

EA11-015

GM

4/29/2013

ATTACHMENT 1

Q12

12V460\_12106B



# Recall Bulletin



## PRODUCT SAFETY RECALL

**SUBJECT:** Shift Lever Indicator May Not Display Correct Gear

**MODELS:** 2008-2010 Chevrolet Malibu  
2008-2010 Pontiac G6  
2007-2010 Saturn AURA  
Equipped with 4-Speed Automatic Transmission (ME7/MN5)

and

2005-2008 Pontiac G6  
2007-2008 Saturn AURA  
Equipped with 4-Speed Automatic Transmission (ME7/MN5) and Serviced  
with a Suspect Replacement Shift Cable

The Service Procedure section in this bulletin has been revised to include an inspection to determine if the clam shell has been installed on the transmission shift cable. Please discard all copies of bulletin 12106A.

### CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2008-2010 model year Chevrolet Malibu and Pontiac G6 vehicles, 2007-2010 model year Saturn AURA vehicles, equipped with a 4-speed automatic transmission (ME7/MN5), also 2005-2008 model year Pontiac G6 and 2007-2008 model year Saturn AURA vehicles that are equipped with a 4-speed automatic transmission (ME7/MN5) and were serviced with a suspect replacement shift cable. Some of these vehicles may have a shift cable with conduit end locking tabs near the transmission bracket that could fracture. These tabs could fracture without warning. If this occurs, the transmission may not be in the PARK position and may not match the gear position indicated by the shift lever. The driver would be able to remove the key from the ignition, but the door locks may not unlock automatically and the PARK indicator lamp would not be illuminated. The driver may not be able to restart the vehicle and the vehicle could roll away after the driver has exited the vehicle, resulting in a possible crash without prior warning.

### CORRECTION

Dealers are to install a retainer over the transmission shift cable end fitting. If the end fitting tabs are fractured, the shift cable must be replaced.

VEHICLES INVOLVED

All involved vehicles are identified by Vehicle Identification Number on the Investigate Vehicle History screen in GM Global Warranty Management system. Dealership service personnel should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to US and Canadian dealers through the GM GlobalConnect Recall Reports, or sent directly to export dealers. Dealers will not have a report available if they have no involved vehicles currently assigned.

The listing may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this report to the follow-up necessary to complete this recall.

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order. **Kit P/N 19210732 is not eligible for RIM Management.**

Part Number	Description	Quantity/Vehicle
19210732	CABLE KIT, A/TRNS RANGE SEL LVR	1
20922586	CABLE, A/TRNS RANGE SEL LVR (Malibu)	1 (if req'd)
20922585	CABLE ,A/TRNS RANGE SEL LVR (G6)	1 (if req'd)
25907379	CABLE, A/TRNS RANGE SEL LVR (AURA)	1 (if req'd)

## SERVICE PROCEDURE

**Note:** Determine if field action bulletin 09041A has been completed. Inspect the shift cable for the presence of a clam shell cover that surrounds the shift cable locking tabs.

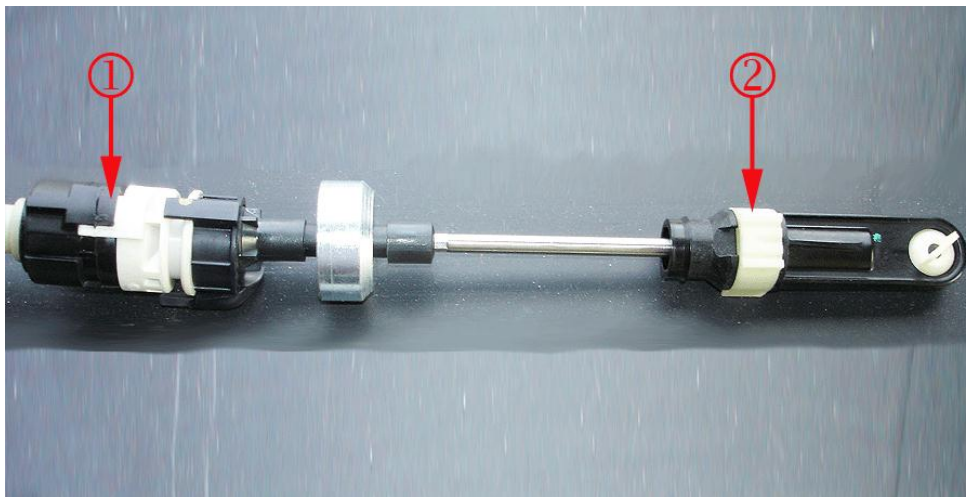
- If the clam shell cover is installed, no further action is required. Refer to the *Warranty Transaction Information* section of this bulletin. Submit a transaction using labor code V2743.
- If the clam shell cover is NOT installed, determine if the transmission shift cable is a first or second design cable.



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**Note:** Perform the service repair procedure in this bulletin on second design transmission shift cables only. First design transmission shift cables do NOT require a repair. Refer to the illustration to view a first design shift cable. Refer to *Transmission Shift Cable Kit Installation Procedure* in this bulletin to view the second design transmission shift cable.

### Transmission Shift Cable Kit Installation Procedure



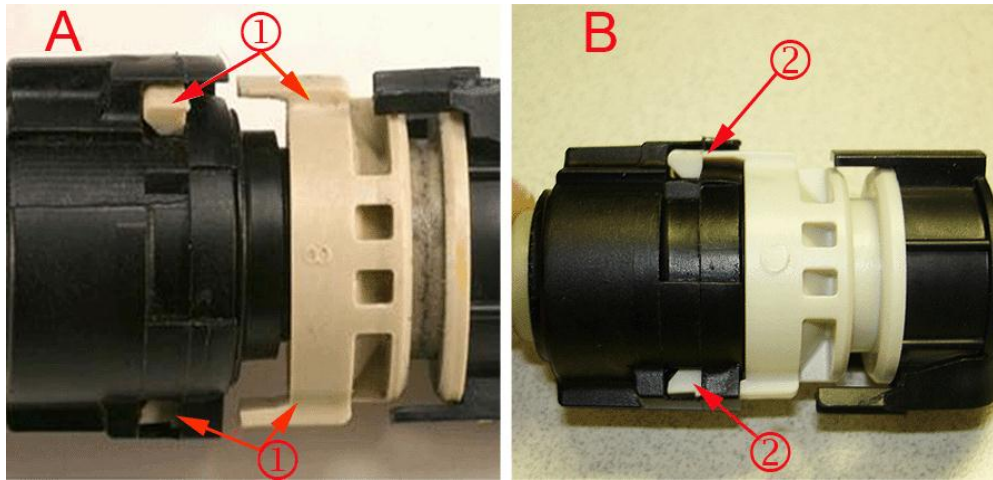
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- (1) Shift Cable Locking Tabs
- (2) Shift Cable Adjuster Locking Clip

**Hybrid Vehicle Notice:** Remove the generator control module cover to gain access to the transmission shifter cable. Refer to *Generator Control Module Cover Replacement* in SI.

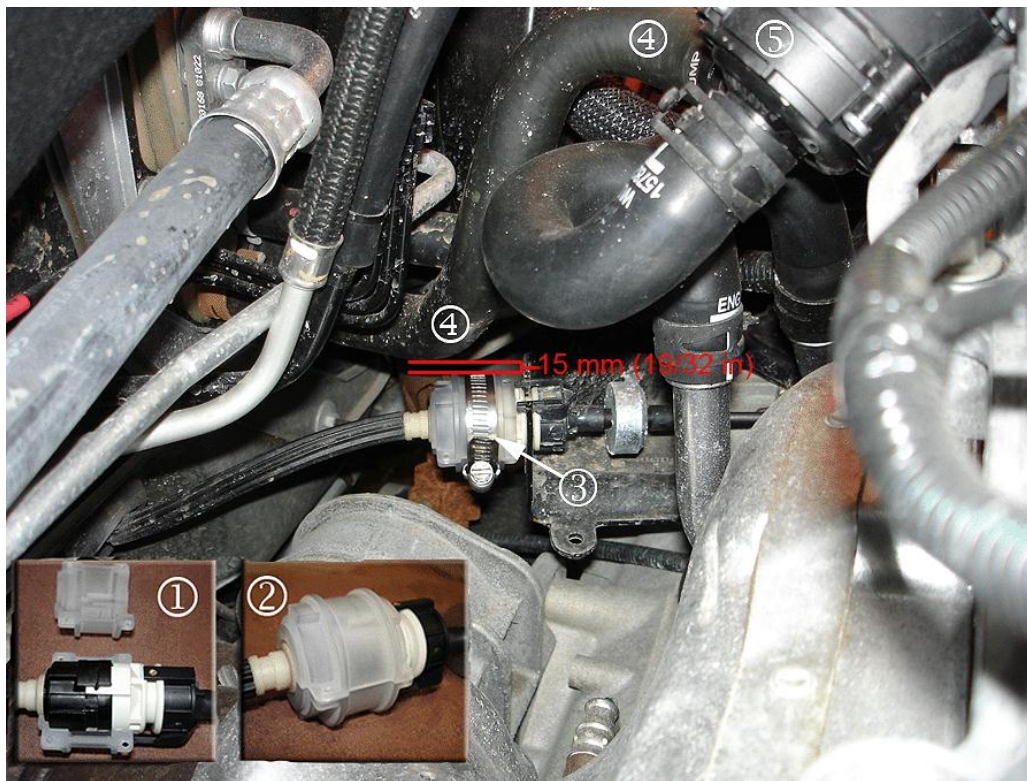
1. Open the hood and locate the transmission shift cable.

2. Determine if the transmission shift cable locking tabs are fractured and separated.



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- If the transmission shift cable locking tabs (1) are fractured and separated (A), remove the transmission shift cable and replace it with a new one. Refer to *Floor Shift Control Cable Replacement or Range Selector Lever Cable Replacement* in SI. **Also install a transmission shift cable kit with the new shift cable.**
- If the transmission shift cable locking tabs (2) are NOT fractured and separated (B), install the transmission shift cable kit. Proceed to Step 3.



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Hybrid vehicle shown. Combustion engine vehicle is similar.

- (1) Clam Shell in Two Pieces
- (2) Clam Shell Around Shift Cable Locking Tabs
- (3) Clamp on Clam Shell
- (4) Inlet Coolant Hose and
- (5) Heater Cooler Pump.



3. Install the clam shell (1) (2) over the shifter cable locking tabs.
4. Install the service clamp over the clam shell (3). Position the clamp fastener head away from the inlet coolant hose (4). **Tighten the clamp to 4 N·m (35 lb-in).**
5. Ensure that there is 15 mm (19/32 in) of clearance between the inlet coolant hose (4) and the clam shell (3). On hybrid equipped vehicles, it may be necessary to reposition the inlet coolant hose (4) to achieve the required 15 mm (19/32 in) of clearance. **To reposition the inlet coolant hose (4) on hybrid equipped vehicles, locate the heater cooler pump (5) and perform Steps 5.1-5.4.**

**Caution: Do not kink or damage the inlet coolant hose (4) when repositioning the hose to obtain the 15 mm (19/32 in) clearance. To avoid damaging the hose clamp, use J-38185 or equivalent hose clamp pliers to loosen the hose clamp.**

- 5.1. Using J-38185 or equivalent hose clamp pliers, loosen the inlet coolant hose (4) connected to the heater cooler pump (5). Note the location of the clamp on the inlet coolant hose (4).
  - 5.2. Rotate the inlet coolant hose (4) clockwise until 15 mm (19/32 in) of clearance between the inlet coolant hose (4) and clam shell (3) is achieved.
  - 5.3. Ensure that the inlet coolant hose clamp is secure on the inlet coolant hose (4) in the production location.
  - 5.4. Install the generator control module cover. Refer to *Generator Control Module Cover Replacement* in SI.
6. Close the hood.

#### CUSTOMER REIMBURSEMENT - For US

Customer requests for reimbursement of previously paid repairs for the recall condition are to be submitted to the dealer by November 30, 2013, unless otherwise specified by state law. If this is not convenient for the customer, they may mail the completed Customer Reimbursement Request Form and all required documents to the GM Customer Assistance Center.

**All reasonable and customary costs to correct the condition described in this bulletin should be considered for reimbursement. Any questions or concerns should be reviewed with your District Service Manager – Aftersales prior to processing the request.**

When a customer requests reimbursement, they must provide the following:

- A completed Customer Reimbursement Request Form. This form is mailed to the customer or can be obtained through GM GlobalConnect.
- The name and address of the person who paid for the repair.
- Paid receipt confirming the amount of the repair expense, a description of the repair, and the person or entity performing the repair.

**IMPORTANT:** GM requires dealers to approve or deny a reimbursement request within 30 days of receipt. If a reimbursement request is approved, the dealer should immediately issue a check to the customer and submit an appropriate warranty transaction for the incurred expense. If a reimbursement request is denied, the dealer MUST provide the customer with a clear and concise explanation, in writing, as to why the request was denied. The bottom

portion of the Customer Reimbursement Request Form may be used for this purpose. If the denial was due to missing documents, the customer can resubmit the request when the missing documents are obtained, as long as it is still within the allowed reimbursement period.

Warranty transactions for customer reimbursement of previously paid repairs are to be submitted as required by GM Global Warranty Management. Additional information can also be found in Warranty Administration Bulletin 11-00-89-004.

#### CUSTOMER REIMBURSEMENT - For Canada and Export

Customer requests for reimbursement of previously paid repairs to correct the condition described in this bulletin are to be submitted to the dealer prior to or by November 30, 2013.

When a customer requests reimbursement, they must provide the following:

- Proof of ownership at time of repair.
- Original paid receipt confirming the amount of unreimbursed repair expense(s) (including Service Contract deductibles), a description of the repair, and the person or entity performing the repair.

All reasonable and customary costs to correct the condition described in this bulletin should be considered for reimbursement. Any questions or concerns should be reviewed with your GM representative prior to processing the request.

#### COURTESY TRANSPORTATION – For US and Canada

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

**WARRANTY TRANSACTION INFORMATION**

Submit a transaction using the table below.

<b>Labor Code</b>	<b>Description</b>	<b>Labor Time</b>	<b>Net Item</b>
V2743	Inspect Transmission Shift Cable – No Further Action Req'd (first design cable or clam shell installed)	0.2	N/A
V2671	Install Transmission Shift Cable Kit	0.2	N/A
	Add: Hybrid Vehicle	0.1	
V2672	Transmission Shift Cable Replacement (inc. install transmission shift cable kit)		N/A
	- Malibu	1.5	
	- AURA, G6	1.1	
	Add: Hybrid Vehicle	0.1	
V2673*	Customer Reimbursement Approved	0.2	*
V2674	Customer Reimbursement Denied - For US Dealers Only	0.1	N/A

\* Customer reimbursement will not close this recall. The service procedure must also be performed on the vehicle.

\*\* The amount identified in the "Net Item" column should represent the dollar amount reimbursed to the customer.

**CUSTOMER NOTIFICATION** – For US and Canada

General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

**CUSTOMER NOTIFICATION** – For Export

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

**DEALER RECALL RESPONSIBILITY** – For US and Export (US States, Territories, and Possessions)

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to



contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

### DEALER RECALL RESPONSIBILITY – All

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.



November 2012

Dear General Motors Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2008-2010 model year Chevrolet Malibu and Pontiac G6, and 2007-2010 model year Saturn AURA vehicles, equipped with a 4-speed automatic transmission, also 2005-2008 model year Pontiac G6 and 2007-2008 model year Saturn AURA vehicles that are equipped with a 4-speed automatic transmission and were serviced with a suspect replacement shift cable. As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we are concerned about your safety and continued satisfaction with our products.

## **I M P O R T A N T**

- Your vehicle is involved in safety recall 12106.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

### **Why is your vehicle being recalled?**

Your vehicle was either built or serviced with a transmission shift cable that has end fitting tabs that may fracture and separate. If the tabs were to separate, the shift lever and the actual position of the transmission gear may not match. With this condition, you would be able to move the shifter to PARK and remove the ignition key, but the transmission gear may not be in PARK. You may not be able to restart the vehicle and the vehicle could roll away after you have exited the vehicle, resulting in a possible crash without prior warning.

### **What will we do?**

Your GM dealer will install a retainer over the transmission shift cable end fitting. If the end fitting tabs are fractured, the shift cable will be replaced. This service will be performed for you at **no charge**. Because of service scheduling requirements, it is likely that your dealer will need your vehicle longer than the actual service correction time of approximately 20 minutes to 1 hour and 40 minutes, depending on the service required.

### **What should you do?**

You should contact your GM dealer in January 2013, to arrange a service appointment.

### **Did you already pay for this repair?**

If you have paid for repairs for the recall condition, please complete the enclosed form and present it to your dealer with all required documents. Working with your dealer will expedite your request, however, if this is not convenient, you may mail the completed form and all required documents to Reimbursement Department, PO Box 33170, Detroit, MI 48232-5170. The completed form and required documents must be presented to your dealer or received by the Reimbursement Department by November 30, 2013, unless state law specifies a longer reimbursement period. Even though you may

have already had this condition corrected, you will still need to take your vehicle to your dealer for additional repairs.

**Do you have questions?**

If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below.

Division	Number	Text Telephones (TTY)
Chevrolet	1-800-222-1020	1-800-833-2438
Pontiac	1-800-762-2737	1-800-833-7668
Saturn	1-800-553-6000	1-800-833-6000
Guam	65-6267-1752	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to <http://www.safercar.gov>. The National Highway Traffic Safety Administration Campaign ID Number for this recall is 12V460.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Jim Moloney  
General Director,  
Customer and Relationship Services

Enclosure  
GM Recall #12106

EA11-015

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ATTACHMENT 1

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Cable Bracket

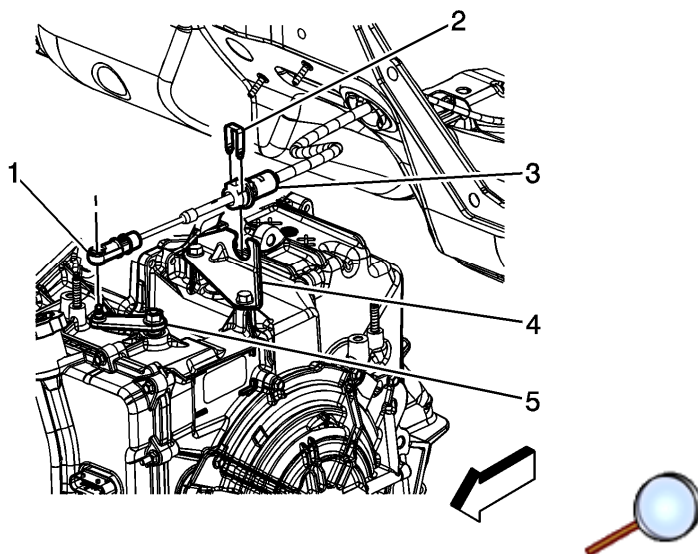
Replace\_1796245\_Modified\_05

312006

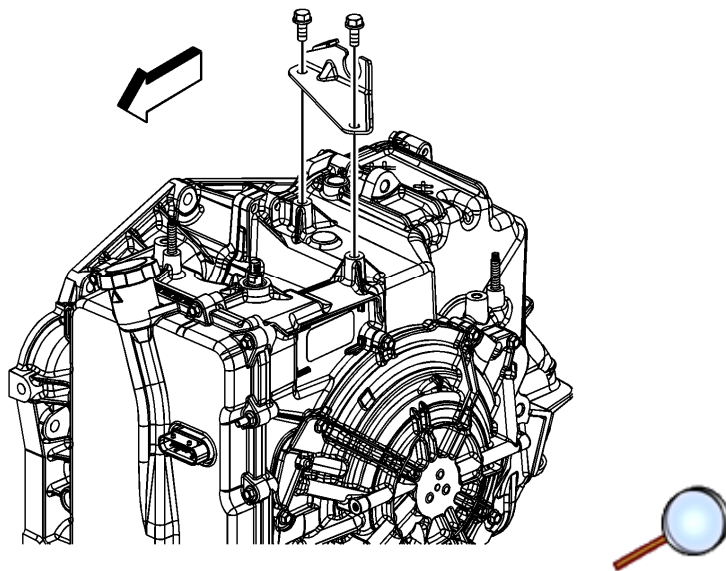
## Range Selector Lever Cable Bracket Replacement

### Removal Procedure

1. Set the park brake and chock the wheels.



2. Disconnect the transaxle range selector lever cable terminal (1) from the transaxle manual shift lever pin (5).
3. Remove the retainer (2) from the transaxle range selector lever cable.
4. Press the locking tabs inward in order to release the transaxle range selector lever cable (3) from the cable bracket (4).



5. Remove the shift control cable bracket bolts.
6. Remove the shift control cable bracket.

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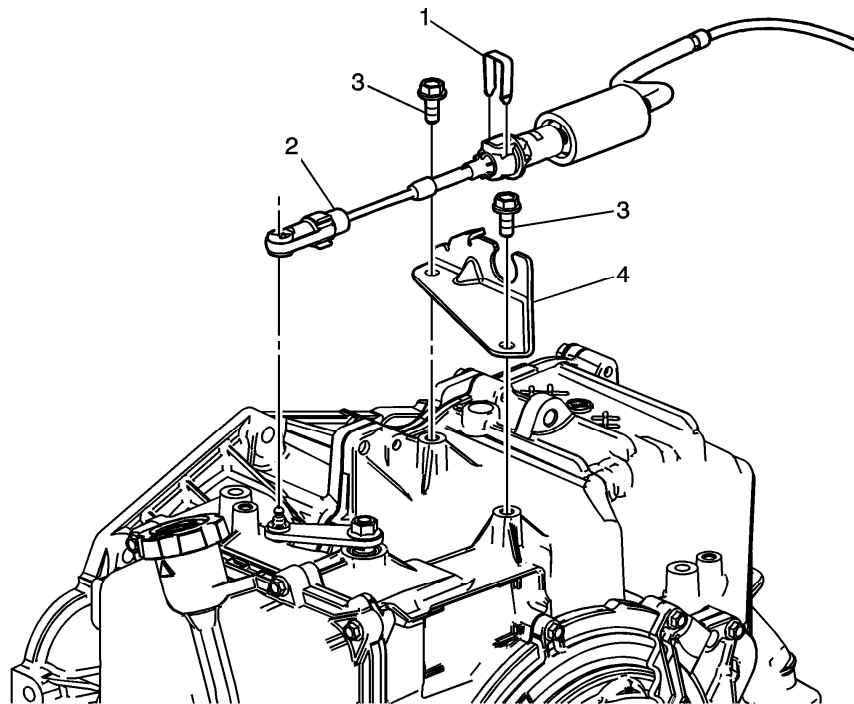
Q12

Cable Bracket

Replace\_1830597\_Modified\_07

312006

## Range Selector Lever Cable Bracket Replacement



Range Selector Lever Cable Bracket Replacement

Callout	Component Name
Preliminary Procedures 1. Set the park brake and chock the wheels. 2. Remove the battery tray. Refer to <a href="#">Battery Tray Replacement</a> .	
1	Transmission Range Selector Lever Cable Retainer
2	Transmission Range Selector Lever Cable
3	Transmission Range Selector Lever Cable Bracket Bolt Notice: Refer to <a href="#">Fastener Notice</a> . Tighten 25 Y (18 lb ft)
4	Transmission Range Selector Lever Cable Bracket



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Cable Bracket

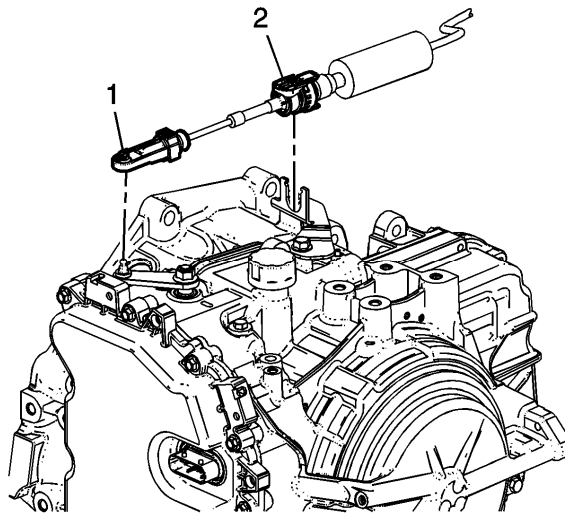
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182011

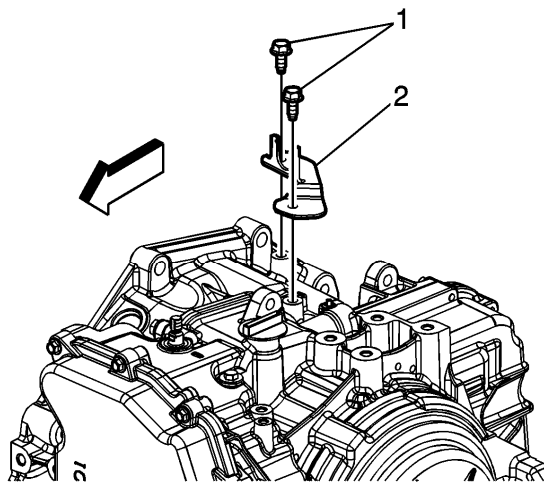
## Range Selector Lever Cable Bracket Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.

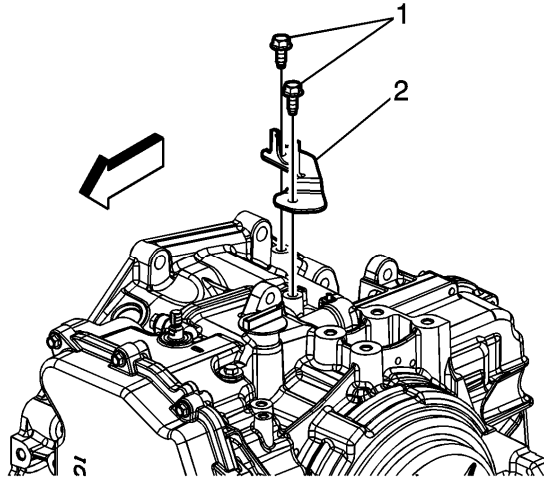


2. Disconnect the range selector cable end (1) from the range selector lever.
3. Disconnect the range selector cable (2) from the range selector cable bracket.



4. Remove the transmission range selector cable bracket bolts (1).
5. Remove the transmission range selector cable bracket (2).

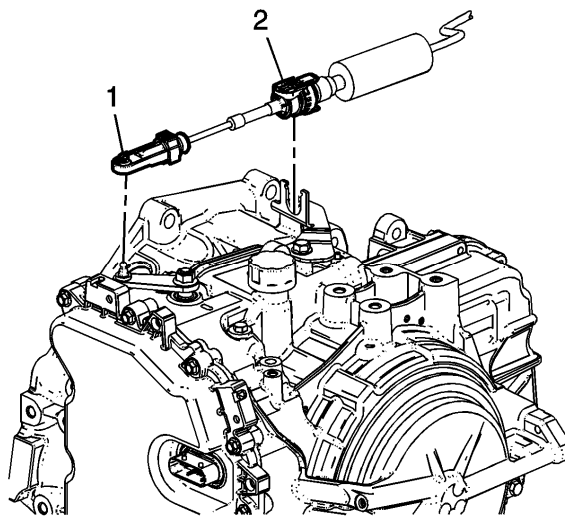
### [Installation Procedure](#)



1. Install the transmission range selector cable bracket (2).

**Notice:** Refer to [Fastener Notice](#).

2. Install the transmission range selector cable bracket bolts (1).  
Tighten  
Tighten the bolts to 18 Y (14 lb ft).



3. Connect the range selector cable (2) to the range selector cable bracket.
4. Connect the range selector cable end (1) to the range selector lever.
5. Check the range selector cable adjustment. Refer to [Range Selector Lever Cable Adjustment](#).

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Service\_Procedure\_Usage

		Cable Replace				Cable Adjust				Bracket Replace			
		MN5/ME7	MH2	M15	MH8	MN5/ME7	MH2	M15	MH8	MN5/ME7	MH2	M15	MH8
Saturn Aura	2007	1765775	1765778	x	x	1765722	1765734	x	x	No Proc	1830597	x	x
	2008	1765775	1765778	x	x	1765722	1765734	x	x	No Proc	1830597	x	x
Pontiac G6	2007	1793113	1793724	1738493	x	1509641	1765734	1765734	x	No Proc	1796245	No Proc	x
	2008	1793113	1793724	1738493	x	1509641	1765734	1765734	x	No Proc	1796245	No Proc	x
Chevy Malibu	2007	1736138	x	1736142	x	1509641	x	1593677	x	No Proc	x	No Proc	x
	2008	2001711	2001051	x	2001194	2001711	2001711	x	2001711	No Proc	1830597	x	2000262

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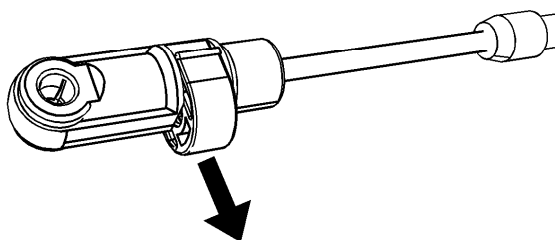
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Shift Cable

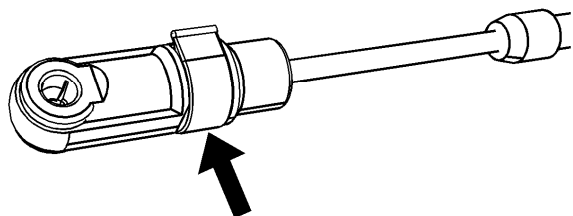
Adjust\_1509641\_Modified\_110

92004

## Shift Control Cable Adjustment



1. Raise the hood.
2. Clean the area around where the shift cable attaches to the transmission, if necessary.
3. Push the shift cable adjustment retainer into the released position.
4. Place the transmission range selector lever into the PARK position.
5. From inside the vehicle, place the floor shift control into the PARK position.



6. With both levers in the PARK position, push the shift cable adjustment retainer into the locked position.
7. Confirm proper operation of the shift control system and repeat the adjustment procedure if the shift position detents feel vague or if there are shift concerns.

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Shift Cable

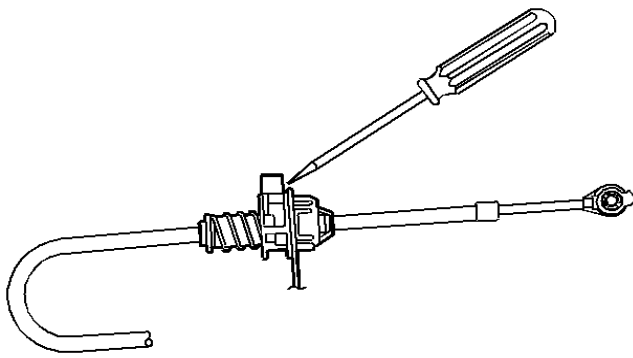
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32005

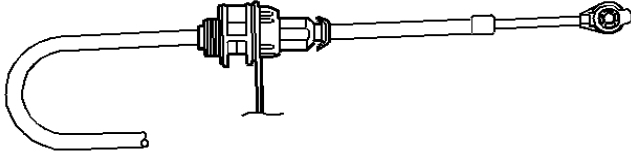
## Range Selector Lever Cable Adjustment

**Notice:** Adjust the shift control cable only while the transaxle and the gear selector are in NEUTRAL. Failure to do so may cause mis-adjustment.

1. Set the parking brake and chock the wheels.
2. Remove the range selector cable terminal from the transmission manual shaft lever pin.
3. Pry on the range selector cable terminal at the manual shaft lever pin with an appropriate tool. Prying or pulling up on any other part of the range selector cable may result in damage to the range selector cable .



4. Fully lift the adjuster lock button. Ensure that the adjuster is free to move.
5. Place the transmission manual shaft lever in (N) Neutral. In order to find (N) Neutral, rotate the lever fully counterclockwise to (P) Park, and then clockwise 2 clicks into (N) Neutral.
6. Place the gear shifter inside the car to the (N) Neutral position.
7. If adjusting a column shift vehicle, rotate the shift lever to the LOW 1 position, fully down. Push forward and upward slowly past the first click, which is overdrive, until it stops solidly at the second click. It is in (N) Neutral.
8. Underhood, grasp the range selector cable terminal and pull it toward the pin on the manual shaft lever. The range selector cable adjuster spring should compress as the terminal is moved toward the pin.
9. Attach the pin to the lever by pushing down carefully until it snaps.  
Do not pull the terminal beyond the pin and then push back. This action could move the shifter out of (N) Neutral.



10. Press the adjuster lock button down flush with the adjuster body.
11. Shift to (P) Park and release the parking brake while applying the service brake.
12. Start the engine and assure all of the indicated gear positions match the vehicle response.

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Shift Cable

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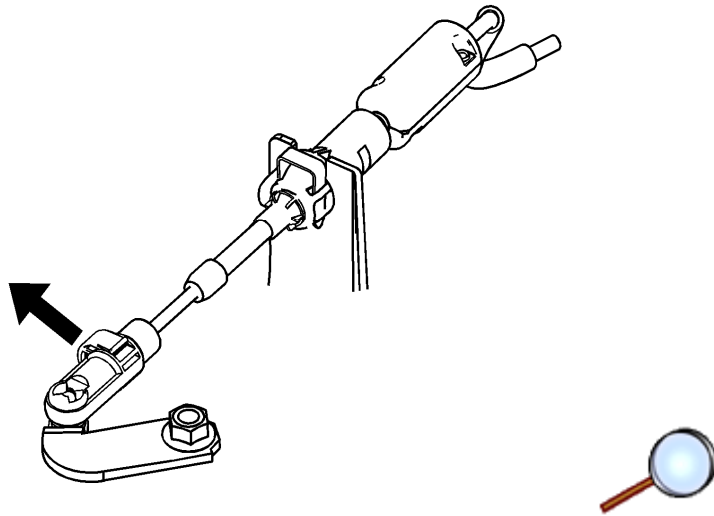
12006

## Shift Control Cable Adjustment

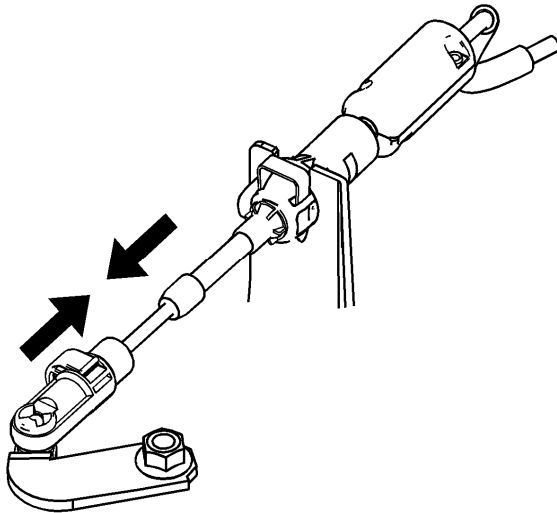
**Caution:** The automatic transaxle range selector cable is made out of two cable sections. After initial connection never separate the two metal couplings from one another. Integrity of the connection of the two metal couplings will be lost if separation of the two metal couplings occurs. When servicing the transaxle remove the cable at the automatic transaxle range selector lever and at the automatic transaxle range selector cable bracket. If either section of the cable needs to be replaced, replace both of the cable sections. Loss of connection integrity of the two metal couplings can cause loss of transaxle shift control which could result in personal injury.

**Important:** Adjust the automatic transaxle range selector cable while the transaxle and the gear selector are in the Park position only. Failure to do so may cause mis-adjustment.

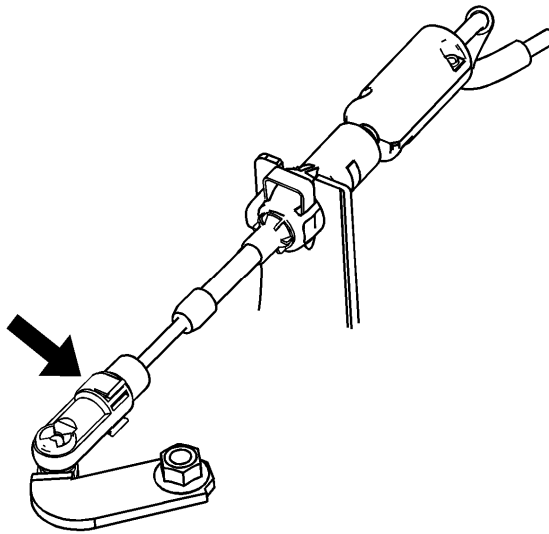
1. Set the park brake and chock the wheels.
2. Verify the transaxle shift control lever is in the park position.
3. Verify the transaxle manual shift lever is in the park position.



4. Release the shift control cable adjuster clip.



5. Slide the two halves of the shift control cable together until all free play is removed.



6. Depress the adjuster clip locking the adjuster clip completely.

7. Pull both halves of the cable in opposite directions to verify the cable adjuster is secured.

8. Check the transaxle shift control lever in all gear selections for proper operation.

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Shift Cable

Adjust\_2001711\_Modified\_092

52007

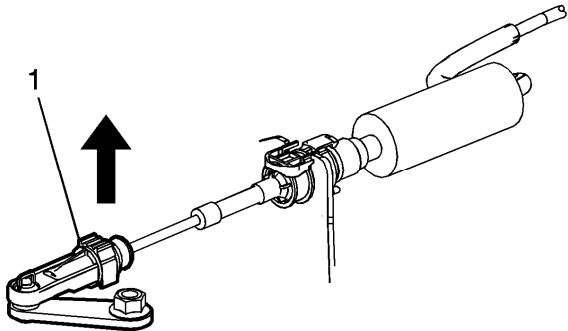


## Range Selector Lever Cable Adjustment

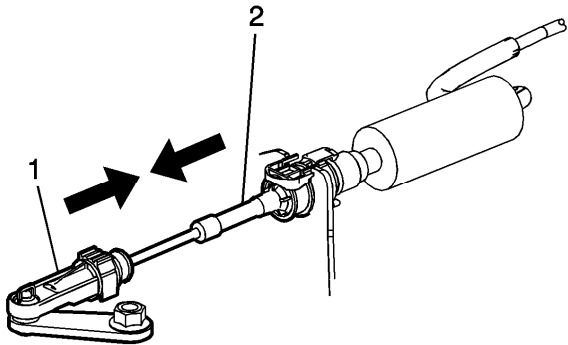
**Caution:** The automatic transaxle range selector cable is made out of two cable sections. After initial connection never separate the two metal couplings from one another. Integrity of the connection of the two metal couplings will be lost if separation of the two metal couplings occurs. When servicing the transaxle remove the cable at the automatic transaxle range selector lever and at the automatic transaxle range selector cable bracket. If either section of the cable needs to be replaced, replace both of the cable sections. Loss of connection integrity of the two metal couplings can cause loss of transaxle shift control which could result in personal injury.

**Important:** Adjust the automatic transmission range selector cable while the transmission and the gear selector are in the Park position only. Failure to do so may cause mis-adjustment.

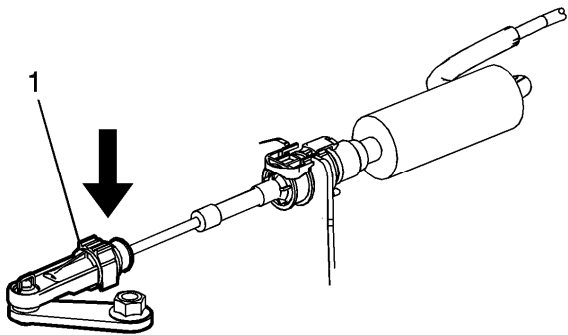
1. Set the park brake and chock the wheels.
2. Verify the transmission range select lever is in the park position.
3. Verify the transmission manual shift lever is in the park position.



4. Release the range select cable adjuster clip (1).



5. Slide the two halves (1, 2) of the range select cable together until all free play is removed.



6. Depress the adjuster clip (1) locking the adjuster clip completely.

7. Pull both halves of the range select cable in opposite directions to verify the cable adjuster is secured.

8. Check the transmission range select lever in all gear selections for proper operation.

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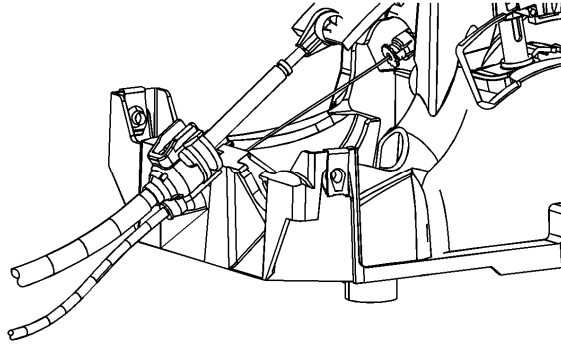
Shift Cable

Replace\_1736138\_Modified\_01

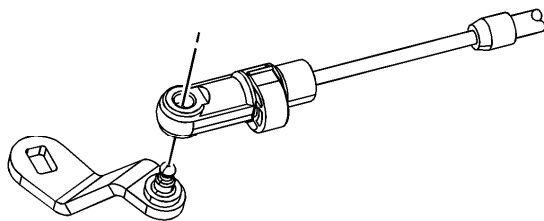
252006

## Floor Shift Control Cable Replacement

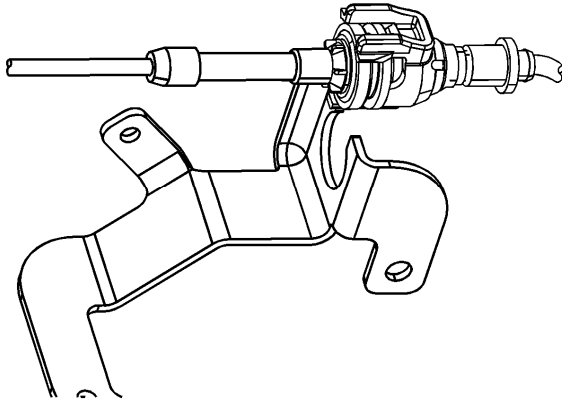
### [Removal Procedure](#)



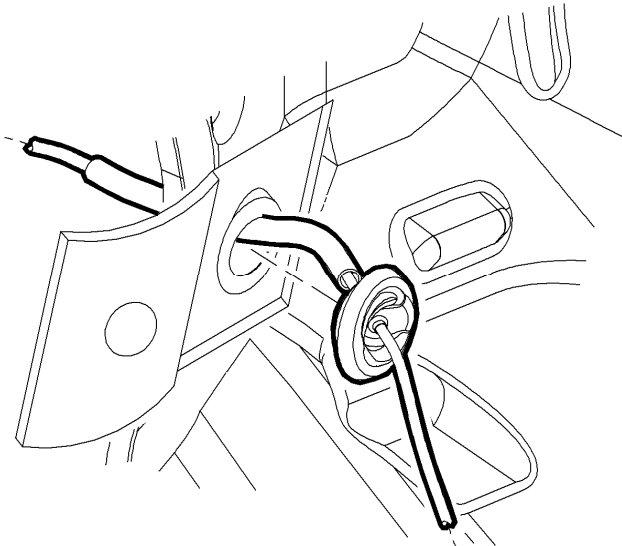
1. Remove the console. Refer to [Console Replacement](#).
2. Press the tabs on the control cable and remove the cable from the control assembly.



3. Disconnect the control cable from the transaxle range switch lever.

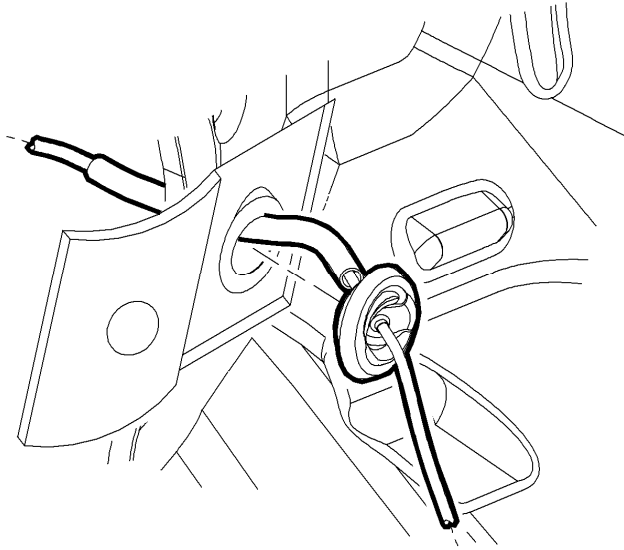


4. Press the 2 tabs on the control cable and remove the cable from the control cable bracket.

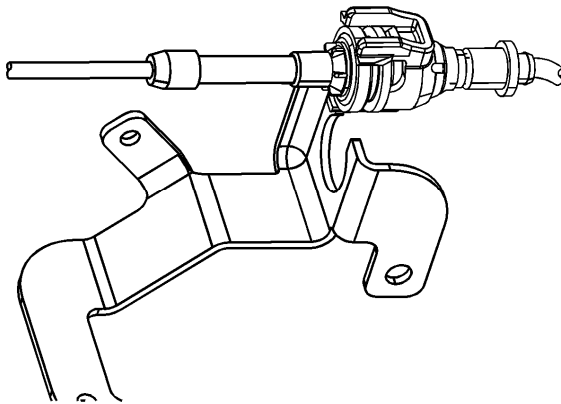


5. Remove the control cable grommet from the dash panel.
6. Remove the control cable from the vehicle.

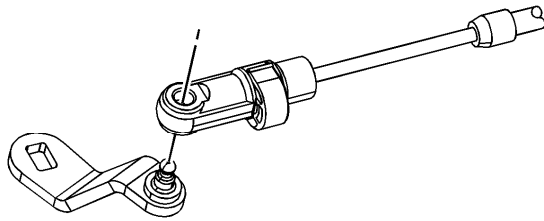
### [Installation Procedure](#)



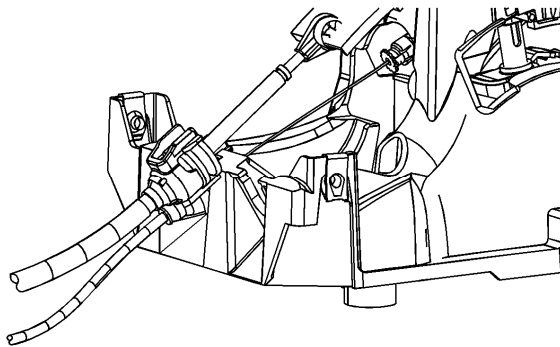
1. Guide the control cable through the pass-through in the dash panel.
2. Secure the control cable grommet by pressing the cable into the pass-through hole in the dash panel.



3. Install the control cable into the transmission bracket, push down until the tabs lock the cable to the bracket.



4. Install the cable to the transmission range switch lever by pressing down until the cable snaps into place.



5. Connect the control cable end to the control assembly lever.
6. Connect the control cable to the pin on the control assembly.
7. Secure the control cable into the control assembly by pushing into place.
8. Install the console. Refer to [Console Replacement](#).
9. Adjust the control cable assembly. Refer to [Shift Control Cable Adjustment](#).

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Shift Cable

Replace\_1736142\_Modified\_01

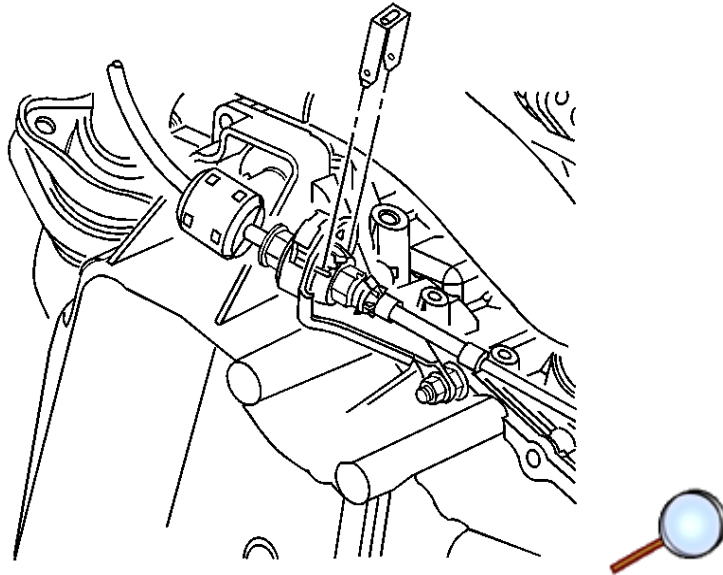
252006



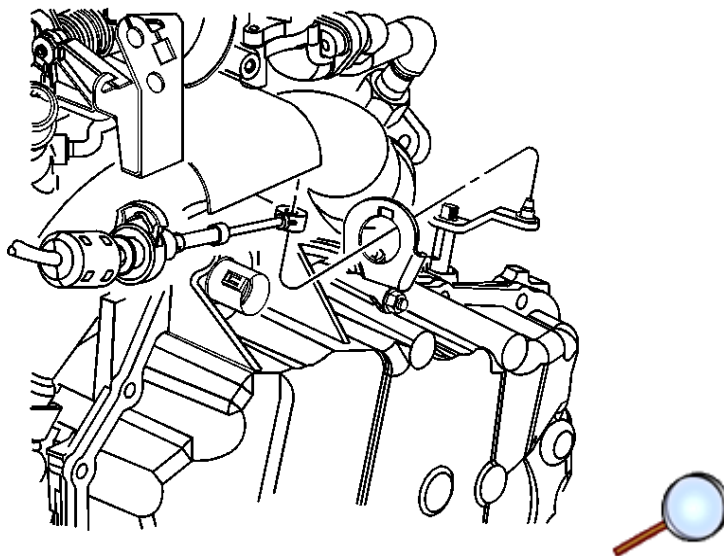
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

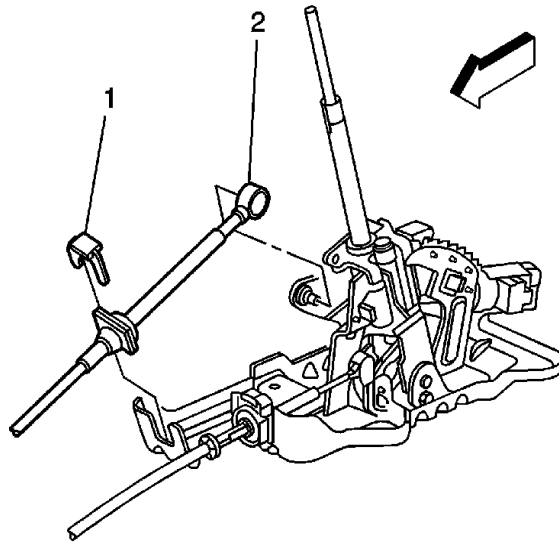
1. Set the park brake and chock the wheels.



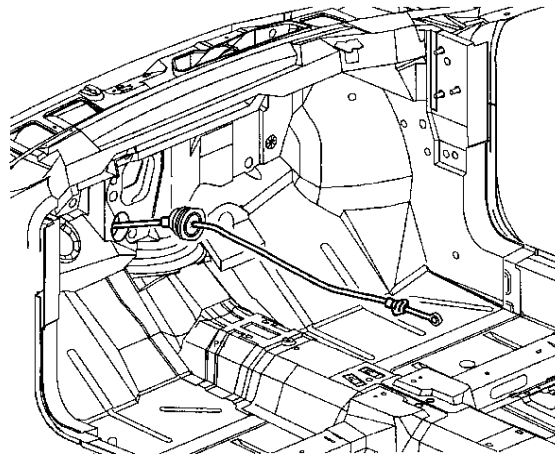
2. Fully lift the retainer from the transaxle range selector cable mechanism.



3. Disconnect the transaxle range selector cable terminal from the transaxle manual shift lever pin.
4. Press the locking tabs inward in order to release the transaxle range selector cable from the bracket.
5. Remove the console. Refer to [Console Replacement](#).

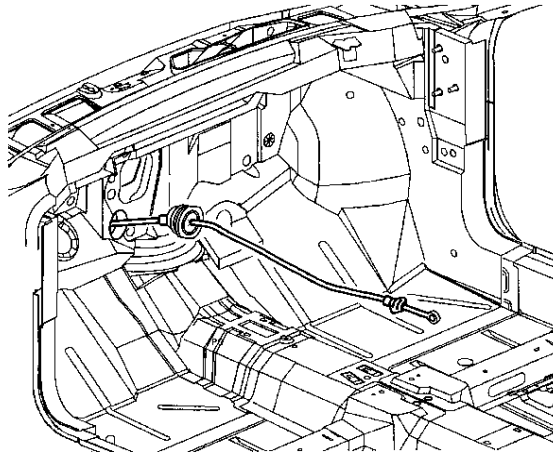


6. Disconnect the transaxle range selector cable terminal from the shift lever pin.
7. Pull the lock release (1) and remove the transaxle range selector cable (2) from the console.

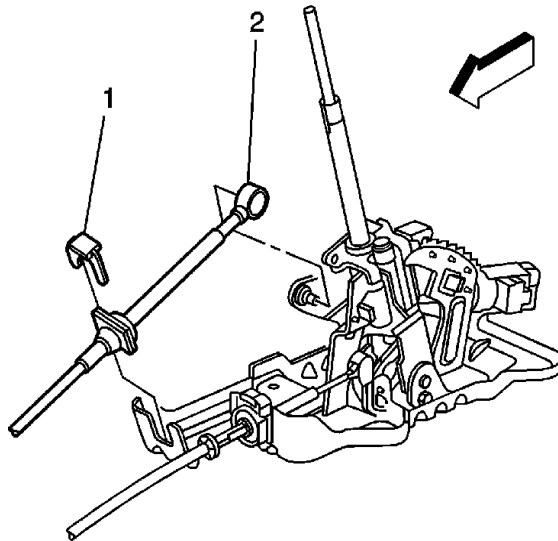


8. Unplug the shift cable grommet at the cowl panel and remove the shift cable from the vehicle.

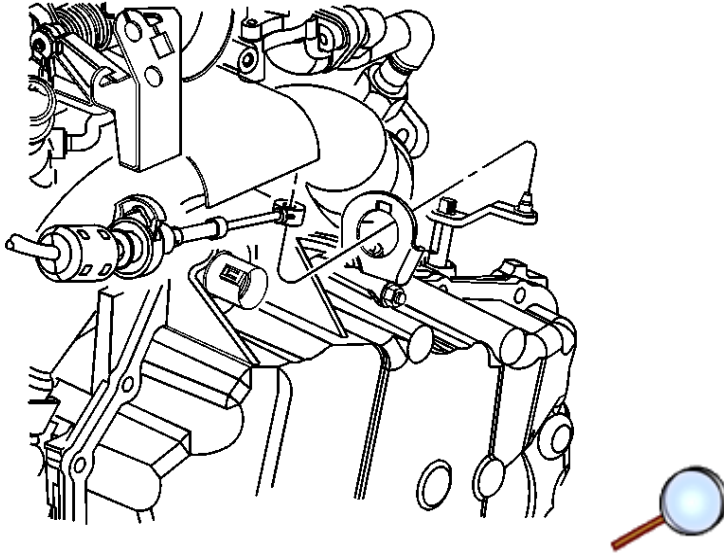
### [Installation Procedure](#)



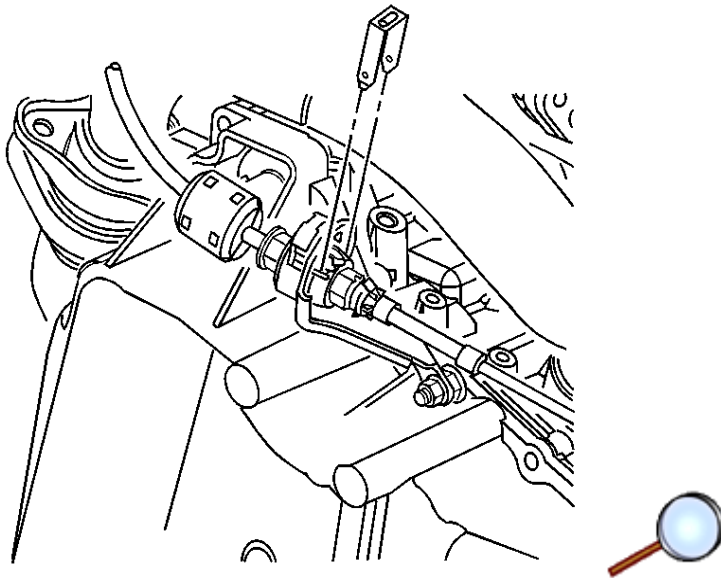
1. Install the shift cable through the cowl panel and seat the grommet.



2. Install the transaxle range selector cable (2) to the console.
3. Install the lock release (1) to the range selector cable.
4. Connect the transaxle range selector cable terminal to the shift lever pin.
5. Install the console. Refer to [Console Replacement](#).



6. Install the transaxle range selector cable into the bracket.
7. Connect the transaxle range selector cable terminal to the transaxle manual shift lever pin.



8. Insert the retainer to the transaxle range selector cable mechanism.
9. Adjust the automatic transmission range selector cable. Refer to [Range Selector Lever Cable Adjustment](#).

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Shift Cable

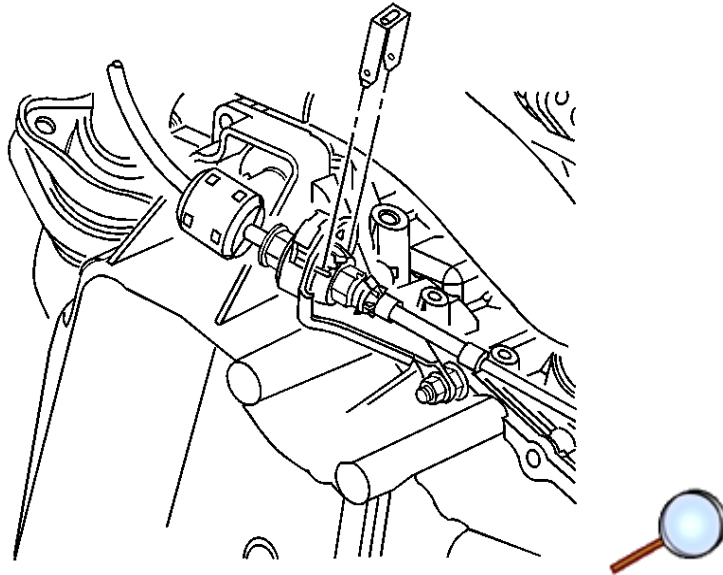
Replace\_1738493\_Modified\_10

192009

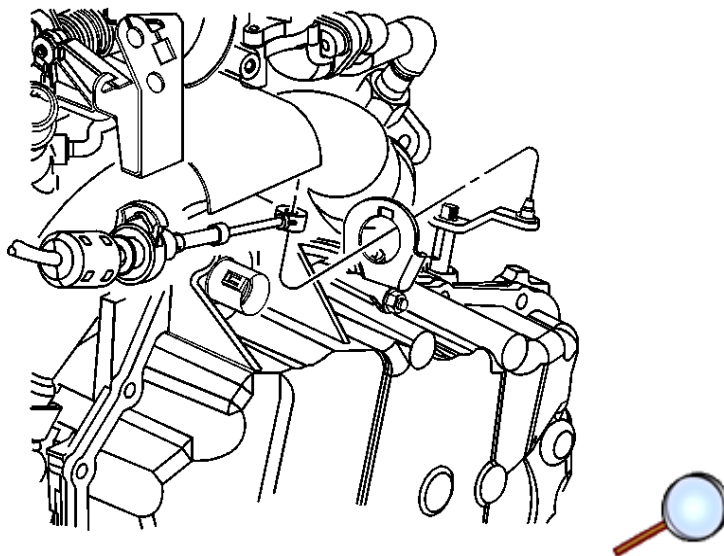
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.

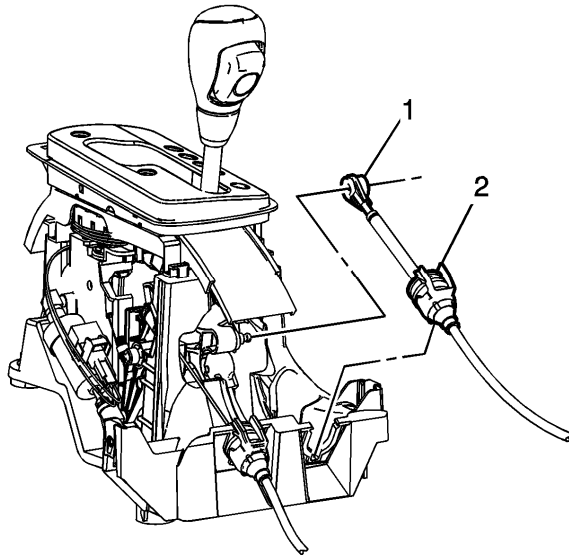


2. Remove the retainer from the transaxle range selector cable mechanism.



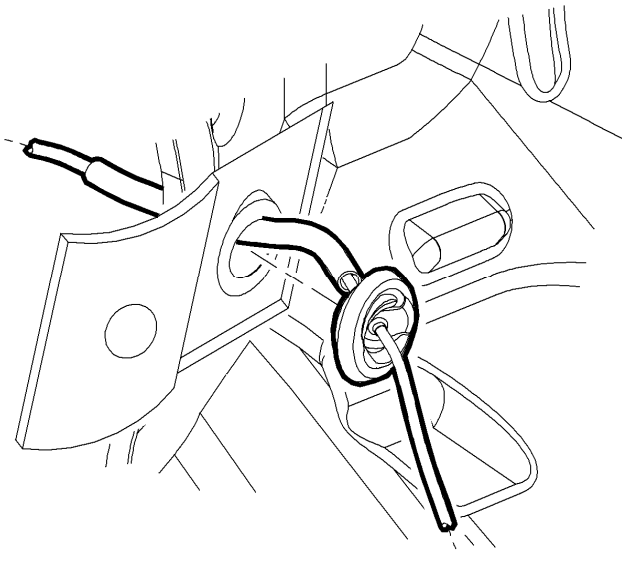
3. Disconnect the transaxle range selector cable terminal from the transaxle manual shift lever pin.
4. Press the locking tabs inward in order to release the transaxle range selector cable from the bracket.
5. Remove the console. Refer to [Console Replacement](#).
6. Remove the Body Control Module. Refer to [Body Control Module Replacement](#).
7. Remove the BCM mounting bracket.

8. Disconnect shift cable to floor retaining clips.



9. Disconnect the transaxle shift control cable terminal (1) from the shift lever pin.

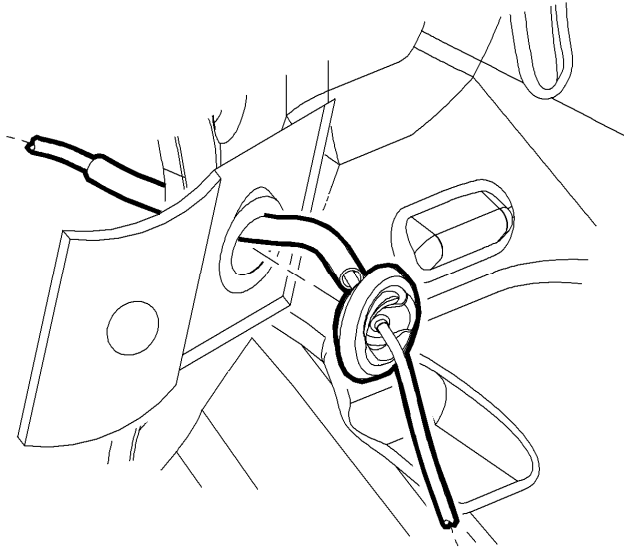
10. Release the transaxle shift control cable retainer (2) and remove the transaxle range selector cable from the transaxle control lever base.



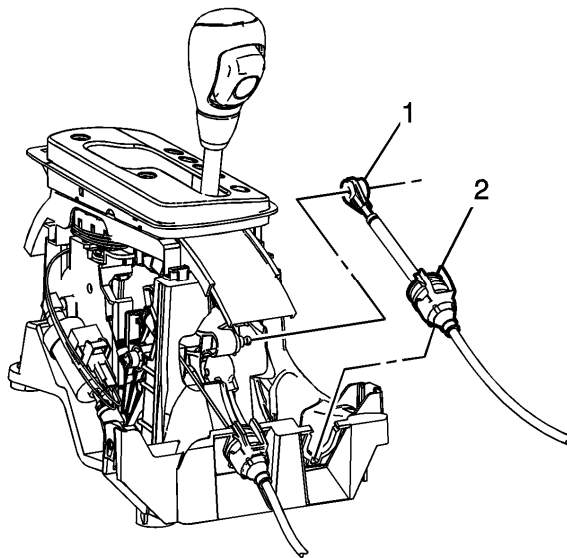
11. Remove the transaxle shift control cable grommet from the cowl panel.

12. Remove the transaxle shift control cable from the vehicle.

### [Installation Procedure](#)

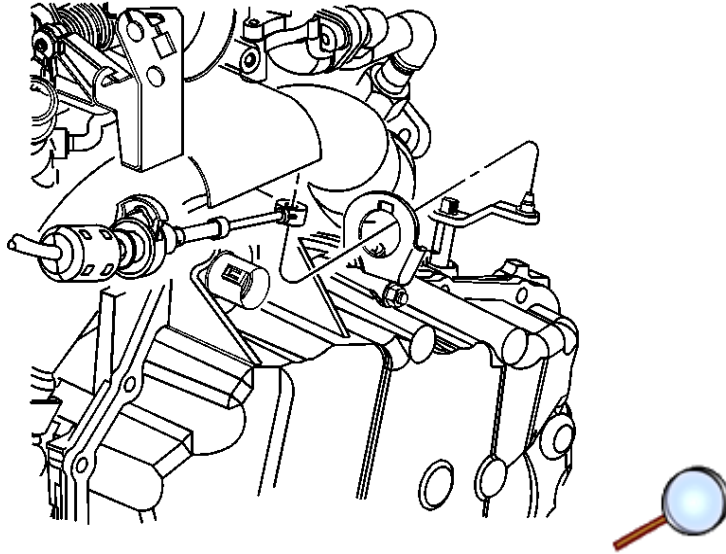


1. Guide the transaxle shift control cable through the pass-through in the cowl panel.
2. Secure the transaxle shift control cable grommet by pressing the grommet into the pass-through hole in the cowl panel.

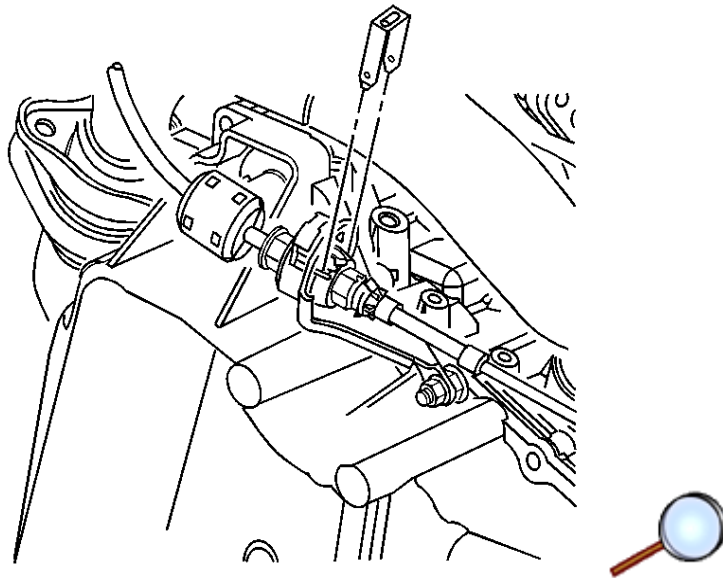


3. Install the transaxle shift control cable to the transaxle control lever base. Insure the cable retainer (2) is fully secured to the transaxle control lever base.
4. Connect the transaxle shift control cable terminal (1) to the shift lever pin.
5. Connect shift cable to floor retaining clips.
6. Install the BCM mounting bracket.
7. Install the Body Control Module. Refer to [Body Control Module Replacement](#).
8. Install the console. Refer to [Console Replacement](#).





9. Install the transaxle range selector cable into the bracket.
10. Connect the transaxle range selector cable terminal to the transaxle manual shift lever pin.



11. Install the retainer to the transaxle range selector cable.
12. Adjust the automatic transmission range selector cable. Refer to [Range Selector Lever Cable Adjustment](#).

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Shift Cable

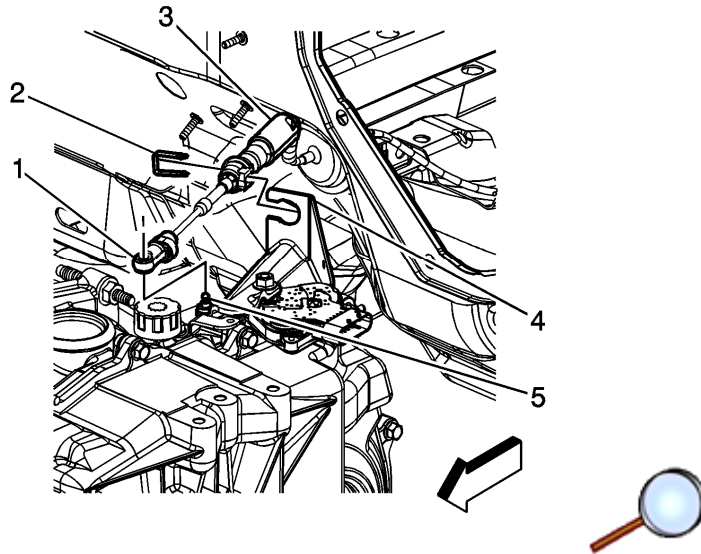
Replace\_1765775\_Modified\_05

022007

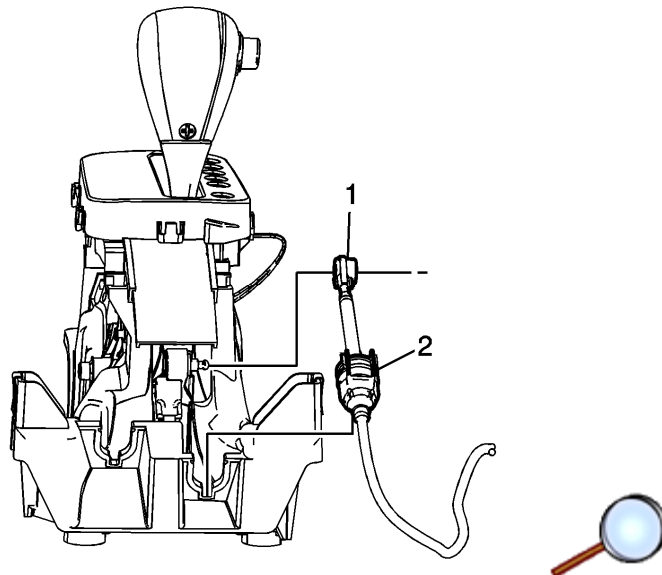
## Floor Shift Control Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.



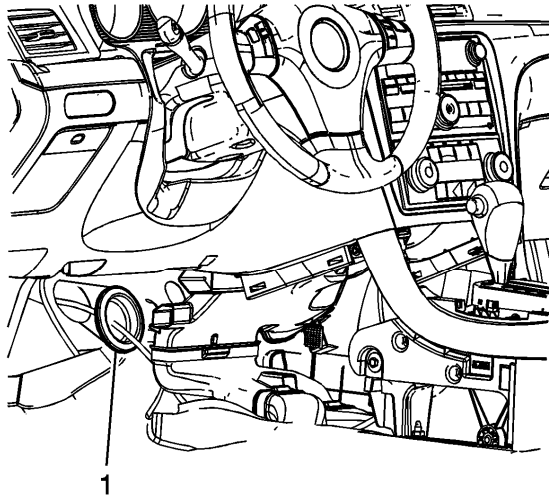
2. Disconnect the transaxle shift control cable terminal (1) from the transaxle manual shift lever pin (5).
3. Remove the retainer (2) from the transaxle shift control cable.
4. Press the locking tabs inward in order to release the transaxle shift control cable (3) from the cable bracket (4).
5. Remove the console. Refer to [Console Replacement](#).



6. Disconnect the transaxle shift control cable terminal (1) from the shift lever pin.

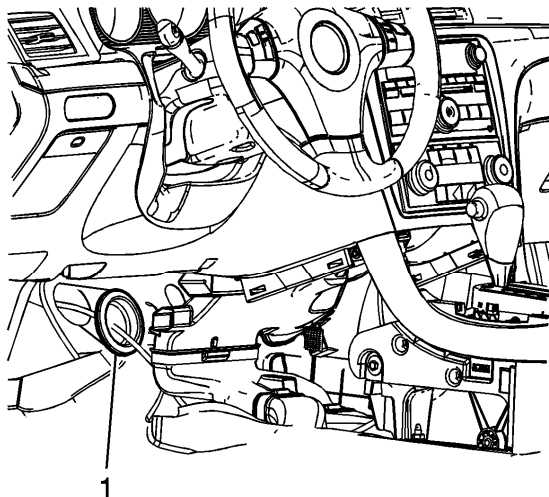
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7. Release the transaxle shift control cable retainer (2) and remove the transaxle range selector cable from the transaxle control lever base.



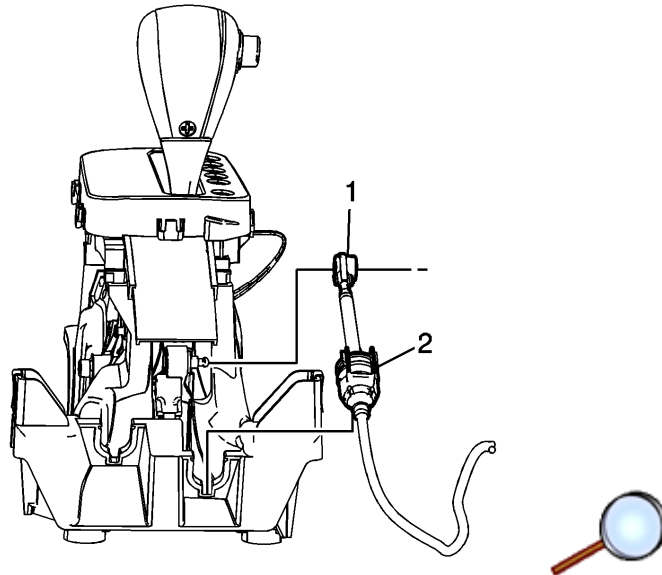
8. Reposition the foam cowl panel insulator as required.
9. Remove the transaxle shift control cable grommet (1) from the cowl panel.
10. Disconnect and reposition the left rear floor air outlet duct.
11. Release the transaxle shift control cable retainer.
12. Remove the fasteners from the lower left side of the body control module bracket.
13. Slide the transaxle shift control cable from under the body control module bracket.
14. Remove the transaxle shift control cable from the vehicle.

### Installation Procedure

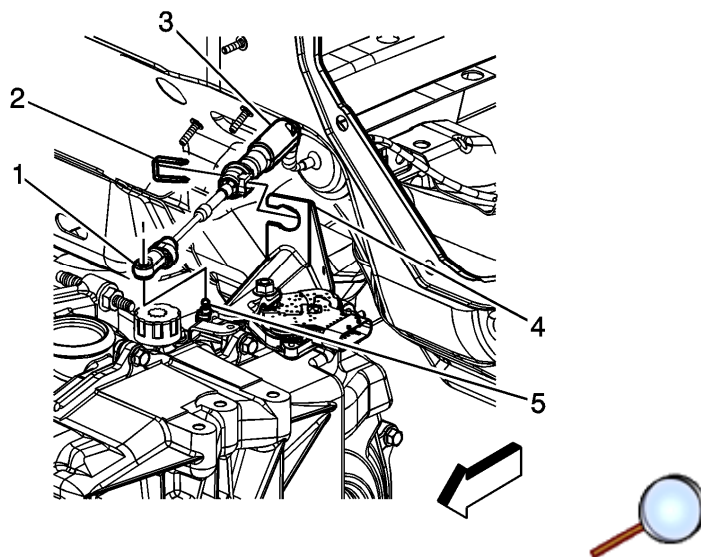


1. Install the transaxle shift control cable to the vehicle.

2. position the transaxle shift control cable under and inside of the body control module bracket. Ensure the cable does not become trapped or pinched by the bracket when installing the fasteners.
3. Install the fasteners to the lower left side of the body control module bracket.
4. Install the transaxle shift control cable retainer.
5. Connect the left rear floor air outlet duct.
6. Install the transaxle shift control cable grommet (1) to the cowl panel.



7. Install the transaxle shift control cable to the transaxle control lever base. Insure the cable retainer (2) is fully secured to the transaxle control lever base.
8. Connect the transaxle shift control cable terminal (1) to the shift lever pin.
9. Install the console. Refer to [Console Replacement](#).



10. Install the transaxle shift control cable (3) to the cable bracket (4).
11. Install the retainer (2) to the transaxle shift control cable.

12. Connect the transaxle shift control cable terminal (1) to the transaxle manual shift lever pin (5).
13. Adjust the automatic transmission shift control cable. Refer to [Shift Control Cable Adjustment](#).

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Shift Cable

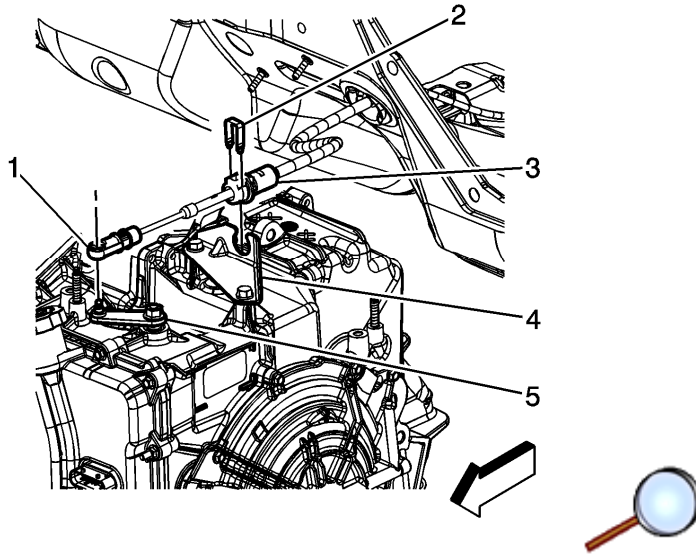
Replace\_1765778\_Modified\_09

292008

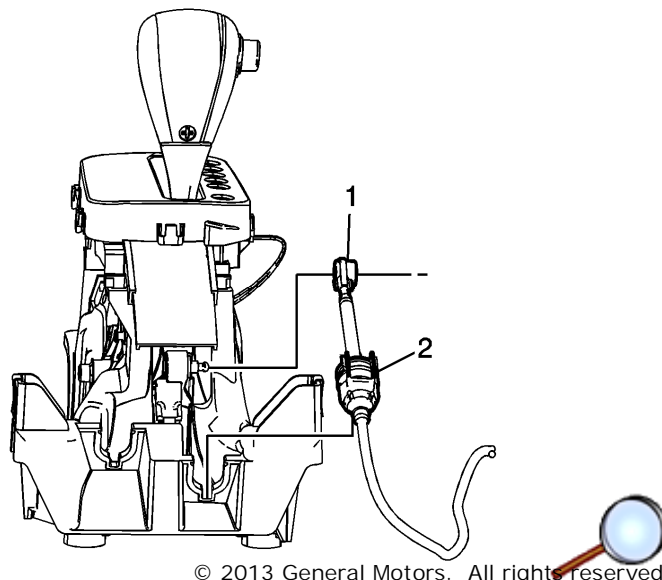
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

1. Unfasten and reposition the radiator surge tank without draining the coolant.
2. Set the park brake and chock the wheels.



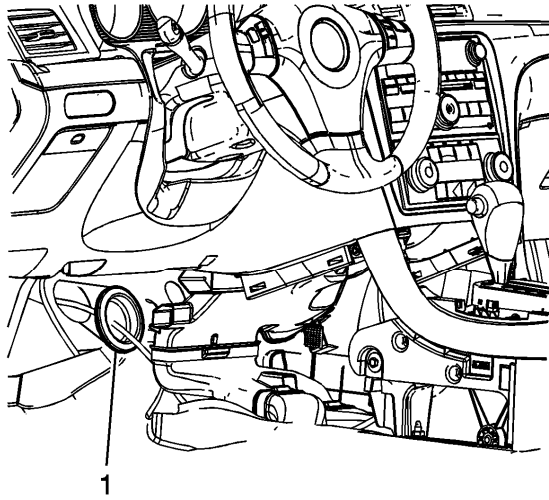
3. Disconnect the transmission range selector lever cable terminal (1) from the transmission manual shift lever pin (5).
4. Remove the retainer (2) from the transmission range selector lever cable.
5. Press the locking tabs inward in order to release the transmission range selector lever cable (3) from the cable bracket (4).
6. Remove the console. Refer to [Console Replacement](#).



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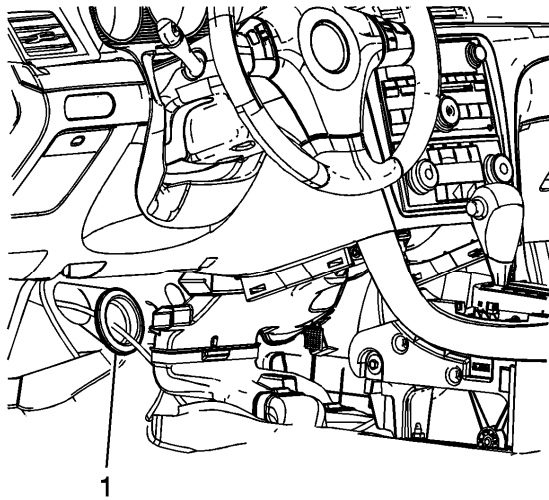


7. Disconnect the transmission range selector lever cable terminal (1) from the shift lever pin.
8. Release the transmission range selector lever cable retainer (2) and remove the transmission range selector cable from the transmission control lever base.

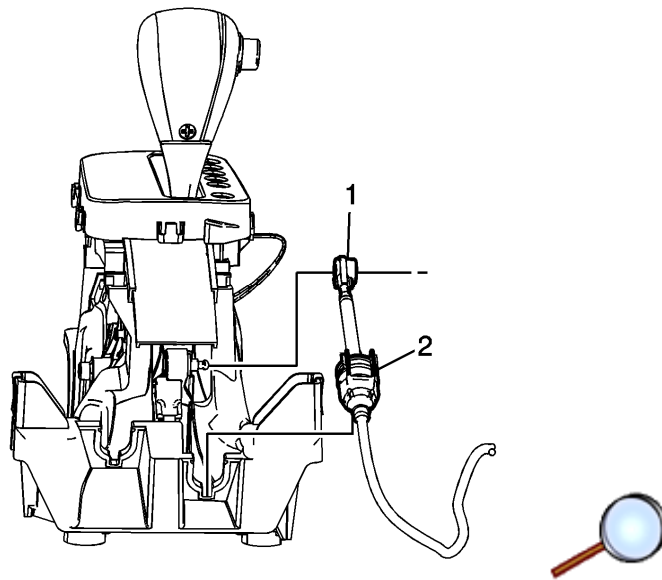


9. Remove the transmission range selector lever cable grommet (1) from the cowl panel.
10. Remove the transmission range selector lever cable from the vehicle.

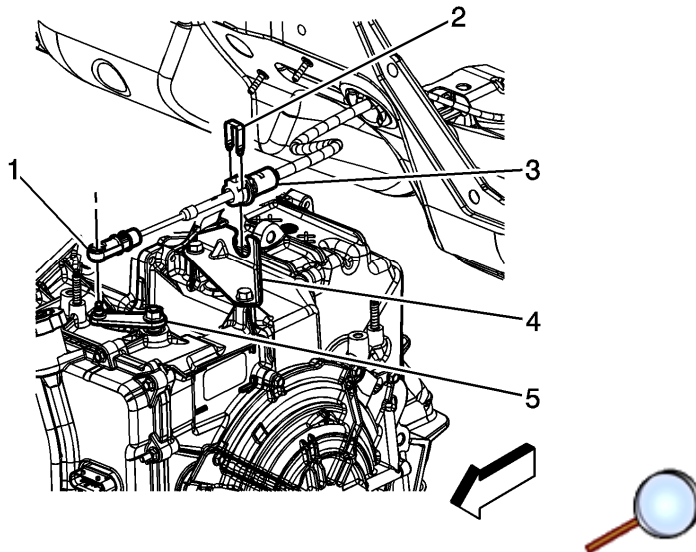
### Installation Procedure



1. Install the transmission range selector lever cable to the vehicle.
2. Install the transmission range selector lever cable grommet (1) to the cowl panel.



3. Install the transmission range selector lever cable to the transmission control lever base. Insure the cable retainer (2) is fully secured to the transmission control lever base.
4. Connect the transmission range selector lever cable terminal (1) to the shift lever pin.
5. Install the console. Refer to [Console Replacement](#).



6. Install the transmission range selector lever cable (3) to the cable bracket (4).
7. Install the retainer (2) to the transmission range selector lever cable.
8. Connect the transmission range selector lever cable terminal (1) to the transmission manual shift lever pin (5).
9. Install the radiator surge tank to the original position.
10. Adjust the automatic transmission range selector lever cable. Refer to [Range Selector Lever Cable Adjustment](#).

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Shift Cable

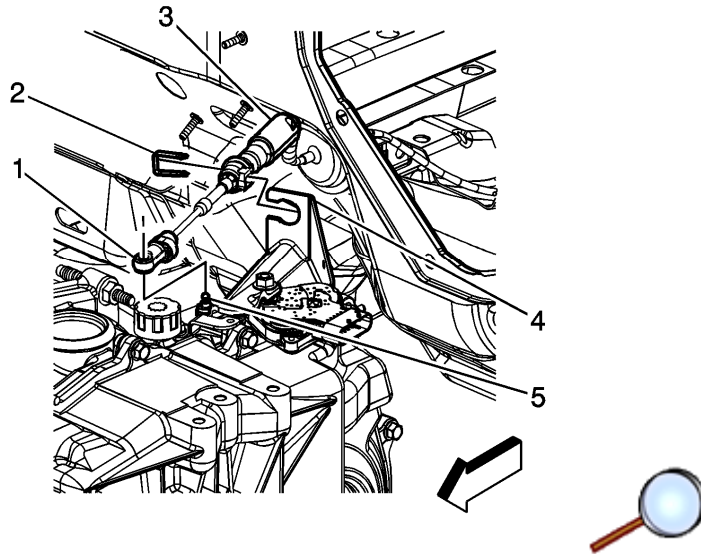
Replace\_1793113\_Modified\_05

252006

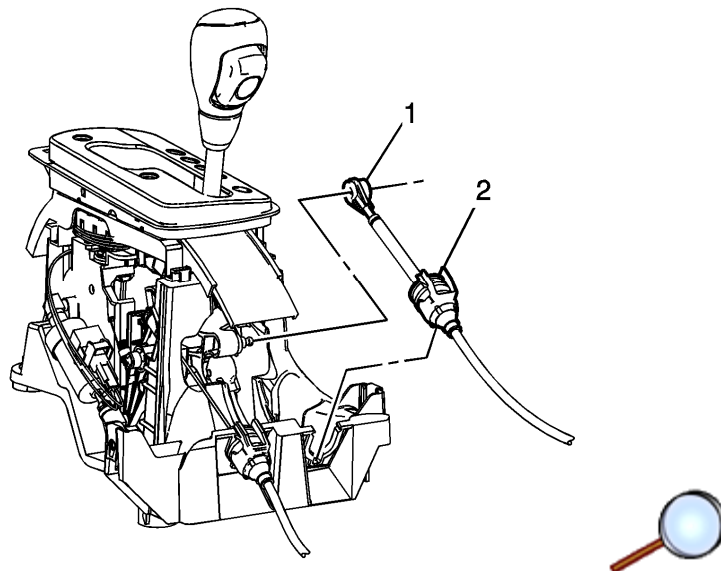
## Floor Shift Control Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.



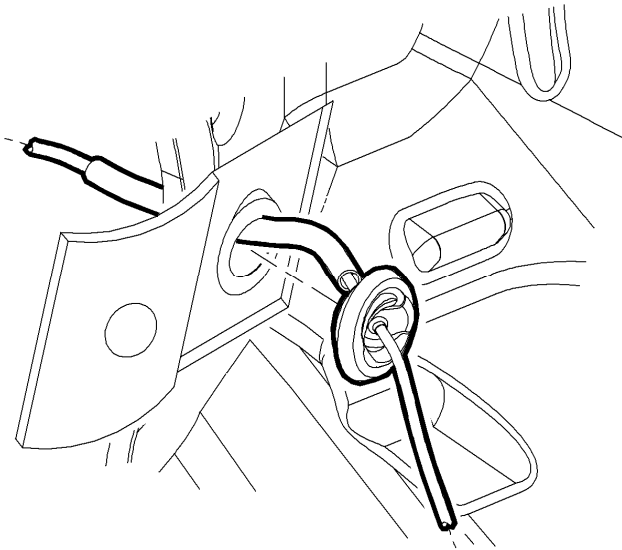
2. Disconnect the transaxle shift control cable terminal (1) from the transaxle manual shift lever pin (5).
3. Remove the retainer (2) from the transaxle shift control cable.
4. Press the locking tabs inward in order to release the transaxle shift control cable (3) from the cable bracket (4).
5. Remove the console. Refer to [Console Replacement](#).



6. Disconnect the transaxle shift control cable terminal (1) from the shift lever pin.

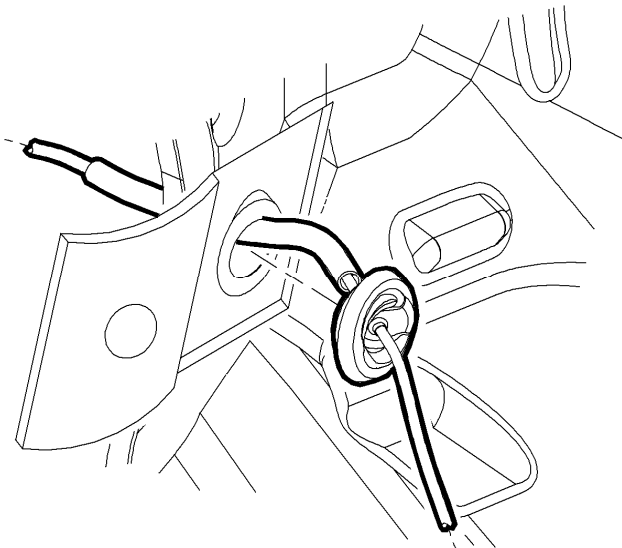
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7. Release the transaxle shift control cable retainer (2) and remove the transaxle range selector cable from the transaxle control lever base.

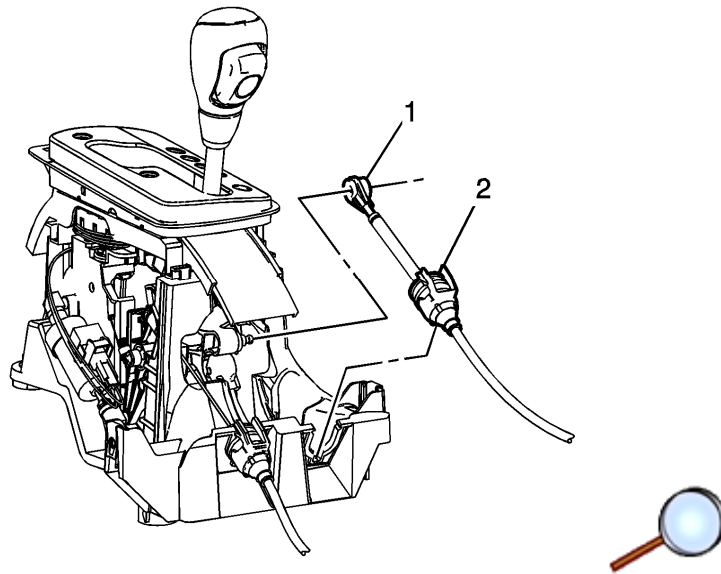


8. Remove the transaxle shift control cable grommet from the cowl panel.
9. Remove the transaxle shift control cable from the vehicle.

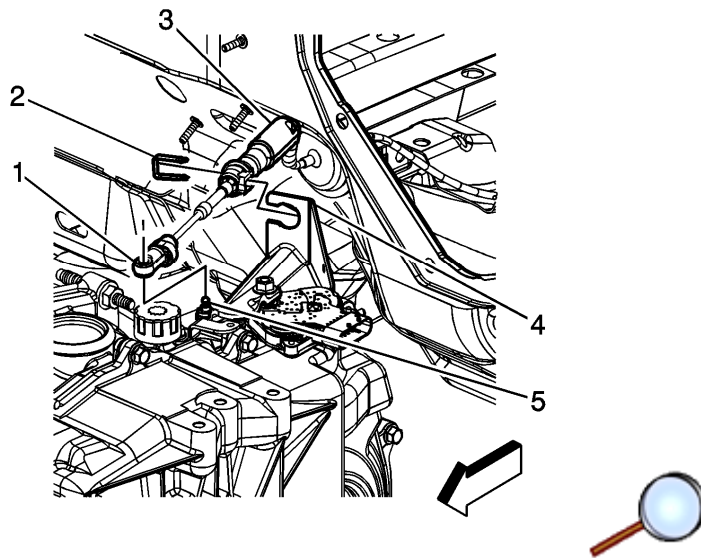
### Installation Procedure



1. Guide the transaxle shift control cable through the pass-through in the cowl panel.
2. Secure the transaxle shift control cable grommet by pressing the grommet into the pass-through hole in the cowl panel.



3. Install the transaxle shift control cable to the transaxle control lever base. Insure the cable retainer (2) is fully secured to the transaxle control lever base.
4. Connect the transaxle shift control cable terminal (1) to the shift lever pin.
5. Install the console. Refer to [Console Replacement](#).



6. Install the transaxle shift control cable (3) to the cable bracket (4).
7. Install the retainer (2) to the transaxle shift control cable.
8. Connect the transaxle shift control cable terminal (1) to the transaxle manual shift lever pin (5).
9. Adjust the control cable assembly. Refer to [Shift Control Cable Adjustment](#).

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Shift Cable

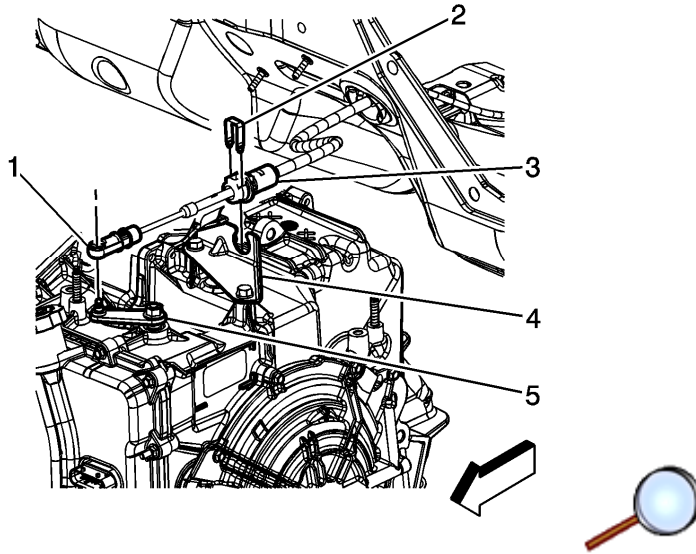
Replace\_1793724\_Modified\_11

152006

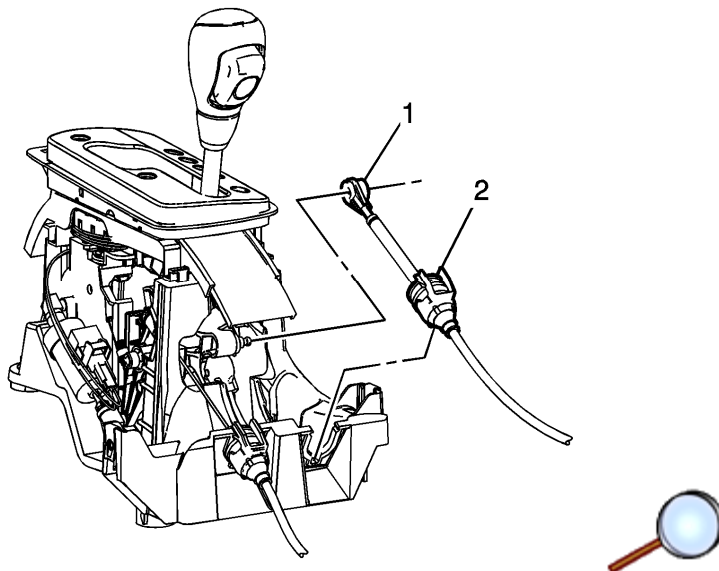
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.



2. Disconnect the transaxle range selector lever cable terminal (1) from the transaxle manual shift lever pin (5).
3. Remove the retainer (2) from the transaxle range selector lever cable.
4. Press the locking tabs inward in order to release the transaxle range selector lever cable (3) from the cable bracket (4).
5. Remove the console. Refer to [Console Replacement](#).

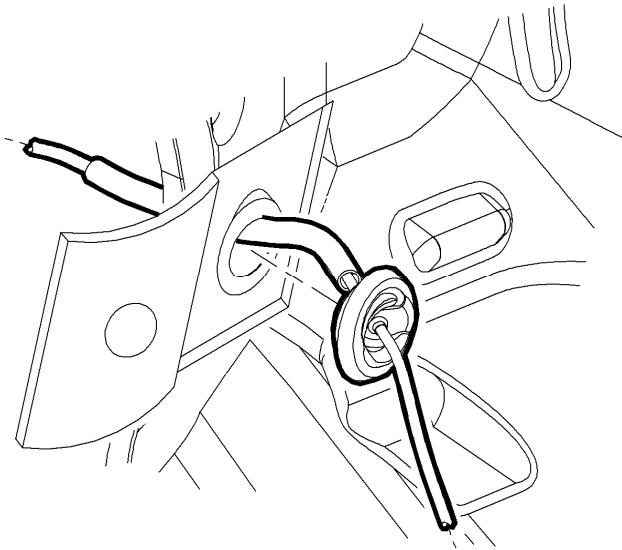


6. Disconnect the transaxle range selector lever cable terminal (1) from the shift lever pin.

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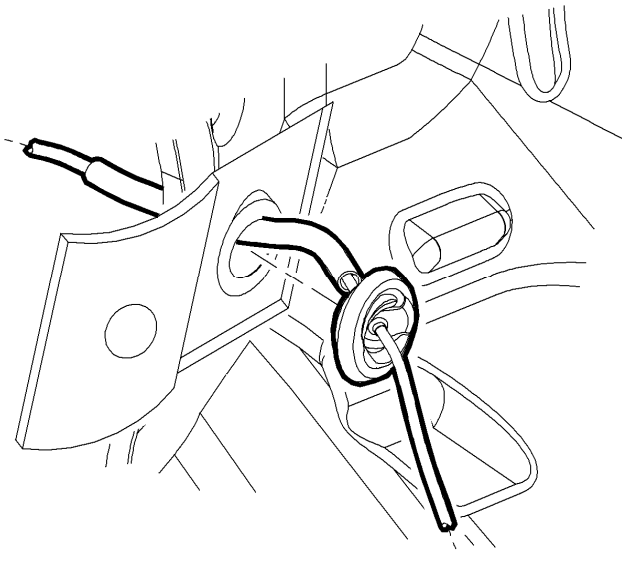


7. Release the transaxle range selector lever cable retainer (2) and remove the transaxle range selector cable from the transaxle control lever base.

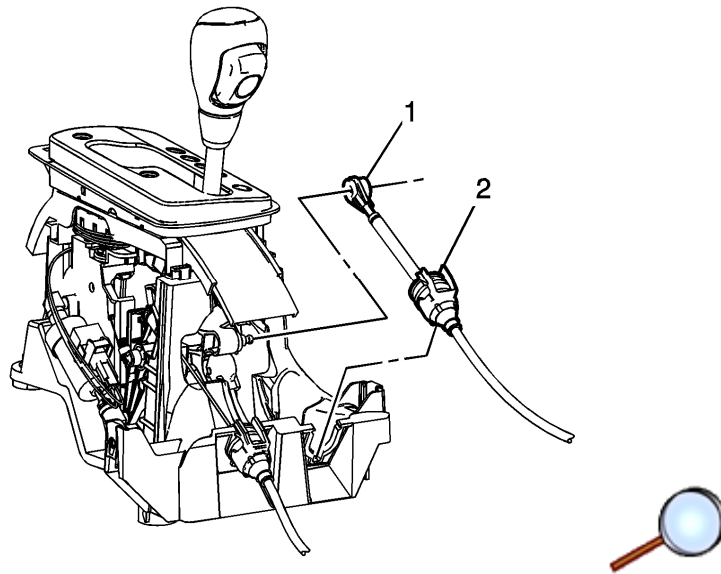


8. Remove the transaxle range selector lever cable grommet from the cowl panel.
9. Remove the transaxle range selector lever cable from the vehicle.

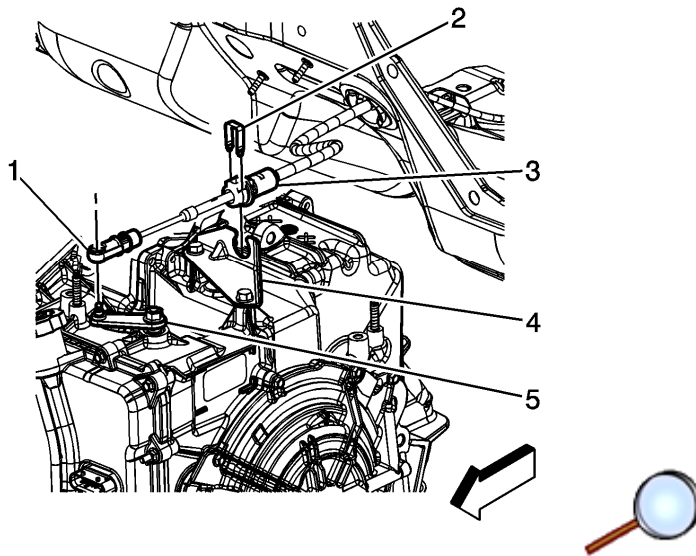
### Installation Procedure



1. Guide the transaxle shift control cable through the pass-through in the cowl panel.
2. Secure the transaxle shift control cable grommet by pressing the grommet into the pass-through hole in the cowl panel.



3. Install the transaxle range selector lever cable to the transaxle control lever base. Ensure the cable retainer (2) is fully secured to the transaxle control lever base.
4. Connect the transaxle range selector lever cable terminal (1) to the shift lever pin.
5. Install the console. Refer to [Console Replacement](#).



6. Install the transaxle range selector lever cable (3) to the cable bracket (4).
7. Install the retainer (2) to the transaxle range selector lever cable.
8. Connect the transaxle range selector lever cable terminal (1) to the transaxle manual shift lever pin (5).
9. Adjust the automatic transmission range selector lever cable. Refer to [Range Selector Lever Cable Adjustment](#).

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Q12

Shift Cable

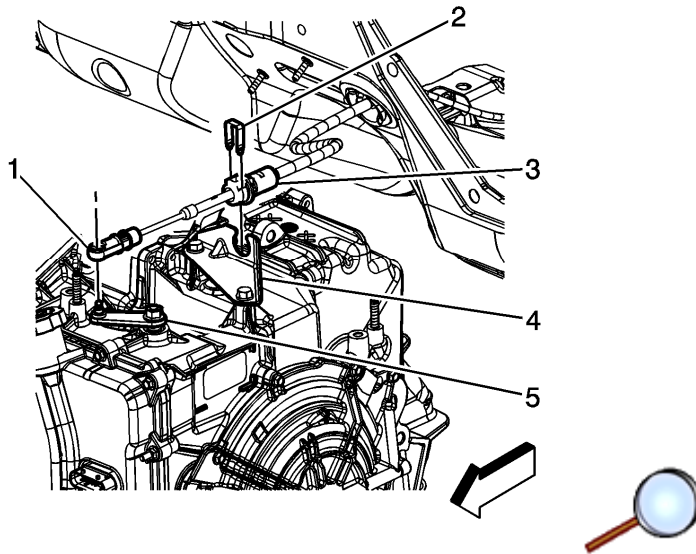
Replace\_2001051\_Modified\_10

062010

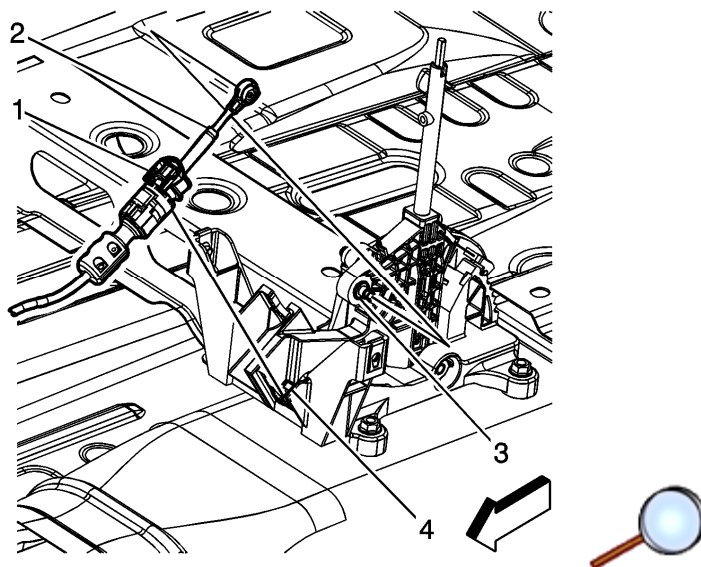
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.

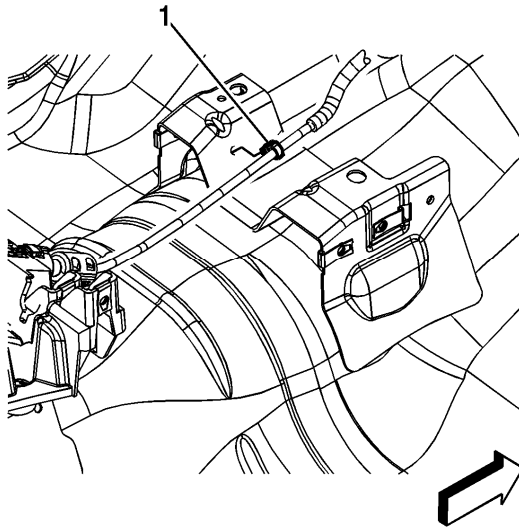


2. Disconnect the transmission range selector lever cable terminal (1) from the transmission manual shift lever pin (5).
3. Remove the retainer (2) from the transmission range selector lever cable.
4. Press the locking tabs inward in order to release the transmission range selector lever cable (3) from the cable bracket (4).
5. Remove the console. Refer to [Front Floor Console Replacement](#).

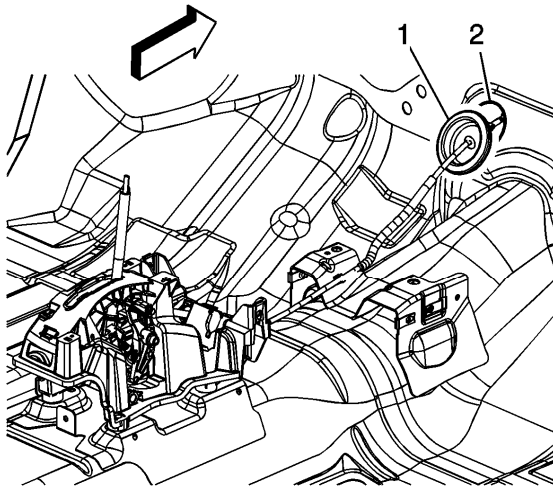


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6. Disconnect the transmission range selector lever cable terminal (2) from the shift lever pin.
7. Release the transmission range selector lever cable retainer (1) and remove the transmission range selector cable from the transmission control lever base.

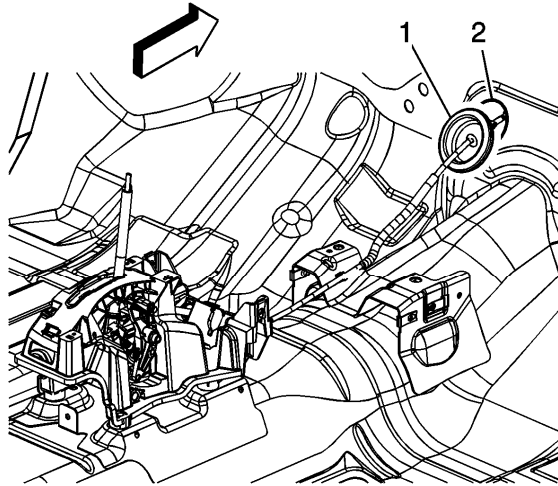


8. Release the transmission range selector lever cable retainer.

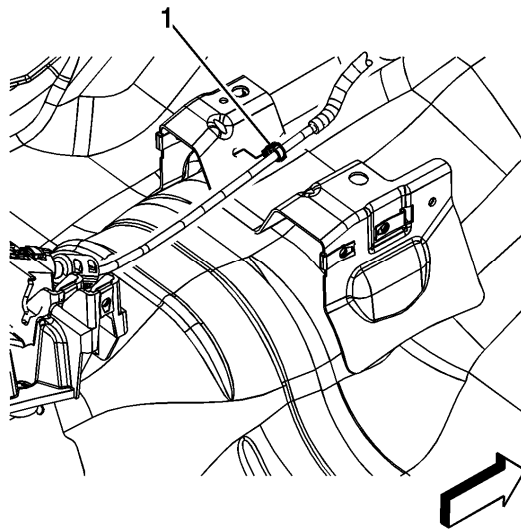


9. Remove the transmission range selector lever cable grommet (1) from the cowl panel.
10. Remove the transmission range selector lever cable from the vehicle.

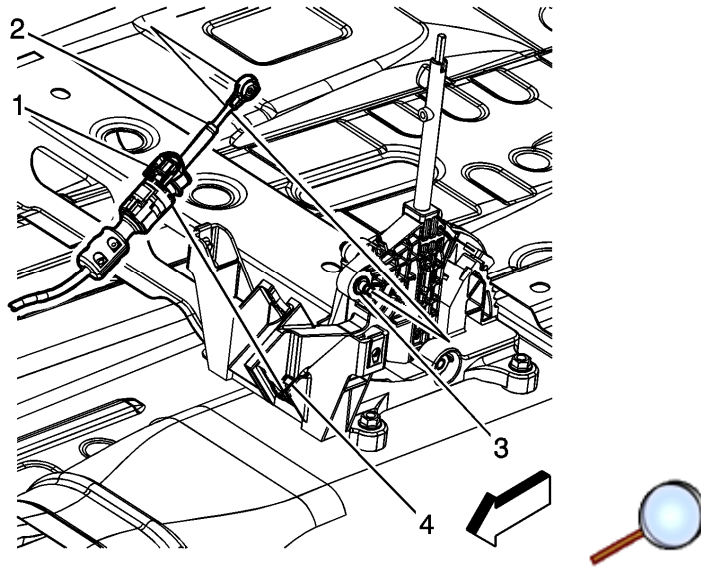
### [Installation Procedure](#)



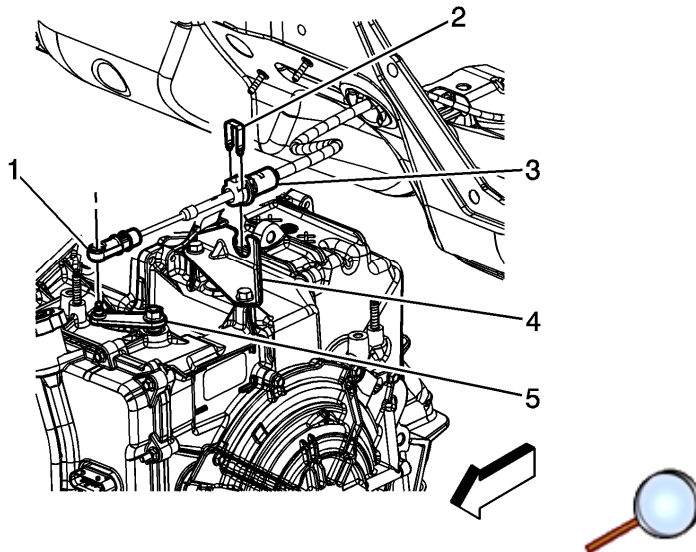
1. Install the transmission range selector lever cable to the vehicle.
2. Install the transmission range selector lever cable grommet (1) to the cowl panel.



3. Attach the transmission range selector lever cable retainer.



4. Install the transmission range selector lever cable to the transmission control lever base. Ensure the cable retainer (1) is fully secured to the transmission control lever base.
5. Connect the transmission range selector lever cable terminal (2) to the shift lever pin.
6. Install the console. Refer to [Front Floor Console Replacement](#).



7. Install the transmission range selector lever cable (3) to the cable bracket (4).
8. Install the retainer (2) to the transmission range selector lever cable.
9. Connect the transmission range selector lever cable terminal (1) to the transmission manual shift lever pin (5).
10. Adjust the automatic transmission range selector lever cable. Refer to [Range Selector Lever Cable Adjustment](#).

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ATTACHMENT 1

Q12

Shift Cable

Replace\_2001194\_Modified\_10

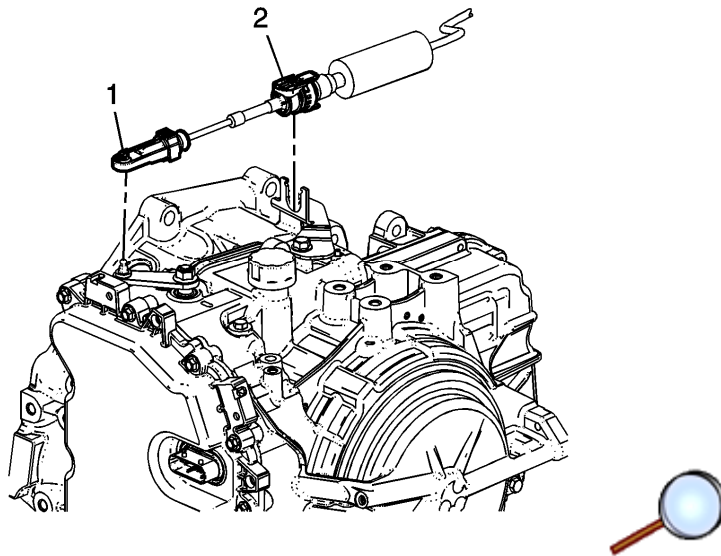
012010



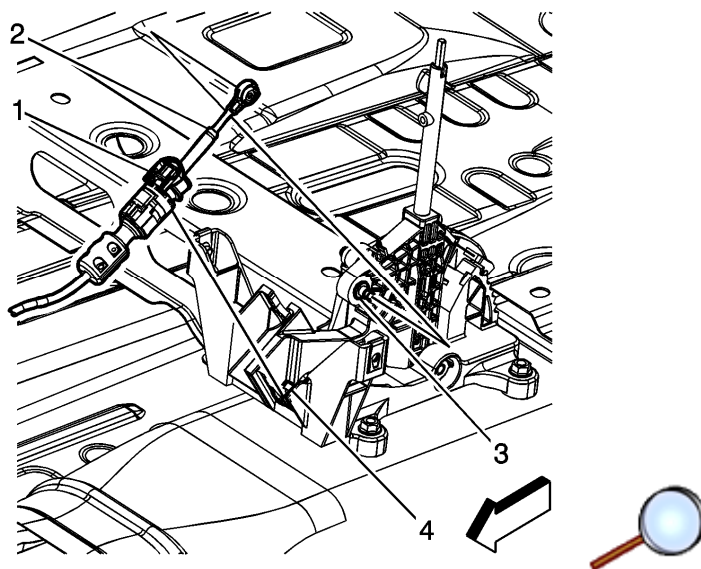
## Range Selector Lever Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.



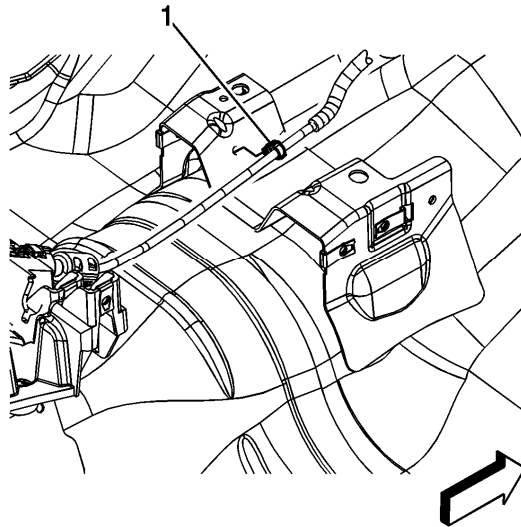
2. Disconnect the transmission range selector lever cable terminal (1) from the transmission manual shift lever pin.
3. Press the locking tabs inward in order to release the transmission range selector lever cable (2) from the cable bracket.
4. Remove the console. Refer to [Front Floor Console Replacement](#).



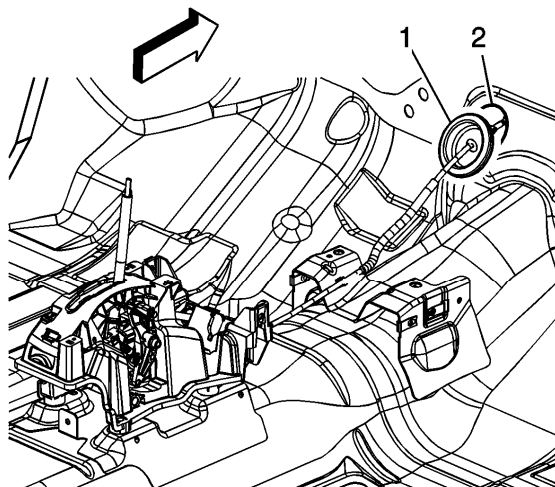
5. Disconnect the transmission range selector lever cable terminal (2) from the shift lever pin.

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6. Release the transmission range selector lever cable retainer (1) and remove the transmission range selector cable from the transmission control lever base.

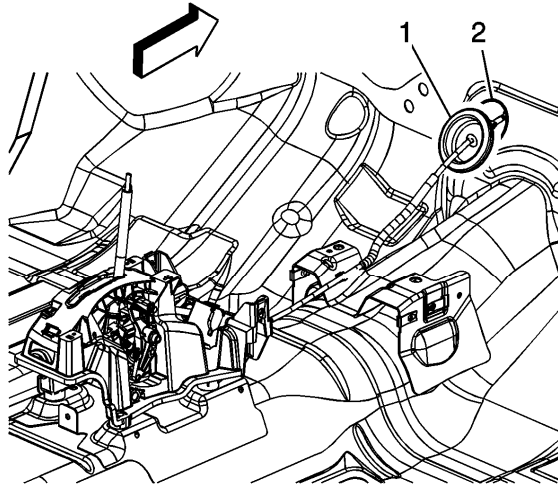


7. Release the transmission range selector lever cable retainer (1).

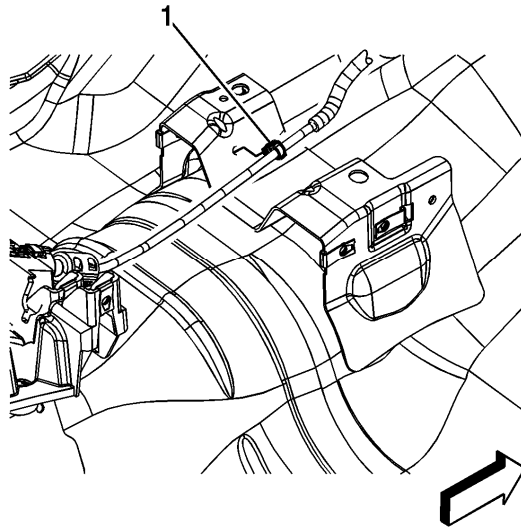


8. Remove the transmission range selector lever cable grommet (1) from the cowl panel (2).
9. Remove the transmission range selector lever cable from the vehicle.

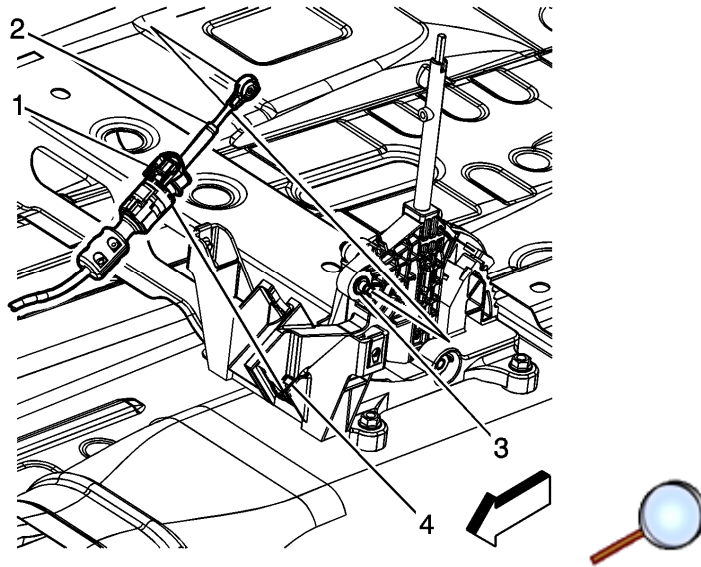
### [Installation Procedure](#)



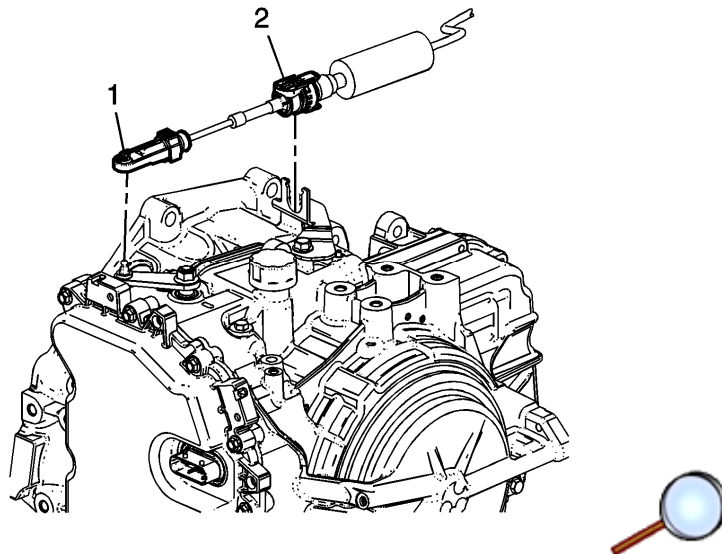
1. Install the transmission range selector lever cable to the vehicle.
2. Install the transmission range selector lever cable grommet (1) to the cowl panel (2).



3. Attach the transmission range selector lever cable retainer (1).



4. Install the transmission range selector lever cable to the transmission control lever base. Insure the cable retainer (1) is fully secured to the transmission control lever base.
5. Connect the transmission range selector lever cable terminal (2) to the shift lever pin.
6. Install the console. Refer to [Front Floor Console Replacement](#).



7. Install the transmission range selector lever cable (2) to the cable bracket.
8. Connect the transmission range selector lever cable terminal (1) to the transmission manual shift lever pin.
9. Adjust the automatic transmission range selector lever cable. Refer to [Range Selector Lever Cable Adjustment](#).

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ATTACHMENT 1

Q12

Shift Cable

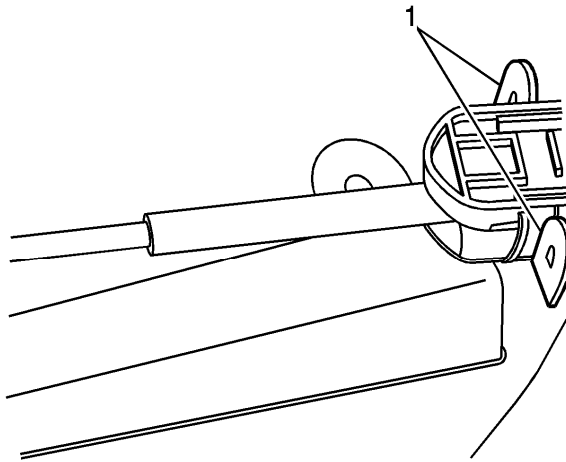
Replace\_2001368\_Modified\_01

272009

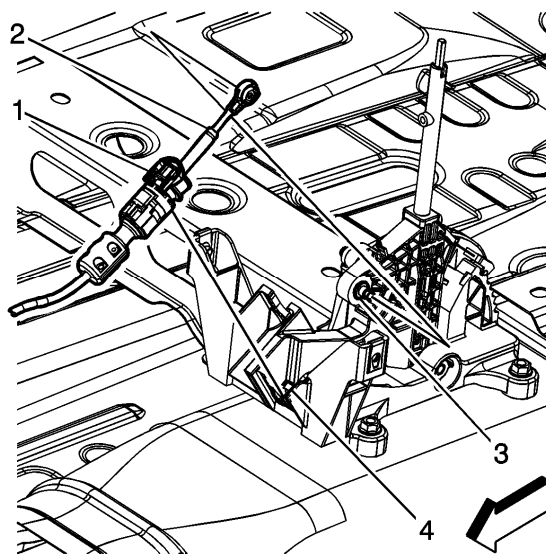
## Floor Shift Control Cable Replacement

### [Removal Procedure](#)

1. Set the park brake and chock the wheels.



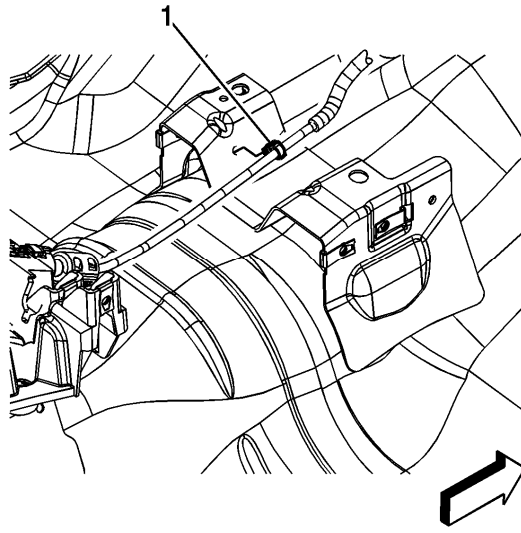
2. Disconnect the transaxle shift control cable terminal from the transaxle manual shift lever pin.
3. Press the locking tabs (1) inward in order to release the transaxle shift control cable from the cable bracket.
4. Remove the center floor air outlet. Refer to [Rear Floor Air Duct Replacement](#).



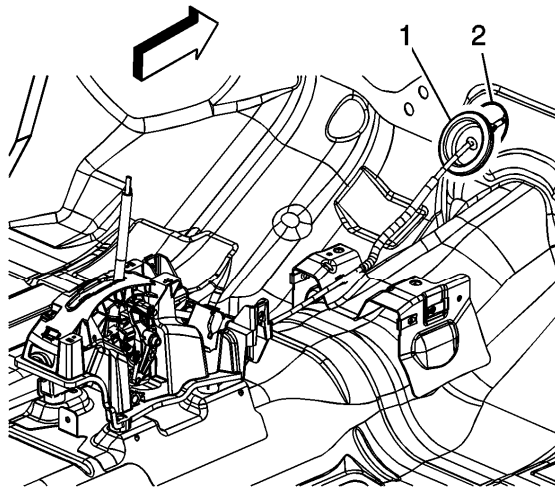
5. Disconnect the transmission range selector lever cable terminal (2) from the shift lever pin.

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6. Release the transmission range selector lever cable retainer (1) and remove the transmission range selector cable from the transmission control lever base.

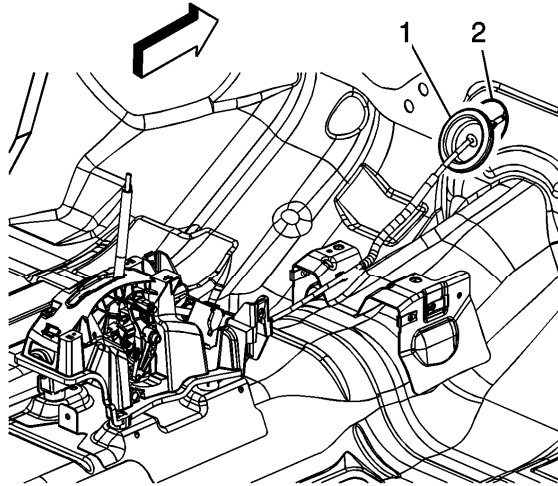


7. Release the transmission range selector lever cable retainer (1).

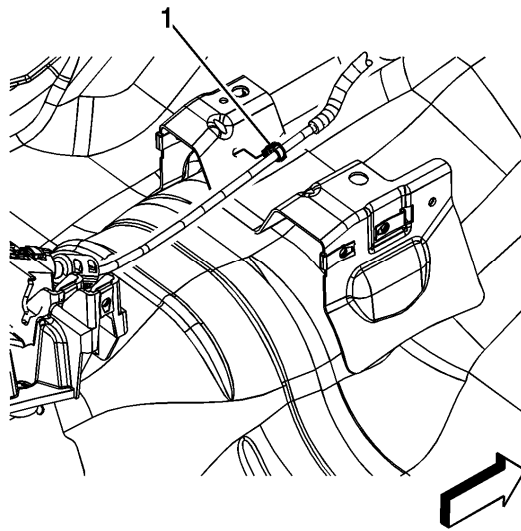


8. Remove the transmission range selector lever cable grommet (1) from the cowl panel.
9. Remove the transmission range selector lever cable from the vehicle.

### [Installation Procedure](#)

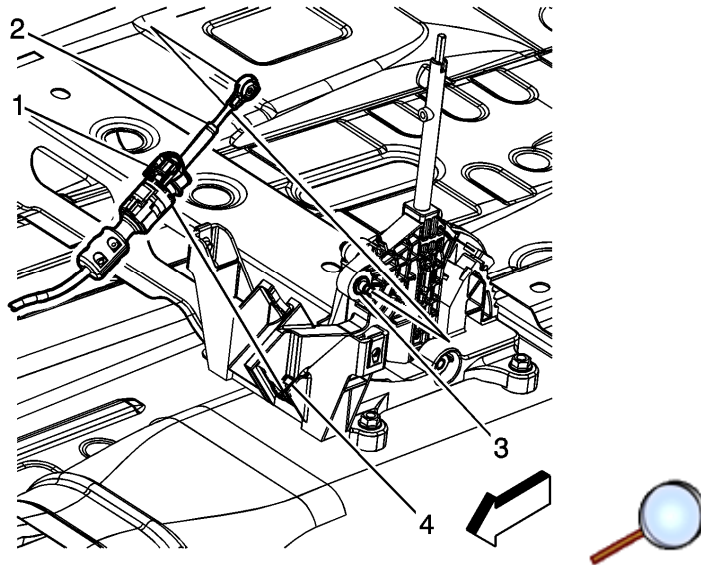


1. Install the transmission range selector lever cable to the vehicle.
2. Install the transmission range selector lever cable grommet (1) to the cowl panel.

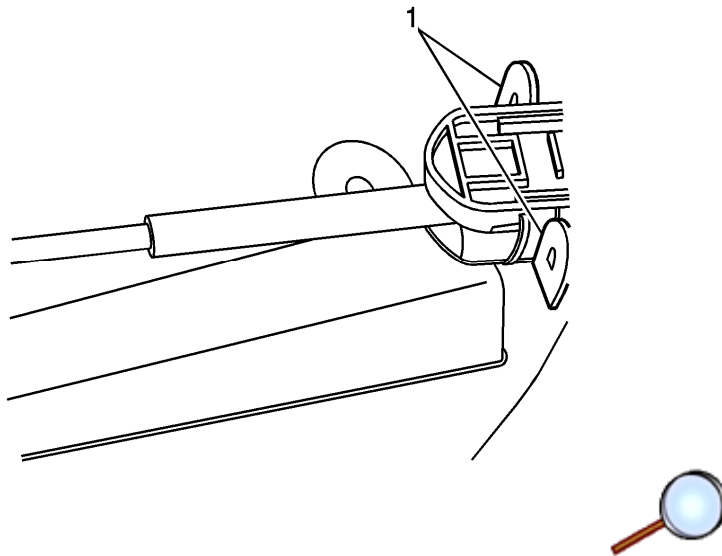


3. Attach the transmission range selector lever cable retainer (1).





4. Install the transmission range selector lever cable to the transmission control lever base.
5. Connect the transmission range selector lever cable terminal (2) to the shift lever pin.
6. Install the center floor air outlet. Refer to [Rear Floor Air Duct Replacement](#).



7. Install the transaxle shift control cable to the cable bracket. Ensure the cable retainer (1) is fully secured to the transmission bracket.
8. Connect the transaxle shift control cable terminal to the transaxle manual shift lever pin.
9. Adjust the automatic transmission range selector lever cable. Refer to [Range Selector Lever Cable Adjustment](#).