

SECTION 10

RUST PREVENTION

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1. ZINC TREATED STEEL PLATE REPAIR

Avoid puttying as much as possible when repairing a new car. Use alternative methods as much as possible.

CAUTION

- Most paints contain substances that are harmful if inhaled or swallowed. Read the paint label before opening

- the container. Spray paint only in a well ventilated area.
- Cover spilled paint with sand, or wipe it up at once.
- Wear an approved respirator, gloves, eye protection and appropriate clothing when painting. Avoid contact with skin.
- If paint gets in your mouth or on your skin, rinse or wash thoroughly with water. If paint gets in your eyes, flush with water and get prompt medical attention.
- Paint is flammable. Store it in a safe place, and keep it away from sparks, flames or cigarettes.

Operation	Tools/Materials	Procedure	Remarks
1. Prep the repair area.	Double-action sander, #80 sandpaper.	Sand the area with a double-action sander and #80 sandpaper. Clean with wax and grease remover.	
2. Apply putty Note : Putty can be applied after priming as described in step 4.	Epoxy-based putty. • Mix the putty and hardener according to the manufacturer's directions. • Polyester resin putty. Body filler.	Apply in several thin coats if necessary. Try to avoid leaving pinholes in the putty. • Follow the manufacturer's recommendations for preparation.	
3. Sand and clean the puttied area.	Double-action sander, orbital sander, hand sanding file, #80, #120, #240 sandpaper, wax and grease remover, shop towels.	Rough-sand the area with a double-action sander and #80 sandpaper, then sand with #120 sandpaper. Featheredge with #240 sandpaper. Clean with wax and grease remover.	
4. Coat with primer. Note : Apply to bare sheet metal and puttied area.	Epoxy-based primer and hardener, epoxy thinner. • Mix and thin the primer according to the manufacturer's directions.	Apply 2-4 coats, allowing sufficient flash time between coats. Force dry at 60-70 °C(140-158 °F) for at least 30 minutes.	Spray to a thickness of 30-35 microns.
5. Sand and clean the whole area.	Double-action sander, #400 sandpaper, wax and greases remover, shop towels.	Sand the whole area to be repainted with a double-action sander and #400 sandpaper. Blow off with compressed air. Clean with wax and grease remover.	
6. Coat the whole area to be repainted with primer/ surfacer.	Polyester/urethane resin primer/ surfacer. • Mix and thin the primer according to the manufacturer's directions.	Apply 2-4 coats, allowing sufficient flash time between coats. Force dry at 60-70 °C(140-158 °F) for at least 30 minutes.	Spray to a thickness of 30-35 microns.
7. Sand and clean the whole area to be repainted.	Hand sanding file, double-action sander, #240, #320, #400, #600 sandpaper, wax grease and remover, shop towels.	Sand the repair area by hand with #240 sandpaper until it's level. Sand the whole area to repainted with #320- 600 sandpaper. Clean with wax and grease remover.	
8. Top-coat the whole area to repainted.	Acrylic urethane resin top coat paint, hardener, and thinner. • Mix and thin the paint according to the manufacturer's directions.	Apply 2-4 coats, allowing sufficient flash time between coats. Force dry at 60-70 °C(140-158 °F) for at least 30 minutes.	Spray to a thickness of 40-50 microns.

2. RUST PREVENTIVE PROCEDURE

2-1. GENERAL INFORMATION

Corrosion starts immediately after the steel base contacts the atmosphere. The condition is aggravated by sea wind, road salt, rain, snow and industrial fallout. There are many ways to protect automobiles against corrosion. Primers, primer surfacers and paints are applied by electrodeposition or spray to protect the car body.

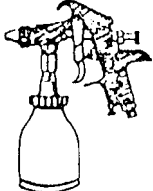
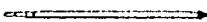
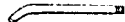
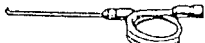
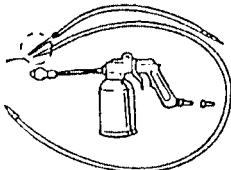
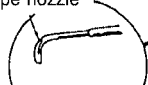
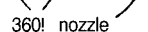
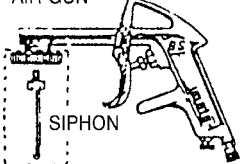
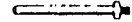
Anti-rust agents:

RUSTOP DEOX #100 WAXOYL	U.S.A. MARKET AUTO ARMOR 1031 (made by E.C.P)	To be applied to welded joints inside body panels.
NOX-RUST 409-20S SOLTION 1000S	AUTO ARMOR OUTSIDE COATING (made by E.C.P)	To be applied to under floor and wheelhouse.

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 cars.

For RUSTOP	DEOX#100	For WAXOYL	For NOXRUST 409-20S/ SOLTION 1000S
 Flexible nozzle  Open nozzle 	 L-type nozzle  360° nozzle 	 L-type nozzle  360° nozzle 	 AIR GUN SIPHON V-TYPE NOZZLE  OPEN NOZZLE 

Protectors: Wear gloves, mask and suitable eye protection.

- Use light oil and a rag to clean up spilled anti-rust agents.

Anti-rust Agents and Spray Guns

Use the following anti-rust agents or equivalents when making a body repair.

CAUTION : 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.

Precautions:

1. Before applying an anti-rust agent, thoroughly clean the areas to be coated with a steam cleaner, etc., and let dry.

Note : Waxoyl may be applied to wet surface.

2. Spray an anti-rust agent sufficiently until the excess amount oozes out when filling, the doors, etc. Wipe the excess agent with a clean rag dampened with light oil.
3. Do not spray an anti-rust agent to the brake hoses, brake wheel cylinders, brake drums, exhaust muffler and its related parts, emission control devices in the engine compartment, ball joint covers, etc. Wipe up spilled agent at once.

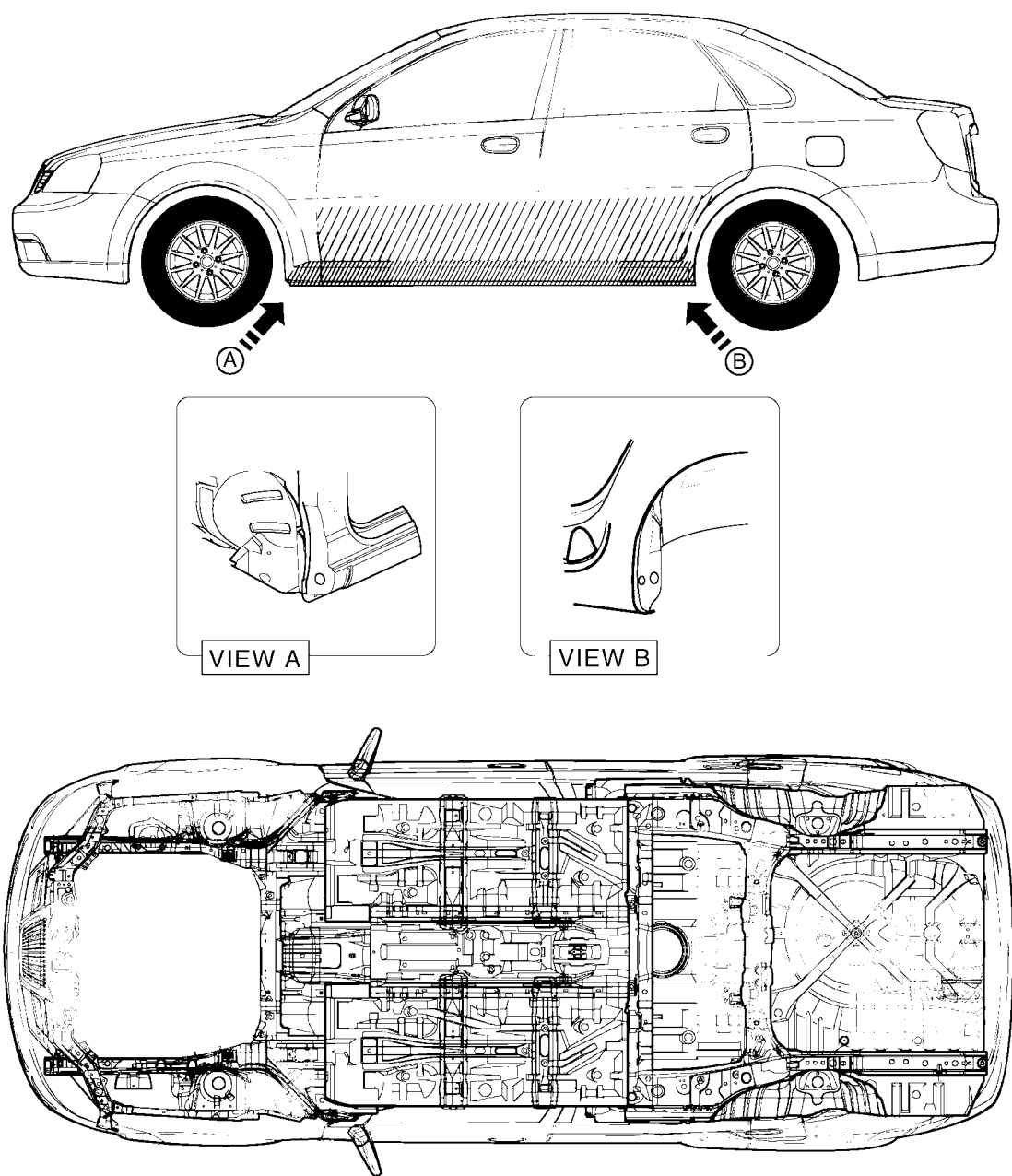
4. Heat an anti-rust agent to room temperature[36.5 °C (97.7 °F)] by submerging the container in hot water when outside temperature is below 10 °C(50 °F).

5. Ventilate when spraying an anti-rust agent since it contains a small amount of organic solvent. Keep sparks, flames and cigarettes away.

CAUTION : *The remaining agent will harden in the passages of the spray gun, making them unserviceable.*

2-2. AREA COVERED BY ANTI-RUST AGENTS**NOTE:**

- Coating thickness : 0.05mm (0.002in).
- Hatching indicated anti-rust agent coating areas.
- Follow the below figure for paint repair or refinishing.

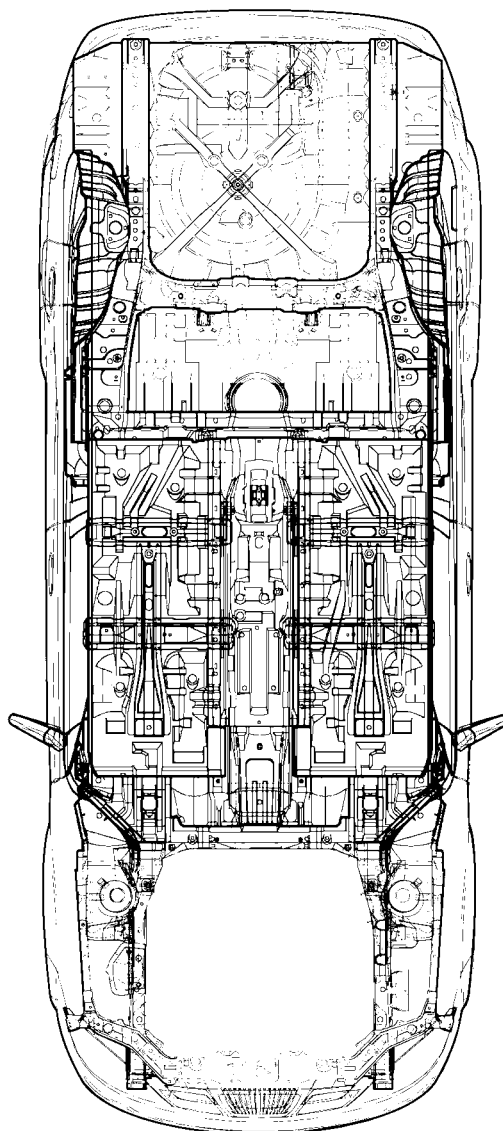


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Fig. 1

2-3. UNDERCOATING DIAGRAM**NOTE**

- Coating thickness : MIN 0.5mm(0.020in).
- Hatching indicated anti-rust agent coating areas.
- Do not apply the part mounting areas and holes.



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Fig. 2