

ACCESSORIES & EQUIPMENT

Instrument Panel and Console Trim - Canyon, Colorado

SPECIFICATIONS

FASTENER SPECIFICATIONS

Application	Specification	
	Metric	English
Front Floor Console Armrest Bolt	2.5 N.m	22 lb in
Front Floor Console Bolt	9 N.m	80 lb in
Front Floor Console Bolt (Front Floor Console Accessory Trim Plate)	2.5 N.m	22 lb in
Front Floor Lower Console Bolt	2.5 N.m	22 lb in
Heater Bolt	9 N.m	80 lb in
Instrument Panel Accessory Bracket Bolt	2.5 N.m	22 lb in
Instrument Panel Bolt	2.5 N.m	22 lb in
Instrument Panel Cluster Trim Plate Bolt	2.5 N.m	22 lb in
Instrument Panel Driver Knee Bolster Brace Bolt	9 N.m	80 lb in
Instrument Panel Extension Bolt	2.5 N.m	22 lb in
Instrument Panel Inflatable Restraint Module Bolt	9 N.m	80 lb in
Instrument Panel Insulator Bolt	1.5 N.m	13 lb ft
Instrument Panel Knee Bolster Bolt	2.5 N.m	22 lb in
Instrument Panel Lower Trim Panel Bolt	2.5 N.m	22 lb in
Instrument Panel Steering Column Opening Upper Reinforcement Bolt	2.5 N.m	22 lb in
Instrument Panel Tie Bar Bolt	22 N.m	16 lb ft
Instrument Panel Tie Bar Brace Bolt	22 N.m	16 lb ft
Instrument Panel Tie Bar Brace Nut	22 N.m	16 lb ft
Instrument Panel Tray Bolt	2.5 N.m	22 lb in
Instrument Panel Upper Trim Panel Bracket Bolt	2.5 N.m	22 lb in
Radio Speaker Amplifier Bolt	2.5 N.m	22 lb in
Radio Speaker Amplifier Bolt	9 N.m	80 lb in
Side Window Defogger Outlet Duct Bolt	2.5 N.m	22 lb in

REPAIR INSTRUCTIONS

INSTRUMENT PANEL LOWER TRIM PANEL INSULATOR REPLACEMENT



Component Name

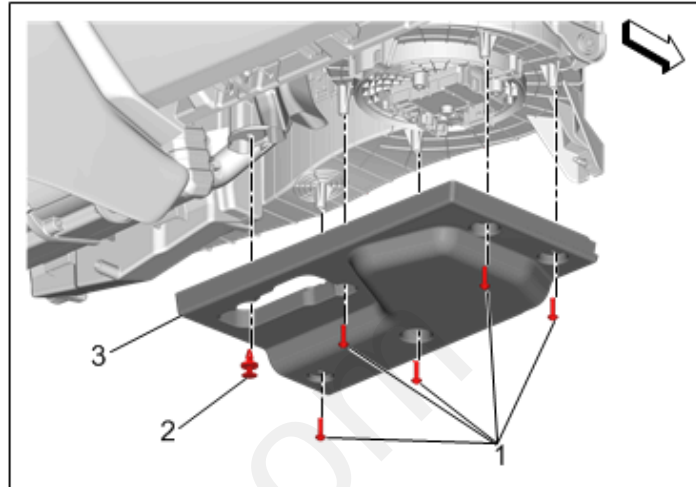


Fig. 1: Instrument Panel Lower Trim Panel Insulator

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Insulator Bolt (Qty: 5) CAUTION: Refer to Fastener Caution . Tighten 1.5 N.m (13 lb in)
2	Instrument Panel Lower Trim Panel Insulator Push Pin
3	Instrument Panel Lower Trim Panel Insulator

INSTRUMENT PANEL STEERING COLUMN OPENING CLOSEOUT REPLACEMENT

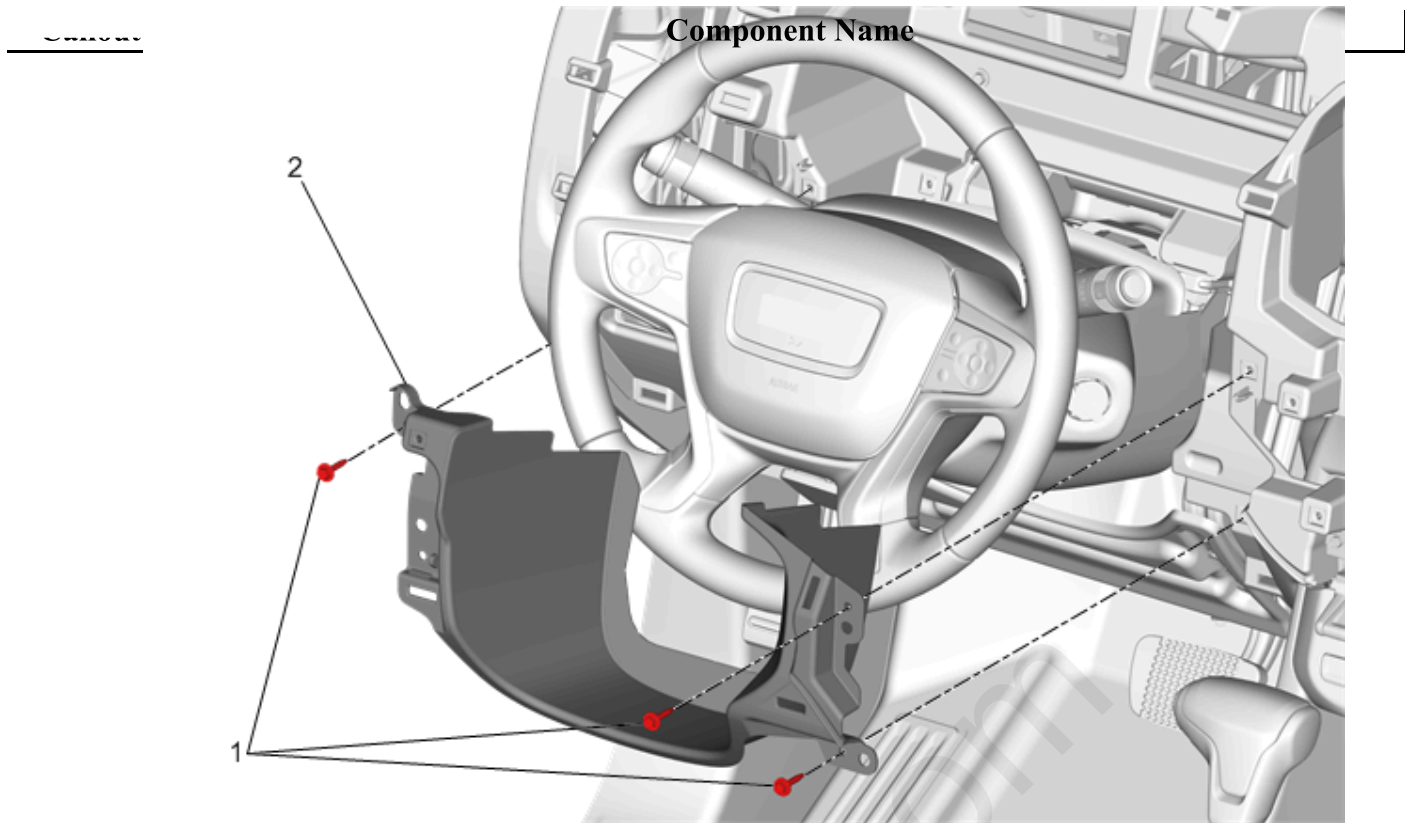


Fig. 2: Instrument Panel Steering Column Opening Closeout
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel. Refer to Instrument Panel Assembly Replacement .	
1	Instrument Panel Steering Column Opening Upper Reinforcement Bolt (Qty: 3) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Steering Column Opening Closeout

INSTRUMENT PANEL ACCESSORY BRACKET REPLACEMENT

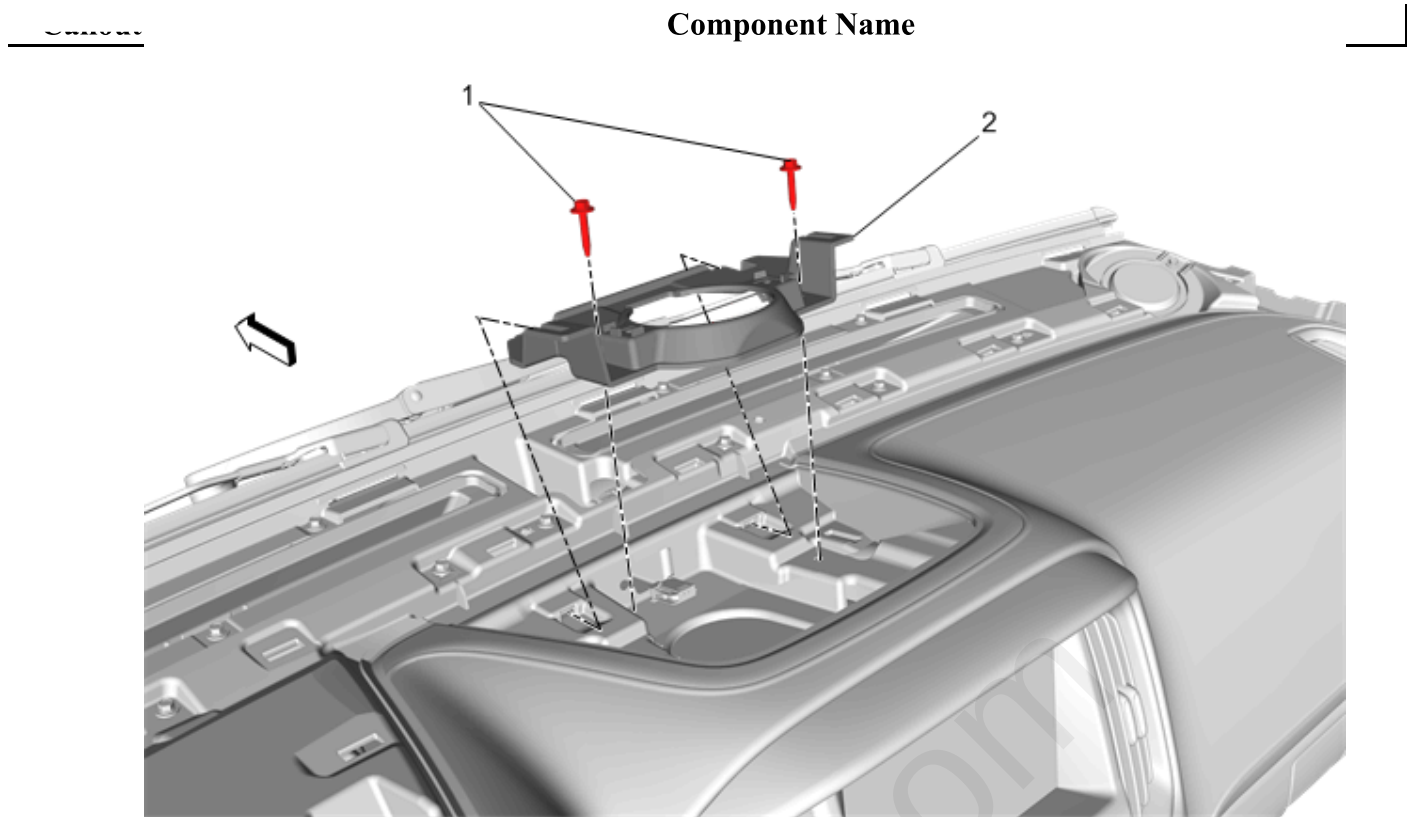


Fig. 3: Instrument Panel Accessory Bracket
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the radio front center speaker. Refer to Radio Front Center Speaker Replacement .	
1	Instrument Panel Accessory Bracket Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Accessory Bracket

DAYTIME RUNNING LAMP AMBIENT LIGHT BEZEL REPLACEMENT

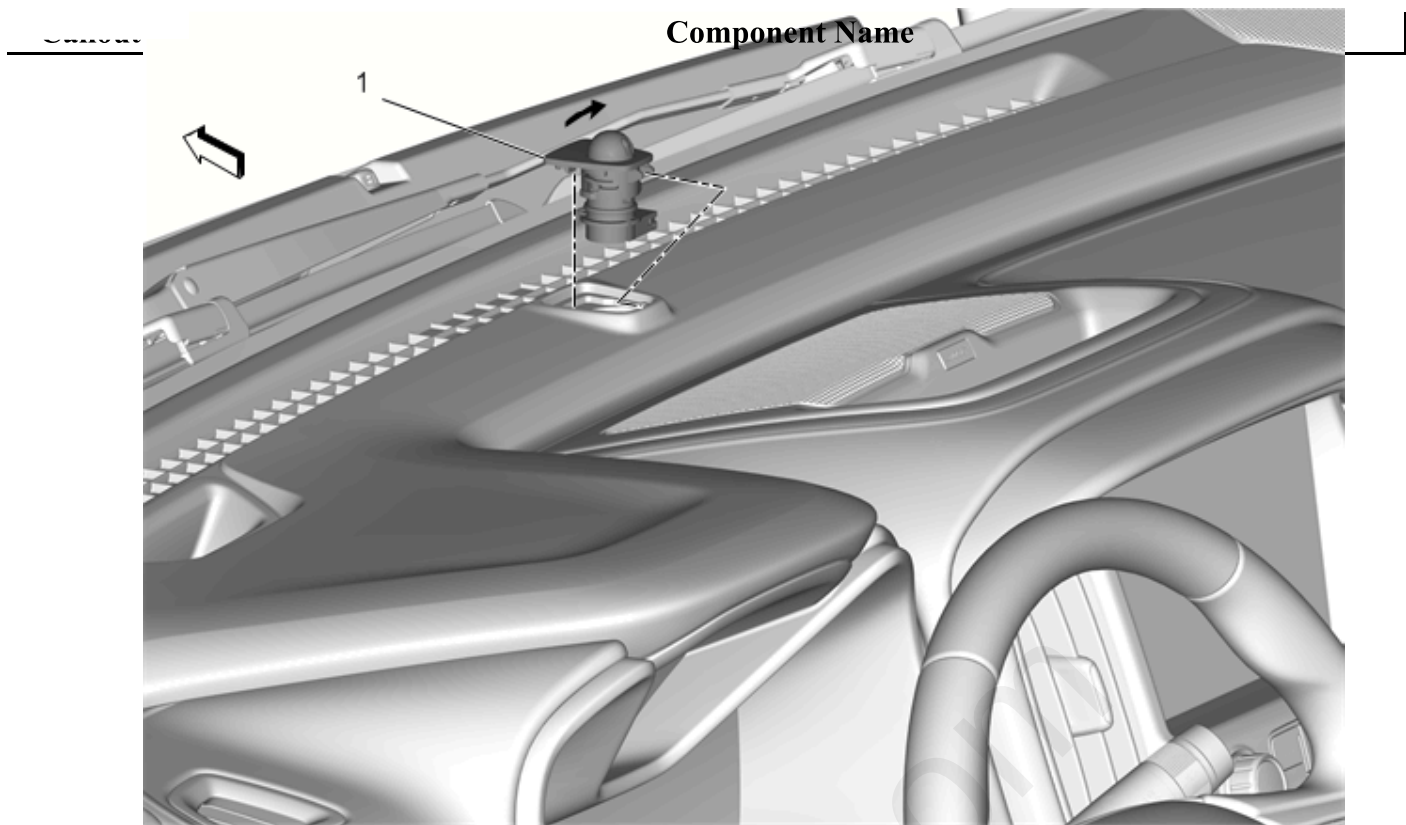


Fig. 4: Daytime Running Lamp Ambient Light Bezel
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Daytime Running Lamp Ambient Light Bezel Procedure Carefully separate the bezel from the sensor by lifting up the tabs to release.

INSTRUMENT PANEL EXTENSION REPLACEMENT

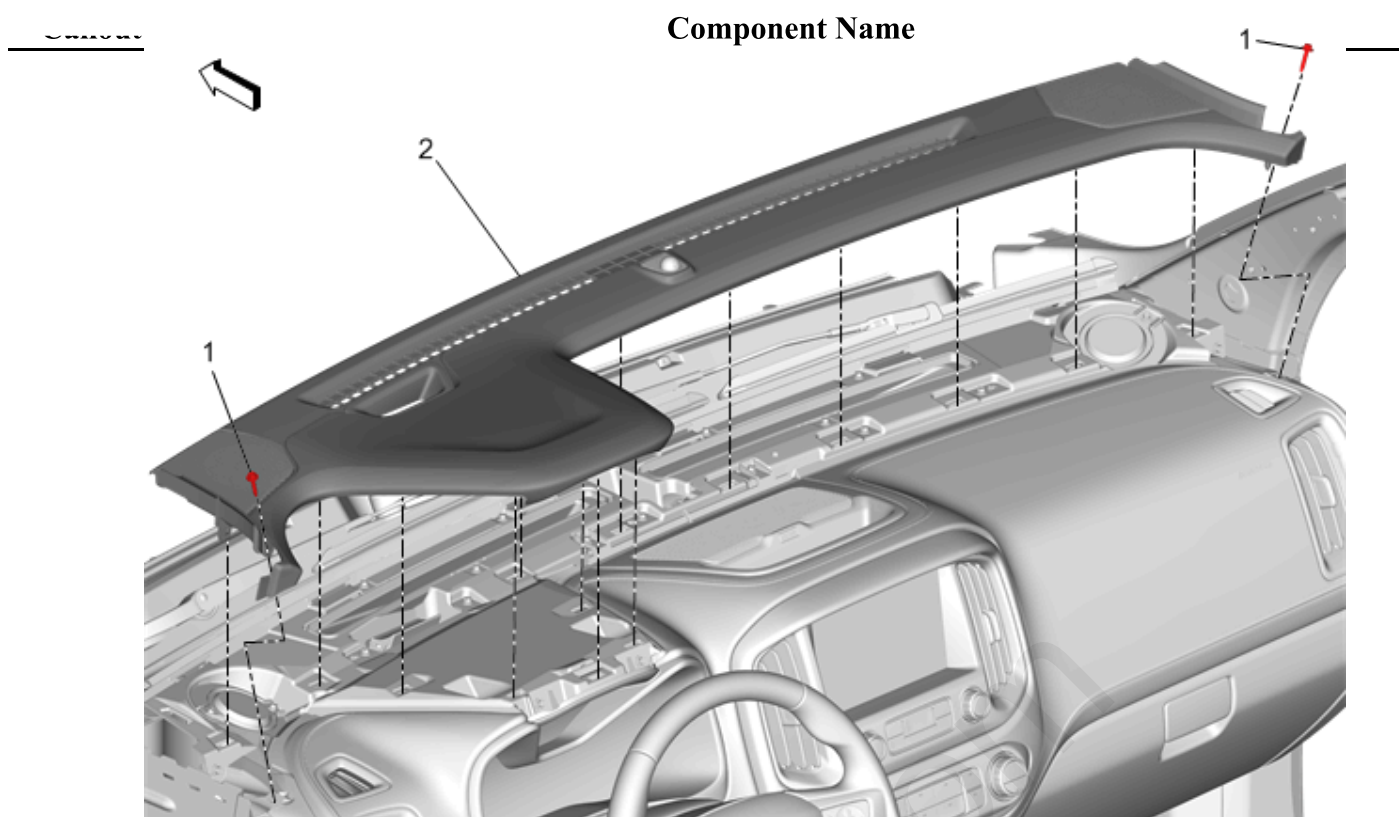


Fig. 5: Instrument Panel Extension

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the Left and right windshield garnish molding. Refer to Windshield Garnish Molding Replacement - Left Side , and Windshield Garnish Molding Replacement - Right Side .	
1	Instrument Panel Extension Bolt(Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Extension Procedure 1. Use a flat-bladed plastic trim tool to release the 16 retainers securing the instrument panel extension to the instrument panel assembly. 2. Disconnect the electrical connection. 3. When replacing the instrument panel extension, transfer all necessary components.

INSTRUMENT PANEL KNEE BOLSTER DEFLECTOR REPLACEMENT

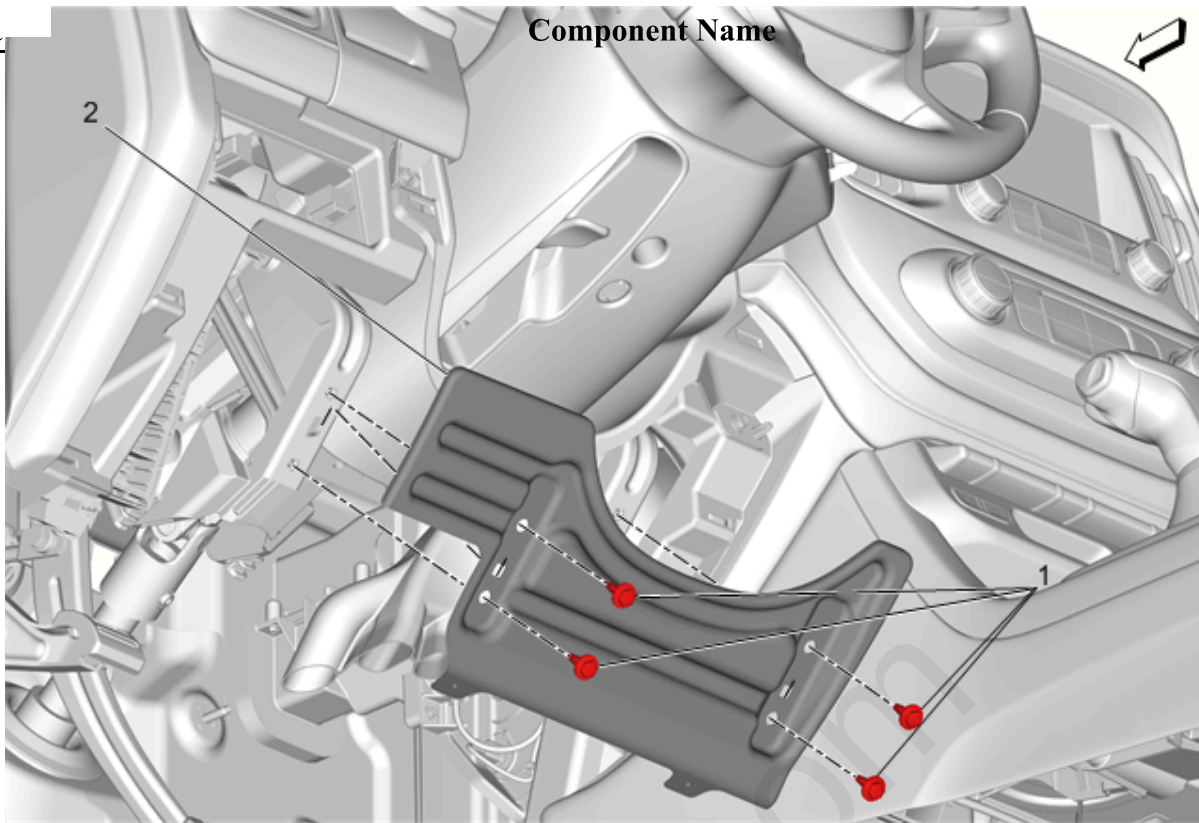


Fig. 6: Instrument Panel Knee Bolster Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel knee bolster. Refer to Instrument Panel Knee Bolster Replacement .	
1	Instrument Panel Driver Knee Bolster Brace Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Instrument Panel Knee Bolster Outer Deflector

INSTRUMENT PANEL KNEE BOLSTER REPLACEMENT

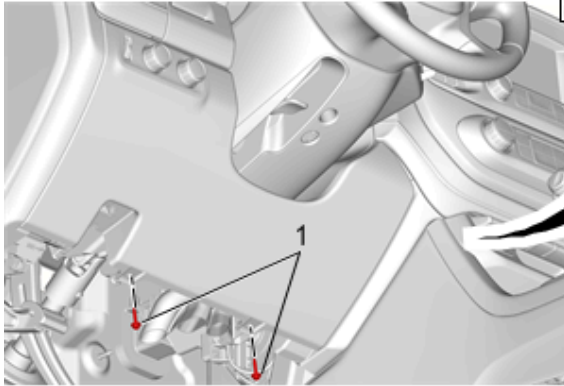
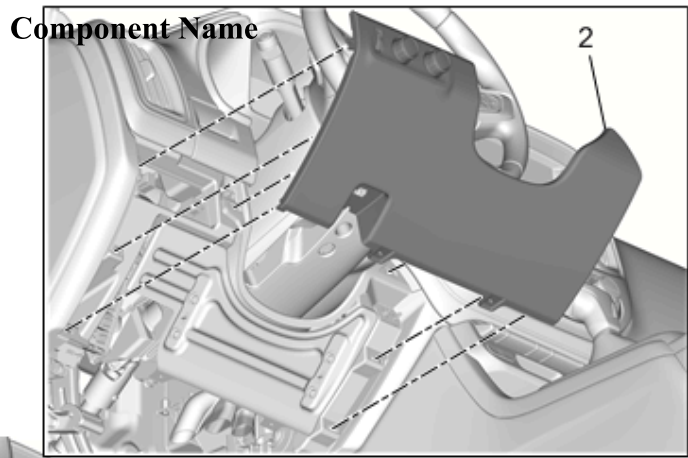


Fig. 7: Instrument Panel Knee Bolster

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Knee Bolster Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Knee Bolster Procedure 1. Disconnect the hood release lever. 2. Use a flat-bladed plastic trim tool to release the 7 retainers securing the knee bolster to the instrument panel assembly. 3. Disconnect the electrical connection. 4. When replacing the knee bolster, transfer all necessary components.

INSTRUMENT PANEL ACCESSORY CENTER TRIM PLATE REPLACEMENT

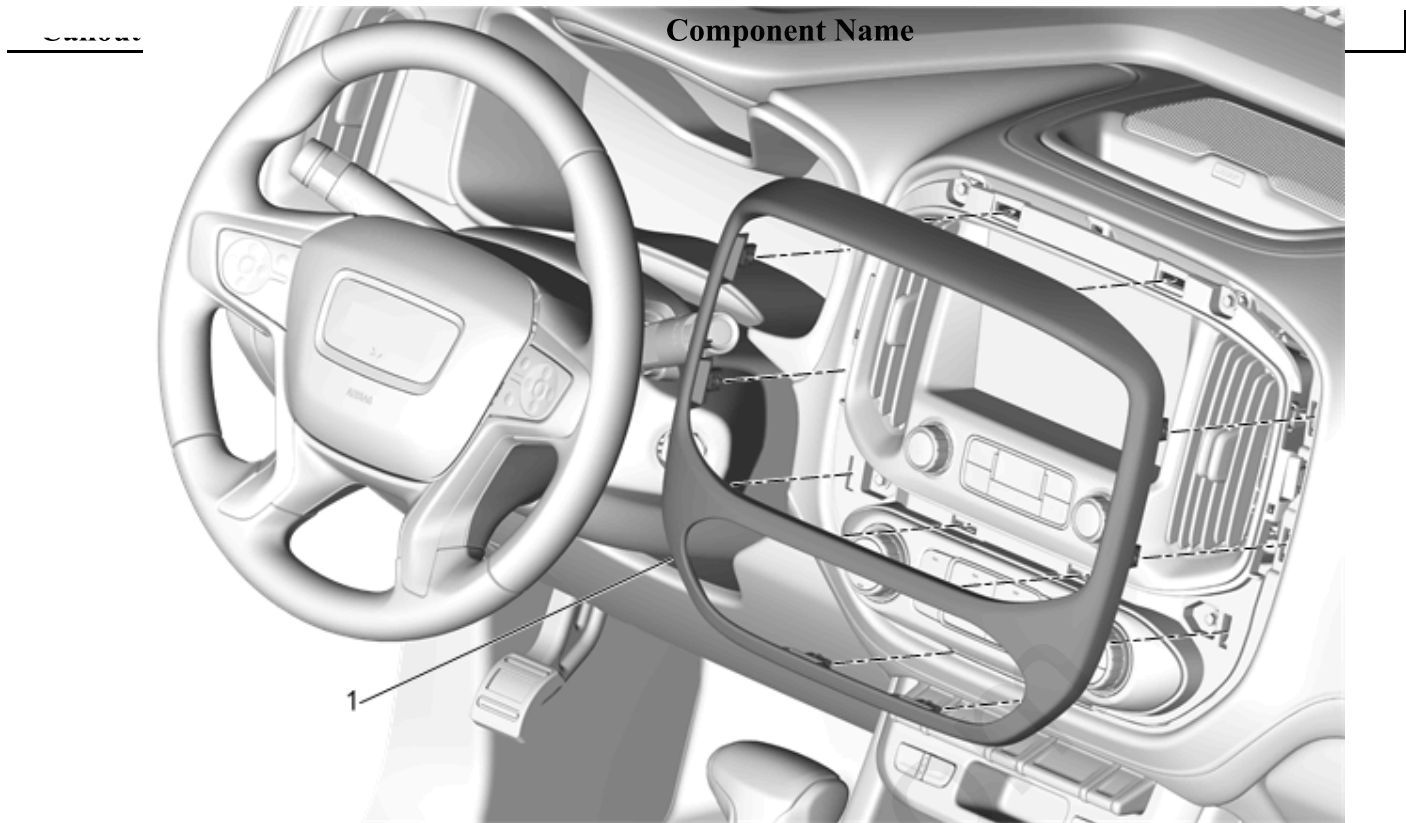


Fig. 8: Instrument Panel Accessory Center Trim Plate
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Accessory Center Trim Plate Procedure Use a flat-bladed plastic trim tool to release the 12 retainers securing the accessory center trim plate to the instrument panel assembly.

INSTRUMENT PANEL UPPER TRIM PANEL BRACKET REPLACEMENT

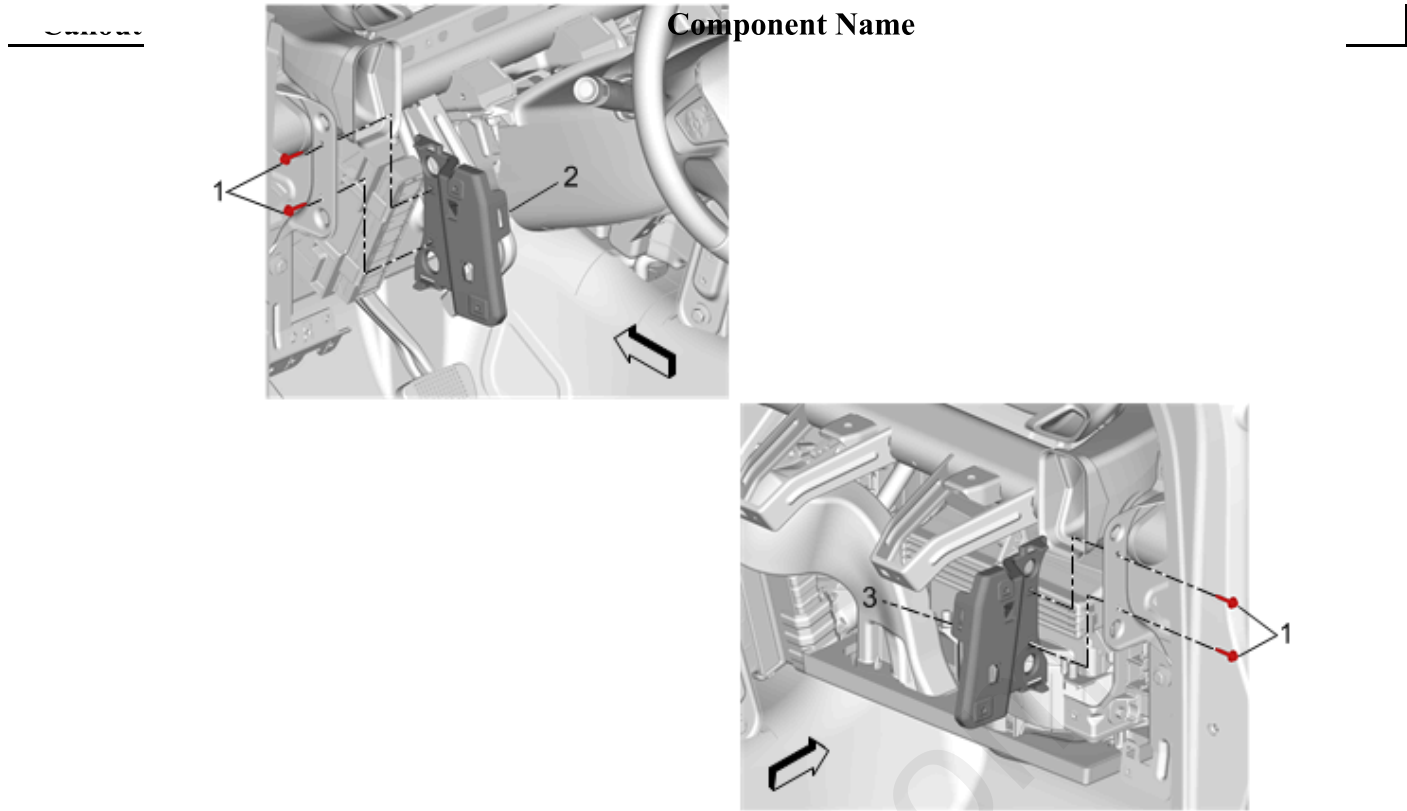


Fig. 9: Instrument Panel Upper Trim Panel Bracket
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel lower trim panel. Refer to Instrument Panel Lower Trim Panel Replacement .	
1	Instrument Panel Upper Trim Panel Bracket Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Upper Trim Panel Bracket - Left Side
3	Instrument Panel Upper Trim Panel Bracket - Right Side

INSTRUMENT PANEL ACCESSORY BEZEL REPLACEMENT

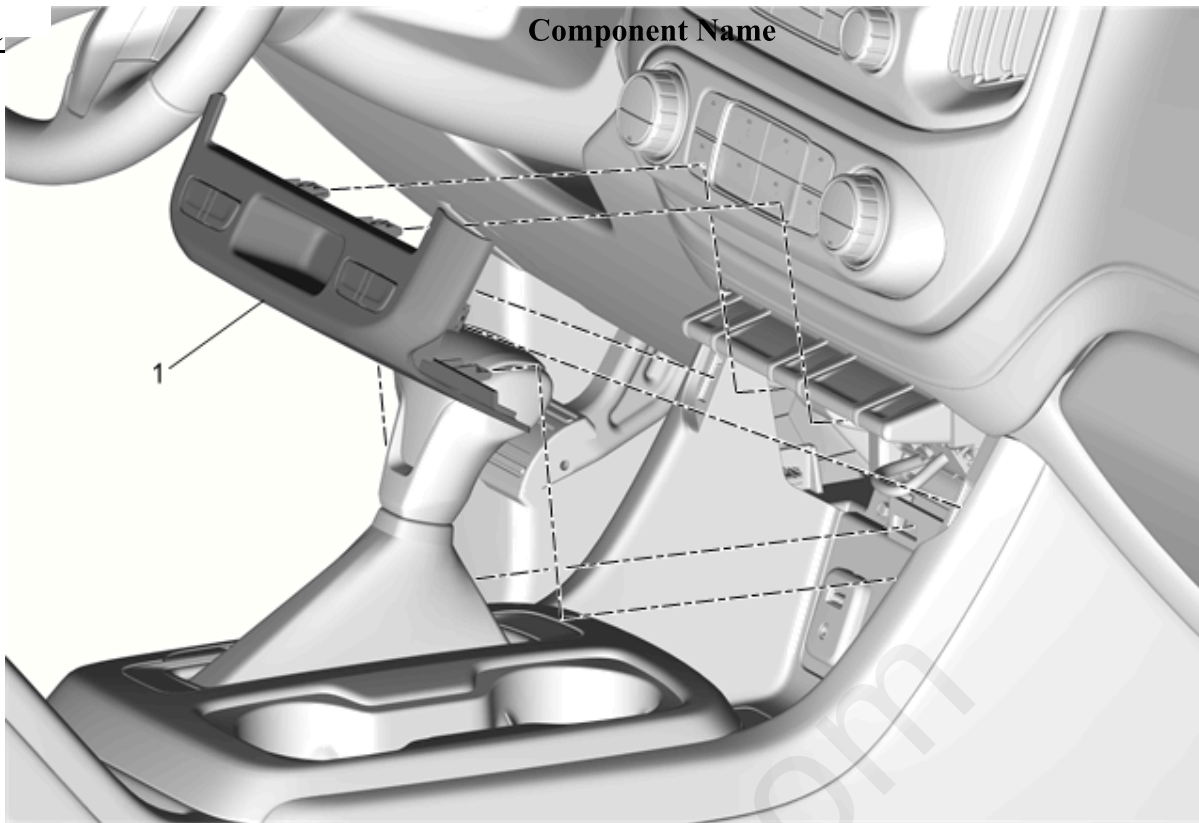


Fig. 10: Instrument Panel Accessory Bezel
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Accessory Bezel Procedure 1. Use a flat-bladed plastic trim tool to release the 6 retainers securing the accessory bezel to the instrument panel assembly. 2. Disconnect the electrical connection, if equipped. 3. When replacing the accessory bezel, transfer all necessary components.

INSTRUMENT PANEL TRIM PAD RADIO CENTER SPEAKER OPENING COVER REPLACEMENT

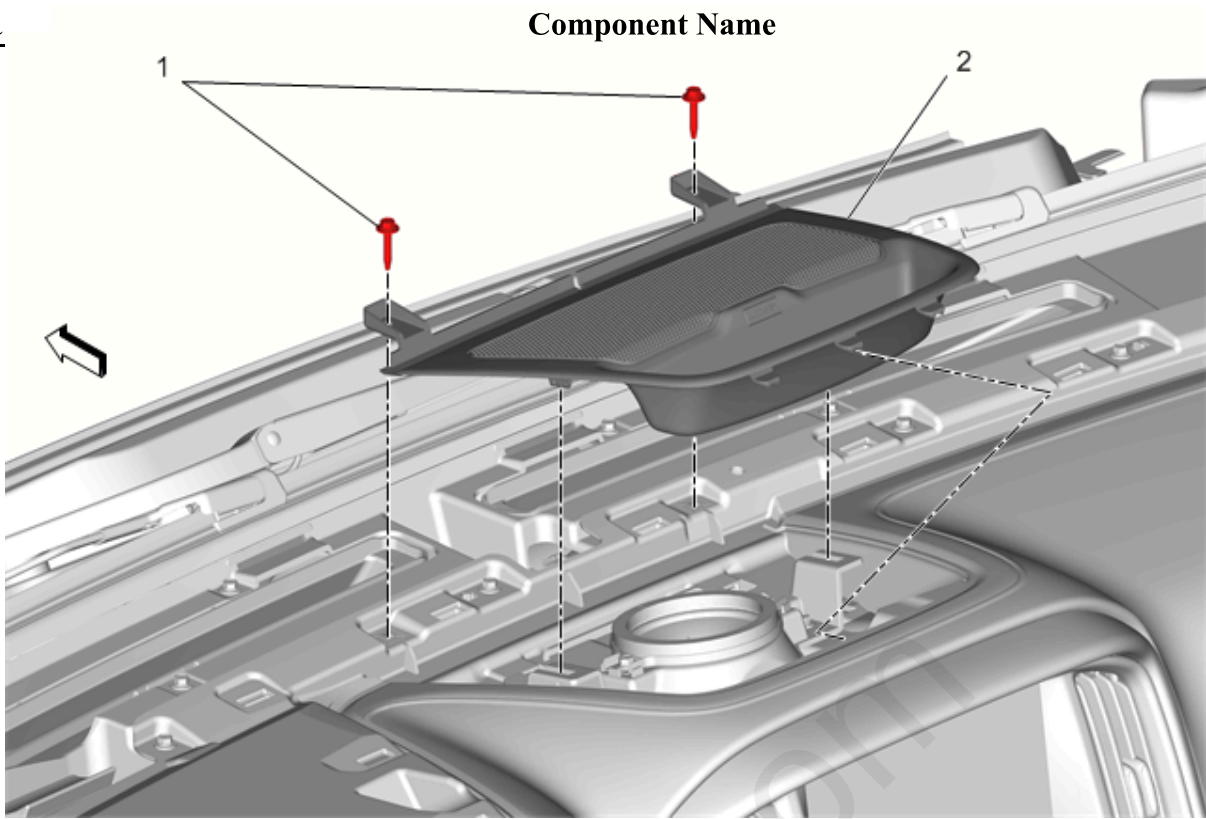


Fig. 11: Instrument Panel Trim Pad Radio Center Speaker Opening Cover

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel extension. Refer to Instrument Panel Extension Replacement .	
1	Instrument Panel Tray Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Trim Pad Radio Center Speaker Opening Cover Procedure Use a flat bladed plastic trim tool in order to release the retainer clips securing the opening cover to the instrument panel assembly.

INSTRUMENT PANEL CLUSTER TRIM PLATE REPLACEMENT

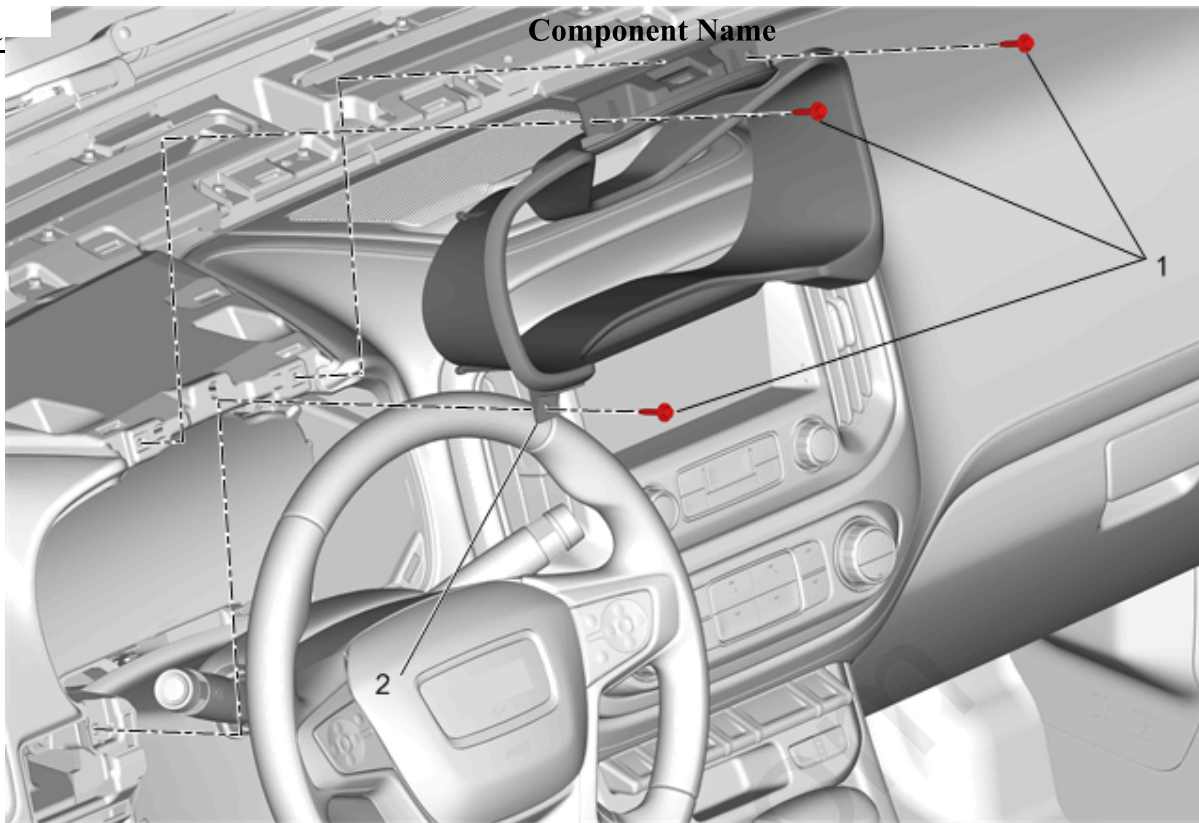


Fig. 12: Instrument Panel Cluster Trim Plate
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the instrument panel extension. Refer to Instrument Panel Extension Replacement. 2. Remove the instrument panel compartment toll card holder. Refer to Instrument Panel Compartment Toll Card Holder Replacement.	
1	Instrument Panel Cluster Trim Plate Bolt (Qty: 3) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Cluster Trim Plate Procedure Use a flat bladed plastic trim tool in order to release the retainer clips securing the trim plate to the instrument panel assembly.

INSTRUMENT PANEL OUTER TRIM COVER REPLACEMENT

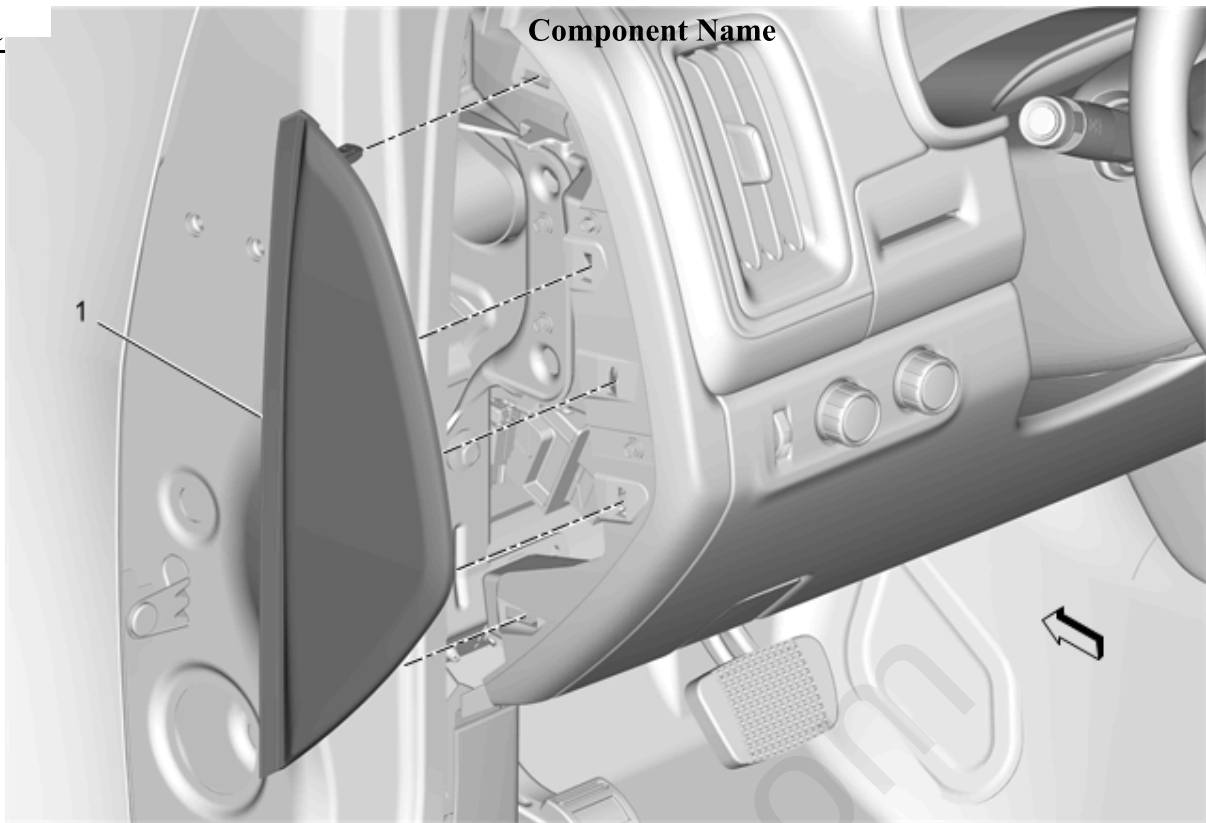


Fig. 13: Instrument Panel Outer Trim Covers
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Outer Trim Cover Procedure Use a flat bladed plastic trim tool to aid in the removal of the cover from the instrument panel assembly.

INSTRUMENT PANEL LOWER TRIM PANEL REPLACEMENT

Removal Procedure

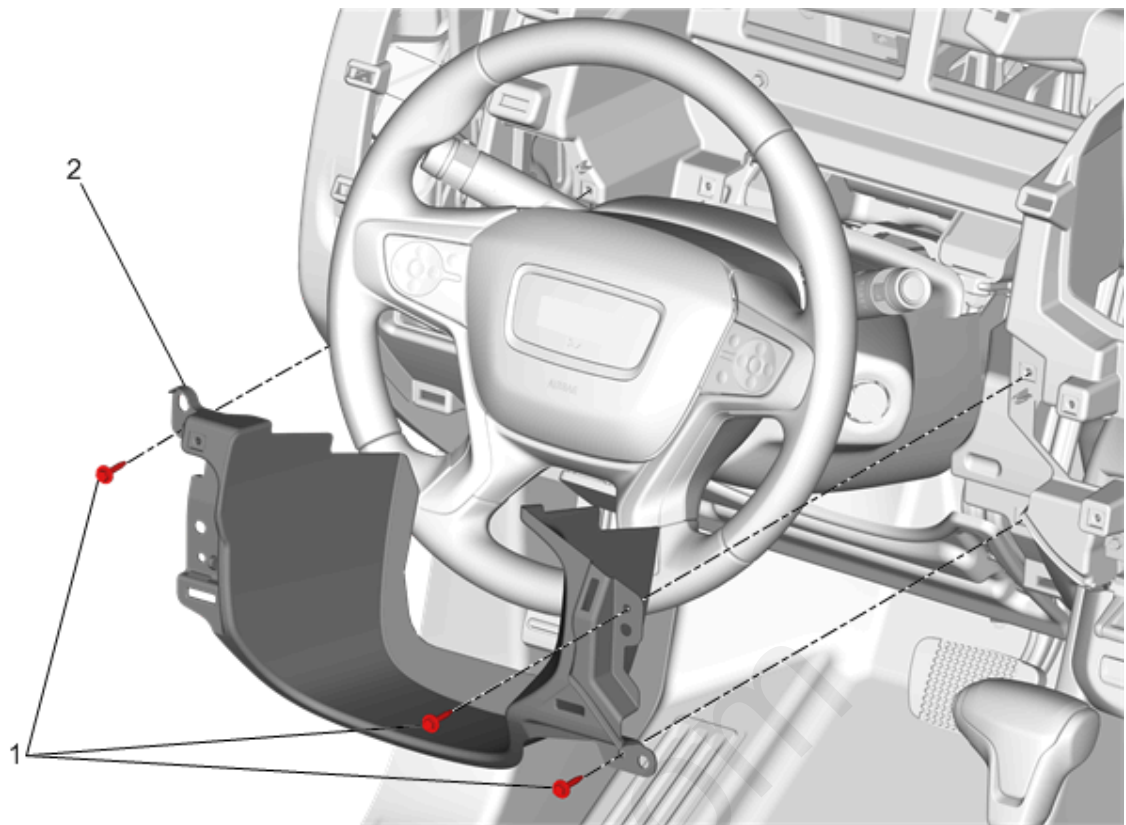
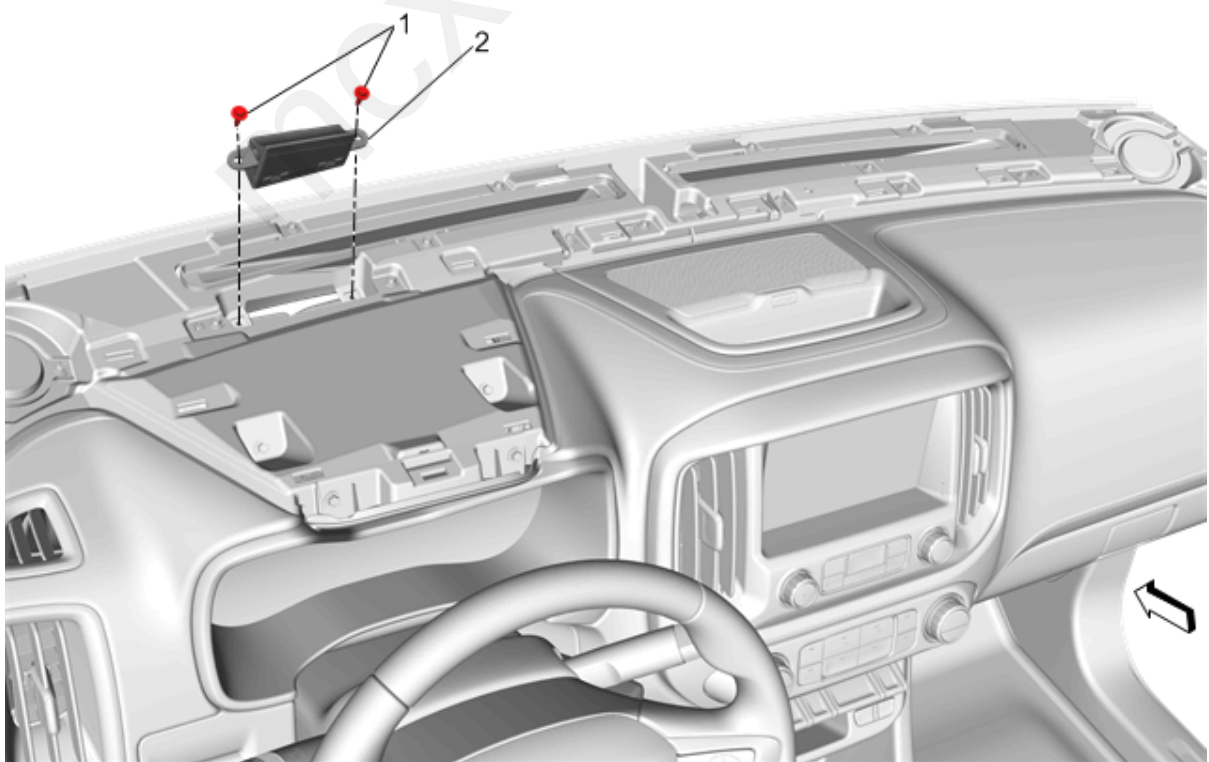


Fig. 14: Instrument Panel Steering Column Opening Closeout
 Courtesy of GENERAL MOTORS COMPANY

1. Remove the instrument panel steering column opening closeout (2). Refer to [Instrument Panel Steering Column Opening Closeout Replacement](#).



[Forward Collision Alert Display](#)
Courtesy of GENERAL MOTORS COMPANY

2. Remove the forward collision alert display (2), if equipped. Refer to [Forward Collision Alert Display Replacement](#)

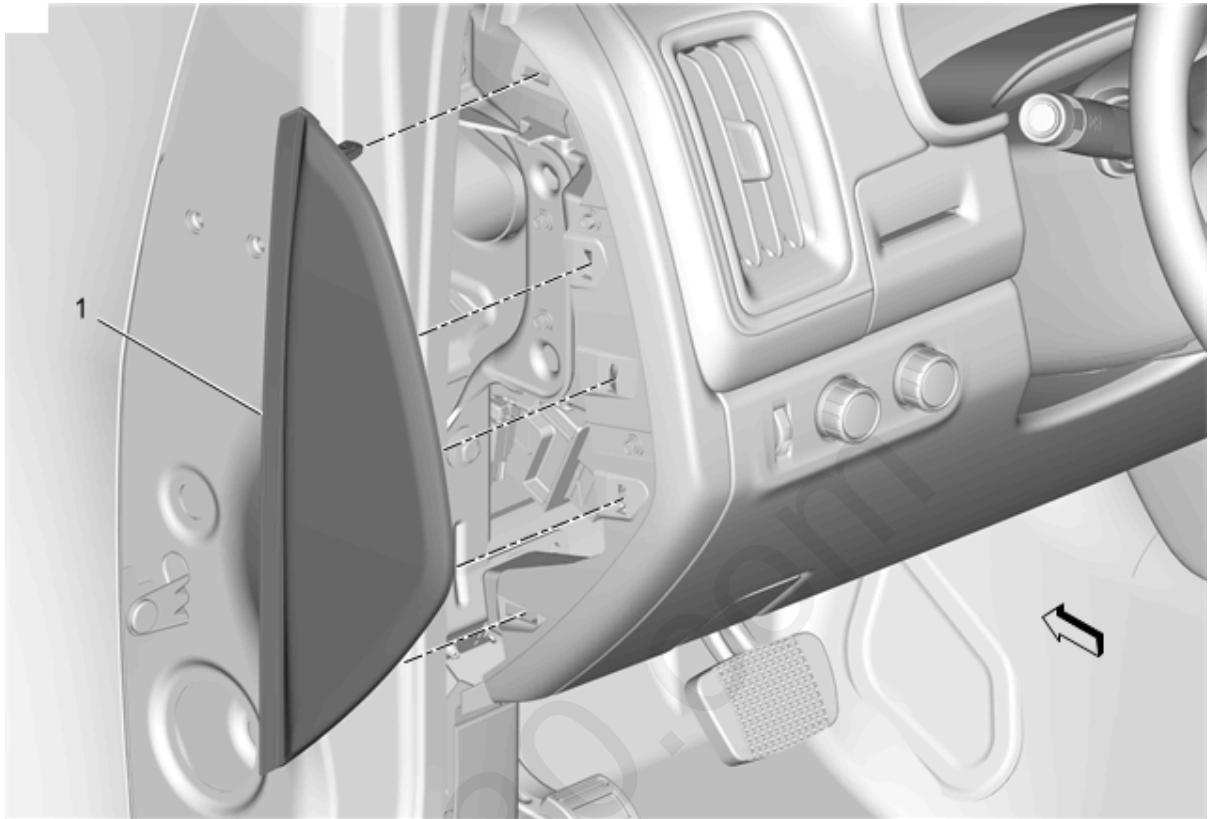


Fig. 16: Instrument Panel Outer Trim Covers
Courtesy of GENERAL MOTORS COMPANY

3. Remove both of the instrument panel outer trim covers (1). Refer to [Instrument Panel Outer Trim Cover Replacement](#).

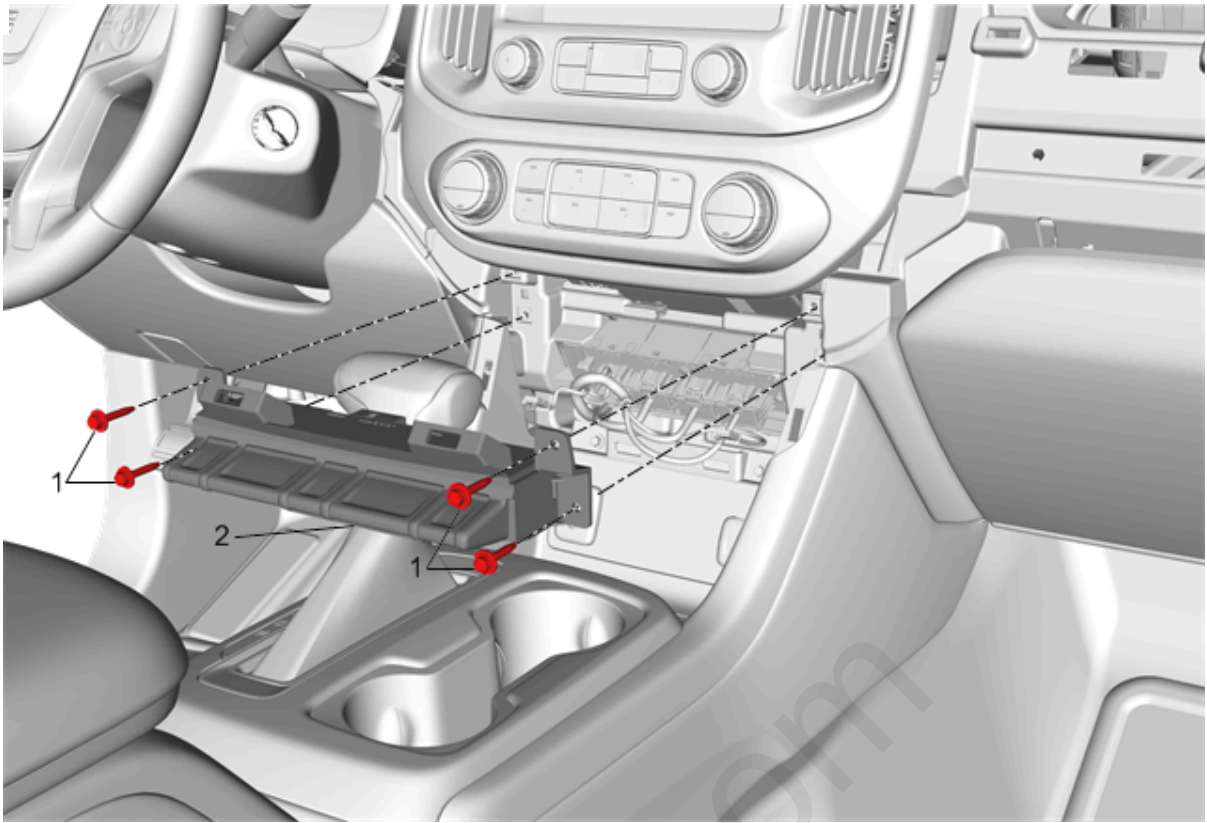
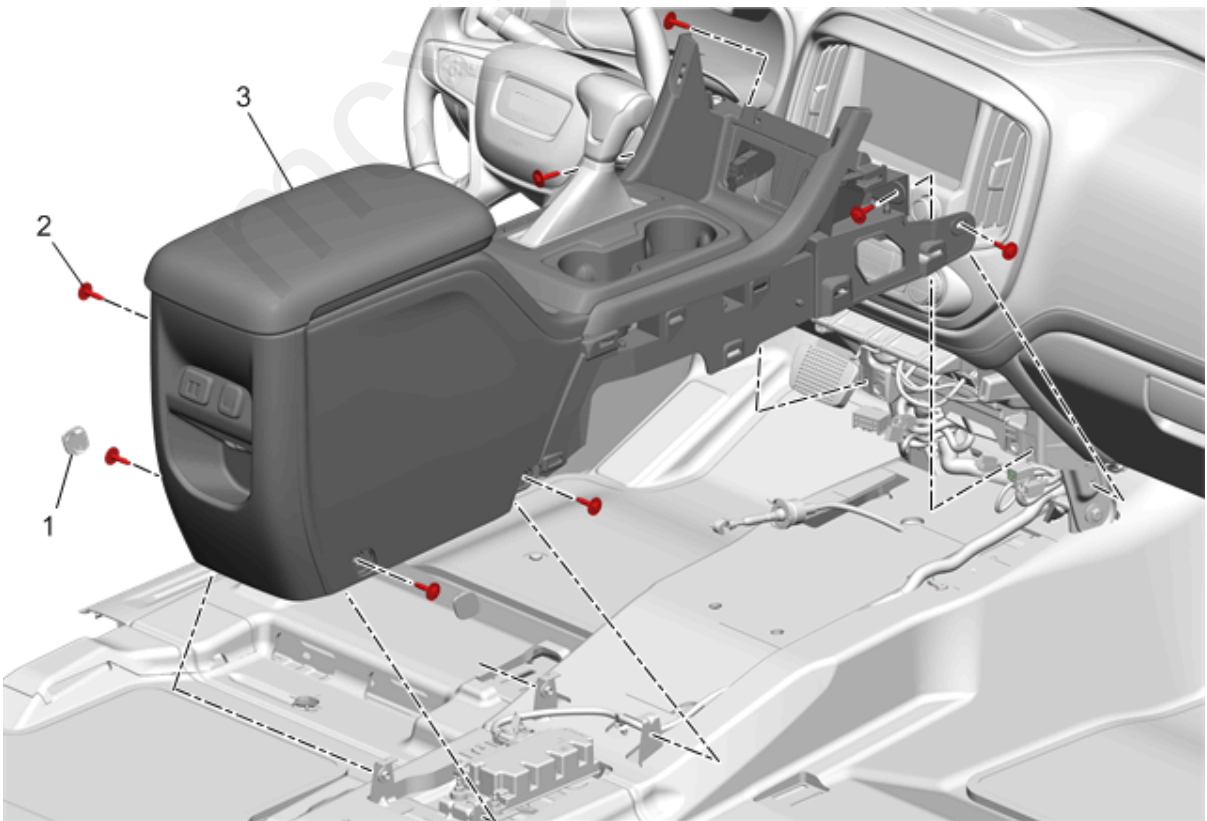


Fig. 17: Vehicle Stability Control System Switch
 Courtesy of GENERAL MOTORS COMPANY

4. Remove the vehicle stability control system switch (2). Refer to [Vehicle Stability Control System Switch Replacement](#).



Front Floor Console
Courtesy of GENERAL MOTORS COMPANY

5. Remove the front floor console (3). Refer to [Front Floor Console Replacement](#).



Fig. 19: Heater And Air Conditioning Remote Control
Courtesy of GENERAL MOTORS COMPANY

6. Remove the heater and air conditioning remote control (1). Refer to [Heater and Air Conditioning Remote Control Replacement](#).

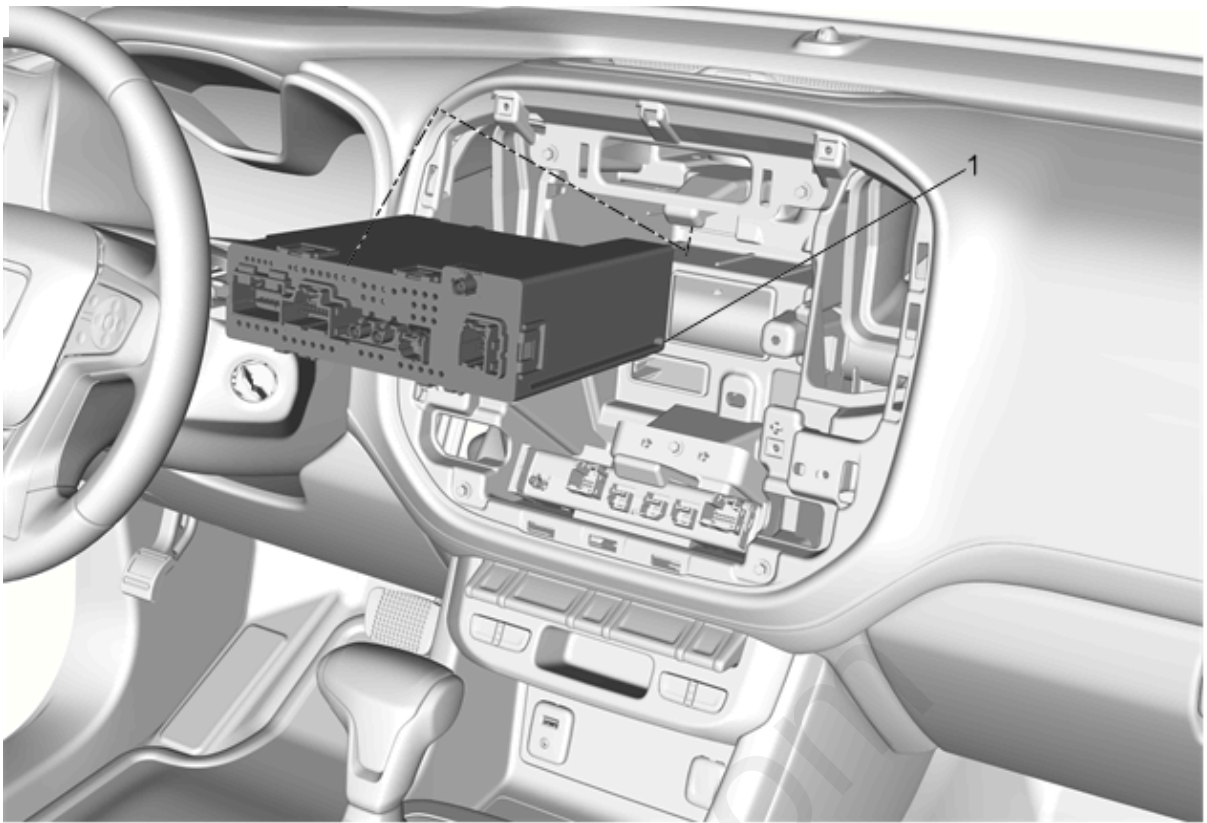


Fig. 20: Radio

Courtesy of GENERAL MOTORS COMPANY

7. Remove the radio (1). Refer to [Radio Replacement](#) .

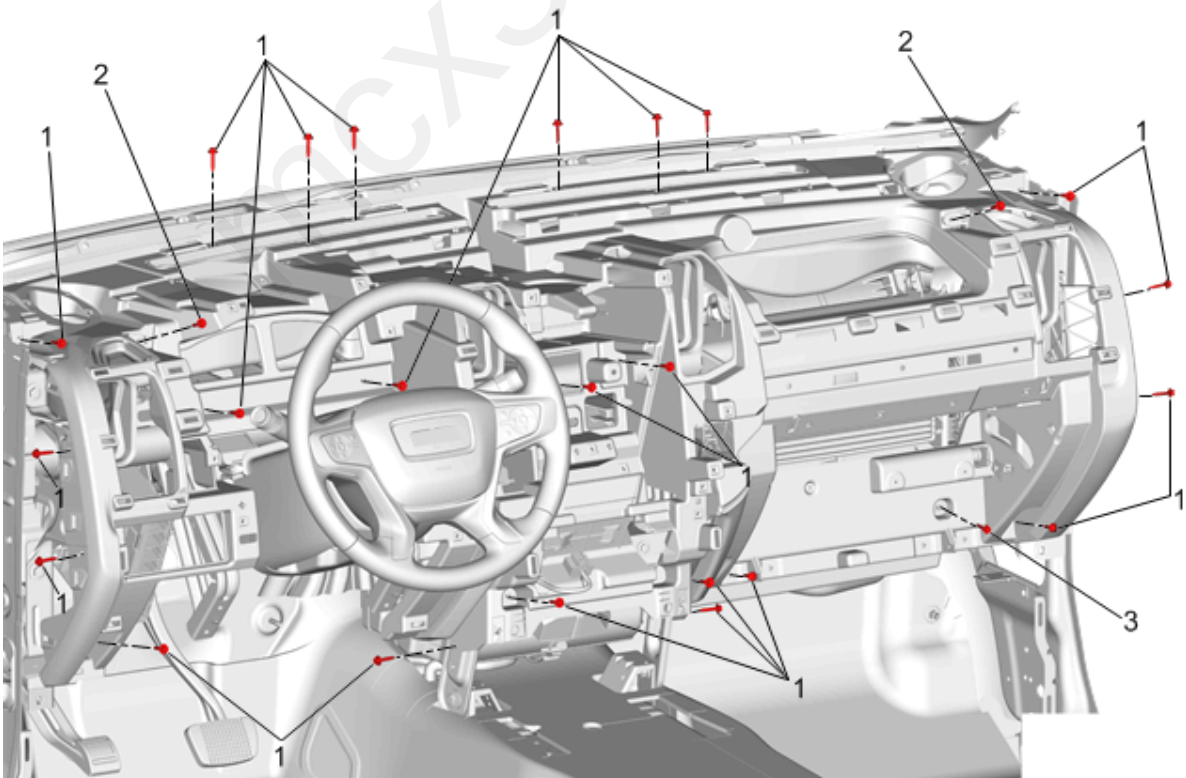


Fig. 21: Instrument Panel Lower Trim Panel Fasteners

Courtesy of GENERAL MOTORS COMPANY

- the instrument panel lower trim panel fasteners (1).
9. Remove side window defogger outlet duct fasteners (2).
 10. Remove radio speaker amplifier fasteners (3).

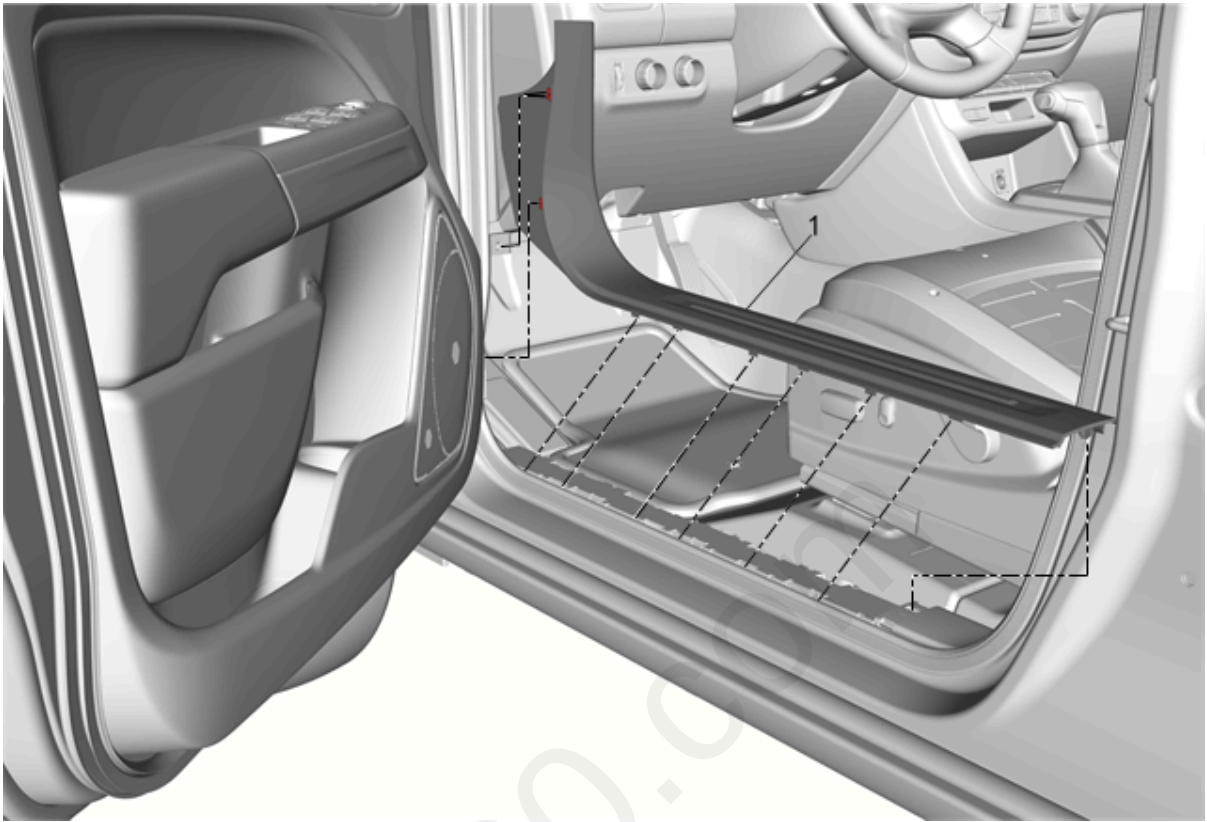


Fig. 22: Body Hinge Pillar Garnish Moldings
Courtesy of GENERAL MOTORS COMPANY

11. Remove both of the body hinge pillar garnish moldings (1). Refer to **Body Hinge Pillar Garnish Molding Replacement (Left Side)** **Body Hinge Pillar Garnish Molding Replacement (Right Side)** .



Fig. 23: Steering Wheel

Courtesy of GENERAL MOTORS COMPANY

12. Remove the steering Wheel (2). Refer to [Steering Wheel Replacement](#) .

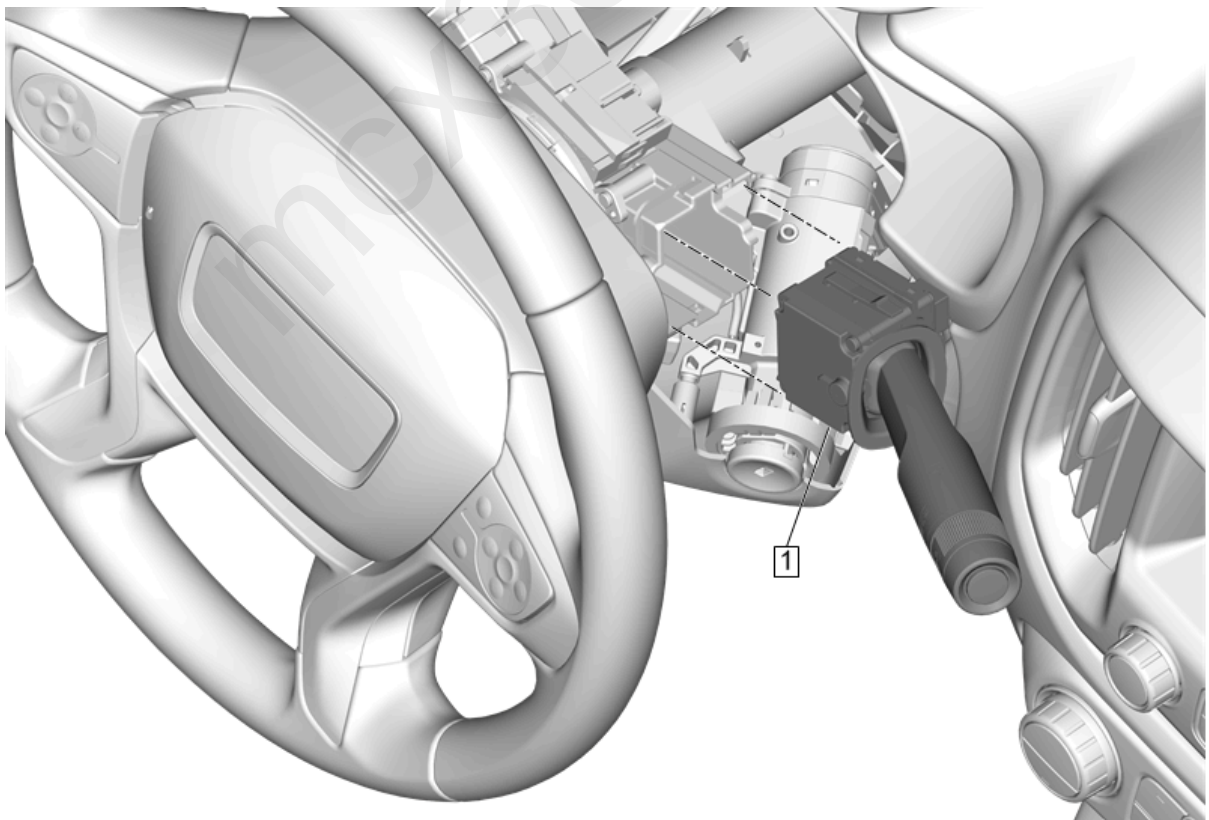


Fig. 24: Windshield Wiper And Washer Switch

Courtesy of GENERAL MOTORS COMPANY

the windshield wiper and washer switch (1). Refer to [Windshield Wiper and Washer Switch Replacement](#) .

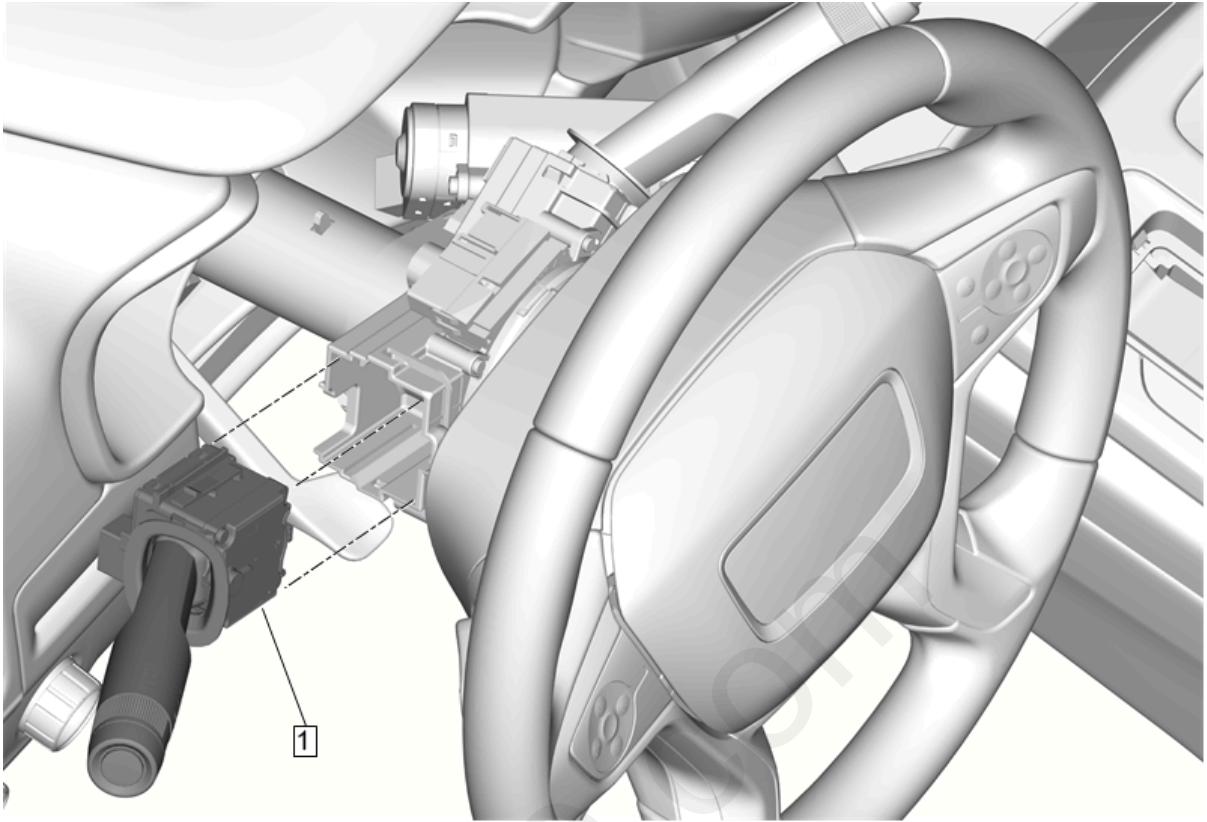
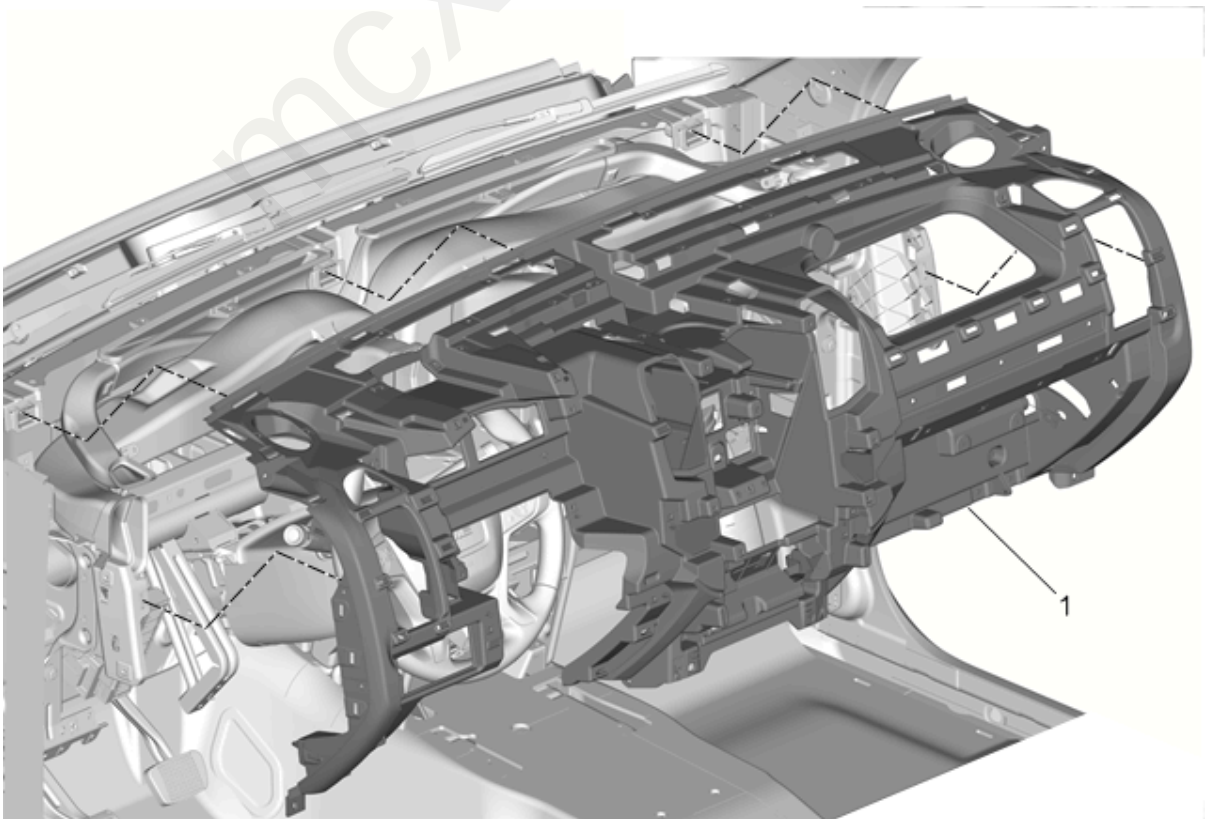


Fig. 25: Turn Signal Switch

Courtesy of GENERAL MOTORS COMPANY

14. Remove the turn signal switch (1). Refer to [Turn Signal Switch Replacement](#) .



Instrument Panel Lower Trim Panel
Courtesy of GENERAL MOTORS COMPANY

15. Note location and routing of the instrument panel wiring harness prior to removal of the instrument panel lower trim panel.
16. Disconnect the wiring harness from the instrument panel lower trim panel.
17. With the aid of an assistant, remove the instrument panel lower trim panel (1) from the vehicle.

Installation Procedure

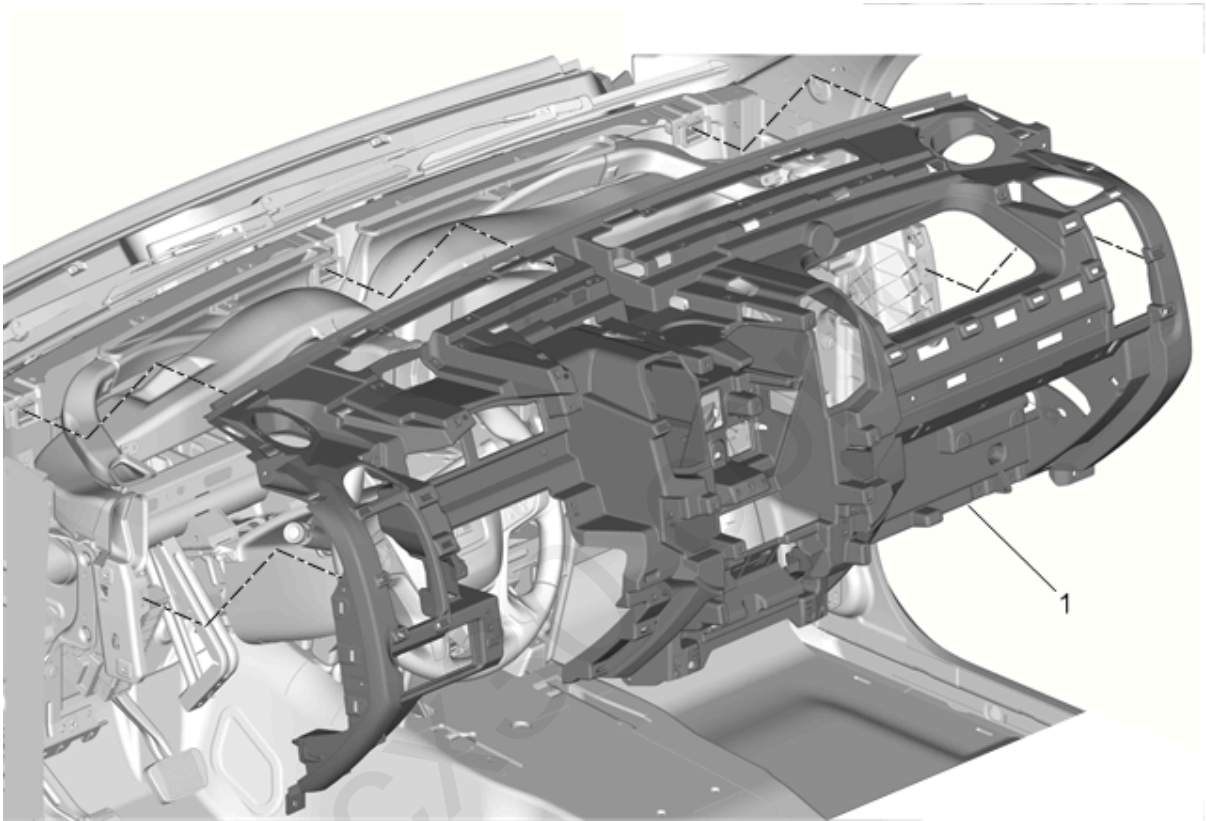


Fig. 27: Instrument Panel Lower Trim Panel
Courtesy of GENERAL MOTORS COMPANY

1. With the aid of an assistant, position the instrument panel lower trim panel (1) into the vehicle.
2. Reposition the instrument panel wiring harness into vehicle position as was noted in the removal process and connect the fasteners securing the instrument panel wiring harness to the instrument panel lower trim panel.

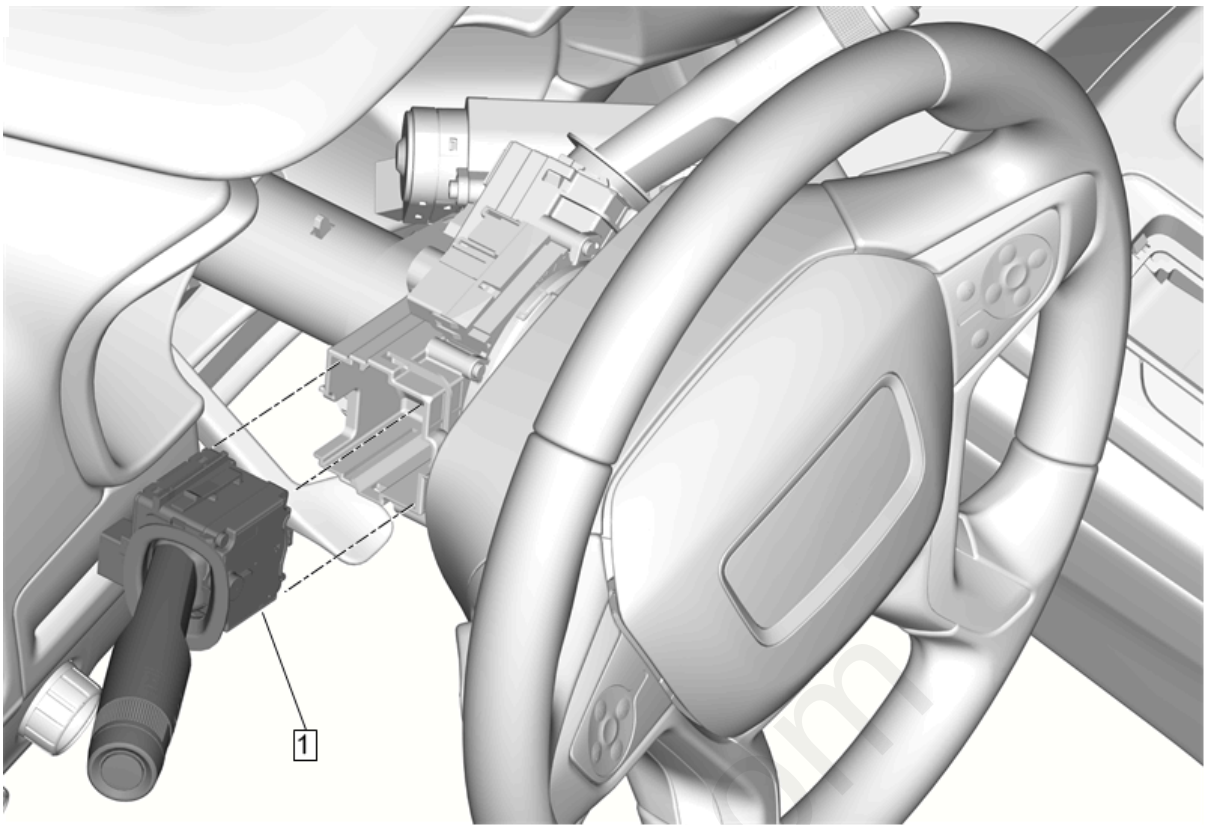


Fig. 28: Turn Signal Switch

Courtesy of GENERAL MOTORS COMPANY

3. Install the turn signal switch (1). Refer to [Turn Signal Switch Replacement](#) .

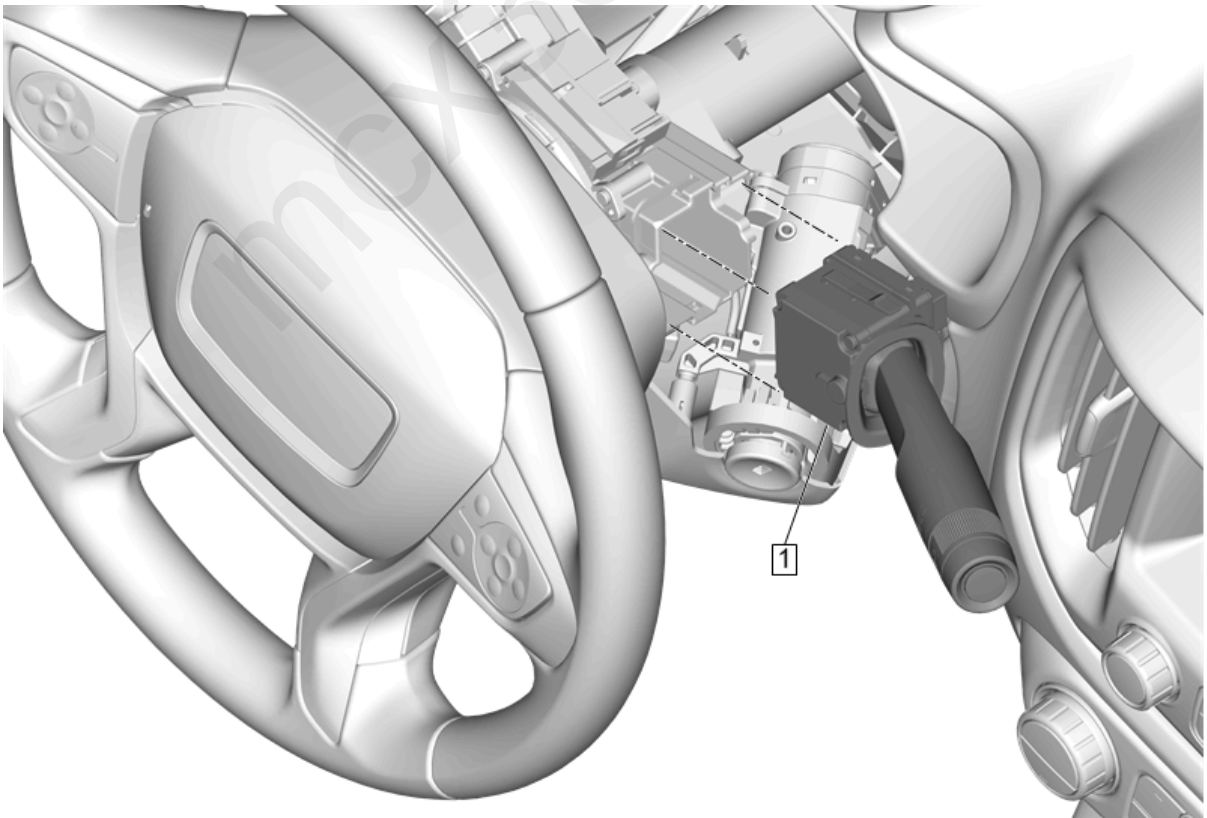


Fig. 29: Windshield Wiper And Washer Switch

Courtesy of GENERAL MOTORS COMPANY

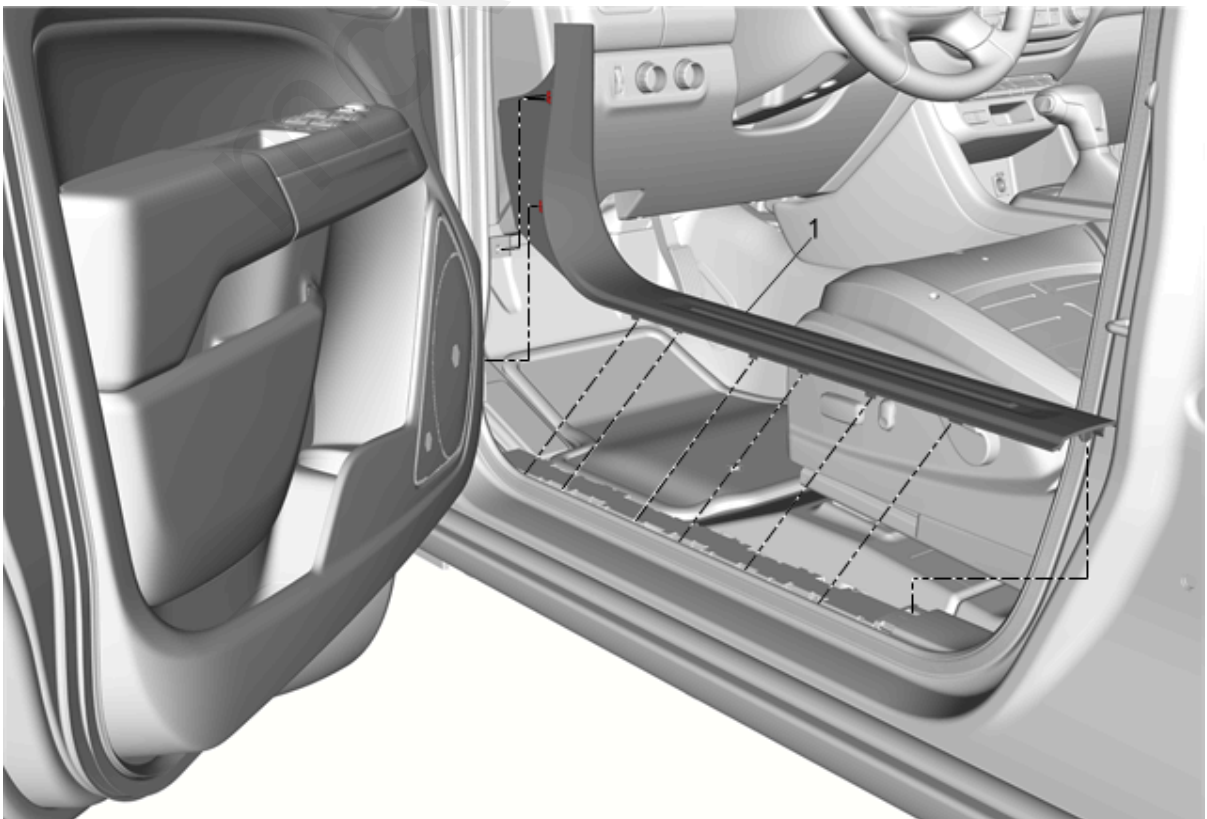
ie windshield wiper and washer switch (1). Refer to [Windshield Wiper and Washer Switch Replacement](#) .



Fig. 30: Steering Wheel

Courtesy of GENERAL MOTORS COMPANY

5. Install the steering Wheel (2). Refer to [Steering Wheel Replacement](#) .



Body Hinge Pillar Garnish Moldings
Courtesy of GENERAL MOTORS COMPANY

6. Install both of the body hinge pillar garnish moldings (1). Refer to [**Body Hinge Pillar Garnish Molding Replacement \(Left Side\)**](#) [**Body Hinge Pillar Garnish Molding Replacement \(Right Side\)**](#) .

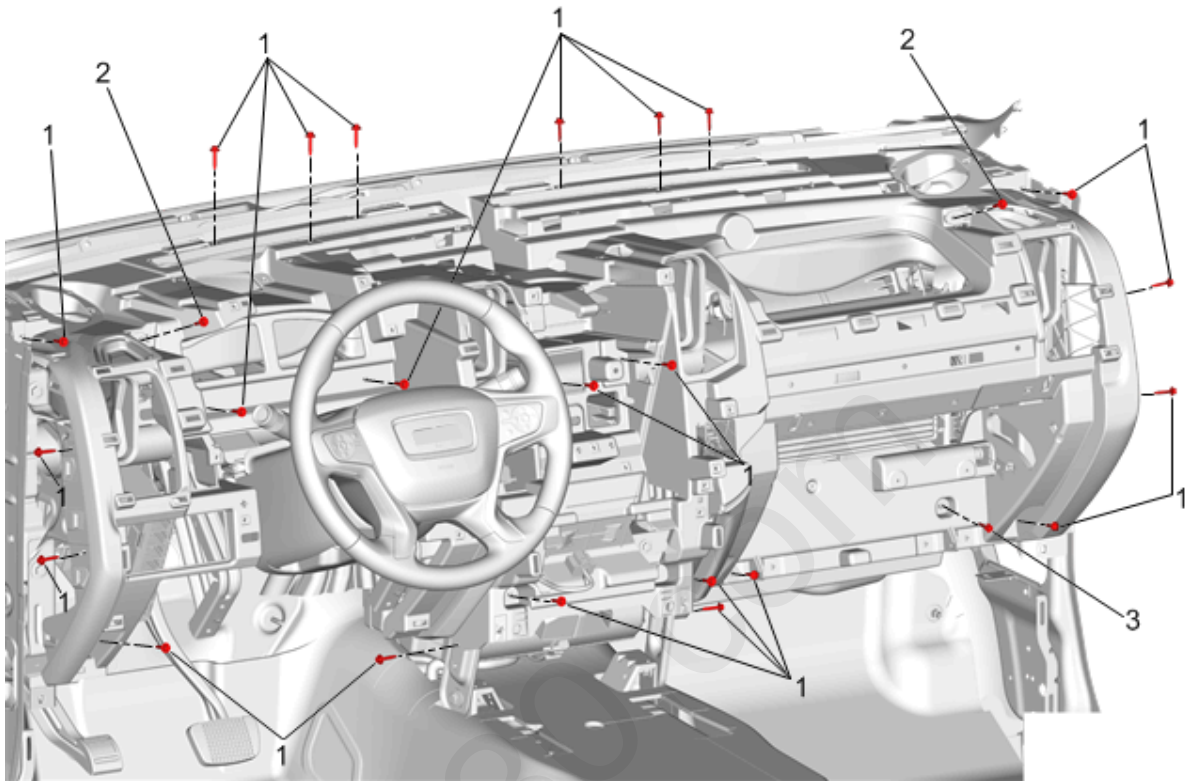


Fig. 32: Instrument Panel Lower Trim Panel Fasteners
Courtesy of GENERAL MOTORS COMPANY

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

7. Install the instrument panel lower trim panel fasteners (1) and tighten to 2.5 N.m (22 lb in).
8. Install the side window defogger outlet duct fasteners (2) and tighten to 2.5 N.m (22 lb in).
9. Install the radio speaker amplifier fasteners (3) and tighten to 2.5 N.m (22 lb in).

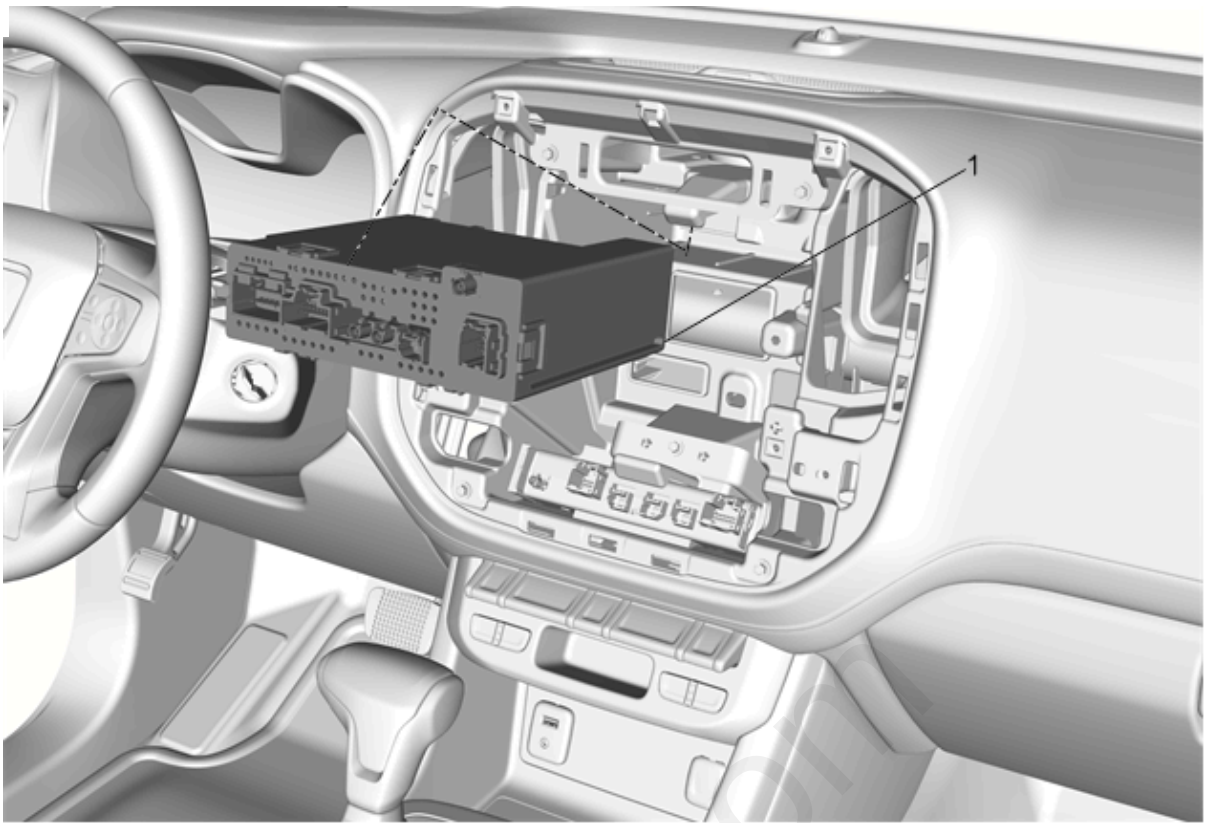


Fig. 33: Radio

Courtesy of GENERAL MOTORS COMPANY

10. Install the radio (1). Refer to [Radio Replacement](#) .



Fig. 34: Heater And Air Conditioning Remote Control

Courtesy of GENERAL MOTORS COMPANY

ie heater and air conditioning remote control (1). Refer to [Heater and Air Conditioning Remote Control Replacement](#) .

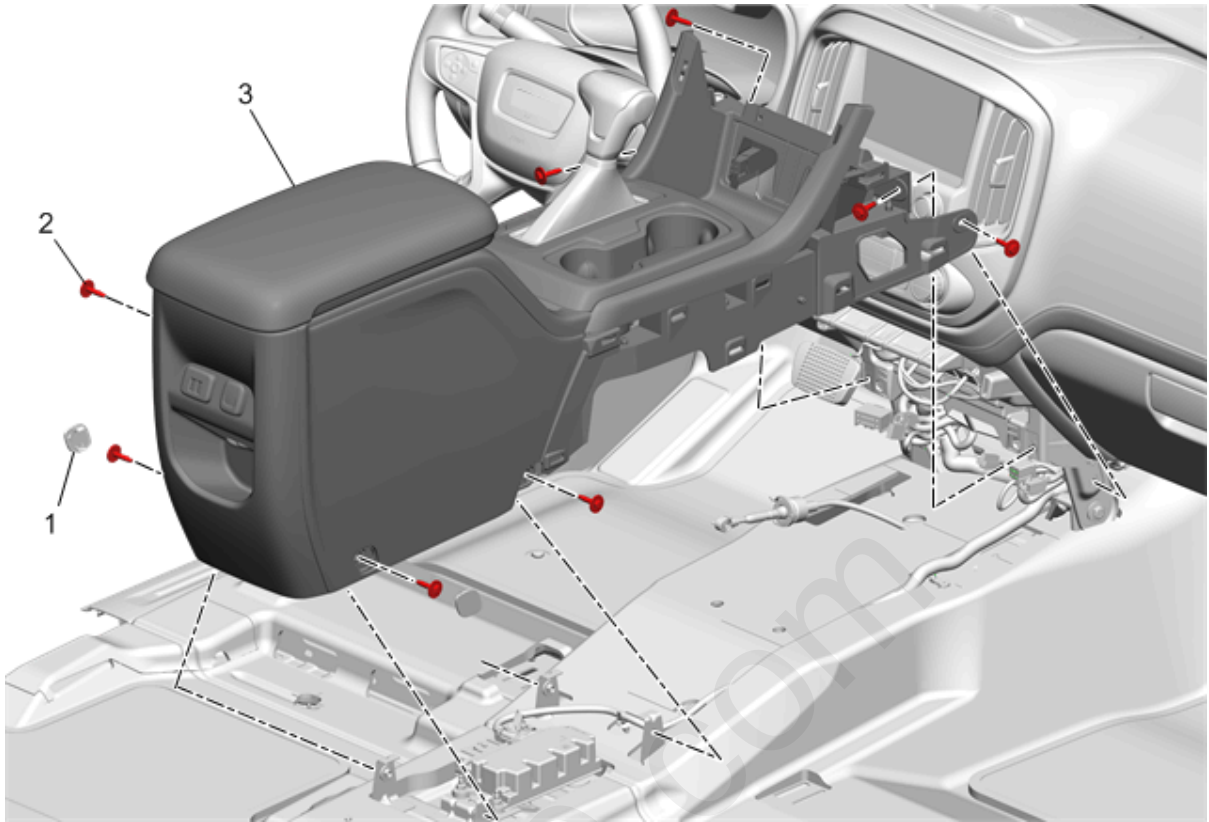
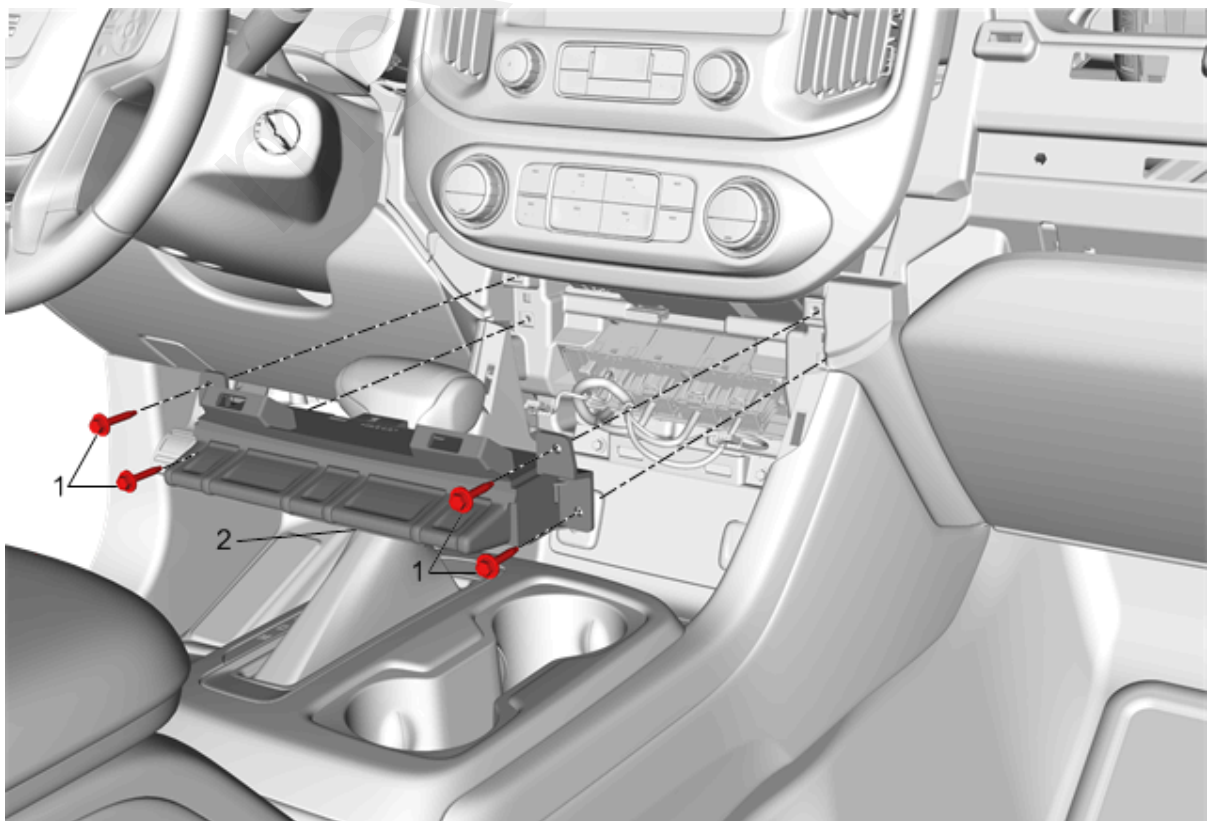


Fig. 35: Front Floor Console
Courtesy of GENERAL MOTORS COMPANY

12. Install the front floor console (3). Refer to [Front Floor Console Replacement](#).



[Vehicle Stability Control System Switch](#)
Courtesy of GENERAL MOTORS COMPANY

13. Install the vehicle stability control system switch (2). Refer to [Vehicle Stability Control System Switch Replacement](#).

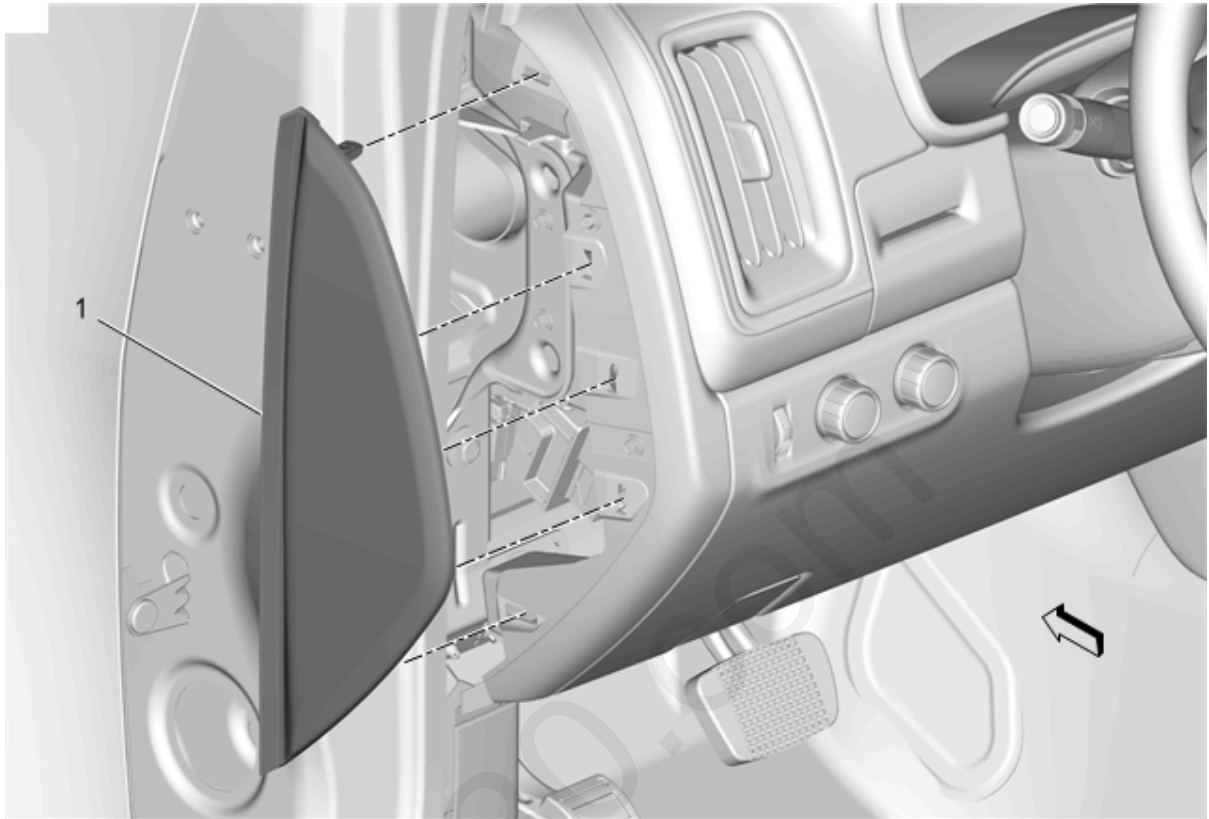


Fig. 37: Instrument Panel Outer Trim Covers
Courtesy of GENERAL MOTORS COMPANY

14. Install both of the instrument panel outer trim covers (1). Refer to [Instrument Panel Outer Trim Cover Replacement](#).

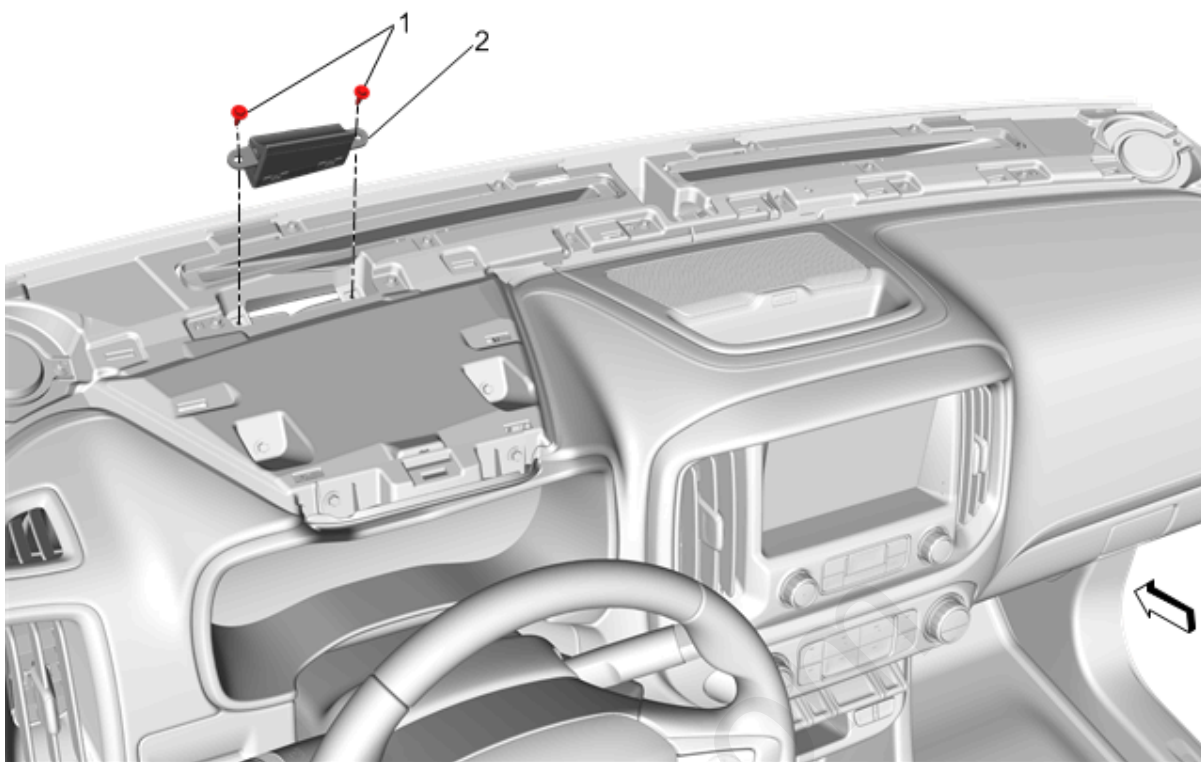
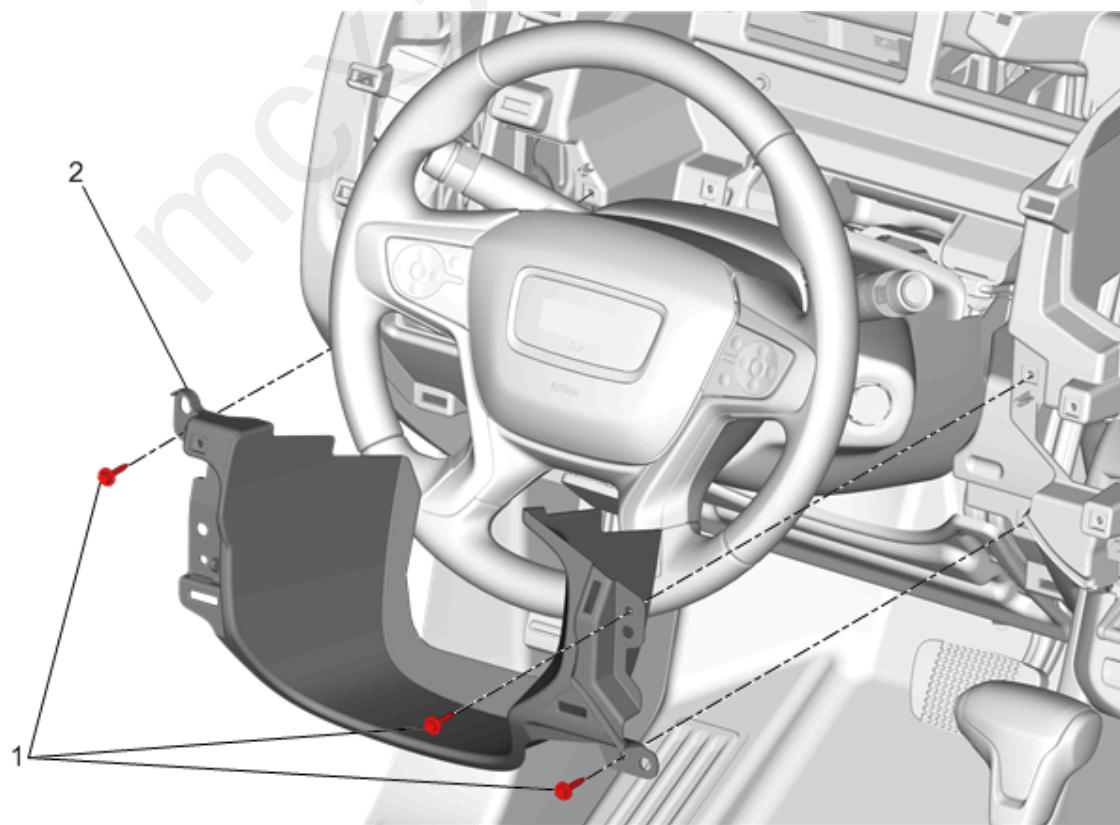


Fig. 38: Forward Collision Alert Display

Courtesy of GENERAL MOTORS COMPANY

15. Install the forward collision alert display (2), if equipped. Refer to [Forward Collision Alert Display Replacement](#)



16. Install the instrument panel steering column opening closeout (2). Refer to [Instrument Panel Steering Column Opening Closeout Replacement](#).

INSTRUMENT PANEL STOWAGE TRAY REPLACEMENT

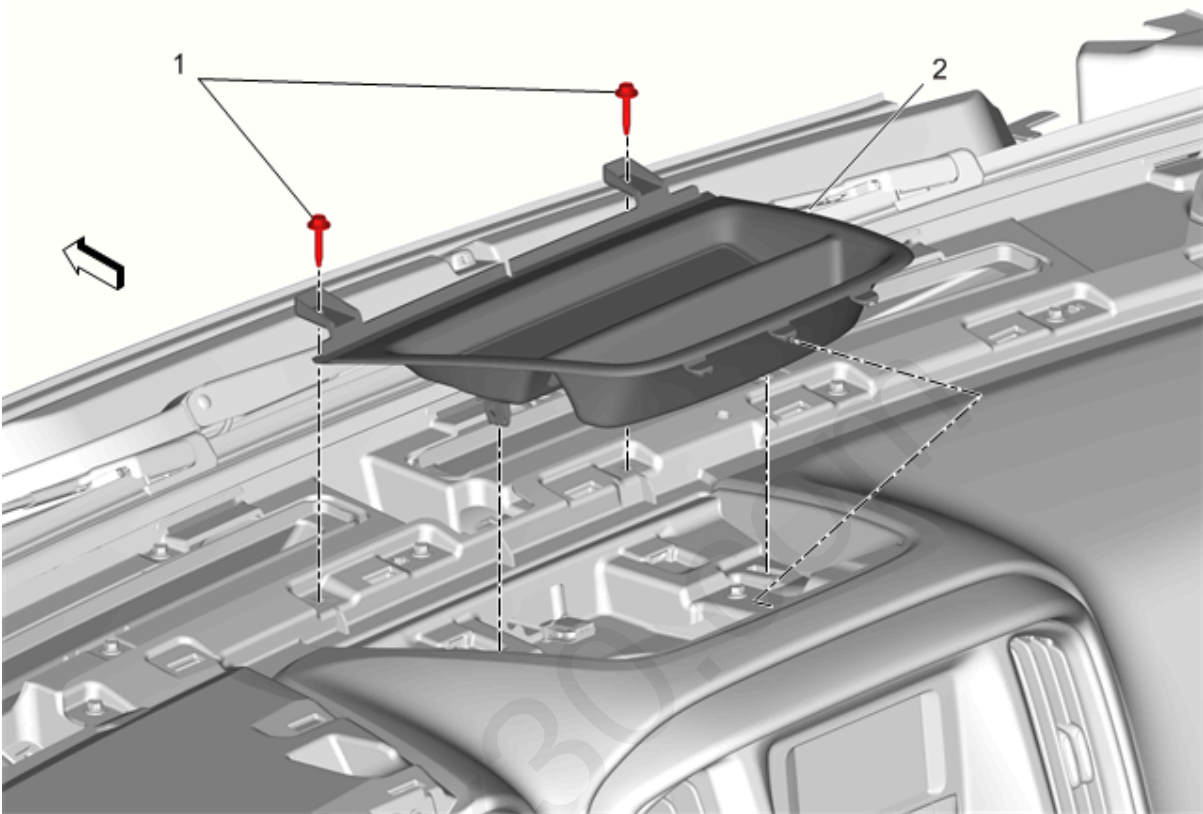


Fig. 40: Instrument Panel Stowage Tray
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel extension. Refer to Instrument Panel Extension Replacement .	
1	Instrument Panel Tray Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Instrument Panel Stowage Tray Procedure Use a flat bladed plastic trim tool in order to release the retainer clips securing the stowage tray to the instrument panel assembly.

INSTRUMENT PANEL COMPARTMENT TOLL CARD HOLDER REPLACEMENT

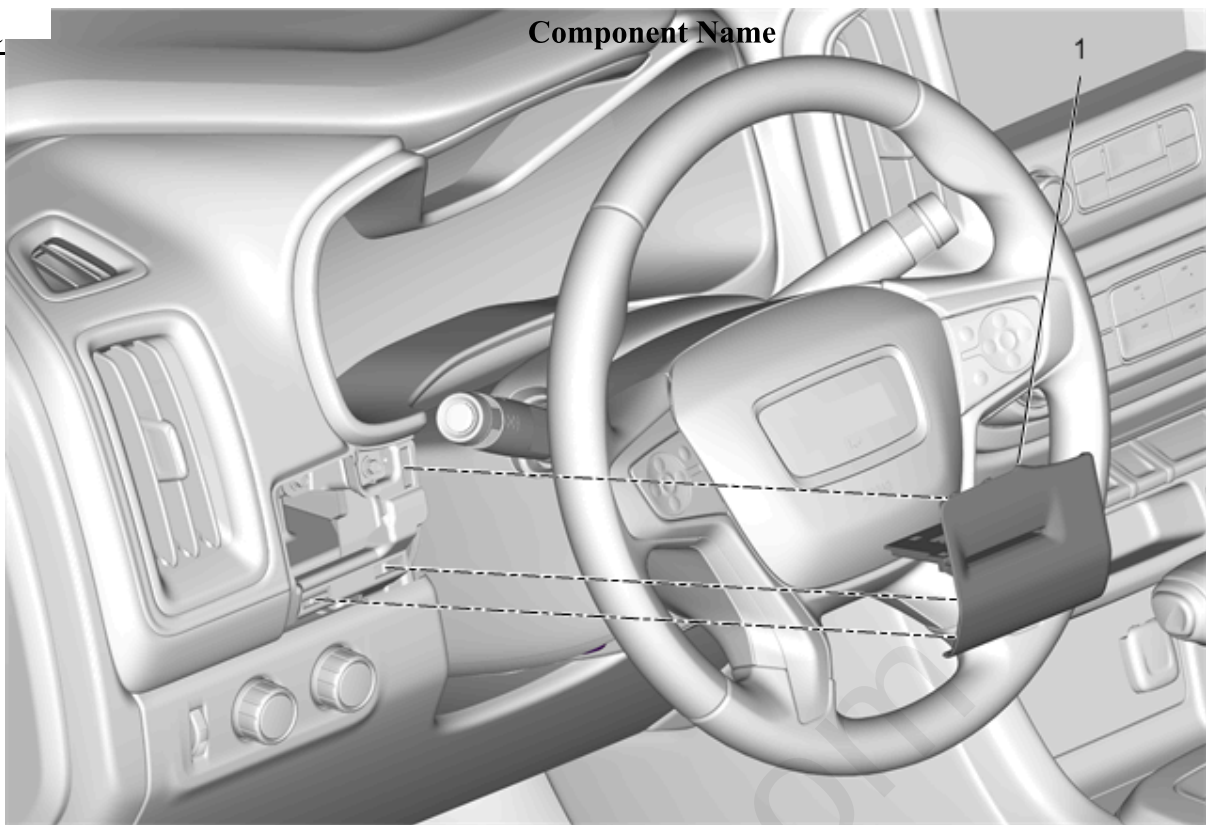
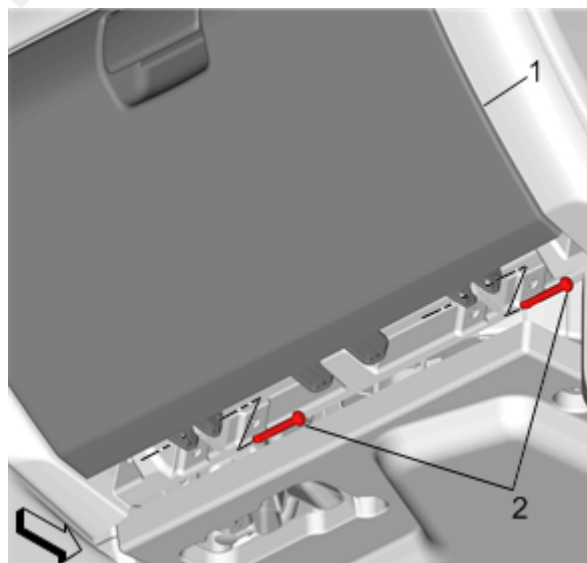


Fig. 41: Instrument Panel Compartment Toll Card Holder
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Instrument Panel Compartment Toll Card Holder Procedure Use a flat bladed plastic trim tool to aid in the removal of the card holder from the instrument panel assembly.

INSTRUMENT PANEL COMPARTMENT DOOR REPLACEMENT

Removal Procedure



Instrument Panel Compartment Door Pins
Courtesy of GENERAL MOTORS COMPANY

1. Remove the instrument panel compartment door pins (2) securing the bottom of the instrument panel compartment door (1) to the instrument panel lower trim panel.

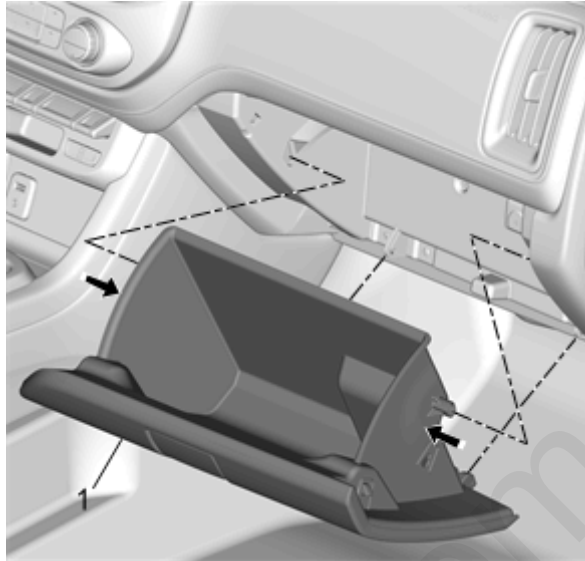


Fig. 43: Instrument Panel Compartment Door
Courtesy of GENERAL MOTORS COMPANY

2. Squeeze the sides of the instrument panel compartment door allowing the door to open past the stops. Remove the instrument panel compartment door (1).

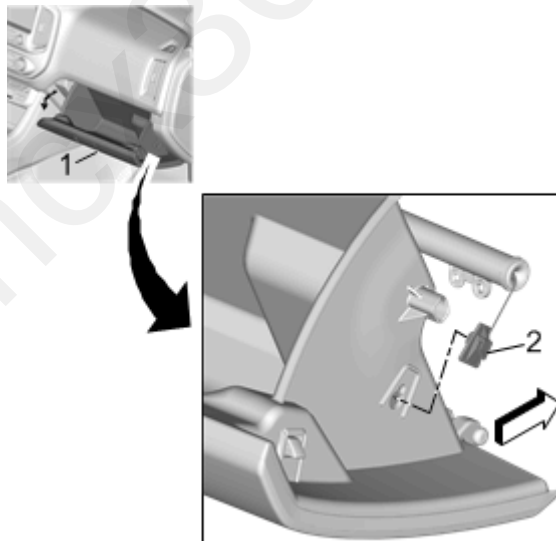


Fig. 44: Instrument Panel Compartment Door
Courtesy of GENERAL MOTORS COMPANY

3. Open the instrument panel compartment door (1) to access and release the dampener (2) from the door.

Installation Procedure

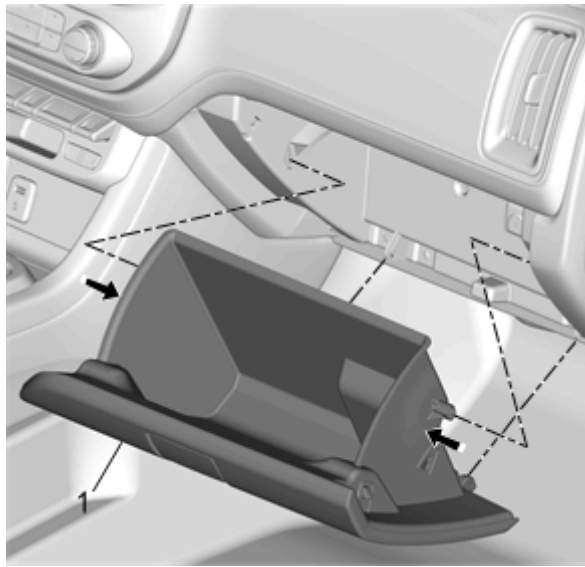


Fig. 45: Instrument Panel Compartment Door
 Courtesy of GENERAL MOTORS COMPANY

1. Install the instrument panel compartment door (1) to the instrument panel lower trim panel.
2. Return the instrument panel compartment door stops to there original position.

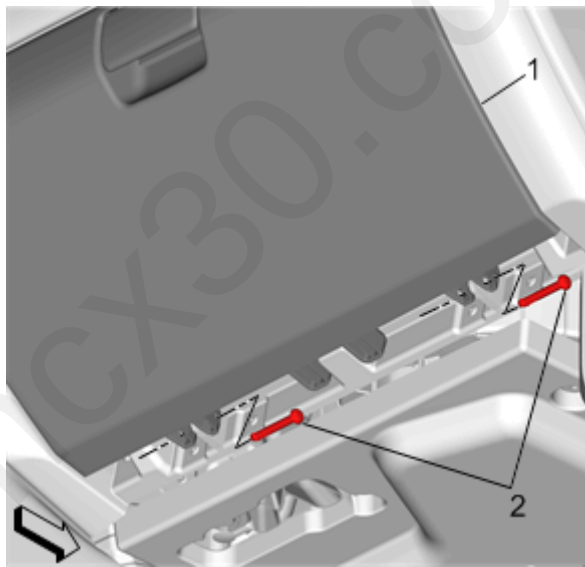


Fig. 46: Instrument Panel Compartment Door Pins
 Courtesy of GENERAL MOTORS COMPANY

3. Install the instrument panel compartment door pins (2) securing the bottom of the instrument panel compartment door (1) to the instrument panel lower trim panel.

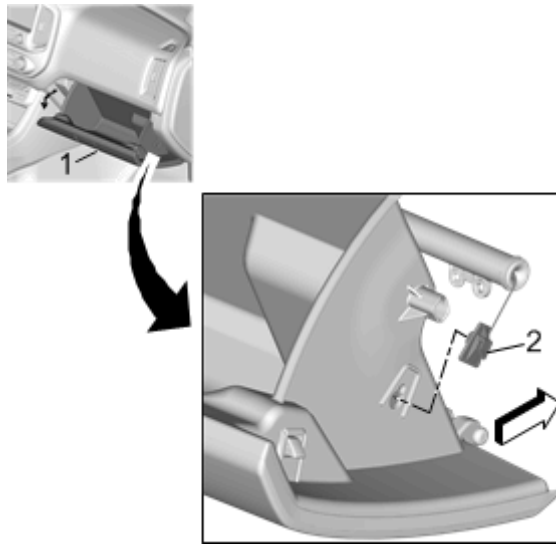


Fig. 47: Instrument Panel Compartment Door
 Courtesy of GENERAL MOTORS COMPANY

4. Connect the dampener (2) to the instrument panel compartment door (1).

INSTRUMENT PANEL ASSEMBLY REPLACEMENT

Removal Procedure

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

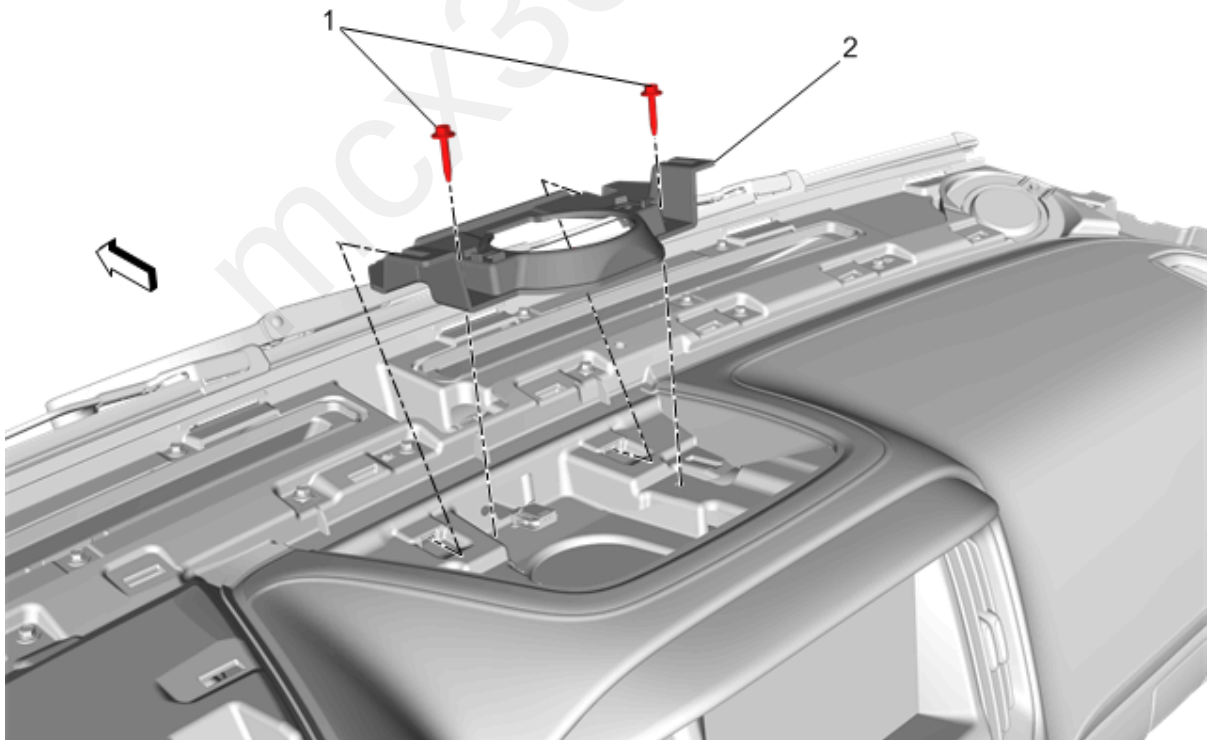


Fig. 48: Instrument Panel Accessory Bracket
 Courtesy of GENERAL MOTORS COMPANY

the instrument panel accessory bracket (2), if equipped. Refer to [Instrument Panel Accessory Bracket Replacement](#).

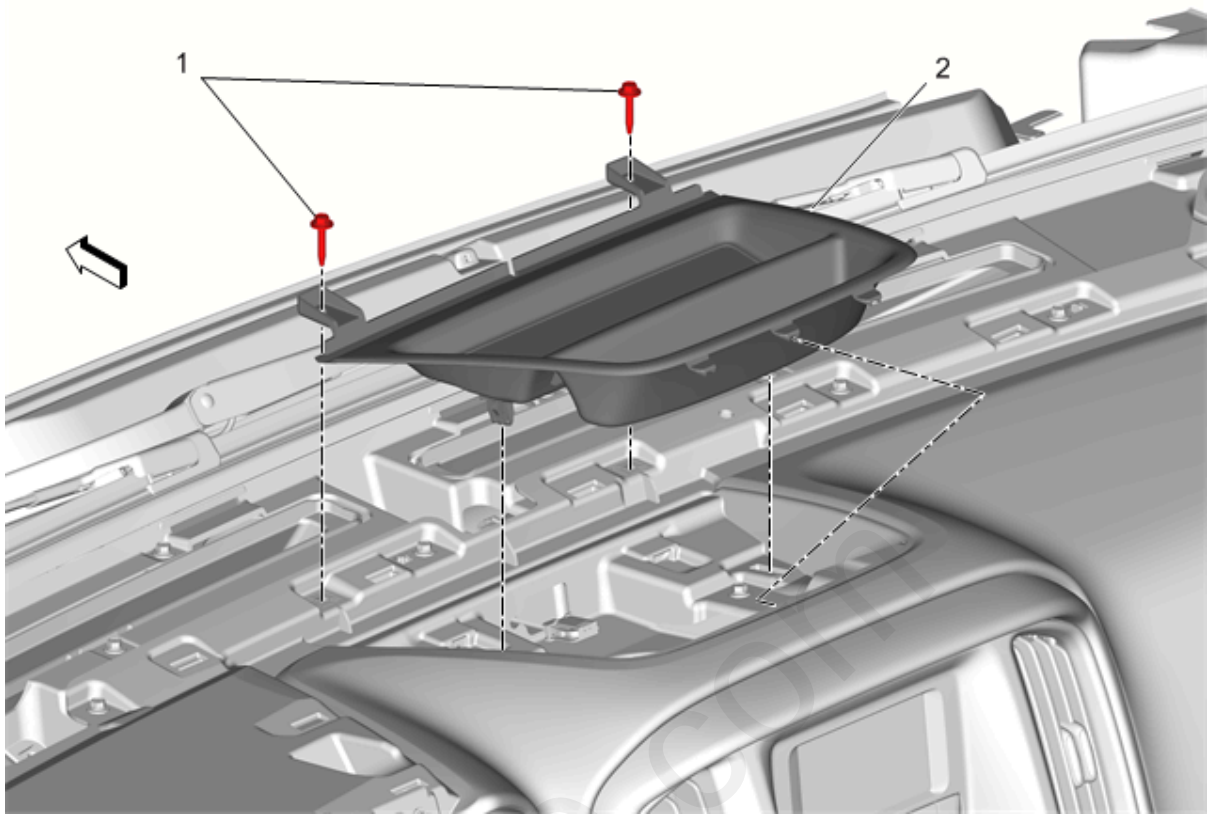


Fig. 49: Instrument Panel Stowage Tray
Courtesy of GENERAL MOTORS COMPANY

3. Remove the instrument panel stowage tray (2), if equipped. Refer to [Instrument Panel Stowage Tray Replacement](#).

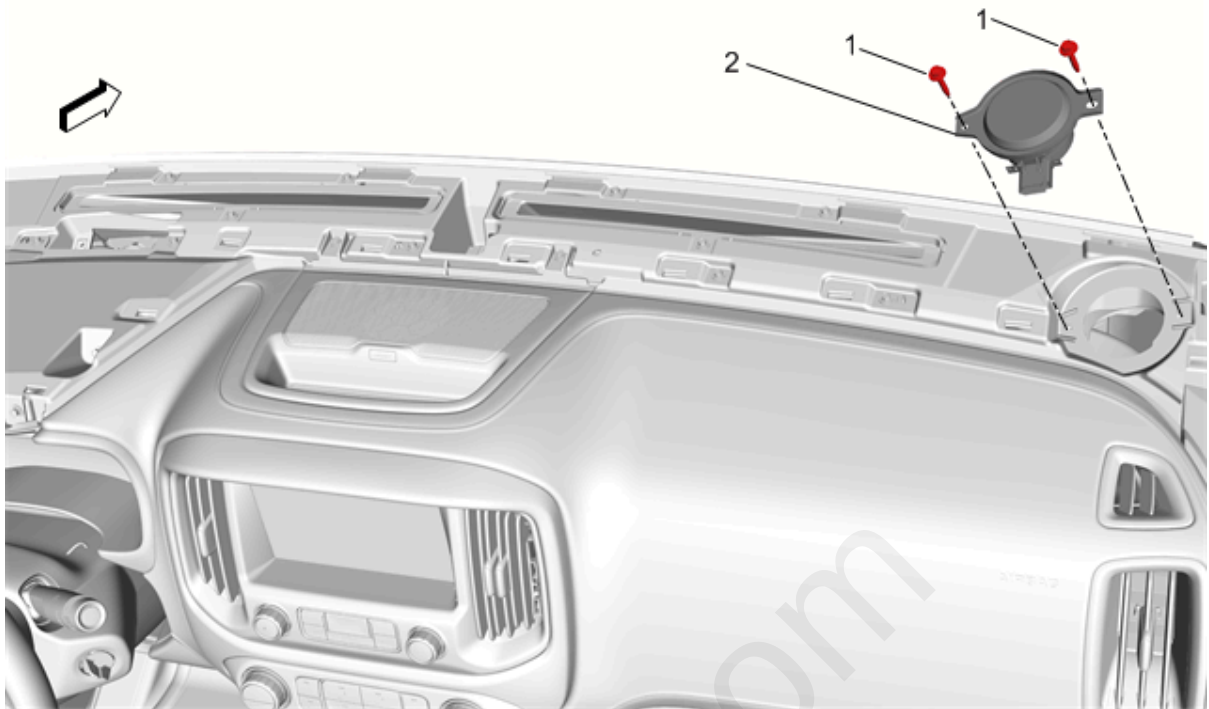


Fig. 50: Radio Front Speakers

Courtesy of GENERAL MOTORS COMPANY

4. Remove both of the radio front speakers (2). Refer to [Radio Front Speaker Replacement](#) .

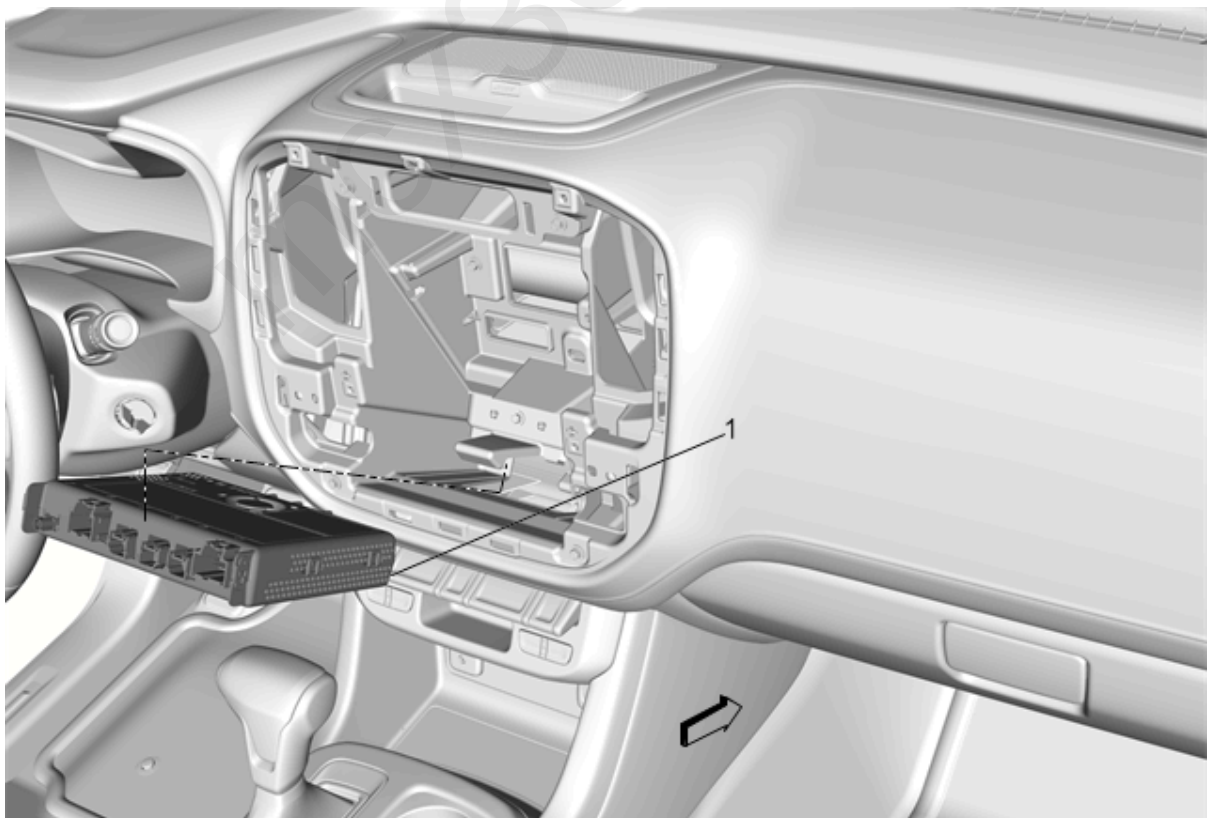


Fig. 51: Human Machine Interface Control Module

Courtesy of GENERAL MOTORS COMPANY

the human machine interface control module (1). Refer to [Human Machine Interface Control Module Replacement](#) .

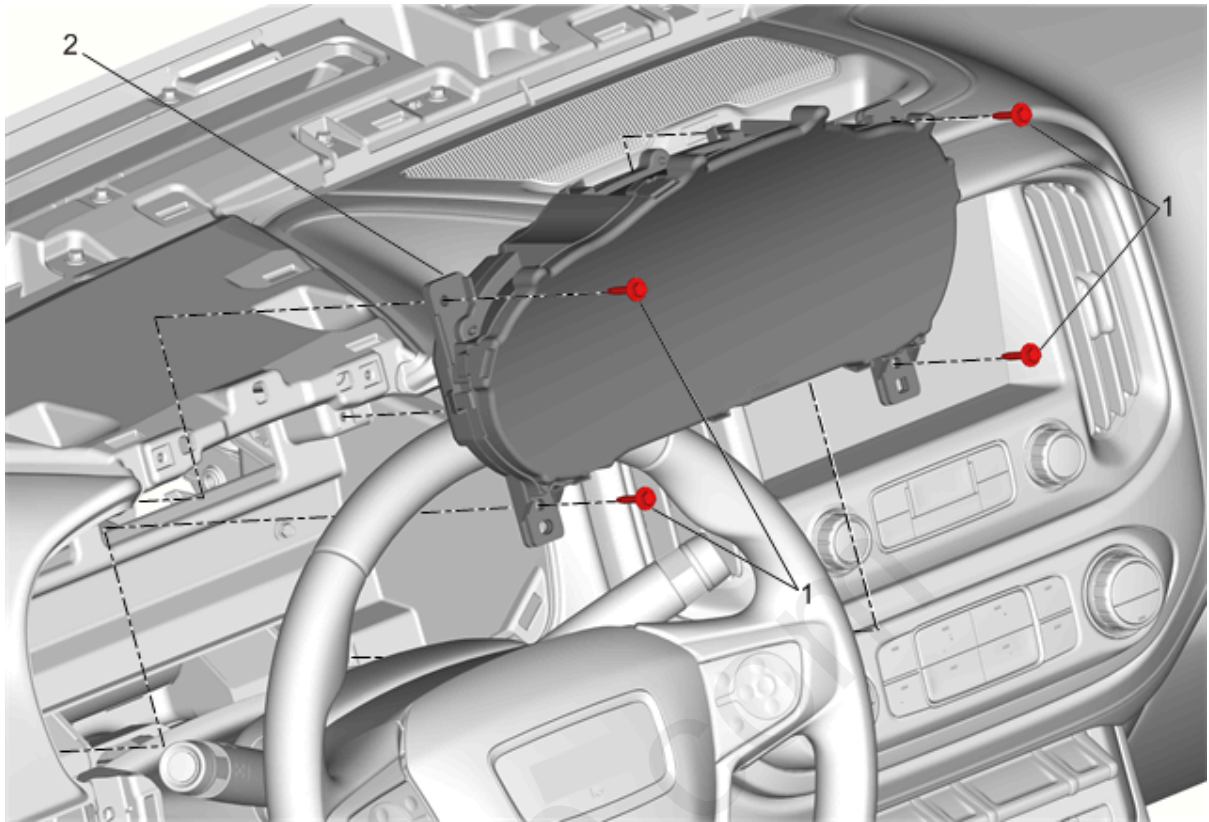
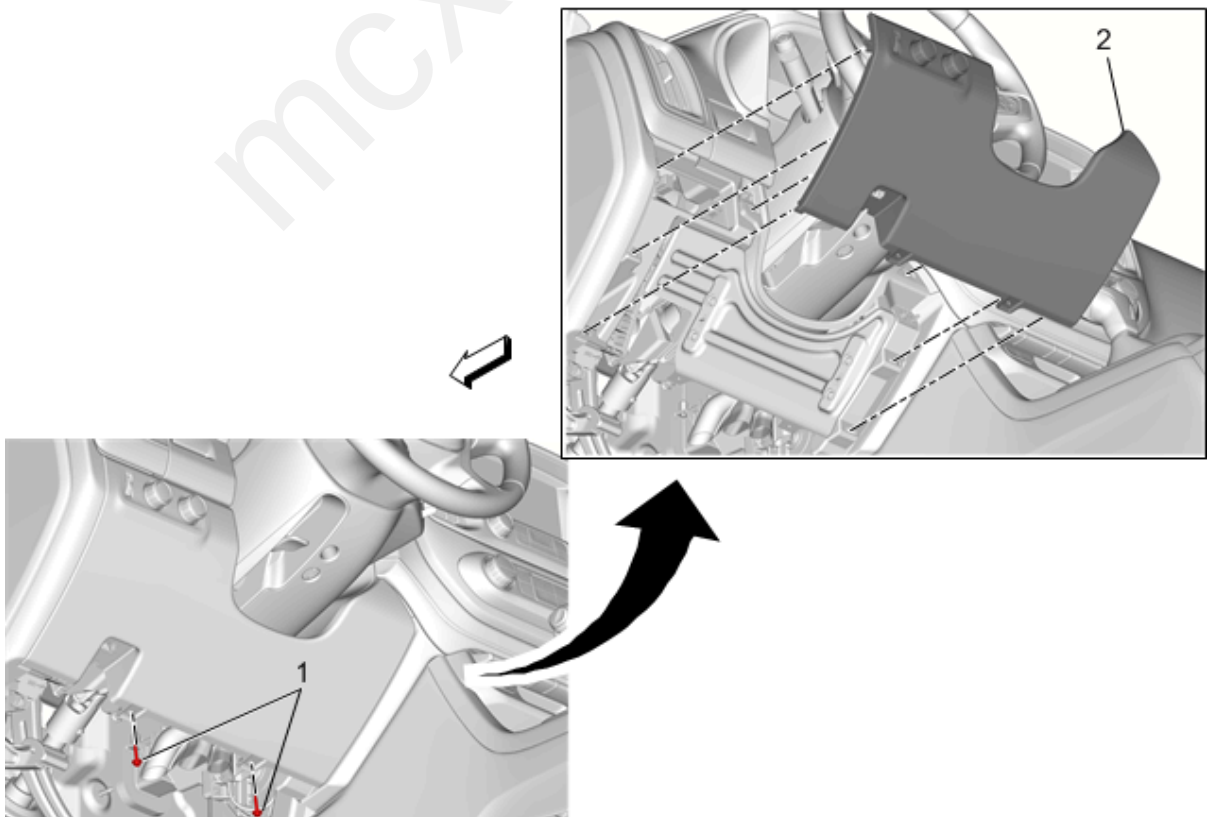


Fig. 52: Instrument Cluster

Courtesy of GENERAL MOTORS COMPANY

6. Remove the instrument cluster (2). Refer to [Instrument Cluster Replacement](#) .



Instrument Panel Knee Bolster
Courtesy of GENERAL MOTORS COMPANY

7. Remove the instrument panel knee bolster (2). Refer to [Instrument Panel Knee Bolster Replacement](#).

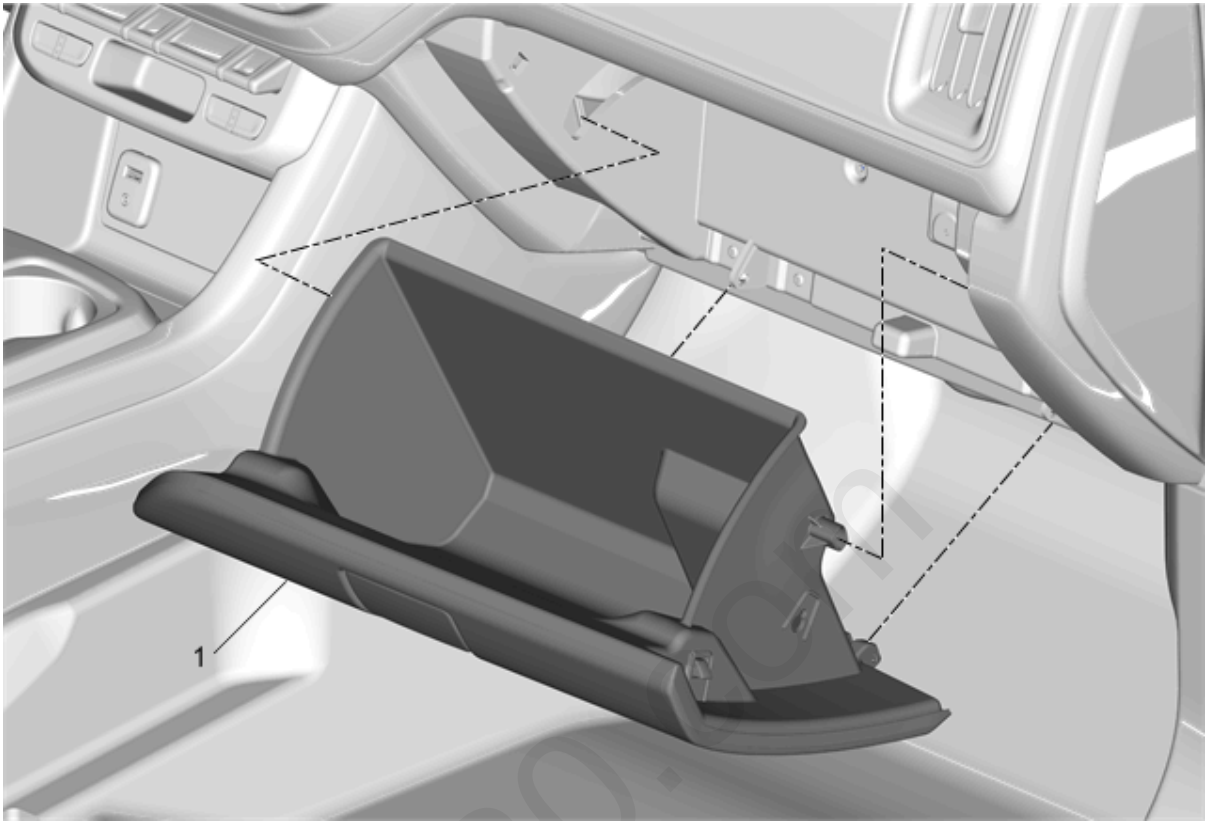


Fig. 54: Instrument Panel Compartment Door
Courtesy of GENERAL MOTORS COMPANY

8. Remove the instrument panel compartment door (1). Refer to [Instrument Panel Compartment Door Replacement](#).

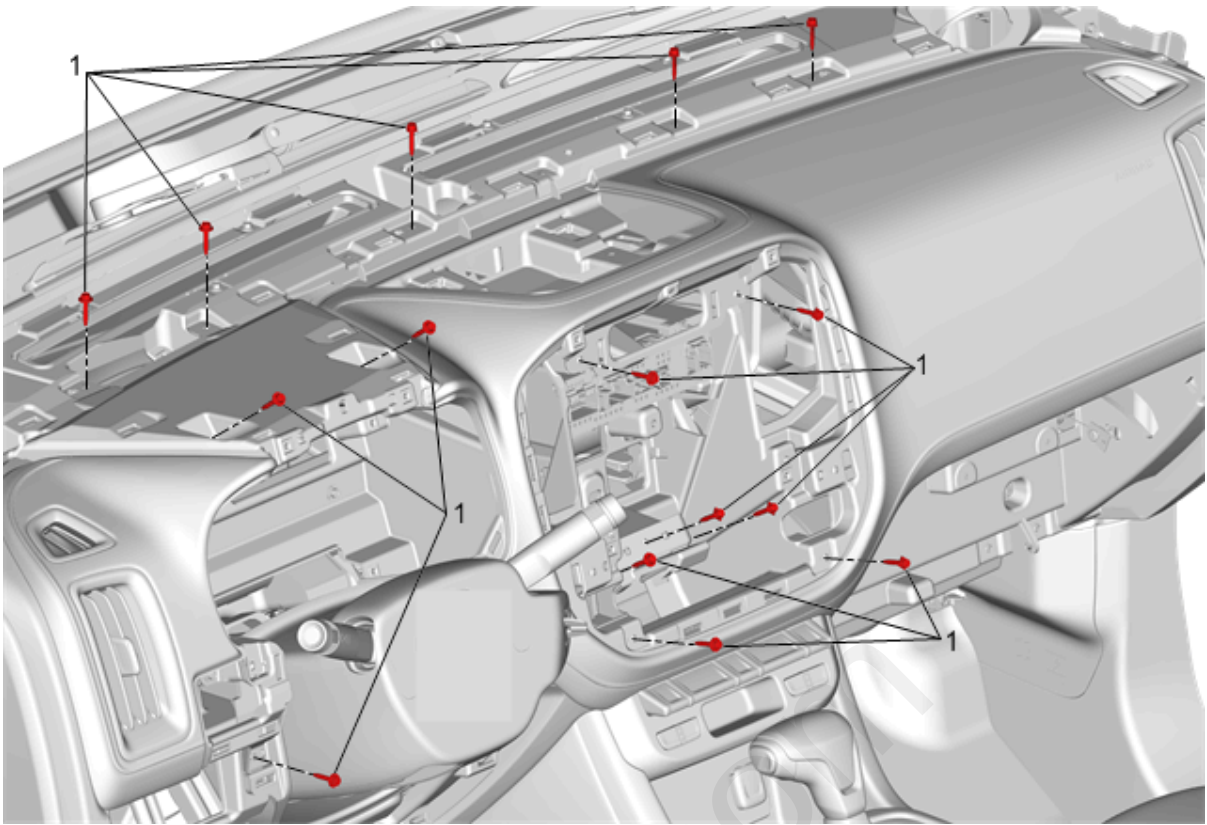


Fig. 55: Instrument Panel Fasteners

Courtesy of GENERAL MOTORS COMPANY

9. Remove the instrument panel fasteners (1).

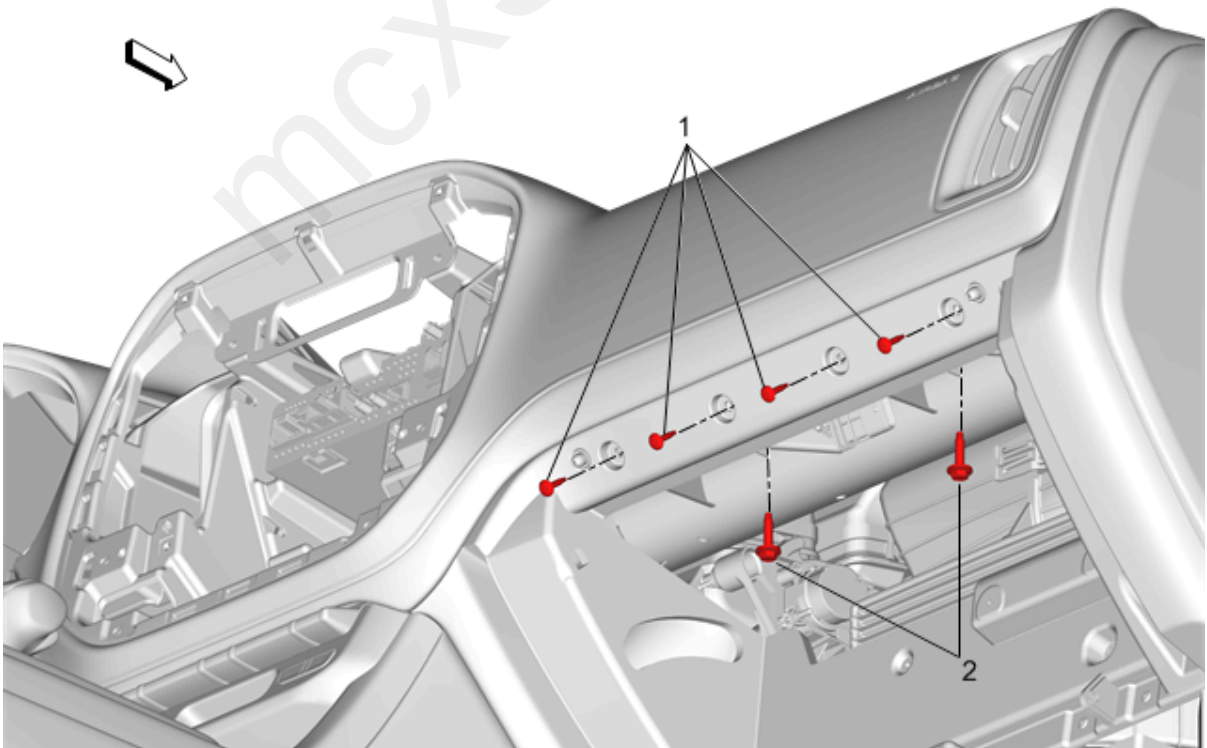


Fig. 56: Instrument Panel Fasteners

Courtesy of GENERAL MOTORS COMPANY

the instrument panel fasteners (1) and instrument panel inflatable restraint module fasteners (2).

11. Disconnect the instrument panel inflatable restraint module electrical connector. Release the connector from the tie bar retainer.

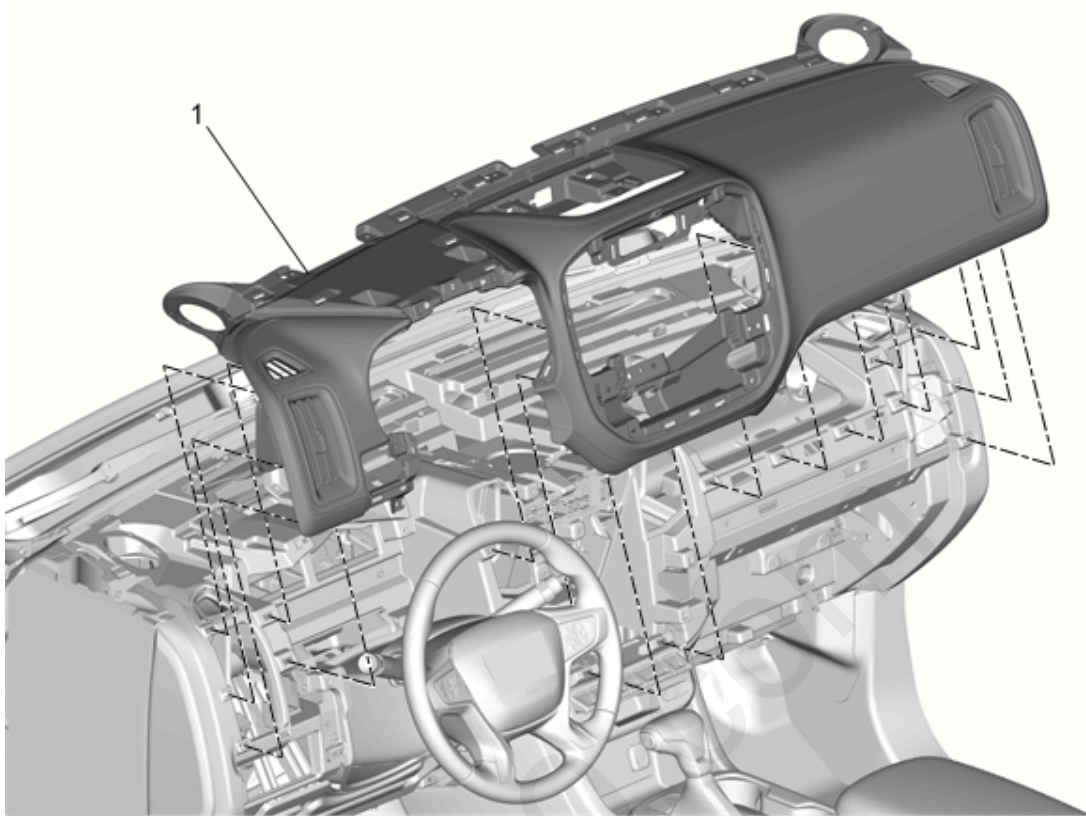


Fig. 57: Instrument Panel

Courtesy of GENERAL MOTORS COMPANY

12. When removing the instrument panel (1) apply tape to the edges of instrument panel to prevent marring.
13. With the aid of an assistant, remove the instrument panel (1) from the vehicle.
14. Before replacing the instrument panel (1), remove the left and right instrument panel outer air outlet. Refer to [Instrument Panel Outer Air Outlet Replacement - Left Side](#) , and [Instrument Panel Outer Air Outlet Replacement - Right Side](#) .

Installation Procedure

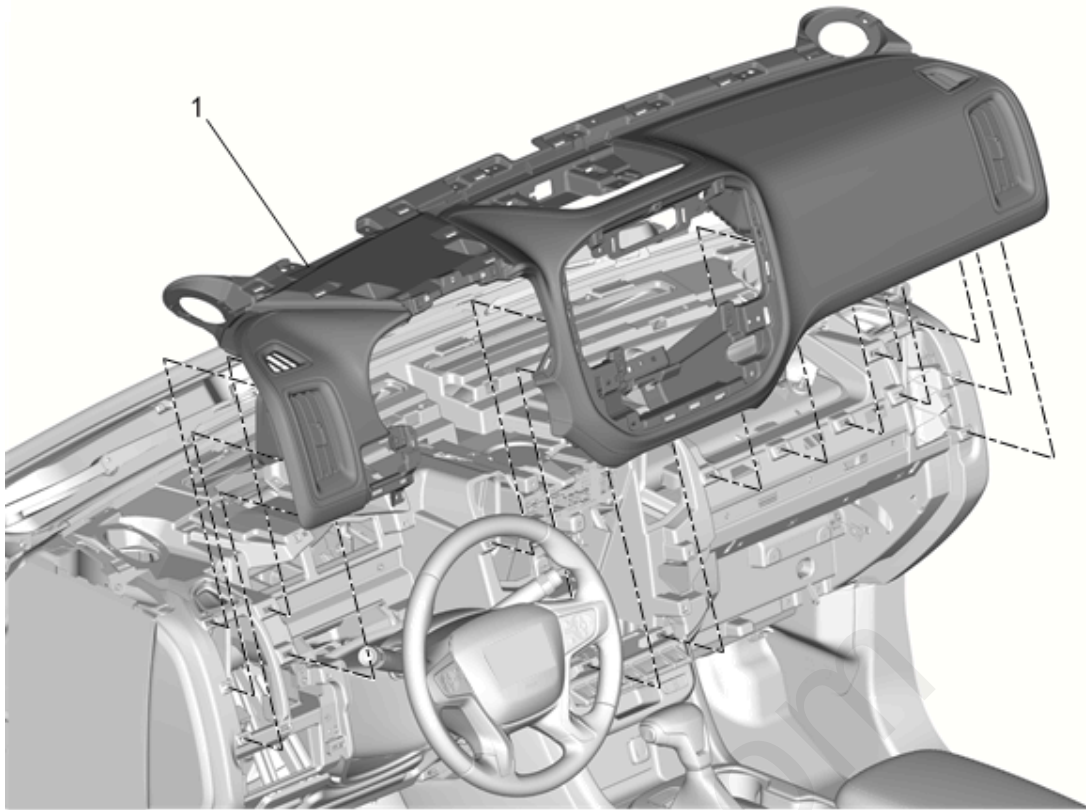


Fig. 58: Instrument Panel

Courtesy of GENERAL MOTORS COMPANY

1. When replacing the instrument panel apply tape to the edges of the new panel.
2. With the aid of an assistant, position the instrument panel (1) into the vehicle.

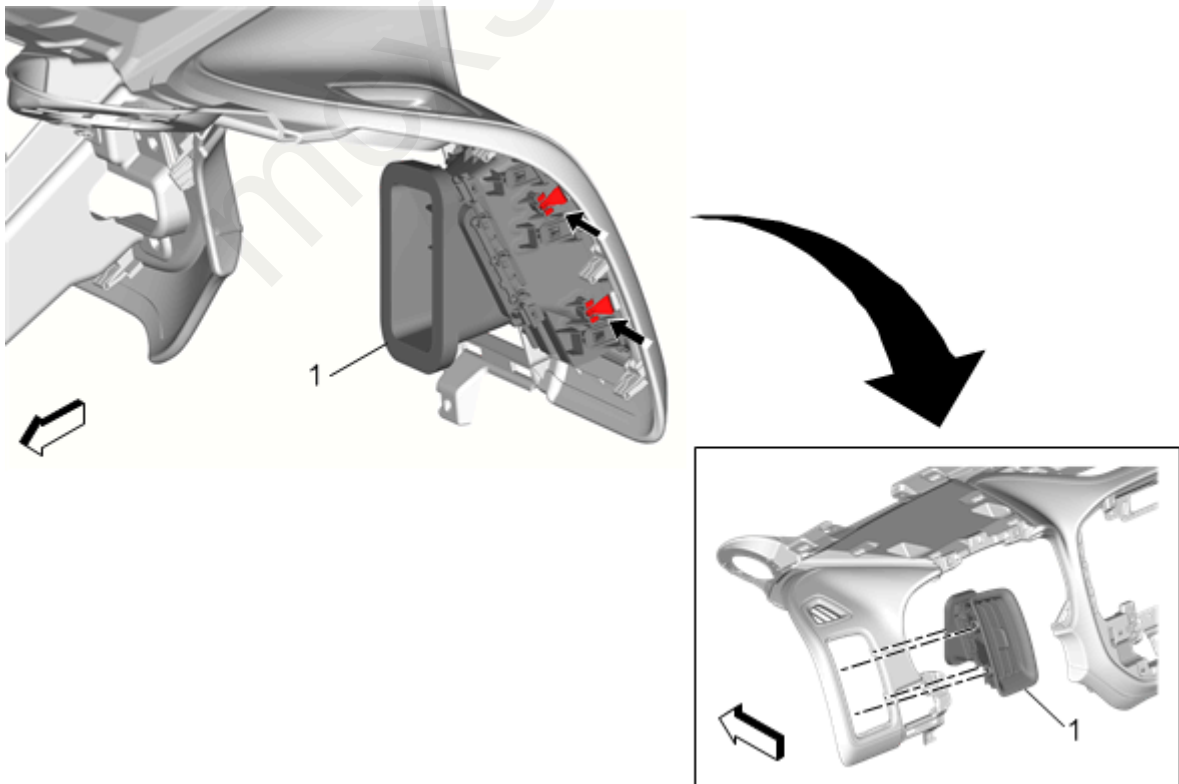


Fig. 59: Left Instrument Panel Outer Air Outlet

Courtesy of GENERAL MOTORS COMPANY

3. Install the left instrument panel outer air outlet (1). Refer to [Instrument Panel Outer Air Outlet Replacement - Left Side](#) .

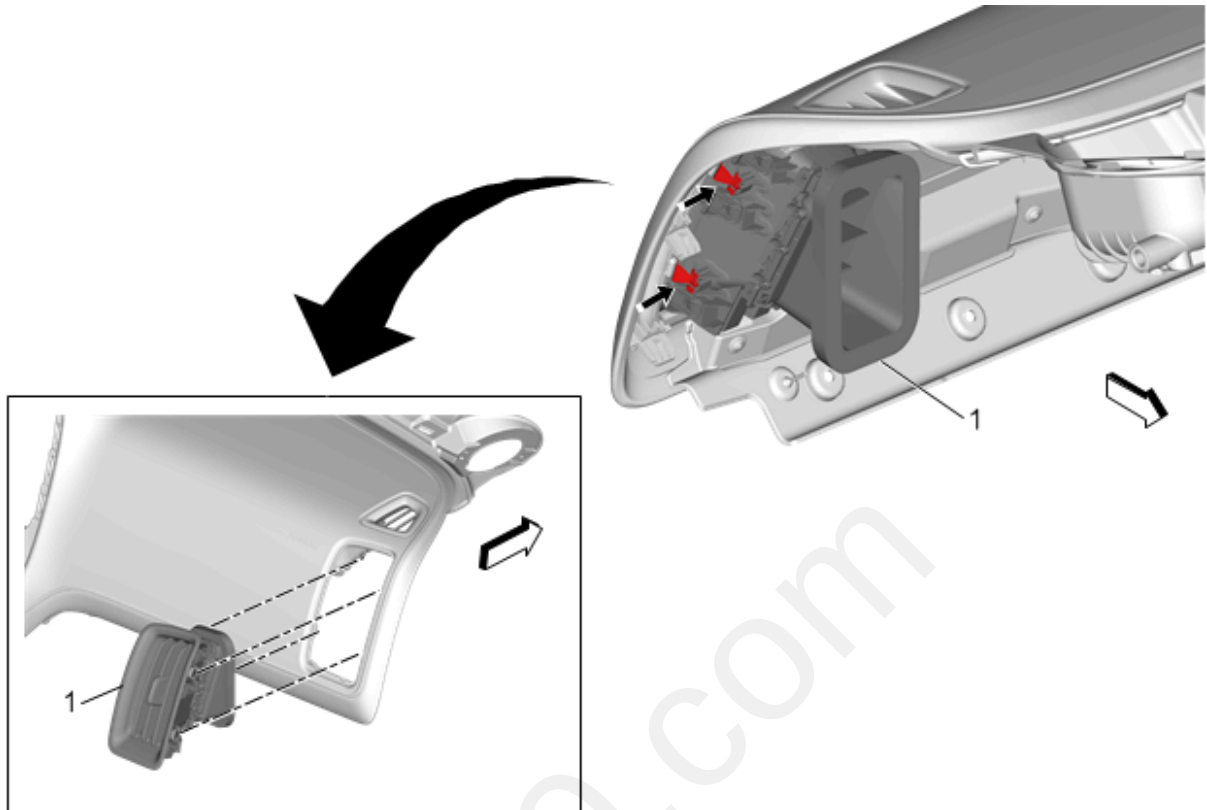


Fig. 60: Right Instrument Panel Outer Air Outlet
Courtesy of GENERAL MOTORS COMPANY

4. Install the right instrument panel outer air outlet (1). Refer to [Instrument Panel Outer Air Outlet Replacement - Right Side](#) .

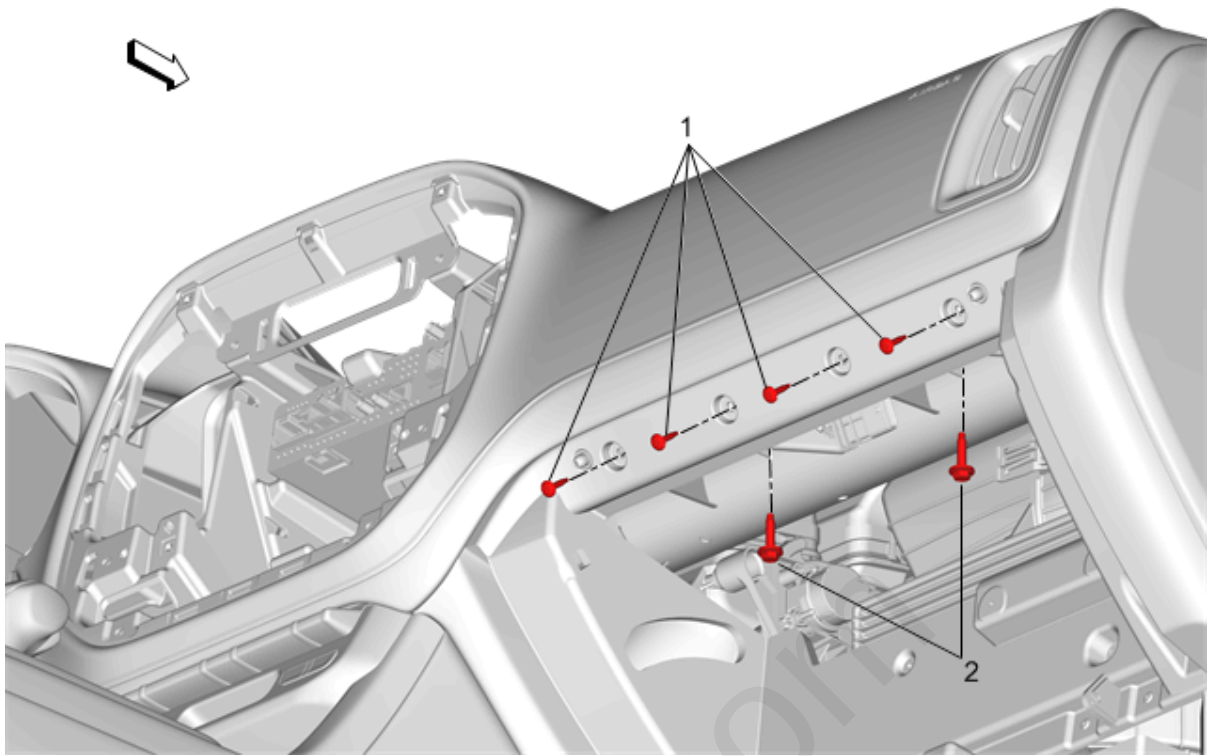


Fig. 61: Instrument Panel Fasteners

Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to **Fastener Caution** .

5. Install the instrument panel inflatable restraint module fasteners (2) and tighten to 9 N.m (80 lb in).
6. Install the instrument panel fasteners (1) and tighten to 2.5 N.m (22 lb in).
7. Attach the connector to the tie bar retainer. Connect the instrument panel inflatable restraint module electrical connector.

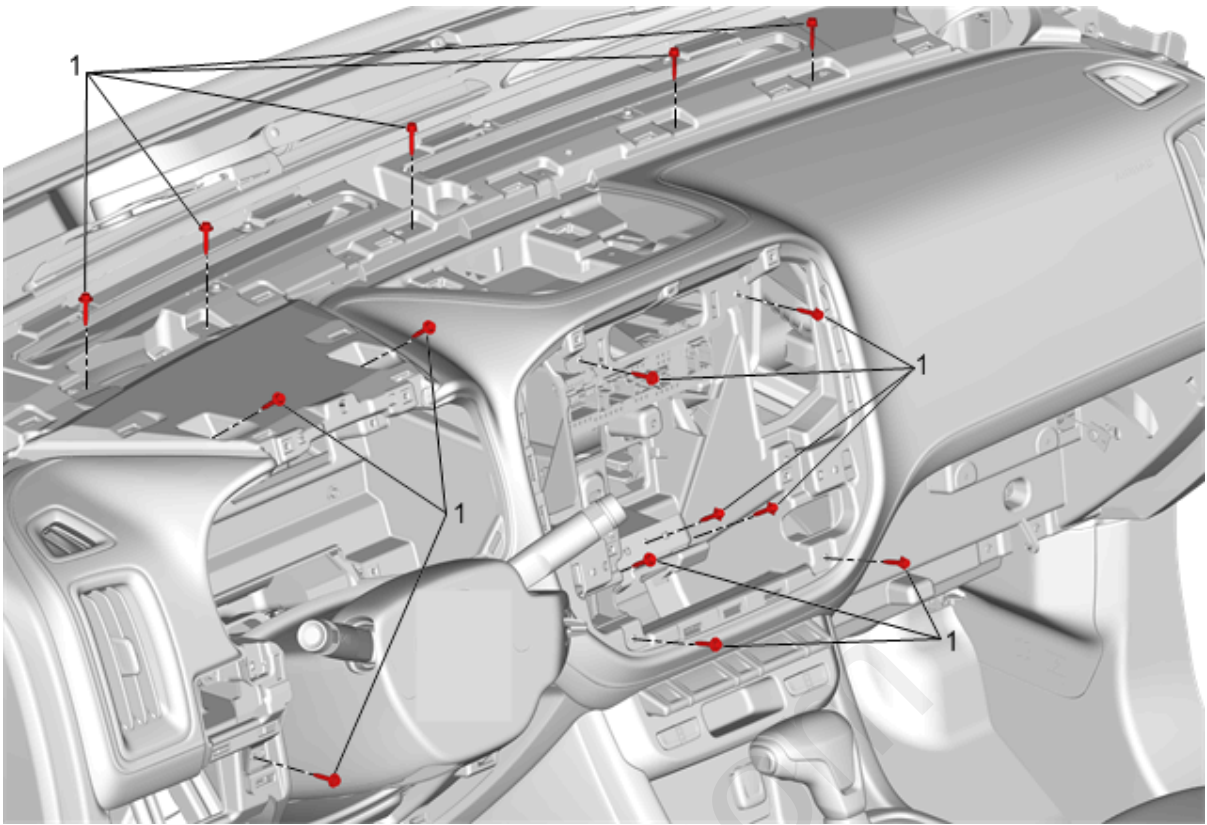


Fig. 62: Instrument Panel Fasteners

Courtesy of GENERAL MOTORS COMPANY

8. Install the instrument panel fasteners (1) and tighten to 2.5 N.m (22 lb in).

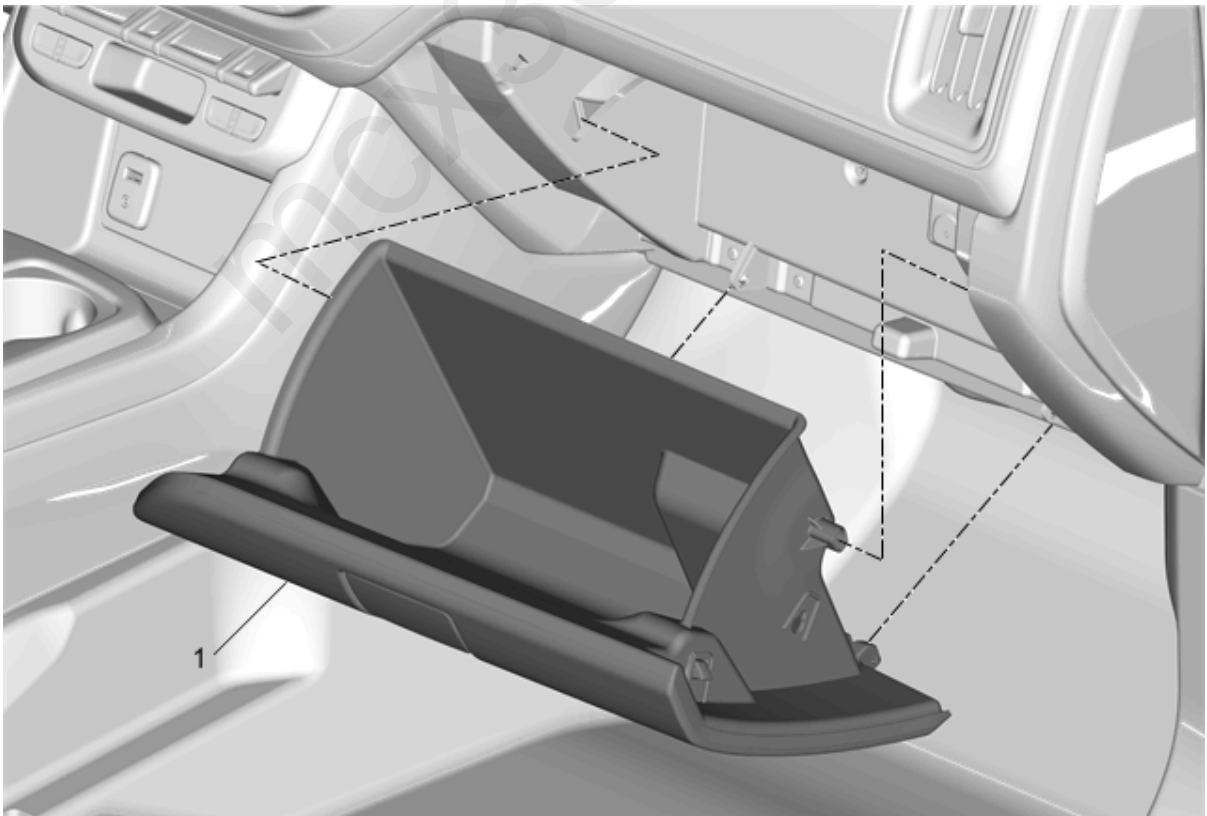


Fig. 63: Instrument Panel Compartment Door

Courtesy of GENERAL MOTORS COMPANY

ie instrument panel compartment door (1). Refer to [Instrument Panel Compartment Door Replacement](#).

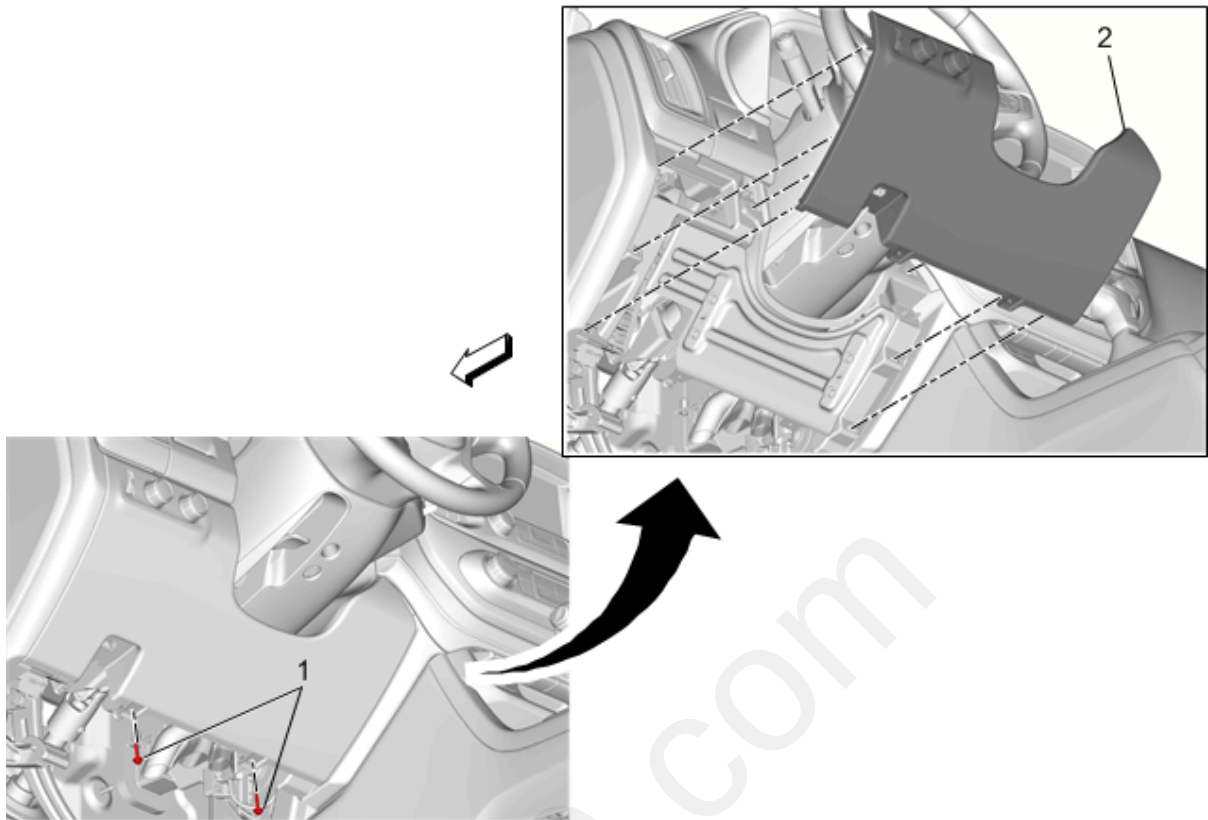
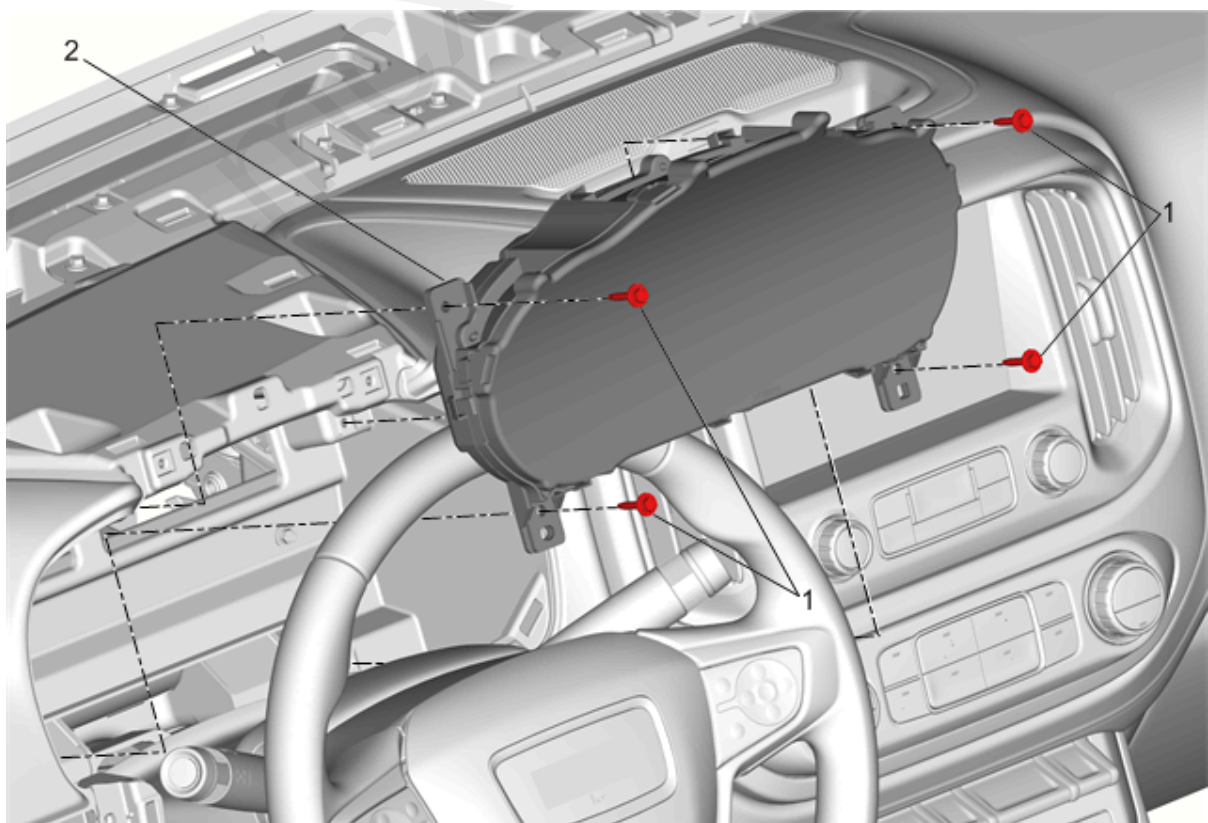


Fig. 64: Instrument Panel Knee Bolster
Courtesy of GENERAL MOTORS COMPANY

10. Install the instrument panel knee bolster (2). Refer to [Instrument Panel Knee Bolster Replacement](#).



Instrument Cluster

Courtesy of GENERAL MOTORS COMPANY

11. Install the instrument cluster (2). Refer to [Instrument Cluster Replacement](#).

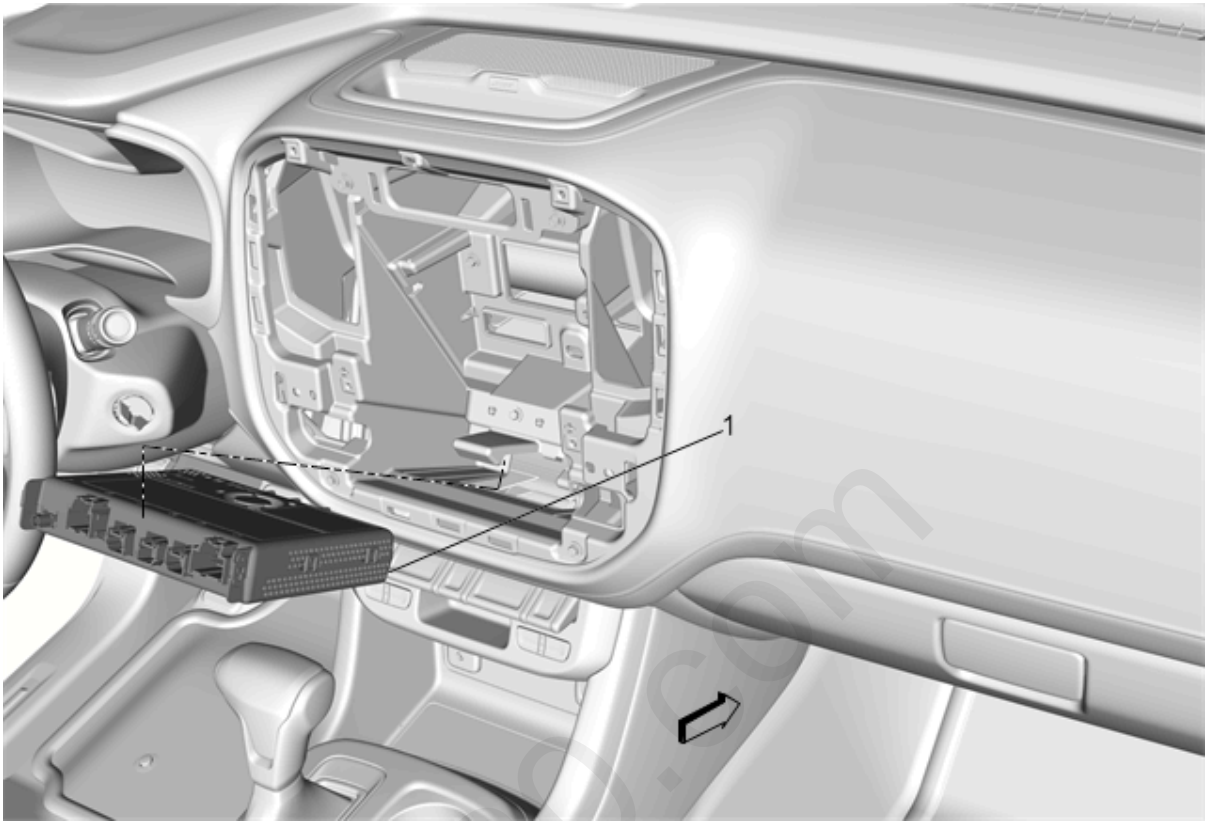


Fig. 66: Human Machine Interface Control Module

Courtesy of GENERAL MOTORS COMPANY

12. Install the human machine interface control module (1). Refer to [Human Machine Interface Control Module Replacement](#).

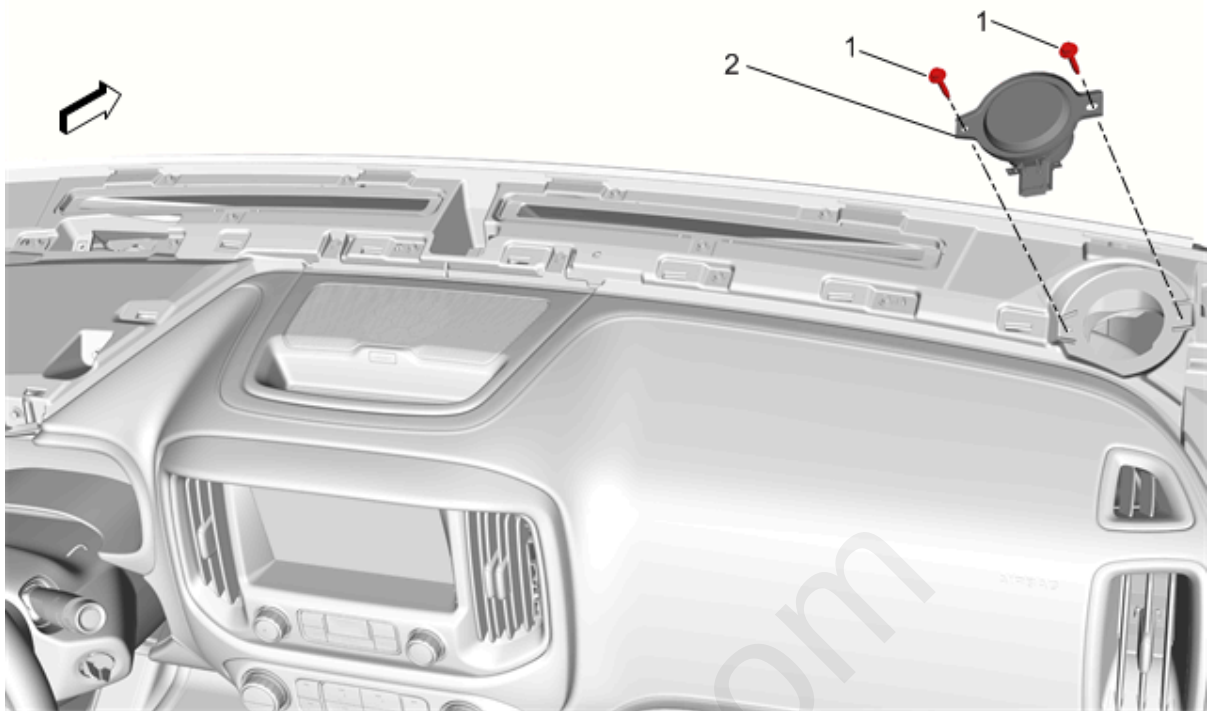


Fig. 67: Radio Front Speakers

Courtesy of GENERAL MOTORS COMPANY

13. Install both of the radio front speakers (2). Refer to [Radio Front Speaker Replacement](#) .

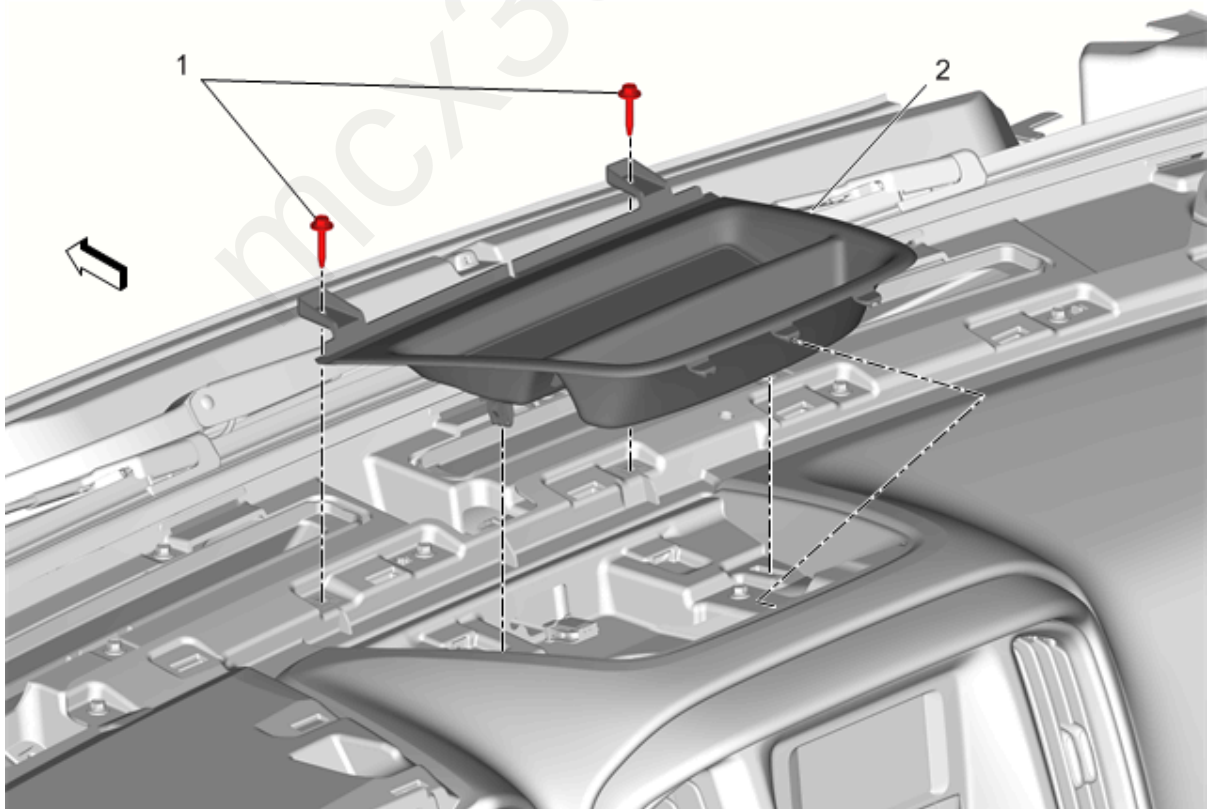


Fig. 68: Instrument Panel Stowage Tray

Courtesy of GENERAL MOTORS COMPANY

ie instrument panel stowage tray (2), if equipped. Refer to [Instrument Panel Stowage Tray Replacement](#).

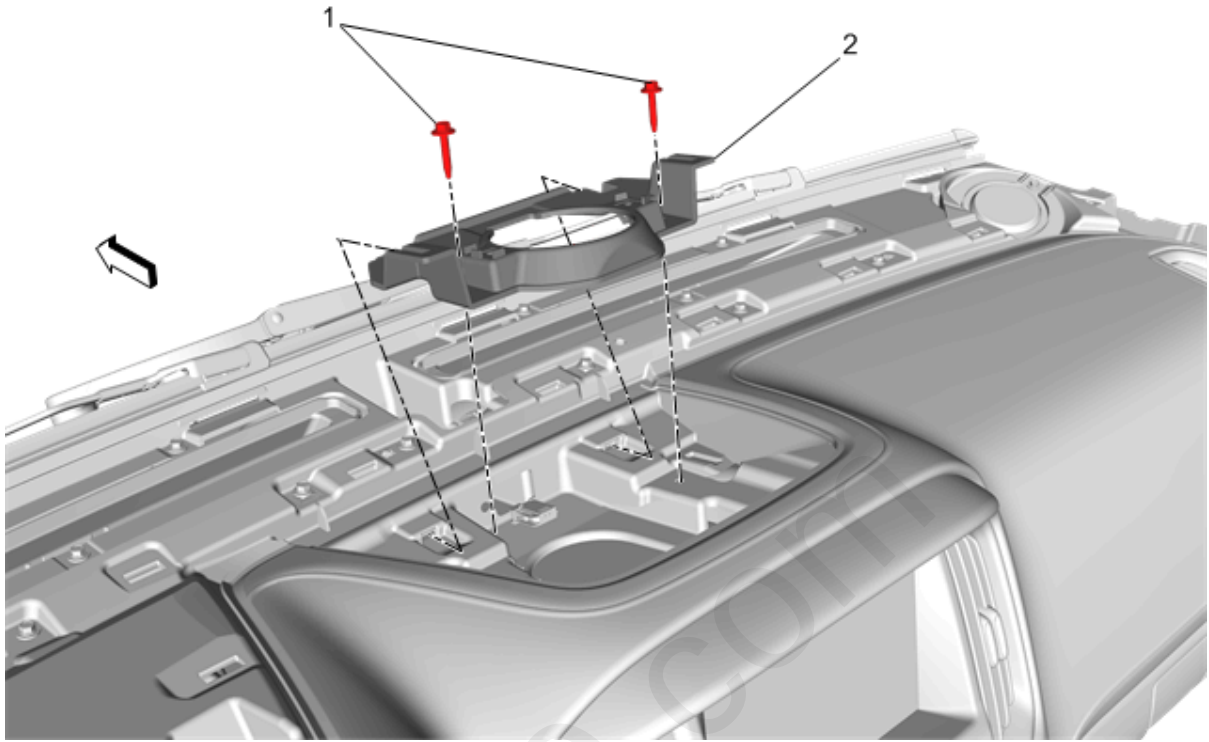


Fig. 69: Instrument Panel Accessory Bracket
Courtesy of GENERAL MOTORS COMPANY

15. Install the instrument panel accessory bracket (2), if equipped. Refer to [Instrument Panel Accessory Bracket Replacement](#).
16. Enable the SIR system. Refer to [SIR Disabling and Enabling](#).

INSTRUMENT PANEL TIE BAR REPLACEMENT

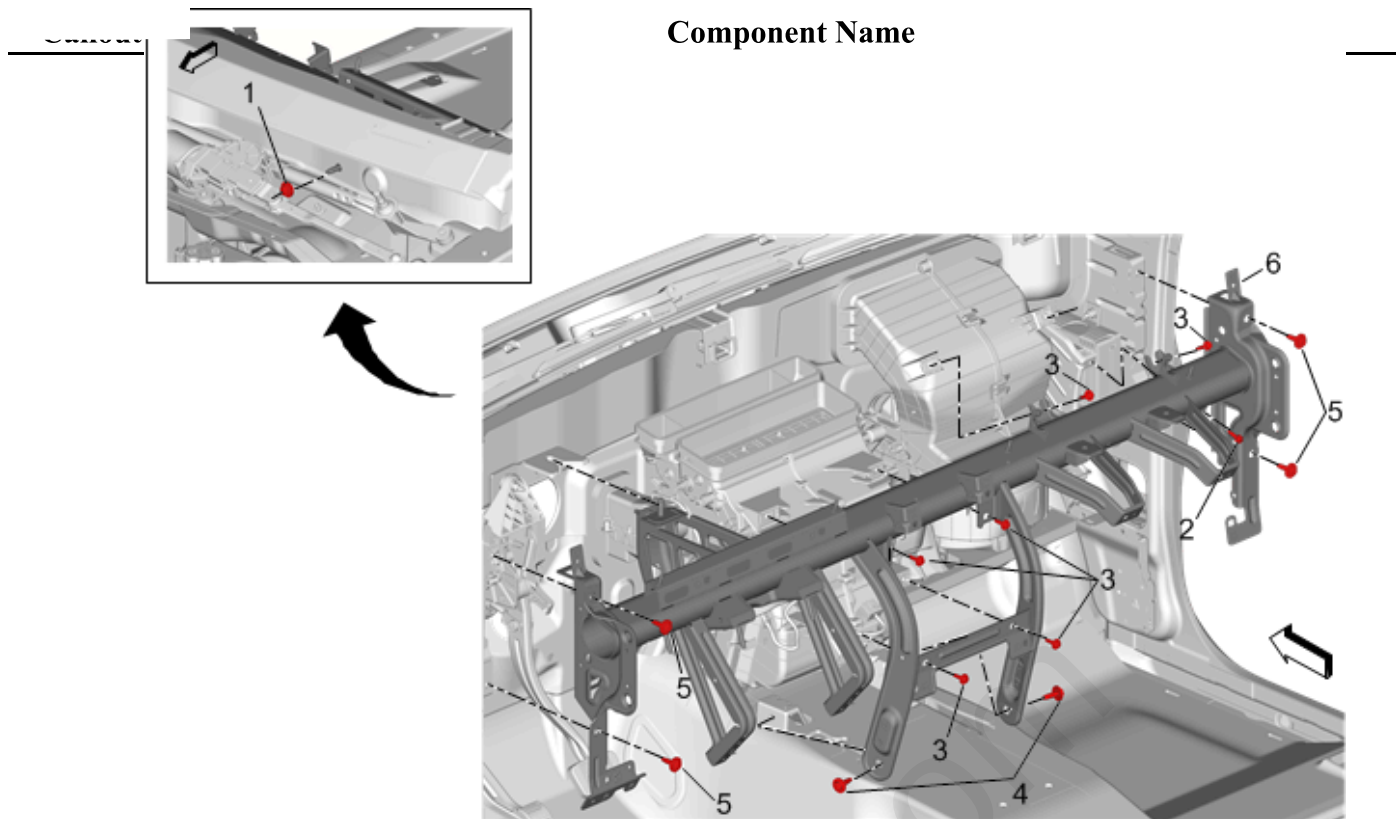


Fig. 70: Instrument Panel Tie Bar
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the instrument panel lower trim panel. Refer to Instrument Panel Lower Trim Panel Replacement 2. Remove the instrument panel center air outlet duct. Refer to Instrument Panel Center Air Outlet Duct Replacement. 3. Remove the windshield defroster outlet duct. Refer to Windshield Defroster Outlet Duct Replacement. 4. Remove both of the instrument panel upper trim panel brackets. Refer to Instrument Panel Upper Trim Panel Bracket Replacement. 5. Remove the steering column. Refer to Steering Column Replacement. 6. Remove the body control module bracket. Refer to Body Control Module Bracket Replacement. 7. Remove the air inlet grille panel. Refer to Air Inlet Grille Panel Replacement.	
1	Instrument Panel Tie Bar Brace Nut CAUTION: Refer to Fastener Caution . Tighten 22 N.m (16 lb ft)

	Component Name
2	Radio Speaker Amplifier Bolt Tighten 9 N.m (80 lb in)
3	Heater Bolt (Qty: 6) Tighten 9 N.m (80 lb in)
4	Instrument Panel Tie Bar Brace Bolt (Qty: 2) Tighten 22 N.m (16 lb ft)
5	Instrument Panel Bolt (Qty: 4) Tighten 22 N.m (16 lb ft)
6	Instrument Panel Tie Bar Procedure 1. Disconnect the electrical connectors. 2. Note the location and routing of the instrument panel wiring harness in order to ensure proper installation. 3. Support the HVAC module in order to prevent damage. 4. With the aid of an assistant remove the instrument panel tie bar assembly from the vehicle.

WIRE TO WIRE REPAIR - INSTRUMENT PANEL AND CONSOLE

Special Tools

- **EL-38125-10** Splice Sleeve Crimping Tool (non GMNA)
- **J-38125-5A** Ultra Torch Special Tool
- **J-38125-8** Splice Sleeve Crimping Tool (GMNA)

For equivalent regional tools, refer to [Special Tools](#).

WARNING: In order to reduce the risk of personal injury, loss of high voltage isolation to ground and higher system impedance, do not attempt to repair any HV wiring, connector, or terminal that is damaged. High voltage coaxial type cables are not repairable. Never attempt to repair a coaxial type cable. The entire cable/harness or component must be replaced. In order to maintain system integrity and personal safety, never attempt to repair any high voltage wiring, cables, or terminals. Performing this procedure on high voltage circuits may result in serious injury or death.

NOTE: If the wiring harness internal to the transmission is damaged, the wiring harness must be replaced. The use of splice sleeves in an attempt to repair the internal transmission wires, connectors, or terminals could result in performance issues.

NOTE: Do not splice wires in Door Harness Grommets.

NOTE: The DuraSeal splice sleeves have the following 2 critical features:

Splice Sleeve Color	Crimp Tool Nest Color		Wire Gauge mm ² / (AWG)
	3 Crimp Nests	4 Crimp Nests	
• A special heat shrink sleeve environmentally seals the splice. The heat shrink sleeve contains a sealing adhesive inside. • A cross hatched (knurled) core crimp provides the necessary low resistance contact integrity for these sensitive, low energy circuits.			

Use only DuraSeal splice sleeves to form a one-to-one splice on all types of insulation except high voltage and specialty cables. Use DuraSeal splice sleeves where there are special requirements such as moisture sealing. Follow the instructions below in order to splice copper wire using DuraSeal splice sleeves.

Splice Sleeve Selection

Splice Sleeve Color	Crimp Tool Nest Color		Wire Gauge mm ² / (AWG)
	3 Crimp Nests	4 Crimp Nests	
Salmon (Yellow-Pink) 19300089	Red (1) or Red/Green (1)	Red (2)	0.22-0.8/(18-26)
Blue 19168447	Blue (2)	Blue (3)	1.0-2.0/(14-16)
Yellow 19168448	Yellow (3)	Yellow (4)	3.0-5.0/(10-12)

NOTE: You must perform the following procedures in the listed order. Repeat the procedure if any wire strands are damaged. You must obtain a clean strip with all of the wire strands intact.

- Open the harness by removing any tape:
 - Use a sewing seam ripper, available from sewing supply stores, in order to cut open the harness in order to avoid wire insulation damage.
 - Use the DuraSeal splice sleeves on all types of insulation except Tefzel and coaxial.
 - Do not use the crimp and DuraSeal splice sleeve to form a splice with more than 2 wires coming together.
- Cut as little wire off the harness as possible. You may need the extra length of wire in order to change the location of a splice.

Adjust splice locations so that each splice is at least 40 mm (1.5 in) away from the other splices, harness branches, or connectors.

- Strip the insulation:
 - When adding a length of wire to the existing harness, use the same size wire as the original wire.
 - Perform one of the following items in order to find the correct wire size:
 - Find the wire on the schematic and convert to regional wiring gauge size.
 - If you are unsure of the wire size, begin with the largest opening in the wire stripper and work down until achieving a clean strip of the insulation.
 - Strip approximately 5.0 mm (0.20 in) of insulation from each wire to be spliced.
 - Do not nick or cut any of the strands. Inspect the stripped wire for nicks or cut strands.
 - If the wire is damaged, repeat this procedure after removing the damaged section.
- For high temperature wiring, slide a section of high temperature SCT1 shrink tubing down the length of wire to be spliced. Ensure that the shrink tubing will not interfere with the splice procedure.
- Select the proper DuraSeal splice sleeve according to the wire size. Refer to the above table at the beginning of the repair procedure for the color coding of the DuraSeal splice sleeves and the crimp tool nests.

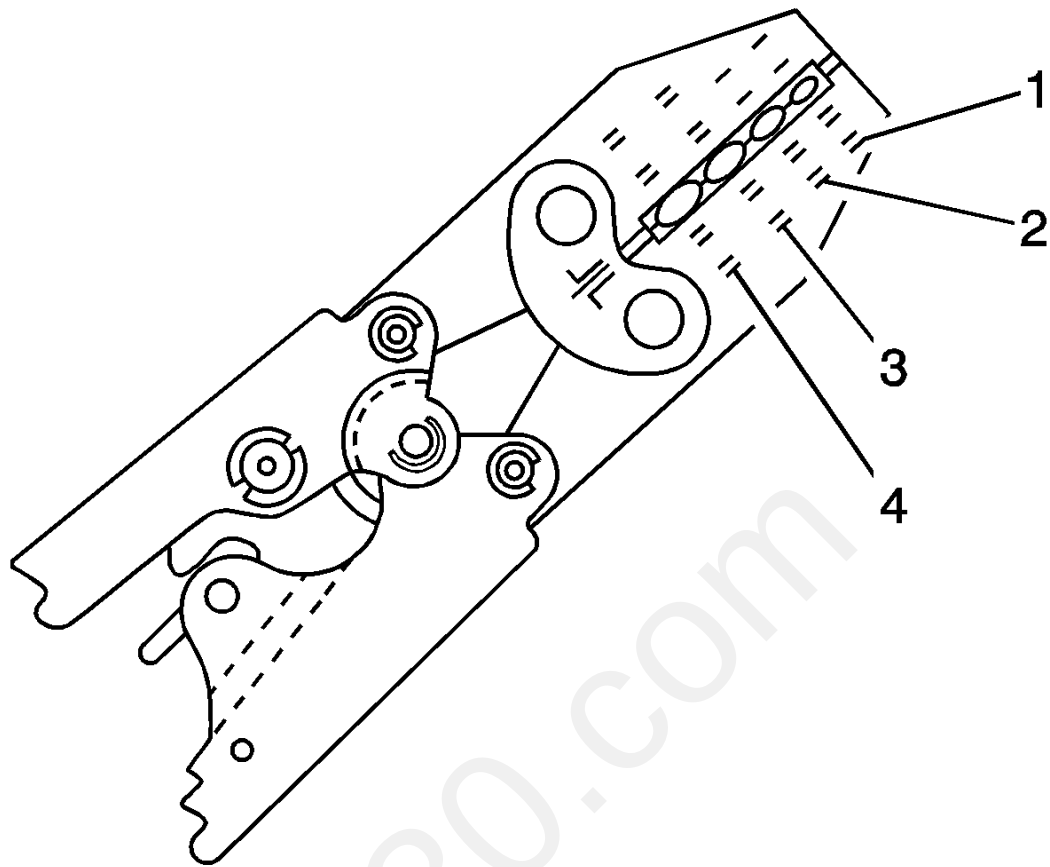


Fig. 71: Crimping Tool

Courtesy of GENERAL MOTORS COMPANY

6. The **EL-38125-10** splice sleeve crimping tool has four crimp nests. The largest crimp nest (4) is used for crimping 10 and 12 gauge wires. The second largest crimp nest (3) is used for crimping 14 and 16 gauge wires. The third largest crimp nest (2) is used for crimping 18 and 20 gauge wires. The smallest crimp nest (1) is used for crimping 22 to 26 gauge wires. The crimp nests are referenced in the table (farther above) under the crimp tool nest color.

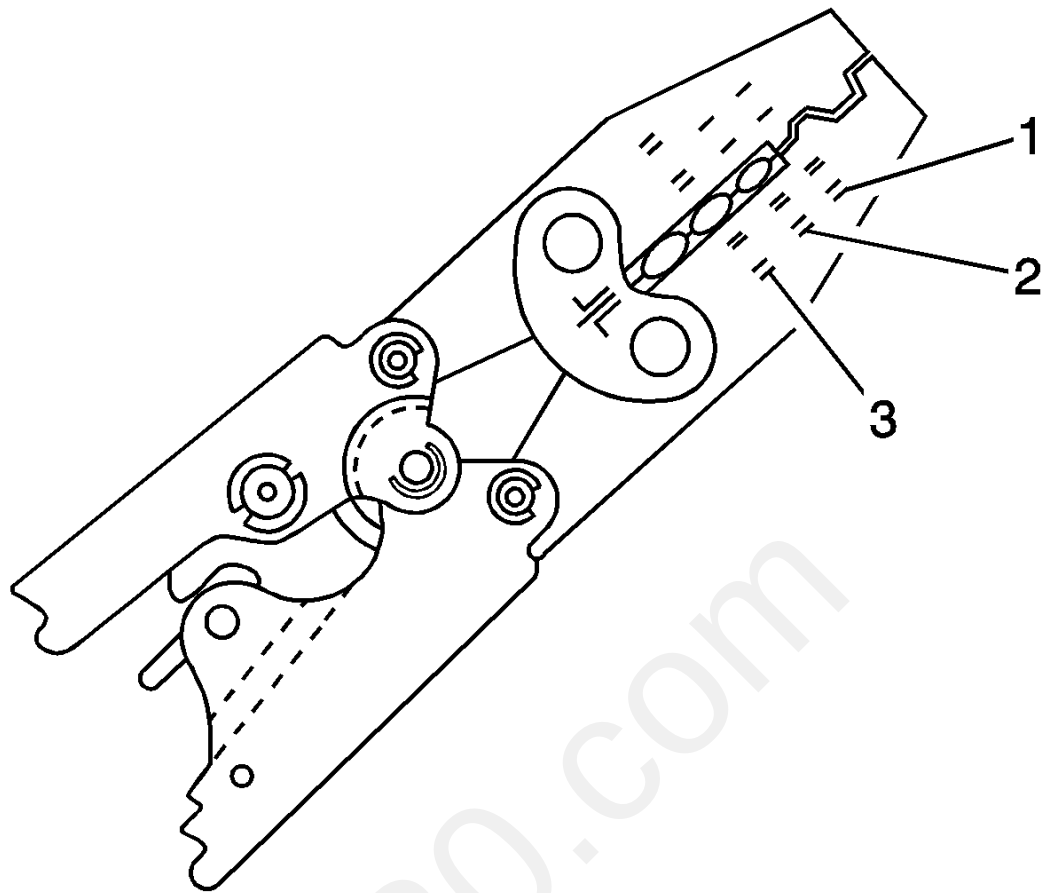


Fig. 72: Splice Crimp Tool Nests

Courtesy of GENERAL MOTORS COMPANY

7. The **J-38125-8** splice sleeve crimping tool has three crimp nests. The largest crimp nest (3) is used for crimping 10 and 12 gauge wires. The second largest crimp nest (2) is used for crimping 14 and 16 gauge wires. The smallest crimp nest (1) is used for crimping 18 to 20 gauge wires. The crimp nests are referenced in the table (farther above) under the crimp tool nest color.
8. Use the splice sleeve crimp tool in order to position the DuraSeal splice sleeve in the proper color nest of the splice sleeve crimp tool. For the four crimp nest tool, use the three largest crimp nests to crimp the splice sleeves. For the three crimp nest tool, use all three crimp nests to crimp the splice sleeves. Use the four and three crimp tool diagrams (above) and the table (farther above) to match the splice sleeve with the correct crimp nest. The crimp tool diagram callout numbers match the numbers in the table (under crimp tool nest color).

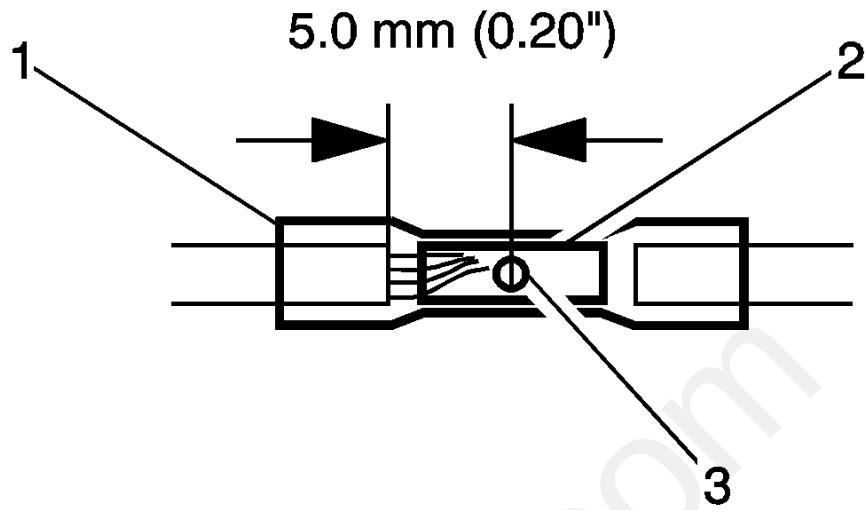


Fig. 73: Duraseal Splice Sleeve

Courtesy of GENERAL MOTORS COMPANY

9. Place the DuraSeal splice sleeve in the nest. Ensure that the crimp falls midway between the end of the barrel and the stop. The sleeve has a stop (3) in the middle of the barrel (2) in order to prevent the wire (1) from going further. Close the hand crimper handles slightly in order to firmly hold the DuraSeal splice sleeve in the proper nest.



Fig. 74: Crimped Duraseal Splice Sleeve

Courtesy of GENERAL MOTORS COMPANY

10. Insert the wire into the splice sleeve barrel until the wire hits the barrel stop. Refer to **Folded-Over Wire Repair** for splicing wires of 0.35 mm or less (22, 24, 26 gauge sizes) and for splicing wires of different gauges.
11. Tightly close the handles of the crimp tool until the crimper handles open when released.

The crimper handles will not open until you apply the proper amount of pressure to the DuraSeal splice sleeve. Repeat steps 4 and 6 for the opposite end of the splice.



Fig. 75: Crimped Duraseal Splice Sleeve

Courtesy of GENERAL MOTORS COMPANY

12. Using the heat torch, apply heat to the crimped area of the barrel.
13. Start in the middle and gradually move the heat barrel to the open ends of the tubing:
 - The tubing will shrink completely as the heat is moved along the insulation.
 - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

Weatherpack™ Wiring Repair

NOTE: Some replacement pigtail connectors may be delivered without the terminated leads installed into the connector. For Weatherpack™ connectors, all terminated leads included in the package should to be installed into the connector. If the connector end view shows that a terminal is not occupied, the extra terminated lead(s) need to be installed and the end(s) sealed using a DuraSeal splice sleeve and taped back into the harness.

Insert the wire into the splice sleeve barrel until the wire hits the barrel stop. Refer to [Folded-Over Wire Repair](#) for splicing wires of 0.35 mm or less (22, 24, 26 gauge sizes) and for splicing wires of different gauges.

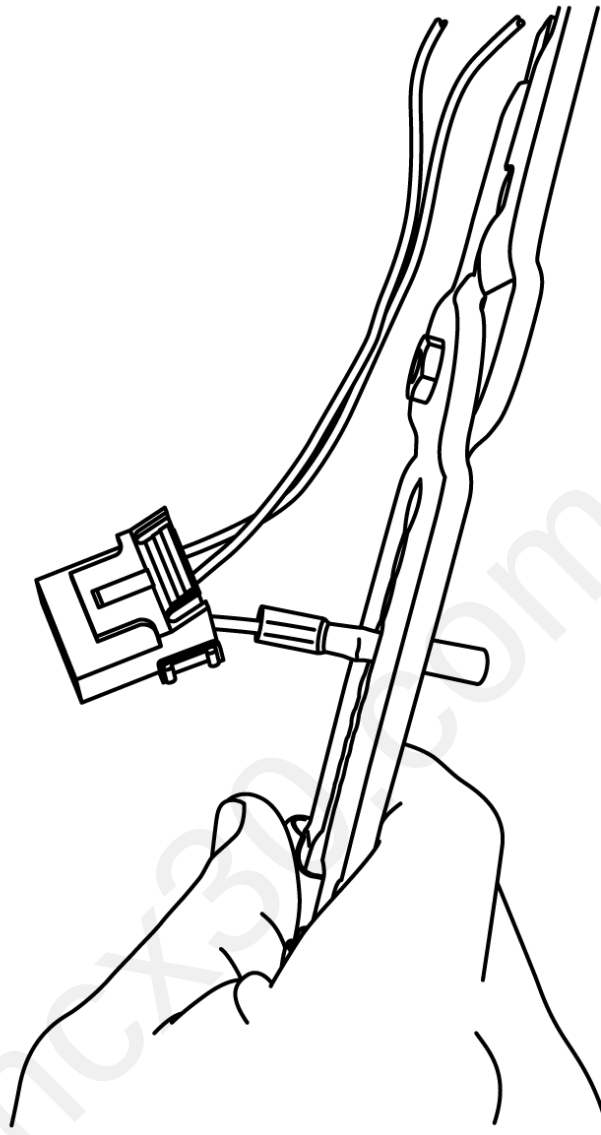


Fig. 76: Tightly Close Handles Of Crimp Tool
Courtesy of GENERAL MOTORS COMPANY

2. Tightly close the handles of the crimp tool until the crimper handles open when released.

The crimper handles will not open until you apply the proper amount of pressure to the DuraSeal splice sleeve. Holding the DuraSEAL with one hand gently tug on the wire to ensure it is crimped in the DuraSeal.

3. Using the heat torch, apply heat to the crimped area of the barrel.

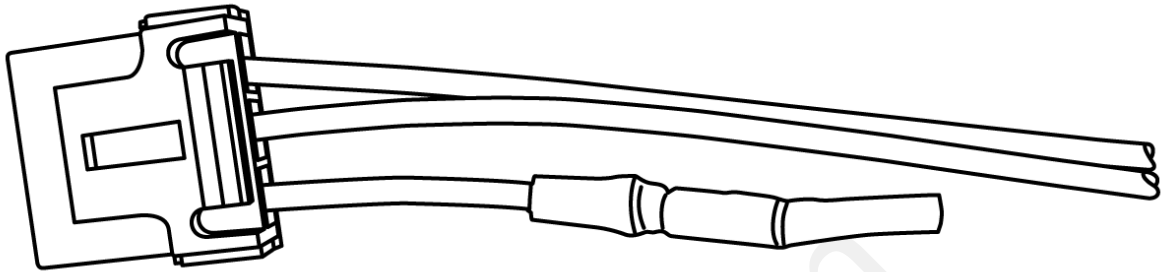


Fig. 77: Applying Heat To Crimped Area Of Barrel
Courtesy of GENERAL MOTORS COMPANY

4. Start in the middle and gradually move the heat barrel to the open ends of the tubing:
 - The tubing will shrink completely as the heat is moved along the insulation.
 - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.

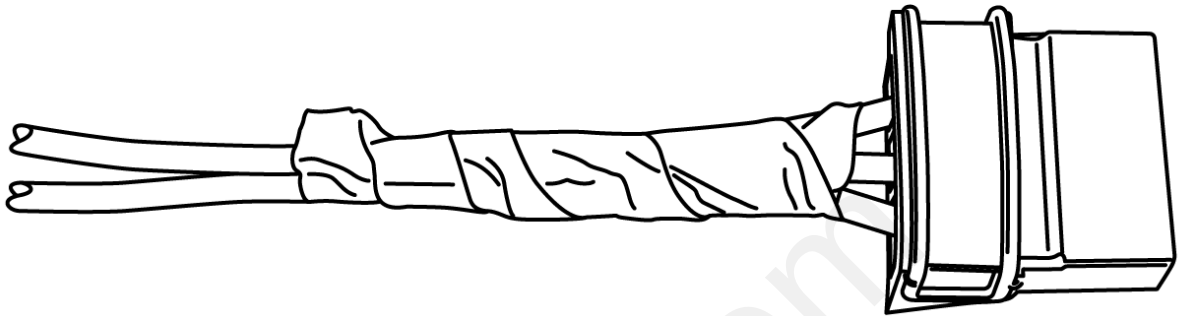


Fig. 78: Taping Extra Terminated Leads Back Into Harness
Courtesy of GENERAL MOTORS COMPANY

5. Tape the extra terminated lead(s) back into the harness.

High Temperature Wiring Repairs

Use the following procedures to perform high temperature wiring repairs:

1. Center the high temperature SCT1 shrink tube over the DuraSeal splice sleeve.
2. Using the heat torch, apply heat to the high temperature heat shrink tubing.
3. Gradually move the heat from the center to the open end of the tubing:
 - The tubing will shrink completely as the heat is moved along the insulation.
 - A small amount of sealant will come out of the end of the tubing when sufficient shrinkage is achieved.
4. Replace any reflective tape and clips that may have been removed during the repair.

CONNECTOR RECONNECTION - INSTRUMENT PANEL AND CONSOLE

Special Tools

For equivalent regional tools, refer to [Special Tools](#).

When the condition is not currently present, but is indicated in DTC history, the cause may be intermittent. An intermittent may also be the cause when there is a customer complaint, but the symptom cannot be duplicated. Refer to the Symptom Table of the system that is suspect of causing the condition before trying to locate an intermittent condition.

Most intermittent conditions are caused by faulty electrical connections or wiring. Inspect for the following items:

- Wiring broken inside the insulation
- Poor connection between the male and female terminal at a connector
- Poor terminal to wire connection - Some conditions which fall under this description are poor crimps, poor solder joints, crimping over the wire insulation rather than the wire itself, and corrosion in the wire to terminal contact area, etc.
- Pierced or damaged insulation can allow moisture to enter the wiring causing corrosion. The conductor can corrode inside the insulation, with little visible evidence. Look for swollen and stiff sections of wire in the suspect circuits.
- Wiring which has been pinched, cut, or its insulation rubbed through may cause an intermittent open or short as the bare area touches other wiring or parts of the vehicle.
- Wiring that comes in contact with hot or exhaust components
- Refer to [Inducing Intermittent Fault Conditions](#) in order to duplicate the conditions required, in order to verify the customer concern.
- Refer to [Testing for Electrical Intermittents](#) for test procedures to detect intermittent open, high resistance, short to ground, and short to voltage conditions.
- Refer to [Scan Tool Snapshot Procedure](#) for advanced intermittent diagnosis and Vehicle Data Recorder operation.

Testing for Terminal Fretting

Some intermittent conditions can be caused by wire terminal fretting corrosion. Fretting corrosion is a build-up of insulating, oxidized wear debris that can form when there is a small motion between electrical contacts. The oxidized wear debris can pile up enough at the electrical contact spots that the electrical resistance across the connection increases. Movement between the contacting surfaces as small as 10 to 100 microns can cause fretting. To put this in perspective, a sheet of paper is about 100 microns thick, so fretting motion is small and hard to see. Vibration and thermal expansion/contraction are the main sources that create fretting motion. Since vehicles vibrate and can experience large temperature swings, they are a good source for fretting motion. Tin, copper, nickel, and iron surfaces are all susceptible to fretting corrosion. Fretting corrosion can be difficult to see but it looks like small, dark smudges on the terminals contact surface.

To correct a fretting condition disconnect the suspect connector and add dielectric grease / lubricant (Nyogel 760G or equivalent, meeting GM specification 9986087) to both sides of the connector terminals. Then reconnect the connector and wipe away any excess lubricant. This will correct the additional terminal contact resistance due to the terminal fretting corrosion.

Testing for Proper Terminal Contact

It is important to test terminal contact at the component and any inline connectors before replacing a suspect component. Mating terminals must be inspected to ensure good terminal contact. A poor connection between the male and female terminal at a connector may be the result of contamination or deformation.

It may be caused by the connector halves being improperly connected. A missing or damaged connector seal, damage to the connector itself, or exposing the terminals to moisture and dirt can also cause contamination. Contamination, usually in the underhood or underbody connectors, leads to terminal corrosion, causing an open circuit or intermittently open circuit.

Deformation is caused by probing the mating side of a connector terminal without the proper adapter. Always use the **EL-35616** kit when probing connectors. Other causes of terminal deformation are improperly joining the connector halves, or repeatedly separating and joining the connector halves. Deformation, usually to the female terminal contact tang, can result in poor terminal contact causing an open or intermittently open circuit.

Testing for Proper Terminal Contact in Bussed Electrical Centers

It is very important to use the correct test adapter when testing for proper terminal contact of fuses and relays in a bussed electrical center. Use the **EL-35616** kit to test for proper terminal contact. Failure to use the **EL-35616** kit can result in improper diagnosis of the bussed electrical center.

Follow the procedure below in order to test terminal contact:

1. Separate the connector halves.
2. Visually inspect the connector halves for contamination. Contamination may result in a white or green build-up within the connector body or between terminals. This causes high terminal resistance, intermittent contact, or an open circuit. An underhood or underbody connector that shows signs of contamination should be replaced in its entirety: terminals, seals, and connector body.
3. Using an equivalent male terminal/terminated lead, verify that the retention force is significantly different between a known good terminal and the suspect terminal. Replace the female terminal in question.

Flat Wire Connectors

There are no serviceable parts for flat wire connectors on the harness side or the component side.

Follow the procedure below in order to test terminal contact:

1. Remove the component in question.
2. Visually inspect each side of the connector for signs of contamination. Avoid touching either side of the connector as oil from your skin may be a source of contamination as well.
3. Visually inspect the terminal bearing surfaces of the flat wire circuits for splits, cracks, or other imperfections that could cause poor terminal contact. Visually inspect the component side connector to ensure that all of the terminals are uniform and free of damage or deformation.
4. Insert the appropriate adapter into the flat wire harness connector in order to test the circuit in question.

Control Module/Component Voltage and Grounds

Poor voltage or ground connections can cause widely varying symptoms.

- Test all control module voltage supply circuits. Many vehicles have multiple circuits supplying voltage to a control module. Other components in the system may have separate voltage supply circuits that may also need to be tested. Inspect connections at the module/component connectors, fuses, and any intermediate connections between the voltage source and the module/component. A test lamp or a DMM may indicate that voltage is present, but neither tests the ability of the circuit to carry sufficient current. Operate the component to test the ability of the circuit to carry sufficient current. Refer to [Circuit Testing](#) , and [Power Distribution Schematics](#) .
- Test all control module ground and system ground circuits. The control module may have multiple ground circuits. Other components in the system may have separate grounds that may also need to be tested. Inspect grounds for clean and tight connections at the grounding point. Inspect the connections at the component and

packs, where applicable. Operate the component to test the ability of the circuit to carry sufficient current. Refer to [Circuit Testing](#) , and [Ground Distribution Schematics](#) .

Temperature Sensitivity

- An intermittent condition may occur when a component/connection reaches normal operating temperature. The condition may occur only when the component/connection is cold, or only when the component/connection is hot.
- Freeze Frame, Failure Records, Snapshot, or Vehicle Data Recorder data may help with this type of intermittent condition, where applicable.
- If the intermittent is related to heat, review the data for a relationship with the following:
 - High ambient temperatures
 - Underhood/engine generated heat
 - Circuit generated heat due to a poor connection, or high electrical load
 - Higher than normal load conditions, towing, etc.
- If the intermittent is related to cold, review the data for the following:
 - Low ambient temperatures - In extremely low temperatures, ice may form in a connection or component. Inspect for water intrusion.
 - The condition only occurs on a cold start.
 - The condition goes away when the vehicle warms up.
- Information from the customer may help to determine if the trouble follows a pattern that is temperature related.
- If temperature is suspected of causing an intermittent fault condition, attempt to duplicate the condition. Refer to [Inducing Intermittent Fault Conditions](#) in order to duplicate the conditions required.

Electromagnetic Interference and Electrical Noise

Some electrical components/circuits are sensitive to electromagnetic interference or other types of electrical noise. Inspect for the following conditions:

- A mis-routed harness that is too close to high voltage/high current devices such as secondary ignition components, motors, generator etc. - These components may induce electrical noise on a circuit that could interfere with normal circuit operation.
- Electrical system interference caused by a malfunctioning relay, or a control module driven solenoid or switch - These conditions can cause a sharp electrical surge. Normally, the condition will occur when the malfunctioning component is operating.
- Installation of non-factory or aftermarket add on accessories such as lights, 2-way radios, amplifiers, electric motors, remote starters, alarm systems, cell phones, etc. - These accessories may create interference in other circuits while operating and the interference would disappear when the accessory is not operating. Refer to [Checking Aftermarket Accessories](#) .
- Test for an open diode across the A/C compressor clutch and for other open diodes. Some relays may contain a clamping diode.
- The generator may be allowing AC noise into the electrical system.

Incorrect Control Module

- There are only a few situations where reprogramming a control module is appropriate:
 - A new service control module is installed.
 - A control module from another vehicle is installed.
 - Revised software/calibration files have been released for this vehicle.

DO NOT re-program the Control module with the SAME software/calibration files that are already present in the control module. This is not an effective repair for any type of concern.

- Verify that the control module contains the correct software/calibration. If incorrect programming is found, reprogram the control module with the most current software/calibration. Refer to [Control Module References](#) for replacement, setup, and programming.

FRONT FLOOR CONSOLE COMPARTMENT DOOR LATCH REPLACEMENT

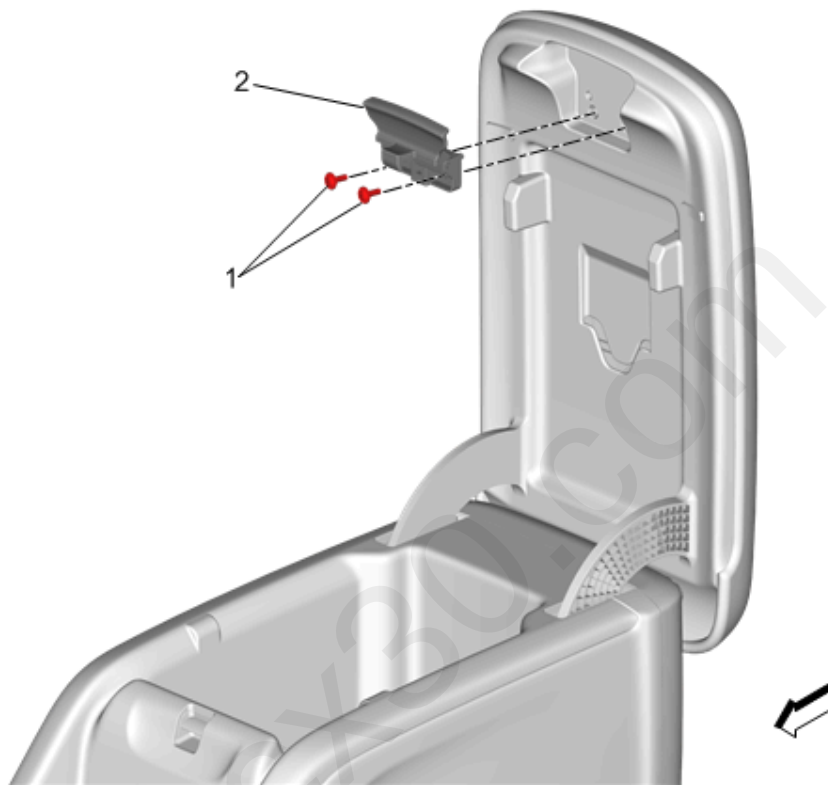


Fig. 79: Front Floor Console Compartment Door Latch
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Floor Console Armrest Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Floor Console Compartment Door Latch

FRONT FLOOR CONSOLE CUP HOLDER LINER REPLACEMENT

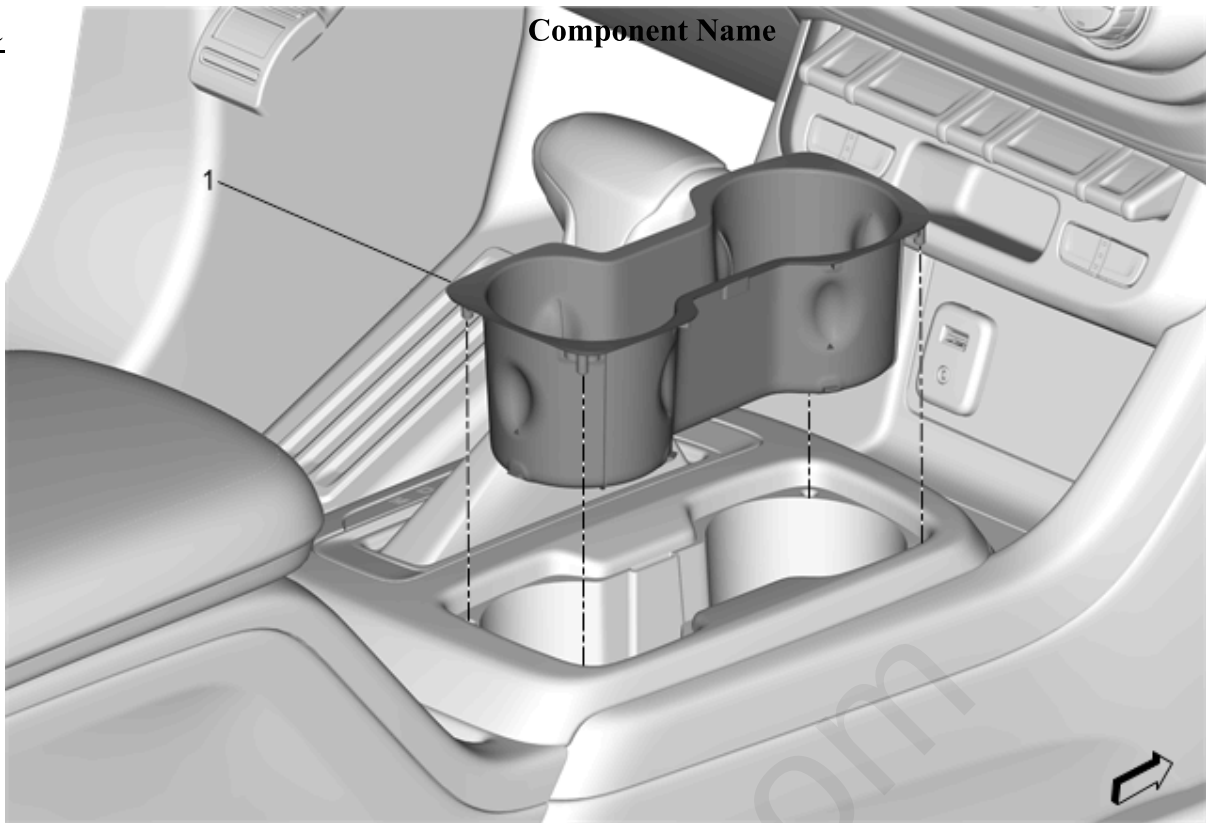


Fig. 80: Front Floor Console Cup Holder Liner
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Floor Console Cup Holder Liner

FRONT FLOOR CONSOLE COMPARTMENT REPLACEMENT (AUTOMATIC TRANSMISSION)

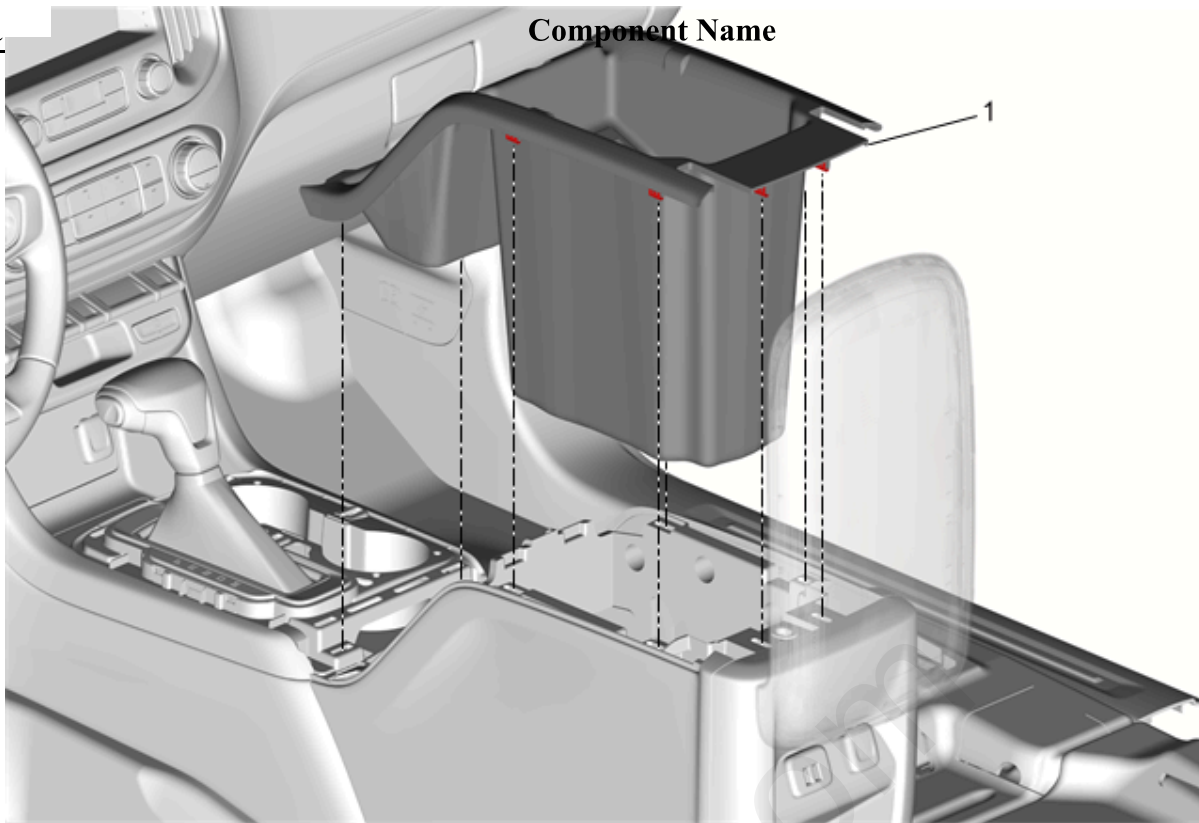


Fig. 81: Front Floor Console Compartment (Automatic Transmission)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front floor console trim plate. Refer to Front Floor Console Trim Plate Replacement .	
1	Front Floor Console Compartment Procedures 1. Use a flat-bladed plastic trim tool to release the 8 retainer clips securing the compartment to the front floor console assembly. 2. Disconnect electrical connections, if applicable. 3. Transfer components as necessary.

FRONT FLOOR CONSOLE COMPARTMENT REPLACEMENT (MANUAL TRANSMISSION)

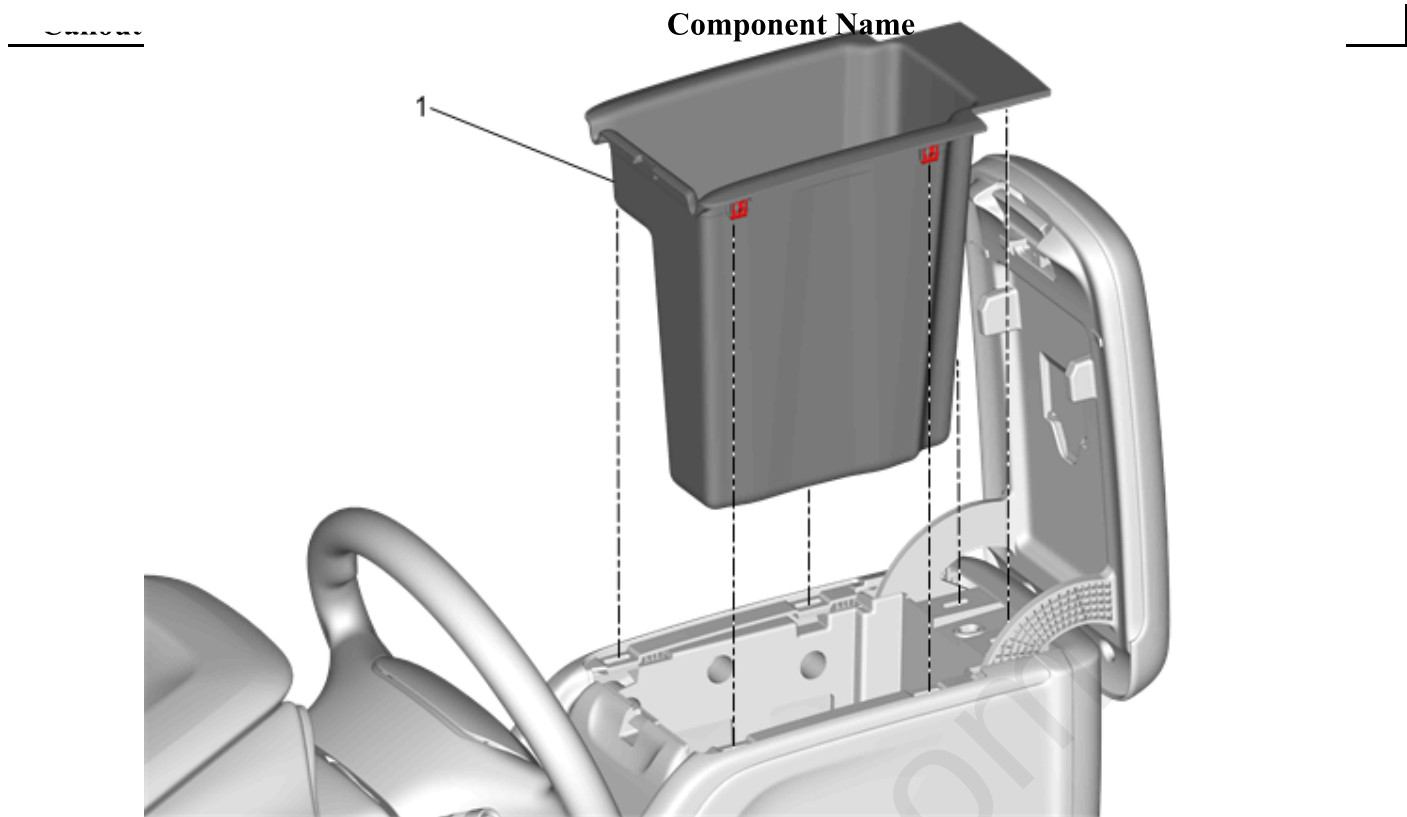


Fig. 82: Front Floor Console Compartment (Manual Transmission)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Floor Console Compartment Procedures 1. Use a flat-bladed plastic trim tool to release the 6 retainers securing the compartment to the front floor console assembly. 2. Disconnect electrical connections, if applicable. 3. Transfer components as necessary.

FRONT FLOOR CONSOLE ACCESSORY TRIM PLATE REPLACEMENT

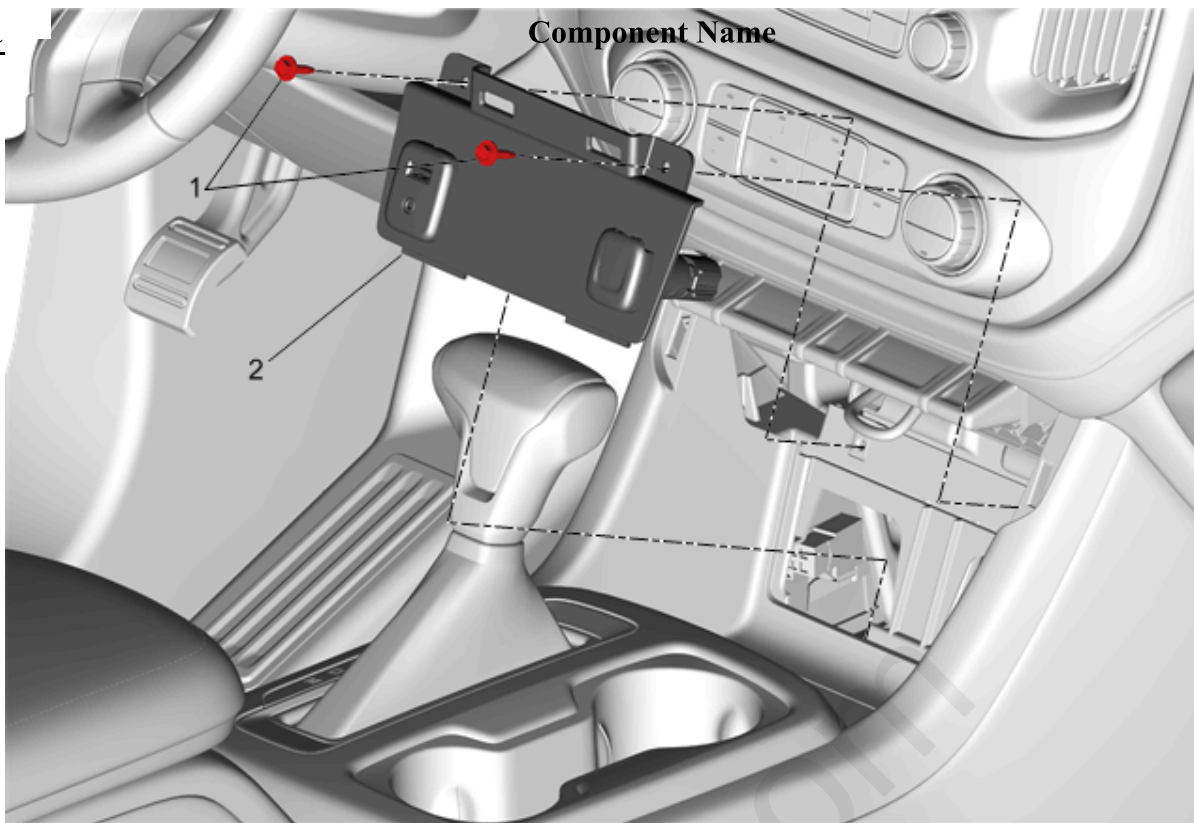


Fig. 83: Front Floor Console Accessory Trim Plate

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the instrument panel accessory bezel. Refer to Instrument Panel Accessory Bezel Replacement .	
1	Front Floor Console Bolt (Qty: 2) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Floor Console Accessory Trim Plate Procedures 1. Disconnect electrical connections, if applicable. 2. Transfer components as necessary.

FRONT FLOOR CONSOLE REAR TRIM PANEL REPLACEMENT

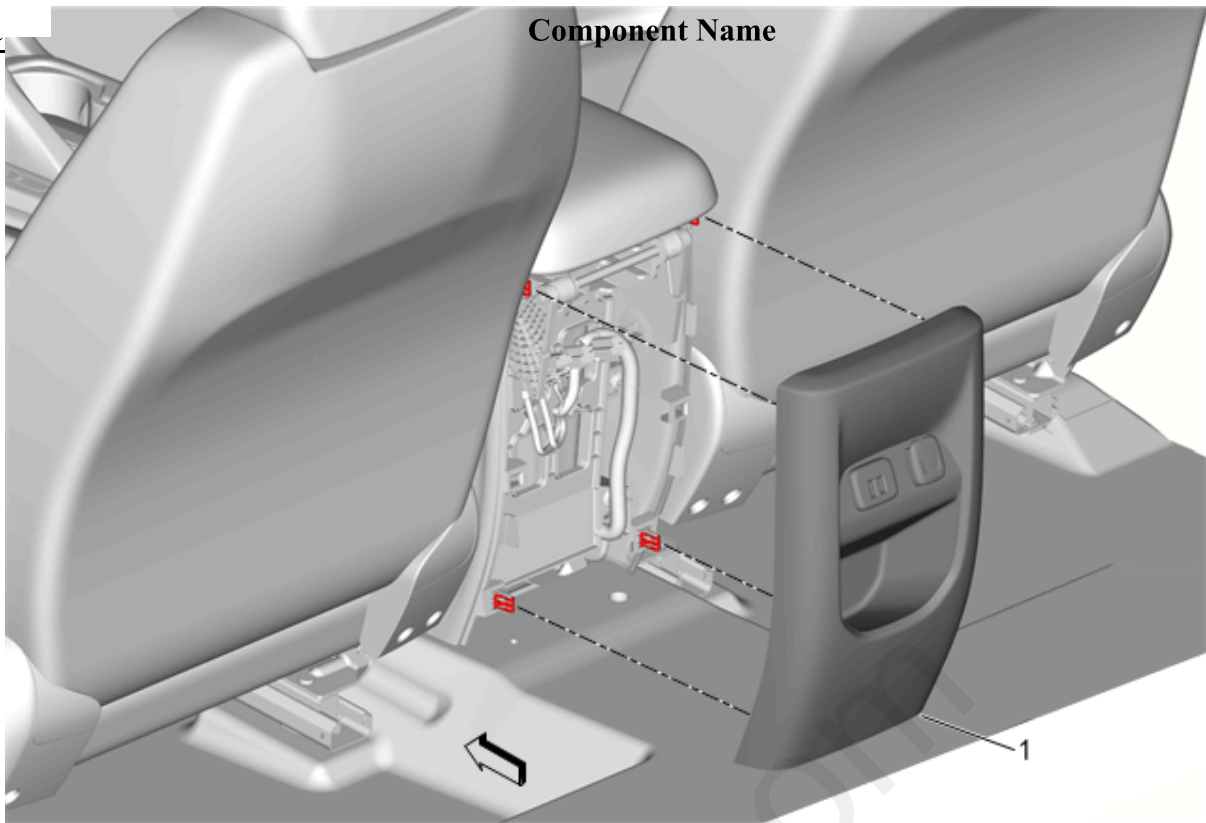


Fig. 84: Front Floor Console Rear Trim Panel
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Floor Console Rear Trim Panel Procedure 1. Use a flat bladed plastic trim tool in order to release the 4 retainer clips securing the trim panel to the front floor console assembly. 2. Disconnect the electrical connection. 3. When replacing the trim panel, transfer all necessary components.

FRONT FLOOR CONSOLE EXTENSION PANEL REPLACEMENT

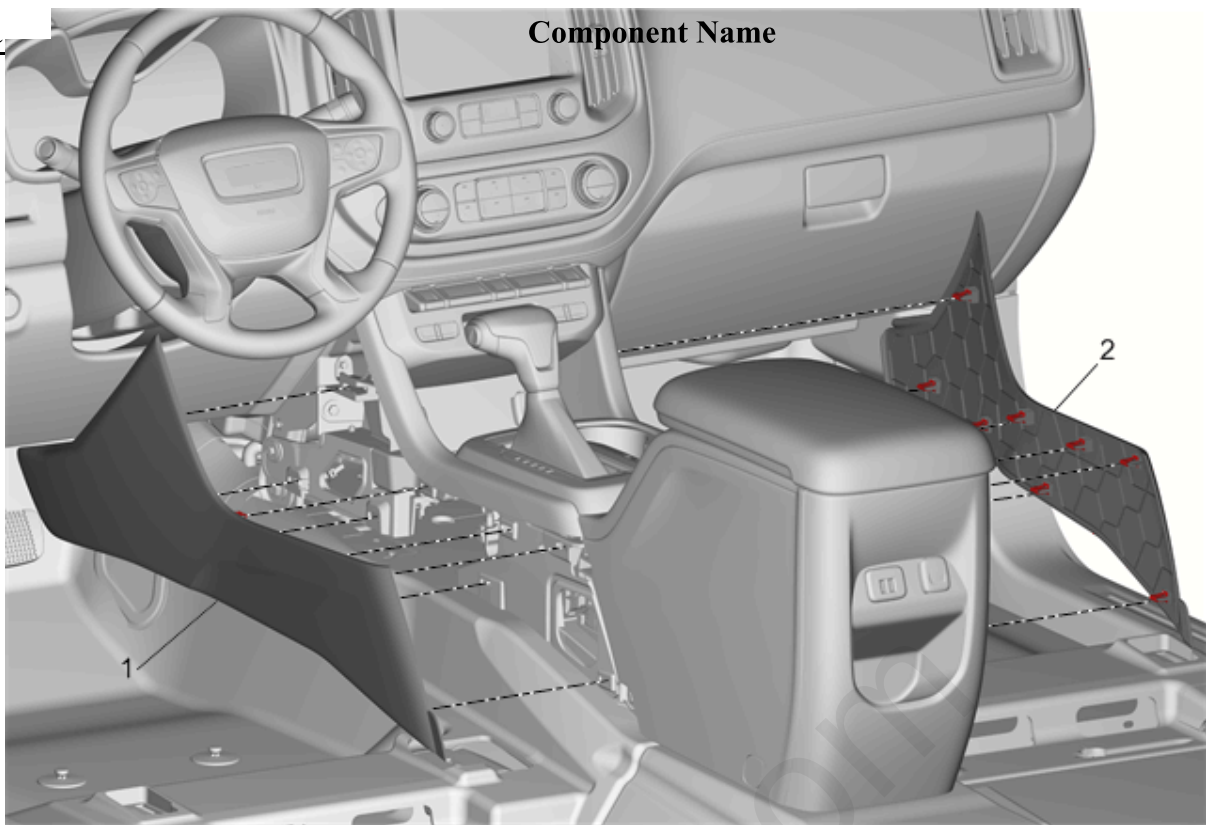


Fig. 85: Front Floor Console Extension Panel
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Front Floor Console Extension Panel - Left Procedure 1. Move the front seat forward to access the retainers at the rear of the panel. 2. Use a flat bladed plastic trim tool to aid in the removal of the panel from the front floor console assembly.
2	Front Floor Console Extension Panel - Right Procedure 1. Move the front seat forward to access the retainers at the rear of the panel. 2. Use a flat bladed plastic trim tool to aid in the removal of the panel from the front floor console assembly.

AUDIO DISC PLAYER AND USB RECEPTACLE OPENING COVER REPLACEMENT

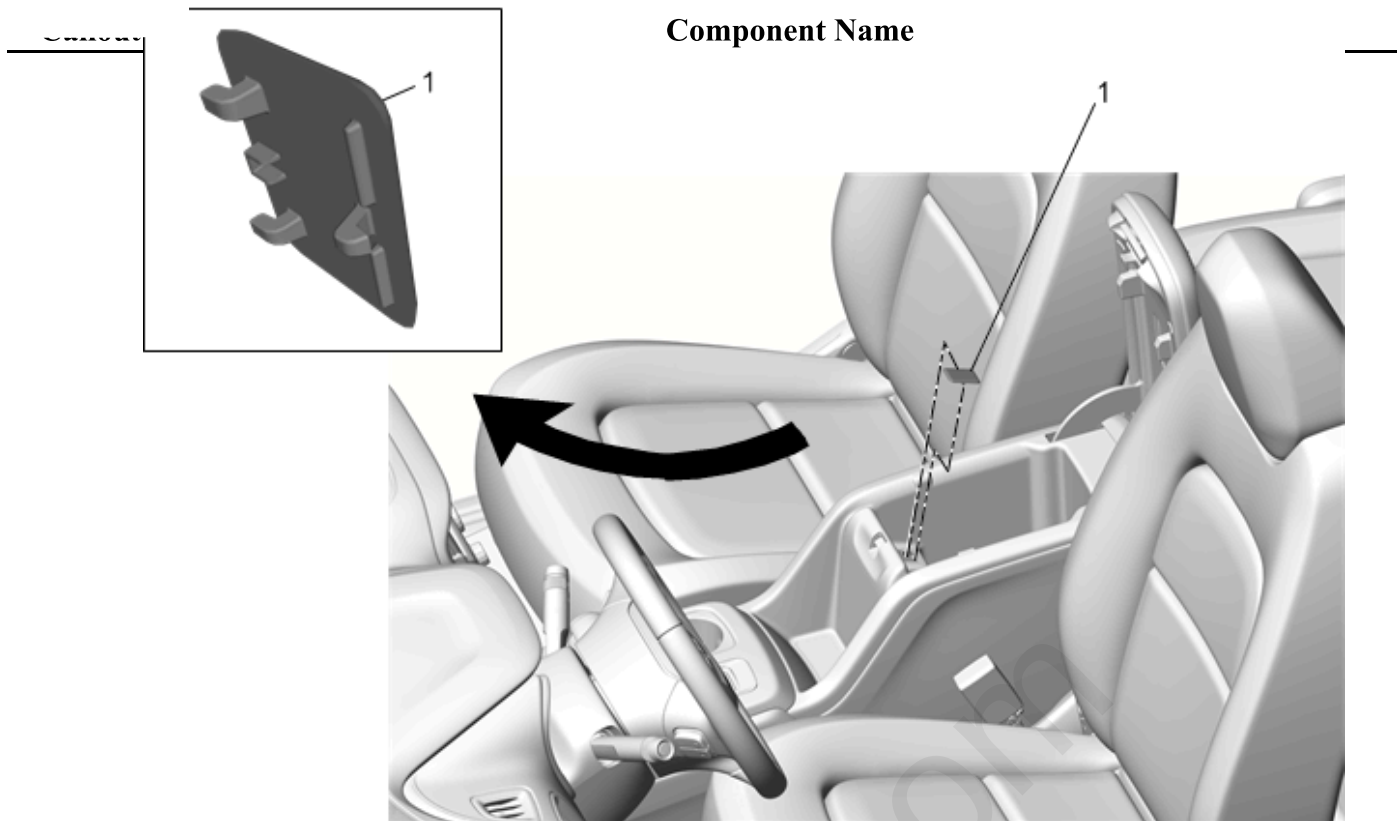


Fig. 86: Audio Disc Player and USB Receptacle Opening Cover

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Audio Disc Player and USB Receptacle Opening Cover Procedure Use a flat bladed plastic trim tool on the left side of the cover to release the tab.

FRONT FLOOR CONSOLE CUP HOLDER OPENING TRIM PLATE REPLACEMENT (MANUAL TRANSMISSION)

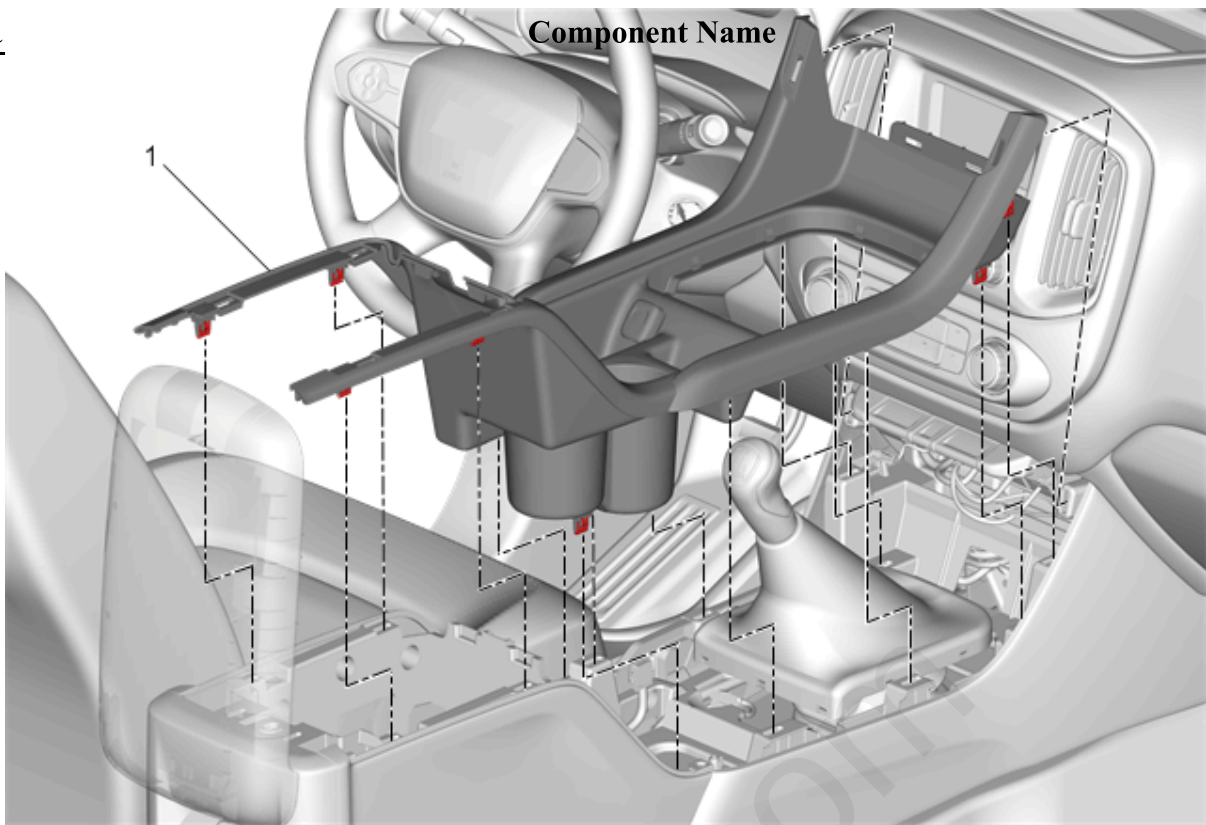


Fig. 87: Front Floor Console Cup Holder Opening Trim Plate (Manual Transmission)

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Release the tabs securing the transmission control lever boot to the front floor console trim plate. Refer Transmission Control Lever Boot Replacement . 2. Remove the front floor console compartment. Refer to Front Floor Console Compartment Replacement (Automatic Transmission)Front Floor Console Compartment Replacement (Manual Transmission). 3. Remove the instrument panel accessory bezel. Refer to Instrument Panel Accessory Bezel Replacement.	
1	Front Floor Console Cup Holder Opening Trim Plate Procedures 1. Use a flat-bladed plastic trim tool to release the 16 retainer clips securing the trim plate to the front floor console assembly. 2. Disconnect electrical connections, if applicable. 3. Transfer components as necessary.

FRONT FLOOR CONSOLE CUP HOLDER OPENING TRIM PLATE REPLACEMENT (AUTOMATIC TRANSMISSION)

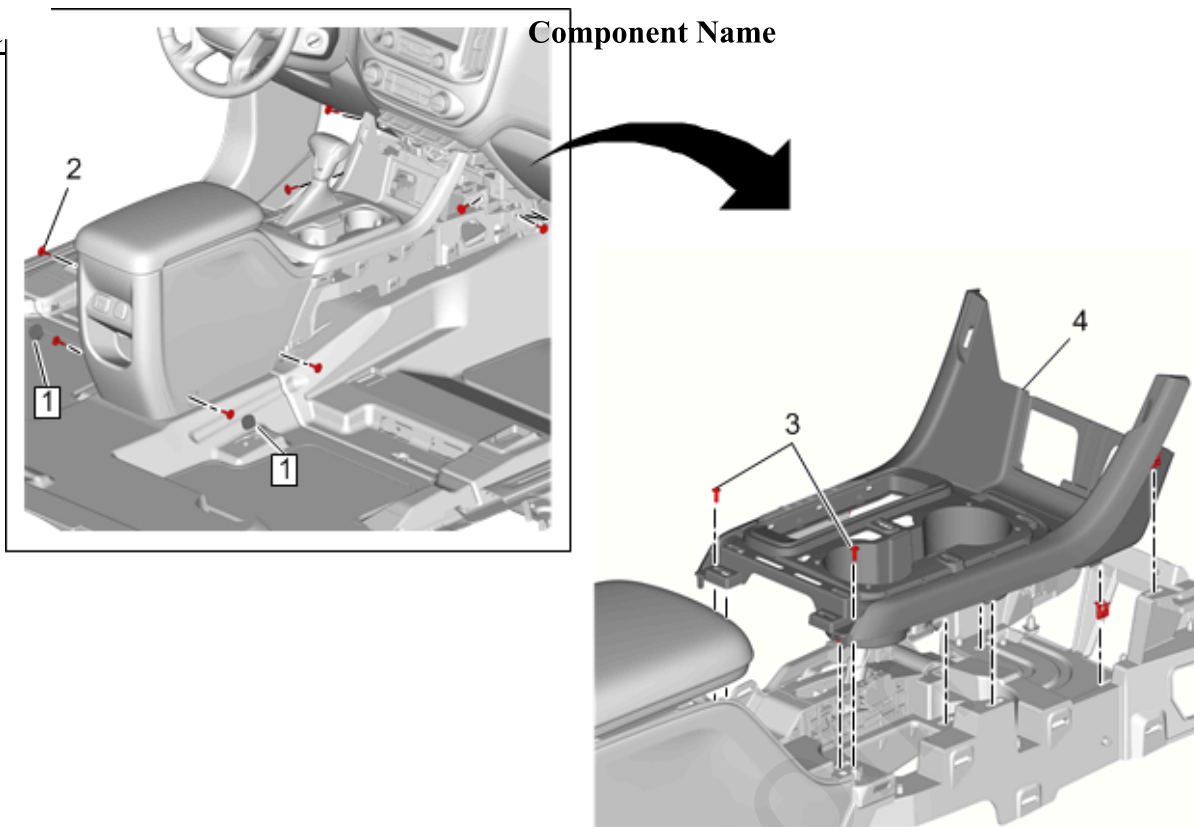
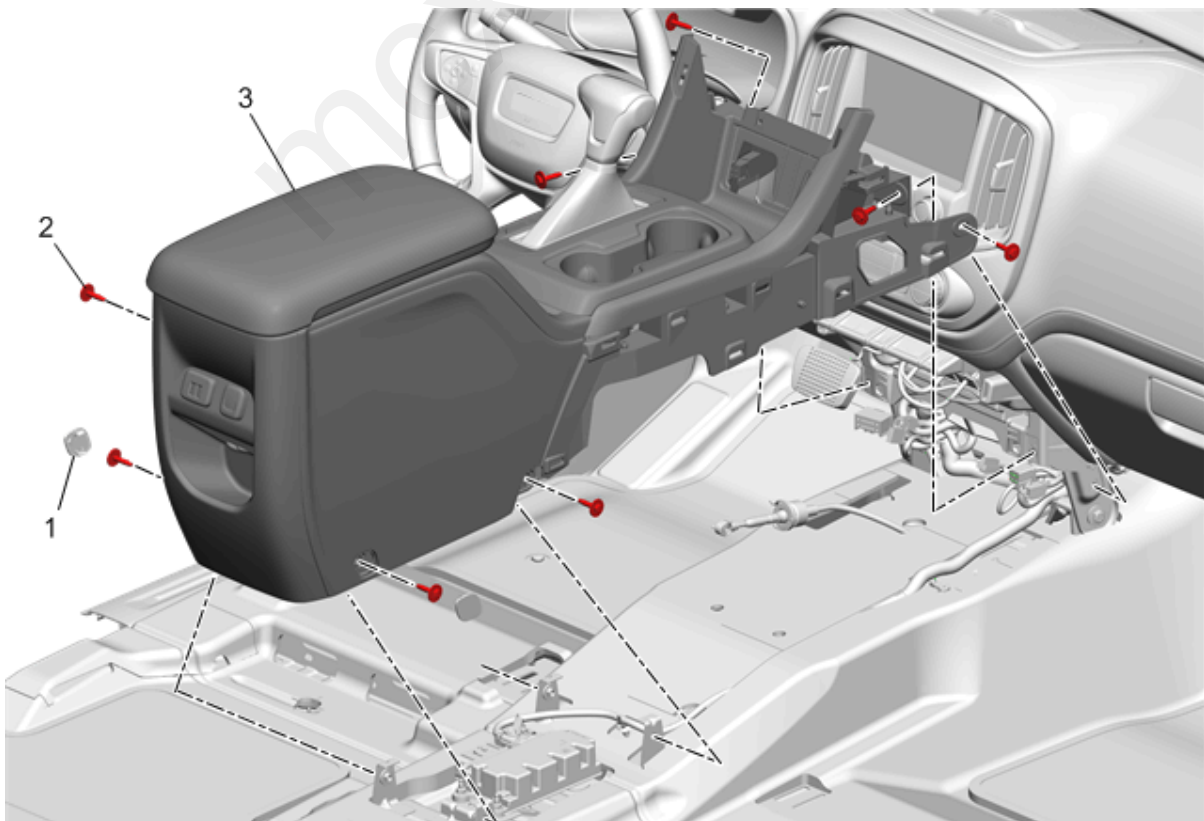


Fig. 88: Front Floor Console Cup Holder Opening Trim Plate (Automatic Transmission)
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the front floor console extension panel. Refer to Front Floor Console Extension Panel Replacement. 2. Remove the transmission control lever knob. Refer to Transmission Control Lever Knob Replacement. 3. Remove the front floor console trim plate. Refer to Front Floor Console Trim Plate Replacement. 4. Remove the front floor console compartment. Refer to Front Floor Console Compartment Replacement (Automatic Transmission)Front Floor Console Compartment Replacement (Manual Transmission). 5. Remove the front floor console accessory trim plate. Refer to Front Floor Console Accessory Trim Plate Replacement.	
1	Front Floor Console Extension Panel Bolt Access Hole Cover (Qty: 2) Procedure Use a suitable tool in order to release the covers from the front floor console assembly.

	Component Name
2	Front Floor Console Bolt(Qty: 8) CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in) Procedure 1. Reposition both front seats as necessary to access the console bolts. 2. Move the entire console rearward 50 mm.
3	Front Floor Lower Console Bolt (Qty: 2) Tighten 2.5 N.m (22 lb in)
4	Front Floor Console Cup Holder Opening Trim Plate Procedure 1. Use a flat-bladed plastic trim tool to release the retainer clips securing the trim plate to the front floor console assembly. 2. Disconnect electrical connections, if applicable. 3. Transfer components as necessary.

FRONT FLOOR CONSOLE REPLACEMENT



Callout	Component Name
Preliminary Procedures 1. <u>Front Floor Console Extension Panel Replacement</u> 2. <u>Front Floor Console Accessory Trim Plate Replacement</u> 3. Disconnect the transmission range selector lever cable terminal from the shift lever pin. 4. Release the transmission range selector lever cable retainer and remove the transmission range selector cable from the transmission control.	
1	Front Floor Console Extension Panel Bolt Access Hole Cover <p01> Procedure Use a suitable tool in order to release the covers from the front floor console assembly.
2	Front Floor Console Bolt <p01> CAUTION: Refer to <u>Fastener Caution</u> . Procedure Reposition both front seats as necessary to access the console bolts. Tighten 9 N.m (80 lb in)
3	Front Floor Console Procedure 1. Disconnect electrical connections, if applicable. 2. With the aid of an assistant lift the floor console rearward and upward away from the instrument panel assembly. 3. Transfer components as necessary.

FRONT FLOOR CONSOLE ARMREST REPLACEMENT

Removal Procedure

1. Remove the front floor console rear trim panel. Refer to **Front Floor Console Rear Trim Panel Replacement**.

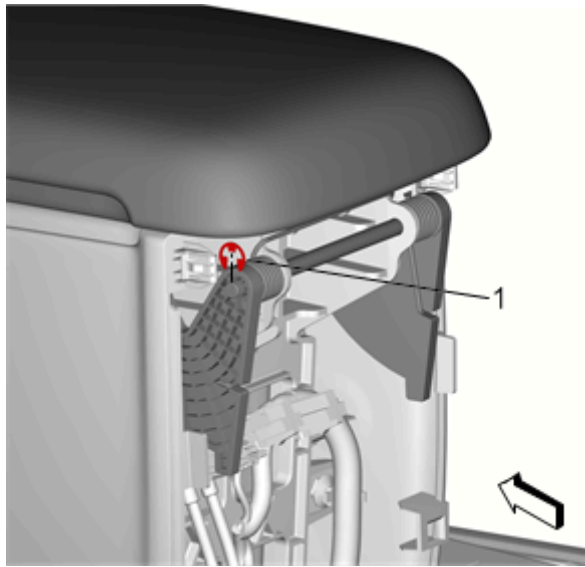


Fig. 90: Front Floor Console Armrest Hinge Clip
 Courtesy of GENERAL MOTORS COMPANY

2. Use a suitable tool to release the front floor console armrest hinge clip (1) from the pivot pin.
3. Position the front seat as needed to access the front floor console armrest pivot pin.

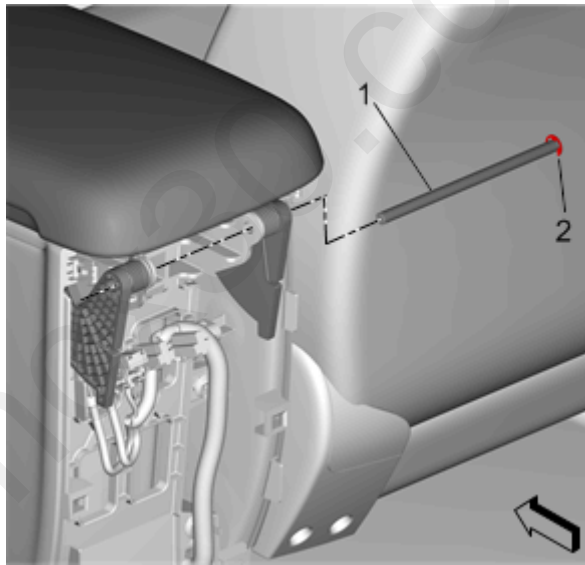


Fig. 91: Front Floor Console Armrest Pivot Pin
 Courtesy of GENERAL MOTORS COMPANY

NOTE: Open armrest to remove.

4. Remove the front floor console armrest pivot pin (1) and hinge clip (2) from the armrest assembly.

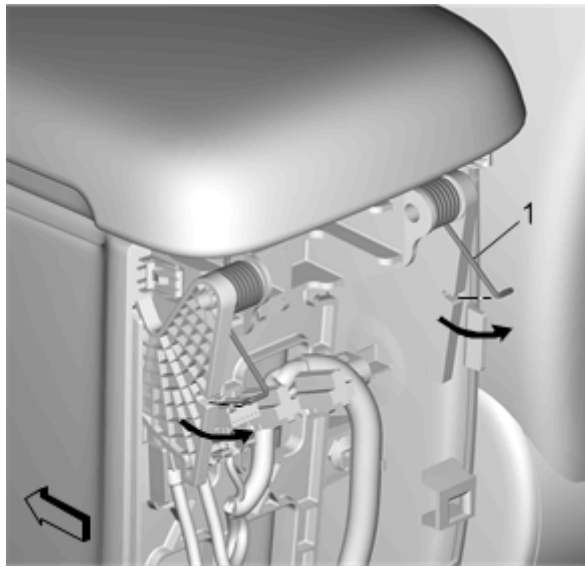


Fig. 92: Front Floor Console Armrest Hinge Spring
Courtesy of GENERAL MOTORS COMPANY

5. Use a suitable tool to release the ends of the front floor console armrest hinge spring (1) from the armrest hinge.

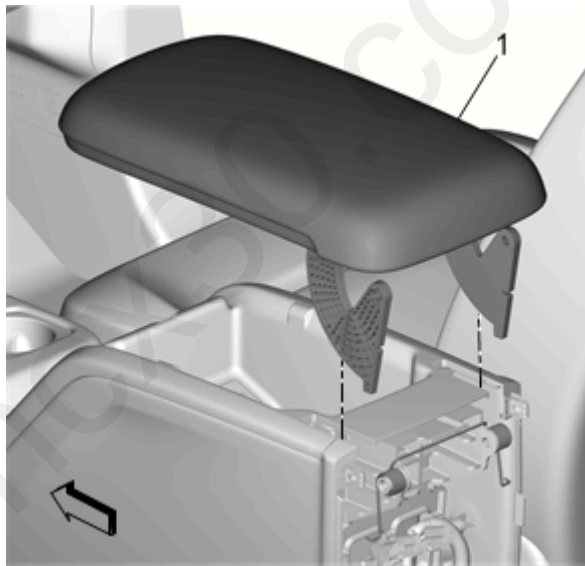


Fig. 93: Front Floor Console Armrest
Courtesy of GENERAL MOTORS COMPANY

6. Remove the front floor console armrest (1) from the front floor console assembly.

Installation Procedure

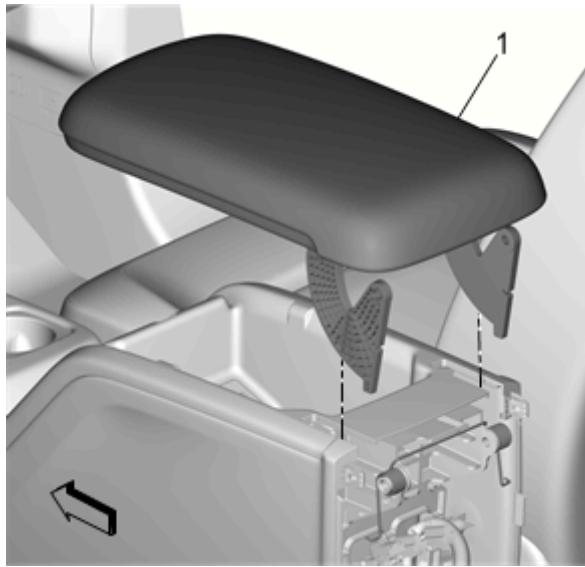


Fig. 94: Front Floor Console Armrest

Courtesy of GENERAL MOTORS COMPANY

1. Install the front floor console armrest (1) to the front floor console assembly.

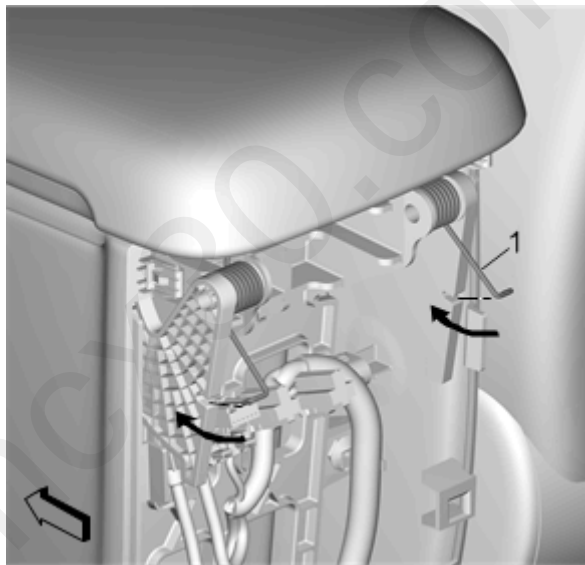


Fig. 95: Hinge Spring

Courtesy of GENERAL MOTORS COMPANY

2. Attach the ends of the front floor console armrest hinge spring (1) to the armrest hinge.

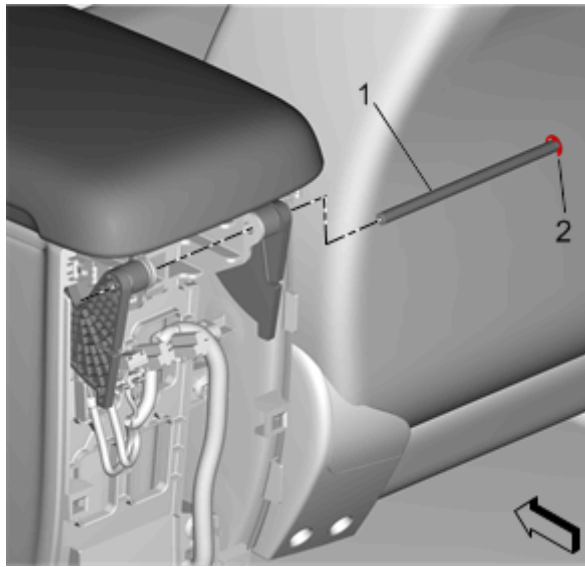


Fig. 96: Front Floor Console Armrest Pivot Pin

Courtesy of GENERAL MOTORS COMPANY

NOTE: Open armrest to install.

3. Install the front floor console armrest pivot pin (1) and hinge clip (2) to the armrest assembly.

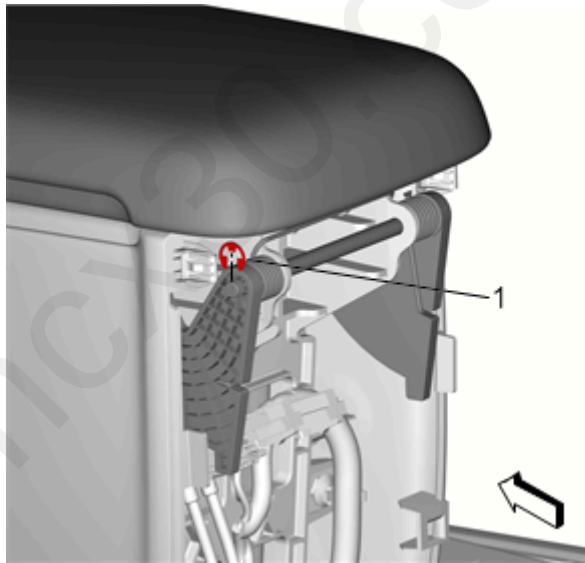


Fig. 97: Front Floor Console Armrest Hinge Clip

Courtesy of GENERAL MOTORS COMPANY

4. Install the front floor console armrest hinge clip (1) to the end of the pivot pin.
5. Install the front floor console rear trim panel. Refer to [Front Floor Console Rear Trim Panel Replacement](#).

FRONT FLOOR CONSOLE OUTER ARMREST REPLACEMENT

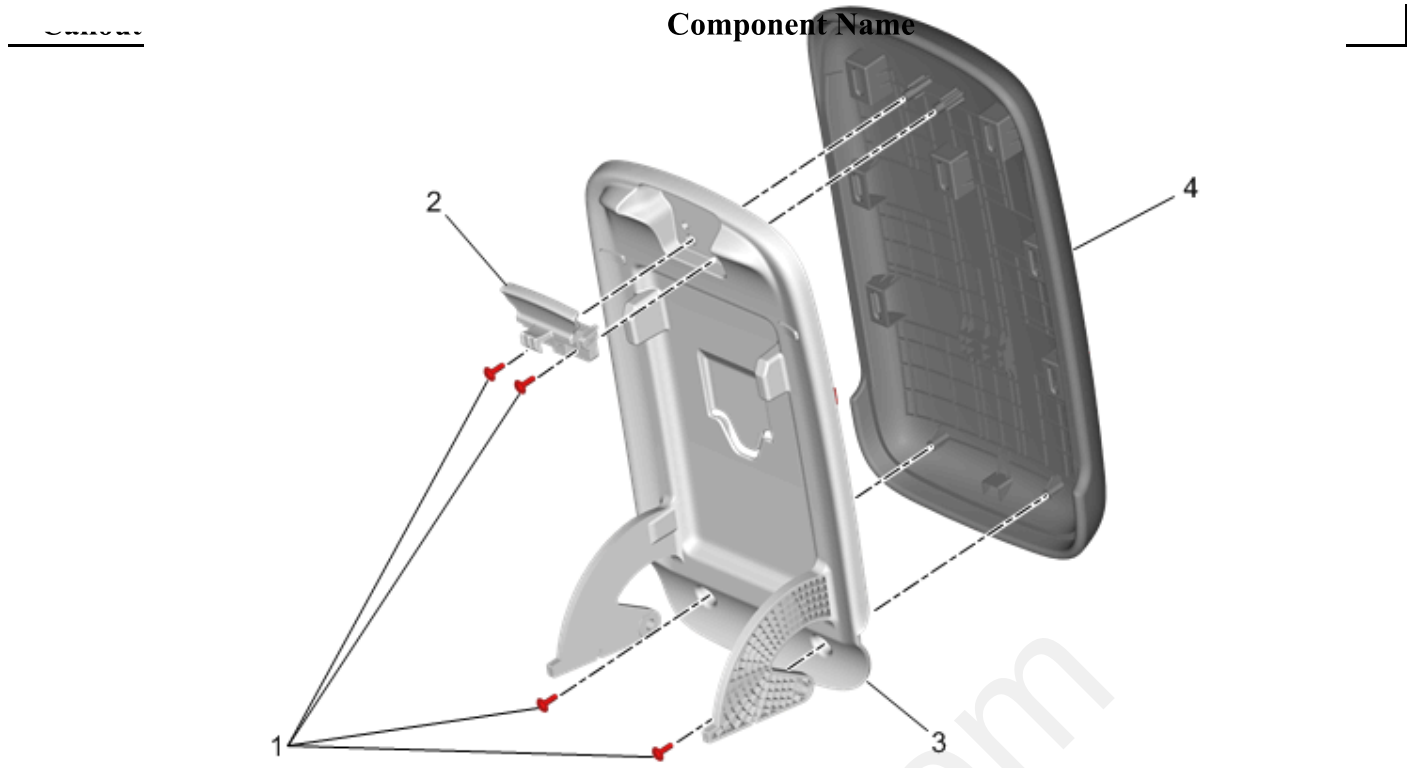


Fig. 98: Front Floor Console Outer Armrest
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front floor console armrest. Refer to Front Floor Console Armrest Replacement .	
1	Front Floor Console Armrest Bolt(Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Floor Console Compartment Door Latch
3	Front Floor Console Armrest Hinge Cover
4	Front Floor Console Outer Armrest Procedure Use a flat bladed plastic trim tool in order to release the 6 retainer clips securing the outer armrest to the armrest hinge cover.

FRONT FLOOR CONSOLE ARMREST HINGE COVER REPLACEMENT

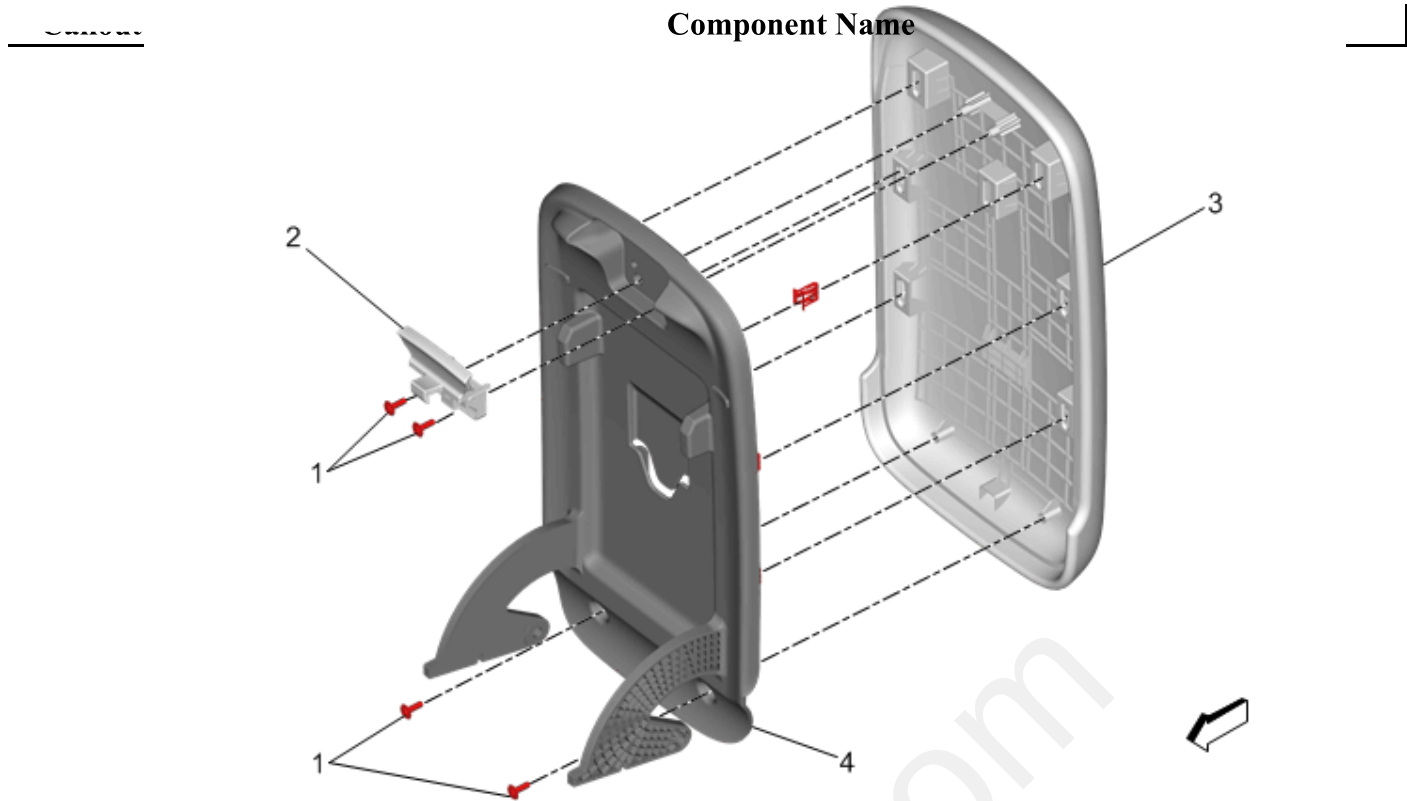


Fig. 99: Front Floor Console Armrest Hinge Cover
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Remove the front floor console armrest. Refer to Front Floor Console Armrest Replacement .	
1	Front Floor Console Armrest Bolt (Qty: 4) CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Floor Console Compartment Door Latch
3	Front Floor Console Outer Armrest Procedure Use a flat bladed plastic trim tool in order to release the 6 retainer clips securing the outer armrest to the armrest hinge cover.
4	Front Floor Console Armrest Hinge Cover

FRONT FLOOR CONSOLE TRIM PLATE REPLACEMENT

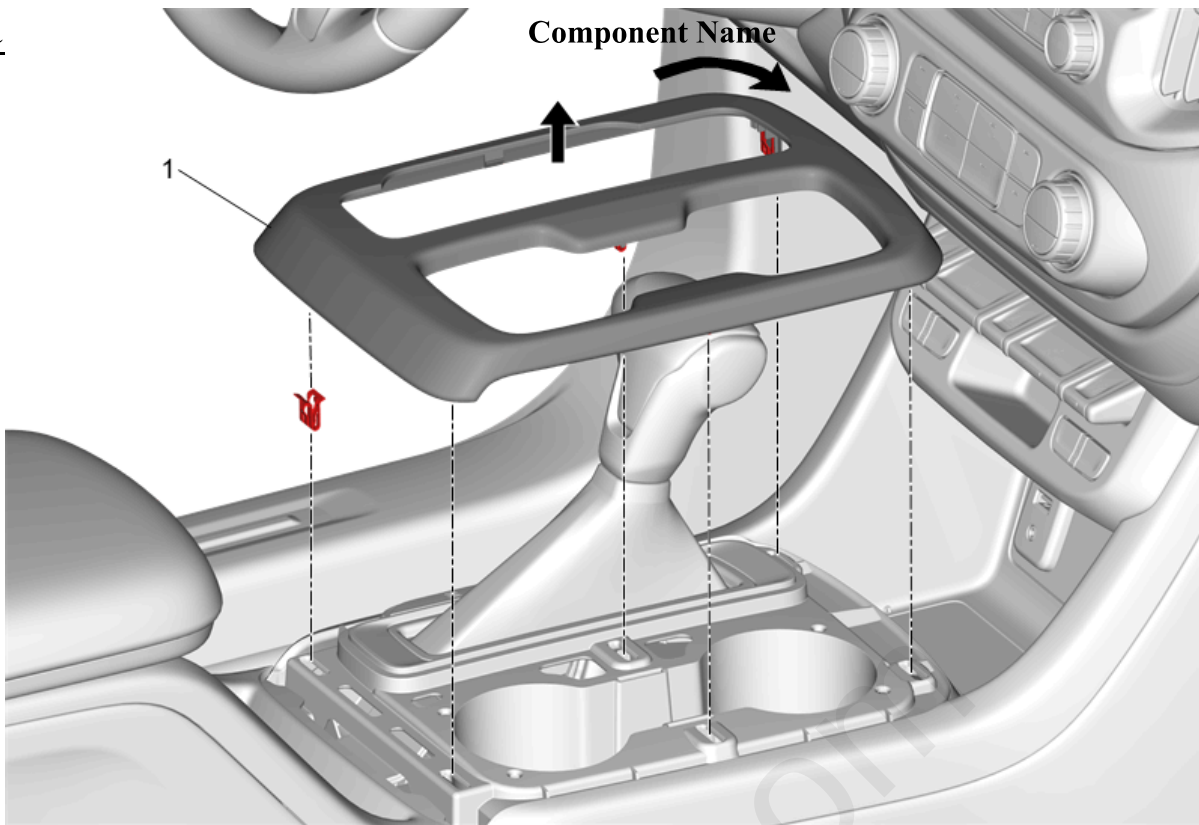


Fig. 100: Front Floor Console Trim Plate
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure <u>Front Floor Console Cup Holder Liner Replacement</u>	
1	Front Floor Console Trim Plate Procedure 1. Use a flat bladed plastic tool to remove. 2. Manipulate the trim plate over the shift knob to remove. 3. Transfer components as necessary.

ROOF CONSOLE REPLACEMENT

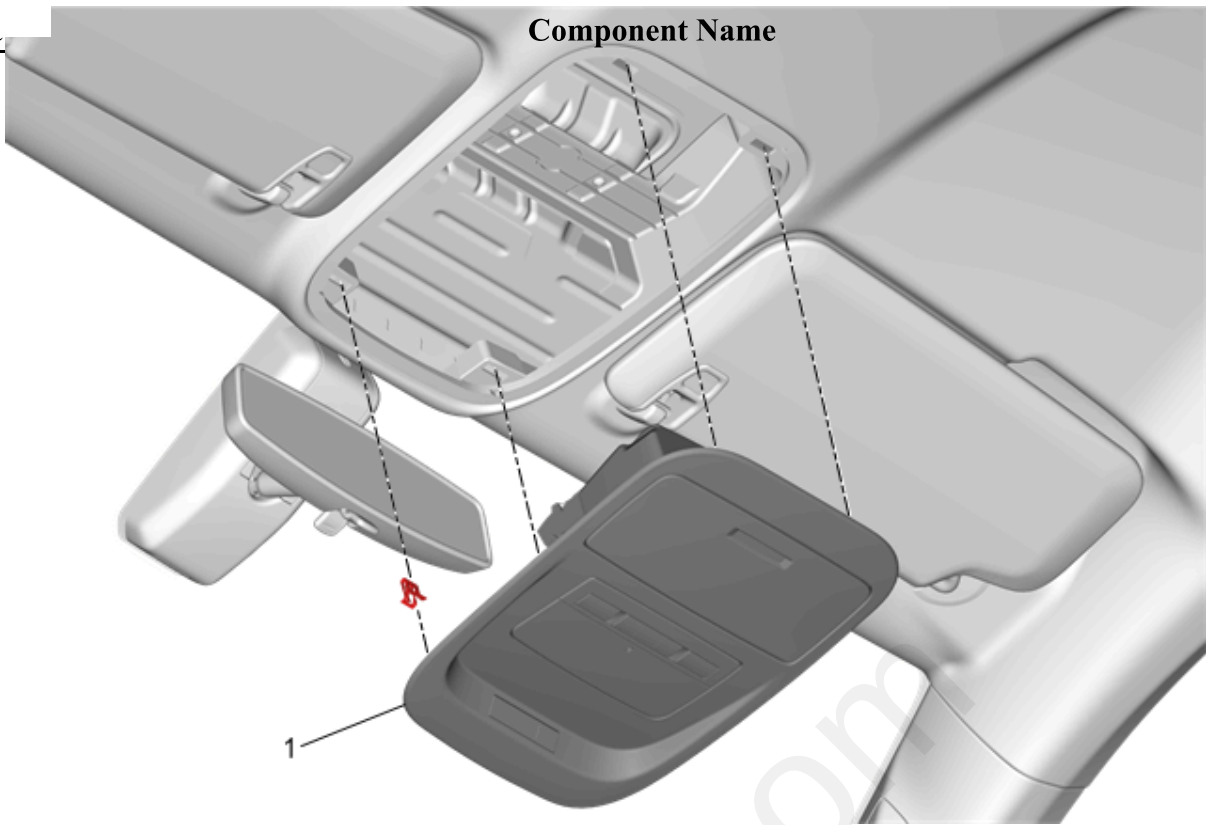


Fig. 101: Roof Console

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
1	Roof Console Procedure 1. Grasp the sides of the roof console assembly and pull downward using equal force on each side in order to release the four retainer clips securing the roof console to the headlining assembly. 2. Disconnect electrical connections, if applicable. 3. Transfer components as necessary.