

7. Door Frame Opening

The side door frame openings feature a unique modular build design to improve manufacturing quality. They are composed of numerous individual components that are pre-assembled, then attached to the vehicle as a single unit (figures 7-1 and 7-2).

The following components must be replaced at factory seams:

- the hydro-formed pillar
- the front hinge pillar outer panel
- the front hinge pillar inner reinforcement
- the center pillar inner reinforcement
- the inner rocker panel
- the roof rail inner reinforcement (see figure 7-5)
- the rear lock pillar (see figure 7-5)

The **hydro-formed pillar** is a one-piece stamped and formed tube welded between the inner and outer pillars and extended up to the center pillar. Servicing of the hydro-formed pillar requires the removal or sectioning of the roof rail outer panel (figure 7-2).

The **front hinge pillar outer panel** is a one-piece stamped panel welded to the hydro-formed pillar, the inner hinge pillar reinforcement, and the rocker panel. Replacement of the front hinge pillar outer panel requires the removal of the front upper rail outer panel.

Sectioning procedures have been developed to simplify the repair of the following components:

- the center pillar outer panel
- the roof rail outer panel
- the outer rocker panel

roof panel as well as the removal or sectioning of the roof rail outer panel. The upper portion of the center pillar outer panel can be sectioned using a 100mm (4 inch) backing plate (see figures 7-3 and 7-4).

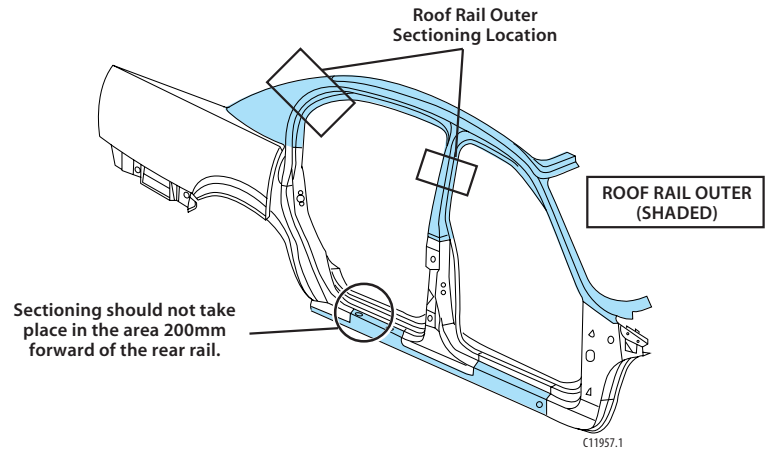


Figure 7-1:
Bodyside Assembly

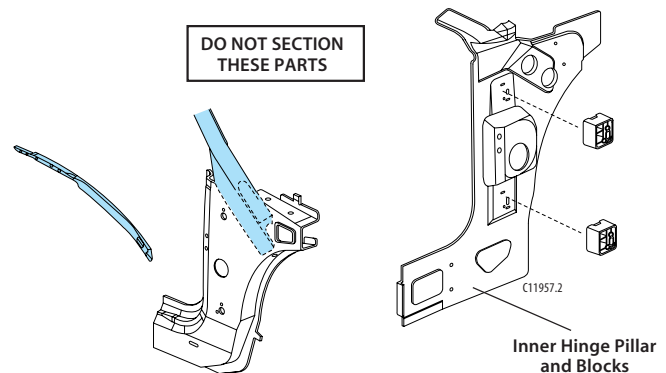


Figure 7-2:
Outer Front Hinge Pillar and Hydro-Formed Pillar

— Notice —

Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle.

The **center pillar outer panel** is welded to the inner center pillar reinforcements and overlaps the outer rocker panel. The roof rail outer panel overlaps the top portion of the center pillar outer panel. Replacing the center pillar outer panel requires the removal of the

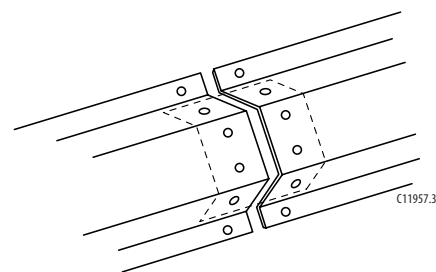


Figure 7-3:
Backing Plate for Sectioning

— Notice —

The striker plate is mounted in a cage that allows some degree of adjustment independent of the outer panel's position (figure 7-4). Use body dimensions to ensure that the striker mounting location falls within the plate's range of adjustment.

— Notice —

See quarter panel service procedures before performing roof rail outer panel replacement.

Roof rail outer panel replacement can be performed at the factory seams, however, the removal of the roof panel and quarter panel is required.

Roof rail outer panel sectioning can be performed in two locations; the upper center pillar area, and the upper rear pillar area (see figure 7-1).

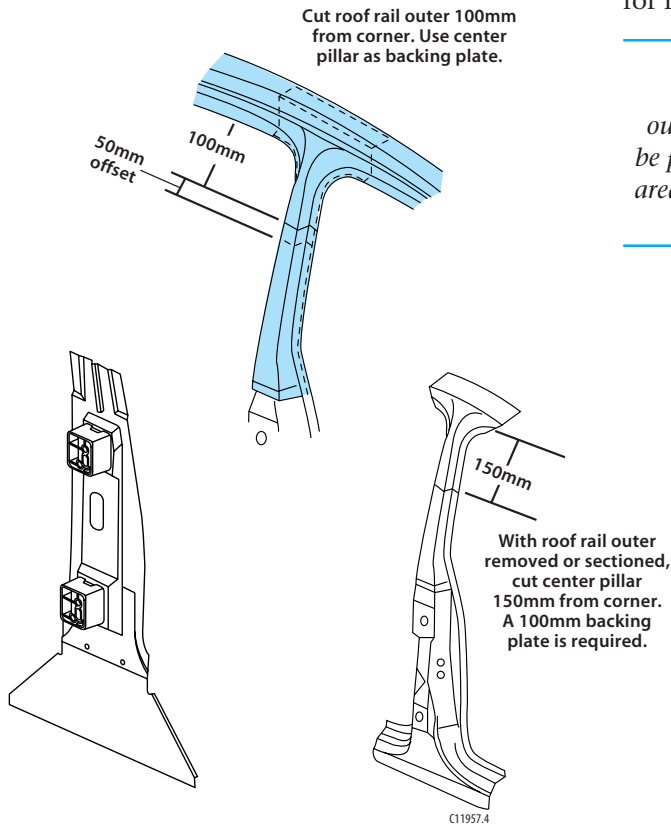


Figure 7-4:
Center Pillar Sectioning

The roof rail outer panel sectioning joint, in the upper center pillar area, should be 50mm (2 inches) higher than the inner center pillar reinforcement sectioning joint. A backing plate is not required; the roof rail outer panel can be welded directly to the inner center pillar reinforcement.

The roof rail outer panel sectioning joint, in the rear pillar area, should be about 100mm (4 inches) below the rear corner of the roof panel edge. This sectioning procedure requires the use of a 100mm (4 inch) backing plate for reinforcement.

Outer rocker panel replacement can be performed at the factory seams, however, this requires the removal of the front hinge pillar outer panel or the rear wheelhouse outer panel.

Outer rocker panel sectioning is usually more economical than complete panel replacement. Sectioning the outer rocker panel requires a 100mm (4 inch) backing plate for reinforcement (see figures 7-1 and 7-3).

— Notice —

There are key structural areas on the outer rocker panel where sectioning should not be performed (see figure 7-1). Sectioning in these areas may compromise the structural integrity of the vehicle and is not recommended.

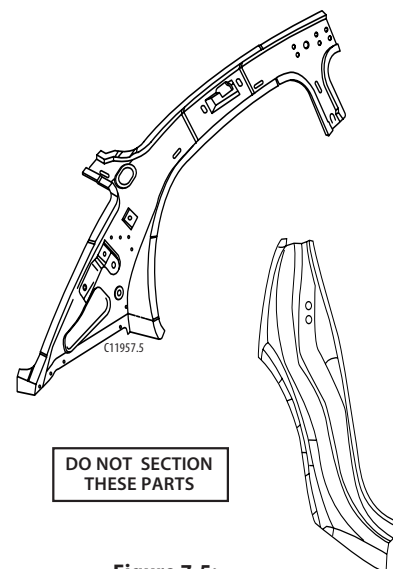


Figure 7-5:
Inner Roof Rail Reinforcement
and Rear Lock Pillar