GM Bulletin No.: 15472 Date: August 2015



Service Bulletin SB-10059122-5630

SERVICE UPDATE

SUBJECT: Service Update for Inventory and Customer Vehicles

Camera Module Software Update, Steering Column and Battery Checks

Expires with Base Warranty

MODELS: 2015 Cadillac Escalade, Escalade ESV

This service update includes vehicles in dealer inventory and customer vehicles that return to the dealership for any reason. This bulletin will expire at the end of the involved vehicle's New Vehicle Limited Warranty period.

<u>PURPOSE</u>

This bulletin provides a service procedure for **certain** 2015 model year Cadillac Escalade and Escalade ESV vehicles. The procedure involves: (i) updating the video-processing module (VPM) and human-machine interface (HMI) software, which will improve the 360-degree camera's clarity; (ii) inspecting the battery for a low charge condition and replacing the battery as required; and (iii) inspecting the steering column for a clicking sound and repairing the column as required.

This service procedure should be completed as soon as possible on involved vehicles currently in dealer inventory and customer vehicles that return to the dealer for any type of service during the New Vehicle Limited Warranty coverage period.

VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians 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.

Additionally, a list of involved vehicles currently in dealer inventory is available on the "Service Update Bulletin Information" link under the "Service" tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin. Customer vehicles that return for service, for any reason, and are still covered under the vehicle's base warranty should also be checked for vehicle eligibility.

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.

Part Number	Description	Quantity/Vehicle
88864065	Battery	1
23354103	Adapter-STRG SHF LWR BRG	1
07847029	Retainer (Lower Shaft to Bearing)	1

SERVICE PROCEDURE

Warning: Unless directed otherwise, the ignition must be OFF with the key removed, and all electrical loads must be OFF before servicing any electrical component. Disconnect the negative battery cable to prevent an electrical spark should a tool or equipment come in contact with an exposed electrical terminal. Failure to follow these precautions may result in personal injury and/or damage to the vehicle or its components.

- 1. Disconnect the negative battery cable. Refer to *Battery Negative Cable Disconnection and Connection (Single Battery)* in SI.
- 2. Charge the vehicle battery for a minimum of 20 minutes and test with *EL-50313* (GR8). Refer to *Battery Inspection/Test* in SI.
 - If the test result is REPLACE BATTERY or BAD CELL-REPLACE, replace the vehicle battery. Refer to *Battery Replacement (L83, L86)* in SI. After the battery has been replaced, proceed to step 4.
 - If the test result is NOT REPLACE BATTERY or BAD CELL-REPLACE, no further action is required and proceed to step 3.
- 3. Reconnect the negative battery cable.

Note:

- Do NOT program a control module unless directed to by a service procedure or a service bulletin. If the control module is not properly configured with the correct calibration software, the control module will not control all of the vehicle features properly.
- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage
 or loss of voltage will interrupt programming. When required install the *EL-49642* SPS
 Programming Support Tool to maintain system voltage. If not available, connect a fully
 charged 12 V jumper or booster pack disconnected from the AC voltage supply. DO NOT
 connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- During the programming procedure, follow the SPS prompts for the correct ignition switch position.

- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.
- 4. Program the Video Processing Control Module (VPM). Refer to *Video Processing Control Module Programming and Setup* in SI.

Note: Before reprogramming the Human Machine Interface Module (HMI), make sure the latest Techline Infotainment DVD software update (IN 2015.19 DVD) has been installed. Refer to the latest version of PI0744 Instructions for Installing Techline Infotainment DVD in SI.

5. Program the HMI Module. Refer to *Human Machine Interface Control Module Programming and Setup* in SI.

Steering Column Inspection Overview



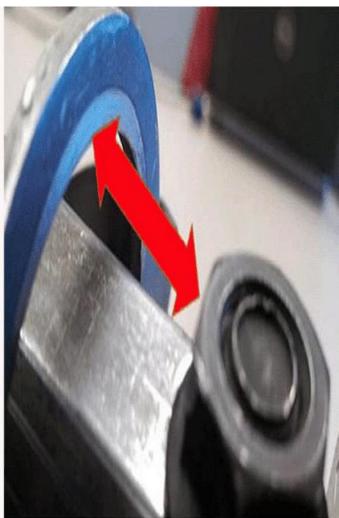


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The lower column bearing housing assembly (1) may be out of position. The 1st picture shows the lower column bearing assembly (1) in its correct position, while the 2nd picture shows the lower column bearing out of position. Steering column is removed for illustration purposes.

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The upper intermediate steering shaft to lower column shaft bolt and nut (2) may be contacting the inhibitor/shifter cable bracket. Verify there is a minimum 7 mm (0.28 in) gap between the lower column shaft bolt and nut and the inhibitor/shifter cable bracket.

- 6. Inspect the steering column for lower column bearing and lower column shaft bolt and nut position.
 - If the lower column bearing and lower column shaft bolt and nut are in the correct position, no further action is required.
 - If the lower column bearing and lower column shaft bolt and nut are NOT in the correct position, proceed to the next step.

Warning: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Failure to observe the correct procedure could cause deployment of the SIR components. Serious injury can occur. Failure to observe the correct procedure could also result in unnecessary SIR system repairs.

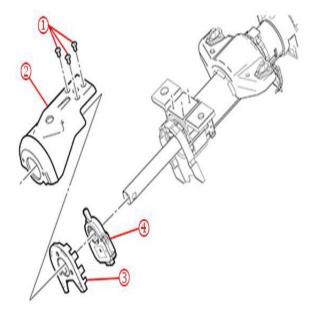
7. Disable the SIR system. Refer to SIR Disabling and Enabling in SI.

Note: Do NOT replace the steering column for these conditions.

Note: To correct either above condition, repair the steering column assembly by replacing the column lower bearing adapter assembly and retainer as instructed in the following. Below are the

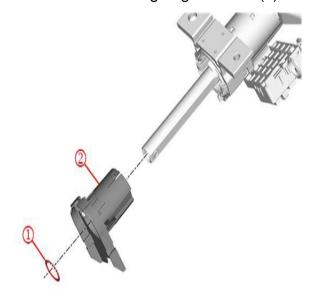
highlighted steps for the repair. Refer to *Steering Shaft Lower Bearing Adapter Replacement* in SI for the complete procedure and torque specifications.

- 8. Remove the steering column lower bearing adapter assembly from the column.
 - 8.1 Remove the steering column as an assembly from the vehicle.



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8.2 Remove the steering angle sensor (4) from the column.



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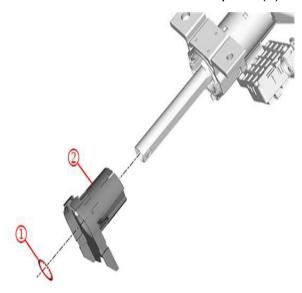
- 8.3 Remove the steering column lower shaft retainer (1) from the shaft.
- 8.4 Remove the steering column lower bearing adapter assembly (2). While depressing the retaining tabs, with the aid of a flat bladed screwdriver, carefully pry to remove the lower bearing assembly (2) from the column.

9. Install the new steering column lower bearing adapter assembly and the new steering column lower shaft retainer to the column.



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9.1 Measure 154 mm (6.06 in) from the end of the steering column lower shaft (2) and draw a line around the shaft at that point (1).



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9.2 Install a new steering column lower bearing adapter assembly (2) to the steering column. Ensure the bearing adapter is fully seated with retaining tabs secured.



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- 9.3 Install the lower steering column retainer (1) to the measurement mark.
- 9.4 Verify there is 3-5 mm (0.12-0.20 in) of in and out movement of the steering shaft after the retainer is installed.
- 9.5 Install the steering column assembly back into the vehicle.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

Labor Code	Description	Labor Time	Net Item
9101708	Reprogram HMI & VPC (inc battery & steering shaft inspect)	1.2	N/A
	Add: Battery Replacement	0.5	
	Add: Steering Shaft Lower Bearing Adapter Replacement	2.1	

DEALER PROGRAM RESPONSIBILITY

Whenever a vehicle subject to this service update enters your vehicle inventory, or is in your facility for service in the future, and the vehicle is still covered under the New Vehicle Limited Warranty, you must take the steps necessary to be sure the service update correction has been made before selling or releasing the vehicle.