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Rail End Replacement - Front

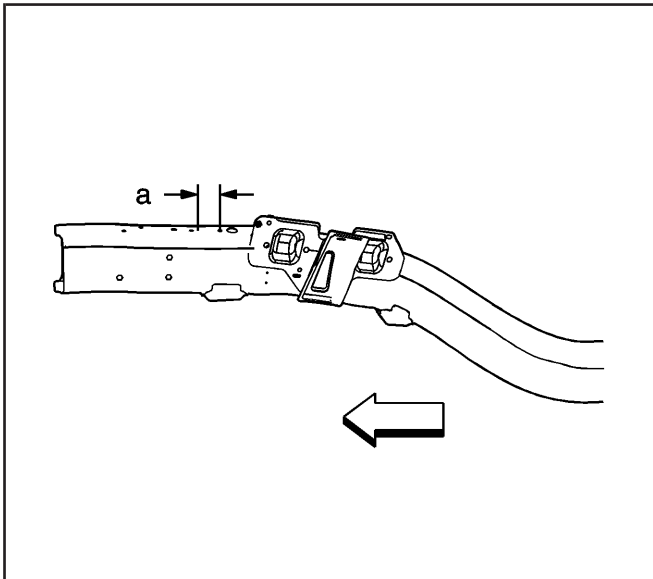
Removal Procedure

Caution: To avoid personal injury when exposed to welding flashes or to galvanized (Zinc Oxide) metal toxic fumes while grinding/cutting on any type of metal or sheet molded compound, you must work in a properly ventilated area, wearing an approved respirator, eye protection, earplugs, welding gloves, and protective clothing.

1. Disable the SIR system. Refer to *SIR Disabling and Enabling Zones* on page 2-66.
2. Disconnect the negative battery cable.
3. Remove all related panels and components.
4. Remove the front impact bar. Refer to *Impact Bar Replacement - Front Bumper* on page 2-5.
5. Note the location and remove the sealers and anti-corrosion materials from the repair area. Refer to *Anti-Corrosion Treatment and Repair* on page 1-5 in General Information.
6. Restore as much of the damage as possible to the factory specifications. Refer to *Dimensions - Body* on page 2-2 and *Measurements - Underbody* on page 2-4.

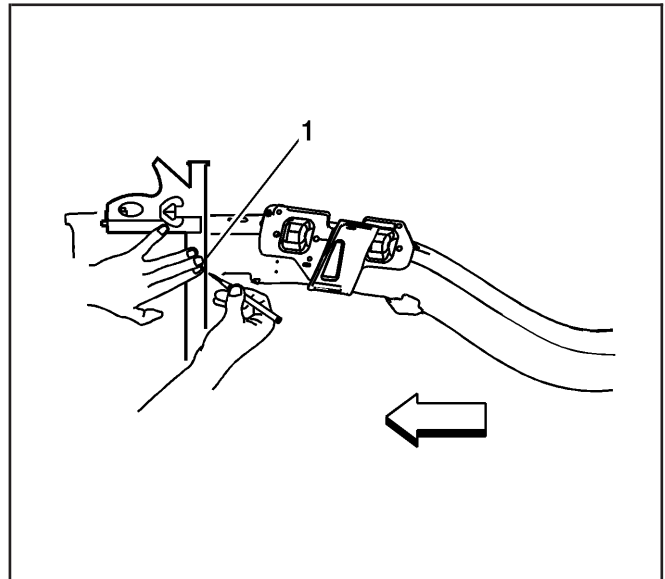
Caution: Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle and cause personal injury if the vehicle is in a collision.

7. Determine the sectioning joint location from the center of the rear upper radiator support bolt.
8. Measure 66.9 mm (2 5/8 in) (a) forward from the center of the rear upper radiator support bolt.



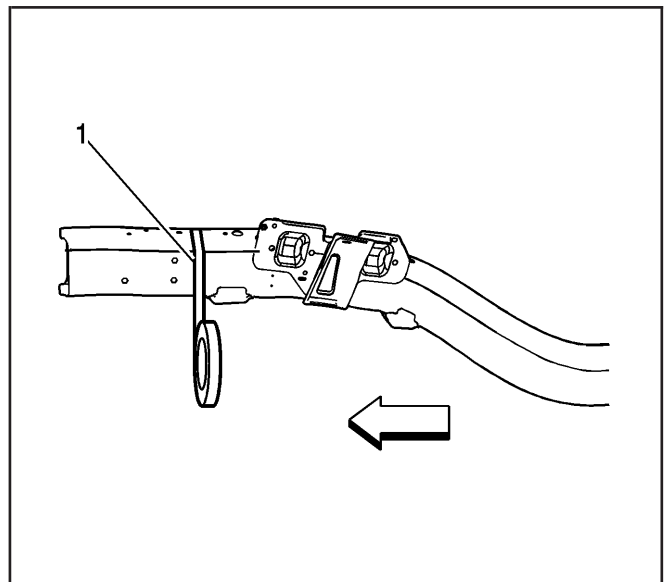
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9. Mark the top of the frame rail at the sectioning location.
10. At the mark align a sliding square or similar tool (1) square to surface to the vertical walls of the frame rail.
11. Scribe a line to both sides of the frame rail.



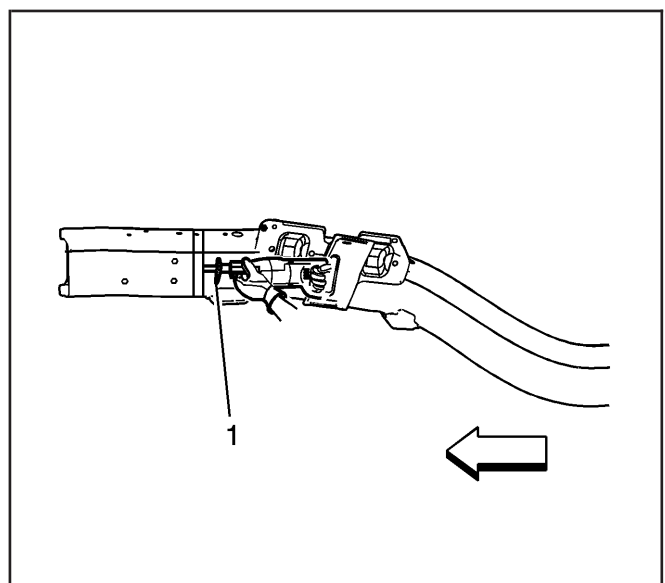
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12. Apply masking tape (1) to the scribe line completely around the frame rail.

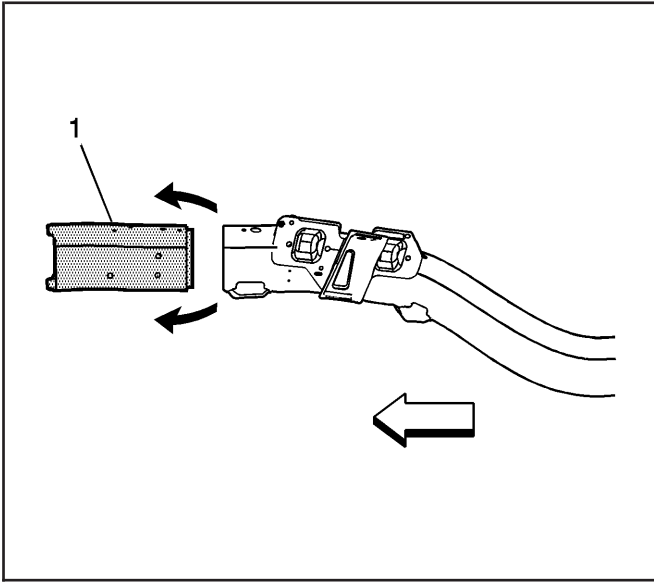


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13. Cut the frame rail at the rear edge of the tape line using a reciprocating saw or equivalent tool (1).

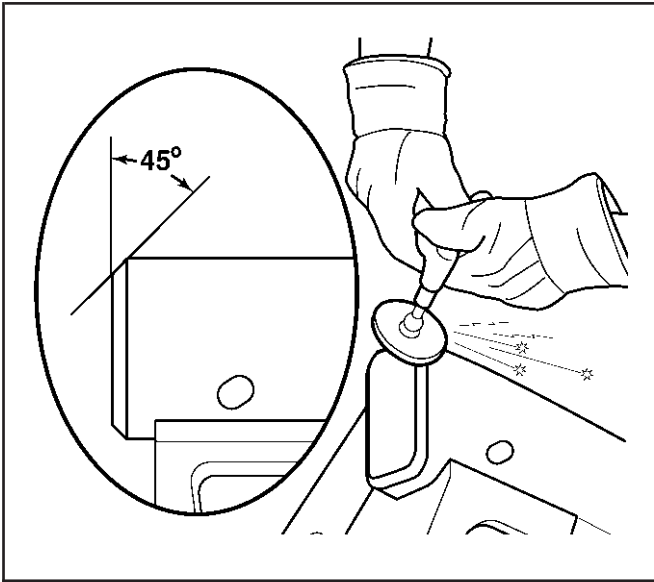


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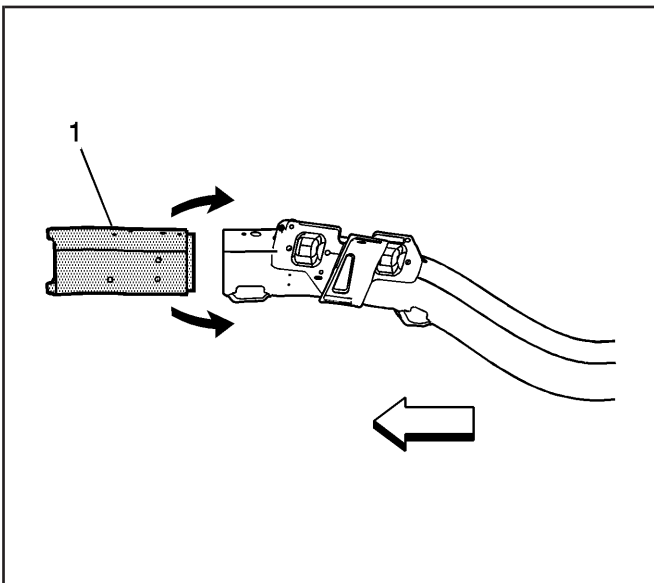
14. Remove the damaged frame rail end section (1).



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Installation Procedure

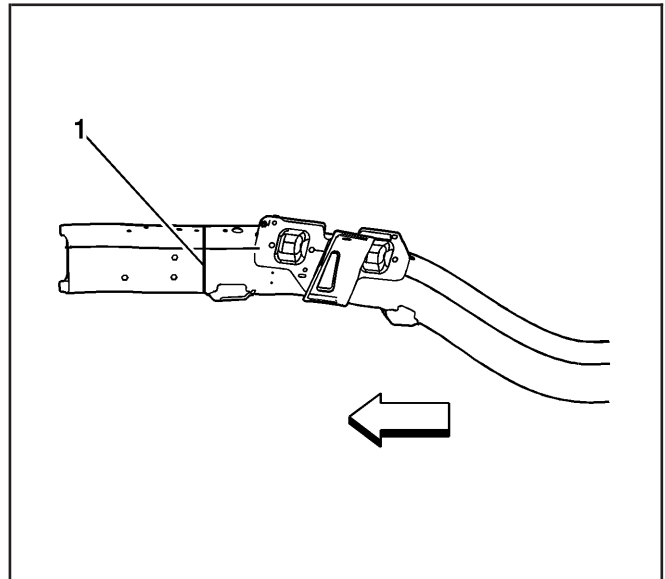
1. Grind the existing frame rail seam to taper the seam at a 45 degree angle.



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2. Clean and prepare all of the welded mating surfaces.
3. Apply 3M weld-thru coating P/N 05916 or equivalent as necessary to all bare metal surfaces
4. Position the service frame section (1) to the existing frame.

5. Maintain a gap of one and one half frame rail metal thickness at the sectioning joint (1) and clamp in place.
6. Check the frame measurements three-dimensional to ensure proper position of the service frame.

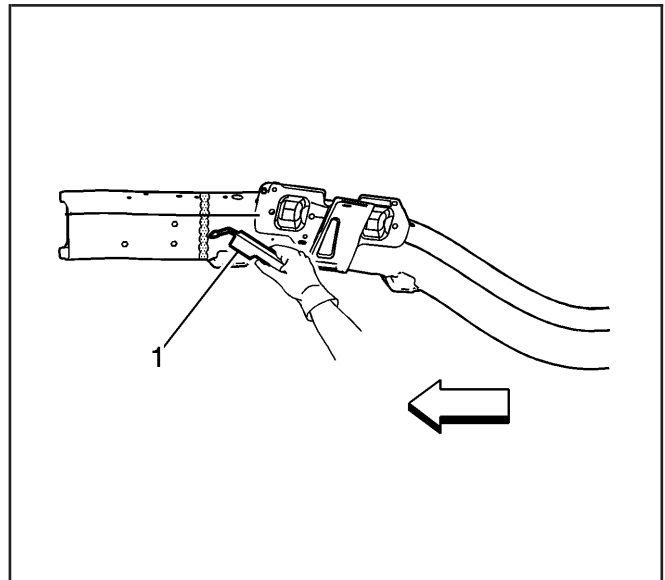


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7. Using a Metal Inset Gas (MIG) welder (1), continuous-weld the upper and lower horizontal joints from corner to corner.
8. Using a MIG welder, continuous-weld the upper and lower vertical joints from corner to corner.
9. Install the front impact bar. Refer to *Impact Bar Replacement - Front Bumper* on page 2-5.
10. Apply the sealers and anti-corrosion materials to the repair area. Refer to *Anti-Corrosion Treatment and Repair* on page 1-5 in General Information.

Important: DO NOT top coat any bonding surface. Use primer only on bonding surfaces. Refer to adhesive manufacturer's recommendations.

11. Paint the repair area. Refer to *Basecoat/Clearcoat Paint Systems* on page 1-7 in General Information.
12. Install all related panels and components.
13. Connect the negative battery cable.
14. Enable the SIR system. Refer to *SIR Disabling and Enabling Zones* on page 2-66.



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