

# 11. Rear Rail Assembly

## Rear Rail Full Replacement Procedure

The rear rails are available as a sub-assembly. Each consists of an outer panel, two inner reinforcements, and the bumper mounting bracket (figure 11-1). The outer panel and rear bumper mounting brackets are also available separately to facilitate sectioning. Additionally, there is a crossbar that connects the two rear rails for added strength and rigidity.

### Remove or Disconnect

1. Remove all related panels and components including the rear suspension and seat.
2. Visually inspect and restore as much of the damage as possible to factory specifications.
3. Remove sealers, sound deadeners, and anti-corrosion materials as necessary.
4. Locate, mark and drill out all the factory welds attaching the control arm mounting bracket and the rear rail to the vehicle.
5. The factory welds attaching the control arm mounting bracket to the inner rocker panel must be drilled out from inside the vehicle. NOTE: The corner of the floor panel above this area will need to be positioned out of the way (figure 11-1).

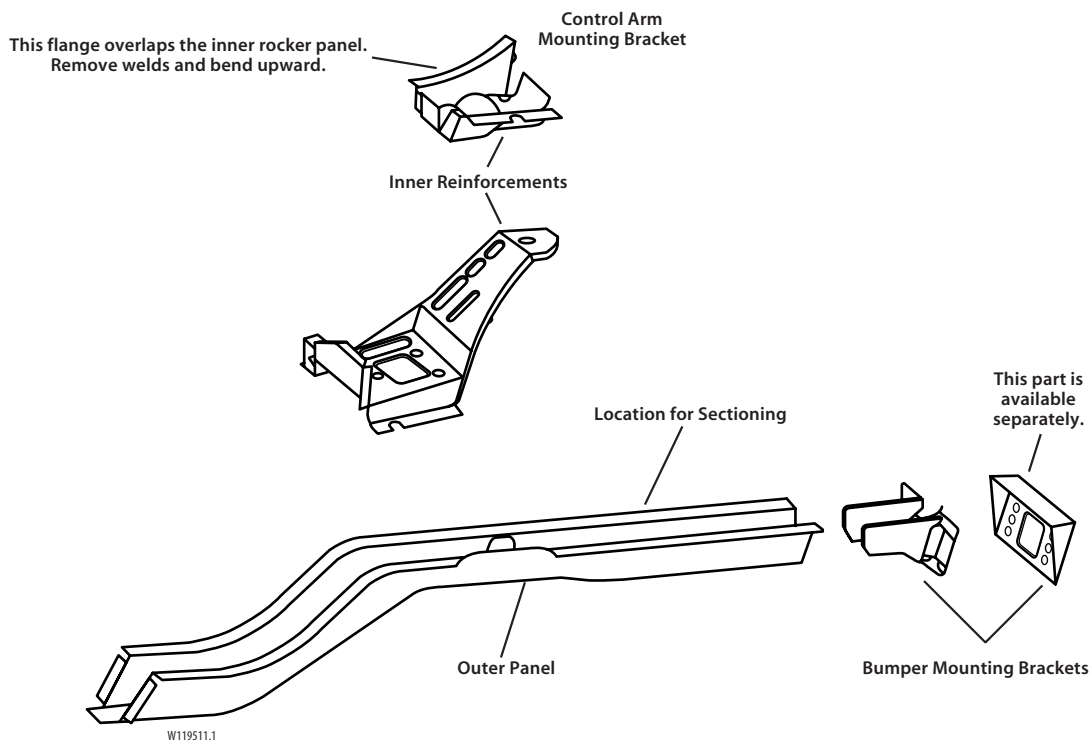
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### — Important —

*Full rail replacement will require the removal of either the crossbar or an inner wheelhouse assembly.*

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7. Locate, mark and drill out all factory welds. Note the number and location of welds for installation of the service assembly.
8. Remove the damaged rear rail assembly.



**Figure 11-1:**  
**Lower Rail Assembly**

**Rear Rail  
Full Replacement Procedure (cont'd)**

***Install or Connect***

1. Clean and prepare the mating surfaces and check for proper fit of the rear rail service assembly.
2. On the service assembly, drill 8mm ( $\frac{5}{16}$  inch) plug weld holes as necessary in the locations noted from the original assembly.
3. Position the service assembly, check fit using three-dimensional measuring equipment, and plug weld accordingly with frequent measurements to ensure proper fit.

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**— Notice —**

*The bumper mounting holes must be properly located and drilled using three-dimensional measuring equipment.*

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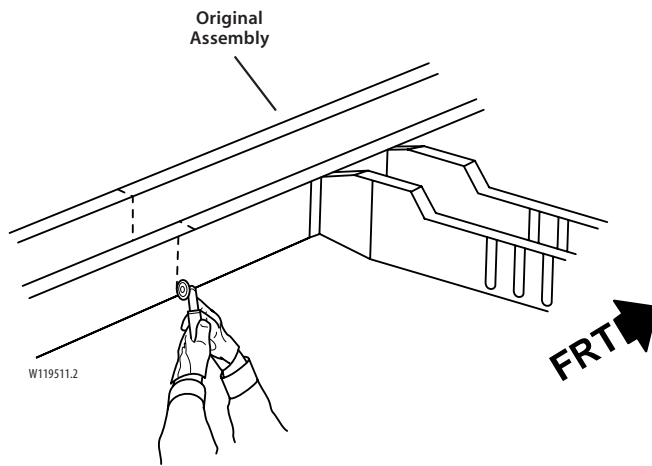
4. After plug welding the control arm mounting bracket to the inner rocker, reposition the floor panel into its original location, and weld as necessary.
5. Clean and prepare all welded surfaces. Prime with two-part catalyzed primer. Apply sealers and anti-corrosion protection materials as necessary.
6. Apply sound deadening materials to restore sound deadening quality as manufactured. Use Dominion Sure Seal Paintable Sound Deadening Pads (part #110900, order by phoning 1-800-265-0790), or equivalent.
7. Do not combine paint systems. Refer to paint manufacturer's recommendations.
8. Install all related panels and components.

## Rear Rail Sectioning Procedure

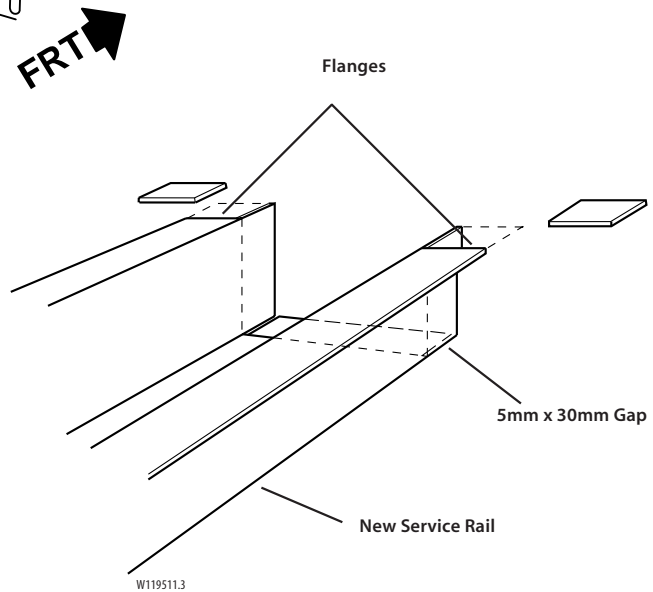
Sectioning procedures can be used to repair the rear rail if just the portion rearward of the crossbar is damaged. Unique service parts are available for sectioning. The sub-assembly consists of the outer rail panel with the bumper mounting brackets attached.

### Remove or Disconnect

1. Remove all related panels and components.
2. Visually inspect and restore as much of the damage as possible to factory specifications.
3. Remove sealers and anti-corrosion materials as necessary.



**Figure 11-2:**  
Remove Damaged Section of Rail



**Figure 11-3:**  
On New Service Rail, Cut Flanges as Shown

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**— Notice —**

*If damage exceeds the recommended area for sectioning and the rail cannot be straightened, the complete rail must be replaced.*

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4. Locate, mark, and drill out all factory welds. Note the number and location of welds for installation of the service assembly.
5. Using the templates provided with the service part, locate, mark, and cut the damaged rail at the die marks (figure 11-2) and remove the damaged section of the rail.

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**— Notice —**

*When attaching the templates to the rail, use a non-permanent spray adhesive such as 3M's Repositionable Adhesive (part #06091).*

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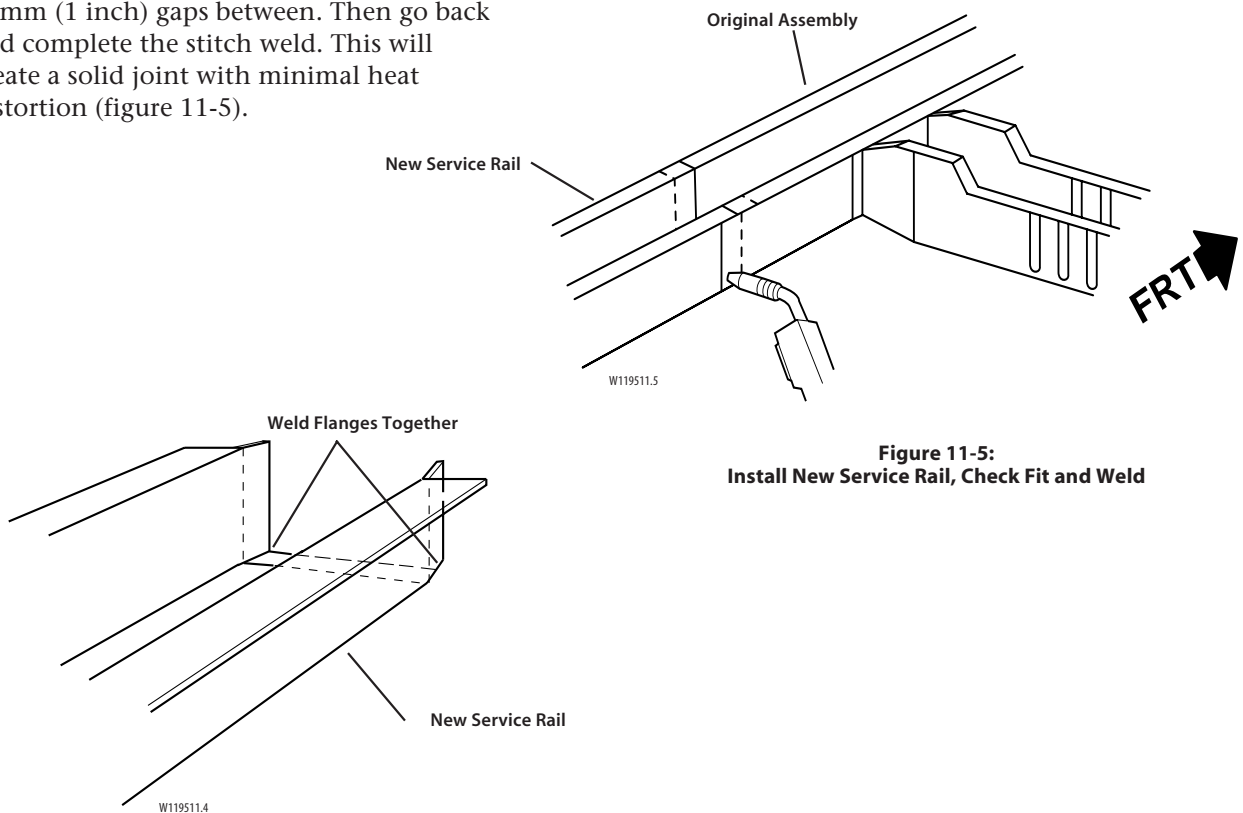
**Rear Rail Sectioning Procedure (cont'd)**

**Install or Connect**

1. Align the appropriate template on the service part and mark cut lines.
2. Cut the service part and discard the unused portion.
3. Cut and remove 30mm (1 $\frac{3}{16}$  inches) from the flanges on either side of the service rail to create 30mm (1 $\frac{3}{16}$  inch) tabs. Cut 5mm ( $\frac{3}{15}$  inch) wide gaps in the bottom corners (figure 11-3).
4. Step the tabs inward to allow the service section to fit inside of the original rail. Weld the tabs together along the edges (figure 11-4).
5. Clean and prepare the mating surfaces, and position the service part. Check fit using three-dimensional measuring equipment and plug weld accordingly with frequent measurements to ensure proper fit.
6. Stitch weld along the entire joint. Make 25mm (1 inch) welds along the seam with 25mm (1 inch) gaps between. Then go back and complete the stitch weld. This will create a solid joint with minimal heat distortion (figure 11-5).
7. Clean and prepare welded surfaces. Prime with two-part catalyzed primer. Apply sealers and anti-corrosion protection materials, as necessary. Do not combine paint systems. Refer to paint manufacturer's recommendations.
8. Install all related panels and components.

**— Important —**

*The bumper mounting holes must be properly located and drilled using three-dimensional measuring equipment.*



**Figure 11-4:  
On New Service Rail,  
Step Flanges Together and Weld**

**Figure 11-5:  
Install New Service Rail, Check Fit and Weld**