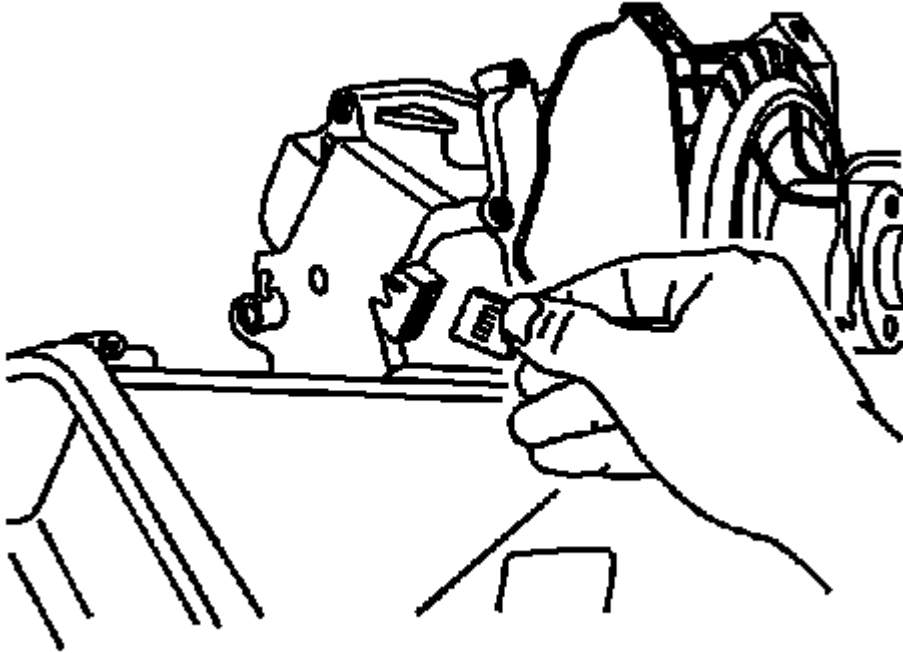


Fig. 11: Recirculation Actuator Electrical Connector
Courtesy of GENERAL MOTORS CORP.

3. Connect the electrical connector to the recirculation actuator.
4. Install the air inlet assembly. Refer to [Air Inlet Assembly Replacement \(Left Hand Drive\)](#) or [Air Inlet Assembly Replacement \(Right Hand Drive\)](#) .

AIR INLET VALVE ACTUATOR REPLACEMENT (RIGHT HAND DRIVE)

Removal Procedure

1. Remove the air inlet assembly. Refer to [Air Inlet Assembly Replacement \(Left Hand Drive\)](#) or [Air Inlet Assembly Replacement \(Right Hand Drive\)](#) .

2011 Cadillac CTS

2011 ACCESSORIES & EQUIPMENT Lighting - CTS

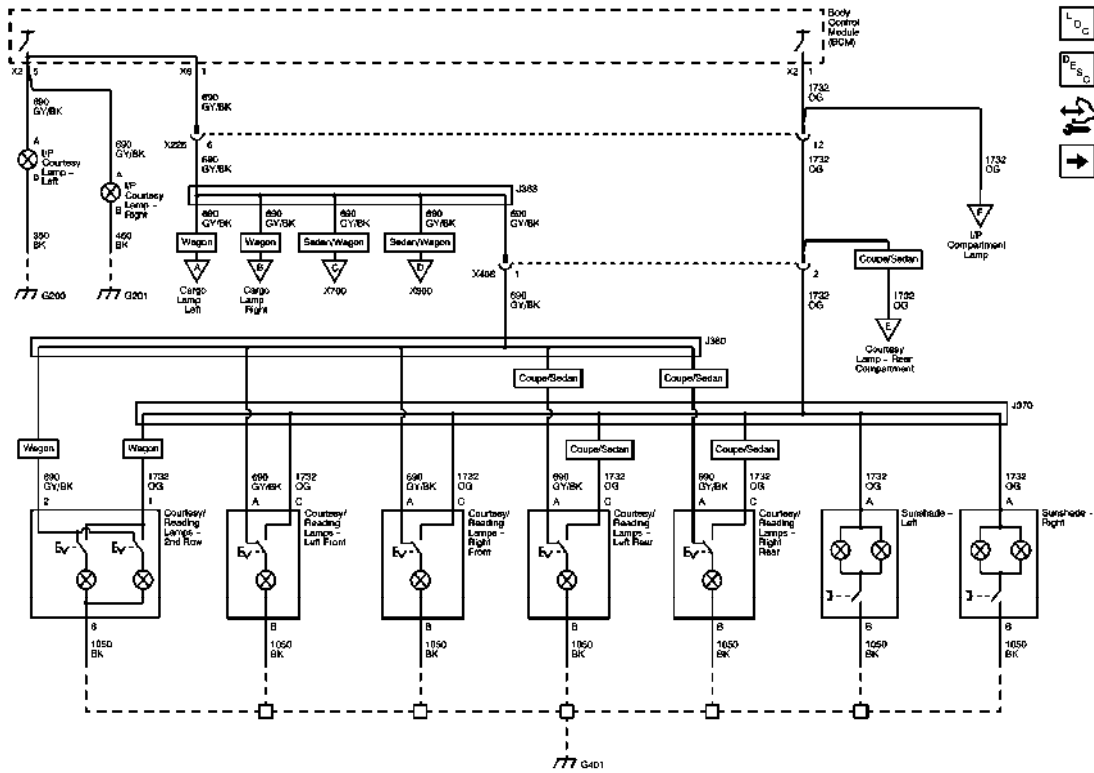


Fig. 19: Roof And Below the I/P Lamps Wiring Schematic (1 of 2)
Courtesy of GENERAL MOTORS CORP.

2011 Cadillac CTS

2011 ACCESSORIES & EQUIPMENT Object Detection - CTS

B009A 04

Left Active Hood Hinge Actuator Deployment Loop Open

B009A 0D

Left Active Hood Hinge Actuator Deployment Loop Above Threshold

B009A 0E

Left Active Hood Hinge Actuator Deployment Loop Below Threshold

Diagnostic Fault Information

Circuit	Short to Ground	High Resistance	Open	Short to Voltage	Signal Performance
Left Active Hood Hinge Actuator-Low Control Circuit	B009A 02	B009A 04	B009A 0D	B009A 01	B009A 0E
Left Active Hood Hinge Actuator-High Control Circuit	B009A 02	B009A 04	B009A 0D	B009A 01	B009A 0E

Circuit/System Description

The pedestrian hood actuators deploy only when a valid signal whose energy is capable of triggering deployment of the hood is present. The pedestrian hood actuators only deploys in those events where the activation of the hood is expected. The hood actuator is not expected to deploy in low severity event where the risk of injury is low or in a high severity event like a car to car crash. During a frontal pedestrian impact of sufficient force the pedestrian impact detection module will allow current to flow through the deployment loop in order to deploy the hood hinge actuator. The pedestrian impact detection module performs continuous diagnostic tests on the deployment loops to check for proper circuit continuity, shorts to ground and shorts to voltage. There are 2 shorting bars used within the hood hinge actuator connector which will short together both high and low control circuits, when the hood hinge connector is disconnected. This helps to prevent unwanted deployment of the actuator during servicing.

Conditions for Running the DTC

Ignition voltage is between 9-16 volts.

Conditions for Setting the DTC

B009A 01

The pedestrian impact detection module deployment loop resistance leakage is less than 3.5 k ohms for 2.5 seconds.

B009A 02

The pedestrian impact detection module deployment loop resistance leakage is less than 3.5 k ohms for 2.5

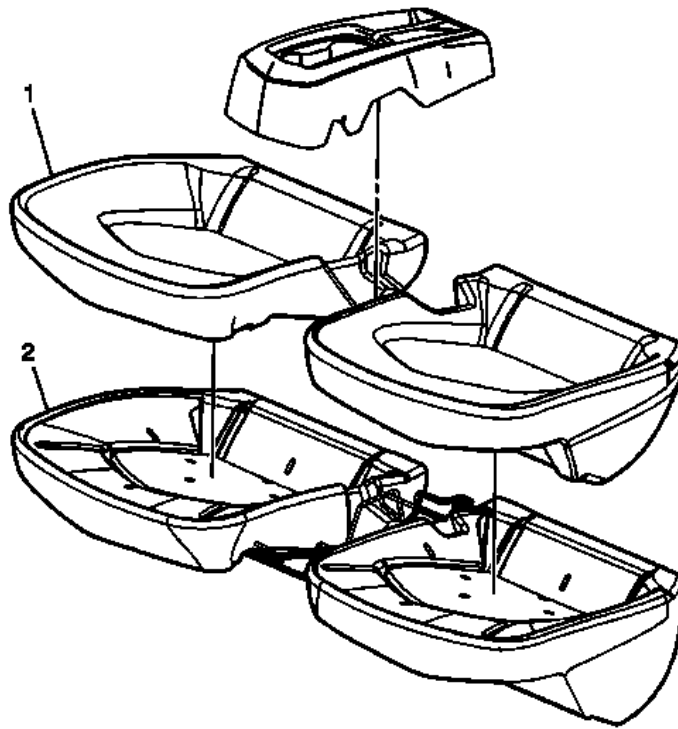


Fig. 58: Rear Seat Cushion Cover and Pad
 Courtesy of GENERAL MOTORS CORP.

Callout	Component Name
<p>Preliminary Procedure</p> <ol style="list-style-type: none"> 1. Remove the rear seat. Refer to <u>Rear Seat Cushion Replacement (Sedan)</u> or <u>Rear Seat Cushion Replacement (Wagon)</u> or <u>Rear Seat Cushion Replacement (Coupe)</u>. 2. Remove the rear seat cushion compartment. Refer to <u>Rear Seat Cushion Compartment Replacement (Coupe)</u>. 	
<p>1</p>	<p>Rear Seat Cushion Cover</p> <p>Procedure</p> <ol style="list-style-type: none"> 1. Release the plastic j-channels and then release the draw strings that are crimped to the metal j-channel hooks from the rear seat cushion cover. 2. Disengage the hook and loop fastener and pull the rear seat cushion cover away from the rear seat cushion pad. <p>Tip: When installing the rear seat cushion cover, pull the draw strings on the cover tightly in all corners to ensure that no creasing occurs.</p>
<p>2</p>	<p>Rear Seat Cushion Pad</p>

REAR SEAT CUSHION COMPARTMENT REPLACEMENT (COUPE)