

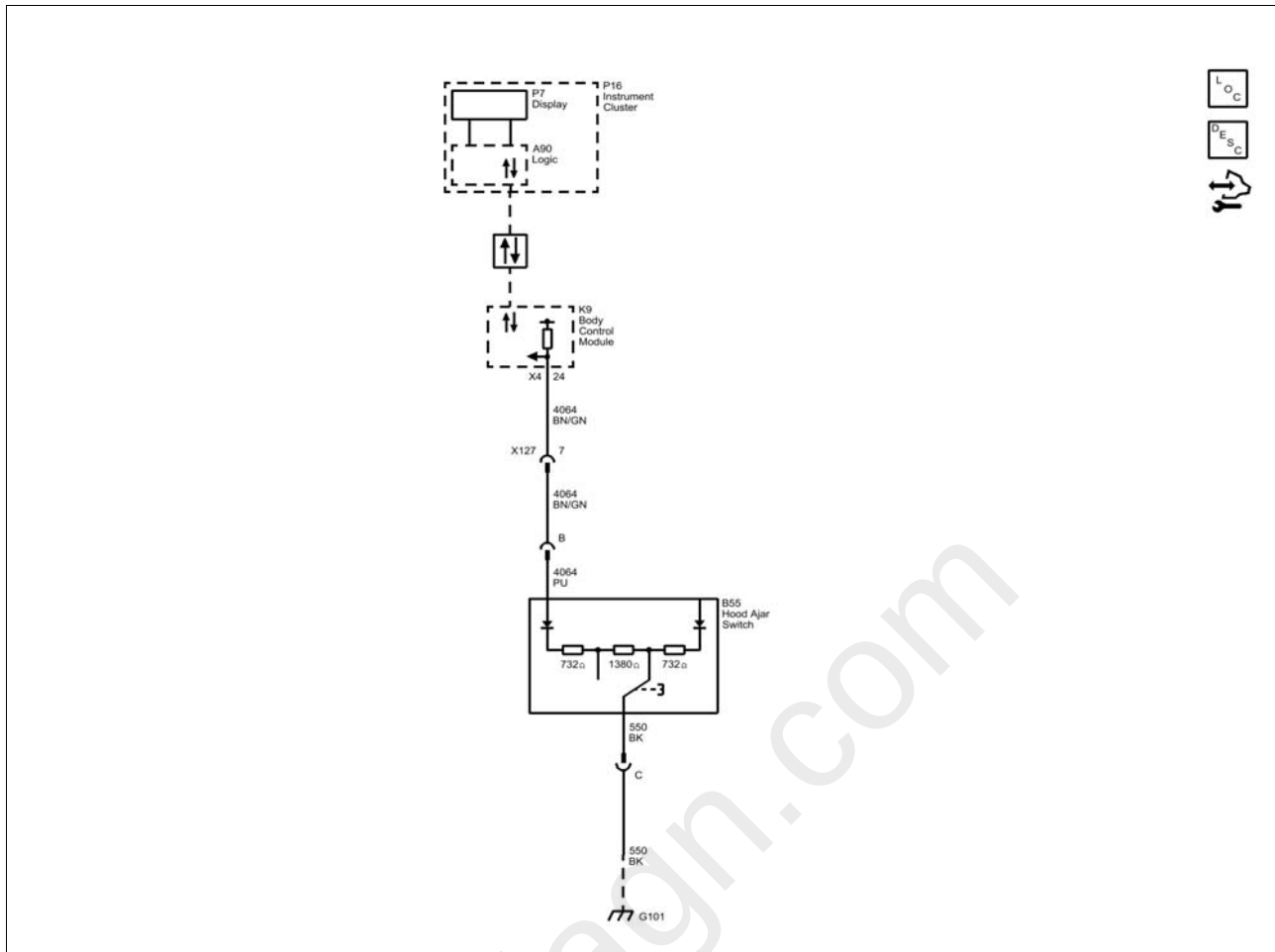
Service Manual: BOLTED EXTERIOR BODY PANELS AND CLOSURES

SPECIFICATIONS > FASTENER SPECIFICATIONS

Application	Specification	
	Metric	English
Front End Sheet Metal Cross Brace Bolt	9 N.m	80 lb in
Front End Sheet Metal Diagonal Brace Bolt	22 N.m	16 lb ft
Front End Sheet Metal Diagonal Brace Nut	22 N.m	16 lb ft
Front Fender Bolt	9 N.m	80 lb in
Front Fender Front Brace Bolt	9 N.m	80 lb in
Front Fender Nut	9 N.m	80 lb in
Front Side Door Check Link Bolt	22 N.m	16 lb ft
Front Side Door Check Link Nut	12 N.m	9 lb ft
Front Side Door Lower Hinge Bolt	25 N.m	18 lb ft
Front Side Door Lower Hinge To Body Bolt	22 N.m	16 lb ft
Front Side Door Upper Hinge Bolt	25 N.m	18 lb ft
Front Side Door Upper Hinge To Body Bolt	22 N.m	16 lb ft
Hood Primary and Secondary Latch Bolt	22 N.m	16 lb ft
Hood Hinge Bolt	9 N.m	80 lb in
Hood Hinge Nut	22 N.m	16 lb ft
Plenum Panel Bolt	9 N.m	80 lb in
Rear Compartment Lid Hinge Bolt	22 N.m	16 lb ft
Rear Compartment Lid Hinge Nut	22 N.m	16 lb ft

SCHEMATIC WIRING DIAGRAMS > HOOD LATCH WIRING SCHEMATICS > HOOD AJAR SWITCH

Fig 1: Hood Ajar Switch



Courtesy of GENERAL MOTORS COMPANY

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > 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 provides an overview of each diagnostic category.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > DTC DESCRIPTORS

DTC B3006

Hood Ajar Circuit

For symptom byte information, refer to Symptom Byte List .

**DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT
> DIAGNOSTIC FAULT INFORMATION**

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Signal	B3006 02	B3006 01, B3006 04	B3006 01	-
Ground	-	B3006 01, B3006 04	-	-

**DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT
> CIRCUIT/SYSTEM DESCRIPTION**

The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains high. When the hood is open, the switch is closed and the voltage is pulled low.

**DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT
> CONDITIONS FOR RUNNING THE DTC**

The BCM continuously monitors for this DTC

**DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT
> CONDITIONS FOR SETTING THE DTC**

B3006 01

The BCM detects that the hood ajar switch signal circuit is shorted to battery.

B3006 02

The BCM detects that the hood ajar switch signal circuit is shorted to ground.

B3006 04

The BCM detects that the hood ajar switch signal circuit is open.

**DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT
> ACTION TAKEN WHEN THE DTC SETS**

- The hood ajar switch input will be ignored as a content theft deterrent trigger.

- Remote vehicle start (if equipped) will be disabled.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > CONDITIONS FOR CLEARING THE DTC

- A current DTC will clear when the conditions for setting the DTC are no longer present.
- A history DTC will clear after 40 malfunction free ignition cycles.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > REFERENCE INFORMATION

Schematic Reference

Immobilizer Schematics

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

Description and Operation

Keyless Entry System Description and Operation

Electrical Information Reference

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

Scan Tool Reference

Control Module References for scan tool information

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > CIRCUIT/SYSTEM VERIFICATION

1. Ignition ON.
2. Verify the scan tool Hood Ajar Switch parameter is Open when the hood is open and Closed when the hood is closed.

1. If the parameter does not change

Refer to Circuit/System Testing.

1. If the parameter changes
3. All OK.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > CIRCUIT/SYSTEM TESTING

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the B55 Hood Ajar Switch. 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.

1. If 10 Ω or greater

1. Ignition OFF
2. Test for less than 2 Ω in the ground circuit end to end.
 1. If 2 Ω or greater, repair the open/high resistance in the circuit.
 2. If less than 2 Ω , repair the open/high resistance in the ground connection.

1. If less than 10 Ω

3. Ignition ON.
4. Test for greater than 10 V between the signal circuit terminal B and ground.

1. If 10 V or less

1. Ignition OFF, disconnect the harness connector at the K9 Body Control Module.
2. Test for infinite resistance between the signal circuit and ground.
 1. If less than infinite resistance, repair the short to ground on the circuit.
 1. If Infinite resistance.
3. Test for less than 2 Ω in the signal circuit end to end.
 1. If 2 Ω or greater, repair the open/high resistance in the circuit.
 2. If less than 2 Ω , replace the K9 Body Control Module.

1. If greater than 10 V

5. Ignition OFF, disconnect the X4 and X7 harness connector at the K9 Body Control Module, ignition ON.
6. Test for less than 1 V between the signal circuit terminal B and ground.

1. If 1 V or greater

Repair the short to voltage on the circuit.

1. If less than 1 V

7. Test or replace the B55 Hood Ajar Switch.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > COMPONENT TESTING

1. Ignition OFF, disconnect the harness connector at the B55 Hood Ajar Switch.
2. Test for 2738-3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the closed position.
 1. **If not between 2738-3350 Ω**
Replace the B55 Hood Ajar Switch.
 1. **If between 2738-3350 Ω**
3. Test for 658-806 Ω between the signal terminal A and the ground terminal C with the hood latch in the closed position.
 1. **If not between 658-806 Ω**
Replace the B55 Hood Ajar Switch.
 1. **If between 658-806 Ω**
4. Test for 2080-2545 Ω between the signal terminal B and the ground terminal C with the hood latch in the closed position.
 1. **If not between 2080-2545 Ω**
Replace the B55 Hood Ajar Switch.
 1. **If between 2080-2545 Ω**
5. Test for 2738-3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the open position.
 1. **If not between 2738-3350 Ω**
Replace the B55 Hood Ajar Switch.
 1. **If between 2738-3350 Ω**
6. Test for 2080-2545 Ω between the signal terminal A and the ground terminal C with the hood latch in the open position.
 1. **If not between 2080-2545 Ω**
Replace the B55 Hood Ajar Switch.
 1. **If between 2080-2545 Ω**
7. Test for 658-806 Ω between the signal terminal B and the ground terminal C with the hood latch in the open position.
 1. **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

1. If between 658-806 Ω

8. All OK.

DIAGNOSTIC INFORMATION AND PROCEDURES > DTC B3006: HOOD AJAR CIRCUIT > REPAIR INSTRUCTIONS

Perform the Diagnostic Repair Verification after completing the repair.

- Hood Primary and Secondary Latch Replacement
- Control Module References for body control module replacement, programming, and setup.

DIAGNOSTIC INFORMATION AND PROCEDURES > SYMPTOMS - BOLTED EXTERIOR BODY PANELS AND CLOSURES



IMPORTANT:

The following steps must be completed before using the symptom tables.

1. Perform the Diagnostic System Check - Vehicle before using the symptom tables in order to verify that all of the following are true:
 1. There are no DTCs set.
 2. The control modules can communicate via the serial data links.
2. Review the system operation in order to familiarize yourself with the system functions. Refer to Hood Ajar Indicator Description and Operation .

DIAGNOSTIC INFORMATION AND PROCEDURES > SYMPTOMS - BOLTED EXTERIOR BODY PANELS AND CLOSURES > VISUAL/PHYSICAL INSPECTION

- Inspect for aftermarket devices which could affect the operation of the systems. Refer to Checking Aftermarket Accessories .
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

DIAGNOSTIC INFORMATION AND PROCEDURES > SYMPTOMS - BOLTED EXTERIOR BODY PANELS AND CLOSURES > INTERMITTENT

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to Testing for Intermittent Conditions and Poor Connections .

DIAGNOSTIC INFORMATION AND PROCEDURES > SYMPTOMS - BOLTED EXTERIOR BODY PANELS AND CLOSURES > SYMPTOM LIST

Refer to Hood Ajar Indicator/Message Malfunction in order to diagnose the symptom.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > 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 provides an overview of each diagnostic category.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > DTC DESCRIPTORS

DTC B3006

Hood Ajar Circuit

For symptom byte information, refer to Symptom Byte List .

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > DIAGNOSTIC FAULT INFORMATION

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Signal	B3006 02	B3006 01, B3006 04	B3006 01	-
Ground	-	B3006 01, B3006 04	-	-

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CIRCUIT/SYSTEM DESCRIPTION

The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains

high. When the hood is open, the switch is closed and the voltage is pulled low.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CONDITIONS FOR RUNNING THE DTC

The BCM continuously monitors for this DTC

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CONDITIONS FOR SETTING THE DTC

B3006 01

The BCM detects that the hood ajar switch signal circuit is shorted to battery.

B3006 02

The BCM detects that the hood ajar switch signal circuit is shorted to ground.

B3006 04

The BCM detects that the hood ajar switch signal circuit is open.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > ACTION TAKEN WHEN THE DTC SETS

- The hood ajar switch input will be ignored as a content theft deterrent trigger.
- Remote vehicle start (if equipped) will be disabled.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CONDITIONS FOR CLEARING THE DTC

- A current DTC will clear when the conditions for setting the DTC are no longer present.
- A history DTC will clear after 40 malfunction free ignition cycles.

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- Wiring Repairs

Scan Tool Reference

Control Module References for scan tool information

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CIRCUIT/SYSTEM VERIFICATION

1. Ignition ON.
2. Verify the scan tool Hood Ajar Switch parameter is Open when the hood is open and Closed when the hood is closed.
 1. **If the parameter does not change**
Refer to Circuit/System Testing.
 1. **If the parameter changes**
3. All OK.

DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > CIRCUIT/SYSTEM TESTING

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the B55 Hood Ajar Switch. 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.
 1. **If 10 Ω or greater**
 1. Ignition OFF
 2. Test for less than 2 Ω in the ground circuit end to end.
 1. If 2 Ω or greater, repair the open/high resistance in the circuit.
 2. If less than 2 Ω , repair the open/high resistance in the ground connection.

1. If less than 10 Ω

3. Ignition ON.

4. Test for greater than 10 V between the signal circuit terminal B and ground.

1. If 10 V or less

1. Ignition OFF, disconnect the harness connector at the K9 Body Control Module.

2. Test for infinite resistance between the signal circuit and ground.

1. If less than infinite resistance, repair the short to ground on the circuit.

1. If Infinite resistance.

3. Test for less than 2 Ω in the signal circuit end to end.

1. If 2 Ω or greater, repair the open/high resistance in the circuit.

2. If less than 2 Ω , replace the K9 Body Control Module.

1. If greater than 10 V

5. Ignition OFF, disconnect the X4 and X7 harness connector at the K9 Body Control Module, ignition ON.

6. Test for less than 1 V between the signal circuit terminal B and ground.

1. If 1 V or greater

Repair the short to voltage on the circuit.

1. If less than 1 V

7. Test or replace the B55 Hood Ajar Switch.

**DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR
INDICATOR/MESSAGE MALFUNCTION > COMPONENT TESTING**

1. Ignition OFF, disconnect the harness connector at the B55 Hood Ajar Switch.

2. Test for 2738-3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the closed position.

1. If not between 2738-3350 Ω

Replace the B55 Hood Ajar Switch.

1. If between 2738-3350 Ω

3. Test for 658-806 Ω between the signal terminal A and the ground terminal C with the hood latch in the closed position.

1. If not between 658-806 Ω

Replace the B55 Hood Ajar Switch.

1. If between 658-806 Ω

4. Test for 2080-2545 Ω between the signal terminal B and the ground terminal C with the hood latch in the closed position.

1. If not between 2080-2545 Ω

Replace the B55 Hood Ajar Switch.

1. If between 2080-2545 Ω

5. Test for 2738-3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the open position.

1. If not between 2738-3350 Ω

Replace the B55 Hood Ajar Switch.

1. If between 2738-3350 Ω

6. Test for 2080-2545 Ω between the signal terminal A and the ground terminal C with the hood latch in the open position.

1. If not between 2080-2545 Ω

Replace the B55 Hood Ajar Switch.

1. If between 2080-2545 Ω

7. Test for 658-806 Ω between the signal terminal B and the ground terminal C with the hood latch in the open position.

1. If not between 658-806 Ω

Replace the B55 Hood Ajar Switch.

1. If between 658-806 Ω

8. All OK.

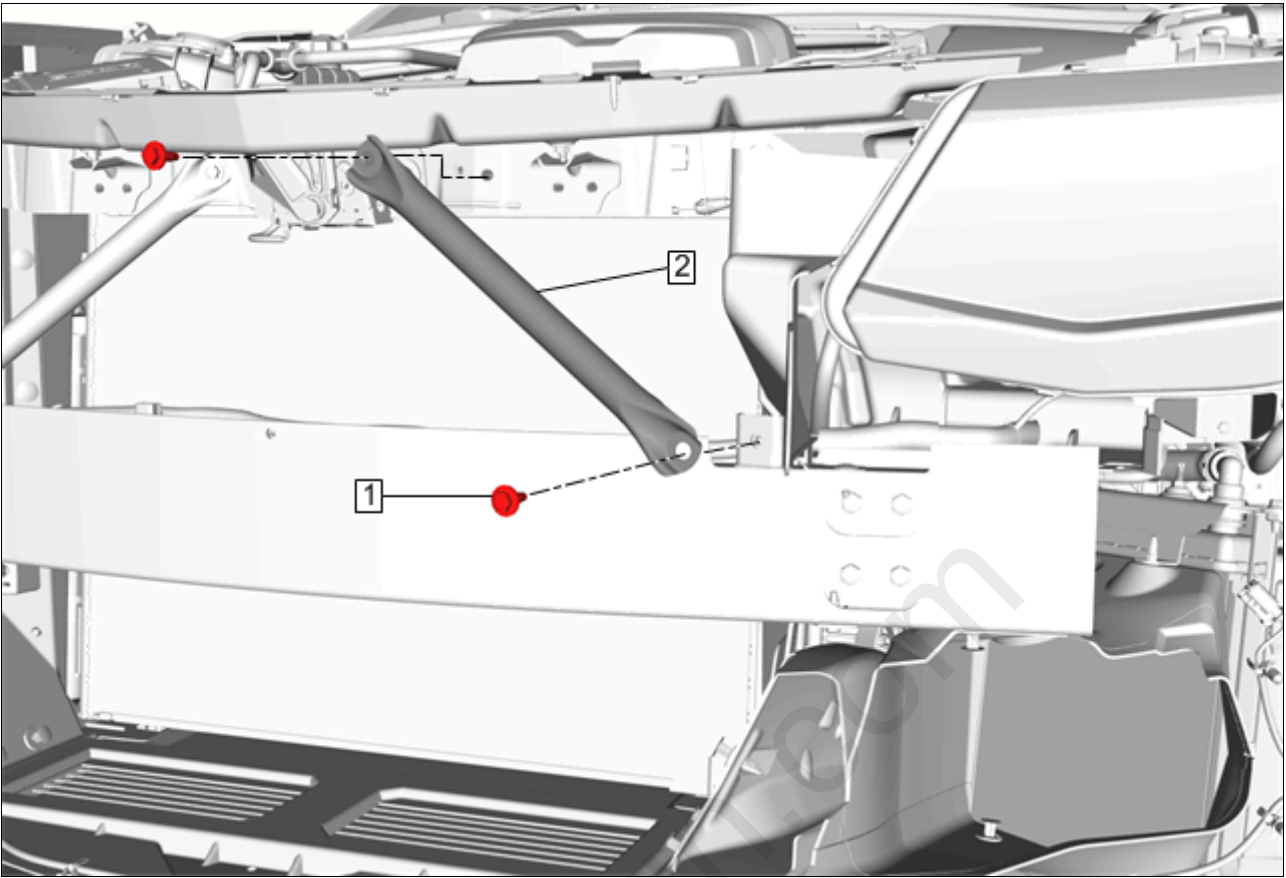
DIAGNOSTIC INFORMATION AND PROCEDURES > HOOD AJAR INDICATOR/MESSAGE MALFUNCTION > REPAIR INSTRUCTIONS

Perform the Diagnostic Repair Verification after completing the repair.

- Hood Primary and Secondary Latch Replacement
- Control Module References for body control module replacement, programming, and setup.

REPAIR INSTRUCTIONS > FRONT END SHEET METAL CROSS BRACE REPLACEMENT

Fig 1: Front End Sheet Metal Cross Brace

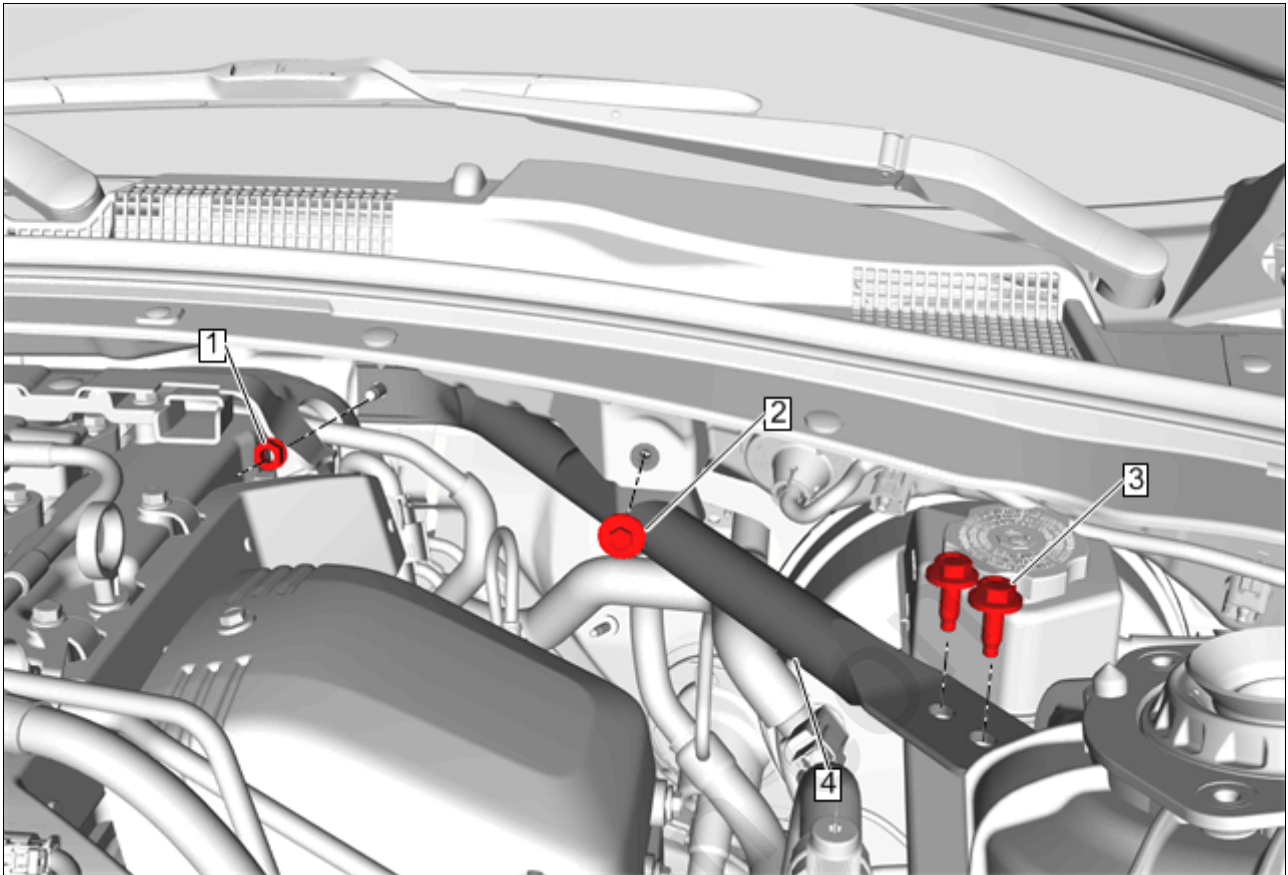


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Front Bumper Fascia Replacement	
1	Front End Sheet Metal Cross Brace Bolt (Qty: 2)
	CAUTION: Refer to Fastener Caution .
	Tighten 9 N.m (80 lb in)
2	Front End Sheet Metal Cross Brace

**REPAIR INSTRUCTIONS > FRONT END SHEET METAL DIAGONAL BRACE
REPLACEMENT - LEFT SIDE**

Fig 1: Front End Sheet Metal Diagonal Brace - Left Side



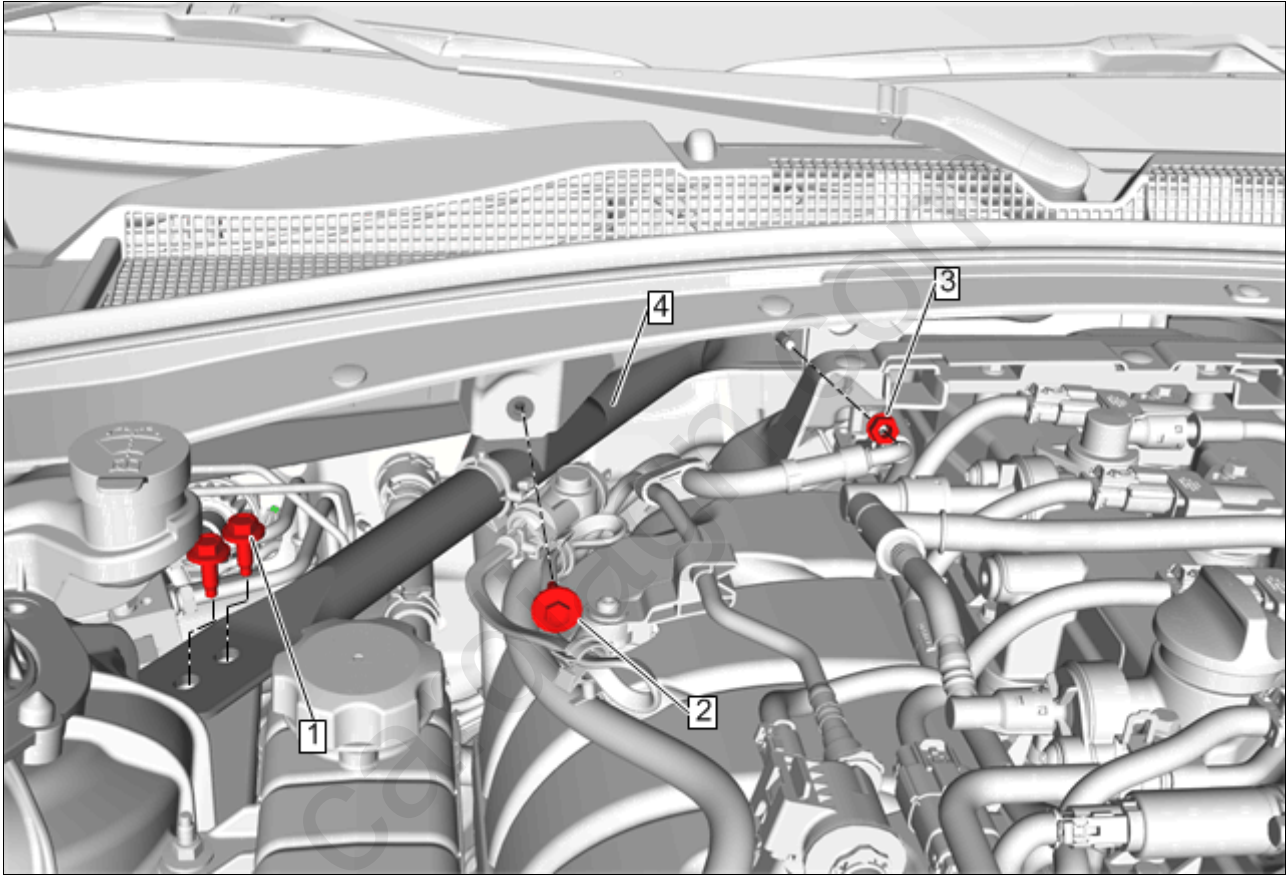
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure 1. Intake Manifold Cover Replacement 2. Plenum Front Panel Replacement	
1	Front End Sheet Metal Diagonal Brace Nut <i>CAUTION:</i> <i>Refer to Fastener Caution .</i> Tighten 22 N.m (16 lb ft)
2	Plenum Panel Bolt Tighten 9 N.m (80 lb in)

3	Front End Sheet Metal Diagonal Brace Bolt (Qty: 2) Tighten 22 N.m (16 lb ft)
4	Front End Sheet Metal Diagonal Brace

**REPAIR INSTRUCTIONS > FRONT END SHEET METAL DIAGONAL BRACE
REPLACEMENT - RIGHT SIDE**

Fig 1: Front End Sheet Metal Diagonal Brace - Right Side



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure 1. Intake Manifold Cover Replacement 2. Plenum Front Panel Replacement	
1	Front End Sheet Metal Diagonal Brace Bolt (Qty: 2) CAUTION:

Refer to Fastener Caution .

Tighten
22 N.m (16 lb ft)

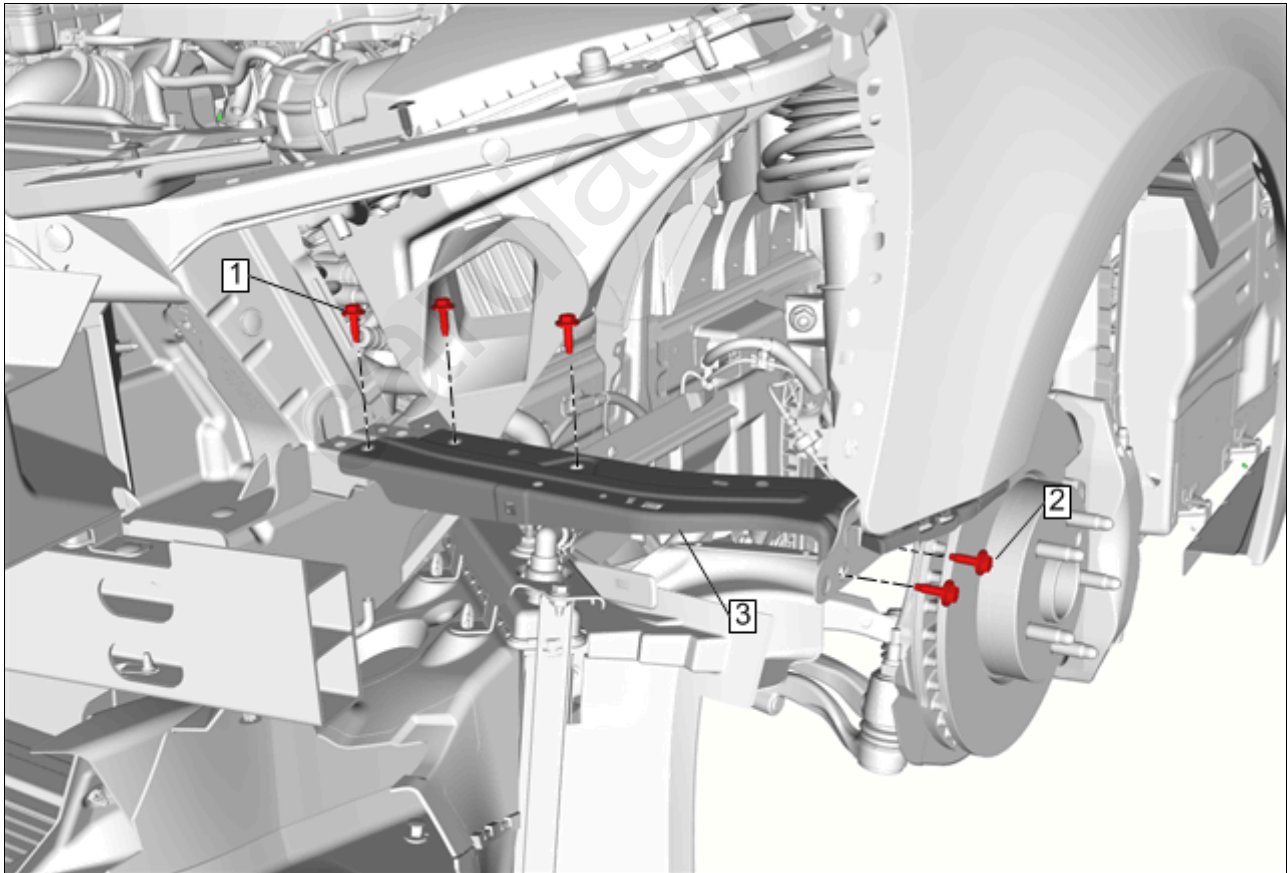
2
Plenum Panel Bolt
Tighten
9 N.m (80 lb in)

3
Front End Sheet Metal Diagonal Brace Nut
Tighten
22 N.m (16 lb ft)

4
Front End Sheet Metal Diagonal Brace
Procedure
Remove the starter wire tie strap.

REPAIR INSTRUCTIONS > FRONT FENDER FRONT BRACE REPLACEMENT

Fig 1: Front Fender Front Brace

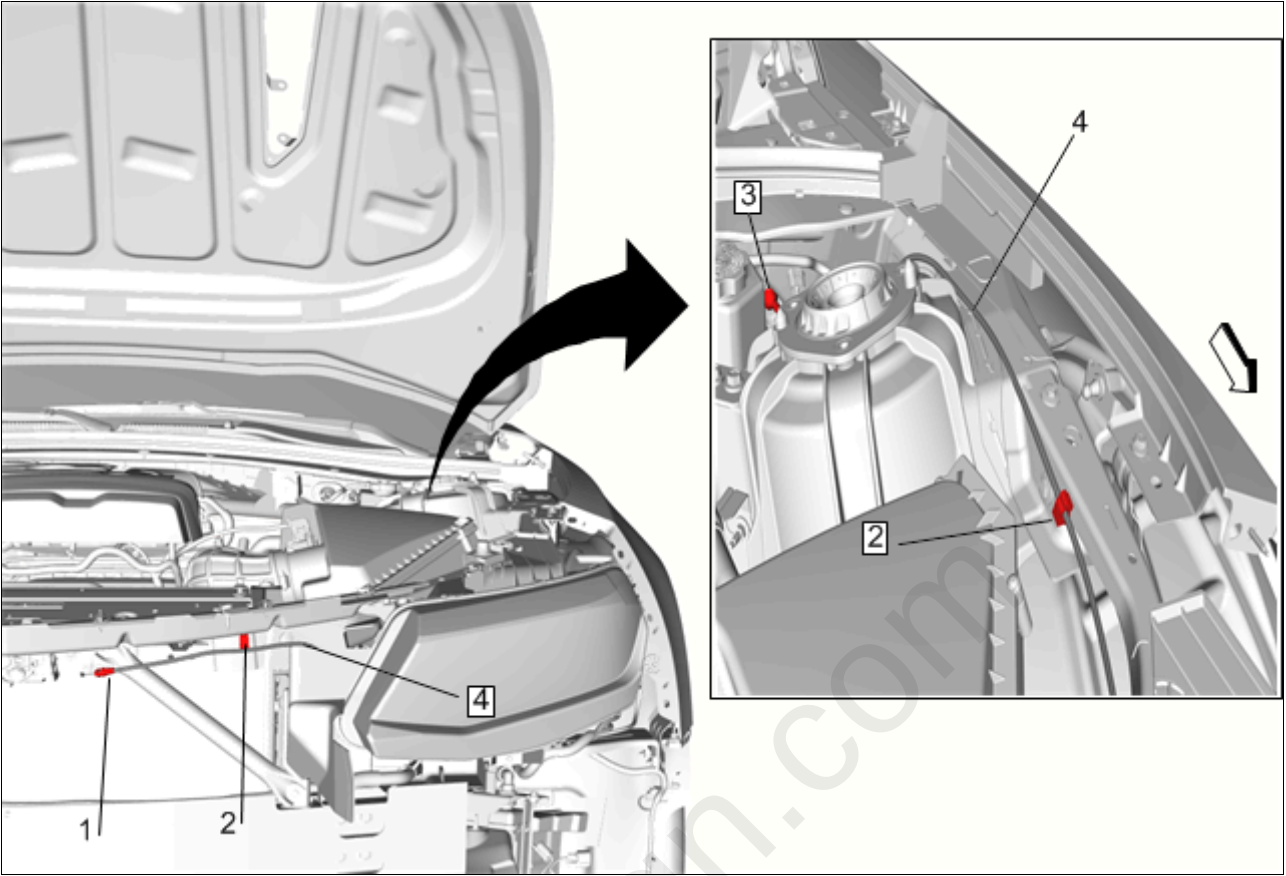


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Intake Air Baffle Replacement	
1	Front Fender Front Brace Bolt (Qty: 3) CAUTION: <i>Refer to Fastener Caution .</i> Tighten 9 N.m (80 lb in)
2	Front Fender Bolt (Qty: 2) Tighten 9 N.m (80 lb in)
3	Front Fender Front Brace

REPAIR INSTRUCTIONS > HOOD PRIMARY LATCH RELEASE CABLE REPLACEMENT

Fig 1: Hood Primary Latch Release Cable



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Air Inlet Grille Panel Replacement	
1	Hood Primary Latch Release Cable at Latch Procedure Disconnect the release cable from the hood primary latch.
2	Hood Primary Latch Release Cable Retainer (Qty: 2) Procedure Disconnect the hood release cable retainers from the hood release cable.
3	Hood Primary Latch Release Cable Grommet
4	Hood Primary Latch Release Cable Procedure 1. Remove the hood primary latch release cable handle by pressing the release cable handle upward to release the retainers from the instrument panel bracket. 2. Attach mechanics wire to the cable and pull the cable out. 3. Attach mechanics wire to the new cable and guide in.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR ADJUSTMENT > REMOVAL PROCEDURE

Up/Down or In/Out Adjustment

1. Open the door.

 **NOTE:**

The door side upper and lower hinge bolts must remain tight enough to retain door adjusted position.

2. Apply a double layer of masking tape around the perimeter of the painted surfaces.

Loosen the door side hinge bolts.

Do NOT remove the bolts from the door.

3. Adjust the door up or down by repositioning the door as necessary.
4. Adjust the door in or out by repositioning the door as necessary.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR ADJUSTMENT > INSTALLATION PROCEDURE

 **CAUTION:**

Refer to Fastener Caution .

1. Install the door side hinge bolts.

Tighten

Tighten the bolts to 25 N.m (18 lb ft).

2. Inspect the door for proper operation and alignment.
3. Remove the tape.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR ADJUSTMENT > REMOVAL PROCEDURE

Fore/Aft Adjustment

 NOTE:

The door side upper and lower hinge bolts must remain tight enough to retain door adjusted position.

1. Apply a double layer of masking tape around the perimeter of the painted surfaces.
2. Remove Front Wheelhouse Liner Replacement .
3. Loosen the body side hinge bolts, but Do NOT remove the bolts from the door.
4. Adjust the door fore and aft by repositioning the door as necessary.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR ADJUSTMENT > INSTALLATION PROCEDURE

 CAUTION:

Refer to Fastener Caution .

1. Install the body side hinge bolts.

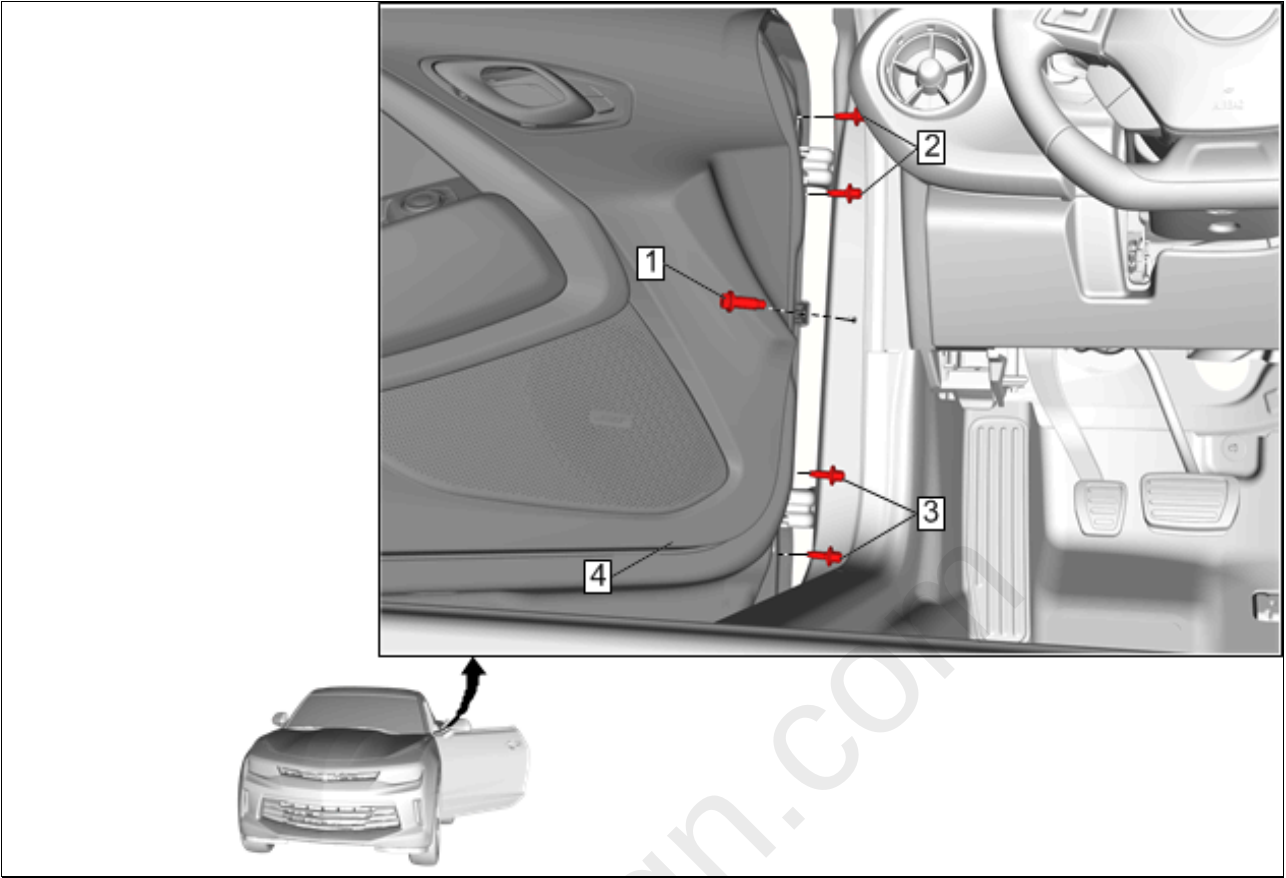
Tighten

Tighten the bolts to 32 N.m (24 lb ft).

2. Adjust the front side door lock striker, if needed. Front Side Door Lock Striker Adjustment
3. Inspect the door for proper operation and alignment.
4. Remove the tape.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR REPLACEMENT

Fig 1: Front Side Door



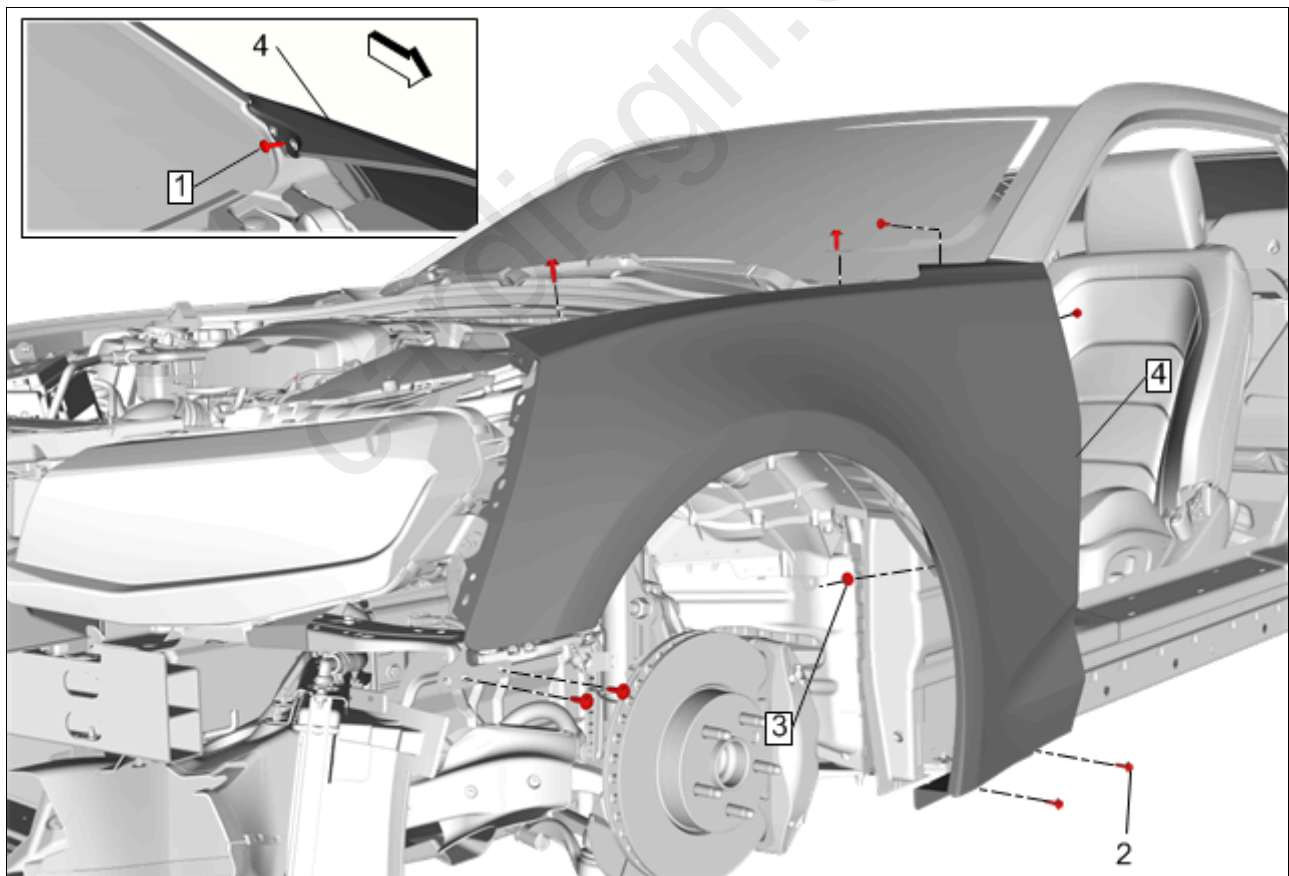
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Apply masking tape to the fender and door edges. 2. Disconnect the electrical connector. 3. Support the door before removing the hinge bolts.	
1	Front Side Door Check Link Bolt <i>CAUTION:</i> <i>Refer to Fastener Caution .</i> Tighten 22 N.m (16 lb ft)

2	Front Side Door Upper Hinge Bolt (Qty: 2) Tighten 25 N.m (18 lb ft)
3	Front Side Door Lower Hinge Bolt (Qty: 2) Tighten 25 N.m (18 lb ft)
4	Front Side Door Procedure 1. With the of an assistant, remove the door. 2. When replacing the door it is necessary to transfer all of the internal components. 3. Front Side Door Adjustment

REPAIR INSTRUCTIONS > FRONT FENDER REPLACEMENT

Fig 1: Front Fender

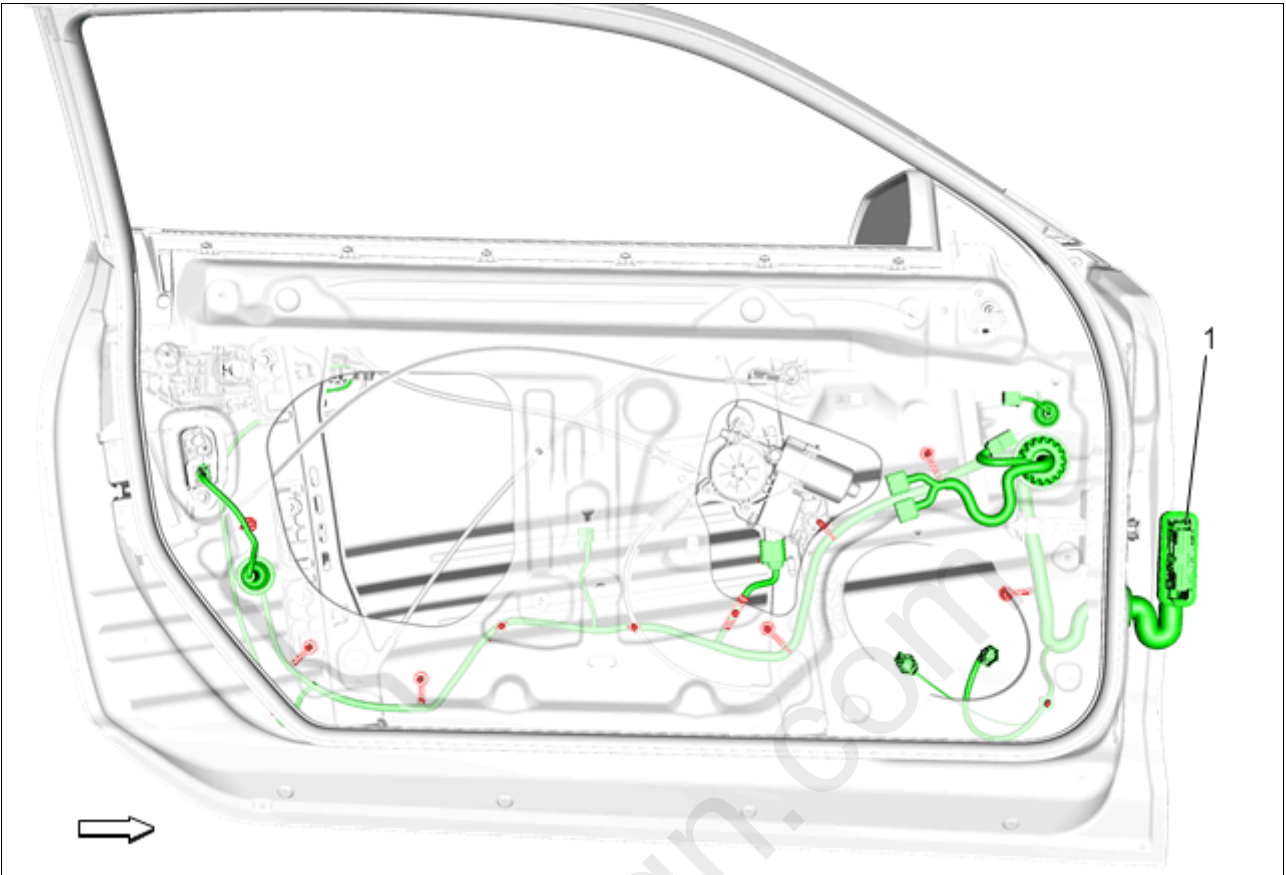


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Front Bumper Fascia Replacement 2. Air Inlet Grille Panel Extension Replacement 3. Reposition the hood release cable.	
1	Front Fender Bolt (Qty: 8) CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Front Fender Nut Tighten 9 N.m (80 lb in)
3	Front Fender Procedure Transfer components as necessary.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR WIRING HARNESS REPLACEMENT

Fig 1: Front Side Door Wiring Harness

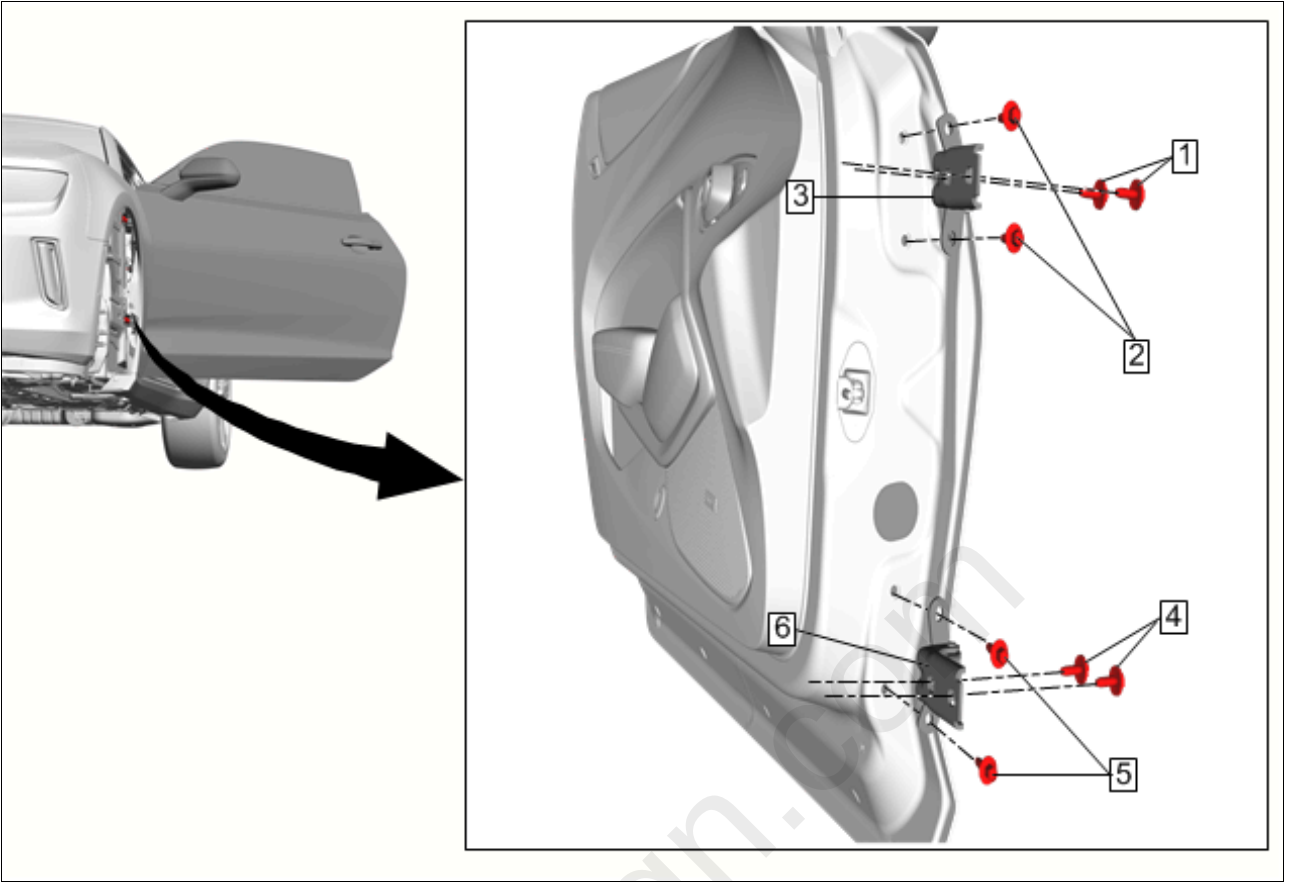


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures Radio Front Side Door Speaker Replacement	
1	Front Side Door Wiring Harness Procedure Disconnect the front side door wiring harness electrical connector from the body harness.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT

Fig 1: Front Side Door Upper Hinge and Lower Hinge



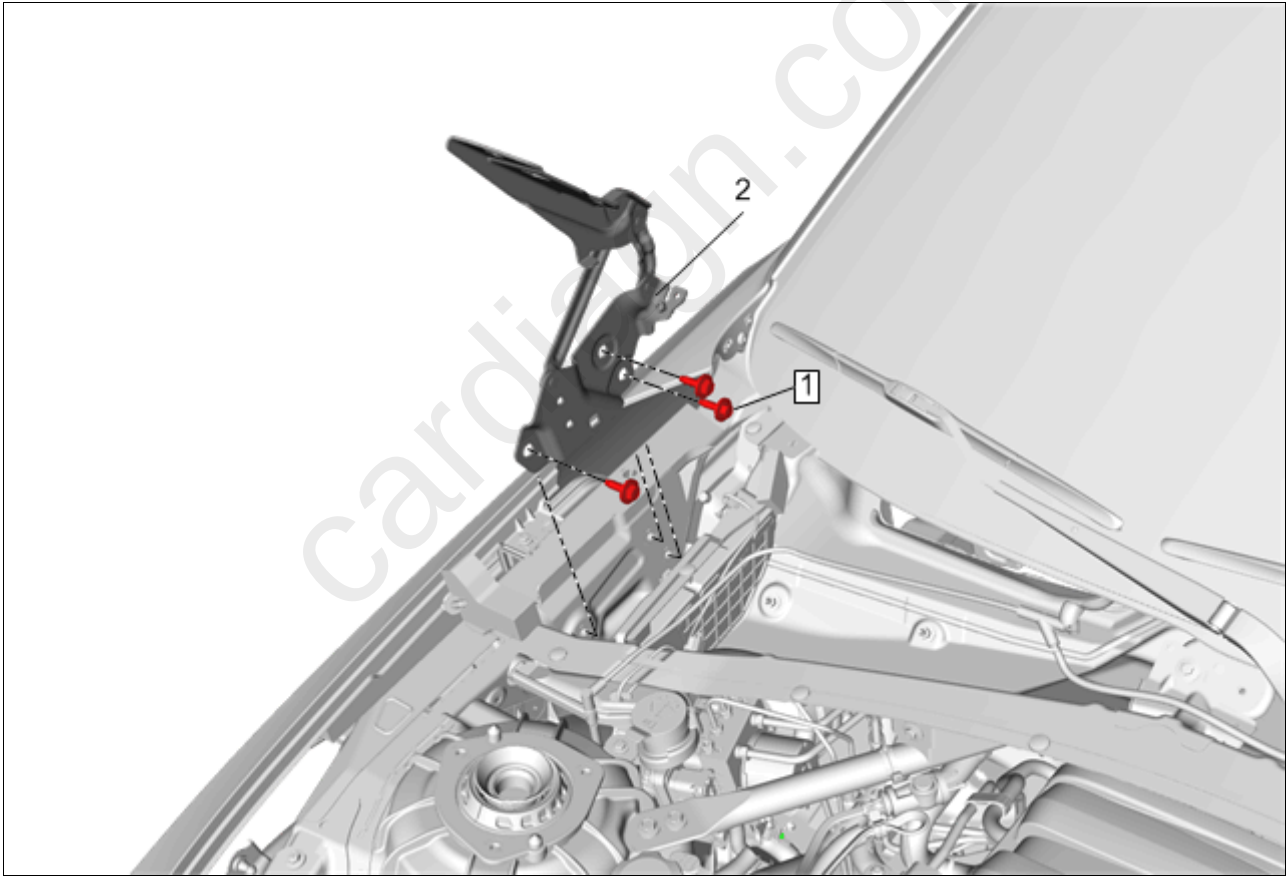
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Side Door Upper Hinge to Body Bolt (Qty: 2)
	CAUTION: Refer to Fastener Caution .
	Procedure 1. Before removing the door, apply a double layer of masking tape around the perimeter of the painted surfaces. 2. Mark the location of the hinge being removed. 3. Front Wheelhouse Liner Replacement 4. Support the door before removing the hinge bolts. Tighten 22 N.m (16 lb ft)

2	Front Side Door Upper Hinge to Door Bolt (Qty: 2) Tighten 25 N.m (18 lb ft)
3	Front Side Door Upper Hinge
4	Front Side Door Lower Hinge to Body Bolt (Qty: 2) Tighten 22 N.m (16 lb ft)
5	Front Side Door Lower Hinge to Door Bolt (Qty: 2) Tighten 25 N.m (18 lb ft)
6	Front Side Door Lower Hinge

REPAIR INSTRUCTIONS > HOOD HINGE REPLACEMENT

Fig 1: Hood Hinge



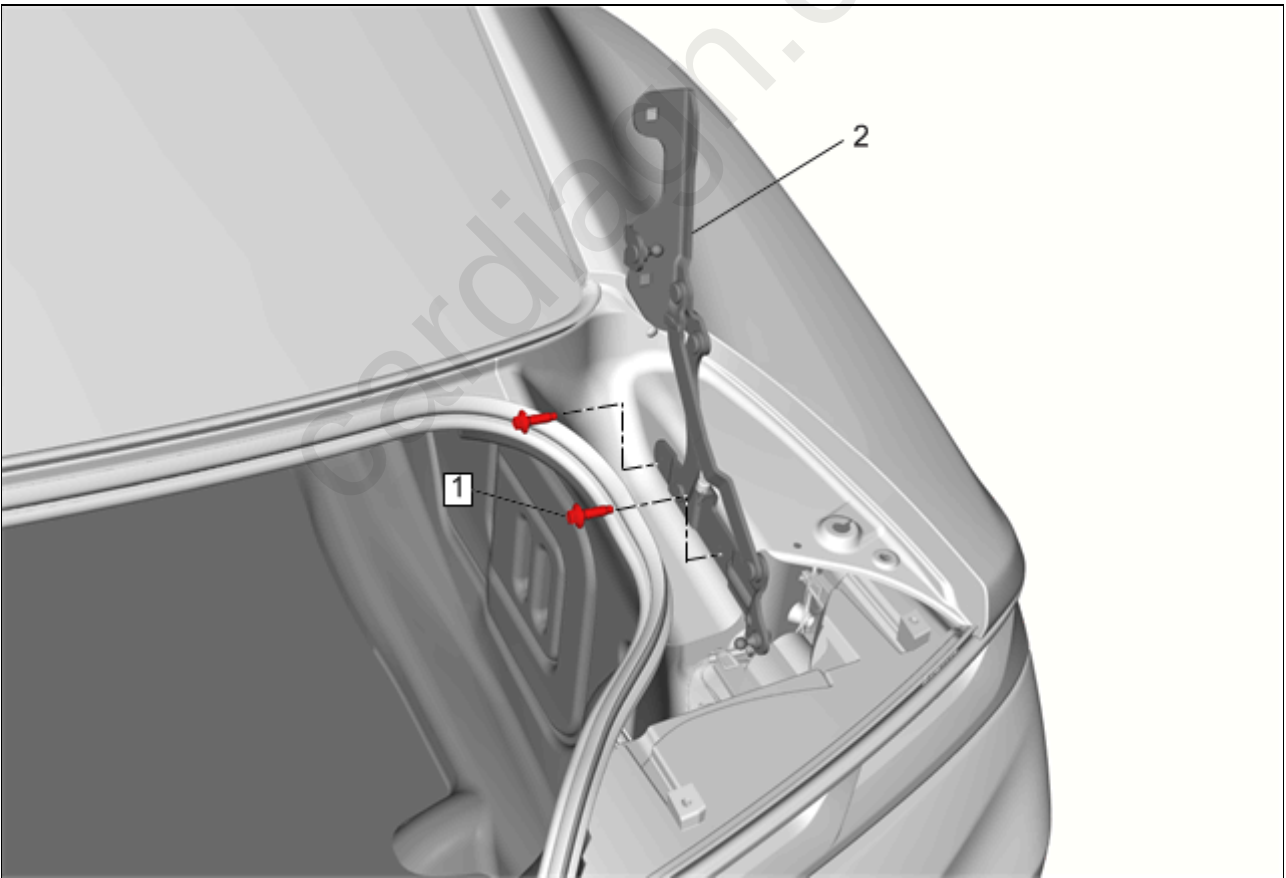
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	

1. Hood Replacement	
2. Air Inlet Grille Panel Extension Replacement	
1	Hood Hinge Bolt (Qty: 3)
	CAUTION: <i>Refer to Fastener Caution .</i>
	Tighten 22 N.m (16 lb ft)
2	Hood Hinge

REPAIR INSTRUCTIONS > REAR COMPARTMENT LID HINGE REPLACEMENT

Fig 1: Rear Compartment Lid Hinge



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
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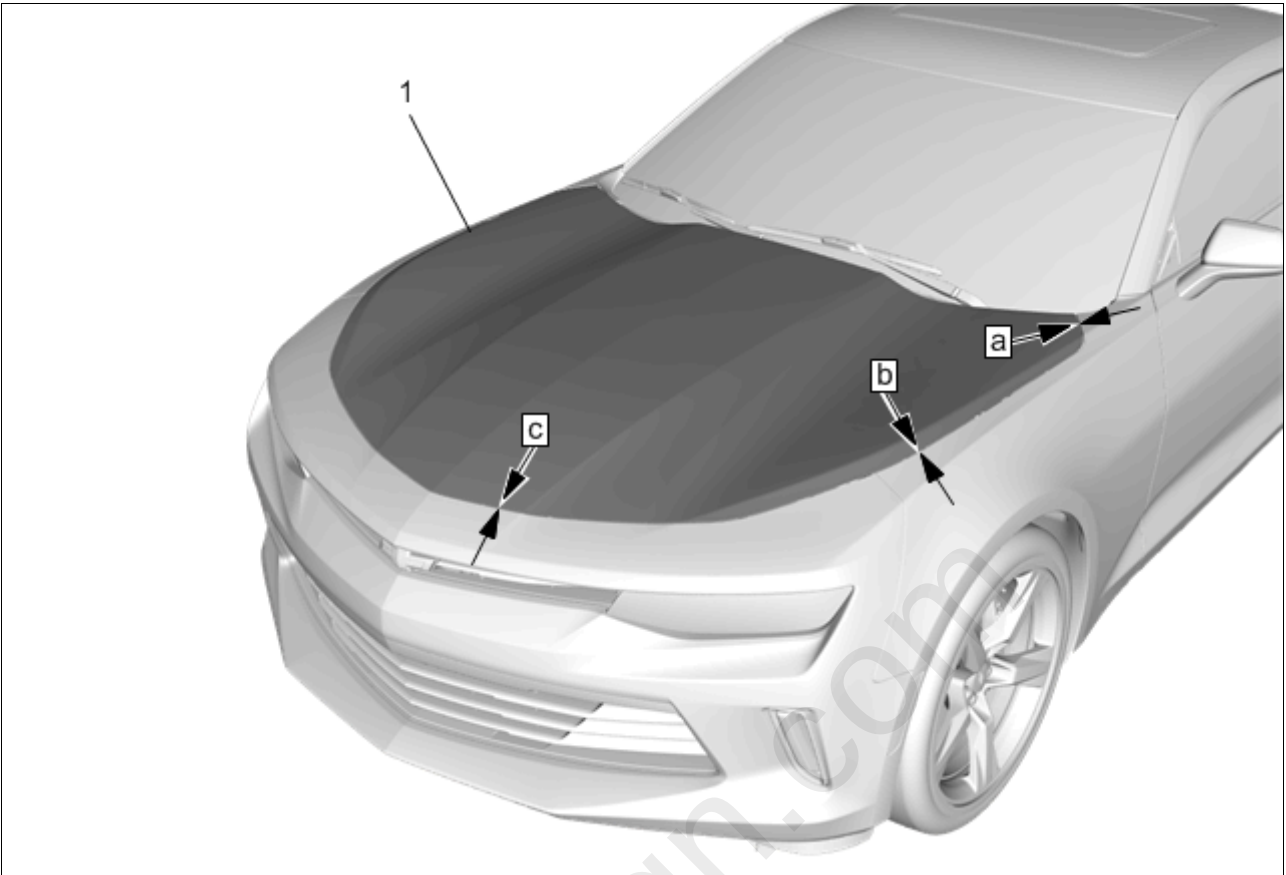
Preliminary Procedure

1. Rear Compartment Lid Replacement
2. Rear Body Structure Stop Lamp Trim Panel Replacement

1	Rear Compartment Lid Hinge Bolt (Qty: 2) <i>CAUTION:</i> <i>Refer to Fastener Caution .</i> Tighten 25 N.m (18 lb ft)
2	Rear Compartment Lid Hinge Procedure Rear Compartment Lid Adjustment

REPAIR INSTRUCTIONS > HOOD ADJUSTMENT

Fig 1: Hood Adjustment



Courtesy of GENERAL MOTORS COMPANY

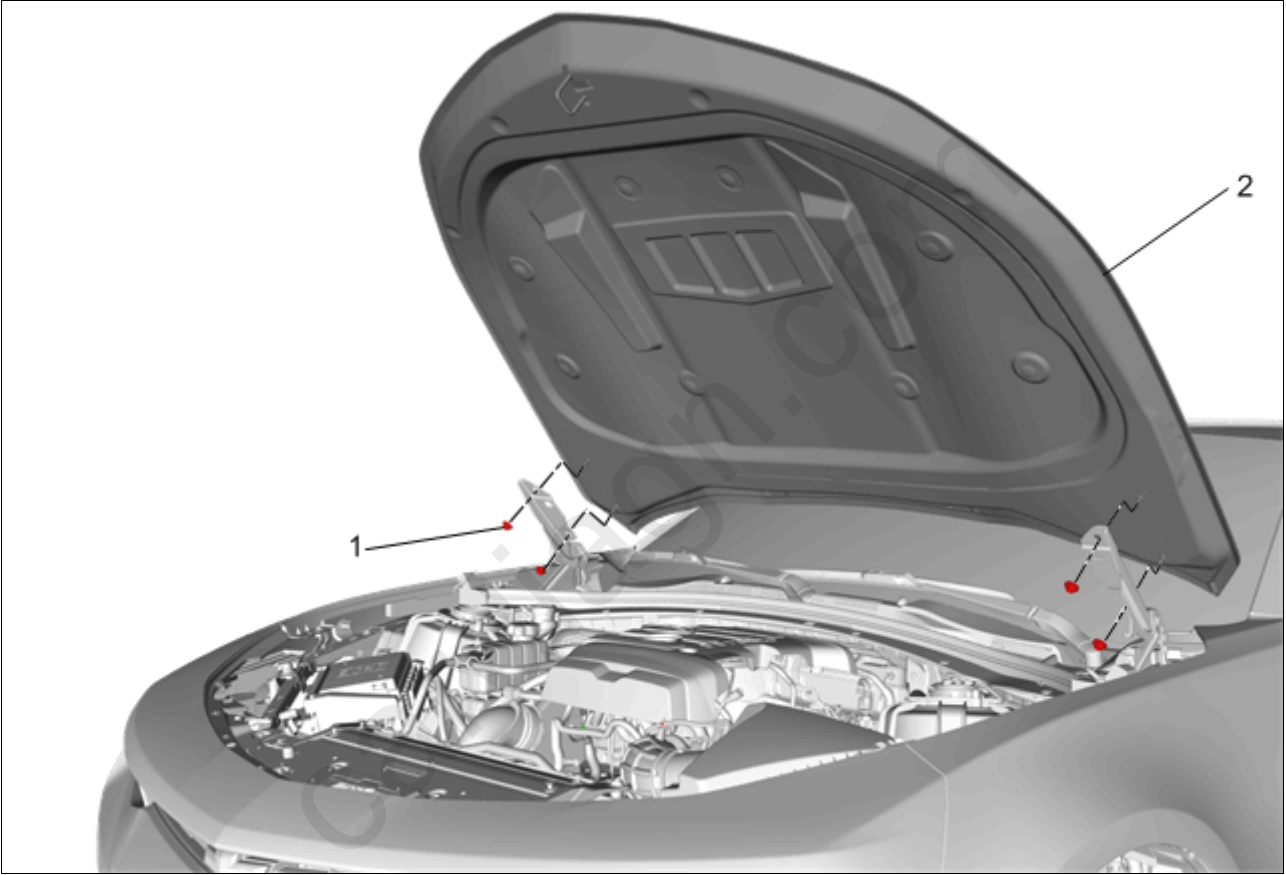
Callout	Component Name
	Hood CAUTION: Refer to Fastener Caution . Procedure 1 1. Loosen the 4 hood hinge nuts. 2. Adjust the hood in order to obtain an even gap on both sides between the hood and the fenders, the front grille and headlamps. 3. Loosen and adjust the hood primary and secondary latch and the hood bumpers as necessary to obtain the adjustment. Adjustment: • Hood to front fender (a) 3.0 mm ±.75 mm (0.12 in ± 0.03 in)

- Hood to front fender (b) 3.0 mm ±.75 mm (0.12 in ± 0.03 in)
- Hood to fascia (c) 3.0 mm ± 1.5 mm (0.12 in ± 0.06 in)

Tighten
22 (16 lb ft)

REPAIR INSTRUCTIONS > HOOD REPLACEMENT

Fig 1: Hood



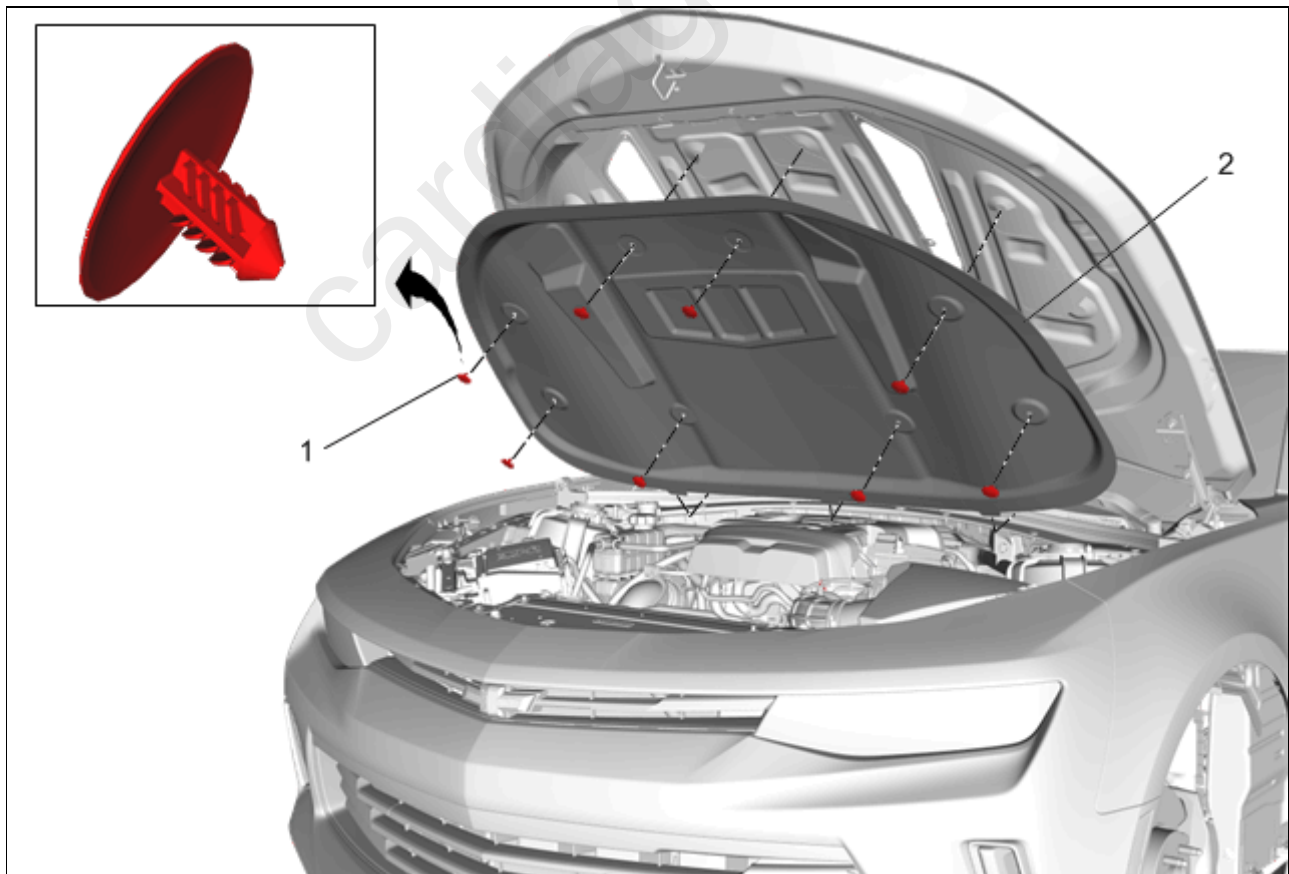
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
WARNING: <i>When a hood hold open device is being removed or installed, provide alternate support to avoid the possibility of damage to the vehicle or personal injury.</i>	
Preliminary Procedure Hood Strut Replacement	

1	Hood Hinge Nut (Qty: 4) CAUTION: <i>Refer to Fastener Caution .</i> Tighten 22 N.m (16 lb ft)
2	Hood Procedure 1. With the aid of an assistant, remove the hood. 2. Transfer components as necessary. 3. Hood»Adjust &mdash; Hood Adjustment

REPAIR INSTRUCTIONS > HOOD INSULATOR REPLACEMENT

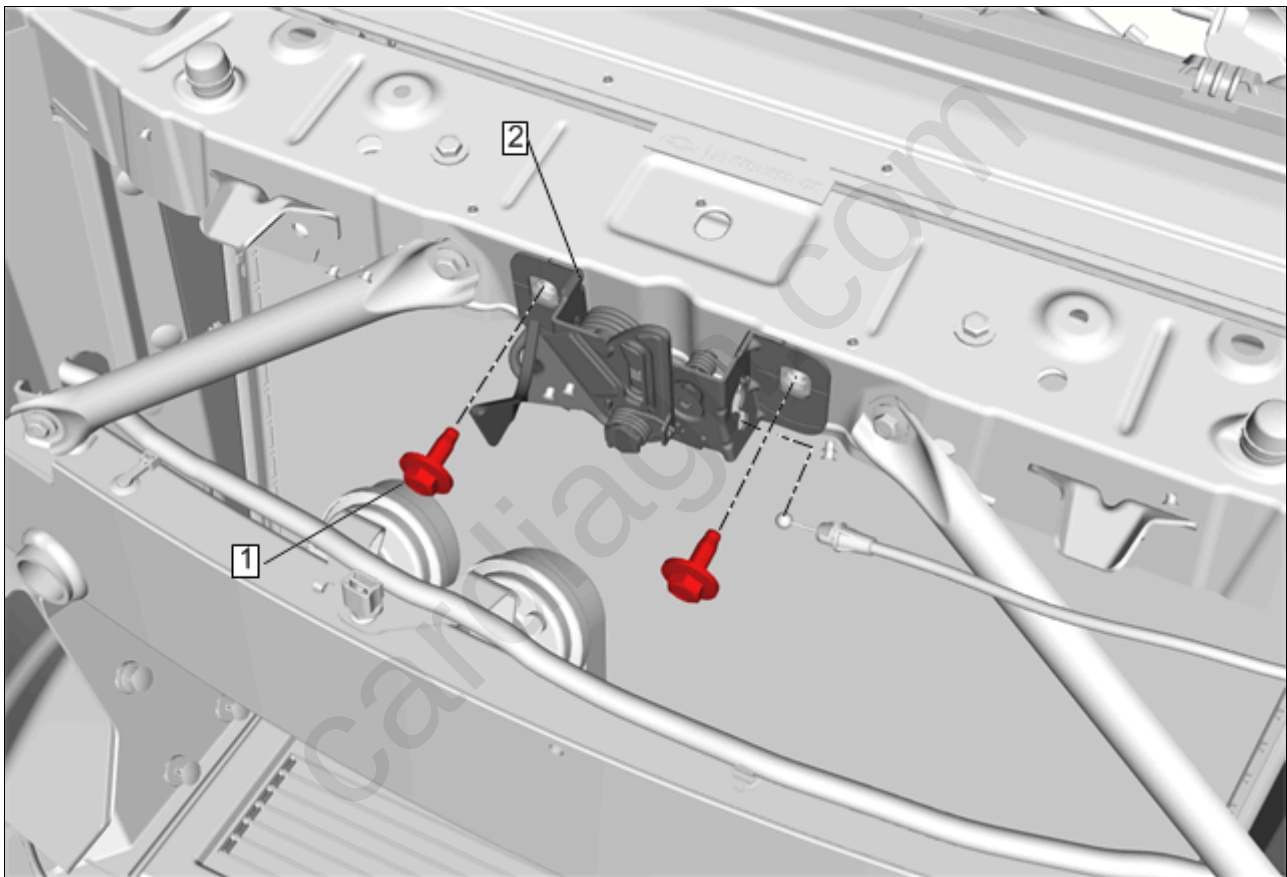
Fig 1: Hood Insulator



Callout	Component Name
1	Hood Insulator Retainer (Qty: 8)
2	Hood Insulator Procedure Ensure the three lower integral tabs are secure to the hood.

REPAIR INSTRUCTIONS > HOOD PRIMARY AND SECONDARY LATCH REPLACEMENT

Fig 1: Hood Primary and Secondary Latch



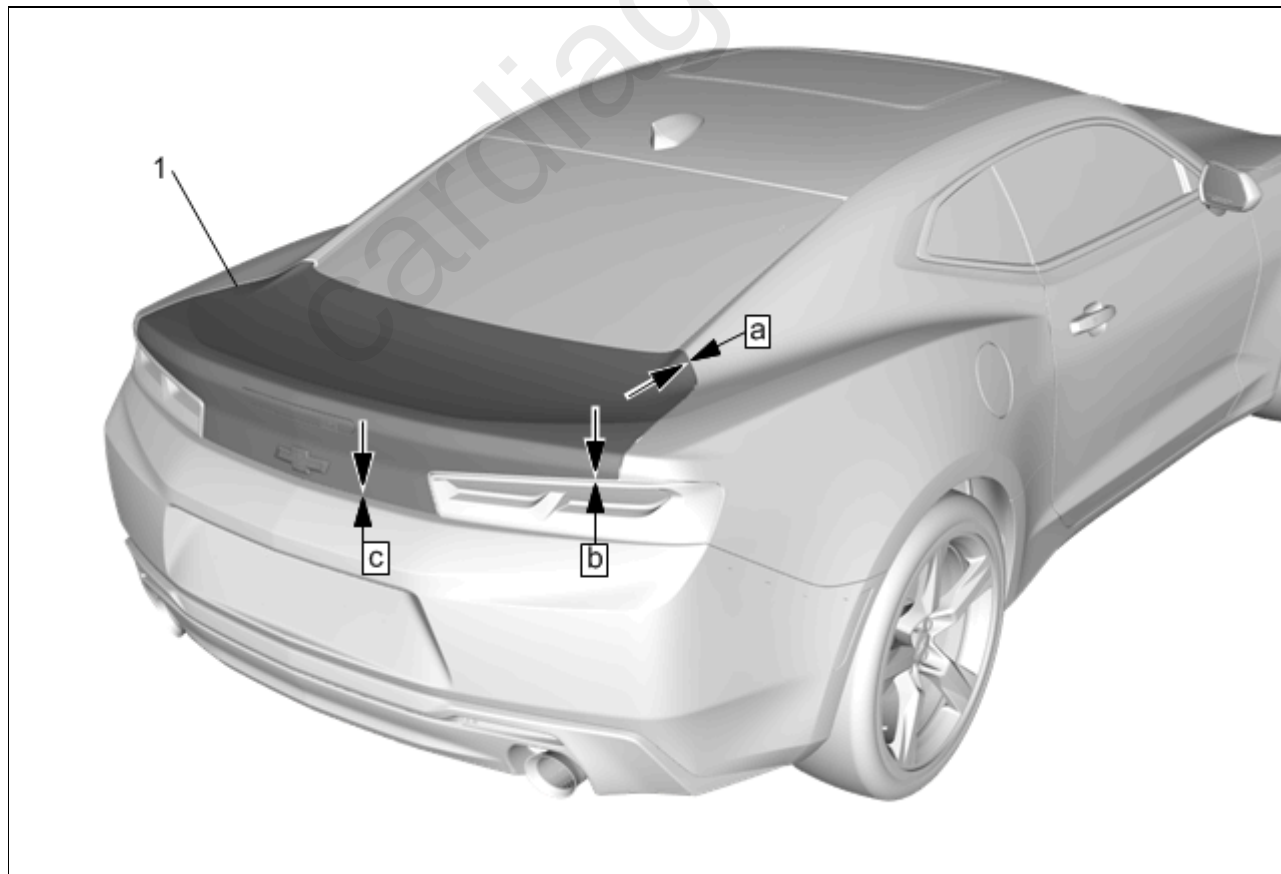
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure 1. Front Bumper Fascia Replacement 2. Use a grease pencil to mark the location of the hood latch before removing the bolts.	

1	Hood Primary and Secondary Latch Bolt (Qty: 2) CAUTION: <i>Refer to Fastener Caution .</i> Tighten 22 N.m (16 lb ft)
2	Hood Primary and Secondary Latch Procedure 1. Disconnect the release cable from the hood primary latch. 2. Align the hood primary and secondary latch if necessary. 3. Disconnect the electrical connector.

REPAIR INSTRUCTIONS > REAR COMPARTMENT LID ADJUSTMENT

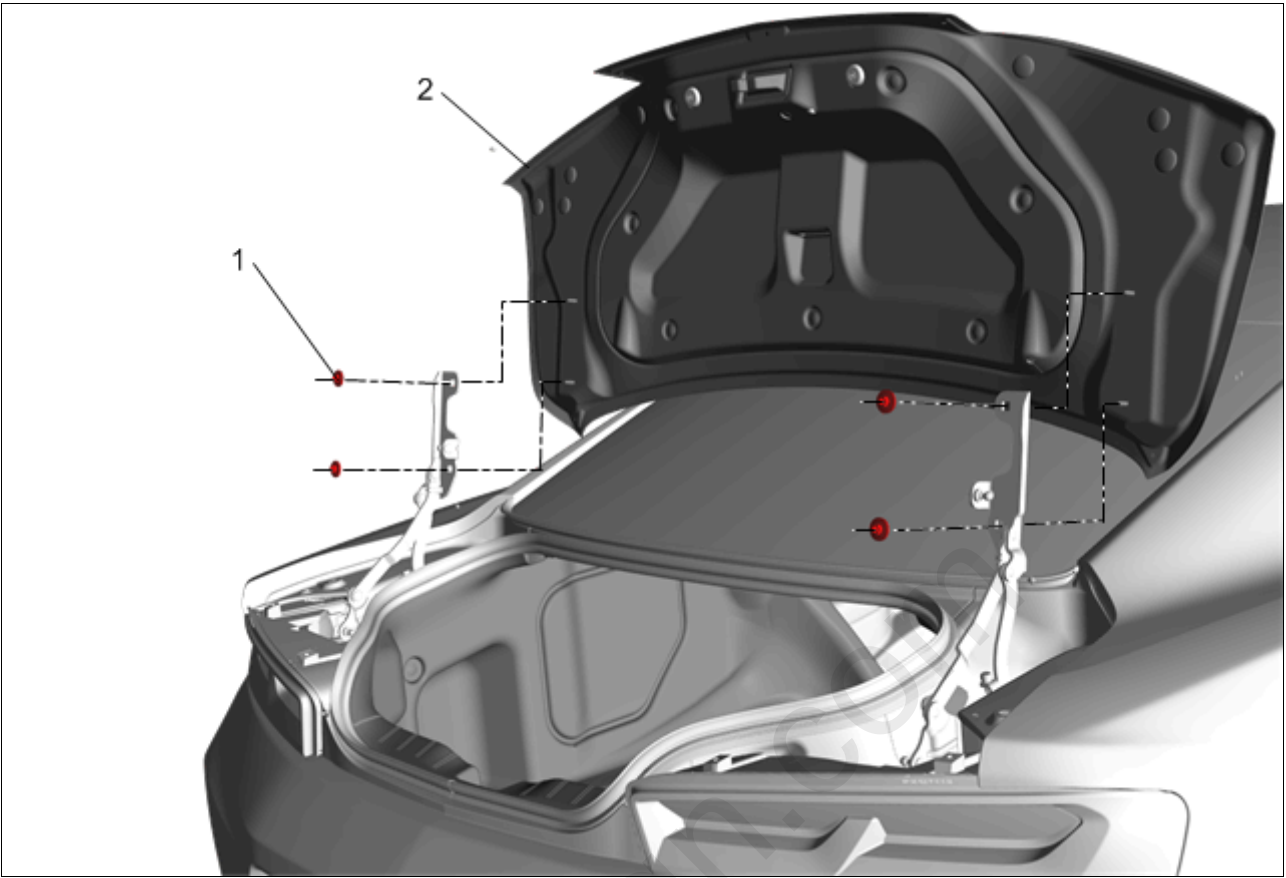
Fig 1: Rear Compartment Lid



Callout	Component Name
1	Rear Compartment Lid CAUTION: <i>Refer to Fastener Caution</i> Procedure 1. Loosen the rear compartment lid hinge nuts (Qty: 4) to perform adjustments (a) and (b). Loosen the rear compartment latch striker bolts to perform adjustment (c). 2. Adjust the rear compartment lid in order to obtain an even gap between the rear compartment lid and the quarter outer panel, the rear tail lamp, and the rear bumper fascia and so that the rear compartment lid is flush with the quarter outer panel, the rear tail lamp, and the rear bumper fascia. Adjustments 1. Rear compartment lid to quarter outer panel (a) 3.0 mm $\pm$ 0.75 mm (0.12 in $\pm$ 0.03 in) 2. Tail lamp to rear compartment lid (b) 6.25 mm $\pm$ 1.5 mm (0.25 in $\pm$ 0.06 in) 3. Rear compartment lid to rear bumper fascia (c) 6.0 mm $\pm$ 1.5 mm (0.24 in $\pm$ 0.06 in) Tighten 9 N.m (80 lb in)

REPAIR INSTRUCTIONS > REAR COMPARTMENT LID REPLACEMENT

Fig 1: Rear Compartment Lid



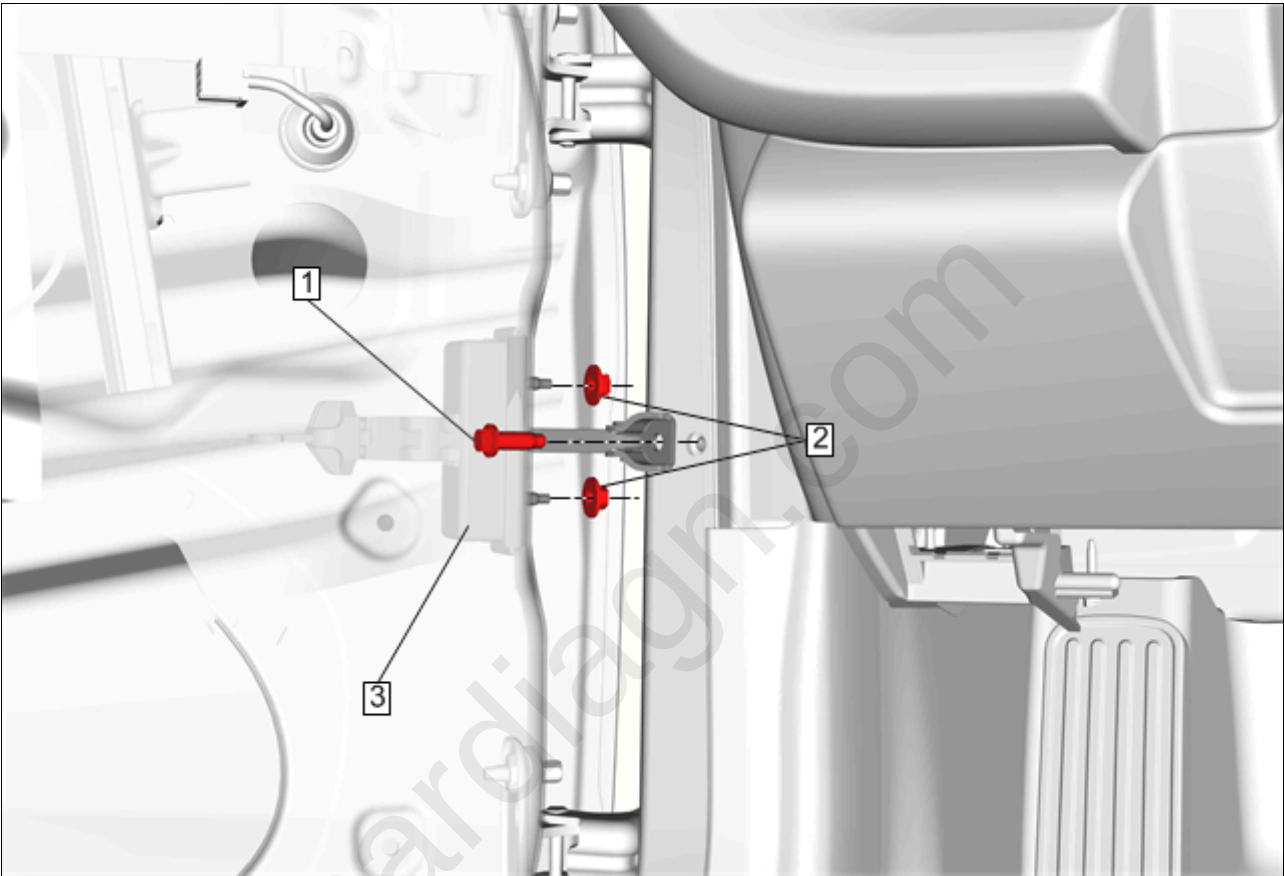
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Compartment Lid Strut Replacement	
1	Rear Compartment Lid Nut (Qty: 4) <i>CAUTION:</i> <i>Refer to Fastener Caution .</i> Tighten 22 N.m (16 lb ft)
2	Rear Compartment Lid Procedure 1. Disconnect the electrical connector. 2. With the aid of an assistant, remove the rear compartment lid.

3. Transfer components as necessary.
4. Adjust Hood - Rear Compartment Lid Adjustment

REPAIR INSTRUCTIONS > FRONT SIDE DOOR CHECK LINK REPLACEMENT

Fig 1: Front Side Door Check Link



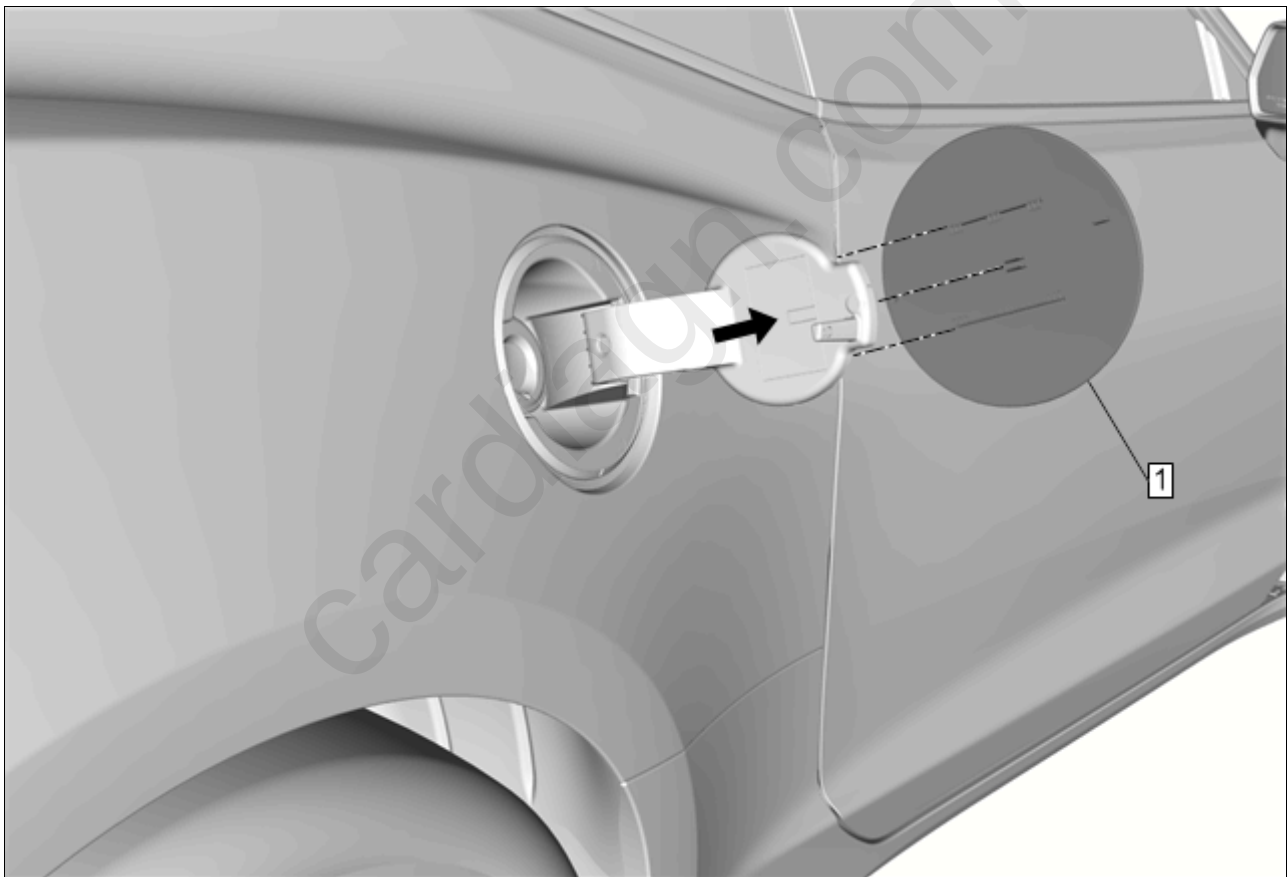
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Place the door in the full open position. 2. Place the window in the full up position. 3. Radio Front Side Door Speaker Replacement	
1	Front Side Door Check Link Bolt CAUTION:

	Refer to Fastener Caution .
	Tighten 22 N.m (16 lb ft)
2	Front Side Door Check Link Nut (Qty: 2) Tighten 12 N.m (9 lb ft)
3	Front Side Door Check Link

REPAIR INSTRUCTIONS > FUEL TANK FILLER DOOR REPLACEMENT

Fig 1: Fuel Tank Filler Door

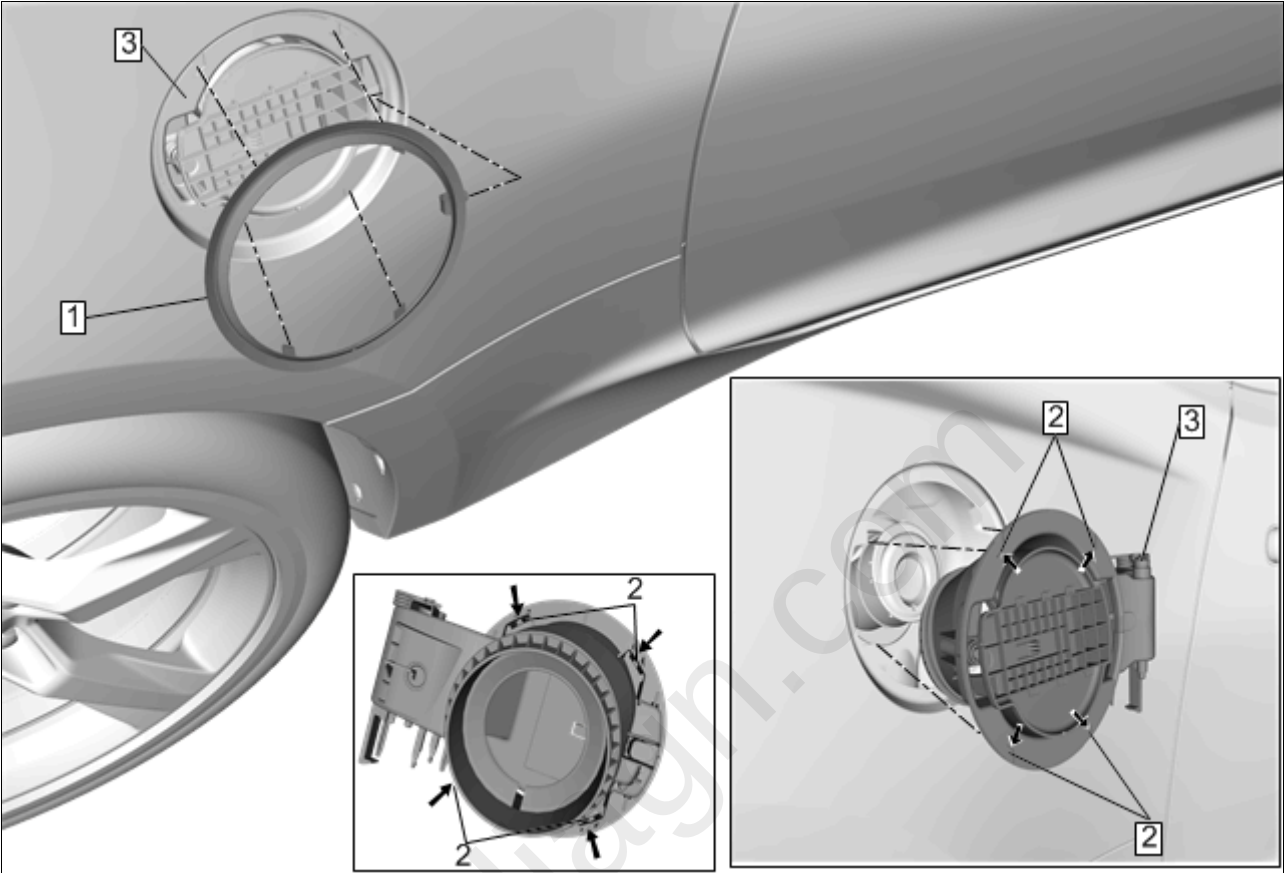


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Fuel Tank Filler Door Procedure Position the fuel tank filler door to the full open position. Using light outward sliding pressure on the filler door, release the retainer on the fuel tank filler door from the hinge.

REPAIR INSTRUCTIONS > FUEL TANK FILLER PIPE HOUSING REPLACEMENT

Fig 1: Fuel Tank Filler Pipe Housing



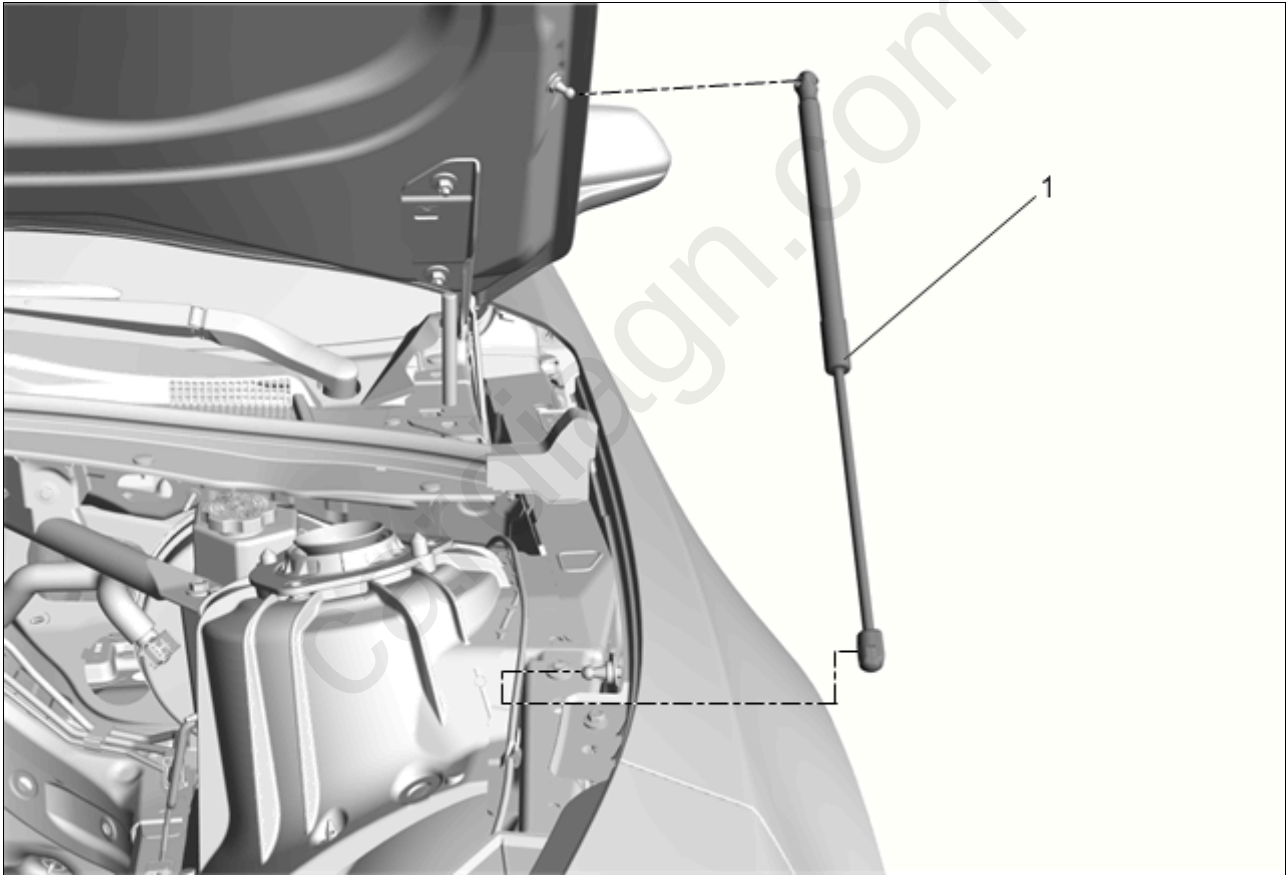
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures Fuel Tank Filler Door Replacement .	
1	Fuel Tank Filler Pipe Housing Ring Procedure Using a flat bladed tool, release the fuel tanks filler housing ring from the housing and slid the tab out from behind the hinge.
2	Fuel Tank Filler Pipe Housing Plastic Retainer (Qty: 4) Procedure 1. Using a flat-bladed tool that fits into the 4 depressions, break through the 4 depressions with light pressure and then pry the clips free to release the fuel tank filler pipe housing from the body side outer panel. 2. The fuel tank filler pipe housing once removed cannot be reused and must be replaced with a NEW fuel tank filler pipe housing.

3	Fuel Tank Filler Pipe Housing
	Procedure 1. Position the fuel tank filler pipe housing to the body side outer panel and the fuel filler pipe. 2. Press the fuel tank filler pipe housing to the body side outer panel until fully seated. 3. Ensure the fuel tank filler pipe housing seal is full seated to the filler pipe.

REPAIR INSTRUCTIONS > HOOD STRUT REPLACEMENT

Fig 1: Hood Strut



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Strut WARNING: <i>When a hood hold open device is being removed or installed, provide alternate</i>

support to avoid the possibility of damage to the vehicle or personal injury.

CAUTION:

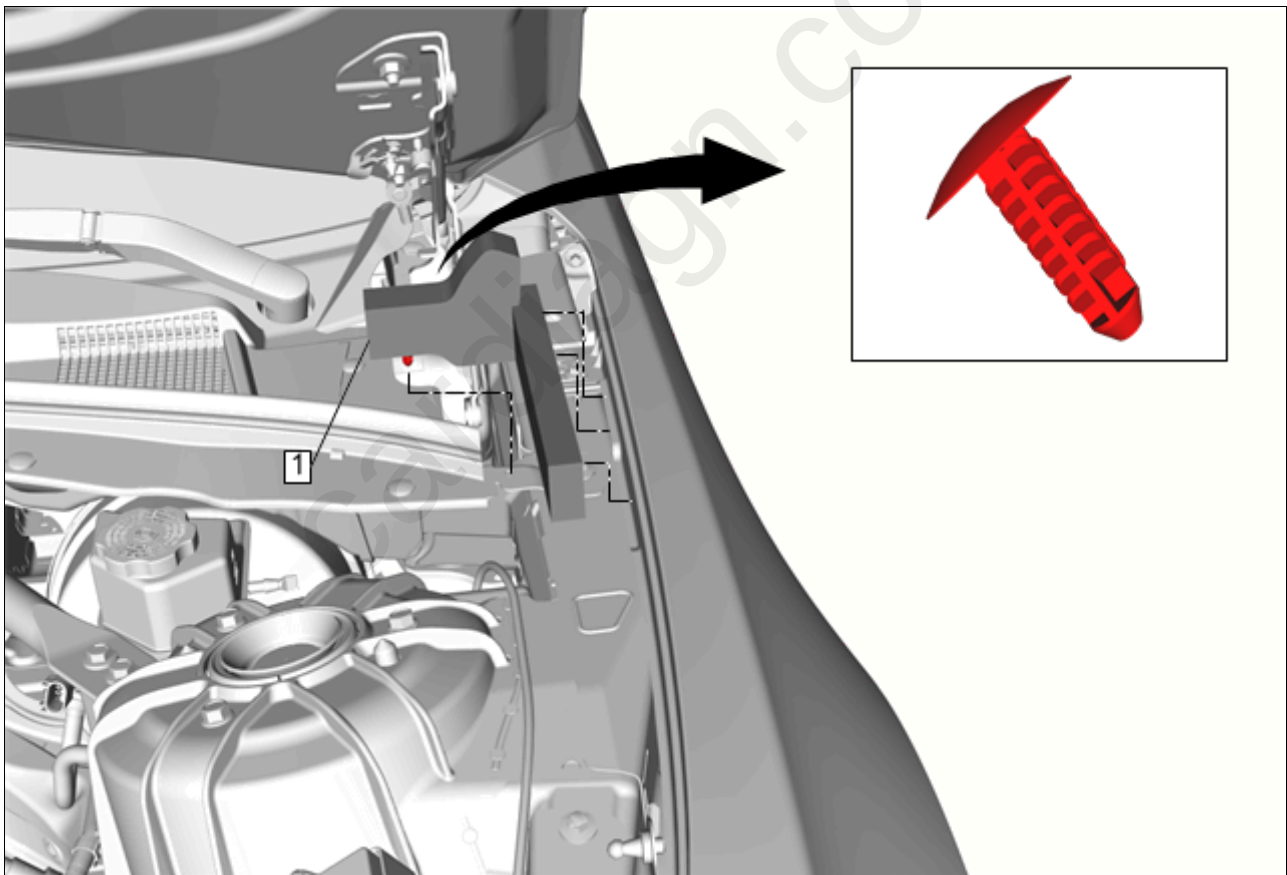
Apply pressure only at the end of the liftgate/hood assist rod that you are removing or attaching. Do NOT apply pressure to the middle of the rod because damage or bending will result.

Procedure

Remove the metal clip at the ends of the hood strut, then pull away from the stud.

REPAIR INSTRUCTIONS > HOOD REAR OUTER AIR INLET SEAL REPLACEMENT

Fig 1: Hood Rear Outer Air Inlet Seal



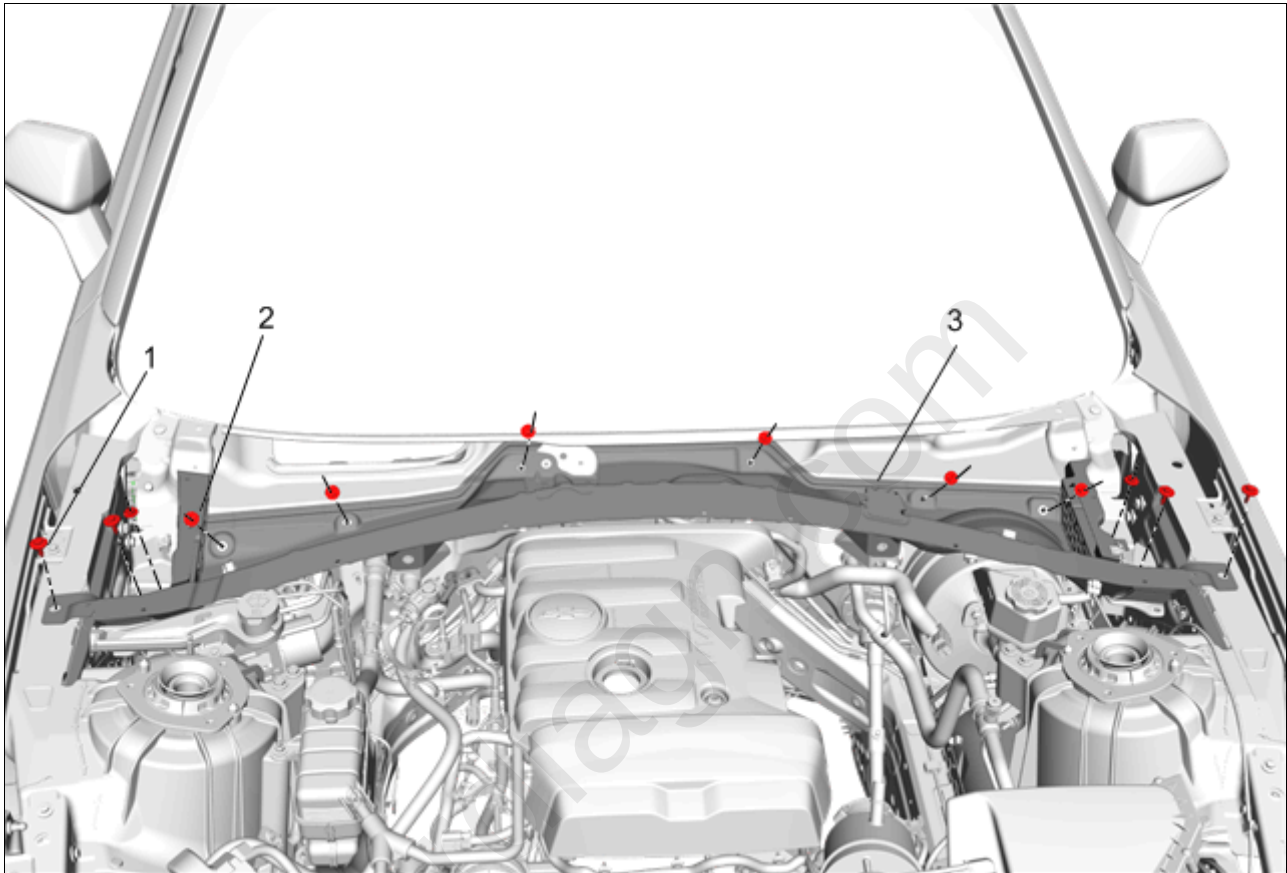
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Rear Outer Air Inlet Seal Procedure

Using a trim type tool, release the retainer and gentle pull on the seal to remove the seal from under the front fender.

REPAIR INSTRUCTIONS > PLENUM FRONT PANEL REPLACEMENT

Fig 1: Plenum Front Panel



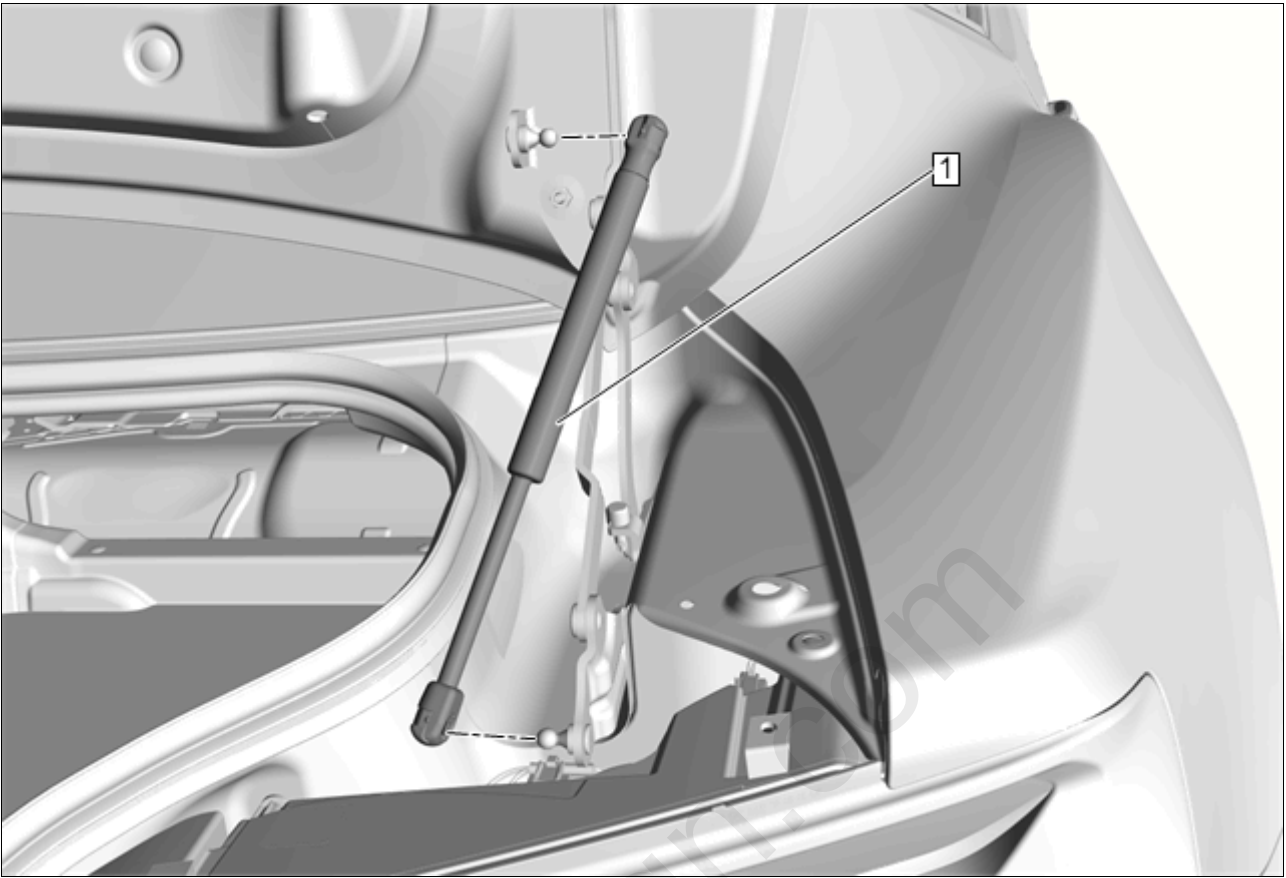
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Front End Sheet Metal Diagonal Brace Replacement - Left Side 2. Front End Sheet Metal Diagonal Brace Replacement - Right Side 3. Plenum Water Deflector Replacement .	
1	Plenum Front Panel Bolt (Qty: 4)

	CAUTION: <i>Refer to Fastener Caution .</i> Tighten 9 N.m (80 lb in)
2	Plenum Front Panel Nut (Qty: 8) Tighten 9 N.m (80 lb in)
3	Plenum Front Panel Procedure 1. Disconnect all electrical connectors. 2. Using an appropriate tool, separate the adhesive bond between the plenum front panel and the body. 3. Clean any remaining adhesive with a 50/50 mixture by volume of isopropyl alcohol and clean drinkable water. Wipe surface dry with a clean lint-free towel. 4. Apply an MS polymer body seam sealer to seal the plenum when installing.

REPAIR INSTRUCTIONS > REAR COMPARTMENT LID STRUT REPLACEMENT

Fig 1: Rear Compartment Lid Strut



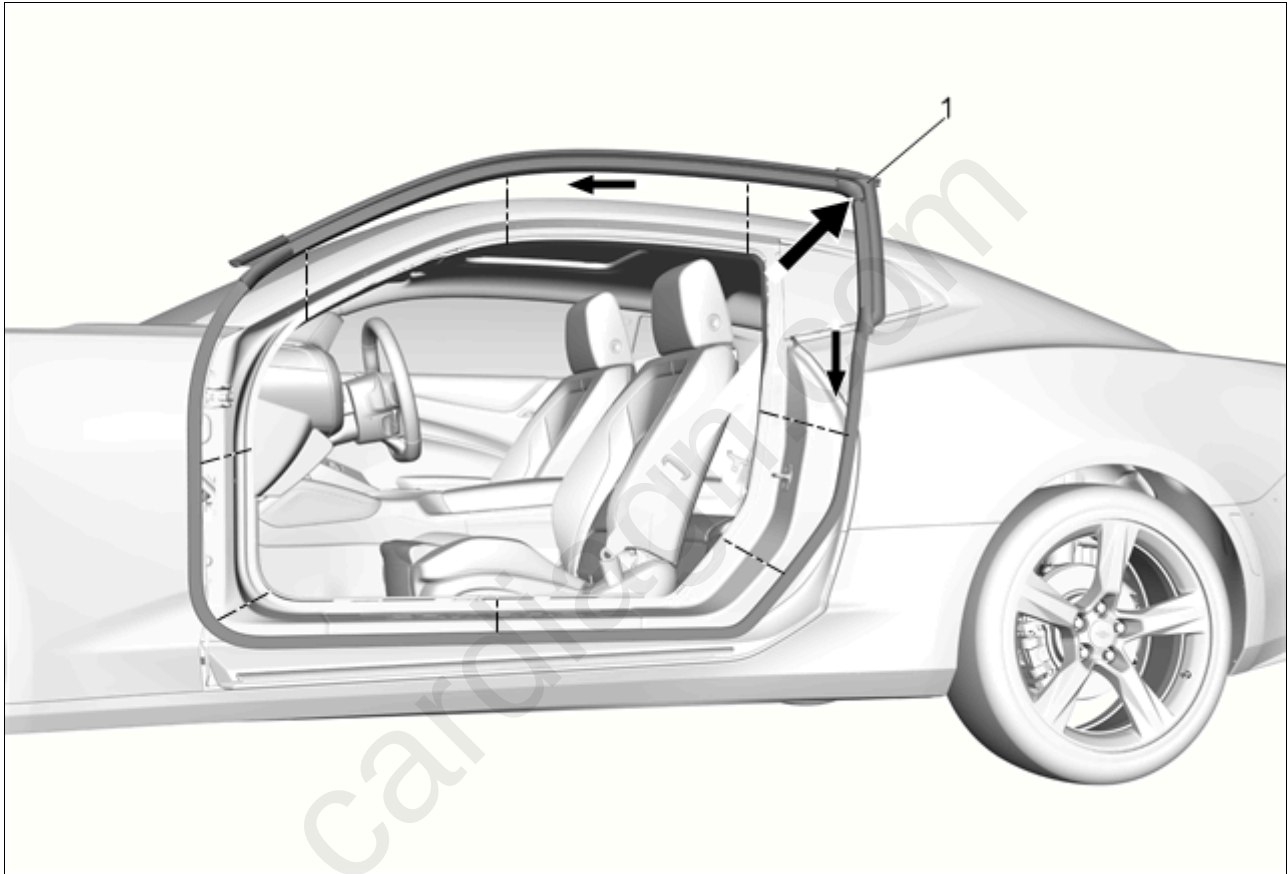
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
WARNING: <i>When a hood hold open device is being removed or installed, provide alternate support to avoid the possibility of damage to the vehicle or personal injury.</i>	
CAUTION: <i>Apply pressure only at the end of the liftgate/hood assist rod that you are removing or attaching. Do NOT apply pressure to the middle of the rod because damage or bending will result.</i>	
Preliminary Procedure Rear Body Structure Stop Lamp Trim Panel Replacement	
1	Rear Compartment Lid Strut Procedure

- | | |
|--|--|
| | <ol style="list-style-type: none">1. Release the locking tabs on the strut.2. Ensure the clip is fully seated when the strut is installed. If the clip cannot be fully seated, install a NEW strut. |
|--|--|

REPAIR INSTRUCTIONS > FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT - BODY SIDE (COUPE)

Fig 1: Front Side Door Weatherstrip - Body Side (Coupe)



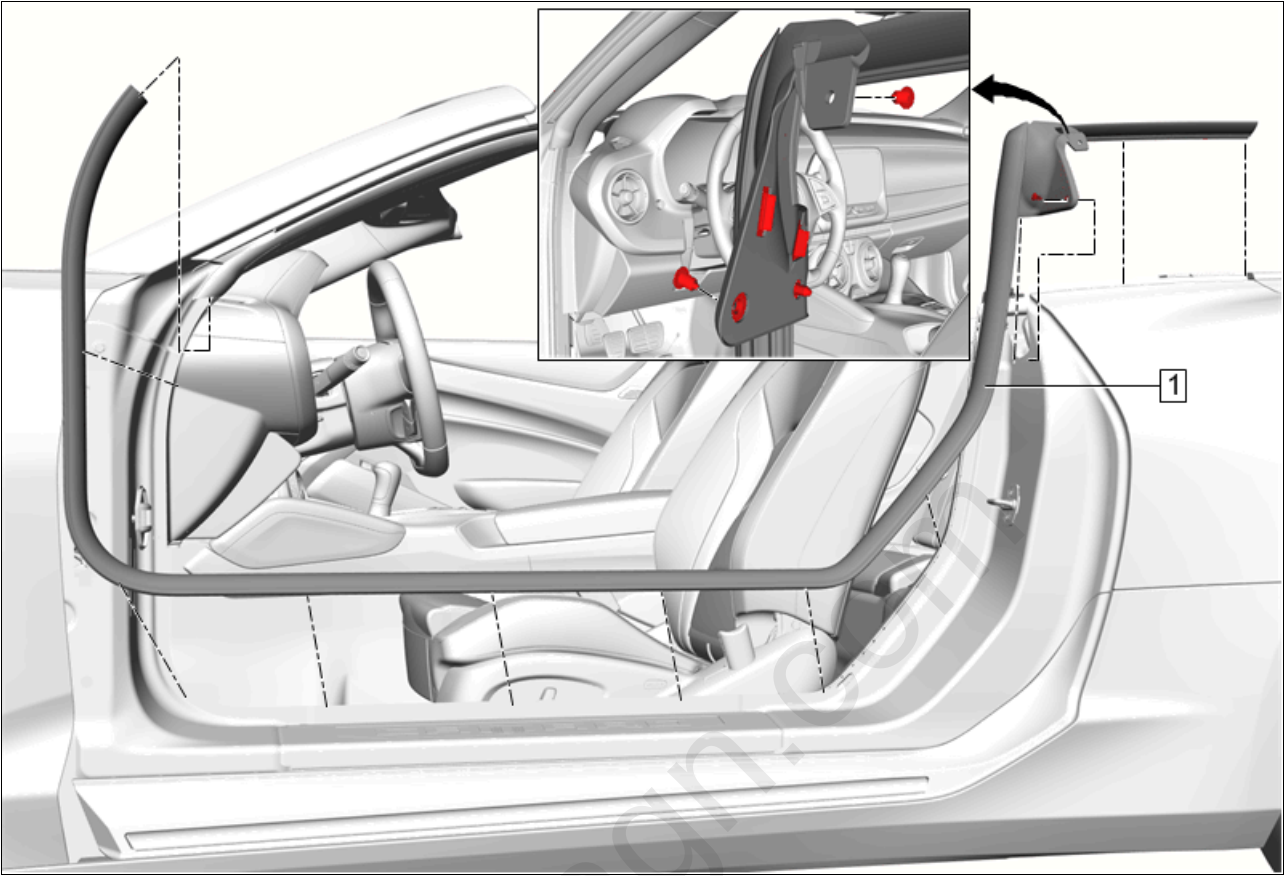
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Front Side Door Sill Garnish Molding Replacement	
1	Front Side Door Weatherstrip Procedure When installing the weatherstrip start in the upper corner working counter clockwise around the door ring.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT -

BODY SIDE (CONVERTIBLE)

Fig 1: Front Side Door Weatherstrip - Body Side (Convertible)

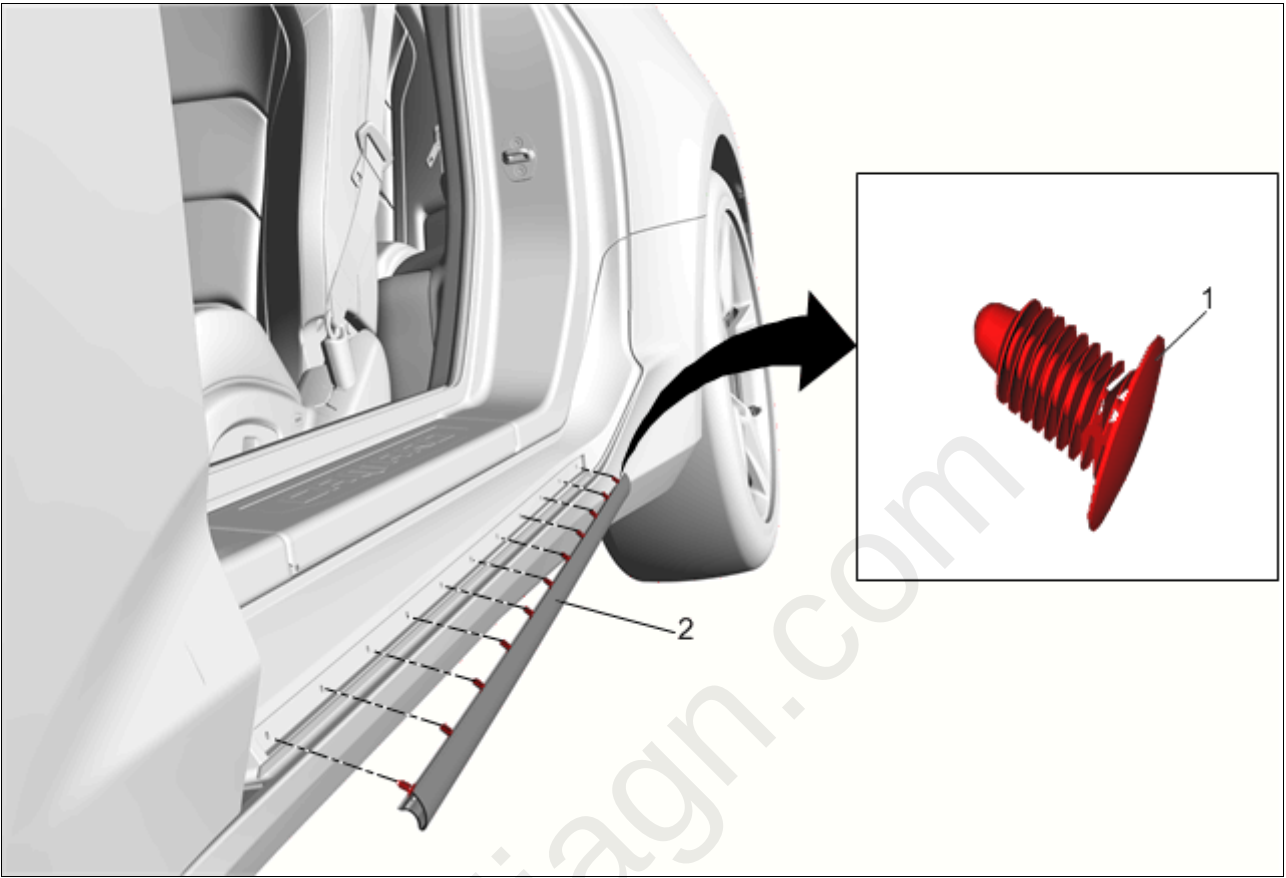


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	
1. Front Side Door Sill Garnish Molding Replacement	
2. Quarter Upper Trim Panel Replacement	
1	Front Side Door Weatherstrip Procedure 1. Disengage/engage the weatherstrip retainers at the upper quarter panel. 2. Installing the weatherstrip, starting at the base of the quarter window and lock pillar. Work the weatherstrip clockwise around the door ring seating the weatherstrip on the pinch weld flange. Ensure the forward portion of the weatherstrip is tucked under the windshield frame weatherstrip.

REPAIR INSTRUCTIONS > FRONT SIDE DOOR LOWER AUXILIARY WEATHERSTRIP REPLACEMENT

Fig 1: Front Side Door Lower Auxiliary Weatherstrip

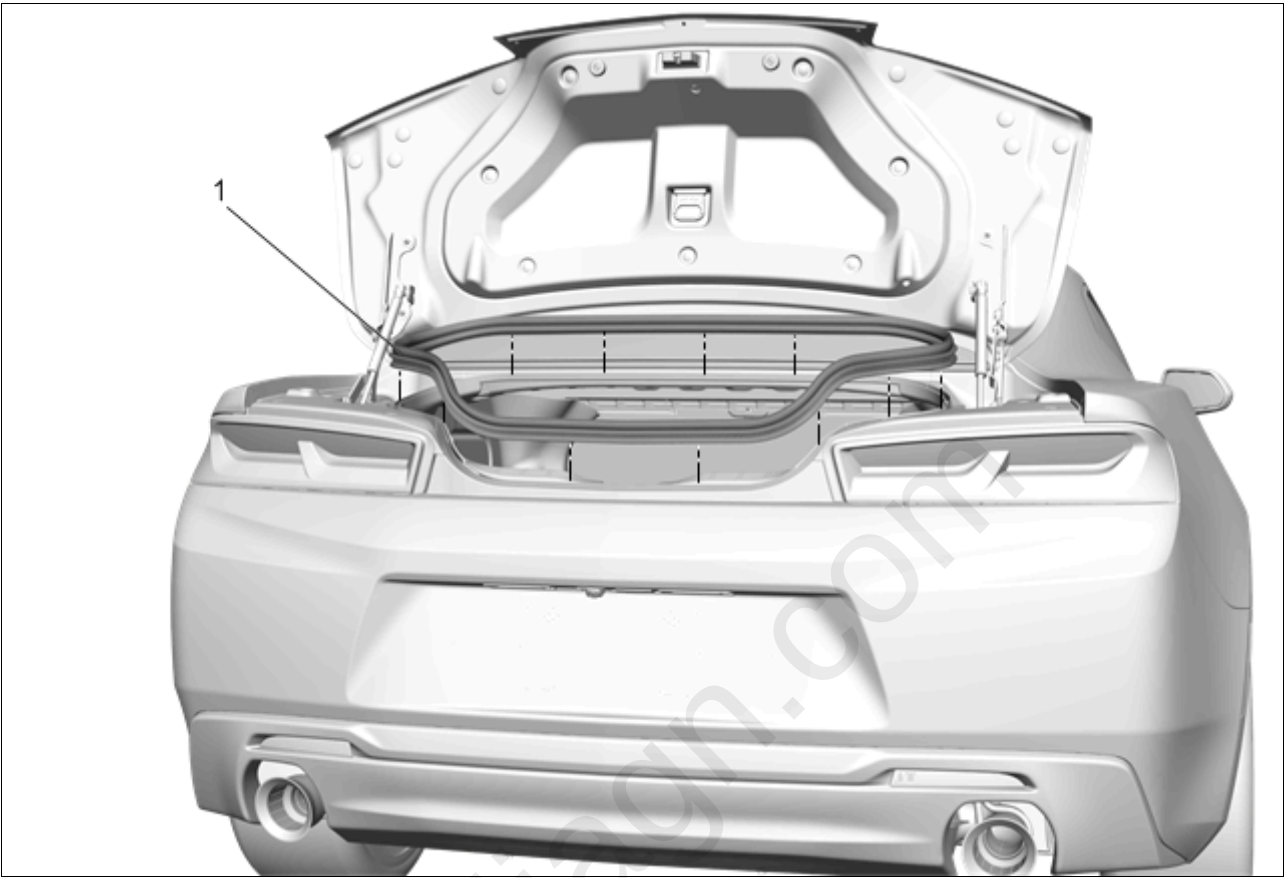


Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Side Door Lower Auxiliary Weatherstrip Retainer (Qty: 11) Procedure 1. Open the front side door of weatherstrip being serviced. 2. Using the appropriate tool, remove the weatherstrip. 3. Using a suitable solution, clean the top surface of the rocker molding with a clean damp shop cloth.
2	Front Side Door Lower Auxiliary Weatherstrip Procedure Install the auxiliary weatherstrip to the front top edge the rocker molding first then work the auxiliary weatherstrip rearward installing the retainers.

REPAIR INSTRUCTIONS > REAR COMPARTMENT LID WEATHERSTRIP REPLACEMENT

Fig 1: Rear Compartment Lid Weatherstrip



Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Compartment Lid Weatherstrip Procedure Clean the mounting surface using a mixture of 50 percent isopropyl alcohol and 50 percent water by volume, or high-flash naphtha.

DESCRIPTION AND OPERATION > HOOD AJAR INDICATOR DESCRIPTION AND OPERATION > HOOD AJAR SWITCH

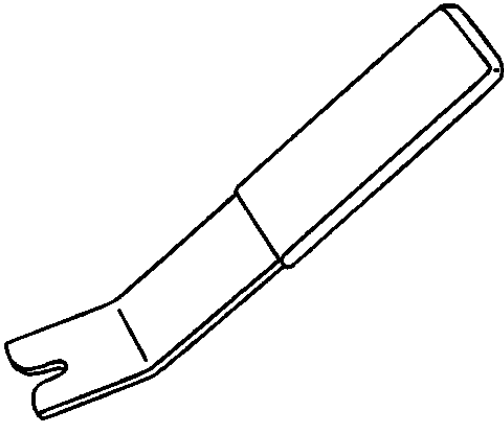
The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains high. When the hood is open, the switch is closed and the voltage is pulled low.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

DESCRIPTION AND OPERATION > HOOD AJAR INDICATOR DESCRIPTION AND OPERATION > HOOD AJAR INDICATOR/MESSAGE

When the hood is ajar, a message is displayed on the DIC or the hood ajar indicator will be illuminated.

SPECIAL TOOLS AND EQUIPMENT > SPECIAL TOOLS

Illustration	Tool Number/ Description
	J-38778 Door Trim Pad Clip Remover