

Roof Panel/Roof Rails

Replacement

1. Remove the related parts.
 - Windshield
 - Rear hatch
 - Rear window
 - Sunvisors
 - Ceiling light
 - Headliner
2. Pull out and straighten the damaged area.
 - Pull out the damaged area with the frame straightener before removing the roof panel.
 - 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.
 - To protect the car body from damage, place a piece of aluminum plate on each clamping section and tighten the clamps.
 - Before pulling out the damaged section, it might be necessary to heat the section with an acetylene torch (see page 2-31).

NOTE: Make sure that the right and left pillars are parallel with the windshield surface. Check the door and rear hatch for proper opening and closing.

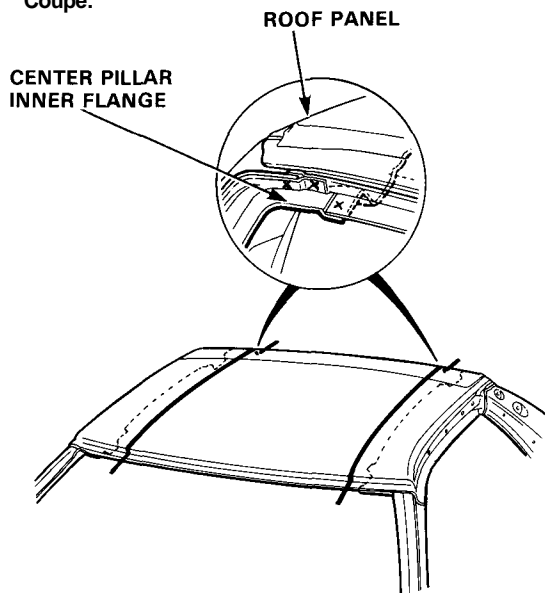
- After pulling, check the front and center pillar position using the body dimensional drawings (see section 6).

3. Keep the body level.
Jack up the body at the front and back and place safety stands at the four designated places of the side sills.

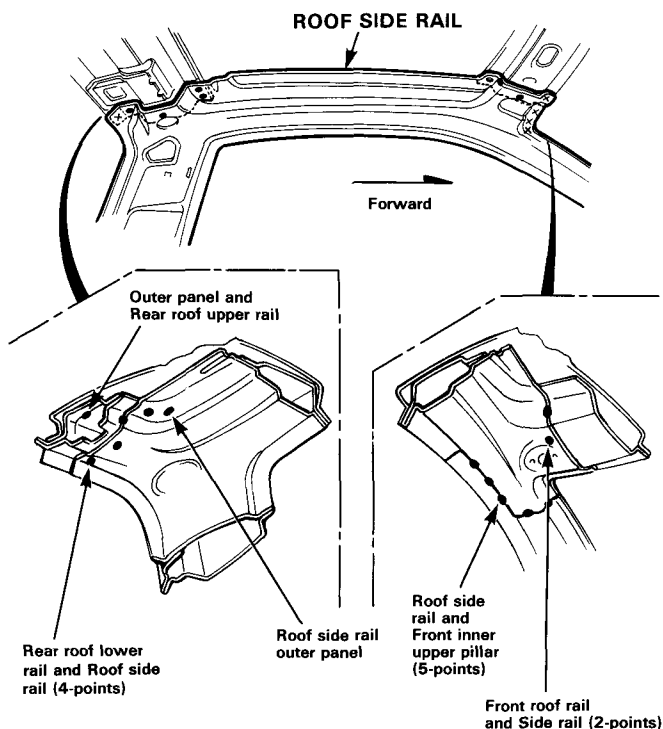
NOTE: Refer to the NSX/NSX-T Service Manual for safety stand location points.

4. Remove the roof panel or roof rails.
 - Strike a punch in the center of the spot welds in the roof panel flange or roof rails.
 - Drill the spot welds using a 10 mm (3/8") spot cutter.
 - Grind the MIG fillet welds using a rotary cutter.
 - Remove the welding flange using a chisel.

Coupe:

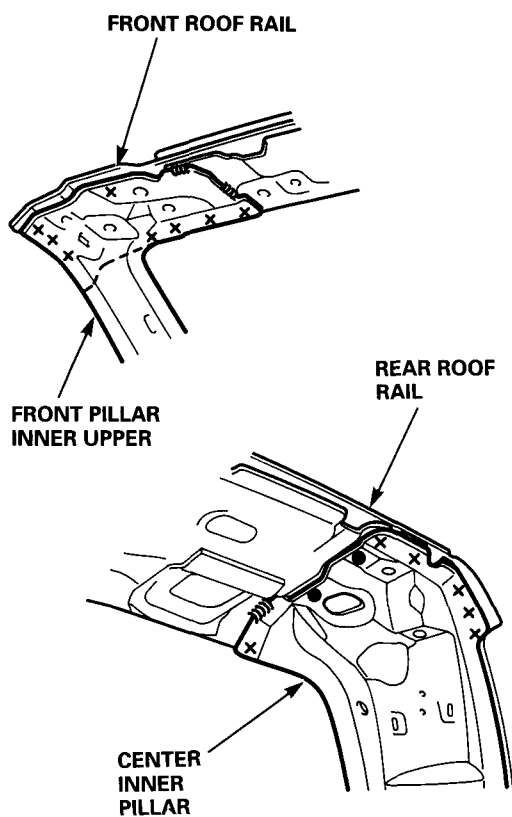
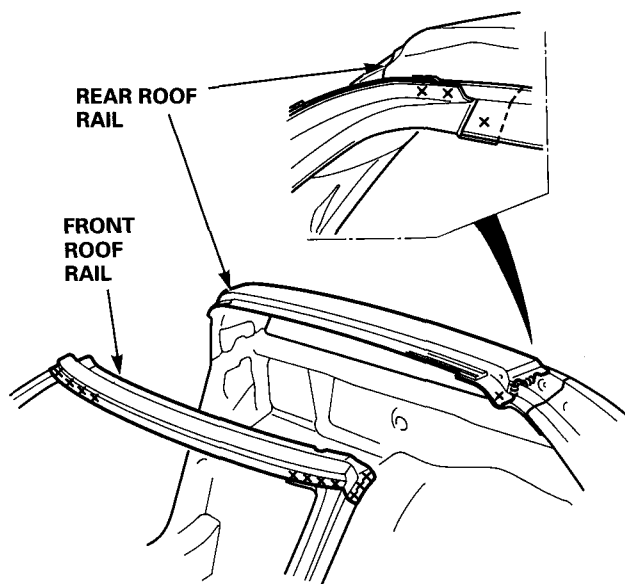


- MIG weld positions (Roof side rail inside).



- Cross section of roof rail.

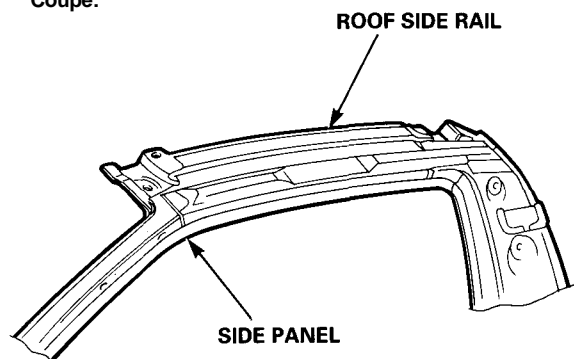
NSX-T (open top):



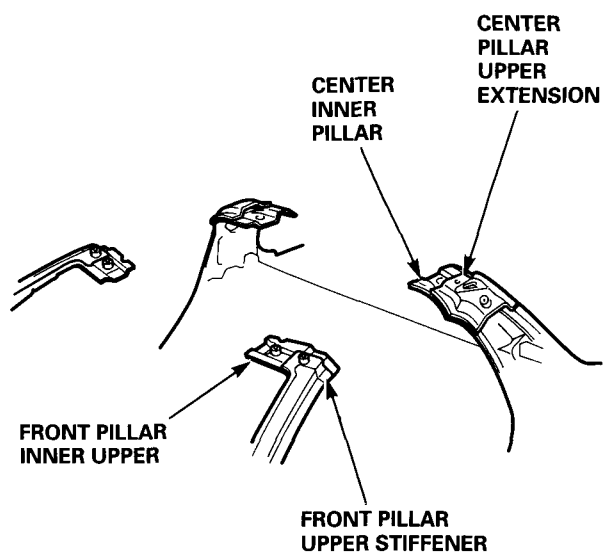
5. Mold the related parts.
Smooth the welding flange of the roof sides rail or inner pillars with a hammer and dolly so that there is no clearance to the welding flange of the roof panel or roof rails.

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

Coupe:



NSX-T (open top):



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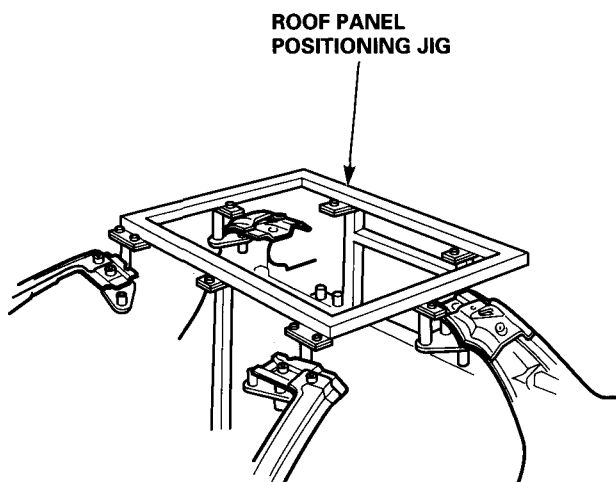
Roof Panel/Roof Rails

Replacement (cont'd)

Check the front and rear lock receiver mounting positions.

NOTE: Use of a roof panel positioning jig is recommended.

- Install the roof panel positioning jig as shown.
- Check for horizontal alignment of the jig with a water level.



6. Apply paint to the underside of the new roof panel or new roof rails.
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.

7. Set the new roof panel or new roof rails.
- Drill the 8 mm (5/16") plug weld holes in the welding flange of the new roof panel or new roof rails.
 - Remove the undercoat from the both sides of the welding section and expose the aluminum alloy base using a disc sander.

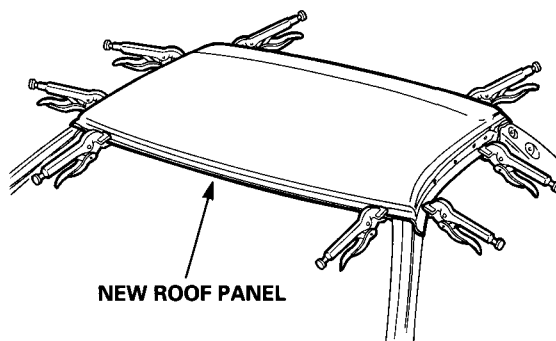
⚠ WARNING

To prevent eye injury, wear goggles or safety glasses 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 roof panel or new roof rails, remove the oxide film from the welding section of the replacement part and body using a stainless steel wire brush.

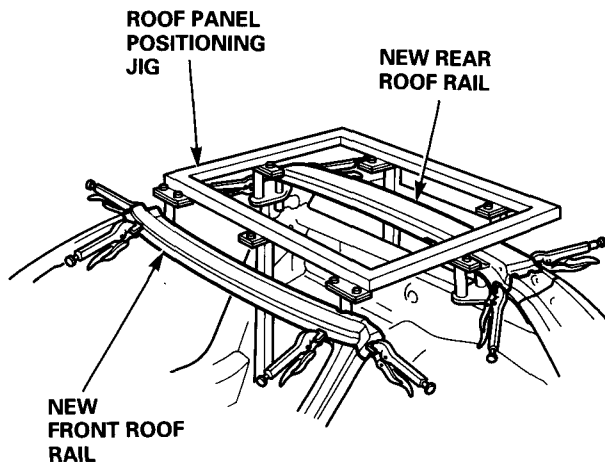
Coupe:

- Install the new roof panel and clamp it with the vise-grips and pliers.
- Check the welding flange for close fitting. Check the roof panel for distortion and proper installation, and check over the body dimensions (see [section 6](#)).



NSX-T (open top):

Install the new roof rails as shown.



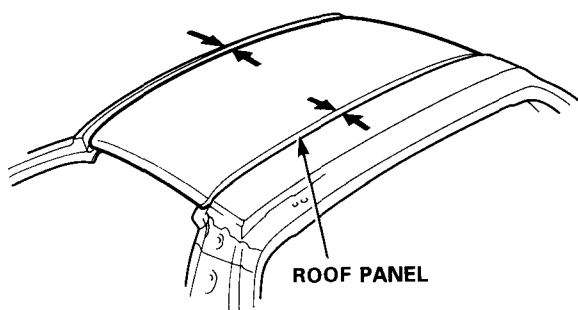
8. Tack weld the roof panel or roof rails.

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

- MIG/plug weld the clamped sections to temporarily install the roof panel or roof rails.
- Set the windshield and rear window, and check the roof panel for proper installation.
- Install the rear hatch, then adjust the level difference and fit.

NSX-T (open top):

Remove the jig and install the front and rear lock receivers, then check the clearance and level differences of the roof panel and roof rails.

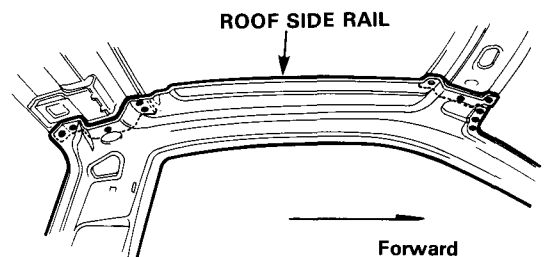
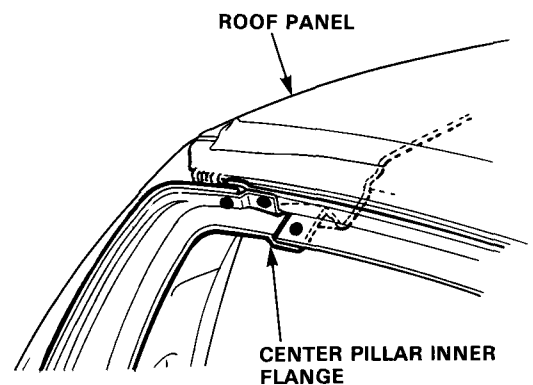
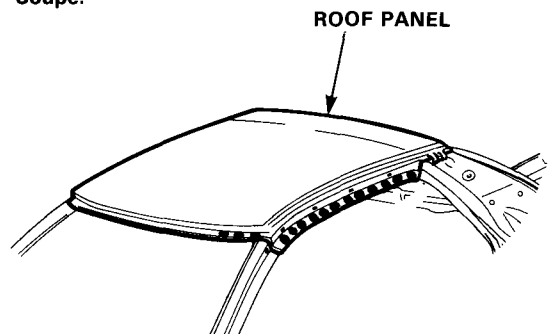


9. Perform the main welding.

⚠ 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).

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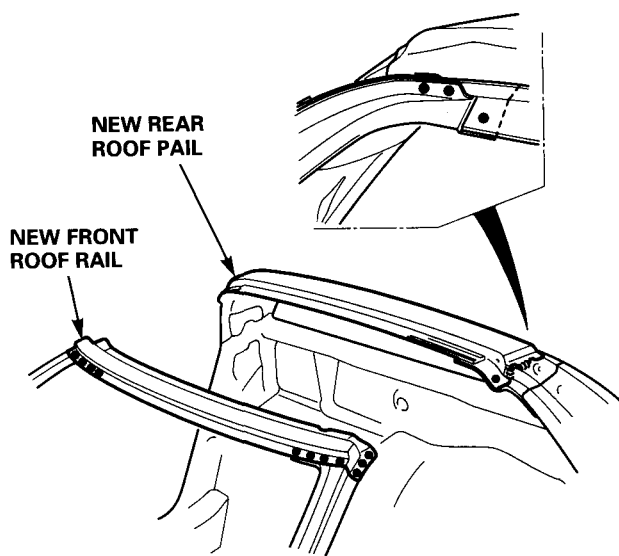


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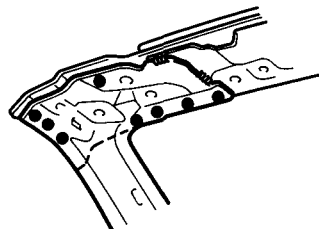
Roof Panel/Roof Rails

Replacement (cont'd)

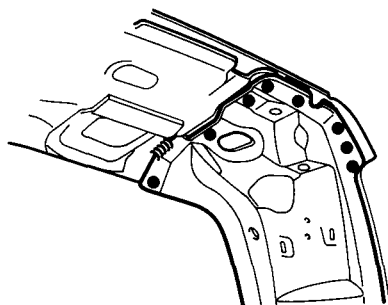
NSX-T (open top):



〈Front〉



〈Rear〉



10. Finish the welding area.

- Roughly grind the welds using 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 windshield and roof side flanges 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](#)).

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 roof side rail.

14. Install the related parts.

Install in the reverse order of removal.

15. Check and clean.

- Check the windshield and rear window for water leaks.
- Check the ceiling light for lighting.
- Clean the passenger compartment thoroughly.

NSX-T (open top):

- Set the roof panel, then secure the roof panel by turning the roof side lock handles.
- Adjust the roof panel for a flush fit with the roof rail.
- Make sure the roof side locks are locked securely.
- Check for water leaks.

NOTE: Refer to the NSX/NSX-T Service Manual (see section 20) for roof.