

2017 ACCESSORIES & EQUIPMENT

Bolted Exterior Body Panels and Closures - Encore, Trax

SPECIFICATIONS

FASTENER SPECIFICATIONS

Reusable Threaded Fastener Tightening Specifications

NOTE:

All fasteners listed in this table can be reused after removal.

Application	Specification
	Metric (English)
Front Bumper Impact Bar Bolt	100 N.m (74 lb ft)
Front End Upper Tie Bar Bolt	9 N.m (80 lb in)
Front End Upper Tie Bar Lower Bolt	24 N.m (18 lb ft)
Front Fender Bolt	9 N.m (80 lb in)
Front Fender Nut	9 N.m (80 lb in)
Front Side Door Check Link Bolt to Body	22 N.m (16 lb ft)
Front Side Door Check Link Nut	10 N.m (89 lb in)
Front Side Door Lower Hinge Bolt to Body	32 N.m (24 lb ft)
Front Side Door Lower Hinge Bolt to Door	25 N.m (18 lb ft)
Front Side Door Upper Hinge Bolt to Body	32 N.m (24 lb ft)
Front Side Door Upper Hinge Bolt to Door	25 N.m (18 lb ft)
Headlamp Mount Panel Bracket Nut	9 N.m (80 lb in)
Hood Hinge Bolt	22 N.m (16 lb ft)
Hood Hinge Nut	22 N.m (16 lb ft)
Hood Primary and Secondary Latch Bolt	22 N.m (16 lb ft)
Liftgate Hinge Bolt	43.1 N.m (32 lb ft)
Rear Side Door Check Link Bolt to Body	22 N.m (16 lb ft)
Rear Side Door Check Link Nut	9 N.m (80 lb in)
Rear Side Door Lower Hinge Bolt to Body	32 N.m (24 lb ft)
Rear Side Door Lower Hinge Bolt to Door	25 N.m (18 lb ft)
Rear Side Door Upper Hinge Bolt to Body	32 N.m (24 lb ft)
Rear Side Door Upper Hinge Bolt to Door	25 N.m (18 lb ft)

SCHEMATIC WIRING DIAGRAMS

HOOD LATCH WIRING SCHEMATICS (BUICK)

Hood Ajar Switch (Buick)

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. 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 \(Buick\)](#)[Hood Latch Schematics \(Chevrolet\)](#)

COMPONENT CONNECTOR END VIEWS - INDEX (ENCORE), COMPONENT CONNECTOR END VIEWS - INDEX (TRAX)

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. 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 10 Ω or greater**
 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.
 - **If less than 10 Ω**
3. Ignition ON.
4. Test for greater than 10 V between the signal circuit terminal B and ground.
 - **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.
 - If less than infinite resistance, repair the short to ground on the circuit.
 - If Infinite resistance.
 3. 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 K9 Body Control Module.
 - **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.

- **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.

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

- **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 Ω**

8. All OK.

Repair Instructions

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

- [Hood Primary and Secondary Latch Replacement \(Chevrolet\)](#)[Hood Primary and Secondary Latch Replacement \(Buick\)](#)
- [Control Module References](#) for body control module replacement, programming, and setup.

DTC P257D-P257F: ENGINE HOOD SWITCH

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 P257D

Engine Hood Switch Performance

DTC P257E

Engine Hood Switch Circuit Low Voltage

DTC P257F

Engine Hood Switch Circuit High Voltage

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Signal - Terminal B	B3006 02	B3006 04	B3006 01	-
Signal - Terminal A	P257E	P257F	P257F	-
Low Reference	-	B3006 04, P257F	-	-

Circuit/System Description

The engine control module applies 5 V to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. The hood ajar switch contains a multiplexed resistor. This resistor will vary the voltage seen by the engine control module by pulling down the applied voltage based on the position of the switch.

Conditions for Running the DTC

Ignition ON.

Conditions for Setting the DTC

P257D

The engine control module detects a plausibility error between the observed hood ajar position and the reported hood ajar position.

P257E

The engine control module detects a short to ground in the hood ajar signal input to the engine control module.

P257F

The engine control module detects a short to voltage or an open/high resistance in the hood ajar signal input to the engine control module.

Action Taken When the DTC Sets

Engine start/stop function will be disabled.

Conditions for Clearing the DTC

DTCs P257D, P257E, and P257F are Type B DTCs.

Reference Information

Schematic Reference

Immobilizer Schematics (Buick) Immobilizer Schematics (Chevrolet)

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX (ENCORE) COMPONENT CONNECTOR END VIEWS - INDEX (TRAX)

Description and Operation

Hood Ajar Indicator 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 Position 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. It may take up to 2 min for all vehicle systems to power down.
2. Test for less than 10 Ω between the low reference circuit terminal C and ground.
 - **If 10 Ω or greater**
 1. Ignition OFF, disconnect the harness connector at the K20 Engine Control Module.
 2. Test for less than 2 Ω in the low reference 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.
 - **If less than 10 Ω**
3. Ignition ON.
4. Verify DTC P257F is set as current
 - **If DTC P257F is not set as current**
 1. Ignition OFF, disconnect the harness connector at the K20 Engine 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, replace the K20 Engine Control Module.
- **If DTC P257F is set as current**
5. Install a 5 A fused jumper wire between the signal circuit terminal A and ground, ignition ON
6. Verify DTC P257E is set as current.
 - **If DTC P257E is not set as current**
 1. Ignition OFF, disconnect the harness connector at the K20 Engine Control Module.
 2. Test for less than 1 V between the signal circuit and ground.
 - If 1 V or greater, repair the short to voltage on the circuit.
 - If less than 1 V
 3. 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.
 - **If DTC P257E is set as current**
7. Test or replace the B55 Hood Ajar Switch.

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.
 - **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.
 - **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.
 - **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.
 - **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.
 - **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.
 - **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.
 - **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.
 - **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.
 - **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.
 - **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.

- **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 Ω**

8. All OK.

Repair Instructions

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

- [Hood Primary and Secondary Latch Replacement \(Chevrolet\)](#)[Hood Primary and Secondary Latch Replacement \(Buick\)](#).
- [Control Module References](#) for engine 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 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. 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 (Buick)Hood Latch Schematics (Chevrolet)

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX (ENCORE) COMPONENT CONNECTOR END VIEWS - INDEX (TRAX)

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

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. 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 10 Ω or greater**
 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.
 - **If less than 10 Ω**
3. Ignition ON.
4. Test for greater than 10 V between the signal circuit terminal B and ground.
 - **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.
 - If less than infinite resistance, repair the short to ground on the circuit.
 - If Infinite resistance.
 3. 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 K9 Body Control Module.
 - **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.
 - **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.
2. Test for 2738-3350 Ω between the signal terminal A and the signal terminal B with the hood latch in the closed position.
 - **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2738-3350 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 2080-2545 Ω**

Replace the B55 Hood Ajar Switch.

- **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.

- **If not between 658-806 Ω**

Replace the B55 Hood Ajar Switch.

- **If between 658-806 Ω**

8. All OK.

Repair Instructions

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

- [Hood Primary and Secondary Latch Replacement \(Chevrolet\)](#)[Hood Primary and Secondary Latch Replacement \(Buick\)](#)
- [Control Module References](#) for body control module replacement, programming, and setup.

REPAIR INSTRUCTIONS

FRONT END UPPER TIE BAR REPLACEMENT

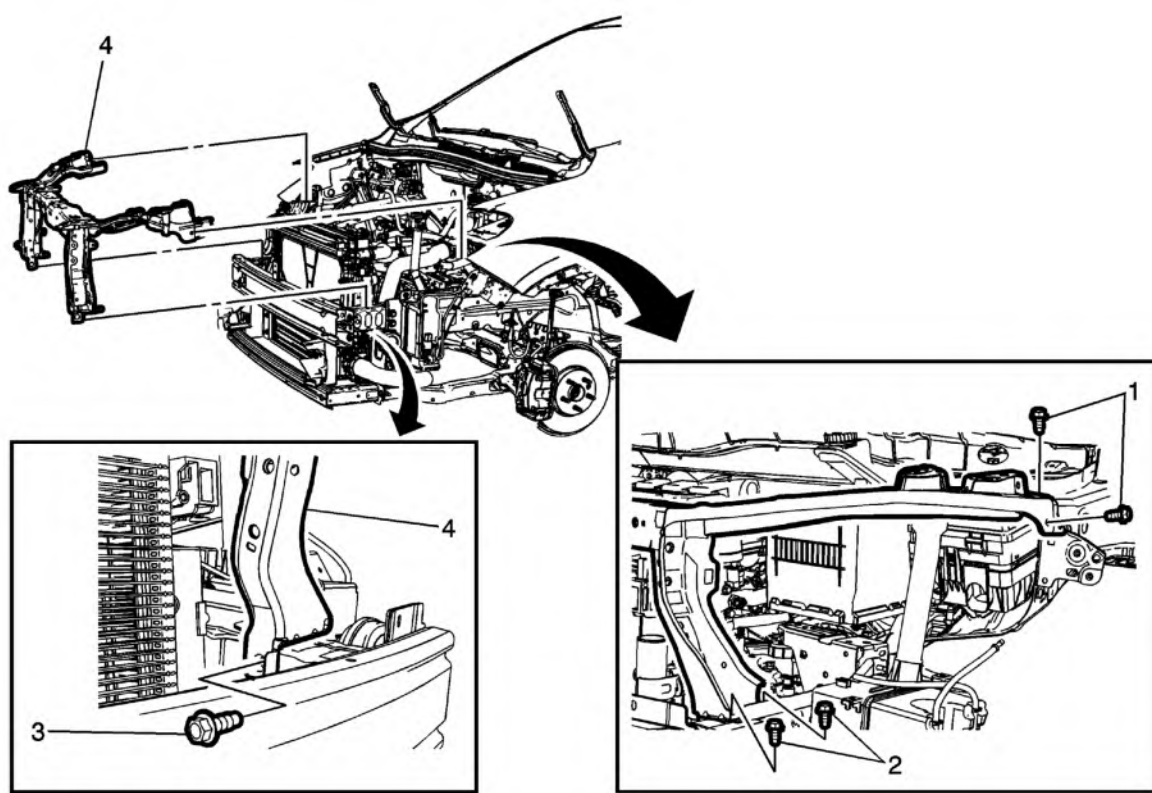


Fig. 3: Front End Upper Tie Bar

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	
1.	Disable the SIR system. Refer to SIR Disabling and Enabling .
2.	Remove the front bumper fascia. Refer to Front Bumper Fascia Replacement (Chevrolet) , Front Bumper Fascia Replacement (Buick) .
3.	Remove the headlamps. Refer to Headlamp Replacement (SBM) , Headlamp Replacement (T4L, Buick) , Headlamp Replacement (SBV, Chevrolet) .
4.	Reposition the radiator surge tank from the upper tie bar. Refer to Radiator Surge Tank Replacement (LUV, 2H0) , Radiator Surge Tank Replacement (LE2) .
5.	Reposition the front compartment forward lamp harness relay center.
6.	Remove the air cleaner inlet duct. Refer to Air Cleaner Inlet Duct Replacement (2H0) .
7.	Remove the windshield washer solvent container filler tube. Refer to Windshield Washer Solvent Container Filler Tube Replacement .
8.	Remove the radiator upper air baffle. Refer to Radiator Air Upper Baffle and Deflector Replacement (2H0) , Radiator Air Upper Baffle and Deflector Replacement (LE2 LUV) .
9.	Reposition the power steering reservoir from the upper tie bar if equipped. Refer to Power Steering Fluid Reservoir Replacement .
10.	Remove the hood primary and secondary latch. Refer to Hood Primary and Secondary Latch Replacement (Chevrolet) , Hood Primary and Secondary Latch Replacement (Buick) .
11.	Remove the hood hold-open rod. Refer to Hood Hold-Open Rod Replacement .
12.	Remove the radiator upper bracket. Refer to Radiator Upper Bracket Replacement (2H0) , Radiator Upper Bracket Replacement (LUV) , Radiator Upper Bracket Replacement (LE2) .
13.	Remove the front bumper fascia bracket. Refer to Front Bumper Fascia Bracket Replacement .

Callout	Component Name
1	Front End Upper Tie Bar Bolt (Qty: 6) CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Front End Upper Tie Bar Lower Bolt (Qty: 4) Tighten 22 N.m (16 lb ft)
3	Front Bumper Impact Bar Bolt (Qty: 2) Tighten 100 N.m (74 lb ft)
4	Front End Upper Tie Bar Procedure 1. Disconnect the electrical connectors/harnesses as needed. 2. Disconnect the hood latch cable from the tie bar. 3. Transfer the front end inflatable restraint discriminating sensor. Refer to Airbag Front End Discriminating Sensor Replacement (Buick), Airbag Front End Discriminating Sensor Replacement (Chevrolet). 4. Transfer any parts as needed.

HOOD PRIMARY LATCH RELEASE CABLE REPLACEMENT (CHEVROLET)

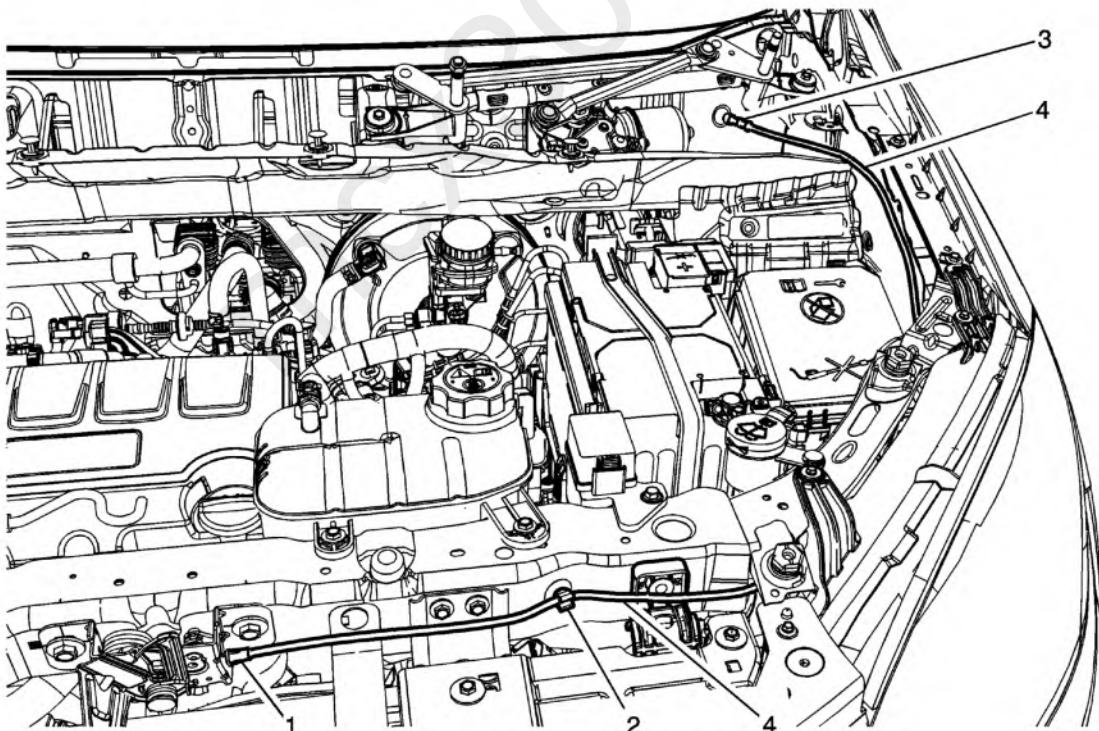


Fig. 4: Hood Primary Latch Release Cable (Trax).

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front bumper fascia opening upper cover. Refer to Front Bumper Fascia Opening Upper Cover Replacement .	

Callout	Component Name
1	Hood Primary Latch Cable Procedure Disconnect the hood primary latch release cable from the primary hood latch.
2	Hood Primary Latch Release Cable Retainer Procedure Disconnect the hood primary latch release cable from the 3 hood primary latch release cable retainers. One on the top of the upper tie bar and two on the underside.
3	Hood Primary Latch Release Cable Grommet
4	Hood Primary Latch Release Cable Procedure Disconnect the hood primary latch release cable handle from the hood latch cable bracket.

REAR SIDE DOOR CHECK REPLACEMENT

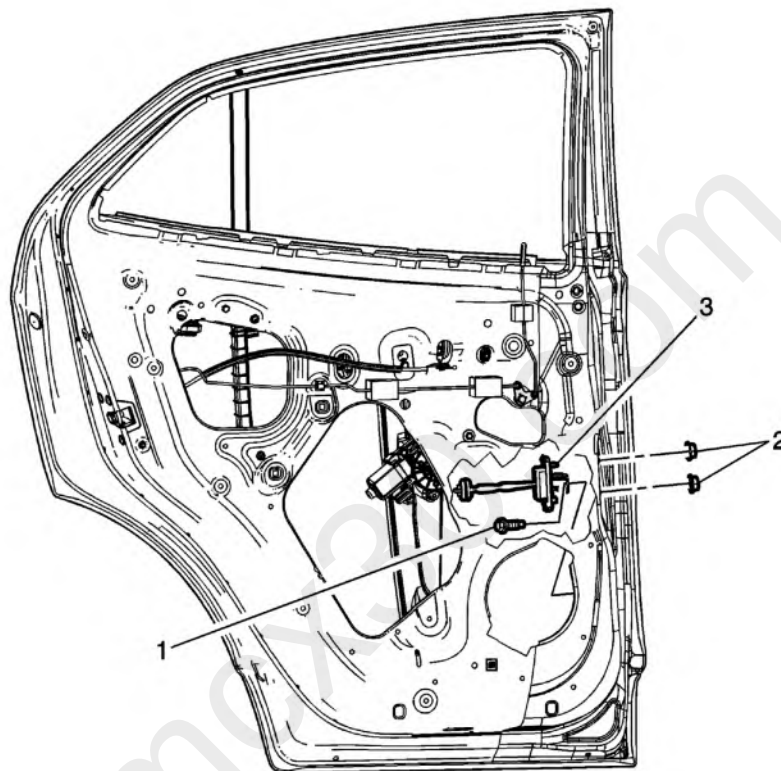


Fig. 5: Rear Side Door Check

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Move the window to the full up position. 2. Remove the rear side door trim panel. Refer to Rear Side Door Trim Replacement . 3. Remove the rear door speaker. Refer to Radio Front Side Door Speaker Replacement .	
1	Rear Side Door Check Link Bolt to Body CAUTION: Refer to Fastener Caution Tighten 22 N.m (16 lb ft)

Callout	Component Name
2	Rear Side Door Check Link Nut (Qty: 2) Procedure Remove the water deflector. Tighten 9 N.m (80 lb in)
3	Rear Side Door Check Link Assembly

FRONT SIDE DOOR ADJUSTMENT

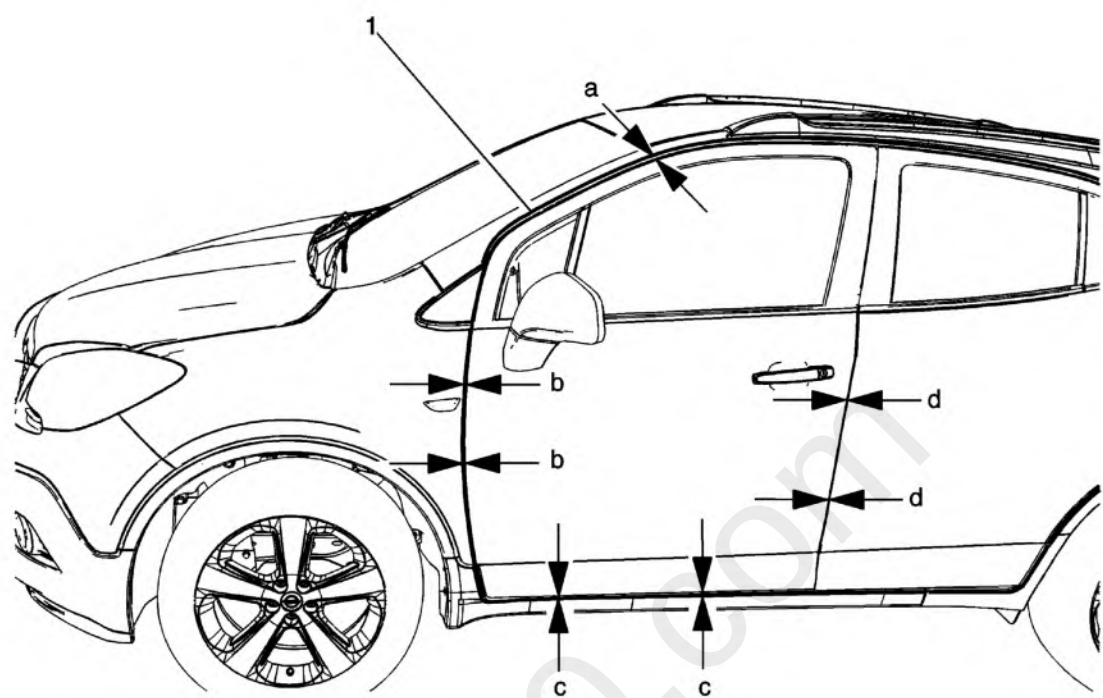


Fig. 6: Front Side Door Adjustment Points
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front wheelhouse liner if the hinge to body needs to be adjusted. Refer to Front Wheelhouse Liner Replacement (Chevrolet) , Front Wheelhouse Liner Replacement (Buick) .	
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Callout	Component Name
1	Front Side Door CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the front side door hinge bolt (Qty: 4) to adjust the front side door. 2. Adjust the front side door in order to obtain an even gap between the front side door and the roof, the rear door, the rocker panel and the front fender and so that the front side door is flush with the roof, the rear door, the rocker panel and the front fender. Adjustment • Front side door to roof (a) 4.5 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.18 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) • Front side door to front fender (b) 3.5 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 0.75$ mm (0.14 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.03$ in) • Front side door to rocker panel (c) 5.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.20 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) • Front side door to rear door (d) 3.5 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 0.75$ mm (0.14 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.03$ in) Tighten 25 N.m (18 lb ft)

FRONT SIDE DOOR REPLACEMENT

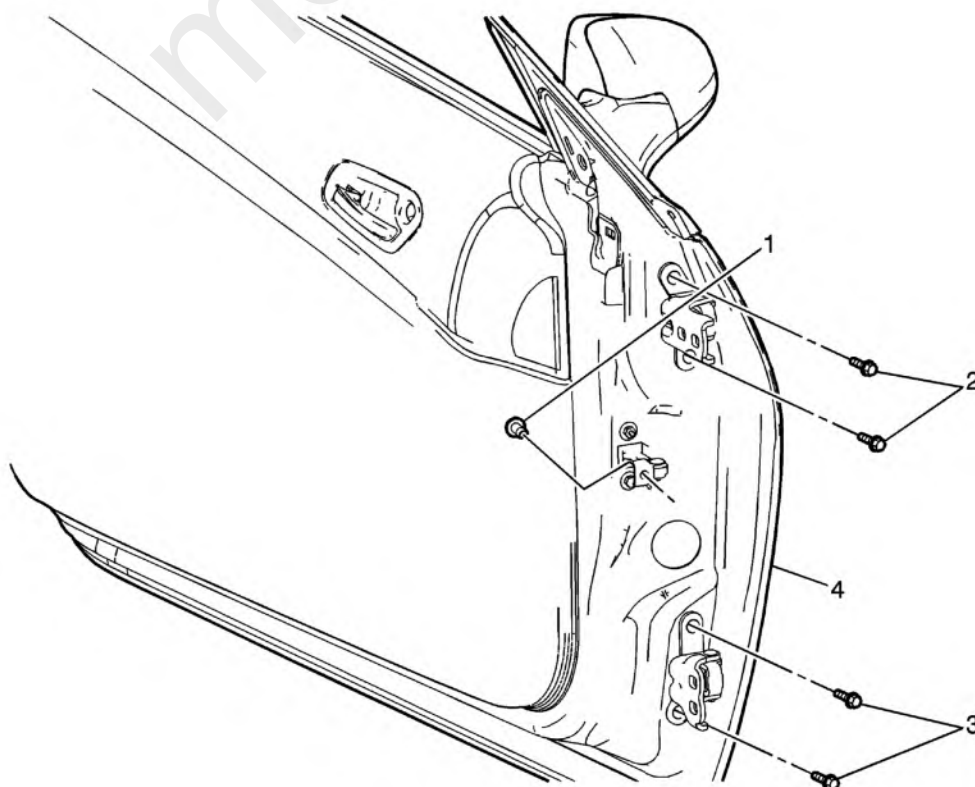


Fig. 7: Identifying Front Side Door Hinge bolts
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
WARNING: Refer to SIR Warning . Preliminary Procedures 1. Mark the location of the hinge before removing the bolts with a grease pencil. 2. Remove the front wheel house liner. Refer to Front Wheelhouse Liner Replacement (Chevrolet) , Front Wheelhouse Liner Replacement (Buick) .	
1	Front Side Door Check Link Bolt to Body CAUTION: Refer to Fastener Caution . Procedure 1. Remove the water deflector. 2. Disconnect the door electrical connector. 3. Support the door before removing the hinge bolts. 4. With an assistant, remove the door. 5. After the door has been removed, ensure that the dome lamp is off. If the dome lamp is on remove the fuse. Tighten 22 N.m (16 lb ft)
2	Front Side Door Upper Hinge Bolt to Door (Qty: 2) Tighten 25 N.m (18 lb ft)
3	Front Side Door Lower Hinge Bolt to Door (Qty: 2) Tighten 25 N.m (18 lb ft)
4	Front Side Door Assembly Procedure 1. When replacing the door it is necessary to transfer all of the internal components. 2. If the door striker needs adjust. Refer to Front Side Door Lock Striker Adjustment . 3. Front door adjustment. Refer to Front Side Door Adjustment . NOTE: Water test the door area after replacing the door to ensure no leaks.

REAR SIDE DOOR ADJUSTMENT

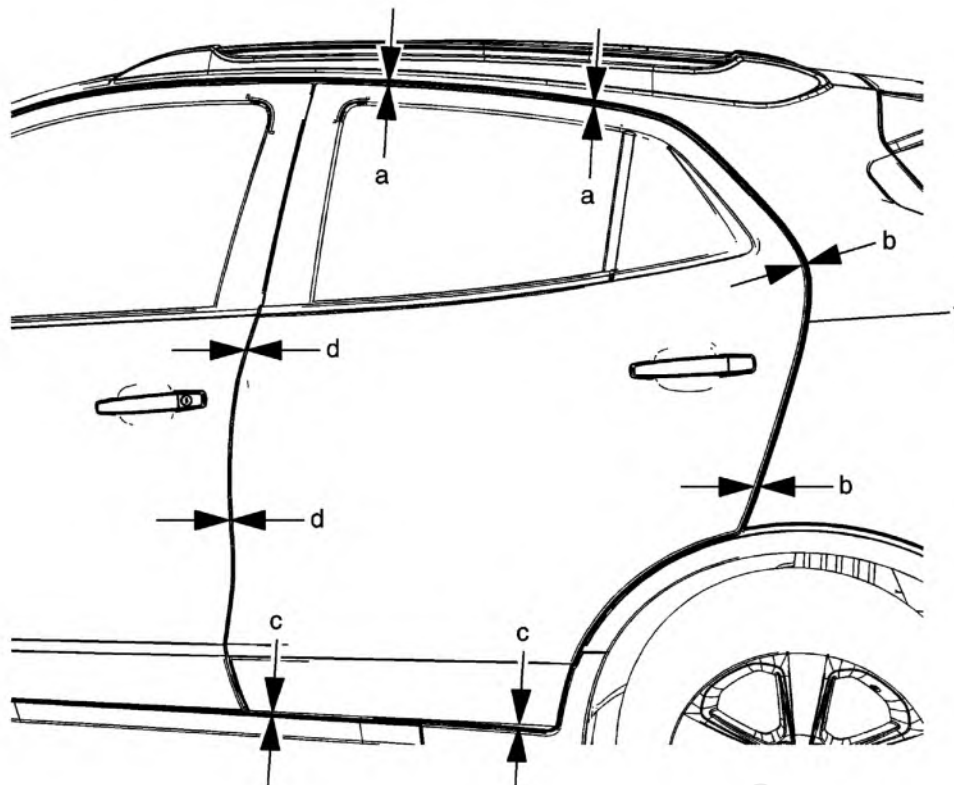


Fig. 8: Rear Side Door Adjustment Points
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Side Door CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the rear door hinge bolt (Qty: 4) to adjust the rear door. 2. Adjust the rear door in order to obtain an even gap between the rear door and the roof, the quarter outer panel, the rocker panel and the front side door and so that the rear door is flush with the roof, the quarter outer panel, the rocker panel and the front side door. Adjustment • Rear side door to roof (a) 4.5 mm $\tilde{A}$, $\hat{A} \pm 1.0$ mm (0.18 in $\tilde{A}$, $\hat{A} \pm 0.04$ in) • Rear side door to quarter outer panel (b) 3.8 mm $\tilde{A}$, $\hat{A} \pm 0.75$ mm (0.15 in $\tilde{A}$, $\hat{A} \pm 0.03$ in) • Rear side door to rocker panel (c) 5.0 mm $\tilde{A}$, $\hat{A} \pm 1.0$ mm (0.20 in $\tilde{A}$, $\hat{A} \pm 0.04$ in) • Rear side door to front side door (d) 3.5 mm $\tilde{A}$, $\hat{A} \pm 0.75$ mm (0.14 in $\tilde{A}$, $\hat{A} \pm 0.03$ in) Tighten 25 N.m (18 lb ft)

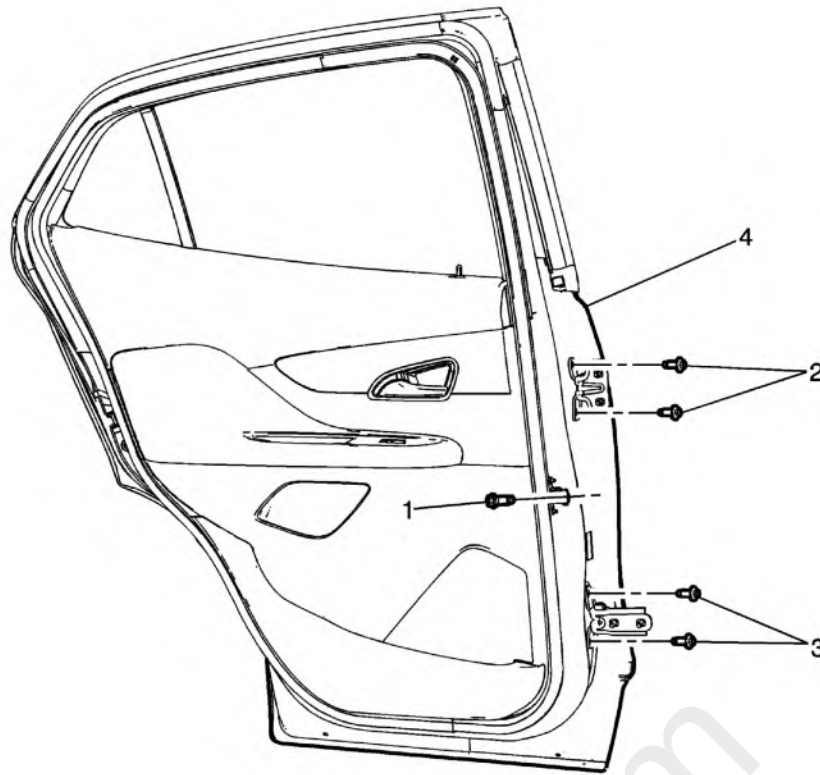


Fig. 9: View Rear Side Door

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Side Door Check Link Bolt to Body WARNING: Refer to SIR Warning . CAUTION: Refer to Fastener Caution . Procedure 1. Mark the location of the hinge before removing the bolts with a grease pencil. 2. Remove the water deflector. 3. Disconnect the door electrical connector. 4. Support the door before removing the hinge bolts. 5. With an assistant, remove the door. 6. After the door has been removed, ensure that the dome lamp is off. If the dome lamp is on remove the fuse. Tighten 22 N.m (16 lb ft)
2	Rear Side Door Hinge Bolt to Door (Qty: 2) Tighten 25 N.m (18 lb ft)
3	Rear Side Door Hinge Bolt to Door (Qty: 2) Tighten 25 N.m (18 lb ft)

Callout	Component Name
4	Rear Side Door Assembly Procedure 1. When replacing the door it is necessary to transfer all of the internal components. 2. If the door striker needs adjust. Refer to Rear Side Door Lock Striker Adjustment . 3. Rear door adjustment. Refer to Rear Side Door Adjustment. NOTE: Water test the door area after replacing the door to ensure no leaks.

FRONT FENDER REPLACEMENT

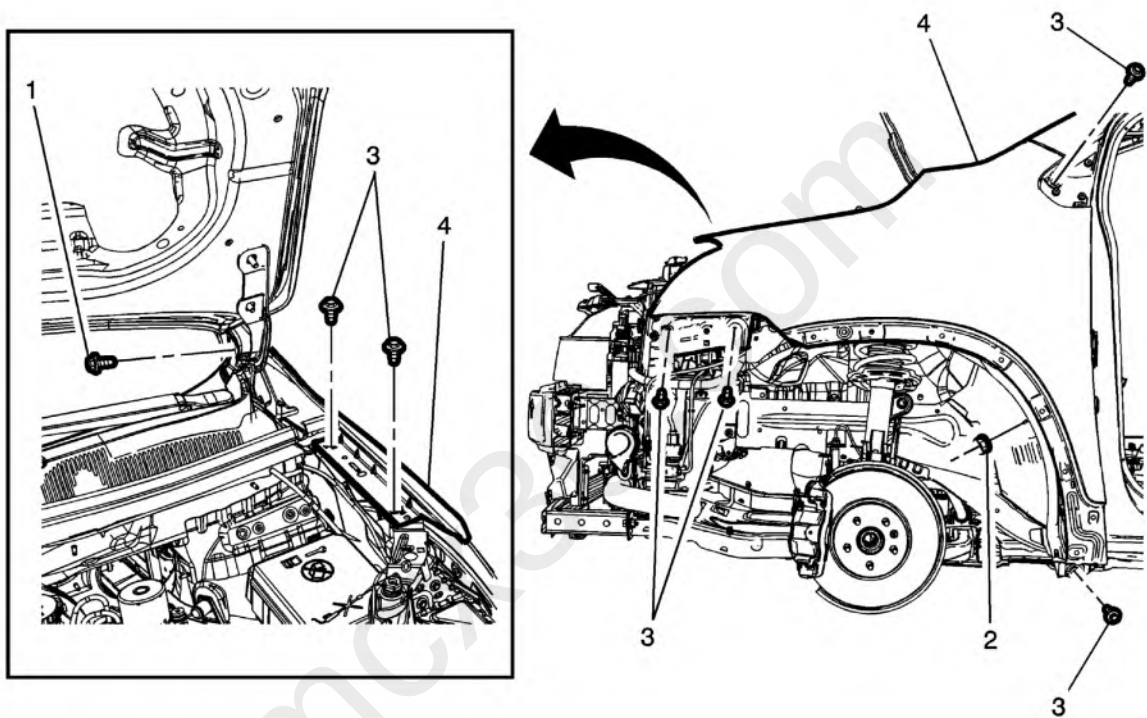


Fig. 10: Front Fender
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name

Callout	Component Name
Preliminary Procedures 1. Remove the front bumper fascia. Refer to Front Bumper Fascia Replacement (Chevrolet) Front Bumper Fascia Replacement (Buick) . 2. Remove the front bumper fascia guide. Refer to Front Bumper Fascia Guide Replacement . 3. Remove the headlamp. Refer to Headlamp Replacement (SBM) Headlamp Replacement (T4L, Buick) Headlamp Replacement (SBV, Chevrolet) . 4. Remove the rocker panel front molding from the fender area only. Refer to Rocker Panel Front Molding Replacement , remove the retaining screw, 2 clips from the inside and 2 clips from beneath. 5. Remove the front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement (Chevrolet) Front Wheelhouse Liner Replacement (Buick) . 6. Remove the front fender insulator. Refer to Front Fender Insulator Replacement (Chevrolet) Front Fender Insulator Replacement (Buick) . 7. Remove the body side upper front applique. Refer to Body Side Upper Front Applique Replacement . 8. Remove the air inlet grille panel extension. Refer to Air Inlet Grille Panel Extension Replacement . 9. Reposition the hood rear weatherstrip at the fender area only. Refer to Hood Rear Weatherstrip Replacement (Chevrolet) Hood Rear Weatherstrip Replacement (Buick) .	
1	Front Fender Bolt 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 Bolt (Qty: 7) Tighten 9 N.m (80 lb in)
4	Front Fender Procedure 1. Disconnect the front side turn signal lamp connector, if equipped. 2. Transfer parts as needed.

LIFTGATE ADJUSTMENT (CHEVROLET)

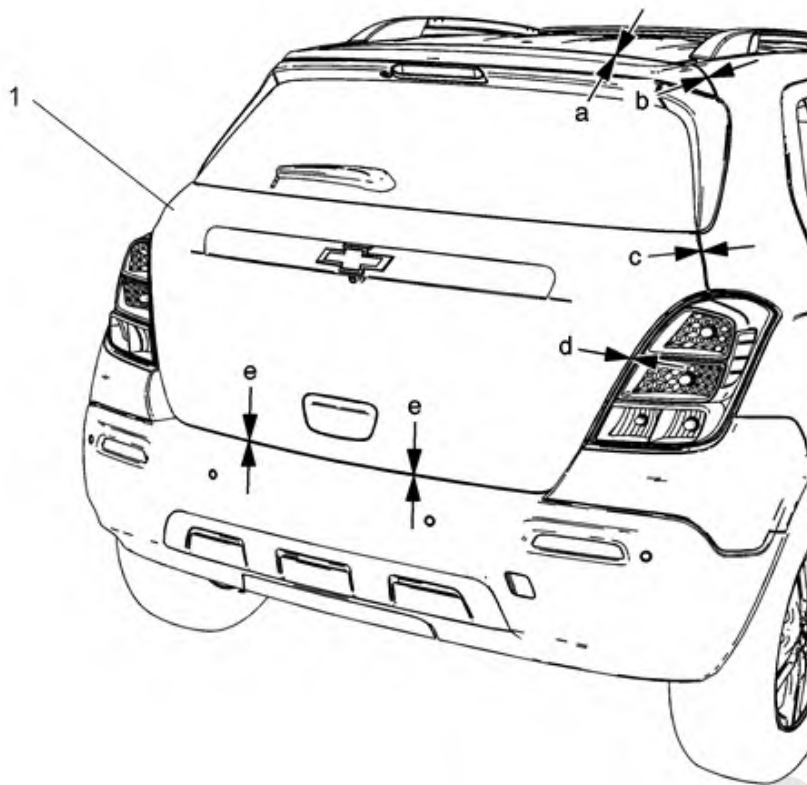


Fig. 11: Liftgate Adjustment Points (Trax)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Liftgate CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the 4 liftgate hinge bolts to adjust the liftgate. 2. Adjust the liftgate in order to obtain an even gap between the liftgate and the roof, the quarter outer panel, the tail lamp and rear bumper fascia and so that the liftgate is flush with the roof, the quarter outer panel, the tail lamp and rear bumper fascia. Adjustment: • Liftgate to roof (a) 5.5 mm $\tilde{\Delta}\pm 1.0$ mm (0.22 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to quarter outer panel (b) 4.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.16 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to quarter outer panel (c) 4.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.16 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to rear bumper fascia (d) 3.5 mm $\tilde{\Delta}\pm 1.0$ mm (0.14 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to rear bumper fascia (e) 5.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.20 in $\tilde{\Delta}\pm 0.04$ in) Tighten 25 N.m (18 lb ft)

LIFTGATE ADJUSTMENT (BUICK)

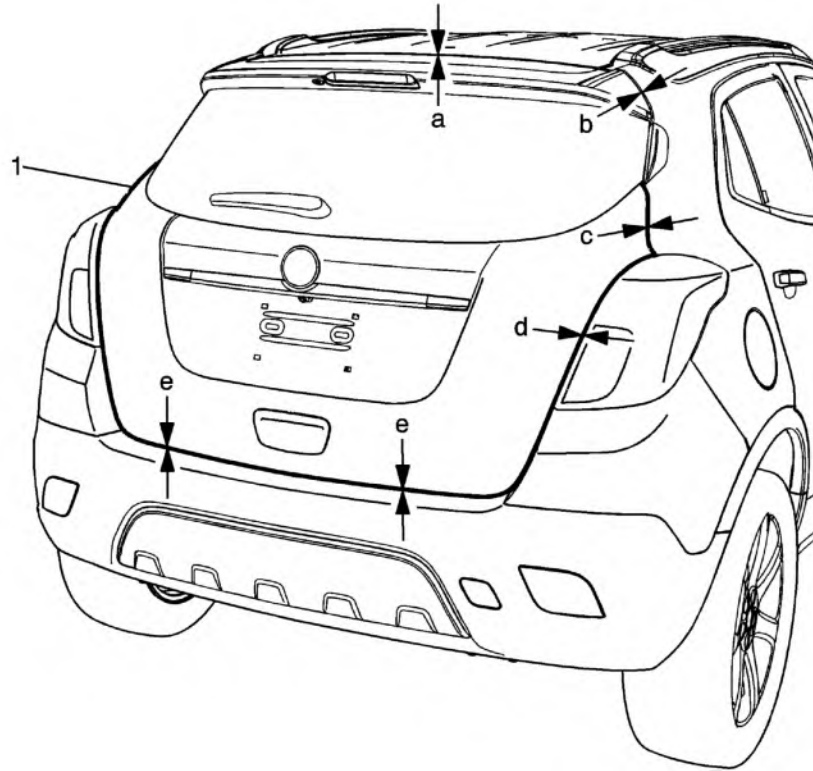


Fig. 12: Liftgate Adjustment Points (Encore)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Liftgate CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the 4 liftgate hinge bolts to adjust the liftgate. 2. Adjust the liftgate in order to obtain an even gap between the liftgate and the roof, the quarter outer panel, the tail lamp and rear bumper fascia and so that the liftgate is flush with the roof, the quarter outer panel, the tail lamp and rear bumper fascia. Adjustment: • Liftgate to roof (a) 5.5 mm $\tilde{\Delta}\pm 1.0$ mm (0.22 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to quarter outer panel (b) 4.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.16 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to quarter outer panel (c) 4.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.16 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to rear bumper fascia (d) 3.5 mm $\tilde{\Delta}\pm 1.0$ mm (0.14 in $\tilde{\Delta}\pm 0.04$ in) • Liftgate to rear bumper fascia (e) 5.0 mm $\tilde{\Delta}\pm 1.0$ mm (0.20 in $\tilde{\Delta}\pm 0.04$ in) Tighten 25 N.m (18 lb ft)

LIFTGATE REPLACEMENT

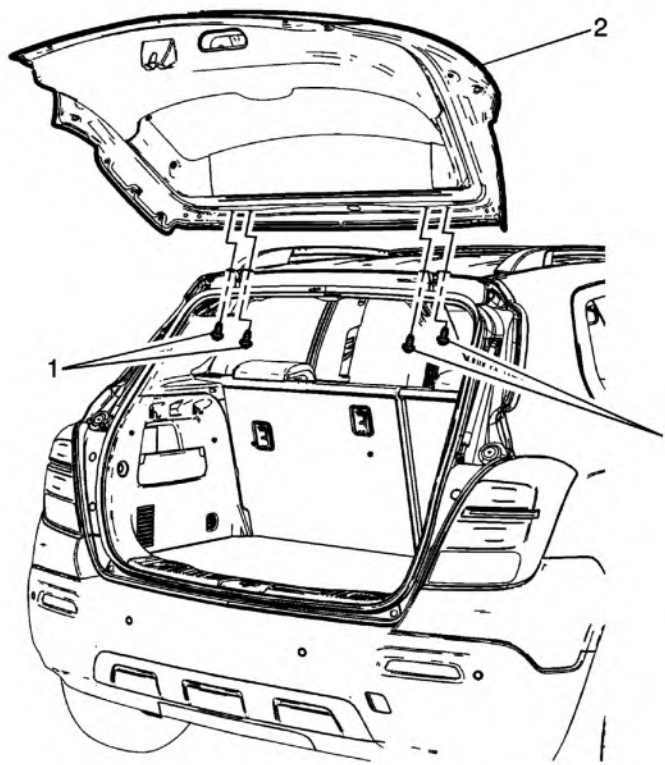


Fig. 13: Liftgate

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Use a grease pencil to mark the liftgate hinge position. 2. Remove the liftgate upper center trim finish panel. Refer to Liftgate Upper Center Trim Finish Panel Replacement 3. Disconnect the electrical connectors and rear washer hose. 4. Disconnect the liftgate struts. Refer to Liftgate Strut Replacement.	
1	Liftgate Hinge Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 25 N.m (18 lb ft)
2	Liftgate Procedure 1. Remove the liftgate from the vehicle with aid of an assistant. 2. Transfer parts as needed. 3. Adjust the liftgate if needed. Refer to Liftgate Adjustment (Chevrolet)Liftgate Adjustment (Buick).

FRONT SIDE DOOR WIRING HARNESS REPLACEMENT

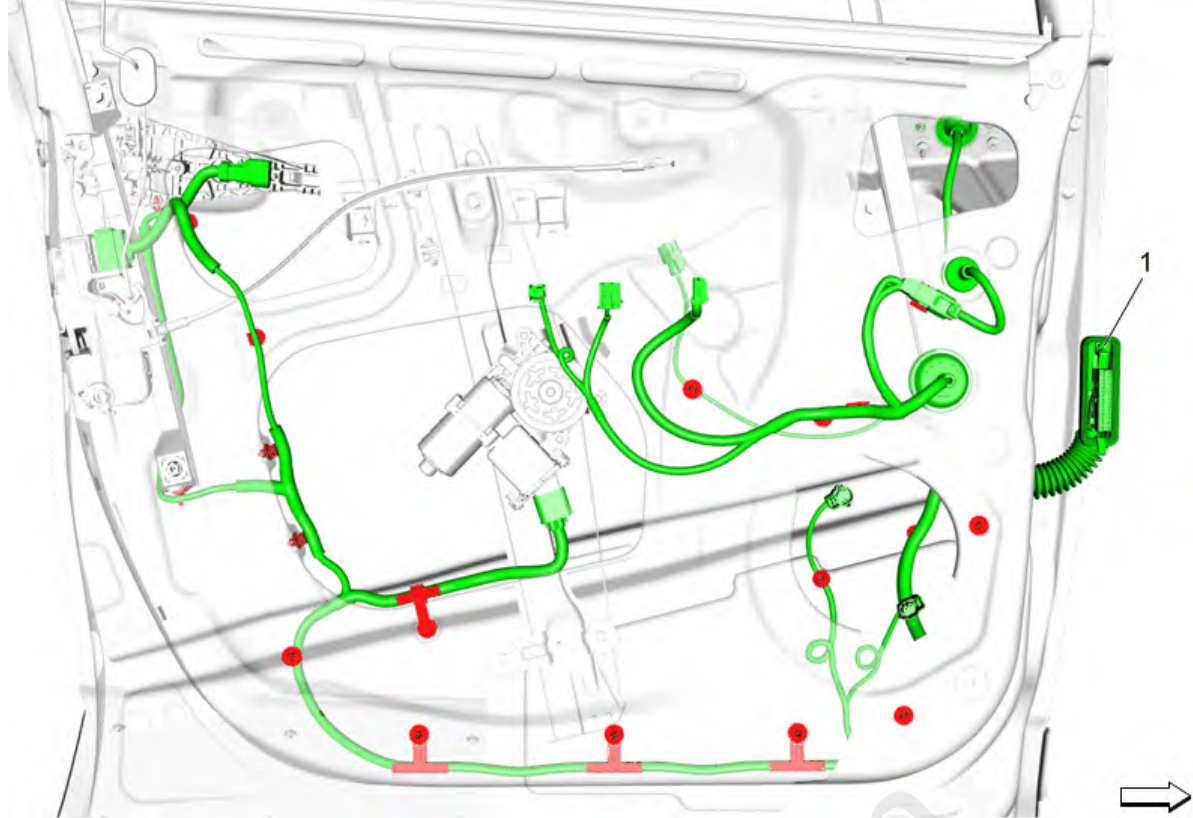


Fig. 14: Front Side Door Wiring Harness
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures Radio Front Side Door Speaker Replacement - Remove the water deflector.	
1	Front Side Door Wiring Harness Procedure Disconnect all electrical connectors.

REAR SIDE DOOR WIRING HARNESS REPLACEMENT



Fig. 15: Rear Side Door Wiring Harness
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. <u>Radio Rear Side Door Speaker Replacement</u> 2. Remove the water deflector.	
1	Rear Side Door Wiring Harness Procedure Disconnect all electrical connectors.

HOOD PRIMARY LATCH RELEASE CABLE HANDLE REPLACEMENT

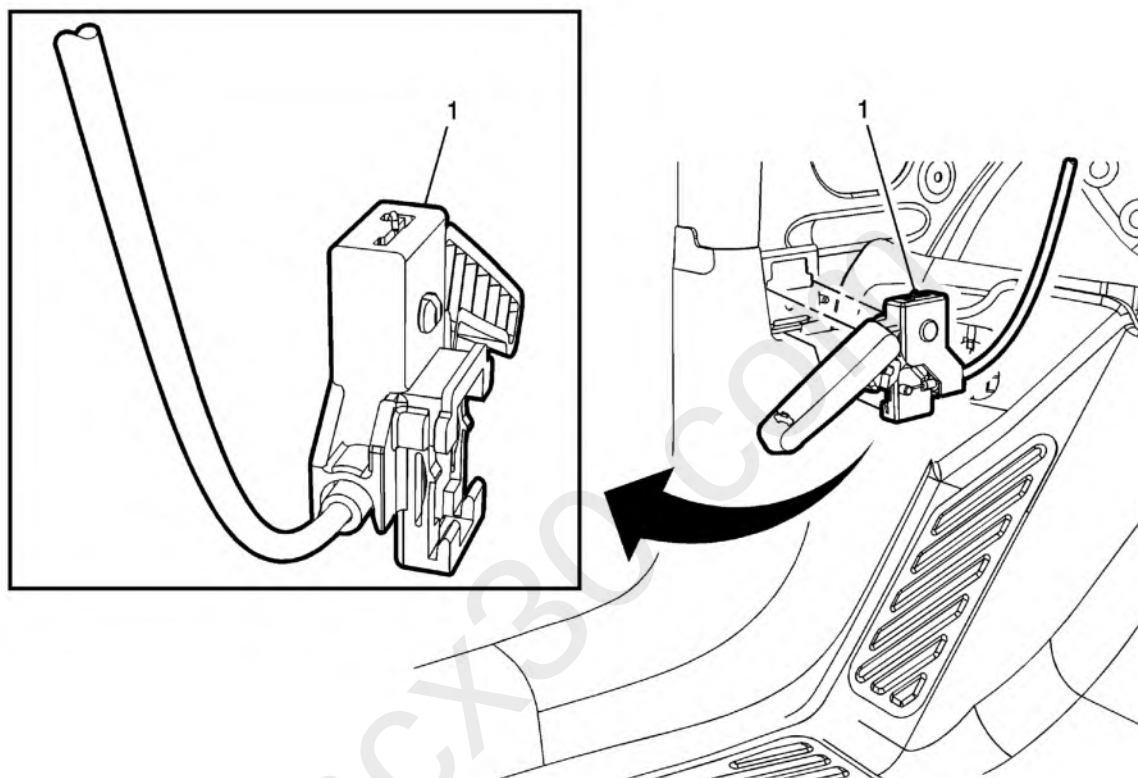


Fig. 16: Hood Primary Latch Release Cable Handle
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Primary Latch Release Cable Handle Procedure 1. Press the release cable handle downward and pull outward to release the retainers from the instrument panel bracket. 2. Disconnect the hood release cable from the hood release handle.

FRONT SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT

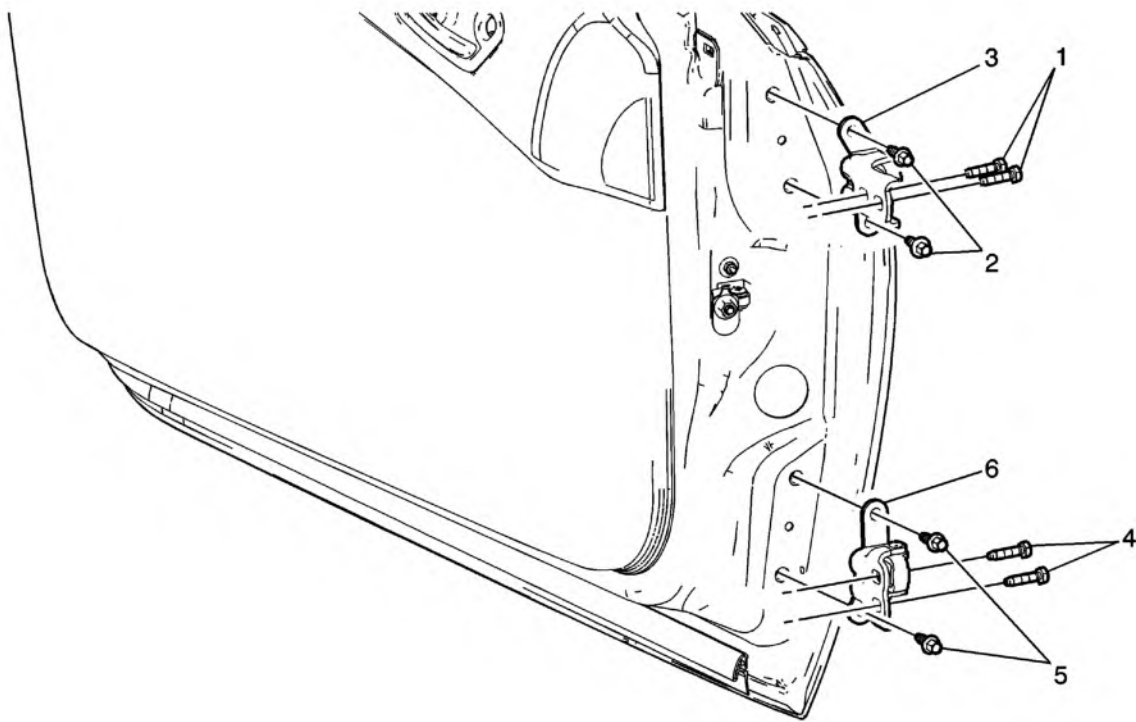


Fig. 17: View Of Front Side Door Hinges
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Side Door Upper Hinge to Body Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Procedures 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. Remove the front wheelhouse liner. Refer to Front Wheelhouse Liner Replacement (Chevrolet) Front Wheelhouse Liner Replacement (Buick) . 4. Support the door before removing the hinge bolts. Tighten 32 N.m (24 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 32 N.m (24 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 Procedure If the door striker needs adjust. Refer to Front Side Door Lock Striker Adjustment .

HOOD HINGE REPLACEMENT

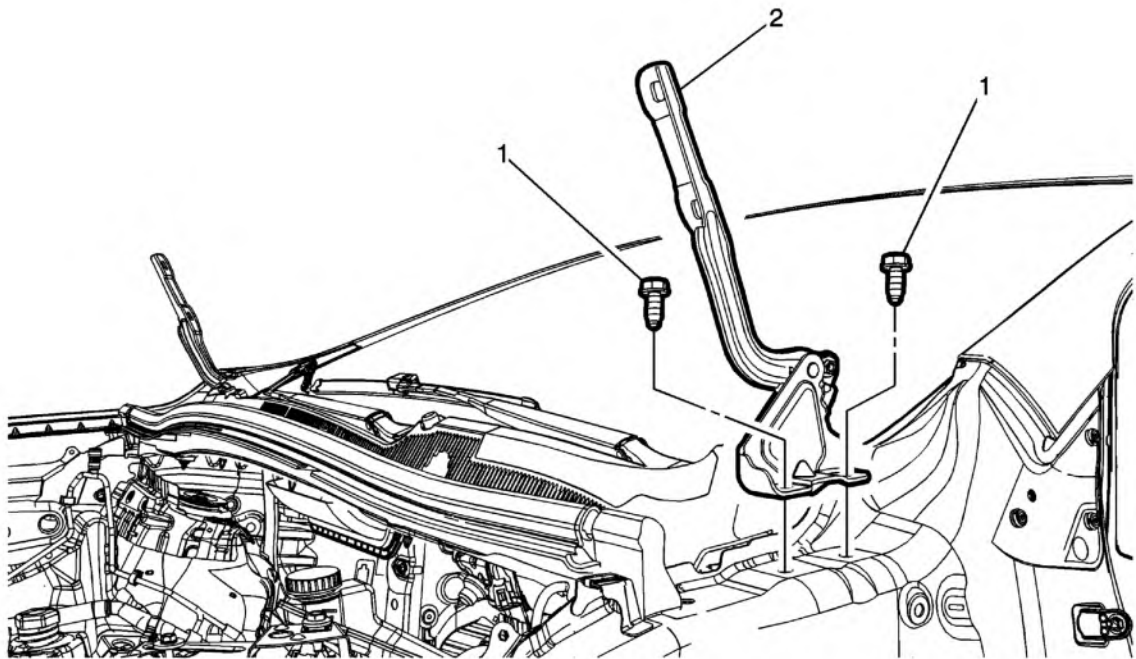


Fig. 18: Hood Hinge

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the hood. Refer to Hood Replacement (Chevrolet) Hood Replacement (Buick) . 2. Remove the front fender. Refer to Front Fender Replacement .	
1	Hood Hinge Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Hood Hinge Procedure Adjust the hood and hinge if needed. Refer to Hood Adjustment (Chevrolet) Hood Adjustment (Buick) .

LIFTGATE HINGE REPLACEMENT

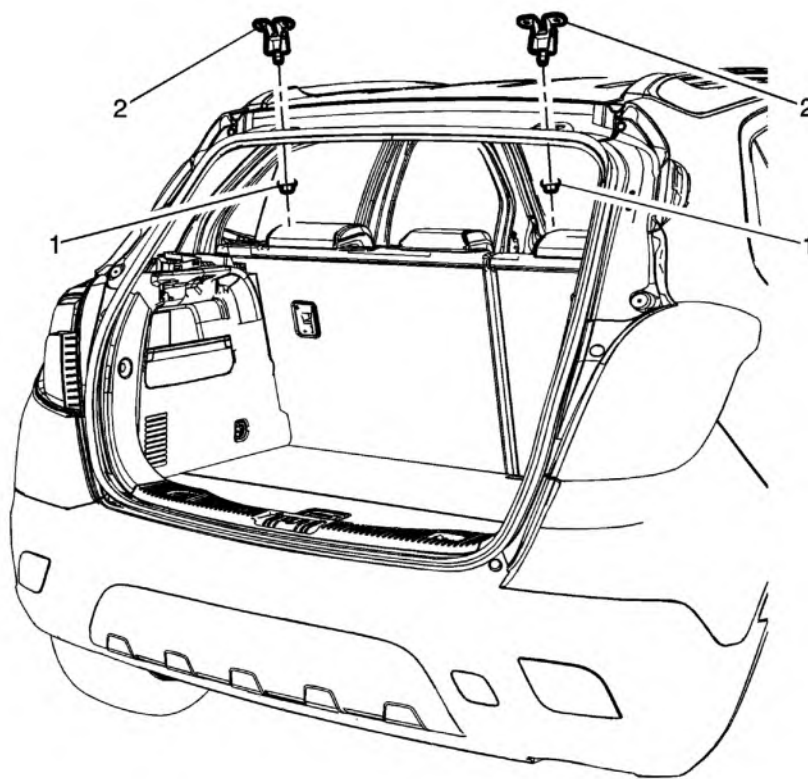


Fig. 19: Liftgate Hinge

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the liftgate. Refer to Liftgate Replacement. 2. Lower the rear headliner enough to access the liftgate hinge nuts. Refer to Headlining Trim Panel Replacement (Without Sunroof, Buick) Headlining Trim Panel Replacement (With Sunroof, Buick) Headlining Trim Panel Replacement (With Sunroof, Chevrolet) Headlining Trim Panel Replacement (Without Sunroof, Chevrolet). 3. Use a grease pencil to mark the liftgate hinge position to the body prior to removal.	
1	Liftgate Hinge Nut CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Liftgate Hinge Procedure Adjust the liftgate if needed. Refer to Liftgate Adjustment (Chevrolet) Liftgate Adjustment (Buick) .

REAR SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT

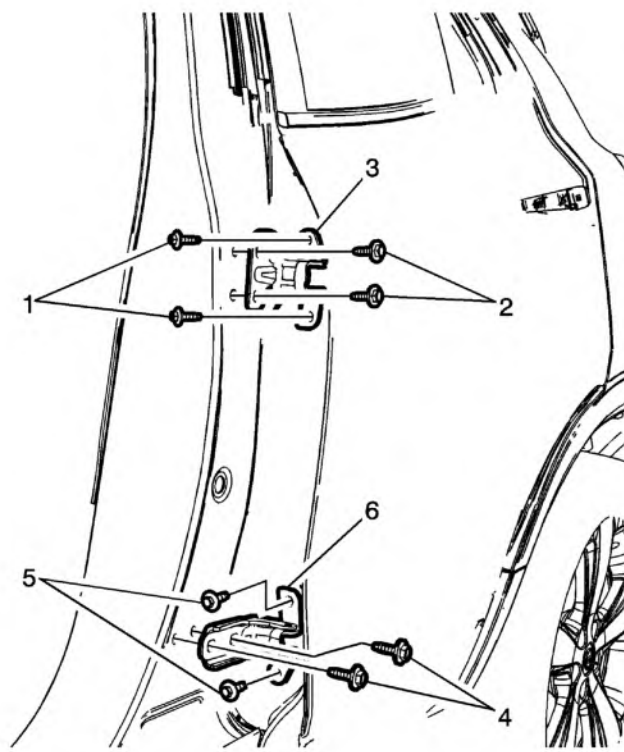


Fig. 20: Rear Side Door Upper Hinge And Lower Hinge
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Side Door Upper Hinge to Door Bolts (Qty: 2) CAUTION: Refer to Fastener Caution . Procedures 1. Leave the rear door in the close position to remove the hinge. 2. Apply a double layer of masking tape to the front edge of the rear door to protect the painted surface. 3. Mark the location of the hinge being removed. Tighten 25 N.m (18 lb ft)
2	Rear Side Door Upper Hinge to Body Bolts (Qty: 2) Tighten 32 N.m (24 lb ft)
3	Rear Side Door Upper Hinge
4	Rear Side Door Lower Hinge to Body Bolts (Qty: 2) Tighten 32 N.m (24 lb ft)
5	Rear Side Door Lower Hinge to Door Bolts (Qty: 2) Tighten 25 N.m (18 lb ft)
6	Rear Side Door Lower Hinge Procedure If the door striker needs adjust. Refer to Rear Side Door Lock Striker Adjustment .

HOOD ADJUSTMENT (CHEVROLET)

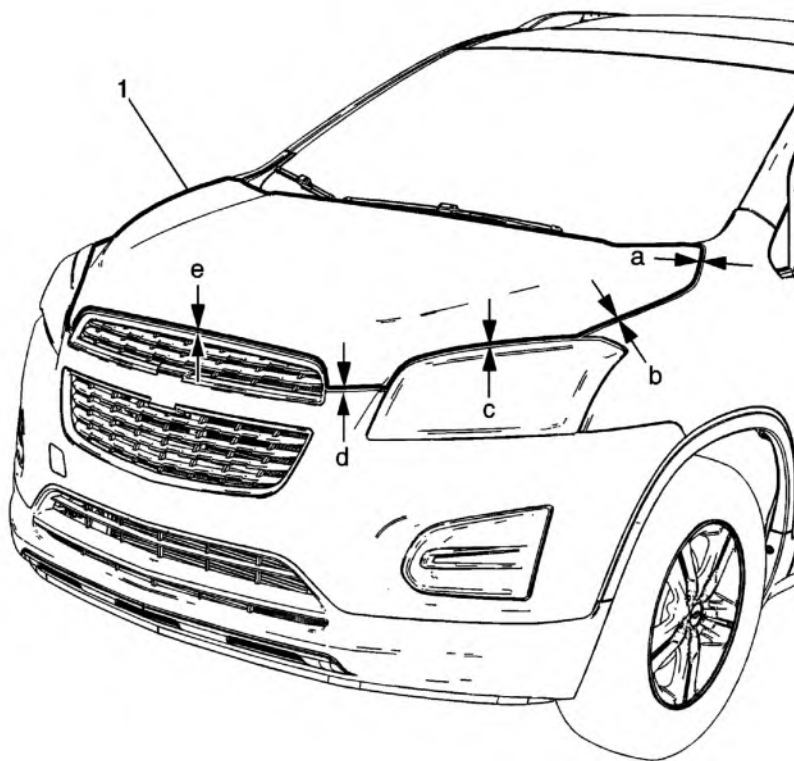


Fig. 21: Hood Adjustment Points (Trax)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the 4 hood hinge bolts. 2. Adjust the hood in order to obtain an even gap on both sides between the hood and the fenders, the headlamps and the front bumper fascia and so that the hood is flush with both fenders on the front edge, the front bumper fascia, and the headlamps. Adjustment: • Hood to front fender (a) 3.0 mm $\tilde{A}, \hat{A} \pm 0.75$ mm (0.12 in $\tilde{A}, \hat{A} \pm 0.03$ in) • Hood to front fender (b) 3.0 mm $\tilde{A}, \hat{A} \pm 1.0$ mm (0.12 in $\tilde{A}, \hat{A} \pm 0.04$ in) • Hood to headlamp (c) 3.0 mm $\tilde{A}, \hat{A} \pm 1.0$ mm (0.12 in $\tilde{A}, \hat{A} \pm 0.04$ in) • Hood to fascia (d) 5.0 mm $\tilde{A}, \hat{A} \pm 1.0$ mm (0.20 in $\tilde{A}, \hat{A} \pm 0.04$ in) • Hood to grille (e) 5.0 mm $\tilde{A}, \hat{A} \pm 1.0$ mm (0.20 in $\tilde{A}, \hat{A} \pm 0.04$ in) Tighten 22 N.m (16 lb ft)

HOOD ADJUSTMENT (BUICK)

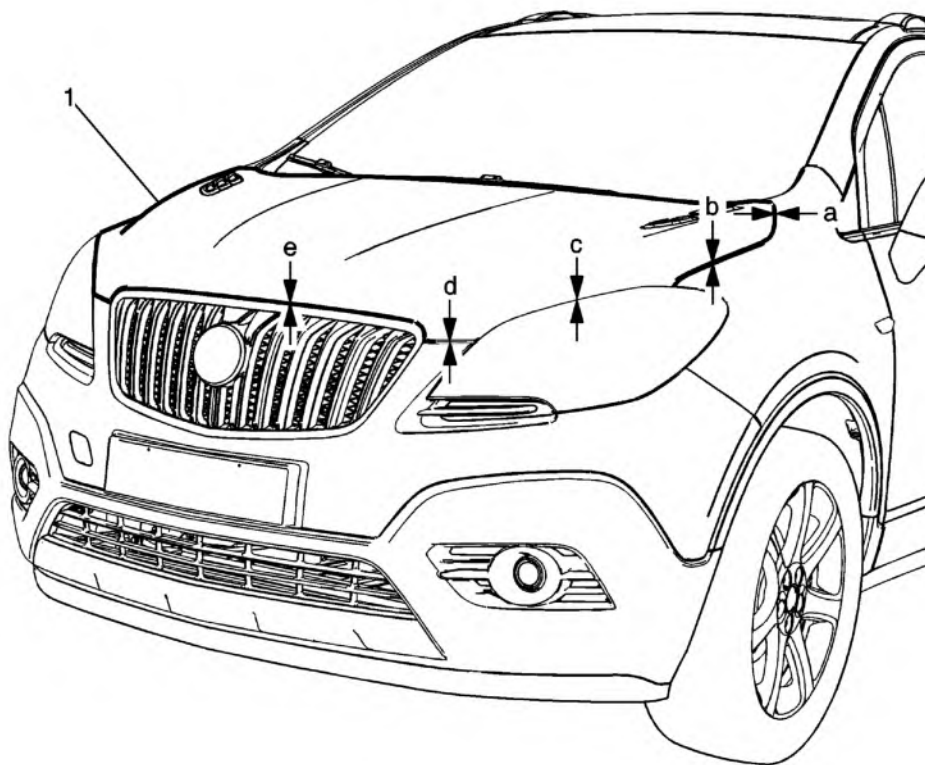


Fig. 22: Hood Adjustment Points (Encore)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the 4 hood hinge bolts. 2. Adjust the hood in order to obtain an even gap on both sides between the hood and the fenders, the headlamps and the front bumper fascia and so that the hood is flush with both fenders on the front edge, the front bumper fascia, and the headlamps. Adjustment: • Hood to front fender (a) 3.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 0.75$ mm (0.12 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.03$ in) • Hood to front fender (b) 3.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.12 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) • Hood to headlamp (c) 3.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.12 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) • Hood to fascia (d) 5.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.20 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) • Hood to grille (e) 5.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.0$ mm (0.20 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.04$ in) Tighten 22 N.m (16 lb ft)

HOOD REPLACEMENT (CHEVROLET)

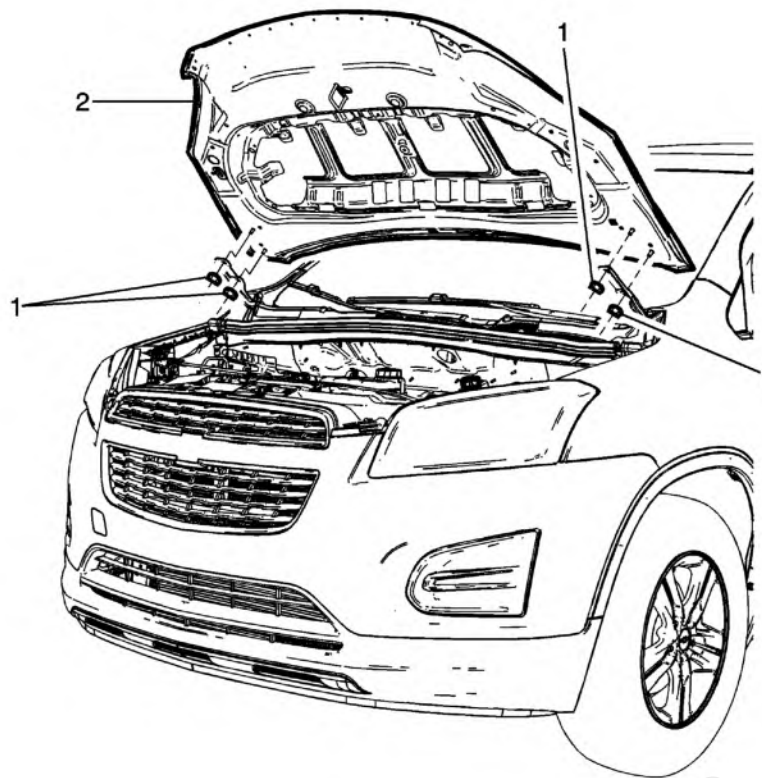


Fig. 23: Hood (Trax)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Hinge Nut (Qty: 4) CAUTION: Refer to Fastener Caution . Procedure Mark the location of the hinge to the hood with a grease pencil to aid in alignment. Tighten 22 N.m (16 lb ft)
2	Hood 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. Procedure 1. With the aid of an assistant remove the hood. 2. Transfer parts as needed. 3. Adjust the hood if needed. Refer to Hood Adjustment (Chevrolet)Hood Adjustment (Buick).

HOOD REPLACEMENT (BUICK)

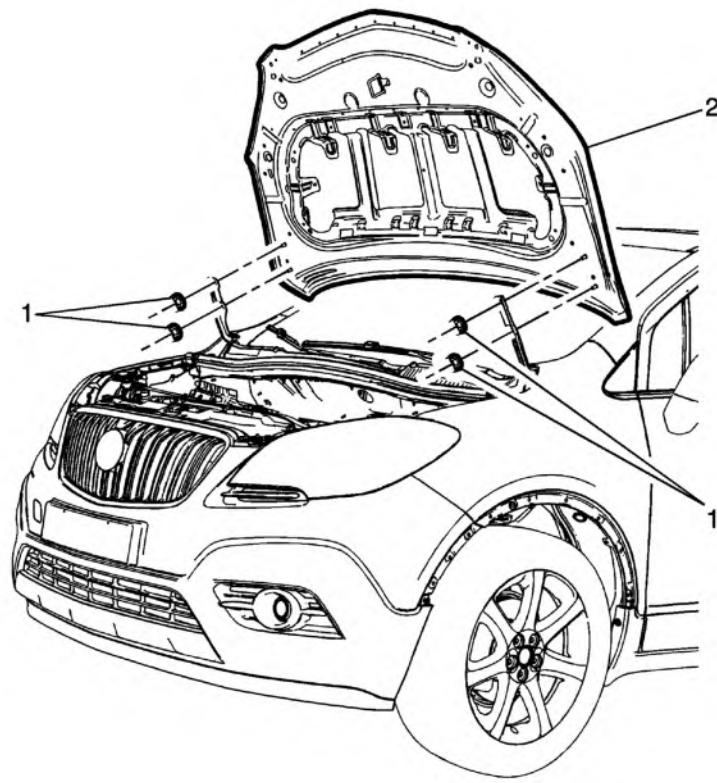


Fig. 24: Hood (Encore)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Hinge Nut (Qty: 4) CAUTION: Refer to Fastener Caution . Procedure Mark the location of the hinge to the hood with a grease pencil to aid in alignment. Tighten 22 N.m (16 lb ft)
2	Hood 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. Procedure 1. With the aid of an assistant remove the hood. 2. Transfer parts as needed. 3. Adjust the hood if needed. Refer to Hood Adjustment (Chevrolet)Hood Adjustment (Buick).

FRONT FENDER INSULATOR REPLACEMENT (CHEVROLET)

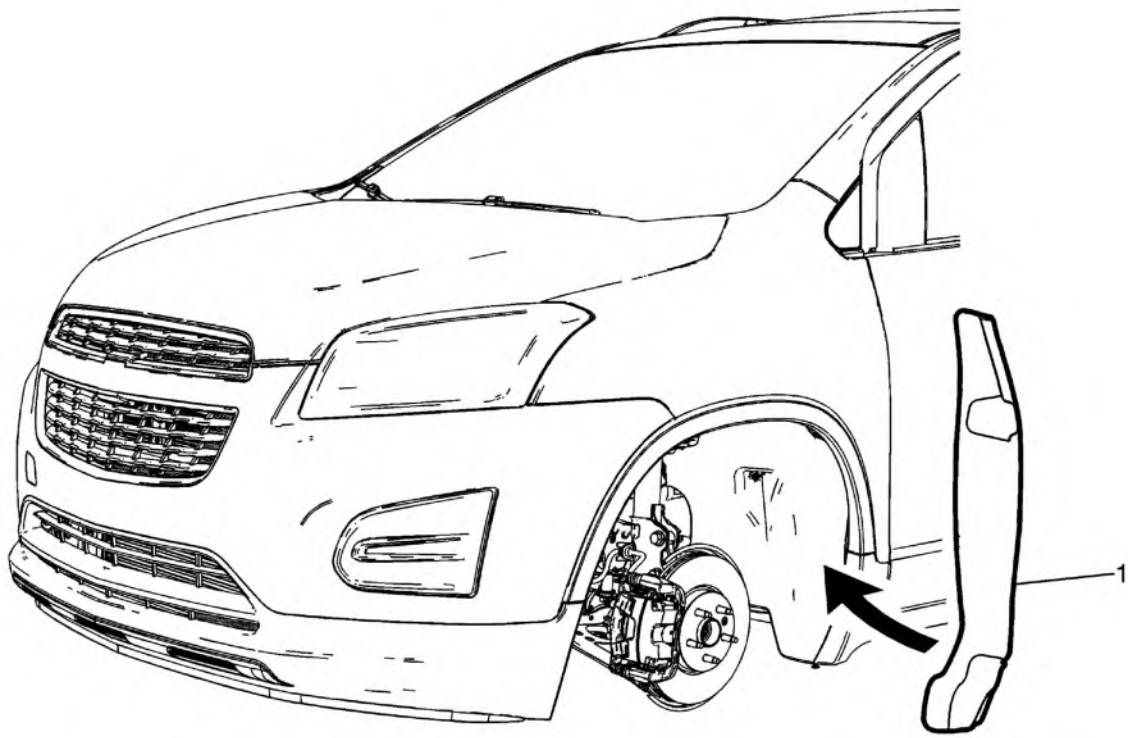


Fig. 25: Front Fender Insulator (Trax)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front wheelhouse rear liner. Refer to Front Wheelhouse Liner Replacement (Chevrolet) , Front Wheelhouse Liner Replacement (Buick) .	
1	Front Fender Insulator Procedure 1. Grasp the front fender insulator and pull from the rear of the fender. 2. Firmly press the fender insulator into the rear of the fender until fully seated.

FRONT FENDER INSULATOR REPLACEMENT (BUICK)

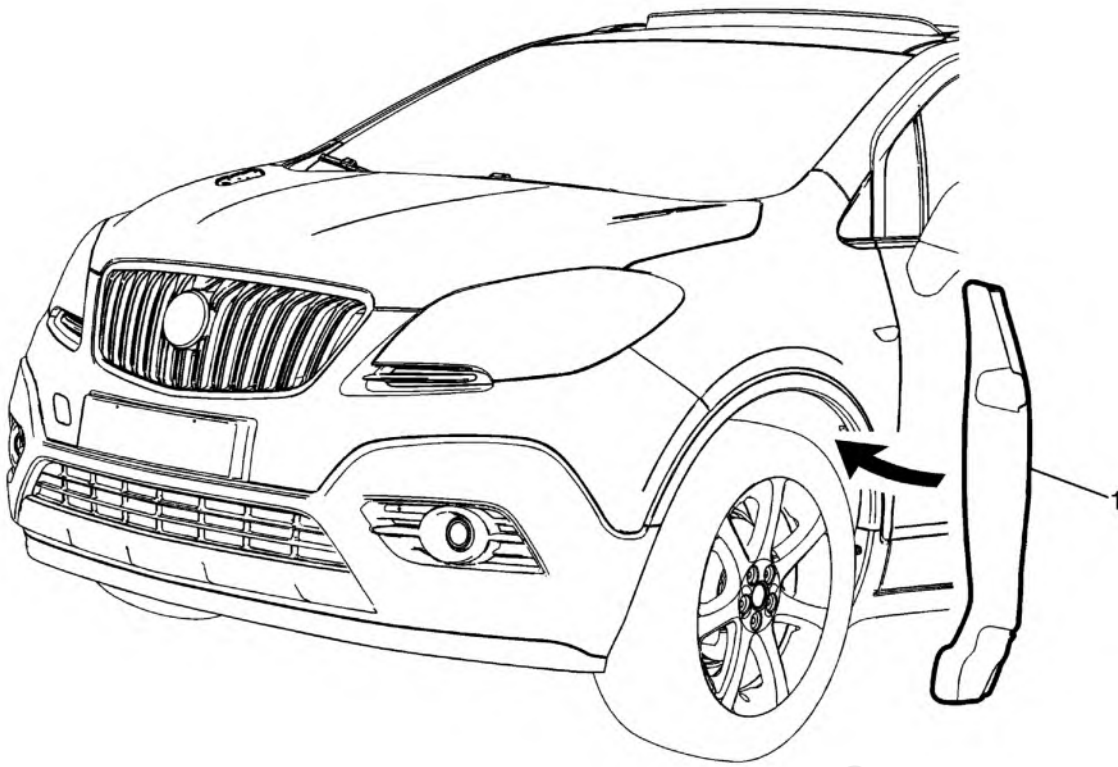


Fig. 26: Front Fender Insulator (Encore)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front wheelhouse rear liner. Refer to Front Wheelhouse Liner Replacement (Chevrolet) , Front Wheelhouse Liner Replacement (Buick) .	
1	Front Fender Insulator Procedure 1. Grasp the front fender insulator and pull from the rear of the fender. 2. Firmly press the fender insulator into the rear of the fender until fully seated.

HEADLAMP MOUNT PANEL BRACKET REPLACEMENT

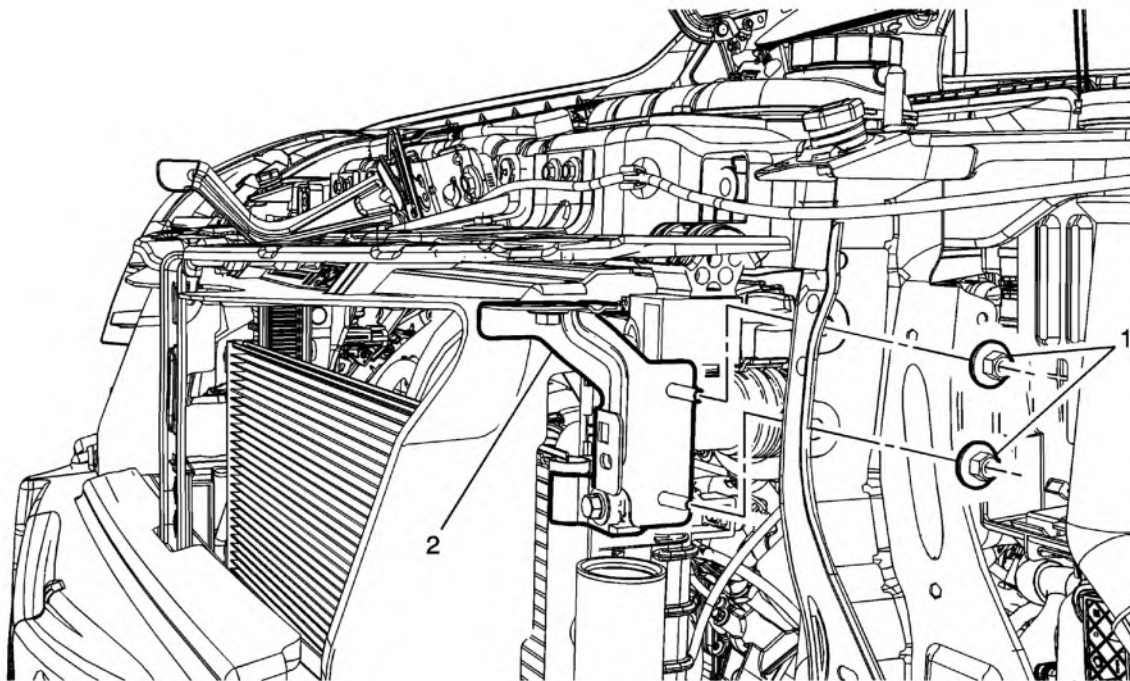


Fig. 27: Headlamp Mount Panel Bracket
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the front bumper fascia upper support bracket left or right end bolt, as needed. Refer to Front Bumper Fascia Upper Support Replacement (Chevrolet) . 2. Remove the left or right headlamp, as needed. Refer to Headlamp Replacement (SBM), Headlamp Replacement (T4L, Buick), Headlamp Replacement (SBV, Chevrolet) .	
1	Headlamp Mount Panel Bracket Nut (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Headlamp Mount Panel Bracket

HOOD INSULATOR REPLACEMENT (CHEVROLET)

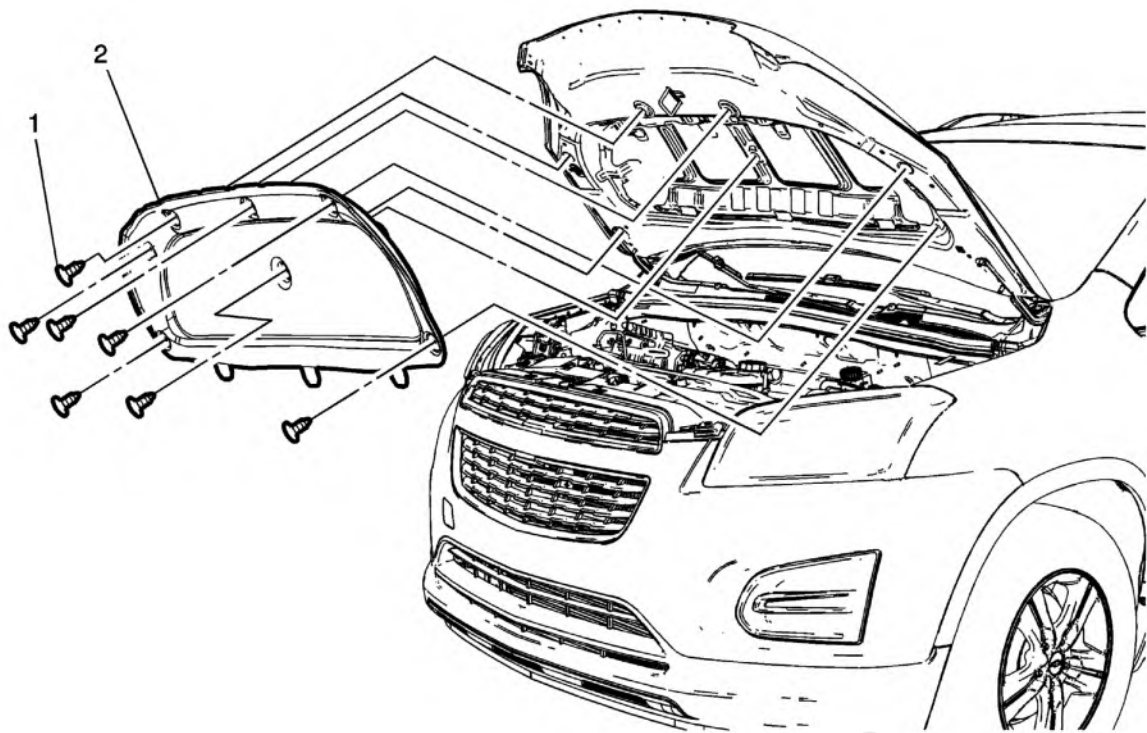


Fig. 28: Hood Insulator (Trax)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Insulator Plastic Retainer (Qty: 8)
2	Hood Insulator
Procedure Ensure the 3 integral tabs are secured to the hood.	

HOOD INSULATOR REPLACEMENT (BUICK)

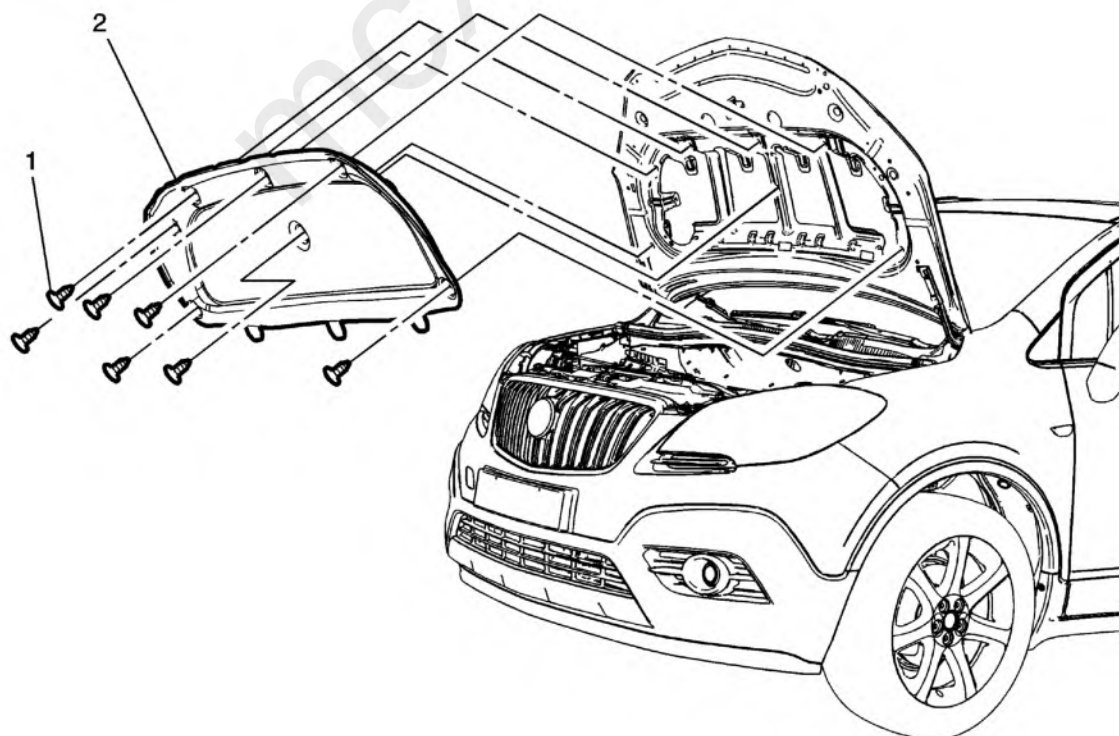


Fig. 29: Hood Insulator (Encore)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Insulator Plastic Retainer (Qty: 8)
2	Hood Insulator Procedure Ensure the 3 integral tabs are secured to the hood.

HOOD PRIMARY AND SECONDARY LATCH REPLACEMENT (CHEVROLET)

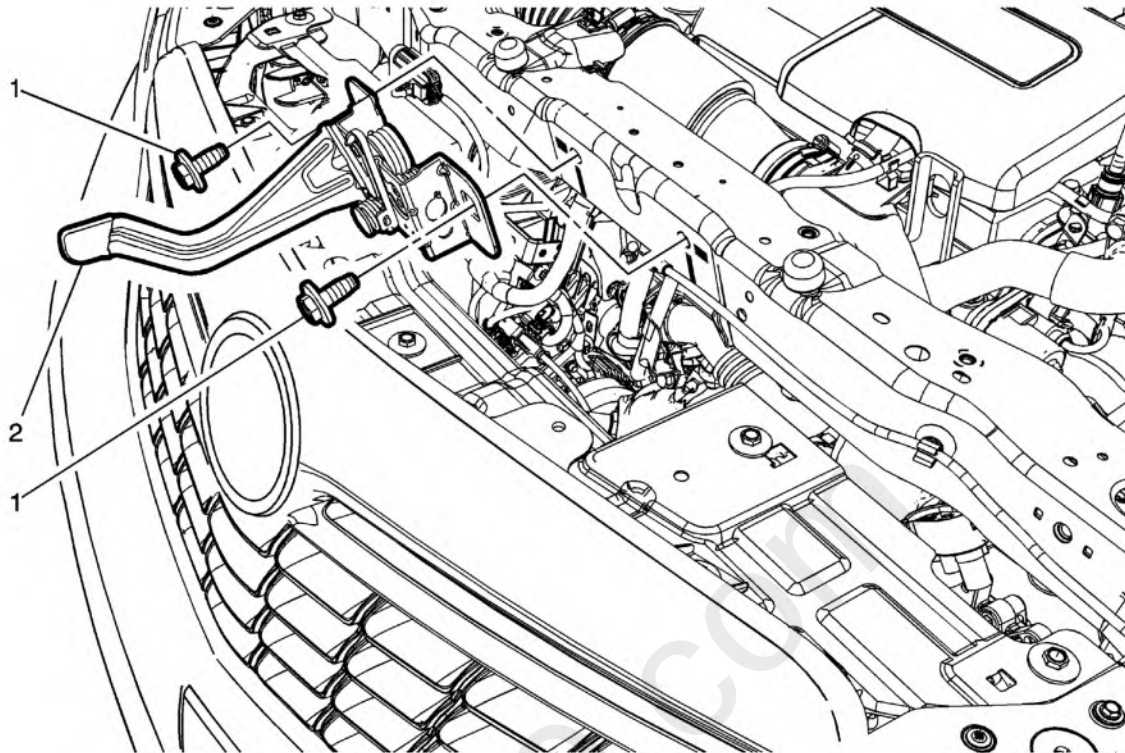


Fig. 30: Hood Primary And Secondary Latch (Trax)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front bumper fascia opening upper cover. Refer to Front Bumper Fascia Opening Upper Cover Replacement .	
1	Hood Primary and Secondary Latch Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . 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. Disconnect the electrical connector, if equipped.

HOOD PRIMARY AND SECONDARY LATCH REPLACEMENT (BUICK)

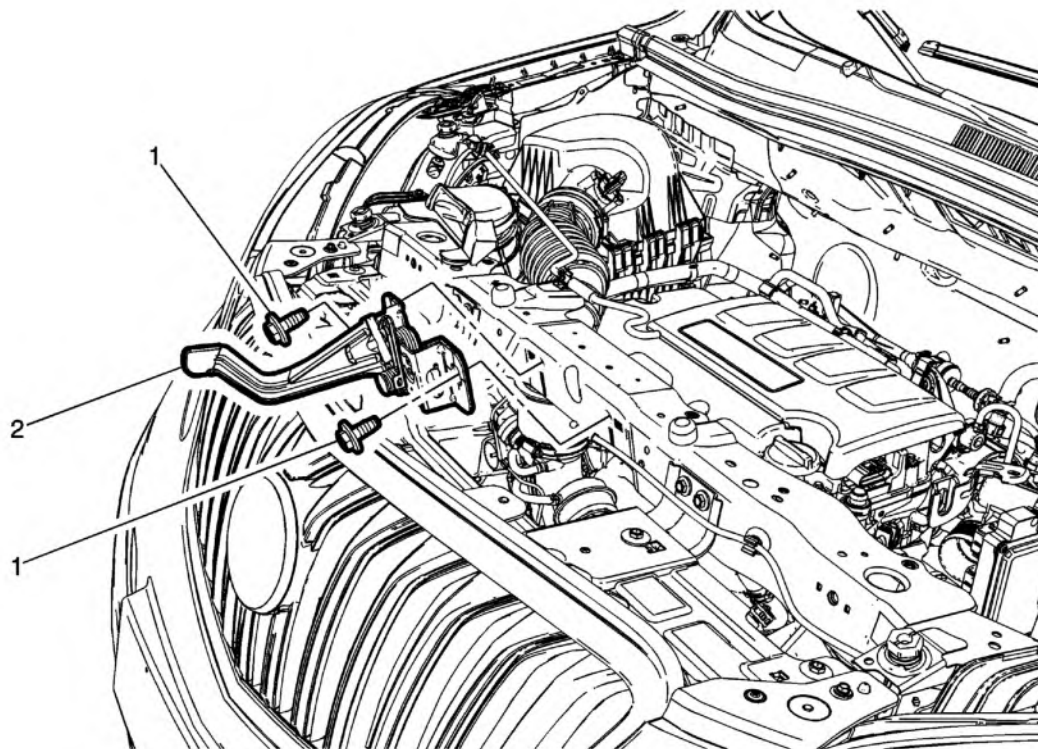


Fig. 31: Hood Primary And Secondary Latch (Encore)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front bumper fascia opening upper cover. Refer to Front Bumper Fascia Opening Upper Cover Replacement .	
1	Hood Primary and Secondary Latch Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . 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. Disconnect the electrical connector, if equipped.

FRONT SIDE DOOR CHECK REPLACEMENT

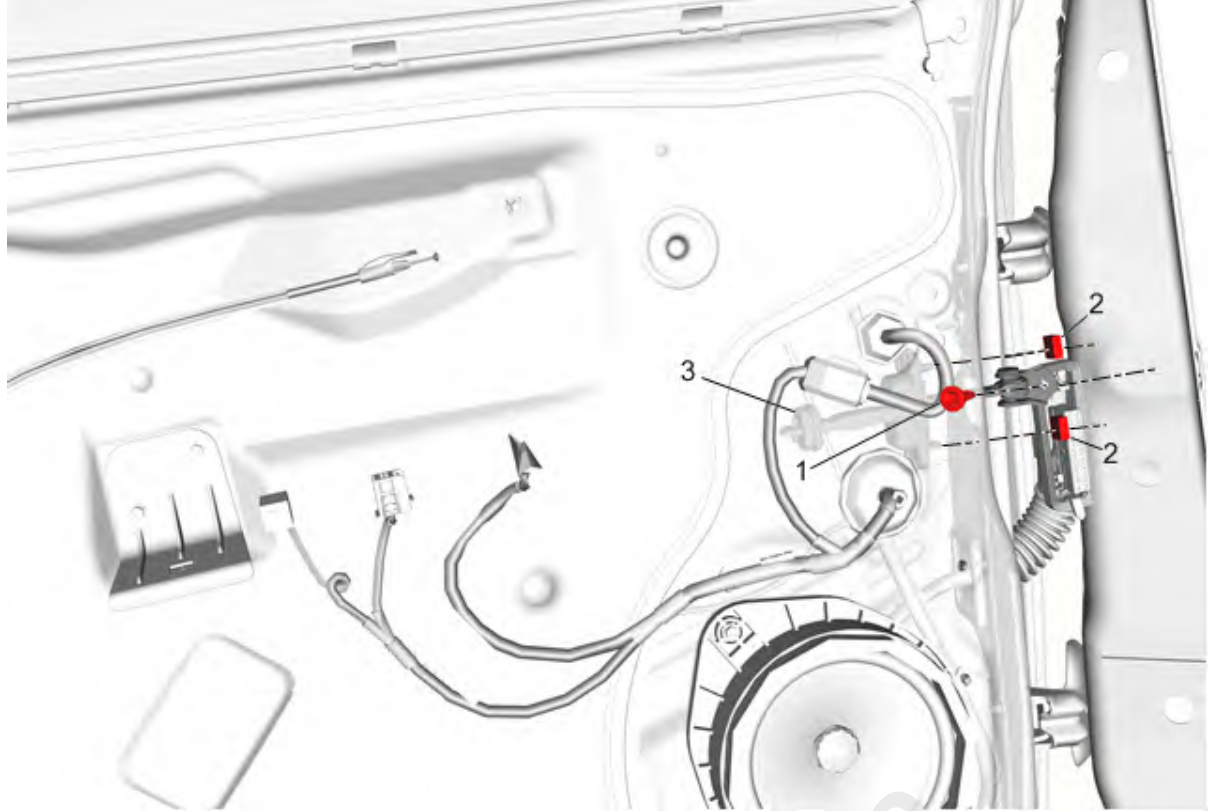


Fig. 32: Front Side Door Check

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure 1. Place the window in the full up position. 2. Remove the front side door trim panel. Refer to Front Side Door Trim Replacement (Buick), Front Side Door Trim Replacement (Chevrolet). 3. Remove the front speaker. Refer to Radio Front Side Door Speaker Replacement.	
1	Front Side Door Check Link Bolt to Body CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Front Side Door Check Link Nut (Qty: 2) Procedure Remove the water deflector. Tighten 9 N.m (80 lb in)
3	Front Side Door Check Link Assembly

FUEL TANK FILLER DOOR REPLACEMENT (BUICK)

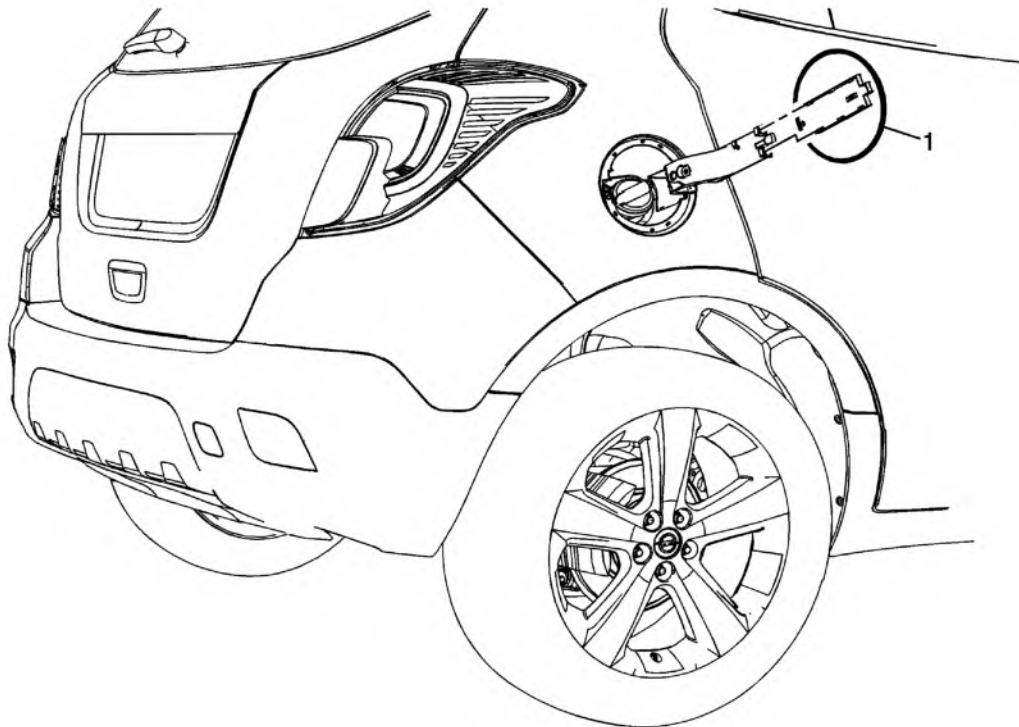


Fig. 33: Fuel Tank Filler Door (Encore)
 Courtesy of GENERAL MOTORS COMPANY

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.

FUEL TANK FILLER DOOR REPLACEMENT (CHEVROLET)

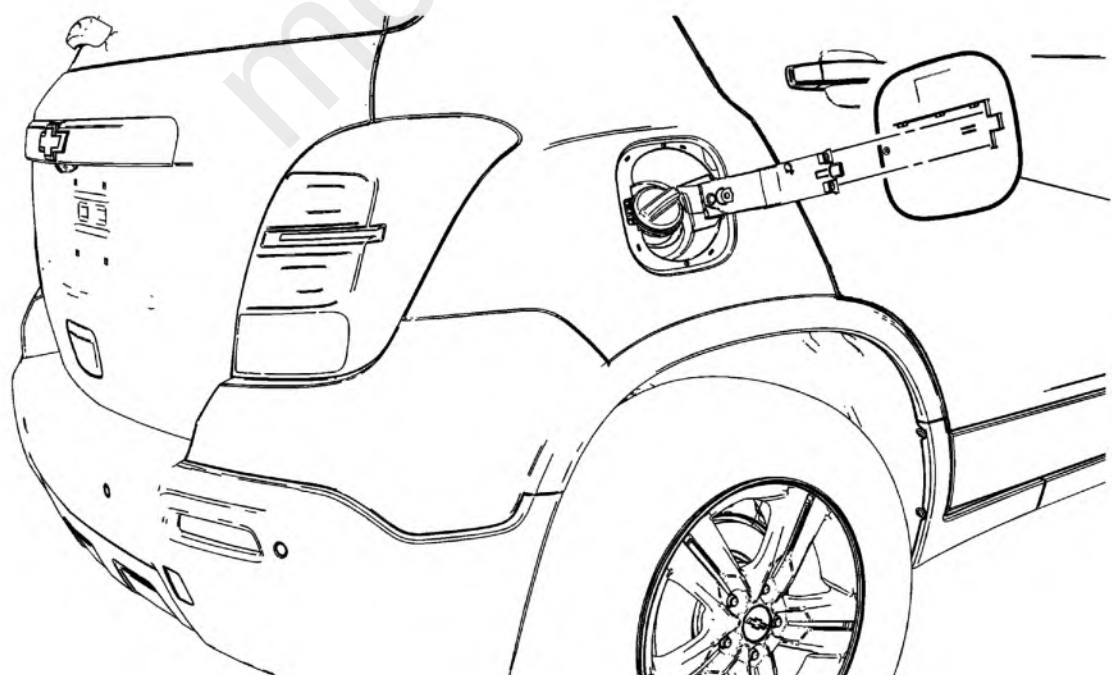


Fig. 34: Fuel Tank Filler Door (Trax)
 Courtesy of GENERAL MOTORS COMPANY

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.

FUEL TANK FILLER DOOR LATCH HOUSING REPLACEMENT (BUICK)

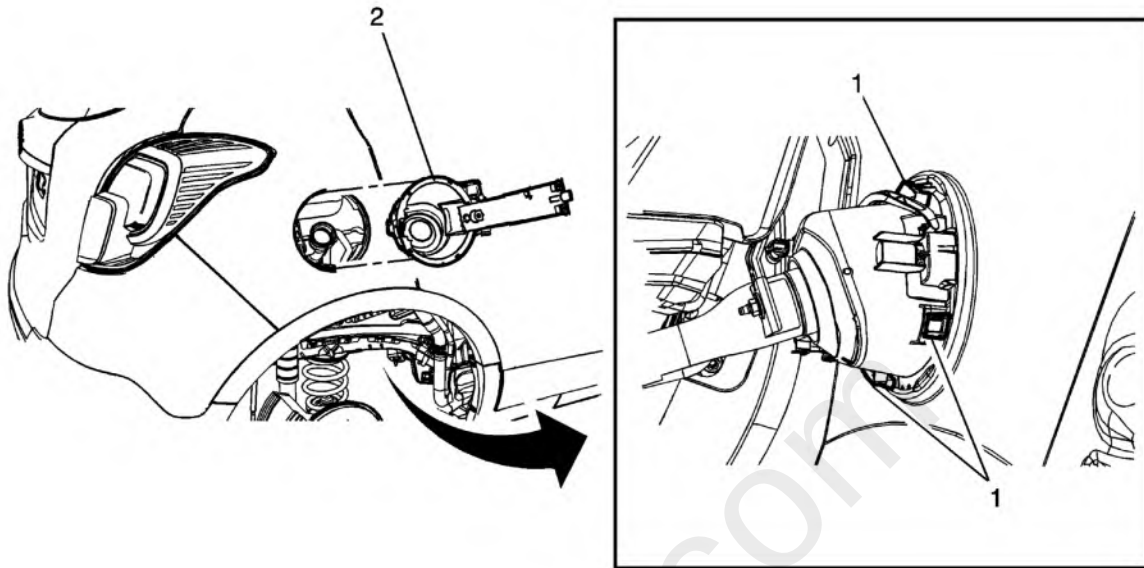


Fig. 35: Fuel Tank Filler Door Latch Housing (Encore).
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	
1. Remove the fuel tank filler door. Refer to Fuel Tank Filler Door Replacement (Buick) Fuel Tank Filler Door Replacement (Chevrolet) . 2. Remove the rear wheelhouse panel liner. Refer to Rear Wheelhouse Liner Replacement .	
1	Fuel Tank Filler Door Latch Housing Retainer (Qty: 4) Procedure Using a flat-bladed tool, release the fuel tank filler pipe housing retainers through the wheelhouse opening.
2	Fuel Tank Filler Door Latch Housing Procedure 1. Disconnect the electrical connector, if equipped. 2. Ensure the fuel filler door locking rod is in the lock position while removing the housing, if equipped.

FUEL TANK FILLER DOOR LATCH HOUSING REPLACEMENT (CHEVROLET)

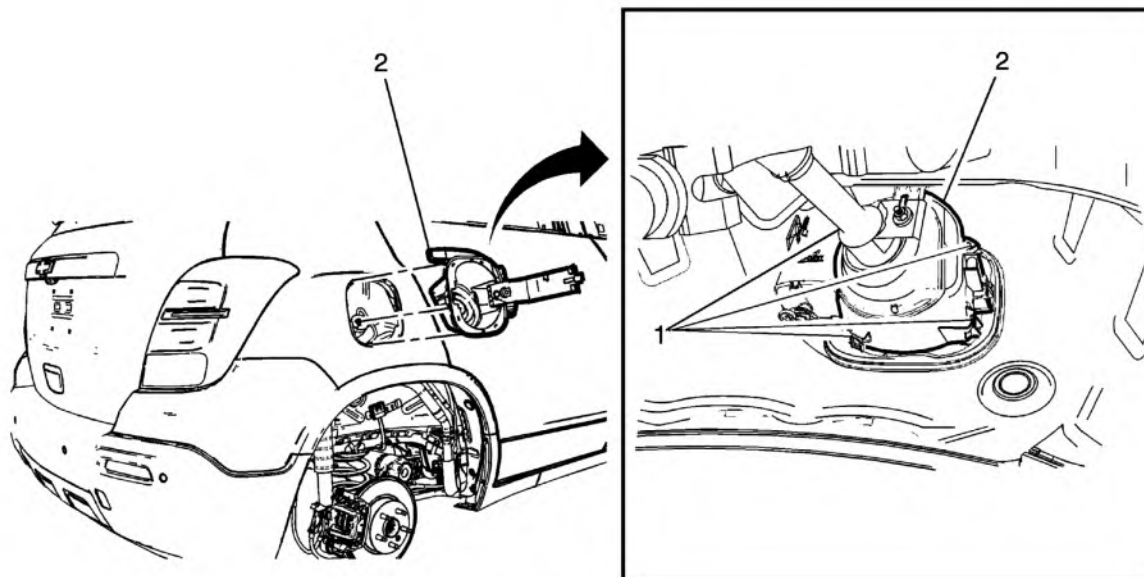


Fig. 36: Fuel Tank Filler Door Latch Housing.(Trax)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the fuel tank filler door. Refer to Fuel Tank Filler Door Replacement (Buick)Fuel Tank Filler Door Replacement (Chevrolet). 2. Remove the rear wheelhouse panel liner. Refer to Rear Wheelhouse Liner Replacement.	
1	Fuel Tank Filler Door Latch Housing Retainer (Qty: 4) Procedure Using a flat-bladed tool, release the fuel tank filler pipe housing retainers through the wheelhouse opening.
2	Fuel Tank Filler Door Latch Housing Procedure 1. Disconnect the electrical connector, if equipped. 2. Ensure the fuel filler door locking rod is in the lock position while removing the housing, if equipped.

HOOD HOLD-OPEN ROD REPLACEMENT

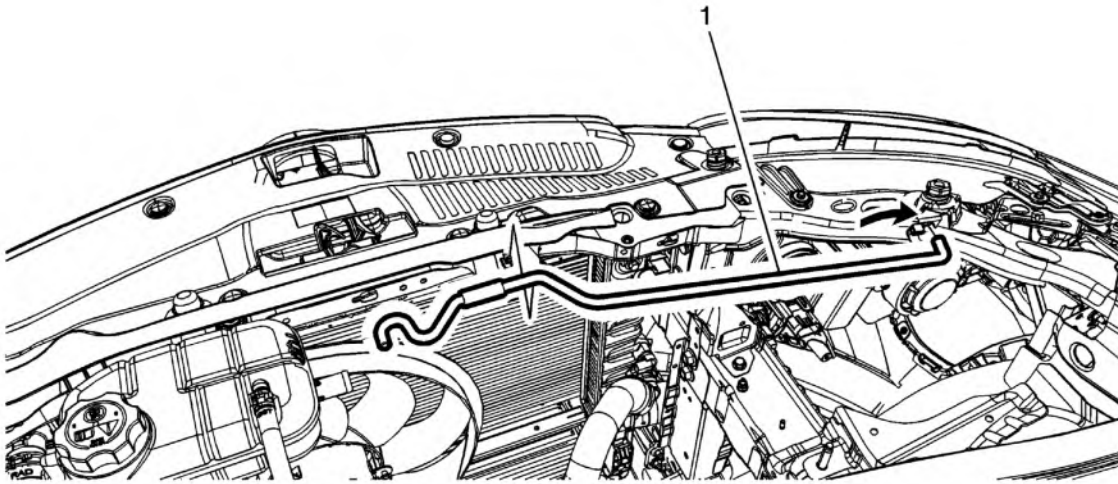


Fig. 37: Hood Hold-Open Rod

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Hold-Open Rod 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. Procedure Open the retainer and remove the hood hold-open rod.

HOOD FRONT WEATHERSTRIP REPLACEMENT (CHEVROLET)

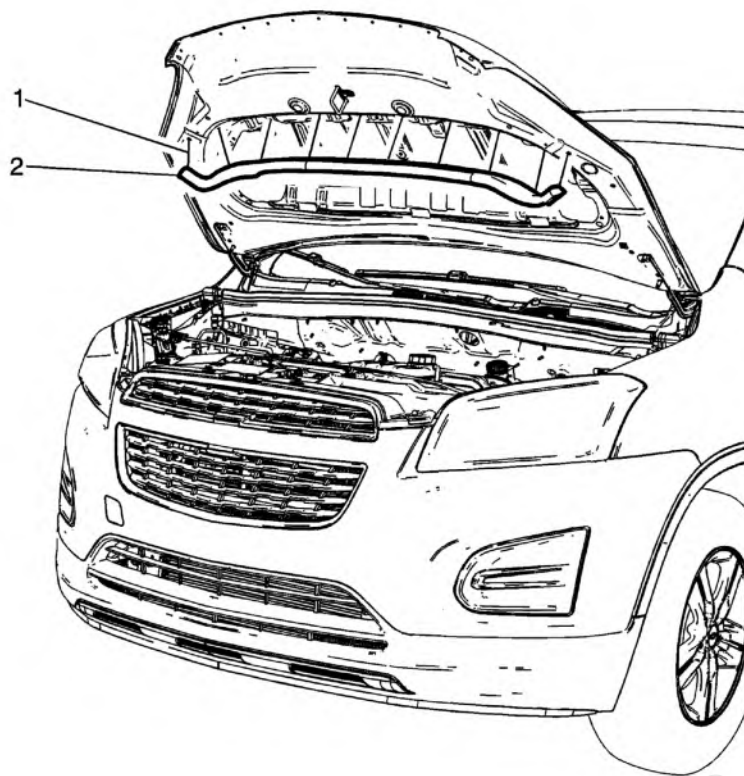


Fig. 38: Hood Front Weatherstrip (Trax)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Front Weatherstrip Push-In Retainer (Qty: 11) Procedure Use a suitable tool to release the push-in retainers.
2	Hood Front Weatherstrip

HOOD FRONT WEATHERSTRIP REPLACEMENT (BUICK)

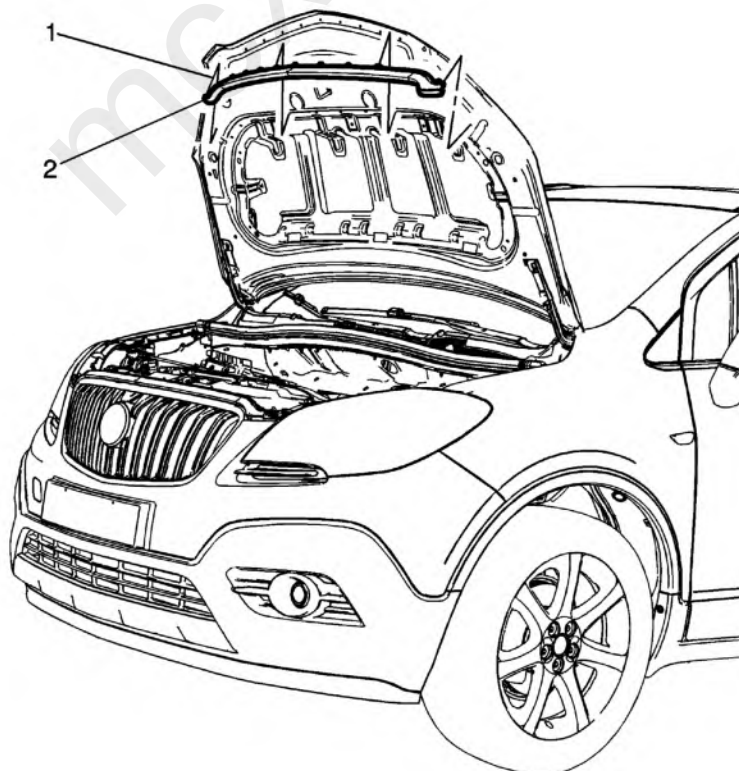


Fig. 39: Hood Front Edge Weatherstrip (Encore)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Front Weatherstrip Retainer (Qty: 11) Procedure Use a suitable tool to release the push-in retainers.
2	Hood Front Weatherstrip

HOOD FRONT EDGE WEATHERSTRIP REPLACEMENT (CHEVROLET)

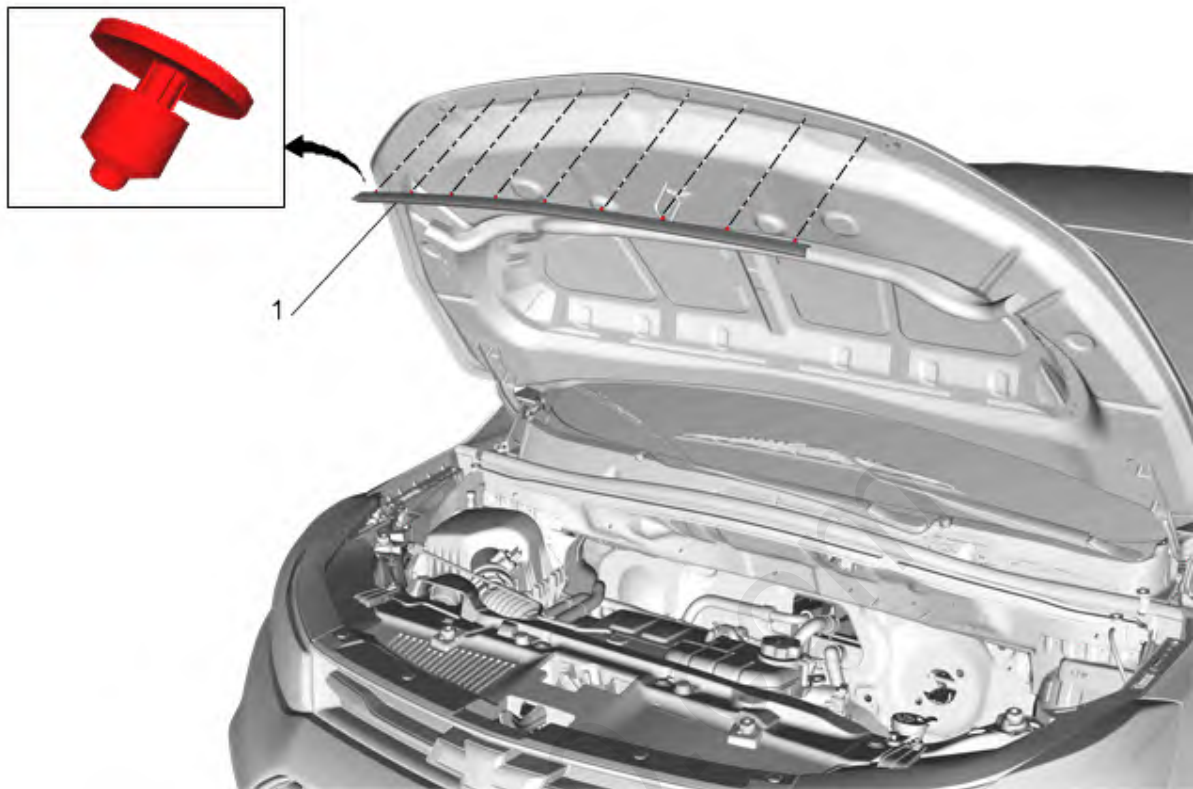


Fig. 40: Hood Front Edge Weatherstrip
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Front Edge Weatherstrip Procedure Using a trim type tool, release the integral retainers from the hood.

HOOD FRONT EDGE WEATHERSTRIP REPLACEMENT (BUICK)

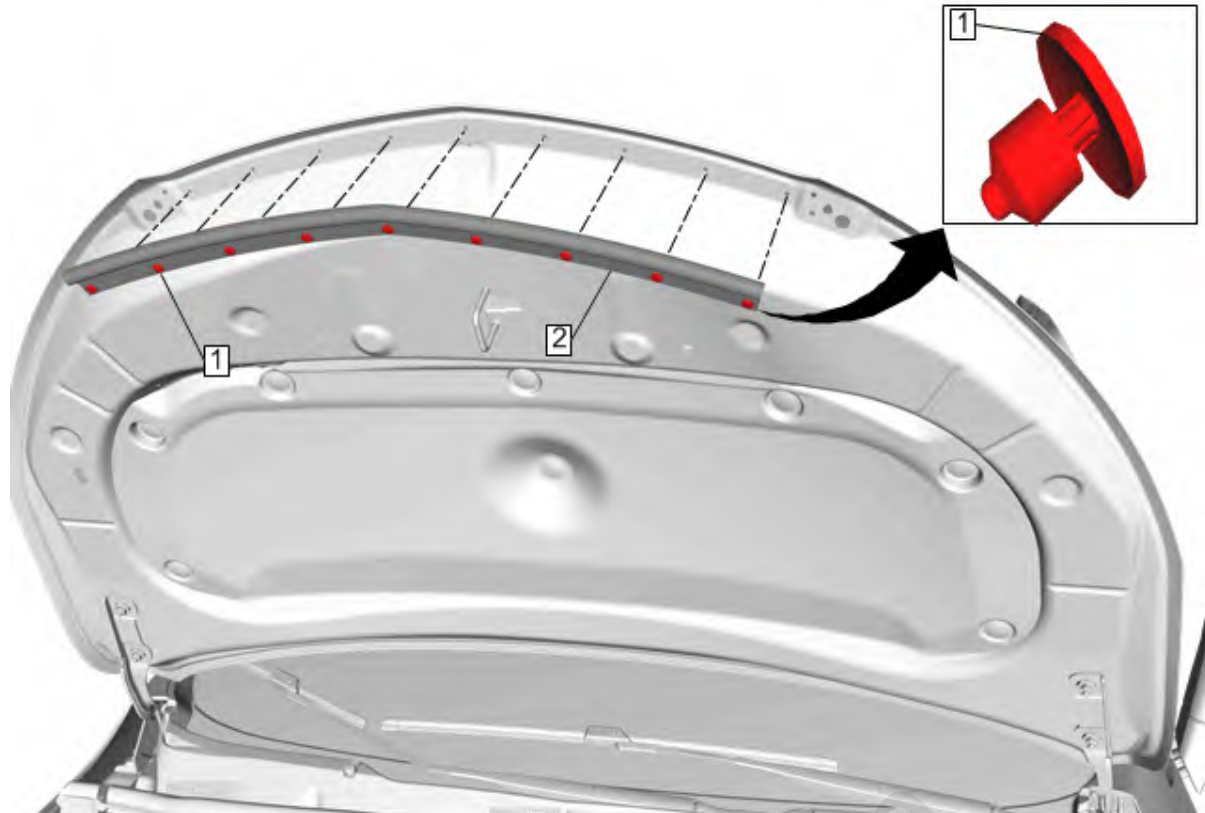


Fig. 41: Hood Front Edge Weatherstrip
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Front Weatherstrip Retainer (Qty: 9) Procedure Use a suitable tool, release the retainers.
2	Hood Front Edge Weatherstrip

HOOD REAR WEATHERSTRIP REPLACEMENT (CHEVROLET)

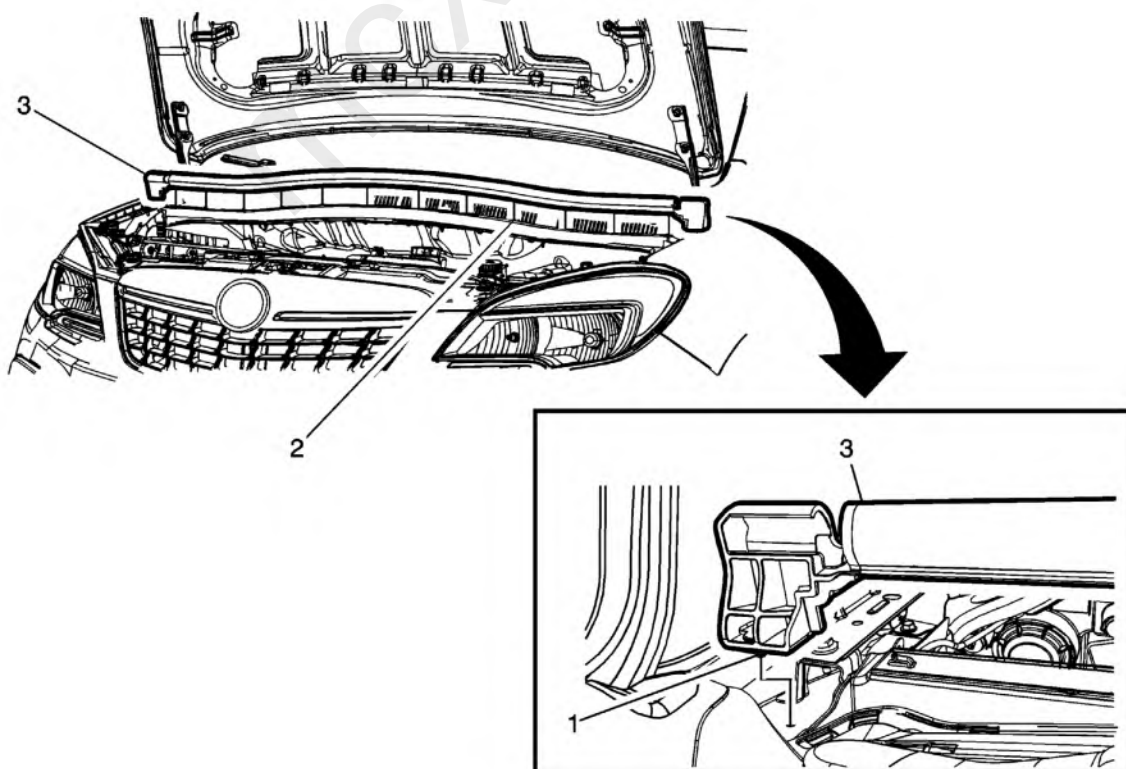


Fig. 42: Hood Rear Weatherstrip (Trax)
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Rear Weatherstrip Push-In Retainer (Qty: 2) Procedure Use a suitable tool to release the push-in retainers.
2	Hood Rear Weatherstrip Retainer (Qty: 12) Procedure The hood rear weatherstrip is held in place with plastic retainers that are part of the air inlet grille. Carefully pull the weatherstrip to the right/left to release from the retainers on the air inlet grille.
3	Hood Rear Weatherstrip

HOOD REAR WEATHERSTRIP REPLACEMENT (BUICK)

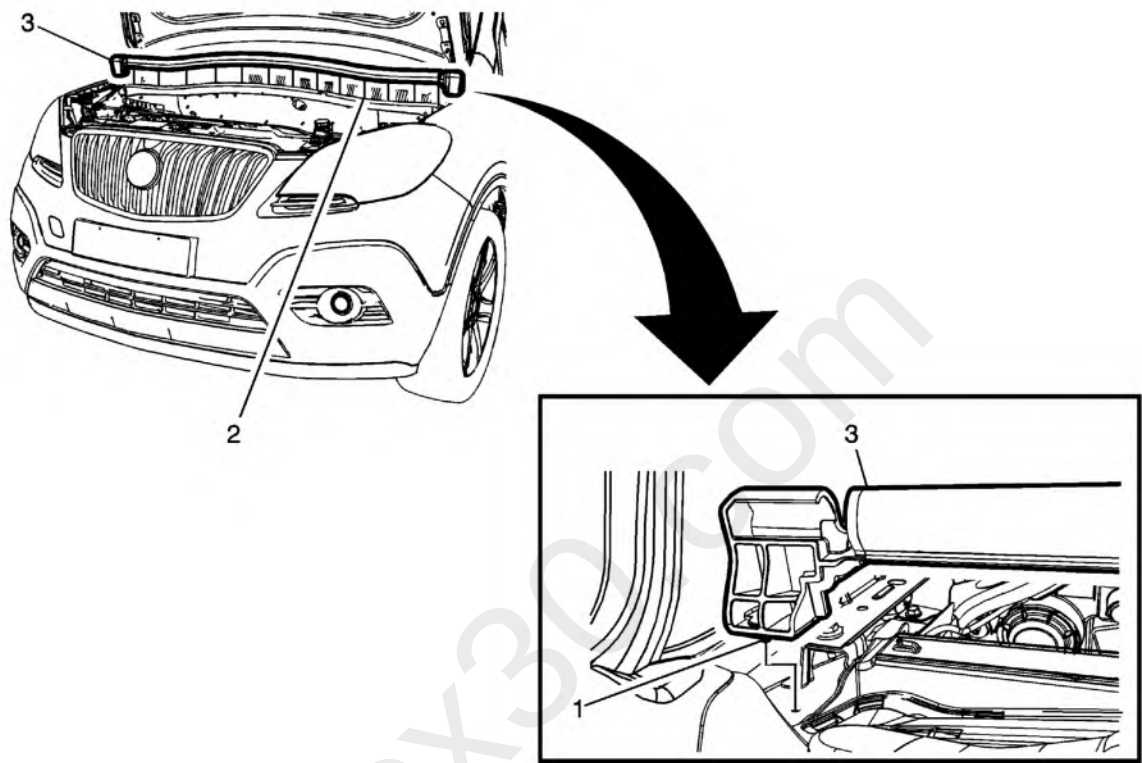


Fig. 43: Hood Rear Weatherstrip (Encore)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Hood Rear Weatherstrip Push-In Retainer (Qty: 2) Procedure Use a suitable tool to release the push-in retainers.
2	Hood Rear Weatherstrip Retainer (Qty: 12) Procedure The hood rear weatherstrip is held in place with plastic retainers that are part of the air inlet grille. Carefully pull the weatherstrip to the right/left to release from the retainers on the air inlet grille.
3	Hood Rear Weatherstrip

LIFTGATE STRUT REPLACEMENT

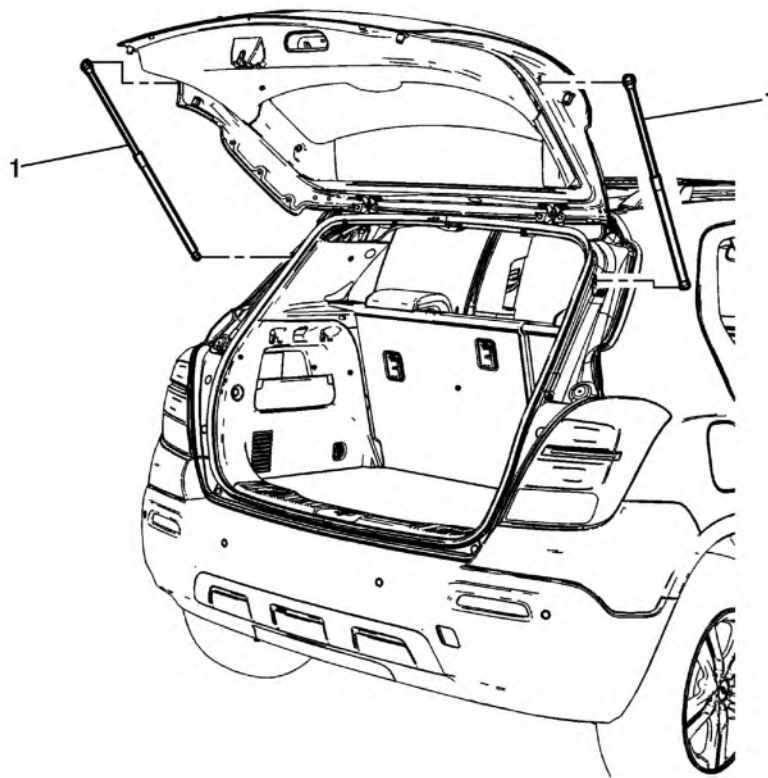


Fig. 44: Liftgate Strut

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Liftgate Strut 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 strut. 2. Ensure the clip is fully seated when the strut is reinstalled. If the clip cannot be fully seated, a new strut should be installed. 3. Ensure the strut shaft is pointing toward the roof structure.

FRONT OR REAR SIDE DOOR LOWER WEATHERSTRIP REPLACEMENT

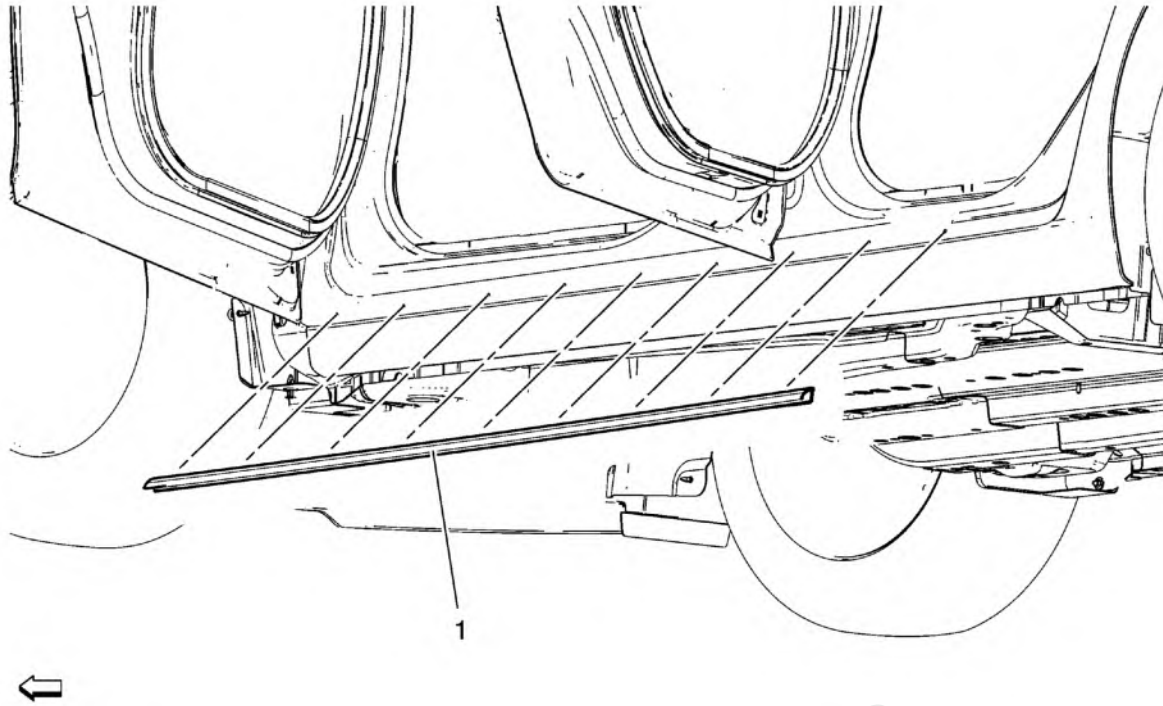


Fig. 45: Side Door Lower Weatherstrip
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front and Rear Side Door Lower Weatherstrip Procedure 1. Open front and rear side doors at full opening position. 2. Use the appropriate tool, remove the weatherstrip push-in retainers from the front and rear side door lower weatherstrip to rocker outer panel. NOTE: Ensure all old retainers have been remove before install the new weatherstrip.

FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT - DOOR SIDE

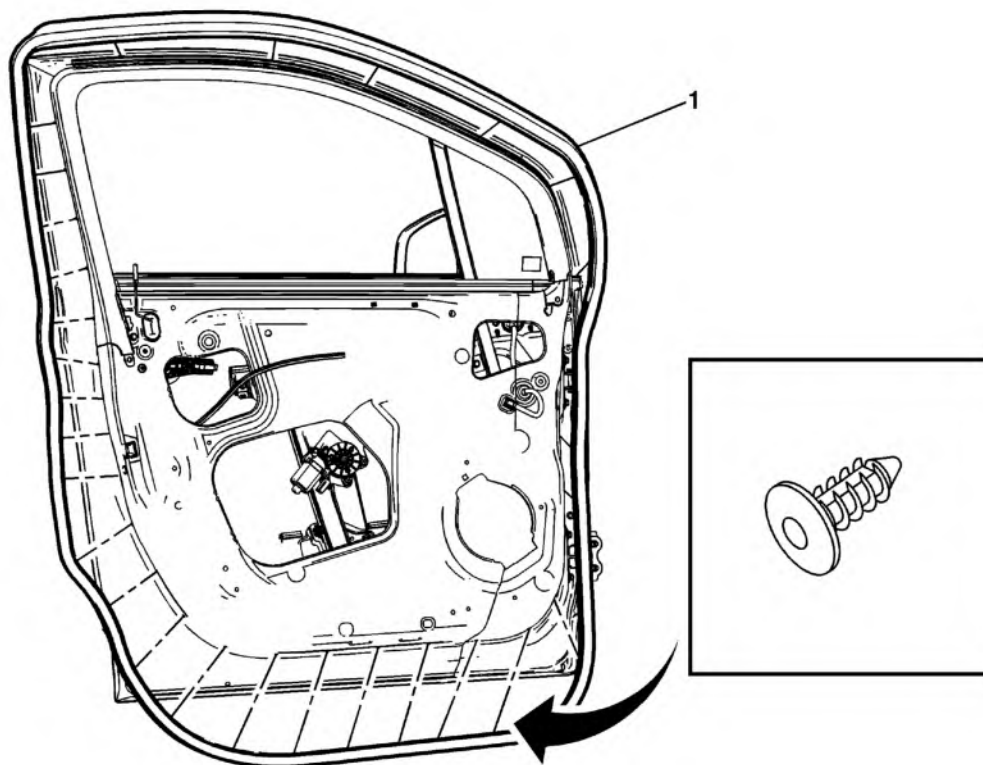


Fig. 46: Front Side Door Weatherstrip - Door Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Side Door Weatherstrip Procedure 1. Open the front side door to the fully open position. 2. Remove the front side door check link bolt from the body side only. Refer to Front Side Door Check Replacement. 3. Use a suitable tool, remove the push-in retainer from around the door. 4. Ensure that the weatherstrip is fully seated in the door frame retainer. 5. Verify proper door operation. NOTE: Water test the door area after replacing the door weatherstrip to ensure no leaks.

FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT - BODY SIDE

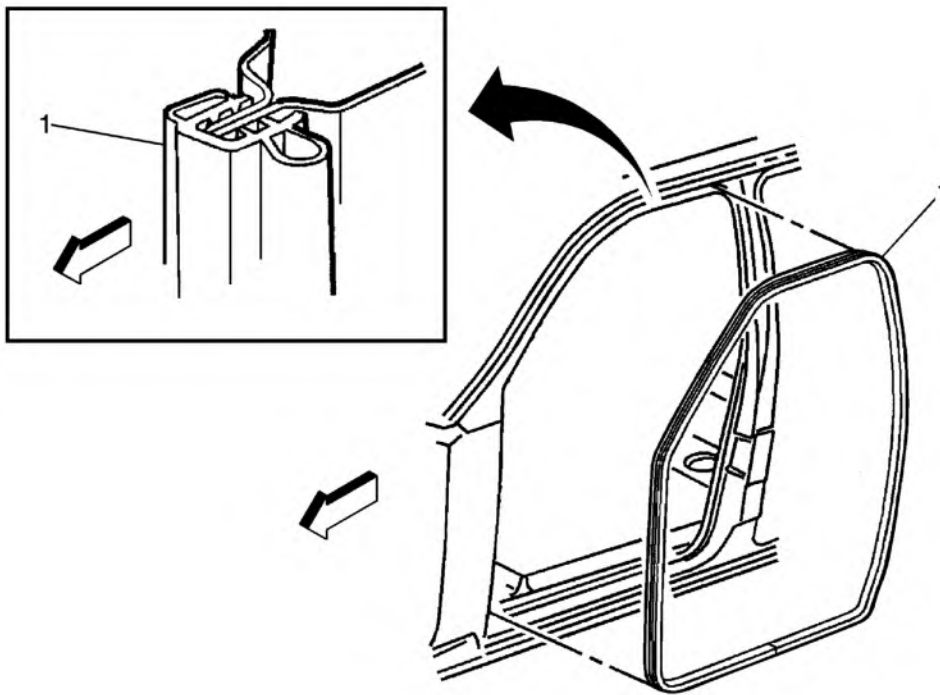


Fig. 47: Front Side Door Auxiliary Weatherstrip
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front auxiliary mat lower retainer. Refer to Floor Auxiliary Mat Lower Retainer Replacement (Buick) Floor Auxiliary Mat Lower Retainer Replacement (Chevrolet) .	
1	Front Side Door Weatherstrip Procedure 1. Starting in the center bottom of the weatherstrip, pull the weatherstrip upward and away from the pinch-weld flange. 2. Start in the center bottom of the pinch-weld flange. 3. Ensure that the weatherstrip and retainers are fully seated on the flange before installing the front carpet retainer. 4. Inspect the door for proper operation. NOTE: Water test the door area after replacing the door weatherstrip to ensure no leaks.

LIFTGATE WEATHERSTRIP REPLACEMENT

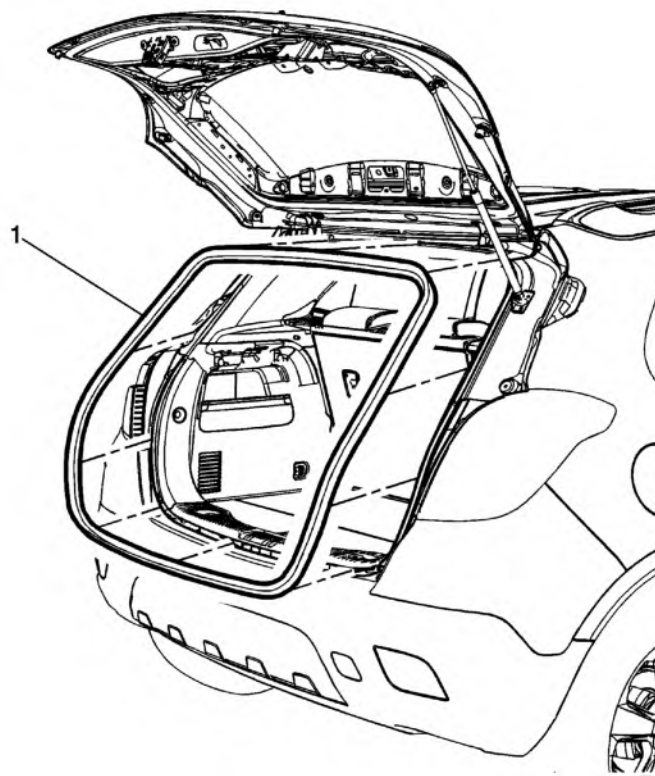


Fig. 48: Liftgate Weatherstrip

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Liftgate Weatherstrip Procedure 1. Start at the upper corner of the rear compartment opening and pull the weatherstrip away from the rear compartment opening flange. 2. Position the weatherstrip to the upper corner of the rear compartment opening flange. 3. Working downward along the flange, install the weatherstrip to the rear compartment opening flange ensuring that the weatherstrip is fully seated in the corners, using a rubber mallet.

REAR SIDE DOOR AUXILIARY WEATHERSTRIP REPLACEMENT

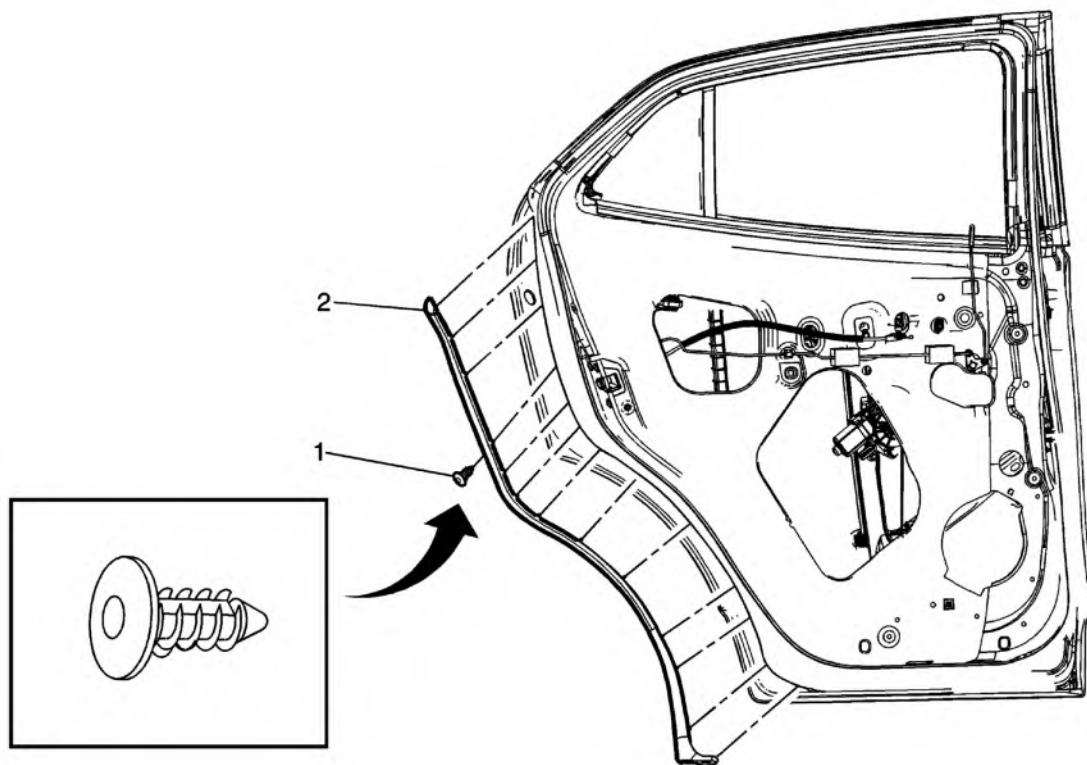


Fig. 49: Rear Side Door Auxiliary Weatherstrip
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Side Door Auxiliary Weatherstrip Retainer Procedure Starting at the top of the auxiliary weatherstrip, pull the auxiliary weatherstrip down and away from the door. NOTE: Use the appropriate tool, remove all of the old retainers before installing the new auxiliary weatherstrip.
2	Rear Side Door Auxiliary Weatherstrip Procedure Inspect the door for proper operation and sealing. NOTE: Water test the door area after replacing the door weatherstrip to ensure no leaks.

REAR SIDE DOOR WEATHERSTRIP REPLACEMENT - DOOR SIDE

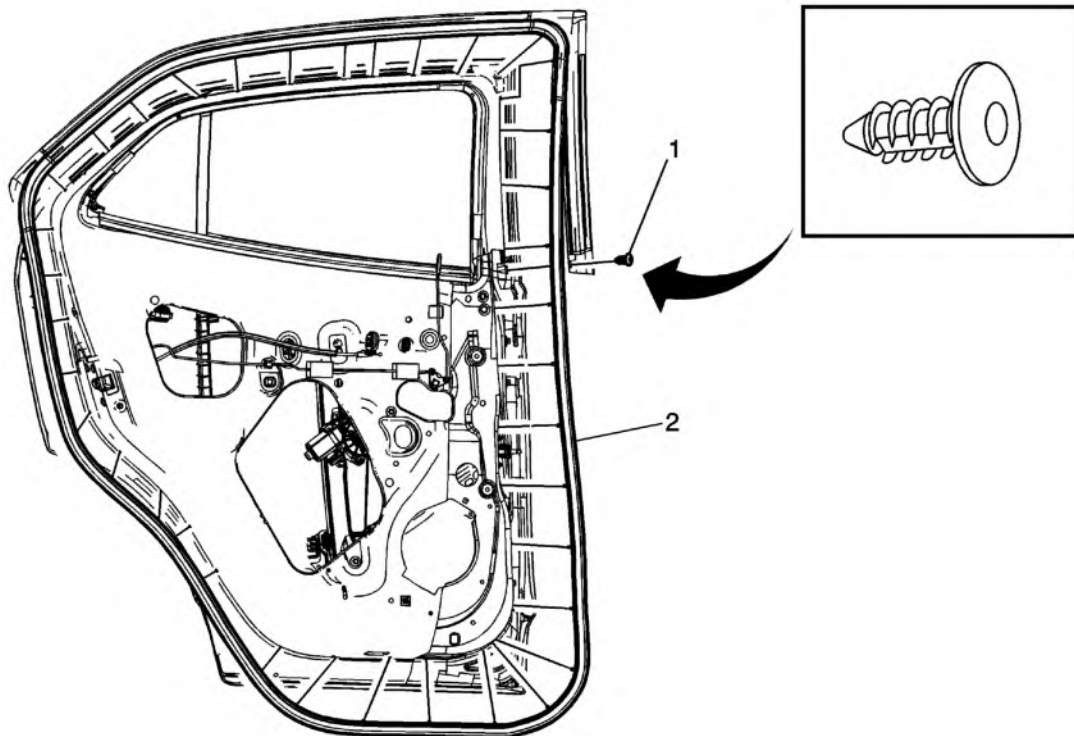


Fig. 50: Rear Side Door Weatherstrip - Door Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Rear Side Door Weatherstrip Retainers Procedure 1. Open the front side door to the fully open position. 2. Remove the rear side door check link bolt from the body side only. Refer to Rear Side Door Check Replacement. 3. Use a suitable tool, remove the push-in retainers from the around of the door.
2	Rear Side Door Weatherstrip Procedure 1. Ensure that the weatherstrip is fully seated in the door frame retainer. 2. Verify proper sealing to the door opening. NOTE: Water test the door area after replacing the door weatherstrip to ensure no leaks.

REAR SIDE DOOR WEATHERSTRIP REPLACEMENT - BODY SIDE

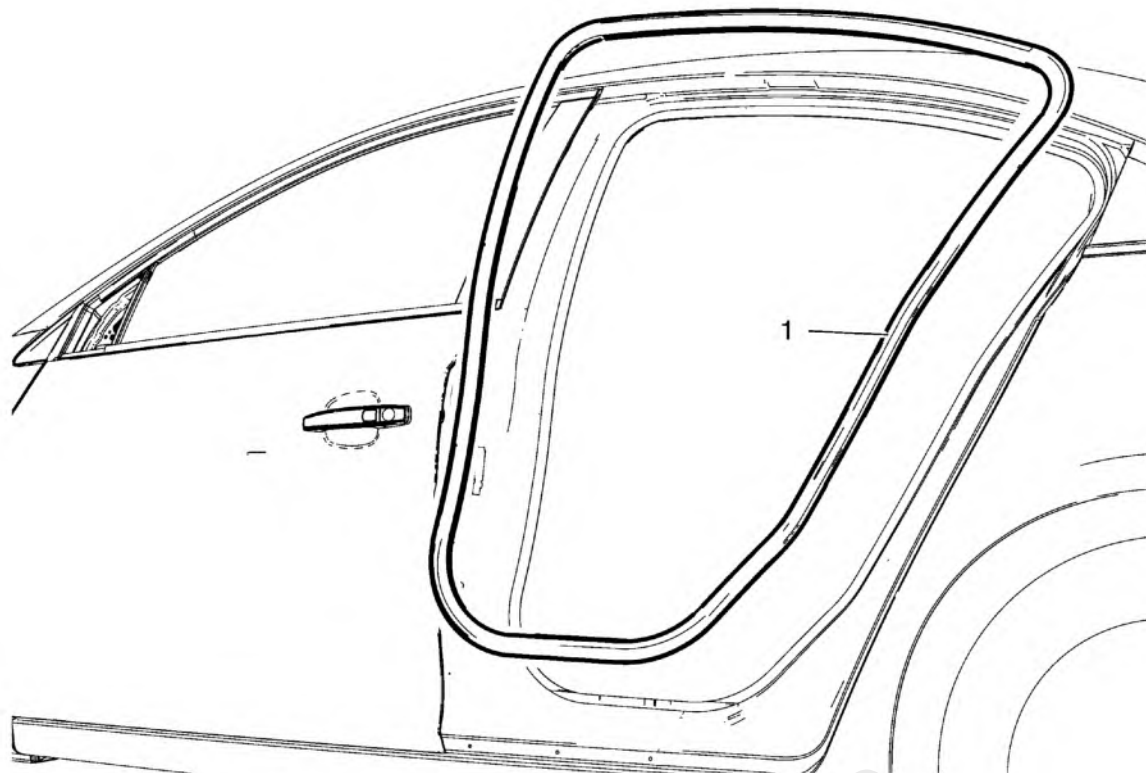


Fig. 51: Rear Side Door Weatherstrip - Body Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures Remove the rear side door step mat retainer. Refer to Rear Side Door Step Mat Retainer Replacement .	
1	Rear Side Door Weatherstrip- Body Side Procedure 1. Start at the front upper corner of the door opening and pull the weatherstrip away from the door opening flange. 2. Position the weatherstrip in the upper corner of the center pillar. 3. Working downward along the front edge, install the weatherstrip on the door opening flange ensuring that the carrier is fully seated in the corners. 4. Using a rubber mallet, ensure that the weatherstrip is seated on the entire door opening flange. NOTE: Water test the door area after replacing the door weatherstrip to ensure no leaks.

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.

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