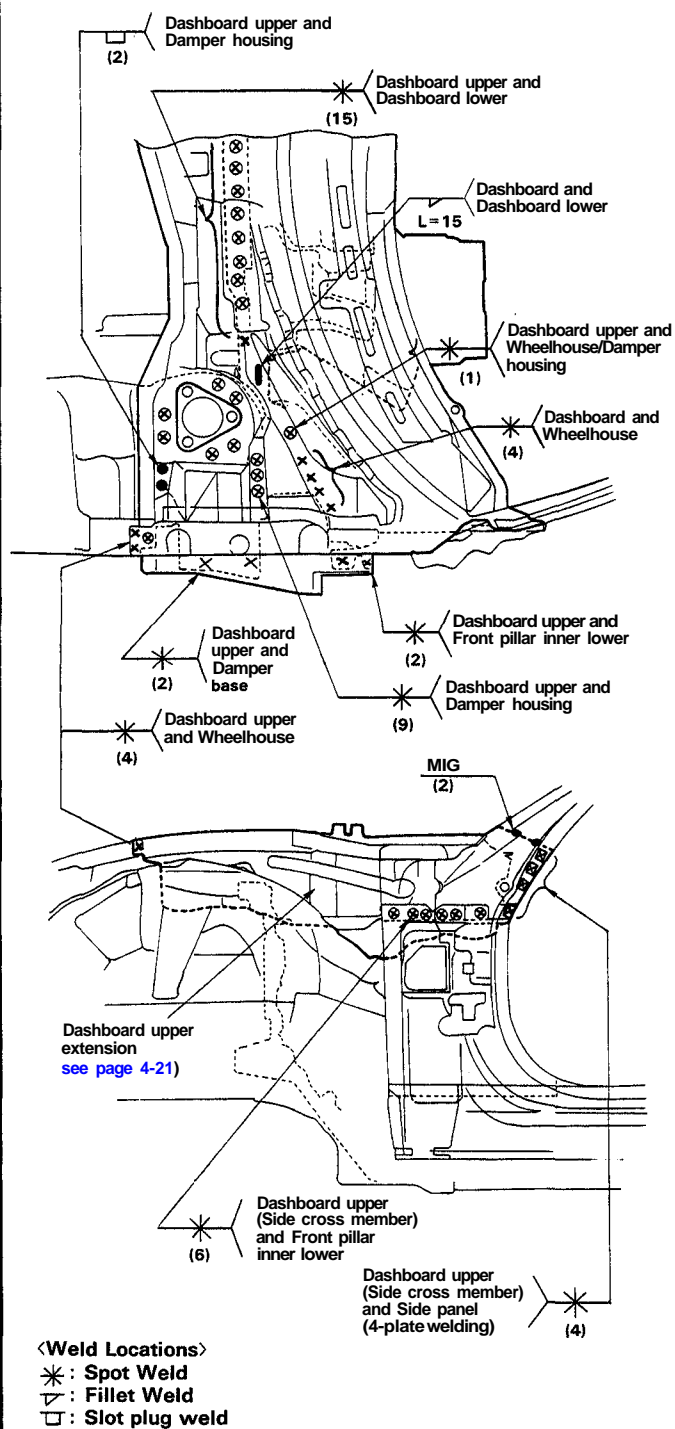


Dashboard Upper

Description

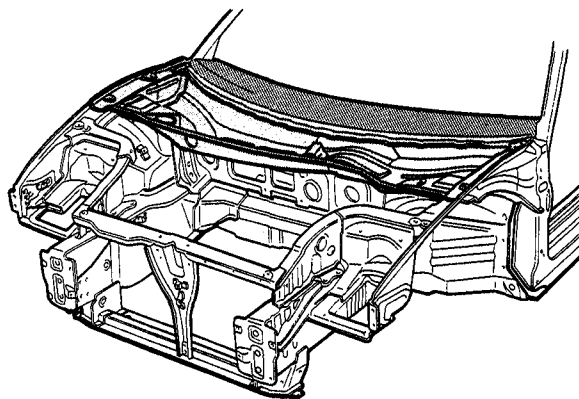
The dashboard upper is the critical part where the windshield and steering parts are installed. Position the dashboard upper properly and secure it by MIG welding.

Mass Production Body Welding Diagram

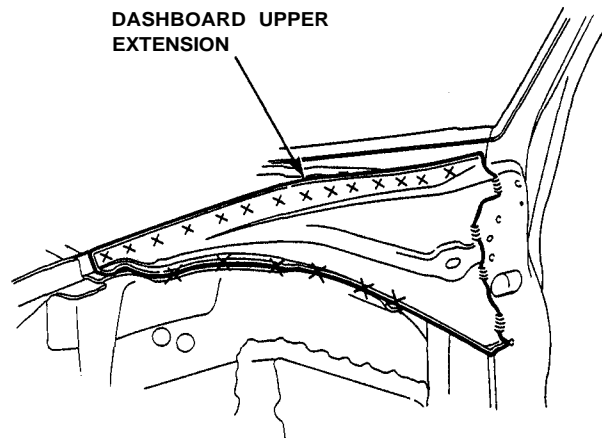


Replacement

1. Remove the related parts.
 - Wiper arm and wiper motor
 - Windshield
 - R/L front fenders
 - Front pillar trim panel
 - Door opening trim
 - Hood
 - Parts related to steering
 - Dashboard, etc.
2. Pull out and straighten the damaged area.
 - The collision damage may extend to the front pillar and roof panel. Check for the damaged sections carefully and pull them out to reshape.
 - Before pulling out the damaged sections, it might be necessary to heat the sections with an acetylene torch (see page 2-31).



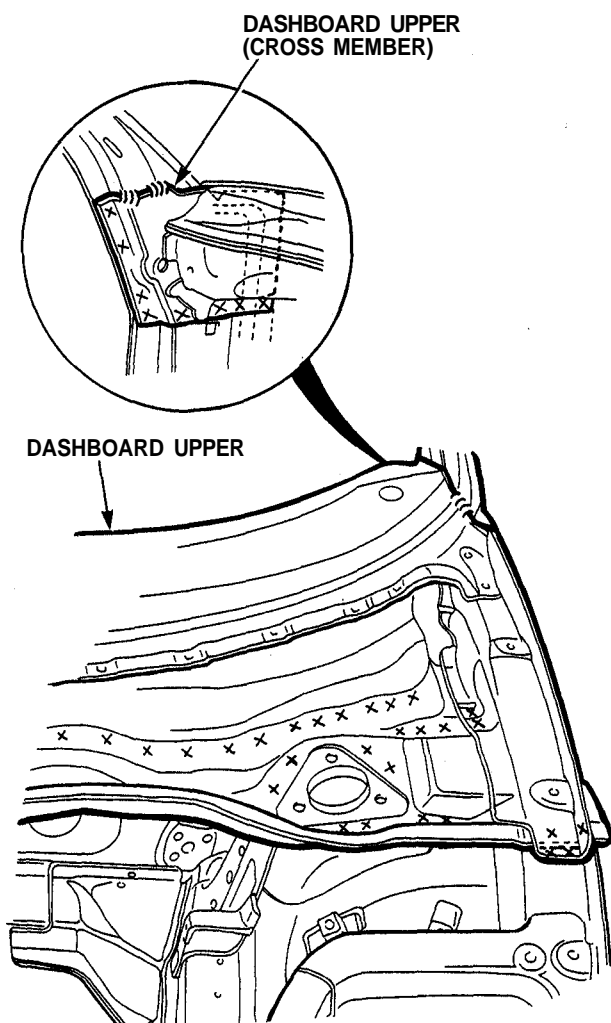
3. Remove the dashboard upper extension.
 - Strike a punch in the center of the spot welds.
 - Drill the spot welds using a $\phi 10$ (3/8") spot cutter.
 - Grind the MIG fillet welds using a rotary cutter.
 - Remove the dashboard upper extension using a chisel.



4. Remove the dashboard upper.

- Drill a punch in the center of the spot welds to the dashboard lower, front wheelhouse, and front pillar.
- Drill the spot welds using a $\varnothing 10$ (3/8") spot cutter.
- Grind the MIG fillet welds using a rotary cutter.
- Remove the remaining welding flanges using a chisel.
- Remove the burrs from the drilled flanges using a disc sander.

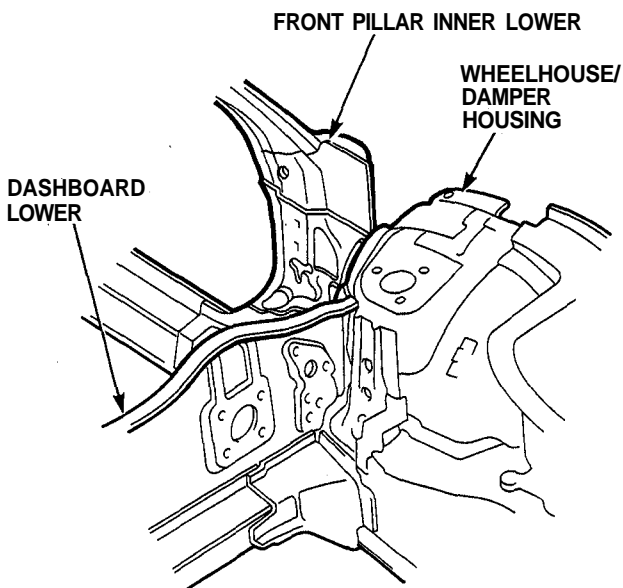
⚠ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.



5. Mold the related parts.

- Reshape the welding flange of the dashboard lower with a hammer and dolly.

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



6. Set the new dashboard upper.

- Drill the $\varnothing 8$ – $\varnothing 10$ (5/16"–3/8") holes for plug welding in the welding flange of the new dashboard upper.
- Remove the undercoat from the both sides of the welding section and expose the aluminum alloy base using a disc sander.

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

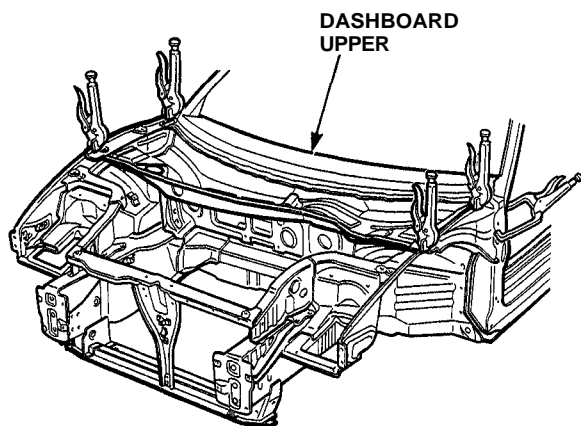
- Remove the paint film from the welding section of the body, and clean oil contaminations with a shop towel soaked with wax and grease remover.
- Before setting the new dashboard upper remove the oxide film from the welding section of the replacement part and body using a stainless steel wire brush.

(cont'd)

Dashboard Upper

Replacement (cont'd)

- Set the dashboard upper and clamp it with the vise-grips and pliers.
- Install the windshield and check for proper installation and alignment.



7. Tack weld the dashboard upper.
Plug weld the clamped sections.

⚠ WARNING

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

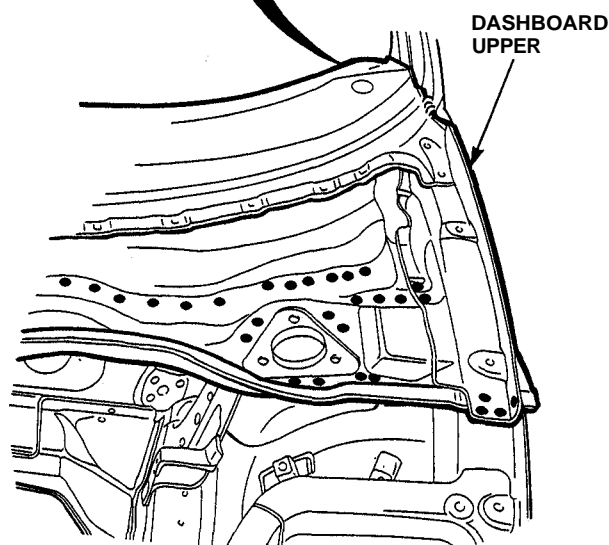
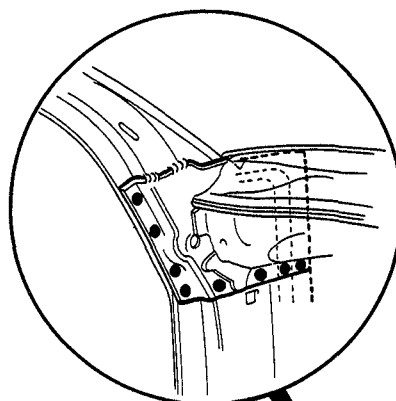
8. Remove the vise-grips and pliers and install the front fender, windshield and hood. Check for difference in level and clearance.

9. Perform the main welding.

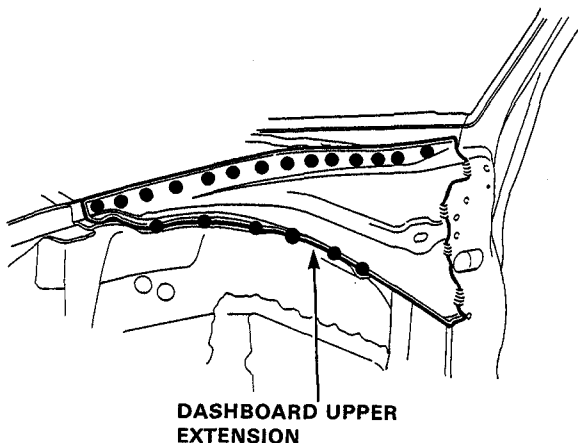
⚠ WARNING

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 MIG welding, plug welding, and fillet welding.
- Check the welding sections for cracks (see page 2-29).



- Weld the dashboard upper extension.



10. Finish the welding section.

- 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.

- Smooth the mating surface with the front windshield with a hammer and dolly.
- 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.

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

Apply sealer to the upper dashboard, pillars, etc.

12. 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.

13. Apply anti-rust agent to the inside of the dashboard upper ([see section 7](#)).

14. Install the related parts.

- Install in the reverse order of removal.
- Check the front fender and hood for difference in level and clearance.

15. Inspect and clean.

- Check the windshield for water leaks.
- After installing the dashboard, check the lights, gauges, etc. for proper operation.
- Clean the interior.

Front Side Frame

Description

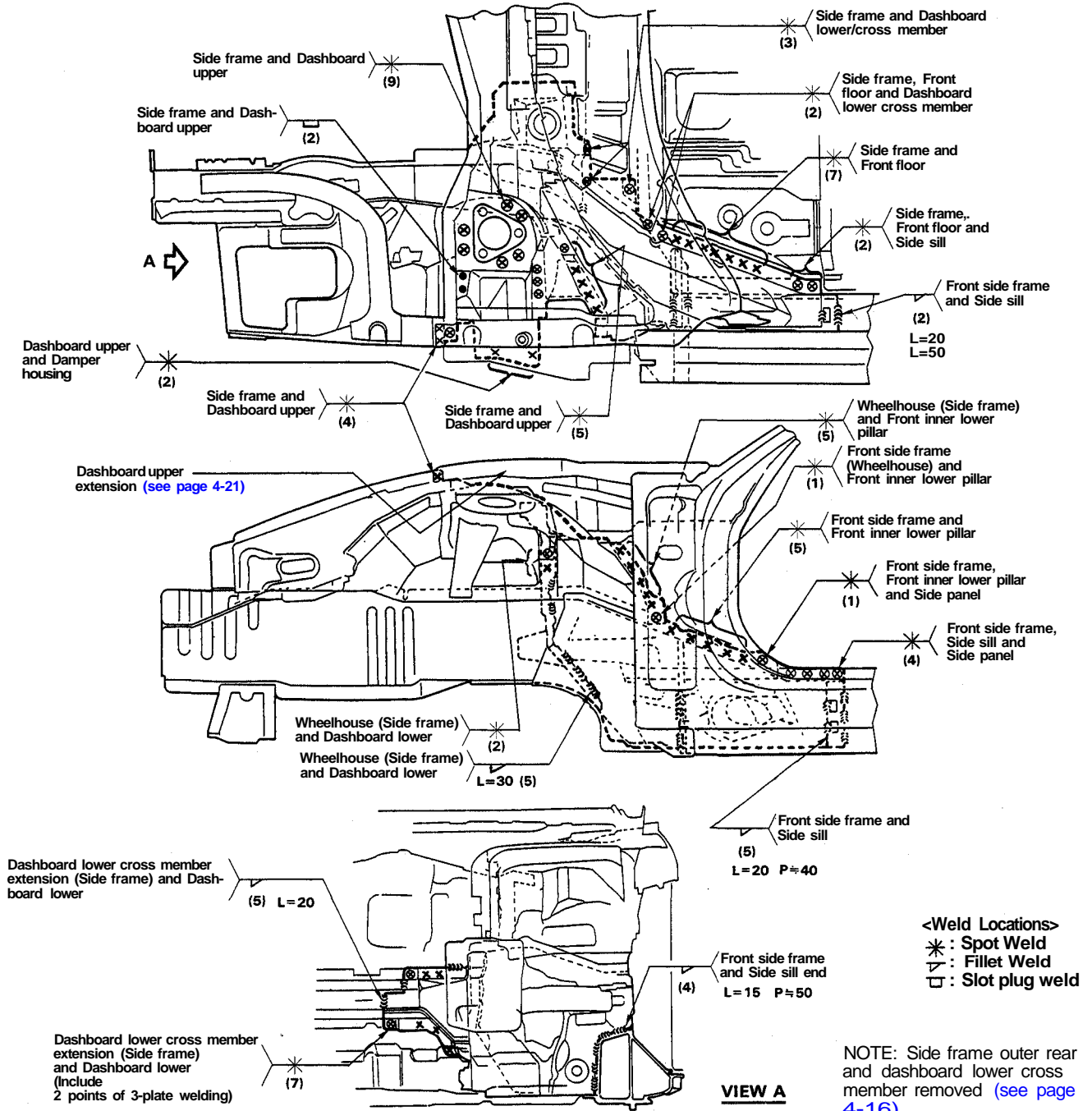
The front side frame is critical for the rigidity of the front compartment and front wheel alignment, as it is integrated with the front wheelhouse. During installation, position the front side frame by using the positioning jig (page 1-7) or to the dimension shown in the body dimensional drawings. Welding must be performed by using the aluminum alloy MIG welder.

Perform the trial welding first following the welder manufacturer's instructions, then weld properly.

NOTE: Do not section frame rails except at manufacturers seams.

Mass Production Body Welding Diagram

NOTE: Replace the front side frame and wheelhouse as an assembly.



Replacement

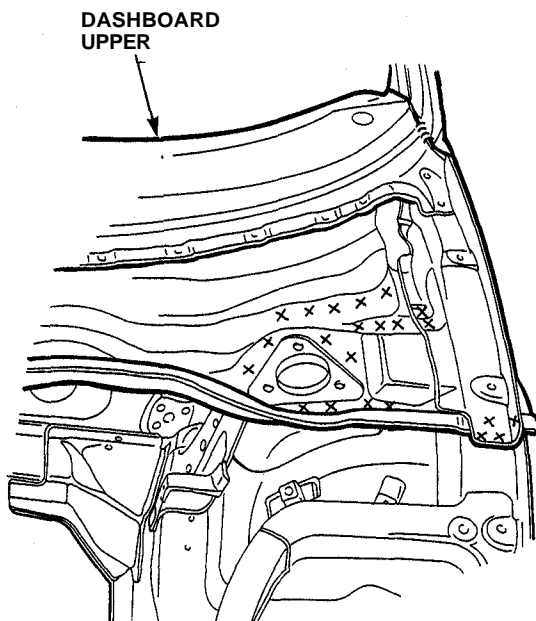
1. Remove the related parts.
 - Front suspension related parts
 - Brake hoses and pipes
 - Front compartment electrical components
 - Fittings in passenger compartment, etc.

NOTE: With the front bulkhead upper frame and lower cross member removed:

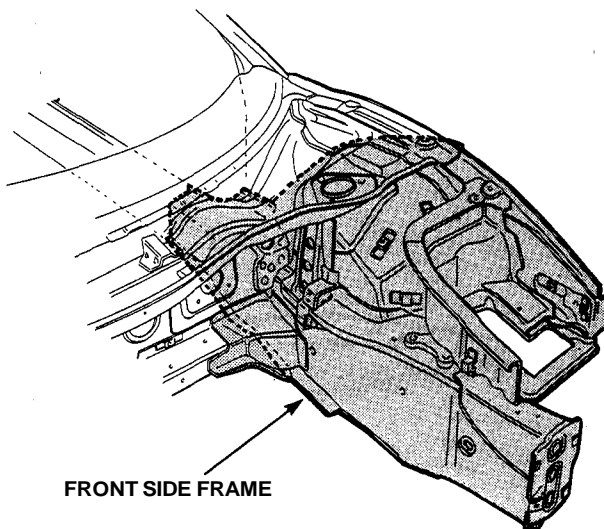
2. Pull out and straighten the damaged area.
 - Attach the car to the frame straightener by tightening the underbody clamps located at the jack-up points on the bottom of the side sill and the side sill side flanges.

NOTE: Refer to the NSX Service Manual for safety stand location points.

- To protect the car body from damage, place a piece of aluminum plate on each clamping section and tighten the clamps.
- Before cutting off the damaged sections, pull them out so that they are restored to the original shape.
- Cutting off front side frame before roughly pulling out the damage makes repair of the related front floor, dashboard lower, and other related parts difficult.



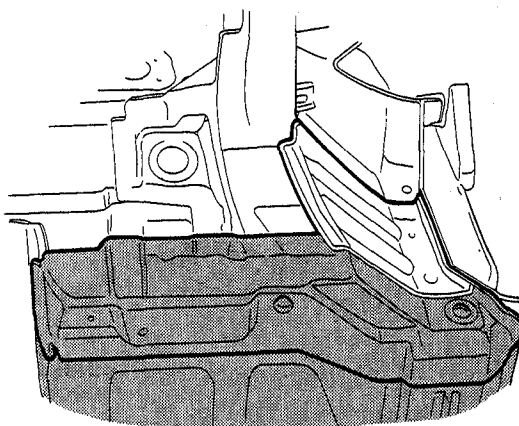
- It might be necessary to heat the damaged sections with an acetylene torch before pulling them out (see page 2-31).



- After pulling, check the damper housing and side frame positions using the body dimensional drawings (see section 6) and positioning jig.
3. Peel off the undercoat.

Heat the undercoat at the weld areas of the lower dashboard, front floor and side sill with a gas torch and peel off with a metal spatula.

CAUTION: Be careful not to burn the fittings inside the passenger compartment when heating.



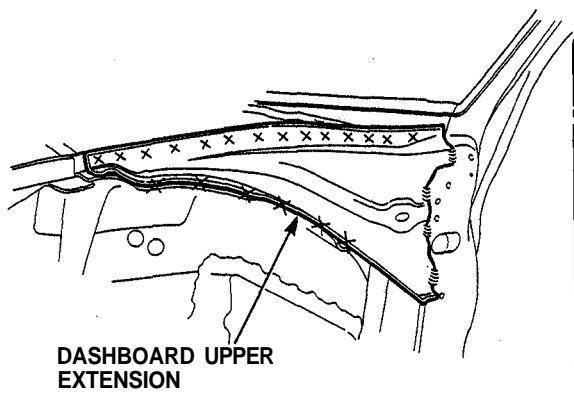
(cont'd)

Front Side Frame

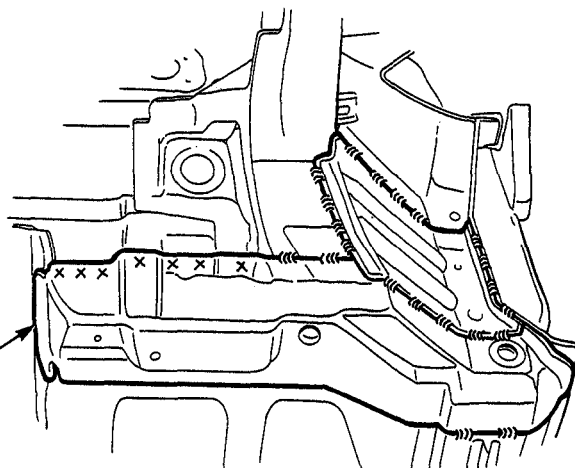
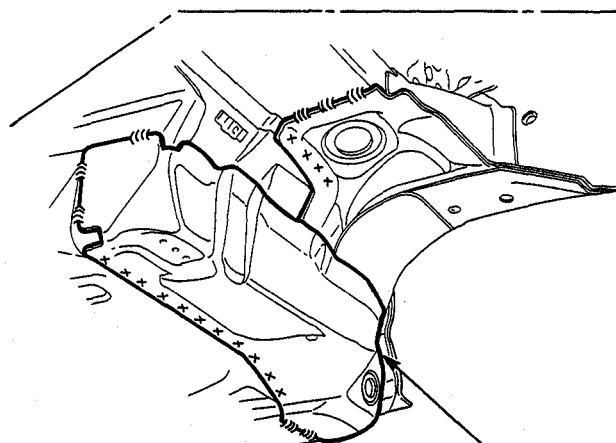
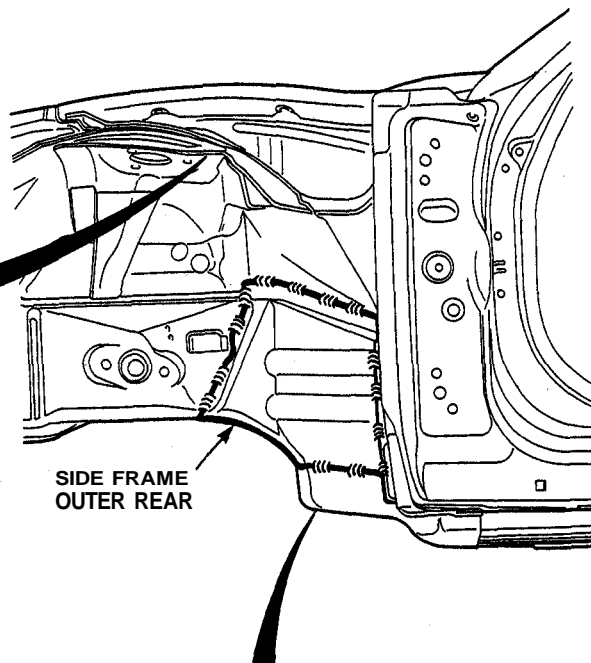
Replacement (cont'd)

4. Remove the dashboard upper extension.
 - Strike a punch in the center of the spot welds to the wheel house.
 - Drill the spot welds of the dashboard upper extension using a $\varnothing 10$ (3/8") spot cutter.
 - Grind the MIG weld (fillet weld) to the front pillar using a rotary cutter.

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



5. Remove the side frame outer rear and dashboard lower cross member.
 - Grind the fillet welds of the front side frame outer rear with a rotary cutter.
 - Drill the spot welds of the dashboard lower cross member using a spot cutter.
 - Remove the side frame outer rear and lower cross member using a chisel.



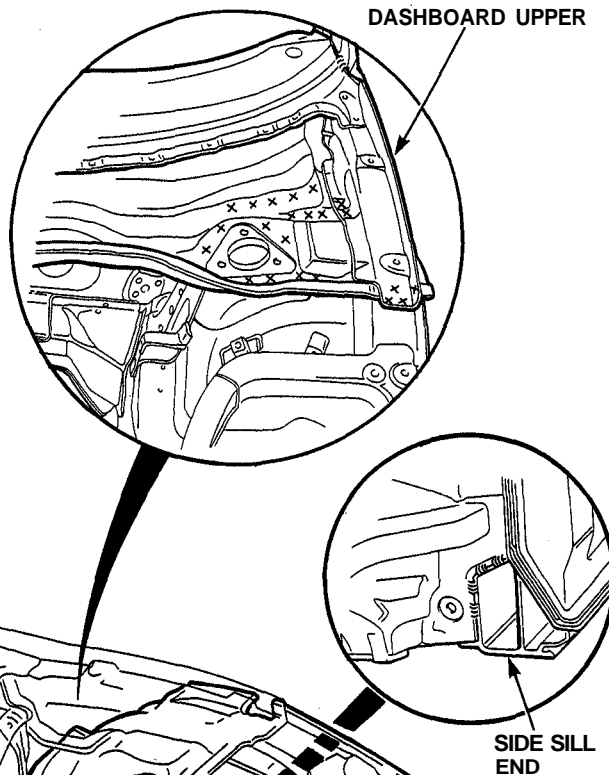
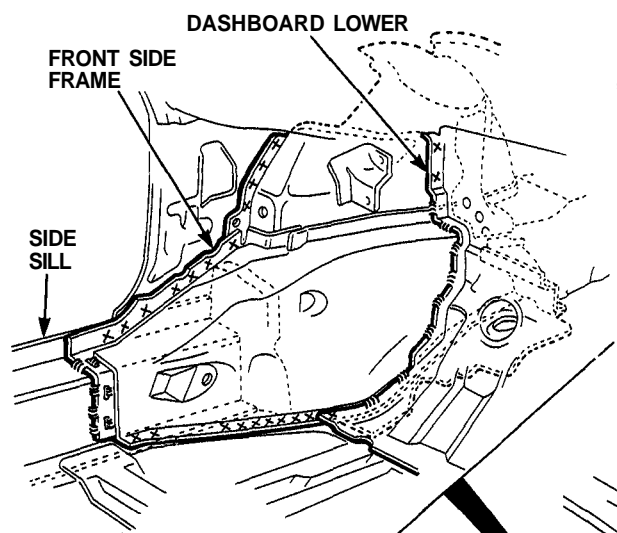
DASHBOARD LOWER CROSS MEMBER

6. Remove the front side frame.

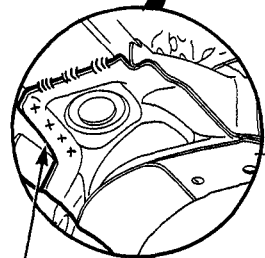
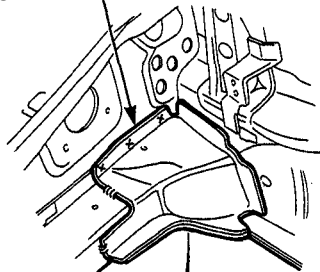
- Strike a center punch around the spot weld imprints with the dashboard upper, dashboard lower and front floor.
- Drill the MIG welds (plug welding) using a $\varnothing 15$ (5/8") spot cutter (hole saw type).
- Drill the spot welds using a $\varnothing 10$ (3/8") spot cutter.
- Grind the fillet welds of the side frame-and-side sill joint using a rotary cutter as shown.

- Peel off the welding flange using the chisel.
- Remove the burrs from the drilled sections with a disc grinder or disc sander.

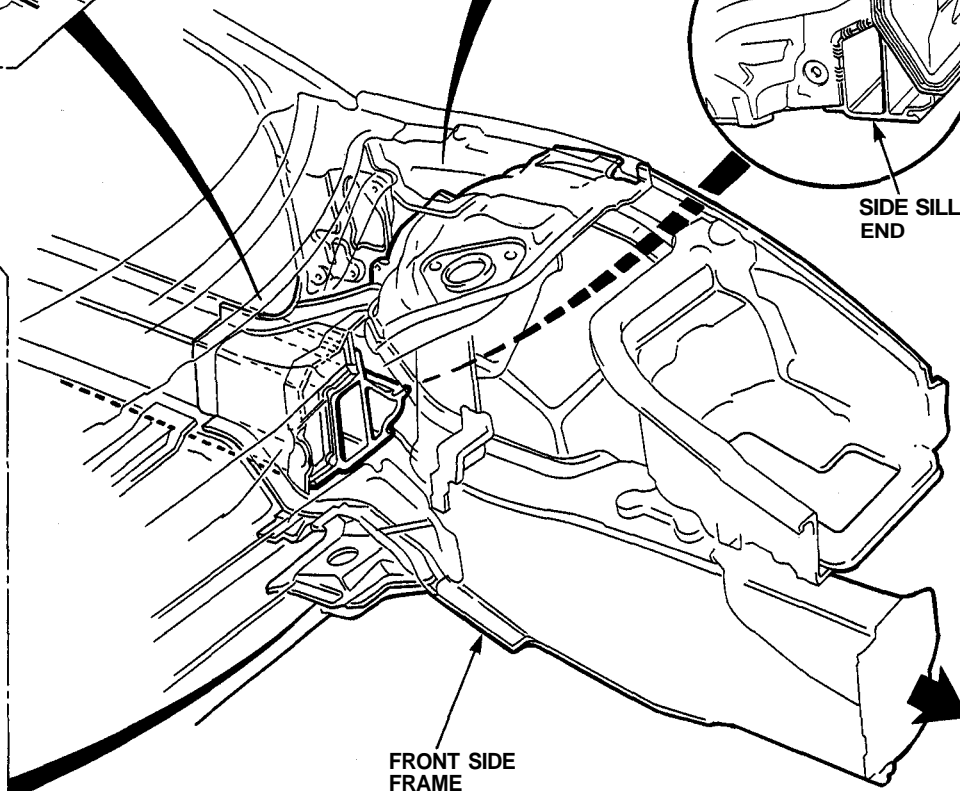
⚠ WARNING To prevent eye injury, wear goggles or safety glasses whenever sanding, cutting or grinding.



DASHBOARD LOWER
CROSS MEMBER EXTENSION
UPPER



DASHBOARD LOWER CROSS
MEMBER EXTENSION LOWER



(cont'd)