

# 5

## Rust Prevention

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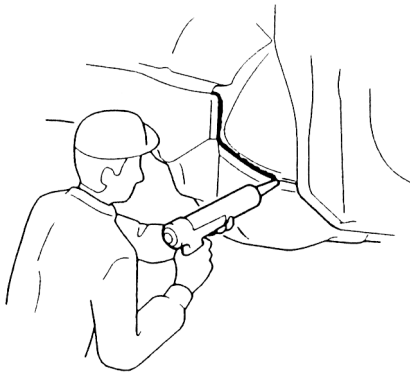
# Rust Prevention

## Cross Section of Body and Sealants

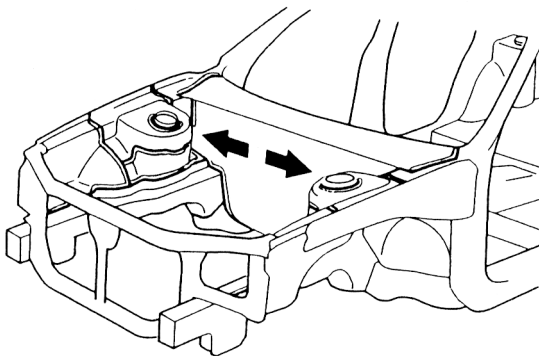
### General

Note: Follow the sealer manufacturer's instructions.

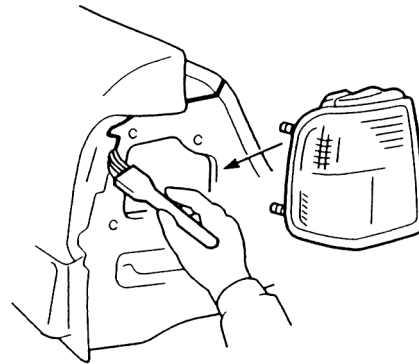
1. Clean the areas to be sealed with the was and grease remover.
2. Wipe off any excess spot sealer with thinner. After the primer is sprayed, sealer will fill to the area where spot sealer was wiped off.
3. Make sure you can see the sealant when the sealed part is in its proper location. Refer to the [page 5-3](#) through [page 5-7](#) of this manual.



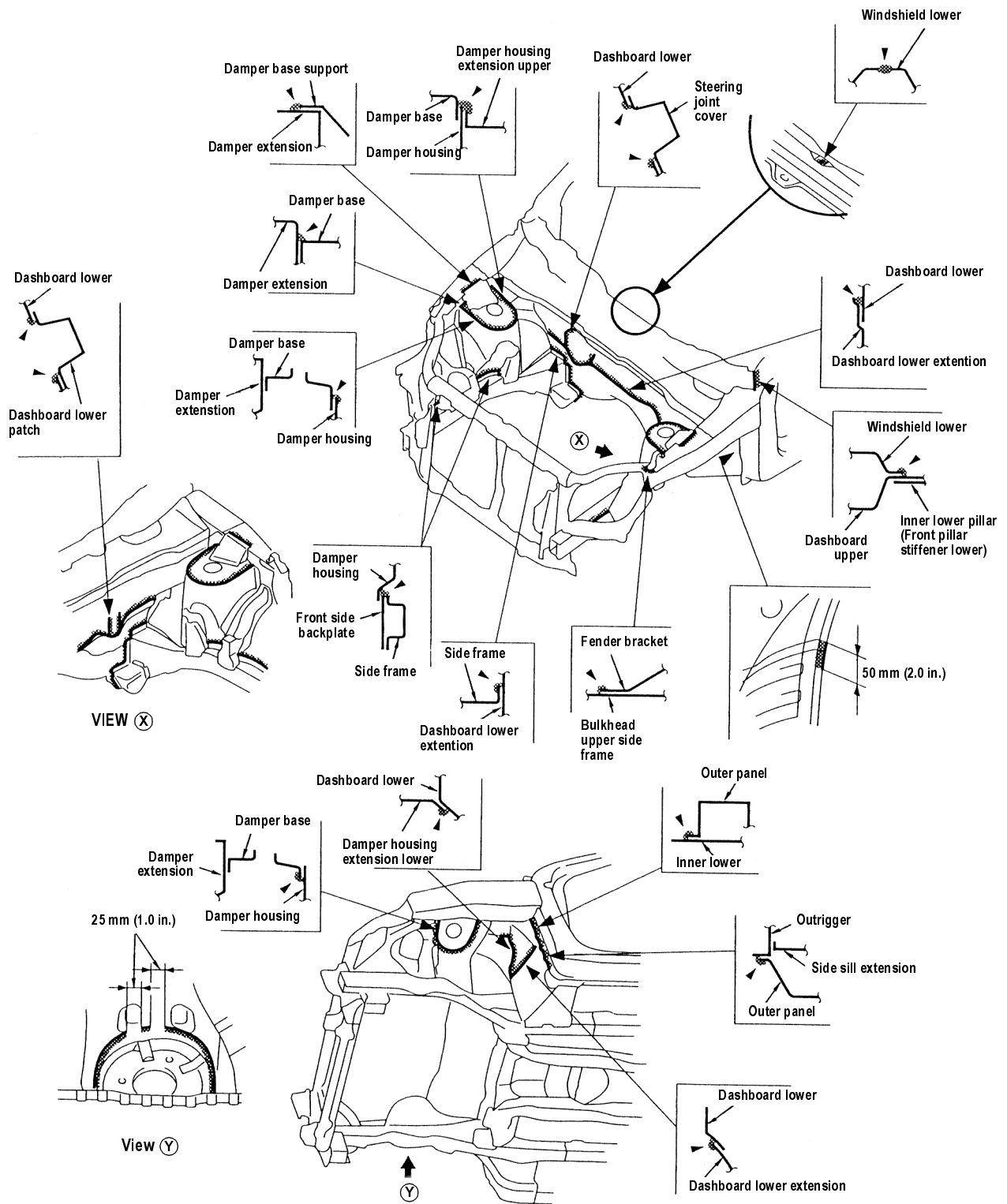
4. Finish sealing the engine compartment, the door opening, and the hatch gutter. Wipe off the excess sealer.



5. Apply sealer on any area that replacement part will cover. Smooth the sealer with a brush if necessary.



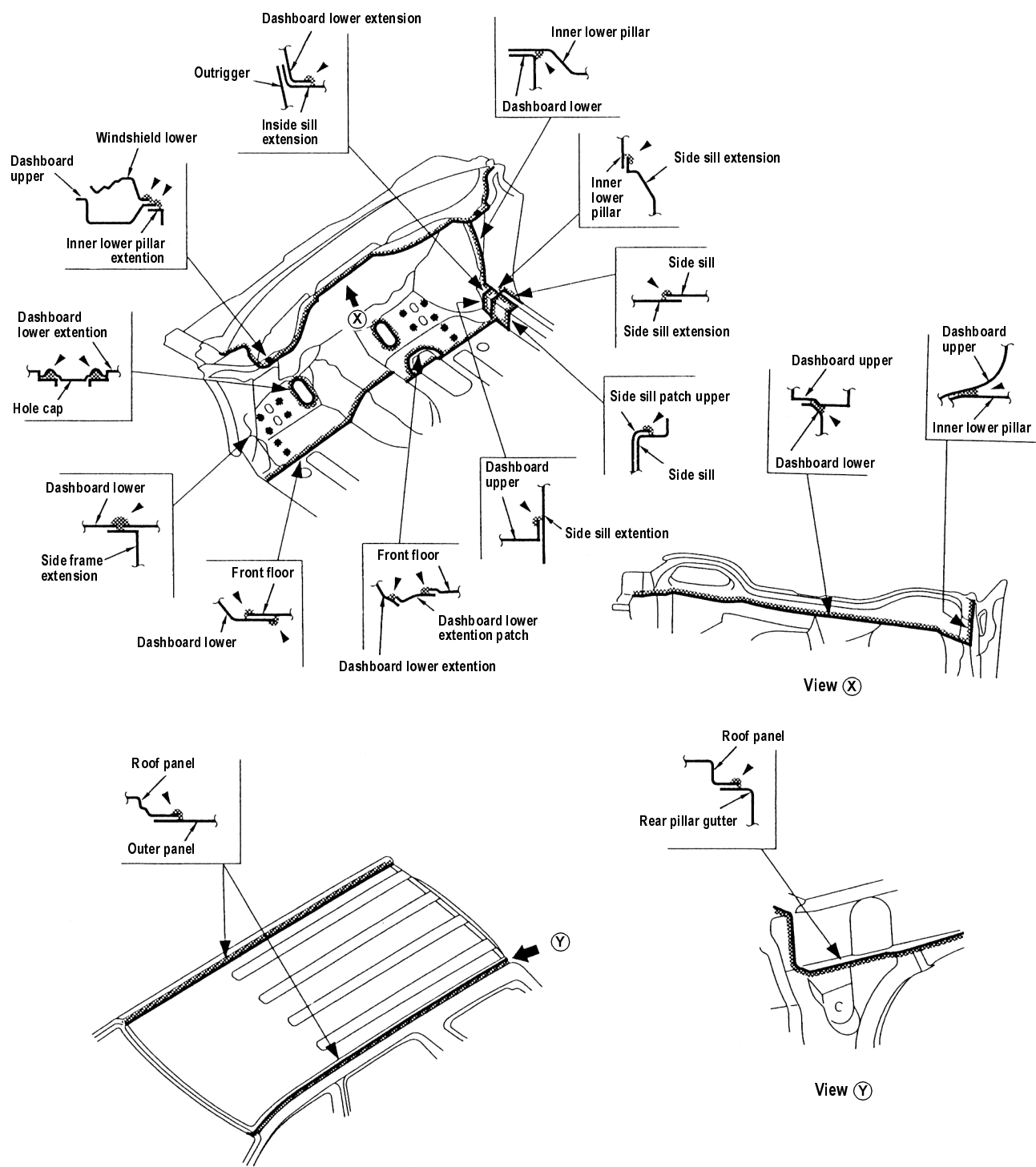
## Engine Compartment, Front Wheelhouse, and Damper Housing



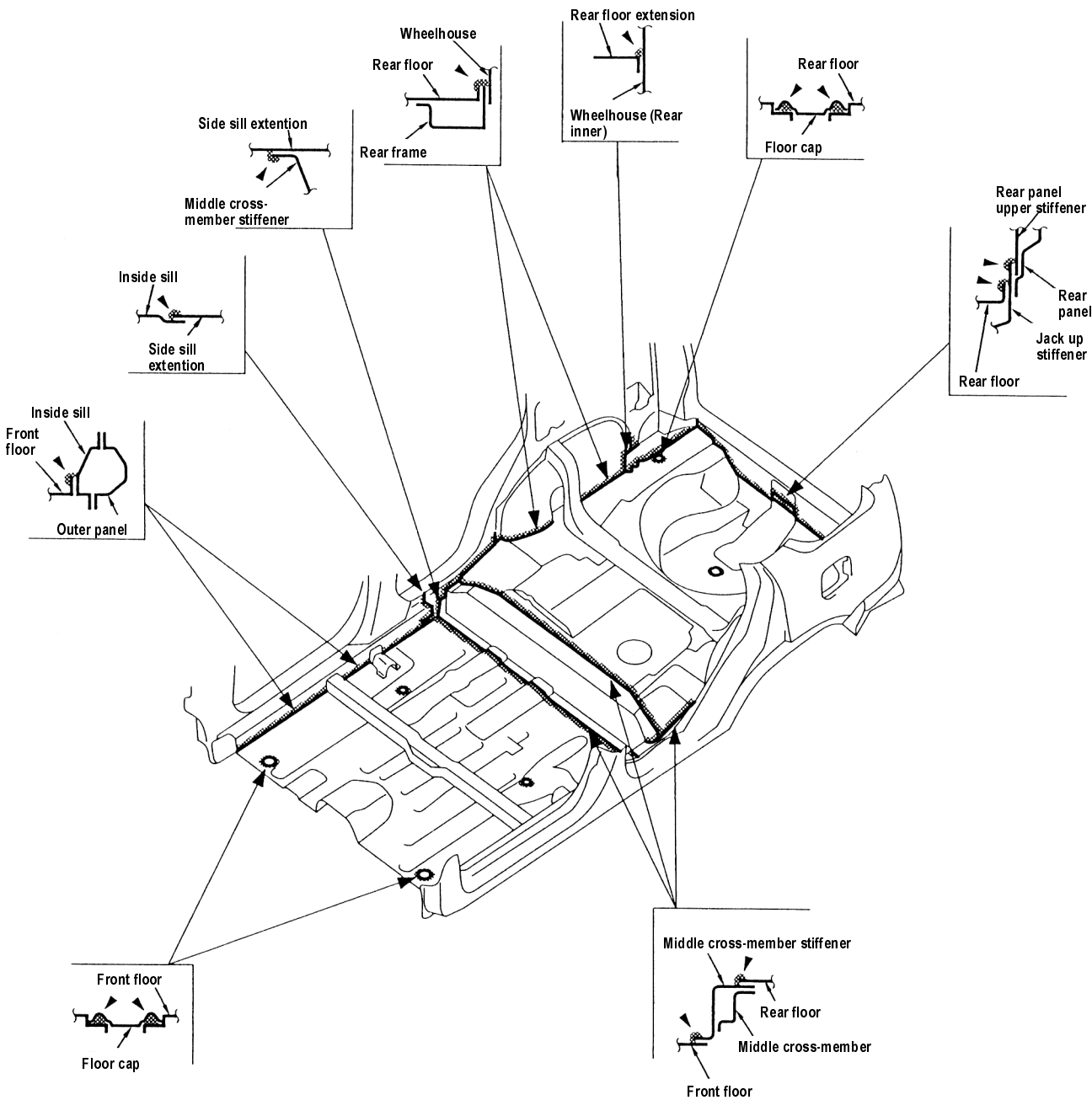
# Rust Prevention

## Cross Section of Body and Sealants (cont'd)

### Dashboard Upper, Dashboard Lower, and Roof Panel



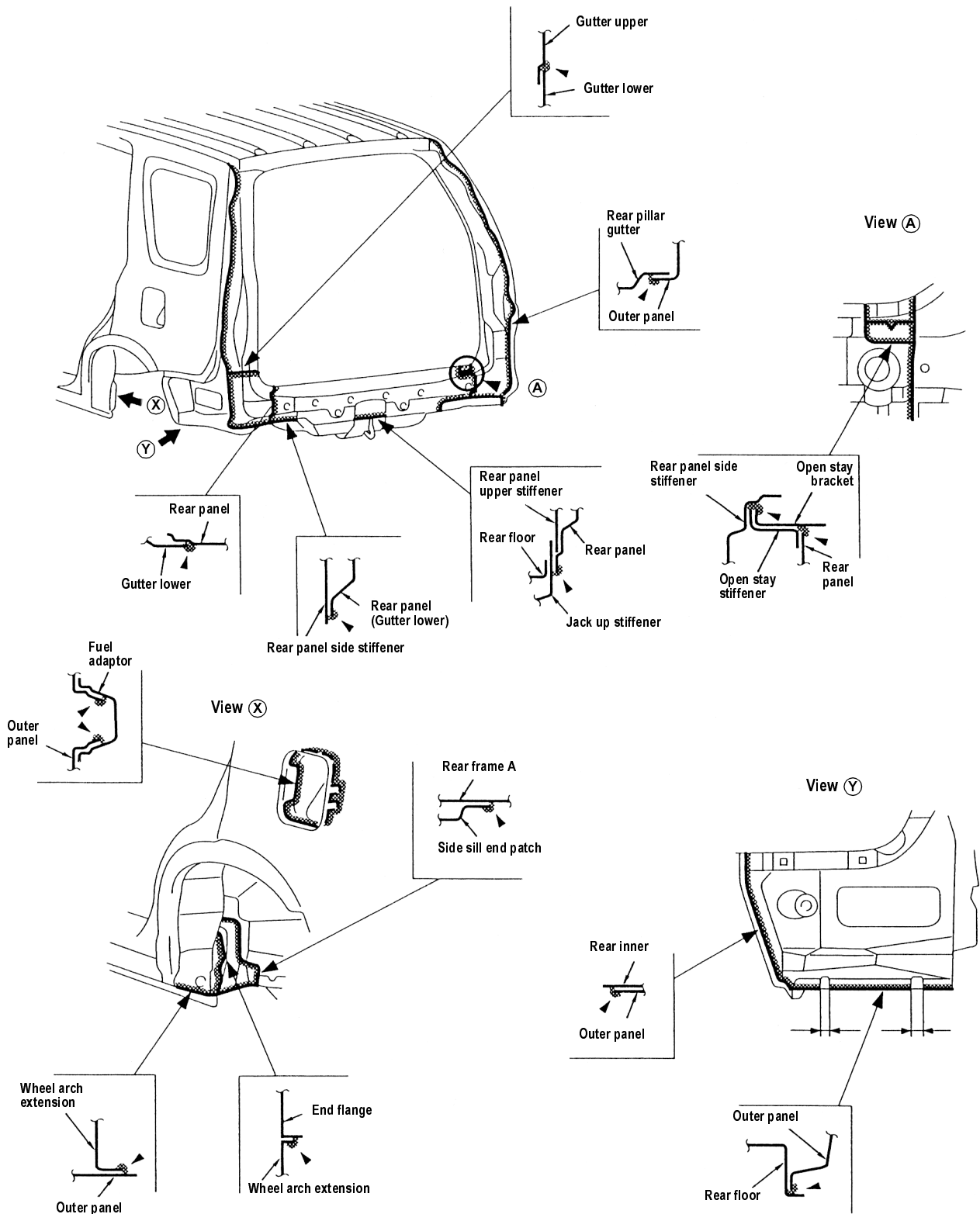
Front Floor and Rear Floor



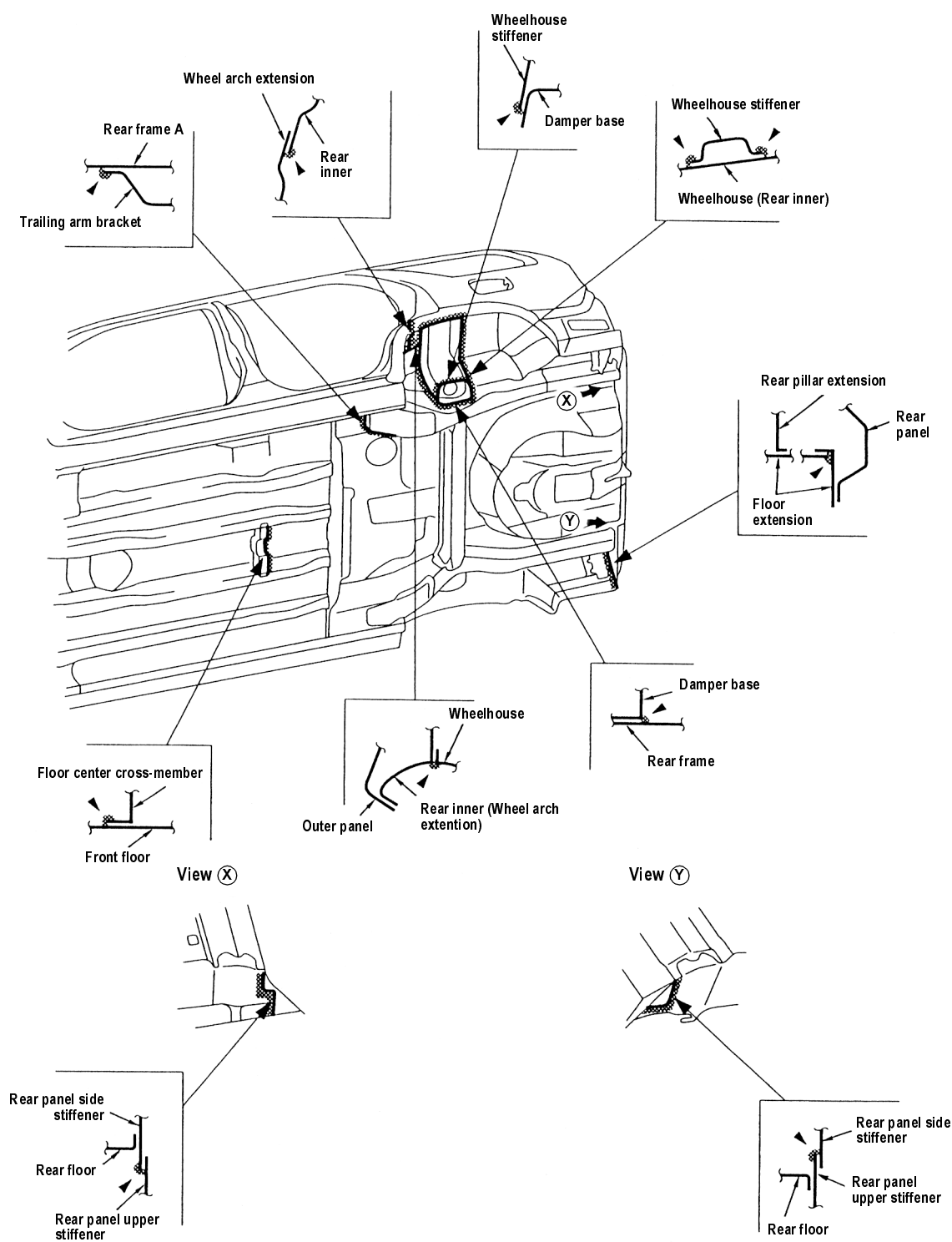
# Rust Prevention

## Cross Section of Body and Sealants (cont'd)

### Rear Side Outer Panel, and Rear Panel



Under Floor, and Rear Wheelhouse



# Rust Prevention

## Soft Chipping Guard Primer Coat

### General

The removal of paint and undercoating by stone chips immediately exposes metal to the atmosphere, causing it to oxidize. The thickness of this oxidation increases if the process continues unchecked. The soft chipping guard primer protects against damage due to the impact of such objects.

### Sectional View of Paint Coats:

Top coat
Intermediate coat + Chipping guard primer
Electrodeposition of primer
Base metal

- The soft chipping guard primer coat is applied over the E.D. (Electrostatically Deposited) primer. It is followed by guide coating and top coating.
- The soft chipping guard primer produces a smooth surface when dry. It should be sprayed so the thickness of the protective film is 20 microns.

### Basis Rules for Repairing a Soft Chipping Guard Primer Coat:

- Soft chipping guard primer coat is then applied to the most susceptible area (see page 5-9).
- Spray the primer surface (2-part urethane primer surfacer) on the soft chipping guard primer coating areas when you replaced parts using soft chipping guard primer coat.



**WARNING**



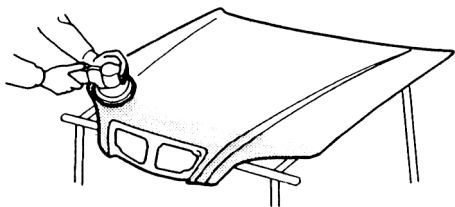
- Wear goggles or safety glasses to prevent eye injury.
- Ventilate when spraying undercoat.

### 1. Sanding the replacement part.

#### NOTE:

- Do not oversand the edges or corners of the part.
- Do not expose base metal.

Use a double action sander and #400 disc sandpaper.



### 2. Air blowing / degreasing

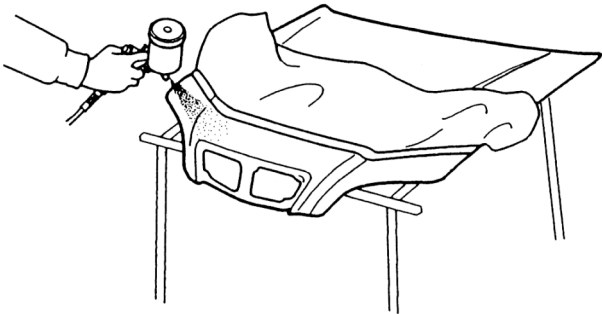
Use alcohol, and wax and grease remover.

### 3. Masking

Use masking tape and paper.

### 4. Spraying primer surfacer

- Sprayer about 4 to 5 coats to get 20 microns of thickness. One coat deposits about 5 to 7 microns.
  - Do not try to cover the surface with one heavy coat. Apply several thin coats is recommended.
- Use a 2-part urethane primer surface and a spray gun.
  - Mix the primer surfacer with the additive and solvent, and in the correct ratio.
  - Follow the primer surfacer manufacturer's instructions.



### 5. Drying

After spraying primer surfacer, allow 7 to 10 minutes of drying time, then force dry it with infrared lamps or an industrial dryer.

### 6. Polishing

Check the primer surfacer has drier thoroughly, then sand the primer surfacer.

Use a double action sander and #400~#600 disc sandpaper.

### 7. Intermediate coating and top coating

Refer to page 6-8 through page 6-10 of this manual for the painting procedure.

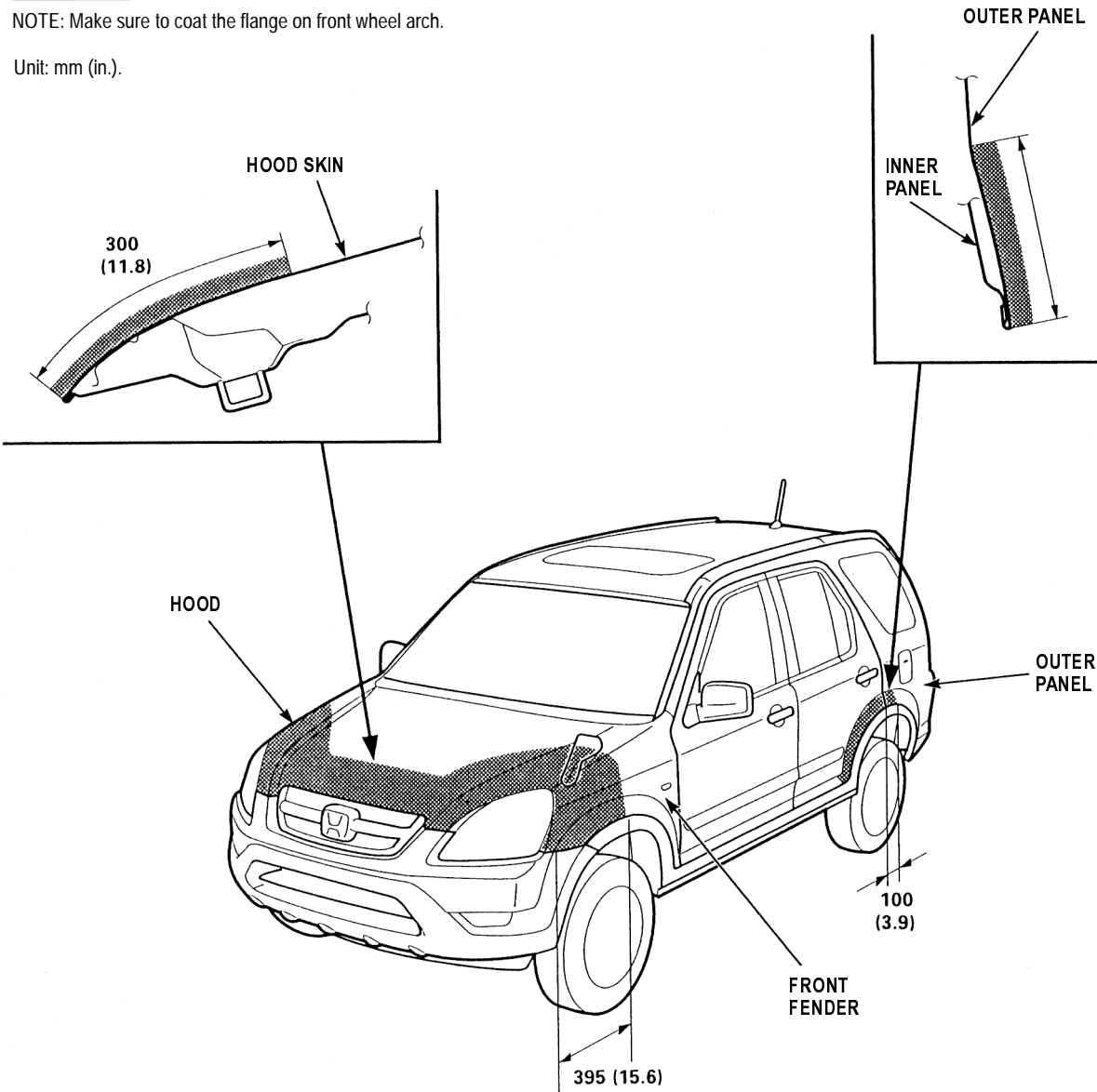


Coating Diagram

 Indicates chipping guard primer coating area.

NOTE: Make sure to coat the flange on front wheel arch.

Unit: mm (in.).



# Rust Prevention

## Rust-preventive Treatments

### General

#### Undercoat:



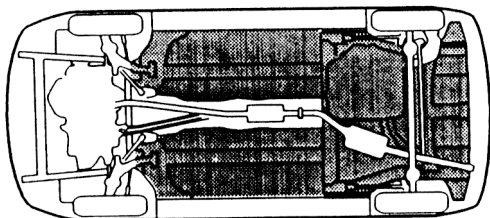
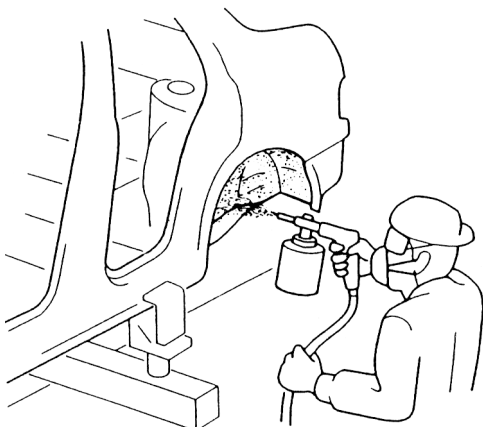
#### WARNING



- Wear goggles or safety glasses to prevent eye injury.
- Ventilate when spraying undercoat.

#### NOTE:

- Mask the exhaust system, oxygen sensors, and suspension mount areas to prevent them from the undercoat overspray.
  - Follow the undercoating manufacturer's instructions.
1. Clean the body with wax and grease remover before the undercoat is sprayed.
  2. Apply the undercoat to the front wheelhouse, rear wheelhouse, and undersides of the front floor and rear floor ([see page 5-11](#)).
  3. Coat the bottom of the fuel tank.



### Anti-rust Agents:



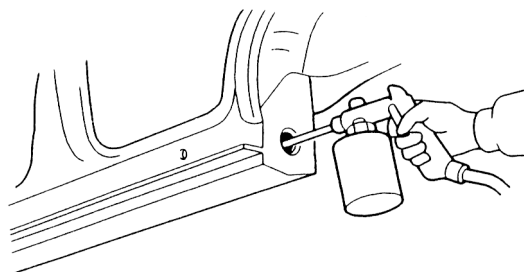
#### WARNING




- Anti-rust agents contain substances that are harmful if you breathe or swallow them, or get them on your skin. Wear coveralls, gloves, eye protection, and an approved respirator while using such agents.
- Ventilate when spraying an anti-rust agent since it contains a small amount of organic solvent. Keep sparks, flames and cigarettes away.

#### NOTE:

- Do not spray an anti-rust agent on the brake system, components, exhaust system components and its related parts, emission control devices in the engine compartment, ball joint covers, the fuel strainer, and exterior and interior parts.
  - Wipe the excess agent with a clean rag dampened with light oil.
  - Follow the anti-rust agent manufacturer's instructions.
1. Before applying an anti-rust agent, thoroughly clean the area to be coated with a steam cleaner, etc., and let it dry. Waxoyl may be applied to wet surface.
  2. Apply anti-rust agent from the installation hole and the access hole of parts in the outer panel and the frame ([see page 5-12](#)). Spray the anti-rust agent sufficiently until the excess amount oozes out when filling the side sill.



## Undercoating Diagram

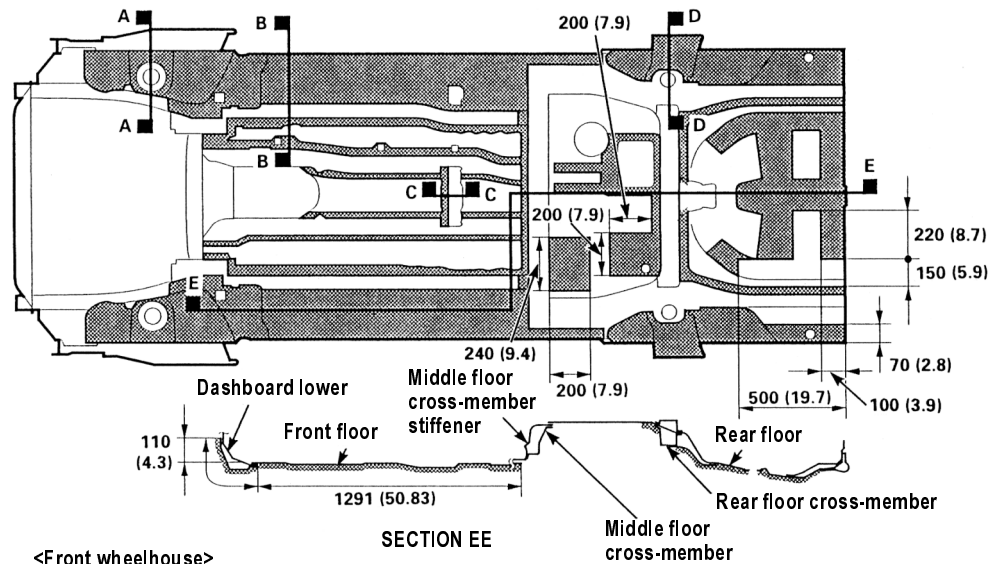
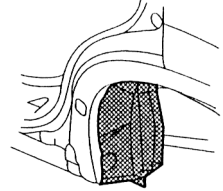
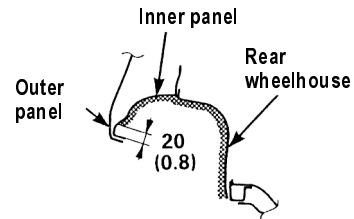
 Indicates PVC coating area.

### NOTE:

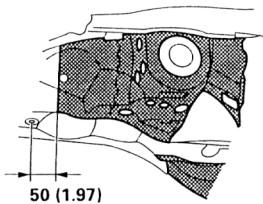
- Coating thickness: 0.4 mm (0.016 in.) MIN.
- Front wheelhouse, rear wheelhouse, and dashboard lower coating thickness 0.5 mm (0.02 in.).

SECTION DD

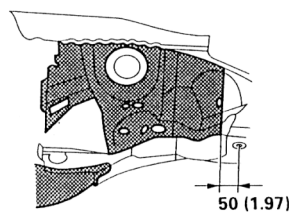
Unit: mm (in.)



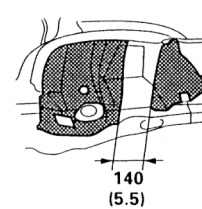
<Front wheelhouse>  
Left side:



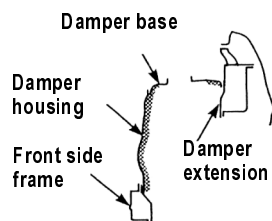
<Front wheelhouse>  
Right side:



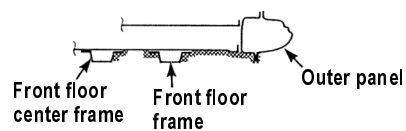
<Rear wheelhouse>



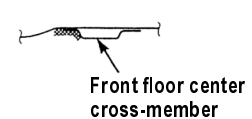
SECTION AA



SECTION BB



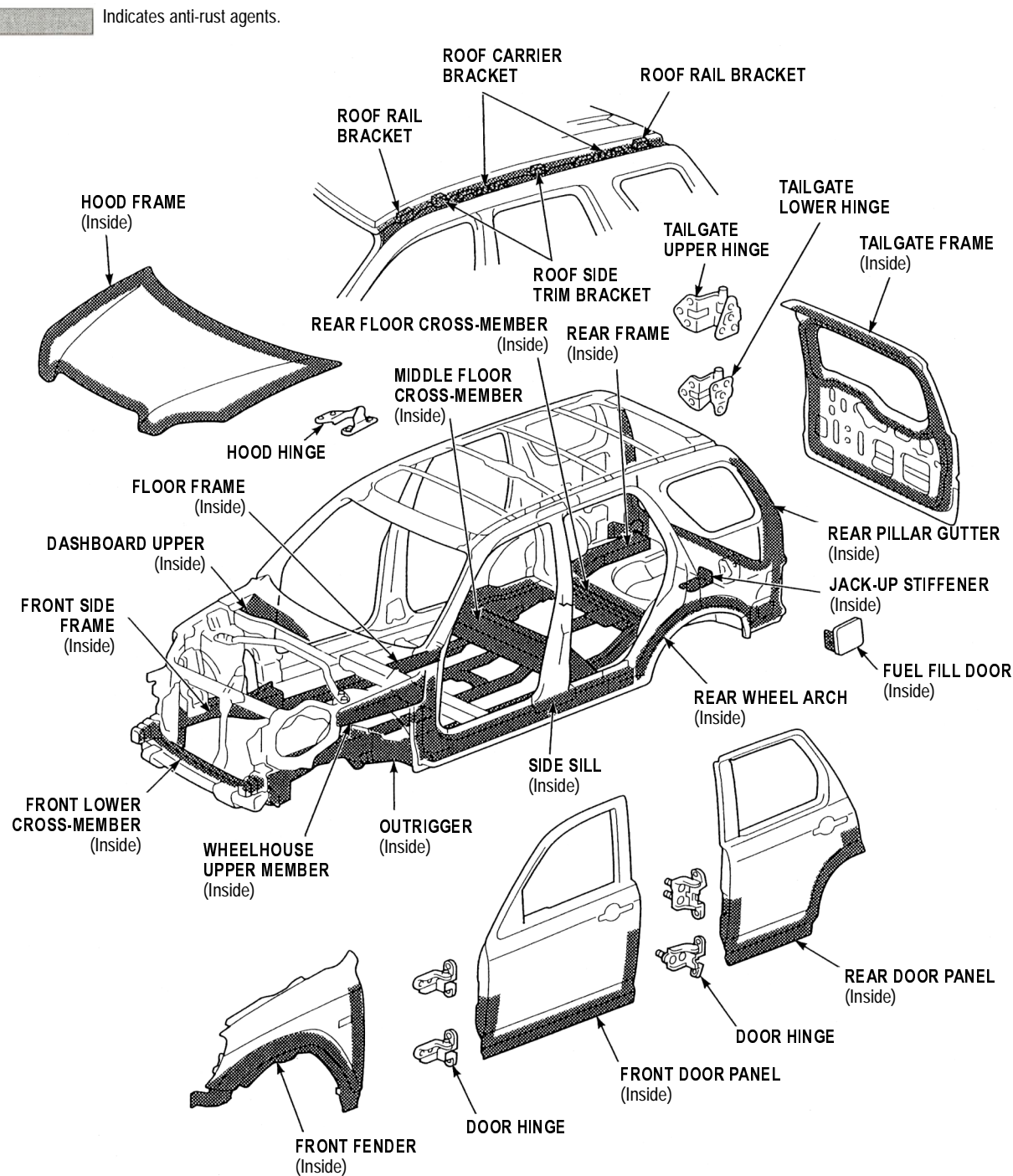
SECTION CC



# Rust Prevention

## Rust-preventive Treatments (cont'd)

### Area to be Covered by Anti-rust Agents



## Materials and Tools

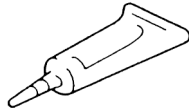
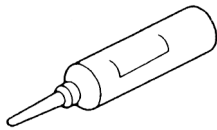
### SEALER

Use urethane sealer.

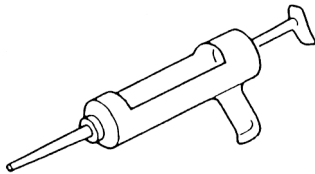
- 3M #08892 (internal)
  - 3M #08893 (external)
- or equivalents.

### TOOLS

- Cartridge type
- Tube type



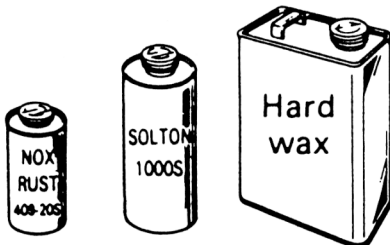
- Sealing gun



### UNDERCOAT

To be applied to under-floor and wheelhouse.

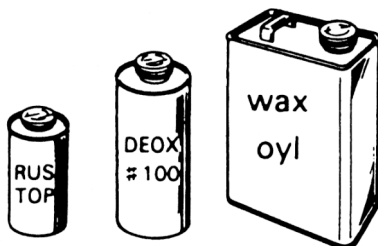
- Nox-rust 409-20S
  - Solton 1000S
- or equivalent



### ANTI-RUST AGENT

To be applied to weld joints inside the body panel.

- Rustop
  - Deox #100
  - Waxoyl
- or equivalent.

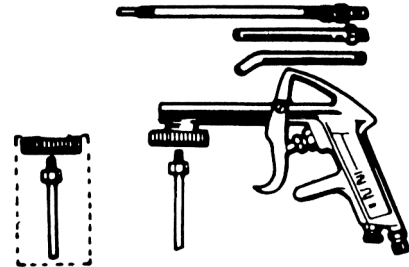


### SPRAY GUNS

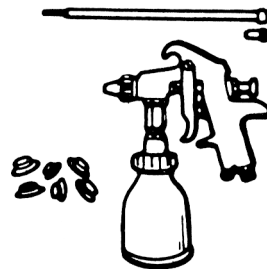
Use the correct gun for the agent being used.

Use of a pressure type spray gun is recommended when work involves a considerable number of vehicles.

- For nox-rust 409-20S / solton 1000S



- For rustop



- For deox #100



- For waxoyl

