

ACCESSORIES & EQUIPMENT Bolted

Exterior Body Panels and Closures - Corvette

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Front Fender Bolt	9 N.m	80 lb in
Front Fender Inner Upper Bolt	2.5 N.m	22 lb in
Front Fender Lower Rear Bolt	2 N.m	18 lb in
Front Side Door Check Link Bolt	22 N.m	16 lb ft
Front Side Door Check Link Nut	9 N.m	80 lb in
Front Side Door Lower Hinge Bolt	35 N.m	26 lb ft
Front Side Door Upper Hinge Bolt	35 N.m	26 lb ft
Fuel Tank Filler Pipe Housing Screws	2.5 N.m	22 lb in
Hood Air Extractor Bolt	2.5 N.m	22 lb in
Hood Hinge Bolt	25 N.m	18 lb ft
Hood Hinge Bracket Nut	25 N.m	18 lb ft
Hood Primary Latch Bolts	22 N.m	16 lb ft
Hood Primary Latch Release Cable Handle Bolts	6 N.m	53 lb in
Hood Release Handle	2 N.m	18 lb in
Liftgate Bolts	25 N.m	18 lb ft
Liftgate Nuts	22 N.m	16 lb ft
Quarter Panel Bolts	3 N.m	27 lb in
Quarter Panel Upper Bolts	3 N.m	27 lb in
Rear Compartment Lid Hinge Bolt	25 N.m	18 lb ft
Rear Compartment Lid Nut	22 N.m	16 lb ft
Rear Roof Panel Bolts	3 N.m	27 lb in

SCHEMATIC WIRING DIAGRAMS

HOOD LATCH WIRING SCHEMATICS

Hood Latch Wiring Schematics

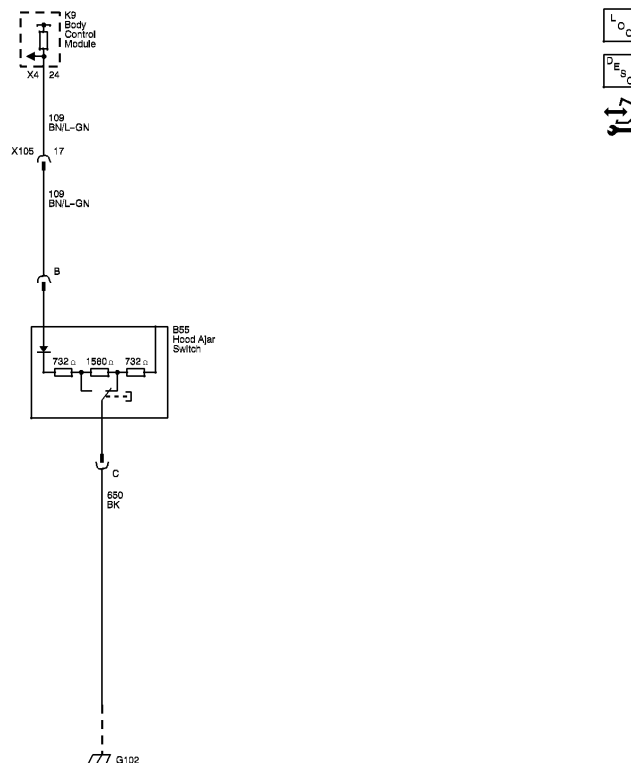


Fig. 1: Hood Latch Wiring Schematic
 Courtesy of GENERAL MOTORS COMPANY

DIAGNOSTIC INFORMATION AND PROCEDURES

DIAGNOSTIC CODE INDEX

DIAGNOSTIC CODE INDEX

DTC	Description
DTC B3006	DTC B3006 Hood Ajar Circuit

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.

DTC Descriptors

DTC B3006

Hood Ajar 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
Signal	B3006 02	B3006 01, B3006 04	B3006 01	-
Ground	-	B3006 01, B3006 04	-	-

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. Only the right hand hood latch is monitored with a switch. 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.

Conditions for Running the DTC

The BCM continuously monitors for this DTC

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.

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.

Conditions for Clearing the DTC

- A current DTC will clear when the conditions for setting the DTC are no longer present.

Reference Information

Schematic Reference

Hood Latch 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

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.
 - **If the parameter does not change**

Refer to Circuit/System Testing.
 - **If the parameter changes**
3. All OK.

Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the B55 Hood Ajar Switch for the right hand hood latch. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 ohms between the ground circuit terminal C and ground.
 - **If 10 ohms or greater**
 1. Ignition OFF

2. Test for less than 2 ohms in the ground circuit end to end.
 - If 2 ohms or greater, repair the open/high resistance in the circuit.
 - If less than 2 ohms, repair the open/high resistance in the ground connection.
 - **If less than 10 ohms**
3. Ignition ON.
4. Test for greater than 10.5 V between the signal circuit terminal B and ground.
 - **If 11.5 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.
 - If less than infinite resistance, repair the short to ground on the circuit.
 - If Infinite resistance.
 3. Test for less than 2 ohms in the signal circuit end to end.
 - If 2 ohms or greater, repair the open/high resistance in the circuit.
 - If less than 2 ohms, replace the K9 Body Control Module.
 - **If greater than 11.5 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.
 - **If 1 V or greater**

Repair the short to voltage on the circuit.

 - **If less than 1 V**
 - 7. Test or replace the B55 Hood Ajar Switch.

Component Testing

1. Ignition OFF, disconnect the harness connector at the B55 Hood Ajar Switch for the right hand hood latch.
2. Test for 2738-3350 ohms between the signal terminal A and the signal terminal B with the hood latch in the closed position.
 - **If not between 2738-3350 ohms**

Replace the B55 Hood Ajar Switch.

 - **If between 2738-3350 ohms**
3. Test for 658-806 ohms between the signal terminal A and the ground terminal C with the hood latch in the closed position.
 - **If not between 658-806 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 ohms**

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

- **If not between 2080-2545 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2080-2545 ohms**

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

- **If not between 2738-3350 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2738-3350 ohms**

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

- **If not between 2080-2545 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2080-2545 ohms**

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

- **If not between 658-806 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 ohms**

8. All OK.

Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- **Hood Primary Latch Replacement (Left Hand), Hood Primary Latch Replacement (Right Hand)**
- **Control Module References** for body control module replacement, programming and setup.

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:

- There are no DTCs set.
- 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**.

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.

Intermittent

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

Symptom List

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

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.

DTC Descriptors

DTC B3006

Hood Ajar 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
Signal	B3006 02	B3006 01, B3006 04	B3006 01	-
Ground	-	B3006 01, B3006	-	-

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. Only the right hand hood latch is monitored with a switch. 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.

Conditions for Running the DTC

The BCM continuously monitors for this DTC

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.

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.

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.

Reference Information

Schematic Reference

Hood Latch Schematics

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

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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.
 - **If the parameter does not change**

Refer to Circuit/System Testing.
 - **If the parameter changes**
3. All OK.

Circuit/System Testing

1. Ignition OFF and all vehicle systems OFF, disconnect the harness connector at the B55 Hood Ajar Switch for the right hand hood latch. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 ohms between the ground circuit terminal C and ground.
 - **If 10 ohms or greater**
 1. Ignition OFF
 2. Test for less than 2 ohms in the ground circuit end to end.
 - If 2 ohms or greater, repair the open/high resistance in the circuit.
 - If less than 2 ohms, repair the open/high resistance in the ground connection.
 - **If less than 10 ohms**
3. Ignition ON.
4. Test for greater than 10.5 V between the signal circuit terminal B and ground.
 - **If 11.5 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.

- If less than infinite resistance, repair the short to ground on the circuit.
- If Infinite resistance.
- 3. Test for less than 2 ohms in the signal circuit end to end.
 - If 2 ohms or greater, repair the open/high resistance in the circuit.
 - If less than 2 ohms, replace the K9 Body Control Module.
- **If greater than 11.5 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.
 - **If 1 V or greater**

Repair the short to voltage on the circuit.

- **If less than 1 V**
- 7. Test or replace the B55 Hood Ajar Switch.

Component Testing

1. Ignition OFF, disconnect the harness connector at the B55 Hood Ajar Switch for the right hand hood latch.
2. Test for 2738-3350 ohms between the signal terminal A and the signal terminal B with the hood latch in the closed position.
 - **If not between 2738-3350 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2738-3350 ohms**
- 3. Test for 658-806 ohms between the signal terminal A and the ground terminal C with the hood latch in the closed position.
 - **If not between 658-806 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 ohms**
- 4. Test for 2080-2545 ohms between the signal terminal B and the ground terminal C with the hood latch in the closed position.
 - **If not between 2080-2545 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2080-2545 ohms**
- 5. Test for 2738-3350 ohms between the signal terminal A and the signal terminal B with the hood

- **If not between 2738-3350 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2738-3350 ohms**

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

- **If not between 2080-2545 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 2080-2545 ohms**

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

- **If not between 658-806 ohms**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 ohms**

8. All OK.

Repair Instructions

Perform the **Diagnostic Repair Verification** after completing the repair.

- **Hood Primary Latch Replacement (Left Hand), Hood Primary Latch Replacement (Right Hand)**
- **Control Module References** for body control module replacement, programming and setup.

REPAIR INSTRUCTIONS

HOOD PRIMARY LATCH RELEASE CABLE REPLACEMENT

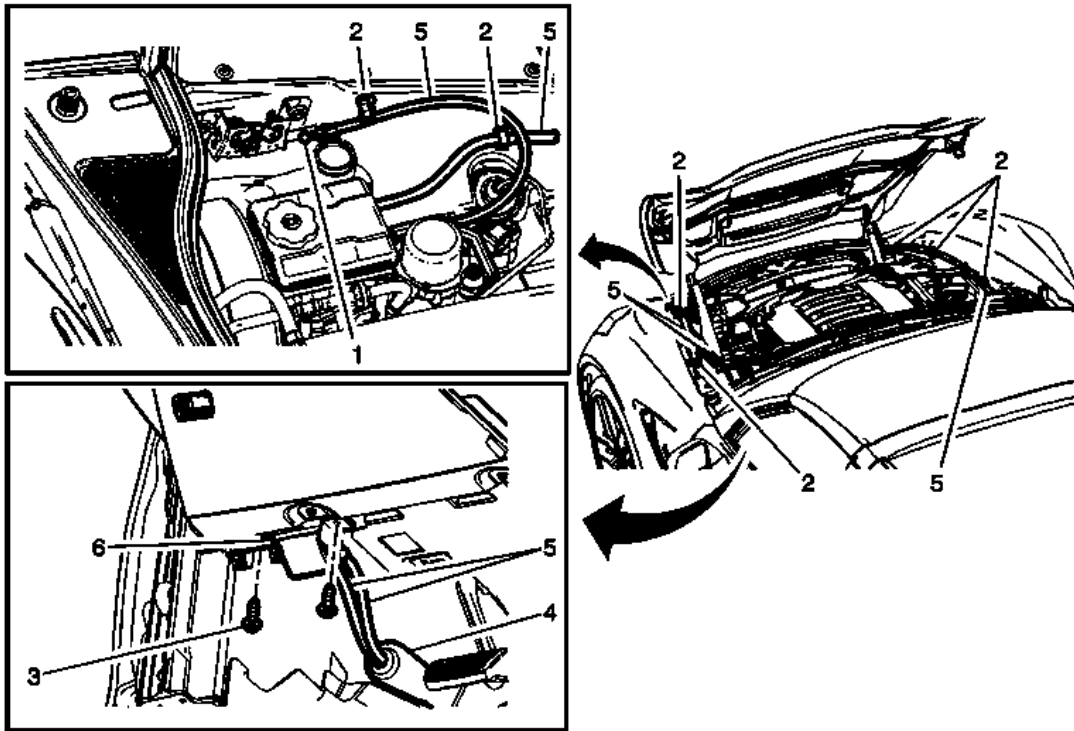


Fig. 2: Hood Primary Latch Release Cable
 Courtesy of GENERAL MOTORS COMPANY

Hood Primary Latch Release Cable Replacement

Callout	Component Name
Preliminary Procedure Remove the front compartment side sight shield front. Refer to Front Compartment Side Sight Shield Replacement - Front	
1	Hood Primary Latch Cable Procedure Disconnect the hood primary latch release cable from the right and left hand primary hood latch.
2	Hood Primary Latch Release Cable Retainer (Qty: 6) Procedure Disconnect the hood primary latch release cable from the hood primary latch release cable retainer.
3	Hood Primary Latch Release Cable Handle Bolts (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 6 (53 lb in)

4	Procedure Remove the hood primary latch release cable grommet from the dash panel.
5	Hood Primary Latch Release Cable
6	Hood Primary Latch Release Cable Handle Procedure Disconnect the hood primary latch release cable handle from the hood latch cable bracket. Pull the hood primary latch release cable and handle through the opening in the dash panel.

FRONT SIDE DOOR ADJUSTMENT

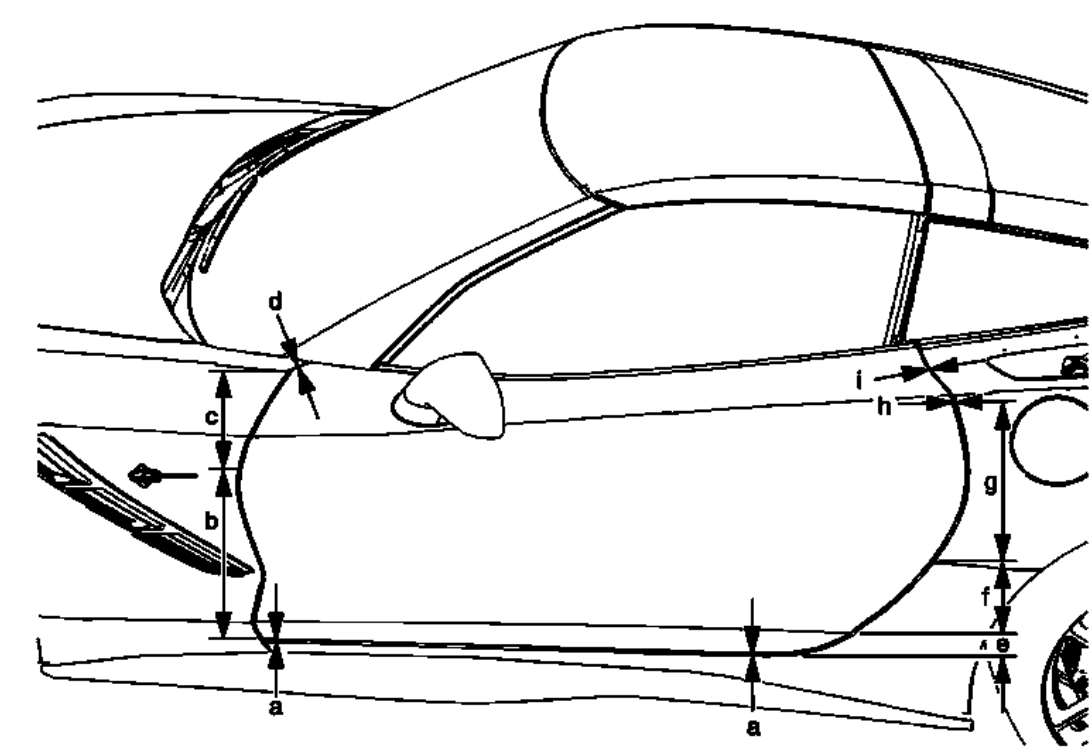


Fig. 3: NO CONTENT
 Courtesy of GENERAL MOTORS COMPANY

Front Side Door Adjustment

Callout	Component Name
Preliminary Procedure Remove the front fender. Refer to Front Fender Replacement .	
	Front Side Door to Roof CAUTION:

Procedure

1. Loosen the 4 front side door hinge bolts to adjust the front side door.
2. Adjust the front side door in order to obtain the specified gap between the front side door and rocker panel, the front side door and lower front fender, the front side door and upper front fender, the front side door and front fender ledge, the front side door and lower quarter panel, the front side door and upper quarter panel, the front side door to above the handle pocket, the front side door and quarter panel ledge.
3. Inspect the door for proper operation and alignment.

Adjustment:

1

- Front side door to rocker panel (a) 5.3 mm $\pm$ 1.0 mm (0.21 in $\pm$ 0.04 in)
- Front side door to lower front fender (b) 4.0 mm $\pm$ 1.0 mm (0.16 in $\pm$ 0.04 in)
- Front side door to upper front fender (c) 3.8 mm to 4.0 mm $\pm$ 1.0 mm (0.15 in to 0.16 in $\pm$ 0.04 in)
- Front side door to front fender ledge (d) 3.4 mm $\pm$ 1.0 mm (0.13 in $\pm$ 0.04 in)
- Front side door to lower quarter panel (e) 4.0 mm $\pm$ 1.0 mm (0.16 in $\pm$ 0.04 in)
- Front side door to door ring (f) 3.8 mm to 4.0 mm $\pm$ 1.0 mm (0.15 in to 0.16 in $\pm$ 0.04 in)
- Front side door to upper quarter panel (g) 3.3 mm to 3.8 mm $\pm$ 1.0 mm (0.13 in to 0.15 in $\pm$ 0.04 in)
- Front side door to above handle pocket (h) 3.3 mm $\pm$ 1.0 mm (0.13 in $\pm$ 0.04 in)
- Front side door to quarter panel ledge (i) 3.4 mm $\pm$ 1.0 mm (0.13 in $\pm$ 0.04 in)

Tighten

35 N.m (26 lb ft)

FRONT SIDE DOOR REPLACEMENT

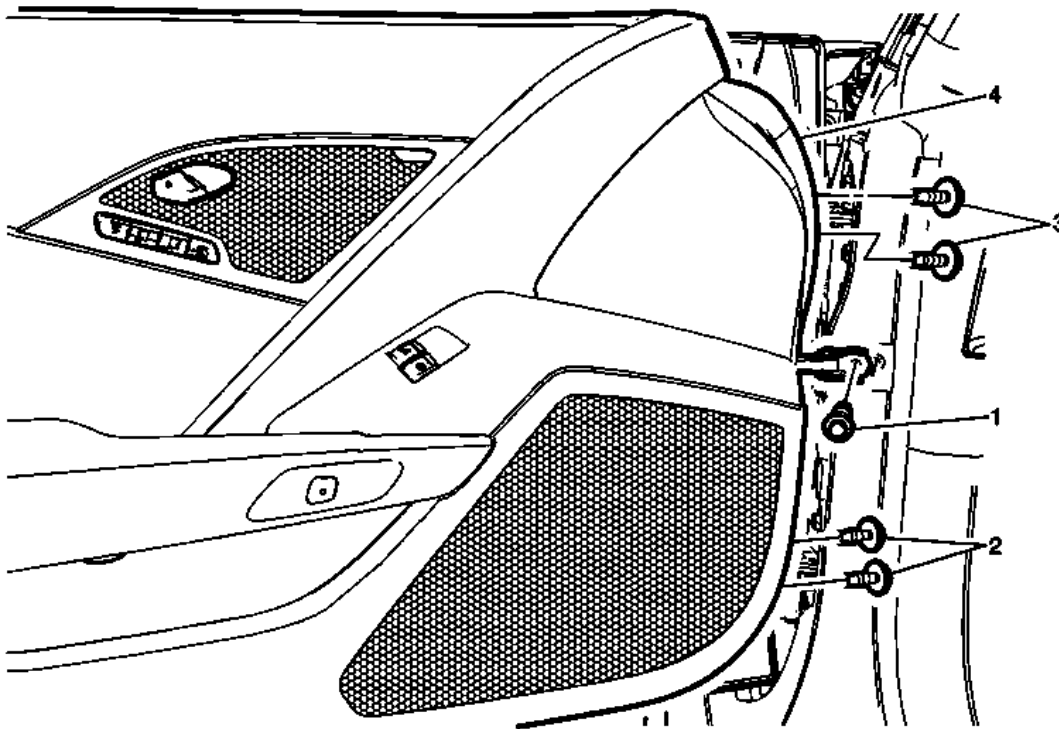


Fig. 4: Front Side Door
Courtesy of GENERAL MOTORS COMPANY

Front Side Door Replacement

Callout	Component Name
WARNING: Refer to <u>SIR Warning</u> .	
Preliminary Procedures 1. Place the door in the full open position. 2. Disable the supplemental inflatable restraint (SIR) system. Refer to <u>SIR Disabling and Enabling</u> . 3. Remove the front side door trim. Refer to <u>Front Side Door Trim Replacement (Driver Side)</u> , <u>Front Side Door Trim Replacement (Passenger Side)</u> . 4. Remove the water deflector. 5. Disconnect the door electrical connector.	
1	Front Side Door Check Link Bolt CAUTION: Refer to <u>Fastener Caution</u> .

	22 N.m (16 lb ft)
2	Front Side Door Lower Hinge Bolt (Qty: 2) 1. Mark the location of the hinges before removing the bolts with a grease pencil. 2. Support the door before removing the hinge bolts. 3. With an assistant, remove the door. Tighten 35 N.m (26 lb ft)
3	Front Side Door Upper Hinge Bolt (Qty: 2) Tighten 35 N.m (26 lb ft)
4	Front Side Door Procedure 1. Transfer all components as necessary. 2. If the door striker needs adjusting. Refer to <u>Front Side Door Lock Striker Adjustment</u> . NOTE: Inspect the door for proper operation before installing the door trim.

HOOD AIR EXTRACTOR REPLACEMENT

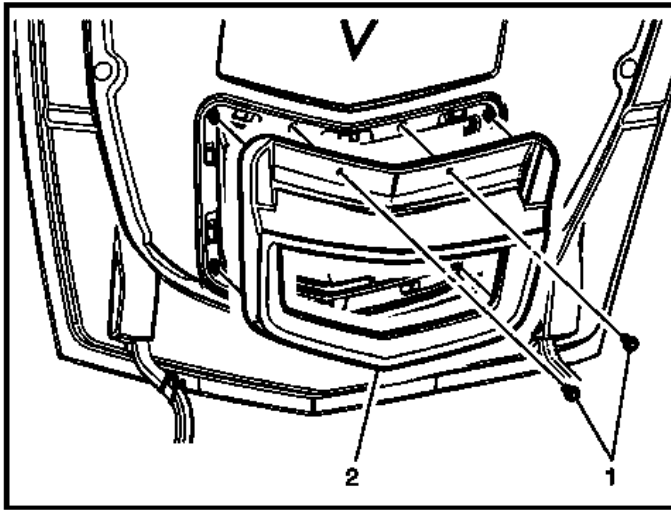


Fig. 5: Hood Air Extractor
Courtesy of GENERAL MOTORS COMPANY

Hood Air Extractor Replacement

Callout	Component Name
1	Hood Air Extractor Bolt (Qty 2) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 2.5 (22 lb in)
2	Hood Air Extractor Procedure Insert a flat bladed tool/trim tool under each corner of the hood extractor applying light out ward pressure to release the four metal clip retainers. NOTE: Take care not to damage the hood insulator when removing and installing the hood extractor.

FRONT FENDER REPLACEMENT

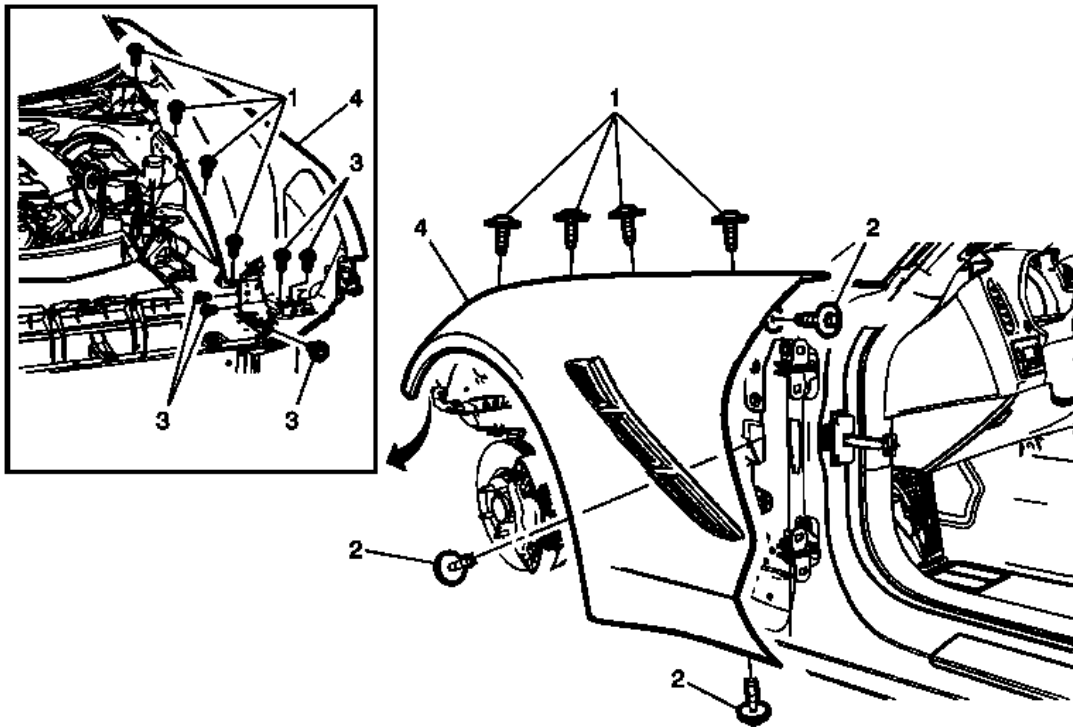


Fig. 6: Front Fender
 Courtesy of GENERAL MOTORS COMPANY

Front Fender Replacement

Callout	Component Name
Preliminary Procedures	
1. Remove the wheelhouse liner. Refer to Front Wheelhouse Liner Replacement 2. Remove the rocker panel molding. Refer to Rocker Panel Molding Replacement 3. Remove the front headlamp assembly. Refer to Headlamp Replacement . 4. Remove the air inlet screen. Refer to Air Inlet Screen Replacement (Left Side) , Air Inlet Screen Replacement (Right Side) , Air Inlet Screen Replacement (Center) .	
1	Front Fender Inner Upper Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 2.5 (22 lb in)
2	Front Fender Lower Rear Bolt (Qty: 3) Tighten 2 (18 lb in)

3	Tighten 9 (80 lb in)
4	Fender Assembly NOTE: Transfer any brackets or harness that might be attached to the fender assembly.

LIFTGATE ADJUSTMENT

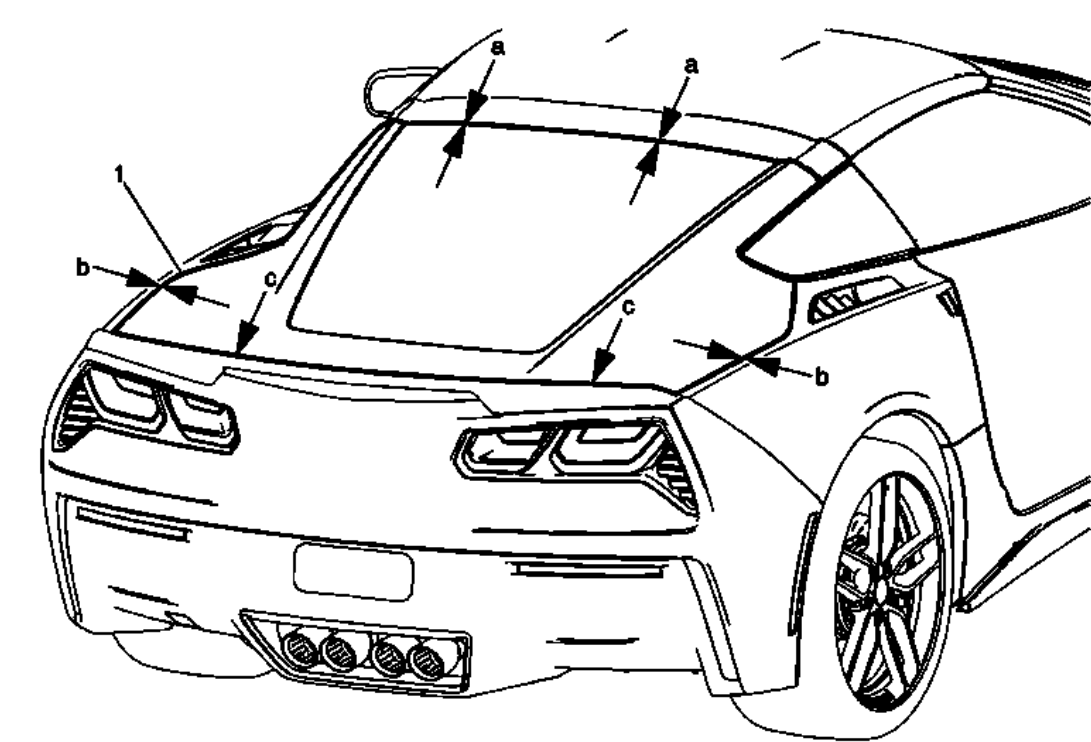


Fig. 7: Liftgate
Courtesy of GENERAL MOTORS COMPANY

Liftgate Adjustment

Callout	Component Name
	Liftgate CAUTION: Refer to <u>Fastener Caution</u> . Procedure 1. Loosen the liftgate hinge bolt (Qty: 4) to adjust the rear compartment lid. 2. Adjust the liftgate in order to obtain an even gap between the liftgate and the

1	liftgate is flush with the quarter outer panel, the roof rear panel and the rear bumper fascia. Adjustment • Liftgate to roof rear panel (a) 3.5 mm +/-1.0 • Liftgate to quarter outer panel (b) 3.5 mm +/-1.0 • Liftgate to rear bumper fascia (c) 3.5 mm +/-1.0 Tighten 25 (18 lb ft)
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LIFTGATE REPLACEMENT

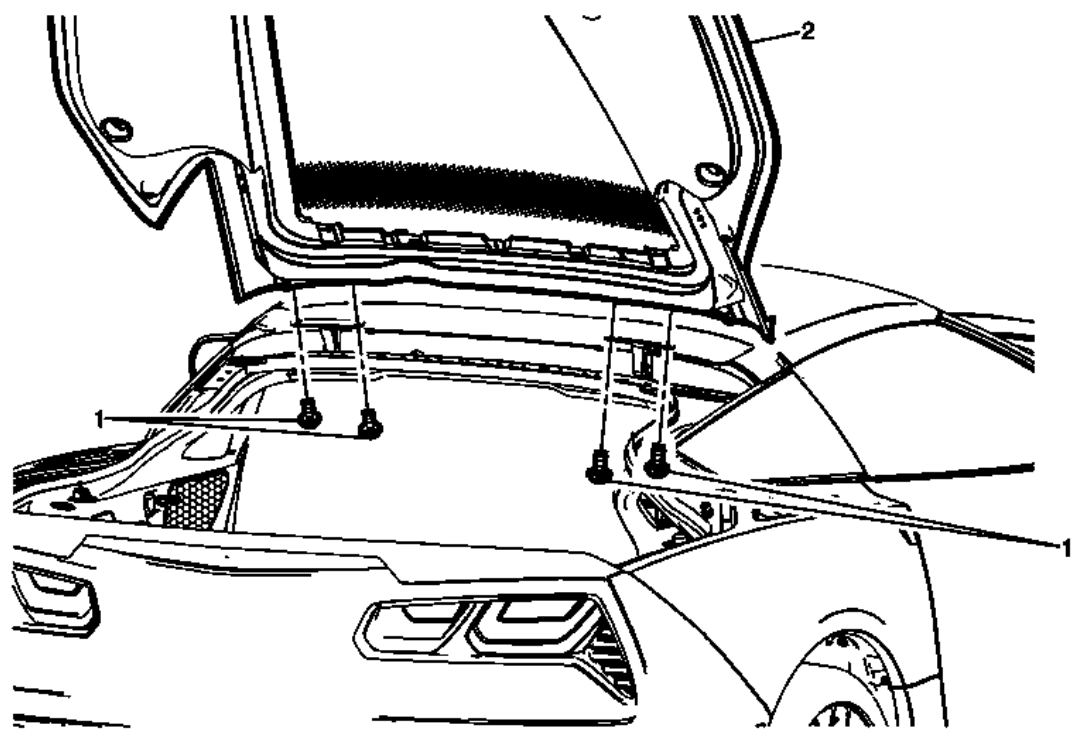


Fig. 8: Liftgate
Courtesy of GENERAL MOTORS COMPANY

Liftgate Replacement

Callout	Component Name
WARNING: When a lift gate hold open device is being removed or installed, provide alternate support to avoid	

Preliminary Procedures Remove the liftgate strut. Refer to Liftgate Strut Replacement

1	Liftgate Bolt (Qty: 4) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 25 N.m (19 lb ft)
2	Liftgate Procedure 1. Disconnect the electrical connector. 2. With the aid of an assistant remove liftgate. 3. Adjust the liftgate as needed. Refer to <u>Liftgate Adjustment</u>. 4. Transfer components as necessary.

FRONT SIDE DOOR WIRING HARNESS REPLACEMENT

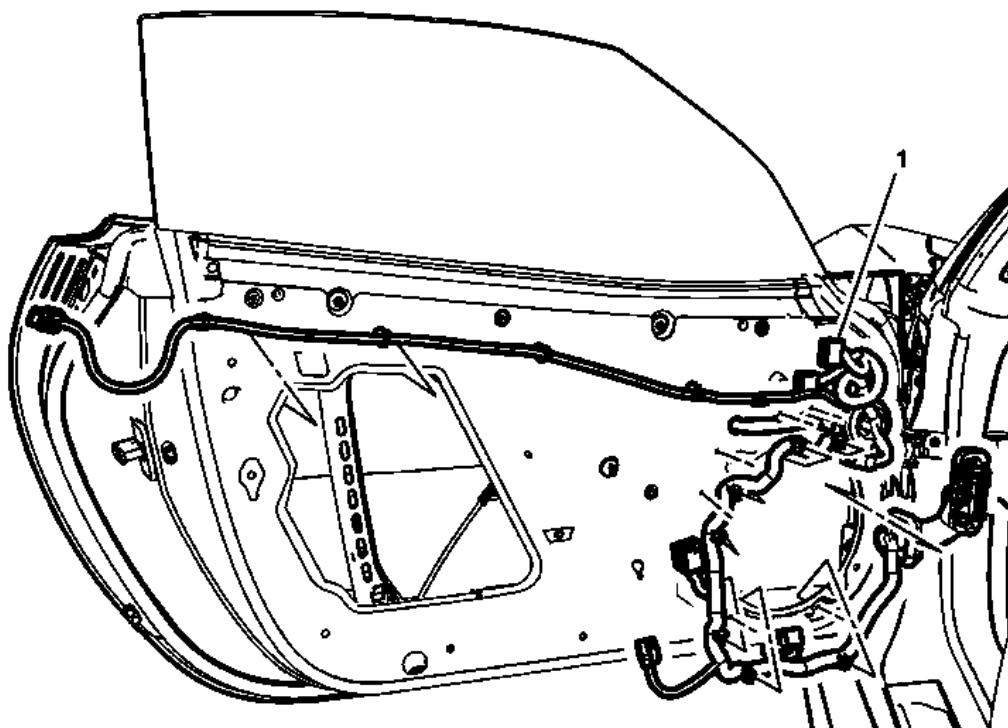


Fig. 9: Front Side Door Wiring Harness
Courtesy of GENERAL MOTORS COMPANY

Front Side Door Wiring Harness Replacement

Callout	Component Name
Preliminary Procedures 1. Place the door in the full open position. 2. Remove the front side door trim. Refer to <u>Front Side Door Trim Replacement (Driver Side)</u> , <u>Front Side Door Trim Replacement (Passenger Side)</u> . 3. Remove the front side door speaker. Refer to <u>Radio Front Side Door Speaker Replacement</u> . 4. Remove the front side door water deflector.	
1	Front Side Door Wiring Harness Procedure Disconnect the electrical connectors.

FRONT SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT

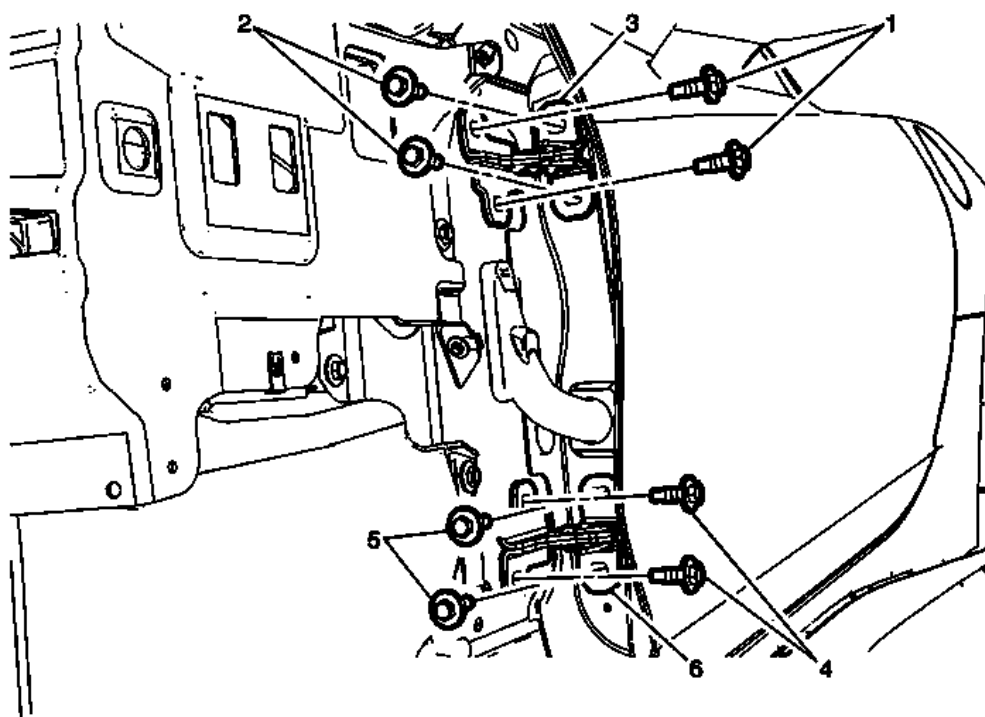


Fig. 10: Front Side Door Upper Hinge and Lower Hinge
 Courtesy of GENERAL MOTORS COMPANY

Front Side Door Upper Hinge and Lower Hinge Replacement

Callout	Component Name
Preliminary Procedures 1. Mark the location of the hinge before removing the bolts with a grease pencil. 2. Remove the front fender. Refer to	

1	Front Side Door Upper Hinge to Body Bolt (Qty: 2) CAUTION: Refer to <u>Fastener Caution</u> . Procedures 1. Before removing the door, apply a double layer of masking tape around the perimeter of the painted surfaces. 2. Support the door before removing the hinge bolts. Tighten 35 N.m (26 lb ft)
2	Front Side Door Upper Hinge to Door Bolt (Qty: 2) Tighten 35 N.m (26 lb ft)
3	Front Side Door Upper Hinge
4	Front Side Door Lower Hinge to Body Bolt (Qty: 2) Tighten 35 N.m (26 lb ft)
5	Front Side Door Lower Hinge to Door Bolt (Qty: 2) Tighten 35 N.m (26 lb ft)
6	Front Side Door Lower Hinge Procedure If the door striker needs adjusting. Refer to <u>Front Side Door Lock Striker Adjustment</u> . NOTE: Inspect the door for proper operation.

HOOD HINGE BRACKET REPLACEMENT

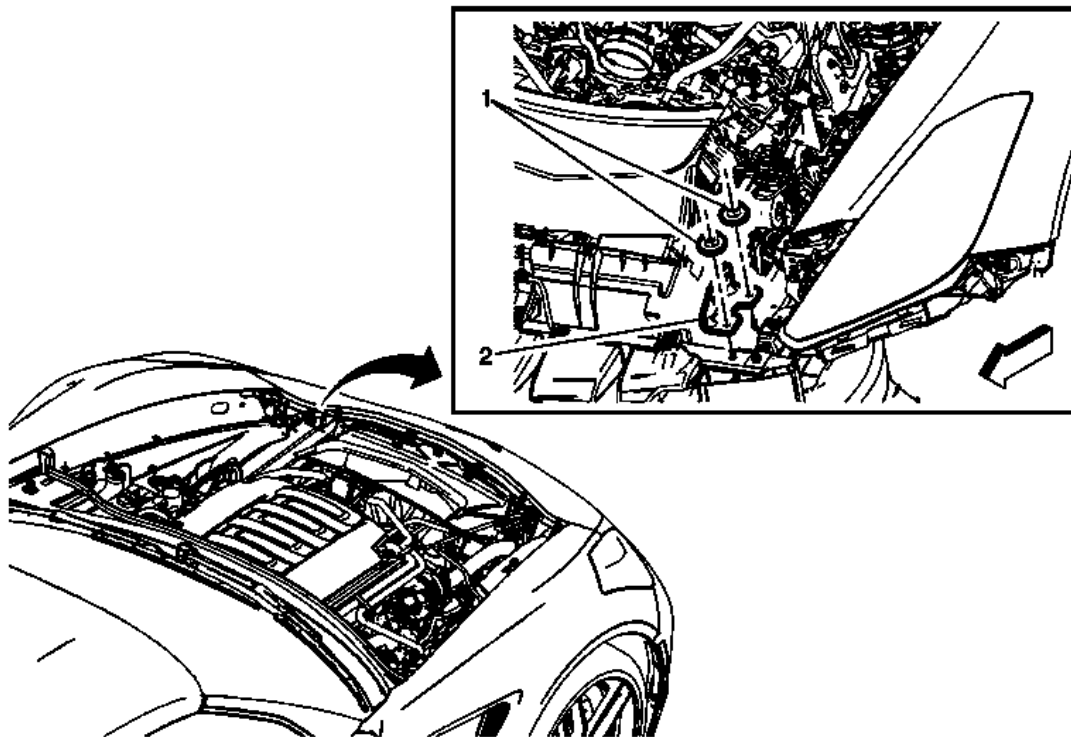


Fig. 11: Hood Hinge Bracket
Courtesy of GENERAL MOTORS COMPANY

Hood Hinge Bracket Replacement

Callout	Component Name
Preliminary Procedure	
Remove the hood hinge. Refer to Hood Hinge Replacement .	
1	Hood Hinge Bracket Nut (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 25 (18 lb ft)
2	Hood Hinge Bracket Procedure Adjust the hood and hinge if needed. Refer to Hood Adjustment .

HOOD HINGE REPLACEMENT

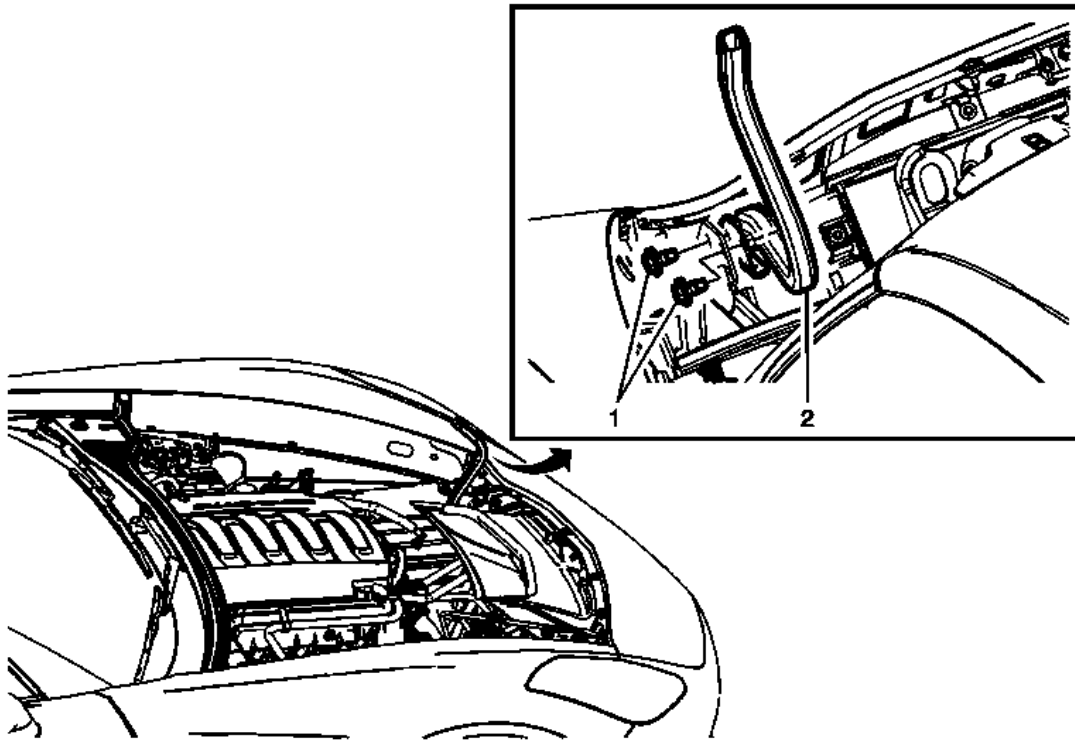


Fig. 12: Hood Hinge
 Courtesy of GENERAL MOTORS COMPANY

Hood Hinge Replacement

Callout	Component Name
Preliminary Procedure Remove the hood assembly. Refer to Hood Replacement .	
1	Hood Hinge Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 25 N.m (18 lb ft)
2	Hood Hinge NOTE: Use a grease pencil to mark the position of the hinge for reinstallation.

LIFTGATE HINGE REPLACEMENT

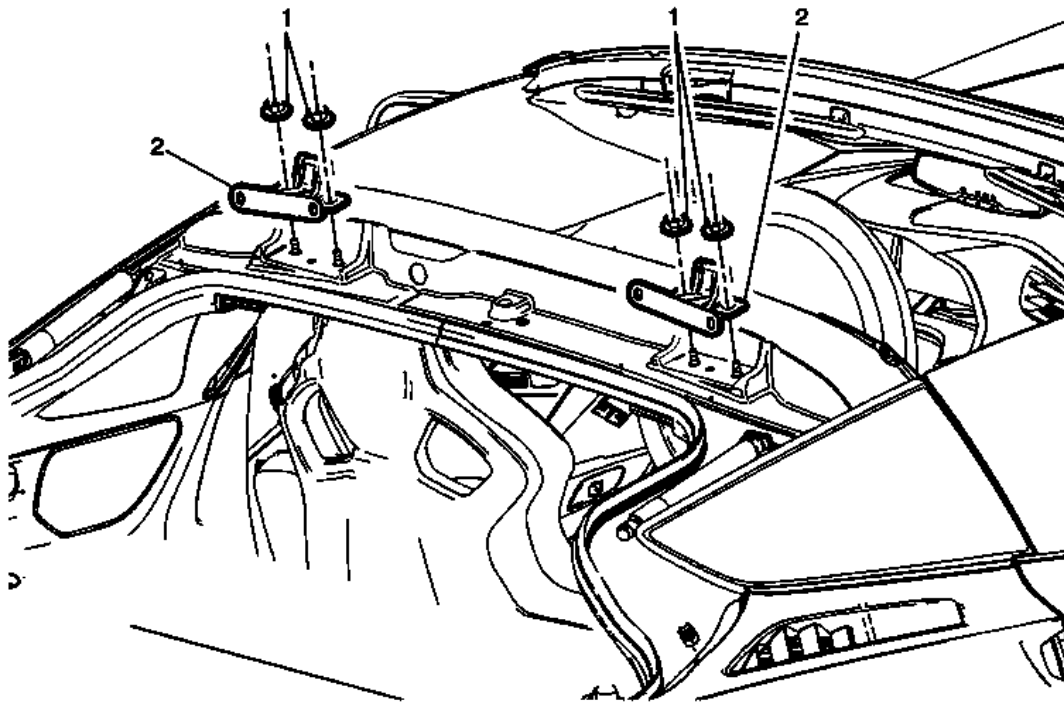


Fig. 13: Liftgate Hinge
 Courtesy of GENERAL MOTORS COMPANY

Liftgate Hinge Replacement

Callout	Component Name
Preliminary Procedures	
1. Remove the liftgate. Refer to Liftgate Replacement . 2. Use a grease pencil to mark the liftgate hinge position to the body prior to removal.	
1	Liftgate Hinge Nut (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 22 (16 lb ft)
2	Liftgate Hinge Procedure Adjust the liftgate if needed.

REAR COMPARTMENT LID HINGE REPLACEMENT

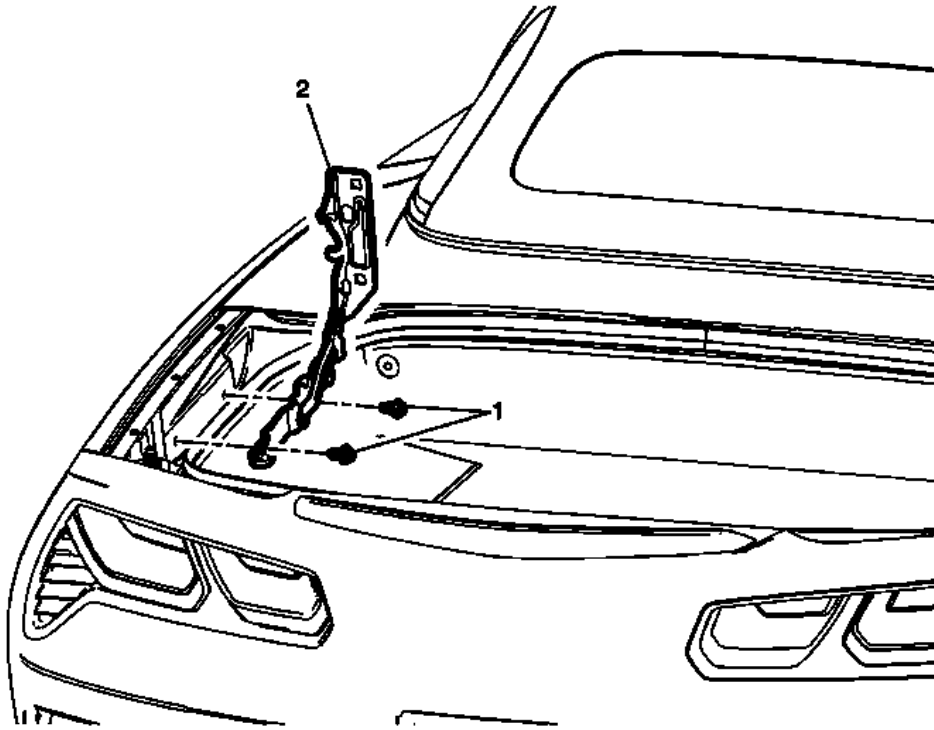


Fig. 14: Rear Compartment Lid Hinge
 Courtesy of GENERAL MOTORS COMPANY

Rear Compartment Lid Hinge Replacement

Callout	Component Name
Preliminary Procedure Remove the rear compartment lid. Refer to Rear Compartment Lid Replacement .	
1	Rear Compartment Lid Hinge Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 25 (18 lb ft)
2	Rear Compartment Lid Hinge Procedure Adjust the rear compartment lid if needed. Refer to Rear Compartment Lid Adjustment .

HOOD ADJUSTMENT

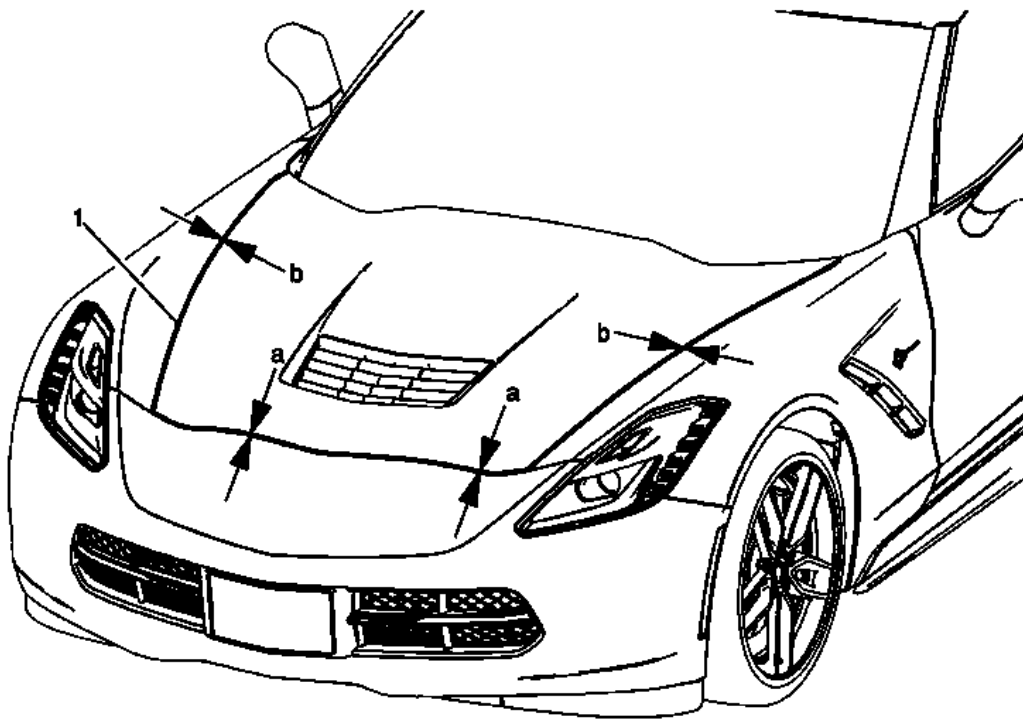


Fig. 15: Hood
 Courtesy of GENERAL MOTORS COMPANY

Hood Adjustment

Callout	Component Name
1	Hood CAUTION: Refer to <u>Fastener Caution</u> . Procedure - Loosen the 4 hood hinge bolts. - Adjust the hood in order to obtain an even gap on both sides between the hood and the fenders and the front bumper fascia. Also confirm that the hood is flush with both fenders on the front edge and the front bumper fascia. Adjustment: - Hood to front fascia (a) 4.0 mm +/-1.0 (.15 in ±.039 in) - Hood to front fender (b) 3.0 mm +/-0.75 (.11 in ±.029 in) Tighten

HOOD REPLACEMENT

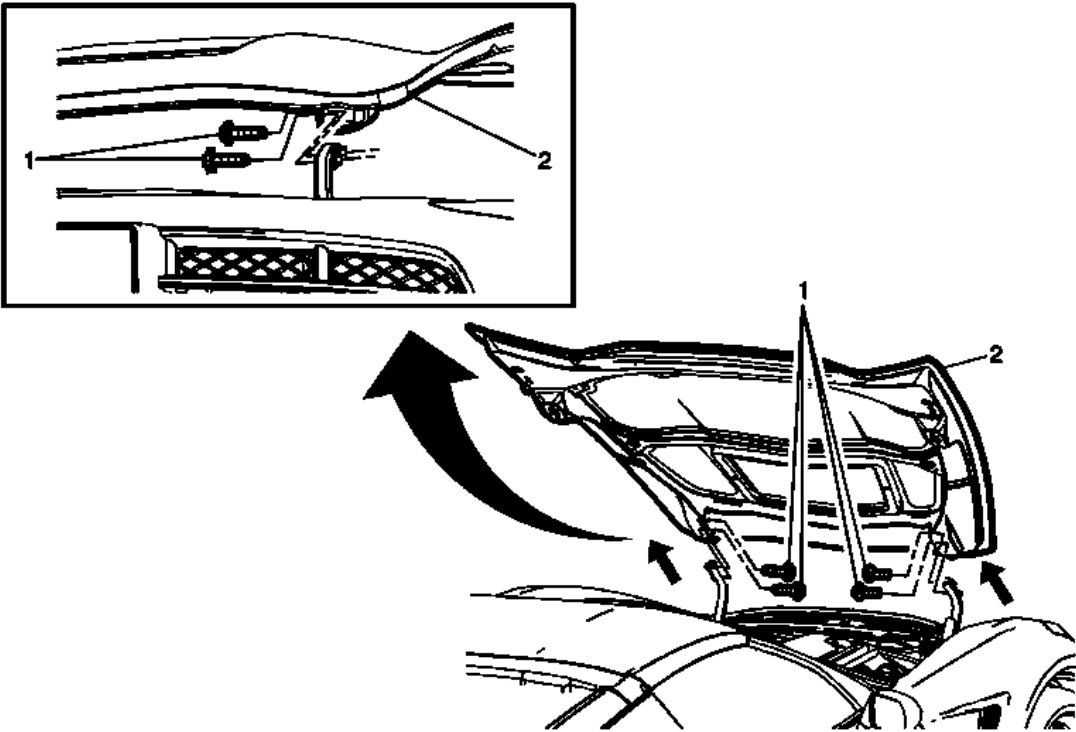


Fig. 16: Hood
Courtesy of GENERAL MOTORS COMPANY

Hood Replacement

Callout	Component Name
WARNING: 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.	
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.	
Preliminary Procedure Disconnect the hood strut. Refer to Hood Strut Replacement	
1	Hood Hinge Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 25 (18 lb ft)

2

**Hood
Procedure**

With the aid of an assistant, slide the hood in an upward direction off the hood hinge (arrow).

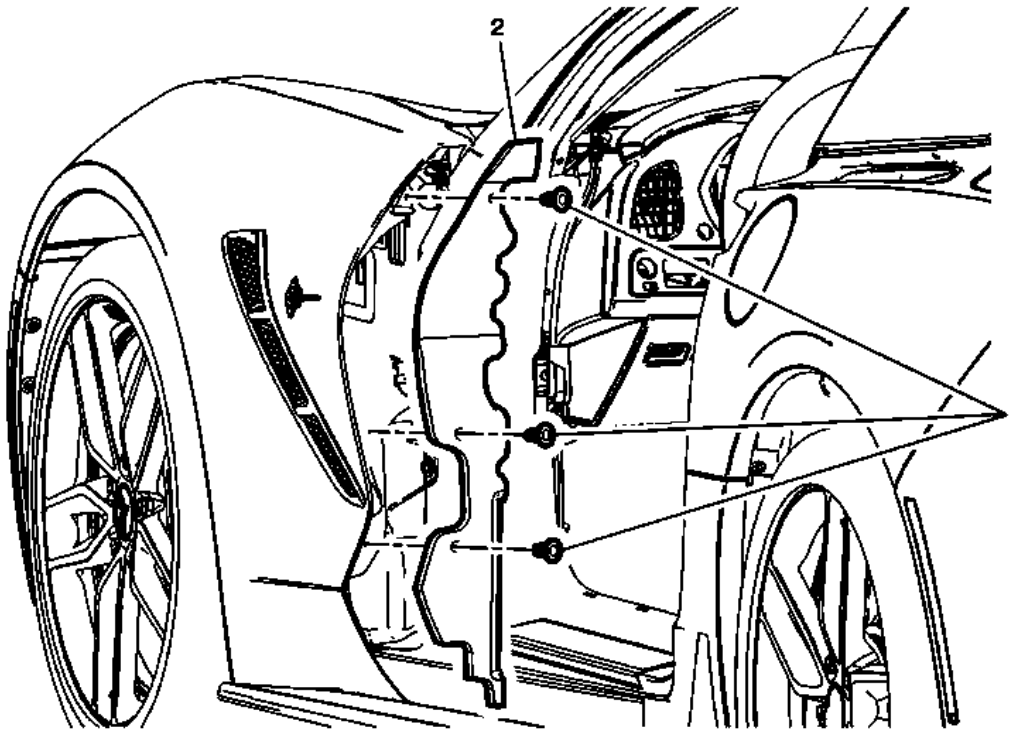
FRONT FENDER INSULATOR REPLACEMENT

Fig. 17: Front Fender Insulator
Courtesy of GENERAL MOTORS COMPANY

Front Fender Insulator Replacement

Callout	Component Name
Preliminary Procedure Open the right or left hand door.	
1	Front Fender Sound Insulator Plastic Retainers (Qty: 3)
2	Front Fender Insulator

HOOD INSULATOR REPLACEMENT

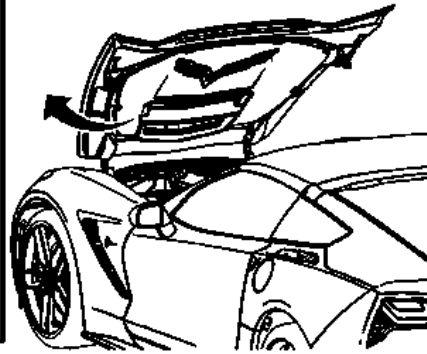
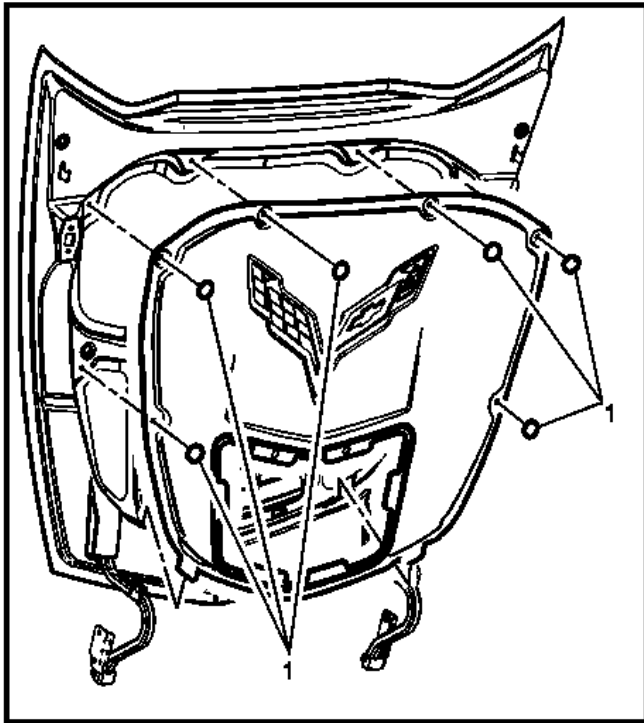


Fig. 18: Hood Insulator
 Courtesy of GENERAL MOTORS COMPANY

Hood Insulator Replacement

Callout	Component Name
Preliminary Procedure	
Remove the hood air extractor. Refer to <u>Hood Air Extractor Replacement</u>	
1	Hood Insulator Plastic Retainers (Qty: 6) NOTE: If retainer breaks upon removal, the retainer will need to be replaced with a new retainer. These are one time use only.
2	Hood Insulator

HOOD PRIMARY LATCH REPLACEMENT (LEFT HAND)

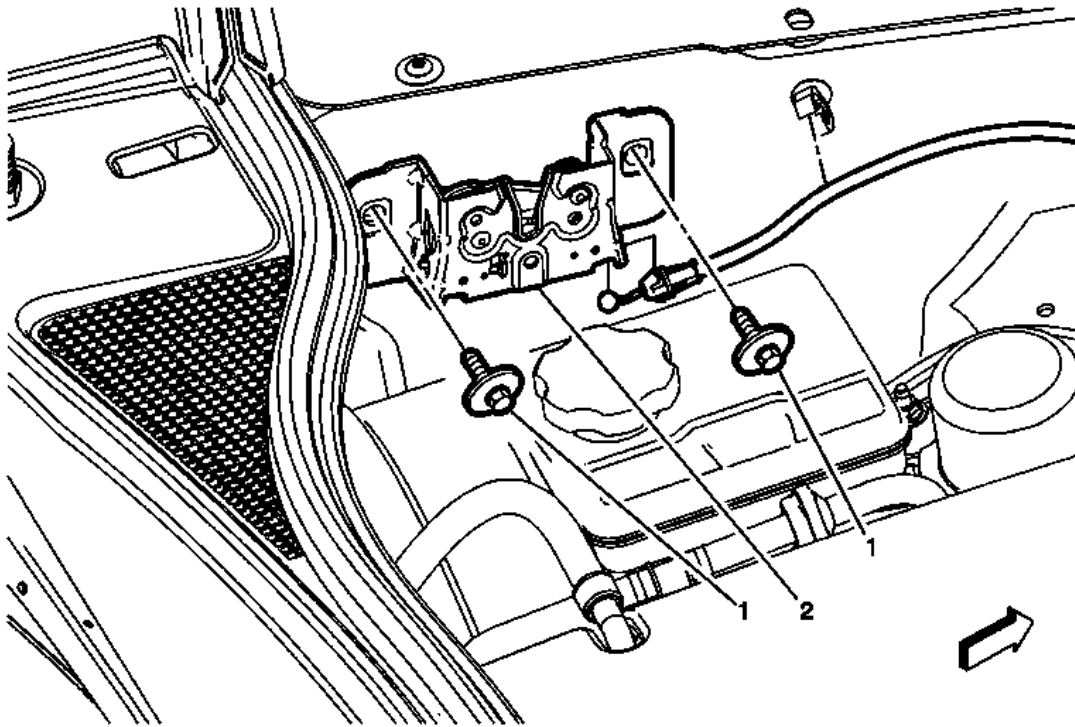


Fig. 19: Hood Primary Latch (Left Hand)
 Courtesy of GENERAL MOTORS COMPANY

Hood Primary Latch Replacement (Left Hand)

Callout	Component Name
1	Hood Primary Latch Bolts (Qty: 2) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 22 (16 lb ft)
2	Hood Primary Latch Left Hand Procedure 1. Mark the perimeter of the latch using a grease pencil. 2. Disconnect the cable from the latch. 3. Adjust as necessary.

HOOD PRIMARY LATCH REPLACEMENT (RIGHT HAND)

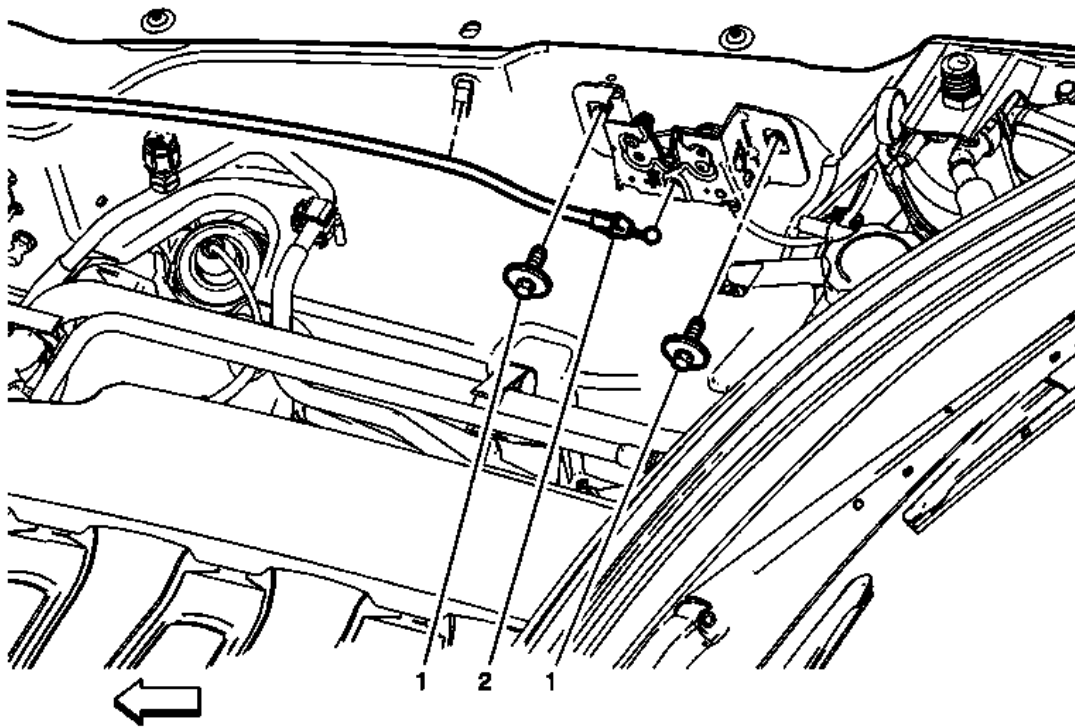


Fig. 20: Hood Primary Latch (Right Hand)
 Courtesy of GENERAL MOTORS COMPANY

Hood Primary Latch Replacement (Right Hand)

Callout	Component Name
1	Hood Primary Latch Bolts (Qty: 2) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 22 (16 lb ft)
2	Hood Primary Latch Right Hand Procedure 1. Mark the perimeter of the latch using a grease pencil. 2. Disconnect the cable from the latch. 3. Adjust as necessary.

REAR COMPARTMENT LID ADJUSTMENT

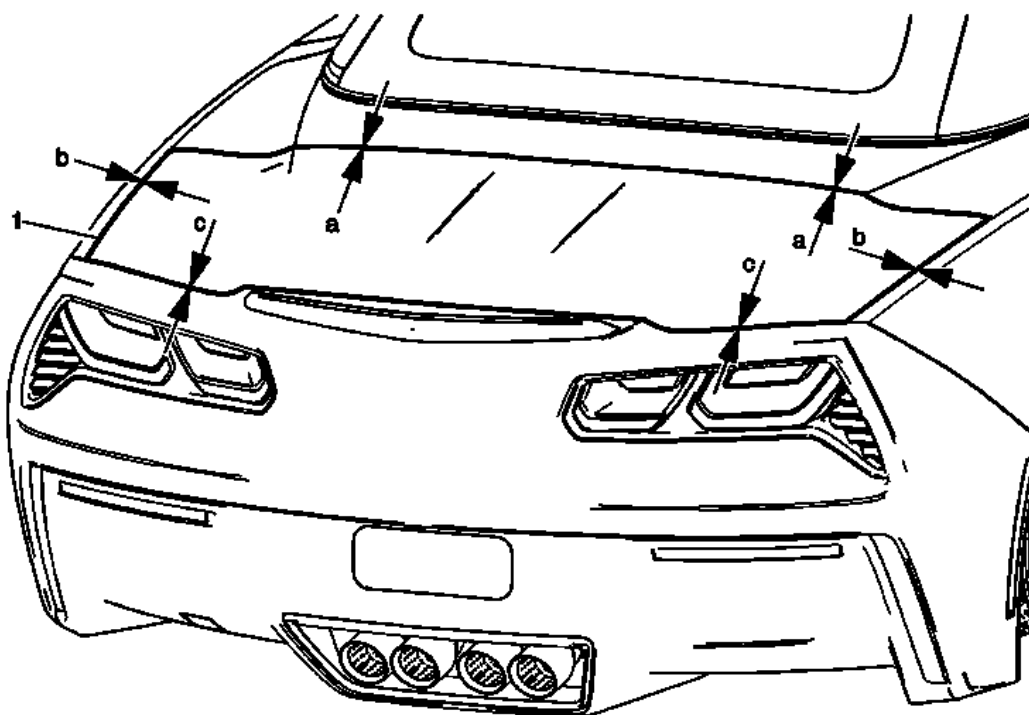


Fig. 21: Rear Compartment Lid
 Courtesy of GENERAL MOTORS COMPANY

Rear Compartment Lid Adjustment

Callout	Component Name
1	Rear Compartment Lid CAUTION: Refer to <u>Fastener Caution</u> . Procedure 1. Loosen the rear compartment lid hinge bolt (Qty: 4) to adjust the rear compartment lid. 2. Adjust the rear compartment lid in order to obtain an even gap between the rear compartment lid and the quarter outer panel, the stowage compartment lid and the rear bumper fascia and so that the rear compartment lid is flush with the quarter outer panel, the stowage compartment lid and the rear bumper fascia. Adjustment • Folding top stowage compartment lid (a) 4.5 mm +/-1.0 (.18 in ±.039 in) • Rear compartment lid to quarter outer panel (b) 3.5 mm +/-1.0 (.14 in ±.039

- Rear compartment lid to rear bumper fascia (c) 3.5 mm +/-1.0 (.14 in ±.039 in)

Tighten
22 (16 lb ft)

REAR COMPARTMENT LID REPLACEMENT

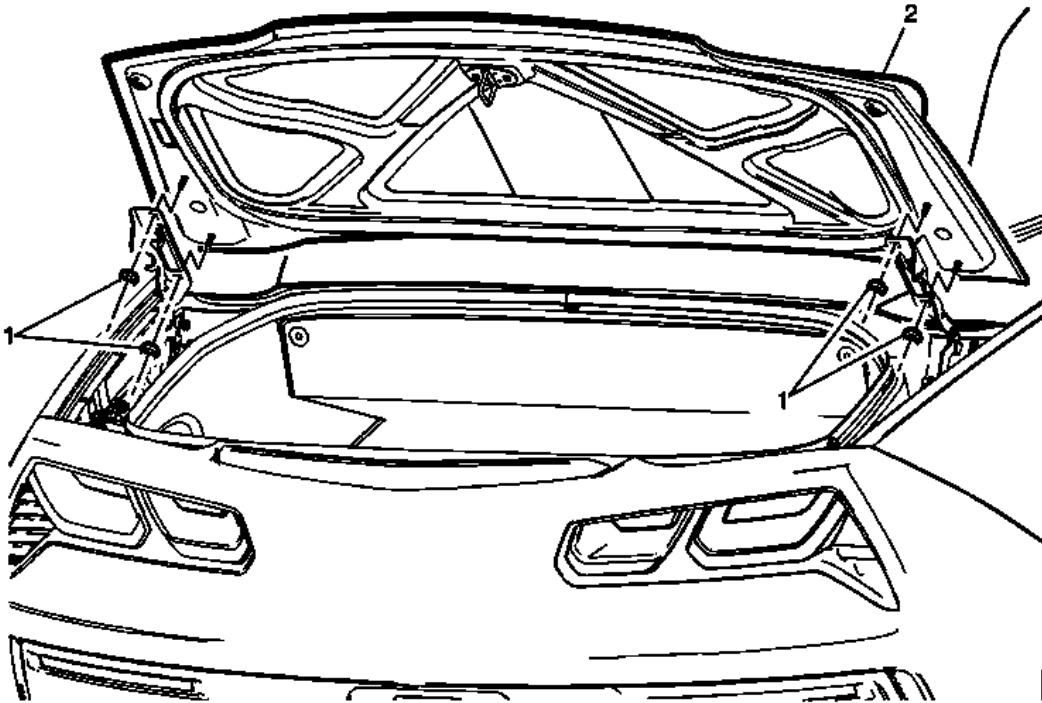


Fig. 22: Rear Compartment Lid
Courtesy of GENERAL MOTORS COMPANY

Rear Compartment Lid Replacement

Callout	Component Name
WARNING: When a lift gate hold open device is being removed or installed, provide alternate support to avoid the possibility of damage to the vehicle or personal injury.	
Preliminary Procedures Remove the rear compartment lid strut. Refer to <u>Rear Compartment Lid Strut Replacement</u>	
1	Rear Compartment Lid Nut (Qty: 4) CAUTION:

	Tighten 22 (16 lb ft)
2	Rear Compartment Lid Procedure 1. With the aid of an assistant remove rear compartment lid. 2. Adjust the rear compartment lid as needed. Refer to <u>Rear Compartment Lid Adjustment.</u> 3. Transfer components as necessary.

FRONT SIDE DOOR CHECK LINK REPLACEMENT

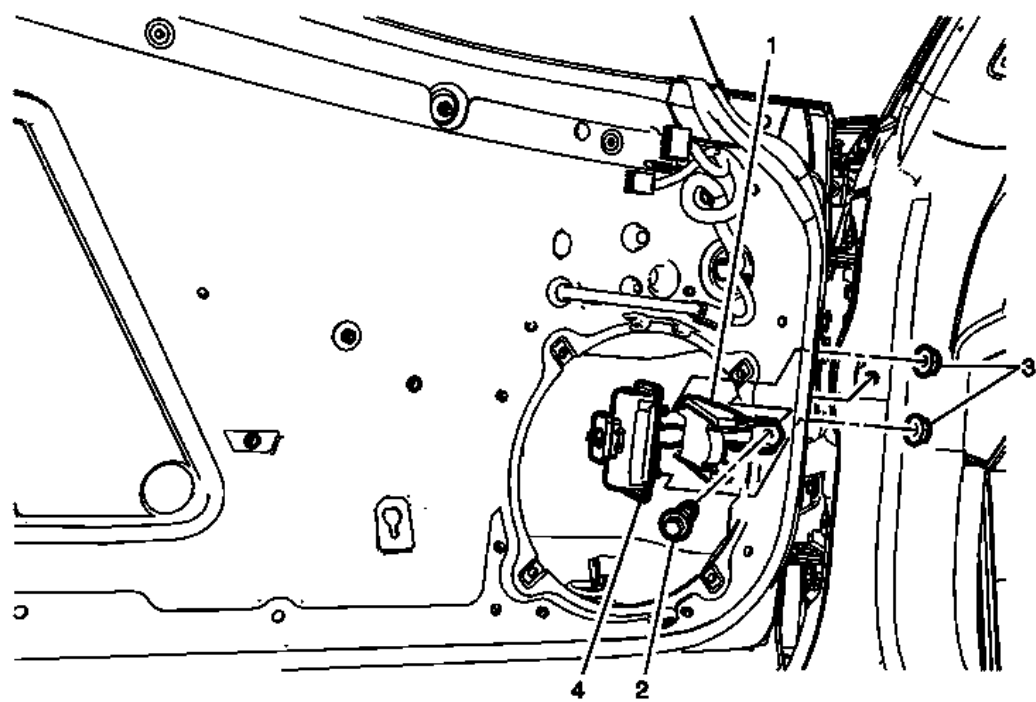


Fig. 23: Front Side Door Check Link
Courtesy of GENERAL MOTORS COMPANY

Front Side Door Check Link Replacement

Callout	Component Name
Preliminary Procedure 1. Place the door in the full open position. 2. Place the window in the full up position.	

Side) , Front Side Door Trim Replacement (Passenger Side) .

4. Remove the front side door speaker. Refer to **Radio Front Side Door Speaker Replacement** .

1	Front Side Door Check Link Cover Procedure Slide front side door check link cover from frame.
2	Front Side Door Check Link Bolt CAUTION: Refer to <u>Fastener Caution</u> . Tighten 22 N.m (16 lb ft)
3	Front Side Door Check Link Nut (Qty: 2) Tighten 9 N.m (80 lb in)
4	Front Side Door Check Link NOTE: Inspect the door for proper operation before installing the door trim.

QUARTER OUTER PANEL REPLACEMENT - RIGHT SIDE (COUPE)

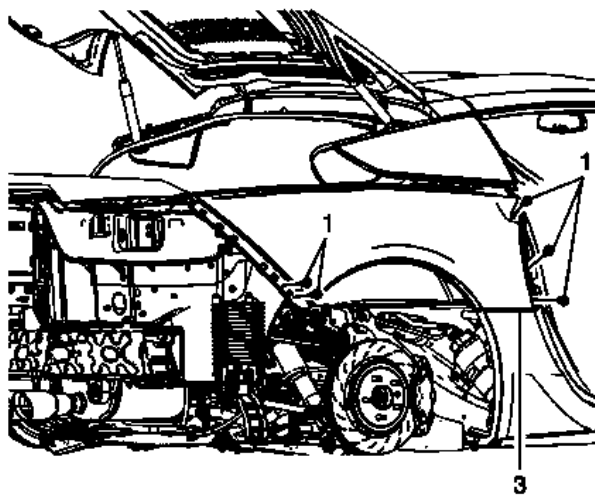
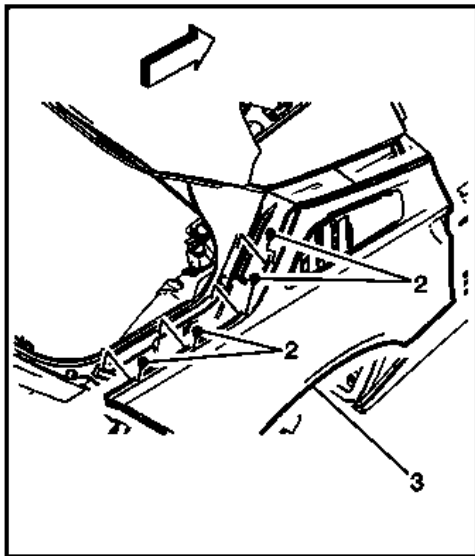


Fig. 24: Quarter Outer Panel - Right Side (Coupe)
 Courtesy of GENERAL MOTORS COMPANY

Quarter Outer Panel Replacement - Right Side (Coupe)

Callout	Component Name
Preliminary Procedures	
1. Remove the rear fascia. Refer to <u>Rear Bumper Fascia Replacement</u> .	
1	Quarter Panel Bolts (Qty: 5) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 3 (27 lb in)
2	Quarter Panel Upper Bolts (Qty: 4) Tighten 3 (27 lb in)
3	Quarter Panel NOTE: There is adhesive strips below the quarter window and along the top of the quarter outer panel.

QUARTER OUTER PANEL REPLACEMENT - RIGHT SIDE (CONVERTIBLE)

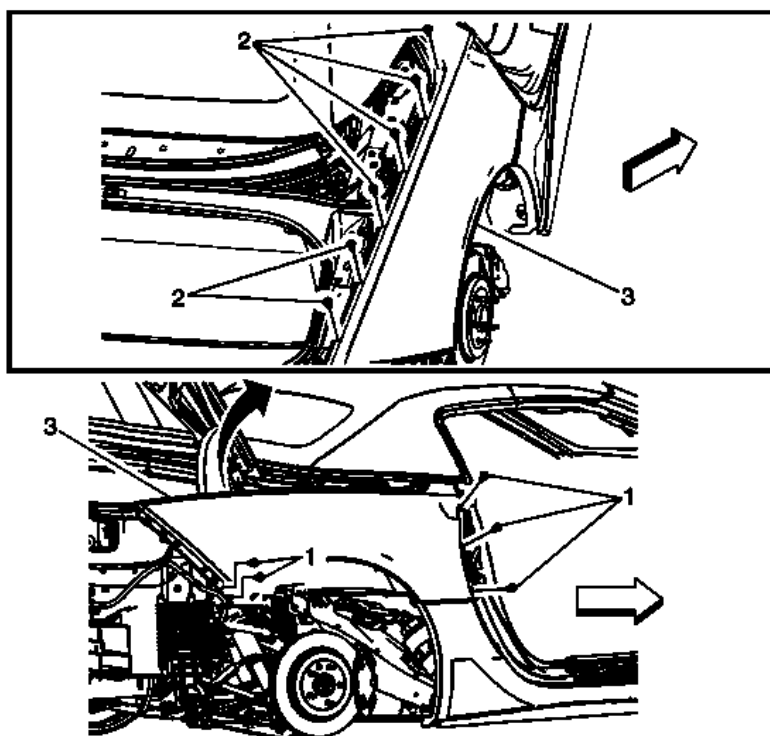


Fig. 25: Quarter Outer Panel - Right Side (Convertible)
 Courtesy of GENERAL MOTORS COMPANY

Quarter Outer Panel Replacement - Right Side (Convertible)

Callout	Component Name
Preliminary Procedures	
1. Remove the rear fascia. Refer to Rear Bumper Fascia Replacement .	
1	Quarter Panel Bolts (Qty: 5) CAUTION: Refer to Fastener Caution . Tighten 3 (27 lb in)
2	Quarter Panel Upper Bolts (Qty: 6) Tighten 3 (27 lb in)
3	Quarter Panel NOTE: There is adhesive strips below the quarter window and along the top of the quarter outer panel.

QUARTER OUTER PANEL REPLACEMENT - LEFT SIDE (COUPE)

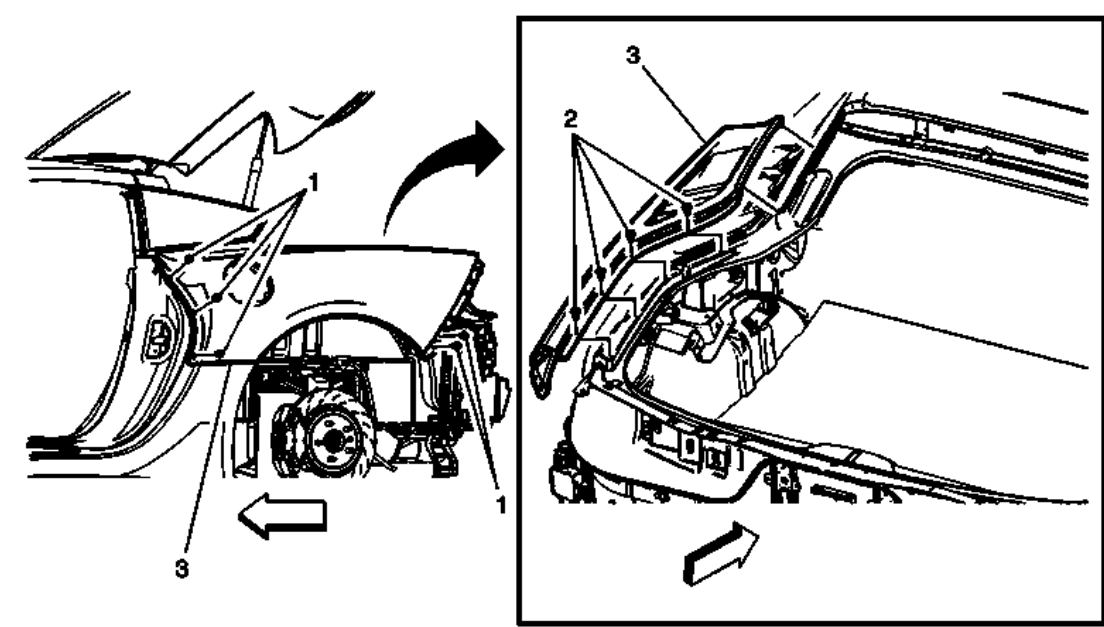


Fig. 26: Quarter Outer Panel - Left Side (Coupe)
Courtesy of GENERAL MOTORS COMPANY

Quarter Outer Panel Replacement - Left Side (Coupe)

Callout	Component Name
Preliminary Procedures	
1. Remove the rear fascia. Refer to <u>Rear Bumper Fascia Replacement</u> .	
2. Remove the fuel tank filler pipe housing. Refer to <u>Fuel Tank Filler Pipe Housing Replacement</u> .	
1	Quarter Panel Bolts (Qty: 5) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 3 (27 lb in)
2	Quarter Panel Upper Bolts (Qty: 4) Tighten 3 (27 lb in)

3

NOTE:

There is adhesive strips below the quarter window and along the top of the quarter outer panel.

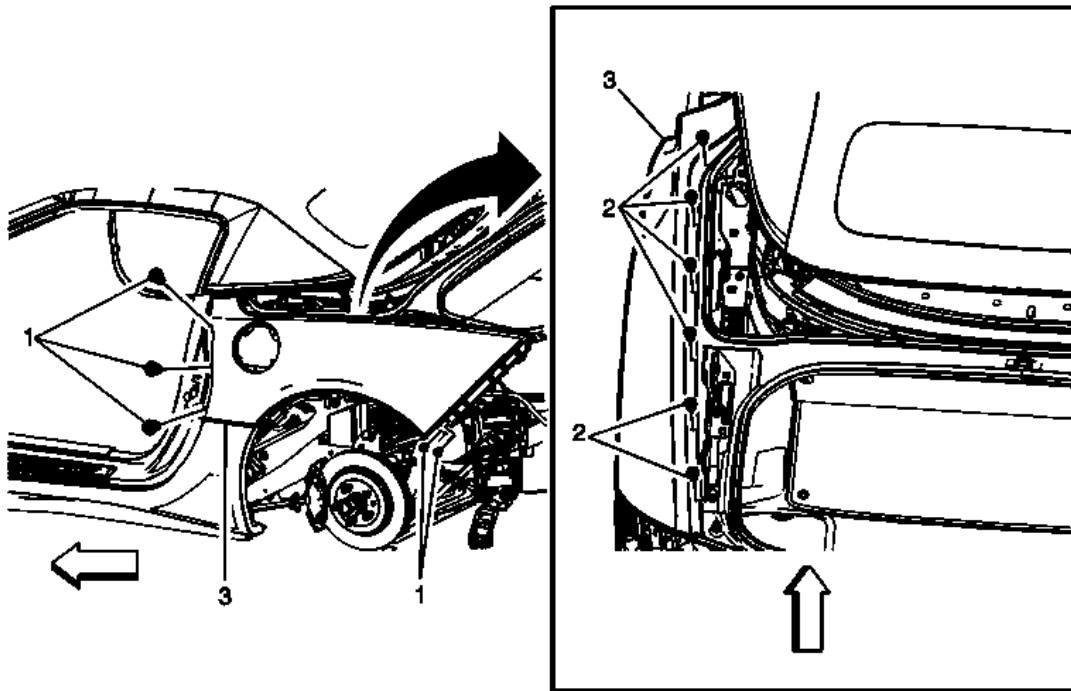
QUARTER OUTER PANEL REPLACEMENT - LEFT SIDE (CONVERTIBLE)

Fig. 27: Quarter Outer Panel - Left Side (Convertible)
Courtesy of GENERAL MOTORS COMPANY

Quarter Outer Panel Replacement - Left Side (Convertible)

Callout	Component Name
Preliminary Procedures	
1. Remove the rear fascia. Refer to <u>Rear Bumper Fascia Replacement</u> .	
2. Remove the fuel tank filler pipe housing. Refer to <u>Fuel Tank Filler Pipe Housing Replacement</u> .	
1	Quarter Panel Bolts (Qty: 5) CAUTION: Refer to <u>Fastener Caution</u> . Tighten 3 (27 lb in)

2	Quarter Panel Upper Bolts (Qty: 6) Tighten 3 (27 lb in)
3	Quarter Panel NOTE: There is adhesive strips below the quarter window and along the top of the quarter outer panel.

ROOF REAR PANEL REPLACEMENT

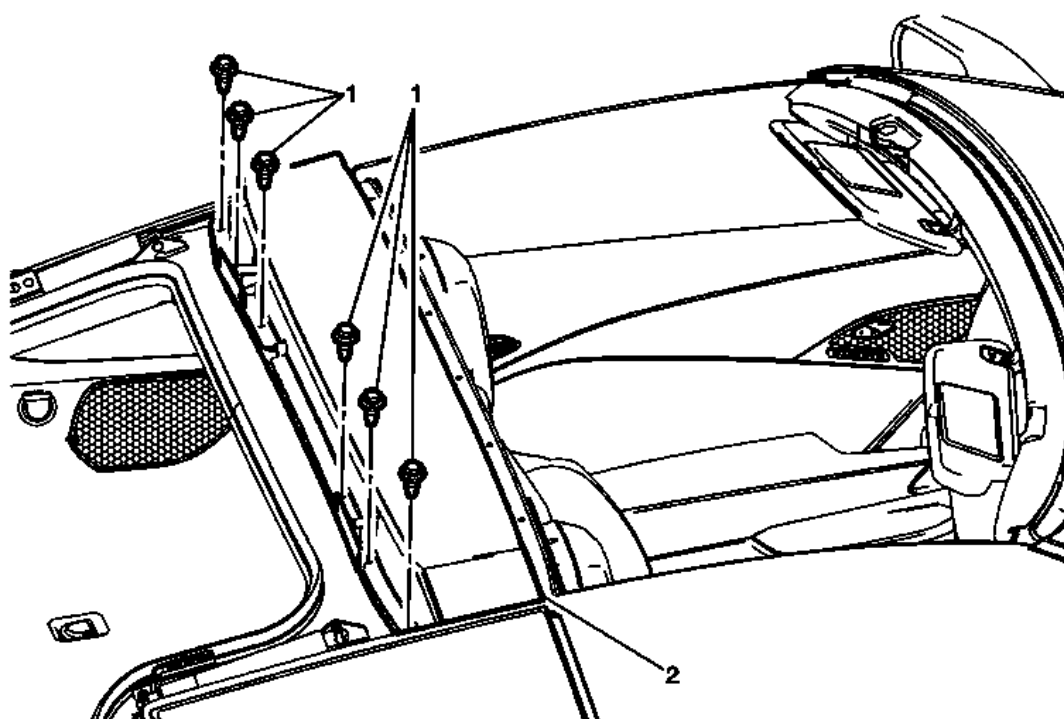


Fig. 28: Roof Rear Panel
Courtesy of GENERAL MOTORS COMPANY

Roof Rear Panel Replacement

Callout	Component Name
Preliminary Procedure	
1. Remove the liftgate. Refer to <u>Liftgate Replacement</u> 2. Remove the roof lift off panel. Refer to <u>Roof Lift Off Panel Replacement</u> 3. Remove the roof lift off panel/window rear weatherstrip retainer. Refer to <u>Roof Lift Off Panel/Window Rear Weatherstrip Retainer Replacement</u>	
	Roof Rear Panel Bolt (Qty: 6)

1	CAUTION: Refer to <u>Fastener Caution</u> . Tighten 3 (27 lb in)
2	Roof Rear Panel

FUEL TANK FILLER DOOR REPLACEMENT

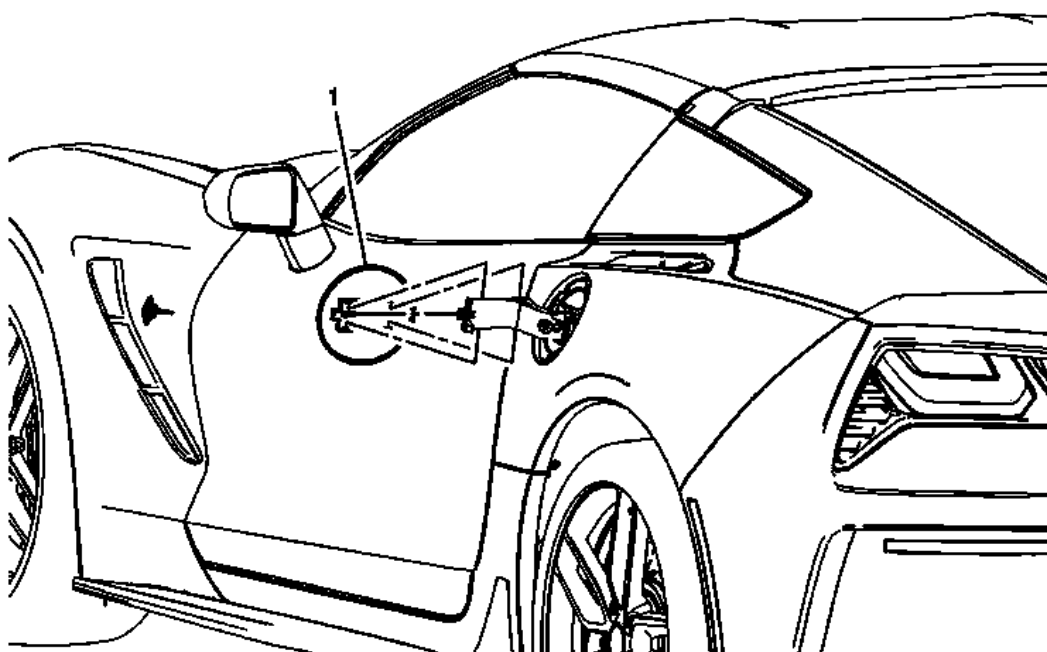


Fig. 29: Fuel Tank Filler Door
Courtesy of GENERAL MOTORS COMPANY

Fuel Tank Filler Door Replacement

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.

FUEL TANK FILLER PIPE HOUSING REPLACEMENT

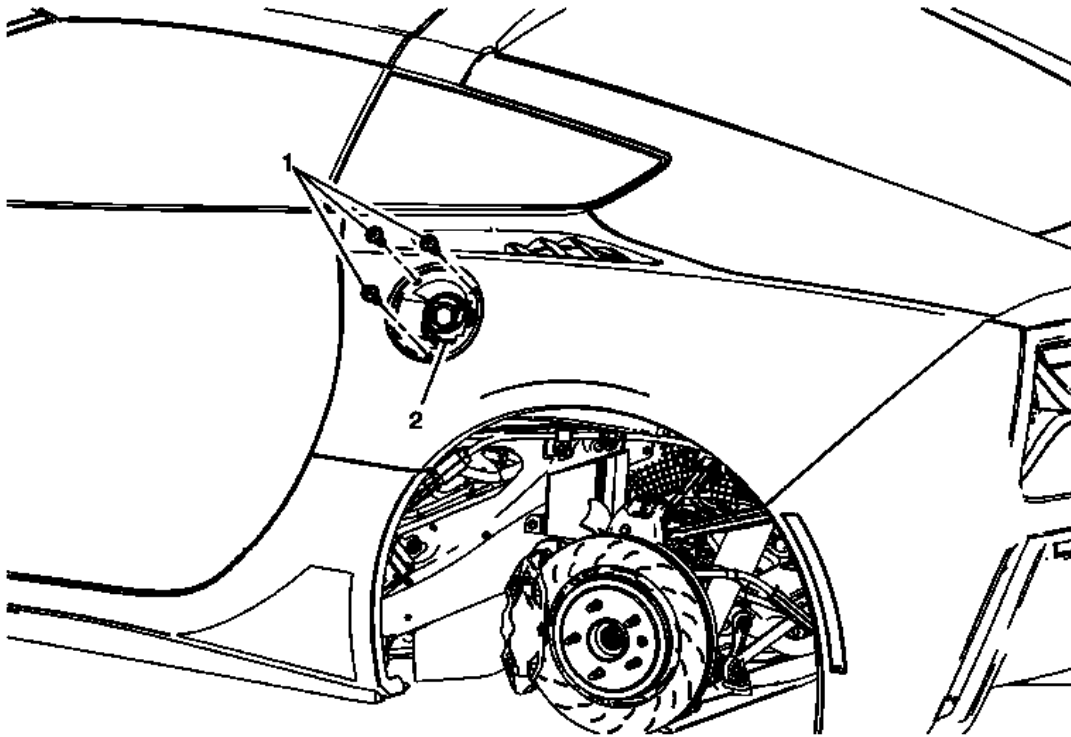


Fig. 30: Fuel Tank Filler Pipe Housing
Courtesy of GENERAL MOTORS COMPANY

Fuel Tank Filler Pipe Housing Replacement

Callout	Component Name
Preliminary Procedures 1. Remove the fuel tank filler door. Refer to Fuel Tank Filler Door Replacement. 2. Remove the left rear wheelhouse liner. Refer to Rear Wheelhouse Liner Replacement. 3. Reposition the fuel tank filler hose. Refer to Fuel Tank Filler Hose Replacement	
1	Fuel Tank Filler Pipe Housing Screws (Qty: 3) CAUTION: Refer to Fastener Caution . Tighten 2.5 (22 lb in)
2	Fuel Tank Filler Pipe Housing Procedure 1. Disconnect the electrical connector from the fuel tank filler door lock actuator.

actuator out through the opening in the body panel.

HOOD STRUT REPLACEMENT

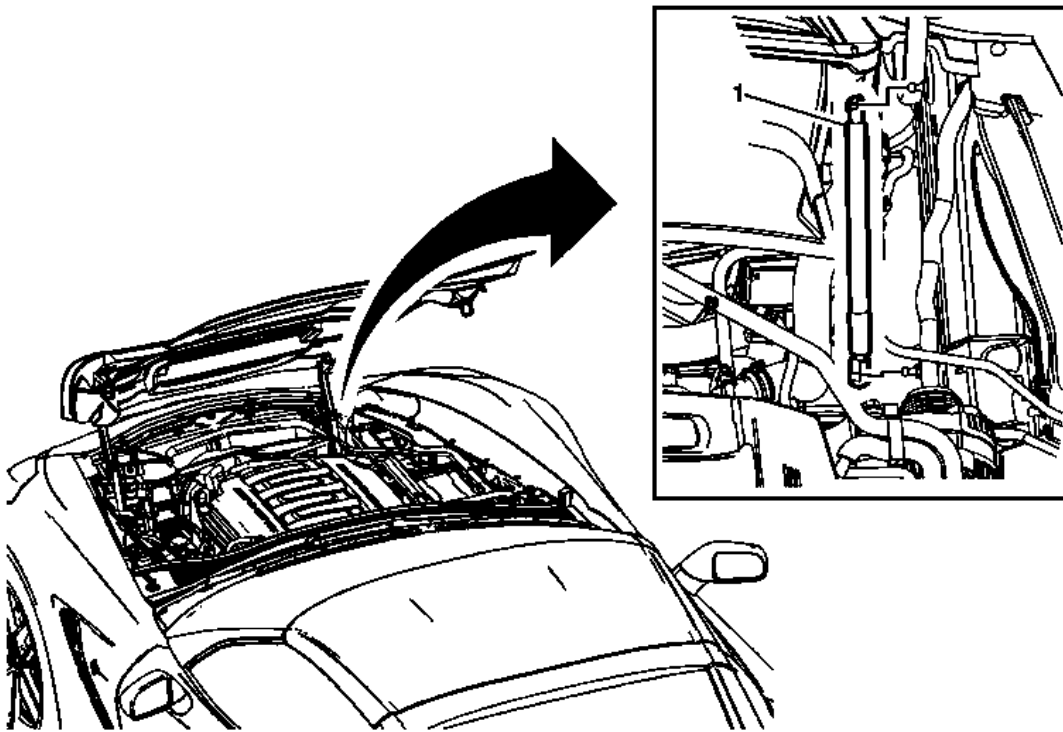


Fig. 31: Hood Strut
Courtesy of GENERAL MOTORS COMPANY

Hood Strut Replacement

Callout	Component Name
1	Hood Strut WARNING: 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. 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. NOTE: Use a small flat-bladed tool to release the metal tabs holding the strut rod to the assist rod ball studs.

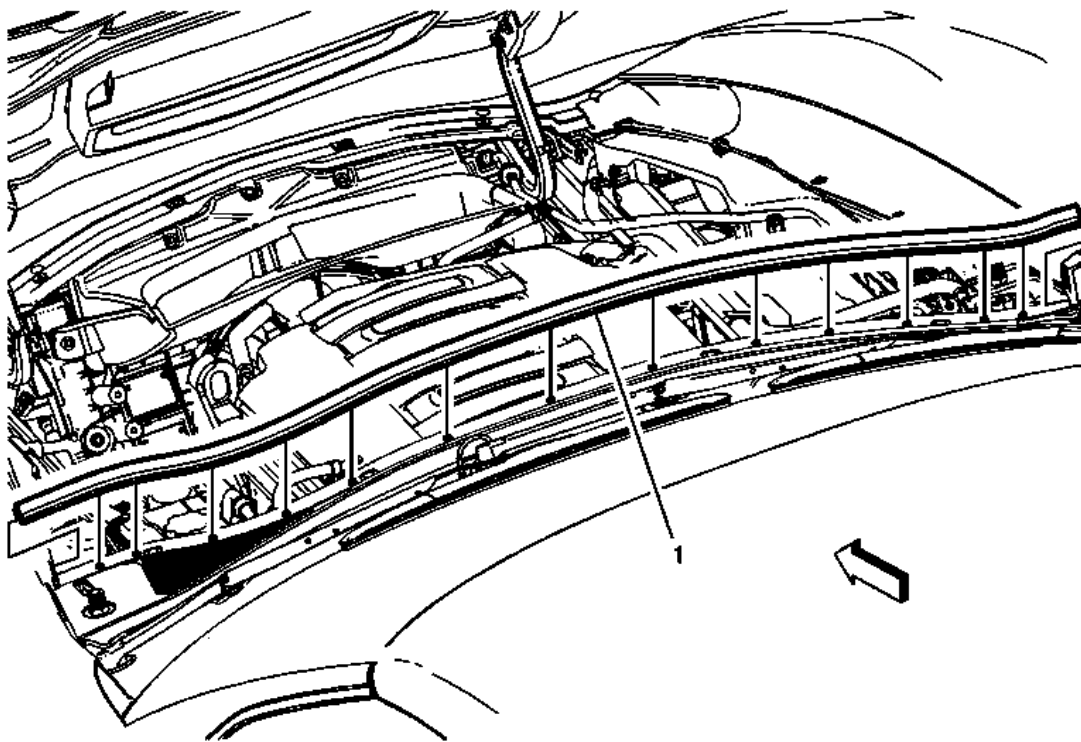


Fig. 32: Hood Rear Seal
 Courtesy of GENERAL MOTORS COMPANY

Hood Rear Seal Replacement

Callout	Component Name
1	Hood Rear Weatherstrip Procedure The hood rear weatherstrip is held in place with 13 plastic retainers that are part of the air inlet grille. Carefully pull the weatherstrip to the right/left to release form the retainers on the air inlet grille.

FRONT COMPARTMENT SIDE SIGHT SHIELD REPLACEMENT - FRONT

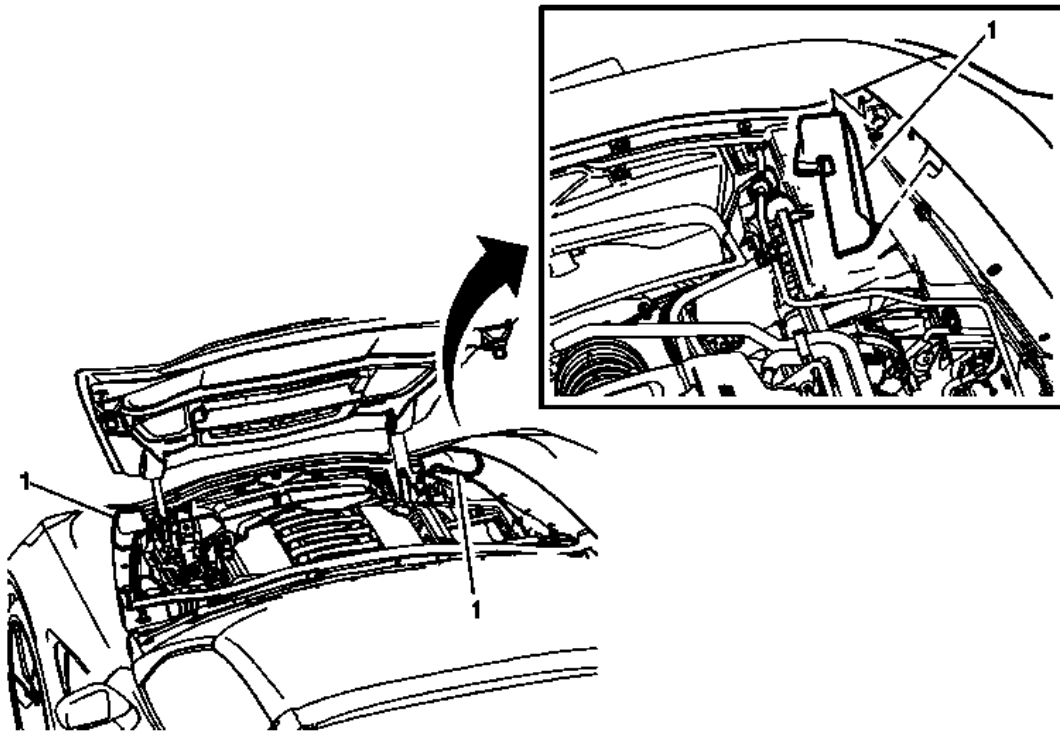


Fig. 33: Front Compartment Side Sight Shield - Front
 Courtesy of GENERAL MOTORS COMPANY

Front Compartment Side Sight Shield Replacement - Front

Callout	Component Name
Preliminary Procedure Open and support the hood.	
1	Front Compartment Side Sight Shield - Front (Qty 2) Procedure Insert a flat bladed tool/trim tool under the rear of the front compartment side sight shield to release the retainer and slide the sight shield rearward and upward to remove.

LIFTGATE STRUT REPLACEMENT

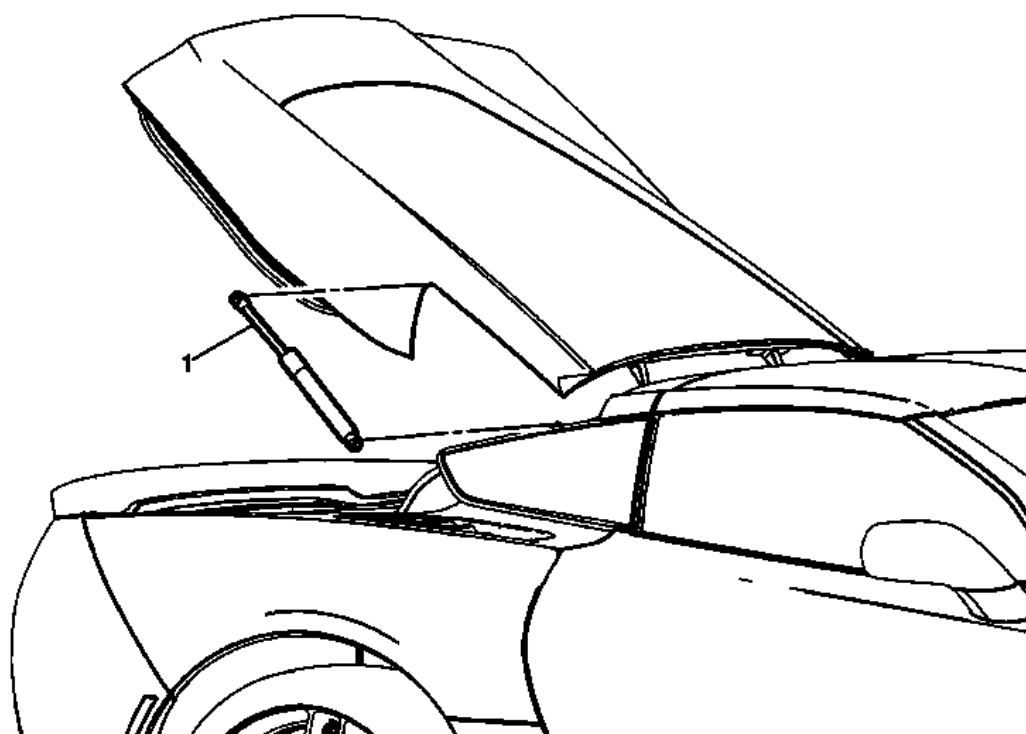


Fig. 34: Liftgate Strut
 Courtesy of GENERAL MOTORS COMPANY

Liftgate Strut Replacement

Callout	Component Name
1	Liftgate Strut Rod WARNING: When a lift gate hold open device is being removed or installed, provide alternate 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 1. Release the locking tabs on the liftgate strut. 2. Ensure the clip is fully seated when rod is reinstalled. If the clip cannot be fully seated, a new rod should be installed.

REAR COMPARTMENT LID STRUT REPLACEMENT

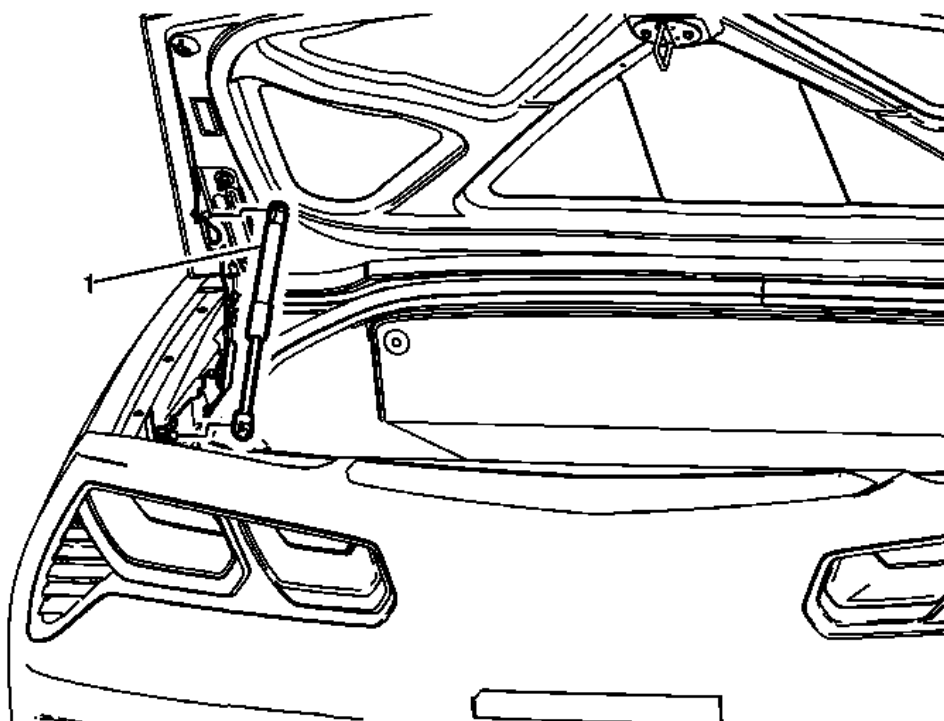


Fig. 35: Rear Compartment Lid Strut
 Courtesy of GENERAL MOTORS COMPANY

Rear Compartment Lid Strut Replacement

Callout	Component Name
WARNING: 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.	
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.	
1	Rear Compartment Lid Strut Procedure 1. Release the locking tabs on the strut. 2. Ensure the clip is fully seated when the rod is reinstalled. If the clip cannot be fully seated, a new rod should be installed.

FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT

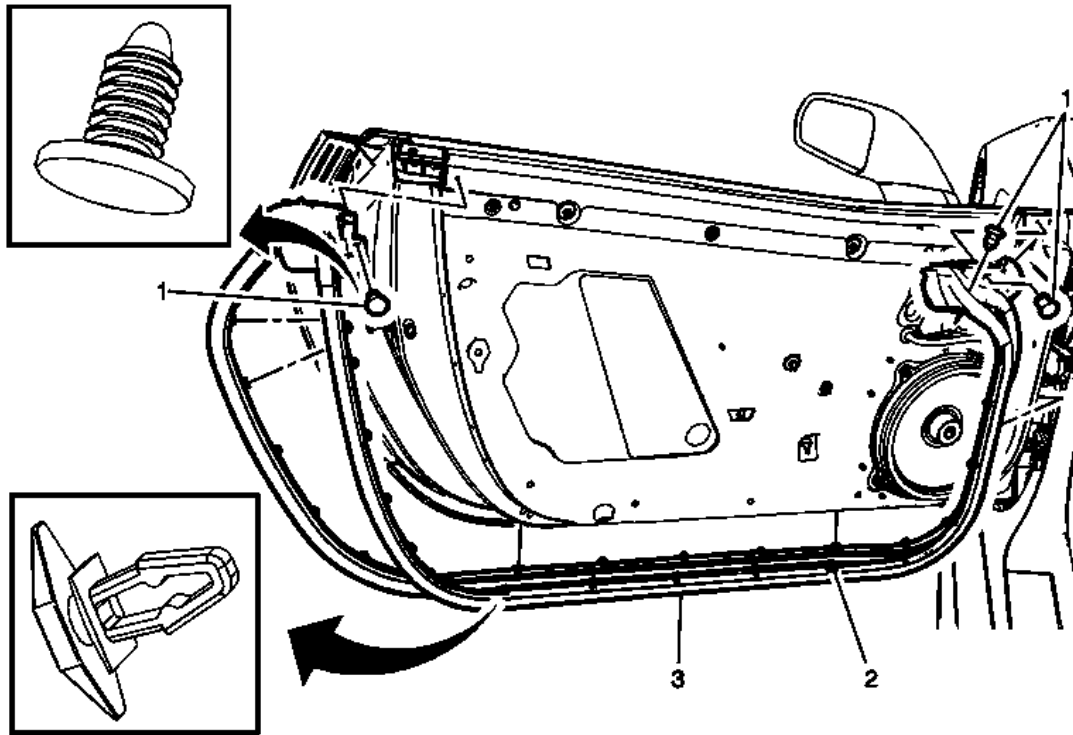


Fig. 36: Front Side Door Weatherstrip
 Courtesy of GENERAL MOTORS COMPANY

Front Side Door Weatherstrip Replacement

Callout	Component Name
Preliminary Procedure	
1. Open the front side door to the full open position. 2. Remove the front side door check link bolt from the body side of vehicle. Refer to Front Side Door Check Link Replacement . 3. Remove the front side door trim panel. Refer to Front Side Door Trim Replacement (Driver Side) , Front Side Door Trim Replacement (Passenger Side) .	
1	Front Side Door Weatherstrip Upper Clip (Qty:3) Procedure Using the appropriate tool, remove the push-in clips from the upper corners of the door.
2	Front Side Door Weatherstrip Clip (Qty:37) Procedure 1. Using the appropriate tool, remove the push-in clips from around the door. 2. Pull the weatherstrip out of the door frame.
	Front Side Door Weatherstrip

3

Ensure that the weatherstrip is fully seated on the door frame.

NOTE:

Inspect the door to ensure a proper seal after the weatherstrip has been replaced.

LIFTGATE WEATHERSTRIP REPLACEMENT

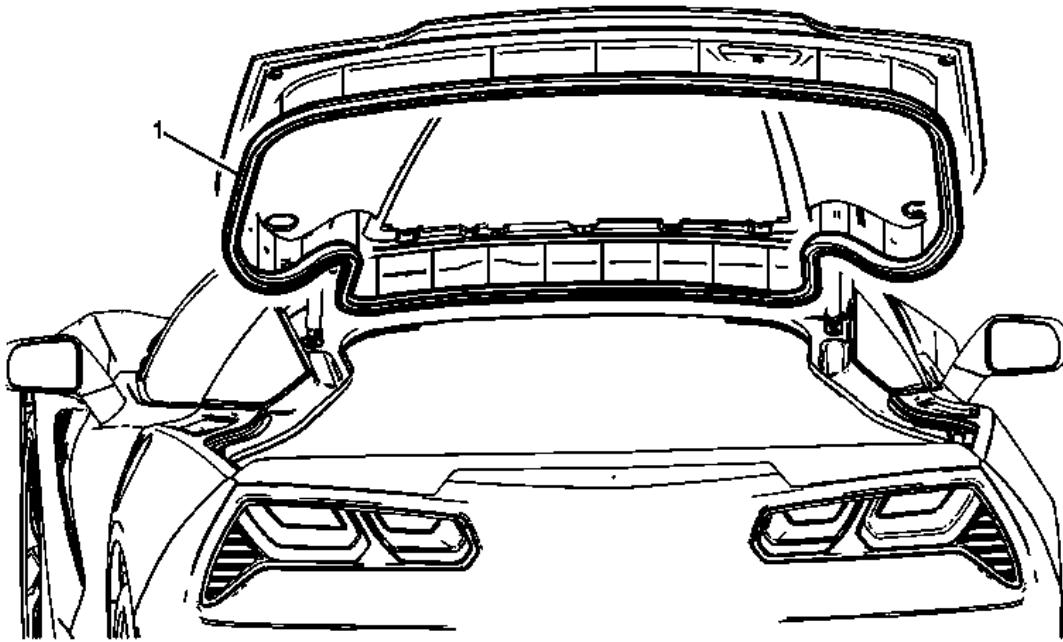


Fig. 37: Liftgate Weatherstrip

Courtesy of GENERAL MOTORS COMPANY

Liftgate Weatherstrip Replacement

Callout	Component Name
1	Liftgate Weatherstrip Procedure Clean the area where the seal will be mounted. Use a suitable solvent with a mixture of 50 percent isopropyl alcohol and 50 percent water by volume or high-flash naphtha.

REAR COMPARTMENT LID WEATHERSTRIP REPLACEMENT

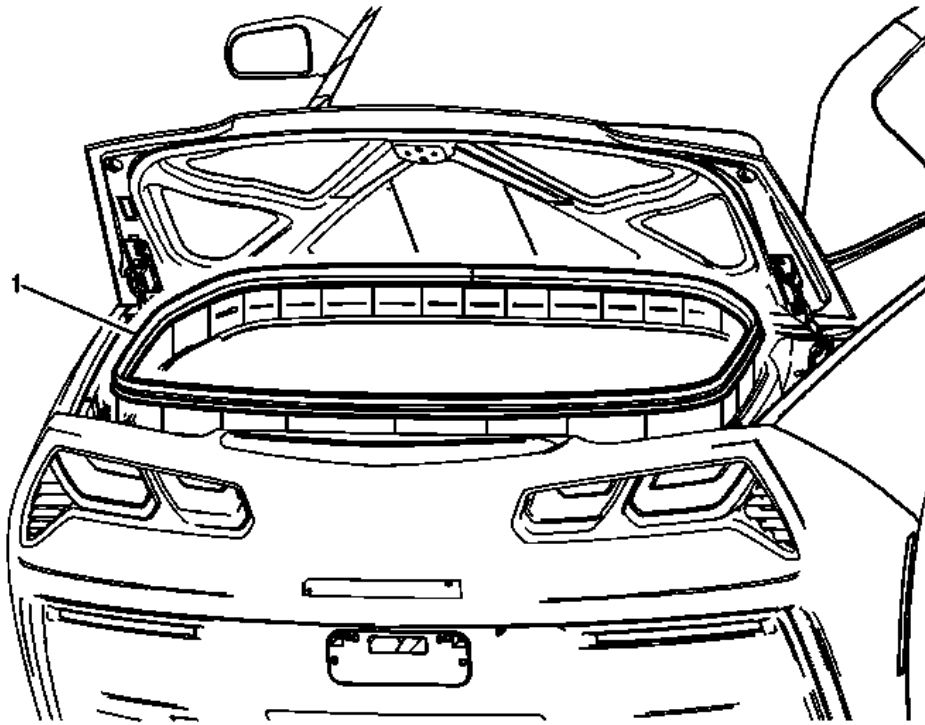


Fig. 38: Rear Compartment Lid Weatherstrip
 Courtesy of GENERAL MOTORS COMPANY

Rear Compartment Lid Weatherstrip Replacement

Callout	Component Name
1	Rear Compartment Lid Weatherstrip Procedure Clean the area where the seal will be mounted. Use a suitable solvent with 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.

Hood Ajar Indicator/Message

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