

2018 ACCESSORIES & EQUIPMENT

Active Noise Cancellation - Enclave

SPECIFICATIONS

FASTENER SPECIFICATIONS

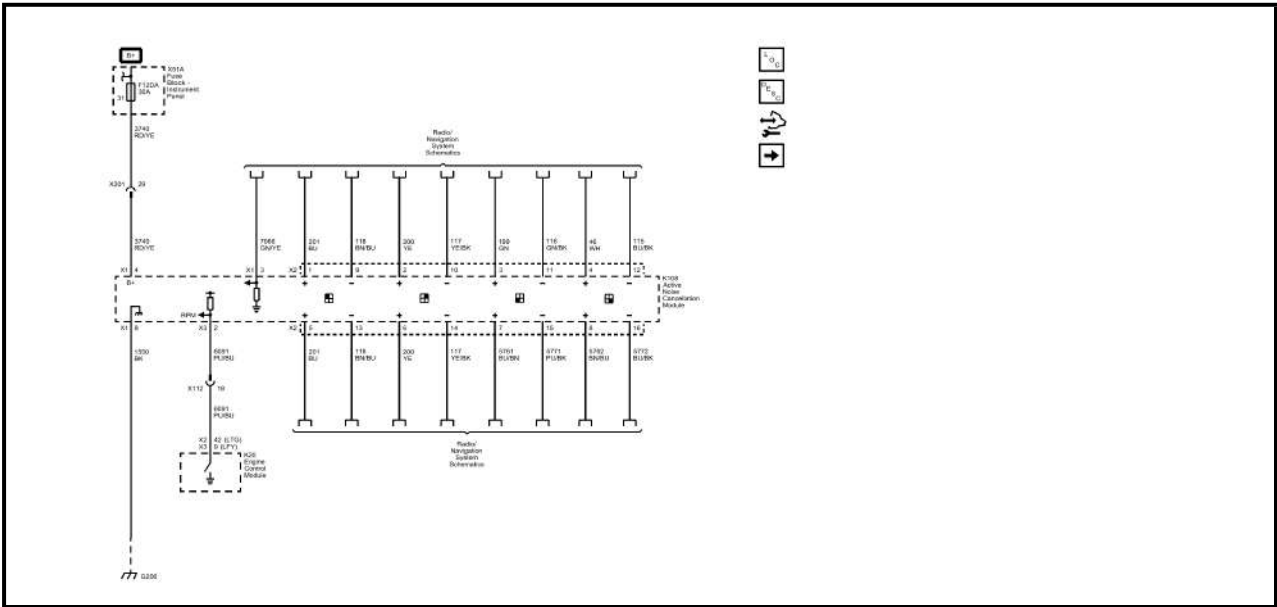
Reusable Threaded Fastener Tightening Specifications

NOTE: <i>All fasteners listed in this table can be reused after removal.</i>	
Application	Specification
	Metric (English)
Radio Speaker Amplifier Nut	6 N.m (53 lb in)

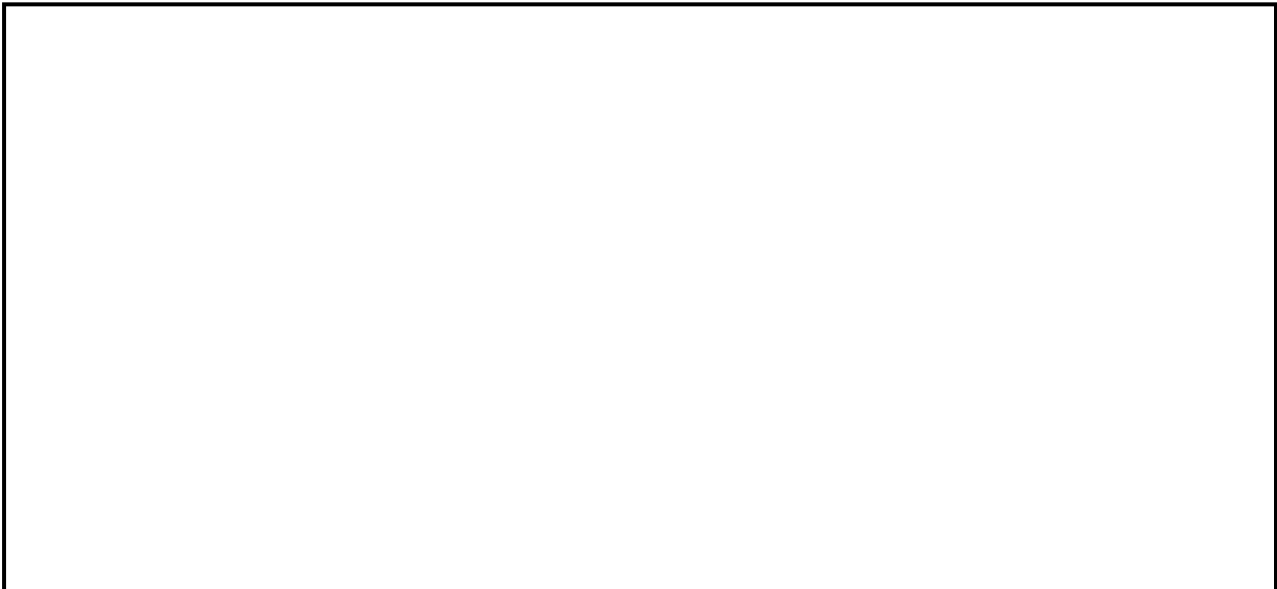
SCHEMATIC WIRING DIAGRAMS

ACTIVE NOISE CANCELLATION WIRING SCHEMATICS

Active Noise Cancellation Module Power, Ground, Controls, and Subsystem References (UQF)



Active Noise Cancellation Microphones (UQF)



- Go to next step: If infinite resistance
5. Test for less than 2 Ω in the signal circuit end to end.
 - If 2 Ω or greater, repair the open/high resistance in the circuit.
 - If less than 2 Ω , replace the K20 Engine Control Module.
 - **Go to next step: If between 575-800 Hz AC**
4. Test or replace the T3 Audio Amplifier.

Repair Instructions

Perform the [Diagnostic Repair Verification](#) after completing the repair.

[Control Module References](#) for Audio Amplifier or Engine Control Module replacement, programming, and setup.

DTC B1277, B127C, B127D, OR B126F

Diagnostic Instructions

- Perform the [Diagnostic System Check - Vehicle](#) prior to using this diagnostic procedure.
- Review [Strategy Based Diagnosis](#) for an overview of the diagnostic approach.
- [Diagnostic Procedure Instructions](#) provide an overview of each diagnostic category.

DTC Descriptors

DTC B1277

Microphone 1 Input Signal Circuit

DTC B127C

Microphone 2 Input Signal Circuit

DTC B127D

Microphone 3 Input Signal Circuit

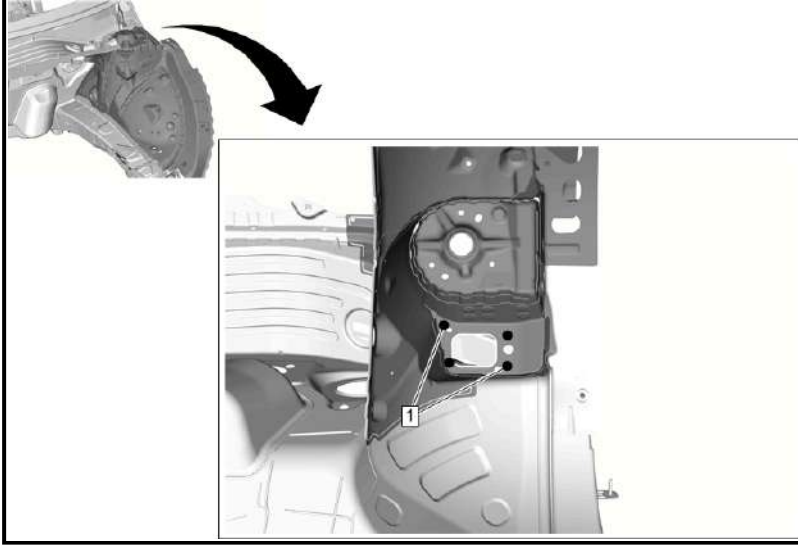
DTC B126F

Microphone 4 Input Signal Circuit

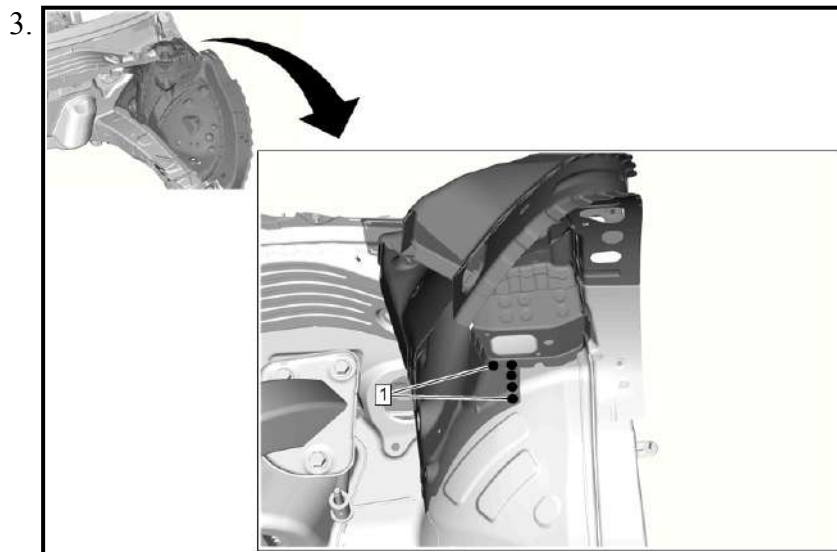
For symptom byte information refer to [Symptom Byte List](#)

Diagnostic Fault Information

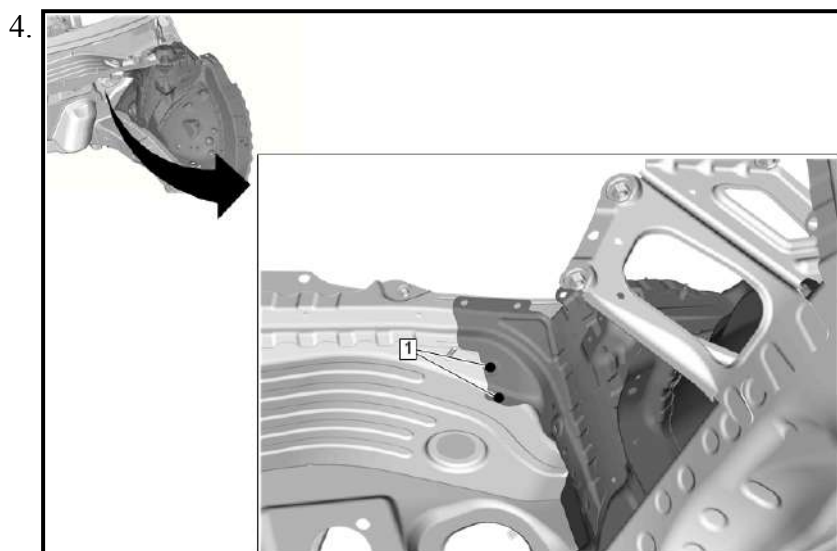
Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Microphone High Signal Circuit (LF)	B1277 02	B1277 04	B1277 01	B1277 1A
Microphone Low Signal Circuit (LF)	B1277 02	B1277 04	B1277 01	B1277 1A
Microphone High Signal Circuit (RF)	B127C 02	B127C 04	B127C 01	B127C 1A
Microphone Low Signal Circuit (RF)	B127C 02	B127C 04	B127C 01	B127C 1A
Microphone High Signal Circuit (LR)	B127D 02	B127D 04	B127D 01	B127D 1A
Microphone High Signal Circuit (LR)	B127D 02	B127D 04	B127D 01	B127D 1A
Microphone Low Signal Circuit (RR)	B126F 02	B126F 04	B126F 01	B126F 1A



Drill 6.7 mm (17/64) holes (1) on wheelhouse panel for rivet installation. [4X]



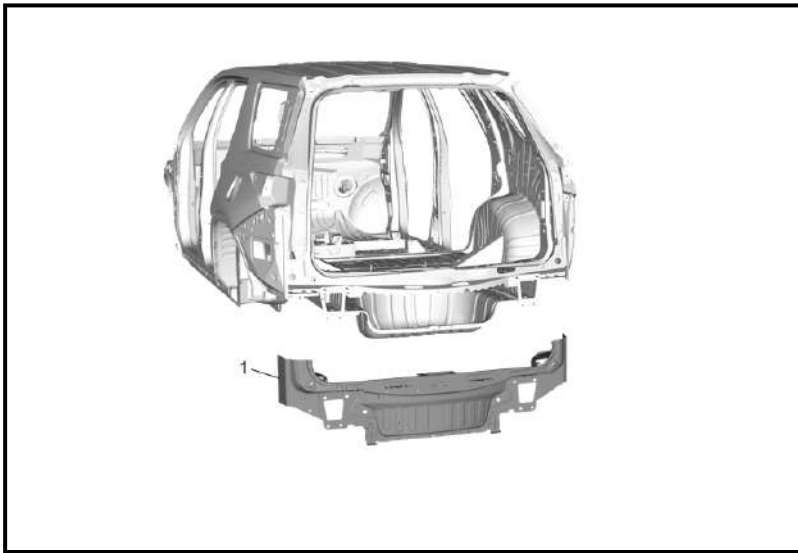
Drill 6.7 mm (17/64) holes (1) on wheelhouse panel for rivet installation. [5X]



Drill 6.7 mm (17/64) holes (1) on wheelhouse panel for rivet installation. [2X]



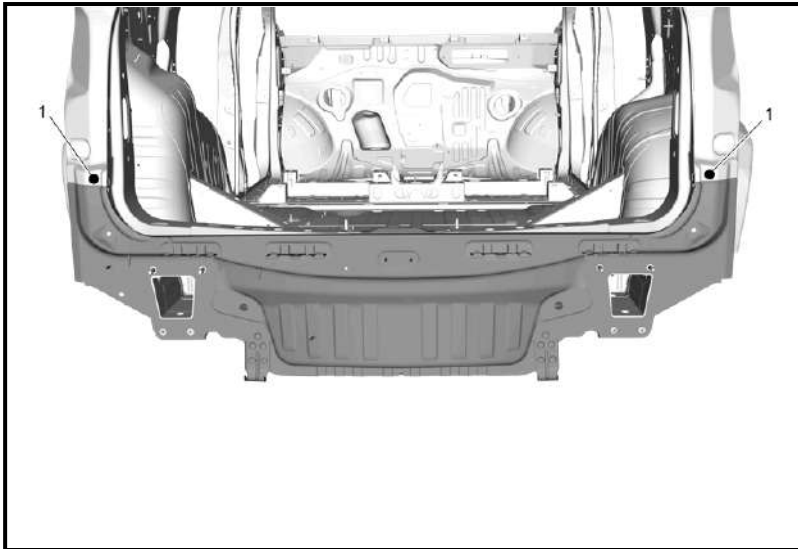
1.



NOTE: Temporarily install the rear end panel for proper fit.

Position rear end panel (1) to vehicle using 3-dimensional measuring equipment.

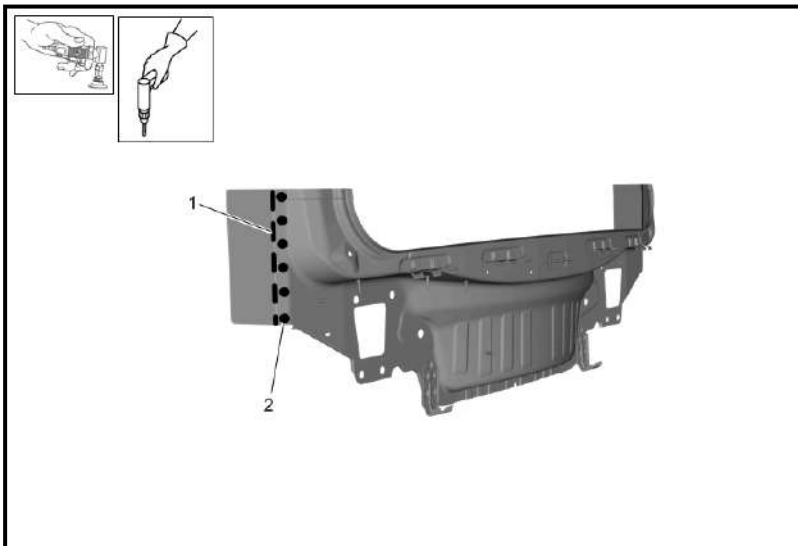
2.



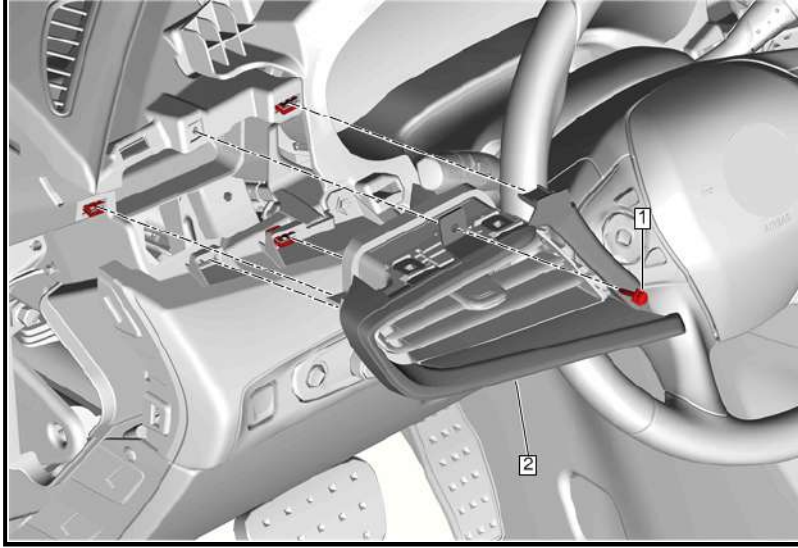
NOTE: 6.7 mm (17/64) hole used for rivet installation.

Drill 6.7 mm (17/64) plug weld holes (1) on rear end panel. [2X]

3.

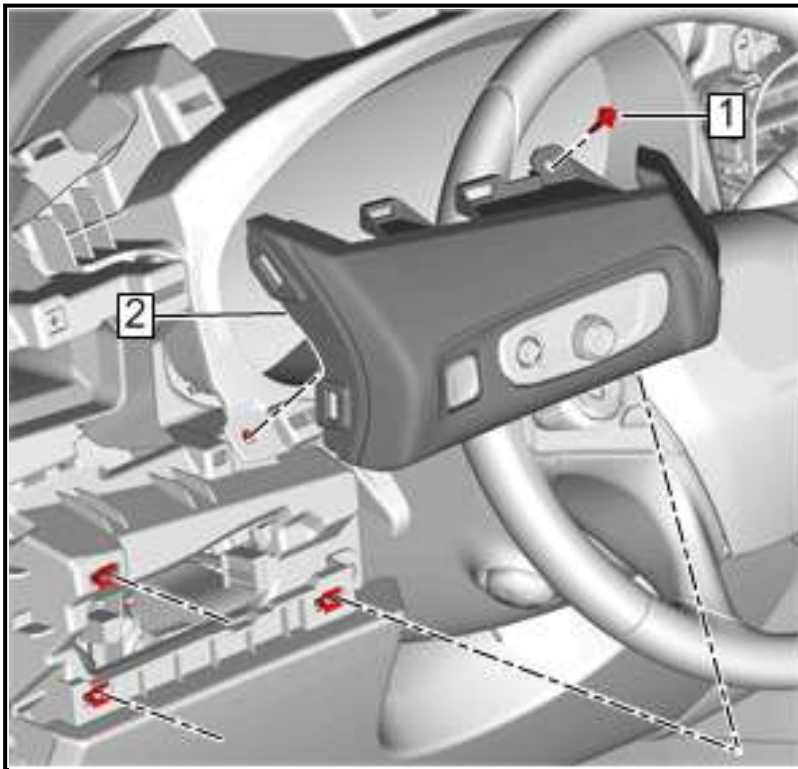


NOTE: The service part is supplied as a complete outer rear end panel and will need to be cut at the proper location for sectioning. The service



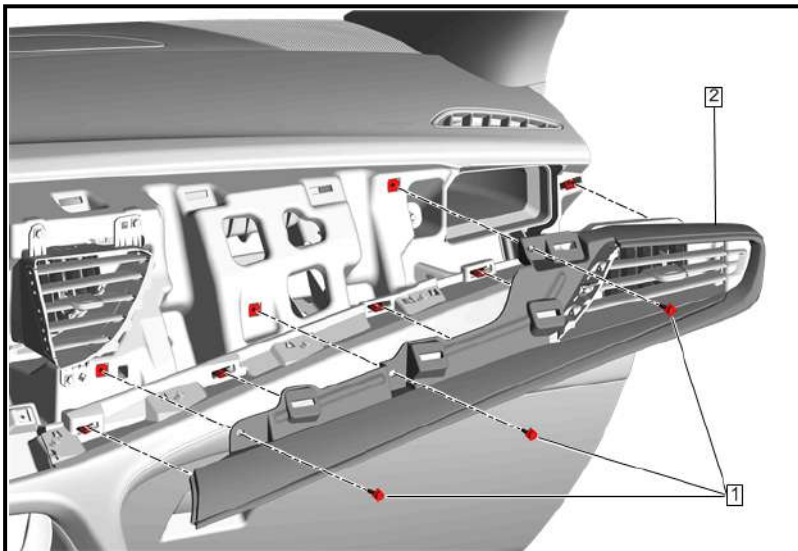
Instrument Panel Trim Plate Applique - Left Side (2) - Remove - [Instrument Panel Trim Plate Applique Replacement - Left Side](#)

4.

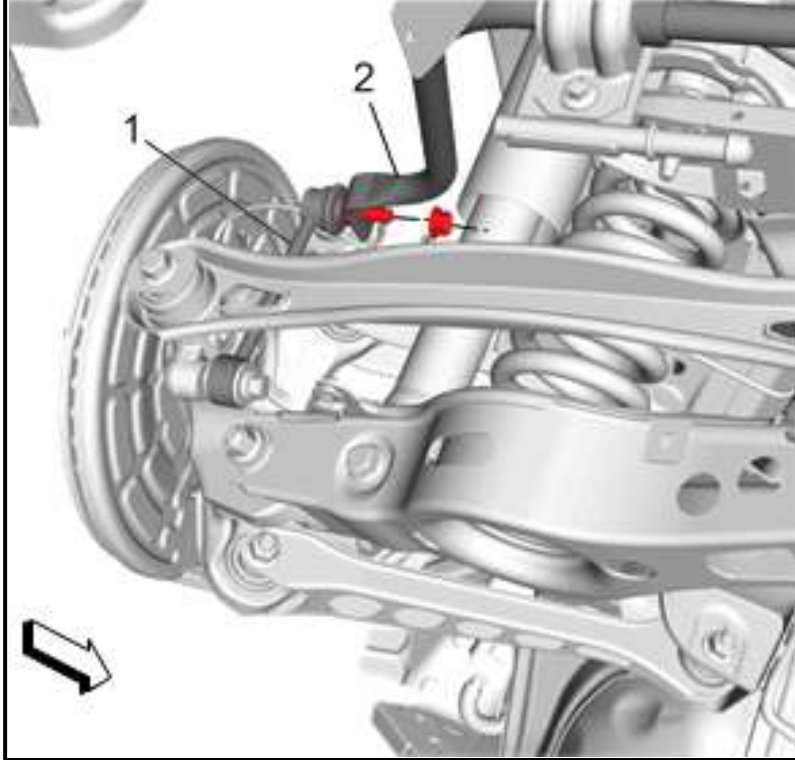


Instrument Panel Trim Pad - Left Side (1) - Remove - [Instrument Panel Trim Pad Replacement - Left Side](#)

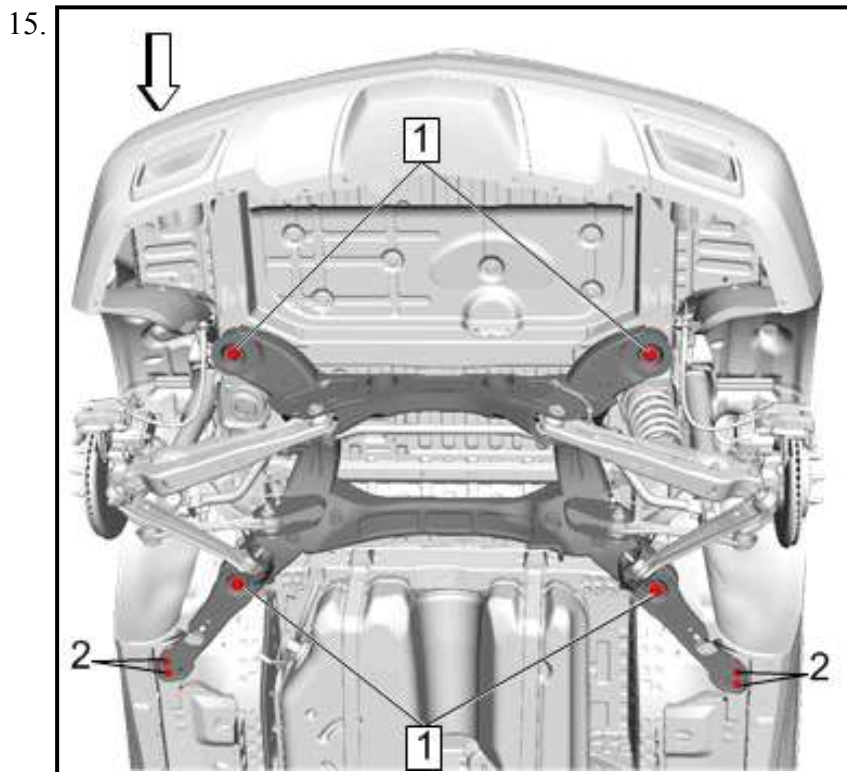
5.



Instrument Panel Trim Plate Applique - Right Side (2) - Remove - [Instrument Panel Trim Plate Applique Replacement - Right Side](#)



Stabilizer Shaft Link (1) @ Stabilizer Shaft - Separate - [Stabilizer Shaft Link Replacement](#)

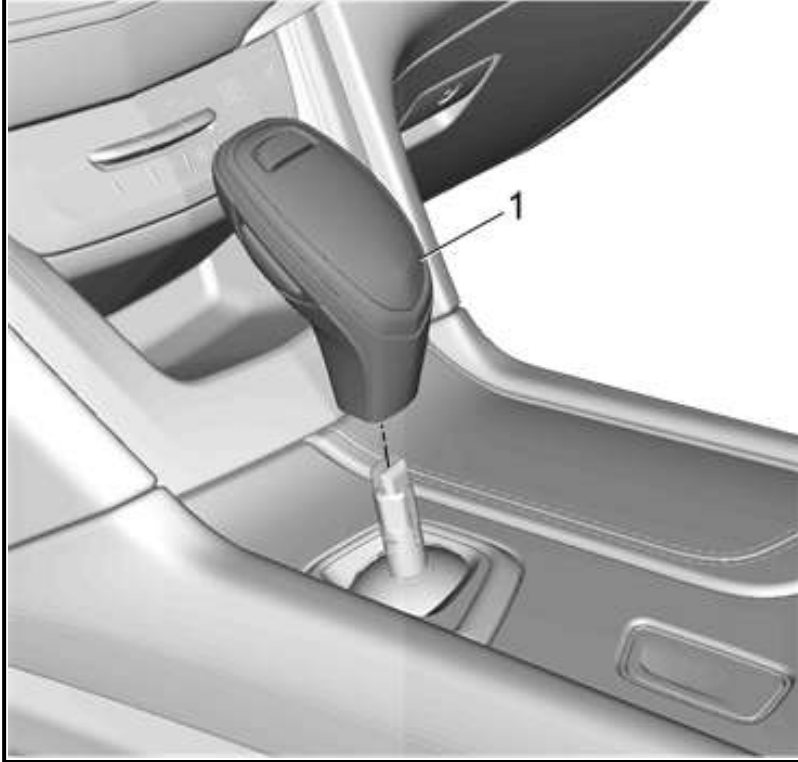


Using the **EN-39580** Support Stand support the rear suspension cradle.

16. Rear Suspension Cradle Bolt (1) - Remove and DISCARD [4x]

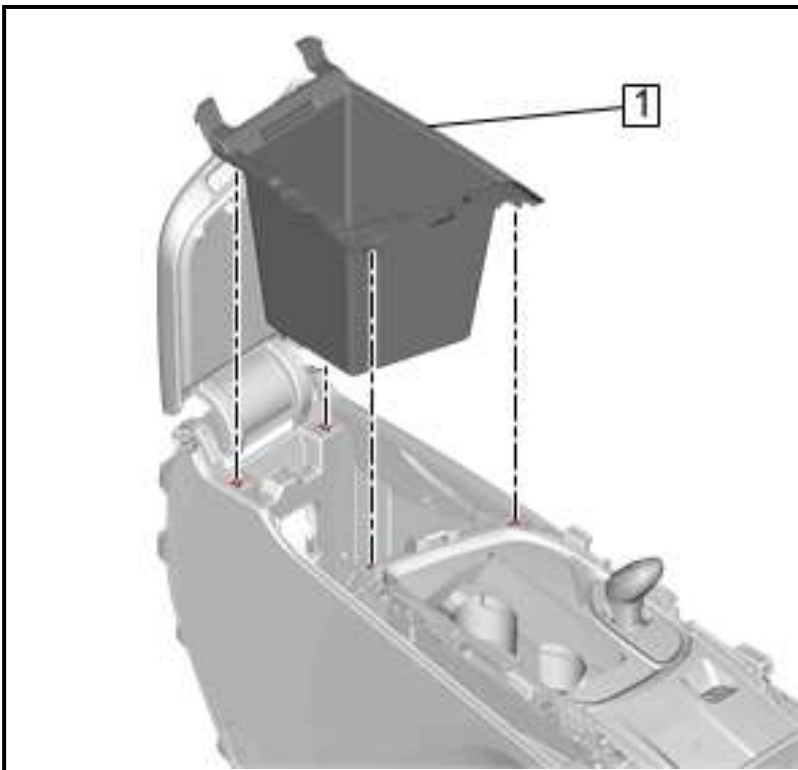
17. Rear Cradle Mount Bolt Bracket Bolt (2) - Remove [4x]





Transmission Control Lever Knob (1) - Install [Transmission Control Lever Knob Replacement](#)

11.



Front Floor Console Compartment (1) - Install [Front Floor Console Compartment Replacement](#)

12.



Schematic Reference

Cigar Lighter/Power Outlet Wiring Schematics

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

Description and Operation

Power Outlets Description and Operation

Electrical Information Reference

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Circuit/System Verification

1. Ignition ON, connect an appropriate device to the X80 Accessory Power Receptacle.
2. Verify the device is powered by the X80 Accessory Power Receptacle.
 - **If the device is not powered**

Refer to Circuit/System Testing
 - **Go to next step: If the device is powered**
3. All OK.

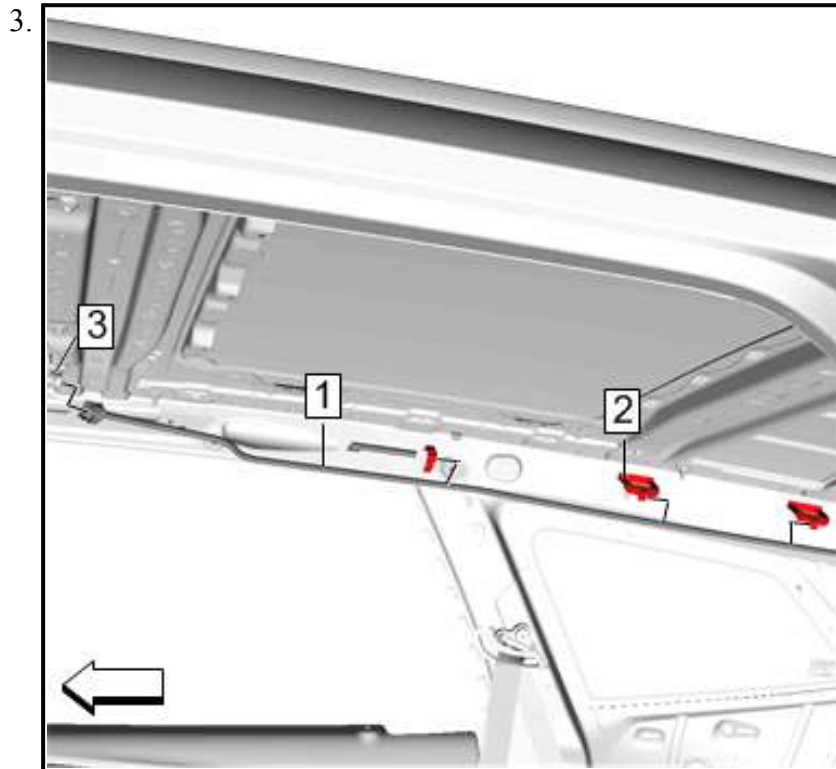
Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the appropriate X80 Accessory Power Receptacle. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the ground circuit terminal C and ground.
 - **If greater than 10 Ω**
 1. Ignition OFF.
 2. Test for less than 2 Ω in the ground circuit end to end.
 - If 2 Ω or greater, repair the open/high resistance in the circuit.
 - If less than 2 Ω , repair the open/high resistance in the ground connection.
 - **Go to next step: If less than 10 Ω**
3. Ignition ON.
4. Verify that a test lamp illuminates between the control circuit terminal A and ground.
 - **If the test lamp does not illuminate and the circuit fuse is good**
 1. Ignition OFF.
 2. Test for less than 2 Ω in the control circuit end to end.
 - If greater than 2 Ω , repair the open/high resistance in the circuit.
 - If less than 2 Ω , verify the fuse is not open and there is voltage at the fuse.
 - **If the test lamp does not illuminate and the circuit fuse is open**
 1. Ignition OFF.
 2. Test for infinite resistance between the control circuit terminal A and ground.
 - If less than infinite resistance, repair the short to ground on the circuit.
 - If infinite resistance, replace the appropriate X80 Accessory Power Receptacle.
 - **Go to next step: If the test lamp illuminates**
5. Test or replace the X80 Accessory Power Receptacle.

SUNROOF HOUSING REAR DRAIN HOSE REPLACEMENT (RIGHT SIDE)

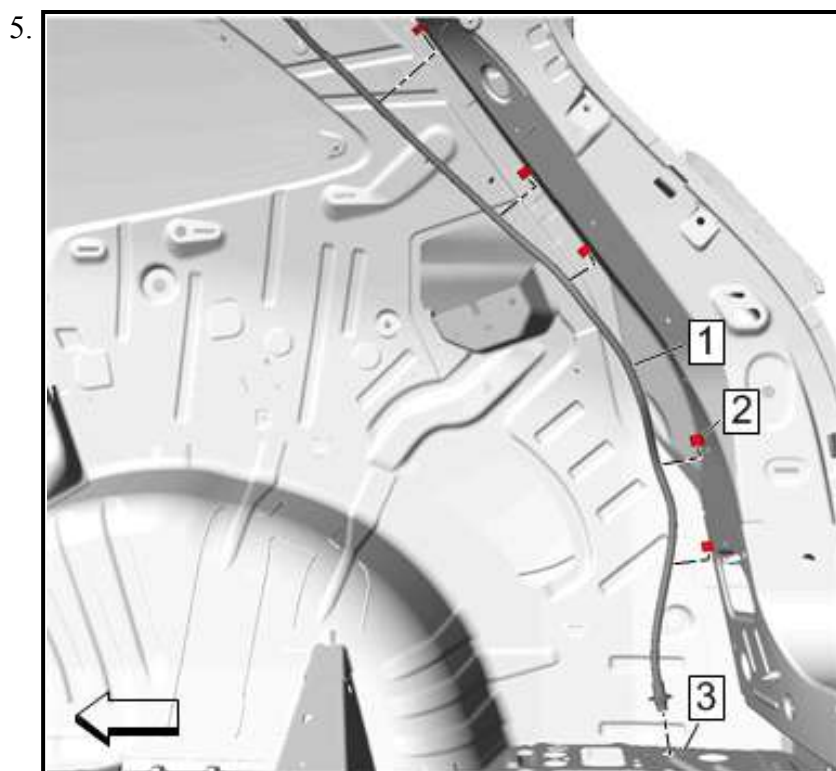
Removal Procedure

1. Headlining Trim Panel - Remove - [Headlining Trim Panel Replacement \(With C3U\)](#)
[Headlining Trim Panel Replacement \(Without C3U\)](#)
2. Quarter Lower Rear Trim Panel - Right Side - Remove - [Quarter Lower Rear Trim Panel Replacement \(Right Side\)](#)



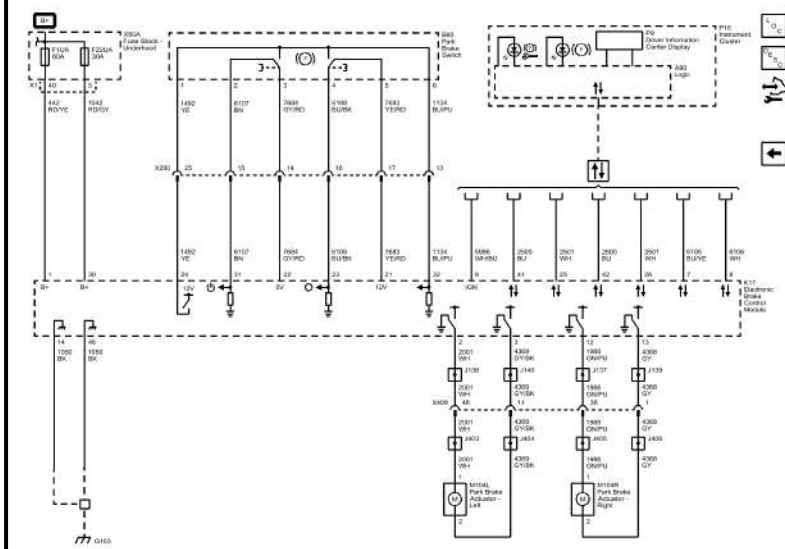
Sunroof Housing Rear Drain Hose (1) @ Sunroof Housing Rear Drain Hose Retainer (2) [3x] - Unclip

4. Sunroof Housing Rear Drain Hose (1) @ Sunroof Housing (3) - Remove



Sunroof Housing Rear Drain Hose (1) @ Sunroof Housing Rear Drain Hose Retainer (2) [5x] - Unclip

NOTE: The sunroof housing rear drain hose and grommet are a one piece



DIAGNOSTIC INFORMATION AND PROCEDURES

DTC C027D

Diagnostic Instructions

- Perform the [Diagnostic System Check - Vehicle](#) prior to using this diagnostic procedure.
- Review [Strategy Based Diagnosis](#) for an overview of the diagnostic approach.
- [Diagnostic Procedure Instructions](#) provide an overview of each diagnostic category.

DTC Descriptors

DTC C027D 64

Park Brake Slip Detected

Circuit/System Description

The Electronic Brake Control Module will diagnose the park brake motor circuits to verify that they are functioning properly. The park brake motor circuits are used to command actuator motor operation, which will apply and release the parking brake. These circuits are used to activate the actuator, which applies or releases pressure on the rear caliper pistons, ultimately applying and releasing the park brake. The electronic brake control module checks for rear wheel speeds after applying the parking brake to check for mechanical faults.

Conditions for Running the DTC

Ignition OFF, ACCESSORY, or RUN mode.

Conditions for Setting the DTC

The electronic brake control module has detected wheel speed on the rear wheels with the parking brake applied.

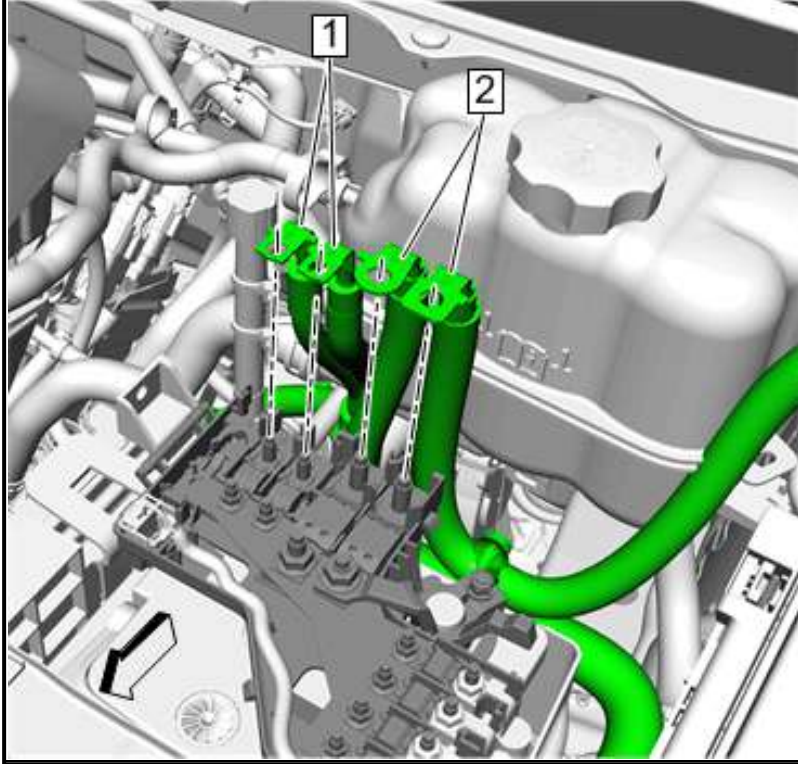
Action Taken When the DTC Sets

A message and/or a warning indicator may be displayed.

Conditions for Clearing the DTC

- The electronic brake control module will clear the DTC after 100 consecutive ignition on/off cycles with at least one test pass in each ignition cycle and no test fail result.
- Adjust or replace the park brake pads.

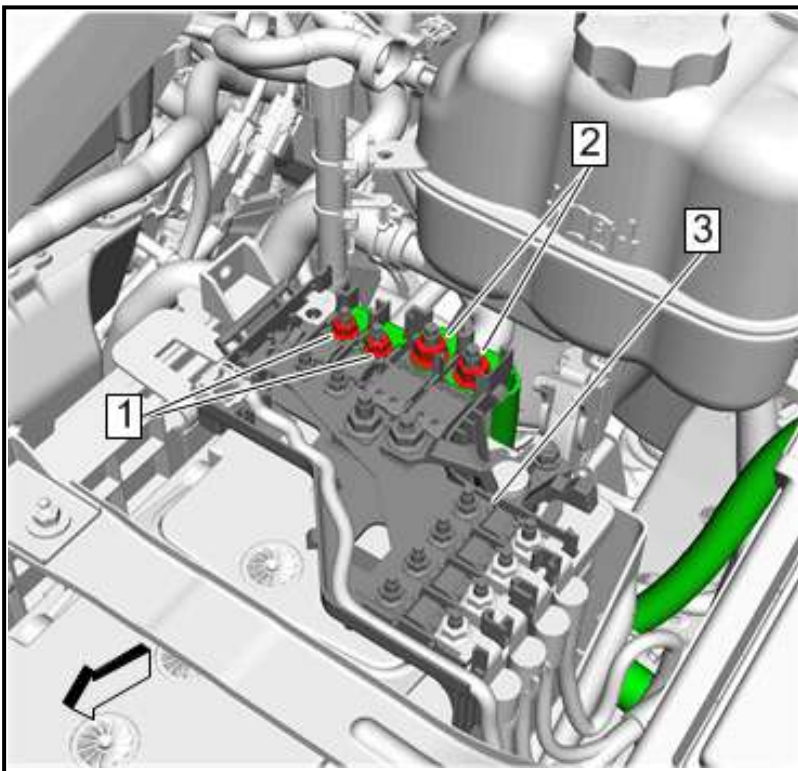
Reference Information



Battery Positive Cable (1) - Install [2x]

11. Battery Positive Cable (2) - Install [2x]

12.

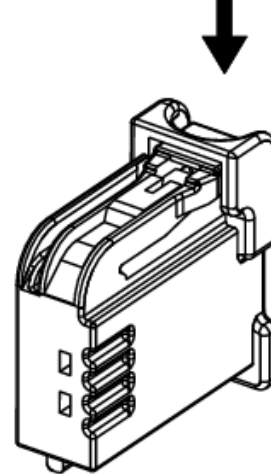
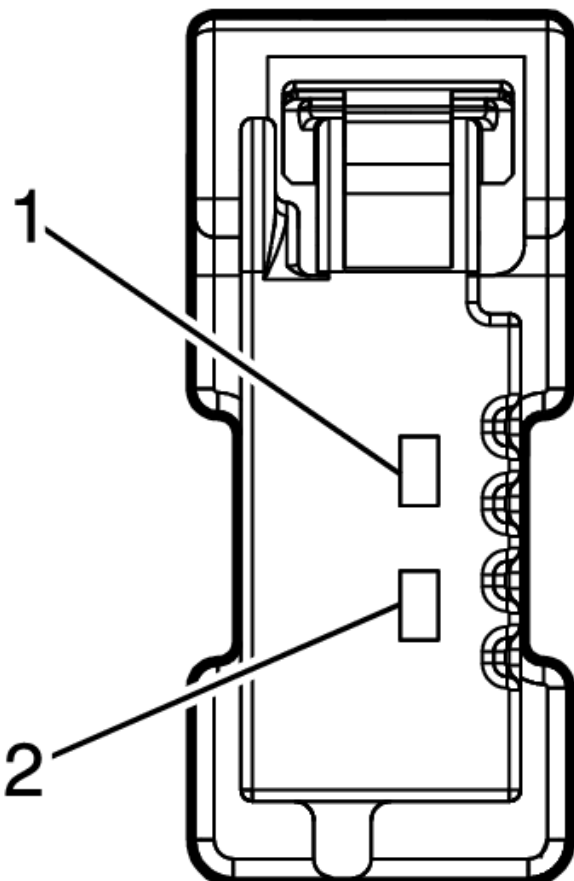


Fuse Block Nut (2) @ Battery Fuse Block (3) - Install and tighten [2x] 16 N.m (12 lb ft)

13. Fuse Block Nut (1) @ Battery Fuse Block (3) - Install and tighten [2x] 9 N.m (80 lb in)

14.





Connector Part Information

- Harness Type: Body
- OEM Connector: 19150056
- Service Connector: 13314097
- Description: 2-Way F 1.5 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	WH/BK	1959	Left Rear Midrange Speaker (-) Low Reference	I	UQA
2	1	YE/BN	1859	Left Rear Midrange Speaker Control (+)	I	UQA

P19AP SPEAKER - RIGHT REAR TRIM PANEL



Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Signal	P057C	P057C	P057D	P057B, P057E
5 V Reference	P057C P0651	P057C	P057D, P0651	-
Low Reference	-	P057D	P057D	-

Typical Scan Tool Data

Brake Pedal Position Sensor

Circuit	Short to Ground	Open	Short to Voltage
Operating Conditions: Ignition ON. Normal Range: 0.25 - 4.75 V			
5 V Reference	0 V	0 V	-
Signal	0 V	0 V	5 V
Low Reference	-	5 V	-

Circuit/System Description

The brake pedal position (BPP) sensor is part of the engine brake pedal override feature. The engine control module (ECM) continuously monitors the vehicle speed and the position of the brake pedal. These two main inputs, along with other ECM inputs are used to determine if the vehicle is decelerating at the proper speed and rate with the brake pedal applied. When the engine brake pedal override system is active, the ECM reduces engine torque to assist in reducing vehicle speed.

The BPP sensor is a six wire sensor, and is part of a dual brake position sensor. One BPP Sensor is used for the stop lamps and the other BPP Sensor is used for the engine brake pedal override feature. The BPP Sensor for engine brake pedal override communicates with the ECM. The ECM supplies a 5 V reference circuit, low reference circuit, and signal circuit to the BPP sensor. The BPP sensor sends a voltage signal to the ECM on the signal circuit. The voltage on the signal circuit will vary from a voltage greater than 0.25 V when the brake pedal is released to a voltage less than 4.75 V when the brake pedal is fully applied.

For information on the Stop Lamps side of the BPP Sensor, refer to [Exterior Lighting Systems Description and Operation](#) .

Conditions for Running the DTC

P057B

- DTCs P057C, or P057D are not set.
- Ignition voltage is greater than 10 V.
- Shift lever has been in Park at least once during key ON.
- Shift lever is not in Park.
- Vehicle speed is greater than 8 km/h (5 mph).
- Accelerator Pedal Position is less than 5%.
- DTC runs once per key cycle when above conditions are met.

P057C, P057D, or P057E

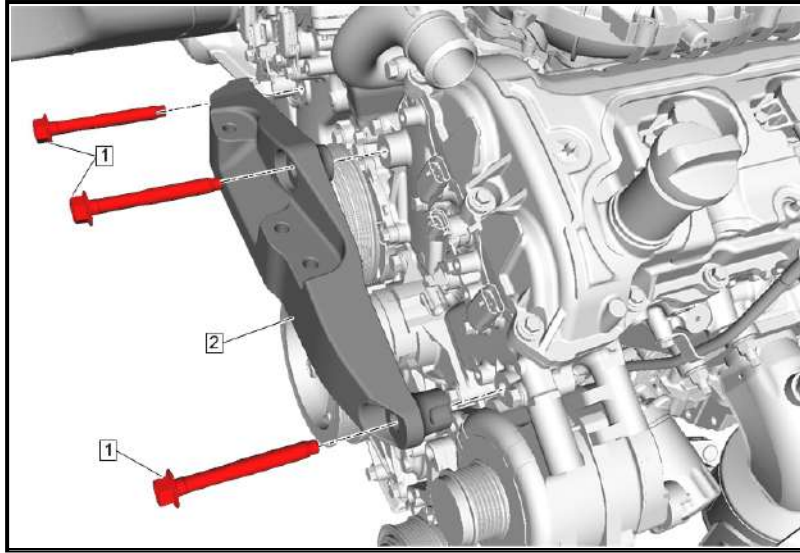
- Ignition voltage is greater than 10 V.
- DTC runs continuously when above condition is met.

Conditions for Setting the DTC

P057B

ECM detects the BPP sensor signal is stuck in a range for greater than 1 s.

11.



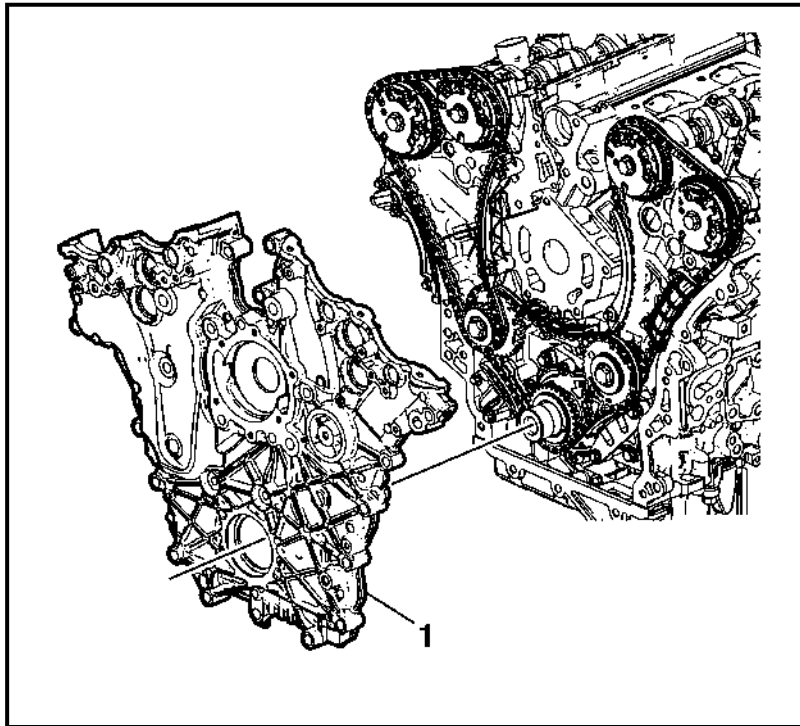
Engine Mount Bracket (3) - Install - [Engine Mount Bracket Replacement - Right Side](#)

12. Fill the cooling system. [Cooling System Draining and Filling \(GE 47716\)](#) [Cooling System Draining and Filling \(Static Fill\)](#)

SECONDARY CAMSHAFT INTERMEDIATE DRIVE CHAIN REPLACEMENT - LEFT SIDE

Removal Procedure

1.



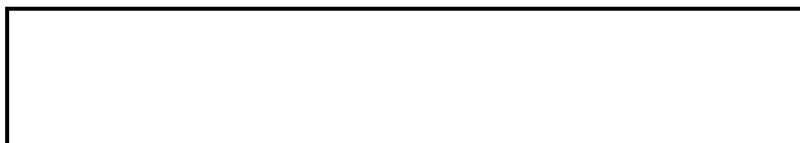
Remove the engine front cover (1). [Engine Front Cover Replacement](#)

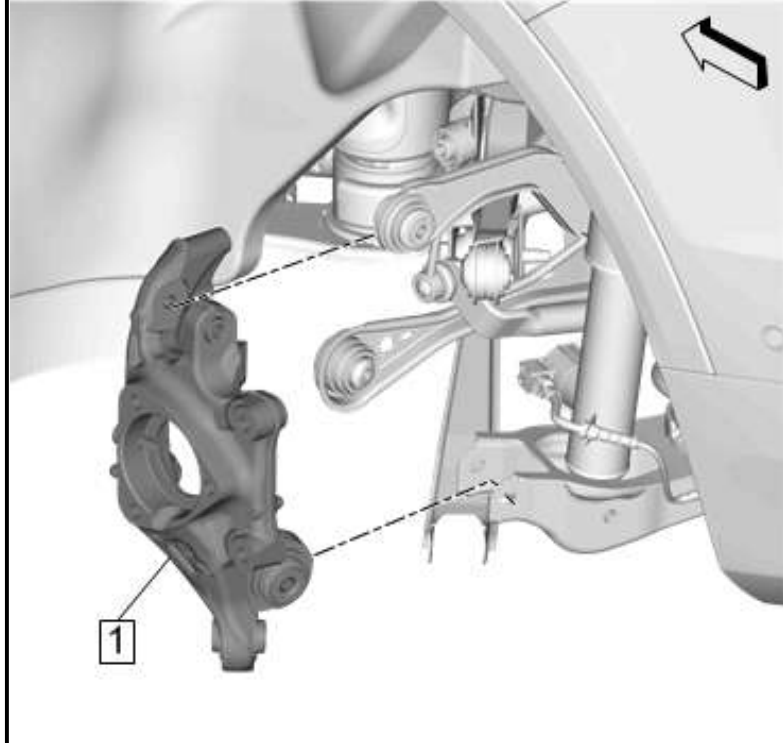
2. Remove the left side secondary camshaft intermediate drive chain. [Camshaft Timing Chain Components Removal](#)
3. Clean and inspect all of the camshaft timing drive components. Refer to [Camshaft Timing Drive Components Cleaning and Inspection](#)
4. Replace components as necessary.

Installation Procedure

1. Install the left side secondary camshaft intermediate drive chain. [Camshaft Timing Chain Components Installation](#)

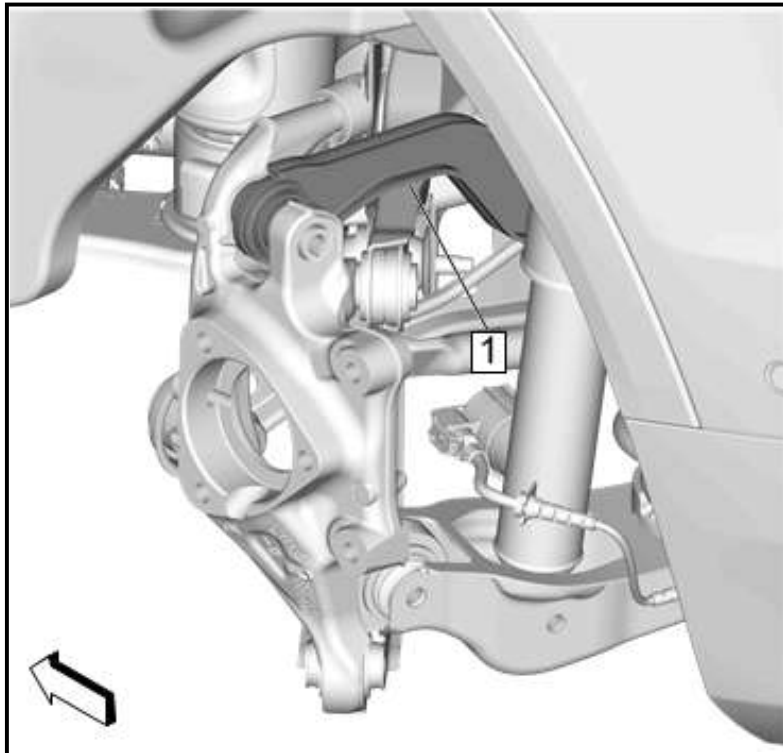
2.





Rear Suspension Knuckle (1) - Install

3.



Rear Suspension Upper Lateral Link (1) @ Rear Suspension Knuckle - Install - [Rear Suspension Upper Lateral Link Replacement](#)

4.

