GENERAL REPAIR INSTRUCTIONS

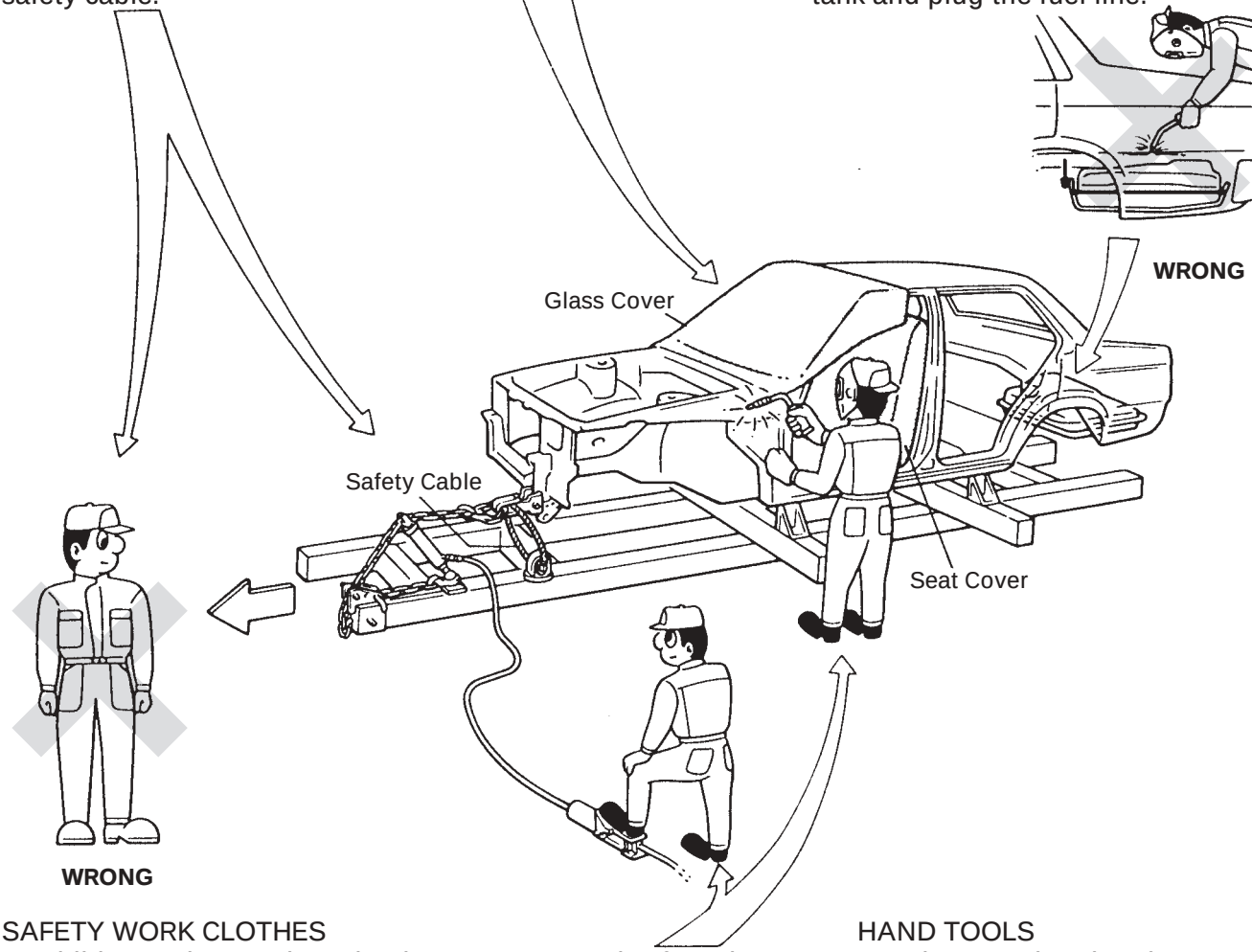
Work Precautions

SAFETY
Never stand in direct line with the chain when using a puller on the body or frame, and be sure to attach a safety cable.

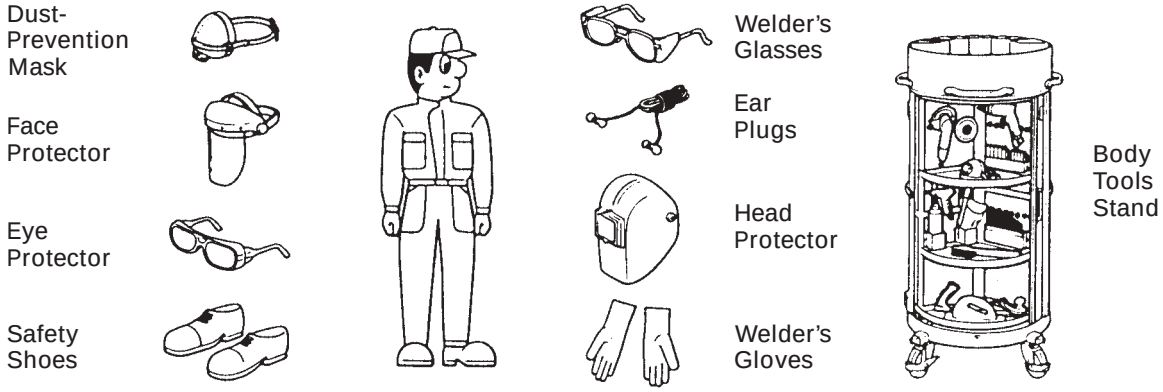
VEHICLE PROTECTION
When welding, protect the painted surfaces,windows, seats and carpet with heat-resistant, fire-proof covers.

SAFETY
1. Before performing repair work, check for fuel leaks. If a leak is found, be sure to close the opening totally.
2. If it is necessary to use a frame in the area of the fuel tank, first remove the tank and plug the fuel line.

WRONG



SAFETY WORK CLOTHES
In addition to the usual mechanic's wear, cap and safety shoes, the appropriate gloves, head protector, glasses, ear plugs, face protector, dust-prevention mask, etc. should be worn as the situation demands.



HAND TOOLS
Keeping your hand tools in neat order improve your work efficiency.

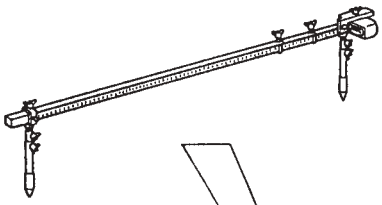
Body Tools Stand

Proper and Efficient Work Procedures

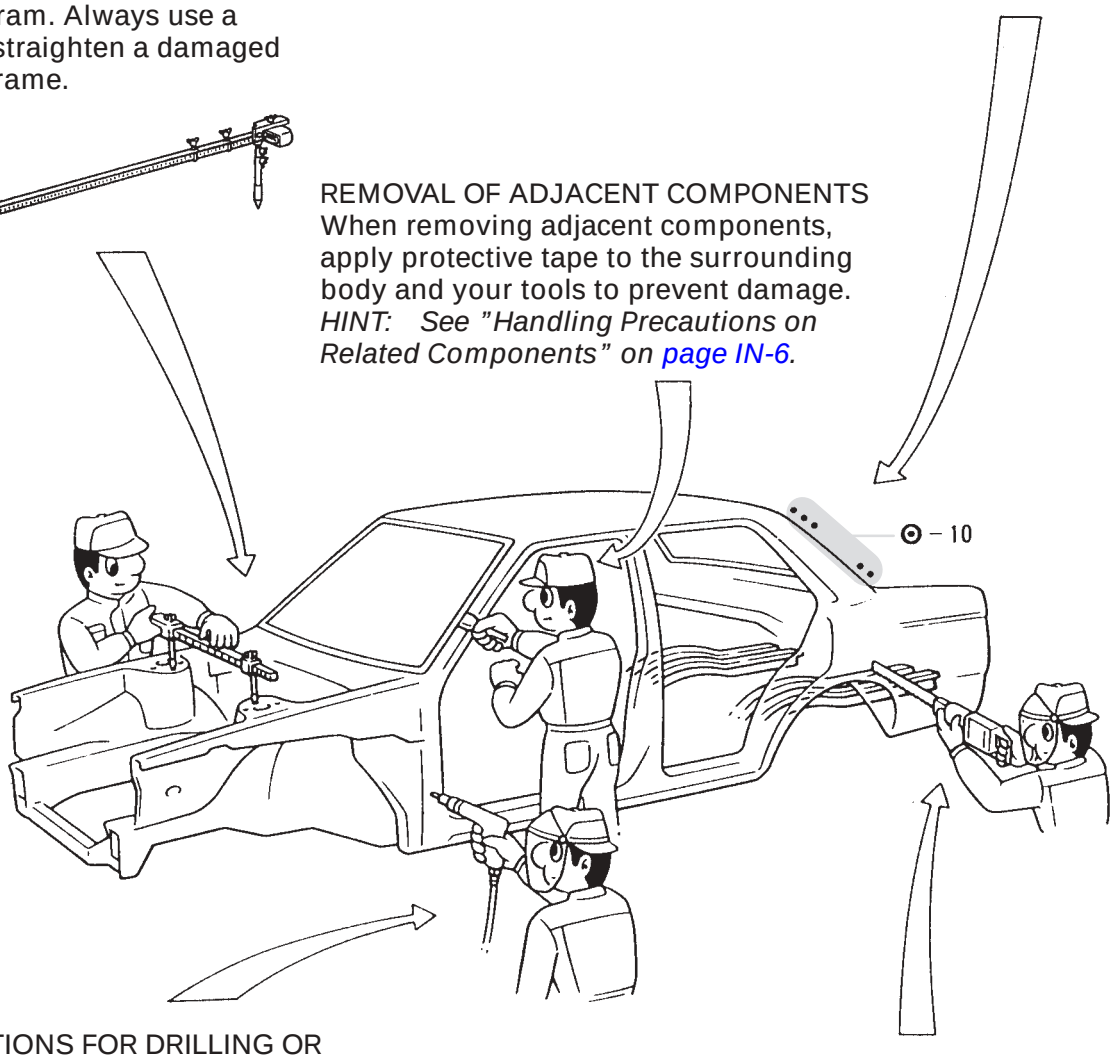
REMOVAL

PRE-REMOVAL MEASURING
Before removal or cutting operations, take measurements in accordance with the dimension diagram. Always use a puller to straighten a damaged body or frame.

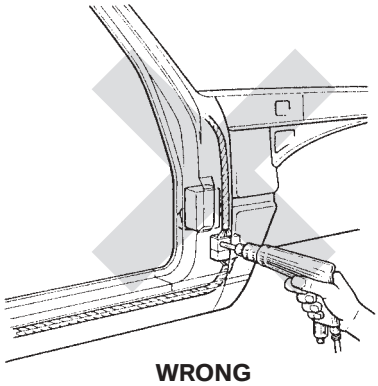
NUMBER OF SPOT WELDS AND PANEL POSITIONS
The number of spot welds and the panel positions to be removed are shown for your reference.
HINT: See "Symbols" on page IN-4,5.



REMOVAL OF ADJACENT COMPONENTS
When removing adjacent components, apply protective tape to the surrounding body and your tools to prevent damage.
HINT: See "Handling Precautions on Related Components" on page IN-6.

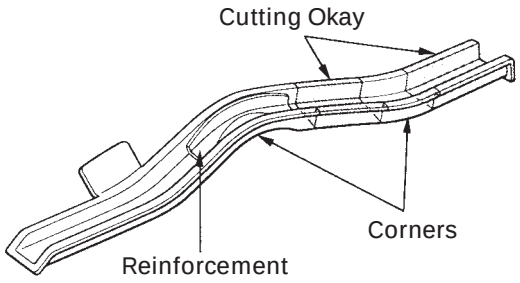


PRECAUTIONS FOR DRILLING OR CUTTING
Check behind any area to be drilled or cut to insure that there are no hoses, wires, etc., that may be damaged.
HINT: See "Handling Precautions on Related Components" on page IN-6.



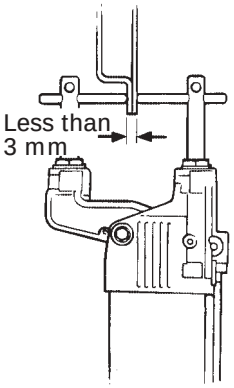
WRONG

CUTTING AREA
Always cut in a straight line and avoid reinforced area.



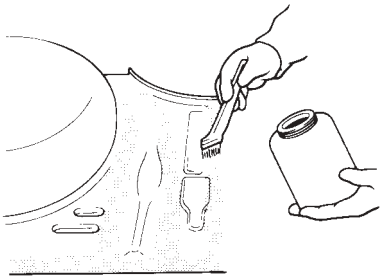
PREPARATION FOR INSTALLATION

SPOT WELD POINTS



When welding panels with a combined thickness of over 3 mm (0.12in.), use a MIG (Metal Inert Gas) welder for plug welding.
HINT: Spot welding will not provide sufficient durability for panels over 3 mm (0.12in.) thick.

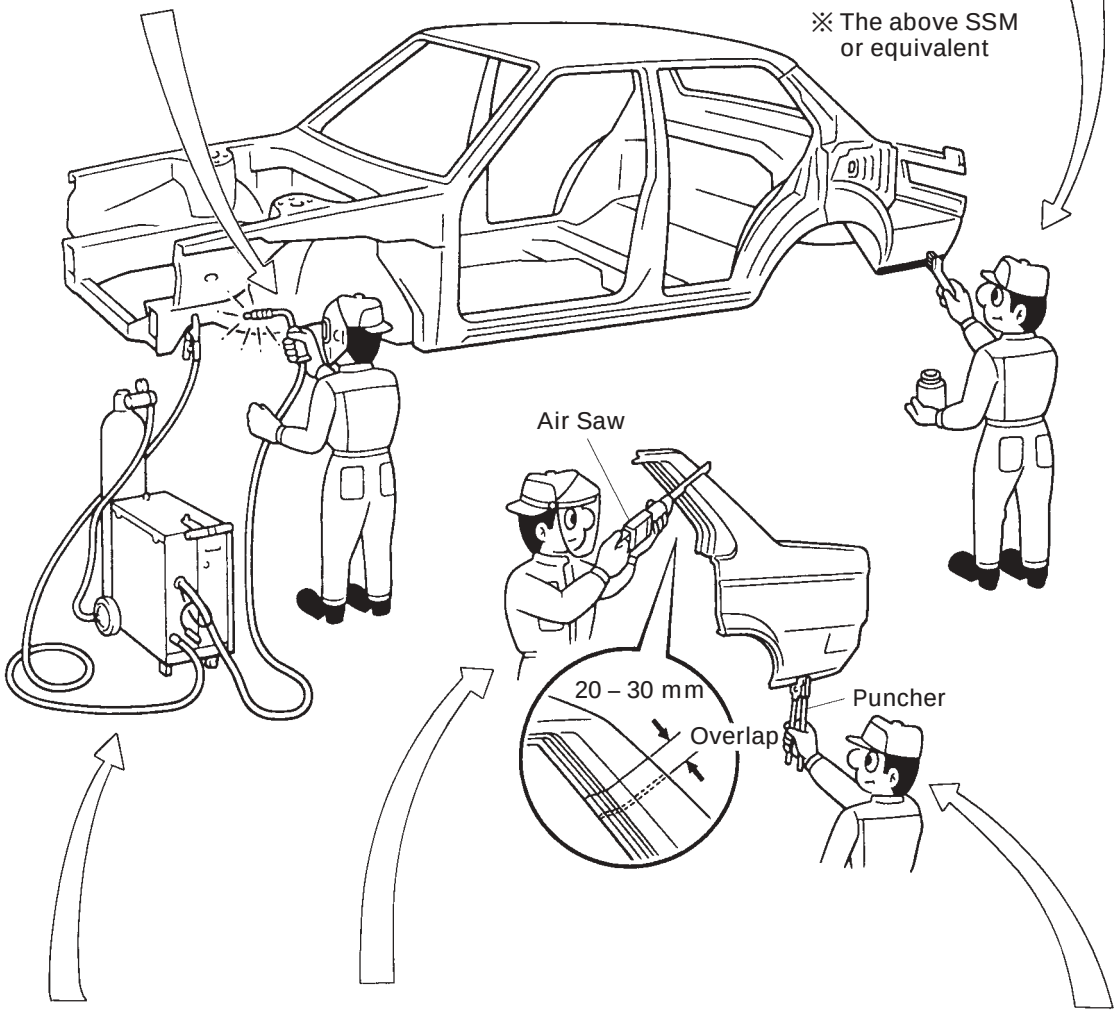
APPLICATION OF WELD-THROUGH PRIMER (SPOT SEALER)



Remove the paint from the portion of the new parts and body to be welded, and apply weld-through primer.
HINT: See "ANTI-RUST TREATMENT" on page AR-2.

Parts Name	Parts Number
Spot Sealer	08839-00070

※ The above SSM or equivalent



SAFETY PRECAUTIONS FOR ELECTRICAL COMPONENTS.
When welding there is a danger that electrical components will be damaged by the electrical current flowing through the body.
Before starting work disconnect the negative terminal of the battery and ground the welder near the welding location of the body.

ROUGH CUTTING OF JOINTS
For joint areas, rough cut the new parts, leaving 20 – 30 mm (0.79 – 1.18in.) overlap.

MAKING HOLES FOR PLUG WELDING
For areas where a spot welder cannot be used, use a puncher or drill to make holes for plug welding.

REFERENCE: mm (in.)

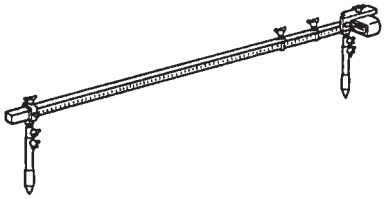
Thickness of welded portion	Size of plug hole
1.0 (0.04) under	5 (0.20) ø over
1.0 (0.04) – 1.5 (0.06)	6.5 (0.26) ø over
1.5 (0.06) over	8 (0.31) ø over

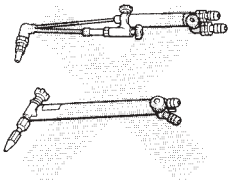
INSTALLATION

PRE-WELDING MEASUREMENTS
Always take measurements before installing underbody or engine components to insure correct assembly. After installation, confirm proper fit.

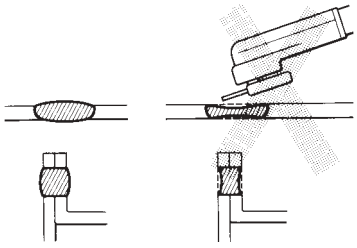
WELDING PRECAUTIONS
1. The number of welding spots should be as follows.
   Spot weld: 1.3 x No. of manufacturer's spots.
   Plug weld: More than No. of manufacturer's plugs.

POST-WELDING REFINISHING
1. Always check the welded spots to insure they are secure.
2. When smoothing out the weld spots with a disc grinder, be careful not to grind off too much as this would weaken the weld.



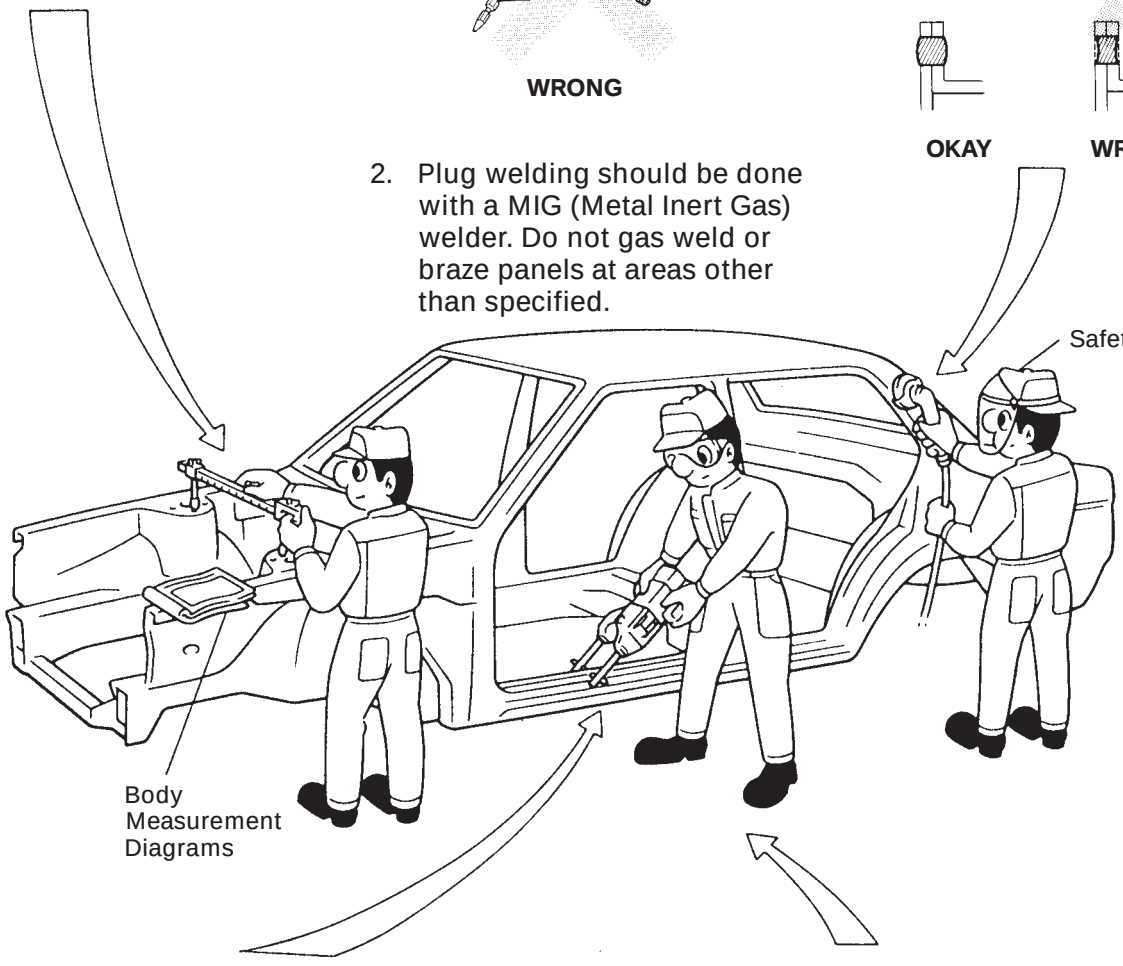


WRONG

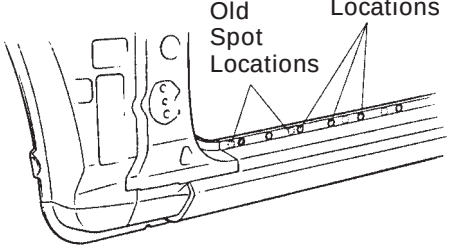


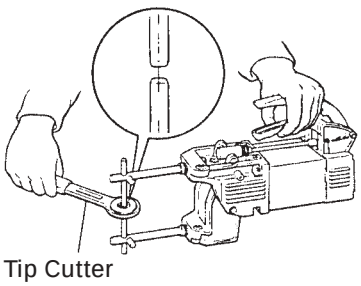
OKAY **WRONG**

2. Plug welding should be done with a MIG (Metal Inert Gas) welder. Do not gas weld or braze panels at areas other than specified.



SPOT WELD LOCATIONS
Try to avoid welding over previous spots.





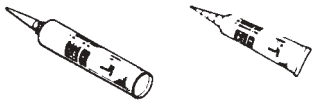
SPOT WELDING PRECAUTIONS
1. The shape of the welding tip point has an effect on the strength of the weld.
2. Always insure that the seams and welding tip are free of paint.

ANTI-RUST TREATMENT

When replacing body panels, always apply body sealer, anti-rust agent or undercoat according to the requirements of your country.

HINT: For further details, see the description given in Section AR of this manual.

BODY SEALER
Apply body sealer to the required areas.



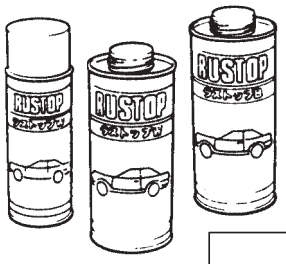
Cartridge Type Tube Type

Parts Name	Parts Number
Body Sealer, White (Cartridge Type)	08839-00020
Body Sealer, White (Tube Type)	08839-00030
Body Sealer, Black (Cartridge Type)	08839-00040

※ The above SSM or equivalent

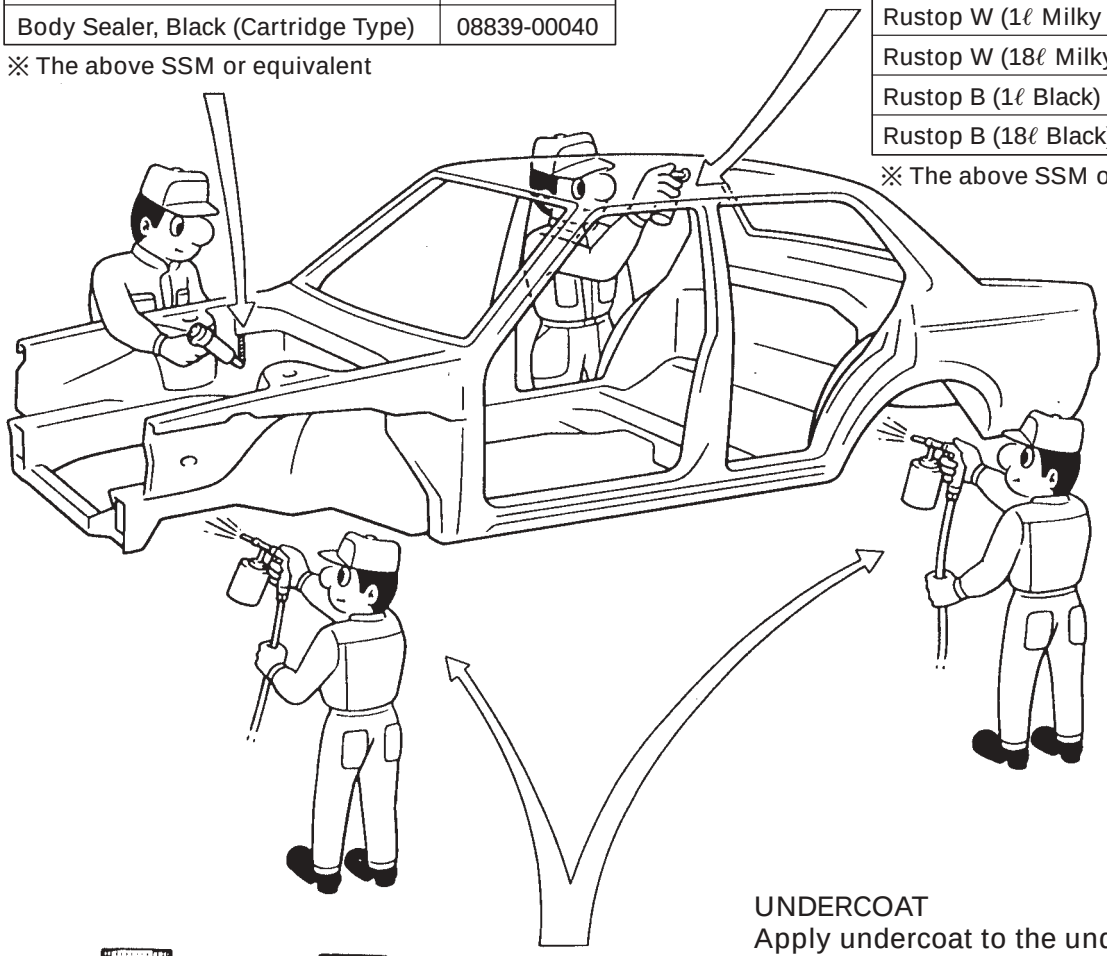
ANTI-RUST AGENT (WAX)
Apply anti-rust agent to following sections.

- Inside of the hems of the doors and hood.
- Around the hinges of the doors and hood.
- Inside of the welded parts with boxed cross-section.



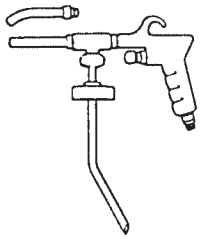
Parts Name	Parts Number
Rustop W (Aerosol)	08860-00200
Rustop W (1ℓ Milky White)	08860-00210
Rustop W (18ℓ Milky White)	08860-00230
Rustop B (1ℓ Black)	08860-00220
Rustop B (18ℓ Black)	08860-00240

※ The above SSM or equivalent



Undercoating (Oil base)

Undercoating (Water base)



Spray Gun

UNDERCOAT
Apply undercoat to the underbody and wheel housings.

Parts Name	Parts Number
Pastar UC (Oil Base)	08836-00155
Pastar UW (Water Base)	08836-00115
Pastar Gun (For thick application)	08836-00091

※ The above SSM or equivalent