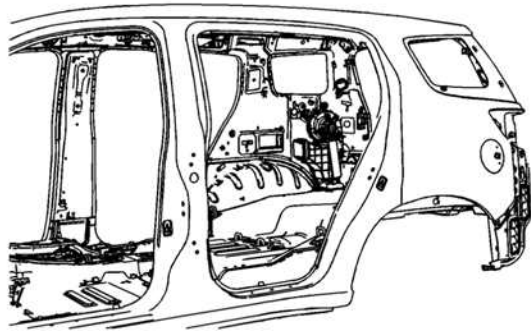


2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

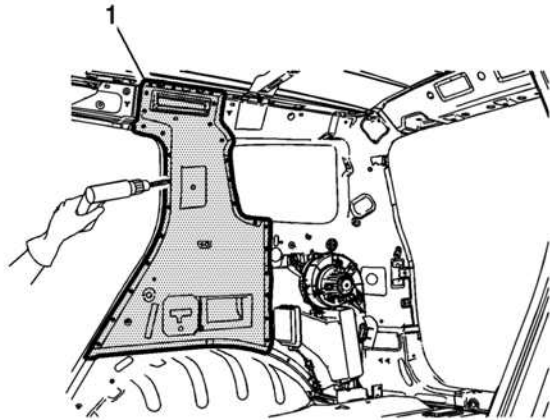
Removal Procedure



Warning: Refer to Approved Equipment for Collision Repair Warning.

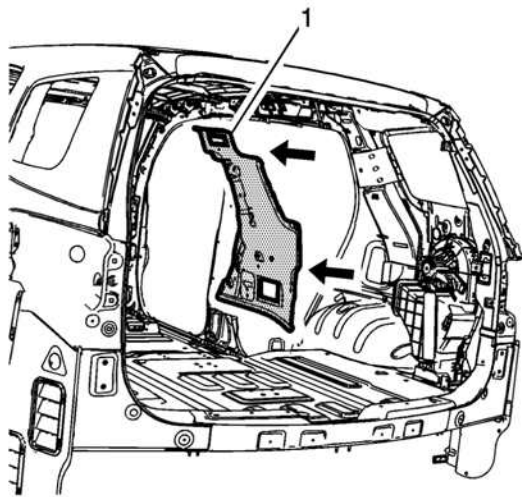
Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the supplemental inflatable restraint (SIR) system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

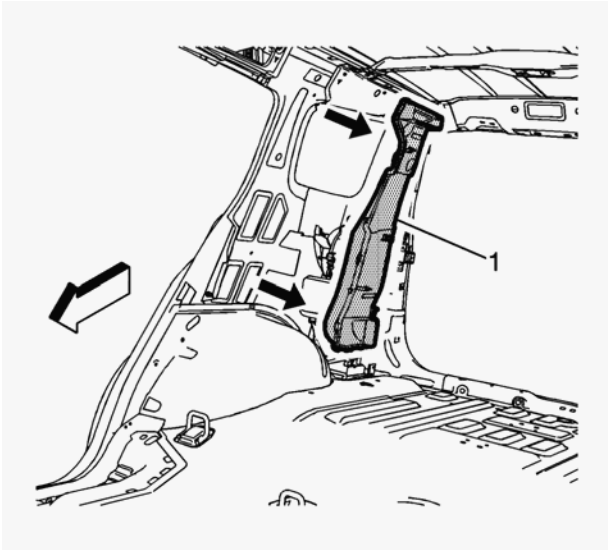


Note: The quarter inner panel will not be removed. The collision repair technician will release the quarter inner panel to access and remove the auxiliary air conditioning air duct.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service panel.

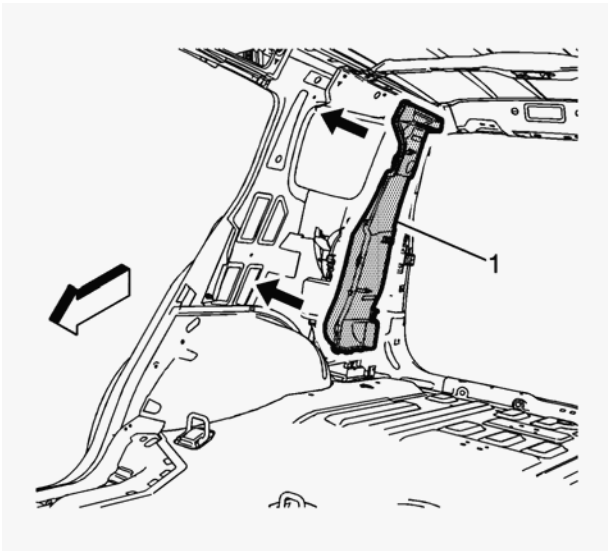


7. Gentle bend the quarter inner panel (1) to gain access to the auxiliary air conditioning air duct.
8. Using the proper tool, release the auxiliary air conditioning air duct clamps.

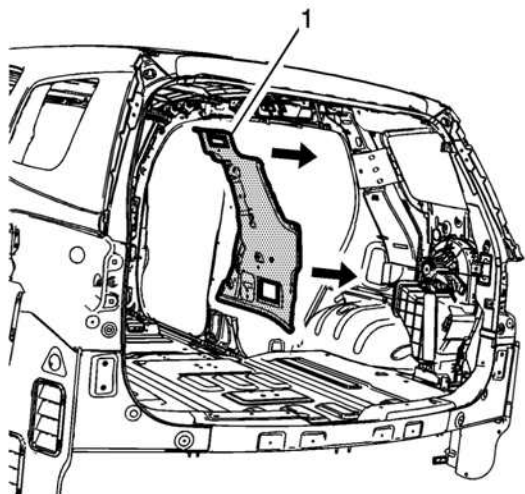


9. Remove the damaged auxiliary air conditioning air duct (1) from the vehicle.

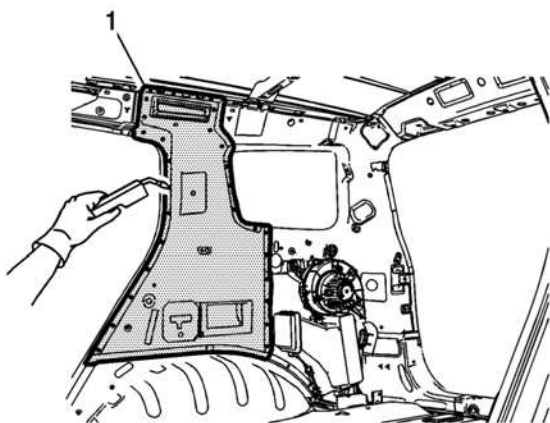
Installation Procedure



1. Position the auxiliary air conditioning air duct (1).
2. Clamp the auxiliary air conditioning air duct (1) in place.



3. Position the inner quarter panel (1) to the vehicle.



4. Plug weld accordingly (1).
5. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
7. Install all related panels and components.
8. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
9. Enable the SIR system. Refer to SIR Disabling and Enabling.

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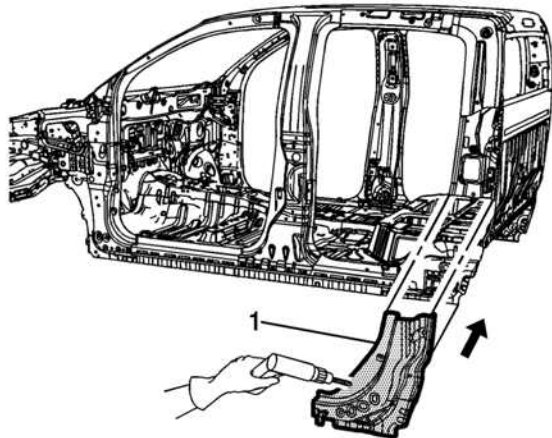
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Perform additional procedures as necessary. Refer to Rear End Panel Replacement, Rocker Outer Panel Sectioning, Roof Outer Panel Replacement and Outer Door Frame Sectioning.
5. Restore as much of the damage as possible to factory specifications using 3-dimensional measuring equipment.

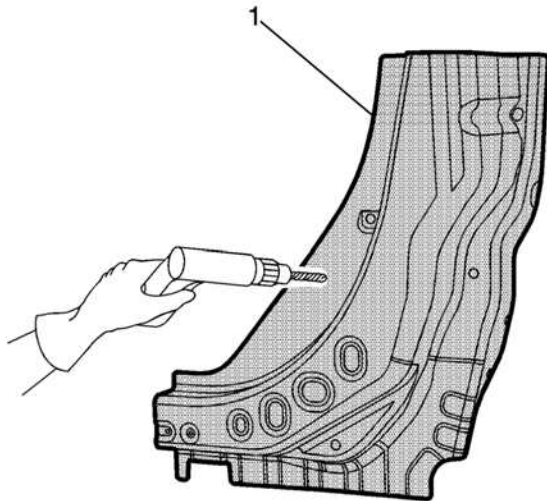


6. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary (1). Refer to Anti-Corrosion Treatment and Repair.

Note:

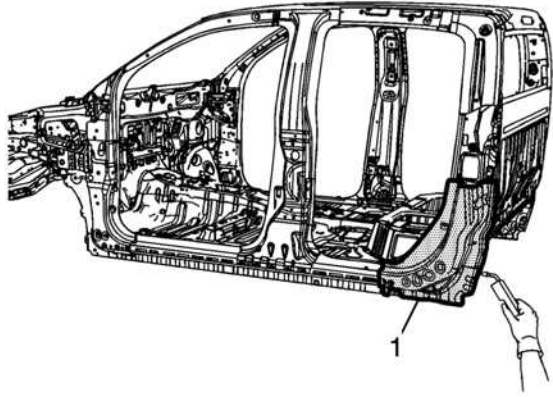
- Do not damage any inner panels or reinforcements.
 - Record the number and location of the original welds for installation of the service part.
7. Locate and drill out all factory welds (1).
 8. Remove the damaged inner rocker panel (1).

Installation Procedure



Note: If the location of the original plug welds cannot be determined or structural weld-thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary (1), in the locations noted from the original panel.
2. Prepare all attachment surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the inner rocker panel (1).
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.
7. Plug weld accordingly (1).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
10. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
13. Enable the SIR system. Refer to SIR Disabling and Enabling.

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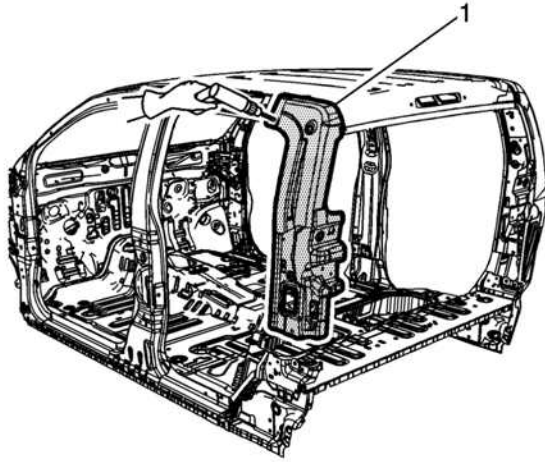
Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

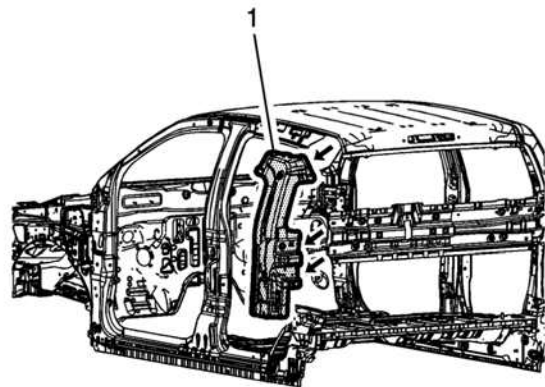
Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Perform additional procedures as necessary. Refer to Rear End Panel Replacement, Rocker Outer Panel Sectioning, Roof Outer Panel Replacement and Outer Door Frame Sectioning.
5. Restore as much of the damage as possible to factory specifications using 3-dimensional measuring equipment.
6. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

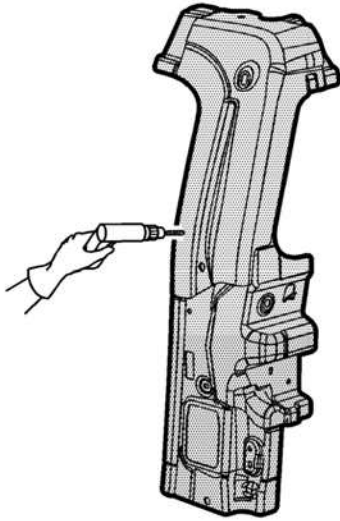


Note:

- Do not damage any inner panels or reinforcements.
 - Record the number and location of the original welds for installation of the service part.
7. Locate and drill out all factory welds (1).

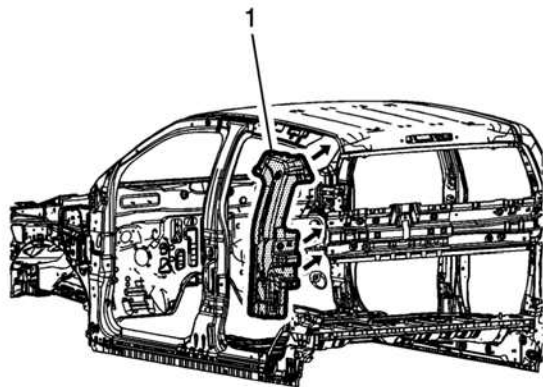


8. Remove the damaged back body pillar inner panel reinforcement (1).

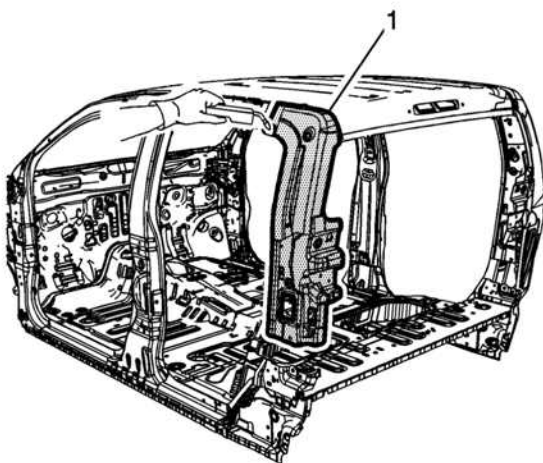


Note: If the location of the original plug welds cannot be determined or structural weld-thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary (1), in the locations noted from the original panel.
2. Prepare all attachment surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the back body pillar inner panel (1).
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.



7. Plug weld accordingly (1).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

10. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
13. Enable the SIR system. Refer to SIR Disabling and Enabling.

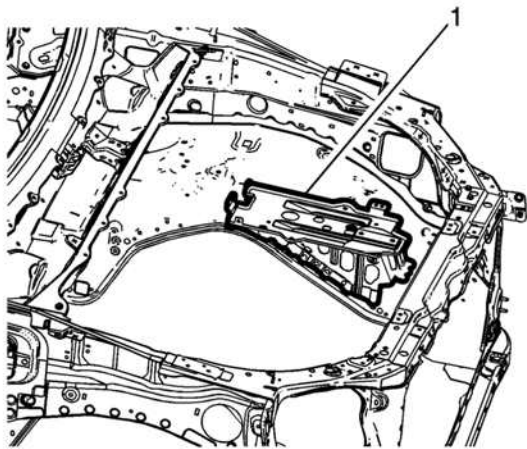
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

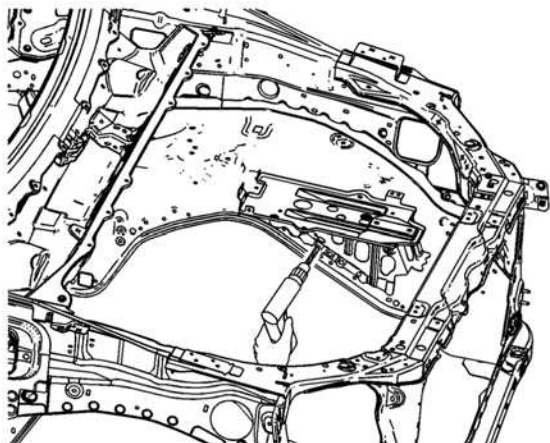
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.

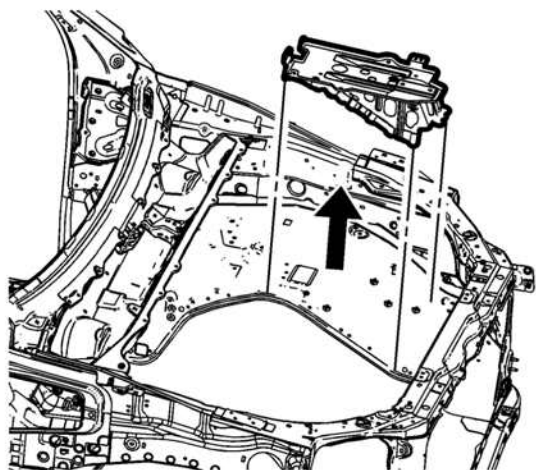


2. Remove all related panels (1) and components.
3. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



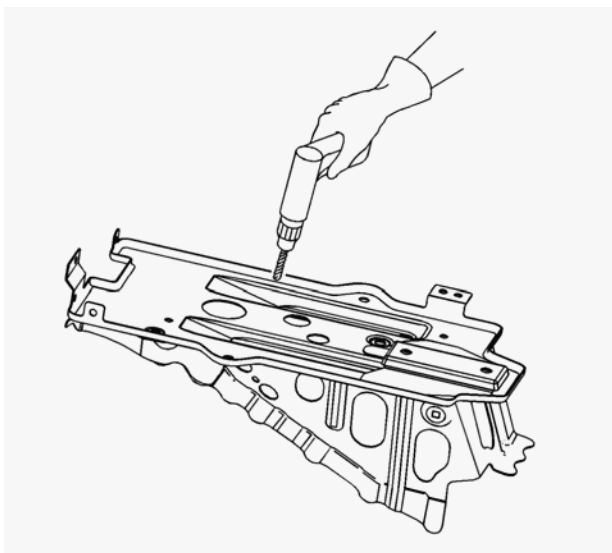
Note: Do not damage any inner panels or reinforcements.

5. Locate and drill out all factory welds. Note the number and location of welds for installation of the battery tray.



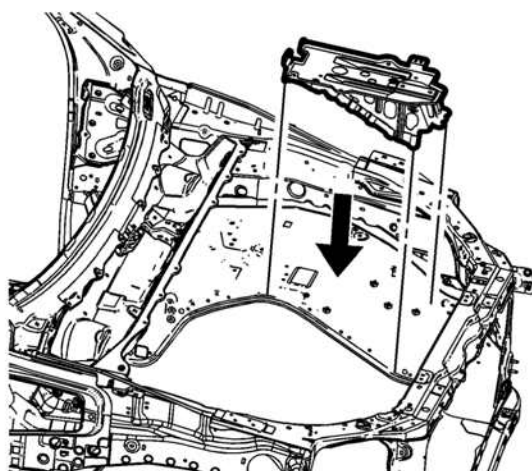
6. Remove the damaged battery tray.

[Installation Procedure](#)



Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

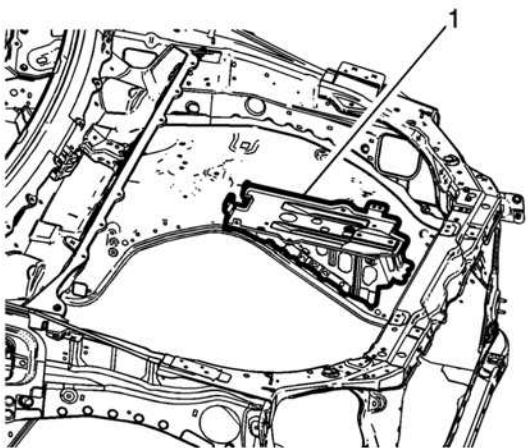
1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original battery tray.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the battery tray.



5. Plug the weld accordingly.



6. Clean and prepare all welded surfaces (1).
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Enable the SIR system. Refer to SIR Disabling and Enabling.

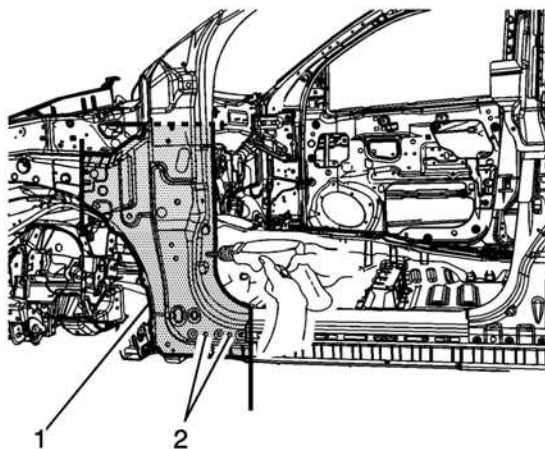
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

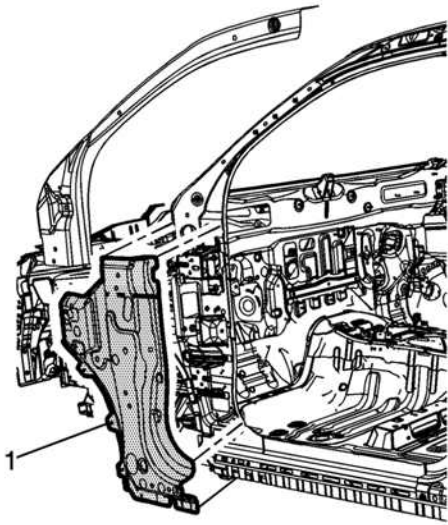
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible. Refer to Dimensions - Body.
5. Remove the sealers and anti-corrosion materials from the repair area. Refer to Anti-Corrosion Treatment and Repair.
6. Locate and mark all the necessary factory welds of the front hinge pillar body.



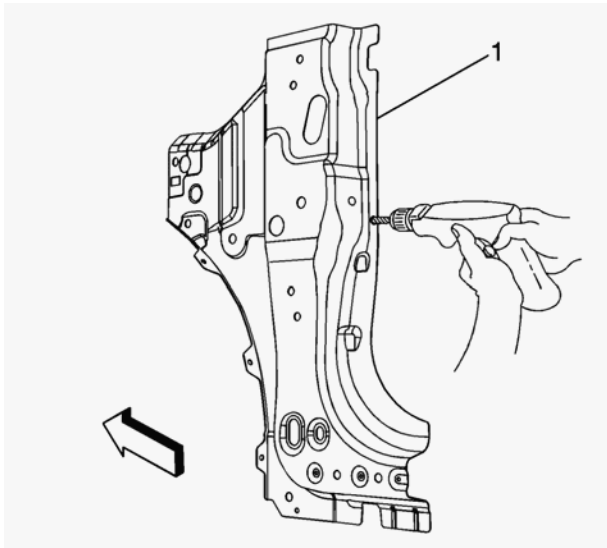
7. Remove the rivets (2).
8. Drill all factory welds (1). Note the number and location of welds for installation of the body hinge pillar lower reinforcement.



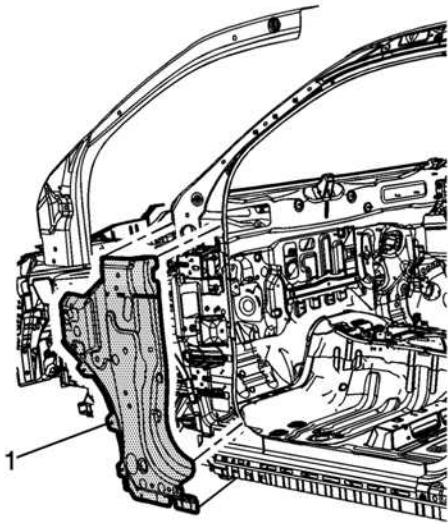
9. Remove the damaged body hinge pillar lower reinforcement (1).

Installation Procedure

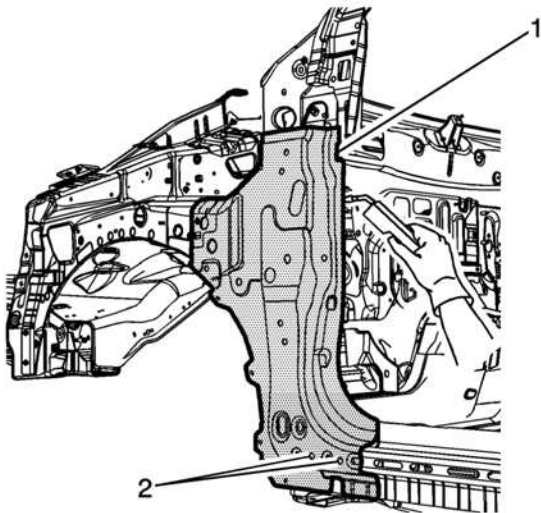
1. Prepare all mating surfaces as necessary.
2. Align the body hinge pillar lower reinforcement.



3. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the front hinge pillar body as noted from the original panel (1).
4. Clean and prepare the attaching surfaces for welding.



5. Position the body hinge pillar lower reinforcement on the vehicle (1).
6. Verify the fit of the front hinge pillar body reinforcement.
7. Clamp the front hinge pillar body reinforcement into position.



8. Plug weld accordingly.
9. Attach the new rivets (2).
10. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
11. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems.

12. Install all related panels and components. Refer to Outer Windshield Frame Pillar Sectioning.
13. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
14. Enable the SIR system. Refer to SIR Disabling and Enabling.

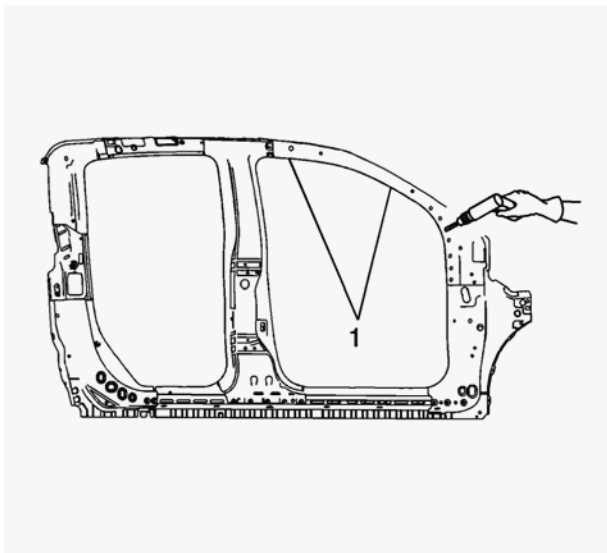
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

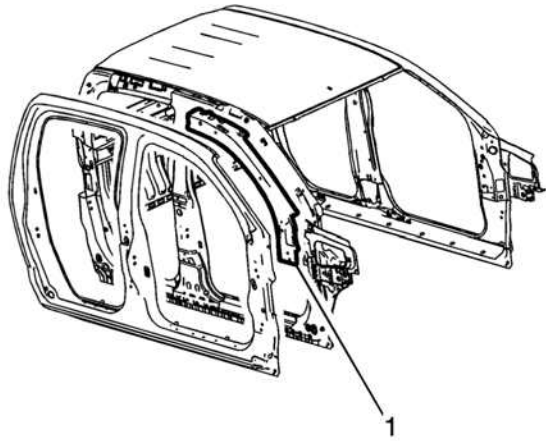
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible. Refer to Dimensions - Body.
5. Remove the sealers and anti-corrosion materials from the repair area. Refer to Anti-Corrosion Treatment and Repair.
6. Locate and mark all the necessary factory welds of the body hinge pillar outer panel reinforcement.



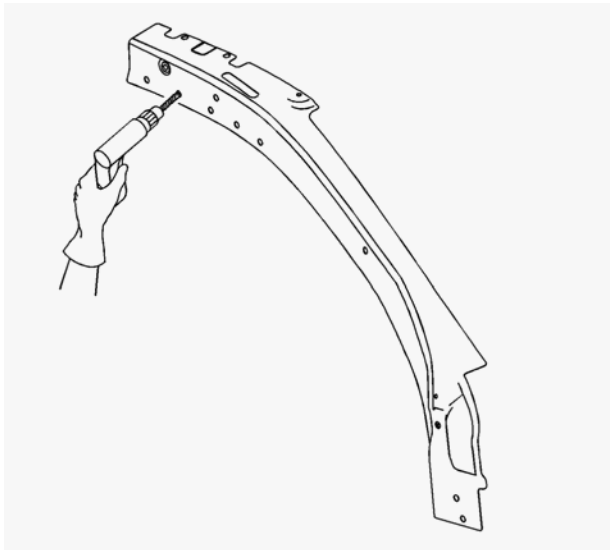
7. Drill all factory welds (1). Note the number and location of welds for installation of the service assembly.



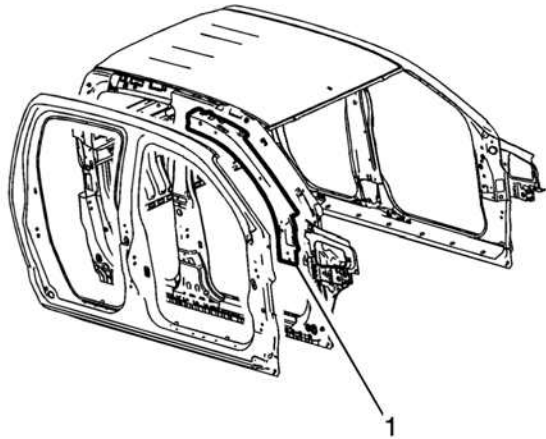
8. Remove the damaged body hinge pillar outer panel reinforcement (1).

Installation Procedure

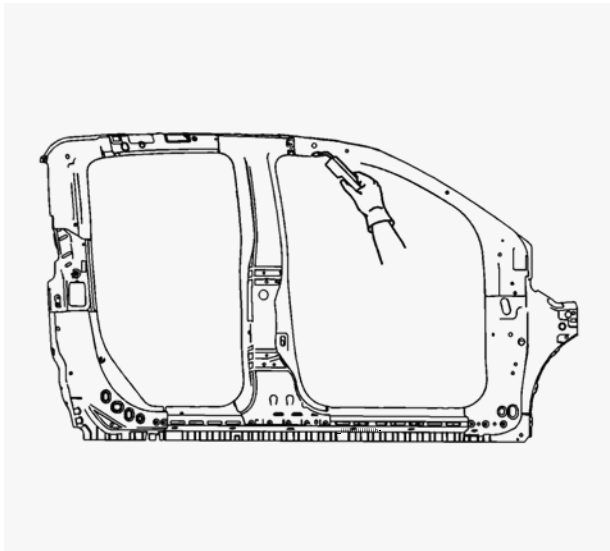
1. Prepare all mating surfaces as necessary.
2. Align the body hinge pillar outer panel reinforcement.



3. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the body hinge pillar outer panel reinforcement as noted from the original panel.
4. Clean and prepare the attaching surfaces for welding.



5. Position the body hinge pillar outer panel reinforcement on the vehicle (1).
6. Verify the fit of the hinge pillar outer panel reinforcement.
7. Clamp the hinge pillar outer panel reinforcement into position.



8. Plug weld accordingly.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
10. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems.
11. Install all related panels and components.

12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
13. Enable the SIR system. Refer to SIR Disabling and Enabling.

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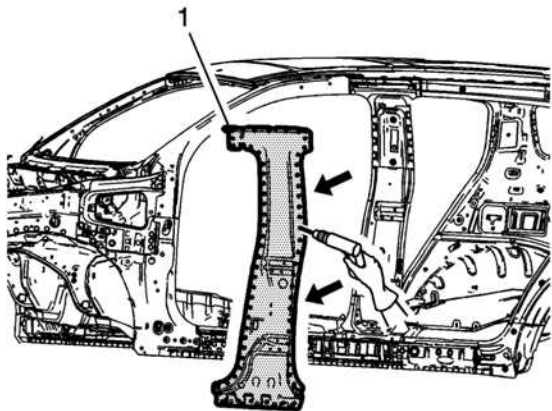
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

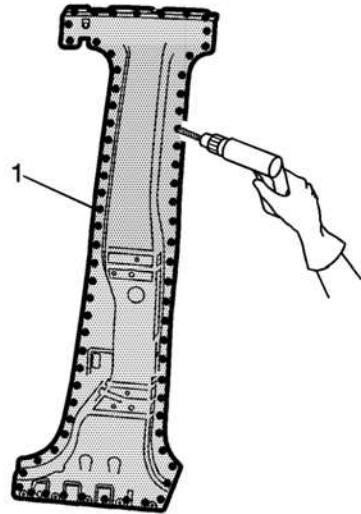
1. Disable the SIR System. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Visually inspect the damage. Repair as much of the damage as possible.
5. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Locate and mark all factory welds.
7. Remove the center pillar. Refer to Center Pillar Sectioning.



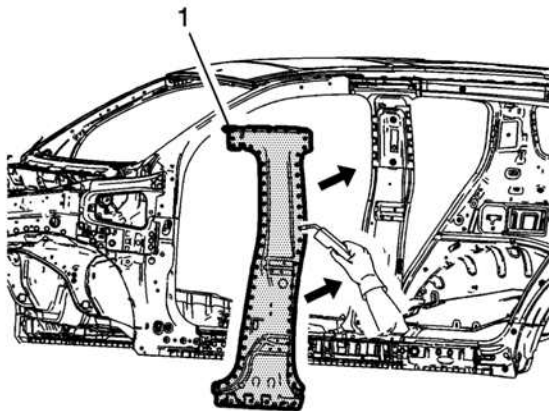
8. Remove the damaged center pillar inner panel (1).

Installation Procedure

1. Prepare all mating surfaces as necessary.
2. Align the center pillar inner panel (1).



3. Drill 8 mm (5/16 in) holes for plug welding along the edges of the center pillar inner panel (1) as noted from the original panel.
4. Clean and prepare the attaching surfaces for welding.



5. Position the center pillar inner panel (1) on the vehicle.
6. Verify the fit of the center pillar inner panel (1).
7. Clamp the center pillar inner panel (1) into position.
8. Install the center pillar. Refer to Center Pillar Sectioning.
9. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
10. Enable the SIR system. Refer to SIR Disabling and Enabling.

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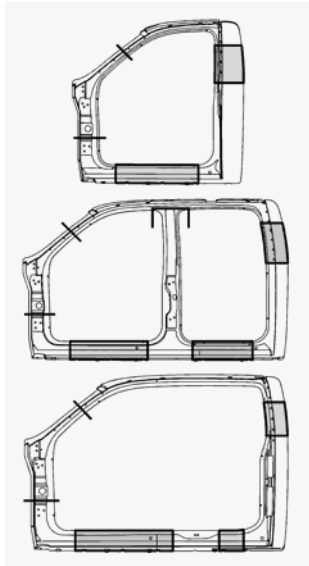
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

Warning: Refer to Collision Sectioning Warning.

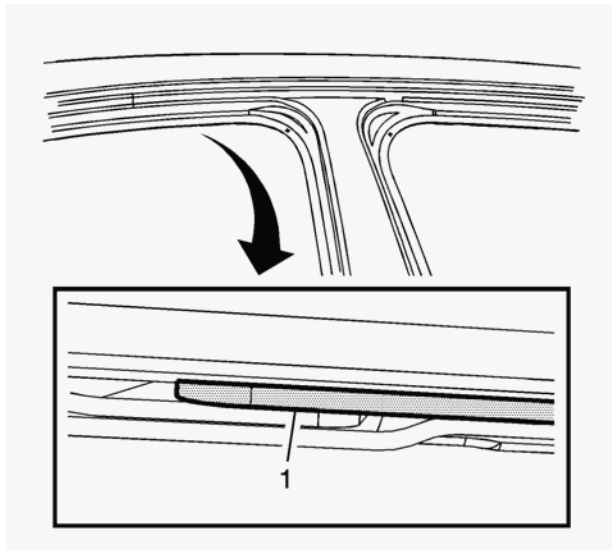


1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

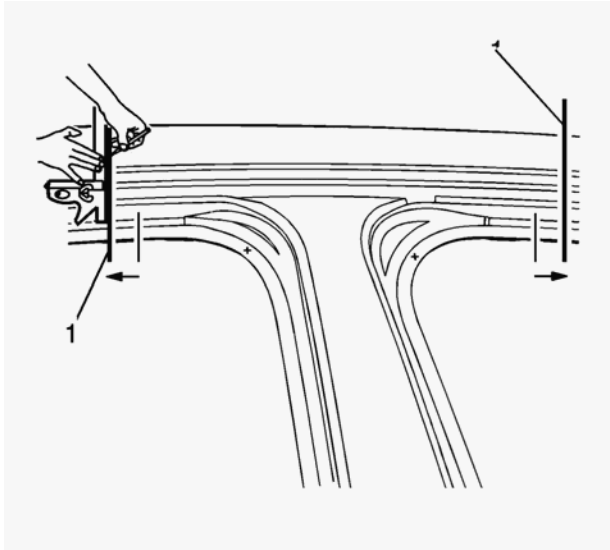
Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:

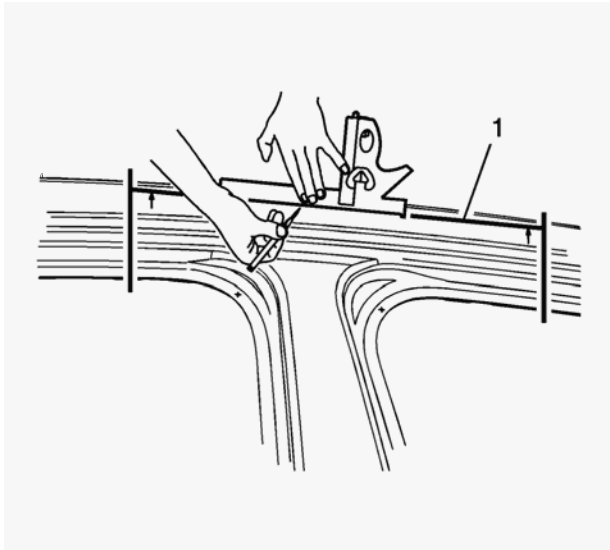
- Outer Windshield Frame Pillar Sectioning
- Front Hinge Pillar Sectioning
- Rocker Outer Panel Sectioning
- Rear Pillar Sectioning



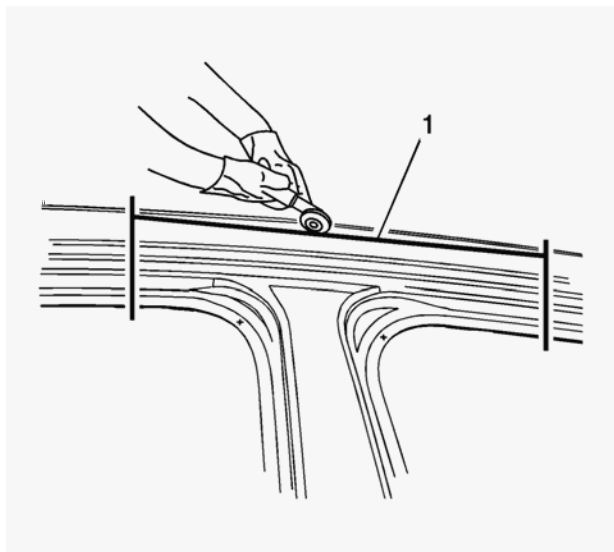
- Remove the weatherstrip, observe the flange in the center pillar area. There will be a 3-metal stack-up. The center layer is the center pillar inner reinforcement (1).



- Measure 30 mm (1.18 in) from the forward and rearward edges of the center pillar inner reinforcement and mark a vertical line (1).

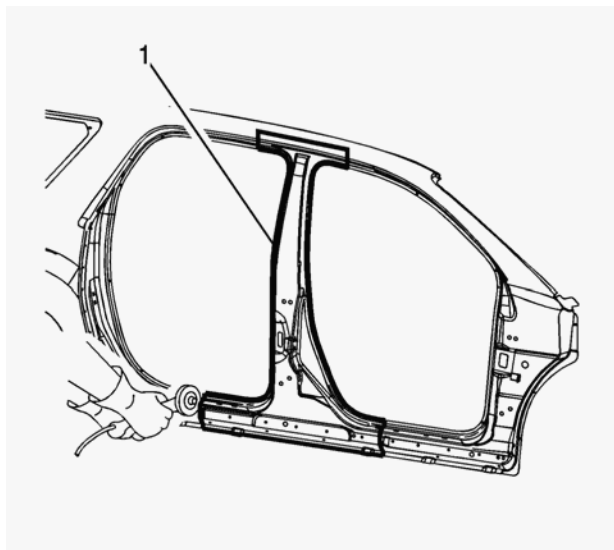


- Measure up 30 mm (1.18 in) from the door opening feature line (1) and mark a horizontal line.

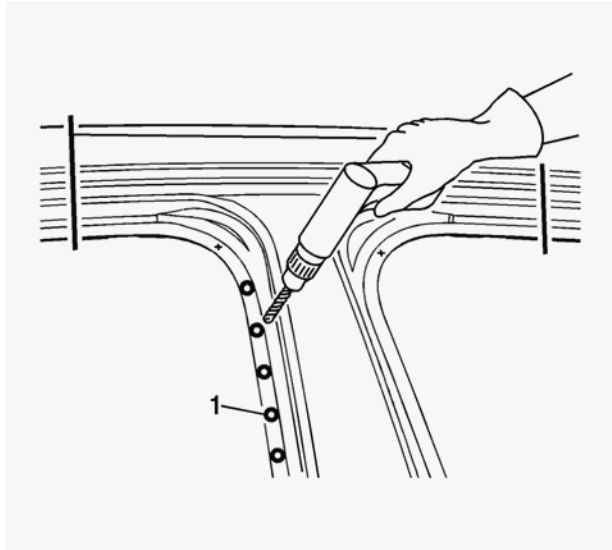


Note: Do not damage any inner panels or reinforcements.

- Cut the panel in the locations where sectioning is to be performed.

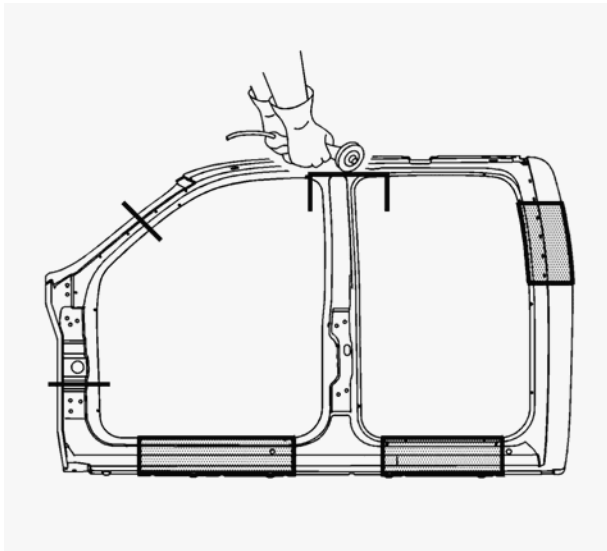


- Measure 30 mm (1.18 in) from the forward and rearward edges of the center pillar inner reinforcement and mark a vertical line (1).

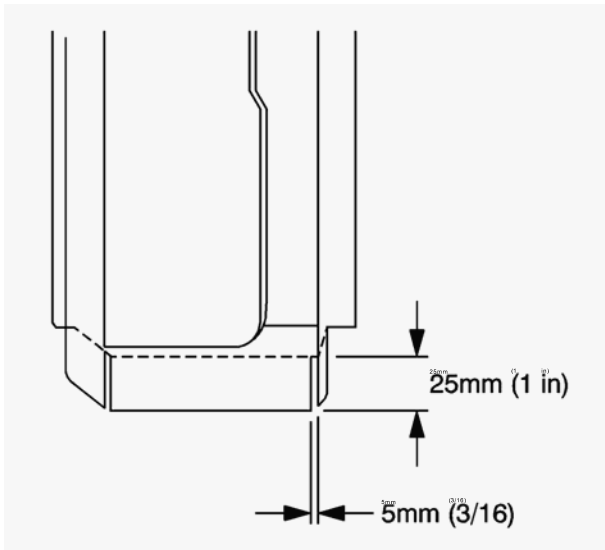


- Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.
- Remove the damaged pillar section.

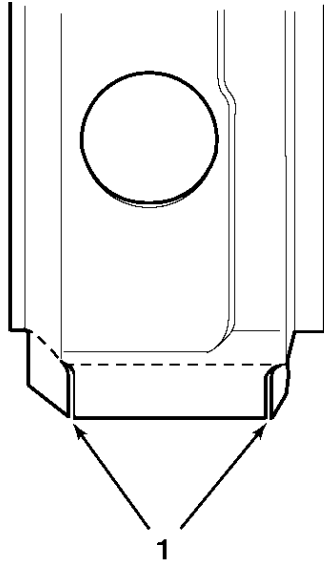
Installation Procedure



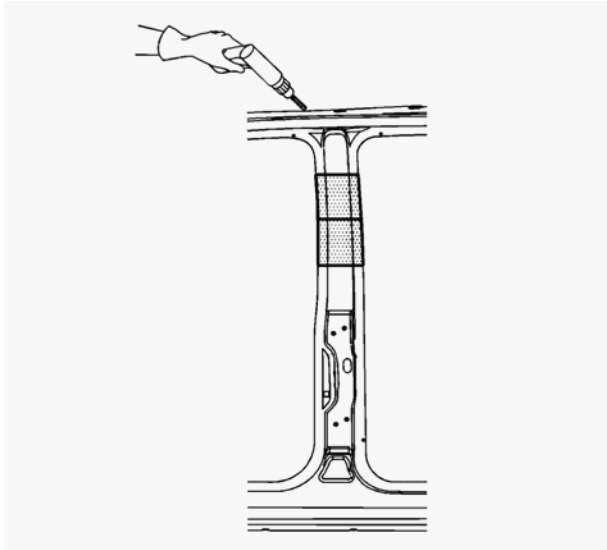
1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

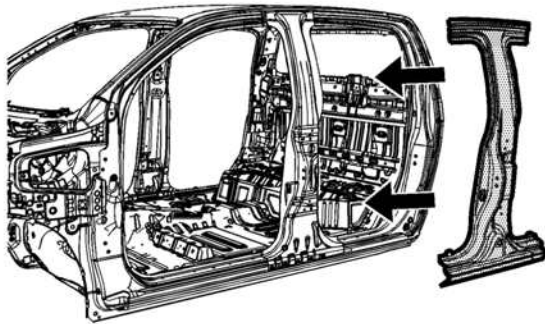


3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

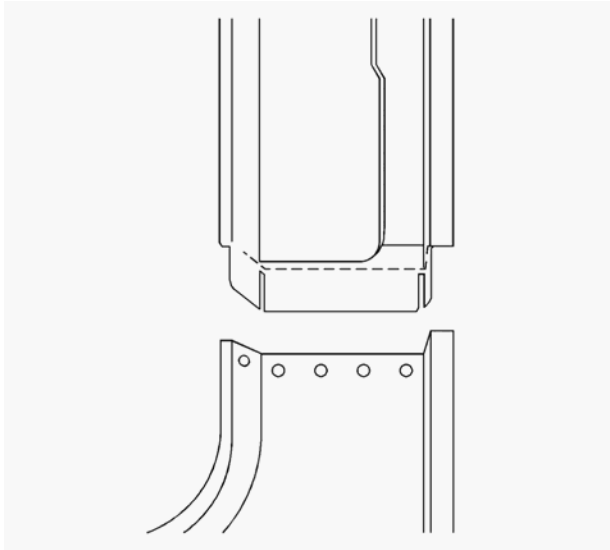


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

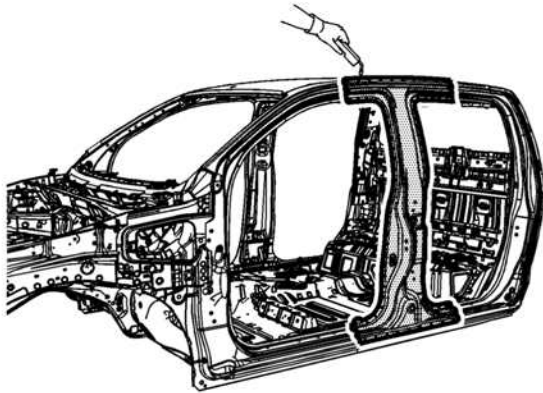
4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



7. Position the center pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Fit the new part on the original panel.



9. Plug weld accordingly.

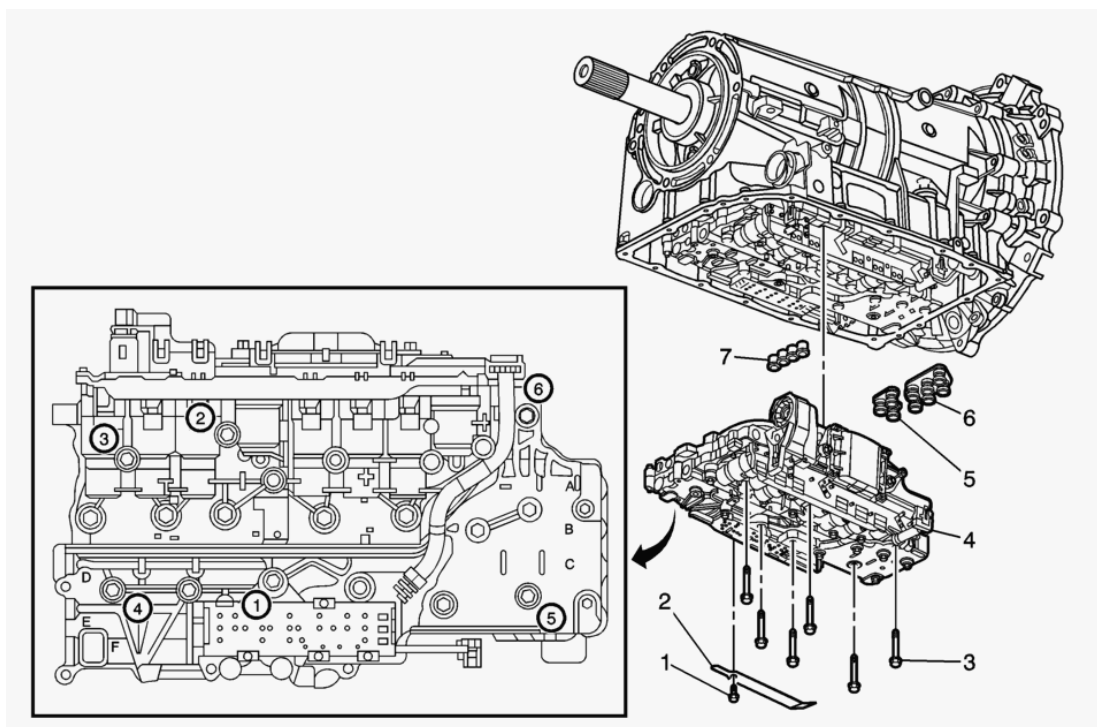
Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
12. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.

13. Install all related panels and components.
14. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
15. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
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Control Valve Lower Body and Upper Body Replacement

Callout

Component Name

Preliminary Procedures

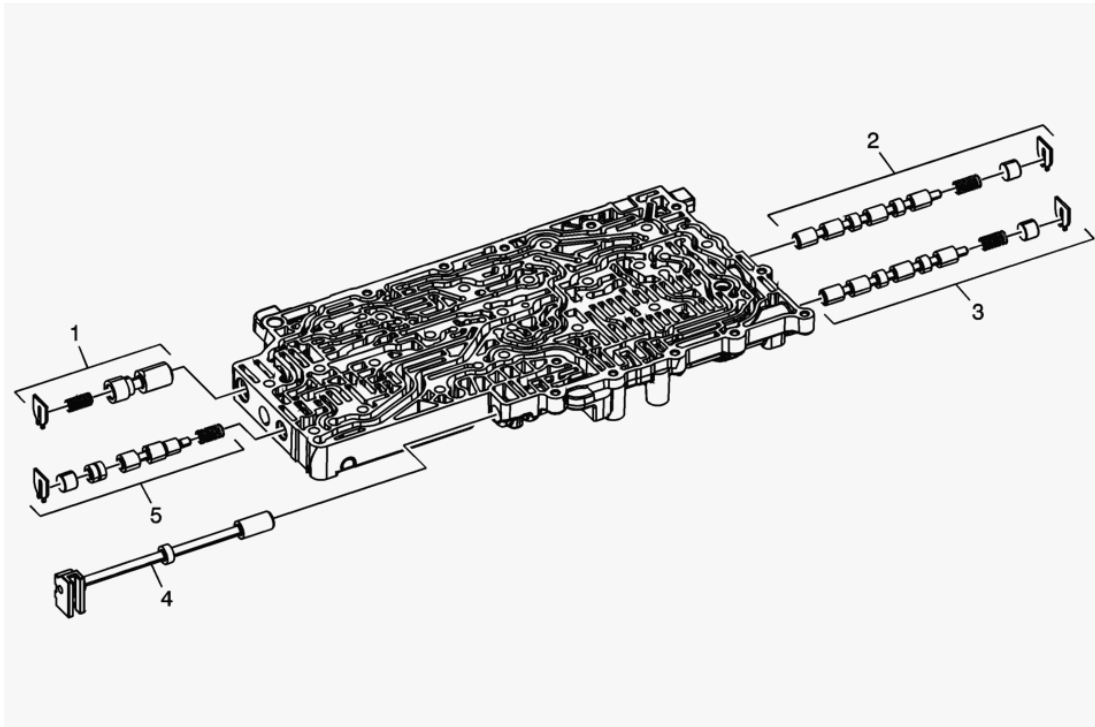
Remove the transmission electrical connector. Refer to Automatic Transmission Electrical Connector Passage Sleeve Replacement.

Callout**Component Name**

- | | |
|---|--|
| 1 | <p>Manual Shaft Detent Bolt</p> <p>Caution: Refer to Fastener Caution.</p> <p>Tighten</p> <p>12 Y (106 lb in)</p> |
| 2 | <p>Manual Shaft Detent Assembly</p> <p>Control Valve Assembly Bolt (Qty: 6)</p> <p>Procedure</p> |
| 3 | <ul style="list-style-type: none">• Do not remove all the bolts in the control valve body assembly. Remove only the bolts indicated.• Tighten in specified sequence. <p>Tighten</p> <p>8 Y (71 lb in)</p> |
| 4 | <p>Control Valve Assembly</p> <p>Fluid Pump Seal</p> |
| 5 | <p>Procedure</p> <p>Discard seal and replace with new.</p> <p>Fluid Pump Seal</p> |
| 6 | <p>Procedure</p> <p>Discard seal and replace with new.</p> <p>Center Support Fluid Passage Seal</p> <p>Procedure</p> |
| 7 | <ol style="list-style-type: none">1. Discard seal and replace with new.2. It is recommended that transmission adaptive pressure (TAP) information be reset. Transmission performance may be affected as new TAP values are learned. Refer to Reset Transmission Adapts.3. If replacing the control valve body assembly, remove the Control Solenoid Valve and Transmission Control Module Assembly Replacement and the Manual Shift Shaft Position Switch Replacement. |

2013 Chevrolet Colorado

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Control Valve Lower Body Assembly Cleaning and Inspection

Callout

Component Name

Warning: Valve springs can be tightly compressed. Use care when removing retainers and plugs. Personal injury could result.

Caution: After cleaning the transmission components, allow to air dry. Do not use cloth or paper towels in order to dry any transmission components. Lint from the towels can cause component failure.

Caution: Do not reuse cleaning solvents. Previously used solvents may deposit sediment which may damage the component.

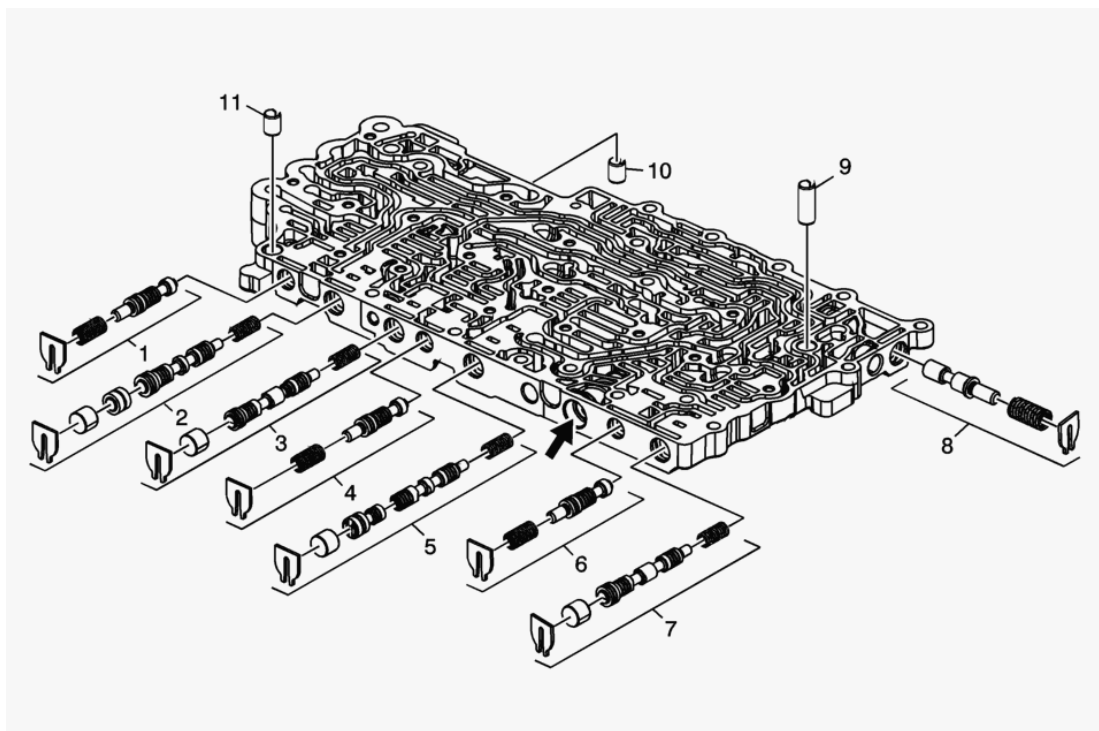
Preliminary Procedure

Clean and inspect all valve components and the valve body. The control valve lower body is replaceable only as an assembly.

- 1 Clutch Piston Dam Feed Regulator Valve Train
- 2 Clutch Select Solenoid Valve 3 Train
- 3 Clutch Select Solenoid Valve 2 Train
- 4 Manual Valve
- 5 TCC Regulator Apply Valve Train

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
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Control Valve Upper Body Assembly Cleaning and Inspection

Callout

Component Name

Warning: Valve springs can be tightly compressed. Use care when removing retainers and plugs. Personal injury could result.

Caution: Do not remove the exhaust backfill pressure relief retainer, spring, or ball valve (refer to arrow in above illustration for location). The retainer is set to a precise depth. Replacement of this retainer could cause internal transmission damage.

Caution: After cleaning the transmission components, allow to air dry. Do not use cloth or paper towels in order to dry any transmission components. Lint from the towels can cause component failure.

Caution: Do not reuse cleaning solvents. Previously used solvents may deposit sediment which may damage the component.

Preliminary Procedure

Clean and inspect all valve components, locating pins, and the valve body. The control valve upper body is replaceable only as an assembly.

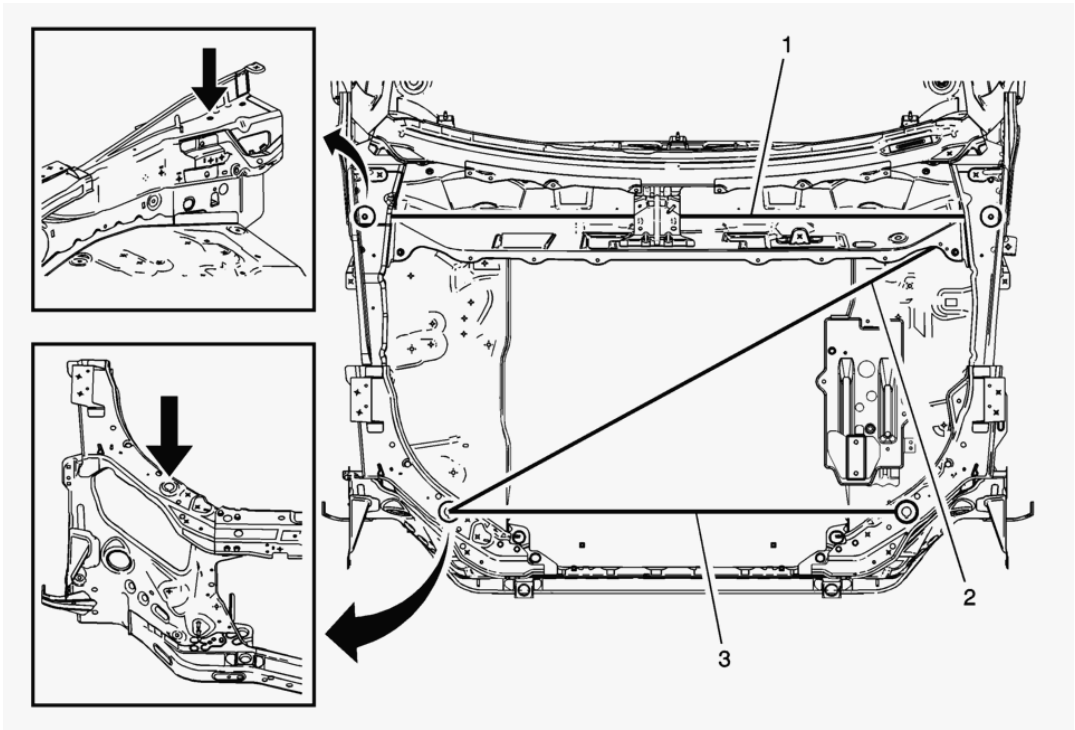
- 1 Clutch Boost Valve Train
- 2 1–2–3–4 Clutch Regulator Valve Train
- 3 3–5 Reverse Clutch Regulator Valve Train
- 4 Clutch Boost Valve Train
- 5 2–6 Clutch Regulator Valve Train
- 6 Clutch Boost Valve Train
- 7 CBR1/4–5–6 Clutch Regulator Valve Train
- 8 Actuator Feed Limit Valve Train
- 9 Control Valve Body Locator Pin
- 10 Control Valve Body Locator Pin
- 11 Control Valve Body Locator Pin

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Table 1: [Dimensions - Body](#)
Table 2: [Dimensions - Body](#)

Engine Compartment Point to Point Measurements



Dimensions - Body

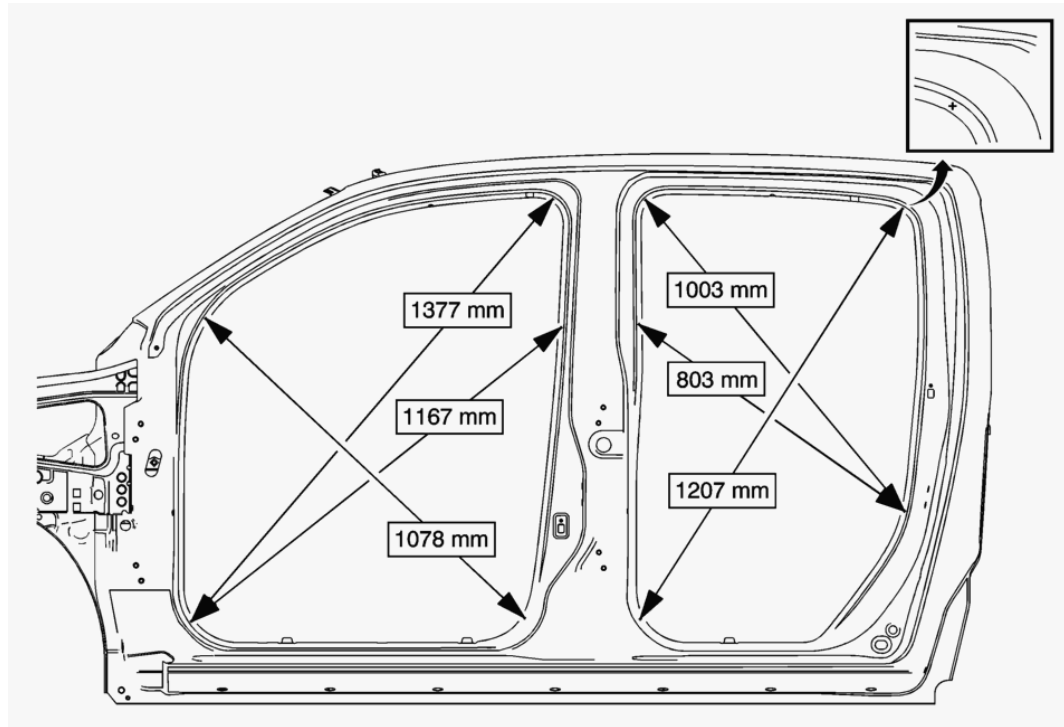
Location

Length

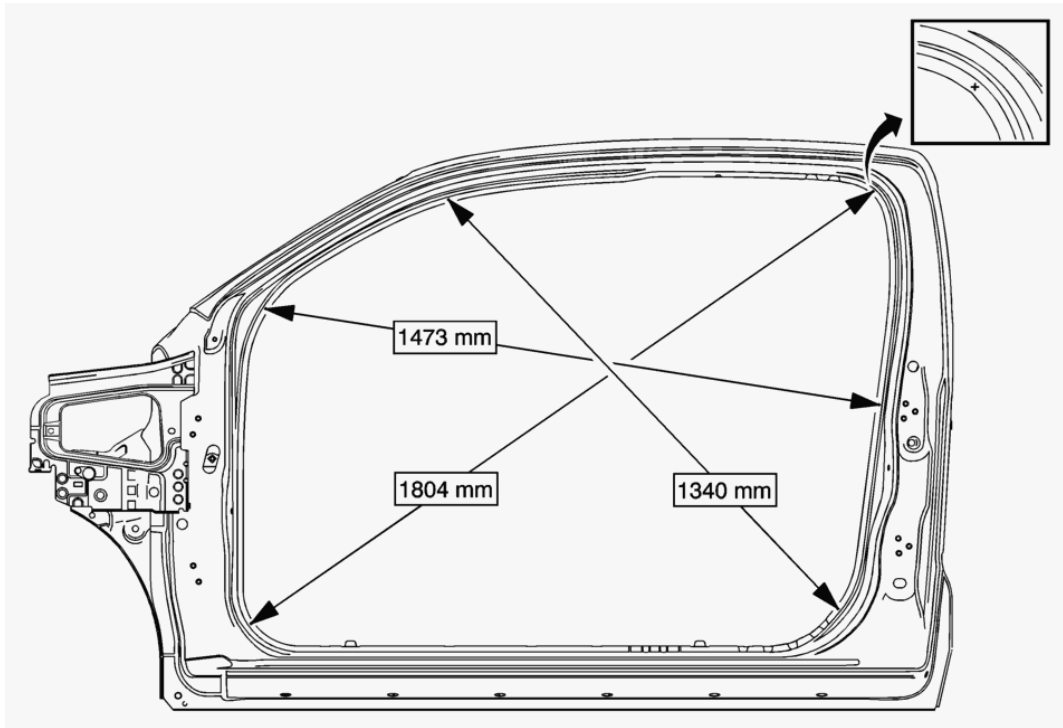
1	1498 mm
2	1472 mm
3	1093 mm

All dimensions are measured from a zero line, a center line, and a common datum. All dimensions are symmetrical unless otherwise specified.

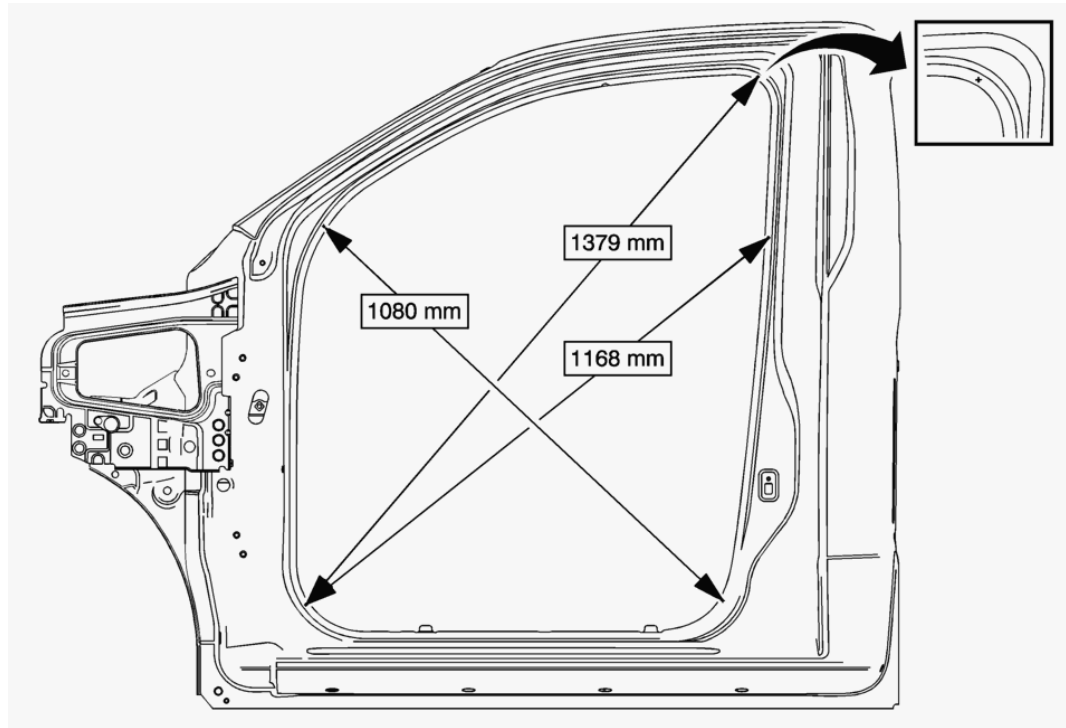
Body Side Dimensions (Crew Cab)



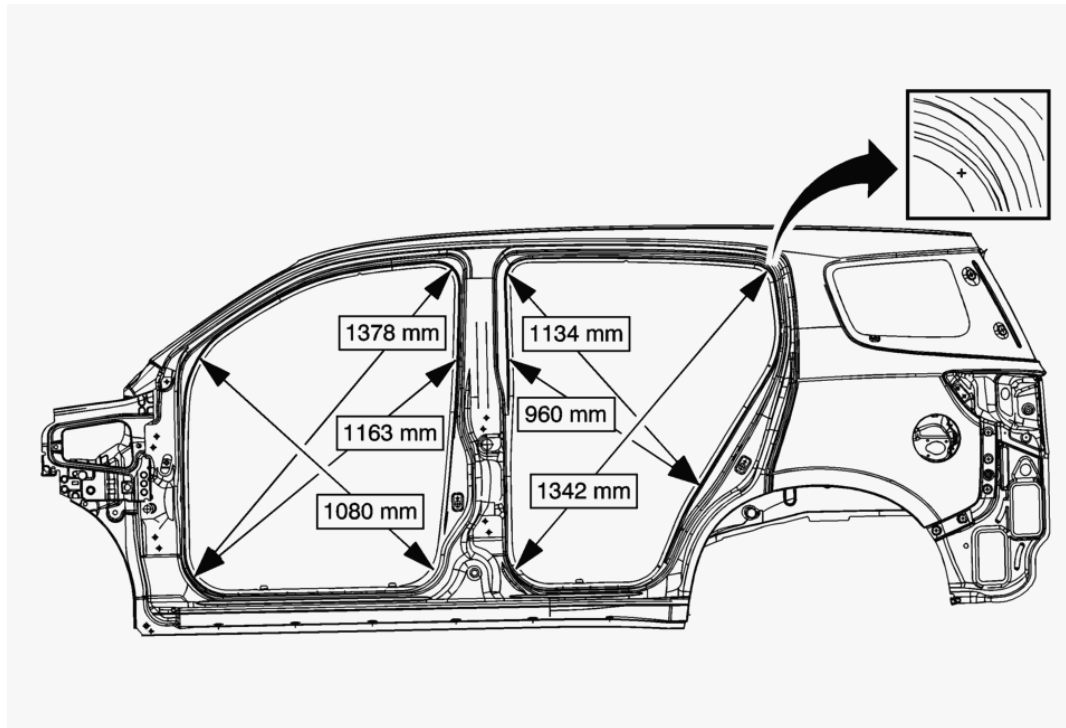
Body Side Dimensions (Extended Cab)



Body Side Dimensions (Regular Cab)



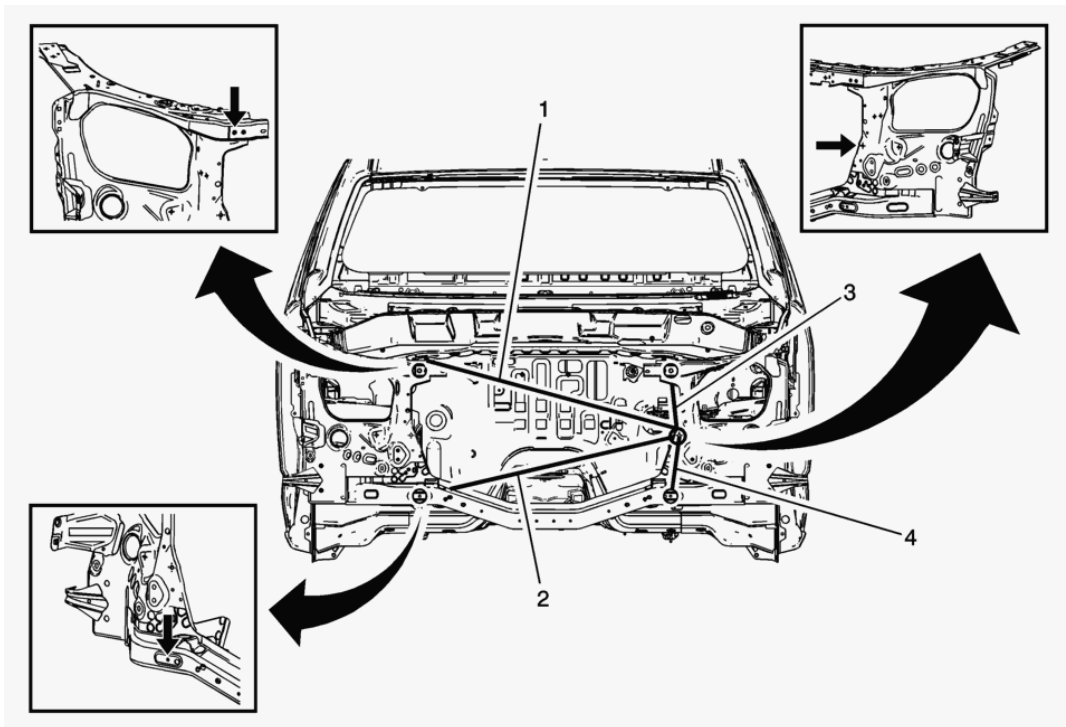
Body Side Dimensions (SUV)



Point to Point Measurements

Point-to-point measurements are for reference only. All measurements are given in millimeters. Use these measurements for diagnosing and estimating. Point-to-point measurements are duplicated with tram bar pointers set at equal lengths. All die marks, holes, slots, and fasteners are measured to the center. All dimensions are symmetrical unless otherwise specified.

Front End



Dimensions - Body

Location

1

2

3

4

Length

865.11 mm

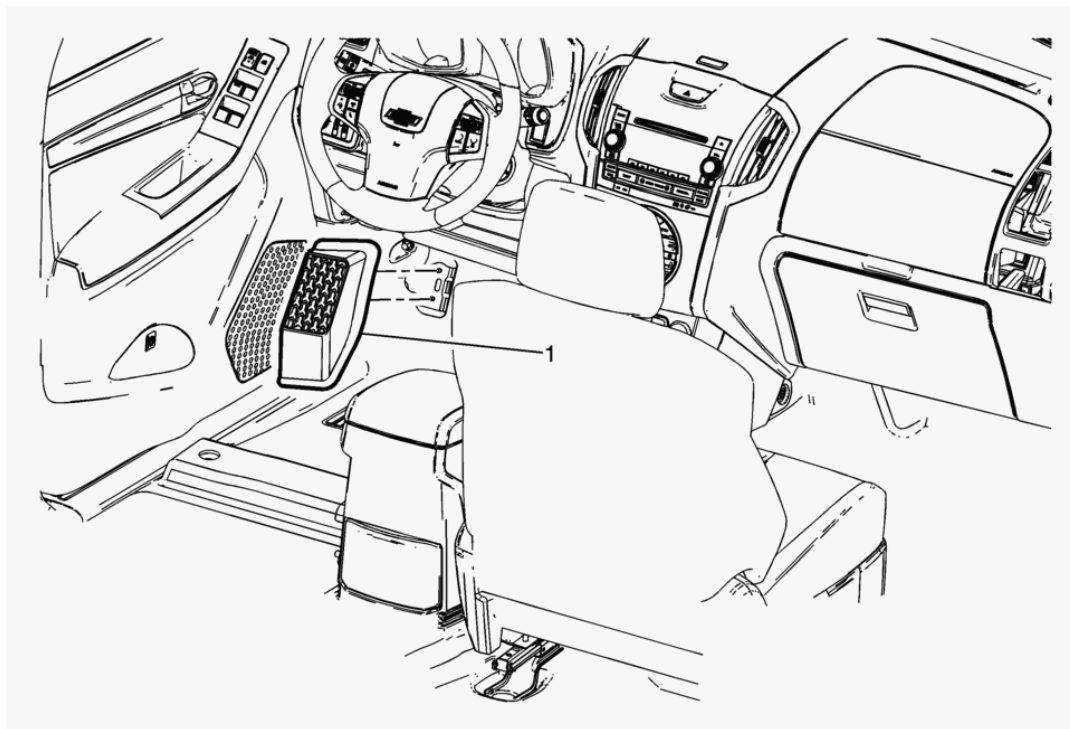
862.10 mm

205 mm

198.01 mm

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Driver Footrest Replacement

Callout

1

Driver Footrest

Component Name

Procedure

Use a flat bladed plastic trim tool in order to release the driver footrest from the driver footrest bracket.

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This information provides repair recommendations and general guidelines for steel classified as Dual Phase Steel, also known as DP. This type of steel normally has a tensile strength below 780 MPa.

General Motors recommends the following when repairing or replacing this type of steel during collision repair.

Note: The use of heat to repair damage is not recommended for this classification of steel.

Recommended Repairs

- Cold repairs can be performed on this type of steel, unless the damage includes kinks. If the damage includes kinks, the part should be replaced.
- Sectioning or partial replacement of this type of steel is recommended only at approved locations, in a specific sectioning procedure.
- This type of steel can be used as a sleeve, or backer plate, when recommended in a specific sectioning procedure.
- Squeeze Resistance Spot Welding can be used to replace factory spot welds, where applicable.
- MIG plug welding and MIG stitch welding can be used on this type of steel.
- MIG Brazing can be used on this type of steel.

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Fuel Delivery: | Fuel:

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.

How to Use this Product

- 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.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
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Fastener Tightening Specifications

Application	Specification	
	Metric	English
Front End Upper Tie Bar Fasteners	6.5 Y	4.8 lb ft
I/P Bracket	22.5 Y	16.6 lb ft
Cowl Panel	9 Y	6.6 lb ft
Pickup Box Fasteners	13 Y	9.6 lb ft

cardiagn.com

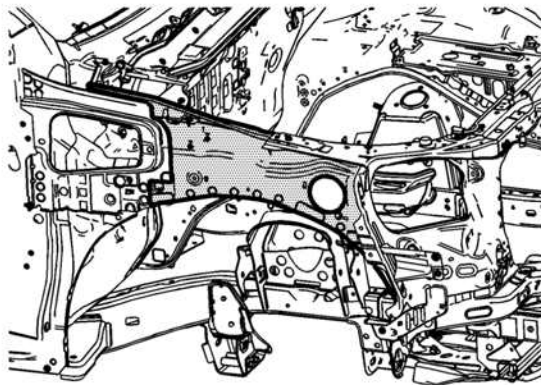
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

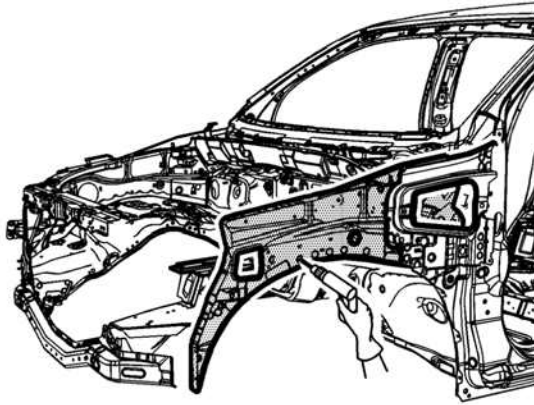
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

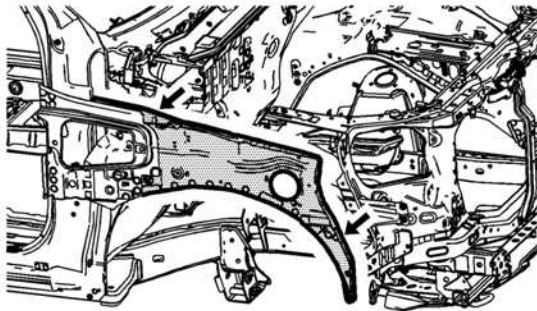


3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



Note: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds. Note the number and location of welds for installation of the front upper rail.

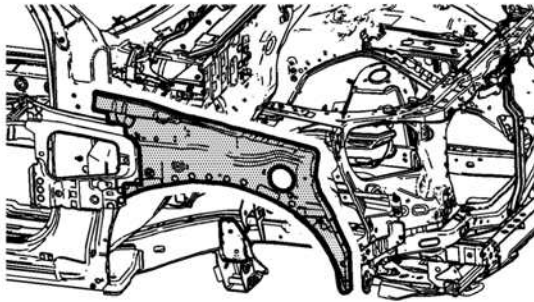


7. Remove the damaged front upper rail.

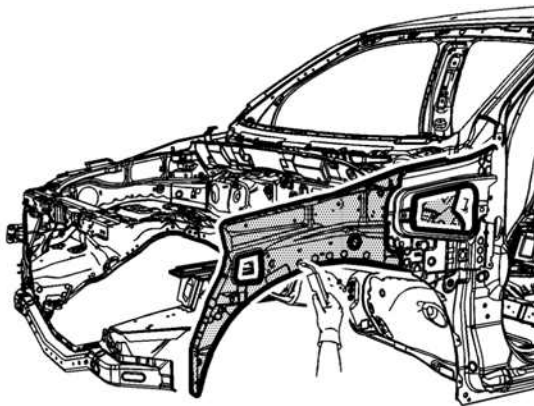
[Installation Procedure](#)

Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

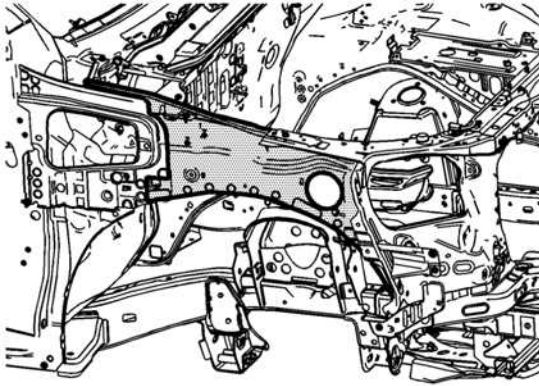
1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original front upper rail.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the upper rail.



5. Plug the weld accordingly.



6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
11. Enable the SIR system. Refer to SIR Disabling and Enabling.

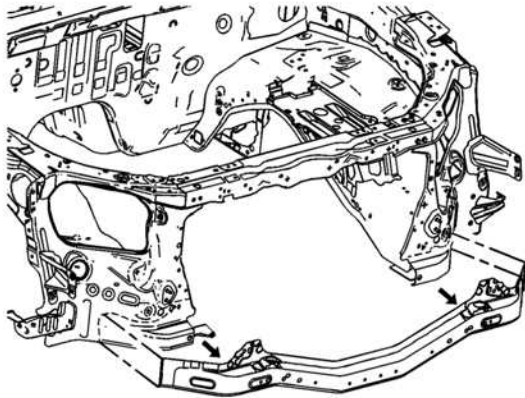
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

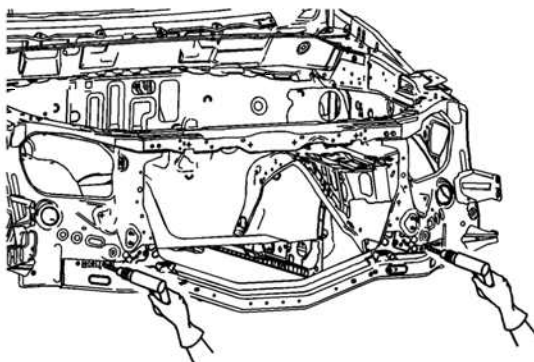
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

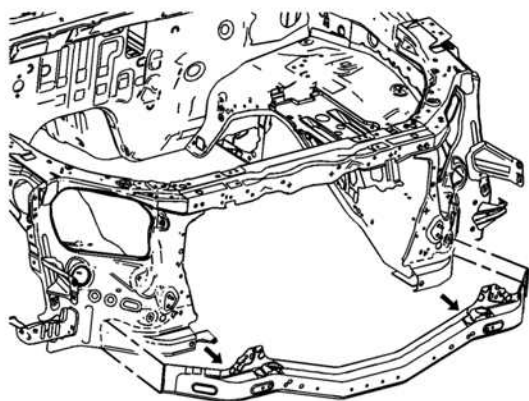


3. Remove all related panels and components.
4. Restore as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



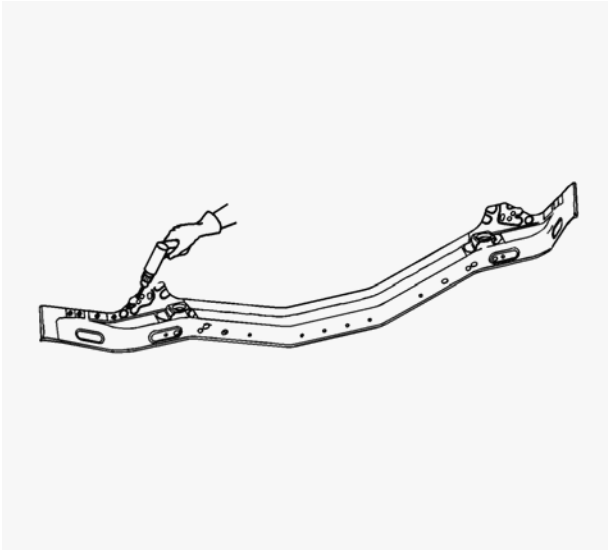
Note: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds. Note the number and location of welds for installation of the front end lower center tie bar.



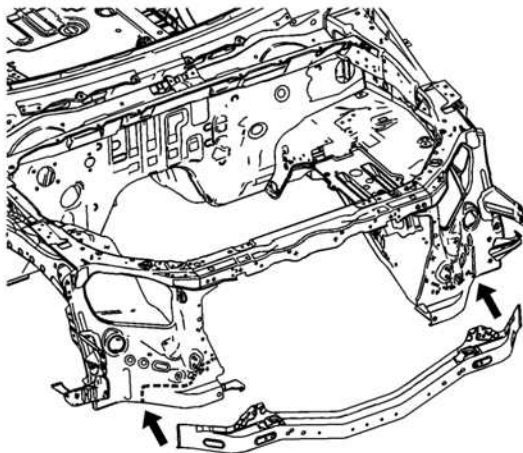
7. Remove the damaged front end lower center tie bar.

[Installation Procedure](#)

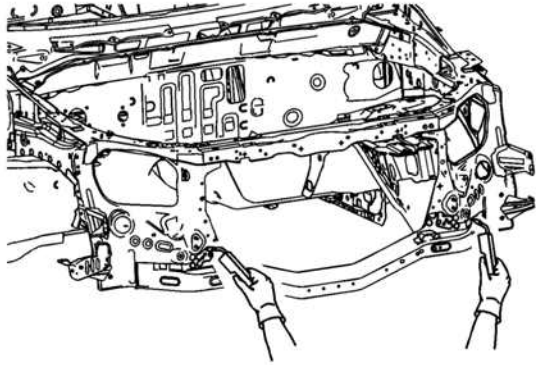


Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the front end lower center tie bar on the vehicle using 3-dimensional measuring equipment. Clamp the front end lower center tie bar in place.



5. Plug weld accordingly.
6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint and repair the area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
11. Enable the SIR system. Refer to SIR Disabling and Enabling.

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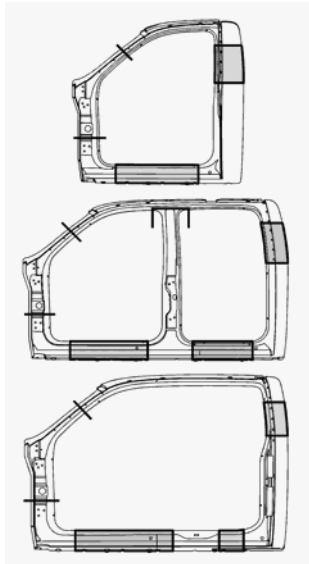
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

Warning: Refer to Collision Sectioning Warning.



Note: The door frame can be replaced at the factory seams, but requires the removal of the windshield, roof, and quarter panel. The sectioning procedures have been developed as a more cost-effective alternative to complete replacement. The specific area to be sectioned is determined by the extent of the damage to the vehicle.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.

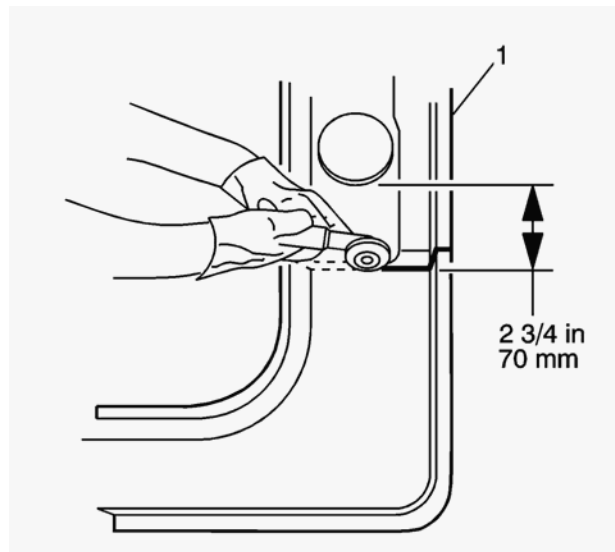
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

6. Perform additional sectioning procedures as necessary. Refer to the following procedures:

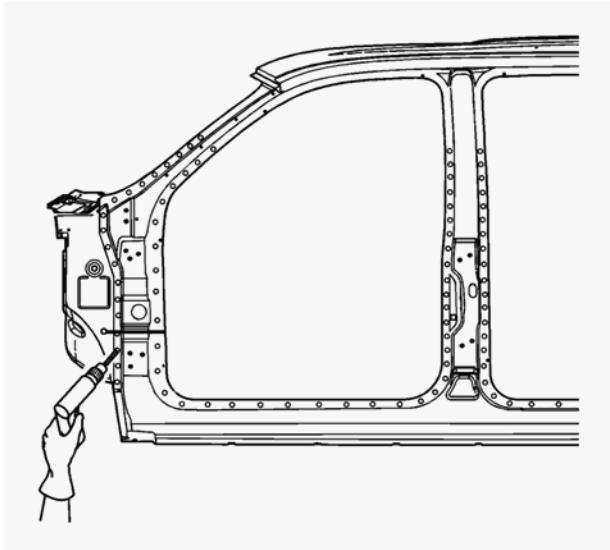
- Outer Windshield Frame Pillar Sectioning
- Rocker Outer Panel Sectioning
- Center Pillar Sectioning
- Rear Pillar Sectioning



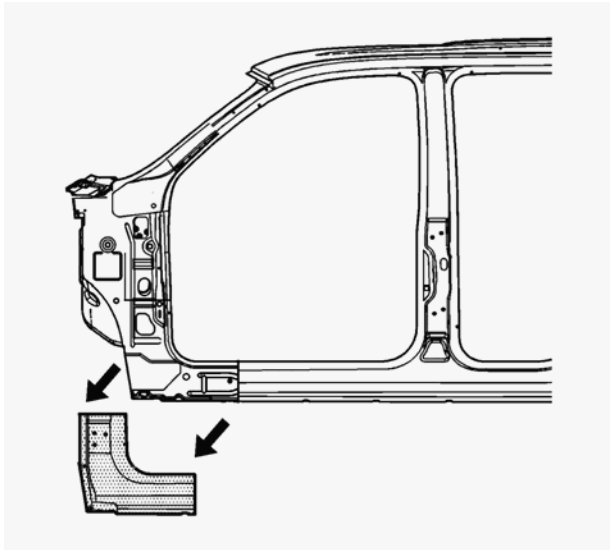
- Measure 70 mm (2 3/4 in) down from the large wiring harness hole in the hinge pillar (1). Mark a horizontal line.

Note: Do not damage any inner panels or reinforcements.

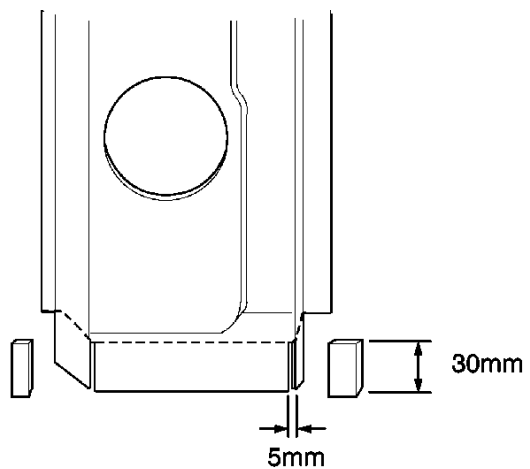
- Cut the panel in the locations where sectioning is to be performed.



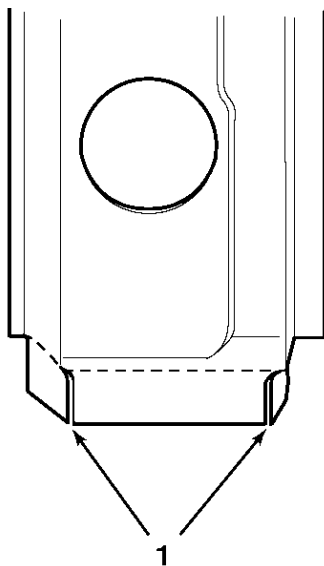
- Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.



- Remove the damaged hinge pillar.

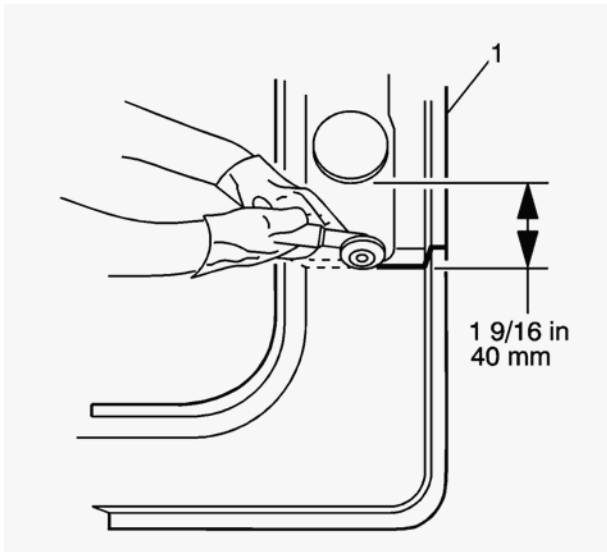


- Cut and remove 30 mm (1 3/16 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

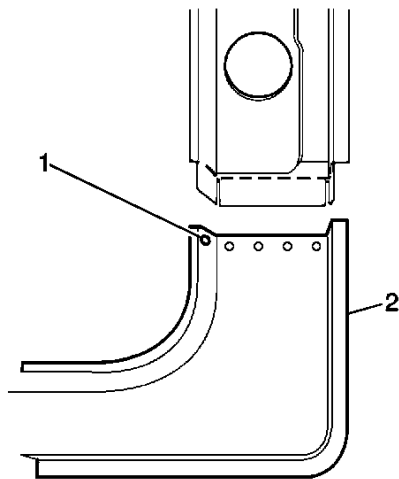


- Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

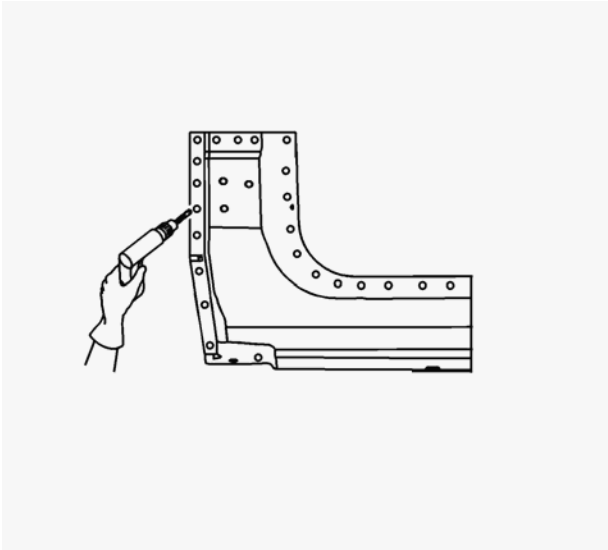
[Installation Procedure](#)



1. On the service body side, measure 40 mm (1 9/16 in) down from the large wiring harness hole in the hinge pillar. Mark a horizontal line. Cut the hinge pillar (1) along this line.
2. Perform additional sectioning procedures as necessary to remove the unused areas of the service part.

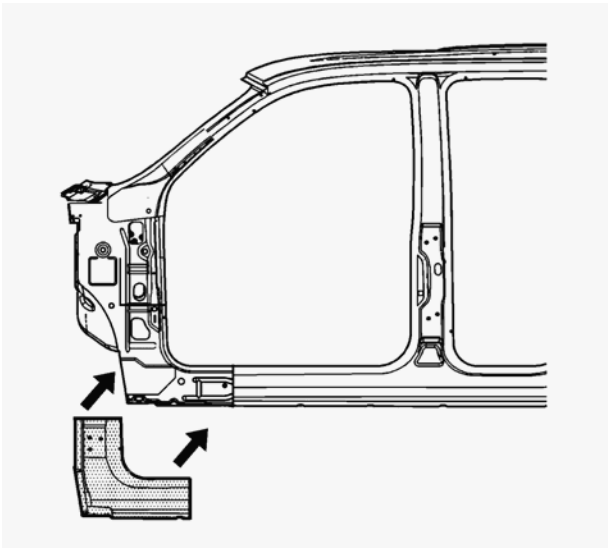


3. Drill 8 mm (5/16 in) plug weld holes along the sectioning cut on the remaining original part (2). Locate these holes approximately 25 mm (1 in) (a) from the edge and spaced 40 mm (1 1/2 in) apart.

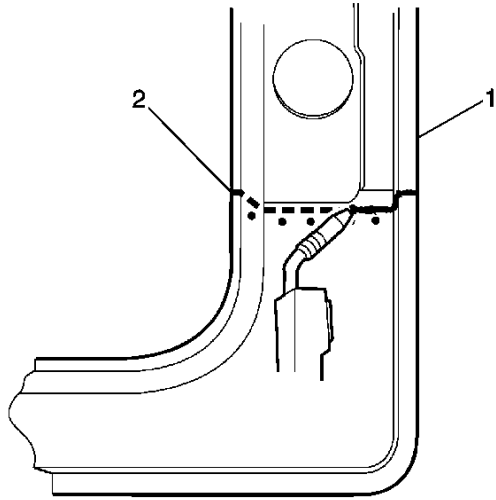


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part, as necessary, in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



7. Position the hinge pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Plug weld accordingly.

Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam (2) with 25 mm (1 in) gaps between them. Complete the stitch weld.

9. Clean and prepare all welded surfaces.
10. Apply the sealers and anti-corrosion materials to the repair area (1), as necessary. Refer to Anti-Corrosion Treatment and Repair.
11. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
12. Install all related panels and components.
13. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
14. Enable the SIR system. Refer to SIR Disabling and Enabling.

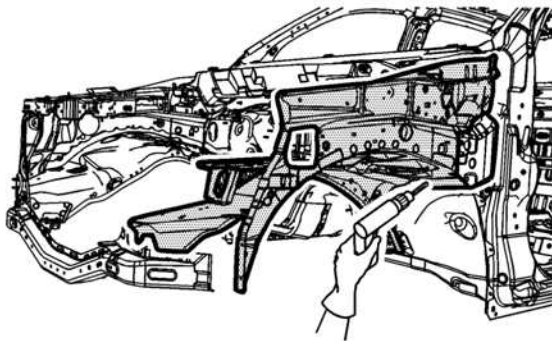
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

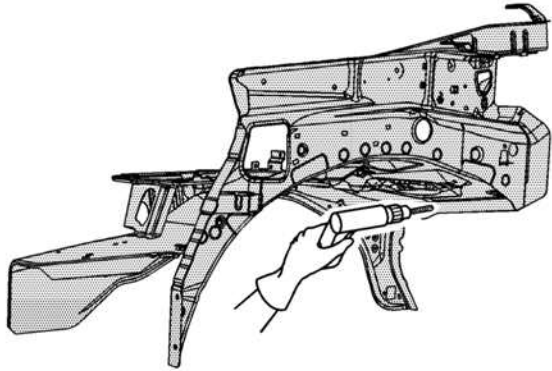


Note: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds. Note the number and location of welds for installation of the service part.

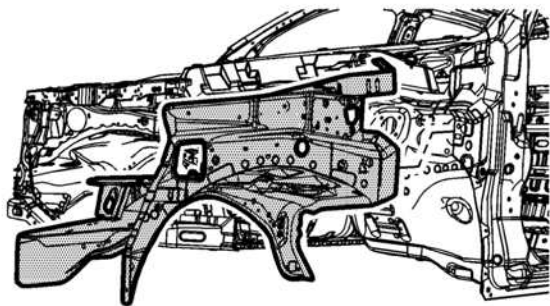
7. Remove the damaged front wheelhouse.

Installation Procedure

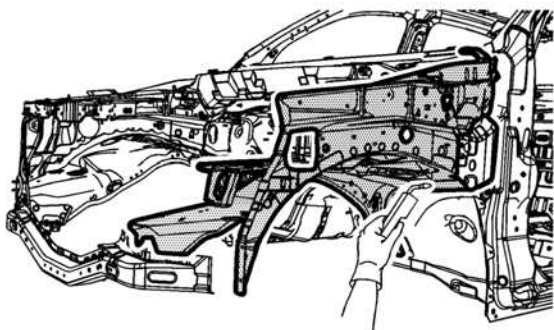


Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

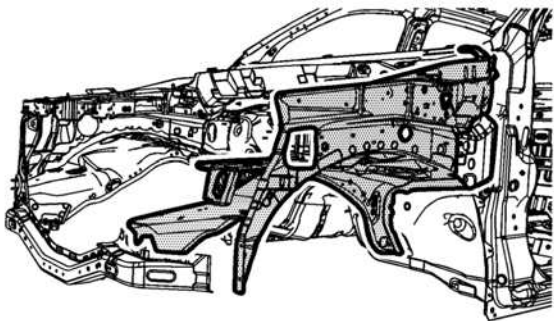
1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the front wheelhouse.



5. Plug weld accordingly.



6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint and repair the area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
11. Enable the SIR system. Refer to SIR Disabling and Enabling.

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Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

Warning: In order to reduce the risk of personal injury when exposed to toxic fumes while grinding, cutting, or applying repair material on any type of sheet molded compound or RIM rigid plastic, observe the following guidelines:

- Work in a properly ventilated area
- Apply protective cream to any exposed skin
- Remove any mixture that comes into contact with skin
- Wash skin with cold water to remove glass and resin dust
- Use a sander with a vacuum attachment
- Follow the repair material manufacturer's instructions

Also, always wear the following:

- An approved respirator, or air supplied respirator
- Eye protection
- Rubber gloves
- Earplugs
- Protective clothing

The following procedures should be followed when repairing all types of thermoset plastic:

- Follow the manufacturer's application and curing recommendations.
- Do not intermix systems. Use the supplies and the repair materials from the same manufacturer.
- Clean the inner and outer surfaces of the repair area with a soap impregnated scouring pad in order to remove any dirt or mold release agent.
- Clean the area with a wax and grease remover, using only enough of the remover to dampen a cloth. Allow the panel to dry thoroughly.
- Remove the surface finish from the area to be repaired. Adhesives are designed to adhere to the plastic substrate, not the finish.
- Prime a metal surface before applying the repair material.
- Inspect the rear side of the work area before making repairs in order to avoid possible damage to wires, motors, etc.

2013 Chevrolet Colorado

Submodel: | **Engine Type:** | **Liters:**

Fuel Delivery: | **Fuel:**

This information provides repair recommendations and general guidelines for steel classified as High Strength Low Alloy Steel, also known as HSLA. This type of steel normally has a tensile strength range from 300–700 MPa.

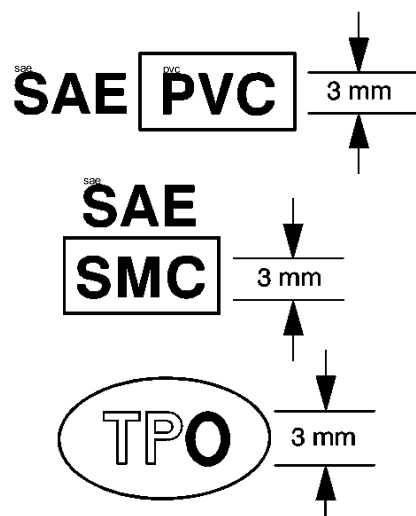
General Motors recommends the following when repairing or replacing this type of steel during collision repair.

Recommended Repairs

- Cold repairs can be performed on this type of steel, unless the damage includes kinks. If the damage includes kinks, the part should be replaced.
- Controlled use of heat can be used to repair damage, if the heat does not exceed 650°C (1200°F). The heat should be applied a maximum of 2 times, for up to 90 seconds.
- Sectioning or partial replacement of this type of steel is recommended only at approved locations, in a specific sectioning procedure.
- This type of steel can be used as a sleeve, or backer plate, during sectioning procedures.
- Squeeze Resistance Spot Welding can be used to replace factory spot welds, where applicable.
- MIG plug welding and MIG stitch welding can be used on this type of steel.
- MIG Brazing can be used on this type of steel.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Plastic parts can be identified by the SAE code, which is usually found on the rear of the part, and/or by the characteristics of the plastic. Knowing the type of plastic aids in selecting the proper repair materials and in selecting the proper repair procedure.

Look for the SAE code stamped into the part.

Code Found

Match the code to those in the plastic identification chart to determine whether the plastic is thermoplastic or thermoset plastic, and whether the plastic is rigid or flexible. Refer to Plastic Identification and Refinishing Systems.

No Code Found

Warning: Do NOT use a plastic burn test to distinguish the type of plastic. The burn test produces vapors which are harmful.

Perform one or both of the following tests to determine if the part is thermoplastic polyolefin or thermoset non-polyolefin.

Float Test

1. Cut a shaving of plastic from the back of the part.

The shaving should be free of mold release agents and paint.

2. Place the shaving in a container of water.

- Thermoplastic polyolefin floats.
- Thermoset non-polyolefin sinks.

Abrasion Test

- Sand a spot near the damaged area with Grade 36 Roloc Disc.
- Thermoplastic polyolefin material melts or frays when sanded.
- Thermoset non-polyolefin material sands cleanly.

Thermoplastic and thermoset plastics can be either rigid or flexible. Thermoplastic plastic parts are best repaired with a hot iron plastic material-feed welder, but are usually replaced. Thermoset plastic can be repaired with epoxy or other more rigid 2 package repair material.

- For rigid thermoset repair materials, refer to Rigid Plastic Part Repair Materials.
- For flexible thermoset repair materials, refer to Flexible Plastic Part Repair Materials.
- For general repair instructions, refer to General Plastic Repair.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

This is intended to provide general guidelines for adhesive bonding of exterior panels as an alternative to Metal-Inert Gas (MIG) welding. Panel bonding may be seen as an alternative to MIG welding to provide full panel replacement in regards to collision repair procedures. The benefits of panel bonding is:

- No heat or burn damage when additional welding is not required
- Corrosion protection
- Can act as a sealant
- Improved process for complicated shapes (wheelhouse area)

The General Motors specification for metal bonding adhesives is GM 6449G. The scope of this specification is intended to provide the performance guidelines of structural adhesive systems used to repair (metallic) automotive bodies in the aftermarket. These types of adhesives are intended for use when bonding replacement body panels as an option to welding as the attachment means. GM information outlines the use of room temperature cure acrylic adhesives that contain glass bead technology.

Bonding procedures in general are applicable only to a factory seams type approach.

Sectioning or partial paneling of full panels is not supported by General Motors unless specifically documented in a Service Bulletin or Manual.

Applicable components for this technology are EXTERIOR PANELS ONLY, including door skins, tail panels, roof outer panels and quarter panels.

Important: Do not use adhesives for vehicle underbody or upper body structure type repairs such as structural rails, shock/strut towers, floor pans, upper fender rails, body side pillars, door rings—side or rear, rocker panels, unless specifically documented in a GM Service Bulletin or Manual. If in doubt, use only the procedures referenced in the Service Manual for the specific vehicle being repaired.

Always follow the system manufacturer's instructions for application, handling, and curing.

Adhesives currently meeting the performance requirements include General Motors materials and products manufactured by Lord Adhesives. At this time, ONLY the adhesive products listed below meet this guideline:

Metal Panel Bonding

Manufacturer and Part Number	Description
GM P/N 12378566 (US)	Fast Set Panel Bonding Adhesive
GM P/N 88901674 (Canada)	
Lord Fusor P/N 110B/111B	
GM P/N 12378567 (US)	Medium Set Panel Bonding Adhesive
GM P/N 88901675 (Canada)	
Lord Fusor P/N 108B/109B	
3M P/N 8116	Panel Bonding Adhesive
Ashland Plio Grip Panel 60	Panel Bonding Adhesive

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

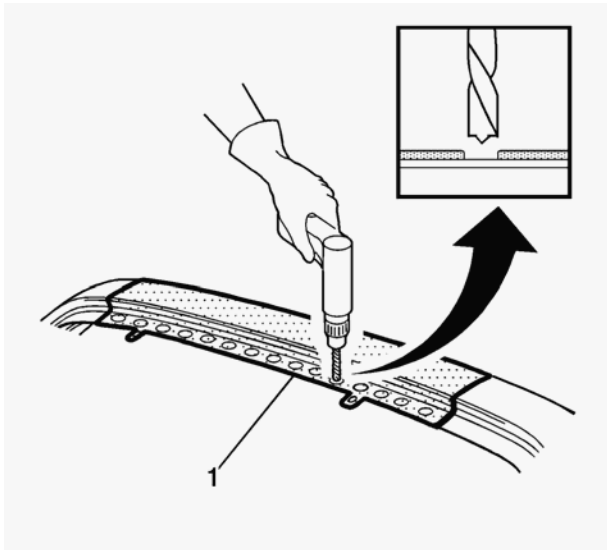
Warning: Refer to Approved Equipment for Collision Repair Warning.

Note: Use this procedure for all panels that are replaced at the factory seams, unless a specific procedure exists in the Collision Repair section of this vehicle's service information.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.

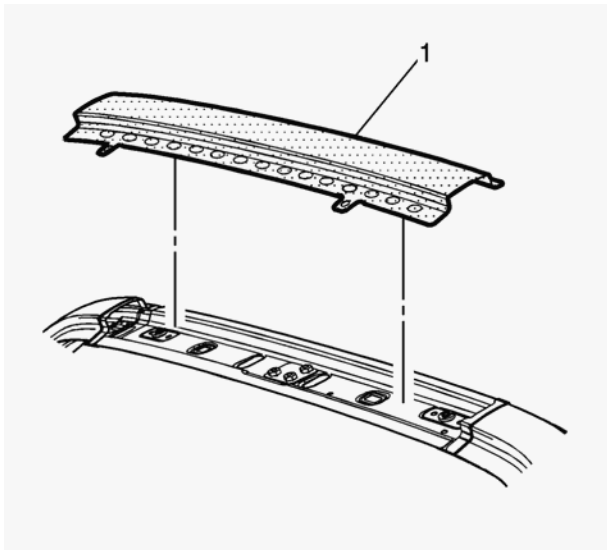
Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



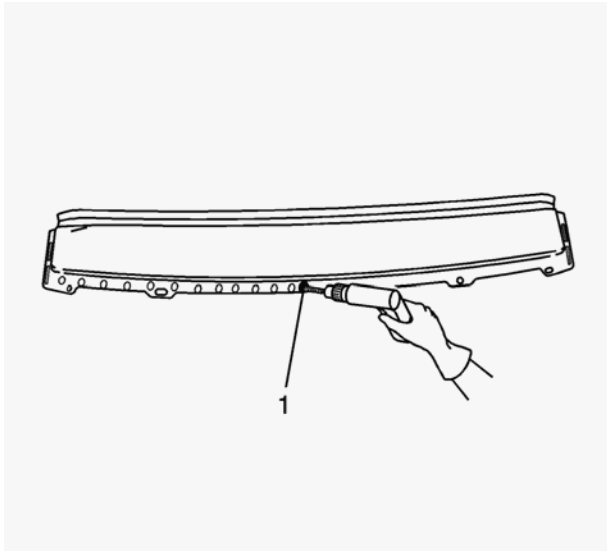
Note: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.



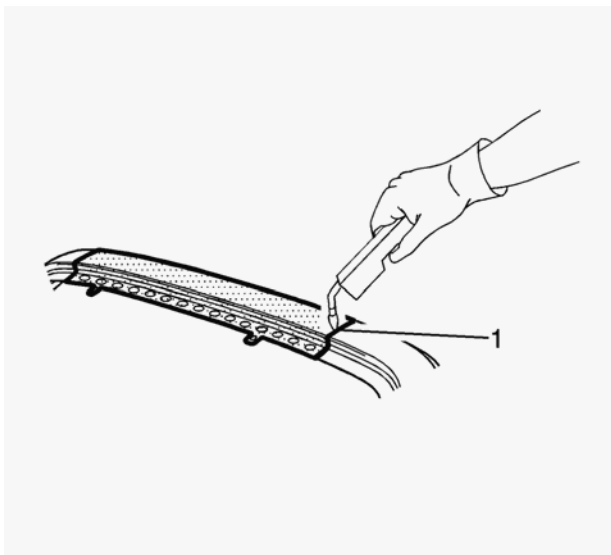
7. Remove the damaged part (1).

[Installation Procedure](#)



Note: If the location of the original plug weld holes can not be determined, space the plug weld holes every 40 mm (1 1/2 in) apart. Where structural adhesive was present, space the plug weld holes every 20 mm (3/4 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel (1).
2. Prepare all attachment surfaces as necessary.
3. Prepare all mating surfaces as necessary.
4. Apply GM-approved Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.
5. Position the service part. Clamp in place.



6. Plug weld accordingly (1).
7. Clean and prepare all welded surfaces.
8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
9. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
10. Install all related panels and components.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
12. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

This information provides repair recommendations and general guidelines for steel classified as Mild Steel. This type of steel normally has a tensile strength less than 270 MPa. This includes the common steel names of:

- Mild Steel
- Bake Hardenable Steel (BH)
- Solid Solution Strengthened Steel

General Motors recommends the following when repairing or replacing this type of steel during collision repair.

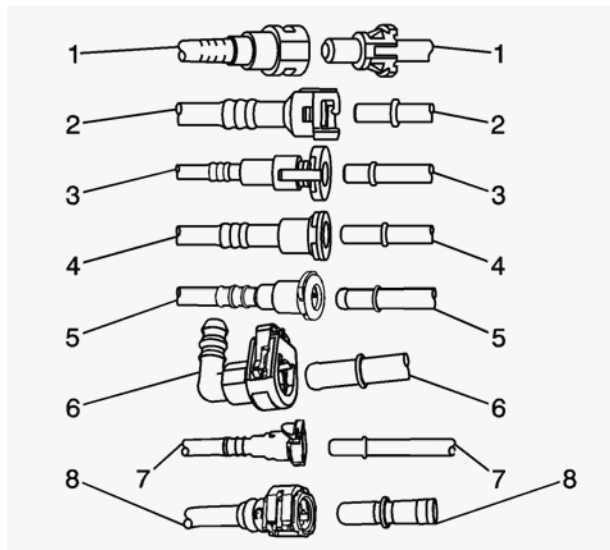
Recommended Repairs:

- Cold repairs can be performed on this type of steel, unless the damage includes kinks. If the damage includes kinks, the part should be replaced.
- Controlled use of heat can be used to repair damage, if the heat does not exceed 650°C (1200°F). The heat should be applied a maximum of 2 times, for up to 90 seconds.
- Sectioning or partial replacement of this type of steel is recommended only at approved locations, in a specific sectioning procedure.
- This type of steel can be used as a sleeve, or backer plate, when recommended in a specific sectioning procedure.
- Squeeze Resistance Spot Welding can be used to replace factory spot welds, where applicable
- MIG plug welding and MIG stitch welding can be used on this type of steel.
- MIG Brazing can be used on this type of steel.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure



Warning: Refer to Gasoline/Gasoline Vapors Warning.

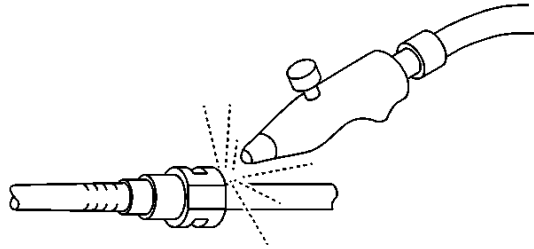
Note: There are several types of Plastic Collar Fuel and Evaporative Emission Quick Connect Fittings used on this vehicle.

- Bartholomew (1)
- Q Release (2)
- Squeeze to Release (3)
- Sliding Retainer (4)
- Global Connect (5)
- TI Loc (6)

- Safe Lock (7)

The following instructions apply to all of these types of Plastic Collar Quick Connect Fittings except where indicated.

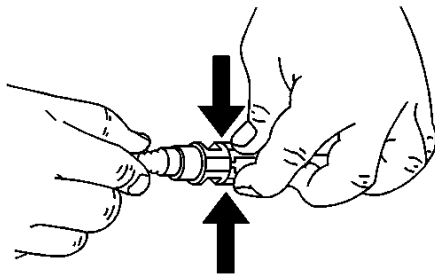
1. Relieve the fuel system pressure before servicing any fuel system connection.



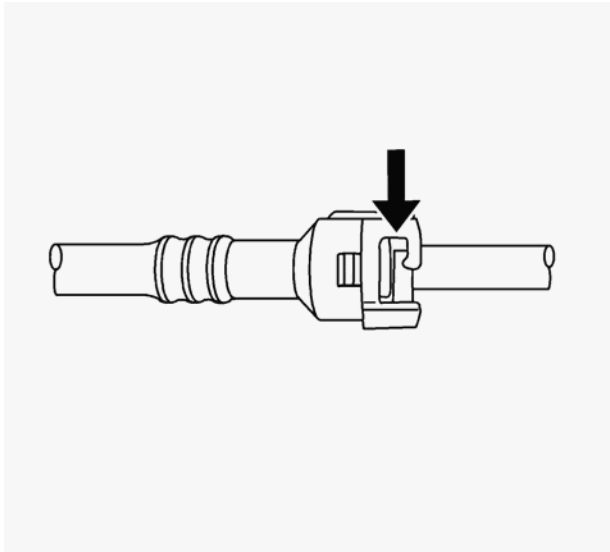
Warning: Refer to Safety Glasses and Compressed Air Warning.

Caution: Refer to Fuel and Evaporative Emission Hose/Pipe Connection Cleaning Caution.

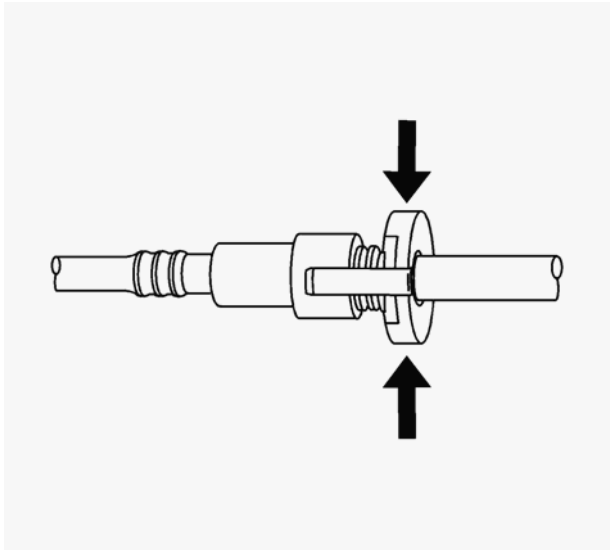
2. Using compressed air, blow any dirt out of the quick-connect fitting.



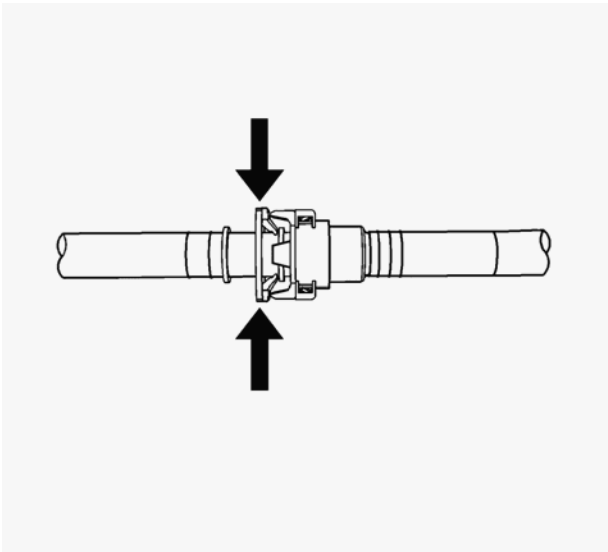
3. This step applies to Bartholomew style connectors ONLY. Squeeze the plastic quick-connect fitting release tabs.



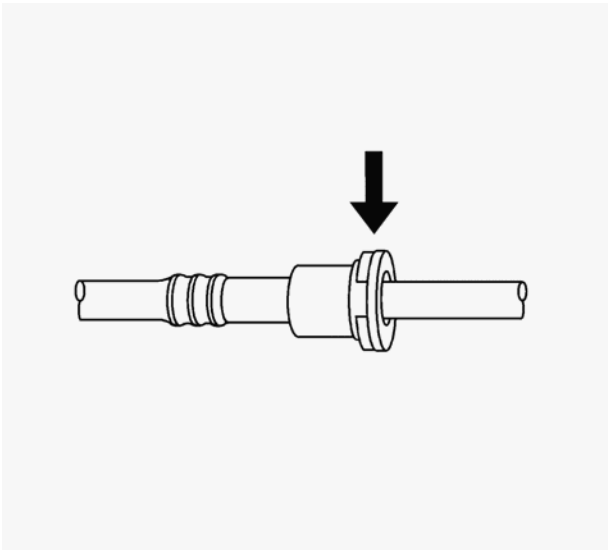
4. This step applies to Q Release style connectors ONLY. Release the fitting by Pushing the tab toward the other side of the slot in the fitting.



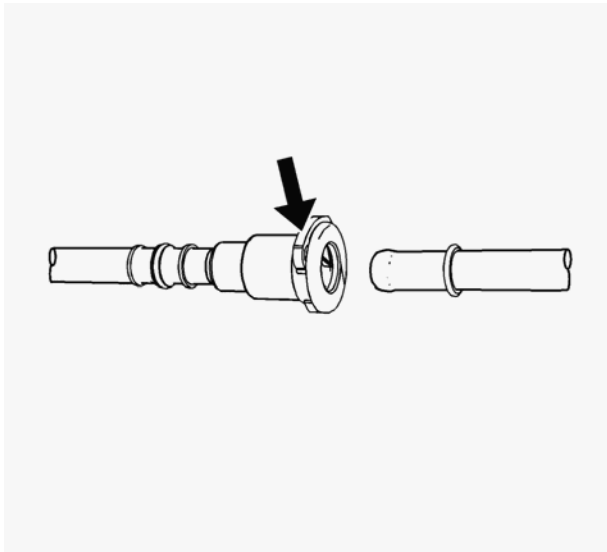
5. This step applies to Squeeze to Release style connectors ONLY. Squeeze where indicated by arrows on both sides of the plastic ring surrounding the quick-connect fitting.



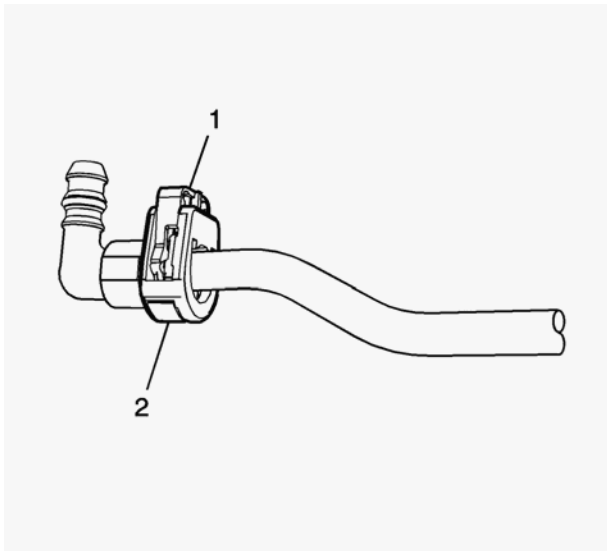
6. This step applies to Squeeze to Release style connectors ONLY. Push in the male side slightly in order to slide the retainer away from the retainers, squeeze where indicated by arrows on both sides of the plastic ring surrounding the quick-connect fitting.



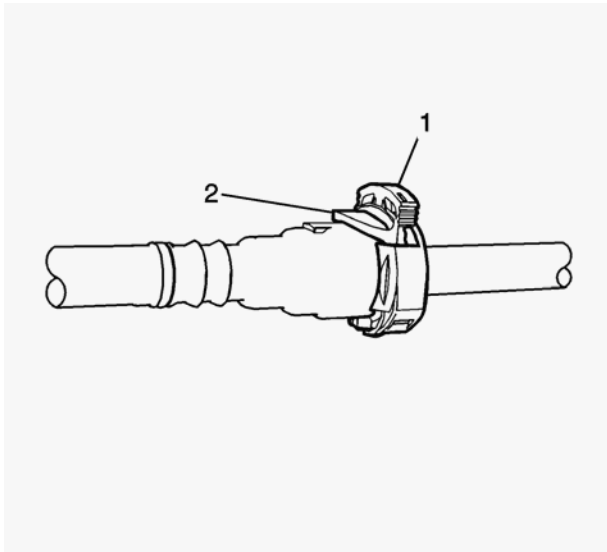
7. This step applies to Sliding Retainer style connectors ONLY. Release the fitting by pressing on one side of the release tab causing it to push in slightly. If the tab doesn't move try pressing the tab in from the opposite side. The tab will only move in one direction.



8. This step applies to the Global Connector style only. Push the connector toward the tube in order to release the pressure. Press and hold down the release mechanism, and pull the connector straight out.



9. This step applies to the TI Loc style only. Push the connector toward the tube in order to release the pressure. Release the redundant latch (1) with two fingers or a flat bladed tool. Then press and hold down the bottom release mechanism (2) and pull the connector straight out.

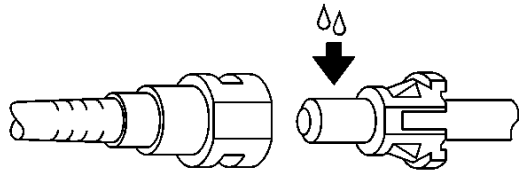


10. This step applies to the Safe Lock style only. Push the connector toward the tube in order to release the pressure. Release the second latch (1) with two fingers. Then press and hold down the bottom release mechanism (2) and pull the connector straight out.

Warning: Refer to Relieving Fuel Pressure Warning.

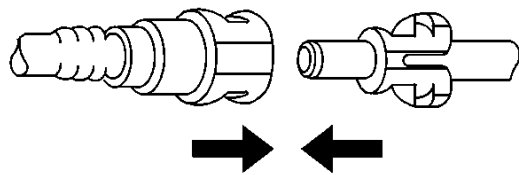
11. Using a clean shop towel, wipe off the male pipe end.
12. Inspect both ends of the fitting for dirt and burrs.
13. Clean or replace components as necessary.

[Installation Procedure](#)

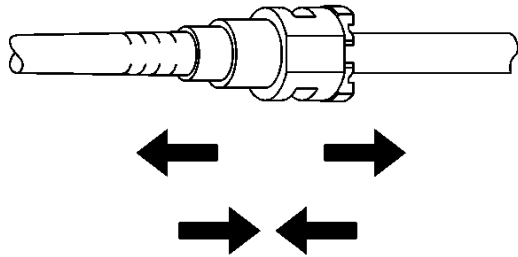


Warning: Refer to Fuel Pipe Fitting Warning.

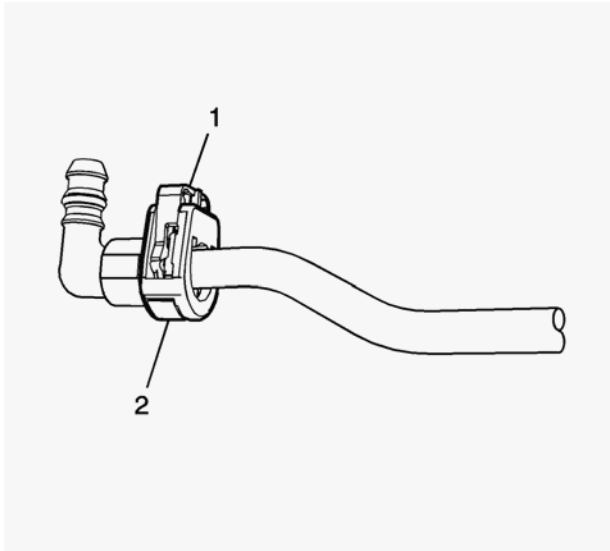
1. Apply a few drops of clean engine oil to the male pipe end.



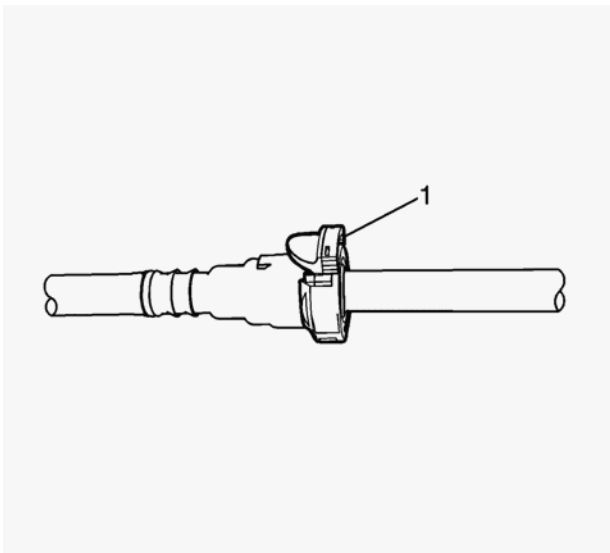
2. Push both sides of the quick-connect fitting together in order to cause the retaining feature to snap into place.



3. Pull on both sides of the quick-connect fitting to make sure the connection is secure.



4. Insert the tube in the connector until the retainer snaps in place.
5. Push down on the redundant latch (1) until it is fully engaged and snapped into position.



6. Insert the tube in the connector until the retainer snaps in place.
7. Push down on the second latch (1) in order to secure the connection.
8. Inspect for leaks using the following procedure:
 1. Turn the ignition ON, with the engine OFF for 2 seconds.
 2. Turn the ignition OFF, for 10 seconds.
 3. Turn the ignition ON, with the engine OFF for 2 seconds.
 4. Turn the ignition OFF.
 5. Inspect for leaks.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Plastic Identification and Refinishing Systems

Identifying Symbol– Old Symbol in ()s	Chemical Composition or Plastic Family Name	Typical Area(s) Where Part is Used	Examples of Common / Trade Names	Type of Plastic
ABS	Acrylonitrile / Butadiene-Styrene	Armrest Support, Console, IPC, Steering Column Bracket / Jacket, Trim Molding	ABS, Absafil, Magnum, Cyclocac, Dyel, Kralastic, Lustran	Thermoplastic
ABS + PC	Acrylonitrile / Butadiene-Styrene + Polycarbonate	Instrument Panel, IPC	Bayblend, Cycdloy, KHA, Pulse	Rigid
ABS / PVC	ABS/Vinyl (Soft)	Head Rest Cover, Instrument Panel Pad, Trim Molding / Panel	ABS Vinyl	Flexible, Vinyl
EPDM	Ethylene Propylene Diene Monomer	Body Panel, Bumper Impact Strip	EPDM, Nordel	Rigid
EVA (EVAC)	Ethylene / Vinyl Acetate	Head Rest Cover, Misc Soft Trim	Elvax, Microthane	Flexible
PA	Polyamide	Headlamp Bezels, Quarter Panel Extensions, Exterior Finish Trim Panels	Nylon, Capron, Zytel, Rilsan, Minlon, Vydye, Welland	Rigid
PA, PAG, PAGG	Polyamide	Exterior Finish Trim Panel, Headlamp Bezel, Quarter Panel Extension	Capron, Minlon, Nylon, Rilsan, Vydye, Wellamid, Zytel	Rigid, Thermoset
PA + PPE	Polyimide + Polyphenylene Ether	Exterior Trim, Fender	GTX	Rigid, Thermoset
PBT + TEEE (PBTP + EEBC)	Polybutylene, Terephthalate + Ether, Ester Block Compound	Fascia, Rocker Panel Molding	Bexloy M	Rigid
PC	Polycarbonate	Interior Rigid / Hard Trim Panel, Valance Panel	Calibre, Lexan, Merlon, Makrdon	Rigid, Thermoset
PC + PETP	Polycarbonate + Polybutylene, Terephthalate	Bumper Fascia	Macroblend, Valox, Xenoy	Flexible, Thermoset
PE	Polyethylene	Fuel Tank Shield, Inner Fender Panel, Interior Trim Panel, Seat Belt Cover, Spoiler, Valance	Alathon, Dylan, Foriflex, Hi-fax, Hosalen, Marlex, Paxon	Rigid, Thermoplastic
PF	Phenol Formaldehyde	Ashtray	Amberd, Bakelite, Durez, Genal, Phendic, Plyophen, Resinox	Rigid, Thermoset
PP	Polypropylene	Bumper Fascia, Cowl Panel, Deflector Panel, Door Panel, Inner Fender, Interior Molding, Kick Panel, Load Floor, Radiator Shroud, Wheel Cover	Azdel, Daplen, Escorene, Marlex, Novden, Oleflo, Profax, Tenite	Flexible, Thermoplastic
PPE (PPO)	Polyphenylene Ether	Bezels, Chromed Plastic, Headlamp Door, Ornaments	Noryl, Oleflo, Prevex	Rigid, Thermoset
PS	Polystyrene	Dash Panel, Door Panel	Durathon, Dylan, Lustrex, Polystyrol, Styron	Flexible, Soft
PUR	Polyurethane, Thermoset (Unsaturated)	Bumper Fascia, Filler Panel, Front/Rear Body Panel, Pickup Box	Bayflex, Castethane, RIM, RRIM, SRIM	Thermoset
PVC	Polyvinyl Chloride (Vinyl)	Interior Soft Trim, I/P Skins, Roof Cover	Geon, Pliovic, Unichem, Vinoflex, Vinyl, Vinylite	Flexible, Vinyl
SAN (SA)	Styrene Acrylonitrile	Center Console, Glove Box Door, Interior Trim Panel	Foracryl, Lustran, Tyril	Rigid
TEO (EP, EPM, TPO)	Ethylene / Propylene (Rubber)	Air Dam, Bumper Fascia, Valance Panel	EPI, EPII, TPO, TPR (Thermoplastic Rubber)	Flexible, Thermoplastic
TPO	Thermal Plastic Oletin	Bumper Covers	TPO	Flexible Thermoplastic
TPU (TPUR)	Polyurethane, Polydefin	Bumper Fascia, Gravel Deflector, Soft Filler Panel, Window Molding	Estane, Pellethane, Roylar, Toxin	Flexible, Thermoplastic
UP	Polyester / Thermoset	Air Scoop, Air Spoiler, Fascia Extension, Hood, Instrument Housing, Rear	Fiberglass, Premi-glass, Salsotron, SMC, Vibramat	Rigid, Thermoset

2013 Chevrolet Colorado

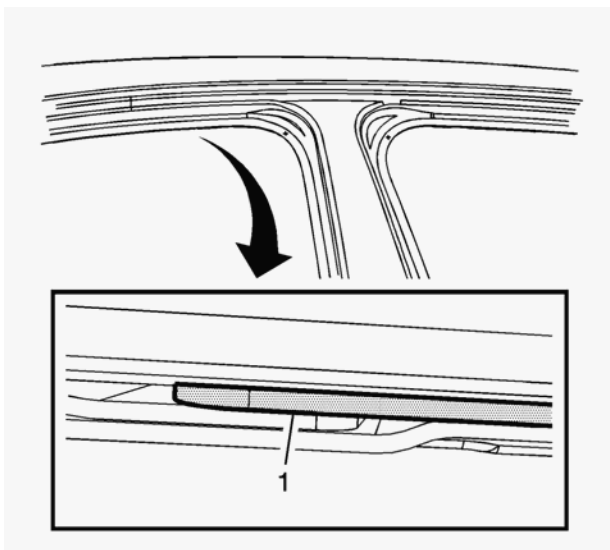
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

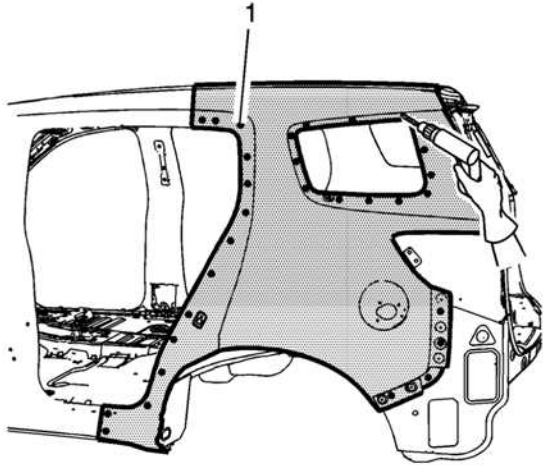
Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

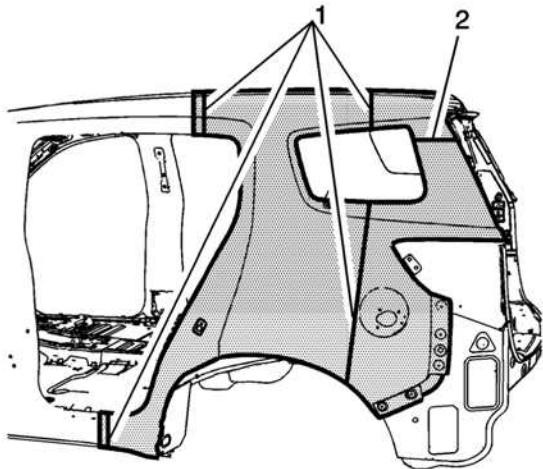


6. Remove the weatherstrip observing the flange in the center pillar area. There will be a 3-metal stack-up. The center layer is the center pillar inner reinforcement (1).

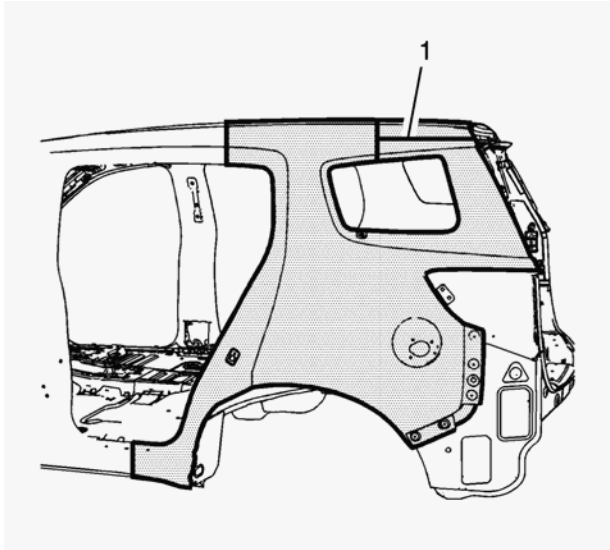


Note: Do not damage any inner panels or reinforcements.

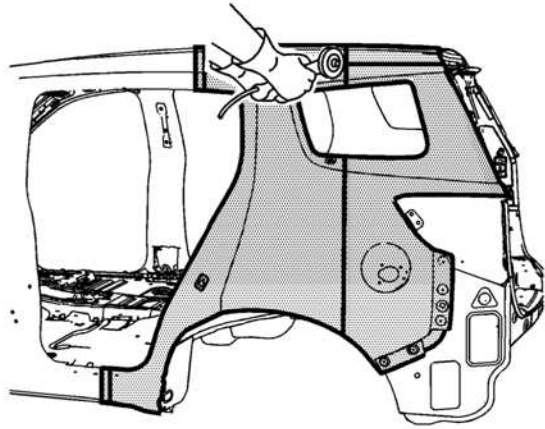
7. Locate and drill out all factory welds (1). Note the number and location of the welds (1) for installation of the service panel.



8. Measure 30 mm (1.18 in) from the forward and rearward edges of the quarter panel reinforcement and mark a vertical line (1).
9. Mark a horizontal line (2) in the "C" pillar.

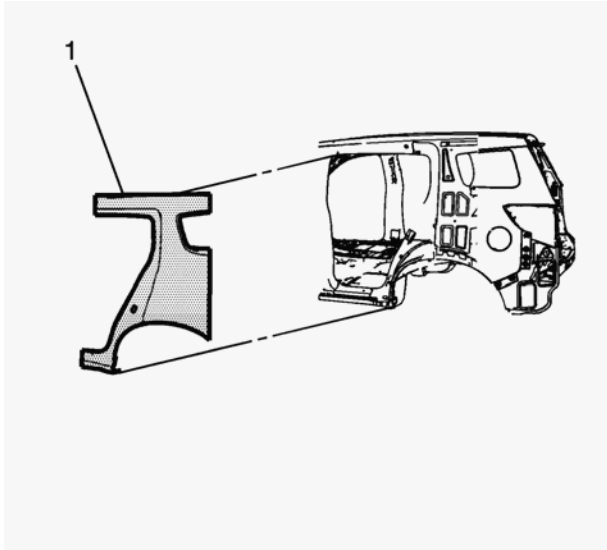


10. Measure 30 mm (1.18 in) from the upper corner and mark a horizontal line (1).

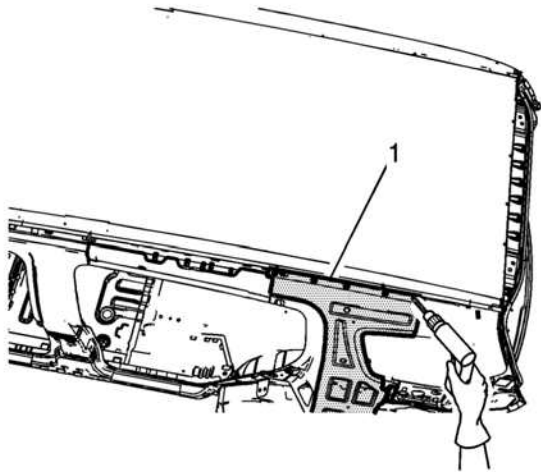


Note: Do not damage any inner panels or reinforcements.

11. Cut out the panel where sectioning is to be performed.
12. Perform additional sectioning procedures as necessary. Refer to Structure Identification.

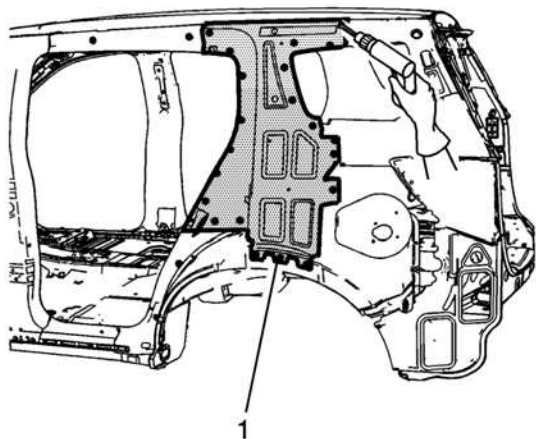


13. Remove the damaged quarter panel section (1).



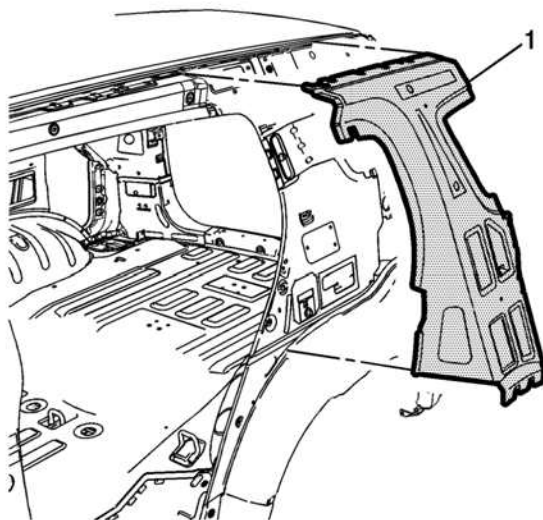
Note: Do not damage any inner panels or reinforcements.

14. Locate and drill out all factory welds (1) linking the roof and the quarter inner reinforcement. Note the number and location of the welds (1) for installation of the service panel.



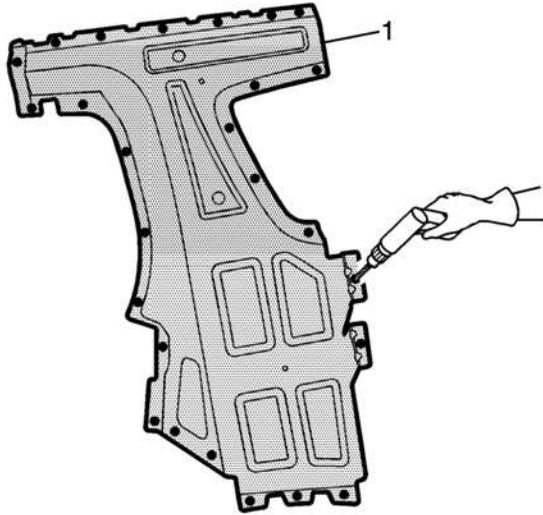
Note: Do not damage the roof when drilling out welds.

15. Locate and drill out all factory welds from the quarter inner reinforcement (1). Note the number and location of the welds for installation of the service panel.



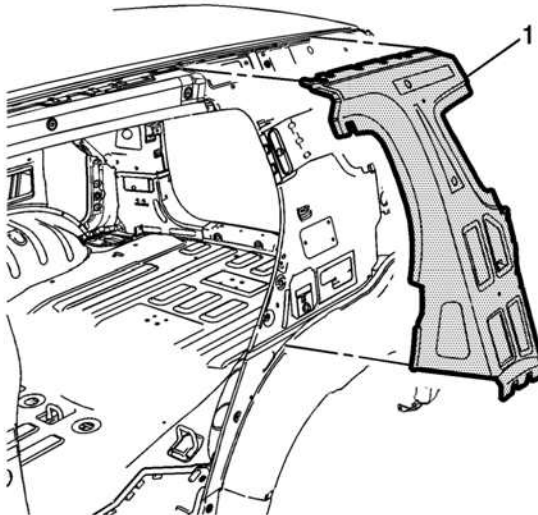
16. Remove the damaged quarter inner reinforcement (1).

[Installation Procedure](#)

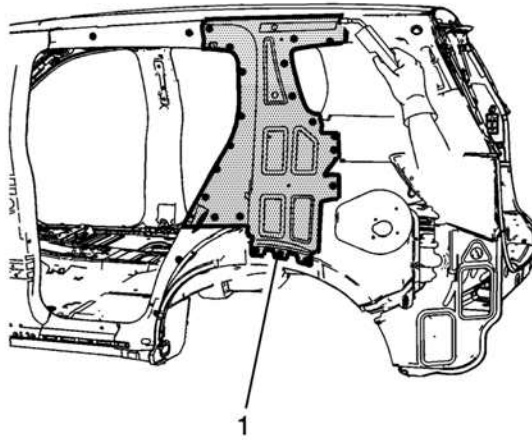


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

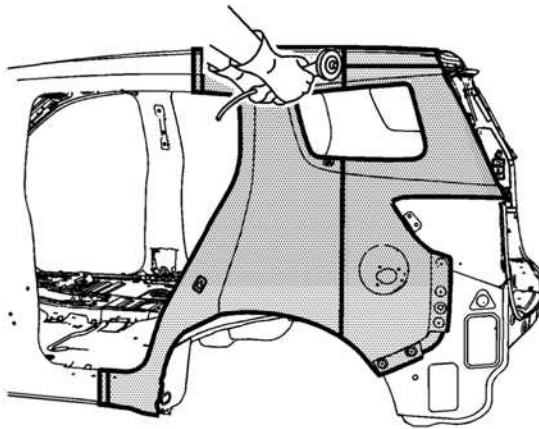
1. Drill 8 mm (5/16 in) plug weld holes in the quarter inner reinforcement (1) as necessary, in the locations noted from the original panel.
2. Prepare all attachment surfaces, as necessary.
3. Apply GM-approved Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



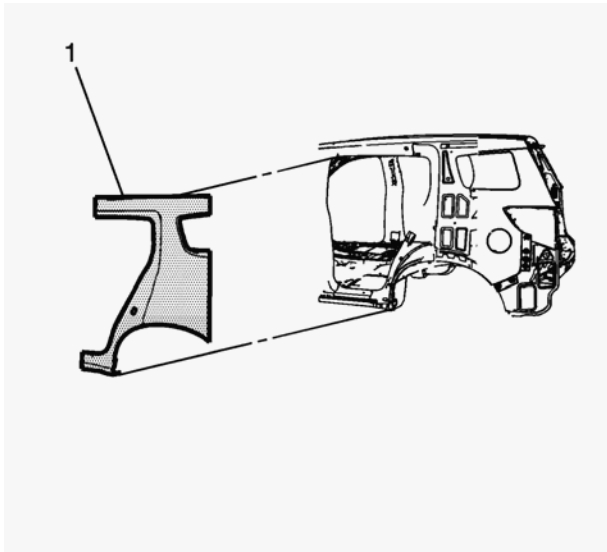
4. Position the quarter inner reinforcement (1).
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.



7. Plug weld accordingly.
8. Clean and prepare all welded surfaces.

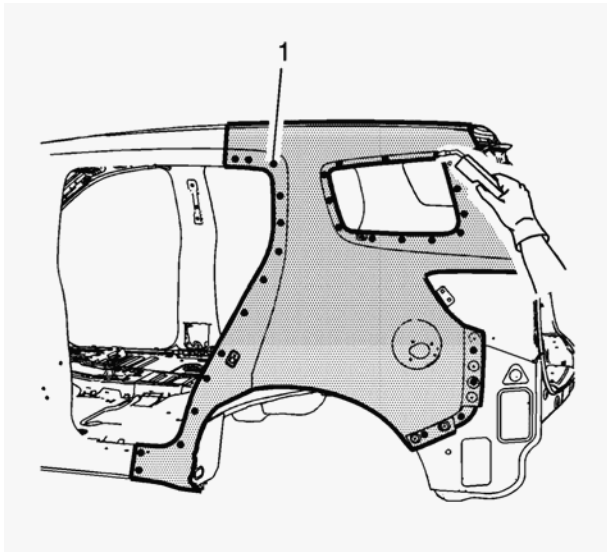


9. Cut the replacement quarter panel section in corresponding locations to fit the original panel. The sectioning joint should be trimmed to allow 25 mm overlap at the sectioning joint.



Note: In any area damaged beyond recognition, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

10. Position the quarter panel (1) to the vehicle using 3-dimensional measuring equipment.
11. Clamp the quarter panel (1) in position.



12. Plug weld (1) accordingly.

Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Then go back and complete the stitch welds.

13. Stitch the weld sectioning joint.

14. Clean and prepare all welded surfaces.
15. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
16. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
17. Install all related panels and components.
18. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
19. Enable the SIR system. Refer to SIR Disabling and Enabling.

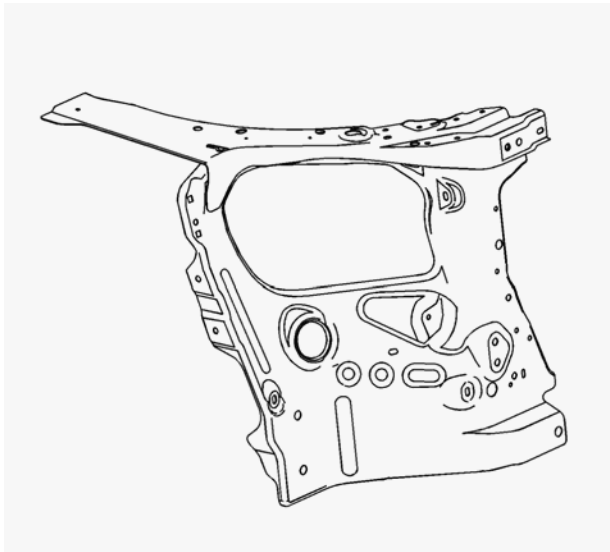
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

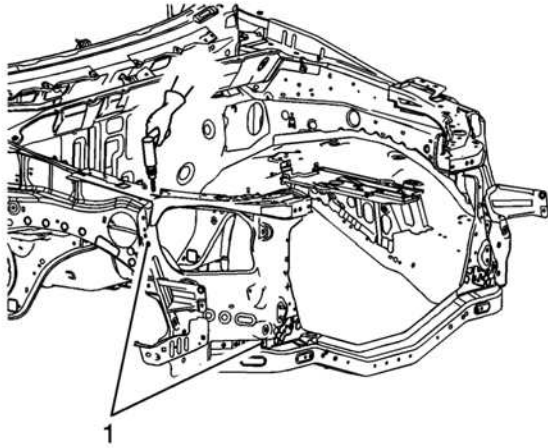
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.

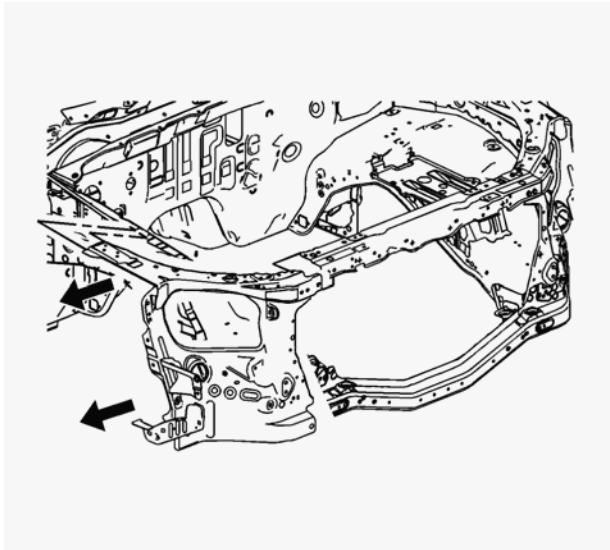


3. Remove all related panels and components.
4. Restore as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



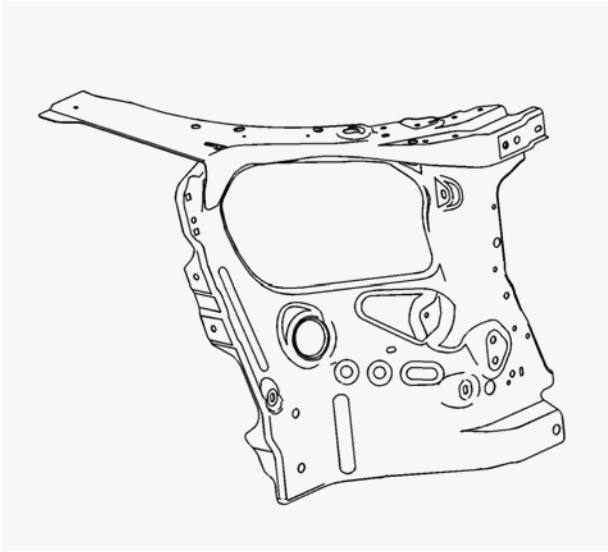
Note: Note the number and location of the factory welds for installation of the radiator side mounting panel.

6. Locate and drill out all factory welds (1).



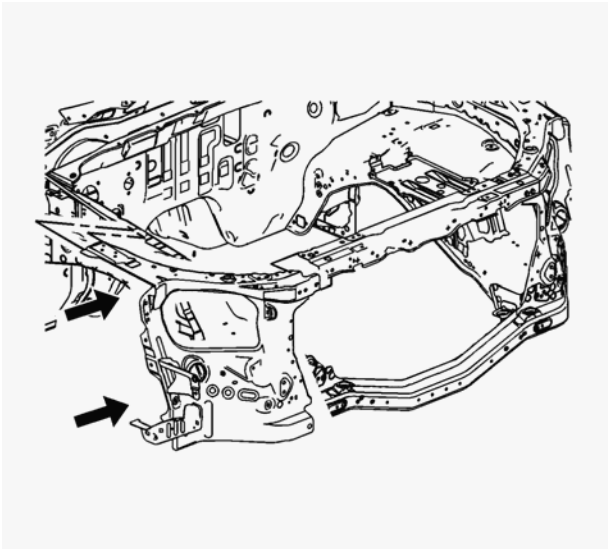
7. Remove the damaged radiator side mounting panel.

[Installation Procedure](#)

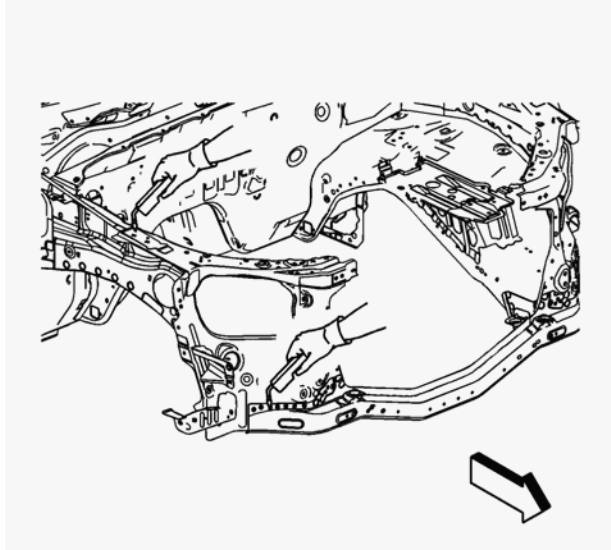


Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1½ in) apart.

1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the radiator side mounting panel on the vehicle using 3-dimensional measuring equipment. Clamp the radiator side mounting panel in place.



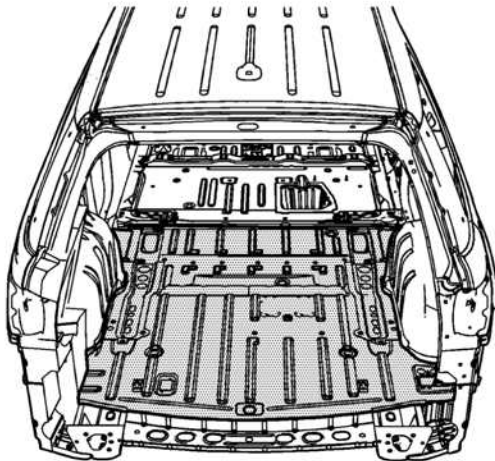
5. Plug weld accordingly.
6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint and repair the area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
11. Enable the SIR system. Refer to SIR Disabling and Enabling.

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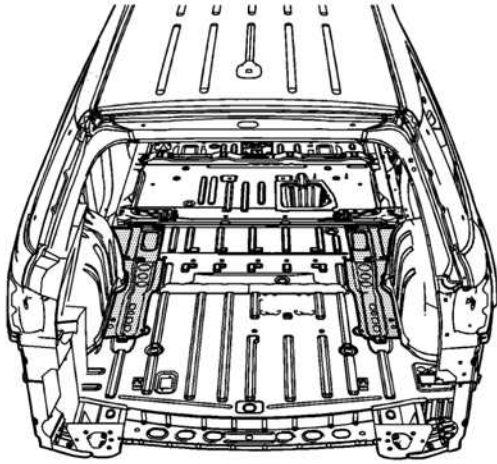
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.



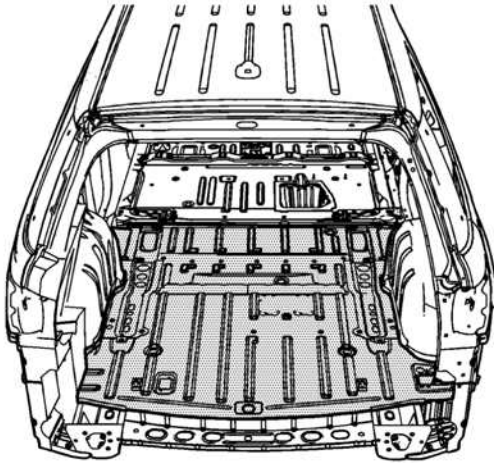
1. Disable the supplemental inflatable restraint (SIR) system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



Note: Do not damage any inner panels or reinforcements.

6. Remove the rear underbody tie plates. Replace if damaged.
7. Locate and drill out all factory welds. Note the number and location of the welds for installation of the rear floor panel.
8. With the aid of an assistant, remove the damaged rear floor panel.

Installation Procedure



Note: If the location of the original plug weld holes can not be determined, space the plug weld holes every 40 mm (1 ½ in) apart.

Some panels may have structural weld-thru adhesive. It is necessary to replace the weld-thru adhesive with an additional spot weld between each factory spot weld.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply 3M Weld-Thru Coating P/N 05916 or equivalent to all mating surfaces.
4. With the aid of an assistant, position the rear floor panel to the vehicle using 3-dimensional measuring equipment. Clamp the rear floor panel into place.
5. Plug weld accordingly.
6. Install the rear underbody tie plates.
7. Clean and prepare all welded surfaces.
8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
9. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
10. Install all related panels and components.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
12. Enable the SIR system. Refer to SIR Disabling and Enabling.

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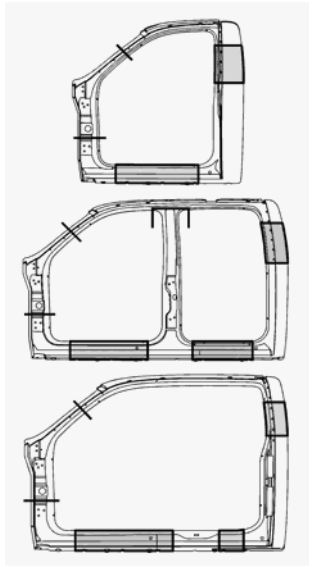
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

Warning: Refer to Collision Sectioning Warning.

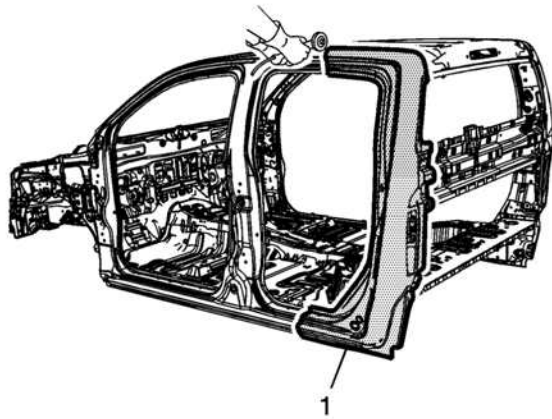


1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Perform additional sectioning procedures, as necessary. Refer to the following procedures:

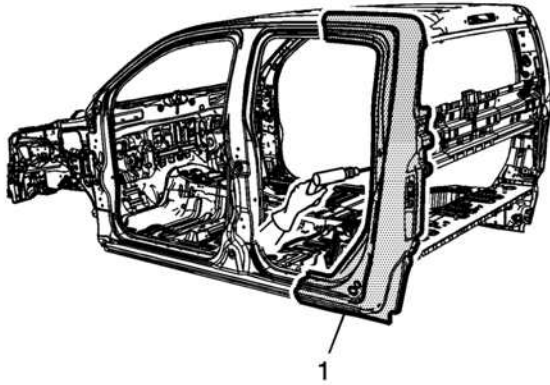
- Outer Windshield Frame Pillar Sectioning
- Front Hinge Pillar Sectioning
- Rocker Outer Panel Sectioning
- Center Pillar Sectioning



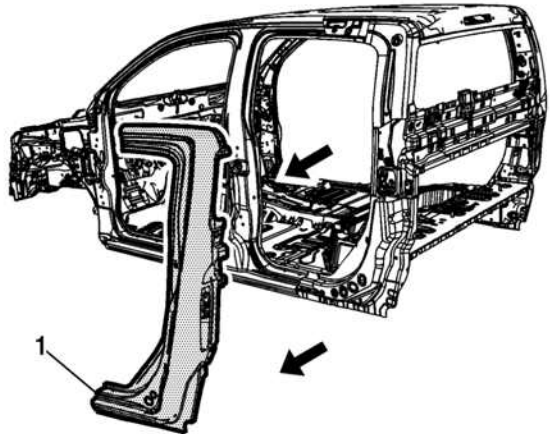
- Perform the sectioning (1) at 170 mm (6.7 in) from the point indicated and 30 mm (1.18 in) from the inner reinforcement or choose the procedure that fits better according to the collision.

Note: Do not damage any inner panels or reinforcements.

- Cut the panel in the locations where sectioning is to be performed.

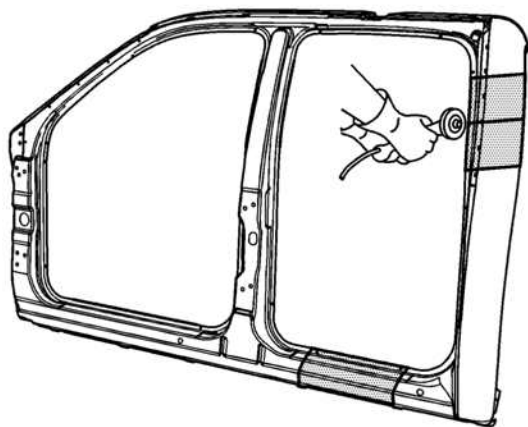


- Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.

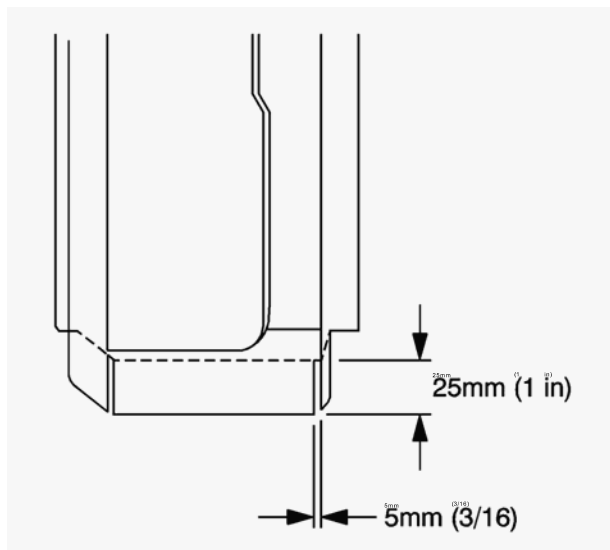


- Remove the damaged pillar section (1).

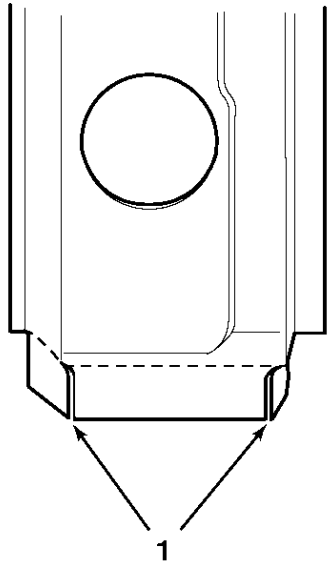
[Installation Procedure](#)



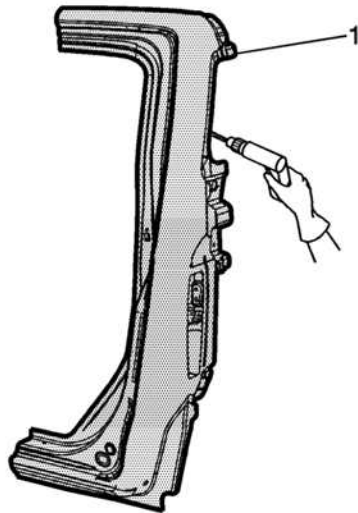
1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in).



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

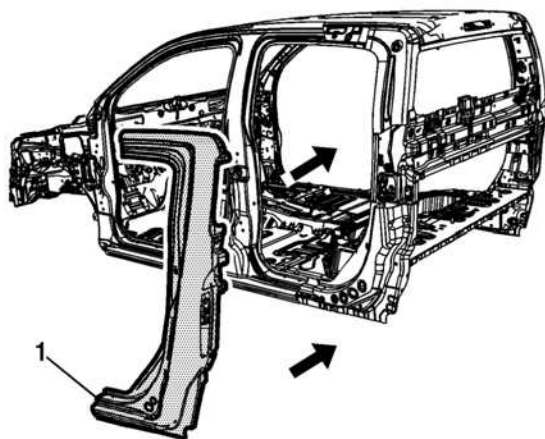


3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

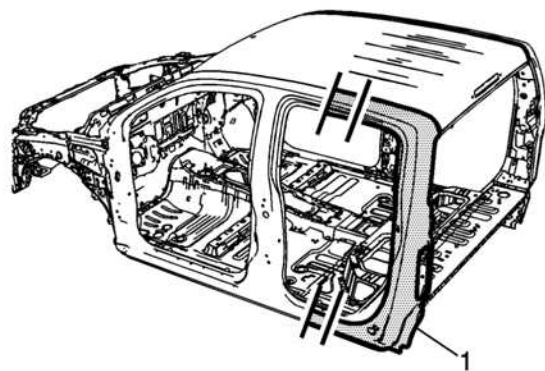


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

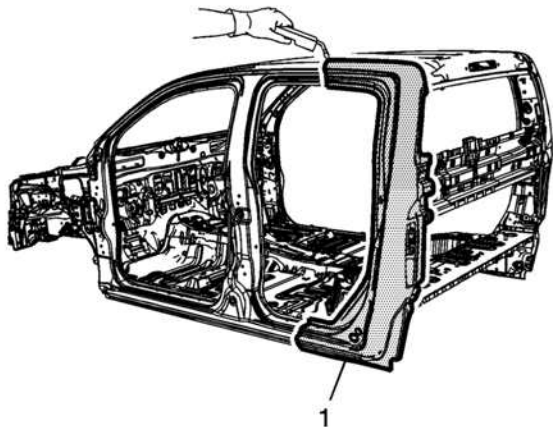
4. Drill 8 mm (5/16 in) plug weld holes in the service part (1) as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



7. Position the rear pillar (1) to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Fit the new part (1) on the original panel.



9. Plug weld accordingly (1).

Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
12. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
13. Install all related panels and components.
14. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
15. Enable the SIR system. Refer to SIR Disabling and Enabling.

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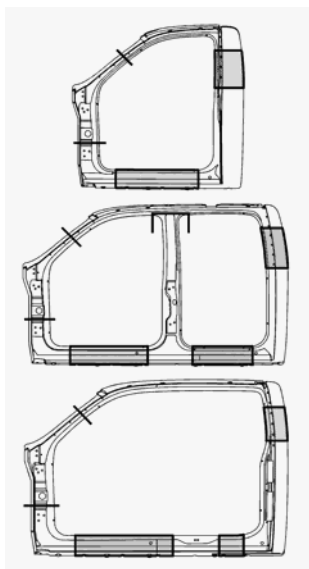
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

Warning: Refer to Collision Sectioning Warning.

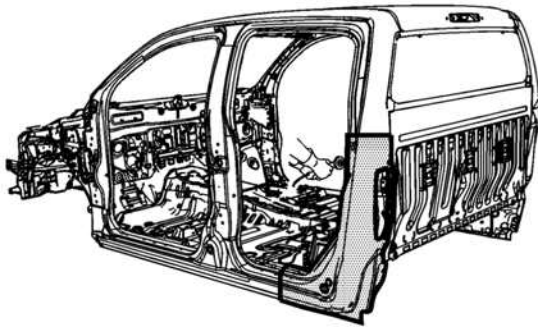


1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Perform additional sectioning procedures, as necessary. Refer to the following procedures:

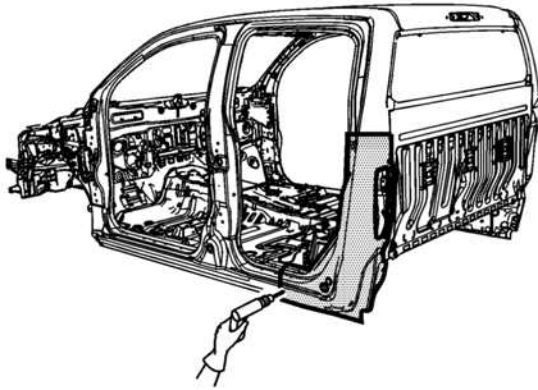
- Outer Windshield Frame Pillar Sectioning
- Front Hinge Pillar Sectioning
- Rocker Outer Panel Sectioning
- Center Pillar Sectioning



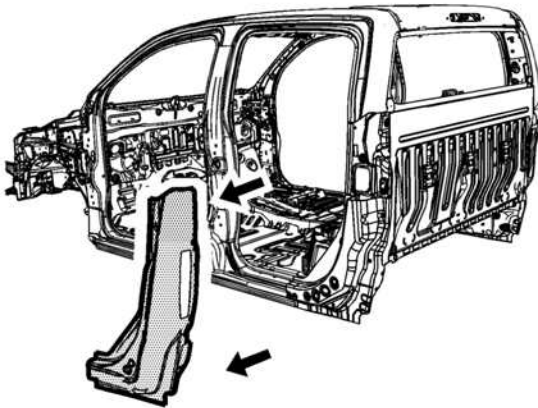
- Perform the sectioning at 170 mm (6.7 in) from the point indicated and 30 mm (1.18 in) from the inner reinforcement or choose the procedure that fits better according to the collision.

Note: Do not damage any inner panels or reinforcements.

- Cut the panel in the locations where sectioning is to be performed.

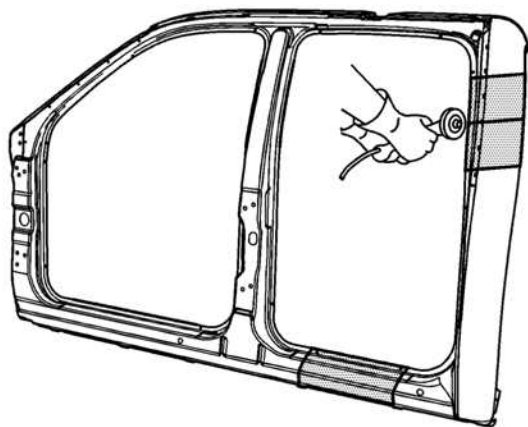


- Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

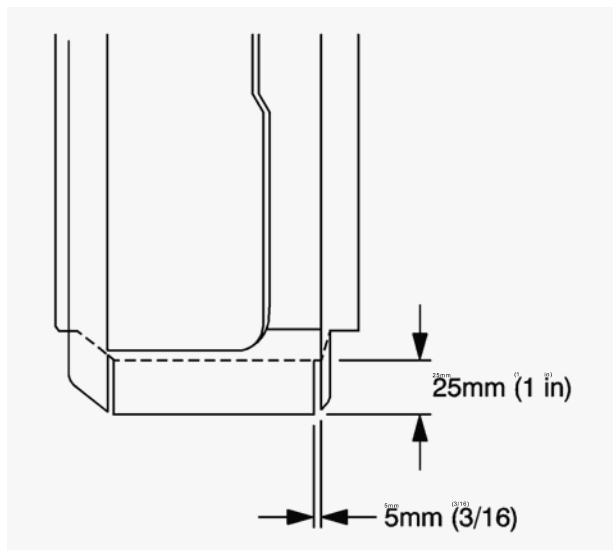


- Remove the damaged pillar section.

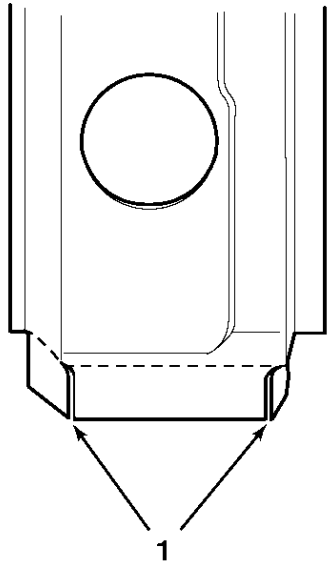
[Installation Procedure](#)



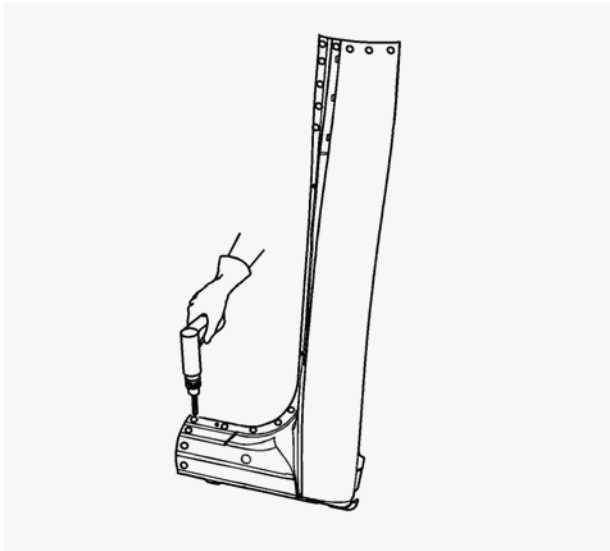
1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in).



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

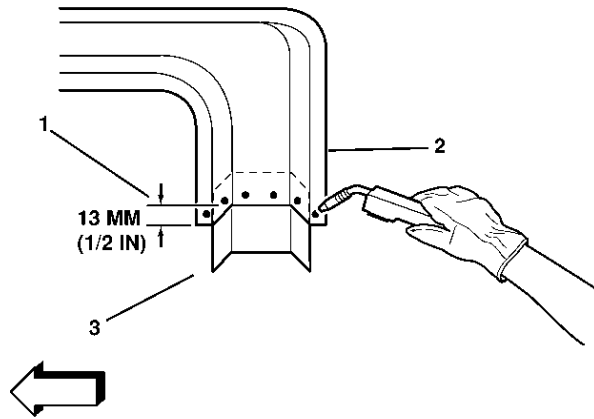


3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

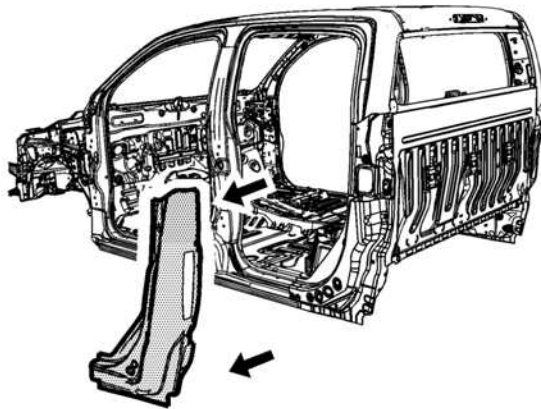


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

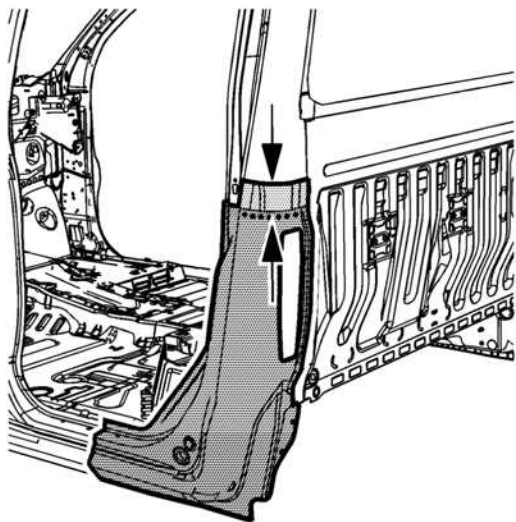
4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.



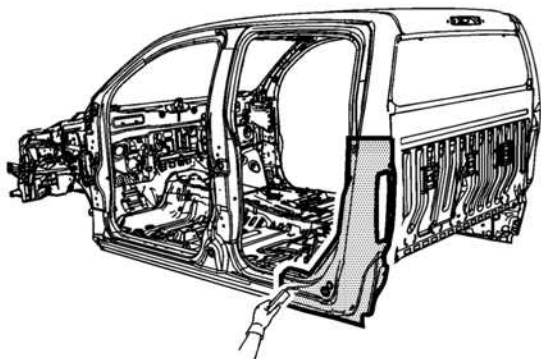
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



7. Position the rear pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Fit the new part on the original panel.



9. Plug weld accordingly.

Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
12. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.

13. Install all related panels and components.
14. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
15. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

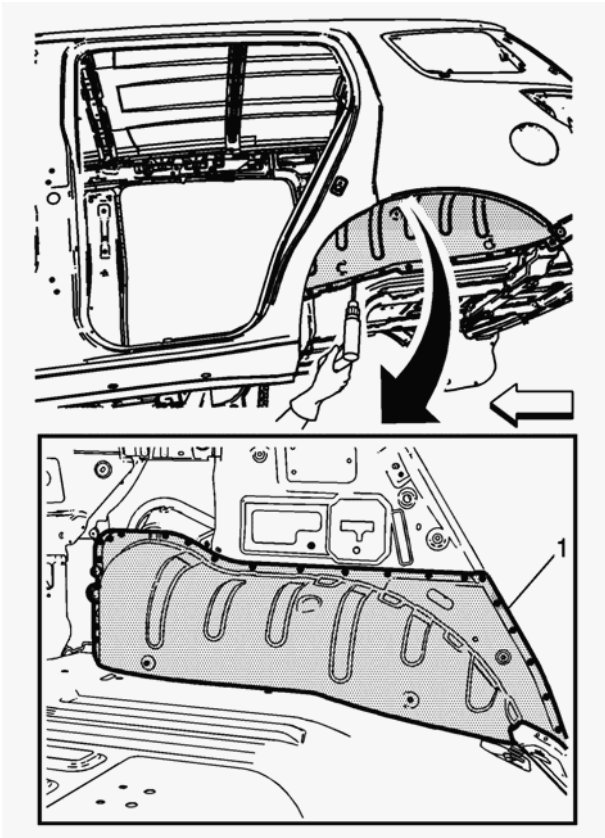
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

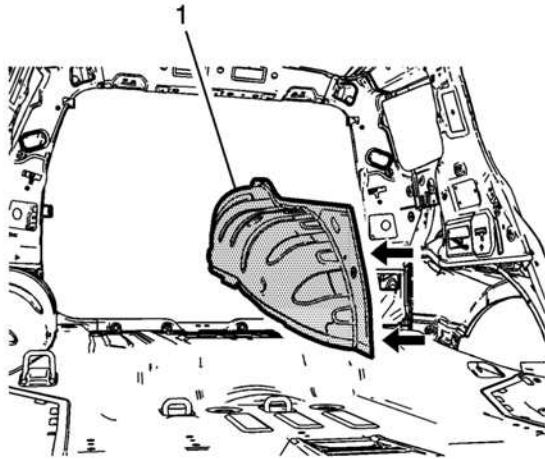
Note: Before beginning the repair, refer to Metal Panel Bonding for proper adhesive applicator preparations and general information.

1. Disable the supplemental inflatable restraint (SIR) system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



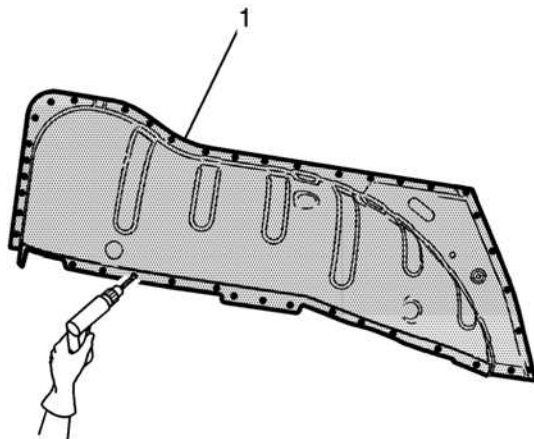
Note: Do not damage any inner panels or reinforcements. Record the number and location of the original welds for installation of the service part.

6. Locate and drill out all the necessary factory welds (1).



7. Remove the rear inner wheelhouse (1).

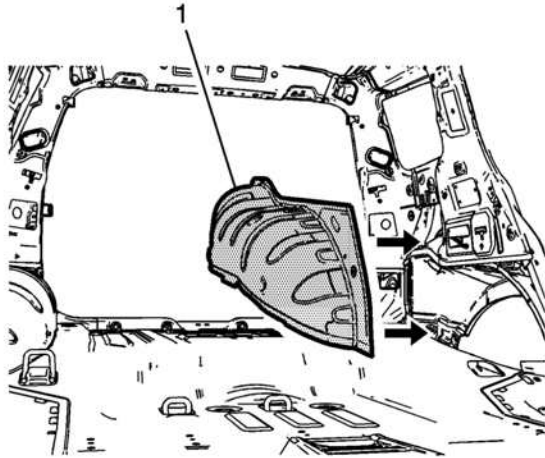
[Installation Procedure](#)



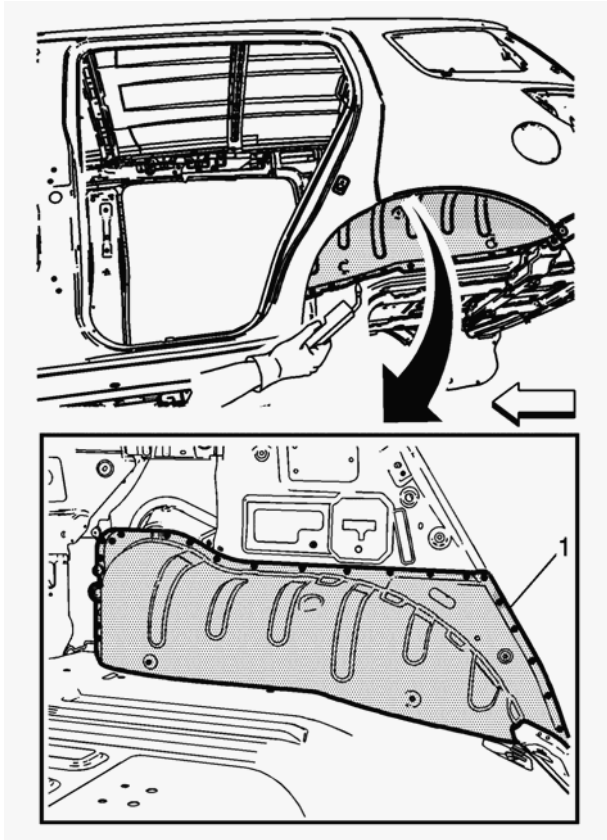
Note: If the location of the original plug welds cannot be determined or structural weld- thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel (1).

2. Prepare all mating surfaces as necessary.
3. Apply GM approved weld-thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the rear inner wheelhouse (1) to the vehicle.
5. Clamp the rear inner wheelhouse (1) in place.



6. Plug weld accordingly (1).
7. Clean and prepare all of the welded surfaces.
8. Install all of the related panels and components.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
10. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
12. Enable the SIR system. Refer to SIR Disabling and Enabling.

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Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

Removal Procedure

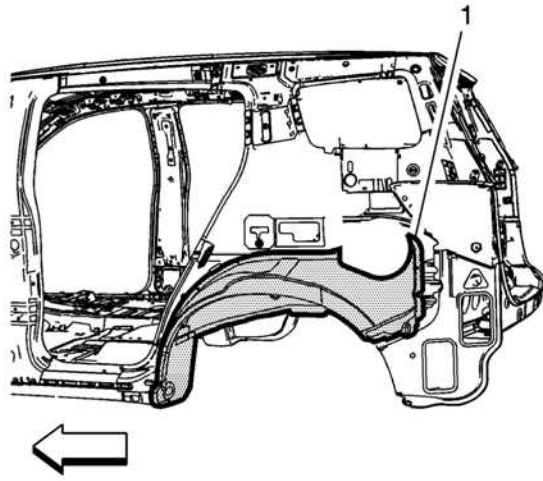
Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

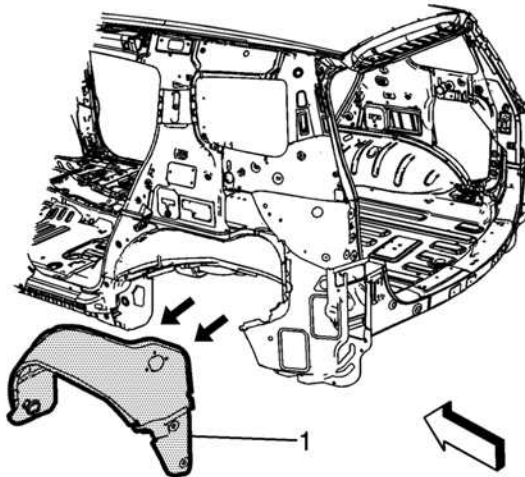
Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
6. Perform the necessary procedures to gain access to the repair.



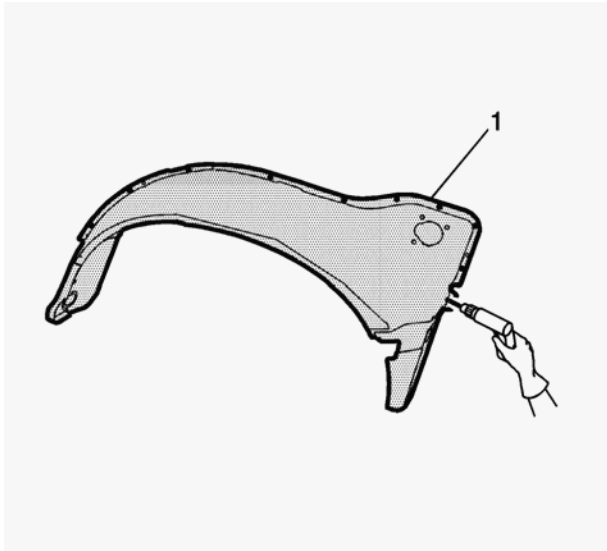
Note: Do not damage any inner panels or reinforcements.

7. Trim away the damaged flange area of the rear wheelhouse (1) to gain access to the weld flange.
8. Locate and drill out all factory welds. Note the number and location of the welds for installation of the outer rear wheelhouse.



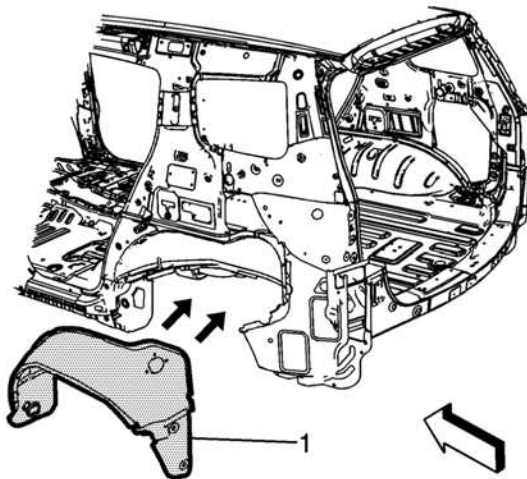
9. Remove the damaged rear wheelhouse (1).

[Installation Procedure](#)

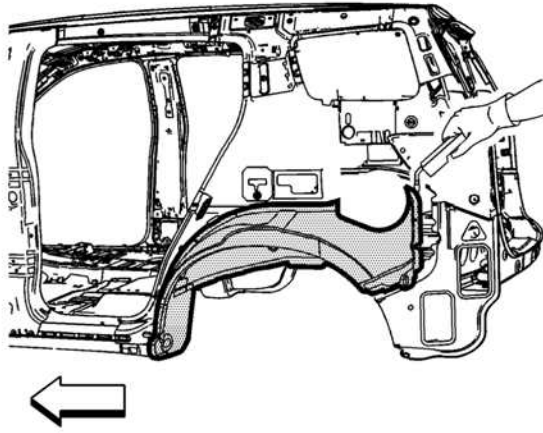


Note: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

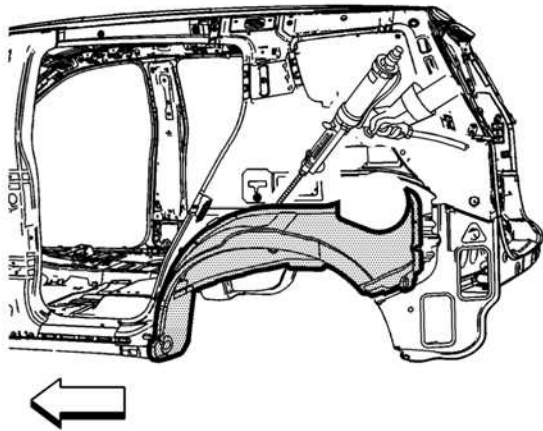
1. Drill 8 mm (5/16 in) plug weld holes (1) in the service part, as necessary, in the service part in locations noted from the original panel.
2. Prepare all attachment surfaces, as necessary.



3. Apply GM approved weld-thru coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.
4. Position the rear wheelhouse (1) to the vehicle.



5. Plug weld accordingly.



6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
8. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
11. Enable the SIR system. Refer to SIR Disabling and Enabling.

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Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

Note: Use this procedure for all panels that are replaced at the factory seams, unless a specific procedure exists in the Collision Repair section of this vehicle's service information.

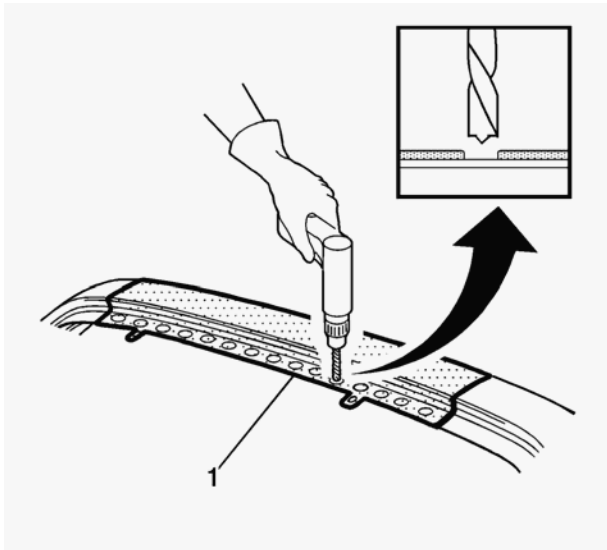
Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.

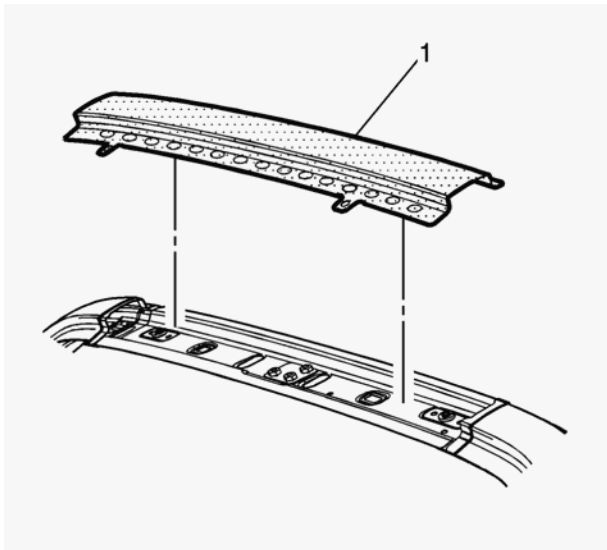
Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.



Note: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.

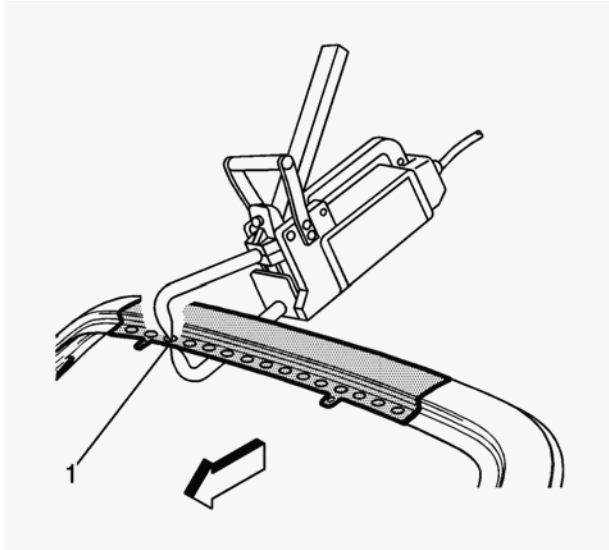


7. Remove the damaged part (1).

[Installation Procedure](#)

Note: If the location of the original plug weld holes cannot be determined, space the plug weld holes every 40 mm (1½ in) apart. Where structural adhesive was present, space the plug weld holes every 20 mm (¾ in) apart.

1. Prepare all mating surfaces as necessary.
2. Apply GM-approved Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.
3. Position the service part. Clamp in place.



4. Apply welds accordingly (1).
5. Clean and prepare all welded surfaces.
6. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
7. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
8. Install all related panels and components.
9. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
10. Enable the SIR system. Refer to SIR Disabling and Enabling.

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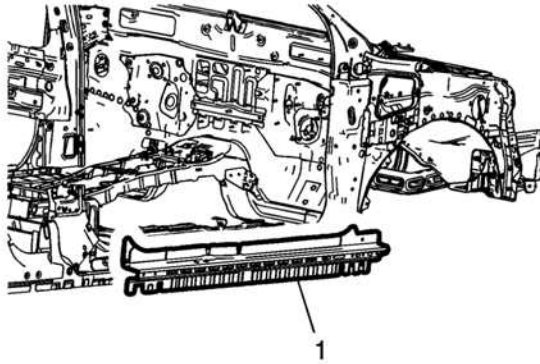
Submodel: | **Engine Type:** | **Liters:**
Fuel Delivery: | **Fuel:**

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Perform additional procedures as necessary. Refer to the following procedures:
 - Rocker Outer Panel Sectioning
 - Body Hinge Pillar Lower Reinforcement Replacement
 - Back Body Pillar Inner Panel Reinforcement Replacement
 - Restore as much of the damage as possible to factory specifications using 3-dimensional measuring equipment.

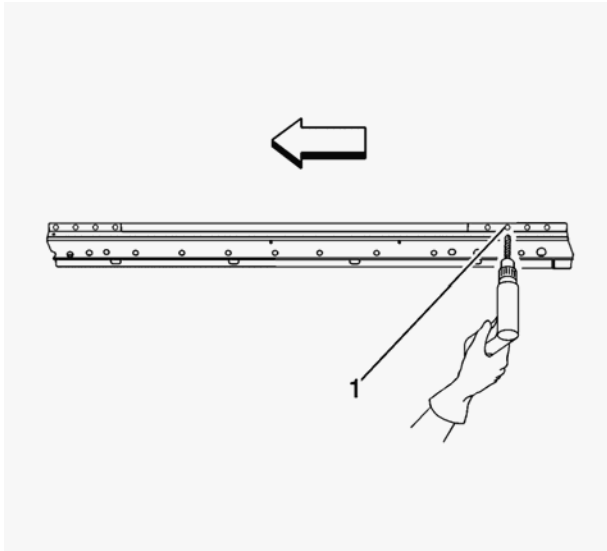


- Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary (1). Refer to Anti-Corrosion Treatment and Repair.

Note:

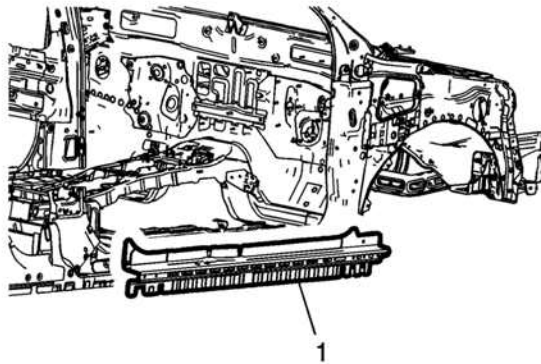
- Removing only the body hinge pillar lower reinforcement and releasing only the welds that attach the back body pillar inner panel reinforcement, if possible, removes the rocker inner panel reinforcement by sliding it out. Choose the procedure that fits better according to the collision
- Do not damage any inner panels or reinforcements.
- Record the number and location of the original welds for installation of the service part.
 - Locate and drill out all factory welds (1).
 - Remove the damaged inner rocker panel.

[Installation Procedure](#)



Note: If the location of the original plug welds cannot be determined or structural weld-thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary (1), in the locations noted from the original panel.
2. Prepare all attachment surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



4. Position the inner rocker panel.
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.
7. Plug weld accordingly (1).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
10. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
13. Enable the SIR system. Refer to SIR Disabling and Enabling.

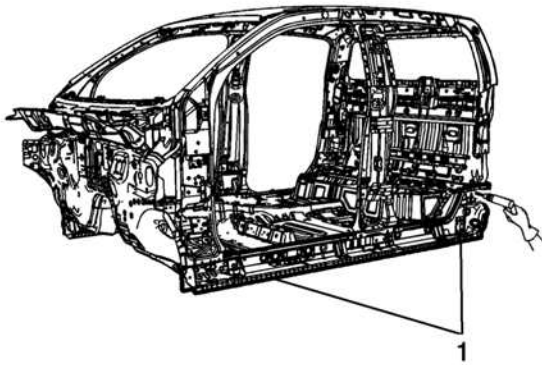
2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

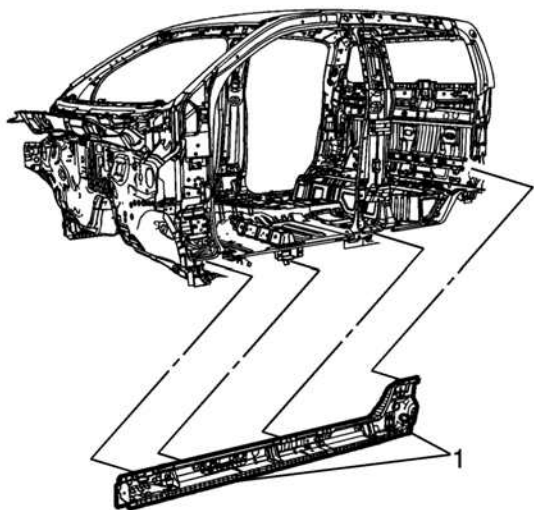
1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components. Refer to the following procedures:
 - Rocker Outer Panel Sectioning
 - Rocker Inner Panel Reinforcement Replacement
 - Body Hinge Pillar Lower Reinforcement Replacement
 - Back Body Pillar Inner Panel Reinforcement Replacement
 - Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.
 - Remove the sealers and anti-corrosion materials from the repair area. Refer to Anti-Corrosion Treatment and Repair.



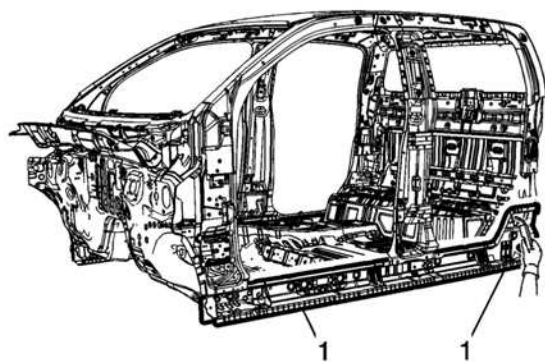
- Carefully move the center pillar inner panel as needed to drill the rocker inner pane.
- Locate and mark all the necessary factory welds of the rocker inner panel.
- Drill all factory welds (1). Note the number and location of welds for installation of the service assembly.
- Remove the damaged rocker inner panel.

Installation Procedure

1. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the quarter outer panel (1) as noted from the original panel.
2. Clean and prepare the attaching surfaces for welding.



3. Position the rocker inner panel on the vehicle.
4. Verify the fit of the panel.
5. Clamp the rocker inner panel into position.



6. Carefully move the center pillar inner panel as needed to weld the rocker inner pane.
7. Plug the weld accordingly.
8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
9. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems.

10. Install all related panels and components.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
12. Enable the SIR system. Refer to SIR Disabling and Enabling.

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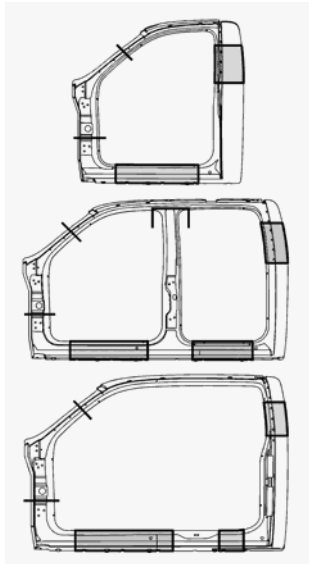
Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

Removal Procedure

Warning: Refer to Approved Equipment for Collision Repair Warning.

Warning: Refer to Glass and Sheet Metal Handling Warning.

Warning: Refer to Collision Sectioning Warning.



Note: The door frame can be replaced at the factory seams, but requires the removal of the windshield, roof, and quarter panel. The sectioning procedures have been developed as a more cost-effective alternative to complete replacement. The specific area to be sectioned is determined by the extent of the damage to the vehicle.

1. Disable the SIR system. Refer to SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.

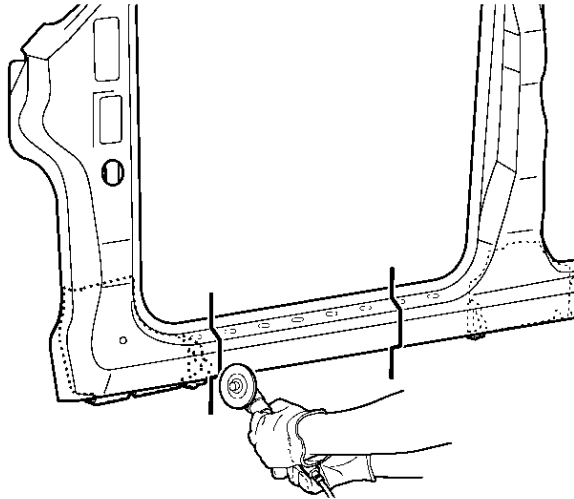
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions - Body.

Warning: Refer to Foam Sound Deadeners Warning.

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.

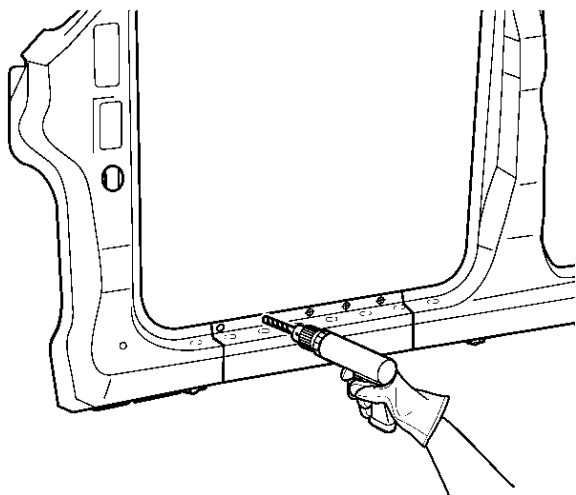
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:

- Outer Windshield Frame Pillar Sectioning
- Front Hinge Pillar Sectioning
- Center Pillar Sectioning
- Rear Pillar Sectioning

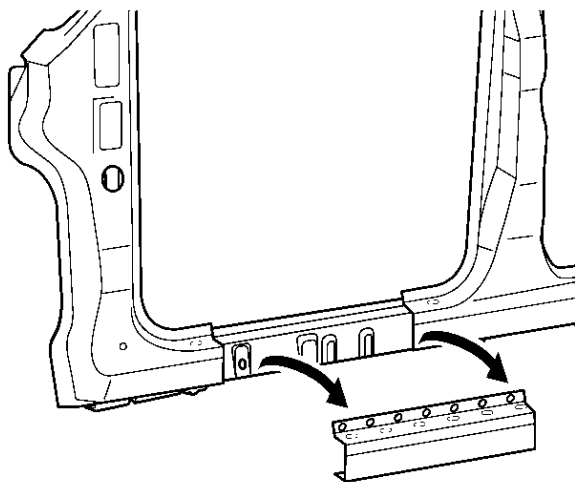


Note: Do not damage any inner panels or reinforcements.

- Cut the panel in the locations where sectioning is to be performed.

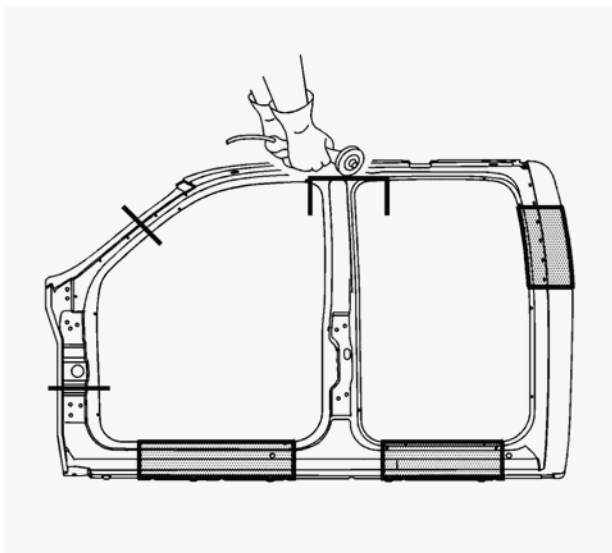


- Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

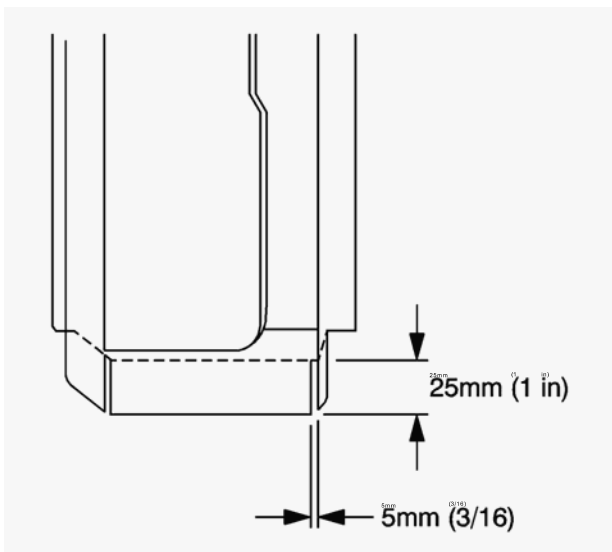


- Remove the damaged body side.

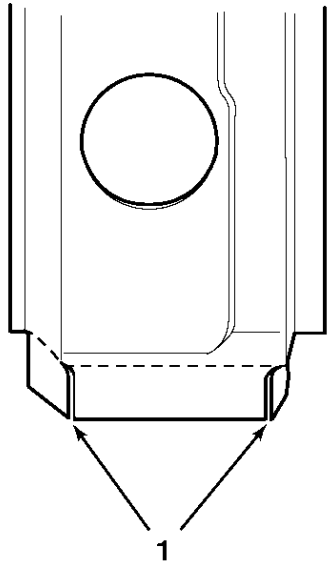
[Installation Procedure](#)



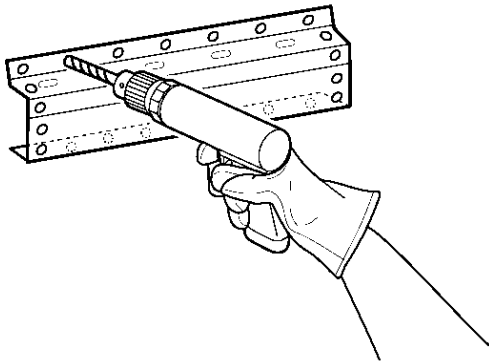
1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corner.

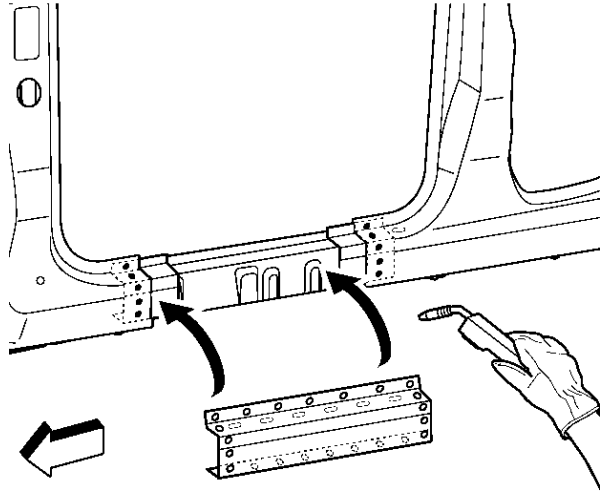


3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.



Note: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to Anti-Corrosion Treatment and Repair.



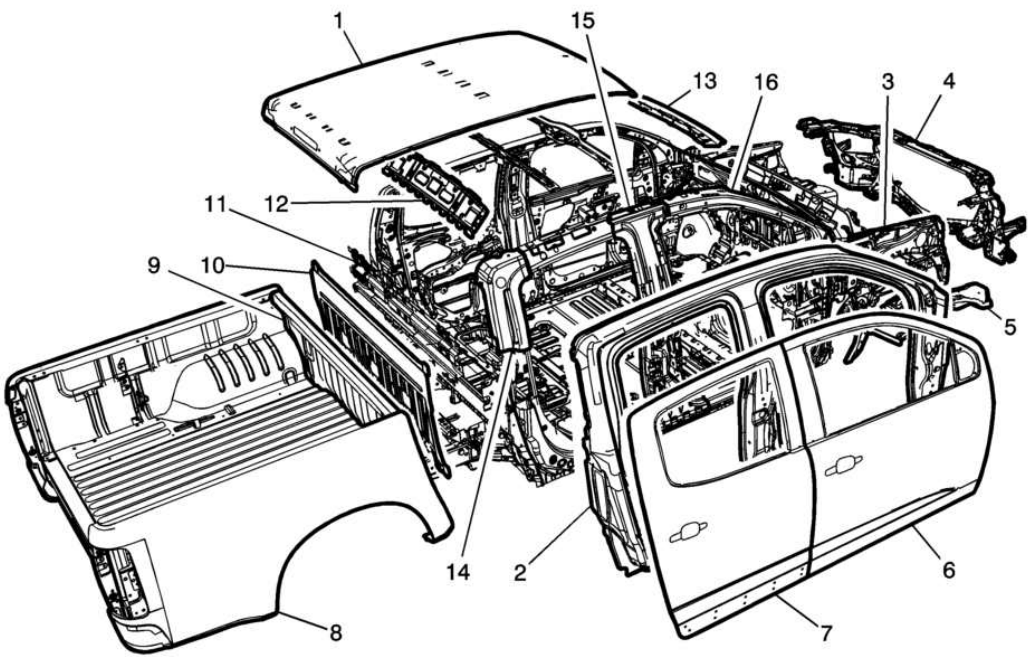
7. Position the body side to the vehicle using 3-dimensional measuring equipment. Clamp in place.
8. Fit the new part on the original panel.

Note: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

9. Clean and prepare all welded surfaces.
10. Plug weld accordingly.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair.
12. Paint the repair area. Refer to Basecoat/Clearcoat Paint Systems.
13. Install all related panels and components.
14. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection.
15. Enable the SIR system. Refer to SIR Disabling and Enabling.

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Structure Identification

Number	Description	Material	Procedure
1	Roof Panel	Mild Steel	Roof Outer Panel Replacement

Number	Description	Material	Procedure
2	Outer Door Frame Sectioning	Mild Steel	• Outer Windshield Frame Pillar Sectioning • Rocker Outer Panel Sectioning • Front Hinge Pillar Sectioning • Center Pillar Sectioning • Rear Pillar Sectioning
3	Front Compartment Upper Side Rail	Mild Steel	Front Compartment Upper Side Rail Replacement
4	Radiator Support	Mild Steel	Radiator Support Replacement
5	Front Wheelhouse Panel	Mild Steel	Front Wheelhouse Panel Replacement
6	Front Side Door Outer Panel	Mild Steel	Front Side Door Outer Panel Replacement
7	Rear Side Door Outer Panel	Mild Steel	Rear Side Door Outer Panel Replacement
8	Pick Up Box Outer Side Panel	Mild Steel	Pickup Box Outer Side Panel Replacement
9	Pick Up Box Front End Panel	Mild Steel	Pickup Box Front End Panel Replacement
10	Rear End Panel	Mild Steel	Rear End Panel Replacement
11	Rear End Panel Reinforcement	High Strength Low Alloy Steel	Rear End Panel Replacement
12	Roof Rear Header Panel	High Strength Low Alloy Steel	Roof Rear Header Panel Replacement
13	Windshield Frame Header Front Panel	High Strength Low Alloy Steel	Windshield Frame Header Front Panel Replacement
14	Back Body Pillar Inner Panel Reinforcement	Mild Steel	Back Body Pillar Inner Panel Reinforcement Replacement
15	Center Pillar Sectioning	High Strength Low Alloy Steel	Center Pillar Sectioning

Number

Description

Material

Procedure

16

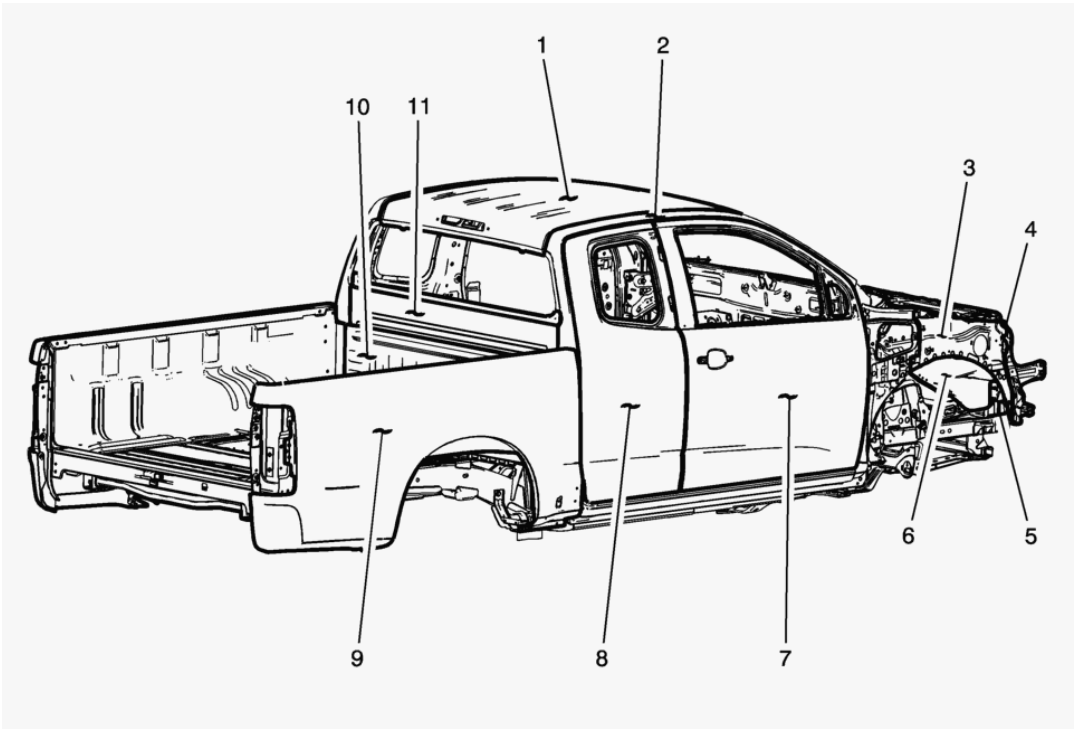
Outer Windshield Frame Pillar
sectioning

Mild Steel

Outer Windshield Frame Pillar Sectioning

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Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



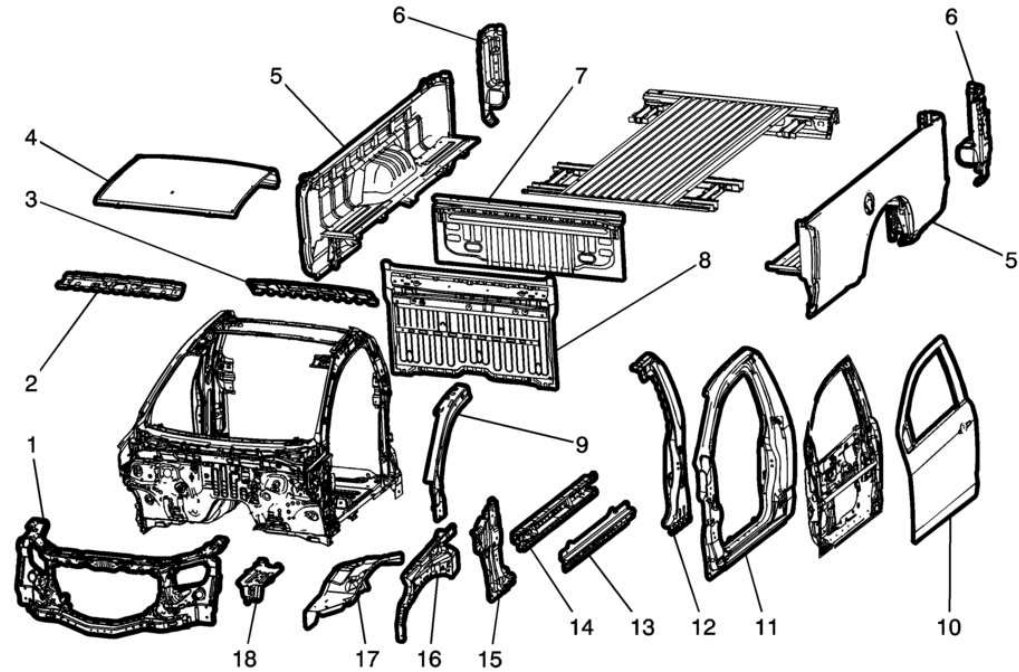
Structure Identification

Number	Description	Material	Procedure
1	Roof Panel	Mild Steel	Roof Outer Panel Replacement

Number	Description	Material	Procedure
2	Outer Door Frame Sectioning	Mild Steel	• Outer Windshield Frame Pillar Sectioning • Rocker Outer Panel Sectioning • Front Hinge Pillar Sectioning • Center Pillar Sectioning • Rear Pillar Sectioning
3	Front Compartment Upper Side Rail	Mild Steel	Front Compartment Upper Side Rail Replacement
4	Radiator Support	Mild Steel	Radiator Support Replacement
5	Front Rail Extension	Mild Steel	Front Rail Extension
6	Front Wheelhouse Panel	Mild Steel	Front Wheelhouse Panel Replacement
7	Front Side Door Outer Panel	Mild Steel	Front Side Door Outer Panel Replacement
8	Rear Side Door Outer Panel	Mild Steel	Rear Side Door Outer Panel Replacement
9	Pick Up Box Outer Side Panel	Mild Steel	Pickup Box Outer Side Panel Replacement
10	Pick Up Box Front End Panel	Mild Steel	Pickup Box Front End Panel Replacement
11	Rear End Panel	Mild Steel	Rear End Panel Replacement

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Fuel Delivery: | Fuel:



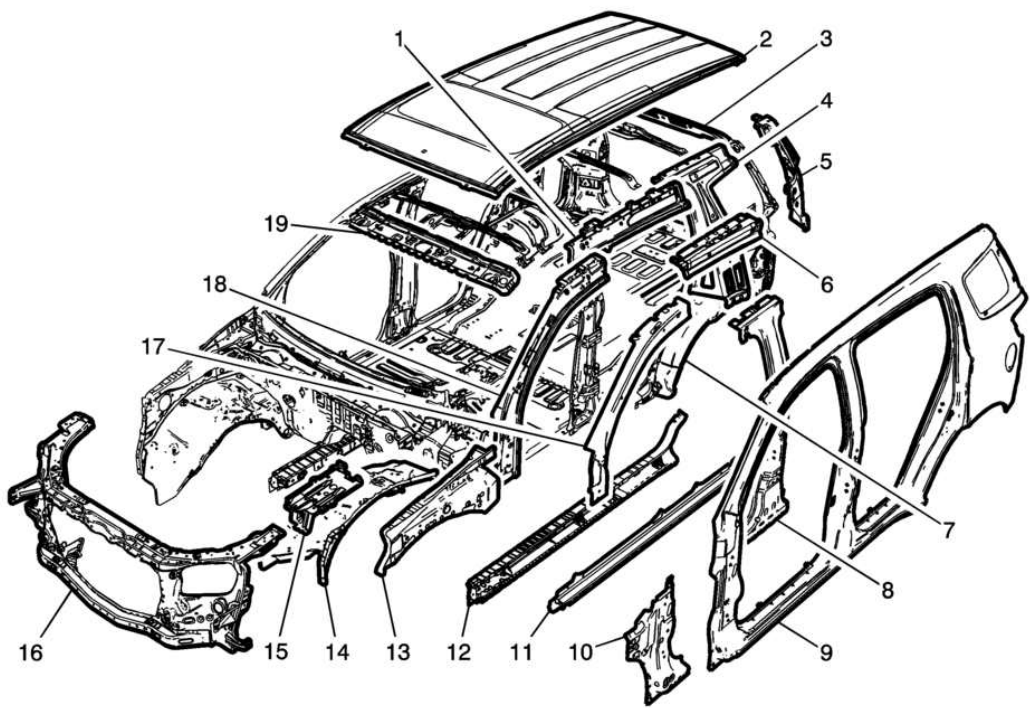
Structure Identification

Number	Description	Material	Procedure
1	Radiator Support	Mild Steel	Radiator Support Replacement
2	Windshield Frame Header Front Panel	High Strength Low Alloy Steel	Windshield Frame Header Front Panel Replacement

Number	Description	Material	Procedure
3	Roof Rear Header Panel	High Strength Low Alloy Steel	Roof Rear Header Panel Replacement
4	Roof Outer Panel	Mild Steel	Roof Outer Panel Replacement
5	Pick Up Box Outer Side Panel	Mild Steel	Pickup Box Outer Side Panel Replacement
6	Pick Up Box Lamp Pocket	Mild Steel	Pickup Box Lamp Pocket Replacement
7	Pick Up Box Front End Panel	Mild Steel	Pickup Box Front End Panel Replacement
8	Rear End Panel	Mild Steel	Rear End Panel Replacement
9	Outer Windshield Frame Pillar	Mild Steel	Outer Windshield Frame Pillar Sectioning
10	Front Side Door Outer Panel	Mild Steel	Front Side Door Outer Panel Replacement
11	Outer Door Frame Sectioning	Mild Steel	Outer Door Frame Sectioning
12	Rear Pillar Sectioning (Full)	Mild Steel	Rear Pillar Sectioning
13	Rocker Outer Panel Sectioning	Mild Steel	Rocker Outer Panel Sectioning
14	Rocker Inner Panel Reinforcement	Mild Steel	Rocker Inner Panel Reinforcement Replacement
15	Front Hinge Pillar Sectioning	Mild Steel	Front Hinge Pillar Sectioning
16	Front Compartment Upper Side Rail	Mild Steel	Front Compartment Upper Side Rail Replacement
17	Front Wheelhouse Panel	Mild Steel	Front Wheelhouse Panel Replacement
18	Battery Tray	Mild Steel	Battery Tray Replacement

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Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:



Structure Identification

Number	Description	Material	Procedure
1	Roof Inner Side Rail	Dual Phase Steel	Outer Door Frame Sectioning
2	Roof Outer Panel	Mild Steel	Roof Outer Panel Replacement
3	Roof Rear Header Panel	Mild Steel	Roof Rear Header Panel Replacement

Number	Description	Material	Procedure
4	Quarter Inner Panel Upper Reinforcement	Mild Steel	Quarter Inner Panel Upper Reinforcement Replacement
5	Rear Pillar Reinforcement	Mild Steel	Rear Pillar Sectioning
6	Rear Upper Extension	Mild Steel	Outer Door Frame Sectioning
7	Outer Wheelhouse Panel	Mild Steel	Rear Wheelhouse Replacement
8	Center Pillar Reinforcement	High Strength Low Alloy Steel	Center Pillar Inner Panel Replacement
9	Outer Door Frame	Mild Steel	Outer Door Frame Sectioning
10	Front Hinge Pillar	Mild Steel	Front Hinge Pillar Sectioning
11	Rocker Outer Panel Reinforcement	Dual Phase Steel	Rocker Outer Panel Sectioning
12	Rocker Inner Panel Reinforcement	Dual Phase Steel	Rocker Inner Panel Reinforcement Replacement
13	Front Compartment Upper side Rail	Mild Steel	Front Compartment Upper Side Rail Replacement
14	Front Wheelhouse Panel	Mild Steel	Front Wheelhouse Panel Replacement
15	Battery Tray	Mild Steel	Battery Tray Replacement
16	Radiator Support	Mild Steel	Radiator Support Replacement
17	Outer Windshield Frame Pillar	High Strength Low Alloy Steel	Outer Windshield Frame Pillar Sectioning
18	Inner Windshield Frame Pillar	High Strength Low Alloy Steel	Outer Windshield Frame Pillar Sectioning
19	Windshield Frame Header Front Panel	High Strength Low Alloy Steel	Windshield Frame Header Front Panel Replacement

2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:

Fuel Delivery: | Fuel:

This information provides repair recommendations and general guidelines for steel classified as Ultra High Strength Dual Phase Steel , also known as DPX. This type of steel normally has a tensile strength of 780 MPa, or greater.

General Motors recommends the following when repairing or replacing this type of steel during collision repair.

Note:

- Repair of this type of steel is not recommended.
- This type of steel should be replaced at factory joints only. Sectioning or partial replacement is not recommended.
- The use of heat to repair damage is not recommended for this type of steel.
- Stitch Welding is not recommended for this type of steel (unless replacing a factory installed stitch weld).
- This type of steel should not be used as a backing reinforcement or a sleeve for a sectioning joint.

Recommended Repairs:

- Squeeze Resistance Spot Welding can be used to replace factory spot welds, where applicable.
- MIG plug welding can be used to replace factory spot welds.
- MIG Brazing can be used to replace factory spot welds.

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Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

This information provides repair recommendations and general guidelines for steel classified as Ultra High Strength Steel, also known as UHSS. This type of steel normally has a tensile strength of 780 MPa, or greater.

This includes the common steel names of

- Ultra High Strength Dual Phase Steel (DPX)
- Martensitic Steel (M)
- Boron/Press Hardened Steel (B)
- Multi-Phase Steel (MP)
- TRIP Steel (TR)

General Motors recommends the following when repairing or replacing this type of steel during collision repair.

Note:

- Repair of this type of steel is not recommended.
- This type of steel should be replaced only, at factory joints. Sectioning or partial replacement is not recommended.
- The use of heat to repair damage is not recommended for this type of steel.
- Stitch Welding is not recommended for this type of steel (unless replacing a factory installed stitch weld).
- This type of steel should not be used as a backing reinforcement or a sleeve for a sectioning joint.

Recommended Repairs

- Squeeze Resistance Spot Welding can be used to replace factory spot welds, where applicable.
- MIG plug welding can be used to replace factory spot welds.
- MIG Brazing can be used to replace factory spot welds.