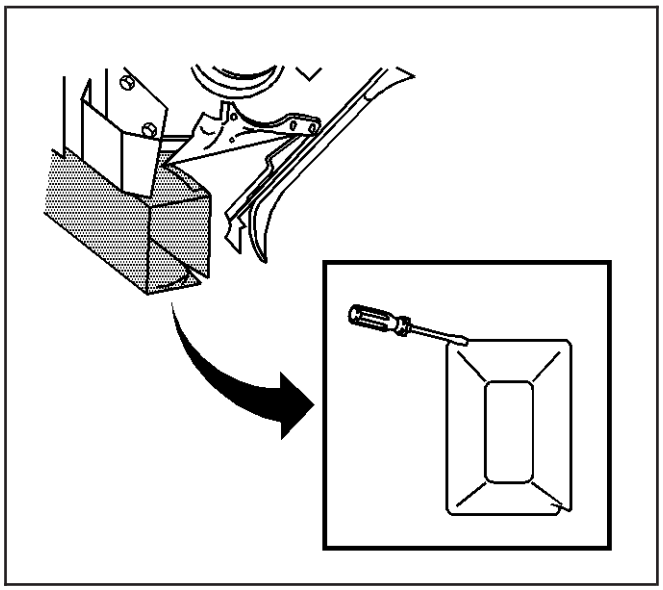
Offset Lap Joint Repair

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.

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.

Important: The offset lap joint is used in areas with compound angles that won't allow the new frame section to fit properly with an internal sleeve. In these areas use the offset overlap method, which provides for some adjustment and allows for cut lines that may not be completely straight.



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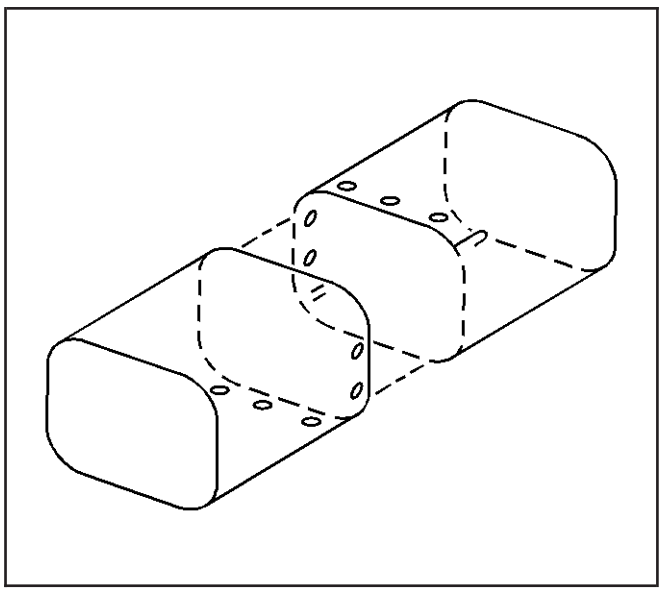
Important: The overlap of the offset joint repair can be as large as 100 mm (4 in).

1. Cut two 75 mm (3 in) slots into two opposite corners of the existing frame rail.
2. Slightly pry open the slots in the existing frame rail.



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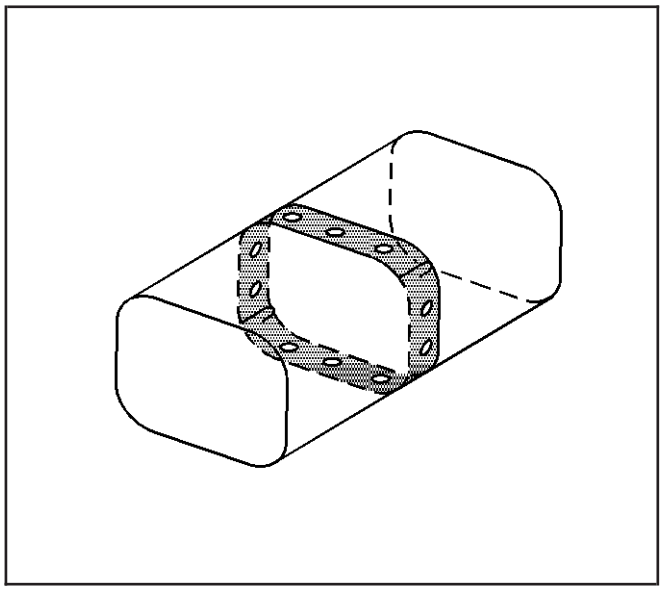
Important: The location of the 8 mm (5/16 in) holes will vary depending on the position of the frame rail overlap.

3. Drill three 8 mm (5/16 in) holes through each side of the frame rail sections.
4. Drill two 8 mm (5/16 in) holes through the top and the bottom of the frame rail sections.

5. Install the new section to the existing frame rail to create the offset lap joint.
6. Check the new section using three-dimensional measurements. Refer to *Dimensions - Body on page 2-2* and *Measurements - Underbody on page 2-4*.
7. Clean and prepare all of the welded surfaces.
8. Apply 3M® weld-thru coating P/N 05916 or equivalent as necessary.



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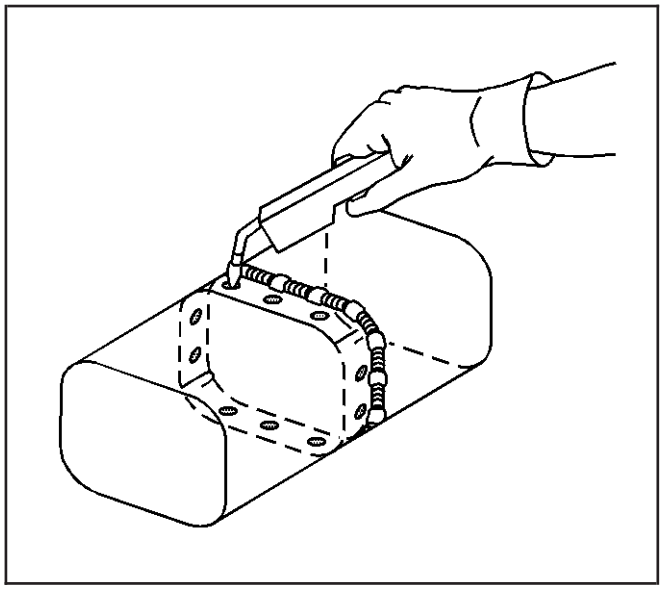
Important: Use a 25 mm (1 in) stitch weld to avoid minimal heat distortion.

9. Using a MIG welder, plug weld the new section to the existing frame rail.
10. Using a MIG welder, weld completely around the overlap joint.



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