

2017 ACCESSORIES AND EQUIPMENT

Floor Coverings and Headlinings - Bolt EV

SPECIFICATIONS

FASTENER SPECIFICATIONS

Reusable Threaded Fastener Tightening Specifications

Application	Specification
	Metric (English)
NOTE: <i>All fasteners listed in this table can be reused after removal.</i>	
Coat Hook Bolt	6 N.m (53 lb in)
Driver Footrest Bolt	6 N.m (53 lb in)
Driver Footrest Nut	9 N.m (80 lb in)
Ground Nut	9 N.m (80 lb in)
Instrument Panel Tie Bar Brace Bolt	22 N.m (16 lb ft)
Roof Rail Assist Handle Bolt	6 N.m (53 lb in)
Sunshade Fastener	2.5 N.m (22 lb in)
Sunshade Support Screw	2.5 N.m (22 lb in)

ADHESIVES, FLUIDS, LUBRICANTS, AND SEALERS

Application	Type of Material	GM Part Number
GM Vehicle Care Odor Eliminator	Fluids	Refer to Electronic Parts Catalog.

REPAIR INSTRUCTIONS

ELIMINATING UNWANTED ODORS IN VEHICLES

GM Vehicle Care Odor Eliminator, Refer to [Adhesives, Fluids, Lubricants, and Sealers](#), may control or eliminate odors in the interior and luggage compartment areas of GM vehicles. This non-toxic, biodegradable, odorless product has been shown to greatly reduce or remove the following types of odor:

- Objectionable smells of mold and mildew resulting from vehicle water leaks
- Customer created odors, such as smoke

You may safely use GM Vehicle Care Odor Eliminator on fabrics, vinyl, leather, carpet, and sound deadening materials. You may also induce this product into HVAC modules and instrument panel ducts for the control of non-bacterial related odors.

NOTE: This product leaves no residual scent and should not be used as an air freshener.

This product may result in the permanent elimination of an odor and may be preferable to customers whose allergies make them sensitive to perfumes. This product may effectively remove odors when directly contacting the odor source. In cases such as water leaks, use this product with diagnostic procedures to first eliminate the primary cause of the odor. Then use further applications on the residual odor to permanently correct the vehicle condition.

- Spray GM Vehicle Care Odor Eliminator directly or as an additive with carpet shampoo in steam cleaners.
- Do not use on any interior surface that plain water would deteriorate, because this product will have the same effect. Also avoid letting this product come into contact with vinegar or any acidic substance. Acid-based products will hamper the effectiveness of GM Vehicle Care Odor Eliminator.
- Complete eight page treatment sheets are enclosed within each case of GM Vehicle Care Odor Eliminator. These treatment instructions range from simple vehicle odor elimination to full step by step procedures for odor removal from water leaks.
- Instructions and cautions are printed on the bottle, but additional help is available. If you encounter a persistent or recurring odor, you may call to obtain additional information and usage suggestions.

FLOOR CARPET DRYING

If the carpet or the pad or insulator is wet, use the following criteria for drying or for replacing the components:

- For a 1-piece carpet assembly bonded to a cotton or a fiber padding, replace the entire assembly.
- For a 2-piece carpet assembly with a cotton or a fiber padding, replace the padding only. While the carpet is out of the vehicle, dry the carpet using the method described below.
- For a 1-piece carpet assembly bonded to a foam padding or attached to a synthetic padding, dry the carpet using the method described below.
- For a 2-piece carpet assembly with a synthetic padding, dry the assembly using the method described below.

Drying Method

1. If you observe puddles of liquid on the carpet face, use a wet vacuum to remove the excess moisture.
2. Blot the face of the carpet with a towel in order to absorb as much moisture as possible.
3. Point a fan at the affected area and air dry the carpet.

FLOOR PANEL CARPET REPLACEMENT

Removal Procedure

1. Battery Negative Cable - Disconnect - [Battery Negative Cable Disconnection and Connection](#)
2. Remove the driver and passenger seat. [Driver or Passenger Seat Removal and Installation](#)
3. Remove the rear seat cushion. [Rear Seat Cushion Removal and Installation](#)

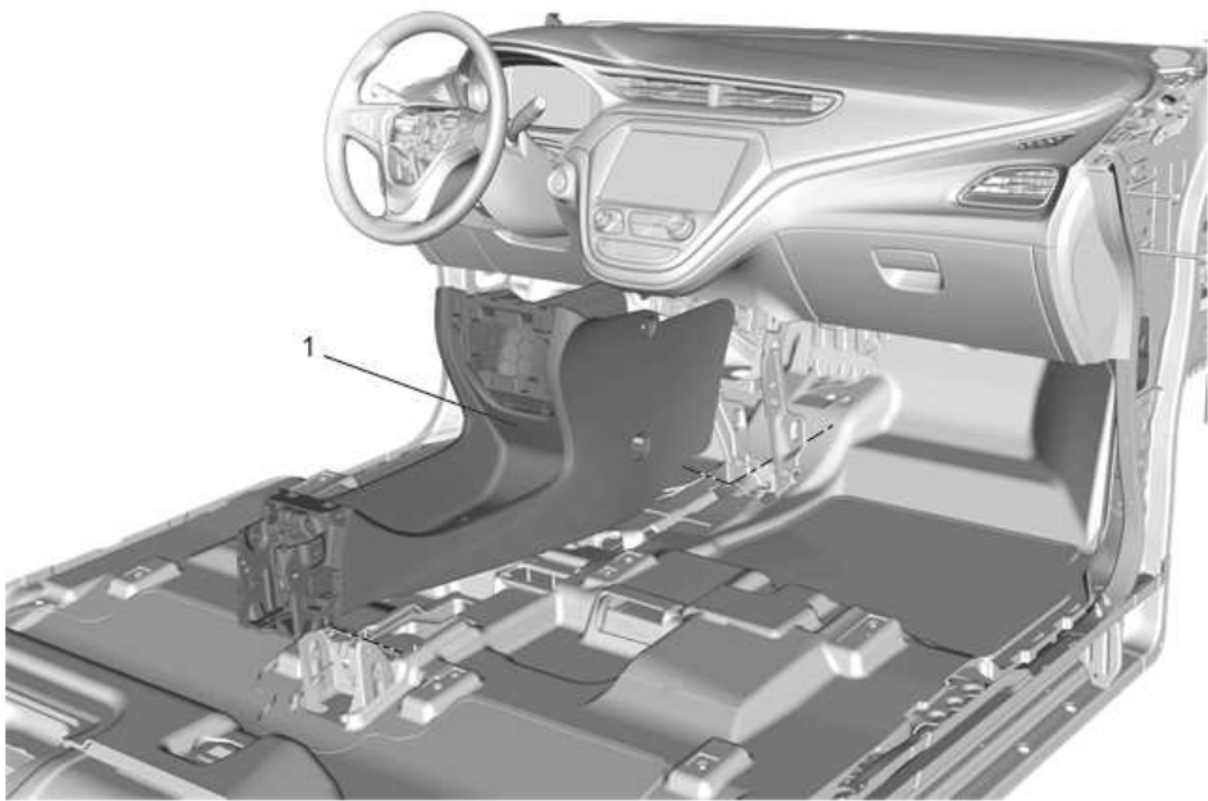


Fig. 1: Front Floor Console

Courtesy of GENERAL MOTORS COMPANY

4. Front Floor Console - Remove - [**Front Floor Console Replacement**](#)
5. Front Side Door Sill Garnish Molding - Remove - [**Front Side Door Sill Garnish Molding Replacement**](#)
6. Rear Side Door Sill Garnish Molding - Remove - [**Rear Side Door Sill Garnish Molding Replacement**](#)
7. Center Pillar Lower Trim Panel - Remove - [**Center Pillar Lower Trim Panel Replacement**](#)

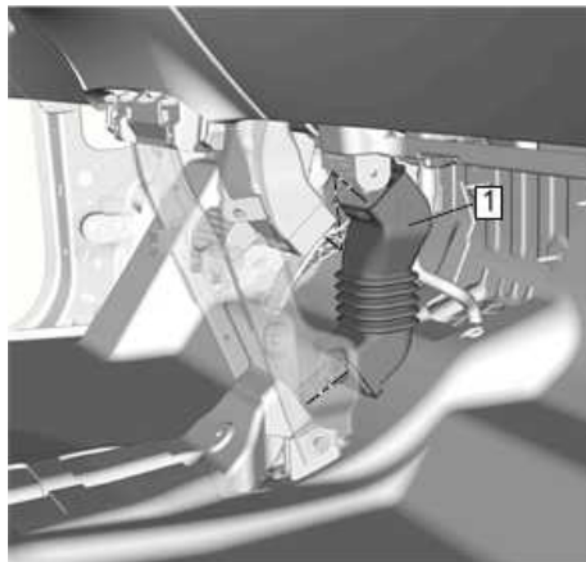


Fig. 2: Floor Front Air Outlet Duct Adapter

Courtesy of GENERAL MOTORS COMPANY

8. Floor Front Air Outlet Duct Adapter - Remove - [**Floor Front Air Outlet Duct Replacement**](#)

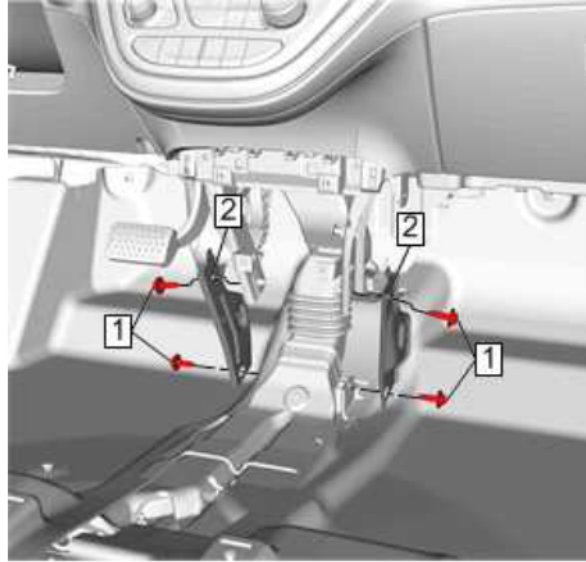


Fig. 3: Instrument Panel Tie Bar Brace Bolt
Courtesy of GENERAL MOTORS COMPANY

9. Instrument Panel Tie Bar Brace Bolt - Remove
10. Instrument Panel Tie Bar Brace - Remove

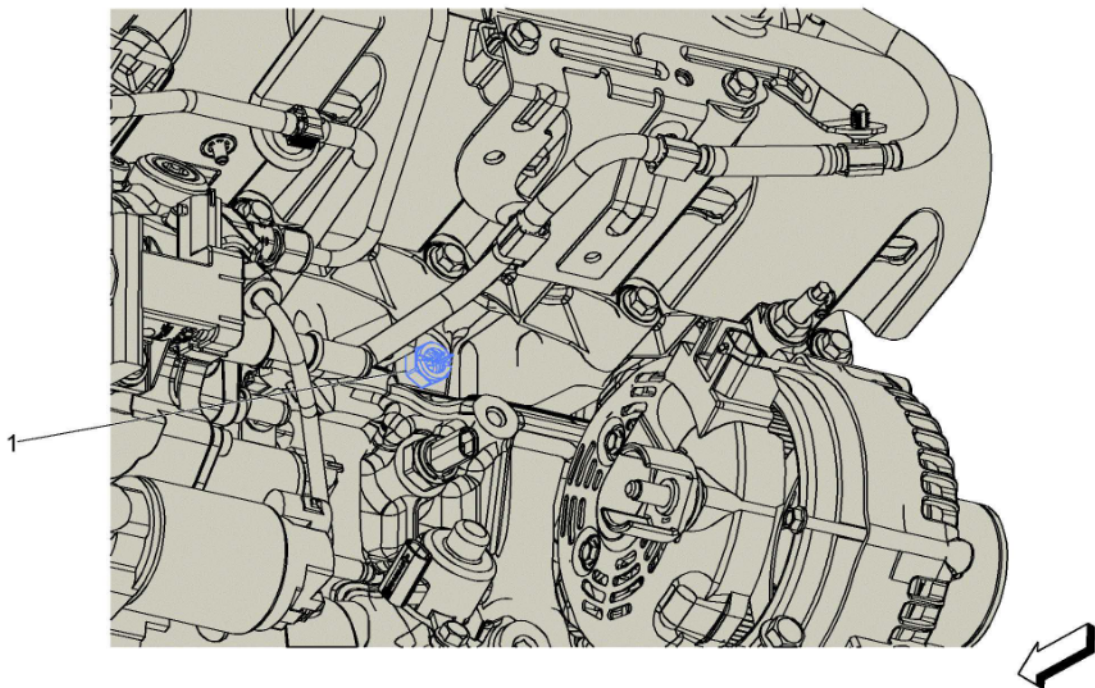


Fig. 4: Ground Nut
Courtesy of GENERAL MOTORS COMPANY

11. Remove the ground nut (1).
12. Disconnect the instrument panel electrical wiring harness connector (2) from the airbag sensing and diagnostic module.
13. Reposition the instrument panel electrical wiring harness.

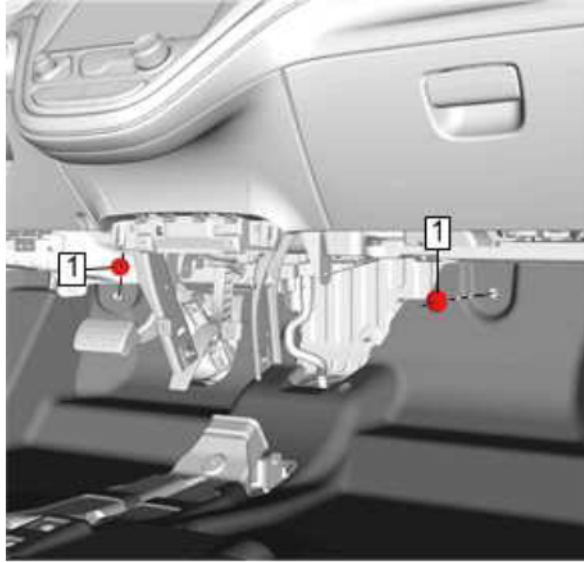


Fig. 5: Dash Panel Inner Insulator Retainer
Courtesy of GENERAL MOTORS COMPANY

14. Dash Panel Inner Insulator Retainer - Remove

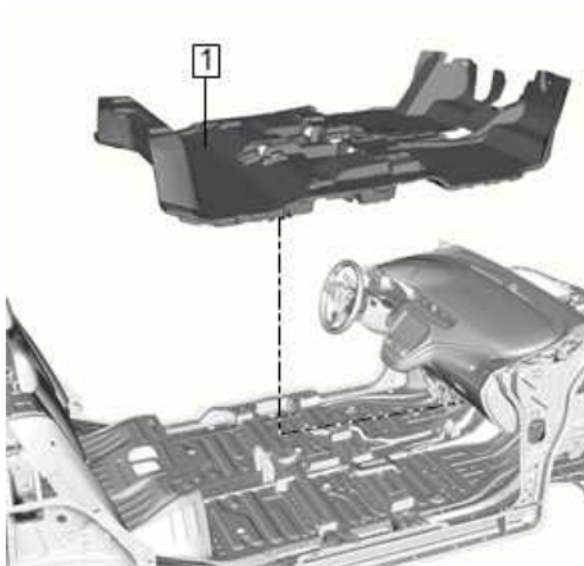


Fig. 6: Floor Panel Carpet
Courtesy of GENERAL MOTORS COMPANY

15. Floor Panel Carpet - Remove

Installation Procedure

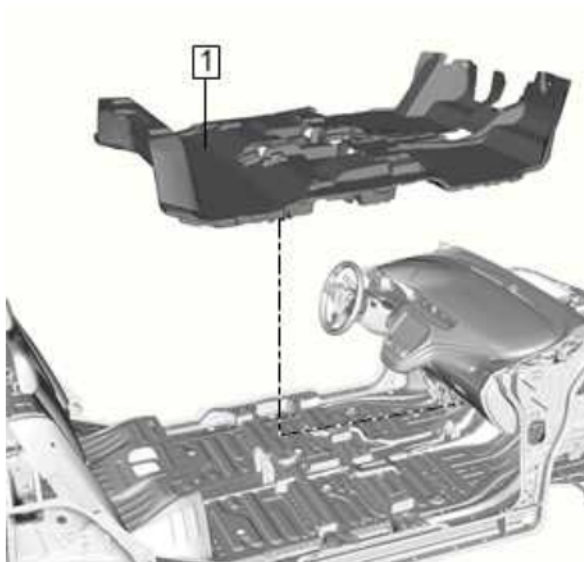


Fig. 7: Floor Panel Carpet
Courtesy of GENERAL MOTORS COMPANY

1. Floor Panel Carpet - Install

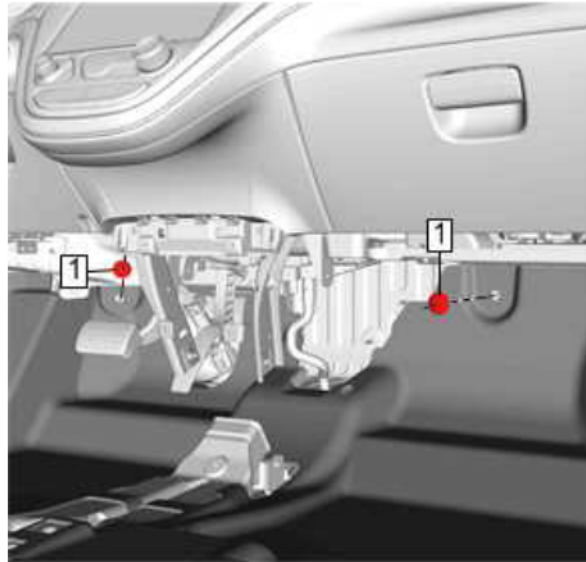


Fig. 8: Dash Panel Inner Insulator Retainer
Courtesy of GENERAL MOTORS COMPANY

2. Dash Panel Inner Insulator Retainer - Install

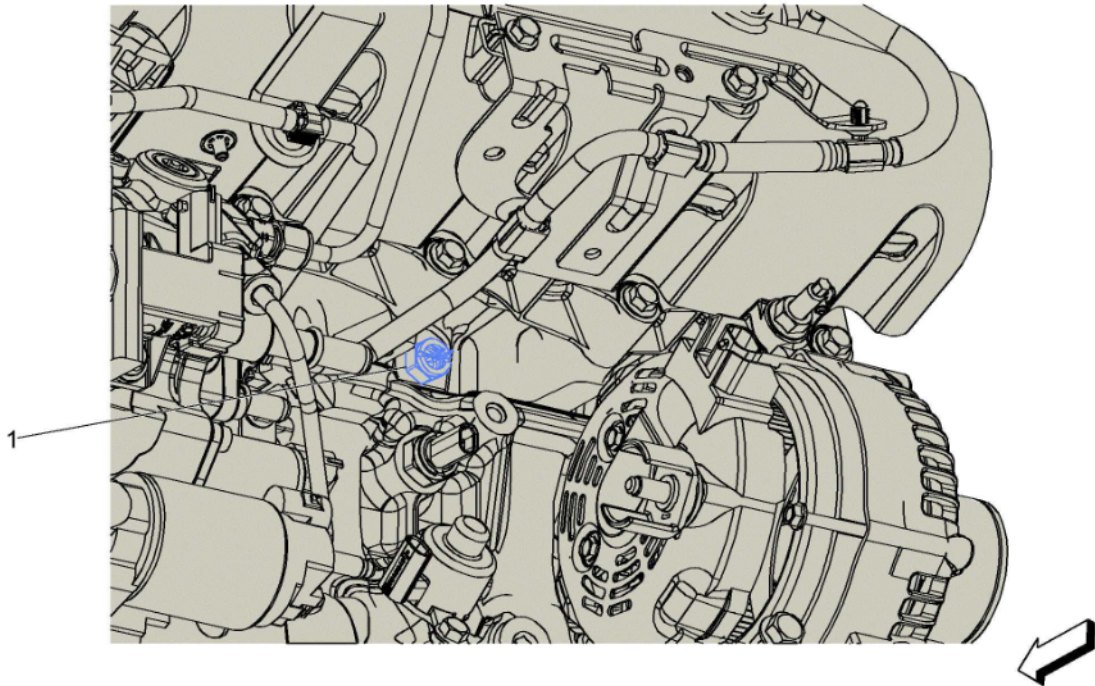


Fig. 9: Ground Nut
Courtesy of GENERAL MOTORS COMPANY

3. Install and tighten the ground nut (1) to 9 N.m (80 lb ft).
4. Connect the instrument panel electrical wiring harness connector (2) to the airbag sensing and diagnostic module.

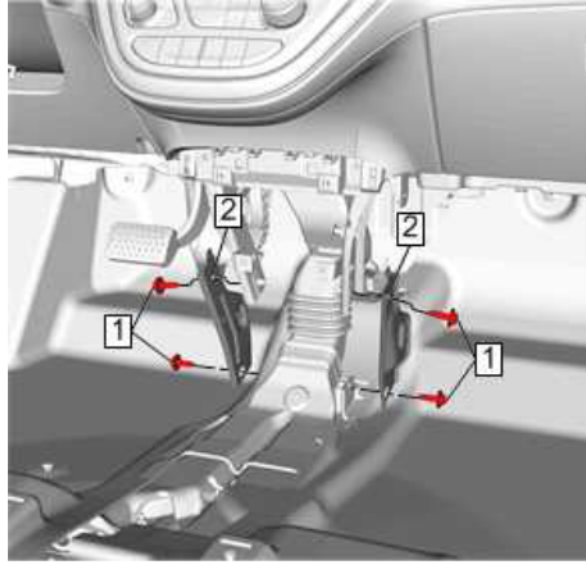


Fig. 10: Instrument Panel Tie Bar Brace Bolt
 Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to [Fastener Caution](#)

5. Instrument Panel Tie Bar Brace - Install
6. Instrument Panel Tie Bar Brace Bolt - Install and tighten to 22 N.m (16 lb ft)

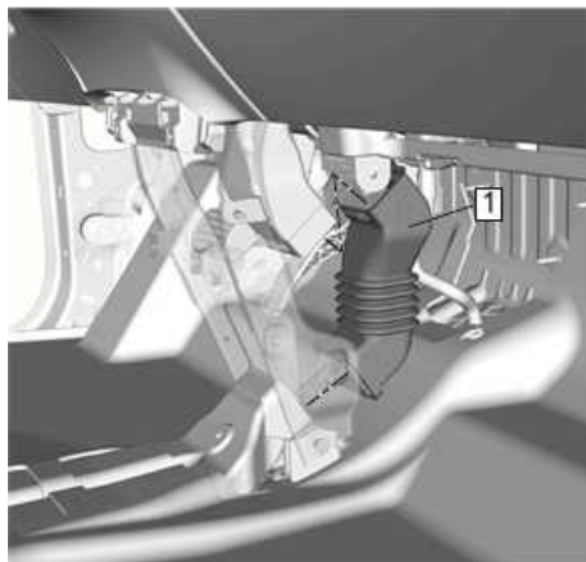


Fig. 11: Floor Front Air Outlet Duct Adapter
 Courtesy of GENERAL MOTORS COMPANY

7. Floor Front Air Outlet Duct Adapter - Install - [Floor Front Air Outlet Duct Replacement](#)
8. Center Pillar Lower Trim Panel - Install - [Center Pillar Lower Trim Panel Replacement](#)
9. Rear Side Door Sill Garnish Molding - Install - [Rear Side Door Sill Garnish Molding Replacement](#)
10. Front Side Door Sill Garnish Molding - Install - [Front Side Door Sill Garnish Molding Replacement](#)

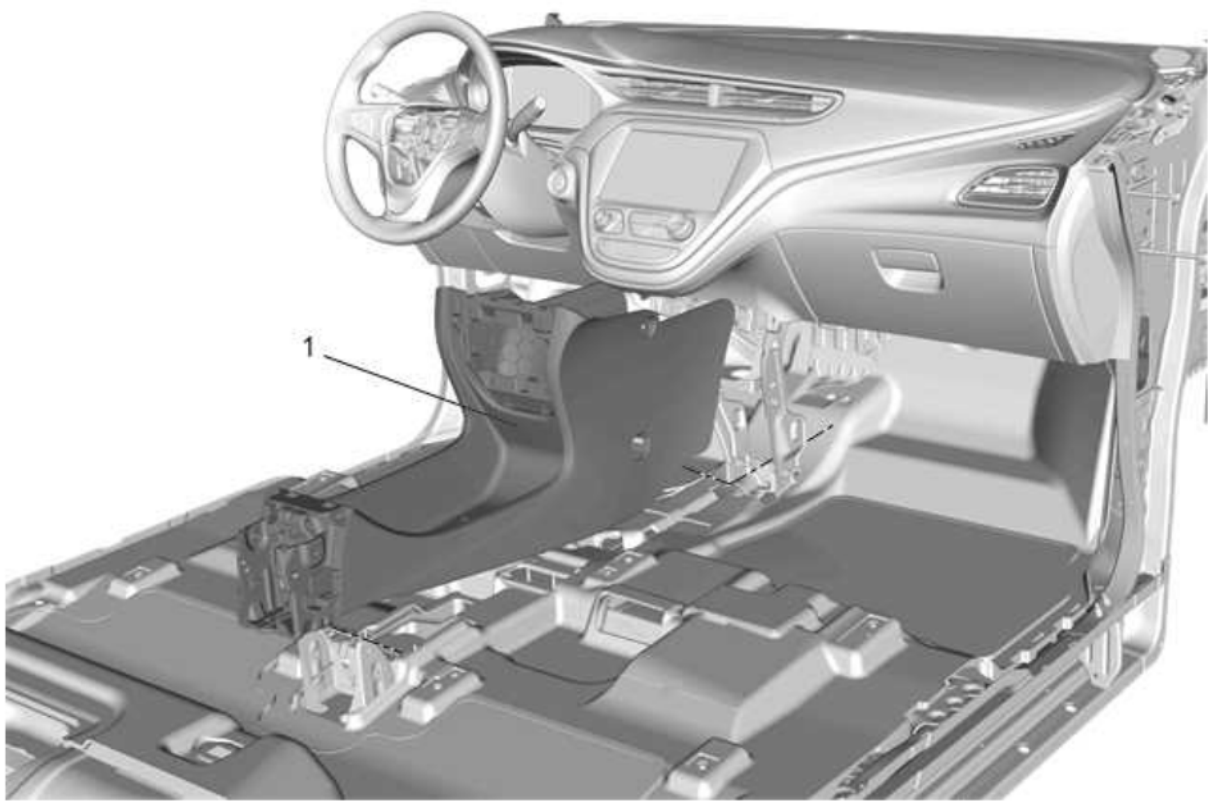


Fig. 12: Front Floor Console

Courtesy of GENERAL MOTORS COMPANY

11. Front Floor Console - Install - [Front Floor Console Replacement](#)
12. Install the rear seat cushion. [Rear Seat Cushion Removal and Installation](#)
13. Install the driver and passenger seat. [Driver or Passenger Seat Removal and Installation](#)
14. Battery Negative Cable - Connect - [Battery Negative Cable Disconnection and Connection](#)

FLOOR CARPET AUXILIARY MAT RETAINER REPLACEMENT

Removal Procedure

WARNING: Wear safety glasses in order to avoid eye damage.

1. Front Side Door Sill Garnish Molding - Remove - [Front Side Door Sill Garnish Molding Replacement](#)
2. Reposition the floor panel carpet as needed to access retainers. [Floor Panel Carpet Replacement](#)

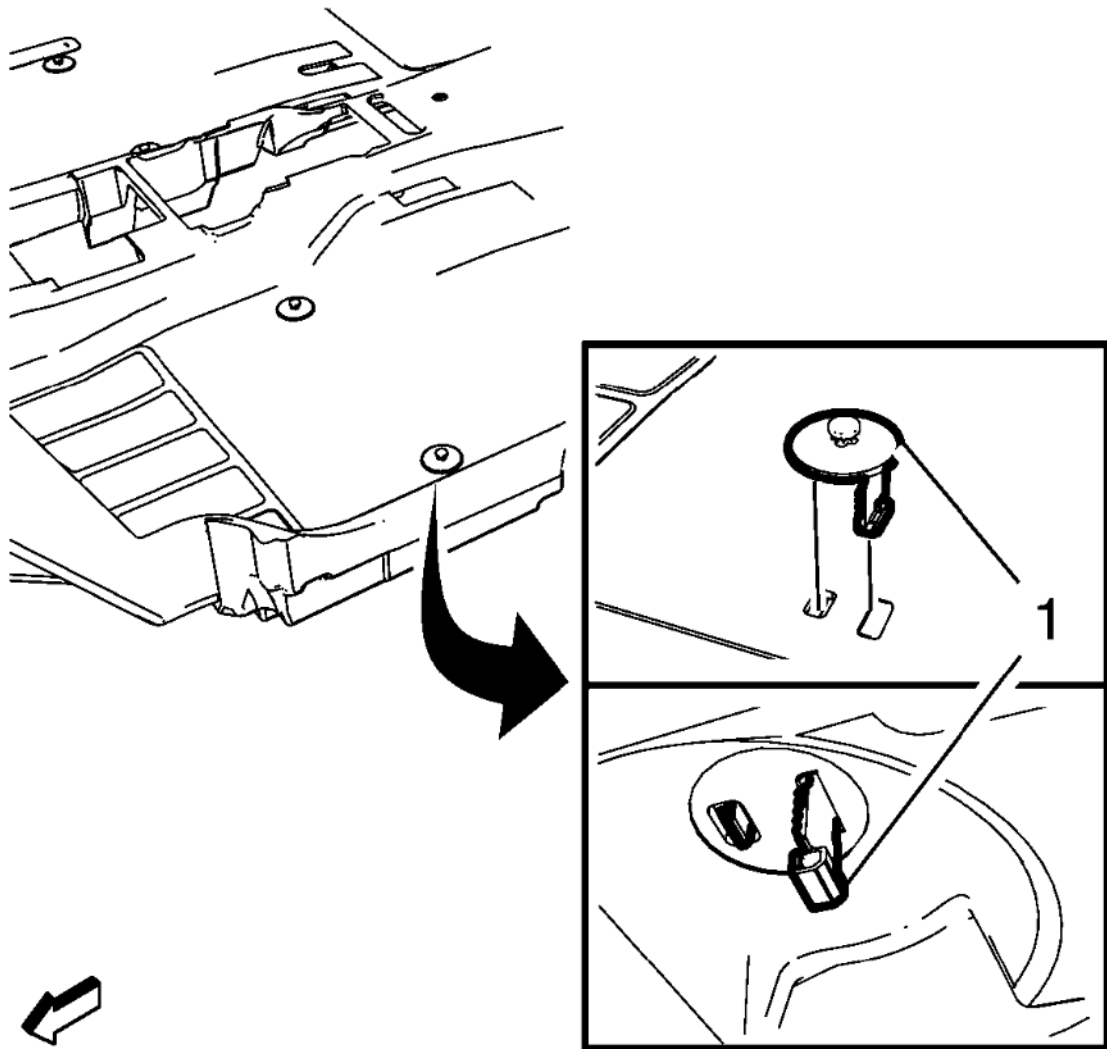


Fig. 13: Floor Panel Carpet Retainer

Courtesy of GENERAL MOTORS COMPANY

3. Disengage the floor carpet auxiliary mat retainer (1) on the rear side of the floor panel carpet.
4. Remove the floor carpet auxiliary mat retainer (1) upwards.

Installation Procedure

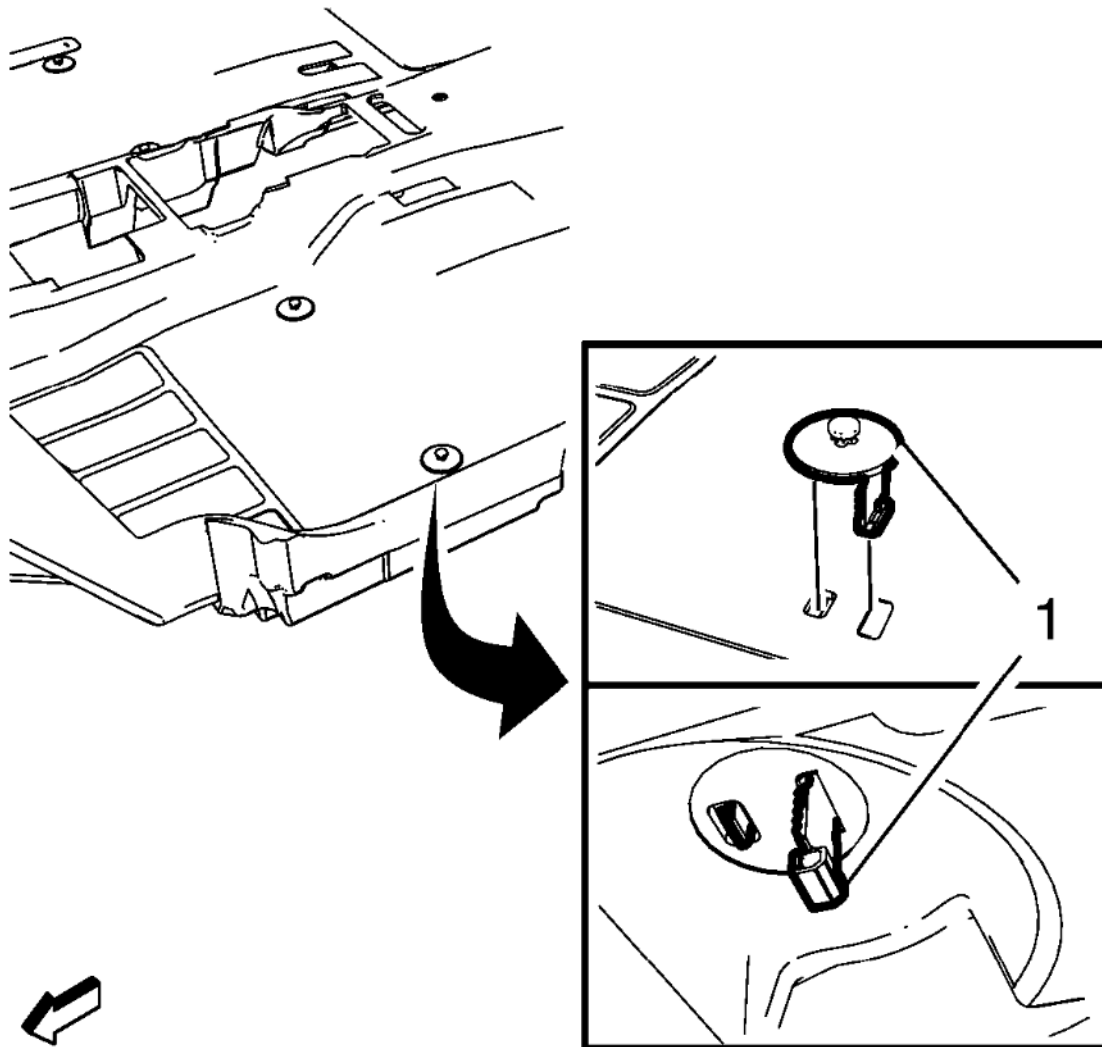


Fig. 14: Floor Panel Carpet Retainer

Courtesy of GENERAL MOTORS COMPANY

1. Align the floor carpet auxiliary mat retainer (1) to the cutout in the carpet.
2. Engage the floor carpet auxiliary mat retainer (1) on the rear side of the floor panel carpet.
3. Reposition the floor panel carpet as needed. [Floor Panel Carpet Replacement](#)
4. Front Side Door Sill Garnish Molding - Install - [Front Side Door Sill Garnish Molding Replacement](#)

DRIVER FOOTREST REPLACEMENT

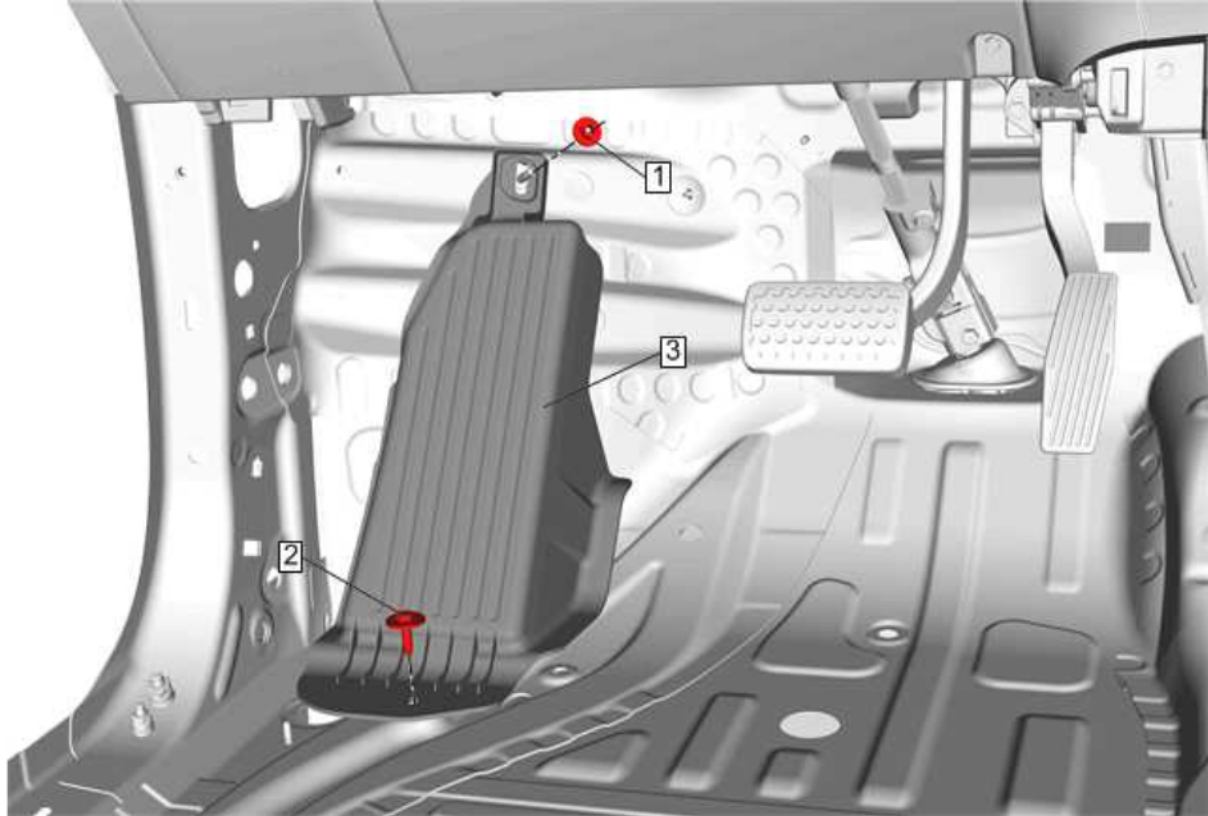


Fig. 15: Driver Footrest

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Reposition the driver side portion of the floor carpet. Floor Panel Carpet Replacement	
1	Driver Footrest Nut CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Driver Footrest Bolt Tighten 6 N.m (53 lb in)
3	Driver Footrest

HEADLINING TRIM PANEL REPLACEMENT

Removal Procedure

WARNING: Do not attempt to repair or alter the head impact energy-absorbing material glued to the headliner or to the garnish trims. If the material is damaged, replace the headliner and/or the garnish trim. Failure to do so could result in personal injury.

CAUTION: If a vehicle is equipped with a head curtain inflator module ensure that the inflator module and tether are undamaged. If tether or curtain airbag are damaged in any way, they must be replaced.

CAUTION: Use care when working around the head curtain inflator module. Sharp tools may puncture the curtain airbag. If the head curtain inflator module is damaged in any way, it must be replaced.

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NOTE: If removing the right side harness from the vehicle that goes to the

radio, then the headliner, I/P, and radio must be removed. If removing left side harness from vehicle, only I/P needs to be removed. If only just removing the headliner, then the harnesses can be removed from the headliner and left to hang.

1. Disable the SIR system. [SIR Disabling and Enabling](#)

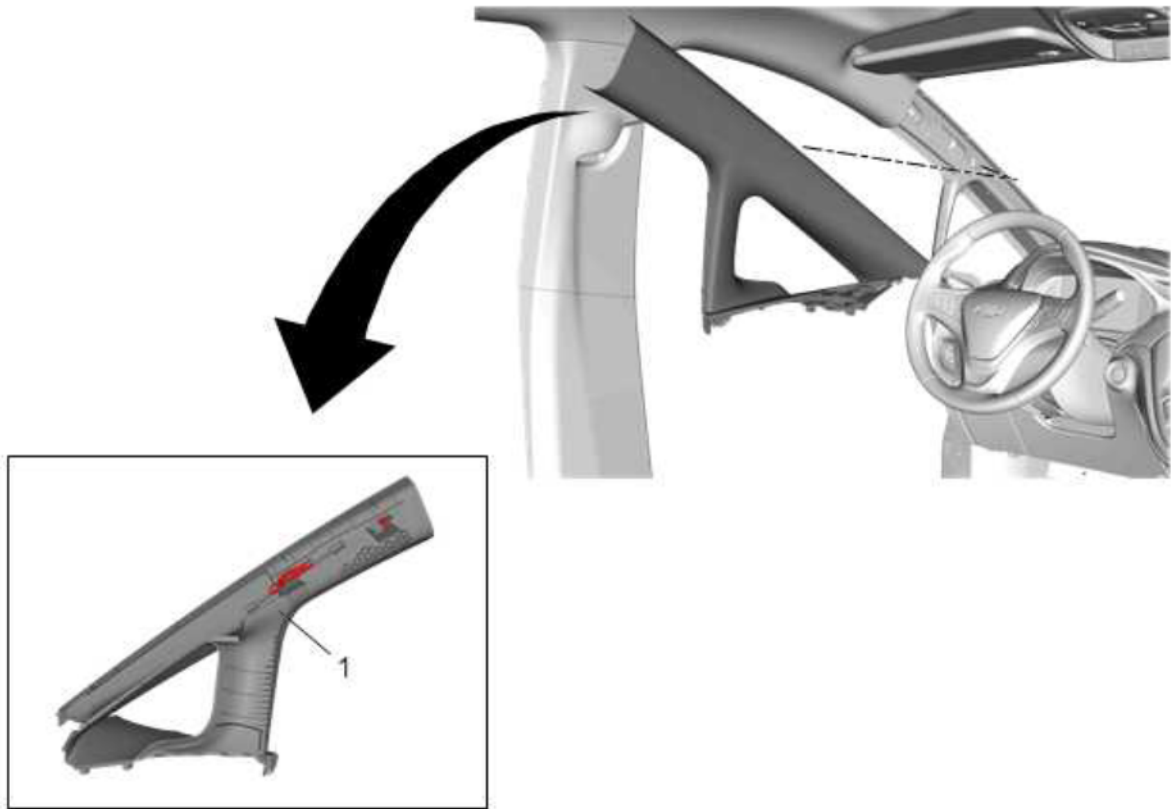


Fig. 16: Windshield Garnish Molding

Courtesy of GENERAL MOTORS COMPANY

2. Windshield Garnish Molding - Remove - [Windshield Garnish Molding Replacement](#)

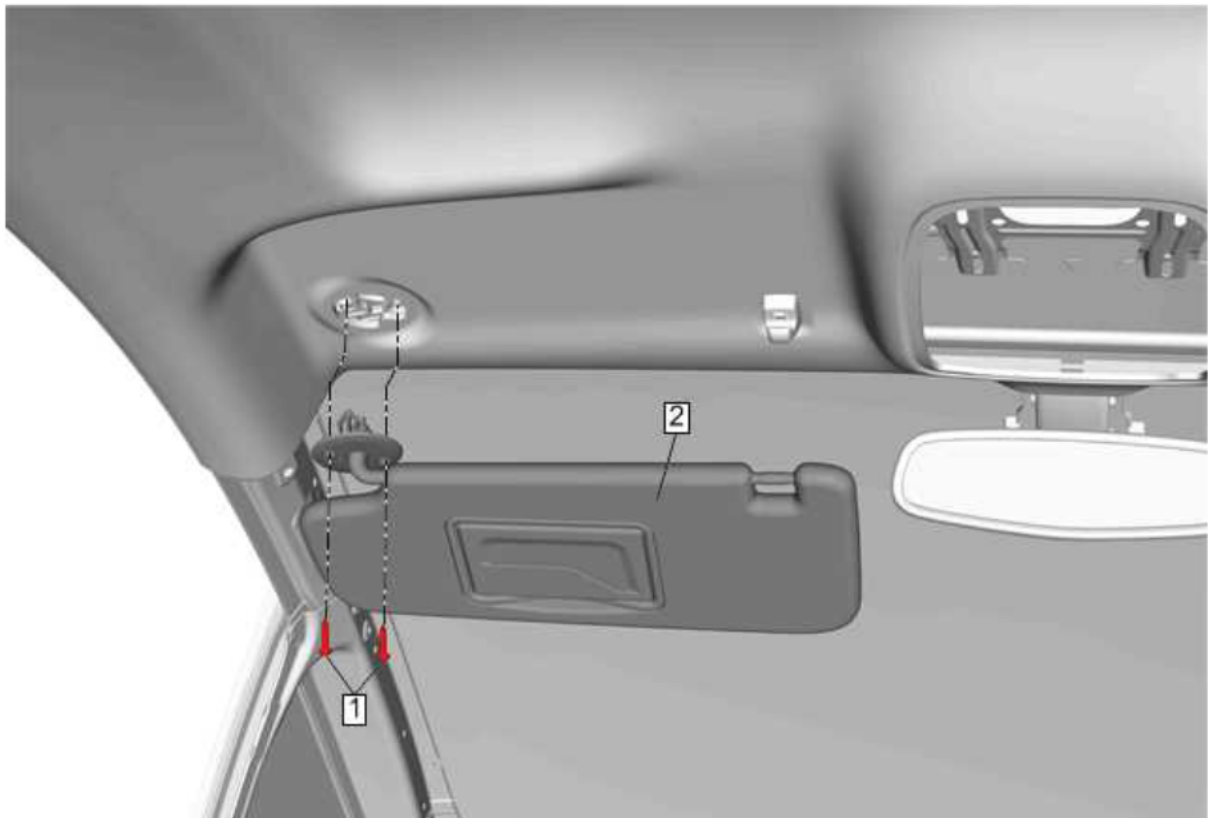


Fig. 17: Sunshade

Courtesy of GENERAL MOTORS COMPANY

3. Sunshade - Remove - [Sunshade Replacement](#)

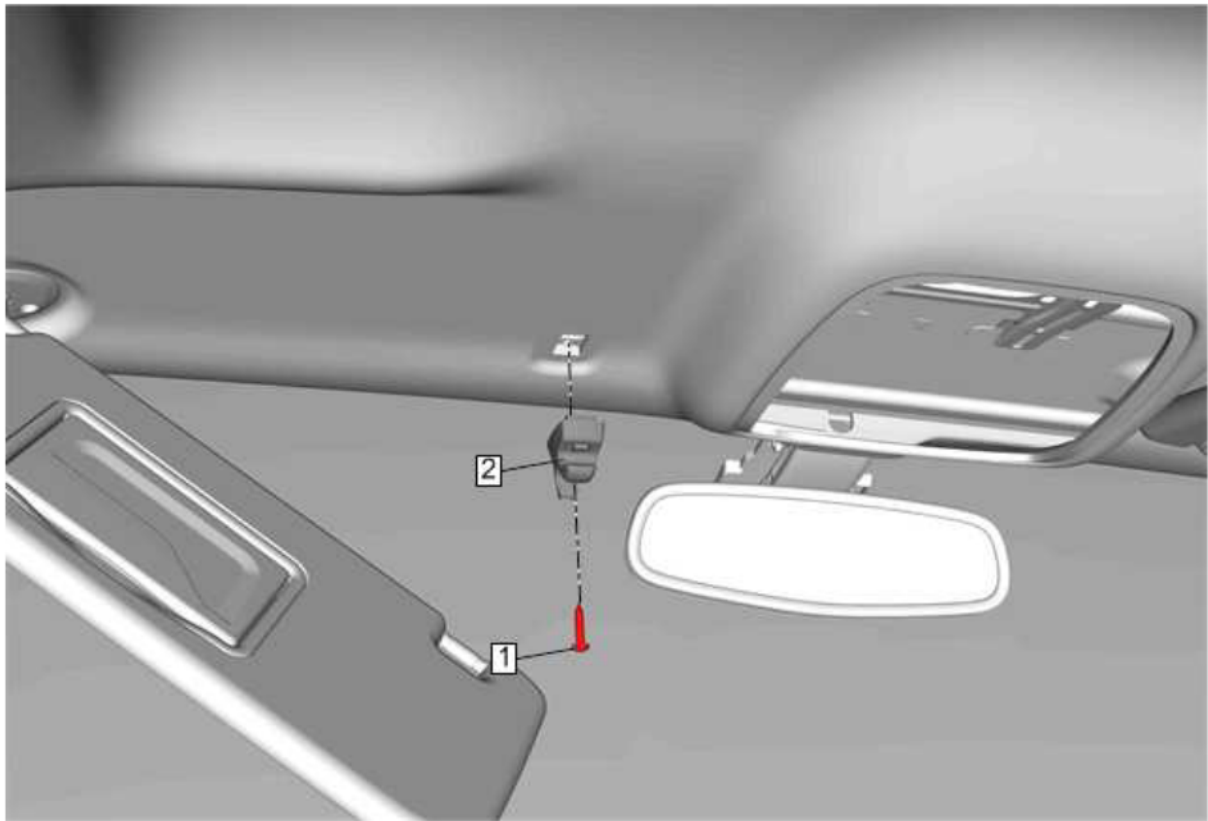


Fig. 18: Sunshade Support

Courtesy of GENERAL MOTORS COMPANY

4. Sunshade Support - Remove - [Sunshade Support Replacement](#)

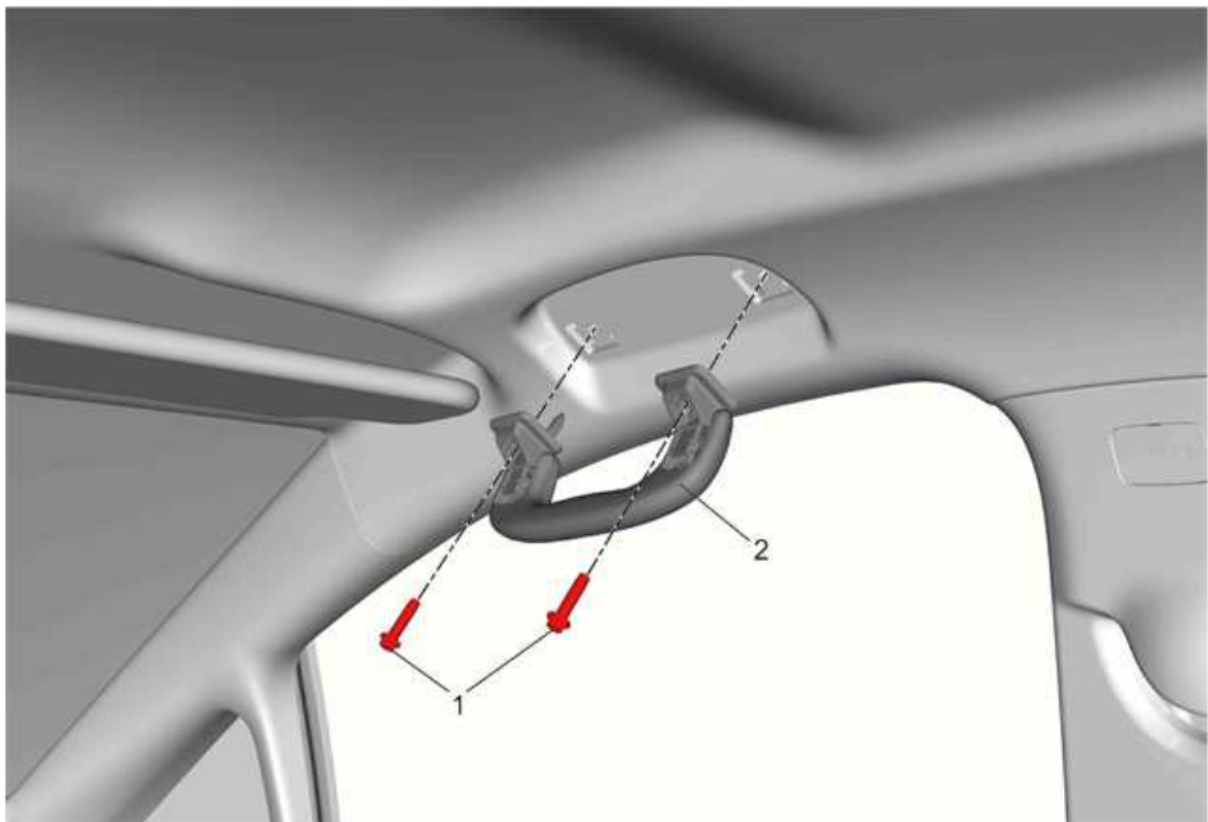


Fig. 19: Roof Rail Assist Handle

Courtesy of GENERAL MOTORS COMPANY

5. Roof Rail Assist Handle - Remove - [Roof Rail Assist Handle Replacement](#)

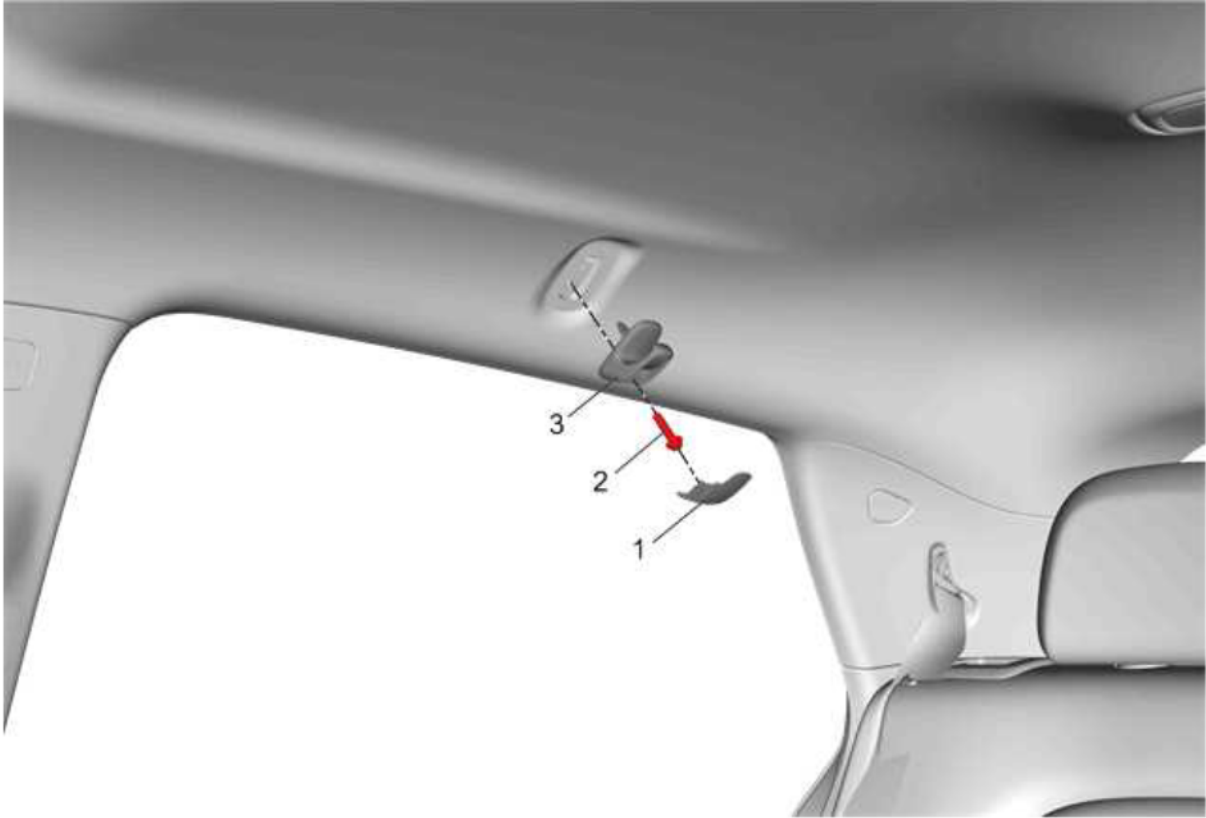


Fig. 20: Coat Hook

Courtesy of GENERAL MOTORS COMPANY

6. Coat Hook - Remove - **Coat Hook Replacement**

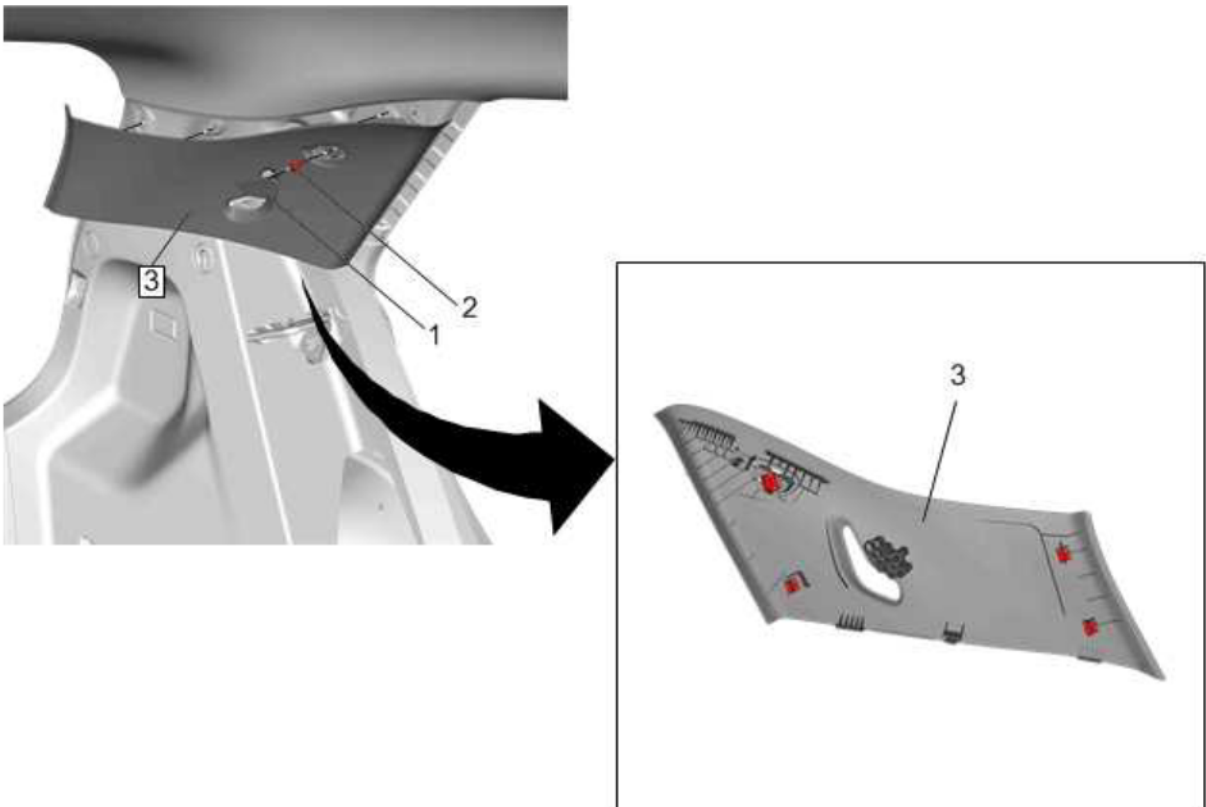


Fig. 21: Body Lock Pillar Upper Trim Panel

Courtesy of GENERAL MOTORS COMPANY

7. Body Lock Pillar Upper Trim Panel - Reposition - **Body Lock Pillar Upper Trim Panel Replacement**

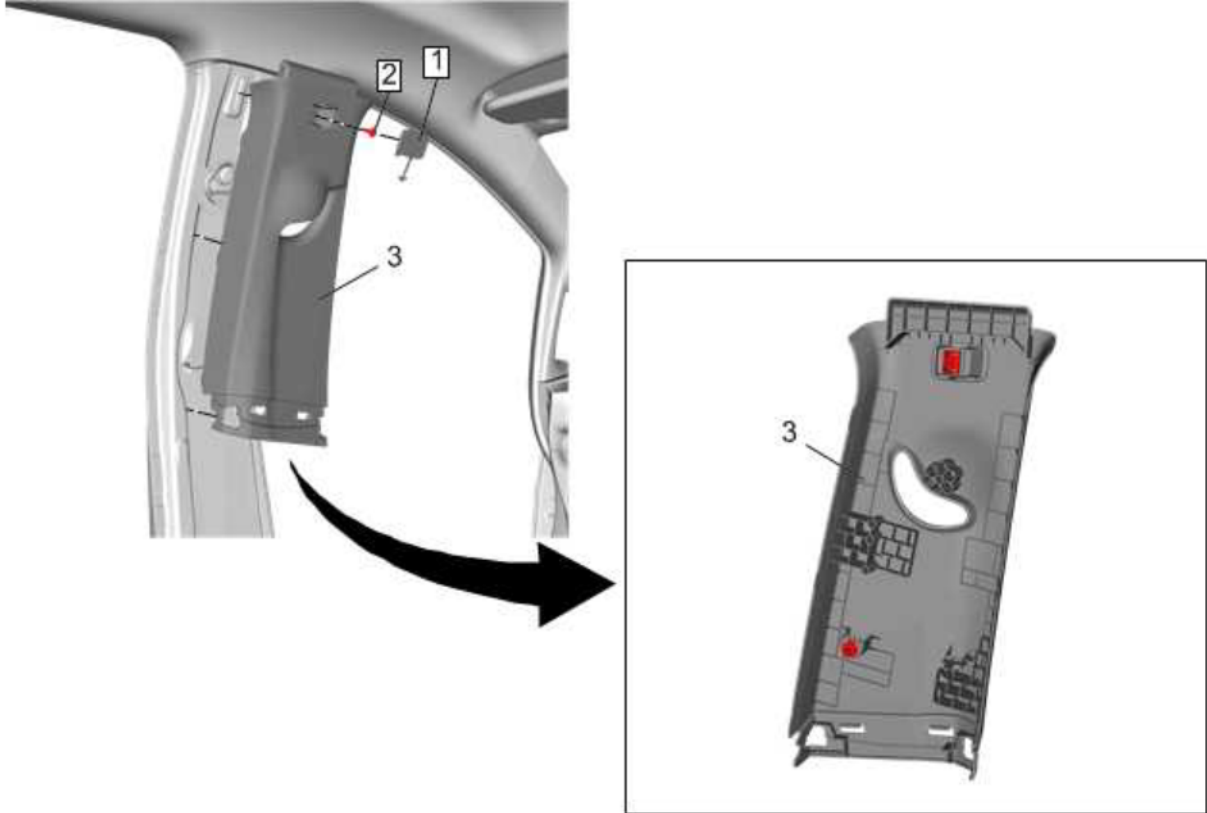


Fig. 22: Center Pillar Upper Trim Panel

Courtesy of GENERAL MOTORS COMPANY

8. Center Pillar Upper Trim Panel - Reposition - [Center Pillar Upper Trim Panel Replacement](#)

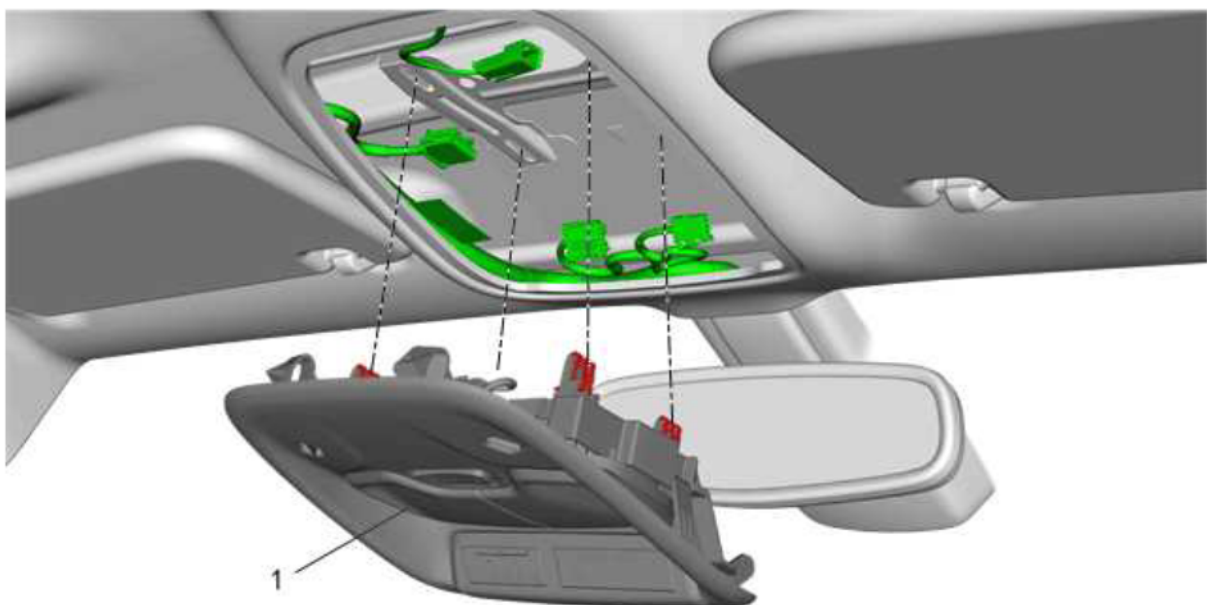


Fig. 23: Roof Console

Courtesy of GENERAL MOTORS COMPANY

9. Roof Console - Remove - [Roof Console Replacement](#)

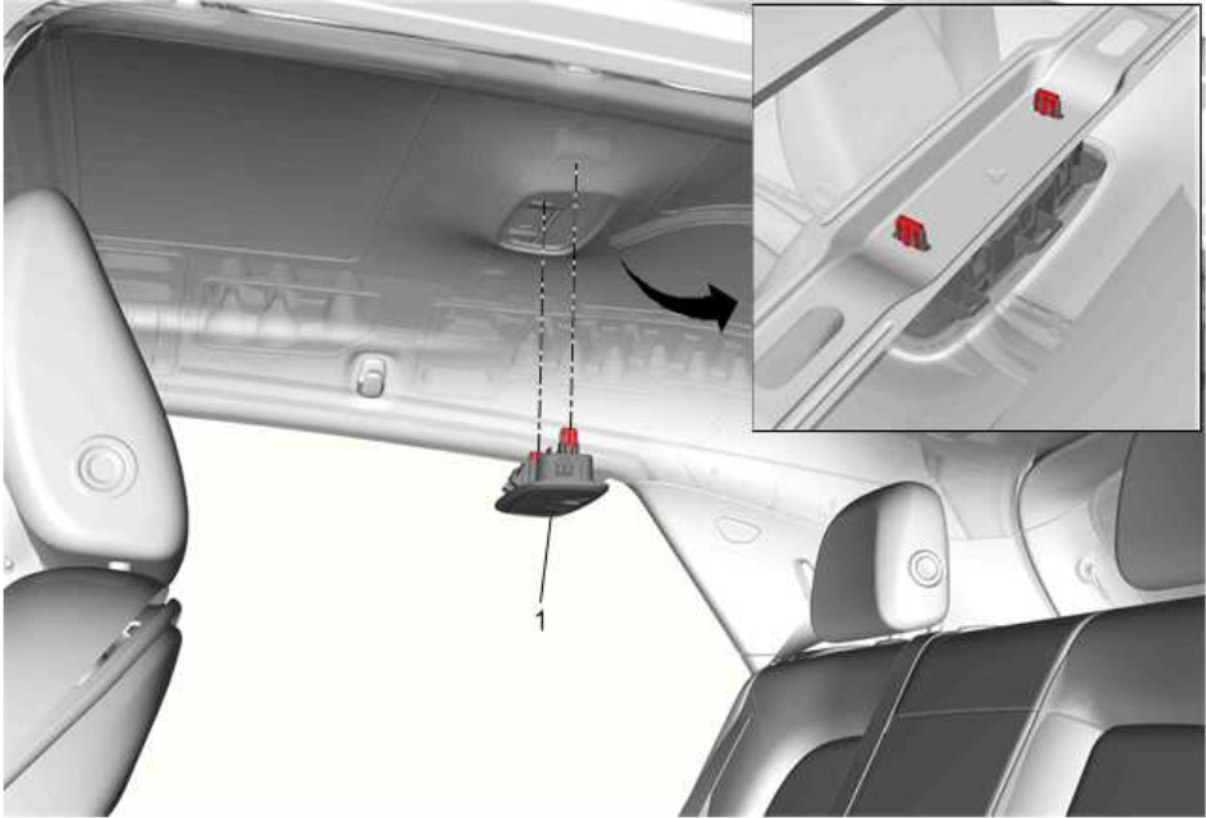


Fig. 24: Center Courtesy Lamp
 Courtesy of GENERAL MOTORS COMPANY

10. Center Courtesy Lamp - Remove - **Center Courtesy Lamp Replacement**

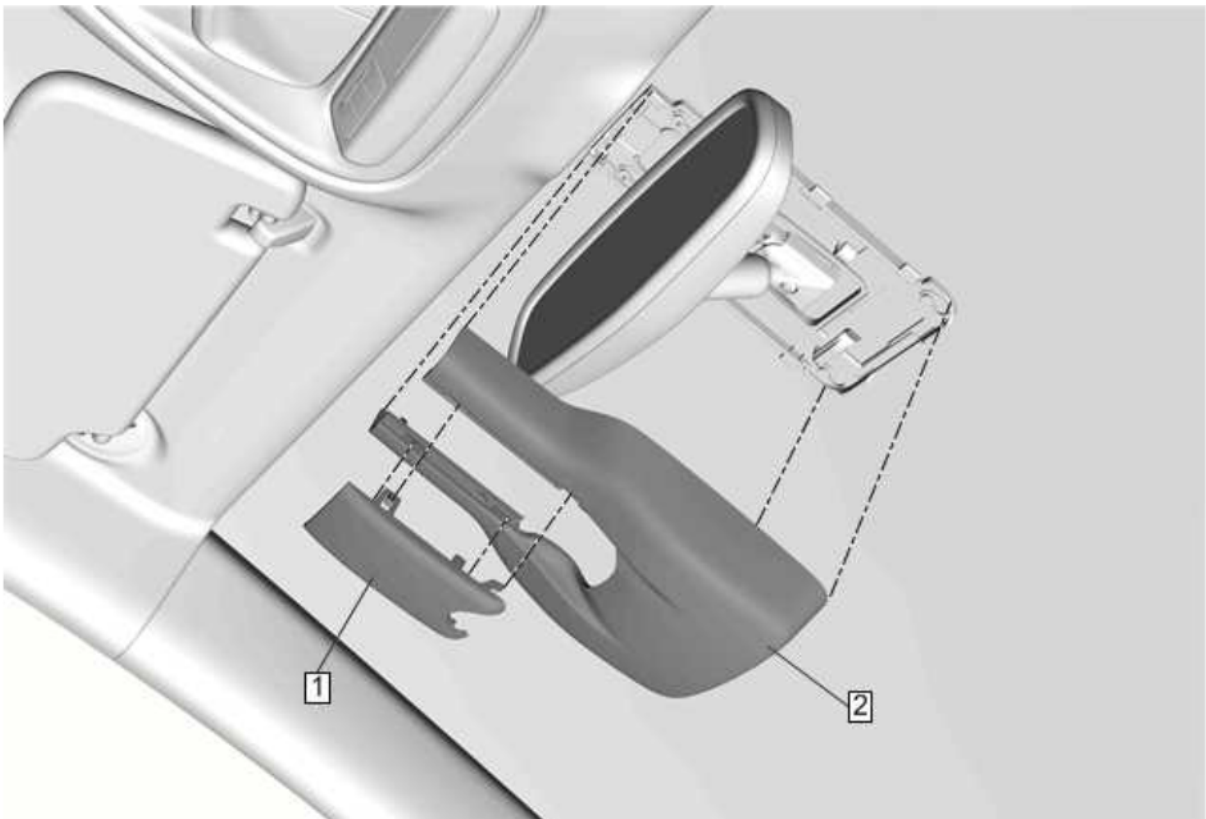


Fig. 25: Windshield Multifunction Sensor Mount Bracket Cover
 Courtesy of GENERAL MOTORS COMPANY

11. Windshield Multifunction Sensor Mount Bracket Cover - Remove - **Windshield Multifunction Sensor Mount Bracket Cover Replacement (with Front View Camera)** **Windshield Multifunction Sensor Mount Bracket Cover Replacement (without Front View Camera)**
12. Fold down the rear seat backs.
13. Move the driver and passenger seats fully forward and recline.



Fig. 26: Headliner Trim Panel Retainers

Courtesy of GENERAL MOTORS COMPANY

NOTE: Prior to removal, note the routing of the wire harness to aid in reassembly and to ensure proper installation.

14. Remove the headliner trim panel retainers (1).
15. Release the headliner from the door weatherstrip and lower.
16. Disconnect the electrical connectors.
17. Note the location of the harness and remove the harness from the headliner. [Headliner Harness Replacement](#)
18. With the aid of an assistant, remove the headliner trim panel assembly (2) from the vehicle through the liftgate opening.
19. Transfer components as necessary.
20. If transferring or replacing the wiring harness. [Headliner Harness Replacement](#)

Installation Procedure



Fig. 27: Headliner Trim Panel Retainers

Courtesy of GENERAL MOTORS COMPANY

1. With the aid of an assistant, position the headliner trim panel assembly (2) into the vehicle through the liftgate opening.
2. Install the harnesses to the headliner.
3. Connect the electrical connectors.
4. Tape any unused connectors to the headlining with a high adhesive tape.
5. Raise the headliner into position and install around weatherstrips.
6. Install the headliner trim panel retainers (1).

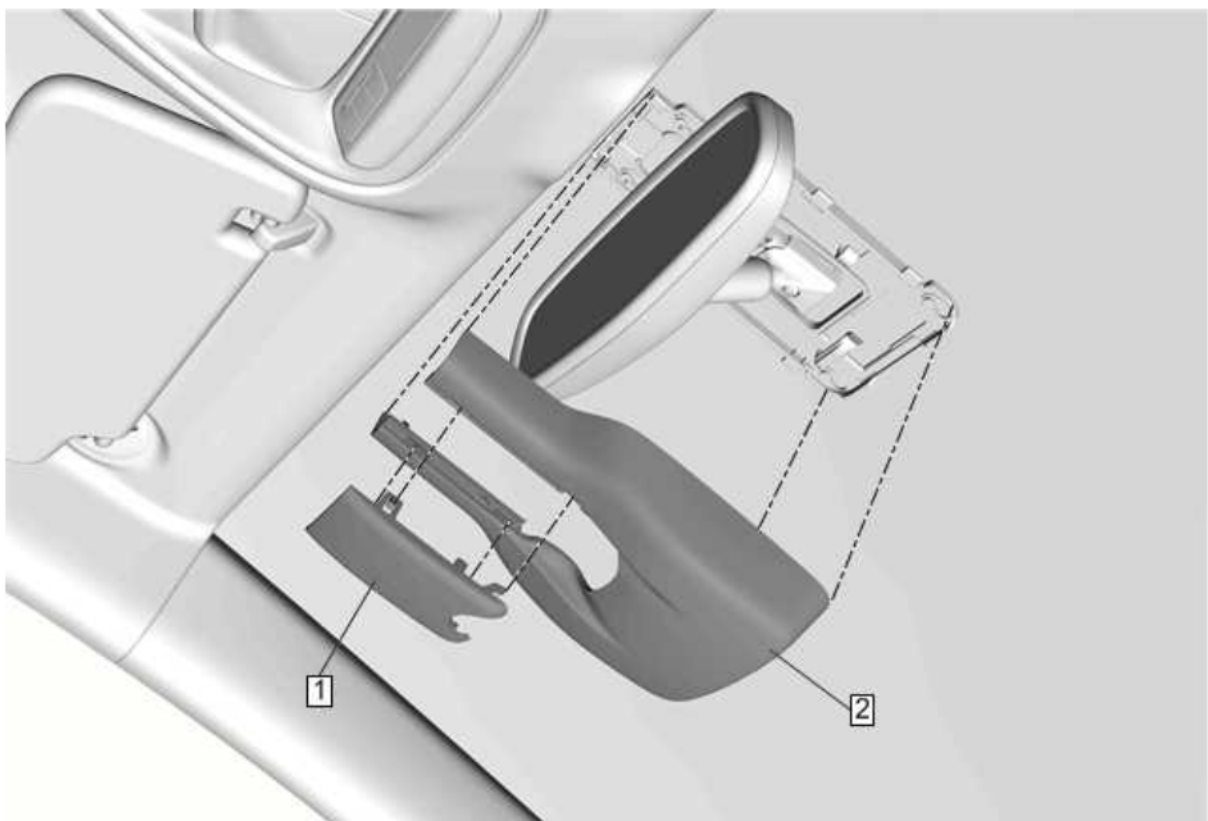


Fig. 28: Windshield Multifunction Sensor Mount Bracket Cover

Courtesy of GENERAL MOTORS COMPANY

7. Windshield Multifunction Sensor Mount Bracket Cover - Install - [Windshield Multifunction Sensor Mount Bracket Cover Replacement \(with Front View Camera\)](#) [Windshield Multifunction Sensor Mount Bracket Cover Replacement \(without Front View Camera\)](#)

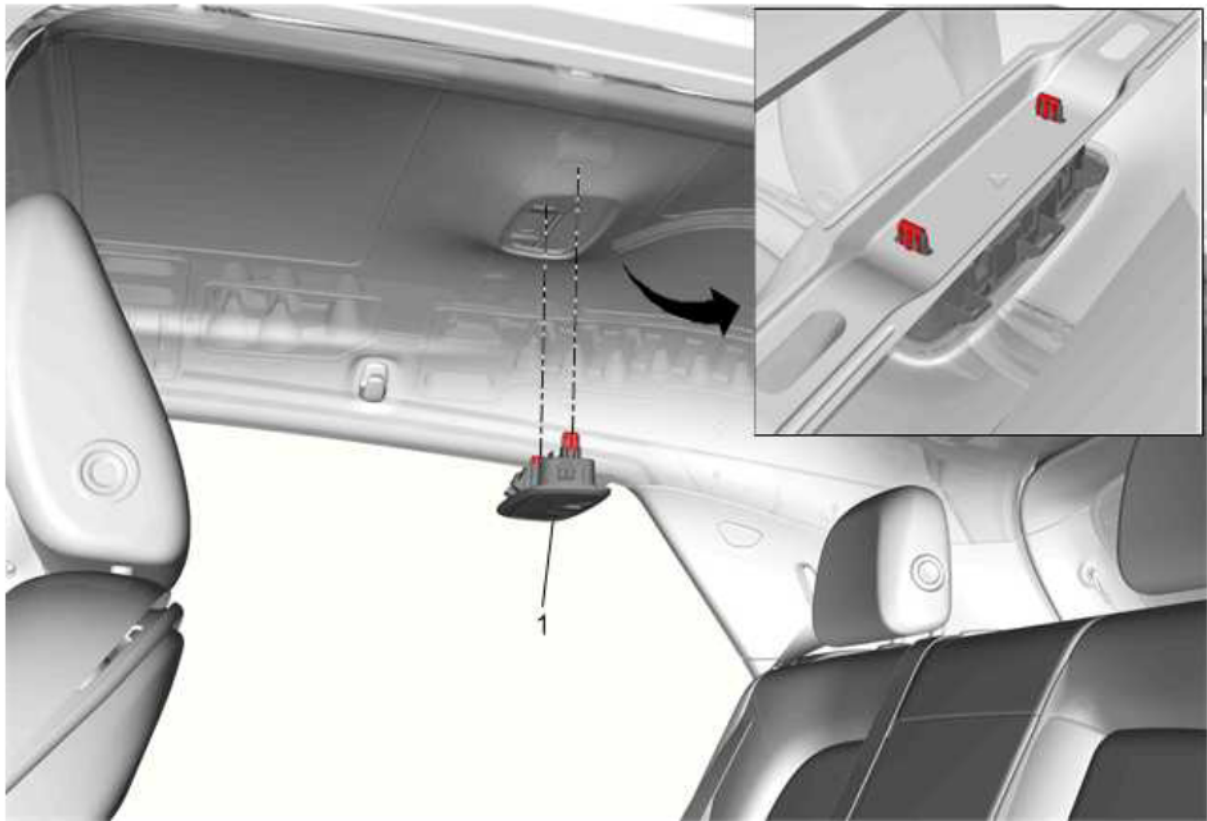


Fig. 29: Center Courtesy Lamp
Courtesy of GENERAL MOTORS COMPANY

8. Center Courtesy Lamp - Install [Center Courtesy Lamp Replacement](#)

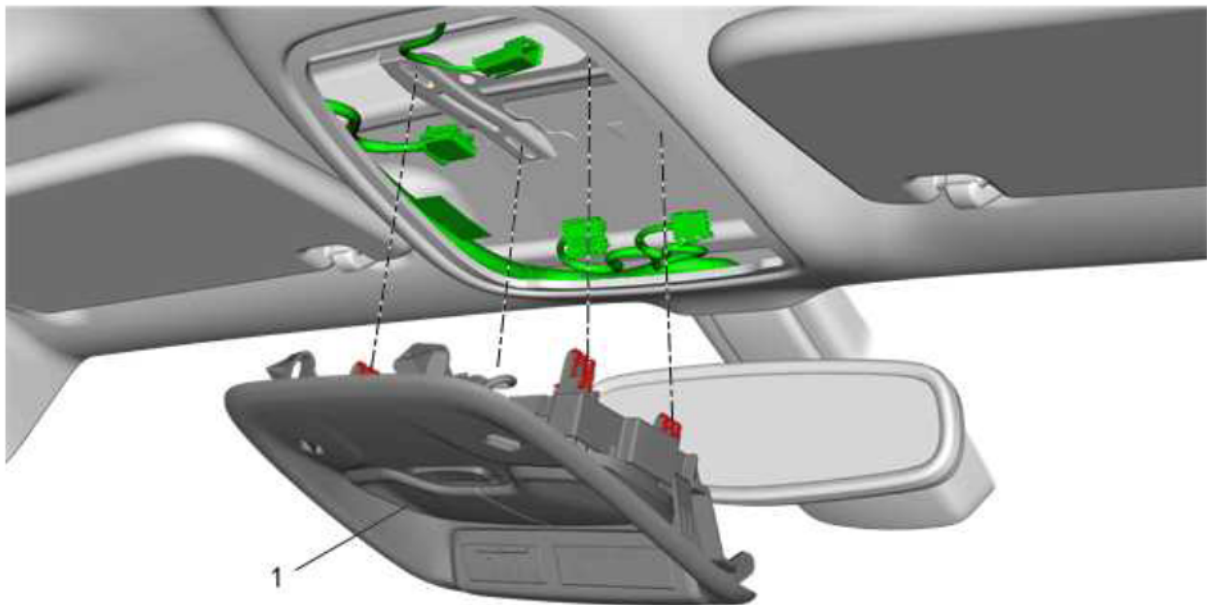


Fig. 30: Roof Console
Courtesy of GENERAL MOTORS COMPANY

9. Roof Console - Install - [Roof Console Replacement](#)

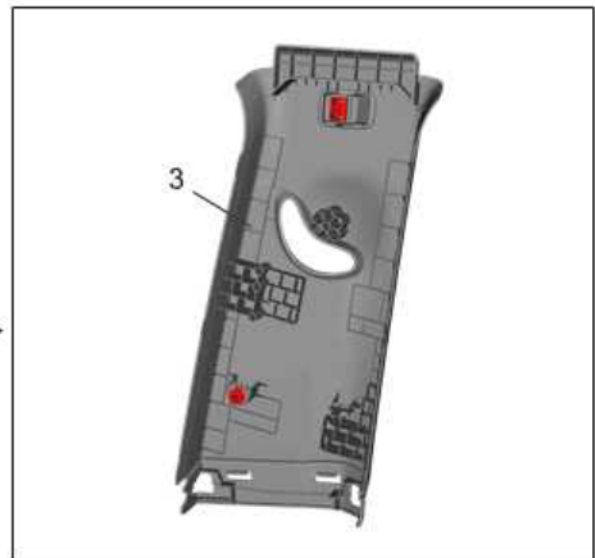
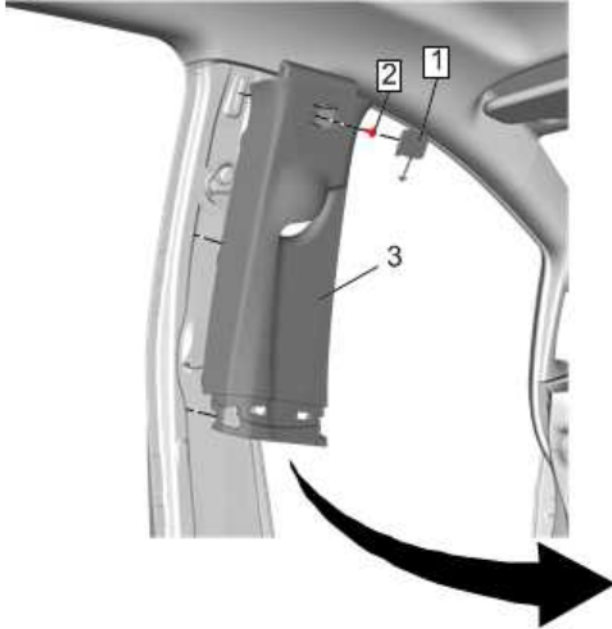


Fig. 31: Center Pillar Upper Trim Panel
 Courtesy of GENERAL MOTORS COMPANY

10. Center Pillar Upper Trim Panel - Install - [Center Pillar Upper Trim Panel Replacement](#)

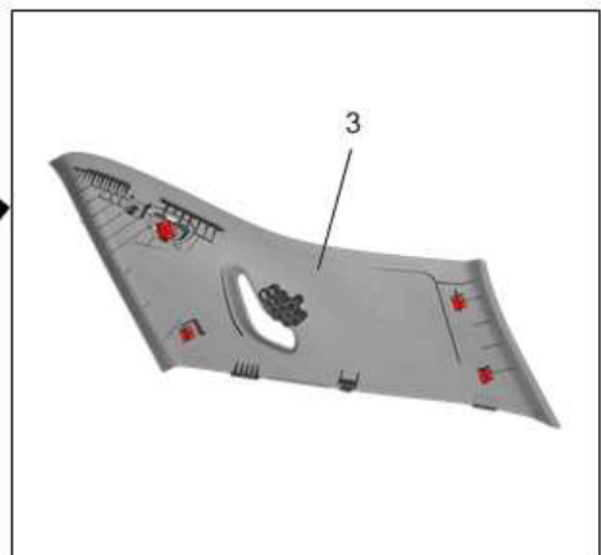
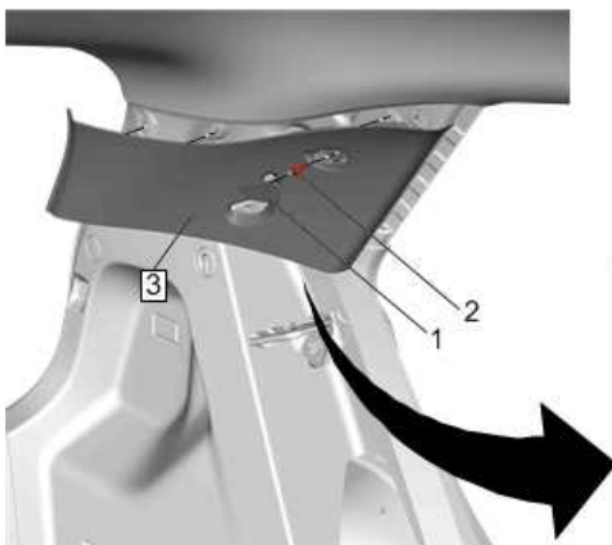


Fig. 32: Body Lock Pillar Upper Trim Panel
 Courtesy of GENERAL MOTORS COMPANY

11. Body Lock Pillar Upper Trim Panel - Install - [Body Lock Pillar Upper Trim Panel Replacement](#)

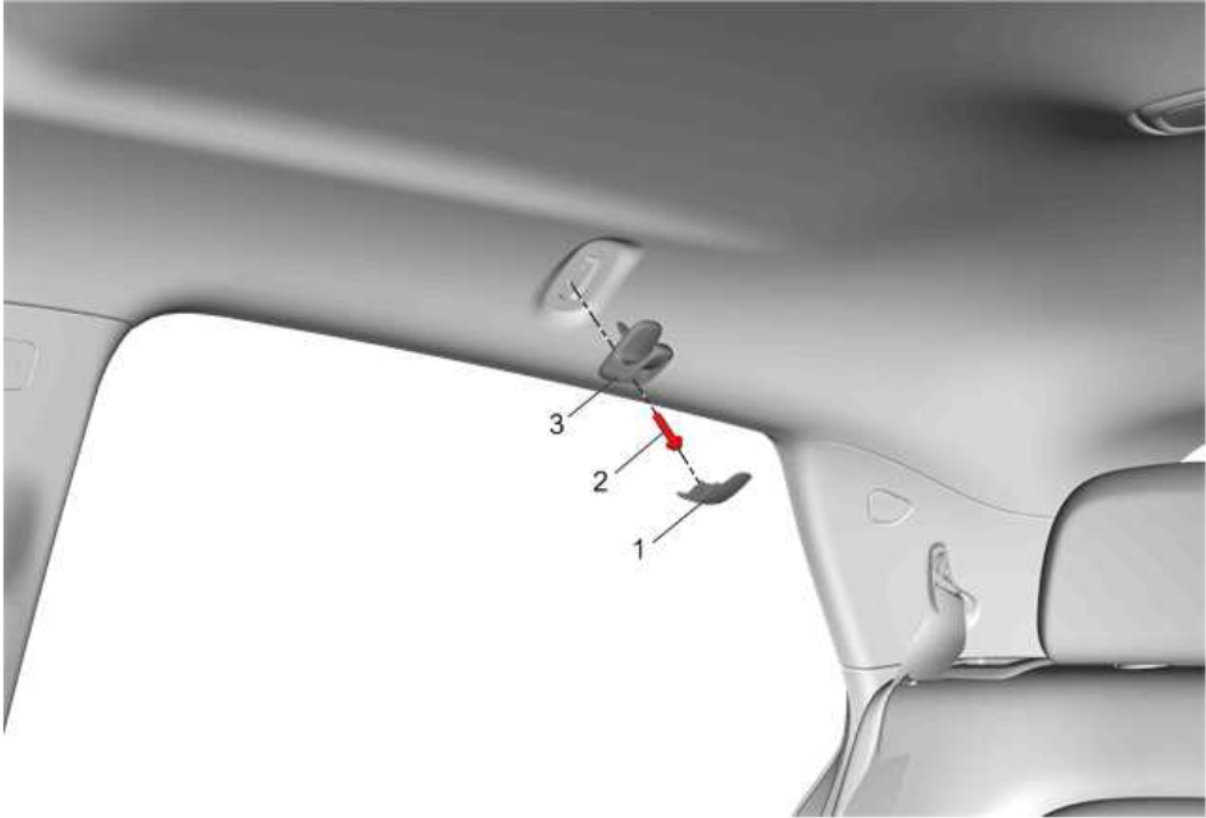


Fig. 33: Coat Hook

Courtesy of GENERAL MOTORS COMPANY

12. Coat Hook - Install - [Coat Hook Replacement](#)

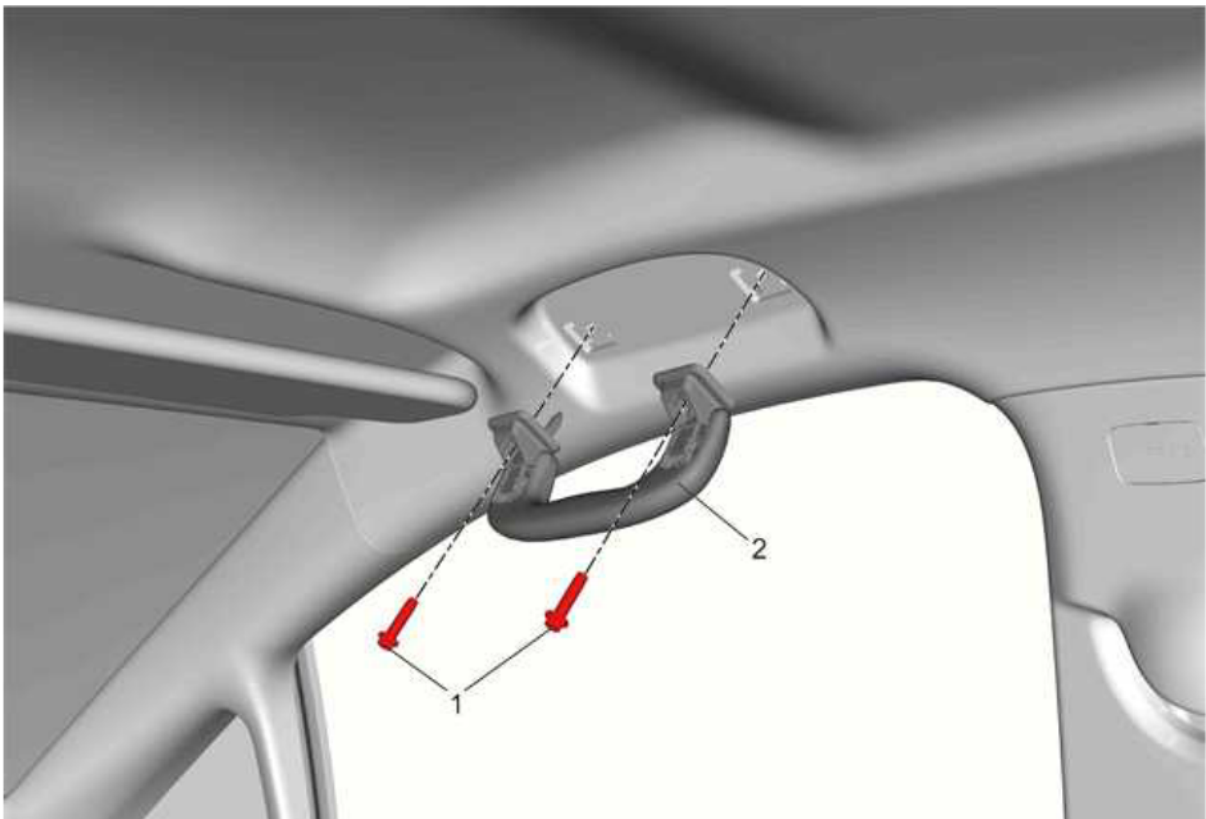


Fig. 34: Roof Rail Assist Handle

Courtesy of GENERAL MOTORS COMPANY

13. Roof Rail Assist Handle - Install - [Roof Rail Assist Handle Replacement](#)

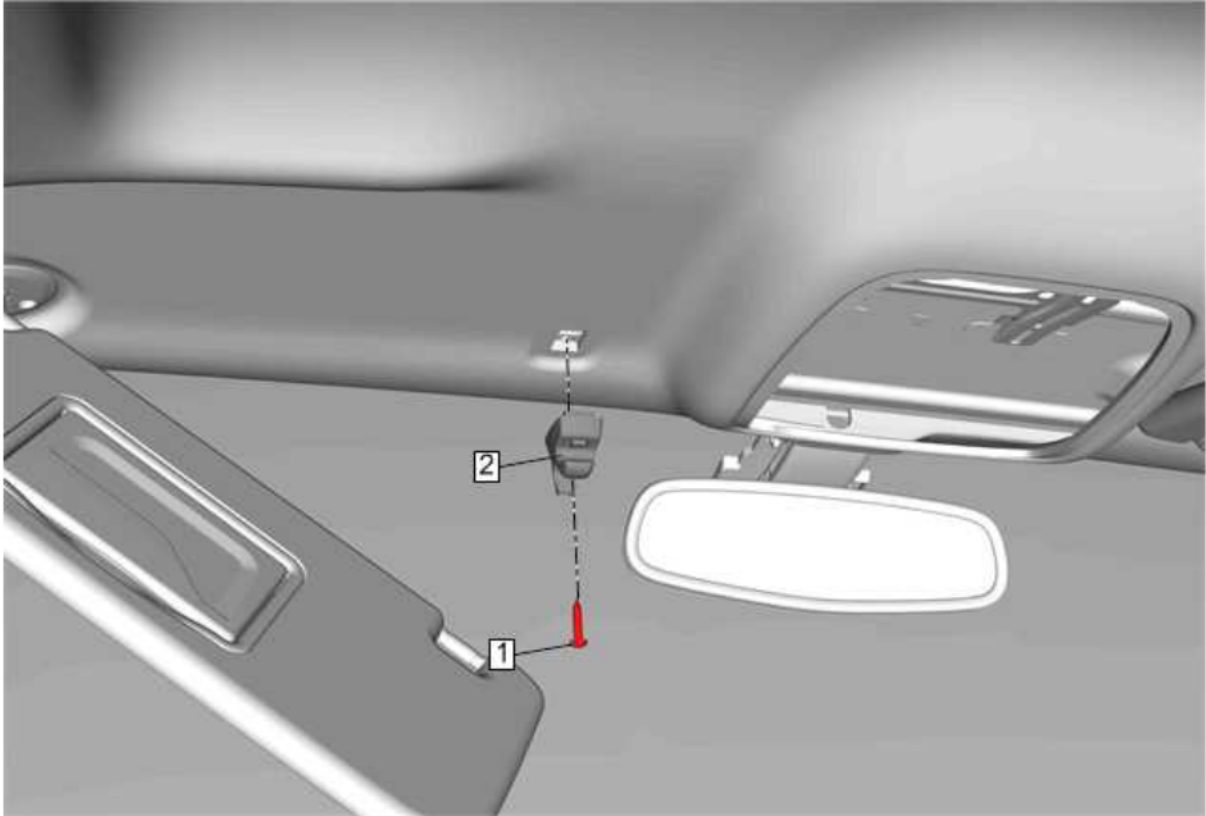


Fig. 35: Sunshade Support

Courtesy of GENERAL MOTORS COMPANY

14. Sunshade Support - Install - [Sunshade Support Replacement](#)

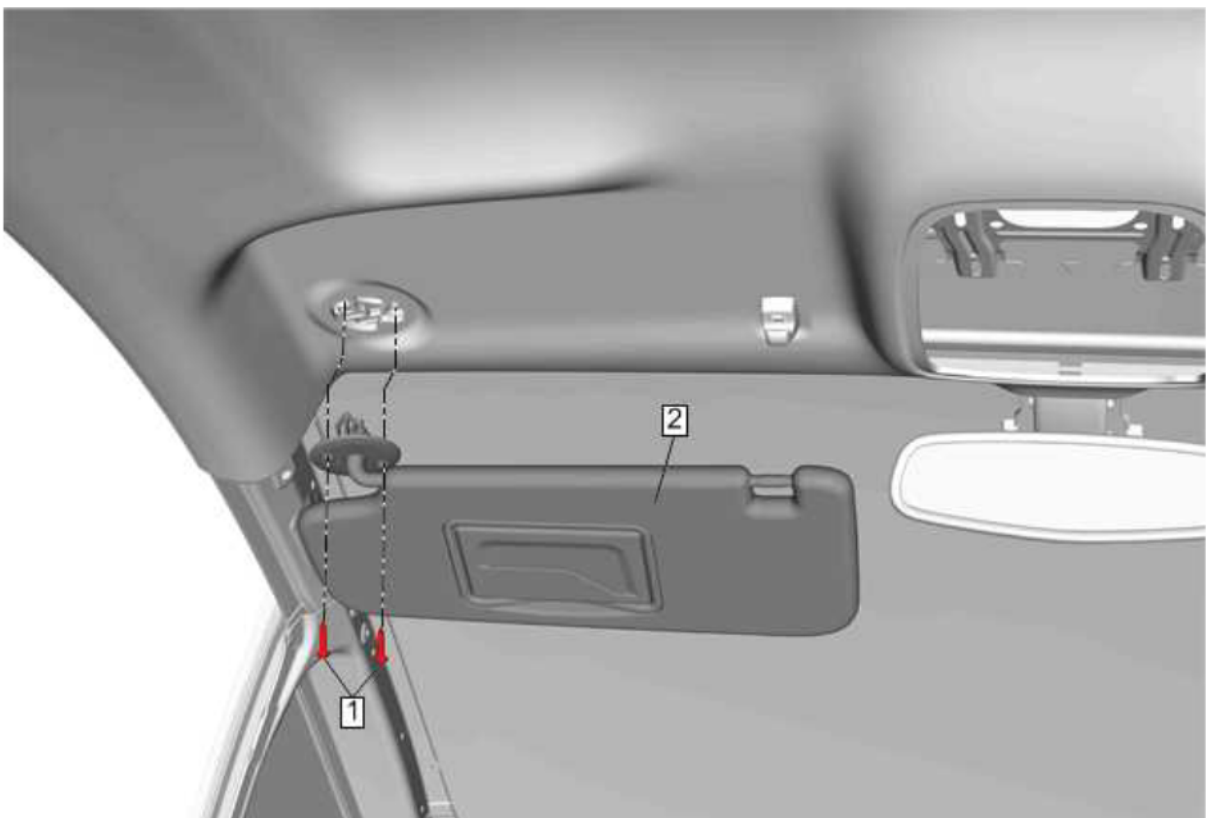


Fig. 36: Sunshade

Courtesy of GENERAL MOTORS COMPANY

15. Sunshade - Install - [Sunshade Replacement](#)

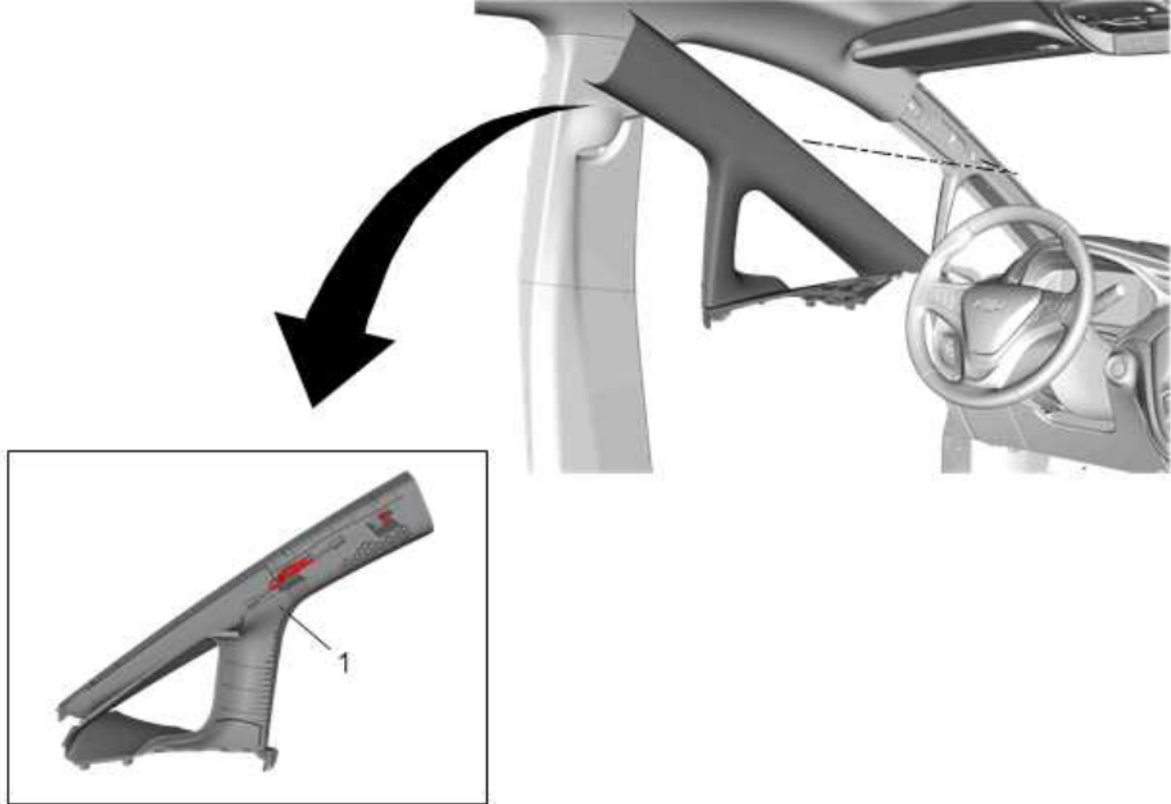


Fig. 37: Windshield Garnish Molding
Courtesy of GENERAL MOTORS COMPANY

16. Windshield Garnish Molding - Install - [Windshield Garnish Molding Replacement](#)
17. Enable the SIR System. [SIR Disabling and Enabling](#)

HEADLINER HARNESS REPLACEMENT

Removal Procedure

1. For the left side harness, remove the instrument panel. [Instrument Panel Assembly Replacement](#)
2. For the right side harness, remove the instrument panel and radio. [Instrument Panel Assembly Replacement](#) , [Radio Replacement](#)
3. Remove the headlining trim panel. Refer to [Headlining Trim Panel Replacement](#).
4. Take note of the wiring harness locations and measure the harness lead length prior to removing. Mark harness routing locations on new headliner prior to harness removal.

NOTE: Use a camera to take pictures and use a pencil to mark the new headliner.

5. Use fiber or plastic trim tool to assist in removing the wiring harness from the headliner, taking care not to damage the harness.
6. Remove excess glue and material from the wiring harness and re-tape areas where the tape was removed or damaged.

Installation Procedure

1. Lay the wiring harness on the new headliner assembly to confirm correct routing and ensure harness leads are proper length for mating connections prior to gluing.

WARNING: Do not change the wiring harness routing locations. Correct harness routing is critical for air bag deployment. Possible personal injury or vehicle damage could result if the harness routing is changed.

NOTE: When installing a new headliner harness, tape any unused connector to the headliner with a high adhesive tape.

2. Use hot melt adhesive to install the wiring harness. Apply insulator tape over glued locations to prevent squeaks and rattles as needed.
 3. Install the headlining trim panel. Refer to [**Headlining Trim Panel Replacement**](#).
 4. For the left side harness, install the instrument panel. [**Instrument Panel Assembly Replacement**](#)
 5. For the right side harness, install the instrument panel and radio. [**Instrument Panel Assembly Replacement**](#) , [**Radio Replacement**](#)
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