

6. Remove the side sill.

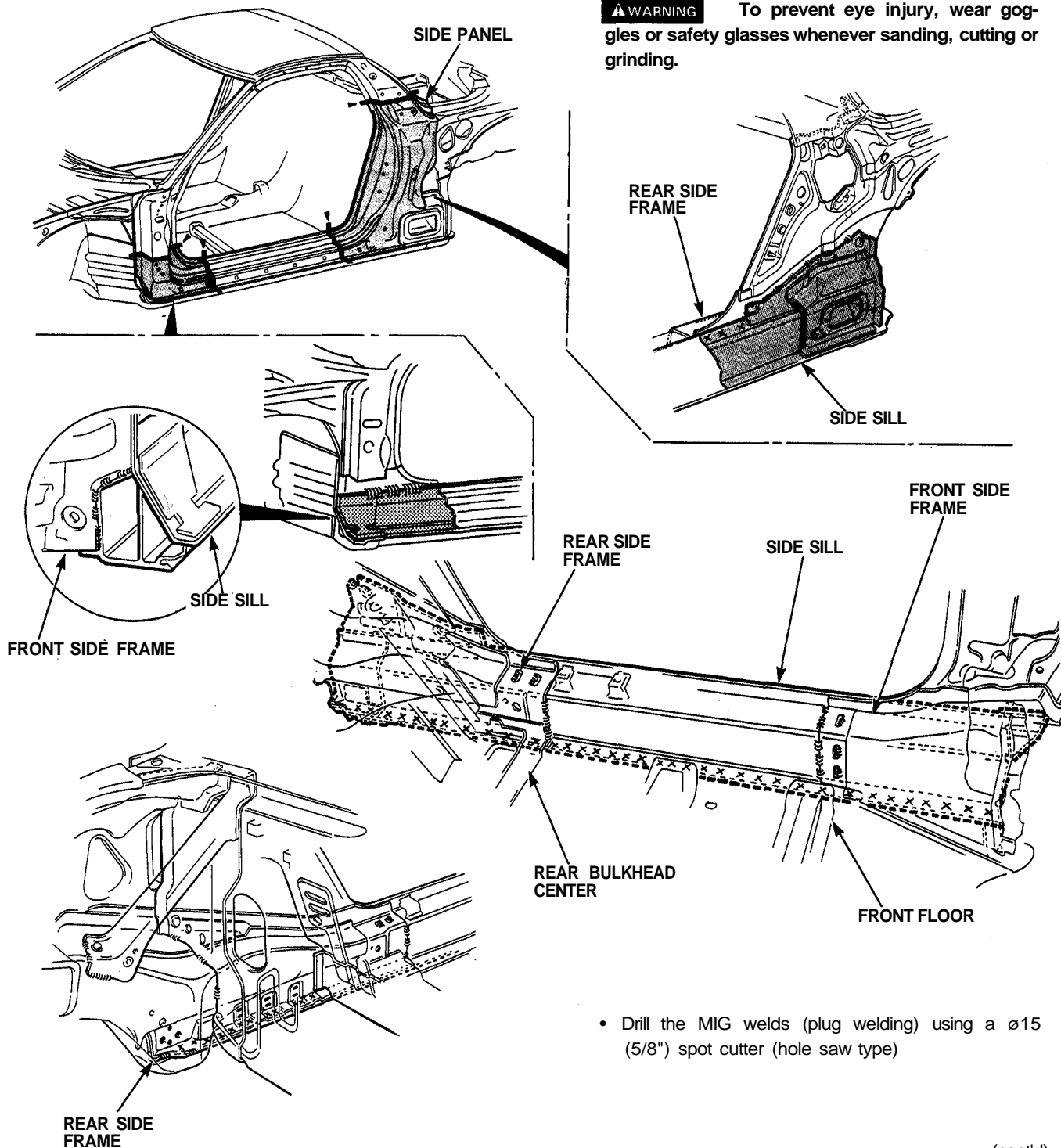
- Strike a punch in the center of the spot welds in side panel and drill the spot welds using a $\varnothing 8$ (5/16") spot cutter.
- Cut the side panel as shown and remove them.

NOTE: Be careful not to cut the inner section.

- Strike a punch in the center of the spot welds in the side sill, front floor, front pillar, and center pillar.
- Drill the spot welds using a $\varnothing 10$ (3/8") spot cutter.
- Grind the fillet weld of the side sill/front and rear side frames joint using a rotary cutter.

⚠ WARNING

To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.



- Drill the MIG welds (plug welding) using a $\varnothing 15$ (5/8") spot cutter (hole saw type)

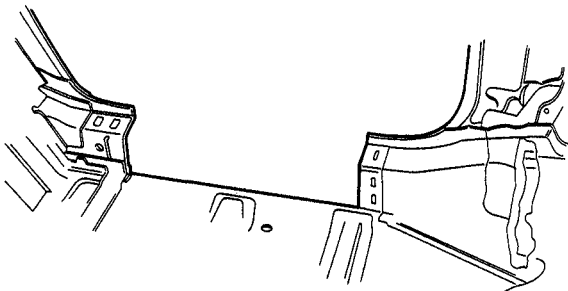
(cont'd)

Side Sill

Replacement (cont'd)

7. Mold the related parts.
 - Remove the welding flanges using a chisel.
 - Correct the front floor and inner pillar using a hammer and dolly.
 - Remove the burrs from the spot welds and MIG welds using a disc sander.

▲ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.



NOTE: Check the reshaped parts for cracks (see page 2-29).

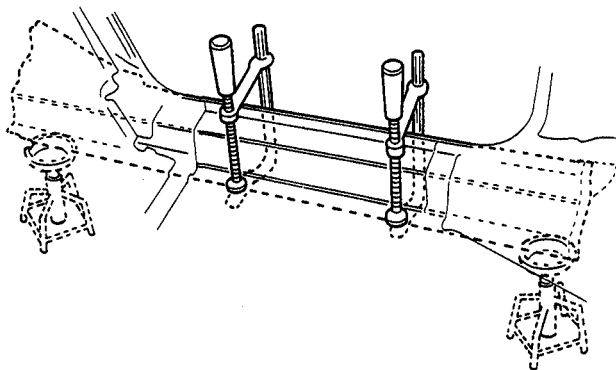
8. Set the new side sill.
 - Remove the undercoat from the welding sections of the side sill and expose the aluminum alloy base using a disc sander.

▲ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

- Remove the undercoat and paint film from the welding section of the body and clean oil contaminations with shop towel soaked with wax and grease remover.
- Before setting the side sill, remove the oxide film from the welding section of the replacement part and body using a stainless steel wire brush.

NOTE: Keep the body level.

- Clamp the new side sill in place with screw clamps.



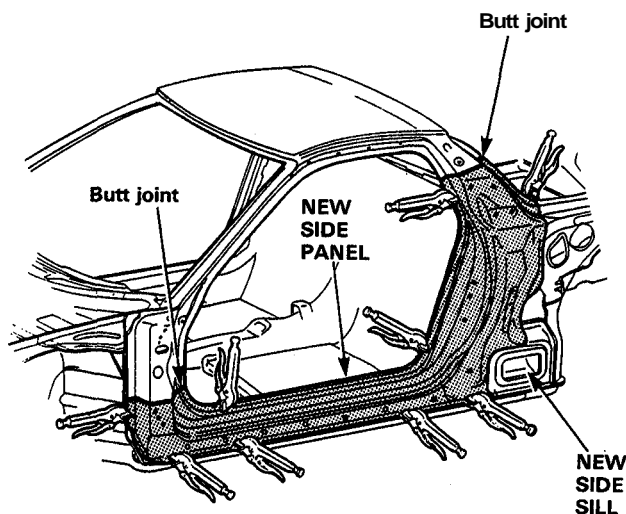
9. Tack weld the side sill at the clamp positions.

▲ WARNING To prevent eye injury and burns when welding, wear an approved welding helmet, gloves and safety shoes.

NOTE: Check the front and rear side frames positions using the body dimensional drawings (see section 6).

10. Set the new side panel
 - Align the new part with the top cut section, then cut it with a handsaw.
 - Clamp the side panel in place with vise-grips.
 - Temporarily mount the front fender, door, and rear fender.

NOTE: Check for flushness of the front fender, door, and the rear fender and check the car for a smooth body line.

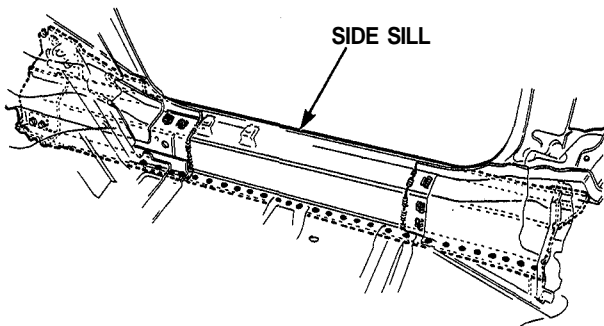


- Remove the new side panel.

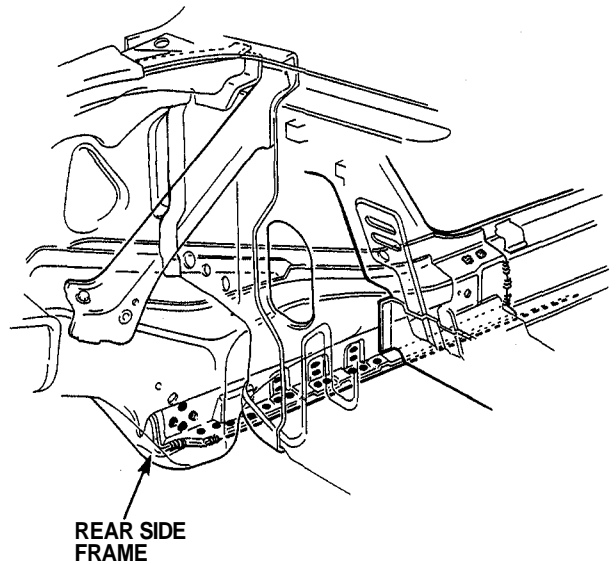
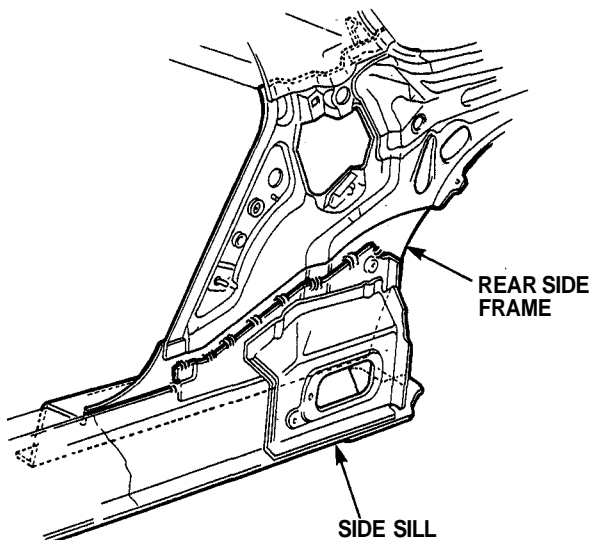
11. Perform the main welding.

⚠ WARNING To prevent eye injury and burns when welding, wear an approved welding helmet, gloves and safety shoes.

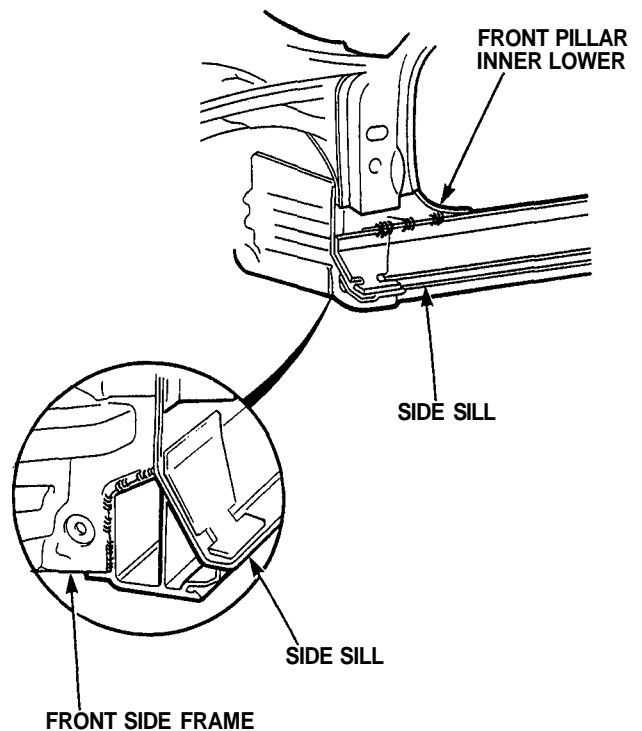
- Before welding, perform the trial welding following the welder manufacturer's instructions.
- Remove the oxide film from the welding sections using a stainless steel wire brush.
- The applicable welding methods are the MIG welding, plug welding, or fillet welding.
- Check the welding sections for cracks (see page 2-29).
- Weld the floor.



- Weld the side sill rear.



- Weld the side sill front.



(cont'd)

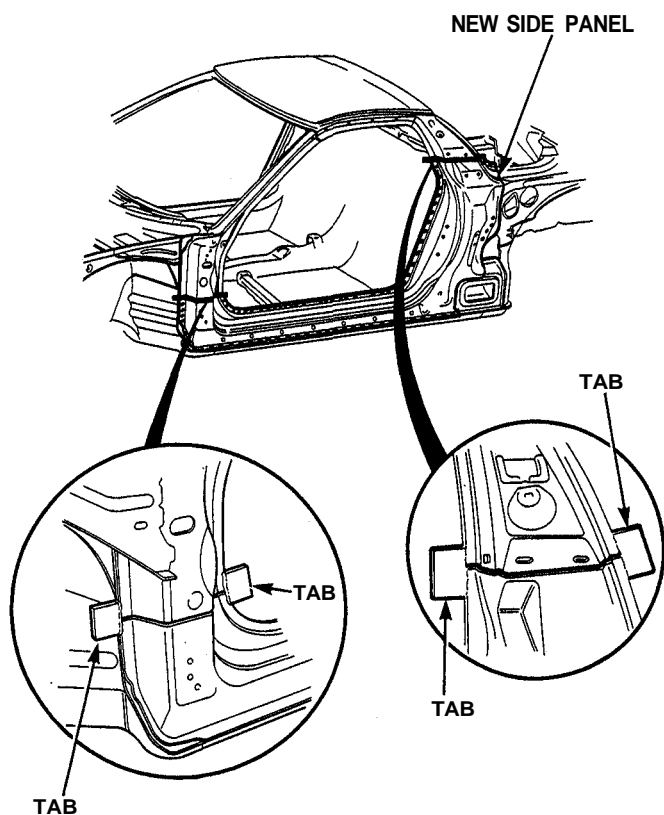
Side Sill

Replacement(cont'd)

12. Weld the new side panel (see page 4-21).

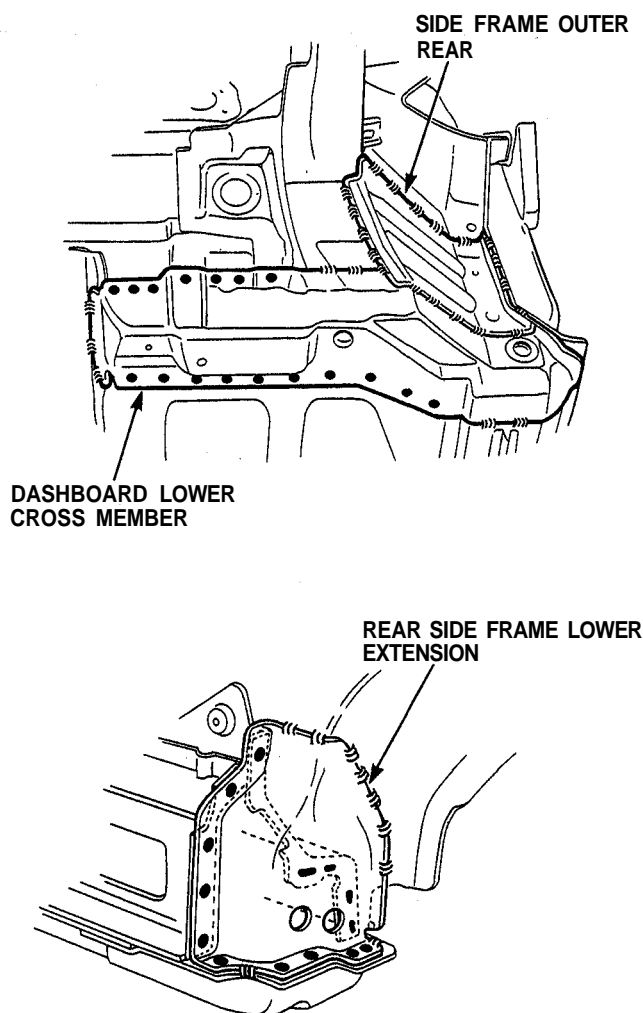
⚠ WARNING To prevent eye injury and burns when welding, wear an approved welding helmet, gloves and safety shoes.

- Drill the $\varnothing 8$ (5/16") plug weld holes in the welding flange of the new side panel.
- Remove the undercoat from the welding sections of the side panel and expose the aluminum alloy base using a disc sander.
- Before welding, remove the oxide film from the welding section using a stainless steel wire brush.
- MIG/plug weld the side sill of the outer panel and butt weld at the top of the outer panel.
- Attach a tab to the butt welding section as shown and weld.
- Preheating effect can be obtained by attaching a tab to the butt welding section.



13. Weld the related parts.

- Weld the dashboard lower and side frame outer rear cross member by MIG welding, plug welding, or fillet welding.
- Weld the rear side frame lower extension.



14. Finish the welding area.

- Roughly grind the welds with a disc grinder. Be sure to leave the finishing allowance this time.
- Finish grind the finishing allowance with a disc sander until it is smooth.

⚠ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

- Finish the butt weld by removing the tab.
- Take care not to grind the aluminum alloy base while roughly grinding the welds.
- Take care not to grind excessively.
- Do not press on the sanding tools excessively. If the disc face is clogged with the aluminum alloy particles, replace with a new disc.
- Finish the butt welded door opening of the outer panel with a disc sander and putty.

15. Apply the sealer ([see section 5](#)).

Apply sealer to the side sill, front floor, dashboard lower, and side panel.

16. Apply the paint.

[See Paint Repair section.](#)

⚠ WARNING

- **Ventilate when spraying paint.** Most paint contains substances that are harmful if inhaled or swallowed. Read the paint label before opening paint container.
- **Avoid contact with skin.** Wear an approved respirator, gloves, eye protection and appropriate clothing when painting.
- **Paint is flammable.** Store in a safe place, and keep it away from sparks, flames or cigarettes.

17. Apply the undercoat ([see section 7](#)).

Undercoat the front floor, etc. and apply anti-rust agent to the inside of the welding section of the front side sill, front and center pillars, etc.

18. Install the related parts.

- Install in the reverse order of removal.
- Adjust the door striker and check the door lock operation.

19. Check and clean.

- Check the electrical parts for proper operation.
- Clean the passenger compartment.

Front Floor

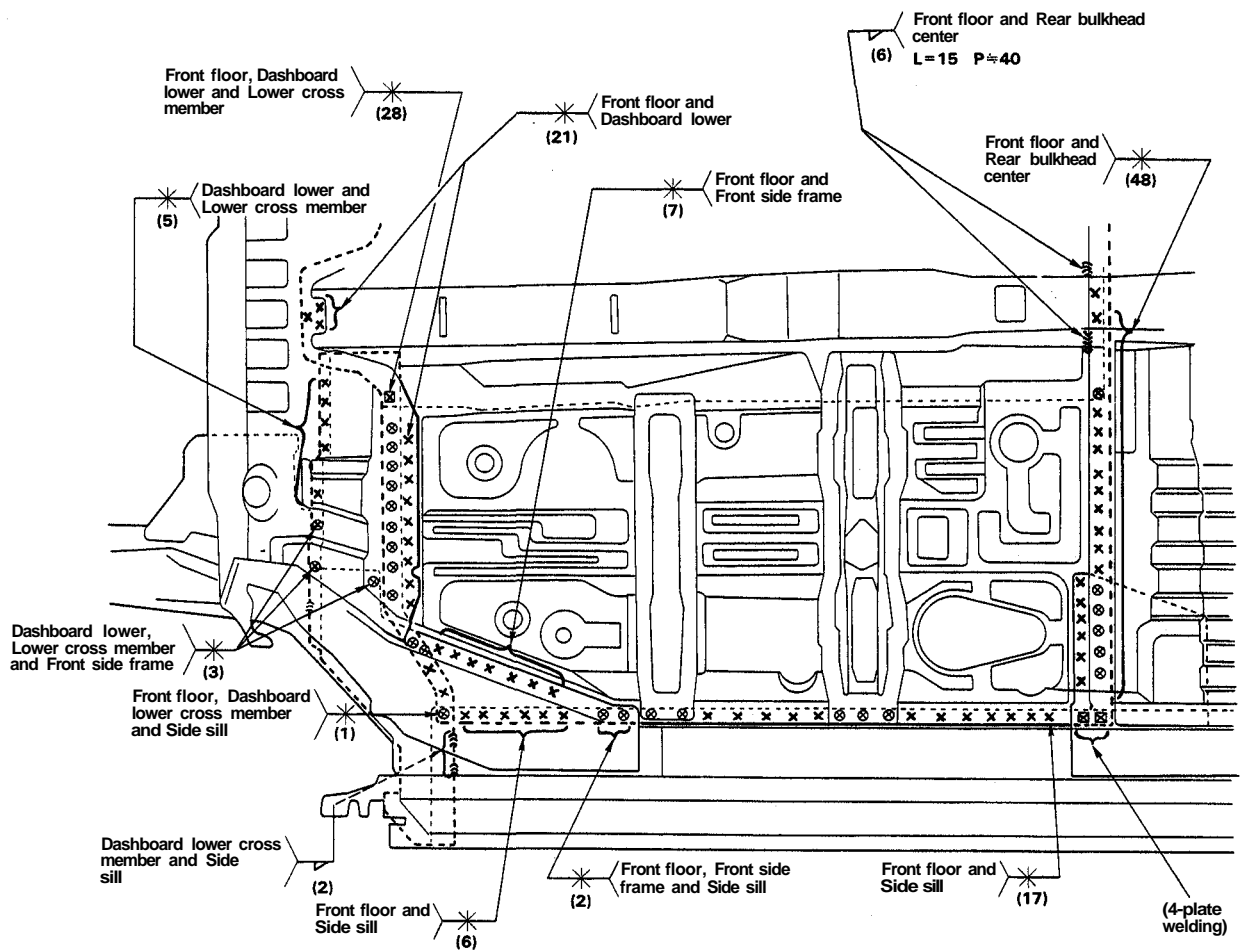
Description

The front floor is the critical part which connects the right and left and front and rear of the cabin and where the driver and assistant ride. During replacement, weld securely following the welder manufacturer's instructions.

Mass Production Body Welding Diagram

<Weld Locations>

- * : Spot Weld
- ▽ : Fillet Weld
- : Slot plug weld



Replacement

1. Remove the related parts.

- Driver's and passenger's seat
- Carpet
- Hand brake assembly

NOTE: With a side sill removed (one side).

⚠ WARNING Do not smoke while working near the fuel system. Keep open flame away from the fuel system. If necessary, remove the fuel tank and/or lines before welding nearby. Drain fuel into an approved container.

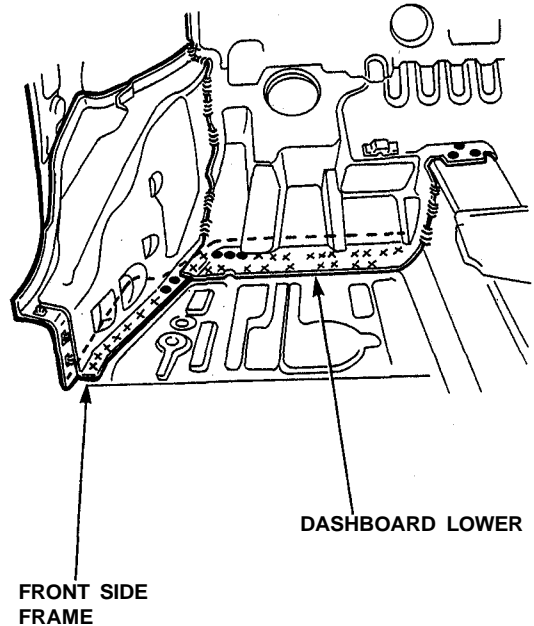
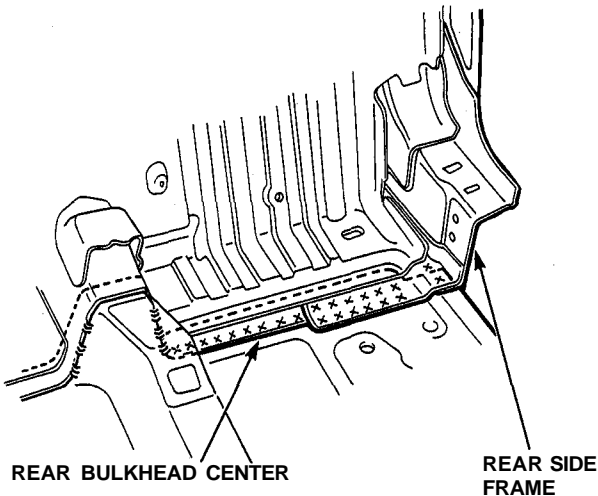
2. Remove the front floor.

- Strike a punch in the center of the spot welds to the dashboard lower and rear bulkhead center.
- Drill the spot welds using a $\varnothing 10$ (3/8") spot cutter.
- Grind the MIG/fillet welds using a rotary cutter.

⚠ WARNING To prevent injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

- Remove the spot welds and fillet welds using a chisel.
- Do not drill through the side sill.
- Smooth the welding sections of the dashboard lower and rear bulkhead with a hammer and dolly.

NOTE: Check the reshape parts for cracks (see page 2-29).



3. Set the new front floor.

- Drill the $\varnothing 8$ (5/16") plug weld holes in the welding flange of the new front floor.
- Remove the undercoat from the welding section of the front floor and expose the aluminum alloy base using a disc sander.

⚠ WARNING To prevent injury, wear goggles or safety glasses whenever sanding, cutting or grinding.

- Heat the undercoat at the bottom of the body using a gas torch, and remove it thoroughly with a knife.
- Remove the paint film from the welding section of the body using a disc sander and clean oil contaminations with a shop towel soaked with a wax and grease remover.
- Before setting the new front floor, clean the welding sections of the front floor and body using a stainless steel wire brush.

(cont'd)