

2018 ACCESSORIES & EQUIPMENT

Bolted Exterior Body Panels And Closures - Traverse

SPECIFICATIONS

FASTENER SPECIFICATIONS

Reusable Threaded Fastener Tightening Specifications

NOTE:

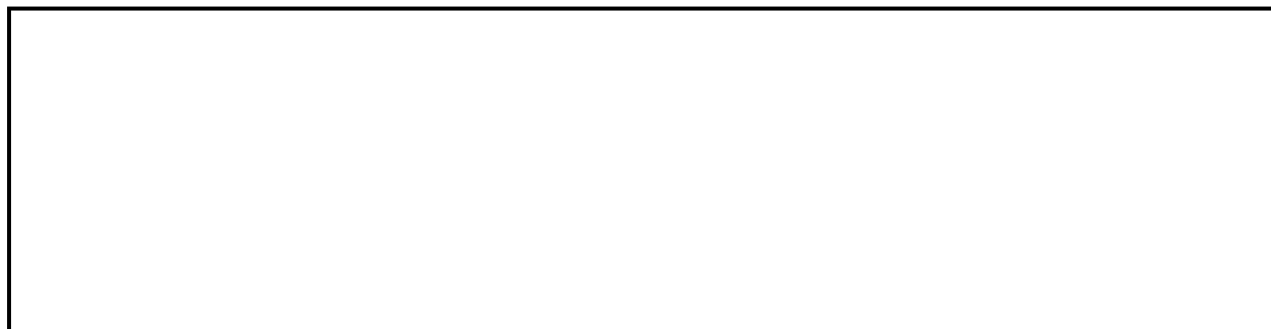
All fasteners listed in this table can be reused after removal.

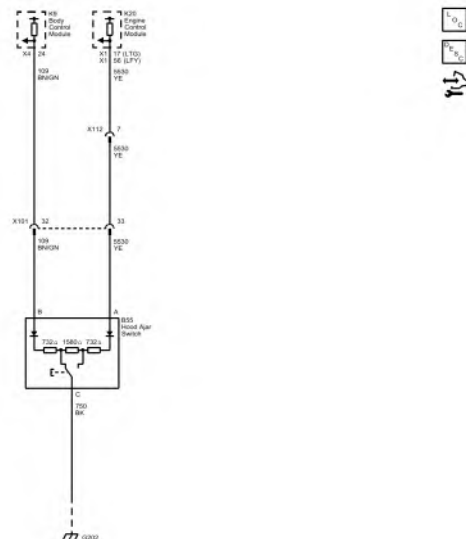
Application	Specification
	Metric (English)
Body Side Hinge Bolt	22 N.m (16 lb ft)
Door Side Hinge Bolt	25 N.m (18 lb ft)
Front End Sheet Metal Diagonal Brace Bolt	22 N.m (16 lb ft)
Front Fender Bolt	9 N.m (80 lb in)
Front Fender Nut	9 N.m (80 lb in)
Front Side Door Check Link Bolt	22 N.m (16 lb ft)
Front Side Door Check Link Nut	9 N.m (80 lb in)
Front Side Door Hinge Bolt	25 N.m (18 lb ft)
Front Side Door Hinge Bolt - Body Side	32 N.m (24 lb ft)
Front Side Door Hinge Bolt - Door Side	25 N.m (18 lb ft)
Headlamp Bolt	2.5 N.m (22 lb in)
Hood Hinge Bolt	32 N.m (24 lb ft)
Hood Hinge Nut	22 N.m (16 lb ft)
Hood Primary and Secondary Latch Bolt	22 N.m (16 lb ft)
Hood Secondary Latch Release Cable Bolt	2.5 N.m (22 lb in)
Liftgate Hinge Bolt	22 N.m (16 lb ft)
Liftgate Hinge Nut	58 N.m (43 lb ft)
Liftgate Strut Bracket Bolt	22 N.m (16 lb ft)
Rear Side Door Check Link Bolt	22 N.m (16 lb ft)
Rear Side Door Check Link Nut	9 N.m (80 lb in)
Rear Side Door Hinge Bolt - Body Side	32 N.m (24 lb ft)
Rear Side Door Hinge Bolt - Door Side	25 N.m (18 lb ft)
Rear Side Door Lower Hinge Bolt	25 N.m (18 lb ft)
Rear Side Door Upper Hinge Bolt	25 N.m (18 lb ft)

SCHEMATIC WIRING DIAGRAMS

HOOD LATCH WIRING SCHEMATICS

Hood Ajar Switch





DIAGNOSTIC INFORMATION AND PROCEDURES

DTC B3006

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 Descriptor

DTC B3006 5A

Hood Ajar Circuit Plausibility Failure

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Hood Ajar Switch Signal	B3006 5A	B3006 5A	B3006 5A	-
Hood Closed Switch Signal	B3006 5A	B3006 5A	B3006 5A	-
Ground	B3006 5A	B3006 5A	-	-

Circuit/System Description

The body control module (BCM) monitors the voltage input of the hood open switch signal circuit and the hood open closed switch signal circuit. With the hood open, the hood ajar portion of the switch is closed, grounding the hood ajar switch signal circuit from the BCM, and the hood closed portion of the switch is open. With the hood closed, the hood closed portion of the switch is closed, grounding the hood closed switch signal circuit from the BCM, and the hood ajar portion of the switch is open. During proper operation, the two separate voltage signals at the BCM should never be at the same voltage.

Conditions for Running the DTC

The BCM continuously monitors for this DTC

Conditions for Setting the DTC

Both the hood open switch signal circuit and the hood closed switch signal circuit are simultaneously in an active or inactive state.

Action Taken When the DTC Sets

- Remote start functions will be disabled.

- The hood ajar switch inputs will be ignored by content theft deterrent (CTD).

Conditions for Clearing the DTC

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

Reference Information

Schematic Reference

- [Hood Latch Wiring Schematics](#)

Connector End View Reference

[COMPONENT CONNECTOR END VIEWS - INDEX](#)

Description and Operation

[Keyless Entry System Description and Operation \(Without ATH\)](#), [Keyless Entry System Description and Operation \(With ATH\)](#)

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

Ignition ON, observe the scan tool BCM Hood Open Switch and Hood Closed Switch parameters. With the hood open, the Hood Open Switch parameter should read Active and the Hood Closed Switch parameter should read Inactive. With the hood closed, the Hood Open Switch parameter should read Inactive and the Hood Closed Switch parameter should read Active.

Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the hood ajar switch.
2. Ignition OFF, test for less than 5 ohms between the ground circuit terminal C and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, test for 11.5 - 12.0 volts between the signal circuit terminal A and ground.
 - If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM.
 - If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
4. Ignition ON, test for 11.5 - 12.0 volts between the signal circuit terminal B and ground.
 - If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM.
 - If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
5. If all circuits test normal, test or replace the hood ajar switch.

Component Testing

Hood Ajar Switch

1. Ignition OFF, disconnect the harness connector at the hood ajar switch.
2. With the switch in the hood closed position, test for infinite resistance between the ground terminal C and the signal terminal A.
 - If not infinite, replace the hood ajar switch.
3. Test for less than 2.0 ohms between the ground terminal C and the signal terminal B.
 - If greater than the specified range, replace the hood ajar switch.
4. With the switch in the hood open position, test for infinite resistance between the ground terminal C and the signal terminal B.
 - If not infinite, replace the hood ajar switch.
5. Test for less than 2.0 ohms between the ground terminal C and the signal terminal A.
 - If greater than the specified range, replace the hood ajar switch.

Repair Instructions

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

- [Hood Primary and Secondary Latch Replacement](#)
- [Control Module References](#) for BCM replacement, programming and setup

DTC P257D-P257F

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 Wiring Schematics

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

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.
 - **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.
- Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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.

- **Go to next step: 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](#)
- [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.

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Hood Ajar Switch Signal	1	1	1	-
Hood Closed Switch Signal	1	1	1	-
Ground	-	1	-	-
1. Hood ajar switch malfunction				

Circuit/System Description

The body control module (BCM) monitors the voltage input of the hood open switch signal circuit and the hood open closed switch signal circuit. With the hood open, the hood ajar portion of the switch is closed, grounding the hood ajar switch signal circuit from the BCM, and the hood closed portion of the switch is open. With the hood closed, the hood closed portion of the switch is closed, grounding the hood closed switch signal circuit from the BCM, and the hood ajar portion of the switch is open. During proper operation, the two separate voltage signals at the BCM should never be at the same voltage.

Reference Information

Schematic Reference

- [Immobilizer Wiring Schematics](#)
- [Remote Function Wiring Schematics](#)

Connector End View Reference

COMPONENT CONNECTOR END VIEWS - INDEX

Description and Operation

Keyless Entry System Description and Operation (Without ATH) Keyless Entry System Description and Operation (With ATH)

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

Ignition ON, observe the scan tool BCM Hood Open Switch and Hood Closed Switch parameters. With the hood open, the Hood Open Switch parameter should read Active and the Hood Closed Switch parameter should read Inactive. With the hood closed, the Hood Open Switch parameter should read Inactive and the Hood Closed Switch parameter should read Active.

Circuit/System Testing

1. Ignition OFF, disconnect the harness connector at the hood ajar switch.
2. Ignition OFF, test for less than 5 ohms between the ground circuit terminal C and ground.
 - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition ON, test for 11.5 - 12.0 volts between the signal circuit terminal A and ground.

- If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM.
 - If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
4. Ignition ON, test for 11.5 - 12.0 volts between the signal circuit terminal B and ground.
 - If greater than the specified range, test the signal circuit for a short to voltage. If the circuit tests normal, replace the BCM.
 - If less than the specified range, test the signal circuit for a short to ground or an open/high resistance. If the circuit tests normal, replace the BCM.
 5. If all circuits test normal, test or replace the hood ajar switch.

Component Testing

Hood Ajar Switch

1. Ignition OFF, disconnect the harness connector at the hood ajar switch.
2. With the switch in the hood closed position, test for infinite resistance between the ground terminal C and the signal terminal A.
 - If not infinite, replace the hood ajar switch.
3. Test for less than 2 ohms between the ground terminal C and the signal terminal B.
 - If greater than the specified range, replace the hood ajar switch.
4. With the switch in the hood open position, test for infinite resistance between the ground terminal C and the signal terminal B.
 - If not infinite, replace the hood ajar switch.
5. Test for less than 2 ohms between the ground terminal C and the signal terminal A.
 - If greater than the specified range, replace the hood ajar switch.

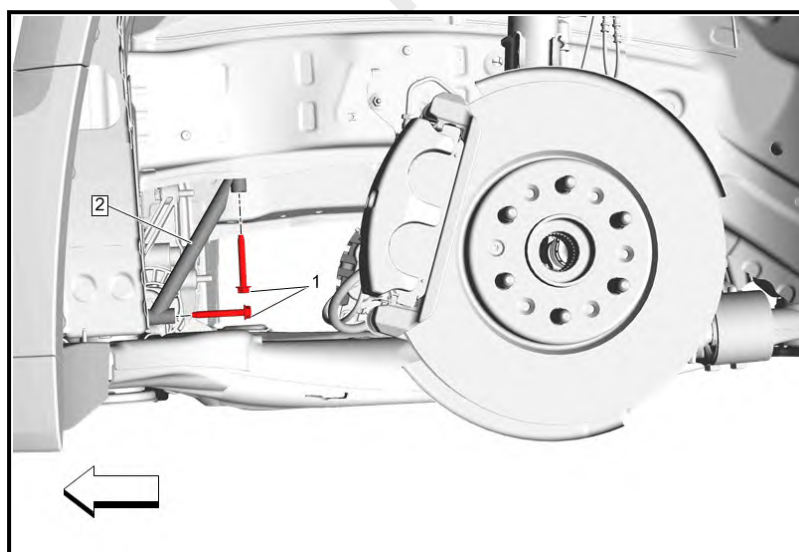
Repair Instructions

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

- [Hood Primary and Secondary Latch Replacement](#)
- [Control Module References](#) for BCM or instrument cluster replacement, programming and setup

REPAIR INSTRUCTIONS

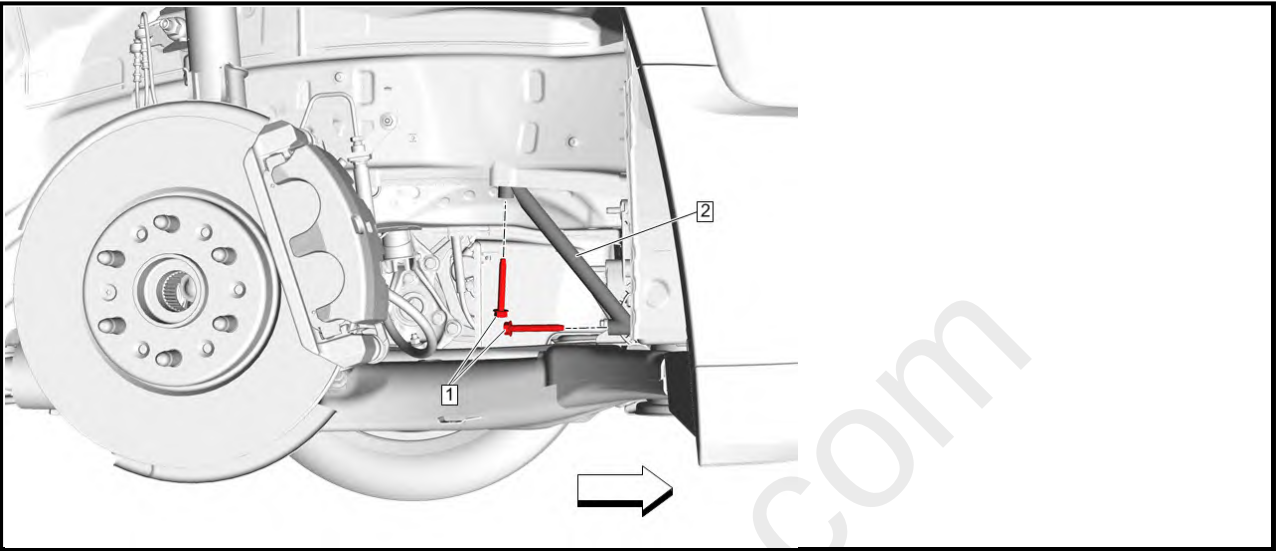
FRONT END SHEET METAL DIAGONAL BRACE REPLACEMENT - LEFT SIDE



Callout	Component Name
Preliminary Procedure	
Front Wheelhouse Liner Replacement	

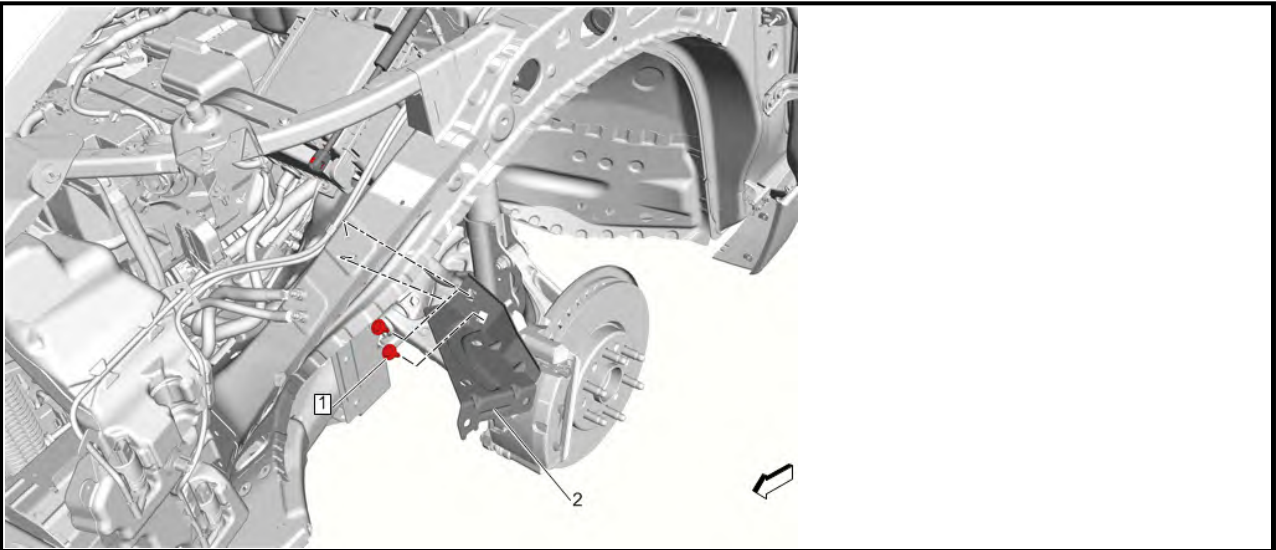
Callout	Component Name
1	Front Compartment Side Rail Bolt [2x] CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Front End Sheet Metal Diagonal Brace-Left Side

FRONT END SHEET METAL DIAGONAL BRACE REPLACEMENT - RIGHT SIDE



Callout	Component Name
Preliminary Procedure Front Wheelhouse Liner Replacement	
1	Front Compartment Side Rail Bolt [2x] CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Front End Sheet Metal Diagonal Brace-Right Side

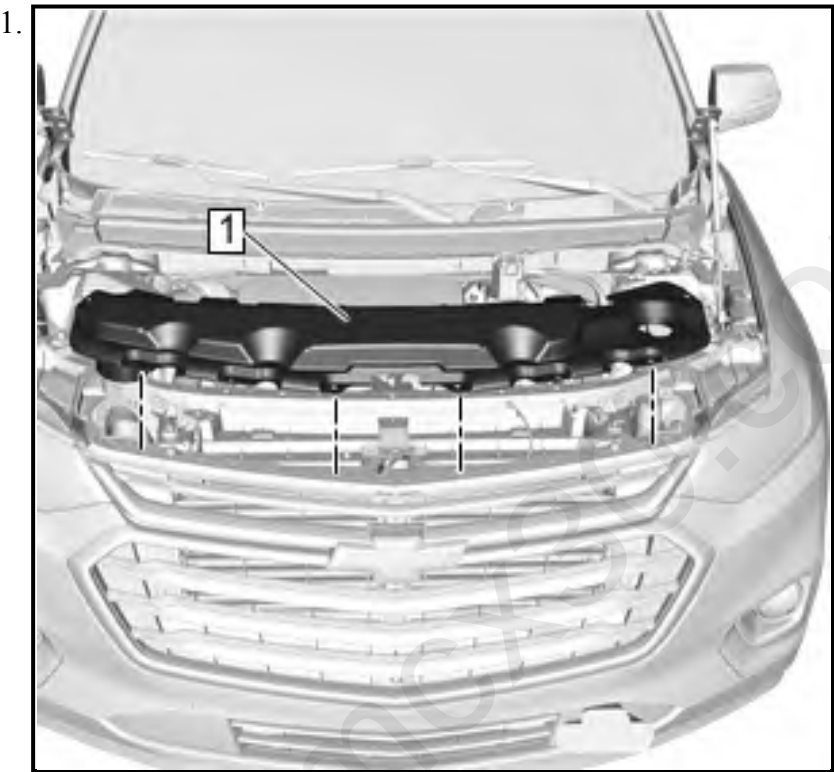
FRONT FENDER FRONT BRACKET REPLACEMENT



Callout	Component Name
Preliminary Procedure <u>Front Fender Replacement</u>	
1	Front Fender Bolt [2x] CAUTION: Refer to <u>Fastener Caution</u> . Tighten 9 N.m (80 lb in)
2	Front Fender Front Bracket

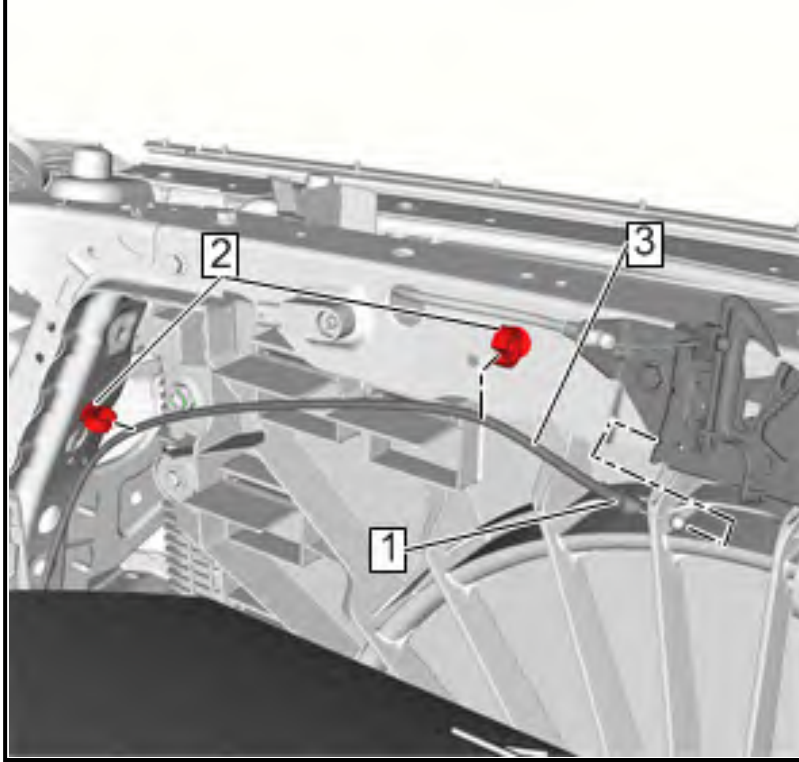
HOOD PRIMARY LATCH RELEASE CABLE REPLACEMENT

Removal Procedure



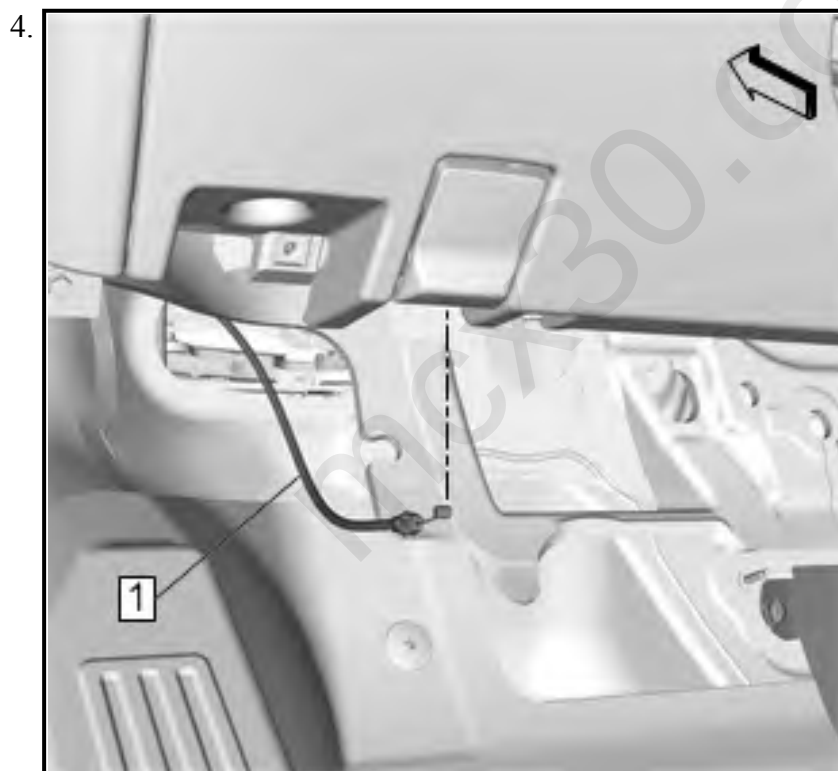
Intake Air Splash Shield (1) - Remove - **Intake Air Splash Shield Replacement**





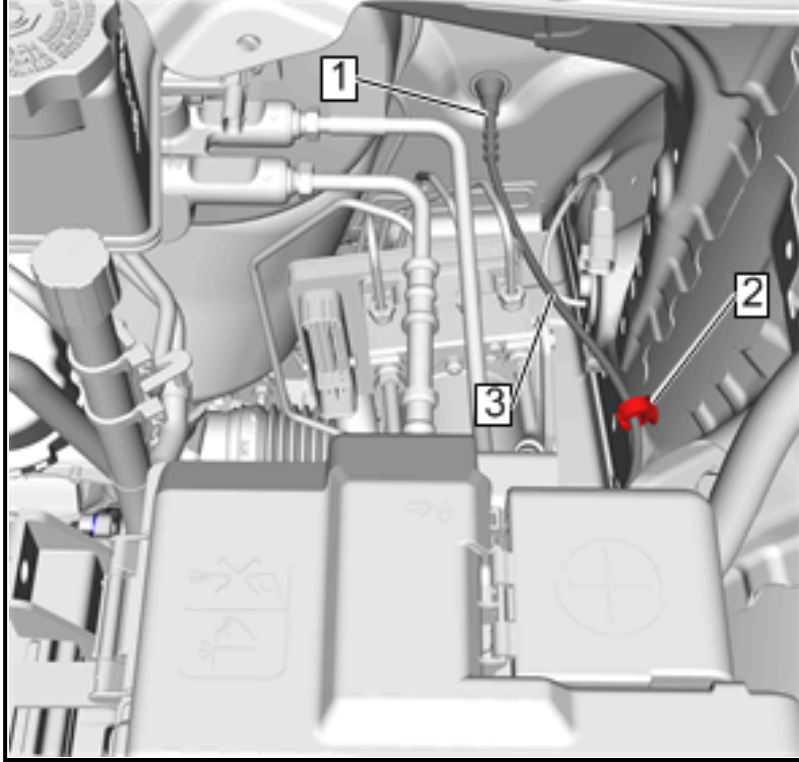
Disconnect the cable end retainer (1) from the latch.

3. Release the hood primary latch release cable (3) from the retainers (2).



Disconnect the hood primary latch release cable (1) from the inside handle. [Hood Primary Latch Release Cable Handle Replacement](#)

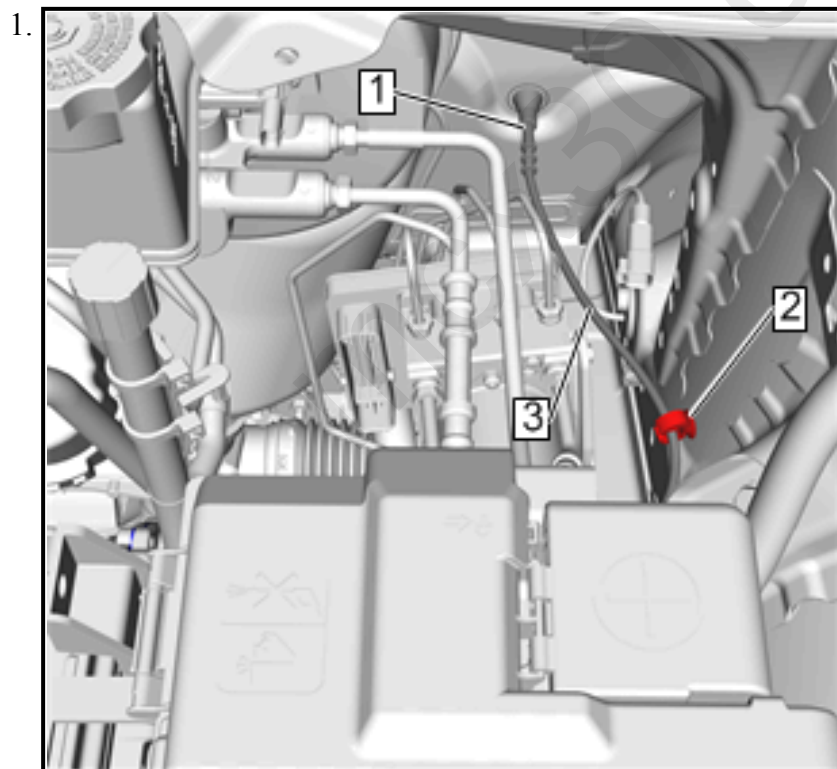




Disconnect the hood primary latch release cable grommet (1) from the plenum upper panel.

6. Release the hood primary latch release cable from the retainer (2).
7. Attach mechanics wire to the cable (3) and pull the cable out.

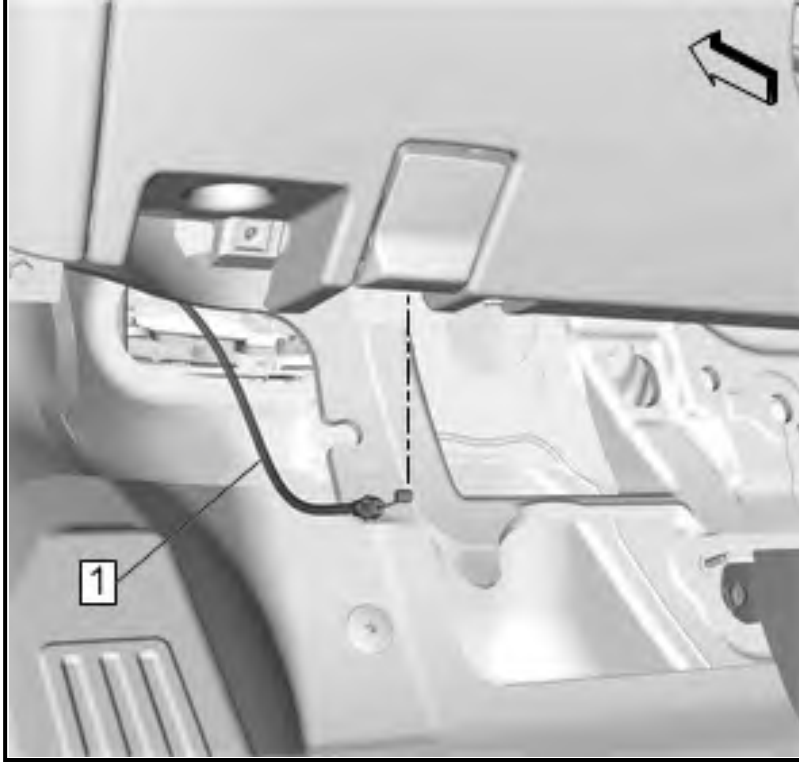
Installation Procedure



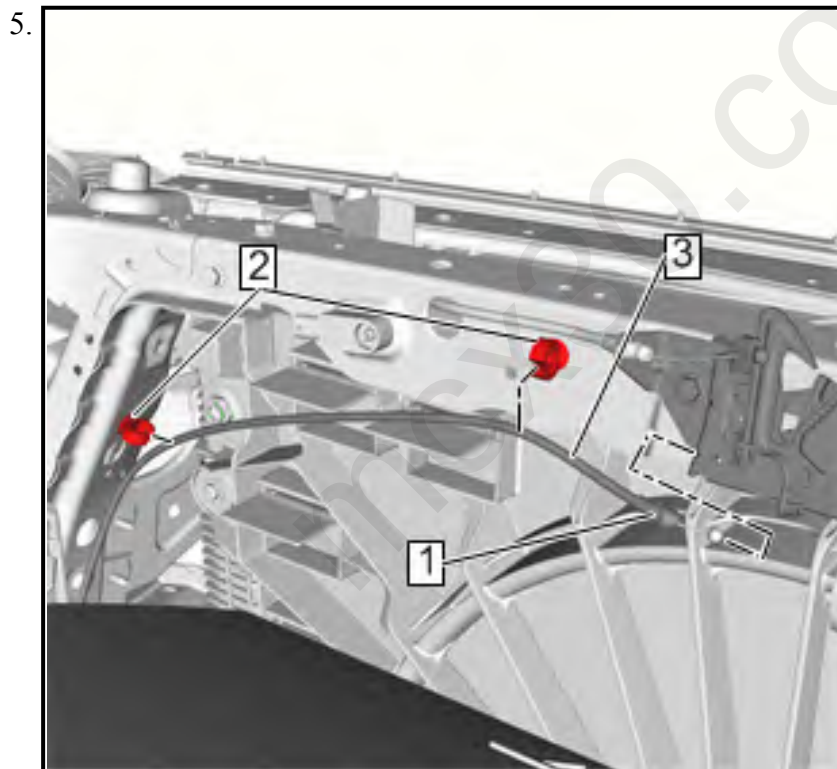
Attach the mechanics wire to the new cable (3) and guide the cable in.

2. Connect the hood primary latch release cable grommet (1) to the plenum upper panel.
3. Attach the hood primary latch release cable to the retainer (2).





Connect the hood primary latch release cable (1) to the inside handle. [Hood Primary Latch Release Cable Handle Replacement](#)



Attach the hood primary latch release cable (3) to the retainers (2).

6. Connect the cable end retainer (1) to the latch.





Air Inlet Grille Panel (1) - Install - [Air Inlet Grille Panel Replacement](#) .

FRONT SIDE DOOR ADJUSTMENT

Removal Procedure

Up/Down or In/Out Adjustment

1. Open the door.

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

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

Loosen the door side hinge bolts.

Do NOT remove the bolts from the door.

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

Installation Procedure

CAUTION: Refer to [Fastener Caution](#) .

1. Install the door side hinge bolts.

Tighten

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

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

Removal Procedure

Fore/Aft Adjustment

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

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

Installation Procedure

CAUTION: Refer to **Fastener Caution** .

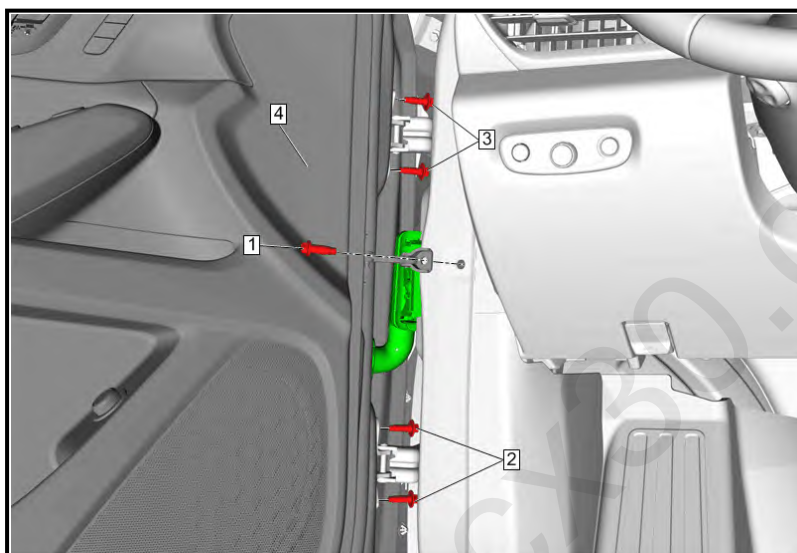
1. Install the body side hinge bolts.

Tighten

Tighten the bolts to 22 N.m (16 lb ft).

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

FRONT SIDE DOOR REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. Mark the location of the hinge before removing the bolts with a grease pencil. 2. Disconnect the electrical connector. 3. Support the door before removing the hinge fastener.	
1	Front Side Door Check Link Bolt CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Front Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
3	Front Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)

Callout	Component Name
4	Front Side Door Procedure 1. With the aid of an assistant, remove the door. 2. Transfer components as necessary. 3. <u>Front Side Door Adjustment</u>

REAR SIDE DOOR ADJUSTMENT

Removal Procedure

Up/Down or In/Out Adjustment

1. Open the door.

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

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

Loosen the door side hinge bolts.

Do NOT remove the bolts from the door.

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

Installation Procedure

CAUTION: Refer to Fastener Caution .

1. Install the door side hinge bolts.

Tighten

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

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

Removal Procedure

Fore/Aft Adjustment

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

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

Loosen the bodyside hinge bolts, but do NOT remove the bolts from the door.

2. Adjust the door fore and aft by repositioning the door as necessary.

Installation Procedure

CAUTION: Refer to Fastener Caution .

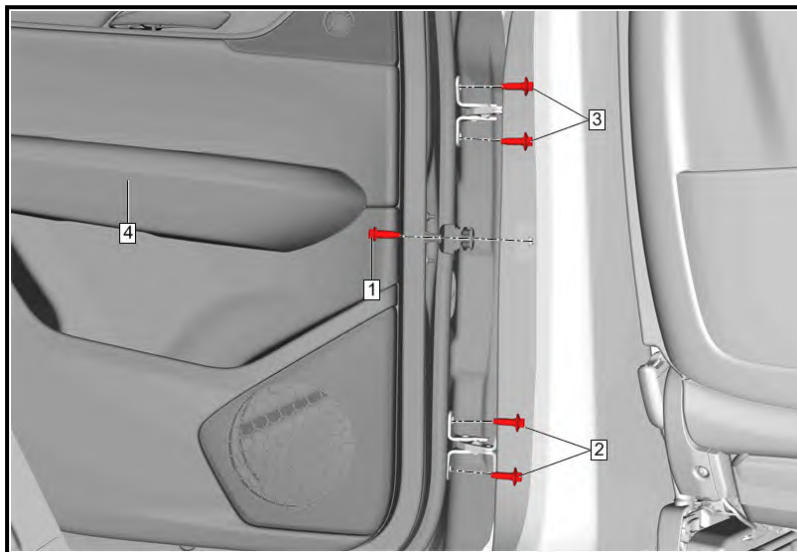
1. Install the body side hinge bolts.

Tighten

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

2. Adjust the rear side door lock striker, if needed. [Rear Side Door Lock Striker Adjustment](#)
3. Inspect the door for proper operation and alignment.
4. Remove the tape.

REAR SIDE DOOR REPLACEMENT

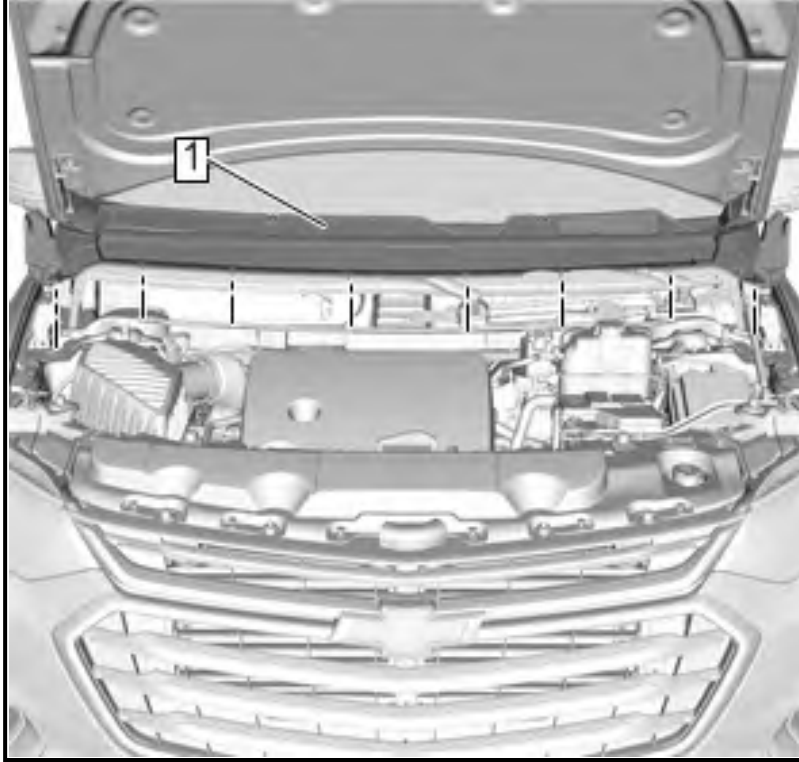


Callout	Component Name
Preliminary Procedures 1. Mark the location of the hinge before removing the bolts with a grease pencil. 2. Disconnect the electrical connector. 3. Support the door before removing the rear side door hinge bolts.	
1	Rear Side Door Check Link Bolt CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Rear Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
3	Rear Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
4	Rear Side Door Procedure 1. With the aid of an assistant, remove the door. 2. Transfer components as necessary. 3. Rear Side Door Adjustment

FRONT FENDER REPLACEMENT

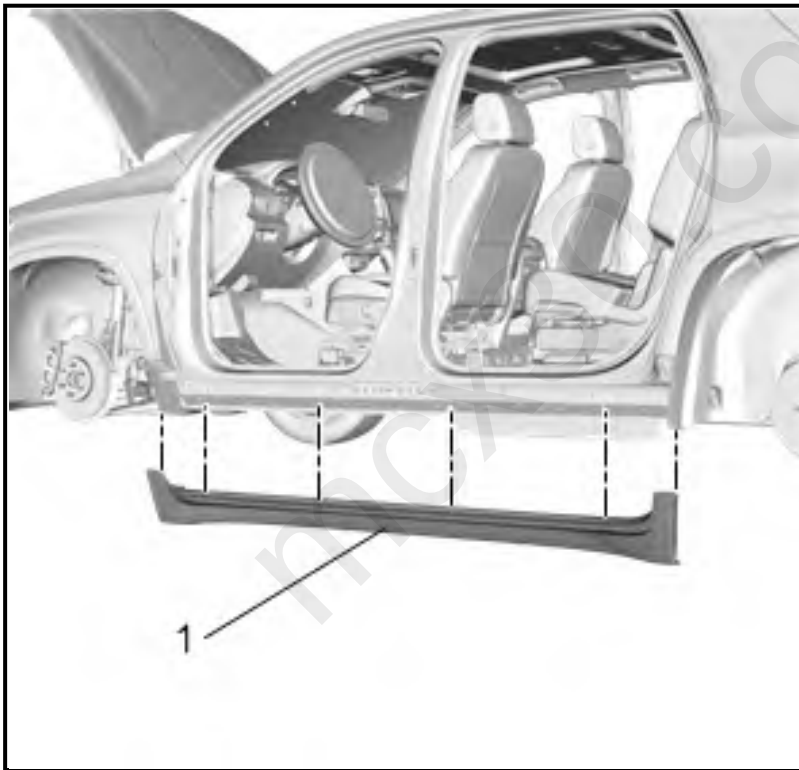
Removal Procedure

1.



Air Inlet Grille Panel (1) - Remove - [Air Inlet Grille Panel Replacement](#)

2.



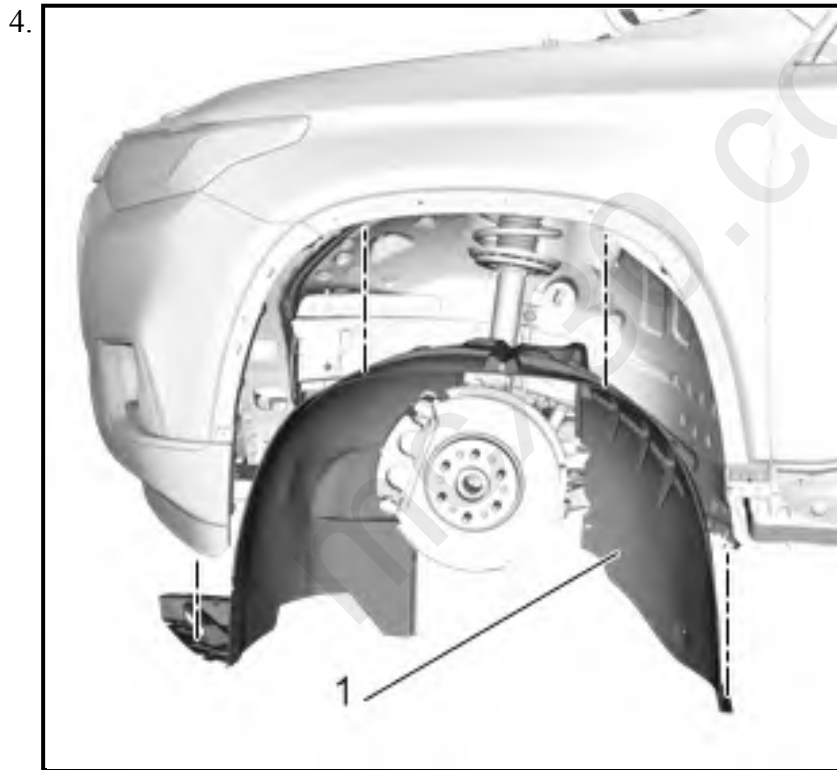
Rocker Panel Molding (1) - Remove - [Rocker Panel Molding Replacement](#)

3.



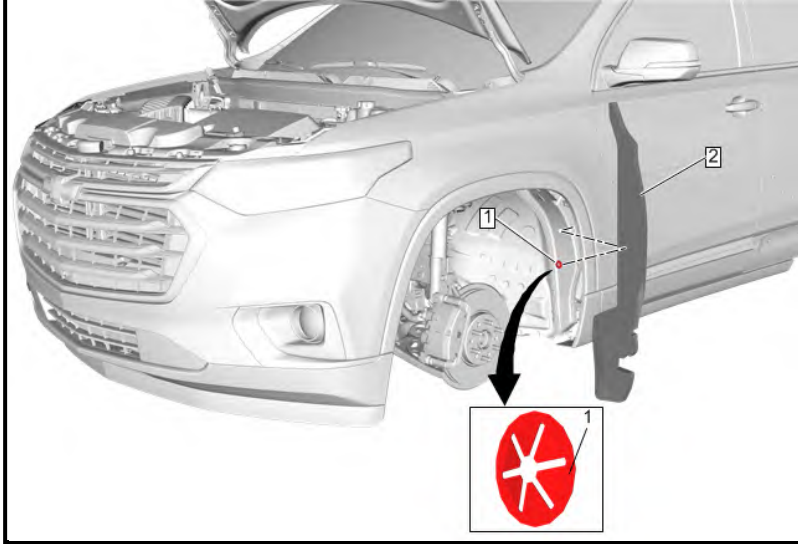


Front Wheel Opening Molding (1) - Remove - [Front Wheel Opening Molding Replacement](#)

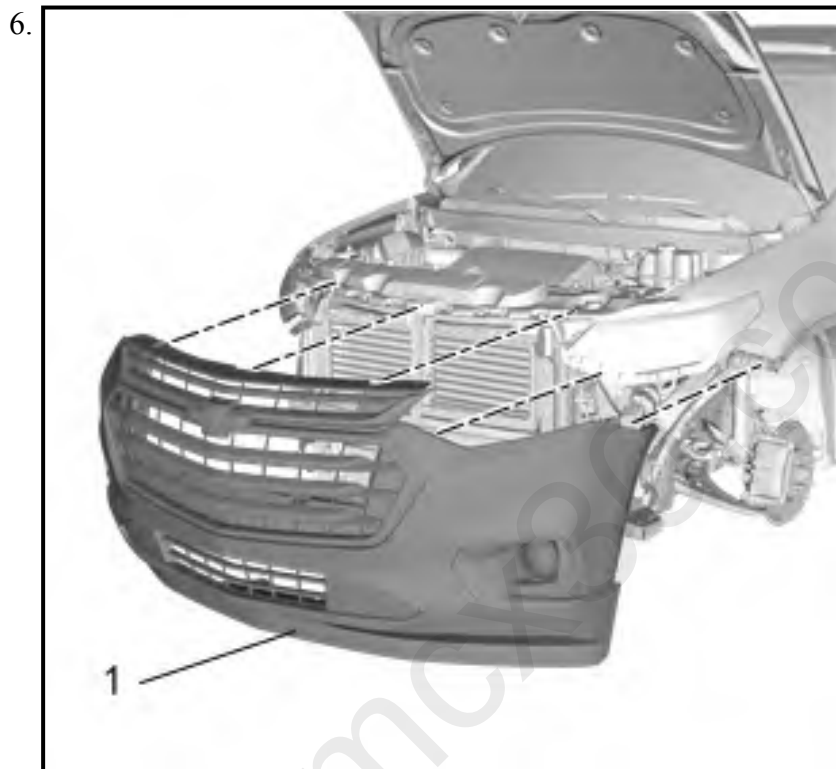


Front Wheelhouse Liner- (1) - Remove - [Front Wheelhouse Liner Replacement](#)

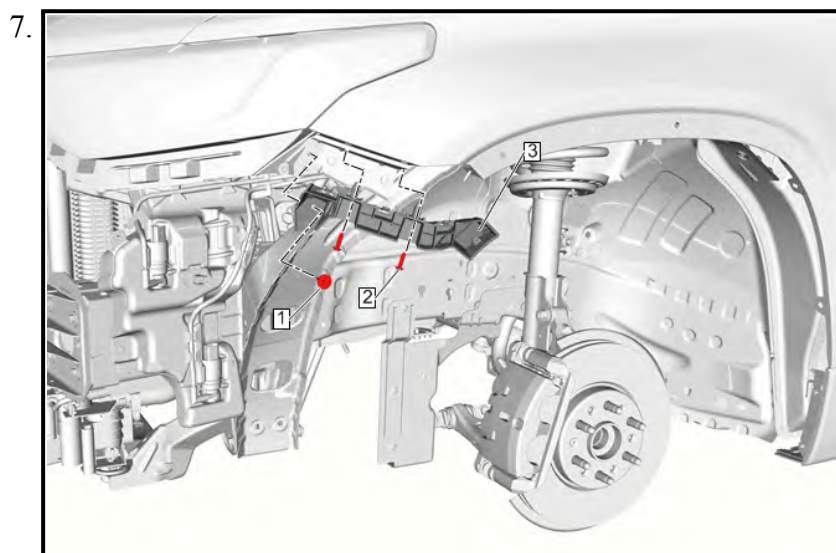




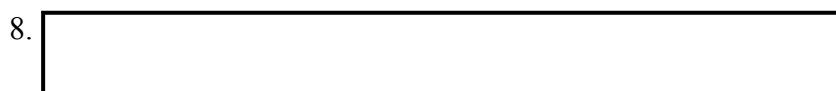
Front Fender Insulator (2) - Remove - [Front Fender Insulator Replacement](#)



Front Bumper Fascia (1) - Remove - [Front Bumper Fascia Replacement](#)



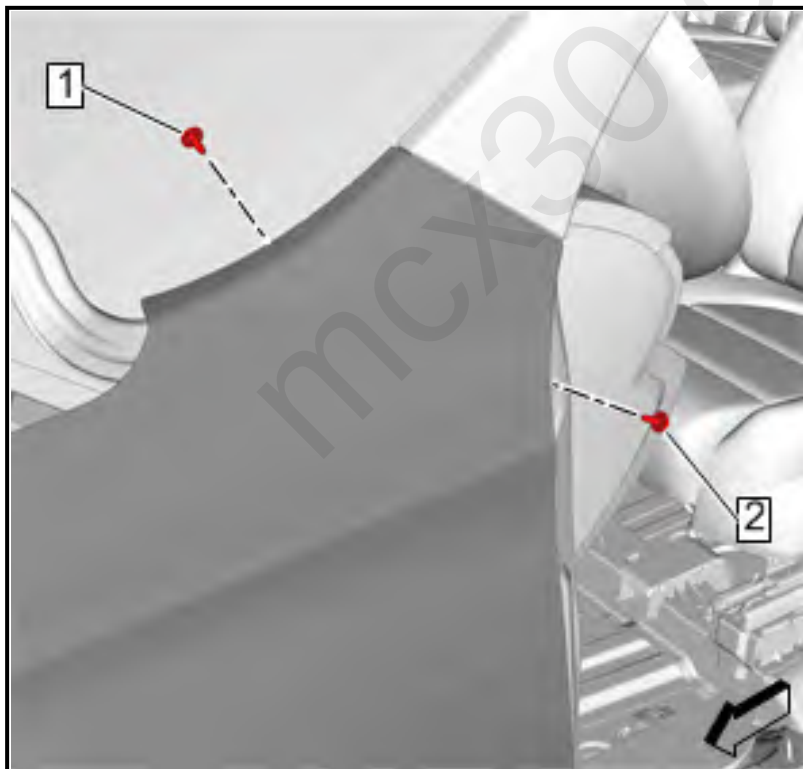
Front Bumper Fascia Guide (3) - Remove - [Front Bumper Fascia Guide Replacement](#)





Headlamp (1) - Remove - [Headlamp Replacement](#)

9.



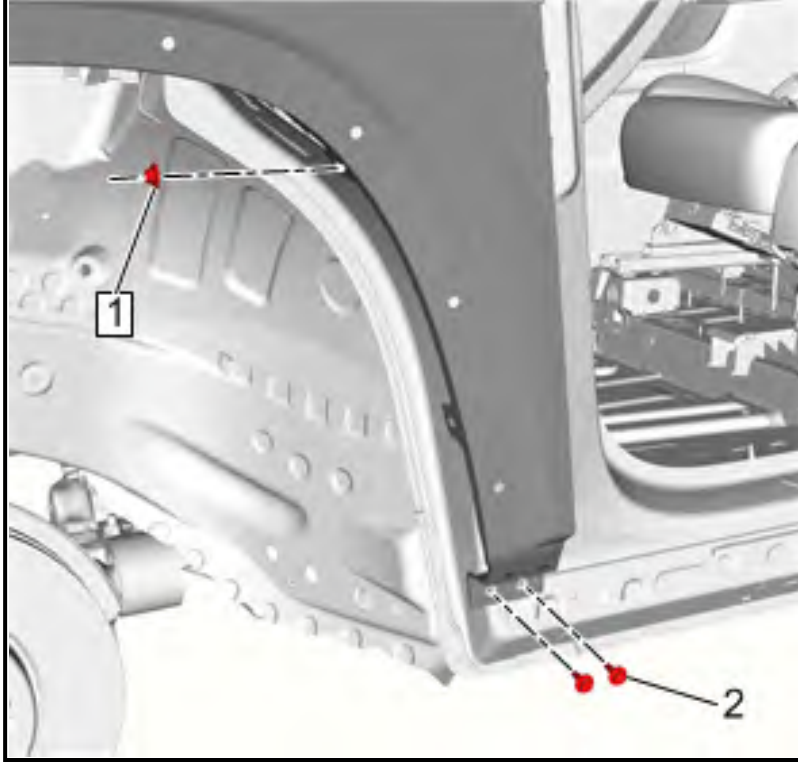
NOTE: Place protective covering over windshield at top rear bolt to prevent windshield breakage.

Front Fender Bolt (1) - Remove

10. Front Fender Bolt (2) - Remove

11.

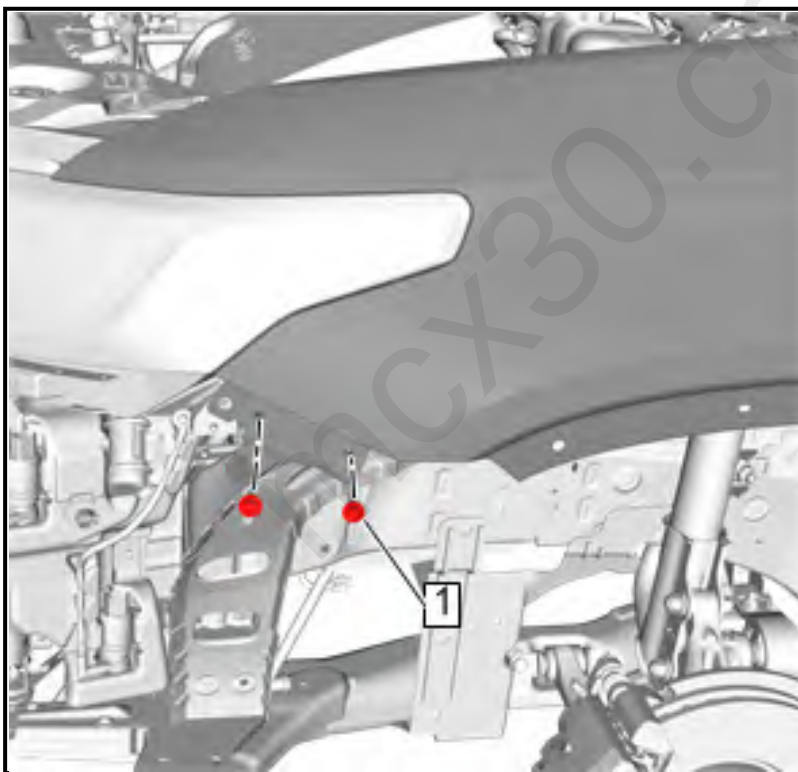




Front Fender Nut (1) - Remove

12. Front Fender Bolt (2) - Remove [2x]

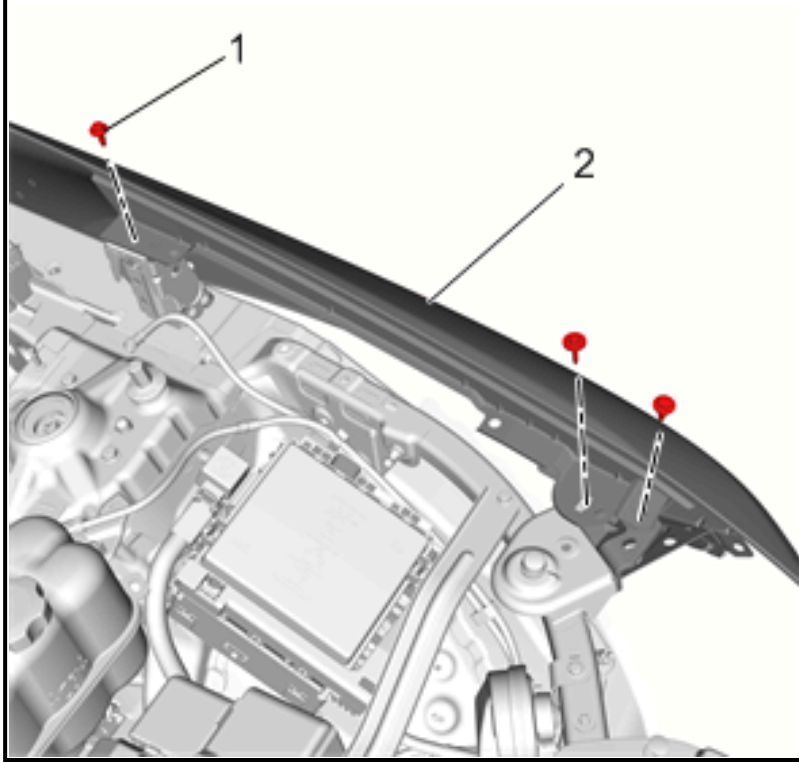
13.



14. Front Fender Bolt (1) - Remove [2x]

15.

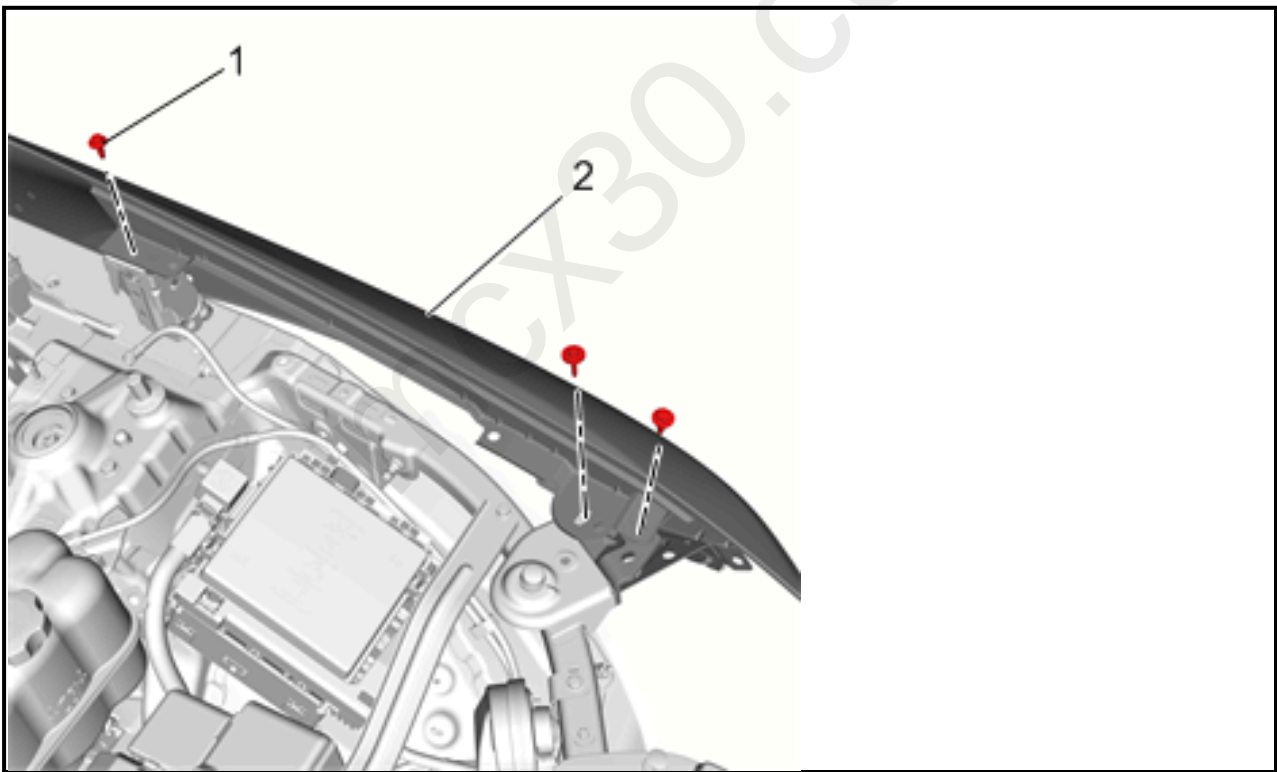




Front Fender Bolt (1) - Remove [3x]

16. Front Fender (2) - Remove

Installation Procedure

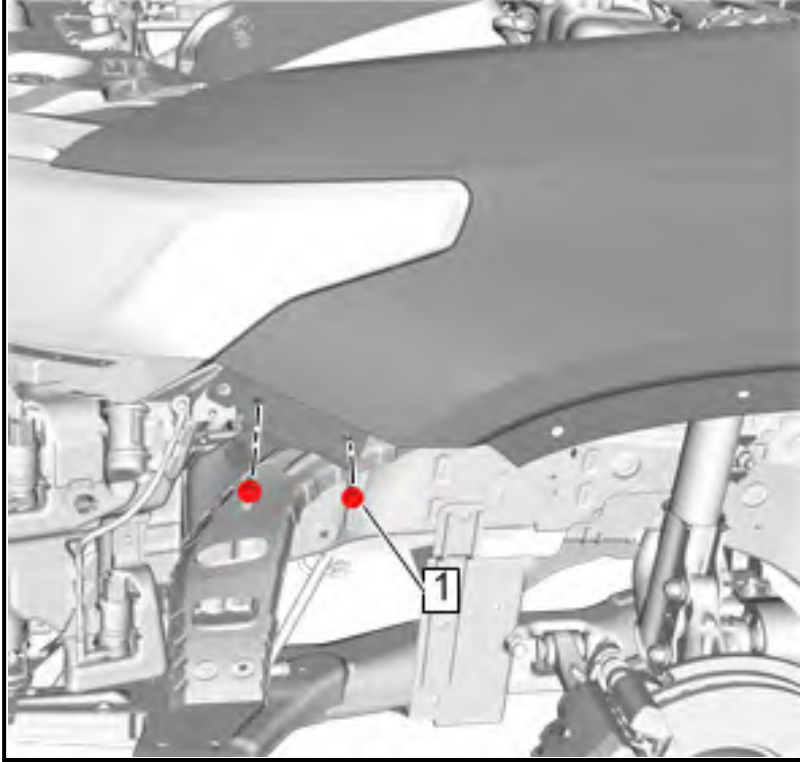


CAUTION: Refer to [Fastener Caution](#) .

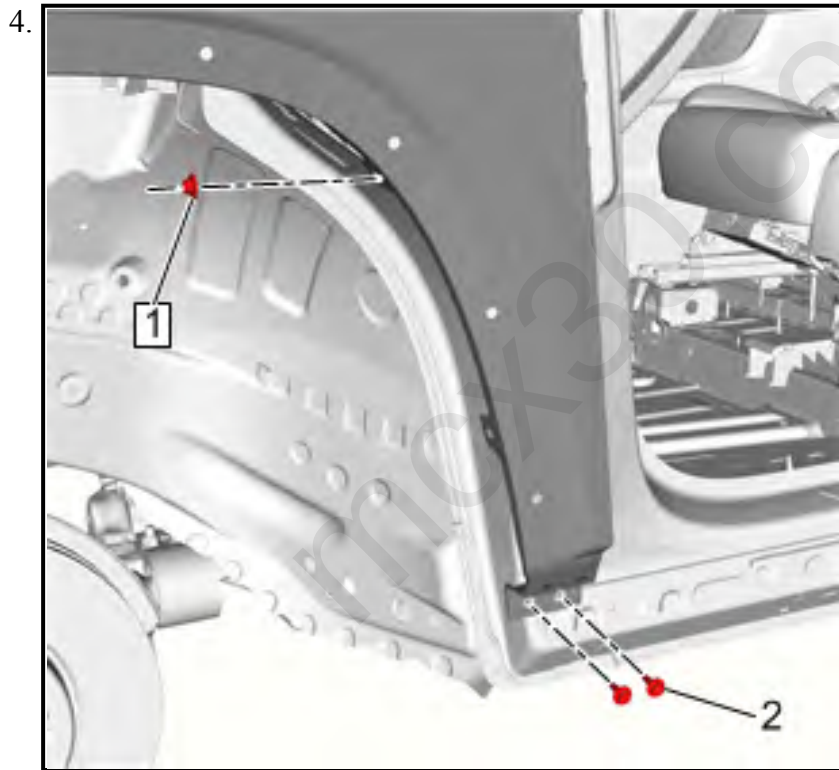
1. Front Fender (2) - Install
2. Front Fender Bolt (1) - Install and tighten [3x] 9 N.m (80 lb in)

3.





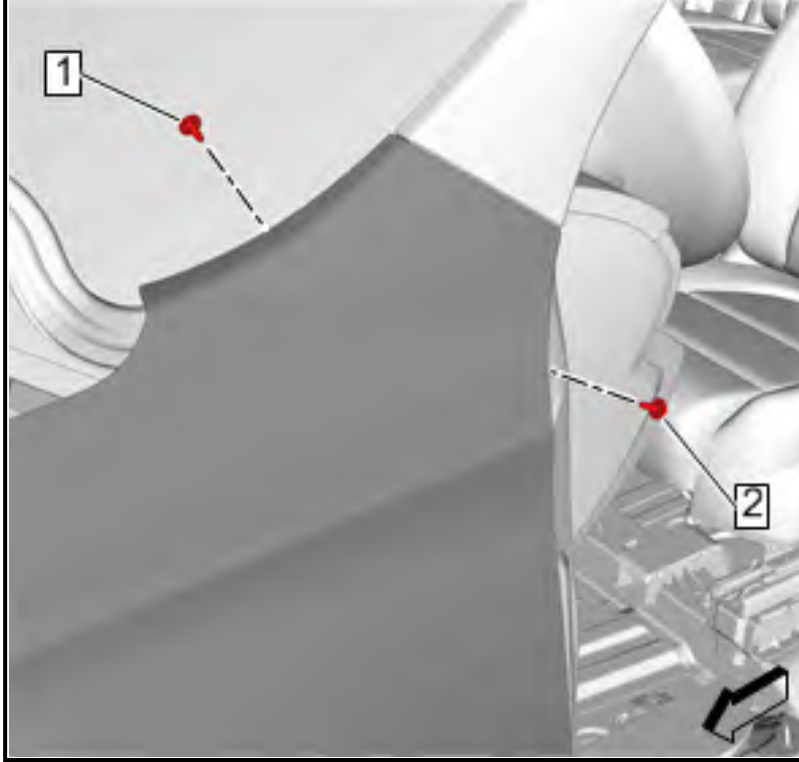
Front Fender Bolt (1) - Install and tighten [2x] 9 N.m (80 lb in)



Front Fender Nut (1) - Install and tighten 9 N.m (80 lb in)

5. Front Fender Bolt (2) - Install and tighten [2x] 9 N.m (80 lb in)





Front Fender Bolt (1) - Install and tighten [2x] 9 N.m (80 lb in)

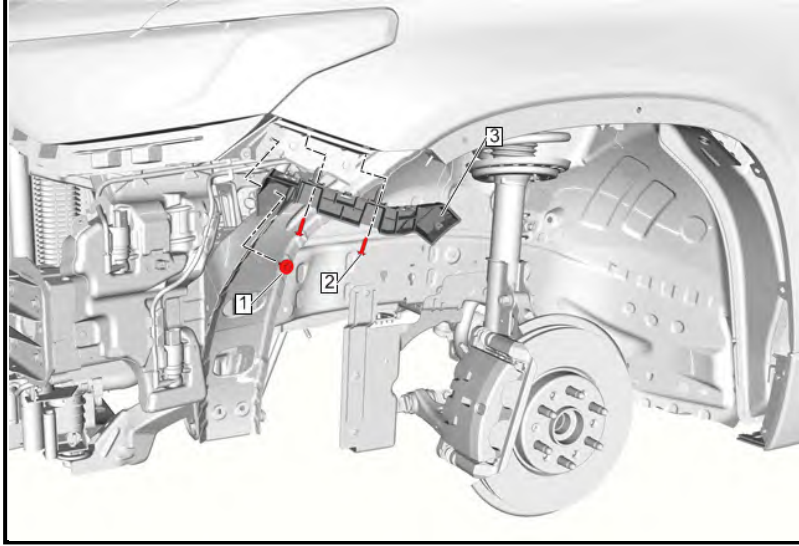
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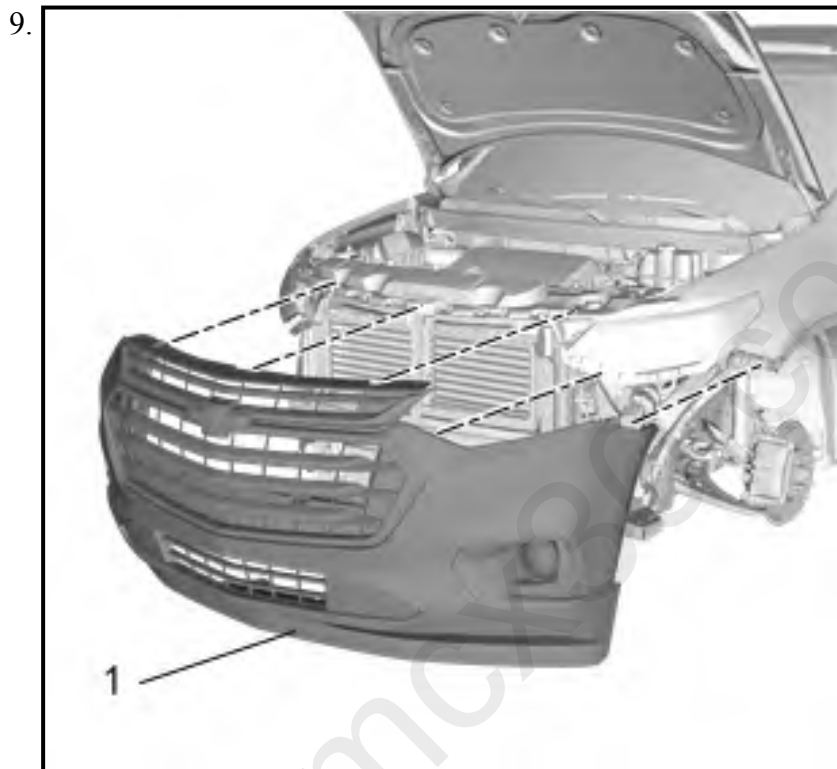
Headlamp (1) - Install - [Headlamp Replacement](#)

8.

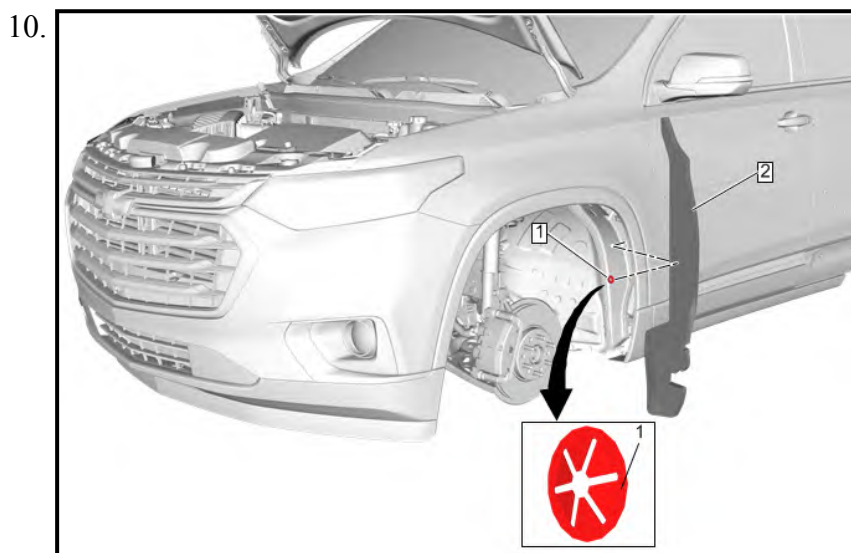




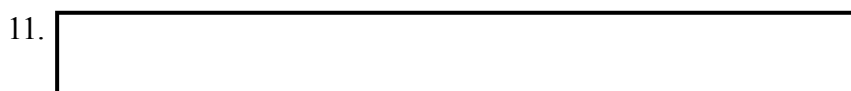
Front Bumper Fascia Guide (3) - Install - [Front Bumper Fascia Guide Replacement](#)



Front Bumper Fascia (1) - Install - [Front Bumper Fascia Replacement](#)



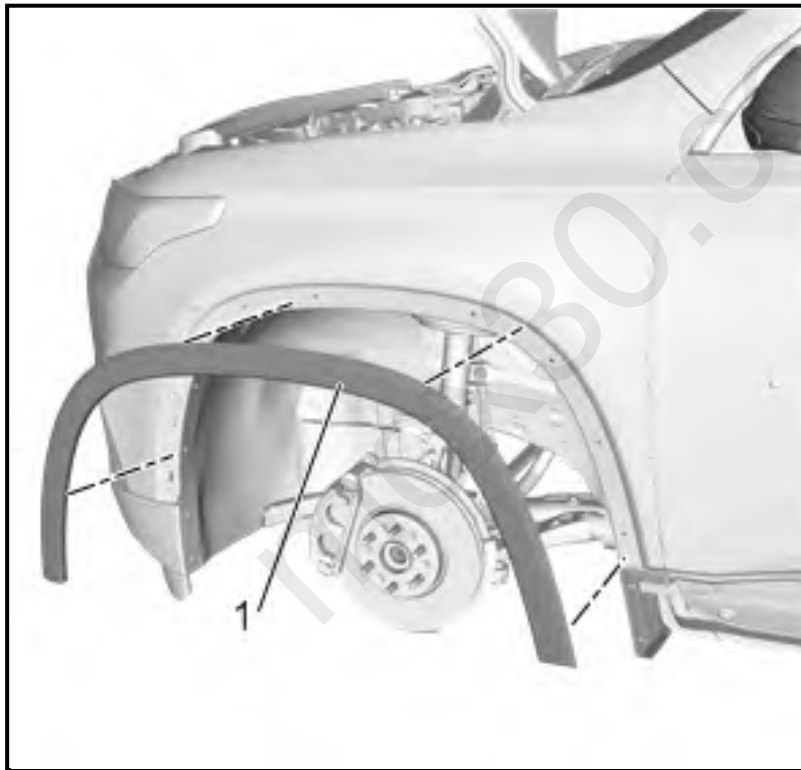
Front Fender Insulator (2) - Install - [Front Fender Insulator Replacement](#)





Front Wheelhouse Liner- (1) - Install - [Front Wheelhouse Liner Replacement](#)

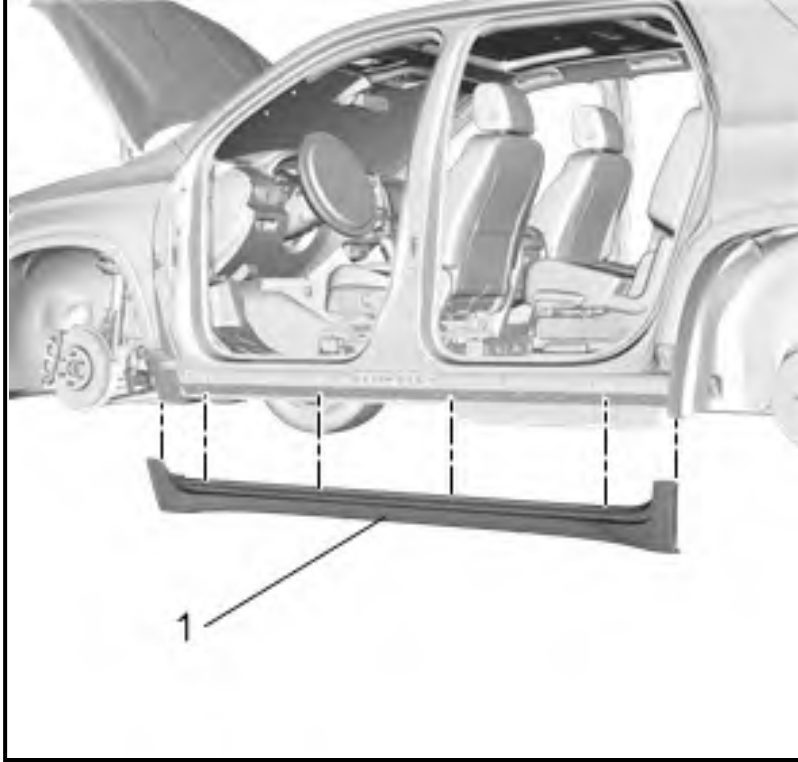
12.



Front Wheel Opening Molding (1) - Install - [Front Wheel Opening Molding Replacement](#)

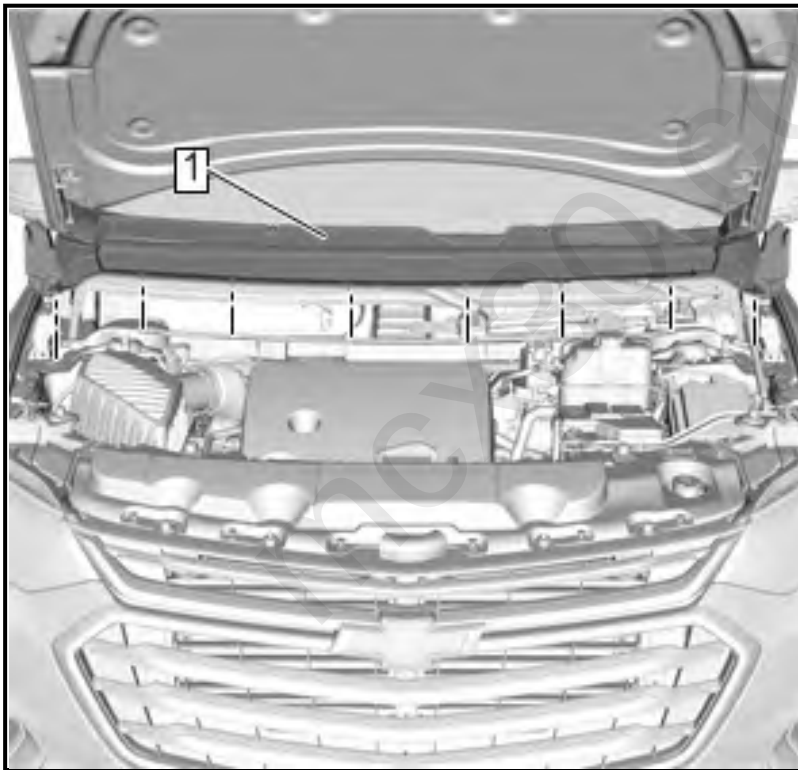
13.





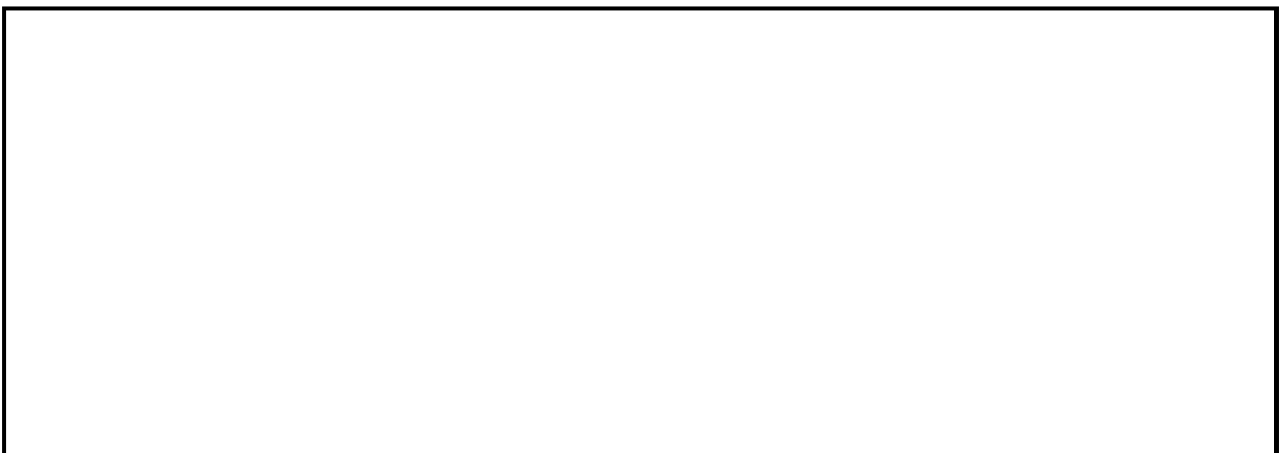
Rocker Panel Molding (1) - Install - [Rocker Panel Molding Replacement](#)

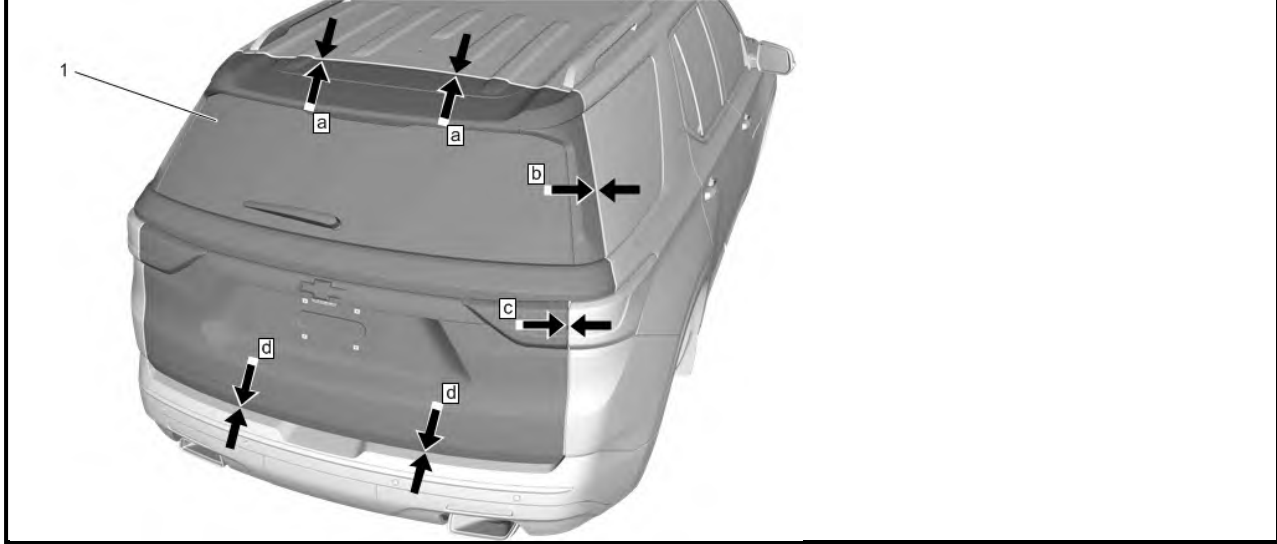
14.



Air Inlet Grille Panel (1) - Install - [Air Inlet Grille Panel Replacement](#)

LIFTGATE ADJUSTMENT





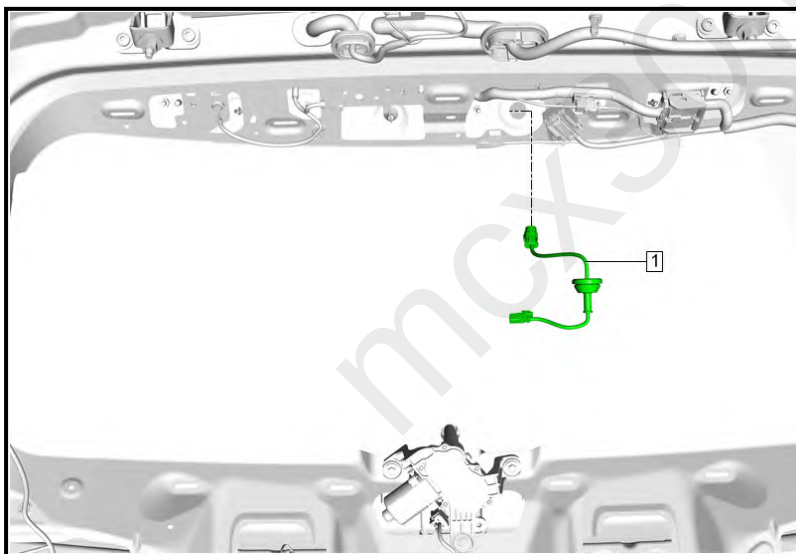
Callout	Component Name
1	Liftgate CAUTION: Refer to Fastener Caution . Procedure 1. Loosen the 4 liftgate hinge bolts to adjust the liftgate. 2. Adjust the liftgate in order to obtain an even gap between the liftgate and the roof, the quarter outer panel, the tail lamp and rear bumper fascia and so that 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 $\tilde{A}, \hat{A} \pm 1.0$ mm (0.22 in $\tilde{A}, \hat{A} \pm 0.05$ in) • Liftgate to quarter outer panel (b) 4.0 mm $\tilde{A}, \hat{A} \pm 1.0$ mm (0.16 in $\tilde{A}, \hat{A} \pm 0.04$ in) • Liftgate to rear body structure stop lamp (c) 4.5 mm $\tilde{A}, \hat{A} \pm 1.5$ mm (0.17 in $\tilde{A}, \hat{A} \pm 0.05$ in) • Liftgate to rear bumper fascia (d) 5.0 mm $\tilde{A}, \hat{A} \pm 1.5$ mm (0.19 in $\tilde{A}, \hat{A} \pm 0.05$ in) Tighten 22 N.m (16 lb ft)

LIFTGATE 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 Liftgate Strut Replacement - Disconnect all electrical connectors.	
1	Liftgate Hinge Bolt [4x] CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Liftgate Procedure - With the aid of an assistant, remove the liftgate. - Transfer components as necessary.

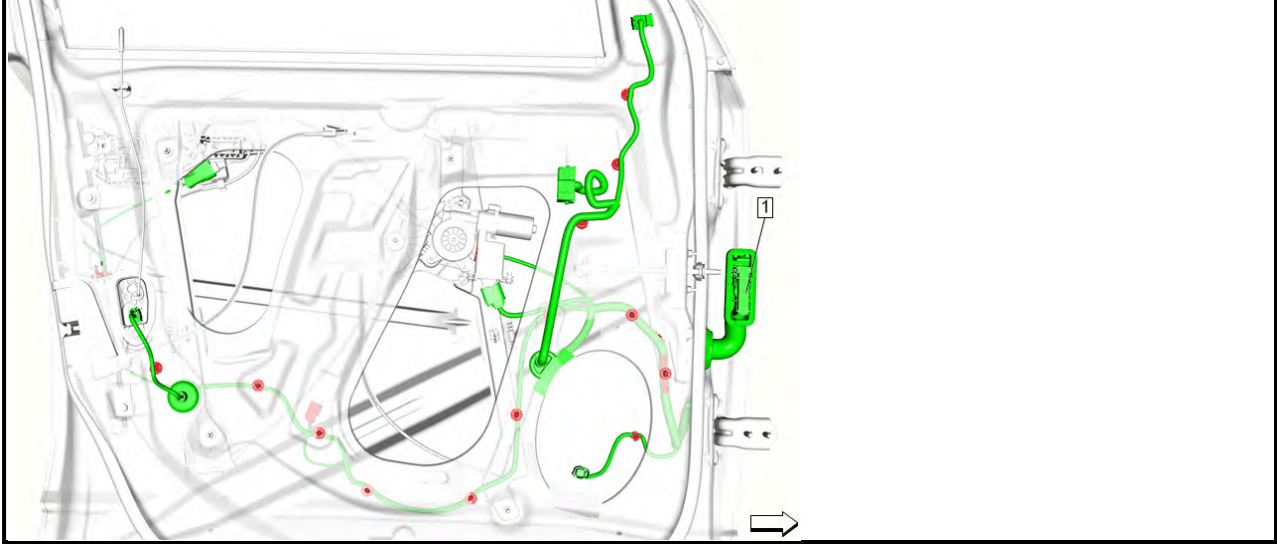
LIFTGATE WIRING HARNESS EXTENSION HARNESS REPLACEMENT



Callout	Component Name
Preliminary Procedures Liftgate Lower Trim Finish Panel Replacement High Mount Stop Lamp Replacement	
1	Liftgate Wiring Harness Extension Harness Procedure Disconnect all electrical connectors.

FRONT SIDE DOOR WIRING HARNESS REPLACEMENT





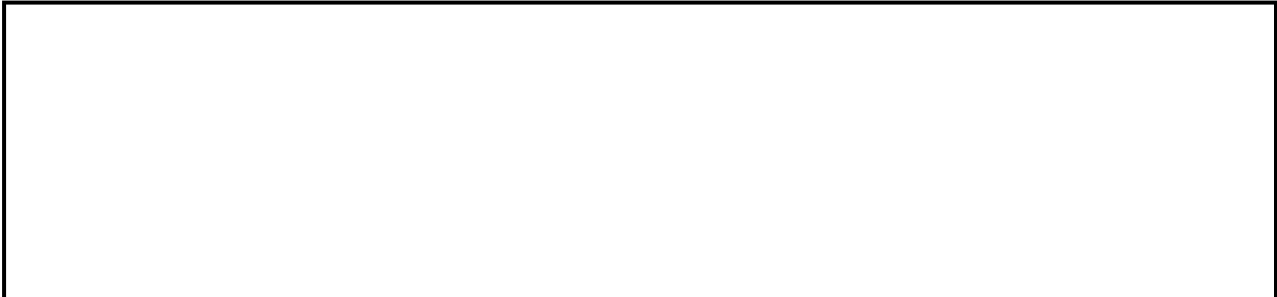
Callout	Component Name
Preliminary Procedures 1. Radio Front Side Door Speaker Replacement 2. Front Side Door Water Deflector Replacement	
1	Front Side Door Wiring Harness Procedure Disconnect all electrical connectors.

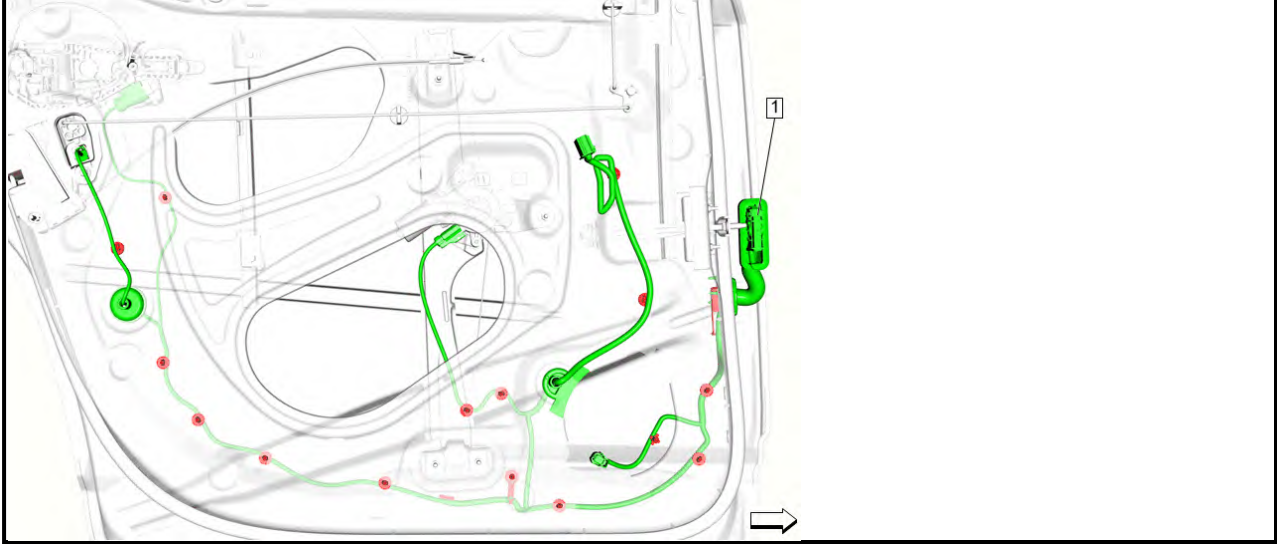
LIFTGATE WIRING HARNESS REPLACEMENT



Callout	Component Name
Procedure Liftgate Lower Trim Finish Panel Replacement	
1	Liftgate Wiring Harness Procedure Disconnect all electrical connectors.

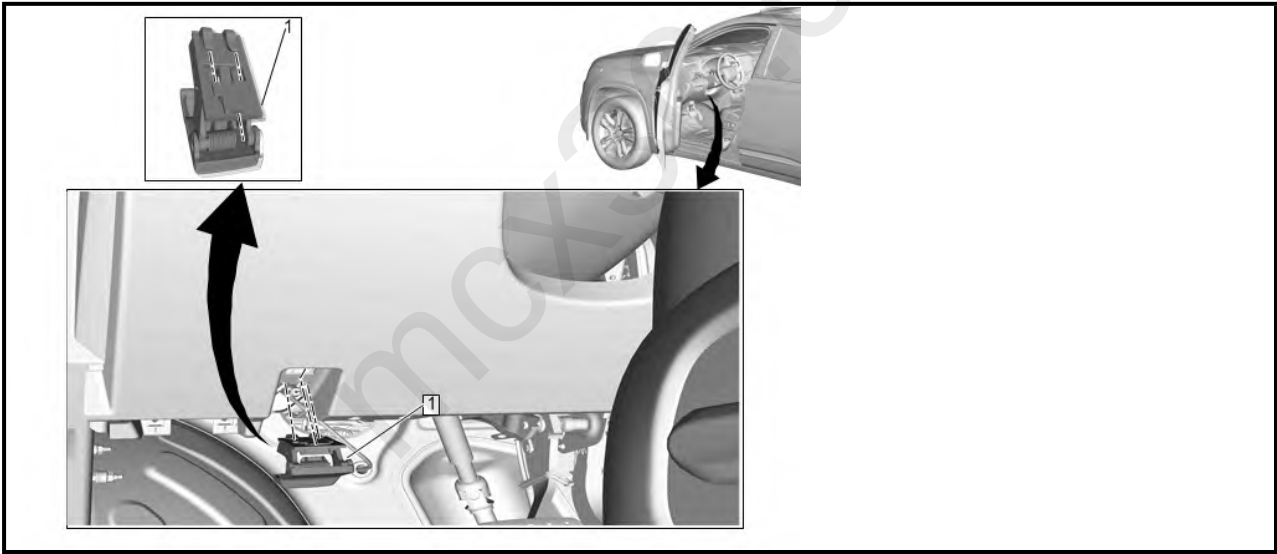
REAR SIDE DOOR WIRING HARNESS REPLACEMENT





Callout	Component Name
Preliminary Procedures 1. Radio Rear Side Door Speaker Replacement 2. Rear Side Door Water Deflector Replacement	
1	Rear Side Door Wiring Harness Procedure Disconnect all electrical connectors.

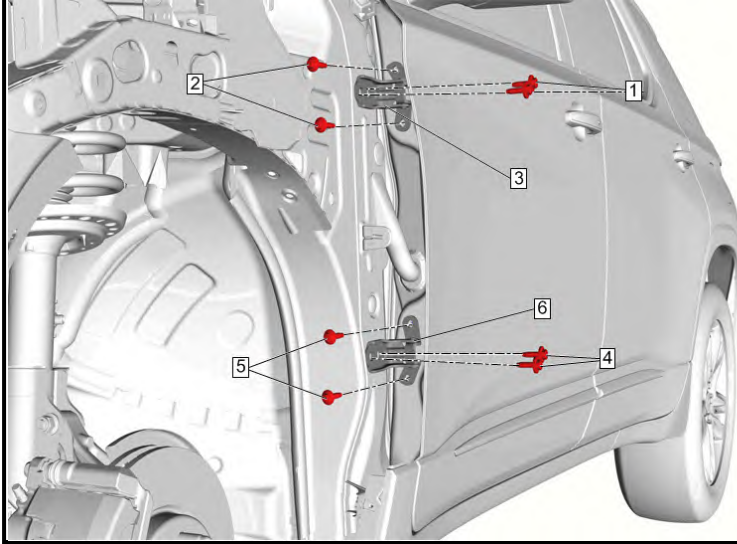
HOOD PRIMARY LATCH RELEASE CABLE HANDLE REPLACEMENT



Callout	Component Name
1	Hood Primary Latch Release Cable Handle Procedure - Press the release cable handle inward/downward to release the retainers from the instrument panel. - Disconnect the hood release cable from the hood release handle.

FRONT SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT

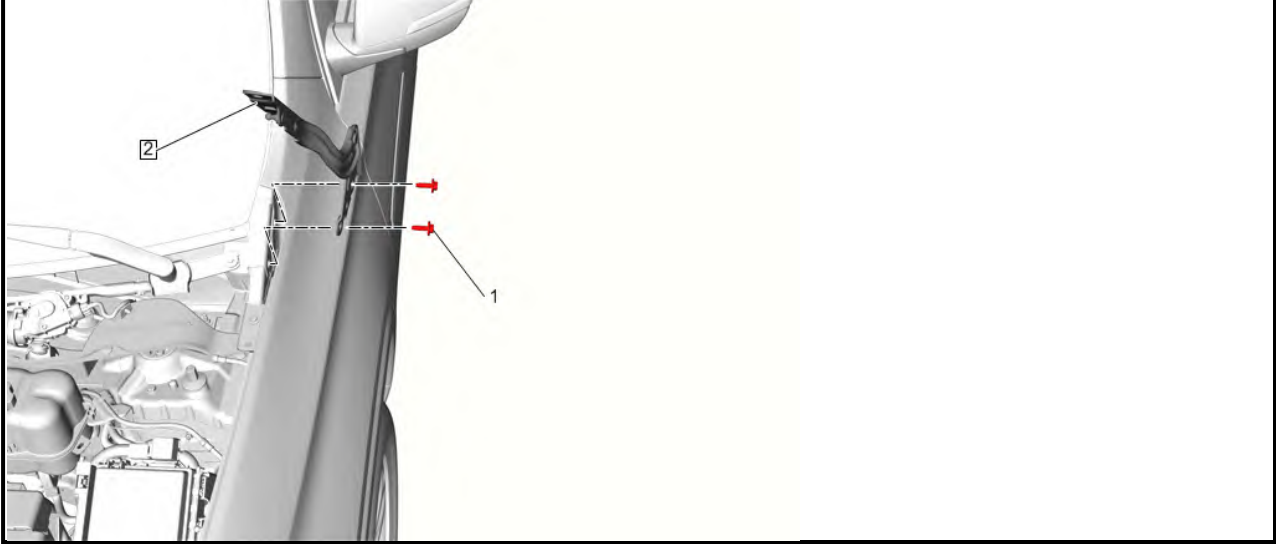




Callout	Component Name
Preliminary Procedures 1. Apply masking tape to the edges of the door. 2. Front Fender Replacement 3. Mark the location of the hinge with a grease pencil before removing the bolts.	
1	Front Side Door Hinge Bolt - Body Side [2x] CAUTION: Refer to Fastener Caution . Procedure 1. Keep the door in the closed position. 2. Replace one hinge at a time. Tighten 32 N.m (24 lb ft)
2	Front Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
3	Front Side Door Upper Hinge
4	Front Side Door Hinge Bolt - Body Side [2x] Tighten 32 N.m (24 lb ft)
5	Front Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
6	Front Side Door Lower Hinge Procedure Front Side Door Adjustment

HOOD HINGE REPLACEMENT





Callout	Component Name
Preliminary Procedures 1. Hood Replacement 2. Air Inlet Grille Panel Replacement	
1	Hood Hinge Bolt [2x] CAUTION: Refer to Fastener Caution . Tighten 32 N.m (24 lb ft)
2	Hood Hinge

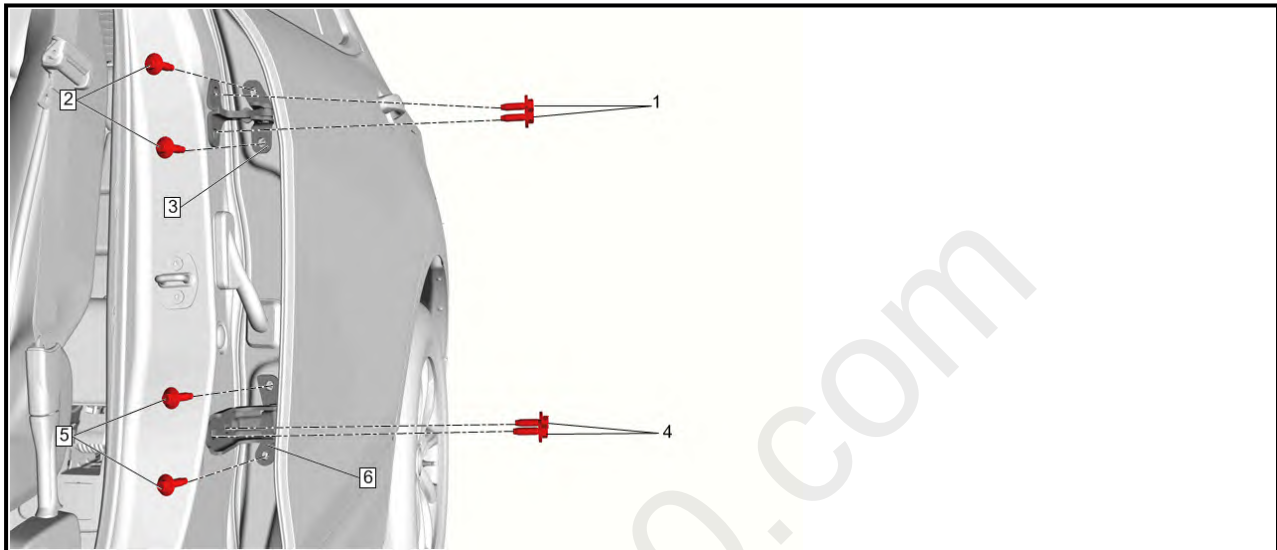
LIFTGATE HINGE REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. Liftgate Replacement 2. Lower the rear of the headliner to access the nuts. Headlining Trim Panel Replacement (With C3U) Headlining Trim Panel Replacement (Without C3U) 3. Mark the position of the hinges with a grease pencil.	

Callout	Component Name
1	Liftgate Hinge Nut [2x] CAUTION: Refer to Fastener Caution . Tighten 58 N.m (43 lb ft)
2	Liftgate Hinge [2x] Procedure Liftgate Adjustment

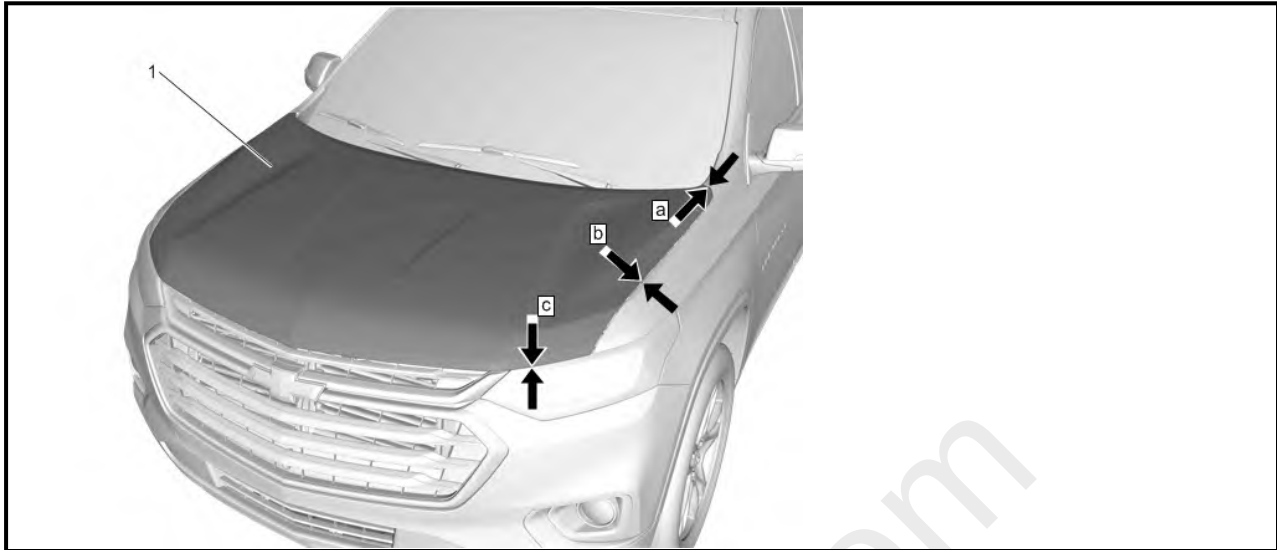
REAR SIDE DOOR UPPER HINGE AND LOWER HINGE REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. Apply masking tape to the edges of the door. 2. Mark the location of the hinge before removing the bolts with a grease pencil.	
1	Rear Side Door Hinge Bolt - Body Side [2x] CAUTION: Refer to Fastener Caution . Procedure 1. Keep the door in the closed position. 2. Replace one hinge at a time. Tighten 32 N.m (24 lb ft)
2	Rear Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
3	Rear Side Door Upper Hinge
4	Rear Side Door Hinge Bolt - Body Side [2x] Tighten 32 N.m (24 lb ft)

Callout	Component Name
5	Rear Side Door Hinge Bolt - Door Side [2x] Tighten 25 N.m (18 lb ft)
6	Rear Side Door Lower Hinge Procedure <u>Rear Side Door Adjustment</u>

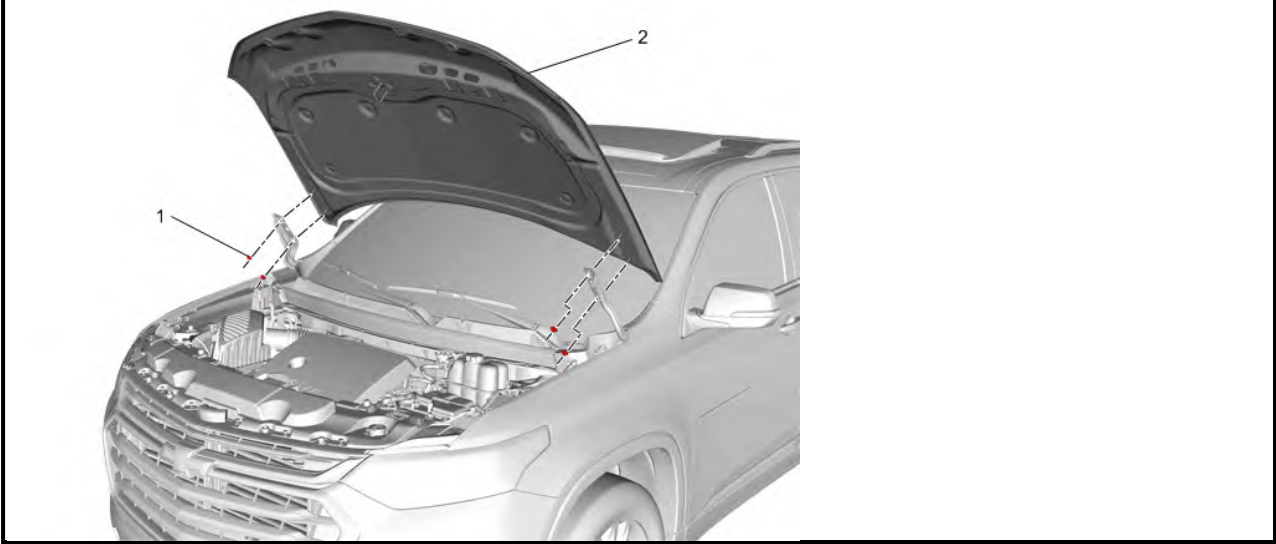
HOOD ADJUSTMENT



Callout	Component Name
1	Hood CAUTION: Refer to <u>Fastener Caution</u> . Procedure - Loosen the 4 hood hinge nuts. - Adjust the hood in order to obtain an even gap on both sides between the hood and the fenders, the front grille and headlamps. - Loosen and adjust the hood primary and secondary latch and the hood bumpers as necessary to obtain the adjustment. Adjustment: - Hood to front fender (a) 3.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm .75$ mm (0.12 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.03$ in) - Hood to front fender (b) 3.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm .75$ mm (0.12 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.03$ in) - Hood to headlamp (c) 6.0 mm $\tilde{\Delta}$, $\hat{\Delta} \pm 1.5$ mm (0.23 in $\tilde{\Delta}$, $\hat{\Delta} \pm 0.06$ in) Tighten 22 N.m (16 lb ft)

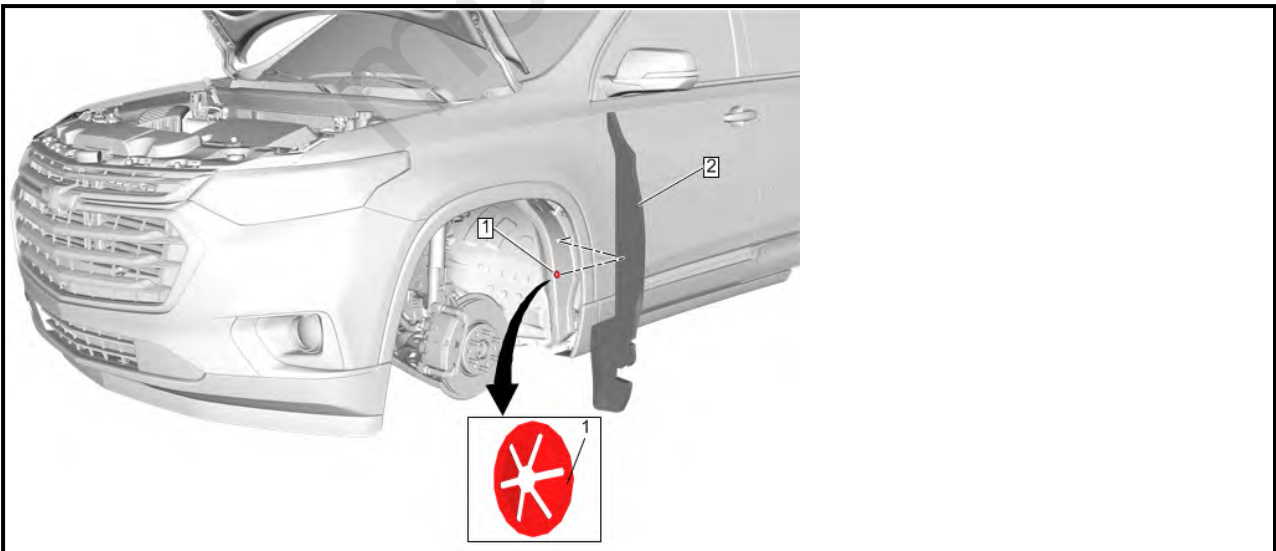
HOOD REPLACEMENT





Callout	Component Name
1	Hood Hinge Nut [4x] CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Hood Procedure 1. With the aid of an assistant, remove the hood. 2. Transfer components as necessary. 3. Hood - Adjust - Hood Adjustment

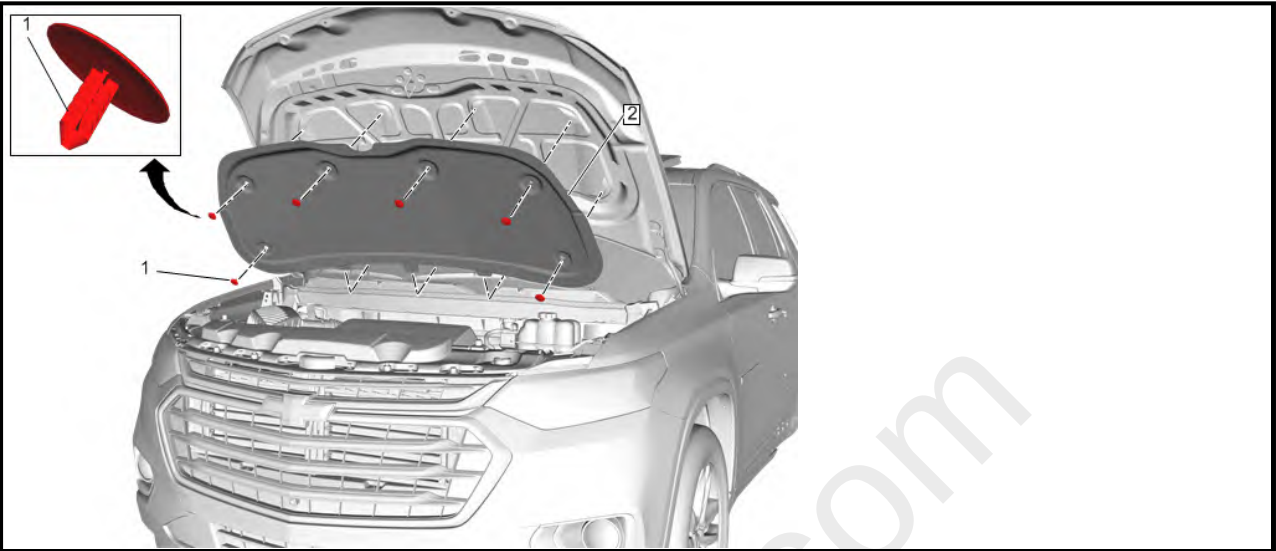
FRONT FENDER INSULATOR REPLACEMENT



Callout	Component Name
Preliminary Procedure Front Wheelhouse Liner Replacement	
1	Front Fender Insulator Retainer

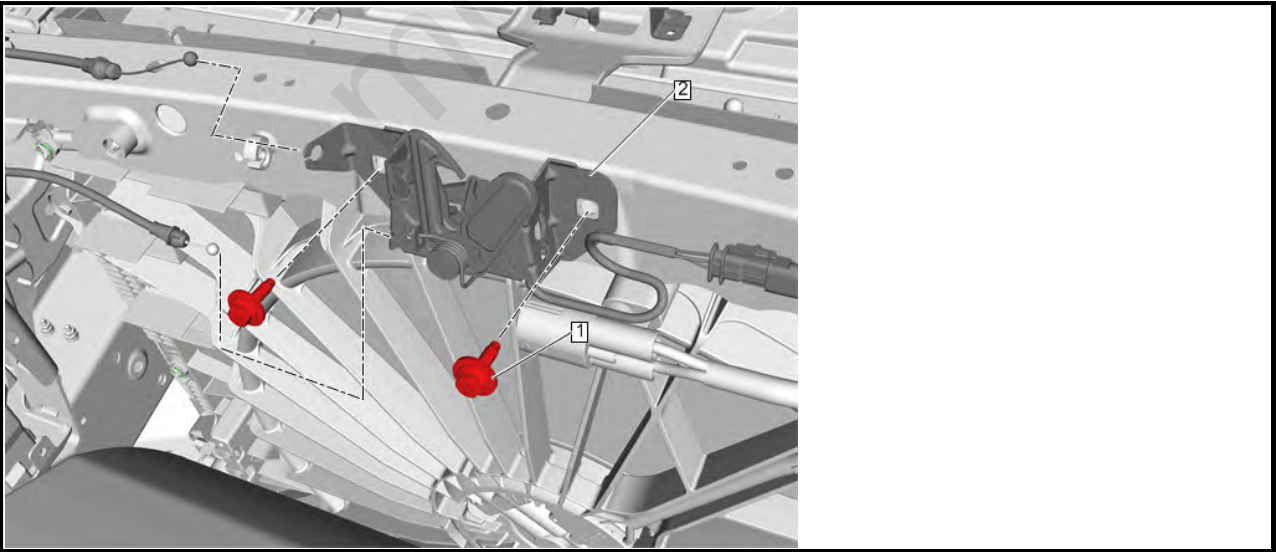
Callout	Component Name
2	Front Fender Insulator Procedure 1. Grasp the front fender insulator and pull out and down from the rear of the fender. 2. Firmly press the fender insulator into the rear of the fender until fully seated.

HOOD INSULATOR REPLACEMENT



Callout	Component Name
1	Hood Insulator Retainer [6x]
2	Hood Insulator Procedure Ensure the three lower integral tabs are secure to the hood.

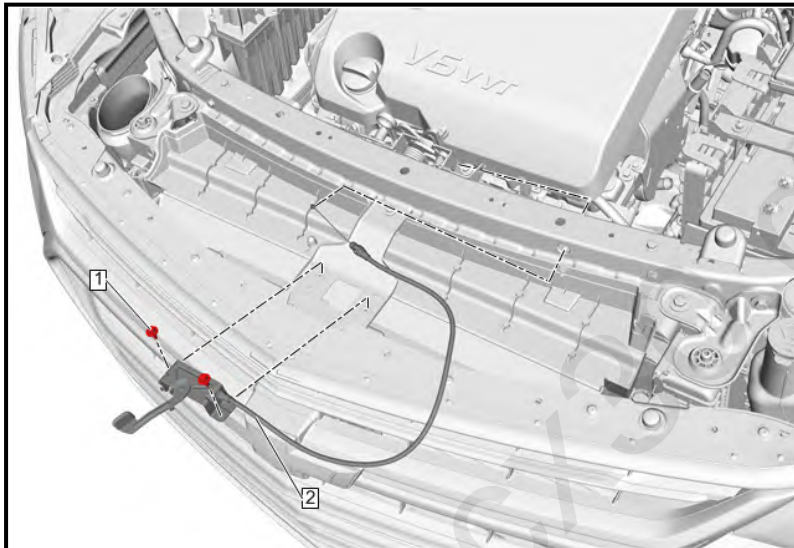
HOOD PRIMARY AND SECONDARY LATCH REPLACEMENT



Callout	Component Name
Preliminary Procedure <u>Intake Air Splash Shield Replacement</u>	

Callout	Component Name
1	Hood Primary and Secondary Latch Bolt [2x] 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 hood secondary latch release cable from the hood primary and secondary latch. 3. Align the hood primary and secondary latch if necessary.

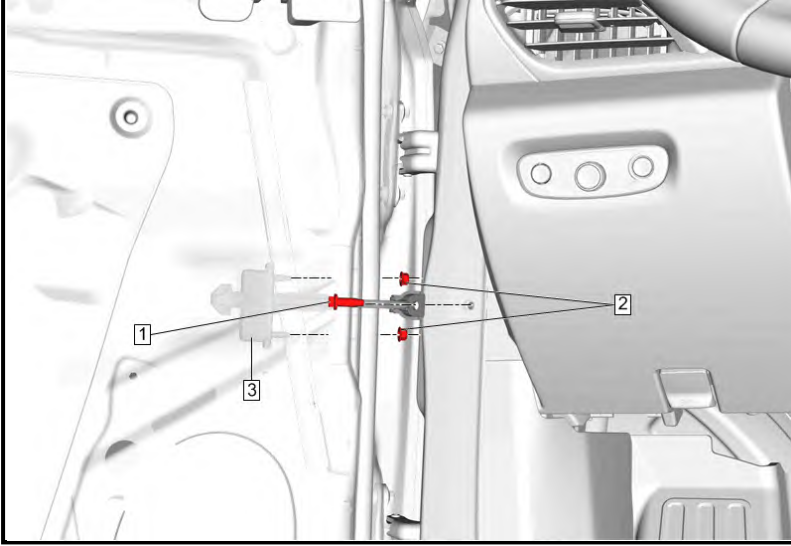
HOOD SECONDARY LATCH RELEASE CABLE REPLACEMENT



Callout	Component Name
Preliminary Procedure Intake Air Splash Shield Replacement	
1	Hood Secondary Latch Release Cable Bolt [2x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Hood Secondary Latch Release Cable Procedure 1. Disconnect the release cable from the hood primary latch. 2. Disconnect the hood secondary latch release cable retainer from the bracket. 3. Align the hood secondary latch release cable latch if necessary.

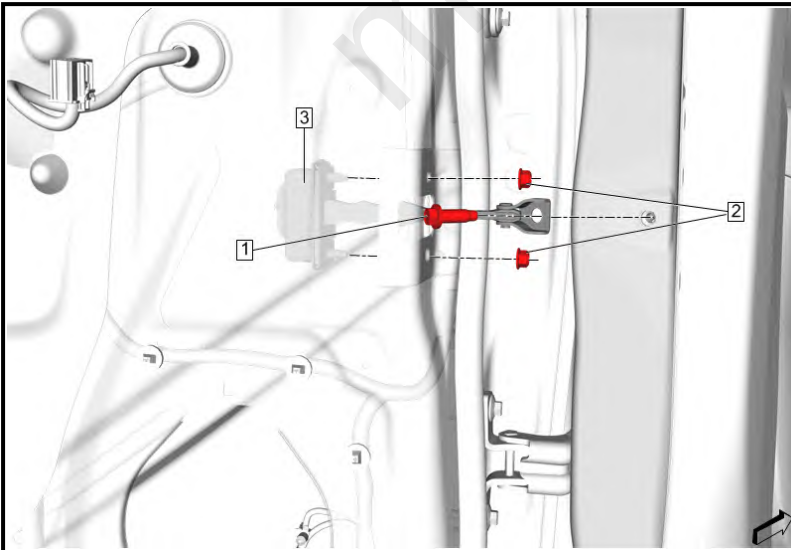
FRONT SIDE DOOR CHECK LINK REPLACEMENT

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Callout	Component Name
Preliminary Procedures 1. Place the window in the full up position. 2. Radio Front Side Door Speaker Replacement	
1	Front Side Door Check Link Bolt CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Front Side Door Check Link Nut [2x] Tighten 9 N.m (80 lb in)
3	Front Side Door Check Link

REAR SIDE DOOR CHECK LINK REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. Place the window in the full up position. 2. Radio Rear Side Door Speaker Replacement	

Callout	Component Name
1	Rear Side Door Check Link Bolt CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Rear Side Door Check Link Nut [2x] Tighten 9 N.m (80 lb in)
3	Rear Side Door Check Link

FUEL TANK FILLER DOOR REPLACEMENT



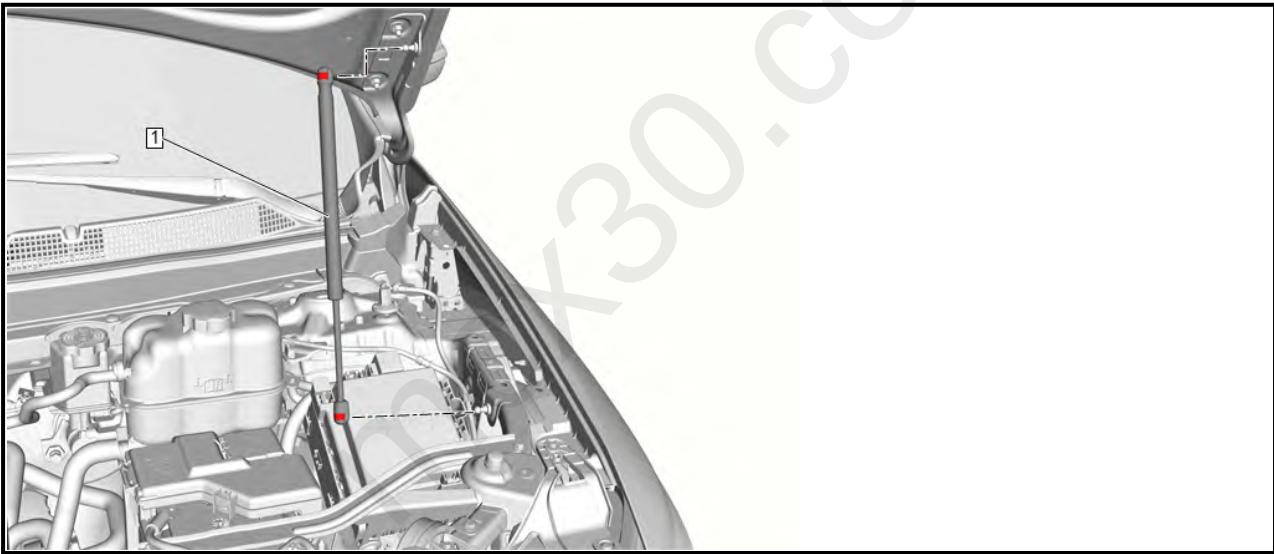
Callout	Component Name
1	Fuel Tank Filler Door Procedure 1. Position the fuel tank filler door to the full open position. 2. Using light outward sliding pressure on the filler door, release the retainer on the fuel tank filler door from the hinge.

FUEL TANK FILLER PIPE HOUSING REPLACEMENT



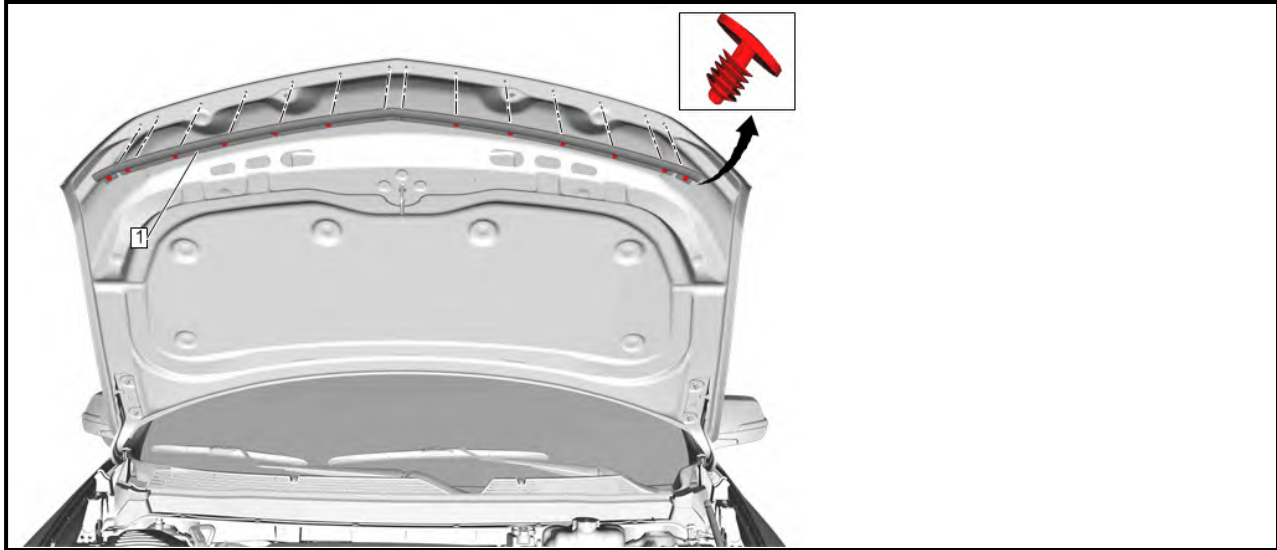
Callout	Component Name
Preliminary Procedure Fuel Tank Filler Door Replacement	
1	Fuel Tank Filler Pipe Housing Retainer [4x] Procedure 1. Using a flat-bladed tool that fits into the 4 depressions, break through the 4 depressions with light pressure and then pry the clips free to release the fuel tank filler pipe housing from the body side outer panel. 2. The fuel tank filler pipe housing once removed cannot be reused and must be replaced with a NEW fuel tank filler pipe housing.
2	Fuel Tank Filler Pipe Housing Procedure 1. Position the fuel tank filler pipe housing to the body side outer panel and the fuel filler pipe. 2. Press the fuel tank filler pipe housing to the body side outer panel until fully seated. 3. Ensure the fuel tank filler pipe housing seal is full seated to the filler pipe.

HOOD STRUT REPLACEMENT



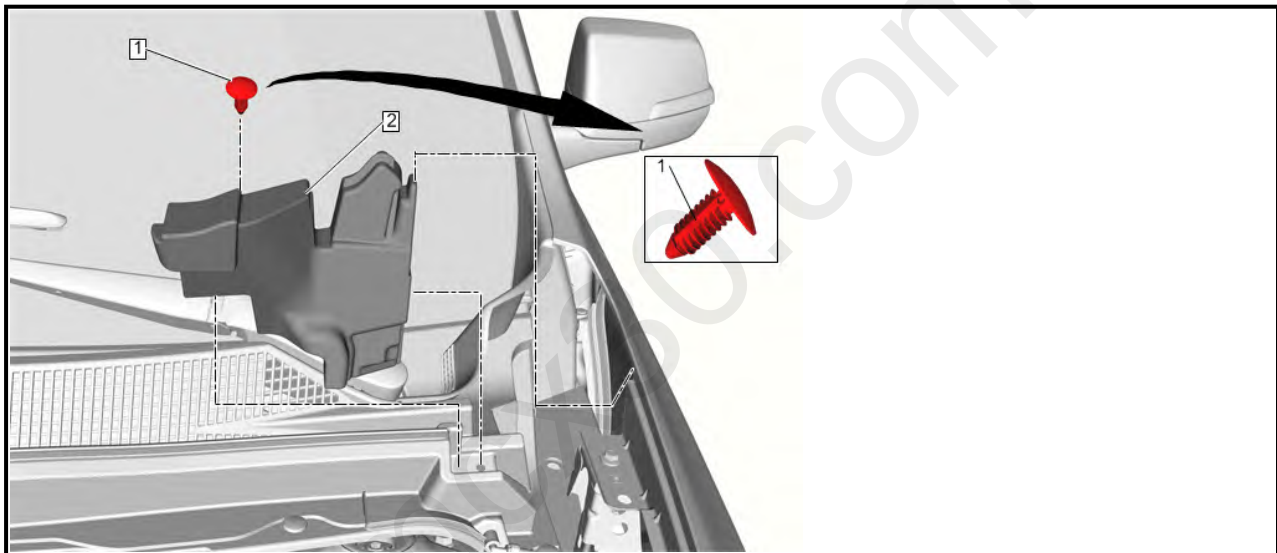
Callout	Component Name
1	Hood Strut WARNING: When a hood hold open device is being removed or installed, provide alternate support to avoid the possibility of damage to the vehicle or personal injury. CAUTION: Apply pressure only at the end of the liftgate/hood assist rod that you are removing or attaching. Do NOT apply pressure to the middle of the rod because damage or bending will result. Procedure Remove the metal clip at the ends of the hood strut, then pull away from the stud.

HOOD FRONT EDGE WEATHERSTRIP REPLACEMENT



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

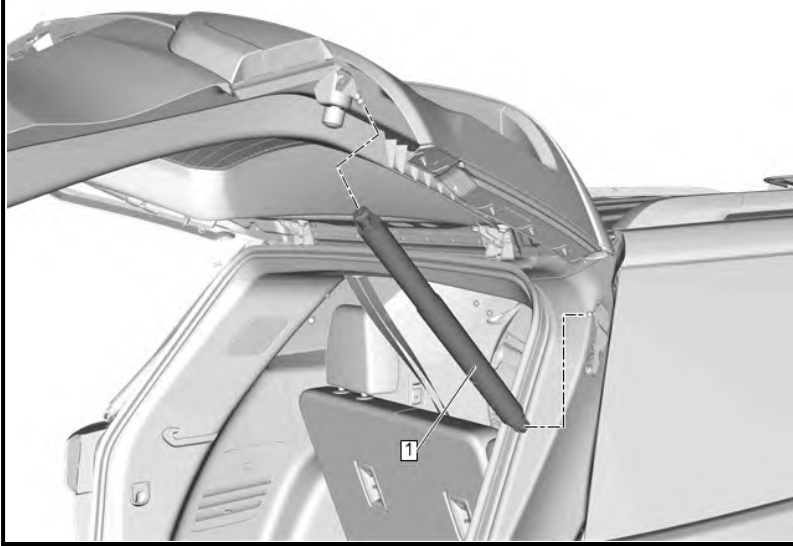
HOOD REAR OUTER AIR INLET SEAL REPLACEMENT



Callout	Component Name
1	Hood Rear Outer Air Inlet Seal Retainer
2	Hood Rear Outer Air Inlet Seal Procedure Using a trim type tool, release the retainer and gentle pull on the seal to remove the seal from under the front fender.

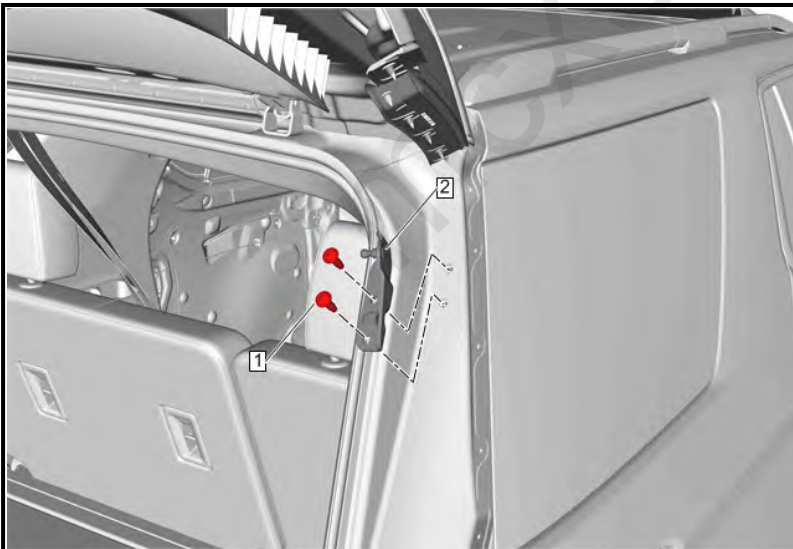
LIFTGATE STRUT REPLACEMENT





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. Procedure 1. Release the lock 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.

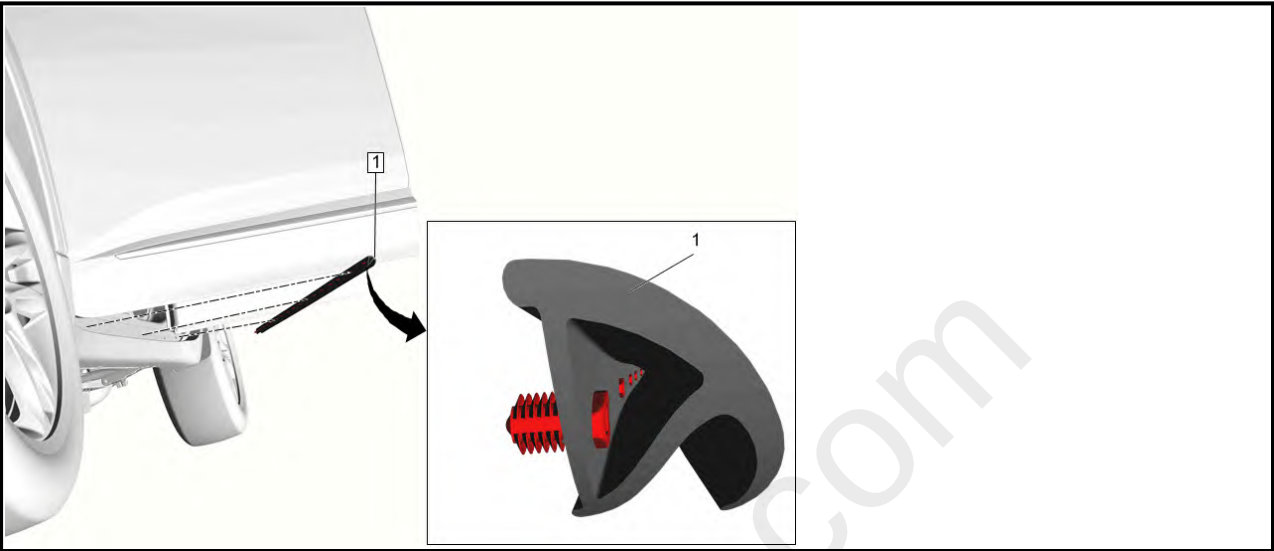
LIFTGATE STRUT BRACKET REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. Open the liftgate. 2. <u>Liftgate Strut Replacement</u>	

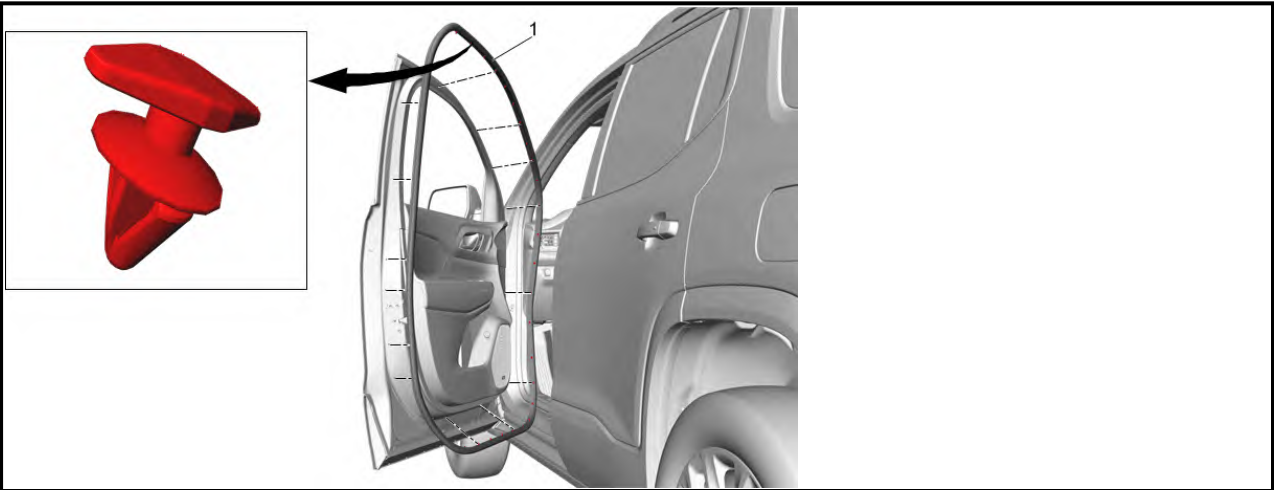
Callout	Component Name
1	Liftgate Strut Bracket Bolt [2x] CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)
2	Liftgate Strut Bracket

FRONT AND REAR SIDE DOOR LOWER AUXILIARY WEATHERSTRIP REPLACEMENT



Callout	Component Name
Preliminary Procedure Open both doors on the side of the vehicle being serviced.	
1	Front and Rear Side Door Lower Auxiliary Weatherstrip Procedure - Using the appropriate tool, remove the auxiliary weatherstrip retainers from body side outer panel. - Clean the body side outer panel surface before installing the new auxiliary weatherstrip using a 50/50 mixture of isopropyl alcohol and water by volume on a dampened lint free cloth.

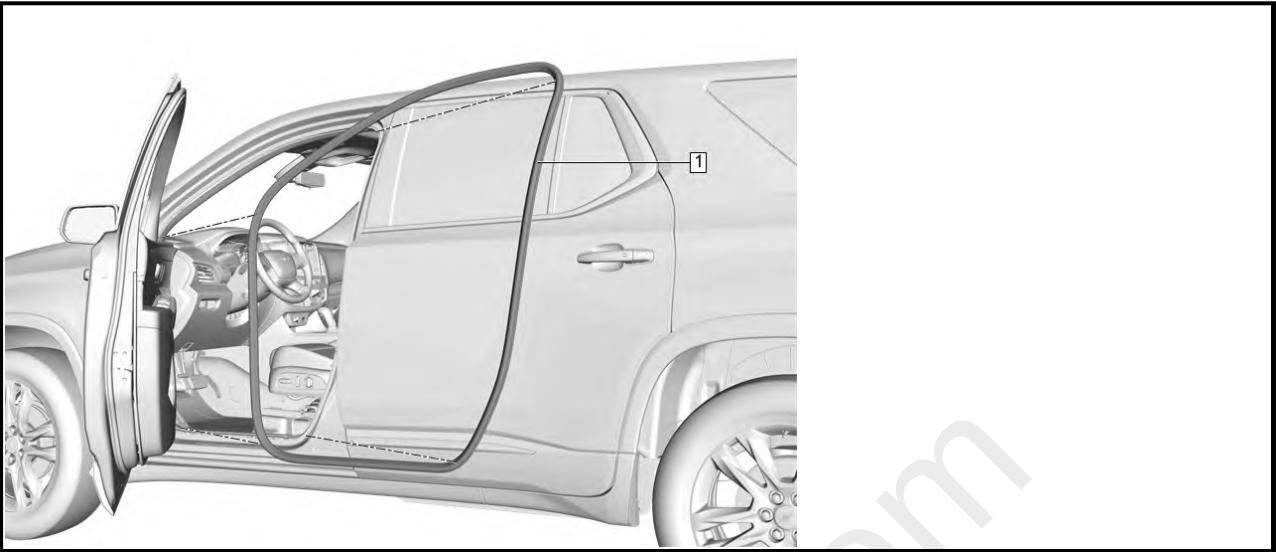
FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT - DOOR SIDE



Callout	Component Name
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Callout	Component Name
Preliminary Procedure <u>Front Side Door Check Link Replacement</u>	
1	Front Side Door Weatherstrip - Door Side Procedure Using the appropriate tool, remove the weatherstrip retainers from around the door flange.

FRONT SIDE DOOR WEATHERSTRIP REPLACEMENT - BODY SIDE



Callout	Component Name
Preliminary Procedure <u>Center Pillar Lower Trim Panel Replacement</u>	
1	Front Side Door Weatherstrip - Body Side Procedure 1. Start at the rear 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.

LIFTGATE WEATHERSTRIP REPLACEMENT



Callout	Component Name

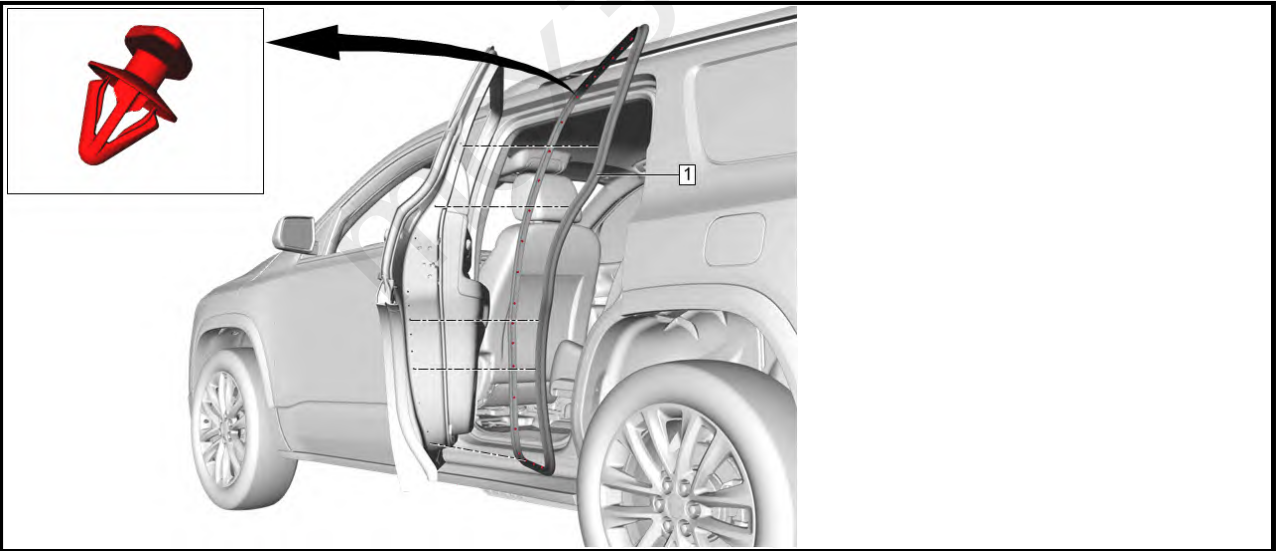
Callout	Component Name
1	Liftgate Weatherstrip Procedure Clean the area where the seal will be mounted. Use a suitable solvent with a mixture of 50 percent isopropyl alcohol and 50 percent water by volume, or high-flash naphtha.

LIFTGATE UPPER WEATHERSTRIP REPLACEMENT

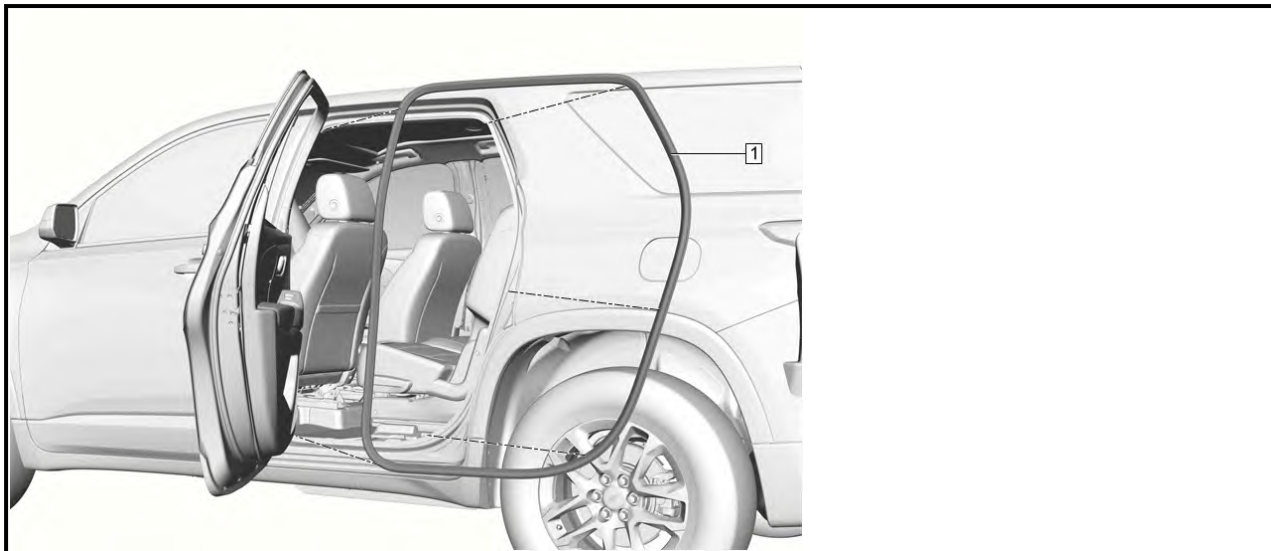


Callout	Component Name
1	Liftgate Upper Weatherstrip Procedure Using a trim type tool, release the 8 integral retainers.

REAR SIDE DOOR WEATHERSTRIP REPLACEMENT - DOOR SIDE



Callout	Component Name
Preliminary Procedure <u>Rear Side Door Check Link Replacement</u>	
1	Rear Side Door Weatherstrip - Door Side Procedure 1. Using the appropriate tool, remove the weatherstrip retainers from around the door flange. 2. Carefully pull the window weatherstrip from the door flange.



Callout	Component Name
Preliminary Procedure <u>Center Pillar Lower Trim Panel Replacement</u> <u>Quarter Lower Rear Trim Panel Replacement (Right Side), Quarter Lower Rear Trim Panel Replacement (Left Side)</u>	
1	Rear Side Door Weatherstrip - Body Side Procedure - Start at the front upper corner of the door opening and pull the weatherstrip away from the door opening flange. - Position the weatherstrip in the upper corner of the center pillar. - Working downward along the front edge, install the weatherstrip on the door opening flange ensuring that the weatherstrip is fully seated in the corners. - Ensure that the weatherstrip is seated on the entire door opening flange.

DESCRIPTION AND OPERATION

HOOD AJAR INDICATOR DESCRIPTION AND OPERATION

Hood Ajar Switch

The hood ajar switch provides closure status of the hood to the body control module (BCM) and on vehicles equipped with any hybrid drivetrain or start stop technology a power train module. The switch is integrated into the hood latch assembly. The BCM, and other module if equipped, monitor the voltage on their circuit as it passes through the different positions of the hood switch.

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 driver information center (DIC) or the hood ajar indicator will be illuminated.