

2006 Chevrolet HHR LT

2006 ENGINE Engine Controls - 2.2L (L61) - Troubleshooting - HHR

- The MIL informs the driver that a malfunction has occurred and the vehicle should be taken in for service as soon as possible.
- The MIL illuminates during a bulb test and a system test.
- A DTC will be stored if a MIL is requested by the diagnostic.

MIL Illumination

- The MIL will illuminate with the ignition switch ON and the engine OFF.
- The MIL will turn OFF when the engine is started.
- The MIL will remain ON if the self-diagnostic system has detected a malfunction.
- The MIL may turn OFF if the malfunction is not present.
- If the MIL is illuminated and then the engine stalls, the MIL will remain illuminated as long as the ignition switch is ON.
- If the MIL is not illuminated and the engine stalls, the MIL will not illuminate until the ignition switch is cycled OFF, then ON.

Diagnostic Aids

If the problem is intermittent, refer to **Testing for Intermittent Conditions and Poor Connections** .

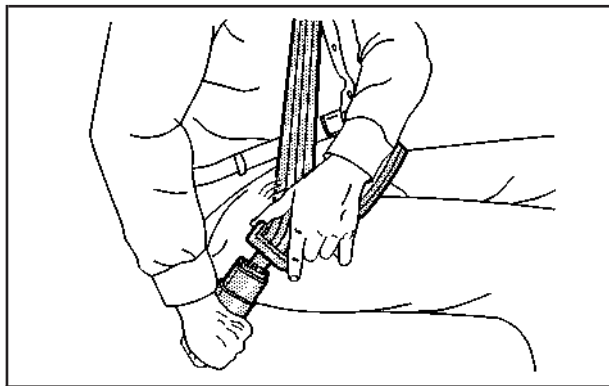
TEST DESCRIPTION

The number below refers to the step number on the diagnostic table.

2: This step determines if the condition is with the MIL control circuit or the ECM.

Malfunction Indicator Lamp (MIL) Always On

Step	Action	Yes	No
Schematic Reference: <u>Engine Controls Schematics</u> Connector End View Reference: <u>Engine Control Module (ECM) Connector End Views</u> or <u>Engine Controls Connector End Views</u>			
1	Did you perform the Diagnostic System Check - Vehicle?	Go to Step 2	Go to <u>Diagnostic System Check - Vehicle</u>
2	1. Turn OFF the ignition. 2. Disconnect the engine control module (ECM). 3. Turn ON the ignition, with the engine OFF. 4. Observe the malfunction indicator lamp		



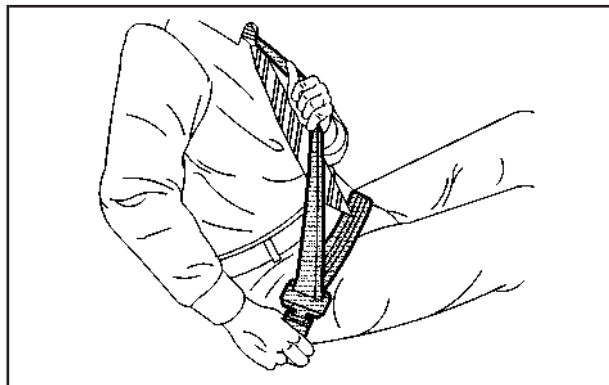
3. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

The shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

4. Push the latch plate into the buckle until it clicks. Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Safety Belt Extender* on page 1-33.

Make sure the release button on the buckle is positioned so you would be able to unbuckle the safety belt quickly if you ever had to.

5. Move the shoulder belt height adjuster to the height that is right for you. Improper shoulder belt height adjustment could reduce the effectiveness of the safety belt in a crash. See *Shoulder Belt Height Adjustment* on page 1-26.



6. To make the lap part tight, pull up on the shoulder belt.

Customer Assistance and Information

Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Chevrolet. Normally, any concerns with the sales transaction or the operation of your vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

STEP ONE: Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service, or parts manager, contact the owner of the dealership or the general manager.

STEP TWO: If after contacting a member of dealership management, it appears your concern cannot be resolved by the dealership without further help, in the U.S., contact the Chevrolet Customer Assistance Center by calling 1-800-222-1020. In Canada, contact General Motors of Canada Customer Communication Centre by calling 1-800-263-3777 (English) or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Please have the following information available to give the Customer Assistance Representative:

- Vehicle Identification Number (VIN). This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.
- Dealership name and location.
- Vehicle delivery date and present mileage (kilometers).

When contacting Chevrolet, please remember that your concern will likely be resolved at a dealer's facility. That is why we suggest you follow Step One first if you have a concern.

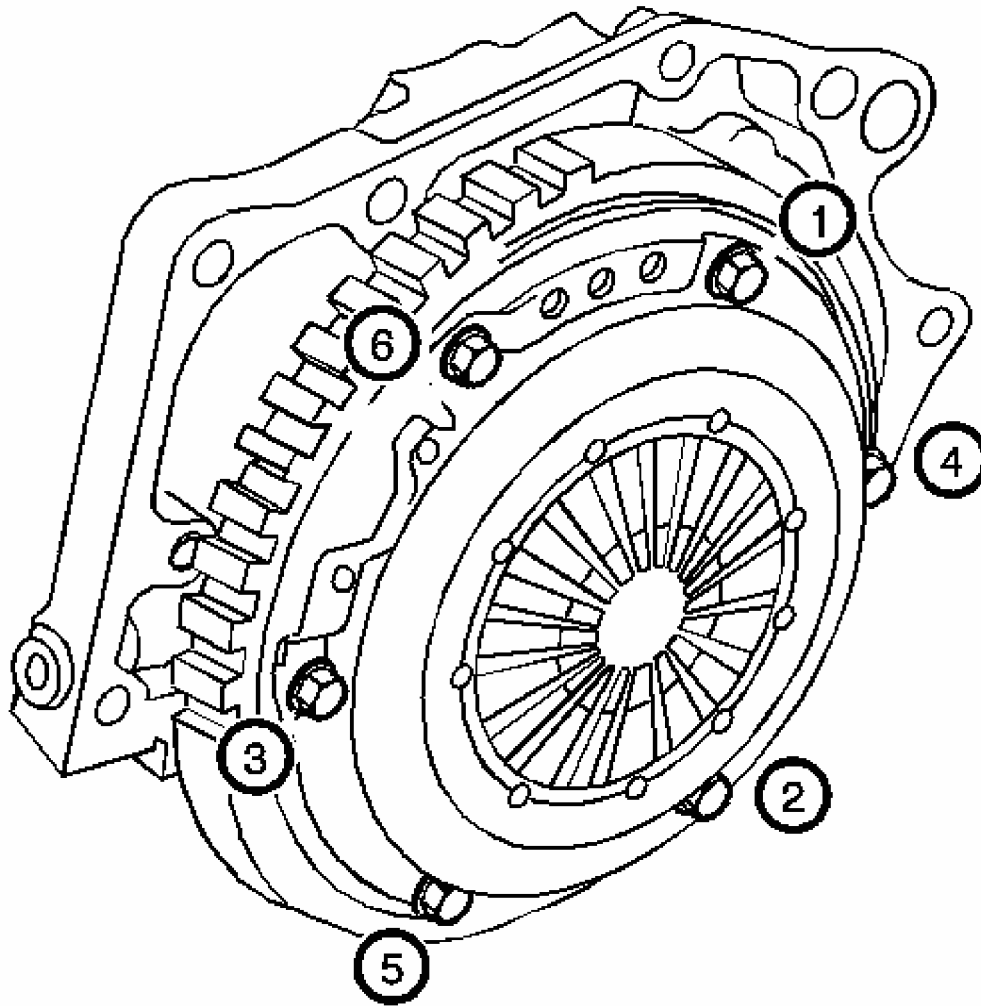


Fig. 24: Installing Clutch Cover-To-Flywheel Bolts
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice .

3. Install the clutch cover to flywheel bolts.

Tighten: Follow the tightening sequence. Tighten the bolts to 24 N.m (18 lb ft).

4. Remove the J 43482 . See Special Tools.

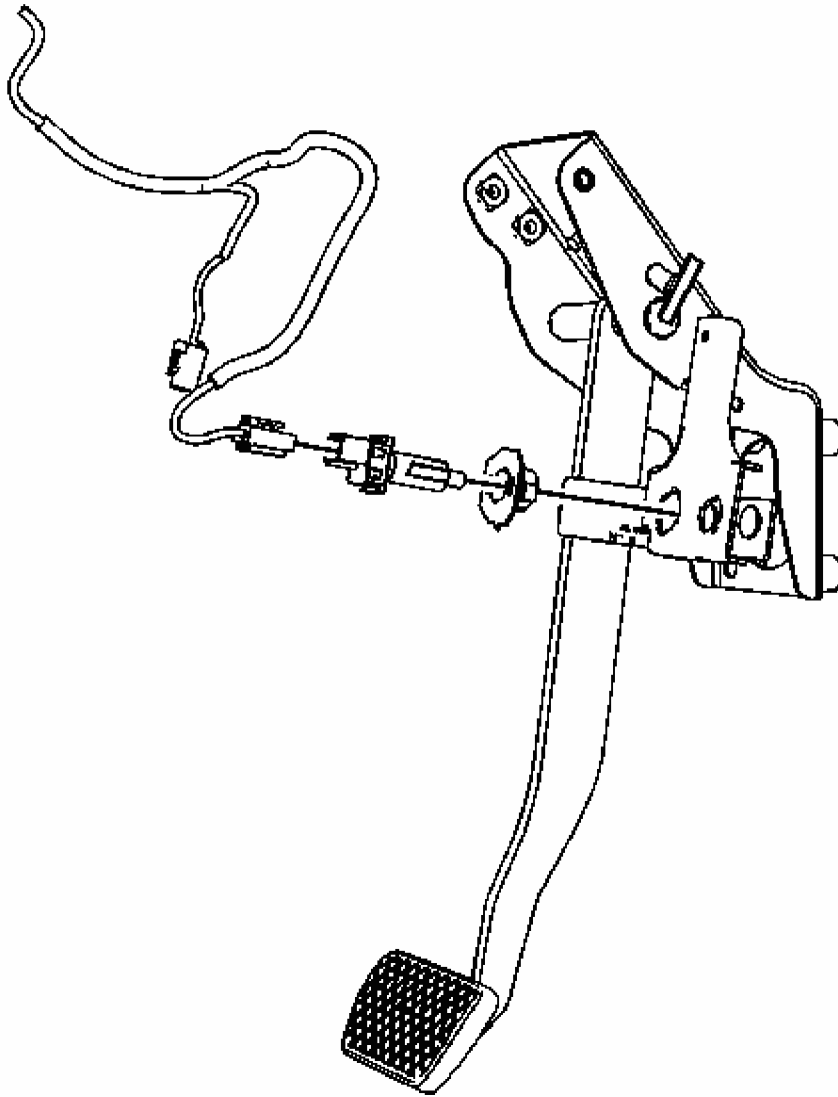


Fig. 9: Cruise Release Switch
Courtesy of GENERAL MOTORS CORP.

1. Ensure that the cruise control release switch is fully seated in the bracket.
2. Slowly pull the brake pedal rearward until the audible clicking is no longer heard.

The switch will be moved in the retainer providing adjustment.

3. Release the brake pedal.

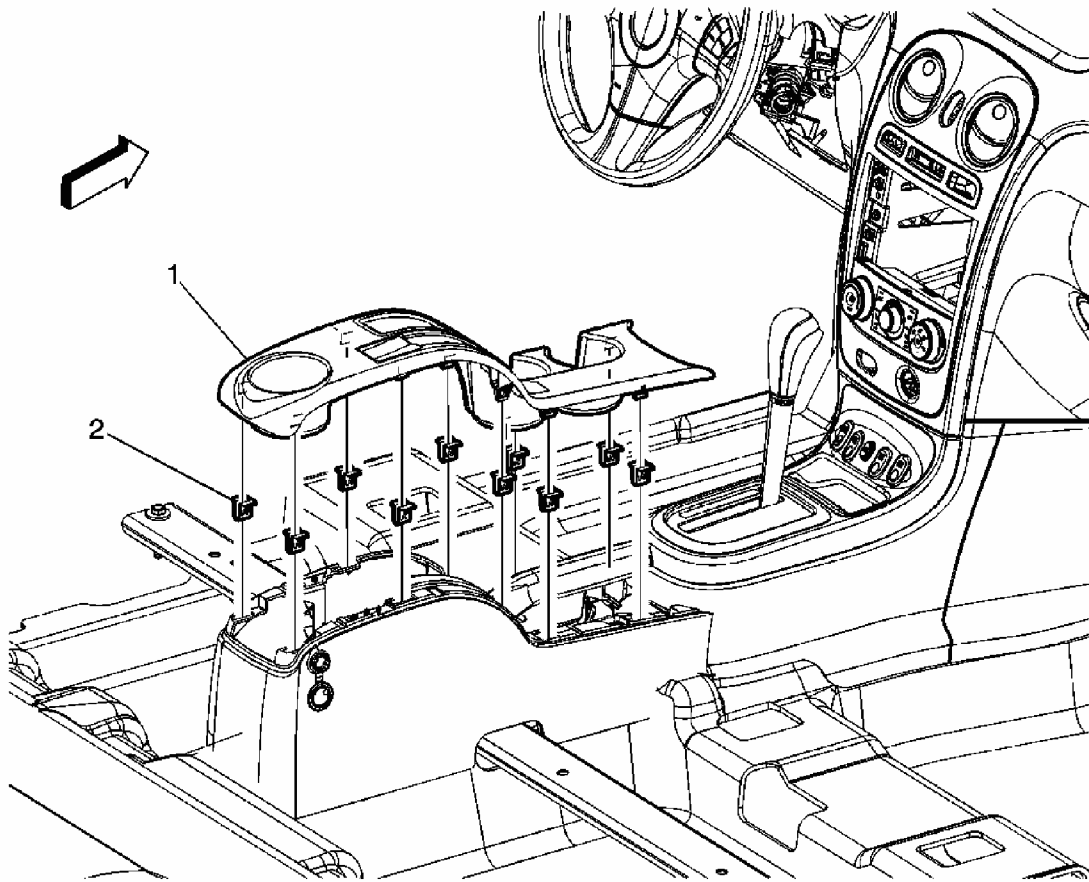


Fig. 30: Console Accessory Switch Mount Plate Replacement
Courtesy of GENERAL MOTORS CORP.

Trim Plate Replacement - Console Rear

Callout	Component Name
Fastener Tightening Specifications: Refer to Fastener Tightening Specifications .	
Preliminary Procedure: Remove the front seat armrests. Refer to Armrest Replacement - Front Seat .	
1	Plate Assembly, Console Rear Trim
2	Clip, Retainer (Qty: 10)

CONSOLE SHIFT LEVER BEZEL REPLACEMENT

22. Install the transaxle mount to transaxle bolts.

Tighten: Tighten the bolts to 45 N.m (33 lb ft).

23. Install the engine mount. Refer to **Engine Mount Replacement**.

24. Install the catalytic converter. Refer to **Catalytic Converter Replacement** .

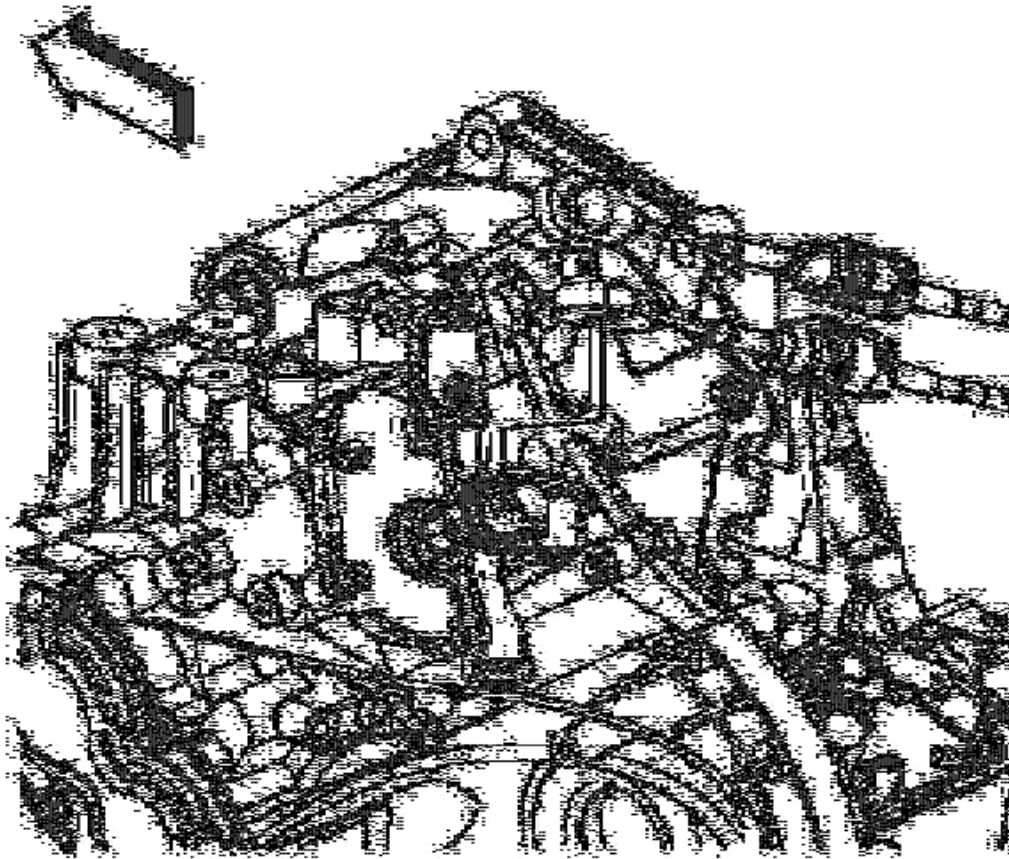


Fig. 265: Range Selector And Shift Lever Cables
Courtesy of GENERAL MOTORS CORP.

IMPORTANT: Ensure that the black cable is installed in the top notch of the transaxle bracket and the white cable in installed in the bottom notch of the transaxle bracket.

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2006 ACCESSORIES & EQUIPMENT Entertainment - HHR

Theft Armed	Data	Learned VIN/No VIN	Learned VIN
Theft Lock Status	Data	Active/Inactive	Inactive

Digital Radio Receiver

Scan Tool Parameter	Data List	Units Displayed	Typical Data Value
Operating Conditions: Ignition ON/Engine OFF/Radio ON			
Battery Voltage	Data	Volts	12.2 Volts
Digital Radio Antenna	Data	mV	1400 mV
Ignition Counter	Data	Numeric	98
Julian Date of Build	Module Information	Numeric	043
Power Mode	Data	Run/Crank/ Accessory/ RAP/Off Awake	Run
Year Module Built	Module Information	Numeric	varies

SCAN TOOL DATA DEFINITIONS

Base Model Part Number

Information used during SPS programming to identify a unique combination of ECU hardware and all non-reprogrammable software (e.g. Boot software).

Battery Voltage Signal

The scan tool displays 0-25.5 volts. The displayed value is calculated from a circuit connected to source voltage.

CD H/W Level

The scan tool displays a numeric value that represents the hardware level the internal CD Changer contains.

CD S/W Level

The scan tool displays a numeric value that represents the software level the internal CD Changer contains.

Component Serial No. 13-16

The scan tool displays a numeric value that represents the modules serial number.

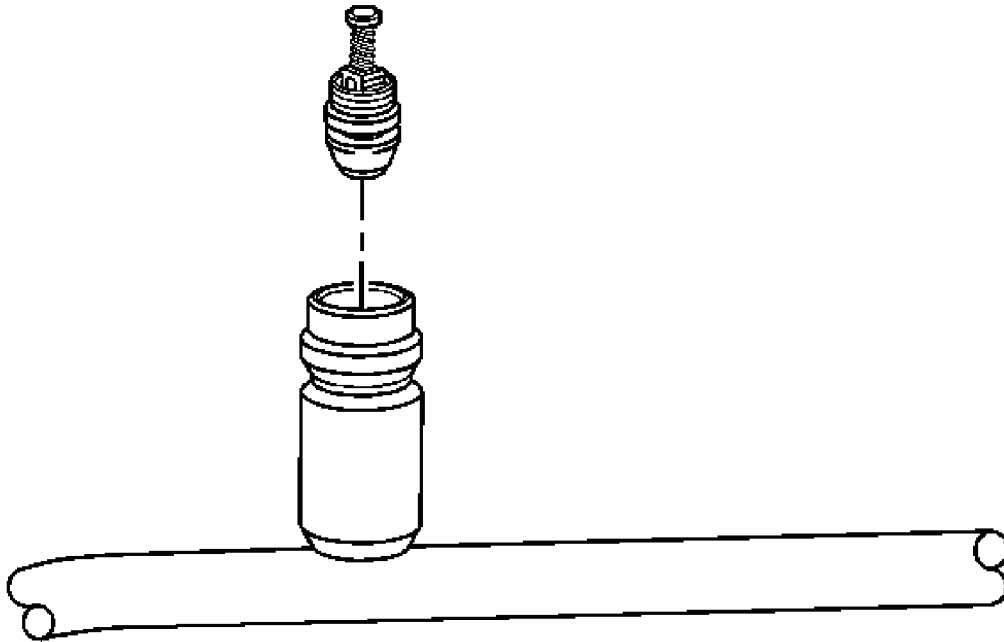


Fig. 37: View Of Service Port Valve Core
Courtesy of GENERAL MOTORS CORP.

NOTE: Refer to Fastener Notice in Cautions and Notices.

1. Install the service port valve core using **J 46246** or equivalent. See Special Tools.

Tighten: Tighten the service port valve core to 2.5 N.m (22 lb in).

2. Evacuate and charge the refrigerant system. Refer to Refrigerant Recovery and Recharging.
3. Leak test the fittings using the **J 39400-A**.

THERMAL EXPANSION VALVE REPLACEMENT

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2006 ACCESSORIES & EQUIPMENT Keyless Entry - HHR

18	and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	-	Go to Step 23	Go to Step 22
19	Repair the following in the battery positive voltage circuit of the RCDLR. • An open • A high resistance • A short to ground Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you complete the repair?	-	Go to Step 23	-
20	Repair the open or high resistance in the RCDLR ground circuit. Refer to Testing for Continuity and Wiring Repairs in Wiring Systems. Did you complete the repair?	-	Go to Step 23	-
21	IMPORTANT: Perform the keyless entry transmitter programming procedure when replacing the RCDLR. Replace the RCDLR. Refer to Body Control Module (BCM) Programming/RPO Configuration in Computer/Integrating Systems for replacement, setup, and programming. Did you complete the replacement?	-	Go to Step 23	-
22	Replace the BCM. Refer to Body Control Module (BCM) Programming/RPO Configuration in Computer/Integrating Systems for replacement, setup, and programming. Did you complete the replacement?	-	Go to Step 23	-
23	Operate the system in order to verify the repair. Did you correct the condition?	-	System OK	Go to Step 3

1. Remove the left front wheel. Refer to **Tire and Wheel Removal and Installation** in Tires and Wheels.
2. Disconnect the backup lamp connector (1).

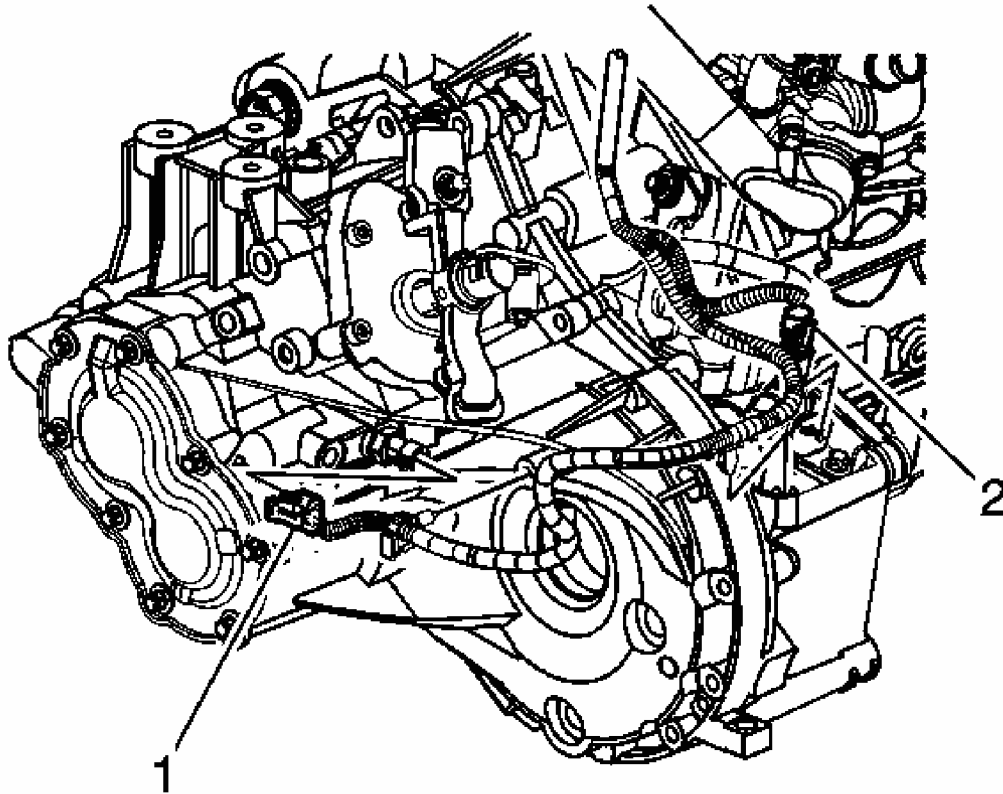


Fig. 66: Locating Backup Light Connector & VSS Connector
Courtesy of GENERAL MOTORS CORP.

3. Remove the backup lamp switch assembly.

Installation Procedure

NOTE: When removing or installing the backup lamp switch, do not use an open end wrench. Use only a socket in order to avoid damage to the switch assembly.

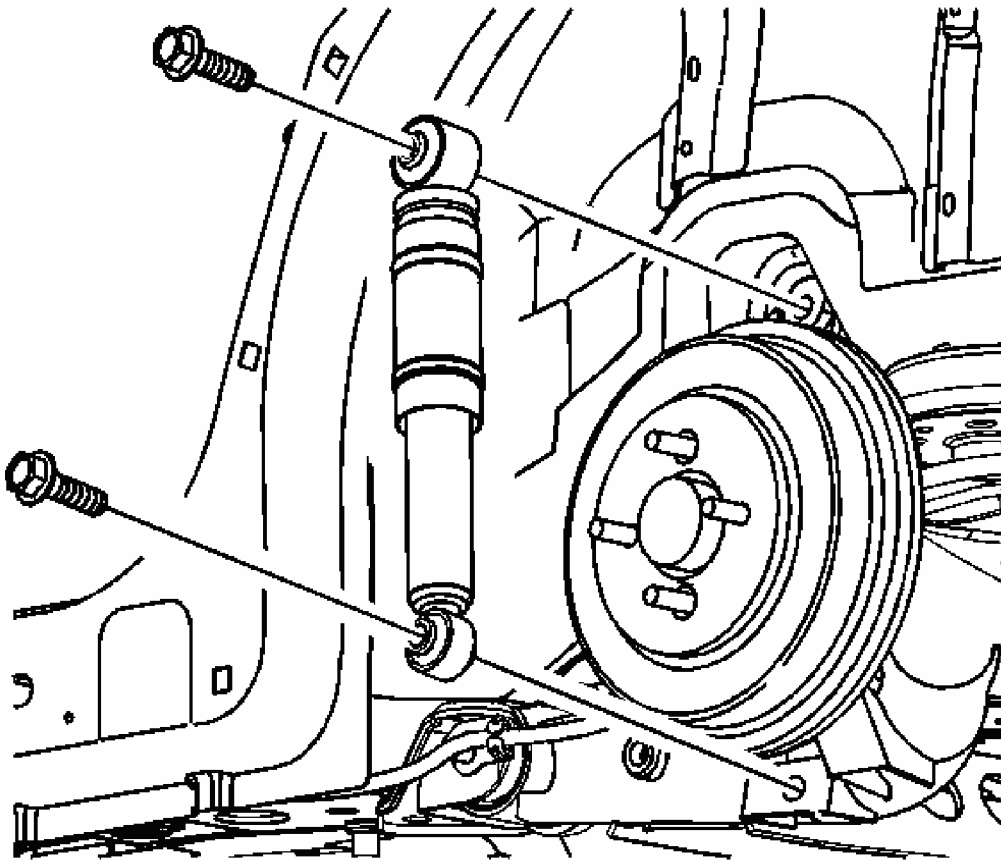


Fig. 29: View Of Shock Absorber
Courtesy of GENERAL MOTORS CORP.

The shock absorbers are bolted to the rear axle and the vehicle underbody. The shock absorbers are non-adjustable and non-refillable. Service of the shocks requires replacement of the shock assembly.

Wheel Bearing/Hub Assembly

A single hub and bearing assembly is bolted to both ends of the rear axle assembly. The hub and bearing assembly is a sealed unit that eliminates the need for wheel bearing adjustment or periodic maintenance. On ABS equipped vehicles, the wheel speed sensors are integrated into the wheel bearing assemblies.

Although the rear suspension components are lubricated for life and require no routine lubrication, they should be inspected periodically for damage and wear.

SPECIAL TOOLS AND EQUIPMENT

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2006 ACCESSORIES & EQUIPMENT Seats - HHR

Refer to **Fastener Notice** .

Fastener Tightening Specifications: Refer to **Fastener Tightening Specifications**.

1	Screw, Seat Riser Finish Cover Tighten: 2 N.m (18 lb in)
2	Cover, Seat Riser Finish Outboard Tip: Unclip the rear of the cover first then pull away from the front side of the seat to remove.
3	Clip, Retainer

SEAT CUSHION INNER TRIM PANEL REPLACEMENT

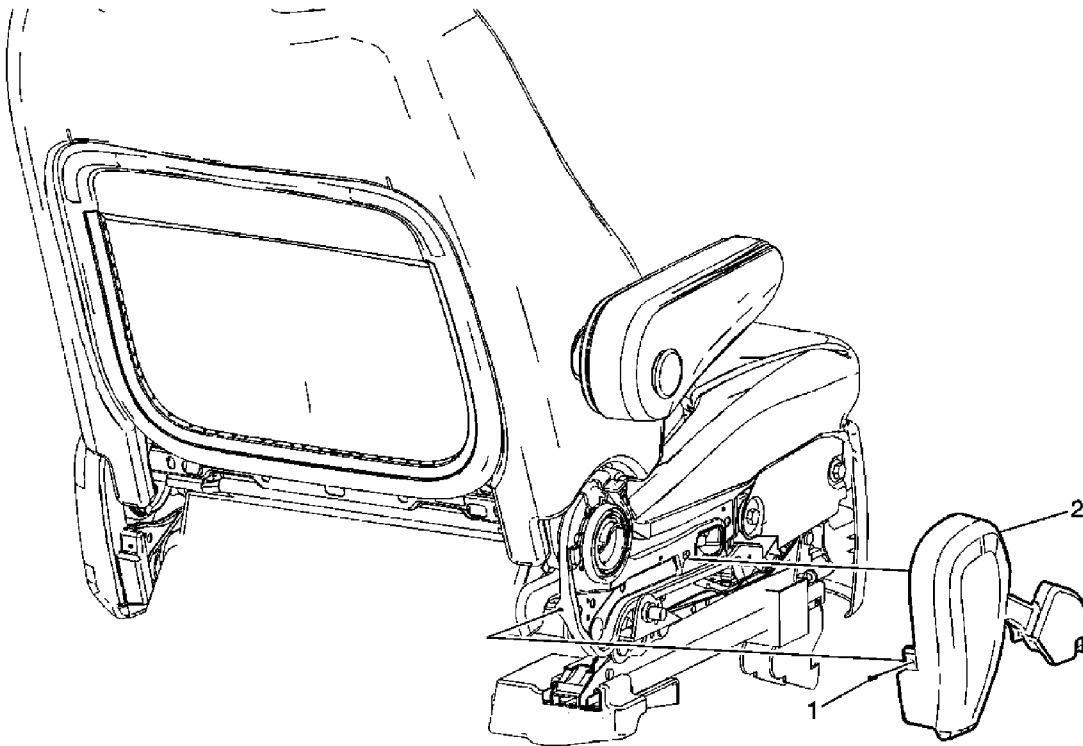


Fig. 19: Seat Cushion Inner Trim Panel Replacement
Courtesy of GENERAL MOTORS CORP.

Seat Cushion Inner Trim Panel Replacement

Callout	Component Name
NOTE: Refer to Fastener Notice . Fastener Tightening Specifications: Refer to Fastener Tightening	

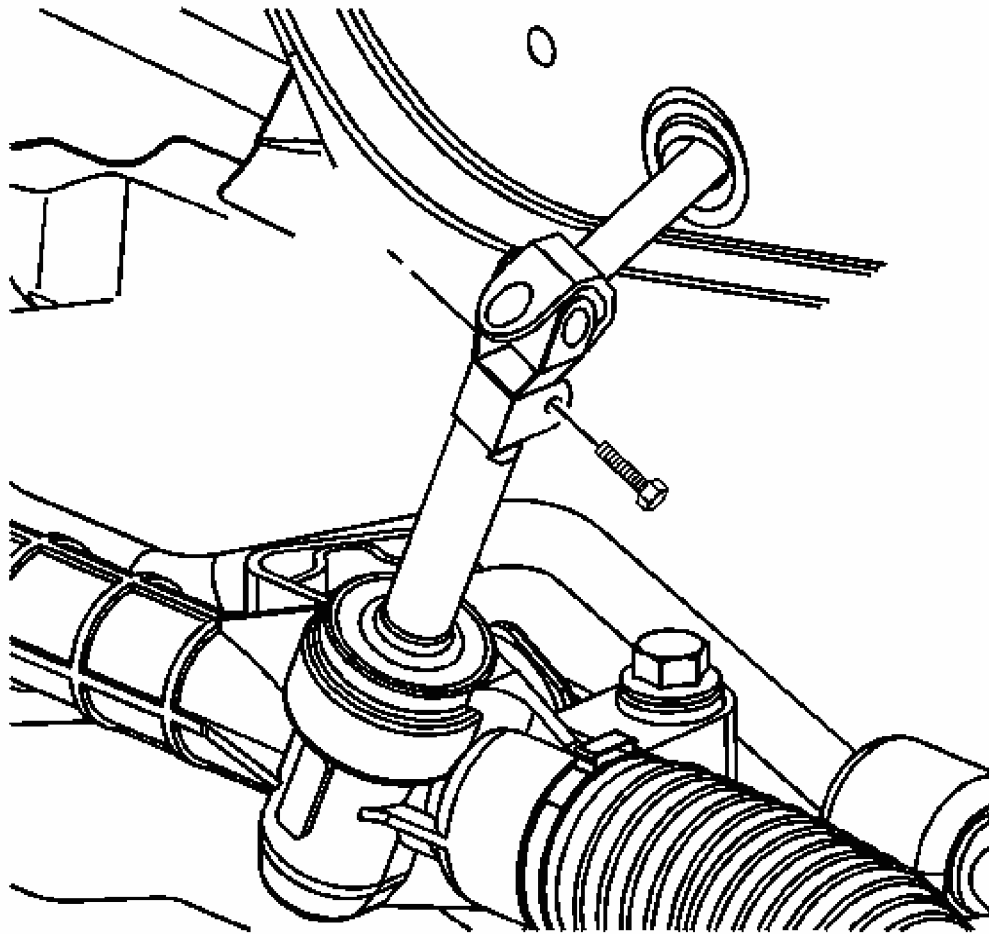


Fig. 15: View Of Intermediate Shaft-To-Steering Gear Pinch Bolt
Courtesy of GENERAL MOTORS CORP.

9. Install a new intermediate shaft to steering gear pinch bolt.

Tighten: Tighten the bolt to 34 N.m (25 lb ft).

10. Install the left front wheel. Refer to **Tire and Wheel Removal and Installation** .
11. Check for proper steering wheel alignment. If steering wheel is out of alignment perform the following:
 1. Remove the intermediate shaft pinch bolt at the steering column.
 2. Disconnect the intermediate shaft in order to rotate and reconnect as needed to straighten the steering alignment.
 3. Install a new intermediate shaft pinch bolt.

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2006 SYSTEM WIRING DIAGRAMS Chevrolet - HHR

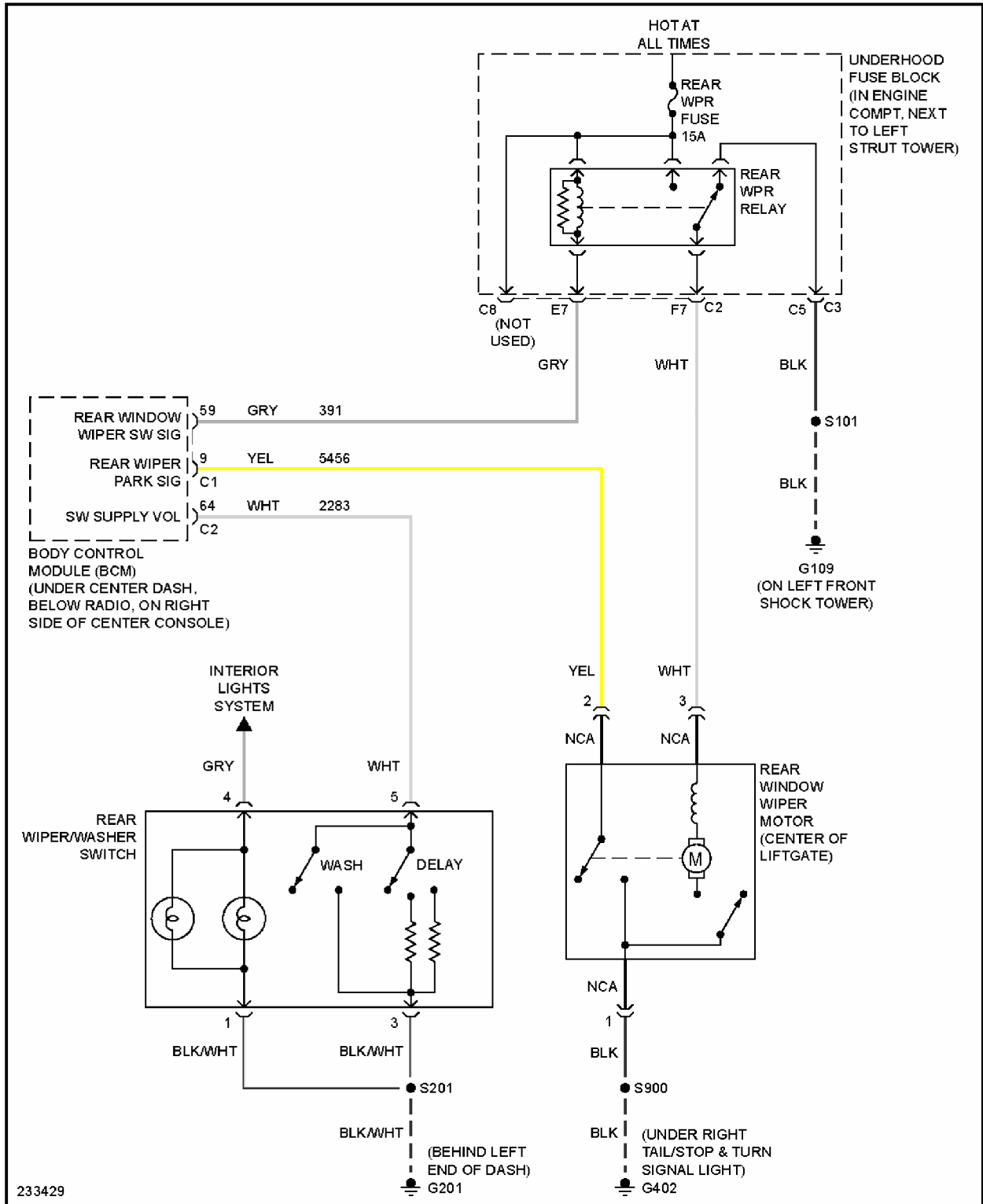


Fig. 58: Rear Wiper/Washer Circuit