

FOREWORD

This repair manual has been prepared to provide essential information on body panel repair methods (including cutting and welding operations, but excluding painting) for the TOYOTA MR2.

Applicable models: ZZW30 series

This manual consists of body repair methods, exploded diagrams and illustrations of the body components and other information relating to body panel replacement such as handling precautions, etc. However, it should be noted that the front fenders of the TOYOTA model is bolted on and require no welding.

When repairing, don't cut and join areas that are not shown in this manual. Only work on the specified contents to maintain body strength.

Body construction will sometimes differ depending on specifications and country of destination. Therefore, please keep in mind that the information contained herein is based on vehicles for general destinations.

For the repair procedures and specifications other than collision-damaged body components of the TOYOTA MR2 refer to the repair manuals.

If you require the above manuals, please contact your TOYOTA Dealer. All information contained in this manual is the most up-to-date at the time of publication. However, specifications and procedures are subject to change without prior notice.

TOYOTA MOTOR CORPORATION

VIEWS OF THIS TEXT

Scope of the repair work explanation

- This text explains the welding panel replacement instructions from the vehicle's white body condition. We have abbreviated the explanations for the removal and reinstallation of the equipment parts up to the white body condition and for the installation, inspection, adjustment and final inspection of equipment parts after replacing the weld panel.

Section categories

- Each section has been divided as shown below.

Section Title	Contents	Examples
INTRODUCTION	Explanation of general body repair. Views of weld panel replacement instructions.	Cautionary items. Views of weld panel replacement instructions.
BODY PANEL REPLACEMENT	Body aligning measurements and instructions for replacing the weld panels from the white body condition, from which bolted parts have been removed, with individual supply parts.	Front side member replacement. Quarter panel replacement. Dimension diagrams.
PAINT • COATING	Scope and type of anti-rust treatment, etc. together with weld panel replacement.	Under coat. Body sealer.

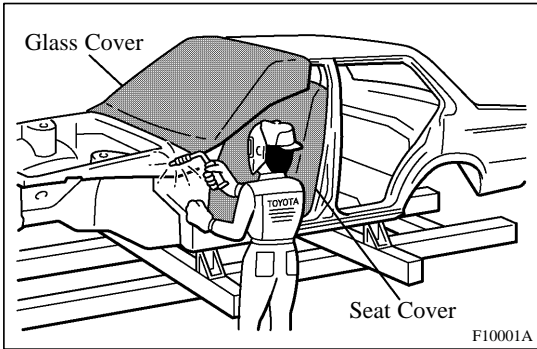
Abbreviation of contents in this text.

- The following essential procedures have been abbreviated. When actually working, conduct this work properly.
 - (1) Jack and lift operations.
 - (2) Clean and wash removed parts, if necessary.
 - (3) Visual inspection.

GENERAL REPAIR INSTRUCTIONS

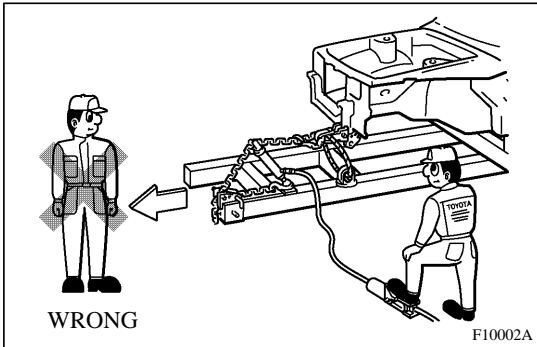
1. WORK PRECAUTIONS

(a) VEHICLE PROTECTION

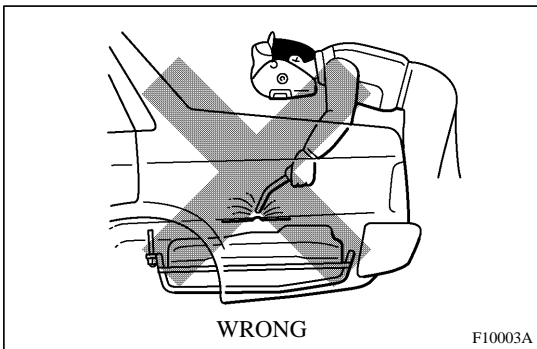


- (1) When welding, protect the painted surfaces, windows, seats and carpet with heat resistant, fire-proof covers.

(b) SAFETY

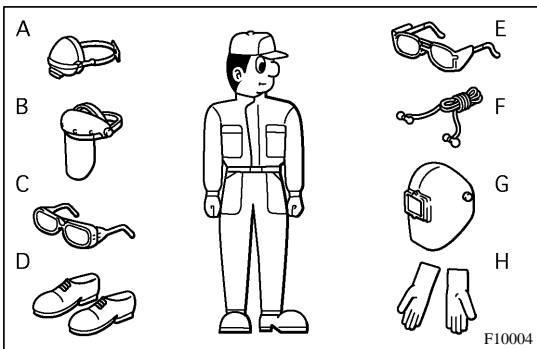


- (1) Never stand in direct line with the chain when using a puller on the body or frame, and be sure to attach a safety cable.



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

(c) SAFETY WORK CLOTHES



- (1) 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.

Code	Name
A	Dust-Prevention Mask
B	Face Protector
C	Eye Protector
D	Safety Shoes
E	Welder's Glasses
F	Ear Plugs
G	Head Protector
H	Welder's Gloves

2. HANDLING PRECAUTIONS OF PLASTIC BODY PARTS

- (1) The repair procedure for plastic body parts must conform with the type of plastic material.
- (2) Plastic body parts are identified by the codes in the following chart.
- (3) When repairing metal body parts adjoining plastic body parts (by brazing, frame cutting, welding, painting etc.), consideration must be given to the property of the plastic.

Code	Material name	Heat* resistant temperature limit °C (°F)	Resistance to alcohol or gasoline	Notes
AAS	Acrylonitrile Acrylic Styrene	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic or aromatic solvents.
ABS	Acrylonitrile Butadiene Styrene	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic or aromatic solvents.
AES	Acrylonitrile Ethylene Styrene	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic or aromatic solvents.
ASA	Acrylonitrile Styrene Acrylate	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic or aromatic solvents.
CAB	Cellulose Acetate	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic or aromatic solvents.
EPDM	Ethylene Propylene	100 (212)	Alcohol and gasoline are harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
FRP	Fiber Reinforced Plastics	180 (356)	Alcohol and gasoline are harmless.	Avoid alkali.
EVA	Ethylene Acetate	70 (158)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid gasoline and organic aromatic solvents.
PA	Polyamide (Nylon)	80 (176)	Alcohol and gasoline are harmless.	Avoid battery acid.
PBT	Polybutylene Terephthalate	160 (320)	Alcohol and gasoline are harmless.	Most solvents are harmless.
PC	Polycarbonate	120 (248)	Alcohol is harmless.	Avoid gasoline brake fluid, wax, wax removers and organic solvents. Avoid alkali.

*Temperatures higher than those listed here may result in material deformation during repair.

Code	Material name	Heat* resistant temperature limit °C (°F)	Resistance to alcohol or gasoline	Notes
PE	Polyethylene	80 (176)	Alcohol and gasoline are harmless.	Most solvents are harmless.
PET	Polyethylene Terephthalate	75 (167)	Alcohol and gasoline are harmless.	Avoid dipping in water.
PMMA	Polymethyl Methacrylate	80 (176)	Alcohol is harmless if applied only for short time in small amounts.	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
POM	Polyoxymethylene (Polyacetal)	100 (212)	Alcohol and gasoline are harmless.	Most solvents are harmless.
PP	Polypropylene	80 (176)	Alcohol and gasoline are harmless.	Most solvents are harmless.
PPO	Modified Polyphenylene Oxide	100 (212)	Alcohol is harmless.	Gasoline is harmless if applied only for quick wiping to remove grease.
PS	Polystyrene	60 (140)	Alcohol and gasoline are harmless if applied only for short time in small amounts.	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
PUR	Polyurethane	80 (176)	Alcohol is harmless if applied only for very short time in small amounts (e.g., quick wiping to remove grease).	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
PVC	Polyvinylchloride (Vinyl)	80 (176)	Alcohol and gasoline are harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
SAN	Styrene Acrylonitrile	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid dipping or immersing in alcohol, gasoline, solvents etc.
TPO	Thermoplastic Olefine	80 (176)	Alcohol is harmless. Gasoline is harmless if applied only for short time in small amounts.	Most solvents are harmless but avoid dipping in gasoline, solvents, etc.
TPU	Thermoplastic Polyurethane	80 (176)	Alcohol is harmless if applied only for short time in small amounts (e.g., quick wiping to remove grease).	Avoid dipping or immersing in alcohol, gasoline, solvents, etc.
TSOP	TOYOTA Super Olefine Polymer	80 (176)	Alcohol and gasoline are harmless.	Most solvents are harmless.
UP	Unsaturated Polyester	110 (233)	Alcohol and gasoline are harmless.	Avoid alkali.

*Temperatures higher than those listed here may result in material deformation during repair.

3. LOCATION OF PLASTIC BODY PARTS

Parts Name	Code
Front Bumper Cover	TSOP
Headlight	PC/PP
Side Turn Signal Light	SAN/ABS
Outer Rear View Mirror	ABS
Front Door Outside Handle	PC/PBT
Front Fender Mudguard	PP/EPDM
Rear Bumper Cover	TSOP
Quarter Panel Mudguard	PP/EPDM
Rear Combination Light	PMMA/PP
License Plate Light	PC
Center Stop Light	PC

HINT:

- Resin material differs with model.
- / Made up of 2 or more kinds of materials.

HOW TO USE THIS MANUAL

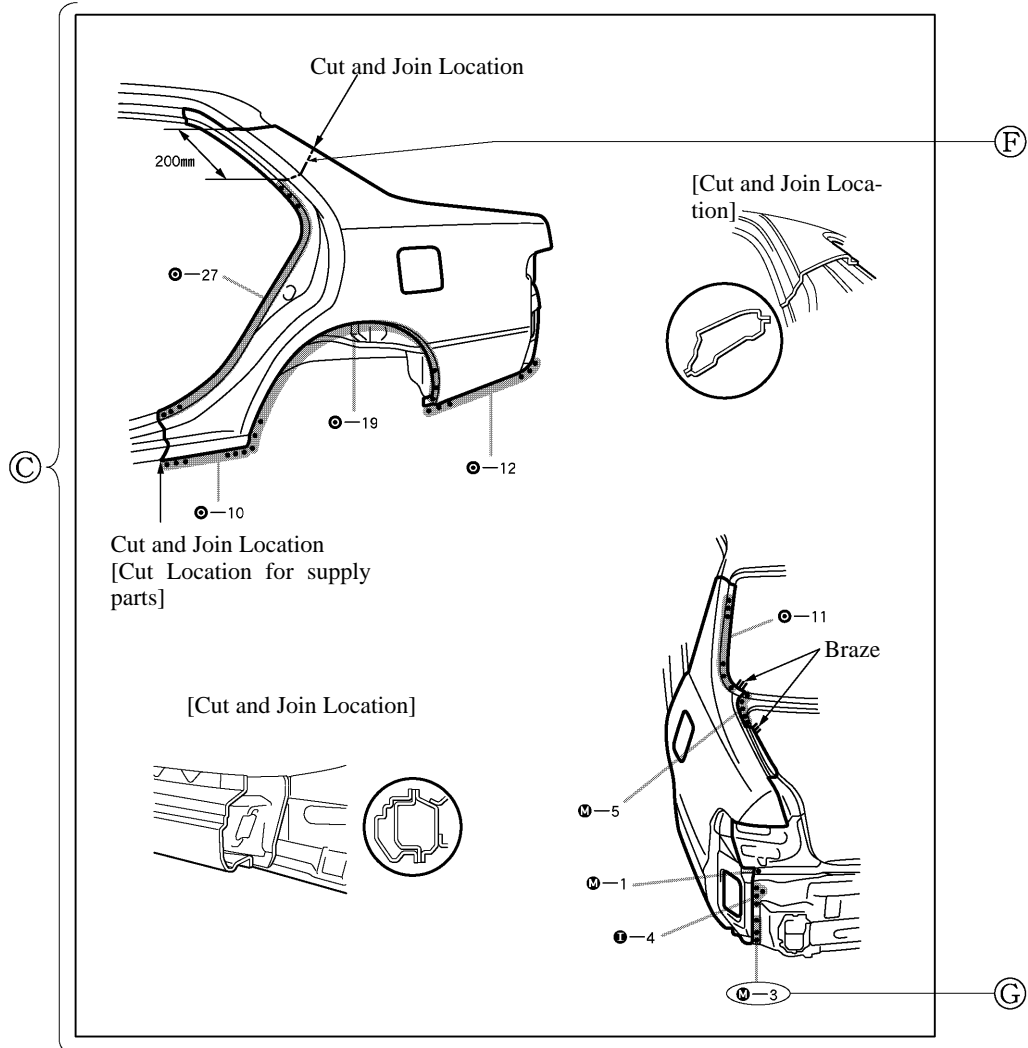
1. BODY PANEL REPLACEMENT THIS MANUAL

BP-34

BODY PANEL REPLACEMENT

Ⓐ { **QUARTER PANEL (CUT)
REPLACEMENT**

- Ⓑ** 1. REMOVE QUARTER PANEL
(a) Cut and join the part at the location as shown below.



Ⓐ : **REPLACEMENT PARTS
QUARTER PANEL (CUT)**

- Replacement method
 - (ASSY) . . Assembly replacement
 - (CUT) . . . Major cutting (less than 1/2 of parts used)
 - (CUT-H) . Half cutting (about 1/2 parts used)
 - (CUT-P) . Partial cutting (most of parts used)
- Replacement Parts

Ⓑ : **REMOVAL DIAGRAM**

Describes in detail removal of the damaged parts involving repair by cutting.

Ⓒ : **REMOVAL GUIDE**

Provides additional information to more efficiently help you perform the removal.

BODY PANEL REPLACEMENT

BP-35

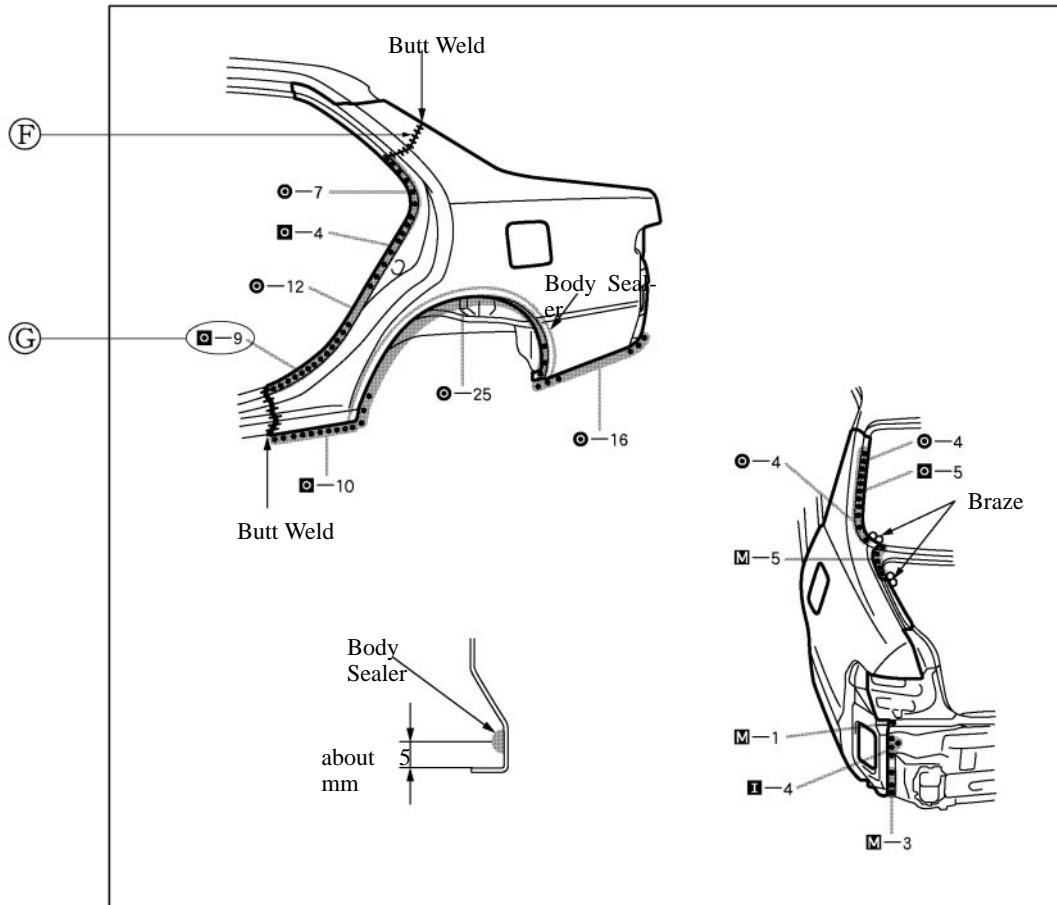
2. INSTALL QUARTER PANEL

HINT:

Inspect the fitting of the rear door, luggage compartment door and rear combination light, etc., before welding, since this affects the appearance of the finish, (a) Before temporarily installing the new parts, apply body sealer to the wheel arch.

HINT:

- Apply body sealer about 5 mm (0.20 in.) from the flange, avoiding any oozing.
- Apply sealer evenly, about 3 – 4 mm (0.12 – 0.16 in.) in diameter.
- For other sealing points, refer to section PC.



3. MEASURING THE OPENING PORTION DIMENSIONS (See page BP-XX)

4. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-XX)

5. APPLYING SEALER TO THE REAR, LUGGAGE COMPARTMENT (See page PC-XX)

6. CHARGING THE POLYURETHANE FOAM (See page PC-XX)

7. APPLYING ANTI-RUST AGENT

(a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

Ⓓ : **INSTALLATION GUIDE**

Provides additional information to more efficiently help you perform the installation.

Ⓔ : **INSTALLATION DIAGRAM**

Describes in detail installation of the new parts involving repair by welding and/or cutting, but excluding painting.

Ⓕ : **SYMBOLS**


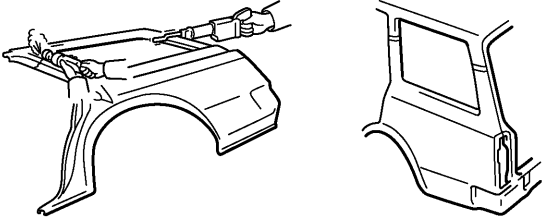

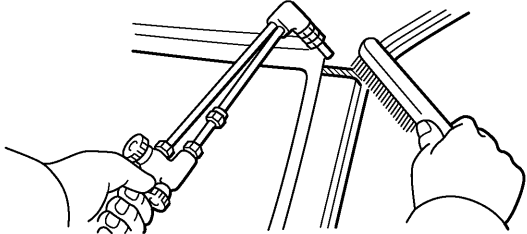

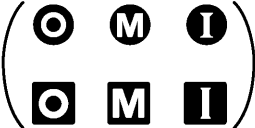
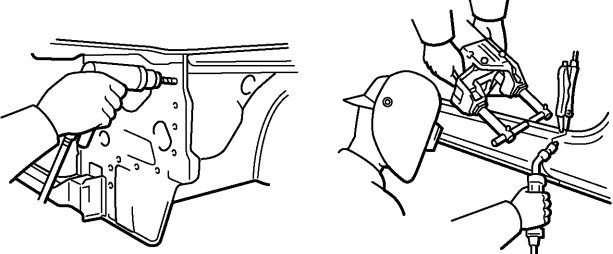

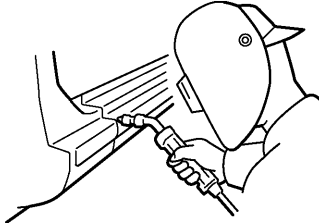

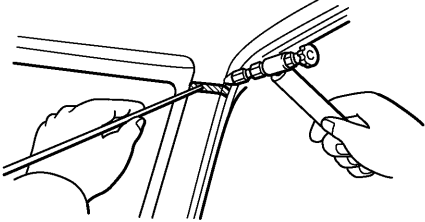
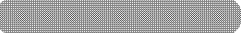
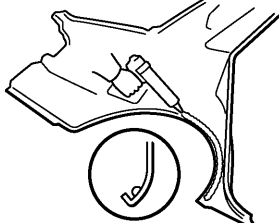
See page SS-7.

Ⓖ : **ILLUSTRATION OF WELD POINTS**

Weld method and panel position symbols.
See page SS-8.

2. SYMBOLS

The following symbols are used in the welding diagrams in section BP of this manual to indicate cutting areas and the types of weld required.

SYMBOLS	MEANING	ILLUSTRATION
	SAW CUT OR ROUGH CUT	
	REMOVE BRAZE	
 	WELD POINTS SPOT WELD OR MIG PLUG WELD (See Page SS-8)	
	CONTINUOUS MIG WELD (BUTT WELD OR TACK WELD)	
	BRAZE	
	BODY SEALER	

3. ILLUSTRATION OF WELD POINT SYMBOLS

EXAMPLE:

<p>REMOVAL</p> <p>Remove weld point and panel position</p>	<p>INSTALLATION</p> <p>Weld method and panel position</p>
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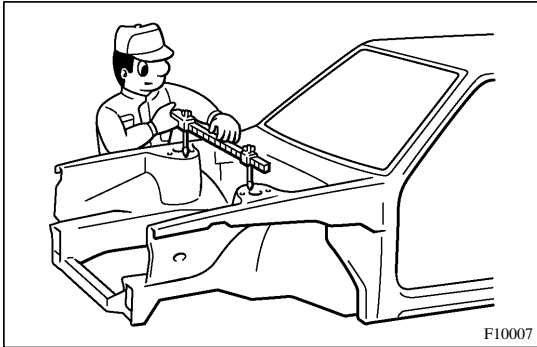
SYMBOL	MEANING	ILLUSTRATION	SYMBOL	MEANING	ILLUSTRATION
 	Remove Weld Points		 	Spot Weld	
	(Outside)		 	Mig Plug Weld	
	(Middle)		 	Spot MIG Weld	
	(Inside)			Spot MIG Weld	
<p><i>HINT: Panel position symbols are as seen from the working posture.</i></p>					

PROPER AND EFFICIENT WORK PROCEDURES

1. REMOVAL

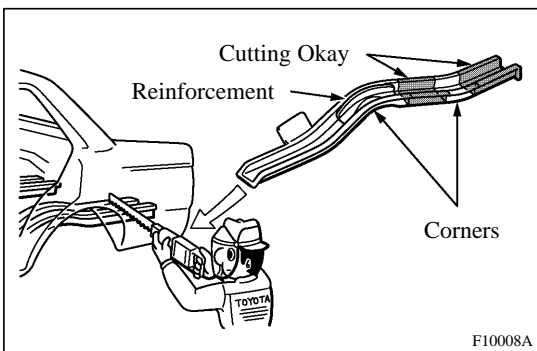
(a) PRE-REMOVAL MEASURING

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



(b) CUTTING AREA

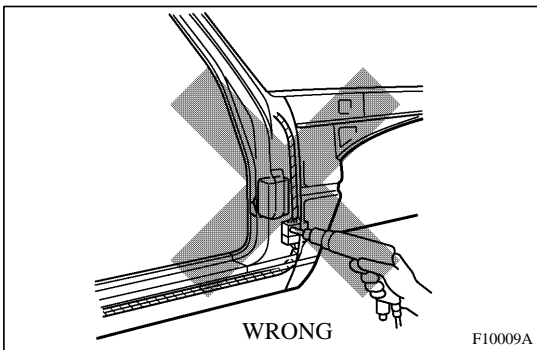
- (1) Always cut in a straight line and avoid reinforced area.



(c) PRECAUTIONS FOR DRILLING OR CUTTING

- (1) Check behind any area to be drilled or cut to insure that there are no hoses, wires, etc., that may be damaged.

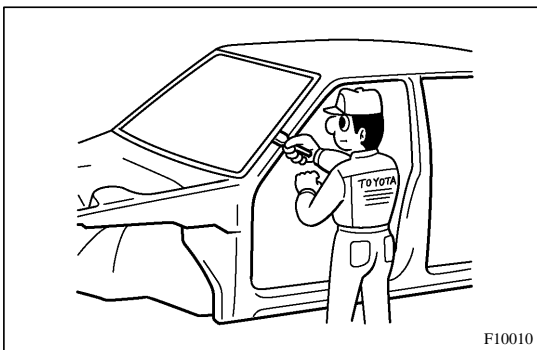
HINT: See "Handling Precautions on Related Components" on page SS-14.



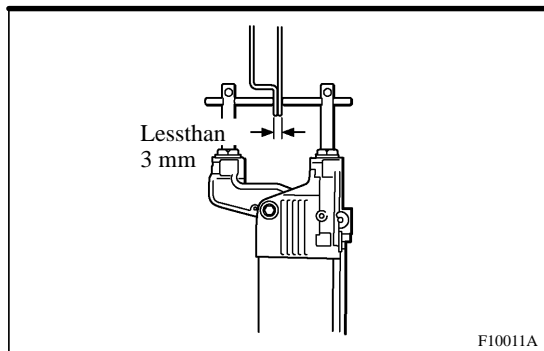
(d) REMOVAL OF ADJACENT COMPONENTS

- (1) 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 SS-14.



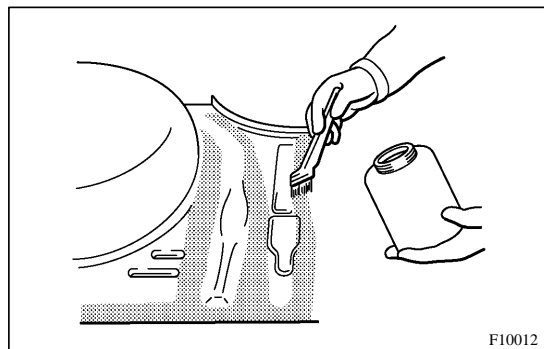
2. PREPARATION FOR INSTALLATION



(a) SPOT WELD POINTS

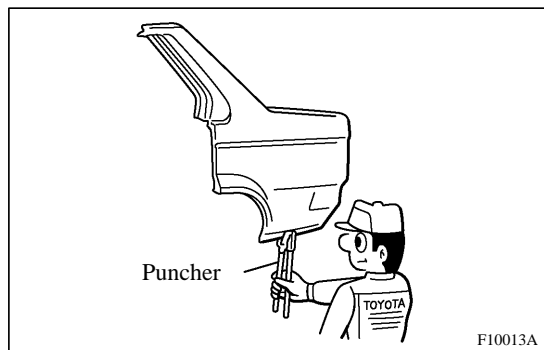
- (1) When welding panels with a combined thickness of over 3 mm (0.12 in.), use a MIG (Metal Inert Gas) welder for plug welding.

HINT: Spot welding will not provide sufficient durability for panels over 3 mm (0.12 in.) thick.



(b) APPLICATION OF WELD-THROUGH PRIMER (SPOT SEALER)

- (1) Remove the paint from the portion of the new parts and body to be welded, and apply weld-through primer.

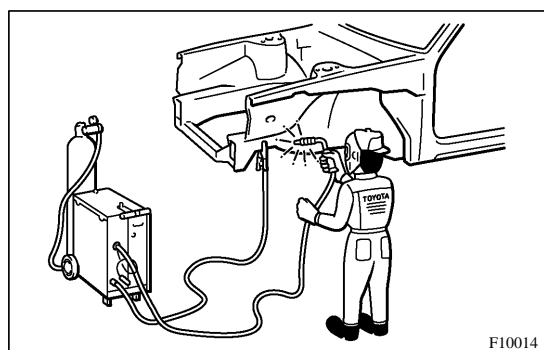


(c) MAKING HOLES FOR PLUG WELDING

- (1) For areas where a spot welder cannot be used, use a puncher or drill to make holes for plug welding.

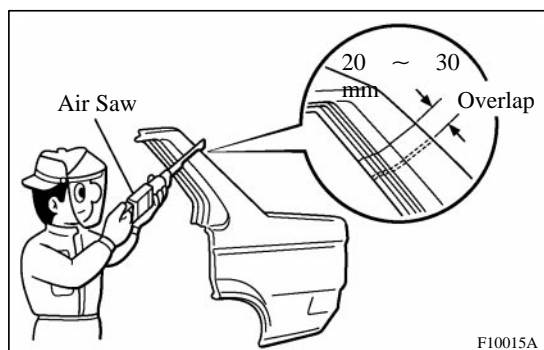
REFERENCE: mm (in.)

Thickness of welded portion	Size of plug hole
1.0 (0.04) under	5 (0.20) ϕ over
1.0 (0.04) – 1.5 (0.06)	6.4 (0.26) ϕ over
1.5 (0.06) over	8 (0.31) ϕ over



(d) SAFETY PRECAUTIONS FOR ELECTRICAL COMPONENTS

- (1) When welding, there is a danger that electrical components will be damaged by the electrical current flowing through the body.
- (2) Before starting work, disconnect the negative terminal of the battery and ground the welder near the welding location of the body.

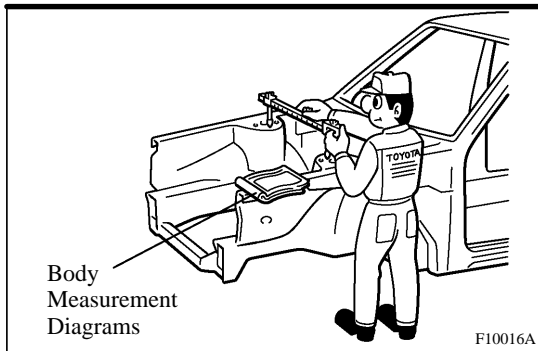


(e) ROUGH CUTTING OF JOINTS

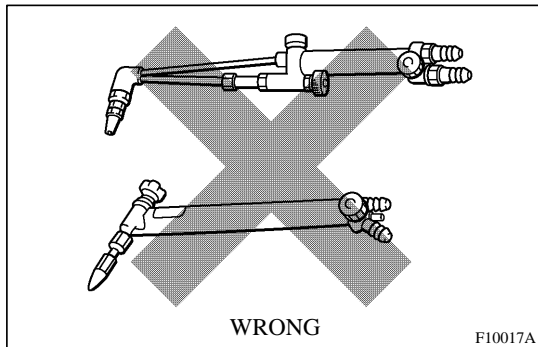
- (1) For joint areas, rough cut the new parts, leaving 20 – 30 mm (0.79 – 1.18 in.) overlap.

3. INSTALLATION**(a) PRE-WELDING MEASUREMENTS**

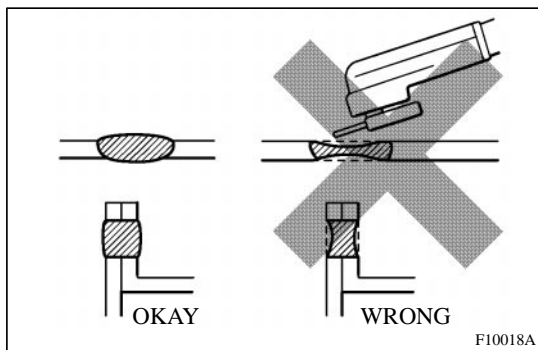
- (1) Always take measurements before installing underbody or engine components to insure correct assembly. After installation, confirm proper fit.

**(b) WELDING PRECAUTIONS**

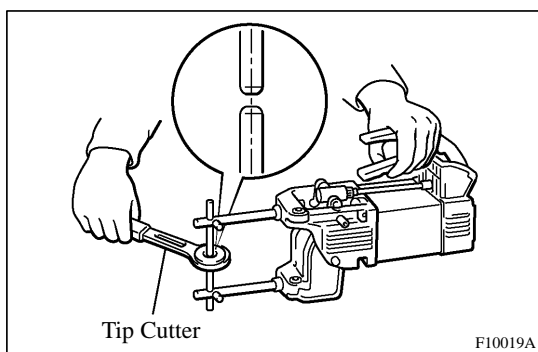
- (1) The number of welding spots should be as follows.
Spot weld: 1.3 X No. of manufacturer's spots.
Plug weld: More than No. of manufacturer's plugs.
- (2) Plug welding should be done with a MIG (Metal Inert Gas) welder. Do not gas weld or braze panels at areas other than specified.

**(c) POST-WELDING REFINISHING**

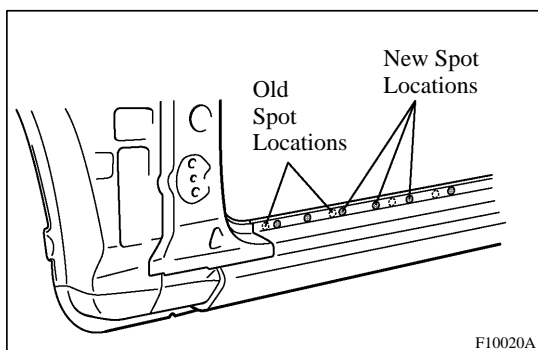
- (1) Always check the welded spots to insure they are secure.
- (2) When smoothing out the weld spots with a disc grinder, be careful not to grind off too much as this would weaken the weld.

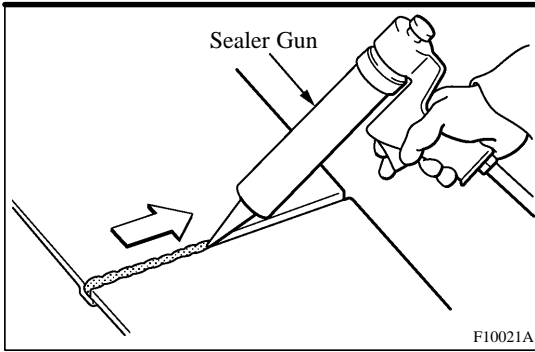
**(d) SPOT WELD LOCATIONS**

- (1) Try to avoid welding over previous spots.

**(e) 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.



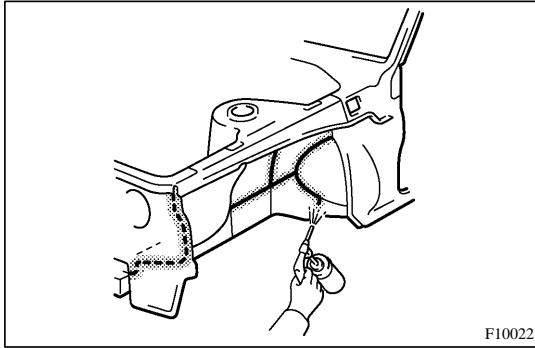


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4. ANTI-RUST TREATMENT

(a) BODY SEALER APPLICATION

- (1) For water-proofing and anti-corrosion measures, always apply the body sealer to the body panel seams and hems of the doors, hoods, etc.



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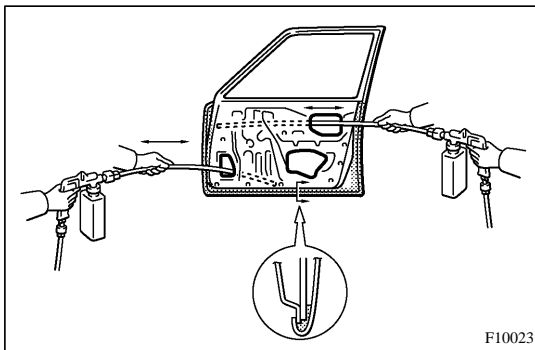
(b) UNDERCOAT APPLICATION

- (1) To prevent corrosion and protect the body from damage by flying stones, always apply sufficient undercoat to the bottom surface of the under body and inside of the wheel housings.

5. ANTI-RUST TREATMENT AFTER PAINTING PROCESS

(a) ANTI-RUST AGENT (WAX) APPLICATION

- (2) To preserve impossible to paint areas from corrosion, always apply sufficient anti-rust agent (wax) to the inside of the hemming areas of the doors and hoods, and around the hinges, or the welded surfaces inside the boxed cross-section structure of the side member, body pillar, etc.



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6. ANTI-RUST TREATMENT BY PAINTING**REFERENCE:**

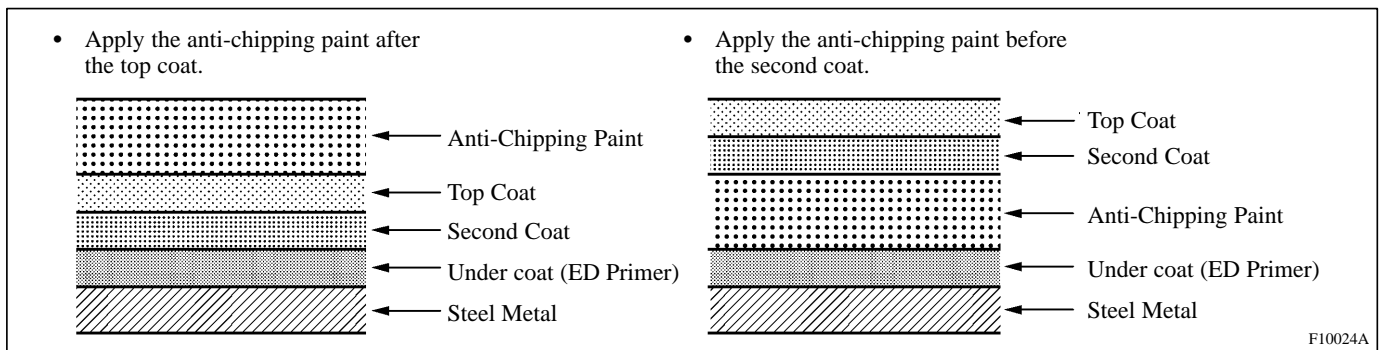
Painting prevents corrosion and protect the sheet metal from damage. In this section, anti-chipping paint only for anti-corrosion purpose is described.

(a) ANTI-CHIPPING PAINT

- (1) To prevent corrosion and protect the body from damage by flying stones, etc., apply anti-chipping paint to the rocker panel, wheel arch areas, valance panel, etc.

HINT:

Depending on the model or the application area, there are cases where the application of anti-chipping paint is necessary before the second coat or after the top coat.



HANDLING PRECAUTIONS ON RELATED COMPONENTS

1. BRAKE SYSTEM

The brake system is one of the most important safety components. Always follow the directions and notes given in section BR of the repair manual for the relevant model year when handling brake system parts.

NOTICE: When repairing the brake master cylinder or TRAC system, bleed the air out of the TRAC system.

2. DRIVE TRAIN AND CHASSIS

The drive train and chassis are components that can have great effects on the running performance and vibration resistance of the vehicle. After installing components in the sections listed in the table below, perform alignments to ensure correct mounting angles and dimensions. Particularly accurate repair of the body must also be done to ensure correct alignment.

HINT: Correct procedures and special tools are required for alignment. Always follow the directions given in the repair manual for the relevant model during alignment and section DI of this manual.

Component to be aligned	Section of repair manual for relevant model
Front Wheels	Suspension and Axle (SA) section
Rear Wheels	Suspension and Axle (SA) section

3. COMPONENTS ADJACENT TO THE BODY PANELS

Various types of component parts are mounted directly on or adjacently to the body panels. Strictly observe the following precautions to prevent damaging these components and the body panels during handling.

- Before repairing the body panels, remove their components or apply protective covers over the components.
- Before prying components off using a screwdriver or a scraper, etc., attach protective tape to the tool tip or blade to prevent damaging the components and the body paint.
- Before removing components from the outer surface of the body, attach protective tape to the body to ensure no damage to painted areas.

HINT: Apply touch-up paint to any damaged paint surfaces.

- Before drilling or cutting sections, make sure that there are no wires, etc. on the reverse side.

4. ECU (ELECTRONIC CONTROL UNIT)

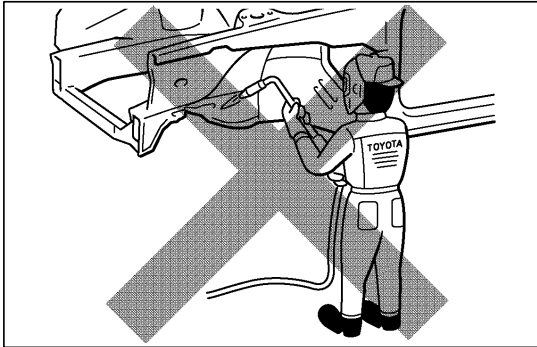
Many ECUs are mounted in this vehicle.

Take the following precautions during body repair to prevent damage to the ECUs.

- Before starting electric welding operations, disconnect the negative (–) terminal cable from the battery. When the negative (–) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by each memory system. Then when work is finished, reset the clock and audio systems as before. When the vehicle has tilt and telescopic steering, power seat and outside rear view mirror, which are all equipped with memory function, it is not possible to make a record of the memory contents. So when the operation is finished, it will be necessary to explain this fact to the customer, and request the customer to adjust the features and reset the memory.
- Do not expose the ECUs to ambient temperatures above 80°C (176°F).
NOTICE: If it is possible the ambient temperature may reach 80°C (176°F) or more, remove the ECUs from the vehicle before starting work.
- Be careful not to drop the ECUs and not to apply physical shocks to them.

PRECAUTIONS FOR REPAIRING BODY STRUCTURE PANELS

1. HEAT REPAIR FOR BODY STRUCTURE PANELS



Toyota prohibits the use of the heat repair method on body structure panels when repairing a vehicle damaged in a collision.

Panels that have high strength and rigidity, as well as a long life span for the automobile body are being sought after.

At Toyota, in order to fulfill these requirements, we use high tensile strength steel sheets and rust preventive steel sheets on the body.

High tensile steel sheets are made with alloy additives and a special heat treatment in order to improve the strength.

To prevent the occurrence of rust for a long period of time, the surface of the steel is coated with a zinc alloy.

If a body structure part is heat repaired with an acetylene torch or other heating source, the crystalline organization of the steel sheet will change and the strength of the steel sheet will be reduced.

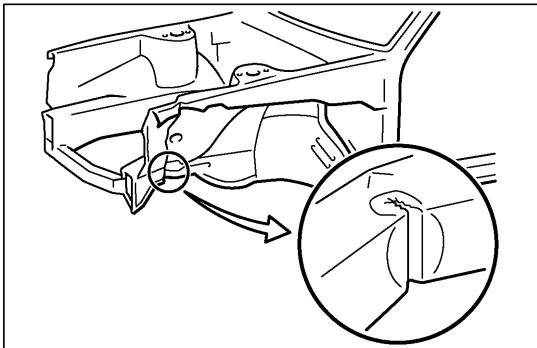
The ability of the body to resist rust is significantly lowered as well since the rust resistant zinc coating is destroyed by heat and the steel sheet surface is oxidized.

2. STRUCTURE PANEL KINKS

A sharp deformation angle on the panel that cannot be returned to its original shape by pulling or hammering is called a kink.

Since structure parts were designed to exhibit a 100% performance when they were in their original shape, if they are deformed in an accident, or if the deformed parts are repaired and reused, they become unable to exhibit the same performance as intended in the design.

It is necessary to replace the part where the kink has occurred.



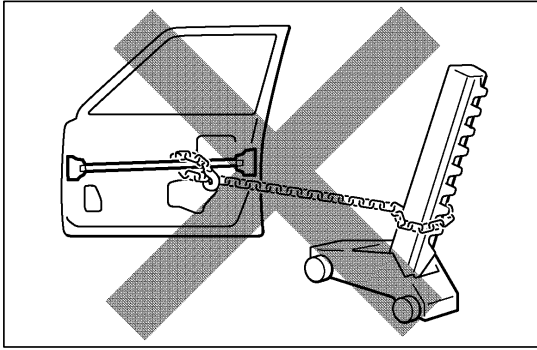
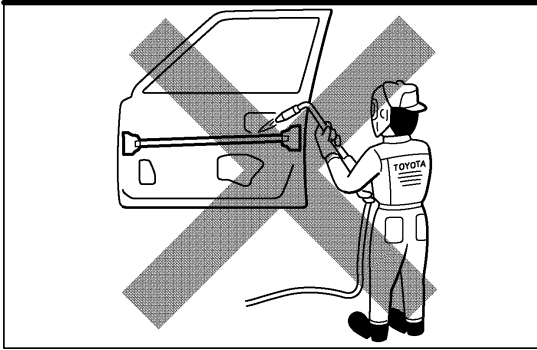
3. IMPACT BEAM REPAIR

The impact beam and bracket are necessary and important parts in maintaining a survival space for passengers in a side collision.

For impact beam, we use special high tensile strength steel. The high tensile strength steel maintains its special crystal-line organization by heat treatment or alloy additives.

Since these parts were designed to exhibit a 100% performance when they were in their original shape, if they are deformed in an accident, or if the deformed parts are repaired and reused, they become unable to exhibit the same performance as intended in the design.

It is necessary to replace the door assembly when impact beam or bracket is damaged.



ABBREVIATIONS USED IN THIS MANUAL

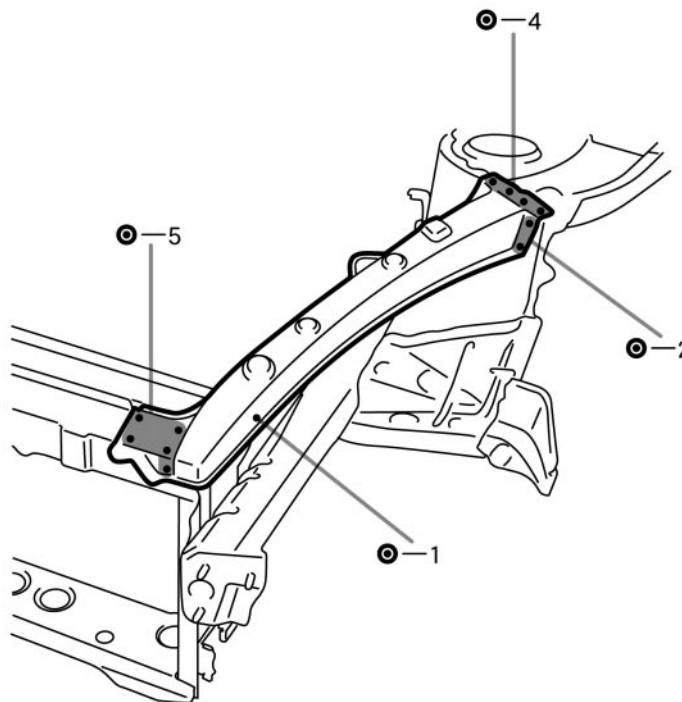
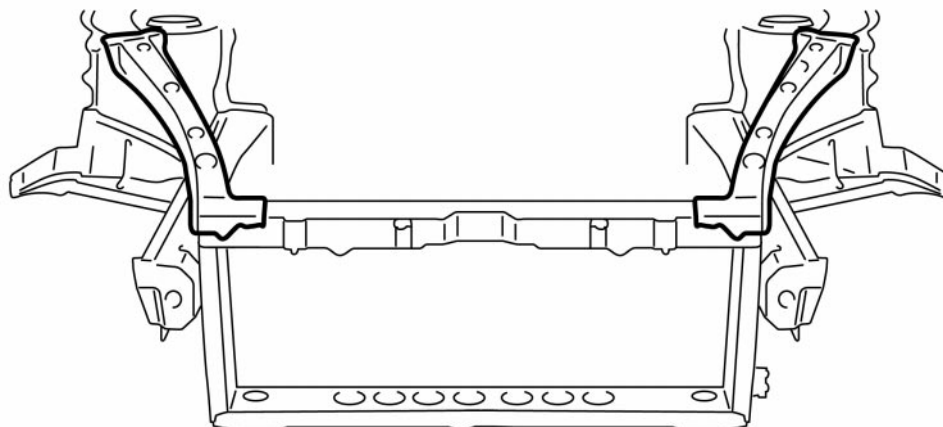
For convenience, the following abbreviations are used in this manual.

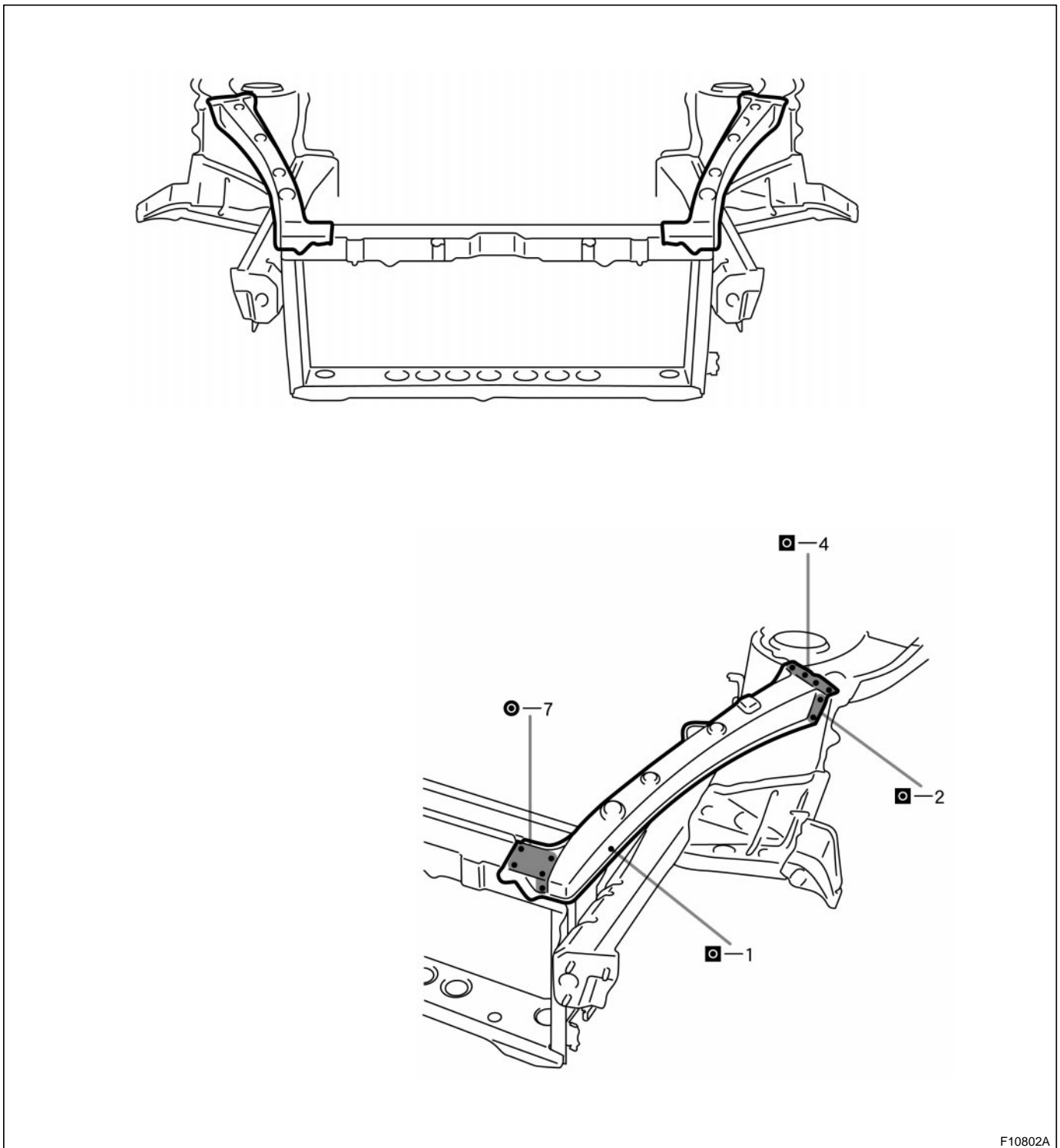
ABS	Antilock Brake System
A/C	Air Conditioner
assy	assembly
ECT	Electronic Controlled Transmission
ECU	Electronic Control Unit
e.g.	Exempli Gratia (for Example)
Ex.	Except
FWD	Front Wheel Drive Vehicles
4WD	Four Wheel Drive Vehicles
in.	inch
LH	Left-hand
LHD	Left-hand Drive
MIG	Metal Inert Gas
M/Y	Model Year
PPS	Progressive Power Steering
RH	Right-hand
RHD	Right-hand Drive
SRS	Supplemental Restraint System
SSM	Special Service Materials
w/	with
w/o	without

RADIATOR UPPER SIDE SUPPORT (ASSY)

REPLACEMENT

1. REMOVE RADIATOR UPPER SIDE SUPPORT



2. INSTALL RADIATOR UPPER SIDE SUPPORT

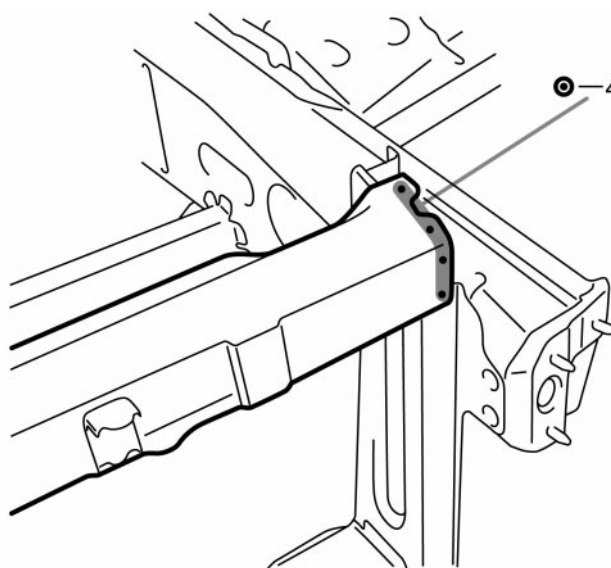
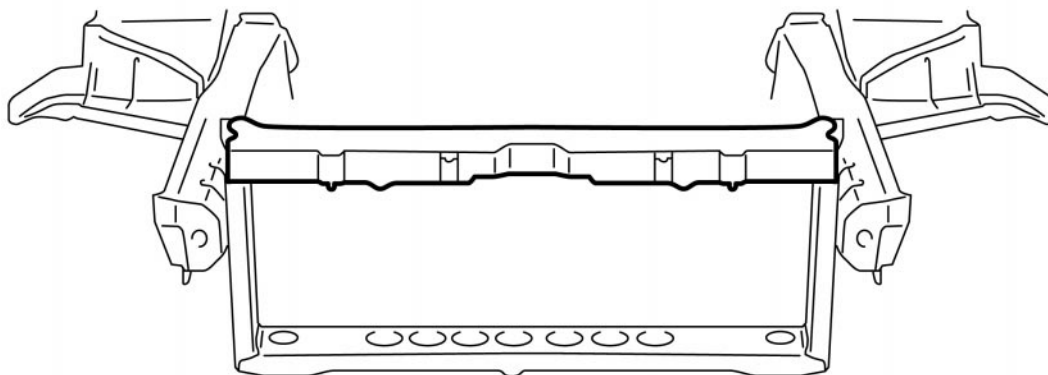
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3. **MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS** (See page BP-95)
4. **APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT** (See page PC-1)
5. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

RADIATOR UPPER SUPPORT (ASSY)

REPLACEMENT

1. REMOVE RADIATOR UPPER SIDE SUPPORT (See page BP-1)
2. REMOVE RADIATOR UPPER SUPPORT

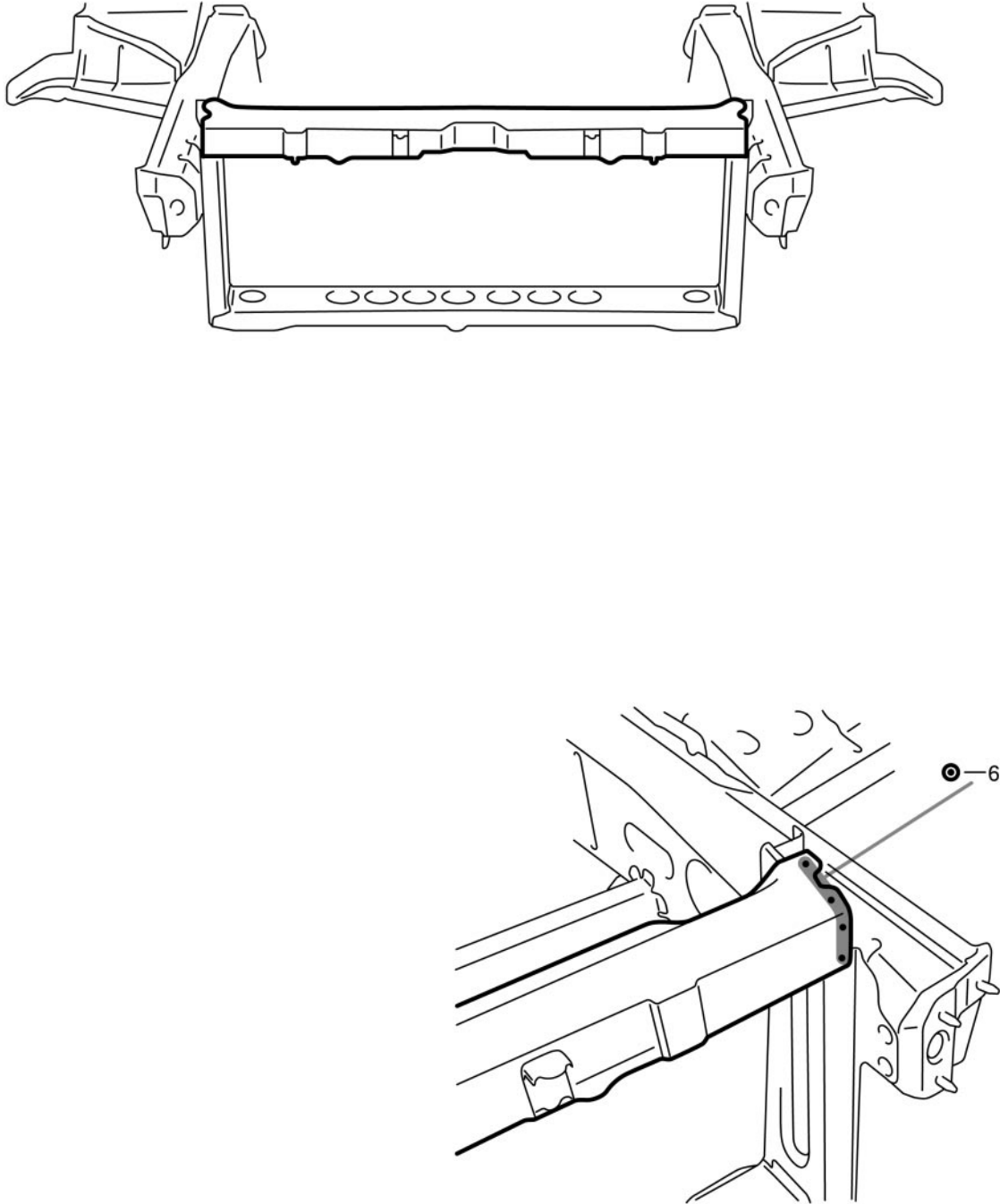


3. INSTALL RADIATOR UPPER SUPPORT

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

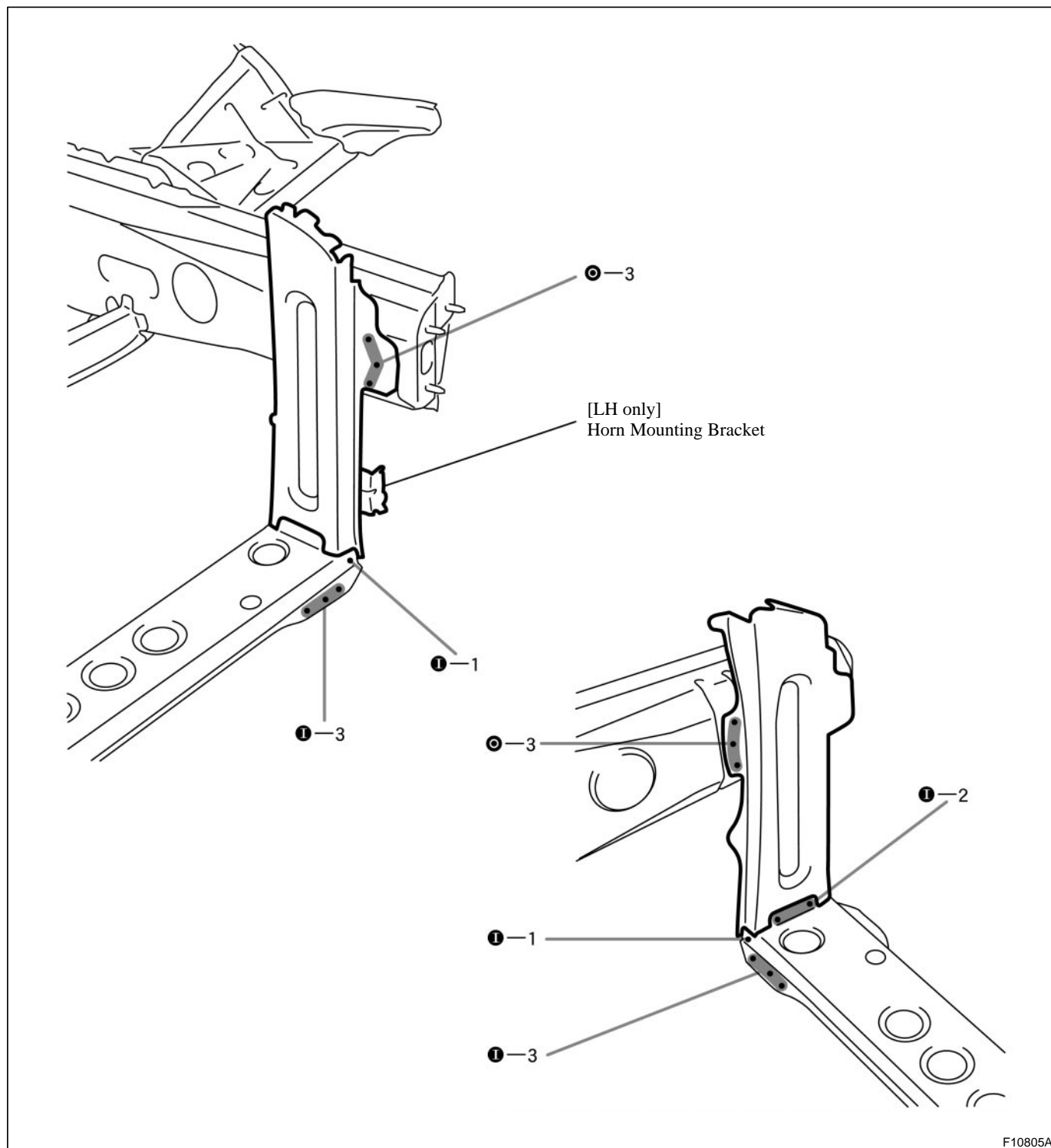
First install the hood lock support.



-
4. **INSTALL RADIATOR UPPER SIDE SUPPORT (See page BP-2)**
 5. **MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)**
 6. **APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)**
 7. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT SIDE MEMBER NO.1 REINFORCEMENT (ASSY)**REPLACEMENT**

1. REMOVE RADIATOR UPPER SIDE SUPPORT (See page BP-1)
2. REMOVE RADIATOR UPPER SUPPORT (See page BP-3)
3. REMOVE FRONT SIDE MEMBER NO.1 REINFORCEMENT
 - (a) Replace the horn mounting bracket (LH only) at the same time.

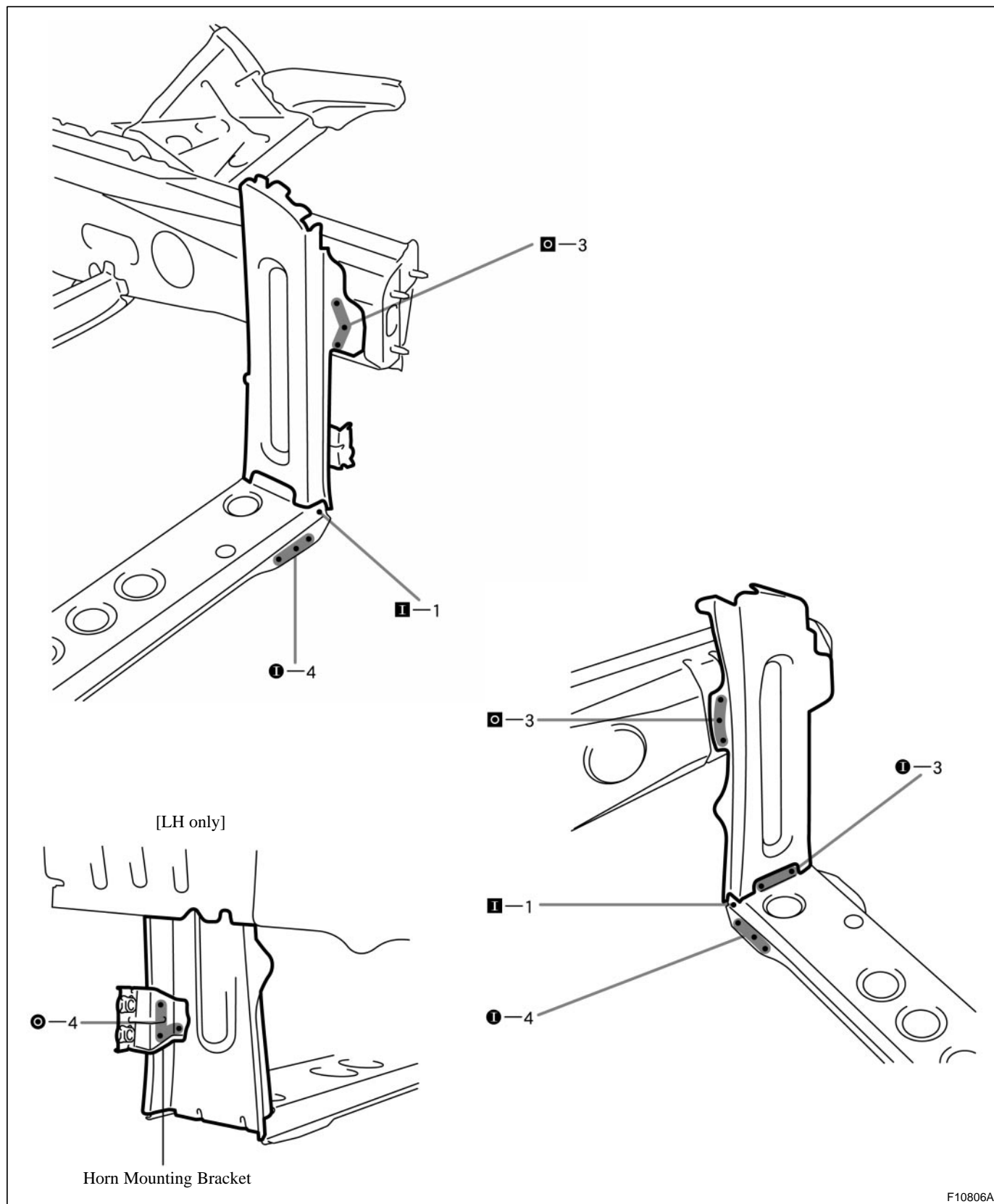


4. INSTALL FRONT SIDE MEMBER NO.1 REINFORCEMENT

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

First install the radiator upper support.

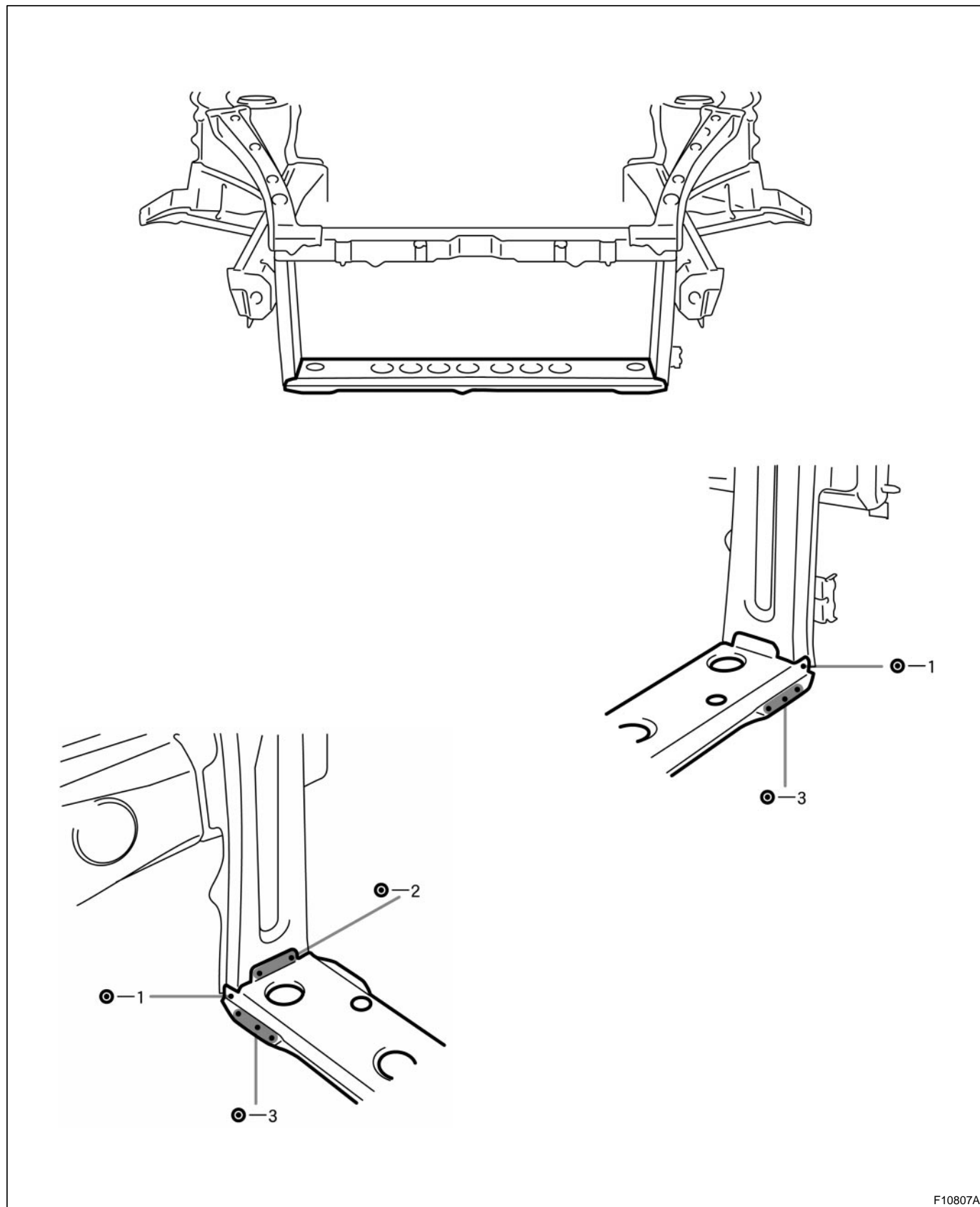


5. **INSTALL RADIATOR UPPER SUPPORT (See page BP-4)**
6. **INSTALL RADIATOR UPPER SIDE SUPPORT (See page BP-2)**
7. **MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)**
8. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT CROSSMEMBER (ASSY)

REPLACEMENT

1. REMOVE FRONT CROSSMEMBER

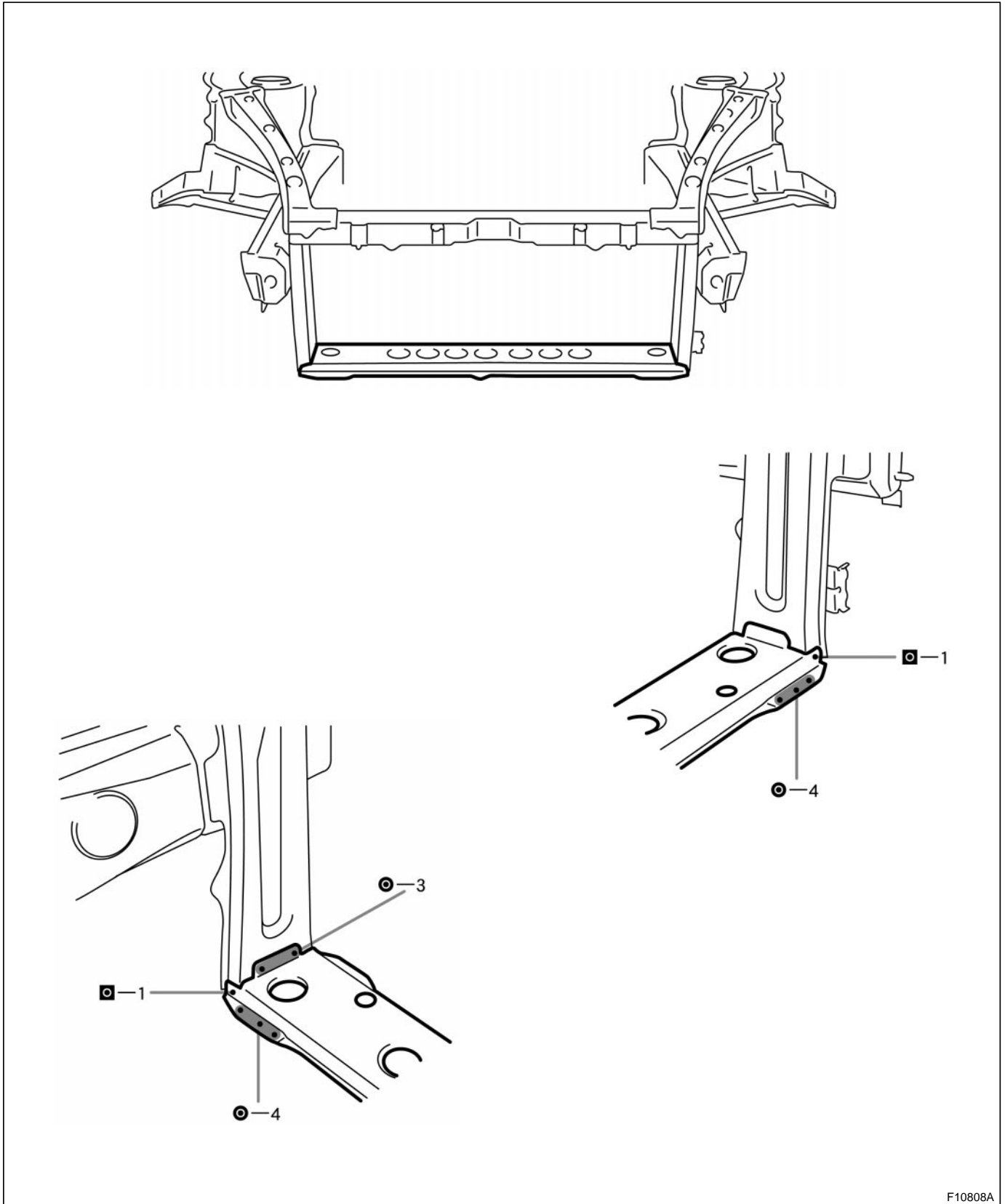


2. INSTALL FRONT CROSSMEMBER

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

First install the hood lock support.

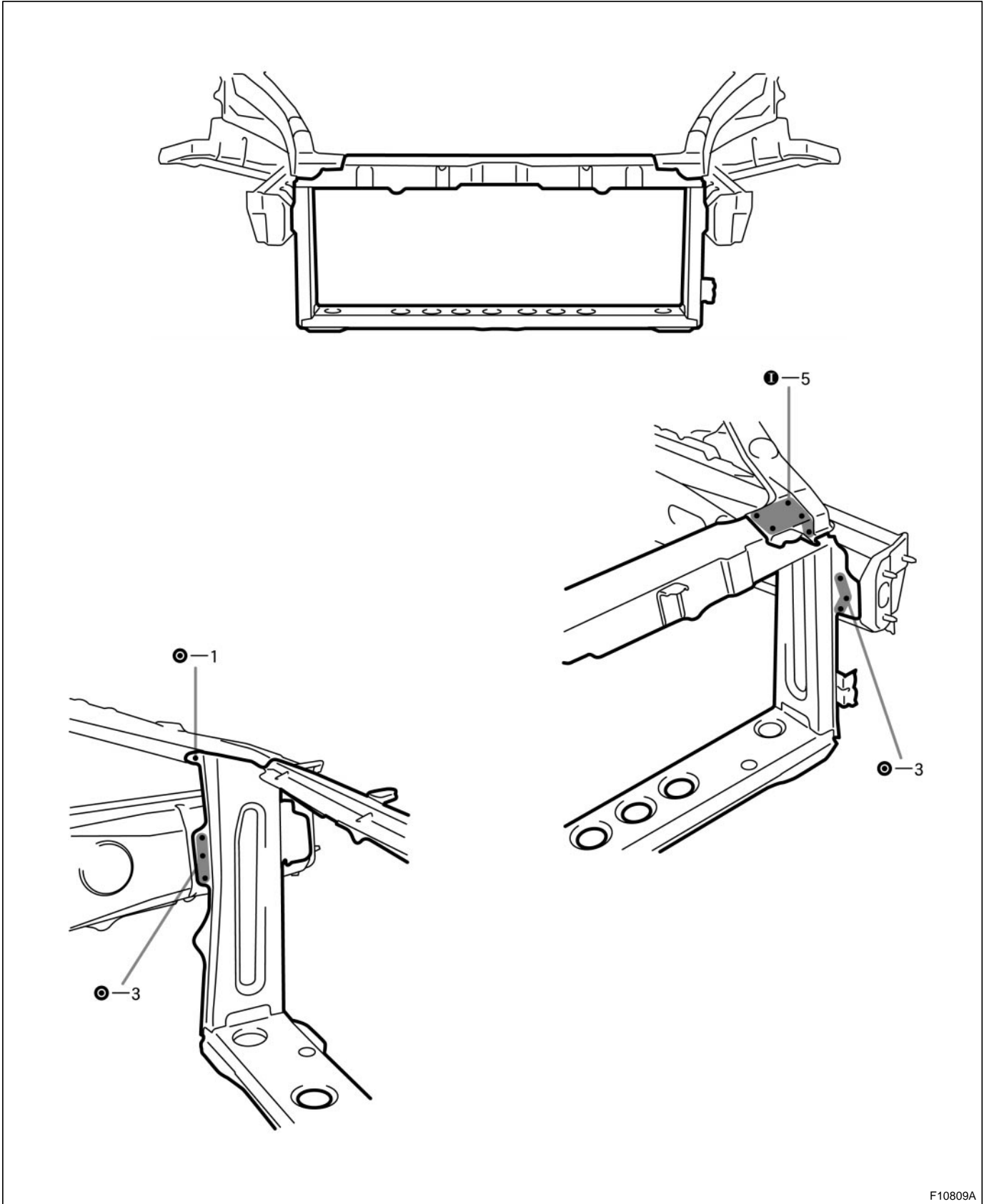


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3. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
 4. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
 5. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

RADIATOR SUPPORT (ASSY)

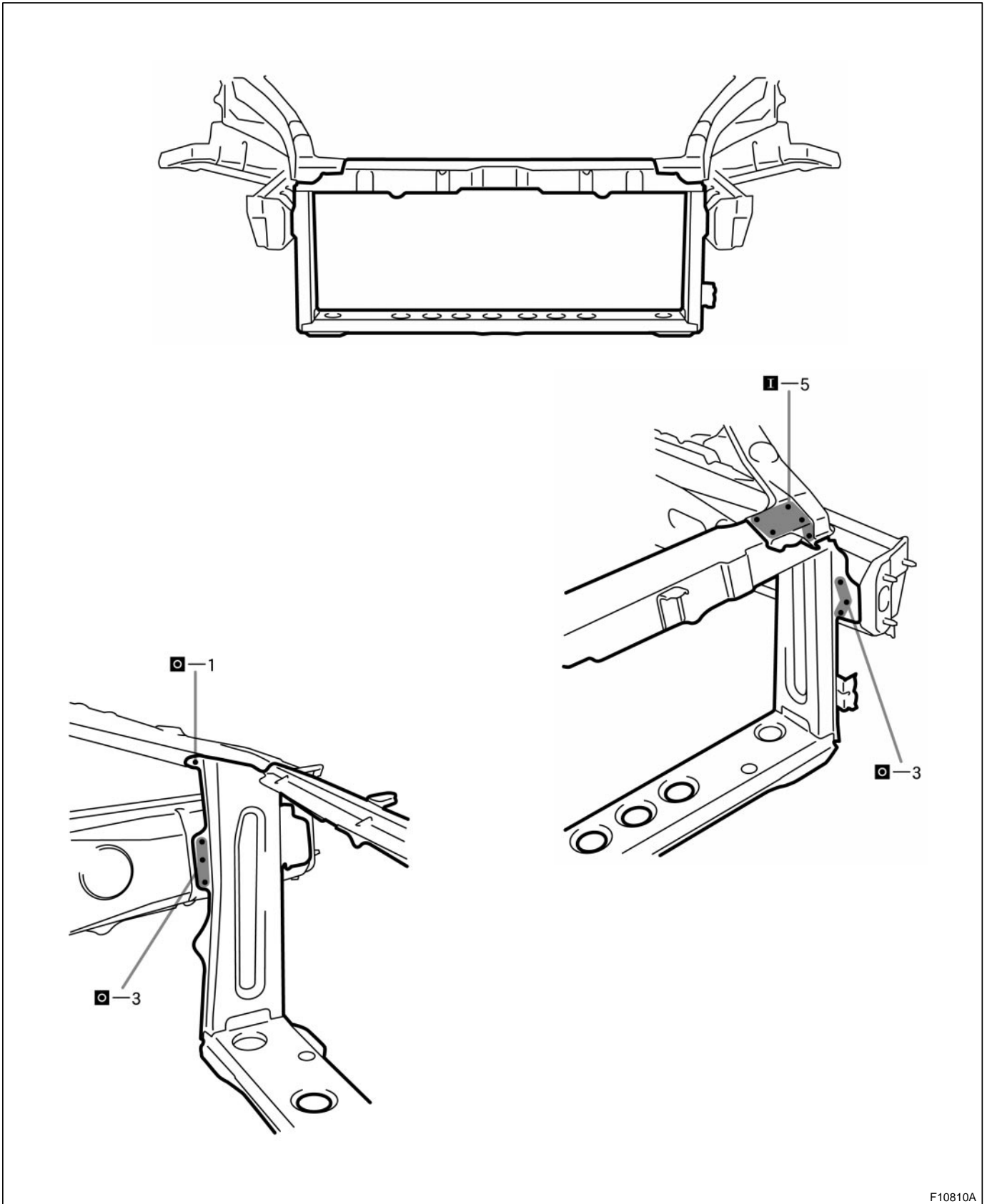
REPLACEMENT

1. REMOVE RADIATOR SUPPORT



2. INSTALL RADIATOR SUPPORT

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.



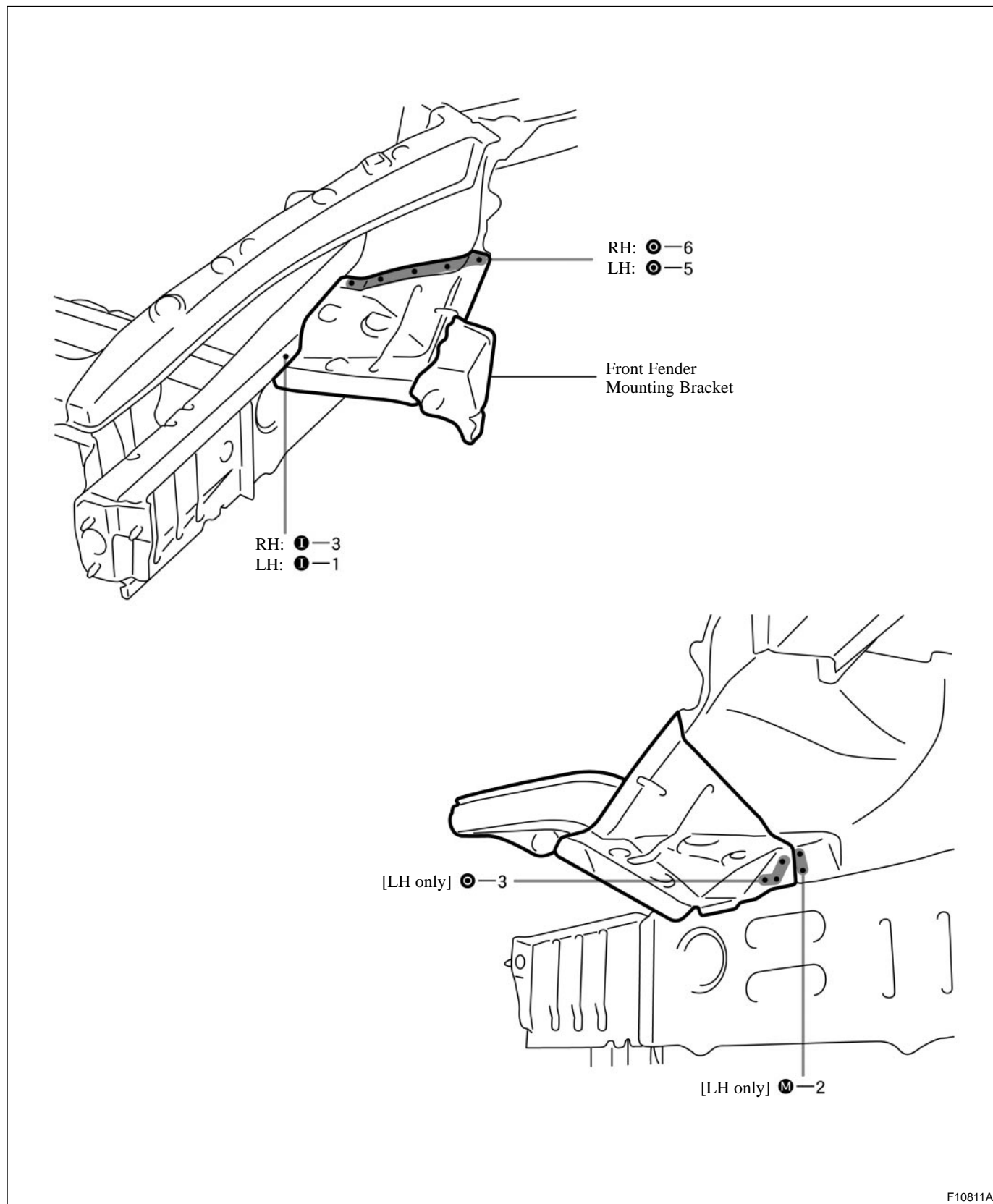
3. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
4. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
5. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
6. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT FENDER FRONT APRON (ASSY)

REPLACEMENT

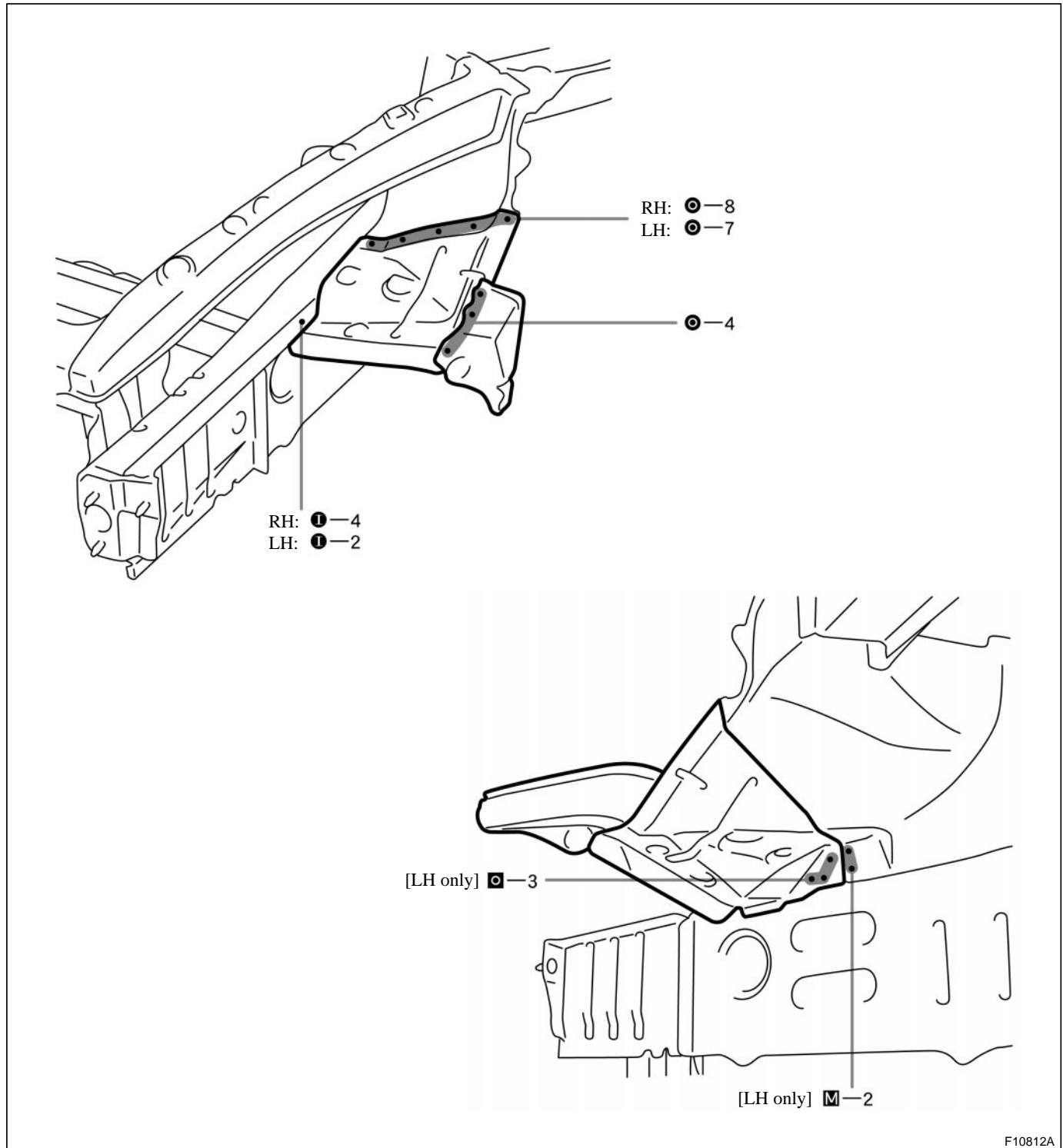
1. REMOVE FRONT FENDER FRONT APRON

- (a) Replace the front fender mounting bracket at the same time.



2. INSTALL FRONT FENDER FRONT APRON

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.



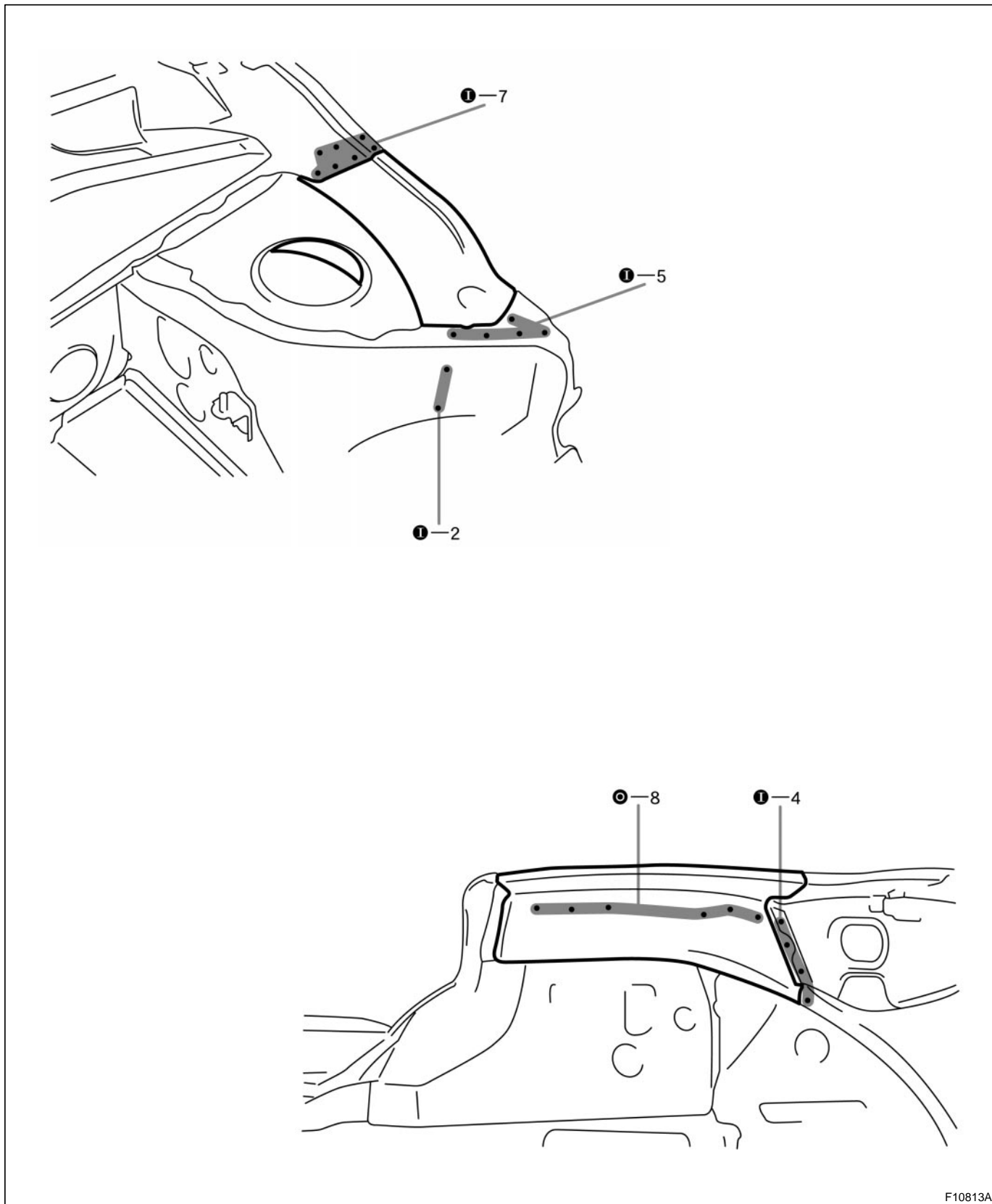
F10812A

3. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)**4. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)****5. APPLYING UNDER COATING (See page PC-6)****6. APPLYING ANTI-RUST AGENT**

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT APRON TO COWL SIDE UPPER MEMBER (ASSY) REPLACEMENT

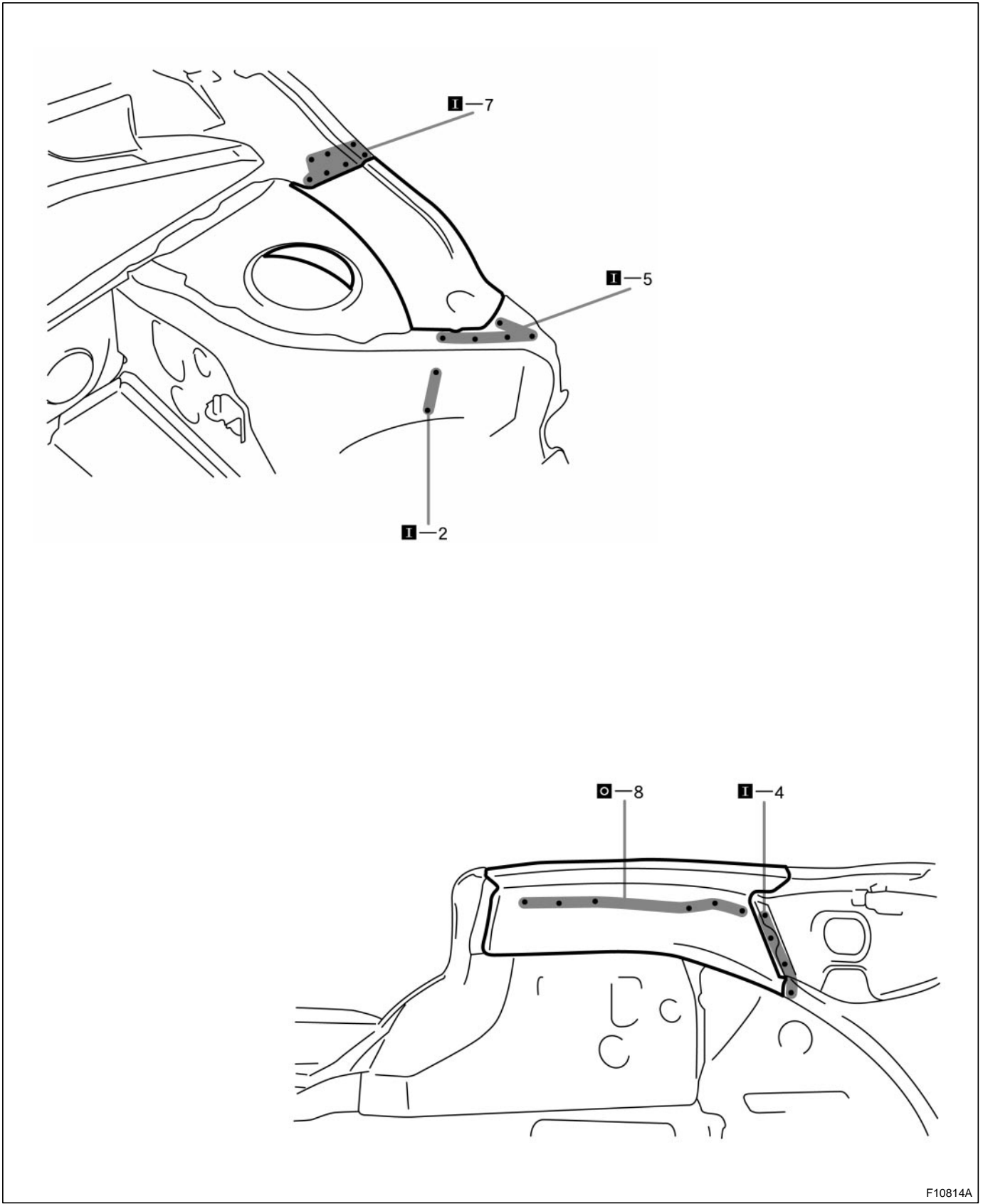
1. REMOVE FRONT FENDER APRON LOWER GUSSET (See page BP-36)
2. REMOVE FRONT APRON TO COWL SIDE UPPER MEMBER



3. INSTALL FRONT APRON TO COWL SIDE UPPER MEMBER

HINT:

Inspect the fitting of the front fender and hood, etc. before welding, since this affects the appearance of the finish.

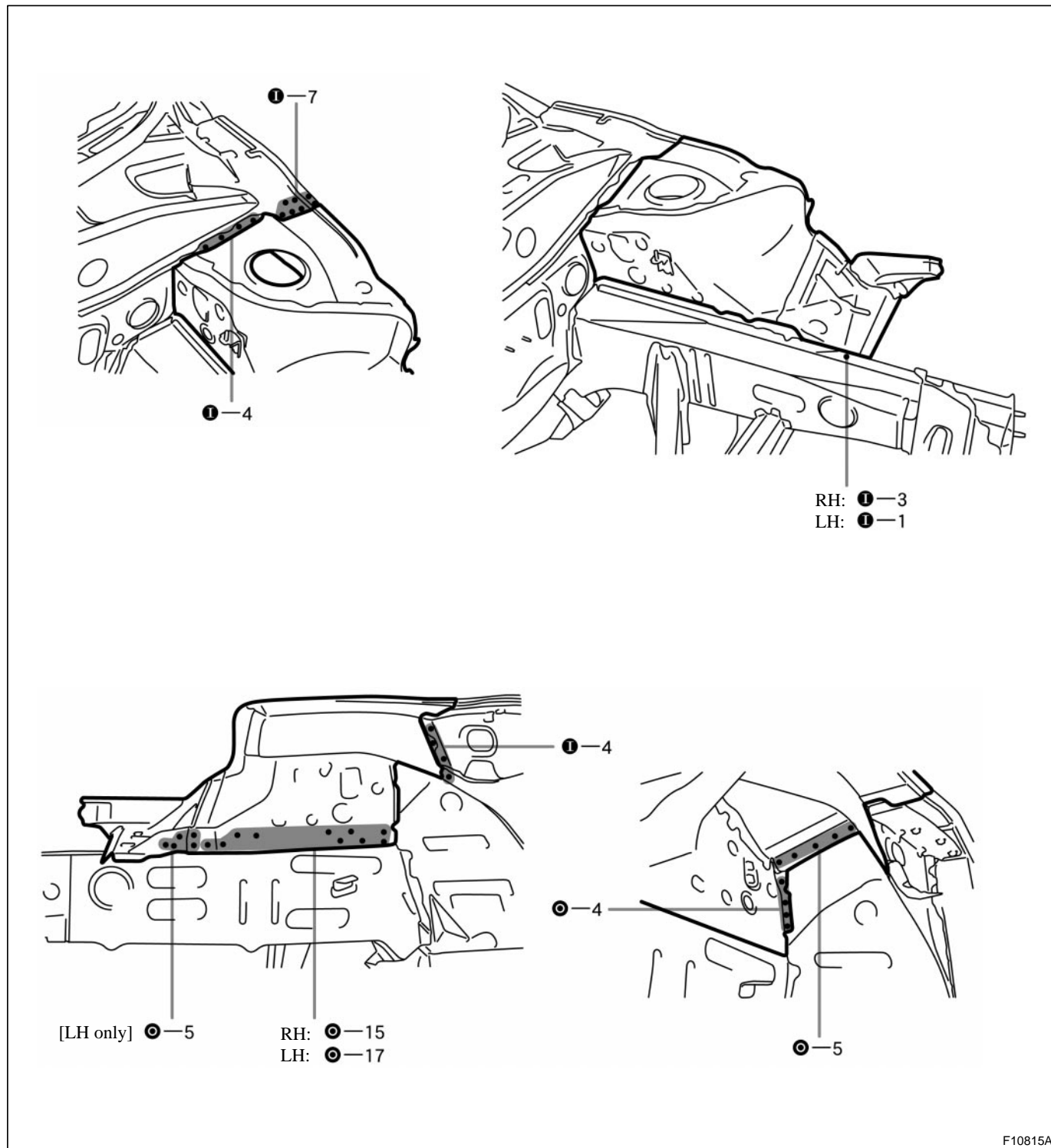


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4. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
 5. INSTALL FRONT FENDER APRON LOWER GUSSET (See page BP-37)
 6. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
 7. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT FENDER APRON (ASSY)

REPLACEMENT

1. REMOVE RADIATOR UPPER SIDE SUPPORT (See page BP-1)
2. REMOVE FRONT FENDER APRON LOWER GUSSET (See page BP-36)
3. REMOVE FRONT FENDER APRON



4. INSTALL FRONT FENDER APRON

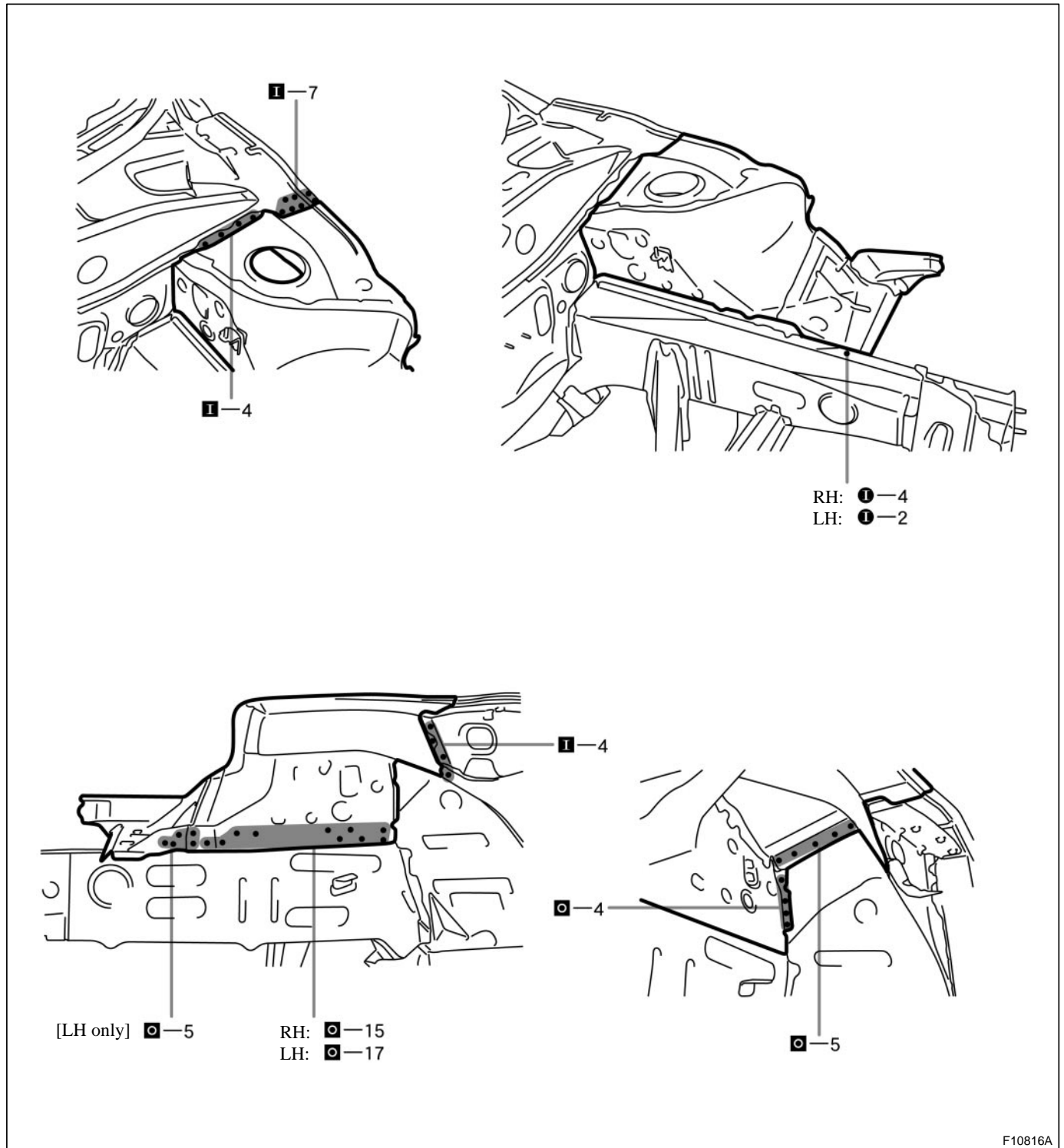
HINT:

Inspect the fitting of the front fender and hood, etc. before welding, since this affects the appearance of the finish.

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Make sure each measurement is correct, as this parts affects the front wheel alignment.

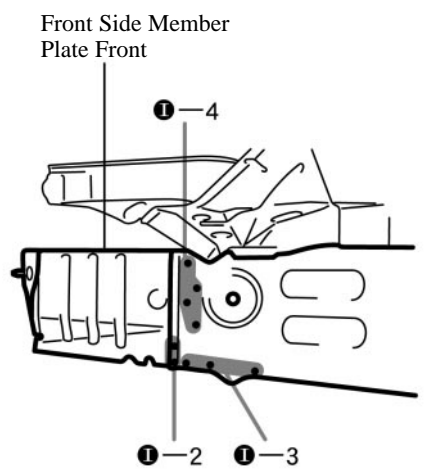
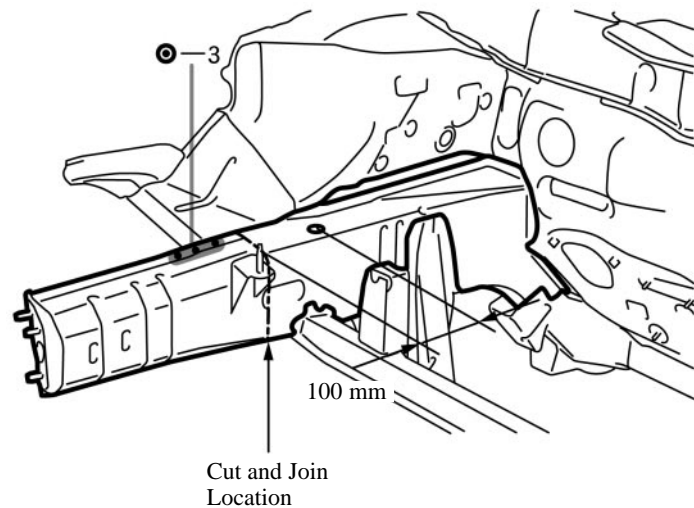
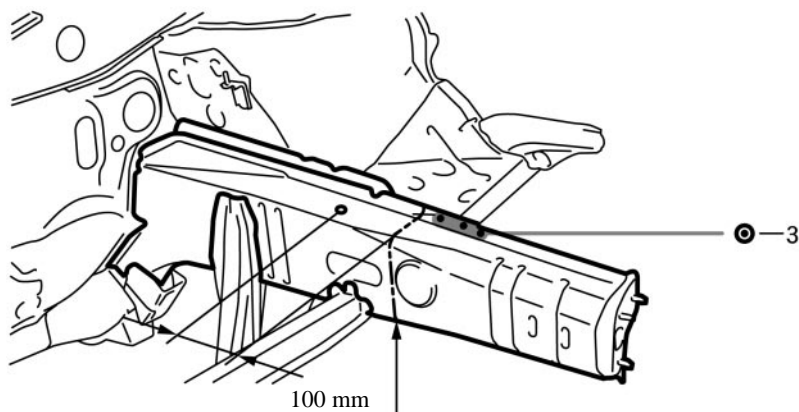


5. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
6. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
7. INSTALL FRONT FENDER APRON LOWER GUSSET (See page BP-37)
8. INSTALL RADIATOR UPPER SIDE SUPPORT (See page BP-2)
9. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
10. APPLYING UNDER COATING (See page PC-6)
11. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT SIDE MEMBER (CUT-P)

REPLACEMENT

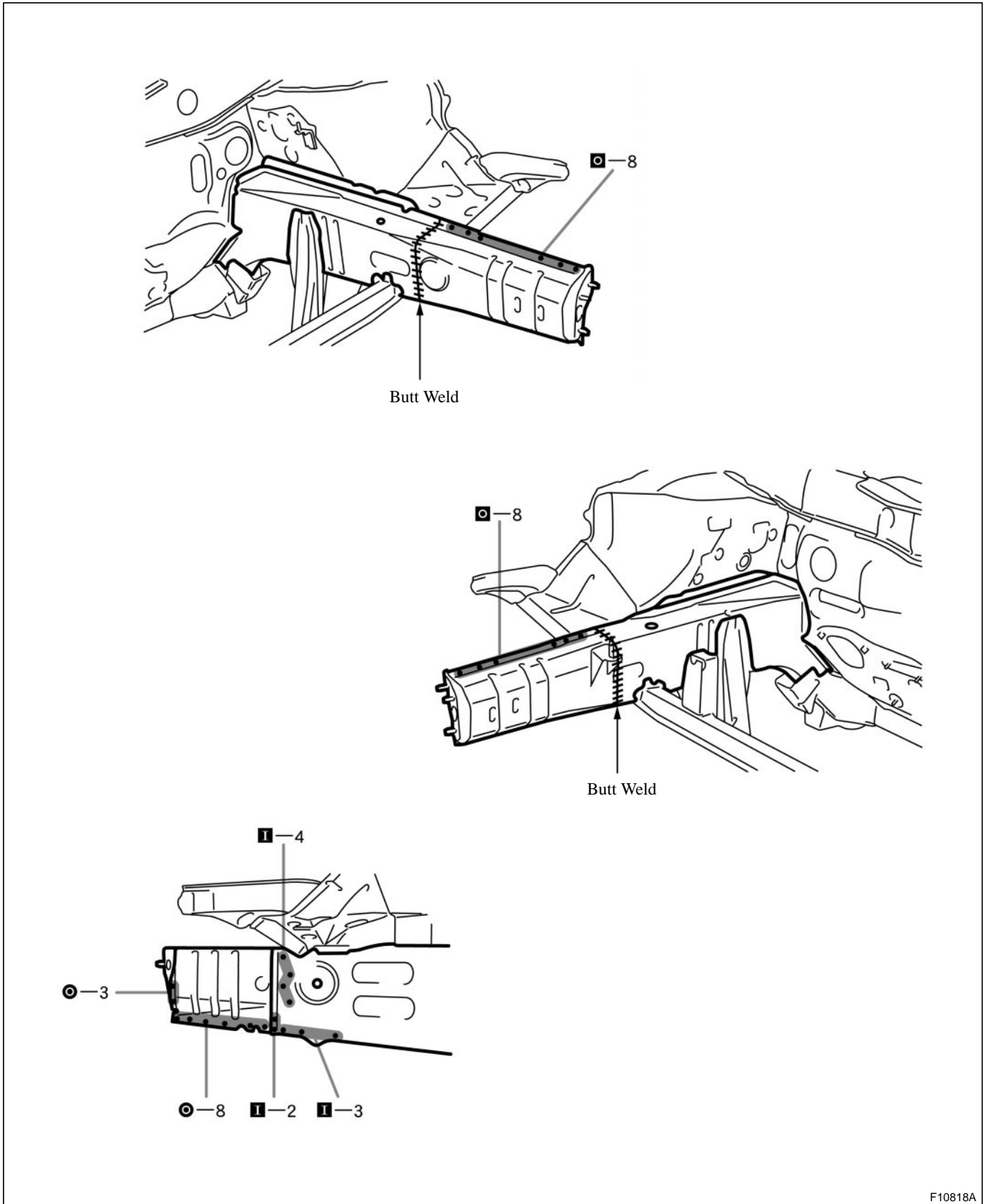
1. REMOVE RADIATOR UPPER SIDE SUPPORT (See page BP-1)
 2. REMOVE RADIATOR UPPER SUPPORT (See page BP-3)
 3. REMOVE FRONT SIDE MEMBER NO.1 REINFORCEMENT (See page BP-6)
 4. REMOVE FRONT CROSSMEMBER (See page BP-9)
 5. REMOVE FRONT SIDE MEMBER
- (a) Cut and join the parts at the location as shown below.



mm	in.
100	3.94

6. INSTALL FRONT SIDE MEMBER

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

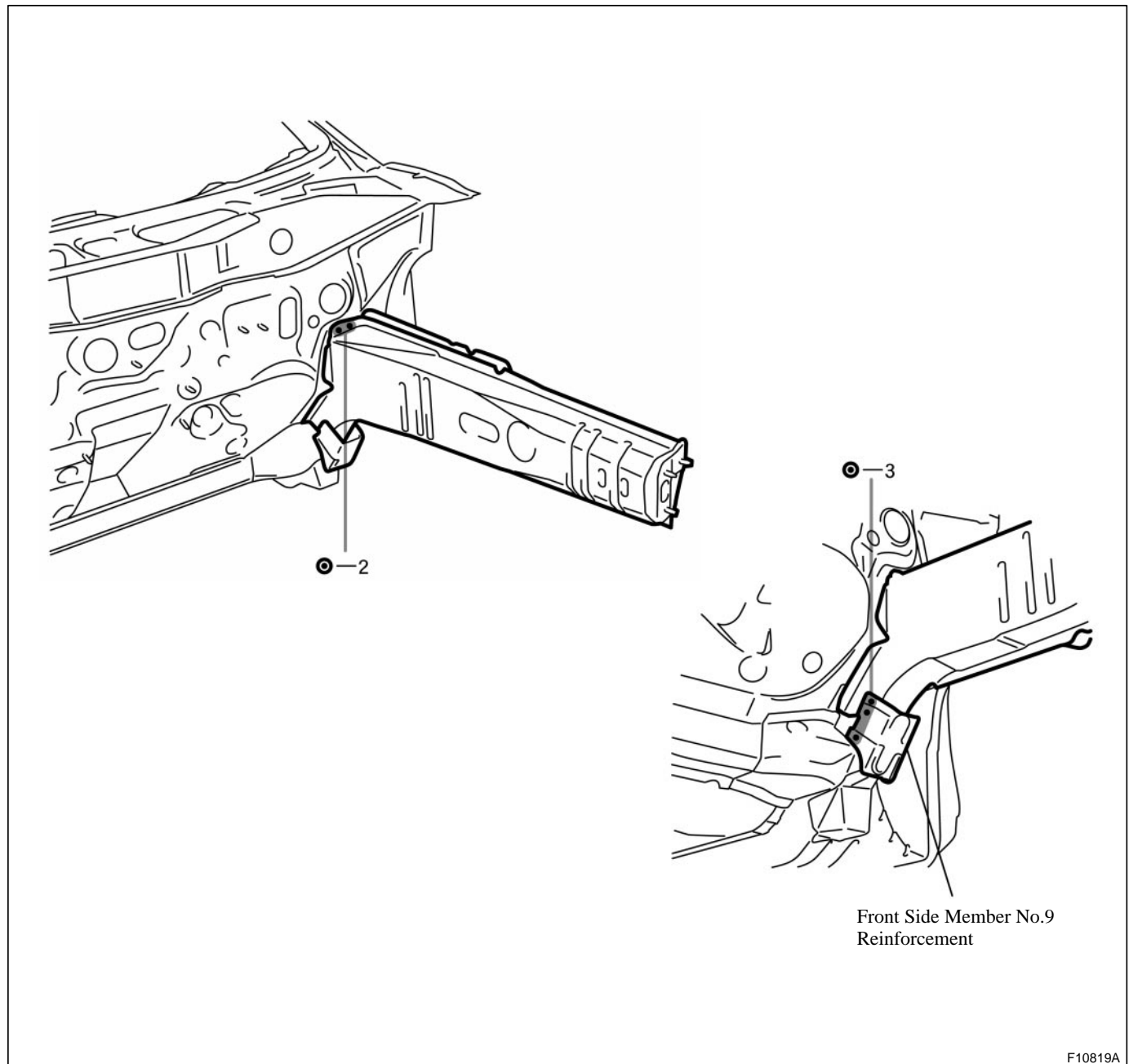


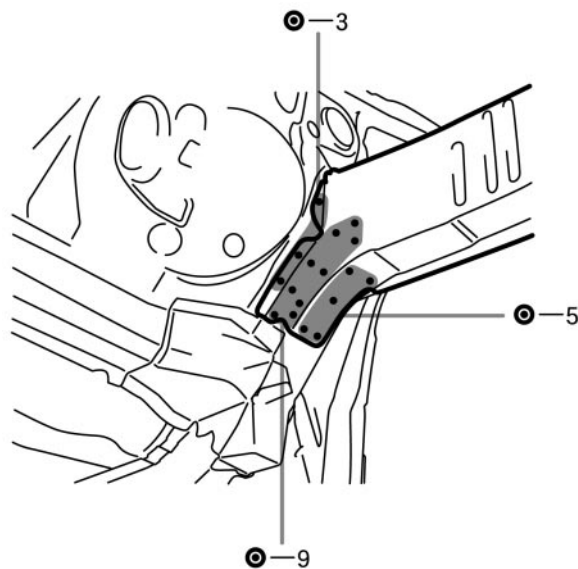
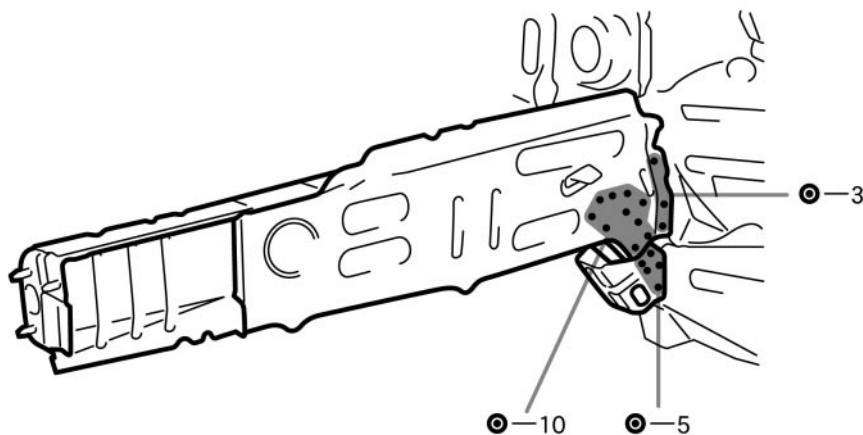
-
7. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
 8. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
 9. INSTALL FRONT CROSSMEMBER (See page BP-10)
 10. INSTALL FRONT SIDE MEMBER NO.1 REINFORCEMENT (See page BP-7)
 11. INSTALL RADIATOR UPPER SUPPORT (See page BP-4)
 12. INSTALL RADIATOR UPPER SIDE SUPPORT (See page BP-2)
 13. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
 14. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT SIDE MEMBER (ASSY)

REPLACEMENT

1. REMOVE RADIATOR UPPER SIDE SUPPORT (See page BP-1)
2. REMOVE RADIATOR UPPER SUPPORT (See page BP-3)
3. REMOVE FRONT SIDE MEMBER NO.1 REINFORCEMENT (See page BP-6)
4. REMOVE FRONT CROSSMEMBER (See page BP-9)
5. REMOVE FRONT FENDER APRON LOWER GUSSET (See page BP-36)
6. REMOVE FRONT FENDER APRON (See page BP-20)
7. REMOVE FRONT LUGGAGE END PANEL (See page BP-30)
8. REMOVE STEERING GEAR BOX SUPPORT MEMBER (See page BP-33)
9. REMOVE FRONT SIDE MEMBER
 - (a) After removing the front side member No.9 reinforcement, remove the front side member.



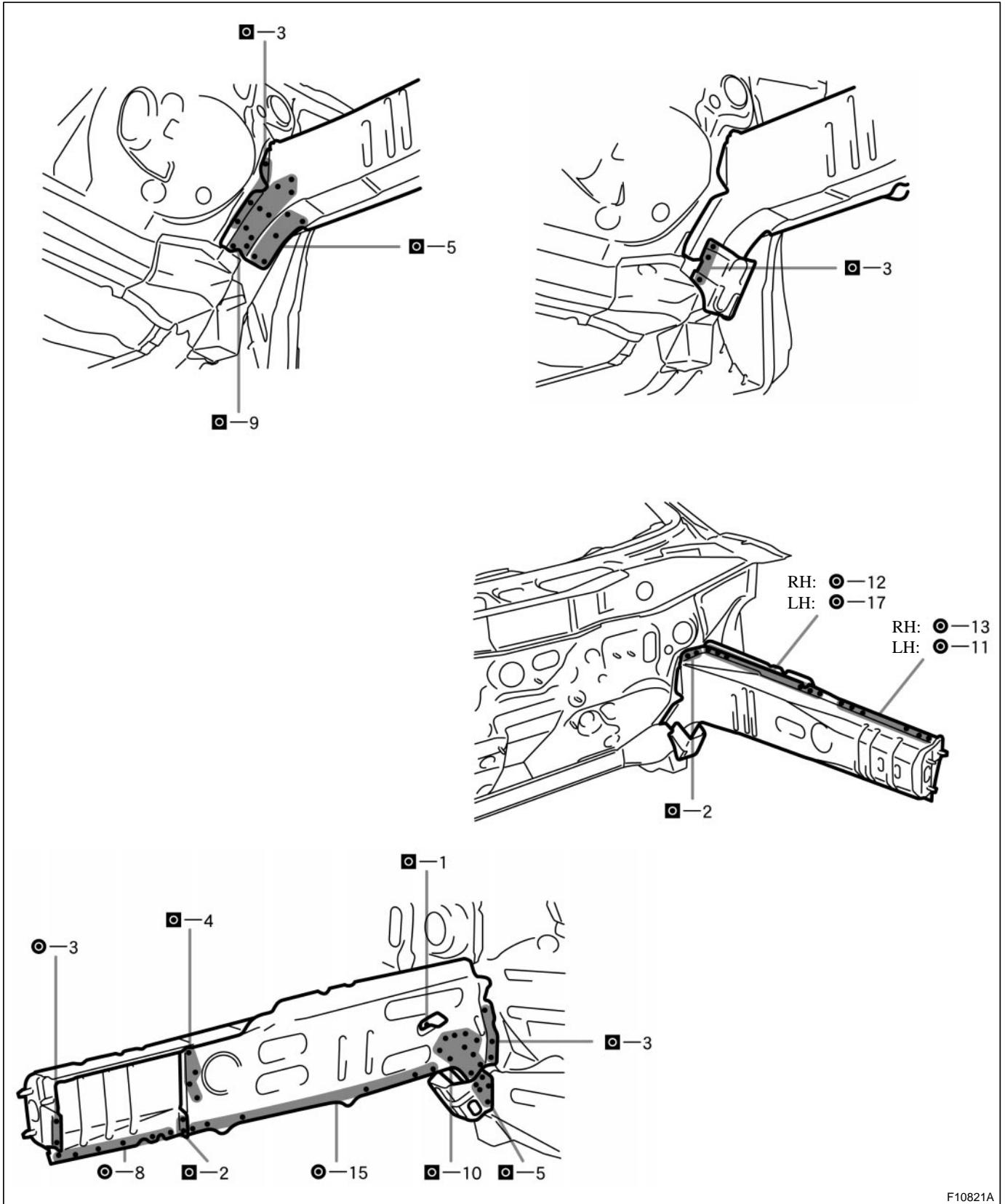


10. INSTALL FRONT SIDE MEMBER

(a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Make sure each measurement is correct, as this parts affects the front wheel alignment.

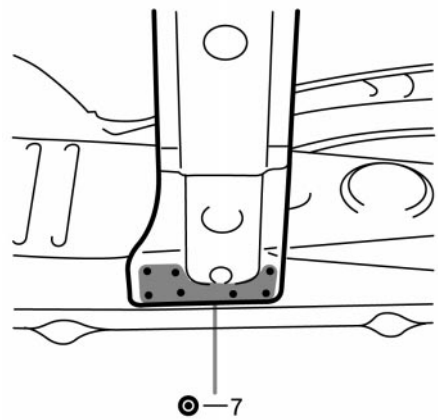
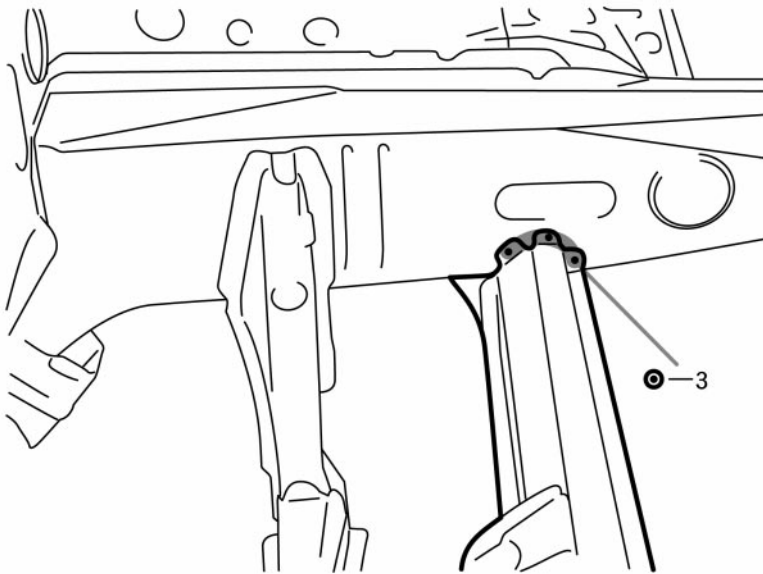
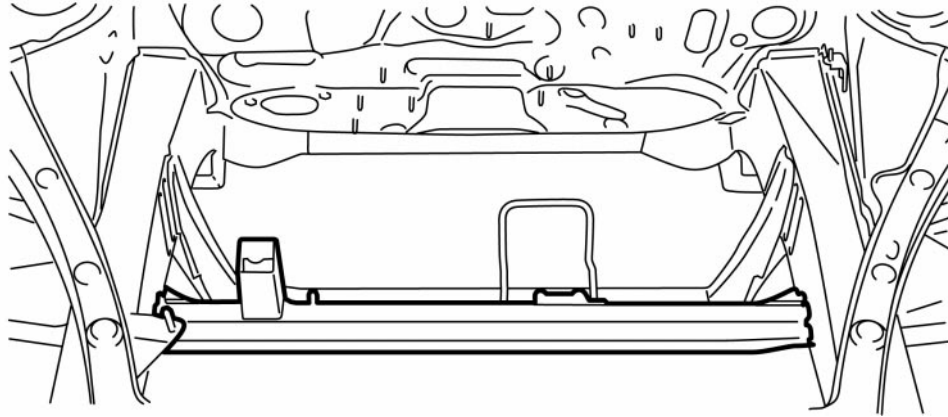


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11. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
 12. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
 13. INSTALL STEERING GEAR BOX SUPPORT MEMBER (See page BP-34)
 14. INSTALL FRONT LUGGAGE END PANEL (See page BP-31)
 15. INSTALL FRONT FENDER APRON (See page BP-21)
 16. INSTALL FRONT FENDER APRON LOWER GUSSET (See page BP-37)
 17. INSTALL FRONT CROSSMEMBER (See page BP-10)
 18. INSTALL FRONT SIDE MEMBER NO.1 REINFORCEMENT (See page BP-7)
 19. INSTALL RADIATOR UPPER SUPPORT (See page BP-4)
 20. INSTALL RADIATOR UPPER SIDE SUPPORT (See page BP-2)
 21. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
 22. APPLYING UNDER COATING (See page PC-6)
 23. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

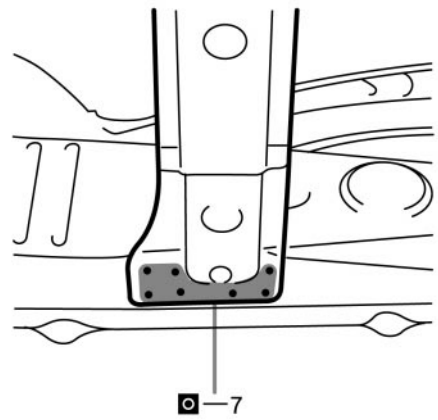
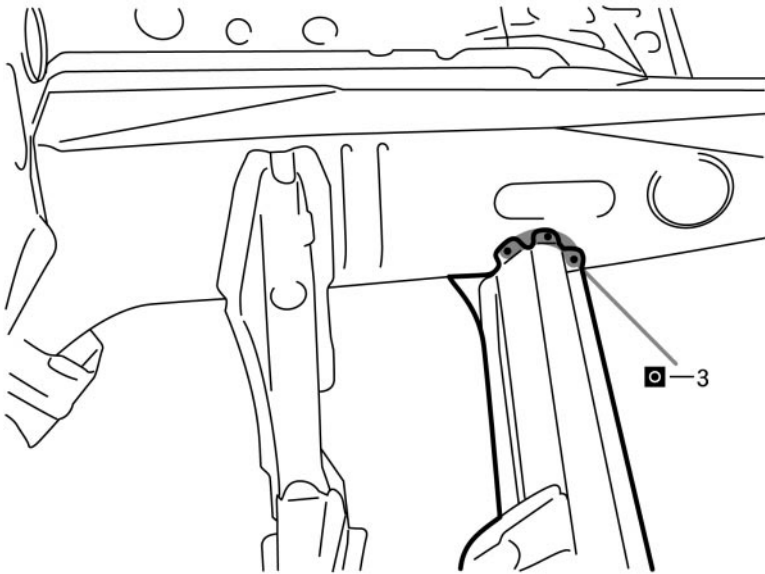
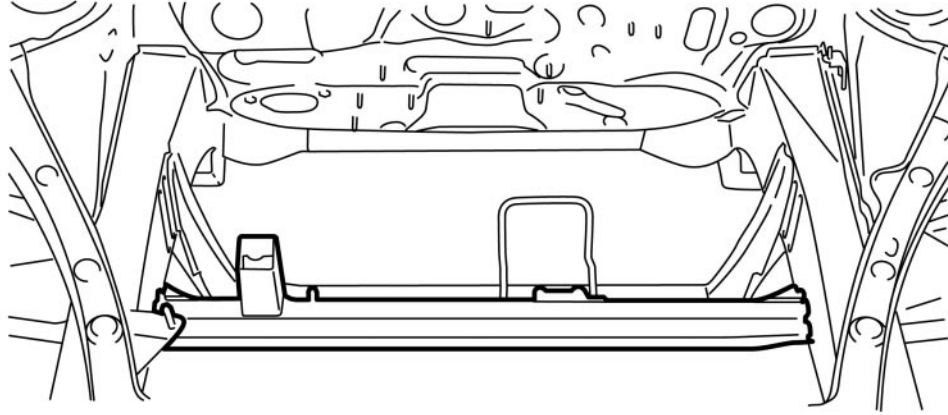
FRONT LUGGAGE END PANEL (ASSY)

REPLACEMENT

1. REMOVE FRONT LUGGAGE END PANEL



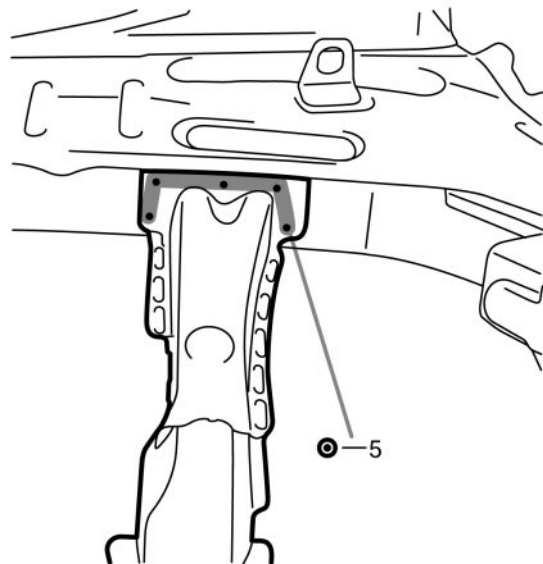
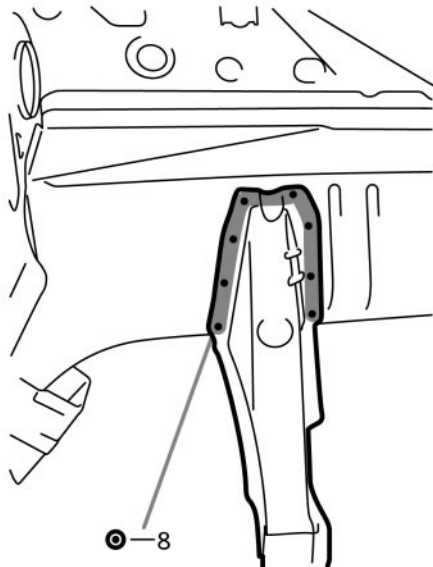
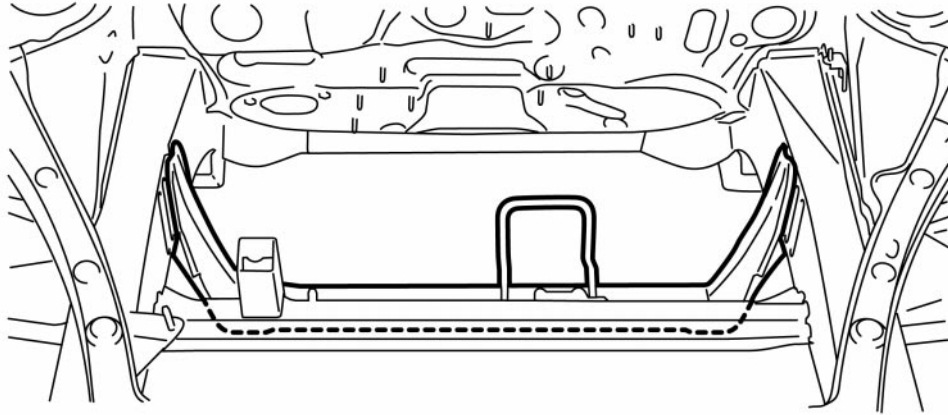
2. INSTALL FRONT LUGGAGE END PANEL



3. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
4. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
5. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
6. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

STEERING GEAR BOX SUPPORT MEMBER (ASSY) REPLACEMENT

1. REMOVE STEERING GEAR BOX SUPPORT MEMBER

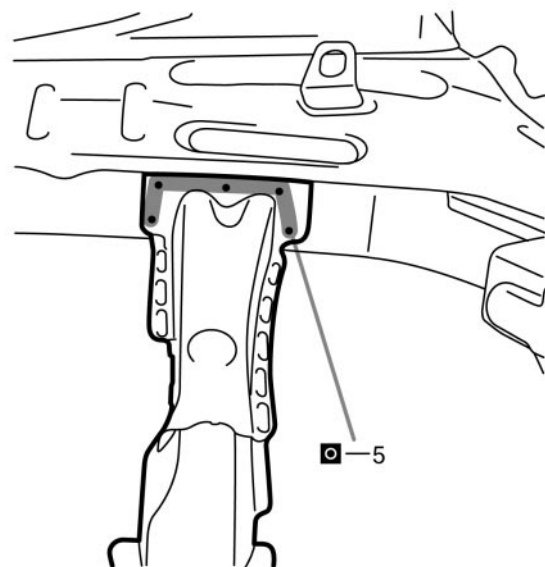
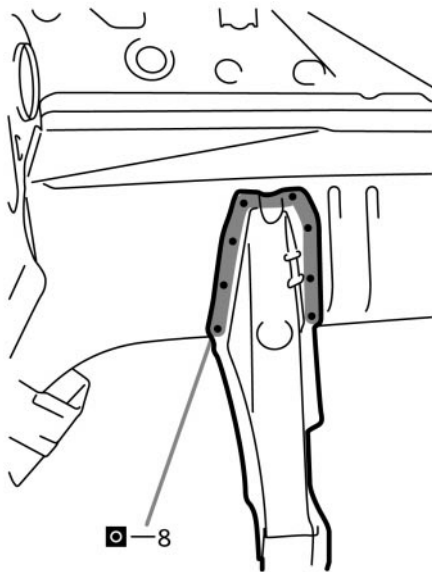
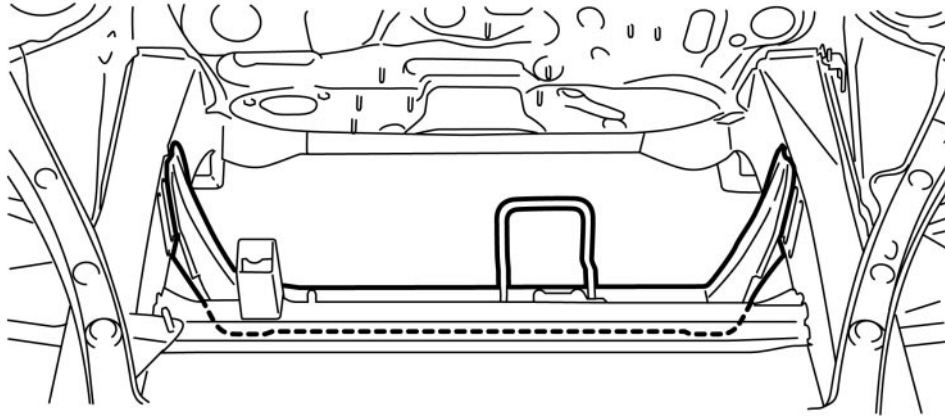


2. INSTALL STEERING GEAR BOX SUPPORT MEMBER

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Measurements must be accurate with the body dimension diagram, as this affects the front wheel alignment.

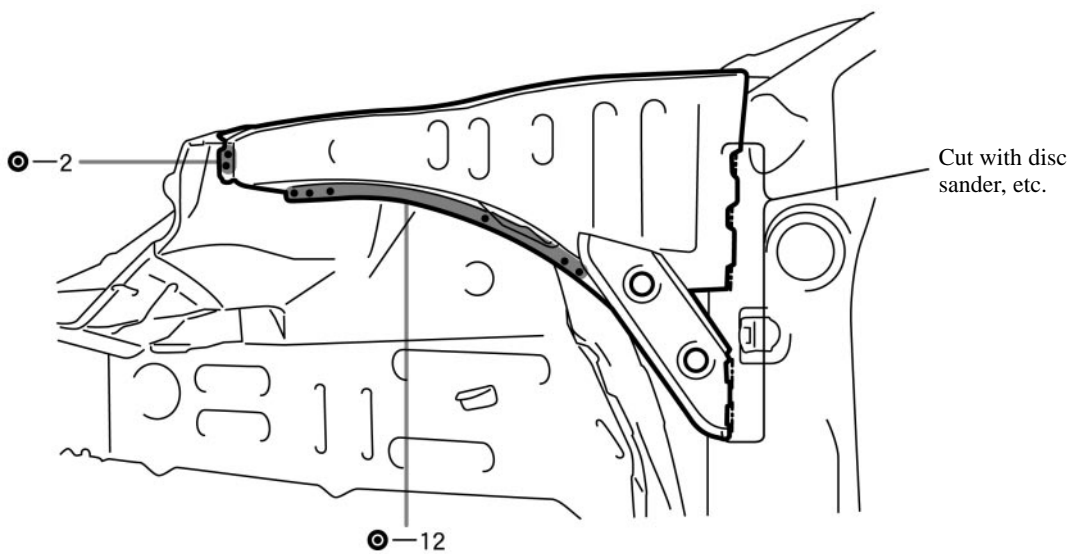
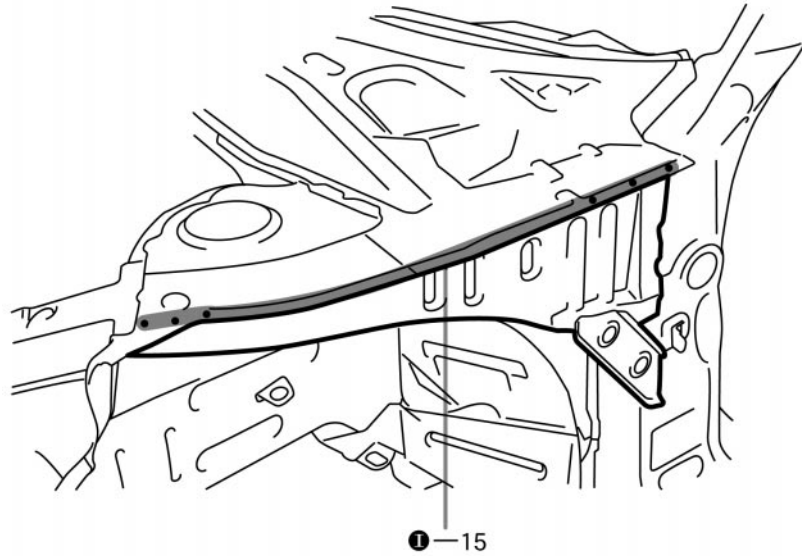


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3. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
 4. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
 5. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
 6. APPLYING UNDER COATING (See page PC-6)
 7. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

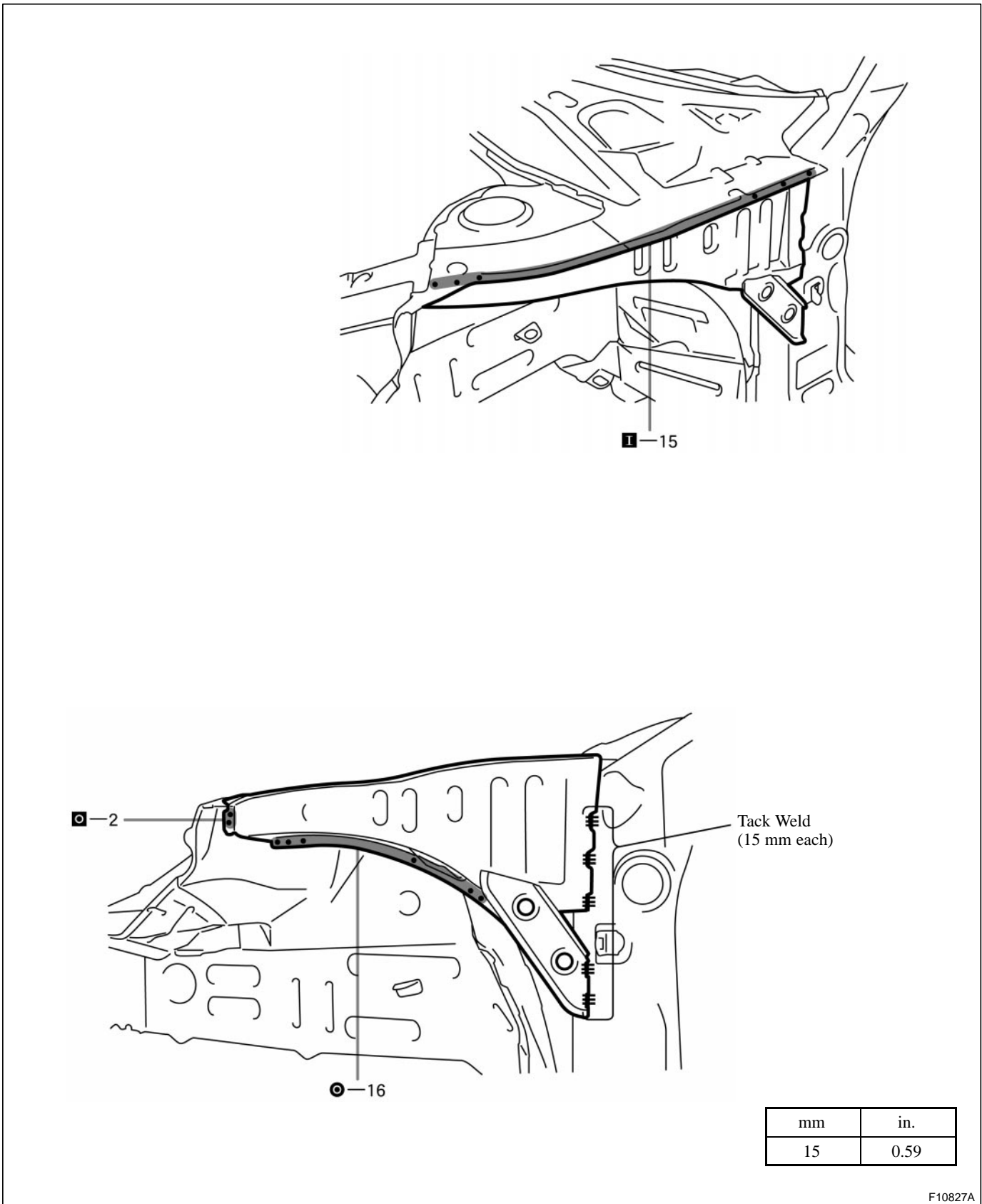
FRONT FENDER APRON LOWER GUSSET (ASSY)

REPLACEMENT

1. REMOVE FRONT FENDER APRON LOWER GUSSET



2. INSTALL FRONT FENDER APRON LOWER GUSSET



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3. APPLYING ANTI-RUST AGENT

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

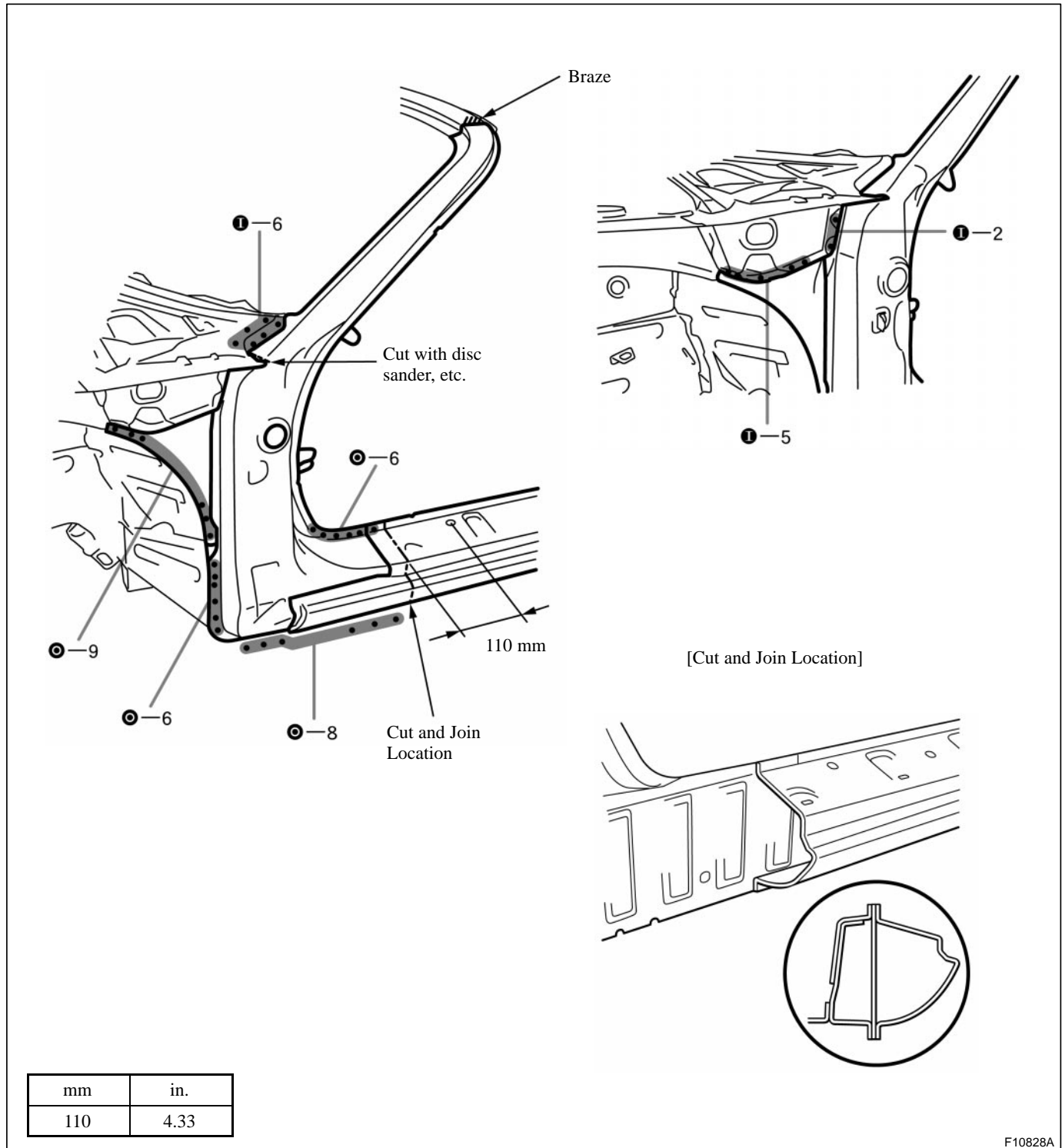
FRONT BODY PILLAR (CUT)

REPLACEMENT

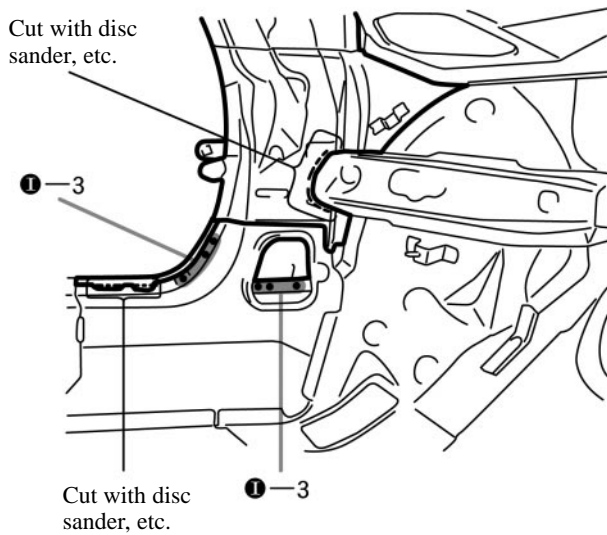
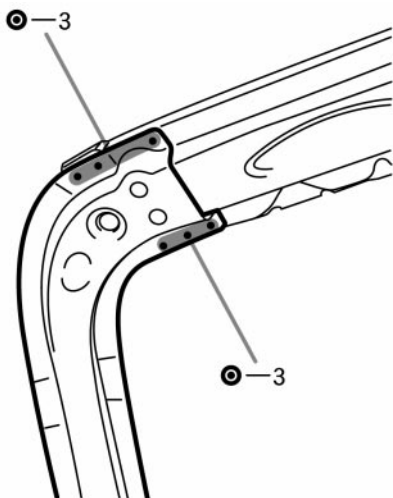
1. REMOVE FRONT FENDER APRON LOWER GUSSET (See page BP-36)
2. REMOVE FRONT BODY PILLAR
 - (a) Cut and join the parts at the location as shown below.
 - (b) Heat the brazed area of the roof panel, and scrape off the brazing with a wire brush.

HINT:

Be careful not to overheat the roof panel.



mm	in.
110	4.33



3. INSTALL FRONT BODY PILLAR

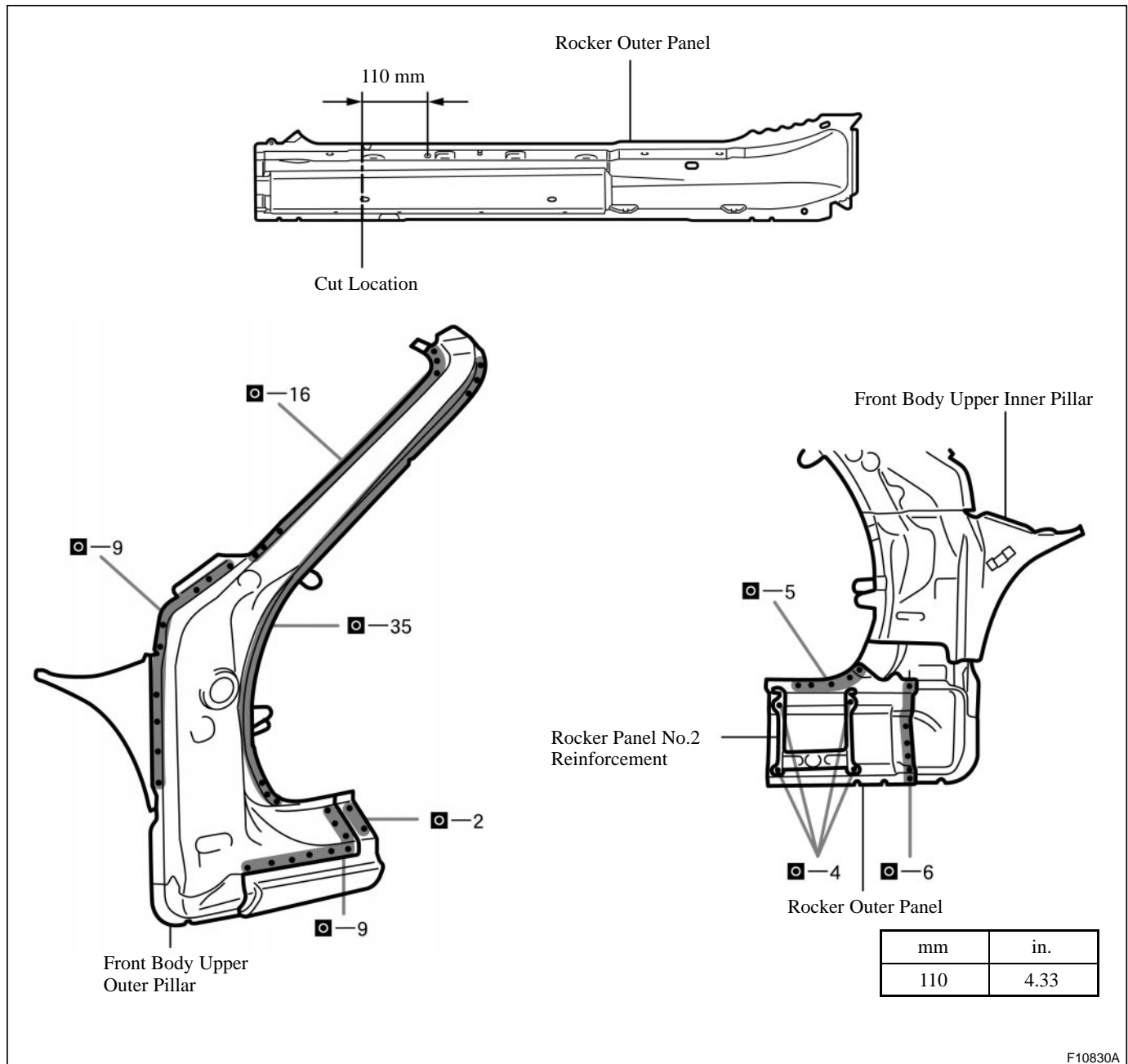
HINT:

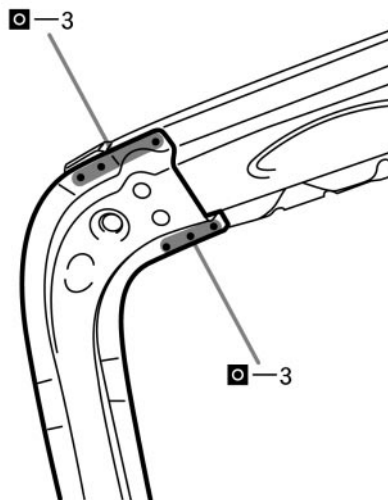
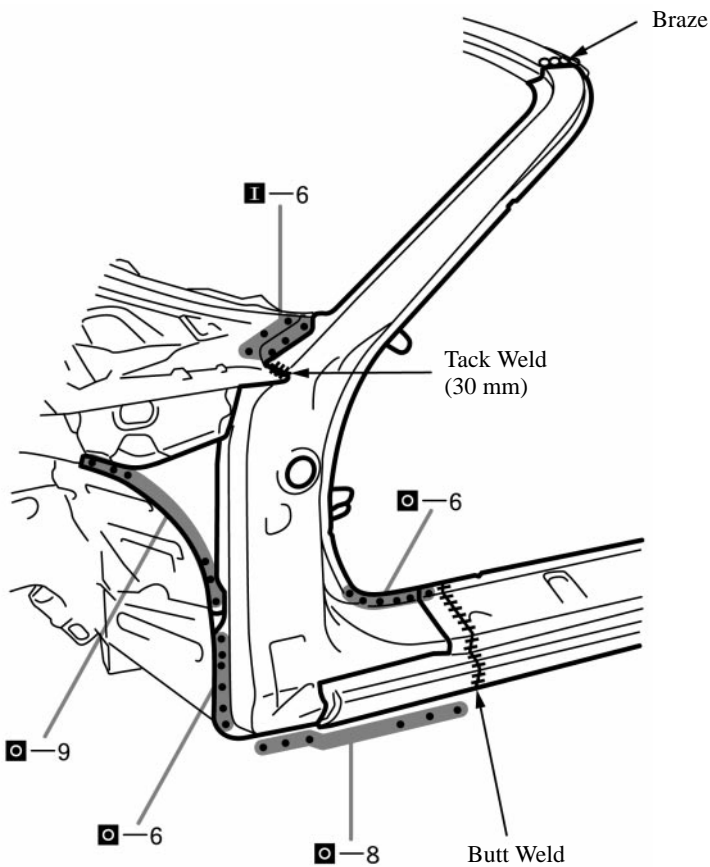
Inspect the fitting of the front door, front fender and windshield glass, etc., before welding, since this affects the appearance of the finish.

- (a) Cut the new parts for the rocker outer panel at the location as shown below.
- (b) Before temporarily installing the new parts, weld the front body upper outer pillar, rocker outer panel, rocker panel No.2 reinforcement and front body upper inner pillar with standard points.
- (c) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.
- (d) Braze the roof panel connection.

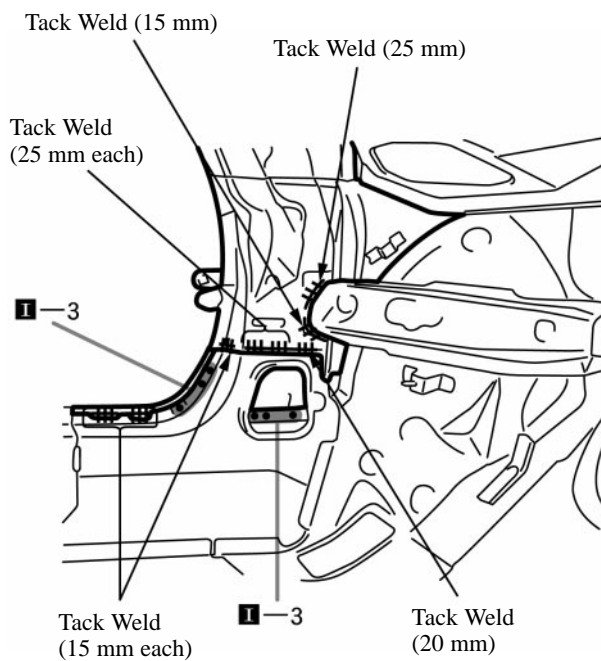
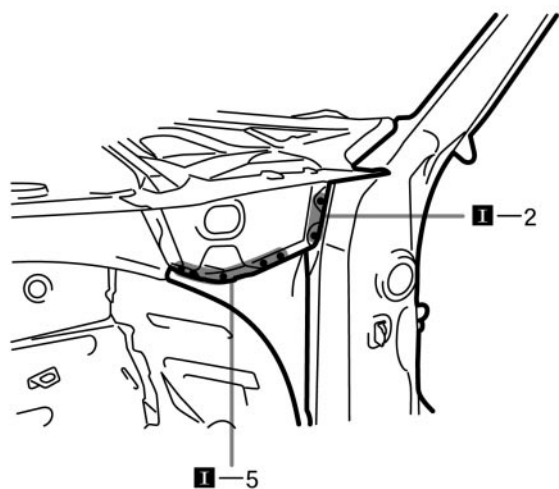
HINT:

Before performing these operations, place a wet rag on the front body pillar to protect it from damage.





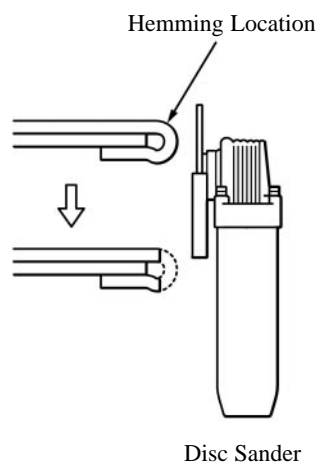
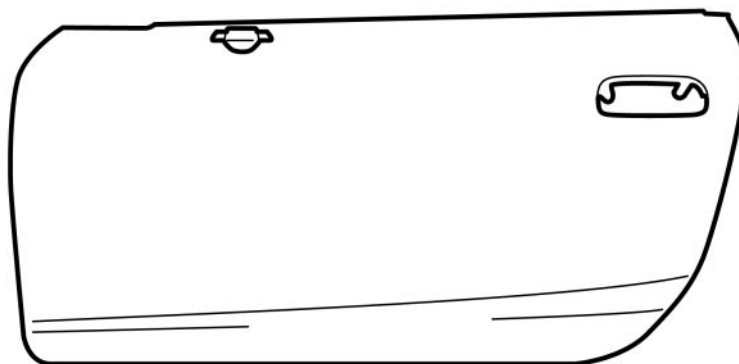
mm	in.
15	0.59
20	0.79
25	0.98
30	1.18



4. MEASURING THE FRONT LUGGAGE COMPARTMENT DIMENSIONS (See page BP-95)
5. MEASURING THE OPENING PORTION DIMENSIONS (See page BP-95)
6. INSTALL FRONT FENDER APRON LOWER GUSSET (See page BP-37)
7. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)
8. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)
9. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRONT DOOR OUTER PANEL (ASSY)**REPLACEMENT****1. REMOVE FRONT DOOR OUTER PANEL**

- (a) After grinding off the hemming location, remove the outer panel.



2. INSTALL FRONT DOOR OUTER PANEL

- (a) Before temporarily installing the new parts, apply body sealer to the reinforcement, side impact protection beam and back side of the new parts.

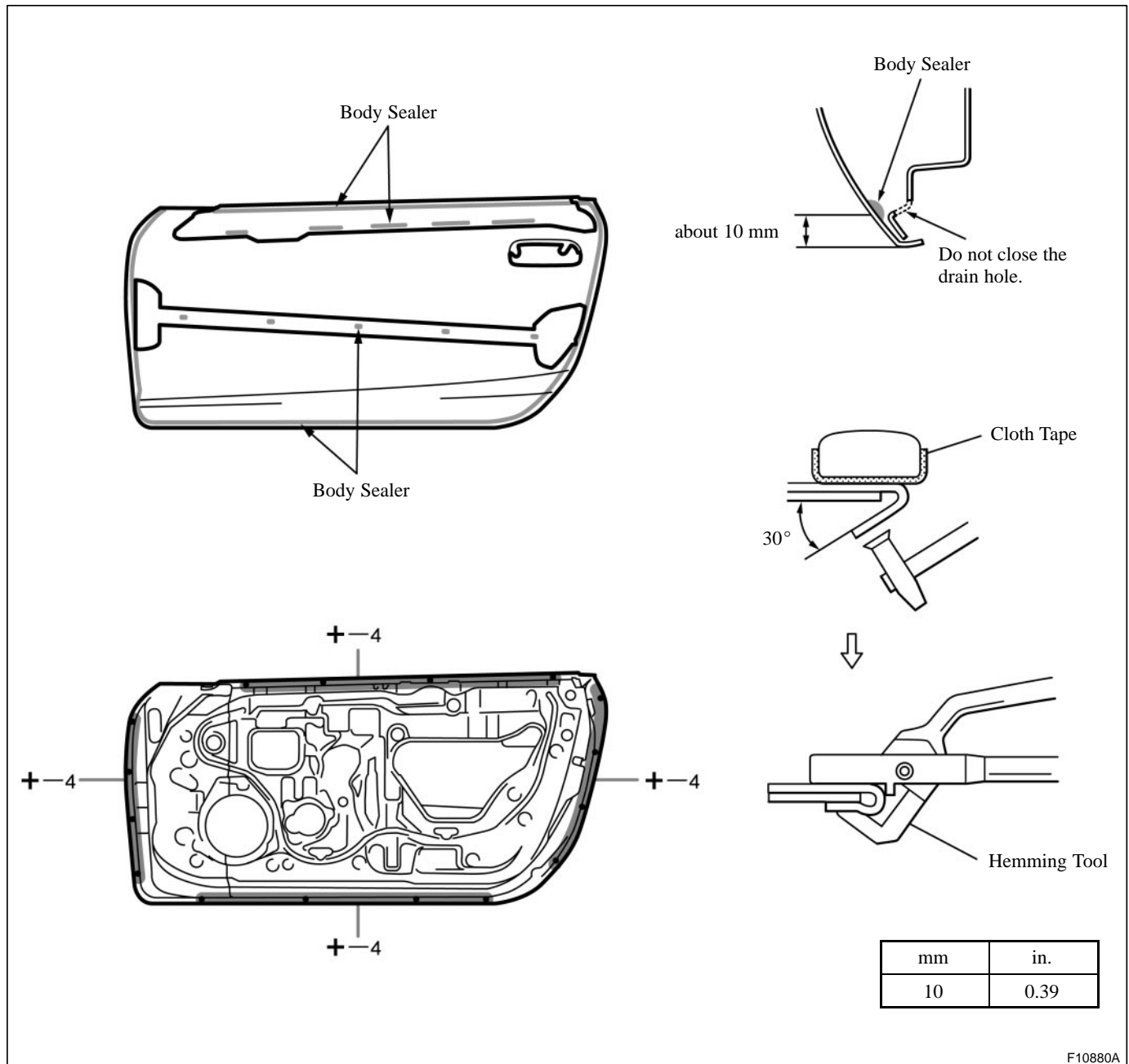
HINT:

- Apply just enough sealer for the reinforcement and side impact beam to touch the new panel. Apply sealer evenly around the flange area, about 10 mm (0.39 in.) from the edge, as shown.
- For other sealing points, refer to section PC.

- (b) Bend the flange hem about 30° with a hammer and dolly, then fasten tightly with a hemming tool.

HINT:

- Perform hemming in three steps, being careful not to warp the panel.
- If a hemming tool cannot be used, hem with a hammer and dolly.



3. APPLYING SEALER TO THE DOOR PARTS (See page PC-1)**4. APPLYING ANTI-RUST AGENT**

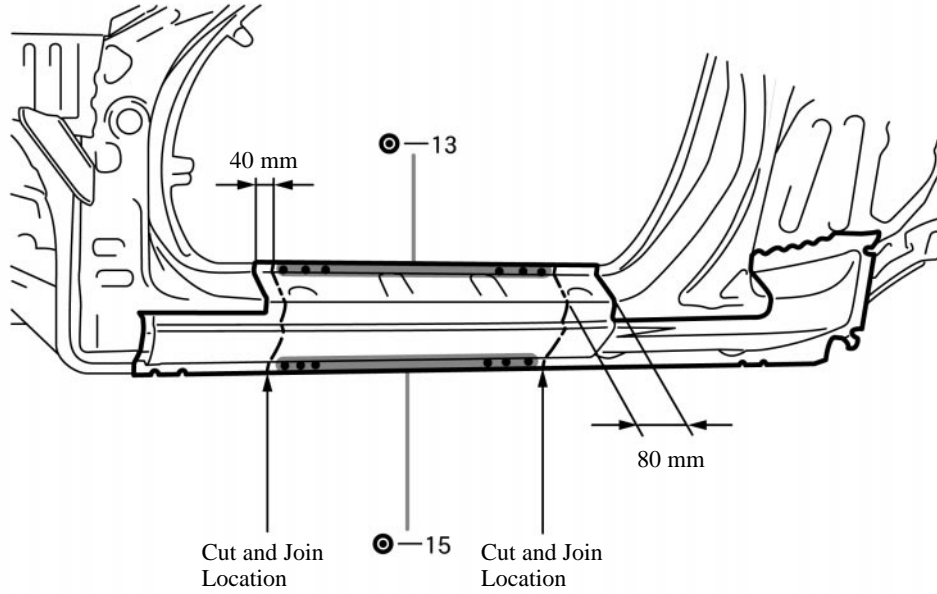
- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

ROCKER OUTER PANEL (CUT-P)

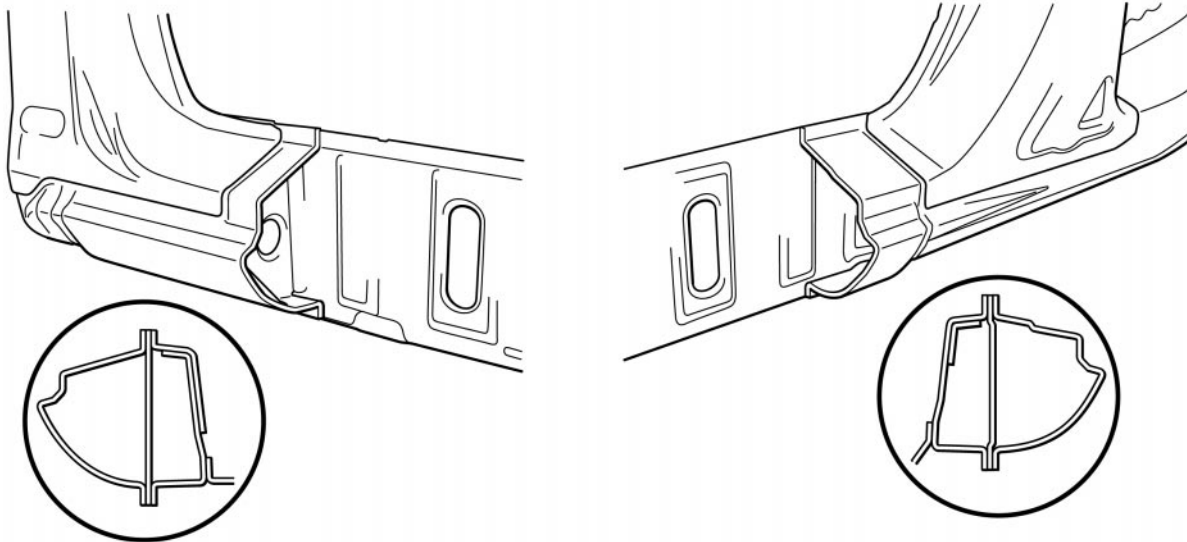
REPLACEMENT

1. REMOVE ROCKER OUTER PANEL

- (a) Cut and join the parts at the locations as shown below.



[Cut and Join Location]



mm	in.
40	1.57
80	3.15

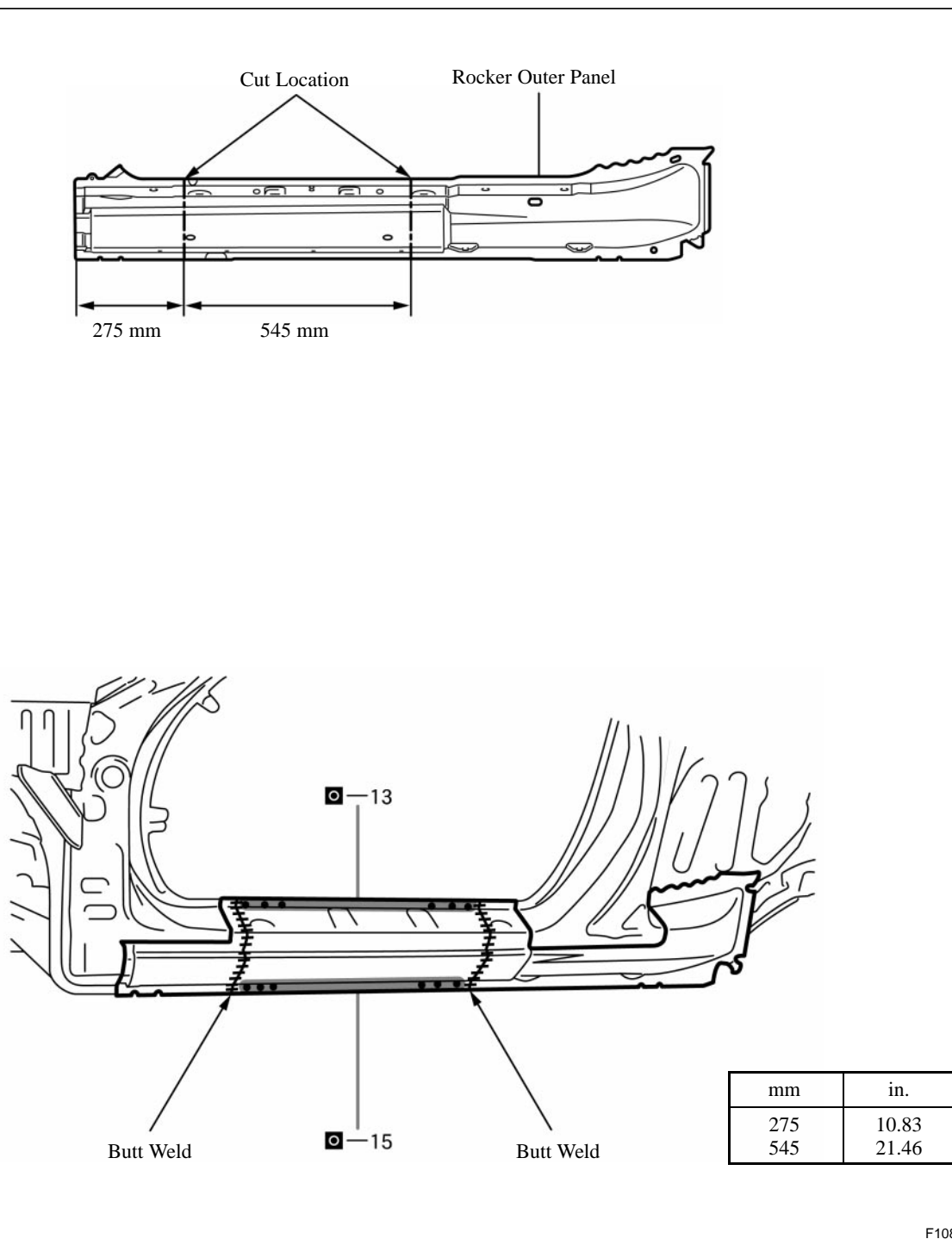
2. INSTALL ROCKER OUTER PANEL

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Inspect the fitting of the front door, etc., before welding, since this affects the appearance of the finish.

- (b) Cut the new parts for the rocker outer panel at the locations as shown below.



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3. MEASURING THE OPENING PORTION DIMENSIONS (See page BP-95)

4. APPLYING ANTI-RUST AGENT

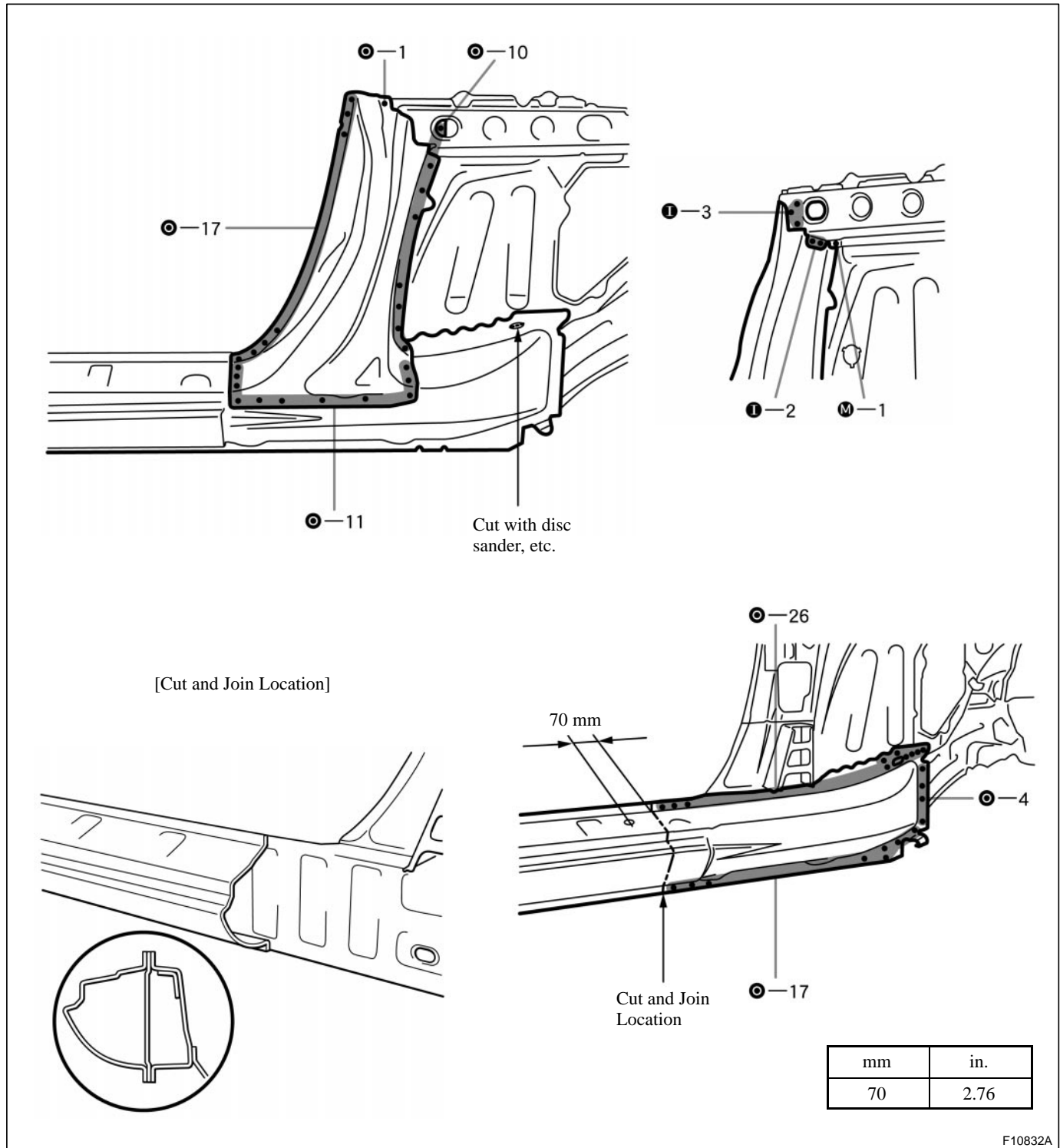
- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

CENTER BODY OUTER PILLAR (CUT)

REPLACEMENT

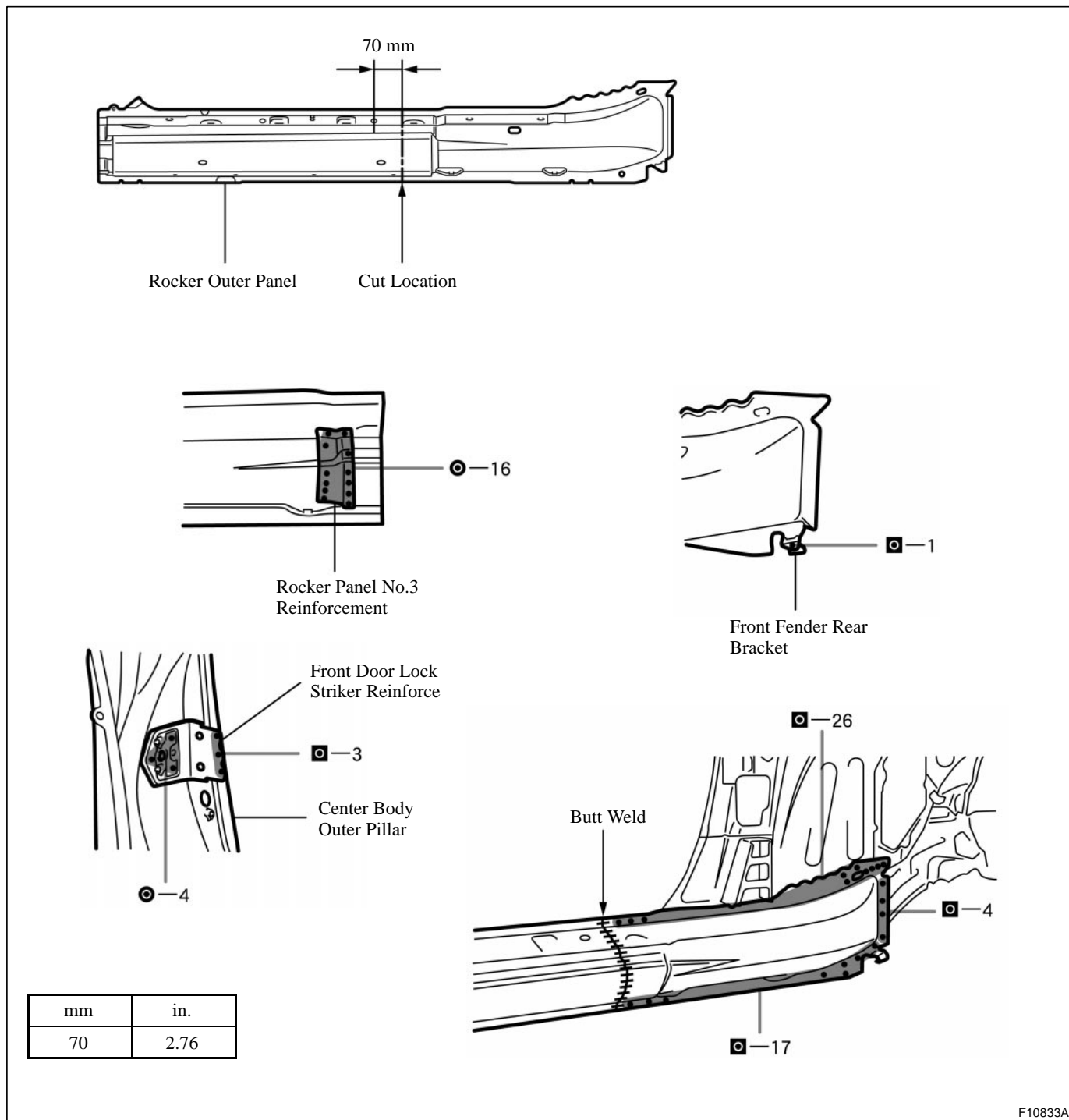
1. REMOVE CENTER BODY OUTER PILLAR

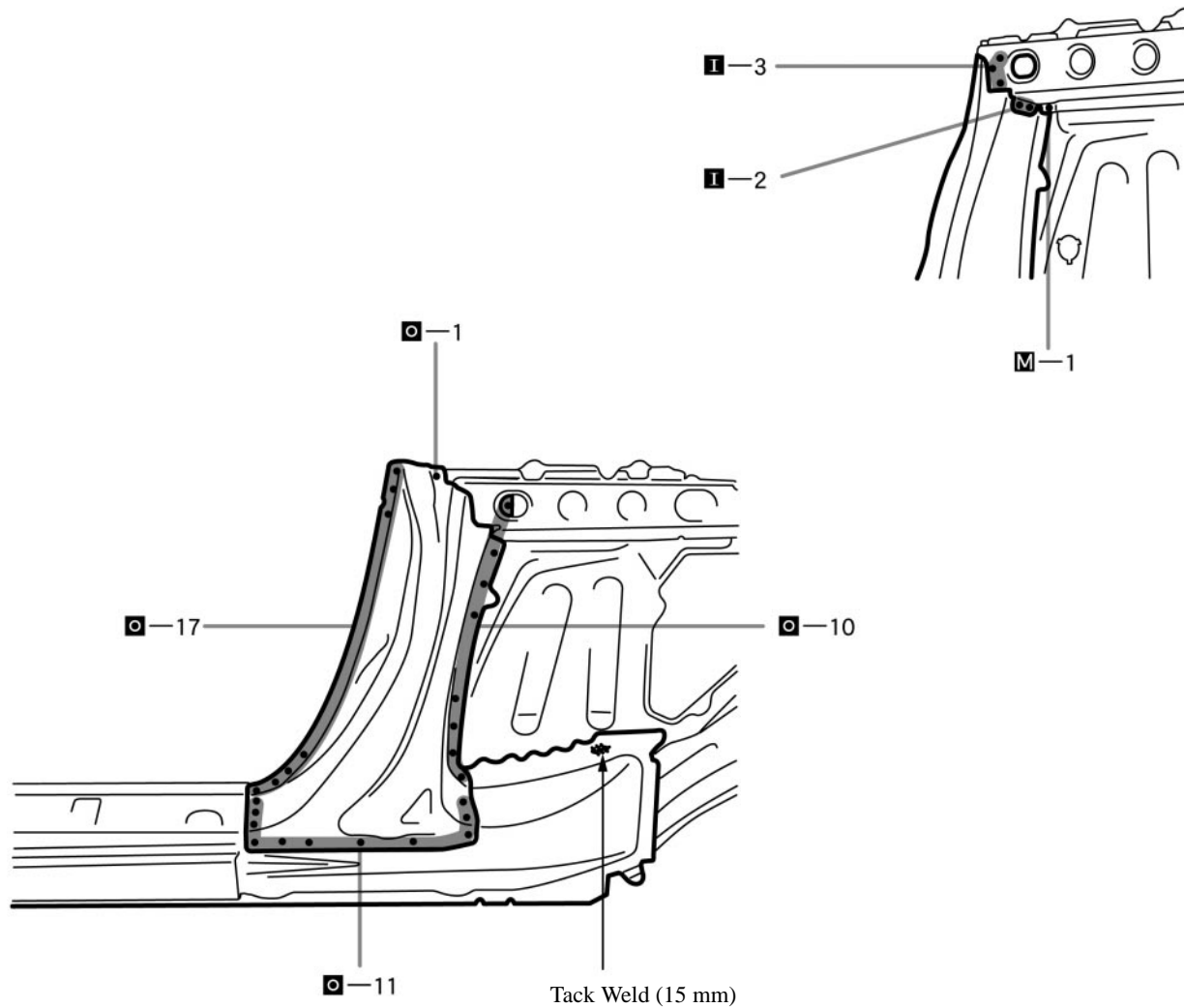
- (a) Cut the rocker outer panel at the location as shown below.
- (b) Simultaneously exchange the rocker outer panel and center body outer pillar.
- (c) After removing the center body outer pillar, remove the rocker outer panel.



2. INSTALL CENTER BODY OUTER PILLAR

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.
HINT:
 Inspect the fitting of the front door and quarter panel, etc., before welding since this affects the appearance of the finish.
- (b) Cut the new parts for the rocker outer panel at the location as shown below.
- (c) Weld the rocker panel No.3 reinforcement and front fender rear bracket to the rocker outer panel of the new parts at standard points.
- (d) Weld the front door lock striker reinforce to the center body outer pillar of the new parts at standard points.





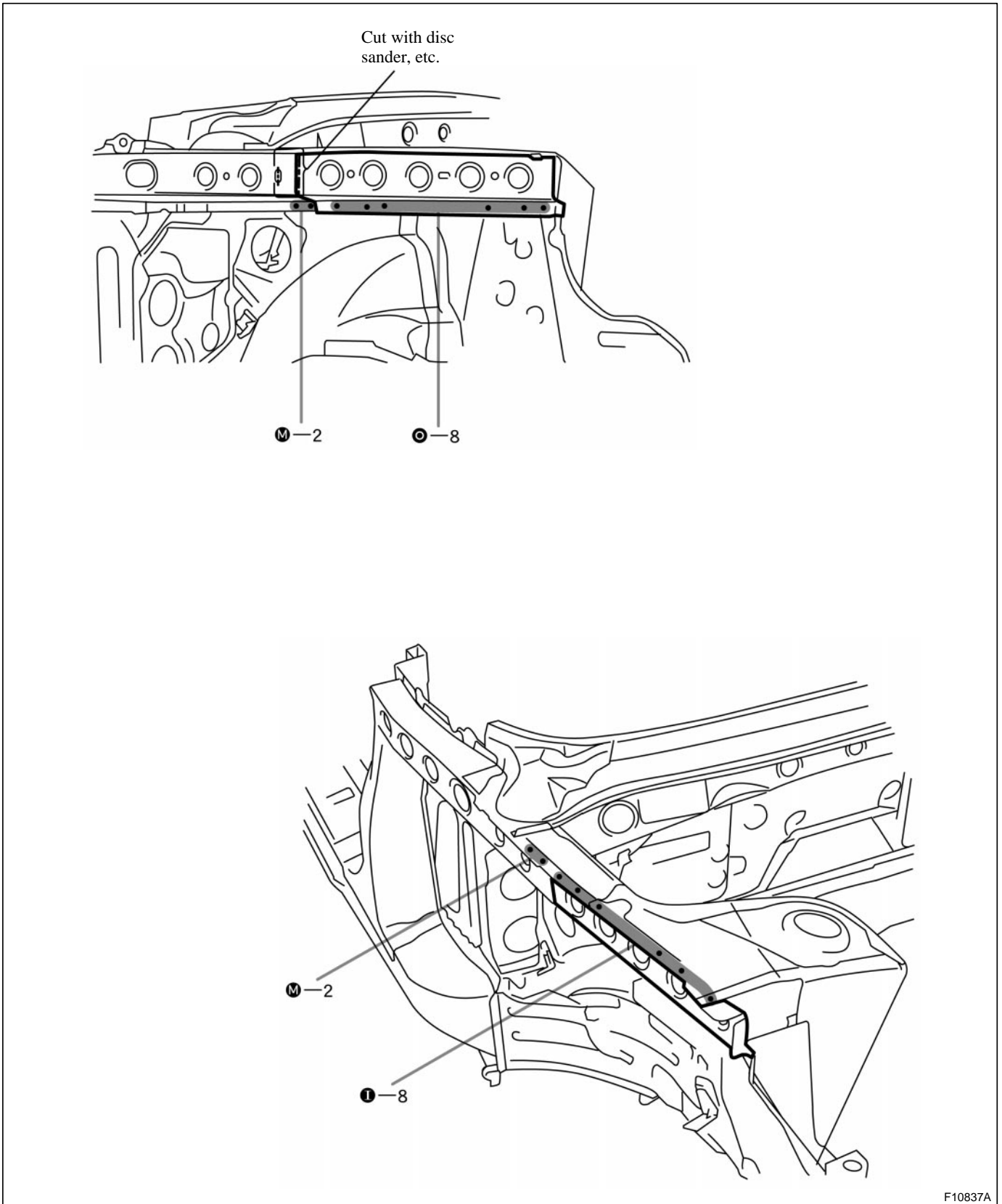
mm	in.
15	0.59

F10834A

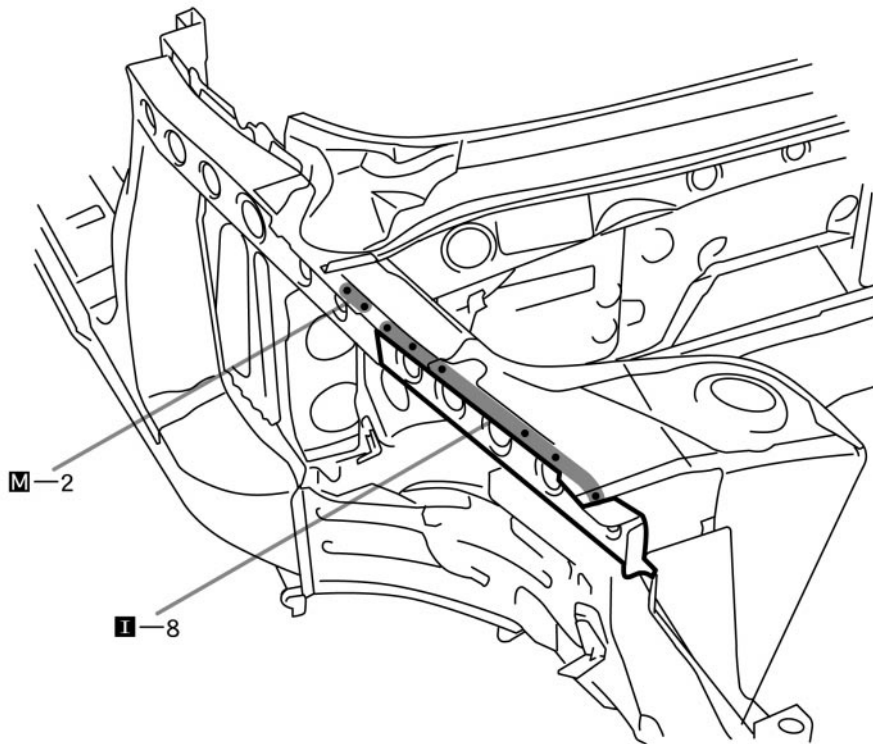
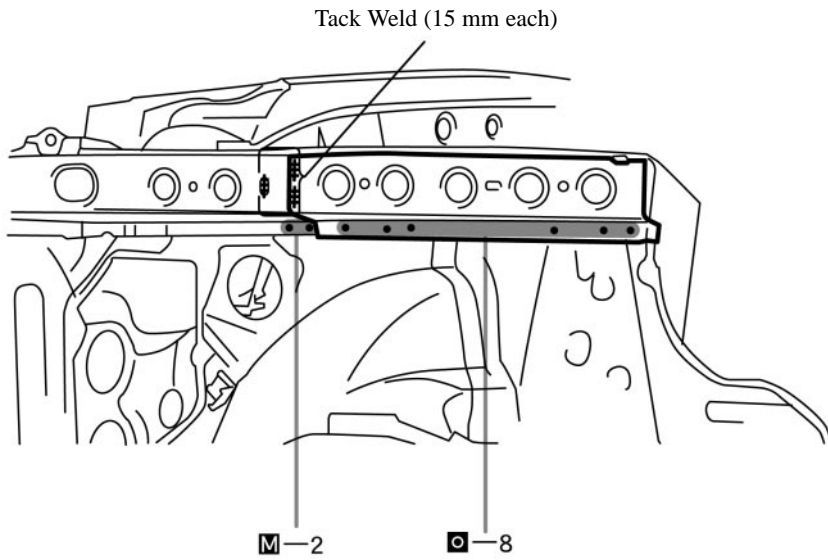
3. MEASURING THE OPENING PORTION DIMENSIONS (See page BP-95)
4. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)
5. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

SIDE PANEL NO.4 REINFORCEMENT (ASSY) REPLACEMENT

1. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
2. REMOVE SIDE PANEL NO.4 REINFORCEMENT



3. INSTALL SIDE PANEL NO.4 REINFORCEMENT



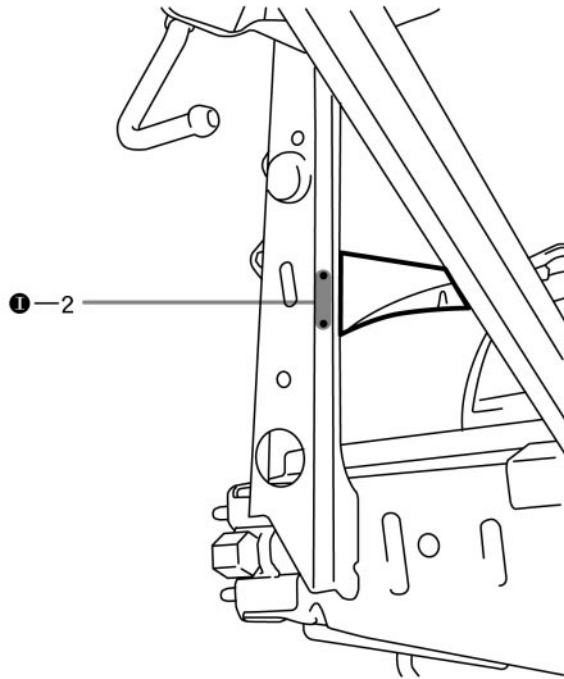
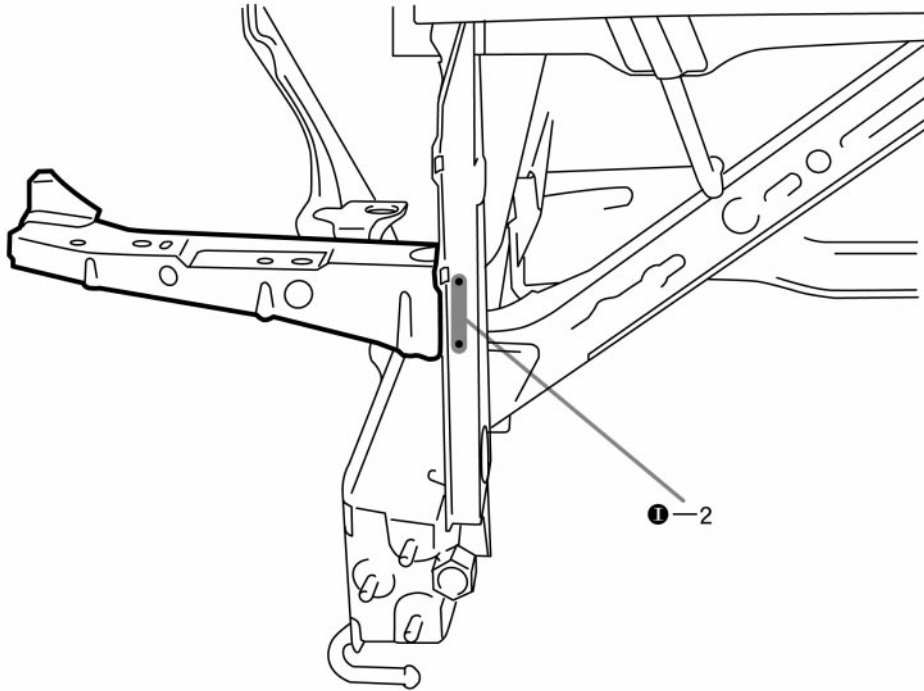
mm	in.
15	0.59

-
4. **INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)**
 5. **APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
 6. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

MOUNTING BRACKET (ASSY)

REPLACEMENT

1. REMOVE MOUNTING BRACKET

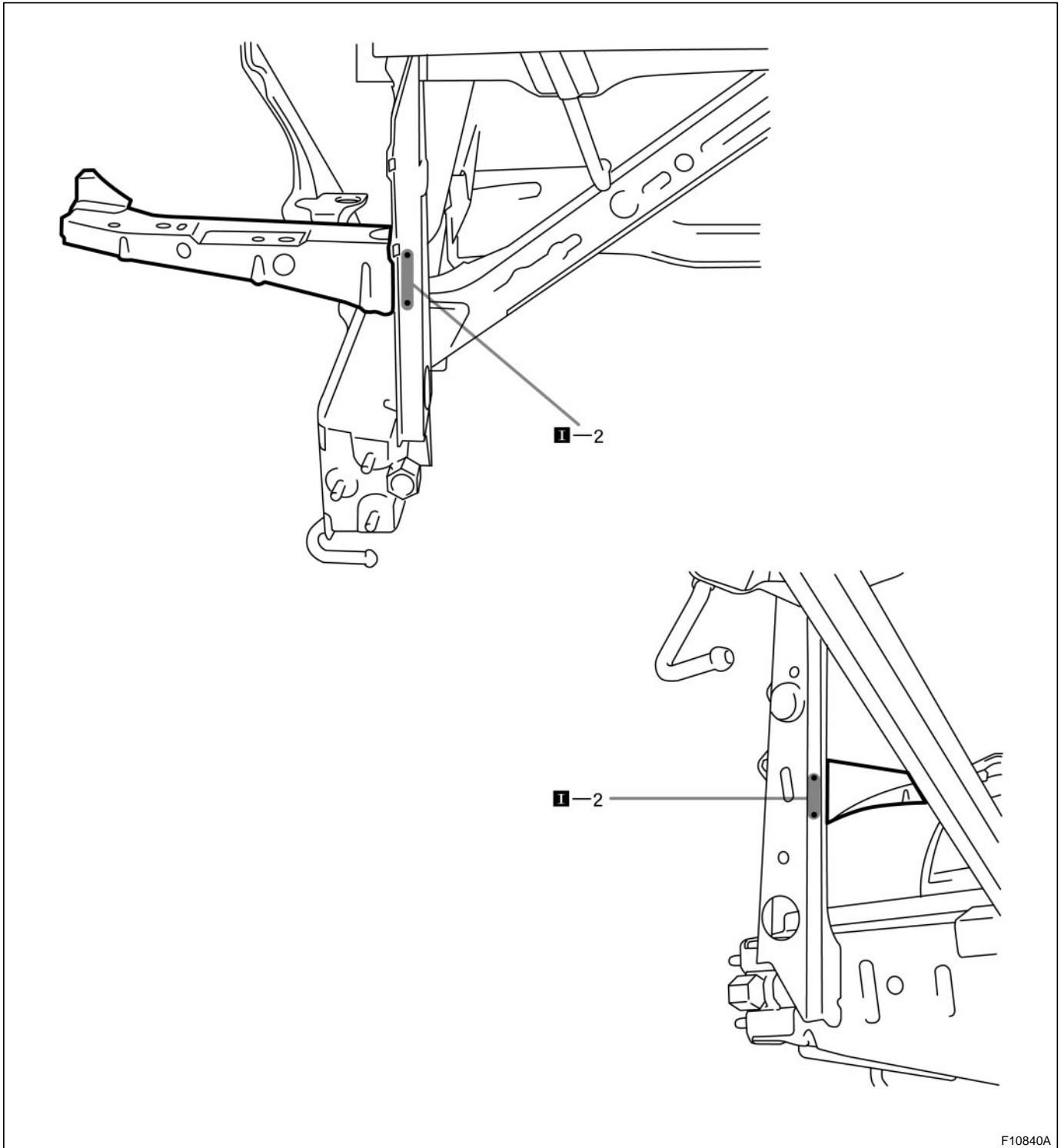


2. INSTALL MOUNTING BRACKET

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Inspect the fitting of the quarter panel and rear combination light etc., before welding, since this affects the appearance of the finish.



F10840A

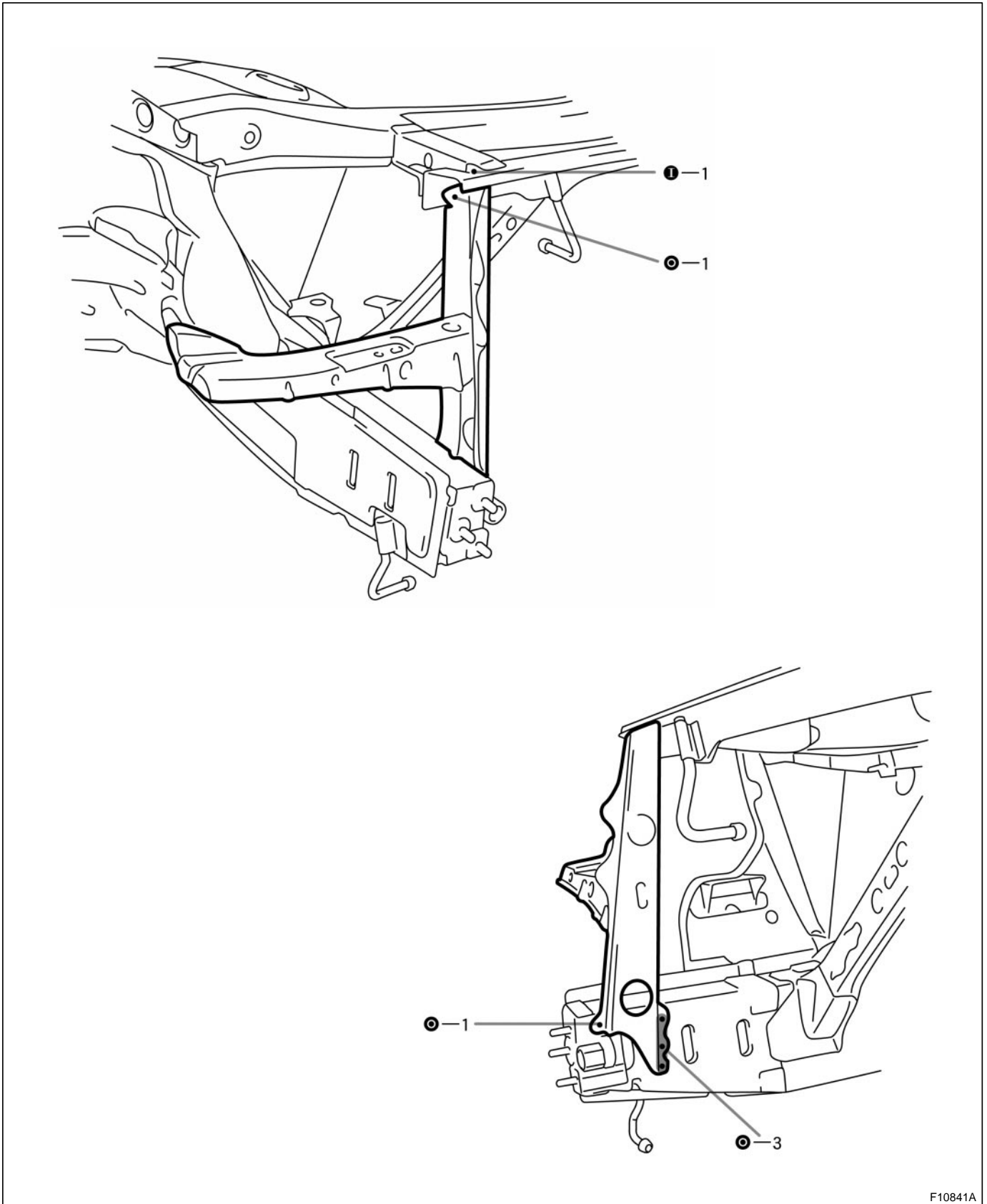
3. APPLYING ANTI-RUST AGENT

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

LOWER BACK SIDE PANEL (ASSY)

REPLACEMENT

1. REMOVE LOWER BACK SIDE PANEL

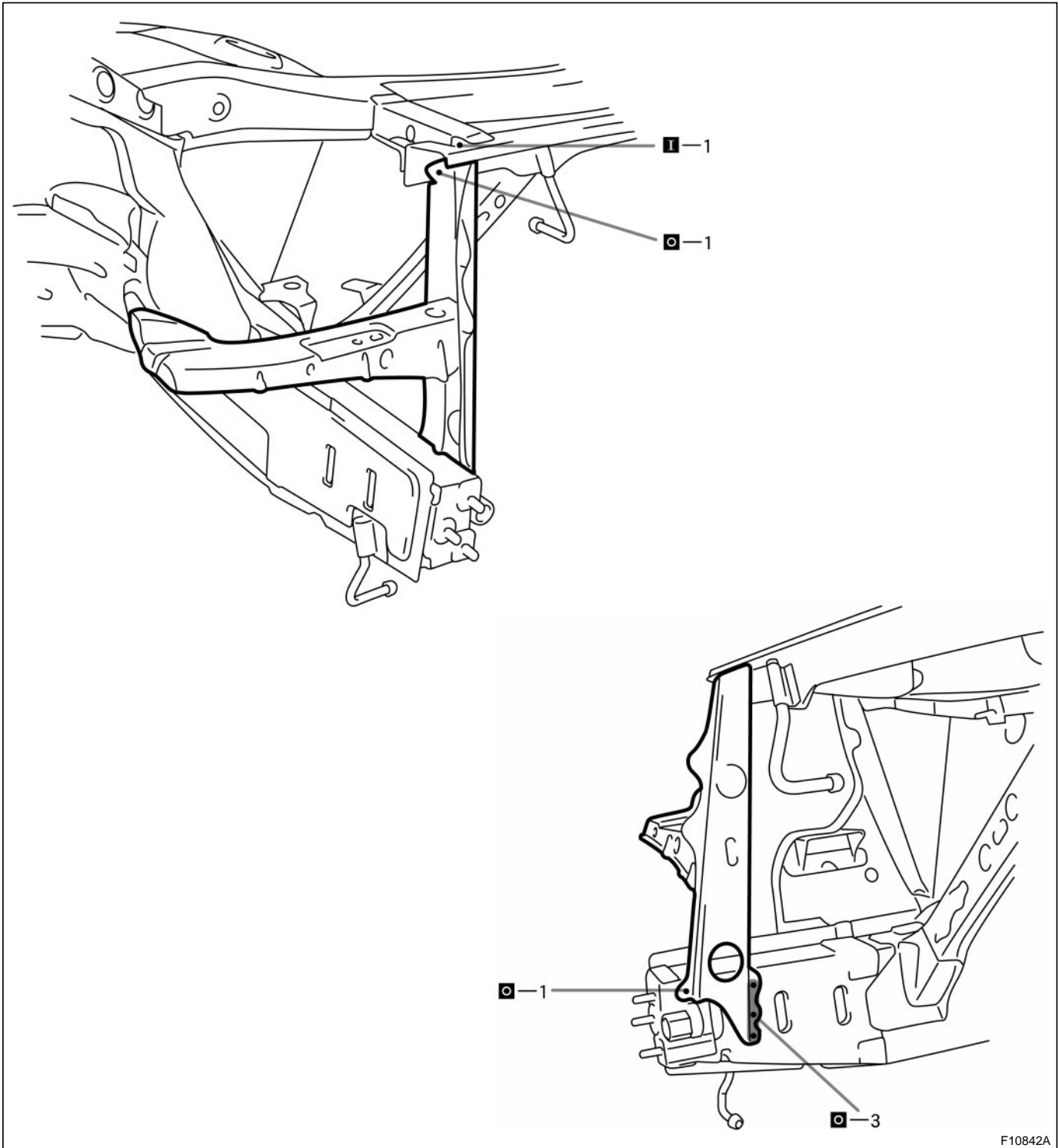


2. INSTALL LOWER BACK SIDE PANEL

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Inspect the fitting of the quarter panel and rear combination light, etc., before welding, since this affects the appearance of the finish.



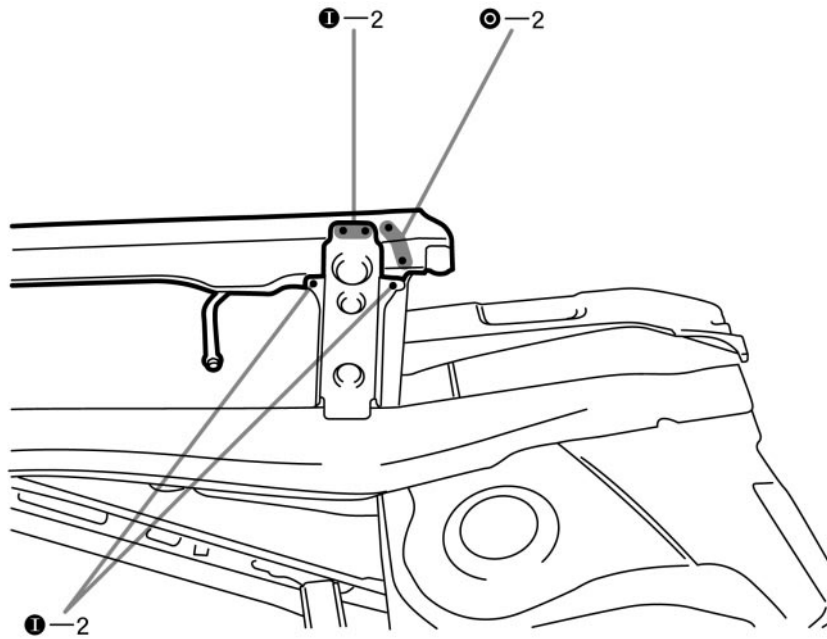
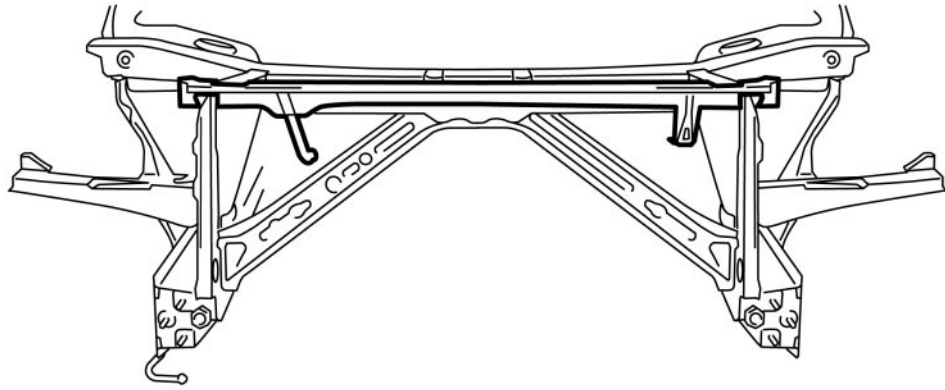
3. APPLYING ANTI-RUST AGENT

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

BODY LOWER BACK UPPER PANEL (ASSY)

REPLACEMENT

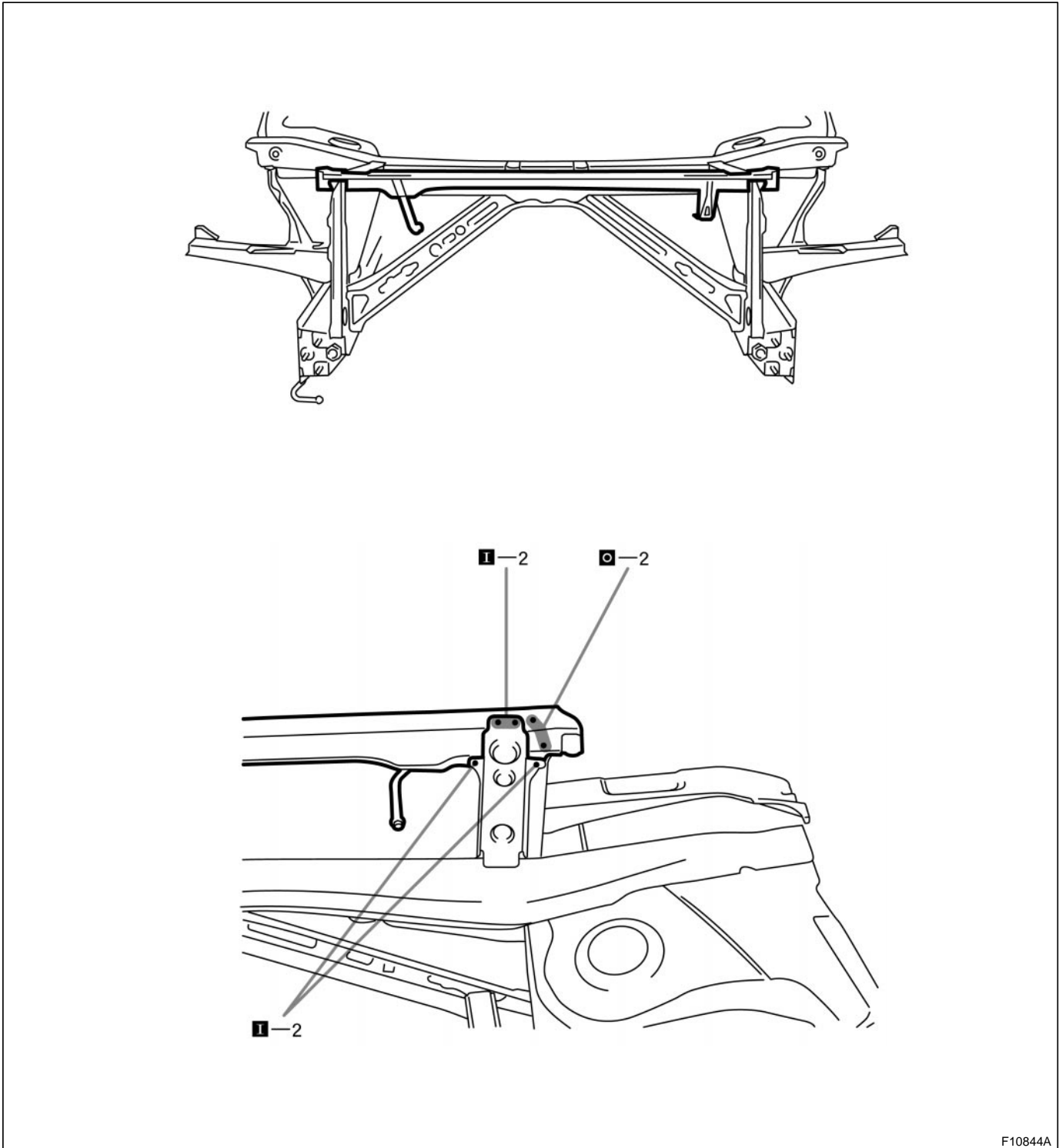
1. REMOVE BODY LOWER BACK UPPER PANEL



2. INSTALL BODY LOWER BACK UPPER PANEL

HINT:

Inspect the fitting of the engine hood and rear combination light, etc., before welding, since this affects the appearance of the finish.



F10844A

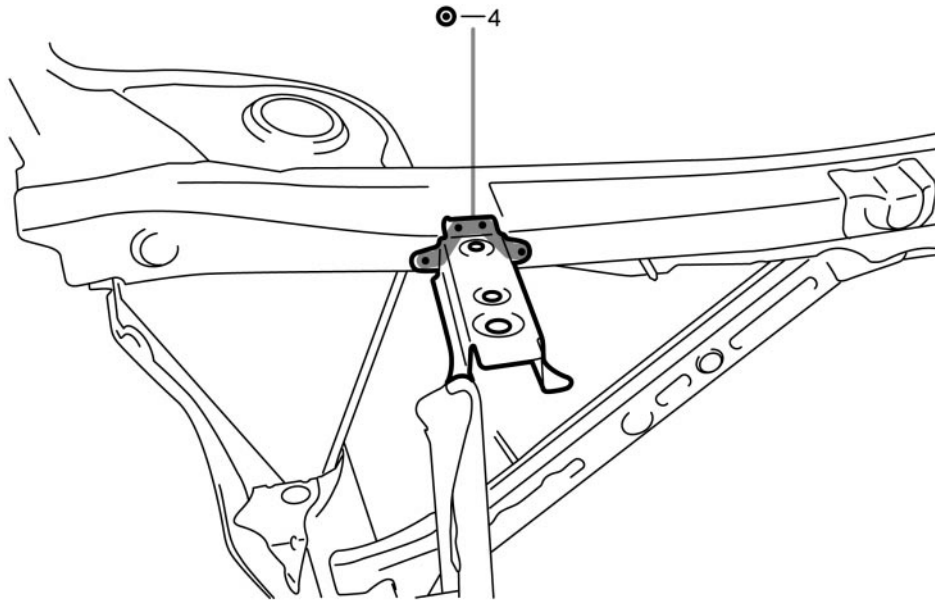
3. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)

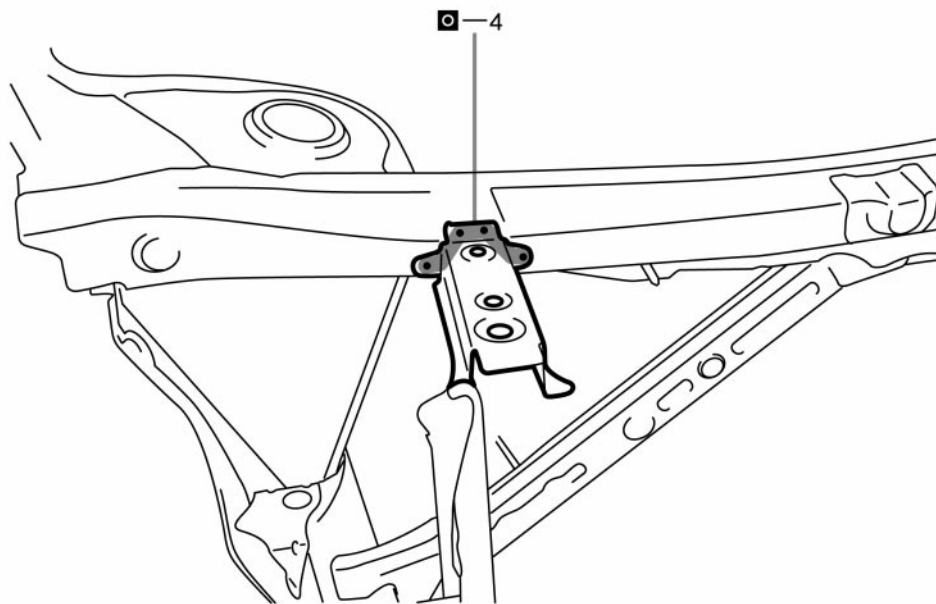
4. APPLYING ANTI-RUST AGENT

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

BODY LOWER BACK PANEL (ASSY)**REPLACEMENT**

1. REMOVE BODY LOWER BACK UPPER PANEL (See page BP-58)
2. REMOVE BODY LOWER BACK PANEL



3. INSTALL BODY LOWER BACK PANEL

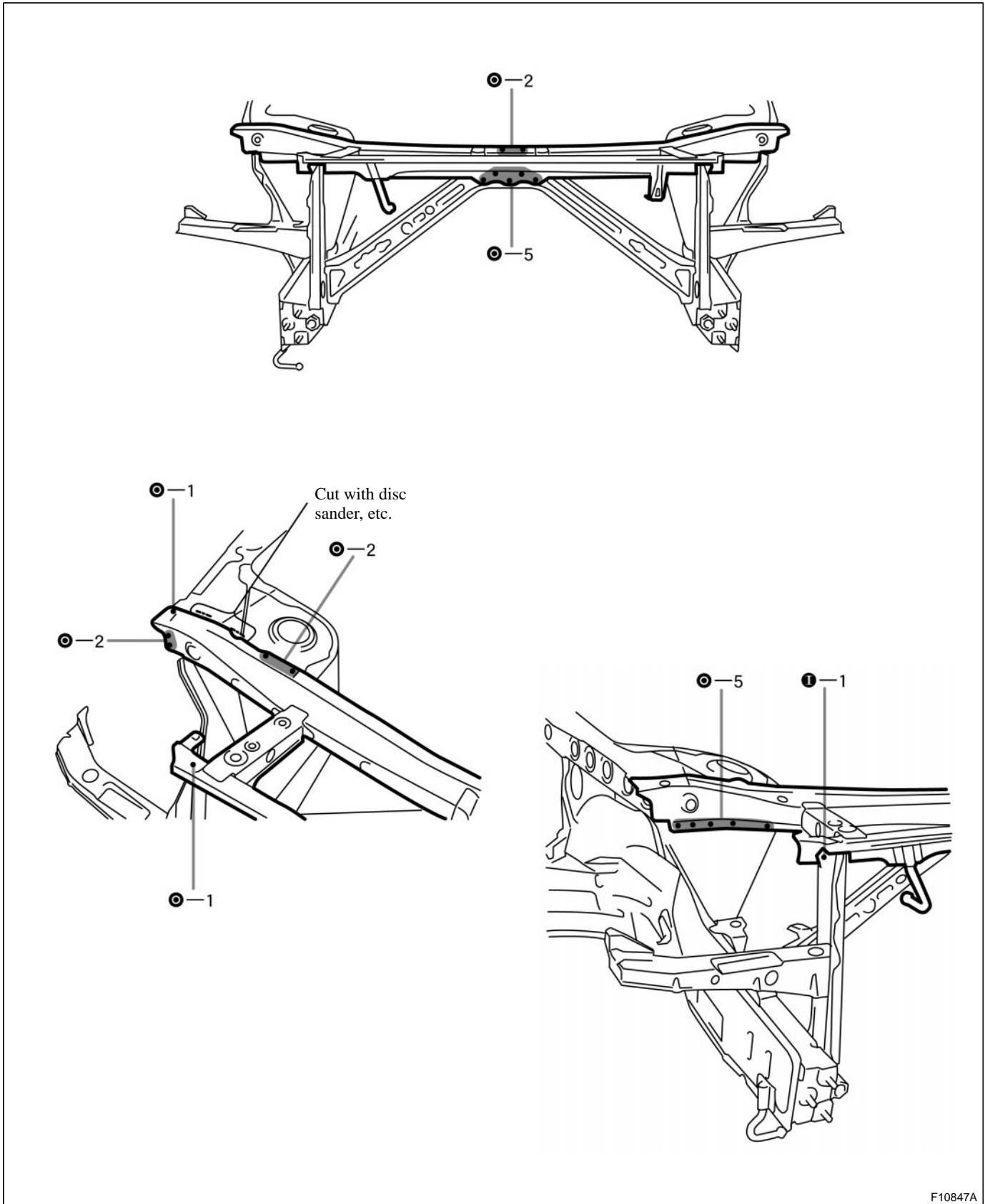
F10846A

- 4. INSTALL BODY LOWER BACK UPPER PANEL (See page BP-59)**
- 5. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
- 6. APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

FRAME REAR UPPER CROSSMEMBER (ASSY)

REPLACEMENT

1. REMOVE FRAME REAR UPPER CROSSMEMBER

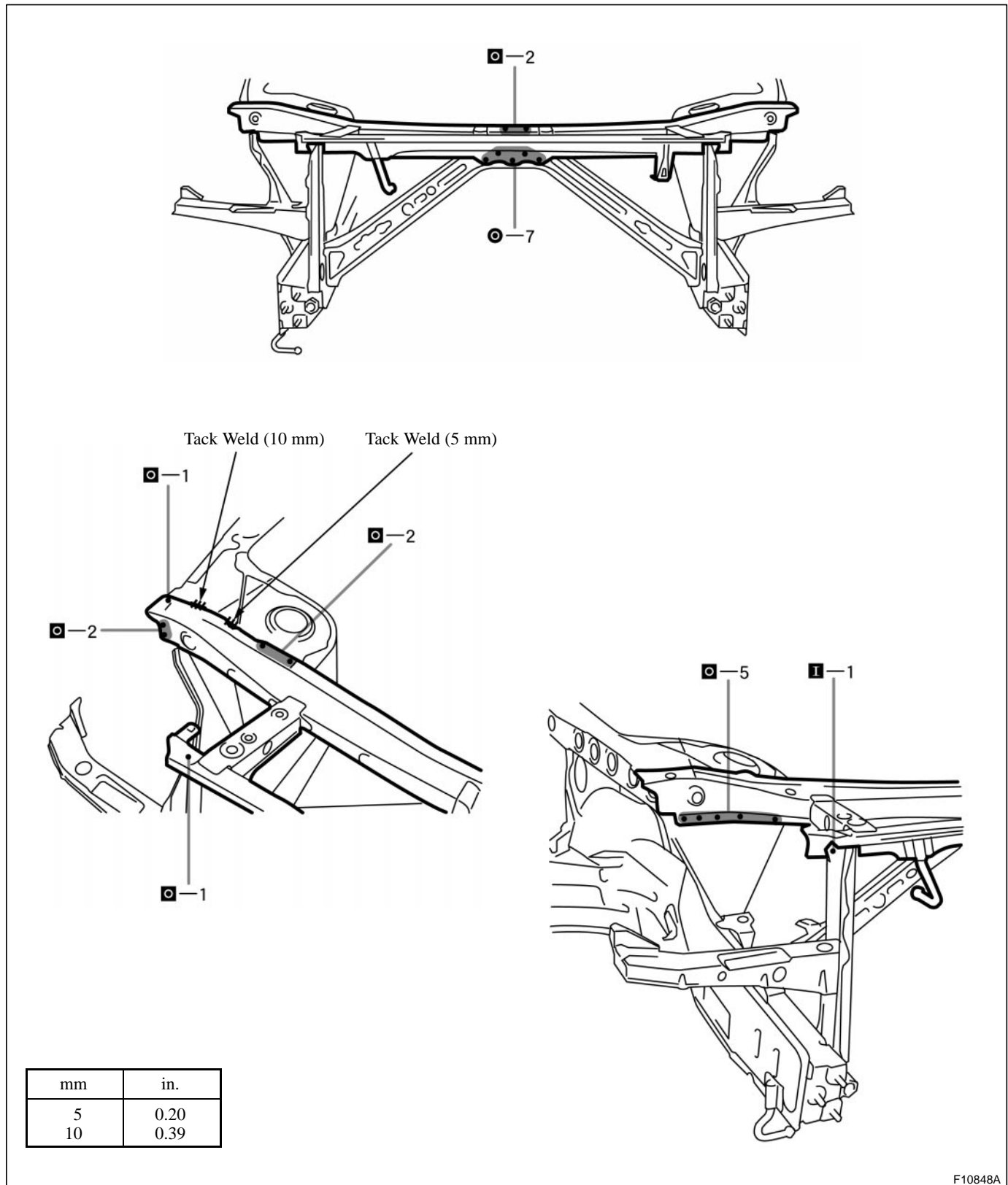


2. INSTALL FRAME REAR UPPER CROSSMEMBER

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Inspect the fitting of the engine hood and rear combination light, etc., before welding, since this affects the appearance of the finish.

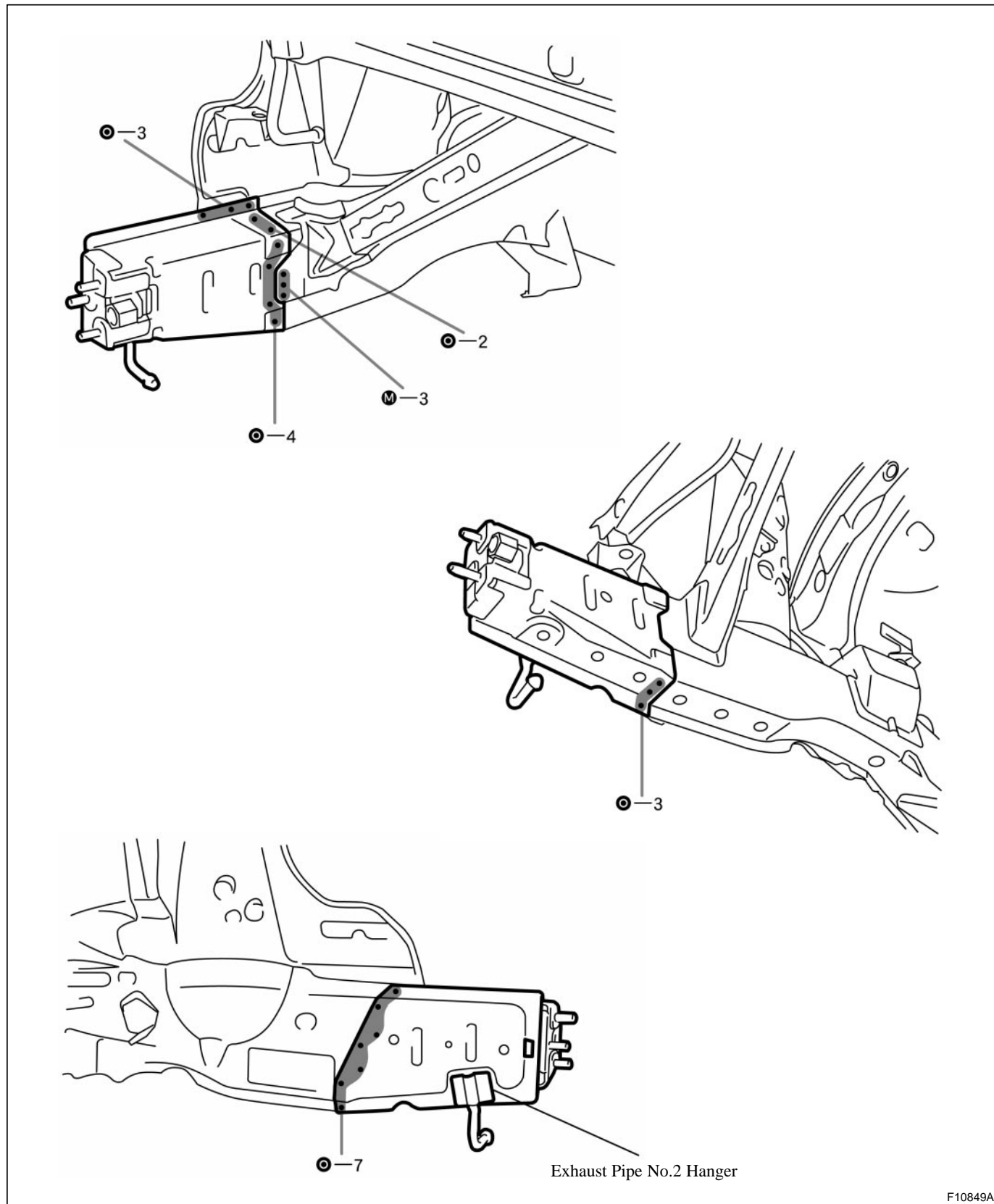


3. **MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)**
4. **APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
5. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

REAR FLOOR SIDE REAR MEMBER (ASSY)

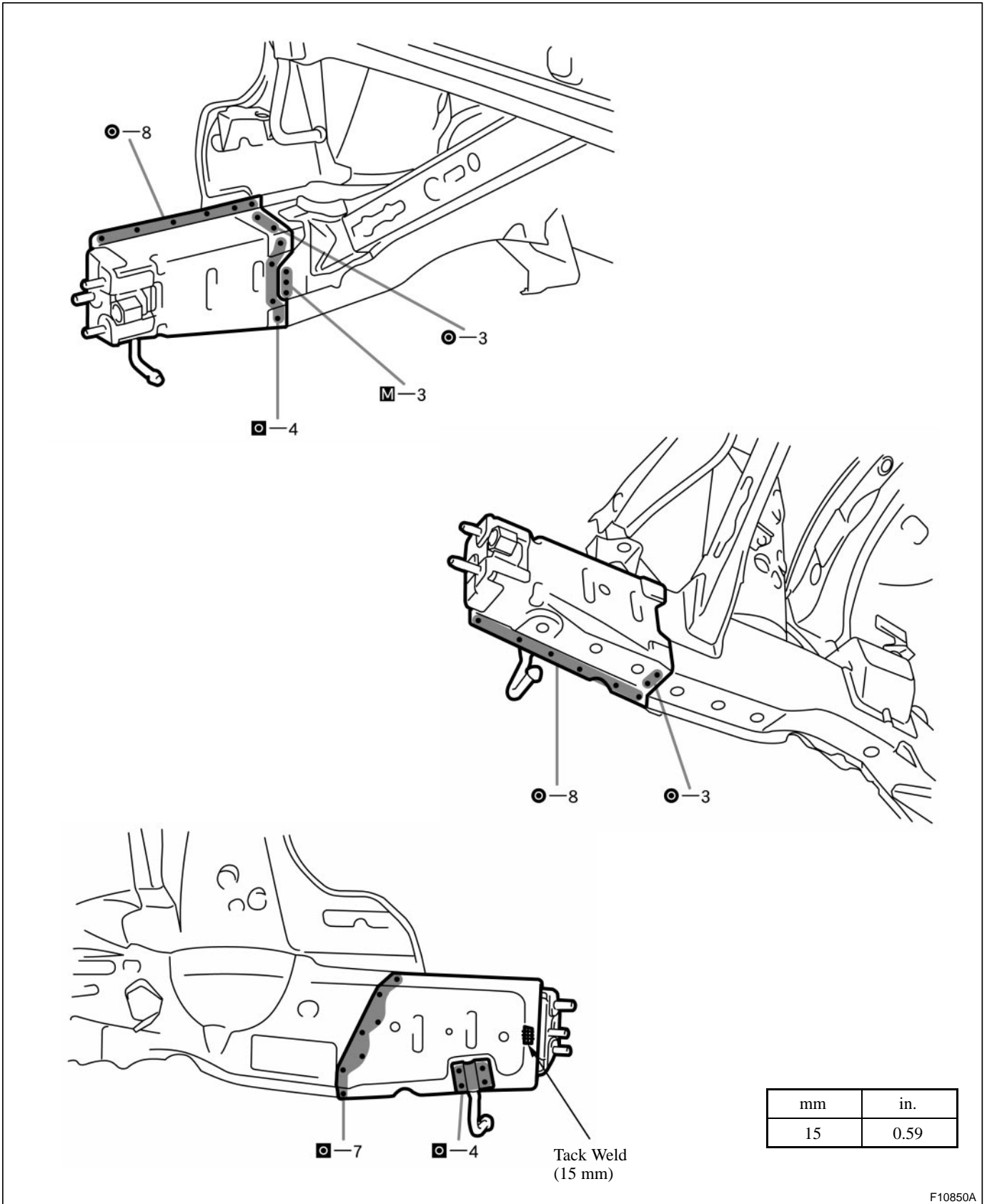
REPLACEMENT

1. REMOVE LOWER BACK SIDE PANEL (See page BP-56)
2. REMOVE REAR FLOOR SIDE REAR MEMBER



3. INSTALL REAR FLOOR SIDE REAR MEMBER

(a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

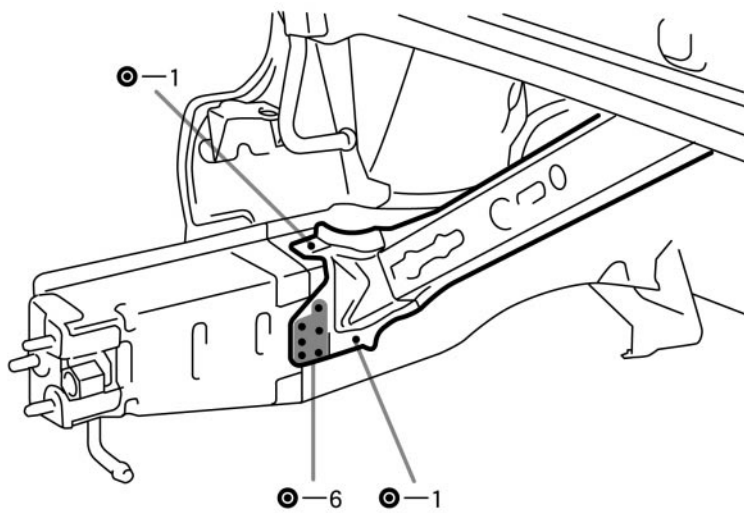
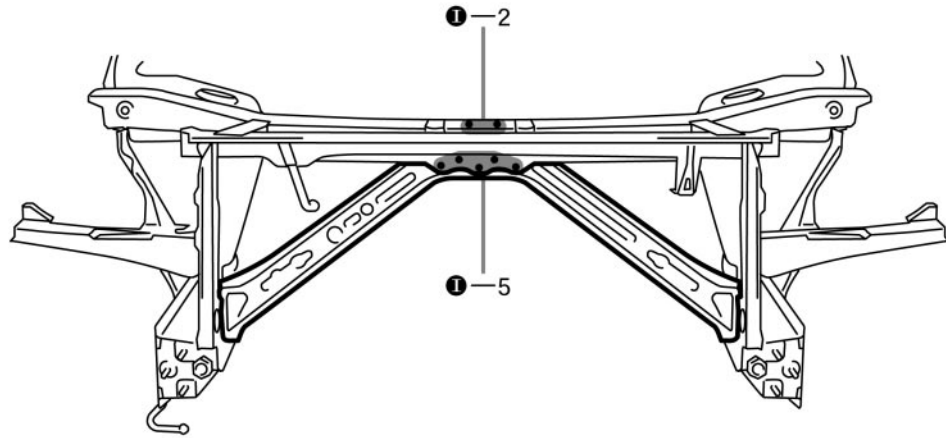


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4. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
 5. MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)
 6. INSTALL LOWER BACK SIDE PANEL (See page BP-57)
 7. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)
 8. APPLYING UNDER COATING (See page PC-6)
 9. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

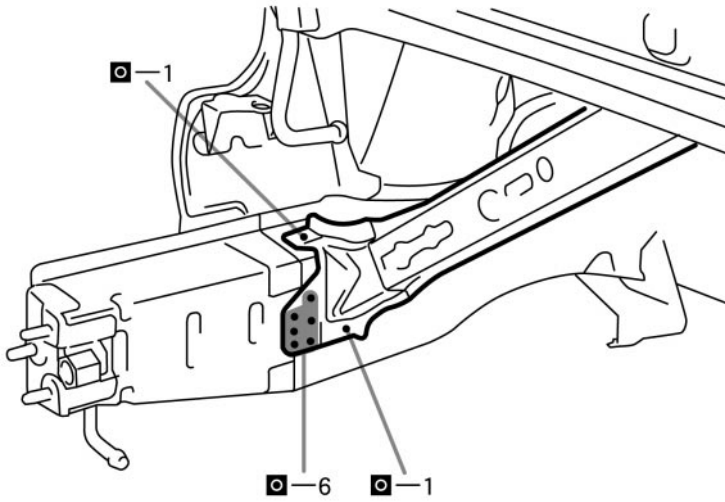
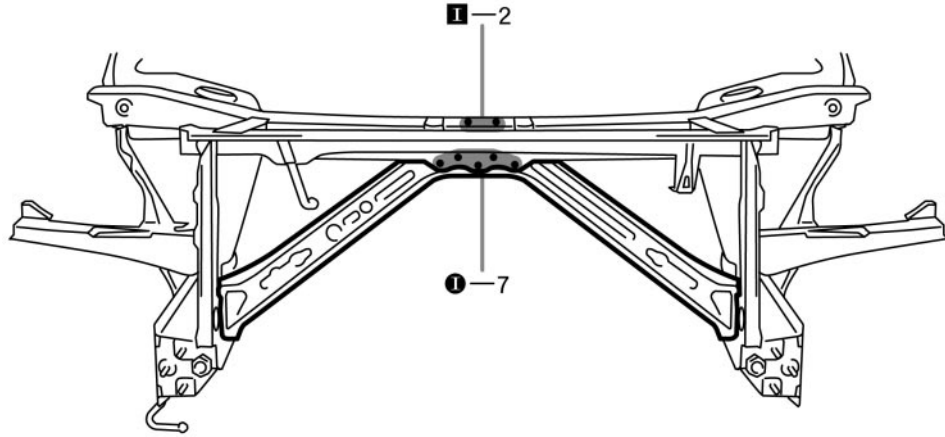
REAR DIAGONAL MEMBER (ASSY)

REPLACEMENT

1. REMOVE REAR DIAGONAL MEMBER



2. INSTALL REAR DIAGONAL MEMBER



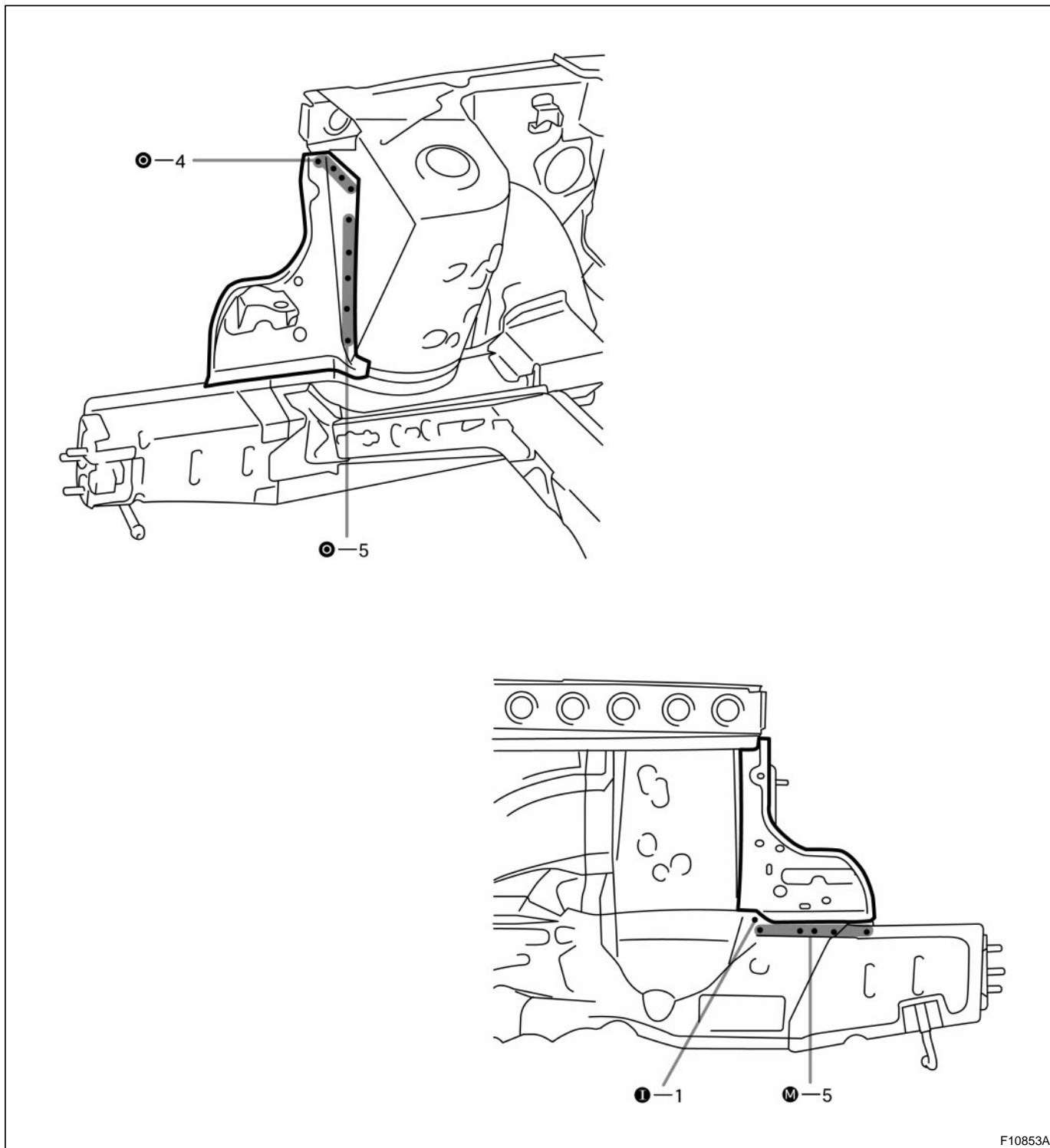
3. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**4. APPLYING ANTI-RUST AGENT**

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

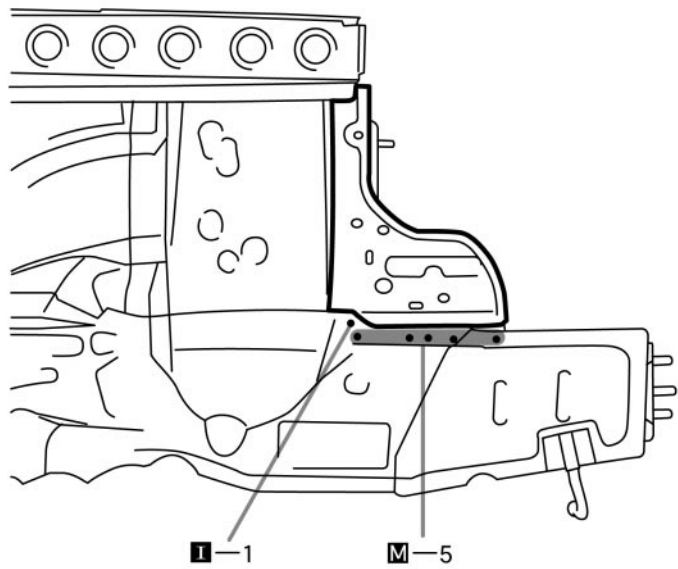
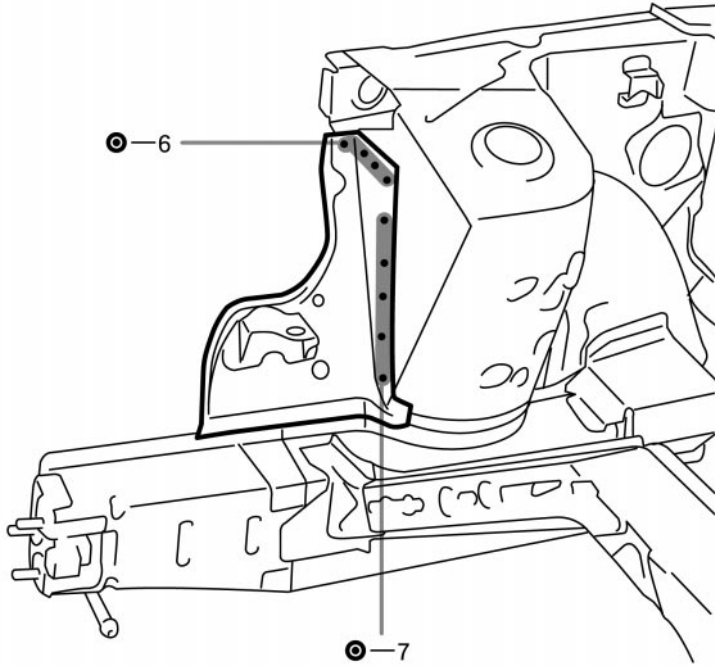
QUARTER INNER REAR PANEL (ASSY)

REPLACEMENT

1. REMOVE LOWER BACK SIDE PANEL (See page BP-56)
2. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
3. REMOVE QUARTER INNER REAR PANEL



4. INSTALL QUARTER INNER REAR PANEL

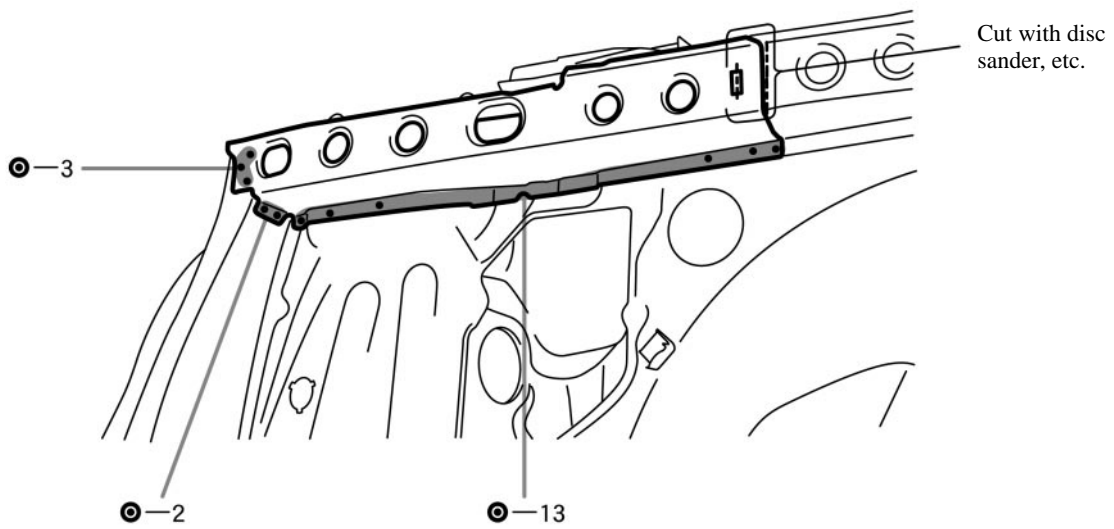
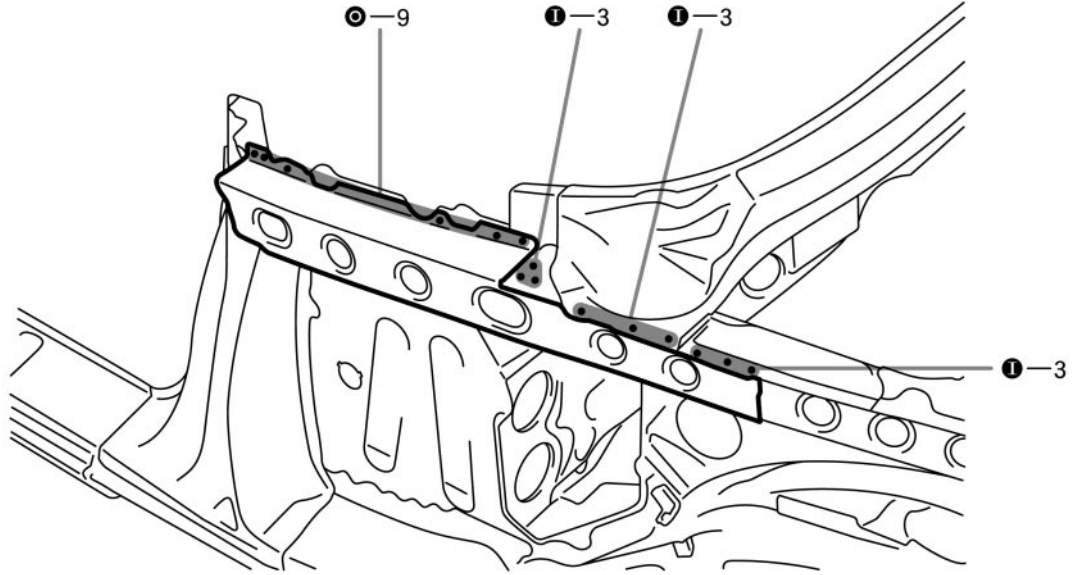


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5. **INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)**
 6. **INSTALL LOWER BACK SIDE PANEL (See page BP-57)**
 7. **APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
 8. **APPLYING UNDER COATING (See page PC-6)**
 9. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

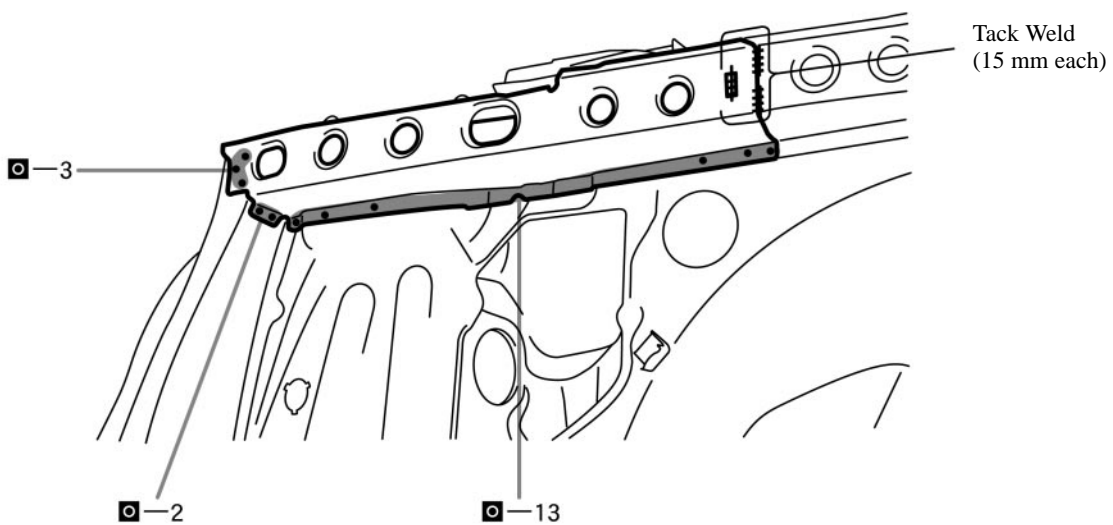
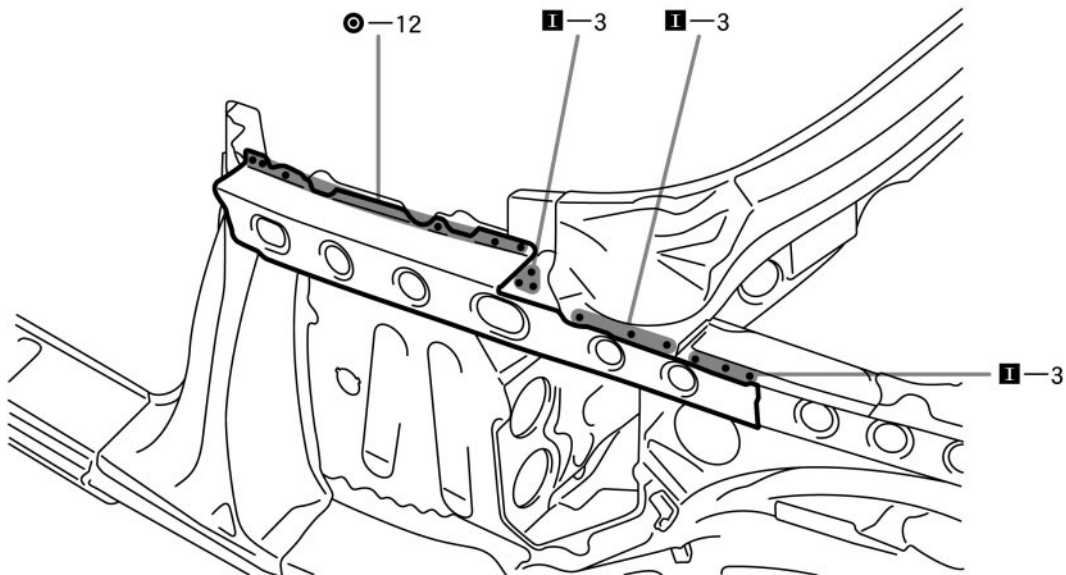
SIDE PANEL NO.2 REINFORCEMENT (ASSY)

REPLACEMENT

1. REMOVE SIDE PANEL NO.2 REINFORCEMENT



2. INSTALL SIDE PANEL NO.2 REINFORCEMENT



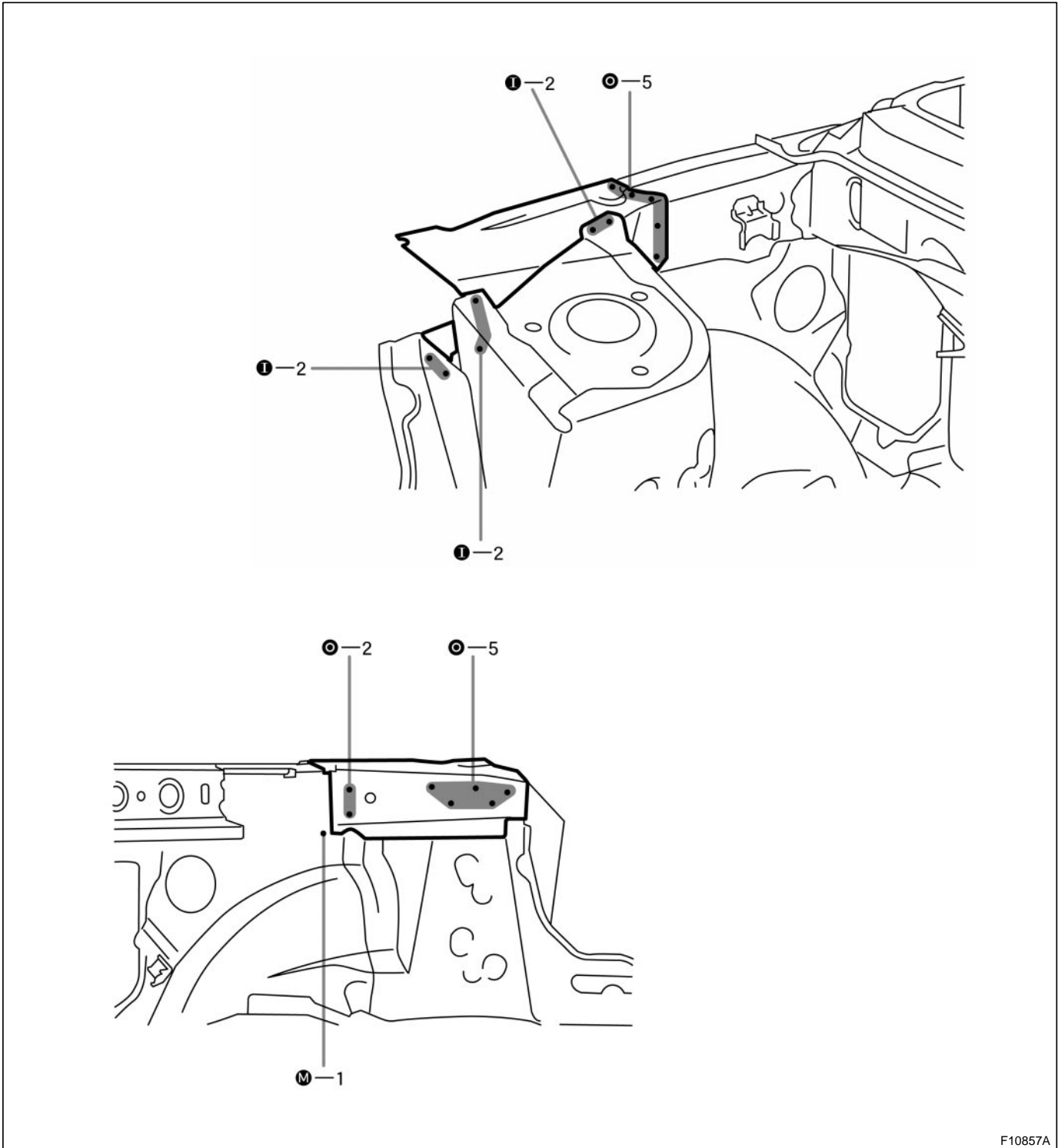
mm	in.
15	0.59

3. **APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)**
4. **APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
5. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

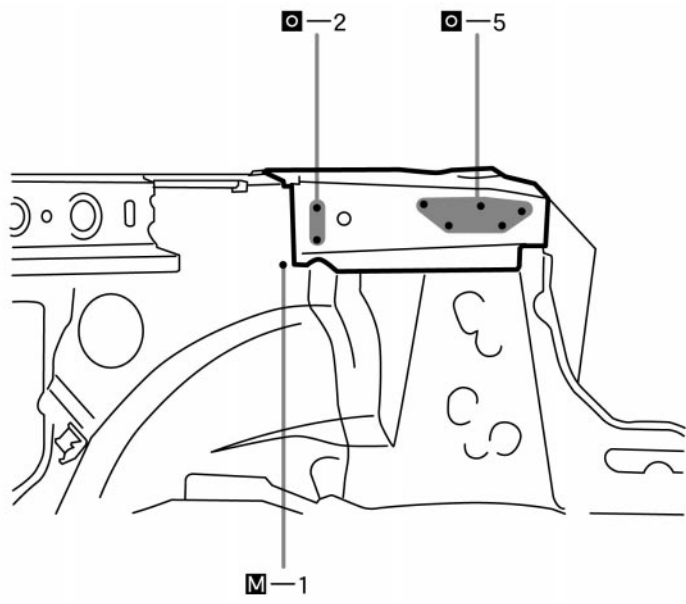
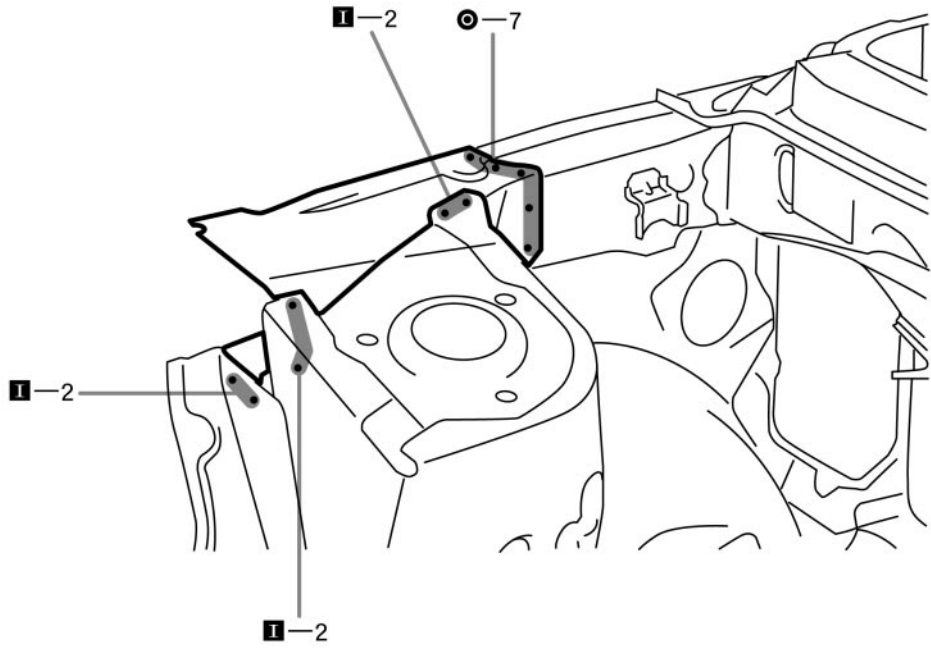
REAR FENDER APRON REINFORCEMENT (ASSY)

REPLACEMENT

1. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
2. REMOVE SIDE PANEL NO.4 REINFORCEMENT (See page BP-51)
3. REMOVE REAR FENDER APRON REINFORCEMENT



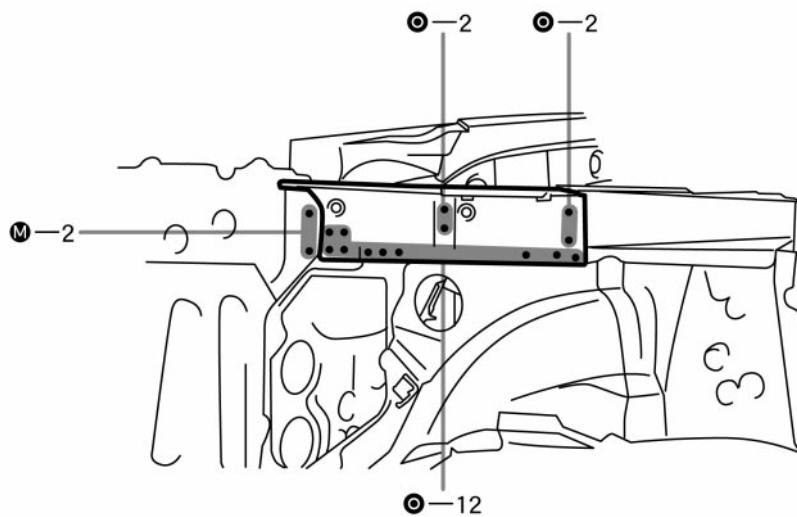
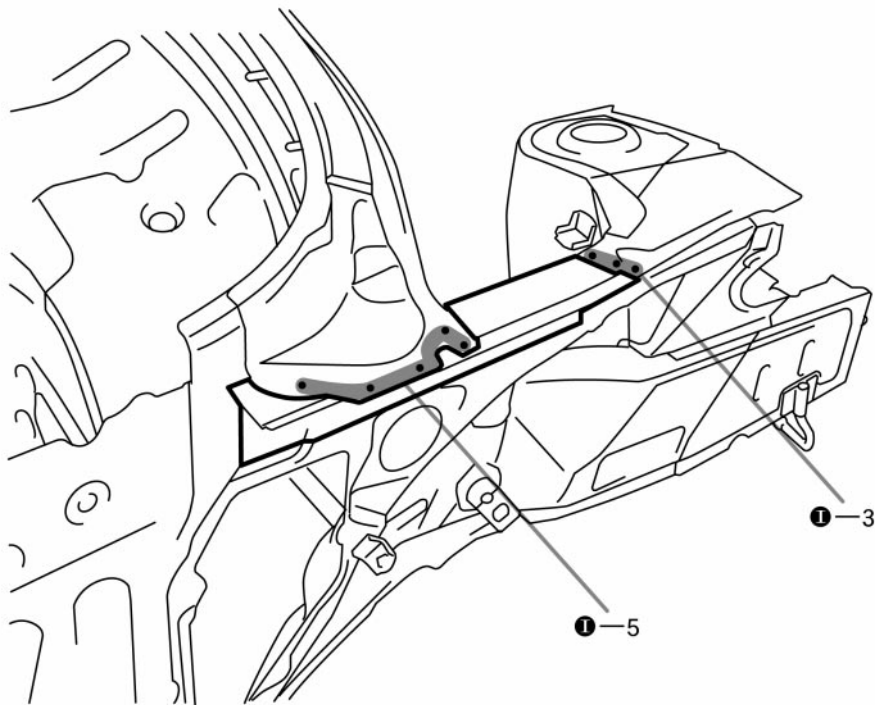
4. INSTALL REAR FENDER APRON REINFORCEMENT



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5. **INSTALL SIDE PANEL NO.4 REINFORCEMENT (See page BP-52)**
 6. **MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)**
 7. **INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)**
 8. **APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)**
 9. **APPLYING ANTI-RUST AGENT**
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

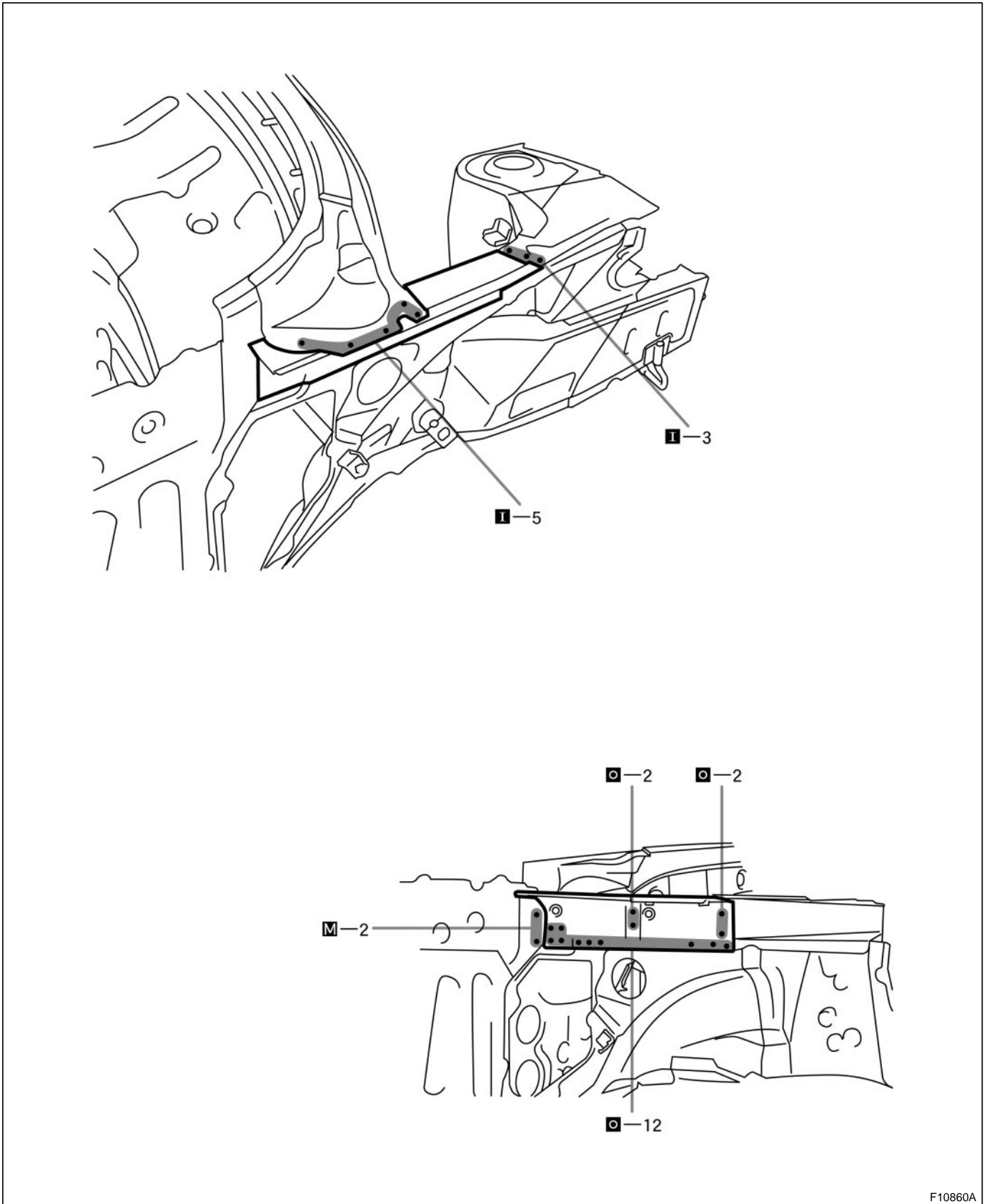
WHEEL HOUSING REINFORCEMENT (ASSY)**REPLACEMENT**

1. REMOVE SIDE PANEL NO.2 REINFORCEMENT (See page BP-74)
2. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
3. REMOVE SIDE PANEL NO.4 REINFORCEMENT (See page BP-51)
4. REMOVE WHEEL HOUSING REINFORCEMENT



5. INSTALL WHEEL HOUSING REINFORCEMENT

(a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

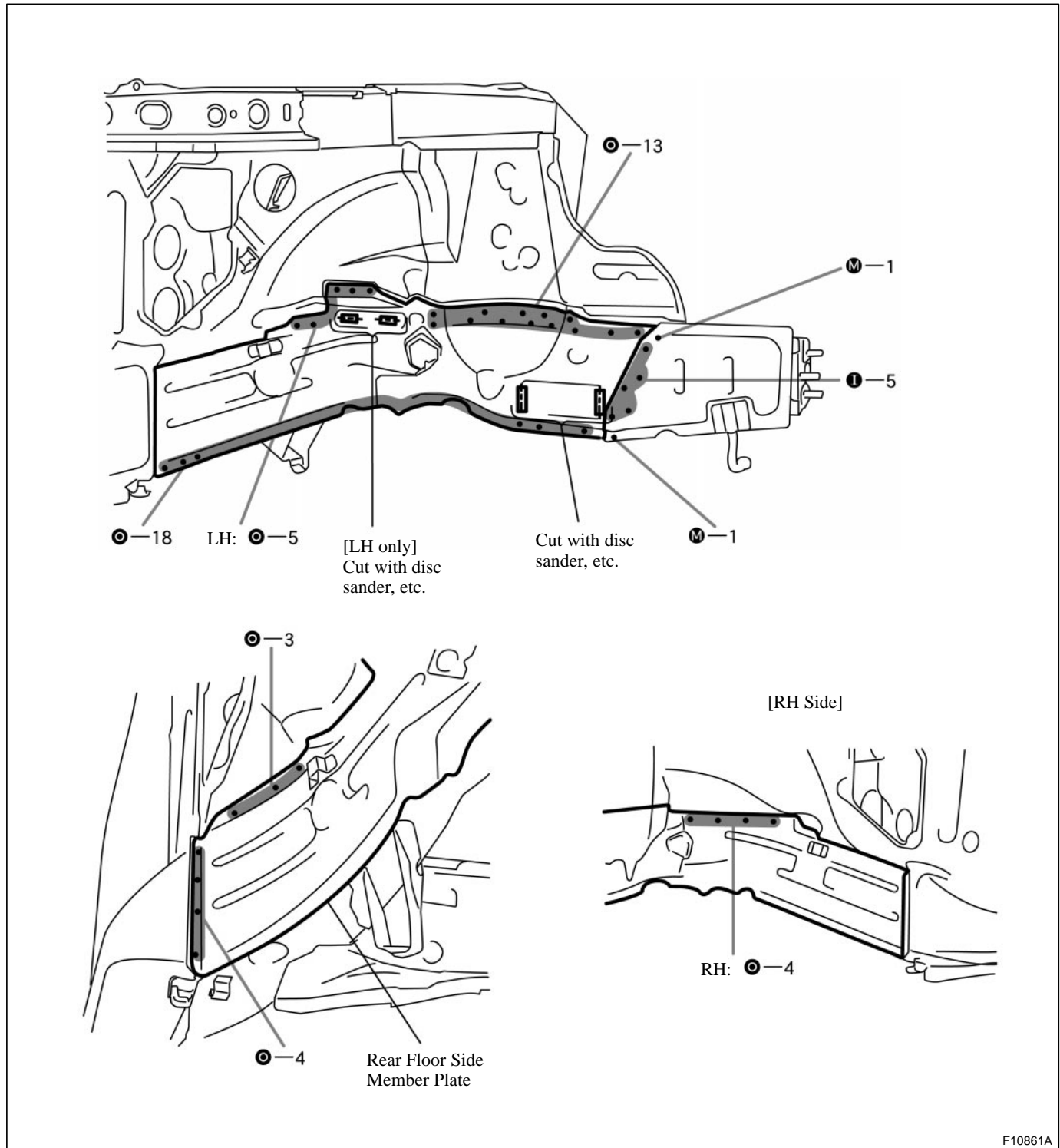


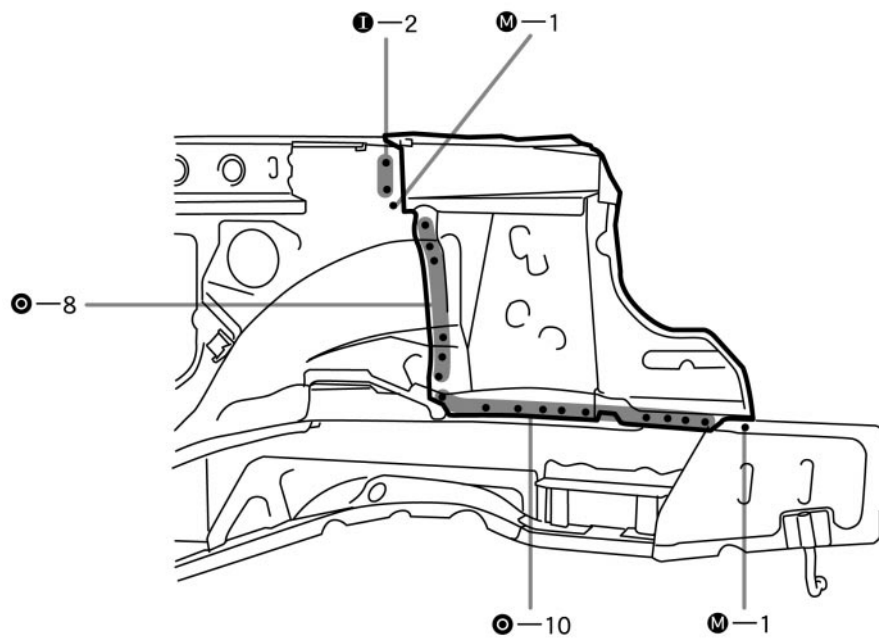
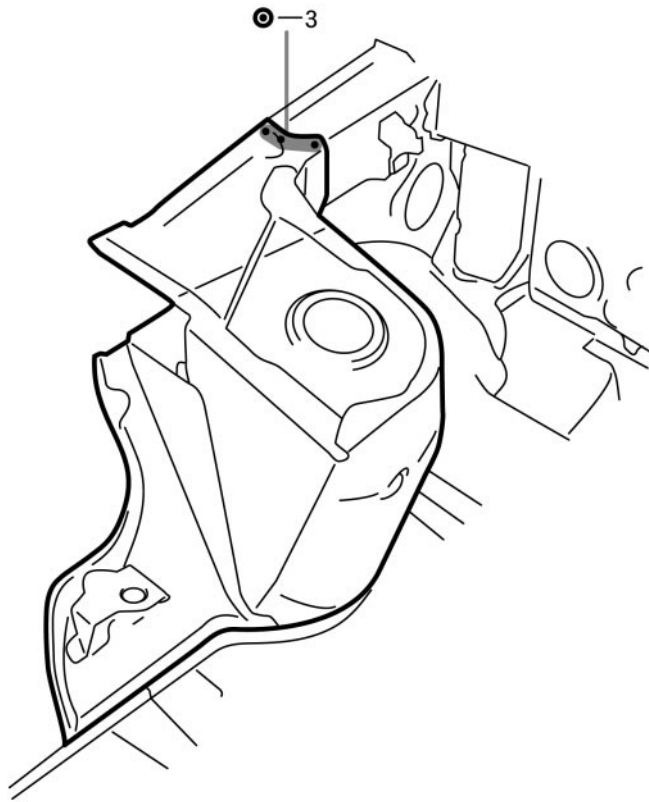
6. MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)
7. INSTALL SIDE PANEL NO.4 REINFORCEMENT (See page BP-52)
8. INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)
9. INSTALL SIDE PANEL NO.2 REINFORCEMENT (See page BP-75)
10. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)
11. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)
12. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

REAR SEAT BACK HINGE BRACKET (ASSY)

REPLACEMENT

1. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
2. REMOVE SIDE PANEL NO.4 REINFORCEMENT (See page BP-51)
3. REMOVE REAR SEAT BACK HINGE BRACKET
 - (a) After removing the rear floor side member plate, remove the rear seat back hinge bracket.



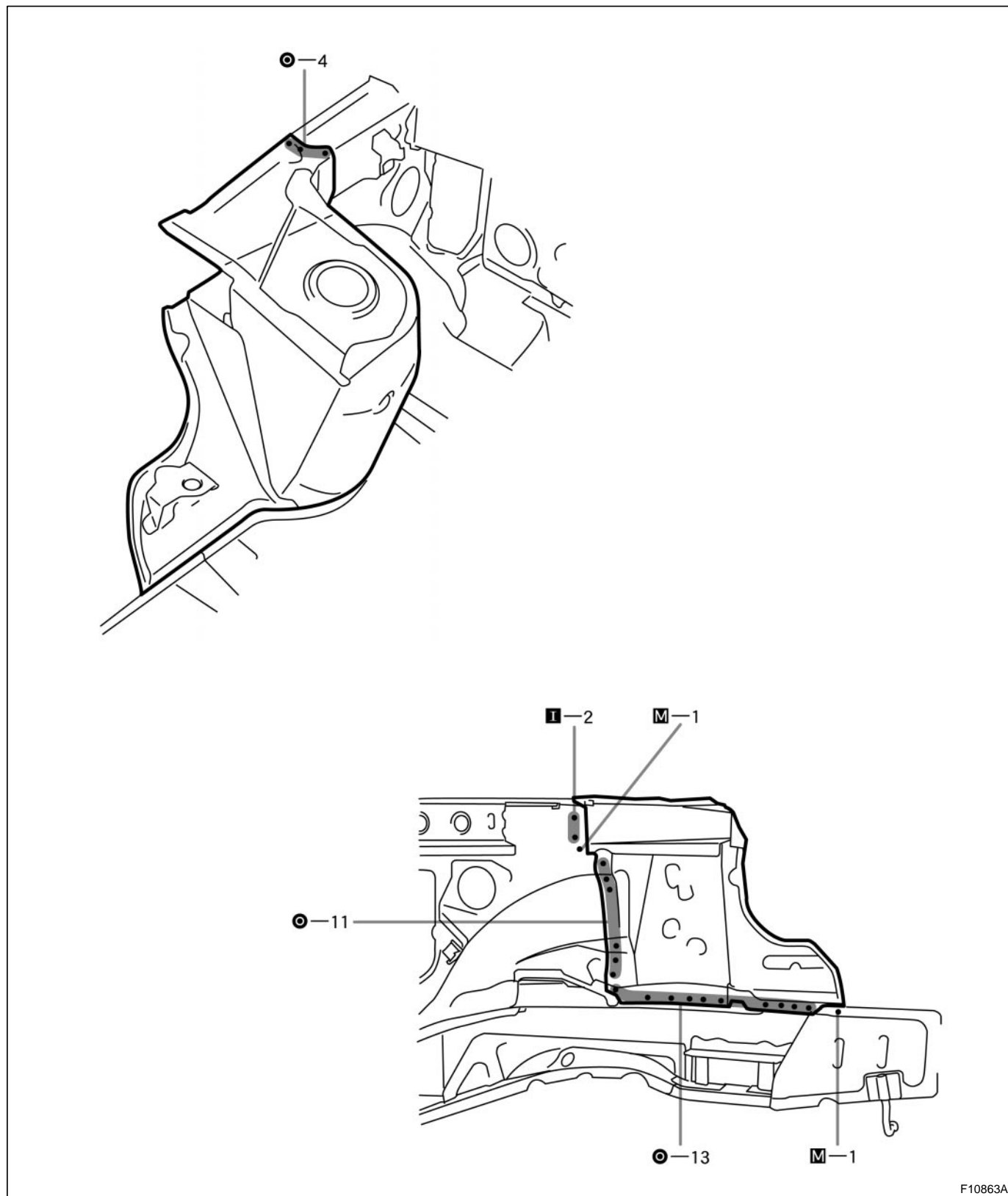


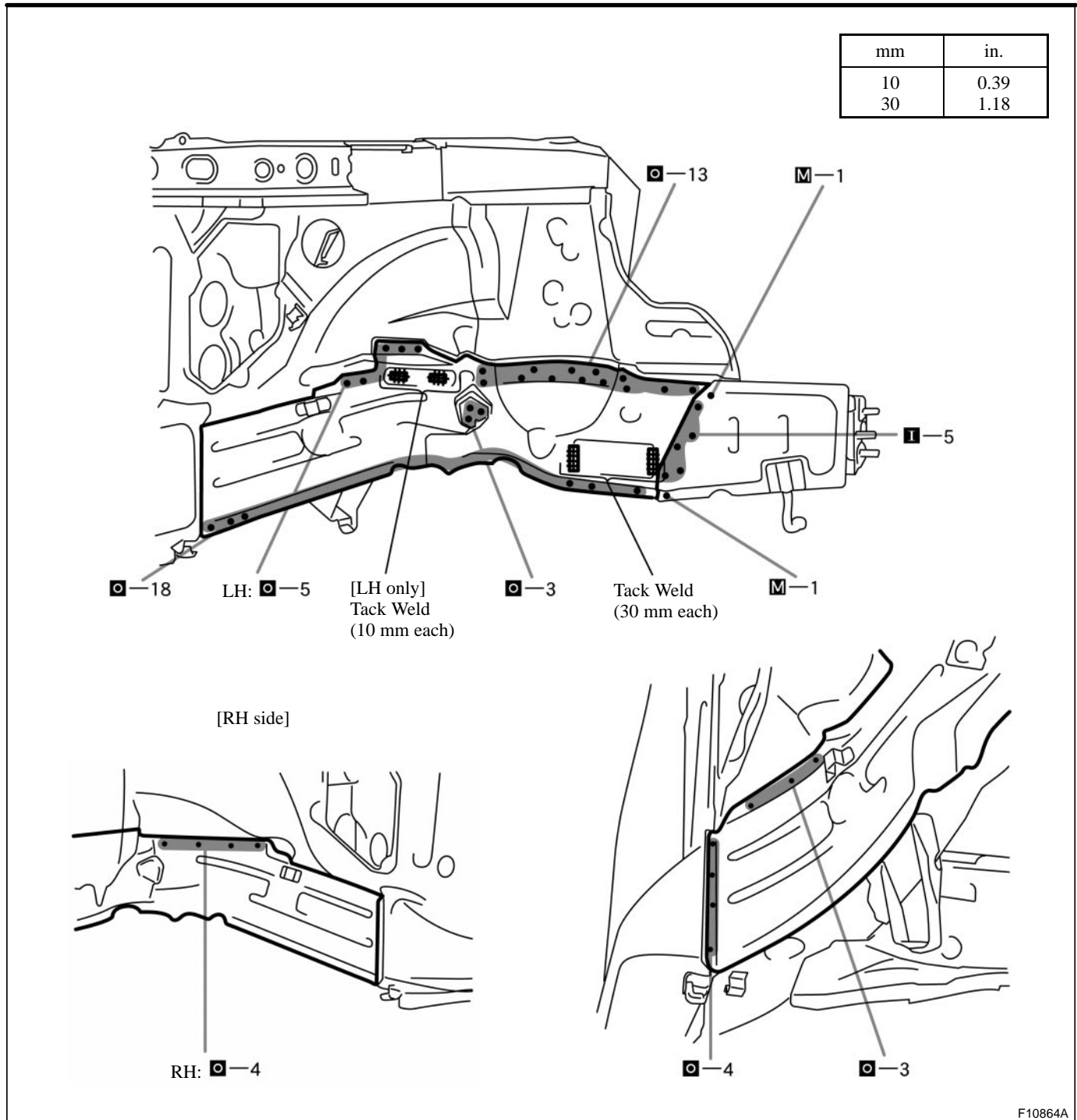
4. INSTALL REAR SEAT BACK HINGE BRACKET

- (a) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.

HINT:

Measurements must be accurate with the body dimension diagram, as this affects the rear wheel alignment.



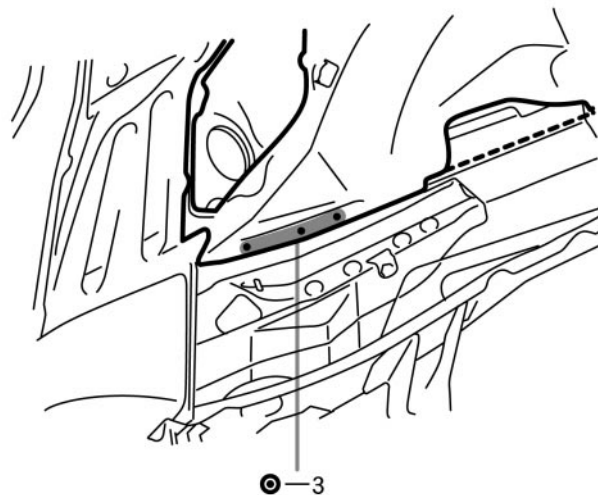
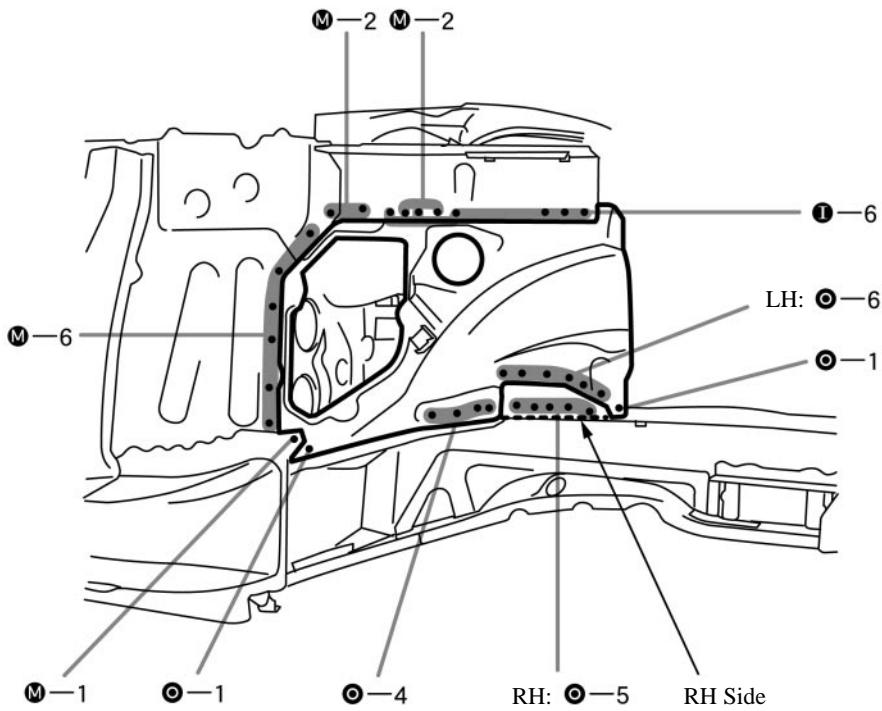


5. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
6. MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)
7. INSTALL SIDE PANEL NO.4 REINFORCEMENT (See page BP-52)
8. INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)
9. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)
10. APPLYING UNDER COATING (See page PC-6)
11. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

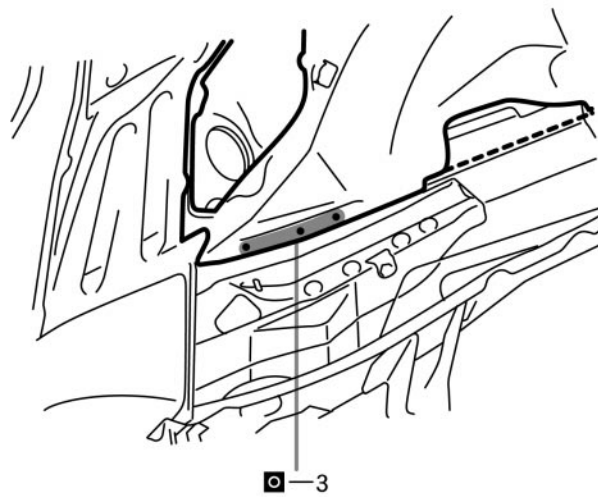
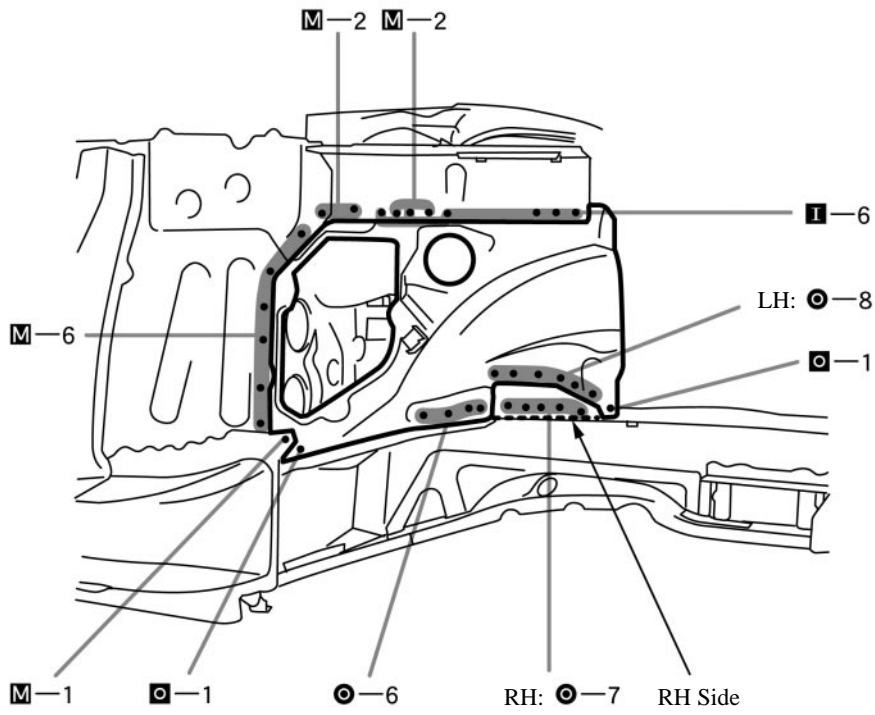
QUARTER WHEEL HOUSING INNER PANEL (ASSY)

REPLACEMENT

1. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
2. REMOVE SIDE PANEL NO.4 REINFORCEMENT (See page BP-51)
3. REMOVE REAR SEAT BACK HINGE BRACKET (See page BP-83)
4. REMOVE SIDE PANEL NO.2 REINFORCEMENT (See page BP-74)
5. REMOVE QUARTER WHEEL HOUSING INNER PANEL



6. INSTALL QUARTER WHEEL HOUSING INNER PANEL



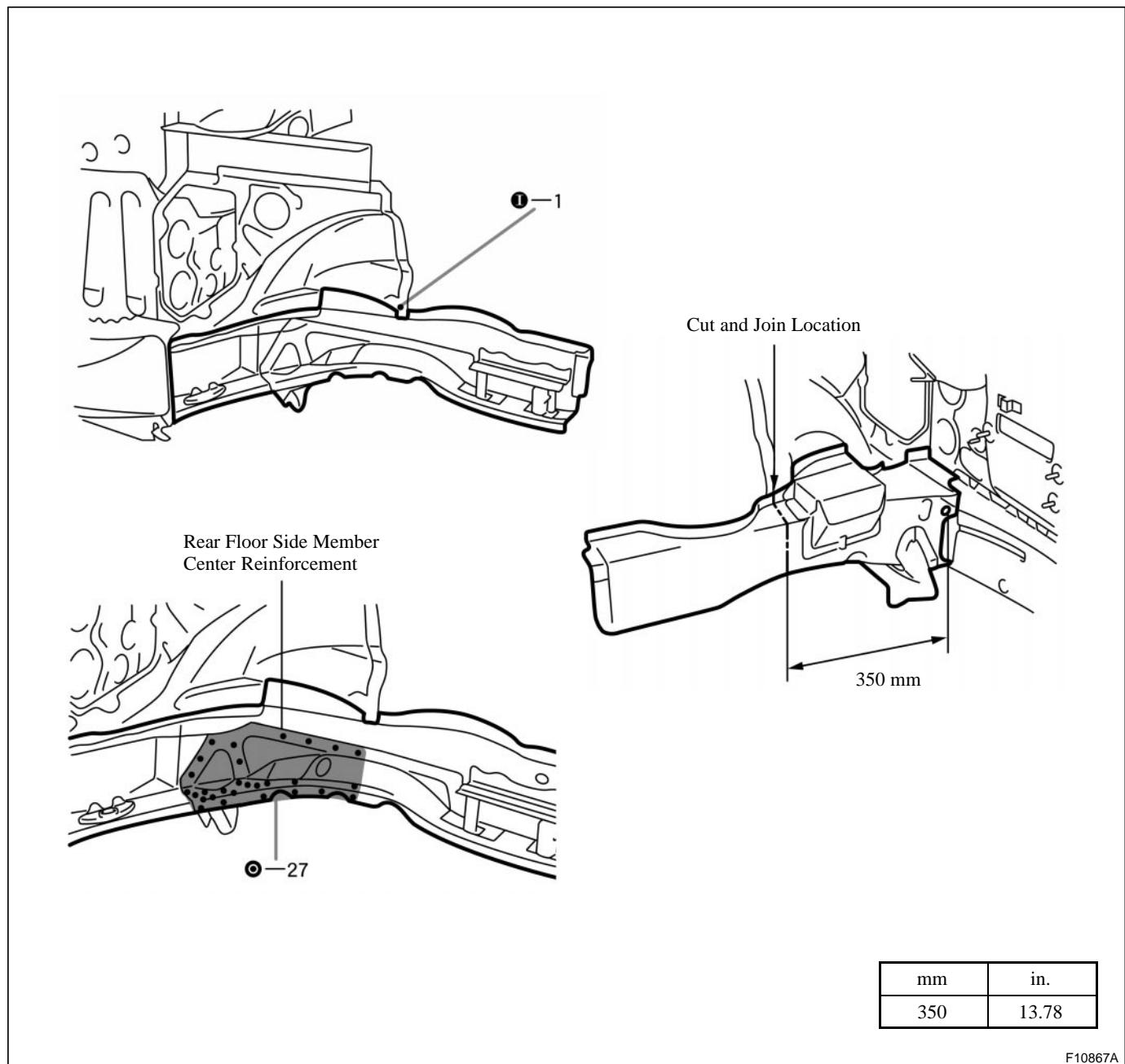
-
7. MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)
 8. INSTALL SIDE PANEL NO.2 REINFORCEMENT (See page BP-75)
 9. INSTALL REAR SEAT BACK HINGE BRACKET (See page BP-85)
 10. INSTALL SIDE PANEL NO.4 REINFORCEMENT (See page BP-52)
 11. INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)
 12. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)
 13. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)
 14. APPLYING UNDER COATING (See page PC-6)
 15. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

REAR FLOOR SIDE MEMBER (CUT)**REPLACEMENT**

1. REMOVE FRAME REAR UPPER CROSSMEMBER (See page BP-62)
2. REMOVE LOWER BACK SIDE PANEL (See page BP-56)
3. REMOVE REAR DIAGONAL MEMBER (See page BP-68)
4. REMOVE SIDE PANEL NO.4 REINFORCEMENT (See page BP-51)
5. REMOVE REAR SEAT BACK HINGE BRACKET (See page BP-83)
6. REMOVE REAR FLOOR SIDE REAR MEMBER (See page BP-65)
7. REMOVE REAR FLOOR SIDE MEMBER
 - (a) Cut and join the parts at the location as shown below.

HINT:

Remove the remaining rear floor side member center reinforcement from the vehicles side.



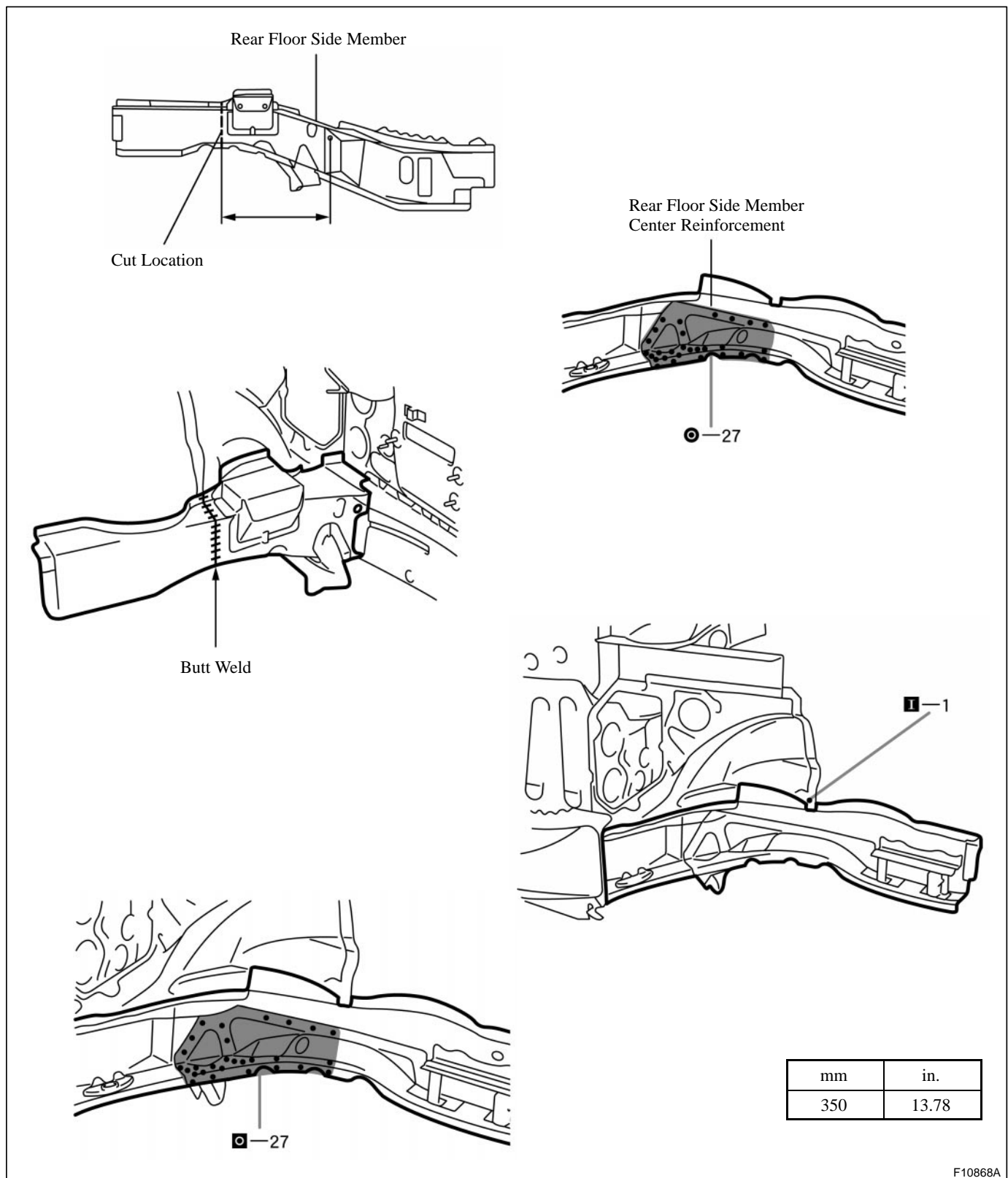
8. INSTALL REAR FLOOR SIDE MEMBER

- (a) Cut the new parts for the rear floor side member at the location as shown below.

HINT:

Remove rear floor side member center reinforcement without cutting it.

- (b) Temporarily install the new parts and measure each part in accordance with the body dimension diagram.



9. MEASURING THE UNDER BODY DIMENSIONS (See page BP-95)
10. MEASURING THE ENGINE COMPARTMENT DIMENSIONS (See page BP-95)
11. INSTALL REAR FLOOR SIDE REAR MEMBER (See page BP-66)
12. INSTALL REAR SEAT BACK HINGE BRACKET (See page BP-85)
13. INSTALL SIDE PANEL NO.4 REINFORCEMENT (See page BP-52)
14. INSTALL REAR DIAGONAL MEMBER (See page BP-69)
15. INSTALL LOWER BACK SIDE PANEL (See page BP-57)
16. INSTALL FRAME REAR UPPER CROSSMEMBER (See page BP-63)
17. APPLYING SEALER TO THE INSIDE OF THE VEHICLE (See page PC-1)
18. APPLYING SEALER TO THE ENGINE COMPARTMENT (See page PC-1)
19. APPLYING UNDER COATING (See page PC-6)
20. APPLYING ANTI-RUST AGENT
 - (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

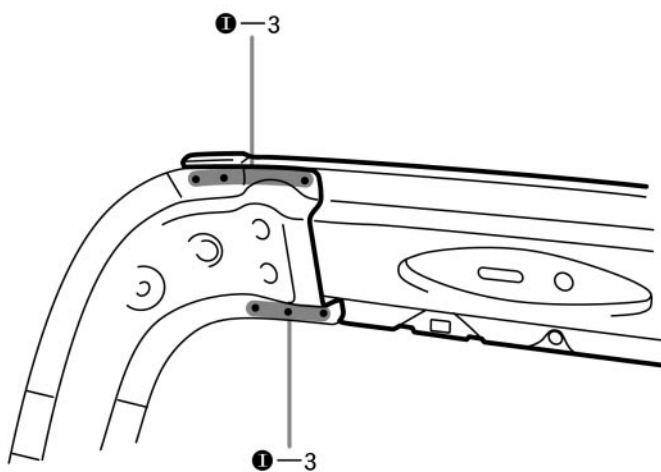
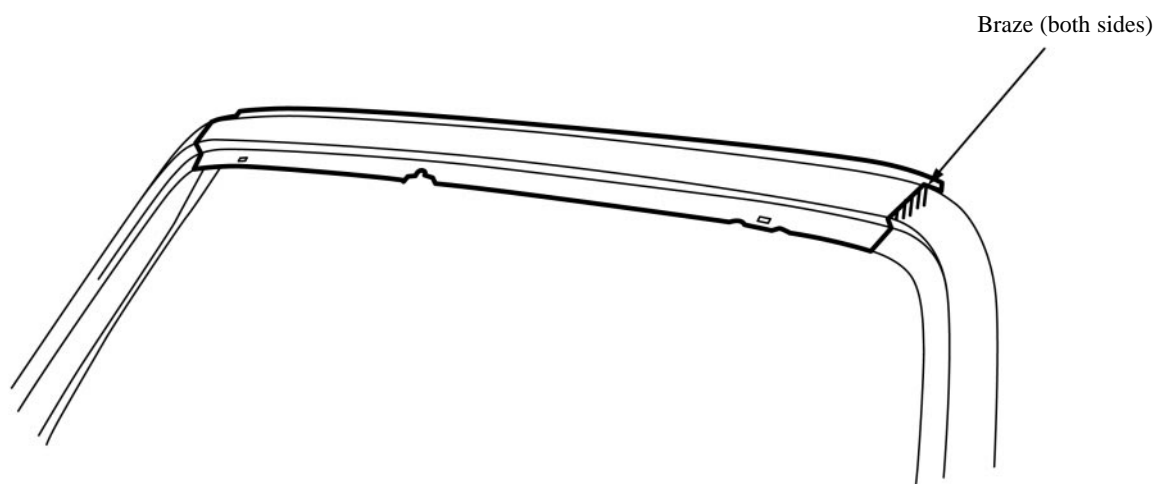
ROOF PANEL (ASSY) REPLACEMENT

1. REMOVE ROOF PANEL

- (a) Heat the brazed area of the front body pillar, and scrape off the brazing with a wire brush.

HINT:

Be careful not to overheat the front body pillar.

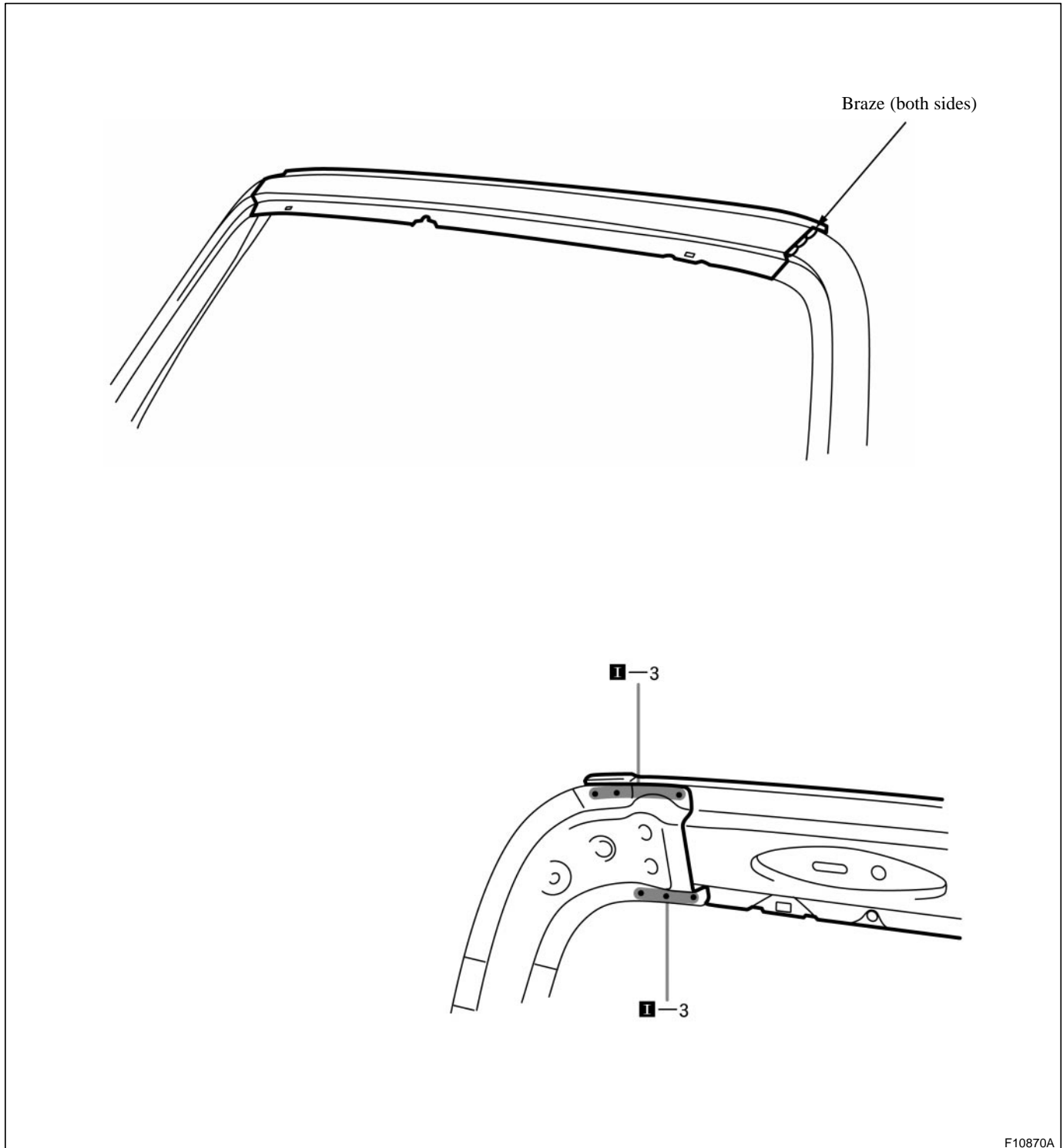


2. INSTALL ROOF PANEL

- (a) Braze the front body pillar connection.

HINT:

Before performing these operations, place a wet rag on the roof panel to protect it from damage.



F10870A

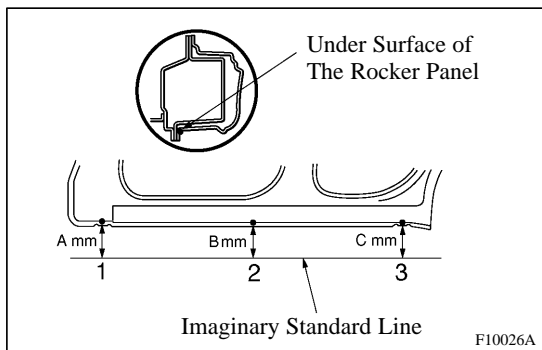
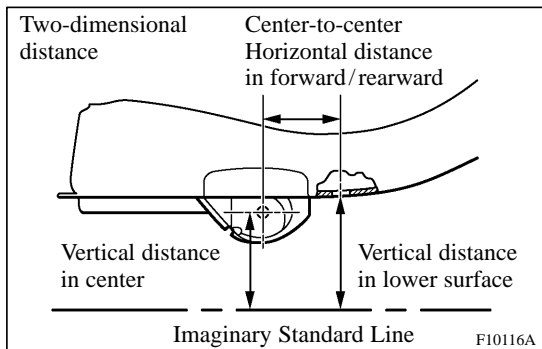
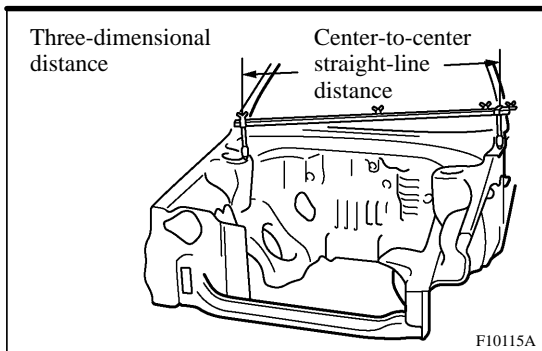
3. APPLYING SEALER TO THE FRONT LUGGAGE COMPARTMENT (See page PC-1)**4. APPLYING ANTI-RUST AGENT**

- (a) After applying the top coat layer, apply the anti-rust agent to the inside of the necked section structural weld spots.

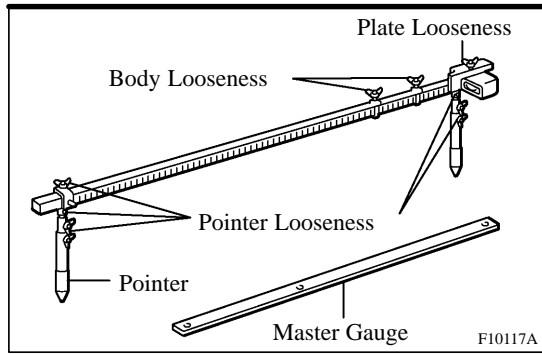
GENERAL INFORMATION

1. BASIC DIMENSIONS

- (a) There are two types of dimensions in the diagram.
- (1) (Three-dimensional distance)
 - Straight-line distance between the centers of two measuring points.
 - (2) (Two-dimensional distance)
 - Horizontal distance in forward/rearward between the centers of two measuring points.
 - The height from an imaginary standard line.
- (b) Incases in which only one dimension is given, left and right are symmetrical.
- (c) The dimensions in the following drawing indicate actual distance. Therefore, please use the dimensions as a reference.
- (d) The line that connects the places listed below is the imaginary standard line when measuring the height. (The dimensions are printed in the text.)

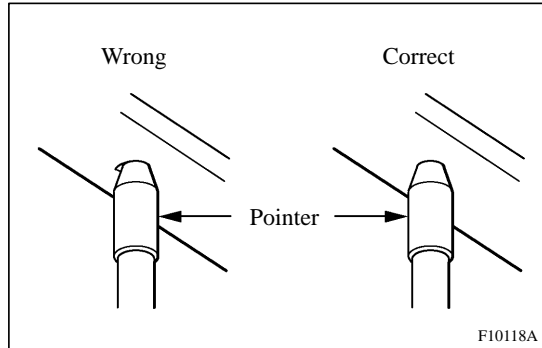


SYMBOL	Name
1	The place that was lowered A mm from the under surface of the rocker panel centered on the front jack up point.
2	The place that was lowered B mm from the under surface of the rocker panel centered between 1 and 3.
3	The place that was lowered C mm from the under surface of the rocker panel centered on the rear jack up point.



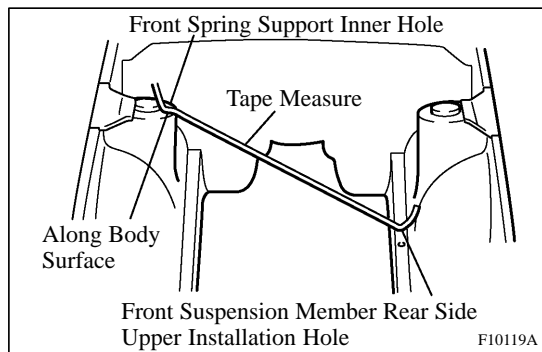
2. MEASURING

- (a) Basically, all measurements are to be done with a tracking gauge. For portions where it is not possible to use a tracking gauge, a tape measure should be used.
- (b) Use only a tracking gauge that has no looseness in the body, measuring plate, or pointers.



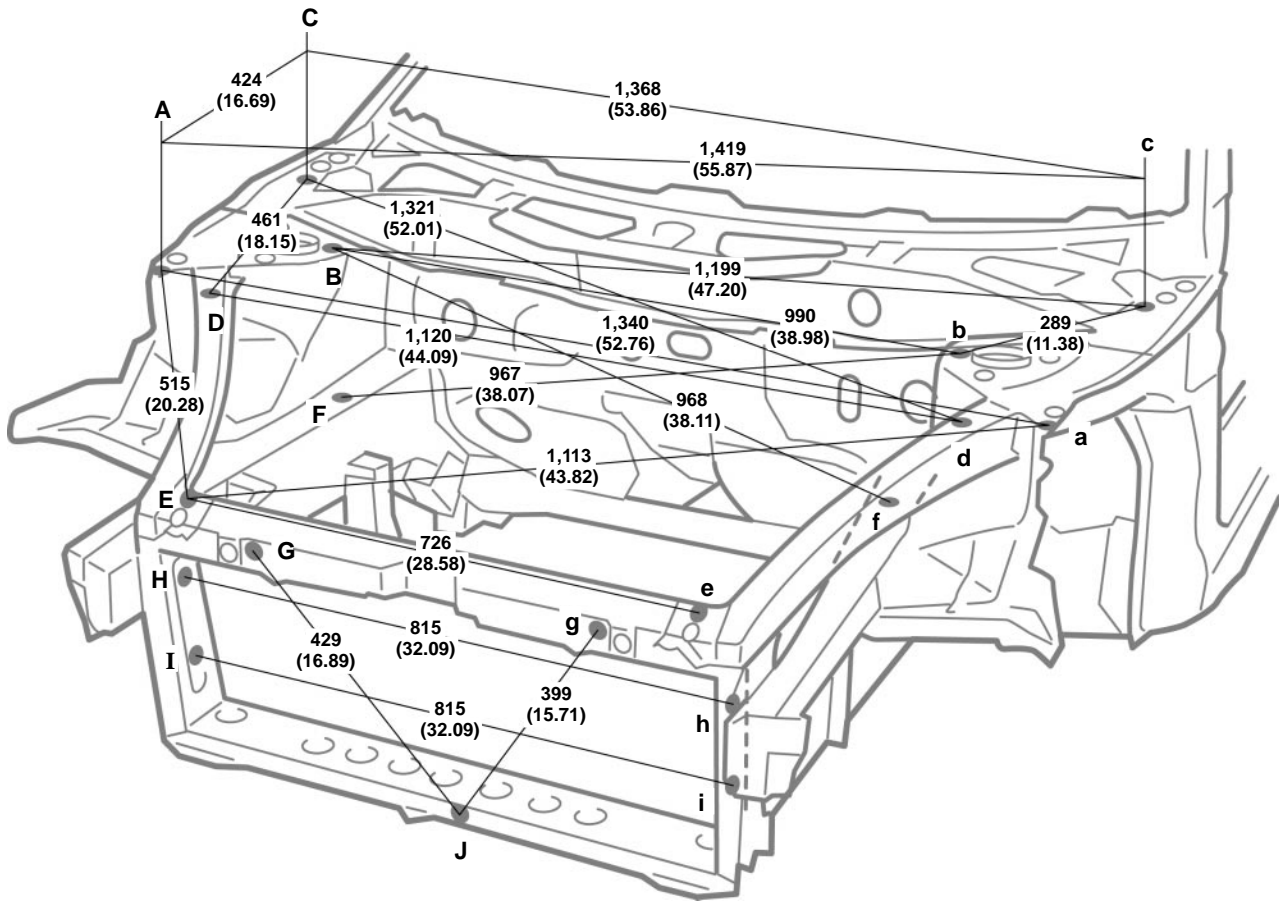
HINT:

1. The height of the left and right points must be equal.
 2. Always calibrate the tracking gauge before measuring or after adjusting the pointer height.
 3. Take care not to drop the tracking gauge or otherwise shock it.
 4. Confirm that the pointers are securely in the holes.
- (c) When using a tape measure, avoid twists and bends in the tape.
 - (d) When tracking a diagonal measurement from the front spring support inner hole to the suspension member upper rear installation hole, measure along the front spring support panel surface.



BODY DIMENSION DRAWINGS
FRONT LUGGAGE COMPARTMENT

(Three-Dimensional Distance)



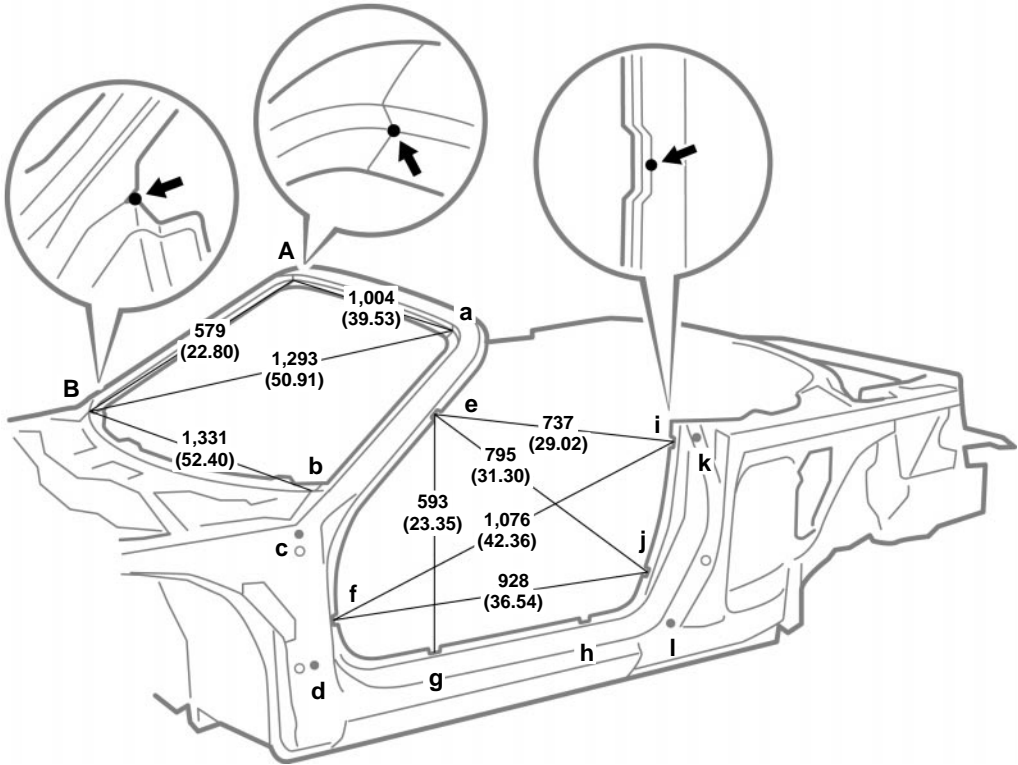
*HINT: For symbols, capital letters indicate right side of vehicle,
small letters indicate left side of vehicle (Seen from rear).*

mm (in.)

Symbol	Name	Hole dia.	Symbol	Name	Hole dia.
Ⓢ, Ⓢ	Front fender installation nut	6 (0.24) nut	Ⓢ, Ⓢ	ABS actuator installation nut	8 (0.31) nut
Ⓢ, Ⓢ	Front spring support hole – inner	9 (0.35)	Ⓢ, Ⓢ	Radiator upper support standard hole	10 (0.39)
Ⓢ, Ⓢ	Front fender installation nut	6 (0.24) nut	Ⓢ, Ⓢ	Front side member reinforcement standard hole	10 (0.39)
Ⓢ, Ⓢ	Radiator upper support standard hole	10 (0.39)	Ⓢ, Ⓢ	Front side member reinforcement standard hole	10 (0.39)
Ⓢ, Ⓢ	Radiator bracket installation nut	8 (0.31) nut	Ⓢ	Hood lock support installation nut	6 (0.24) nut

BODY OPENING AREAS (Side View)

(Three-Dimensional Distance)



C-K or c-k	D-L or d-l
1,203 (47.36)	1,036 (40.79)

HINT: For symbols, capital letters indicate right side of vehicle, small letters indicate left side of vehicle (Seen from rear).

Vehicle Dimensions Left ↔ Right

E-e	F-f	G-g	H-h	I-i	J-j
1,259 (49.57)	1,368 (53.86)	1,391 (54.76)	1,391 (54.76)	1,319 (51.93)	1,377 (54.21)

E-f or e-F	E-g or e-G	E-i or e-I	E-j or e-J	F-i or f-I	F-j or f-J	G-h or g-H	G-i or g-I	H-i or h-I	I-j or i-J
1,428 (56.22)	1,450 (57.09)	1,484 (58.43)	1,538 (60.55)	1,721 (67.76)	1,657 (65.24)	1,464 (57.64)	1,615 (63.58)	1,455 (57.28)	1,395 (54.92)

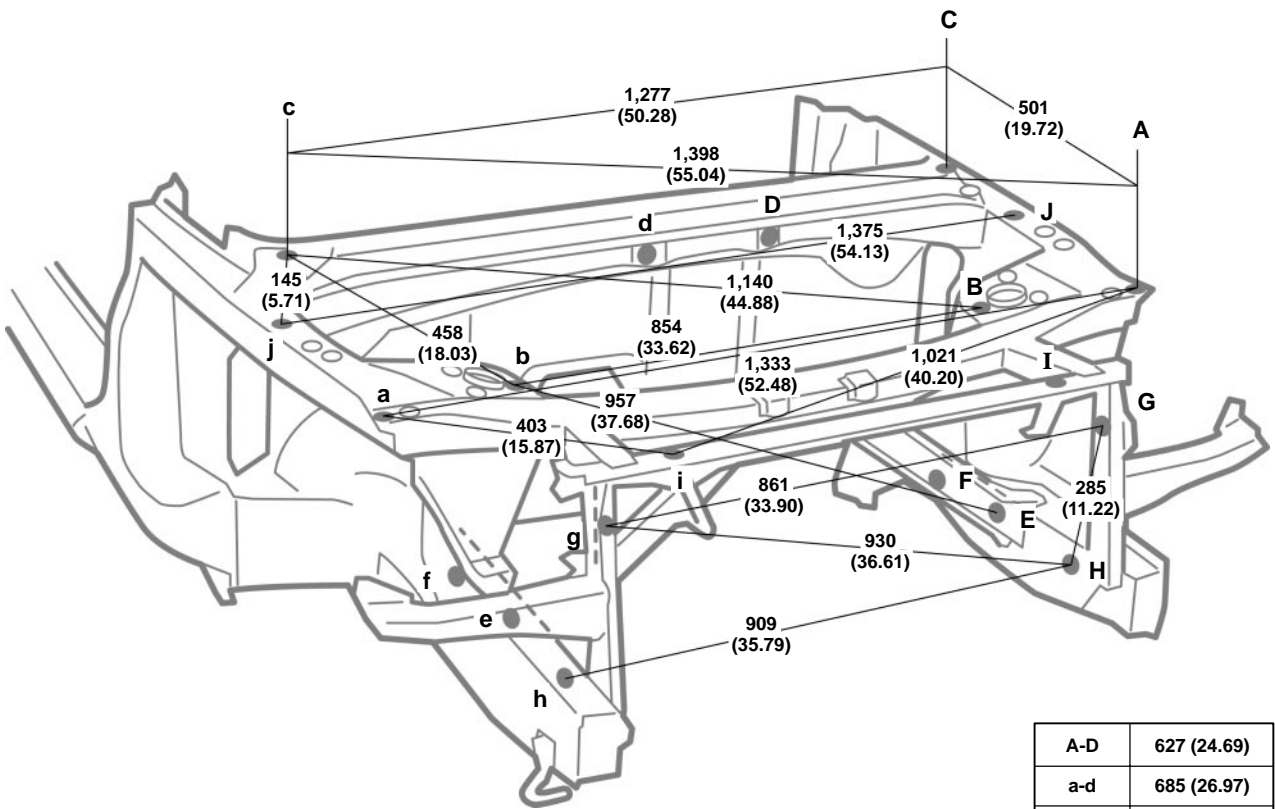
mm (in.)

Symbol	Name	Hole dia.	Symbol	Name	Hole dia.
Ⓢ, Ⓢ	Windshield header panel/Front body pillar adjoining portion	—	Ⓢ, Ⓢ	Rocker panel assembly mark	—
Ⓢ, Ⓢ	Cowl top panel/Front body pillar adjoining portion	—	Ⓢ, Ⓢ	Rocker panel assembly mark	—
Ⓢ, Ⓢ	Front door hinge installation nut	10 (0.39) nut	Ⓢ, Ⓢ	Center body pillar assembly mark	—
Ⓢ, Ⓢ	Front door hinge installation nut	8 (0.31) nut	Ⓢ, Ⓢ	Center body pillar assembly mark	—
Ⓢ, Ⓢ	Front body pillar assembly mark	—	Ⓢ, Ⓢ	Quarter panel installation nut	6 (0.24) nut
Ⓢ, Ⓢ	Front body pillar assembly mark	—	Ⓢ, Ⓢ	Quarter panel installation nut	6 (0.24) nut

BODY PANEL REPLACEMENT

ENGINE COMPARTMENT

(Three Dimensional Distance)

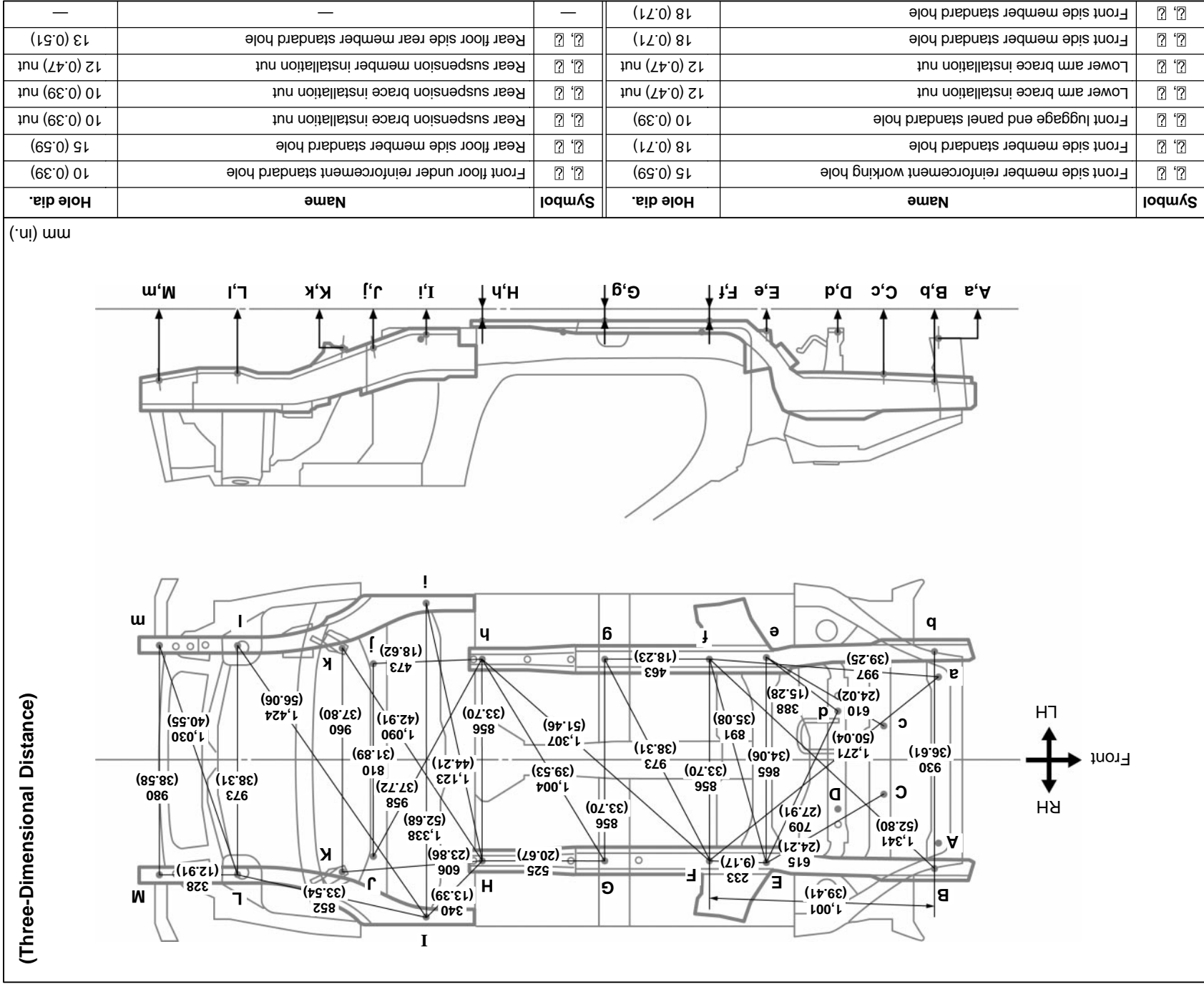


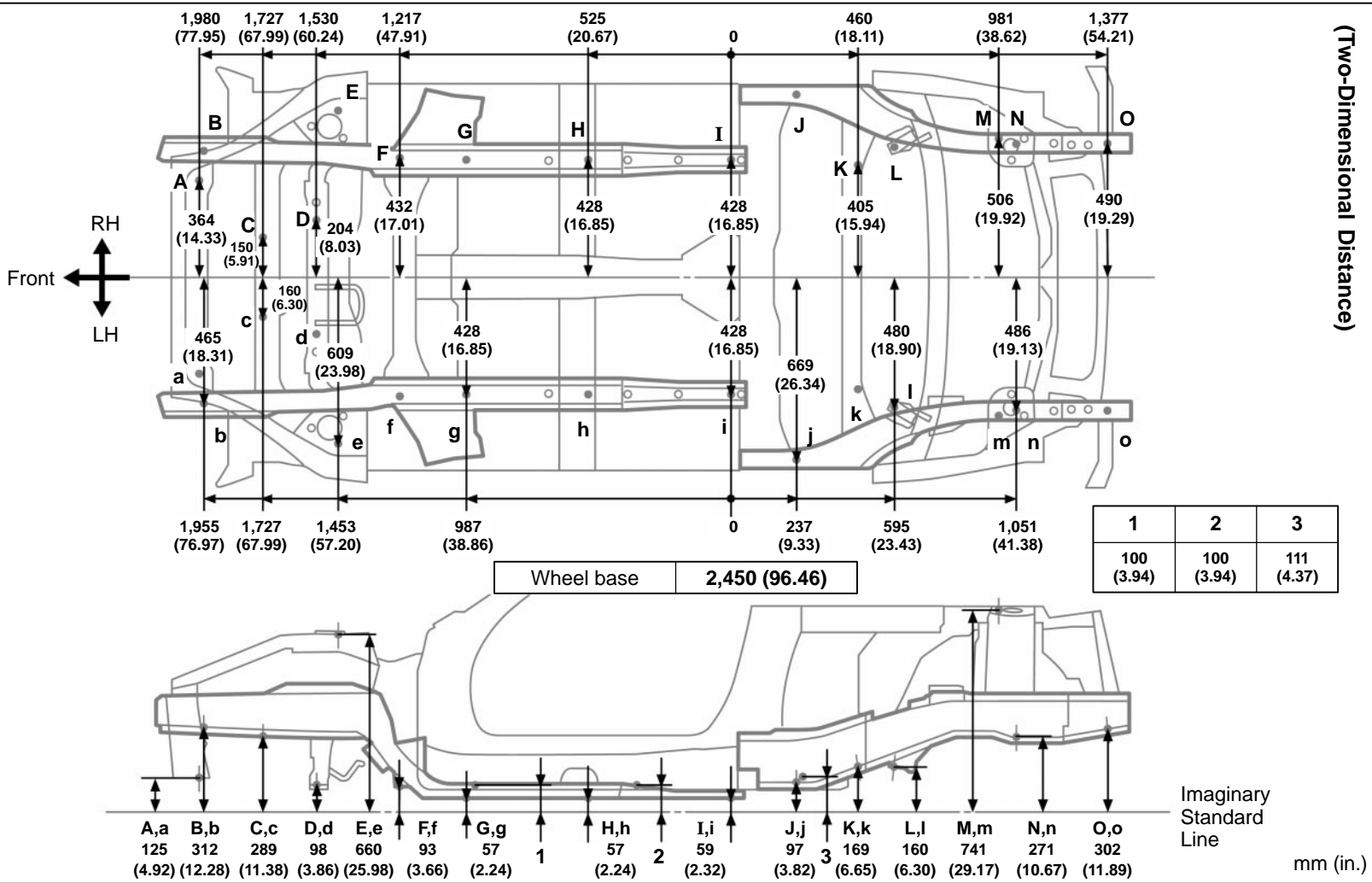
HINT: For symbols, capital letters indicate right side of vehicle, small letters indicate left side of vehicle (Seen from rear).

mm (in.)

Symbol	Name	Hole dia.	Symbol	Name	Hole dia.
Ⓢ, Ⓢ	Quarter panel installation nut	6 (0.24) nut	Ⓢ, Ⓢ	Rear floor side member standard hole	12 (0.47)
Ⓢ, Ⓢ	Rear spring support hole – inner	11 (0.43)	Ⓢ, Ⓢ	Lower back side panel standard hole	10 (0.39)
Ⓢ, Ⓢ	Quarter panel installation nut	6 (0.24) nut	Ⓢ, Ⓢ	Rear floor side rear member standard hole	13 (0.51)
Ⓢ, Ⓢ	Rear suspension upper brace installation nut	10 (0.39) nut	Ⓢ, Ⓢ	Lower back panel standard hole	10 (0.39)
Ⓢ, Ⓢ	Rear floor side member standard hole	15 (0.59)	Ⓢ, Ⓢ	Hood hinge installation nut	8 (0.31) nut

UNDER BODY





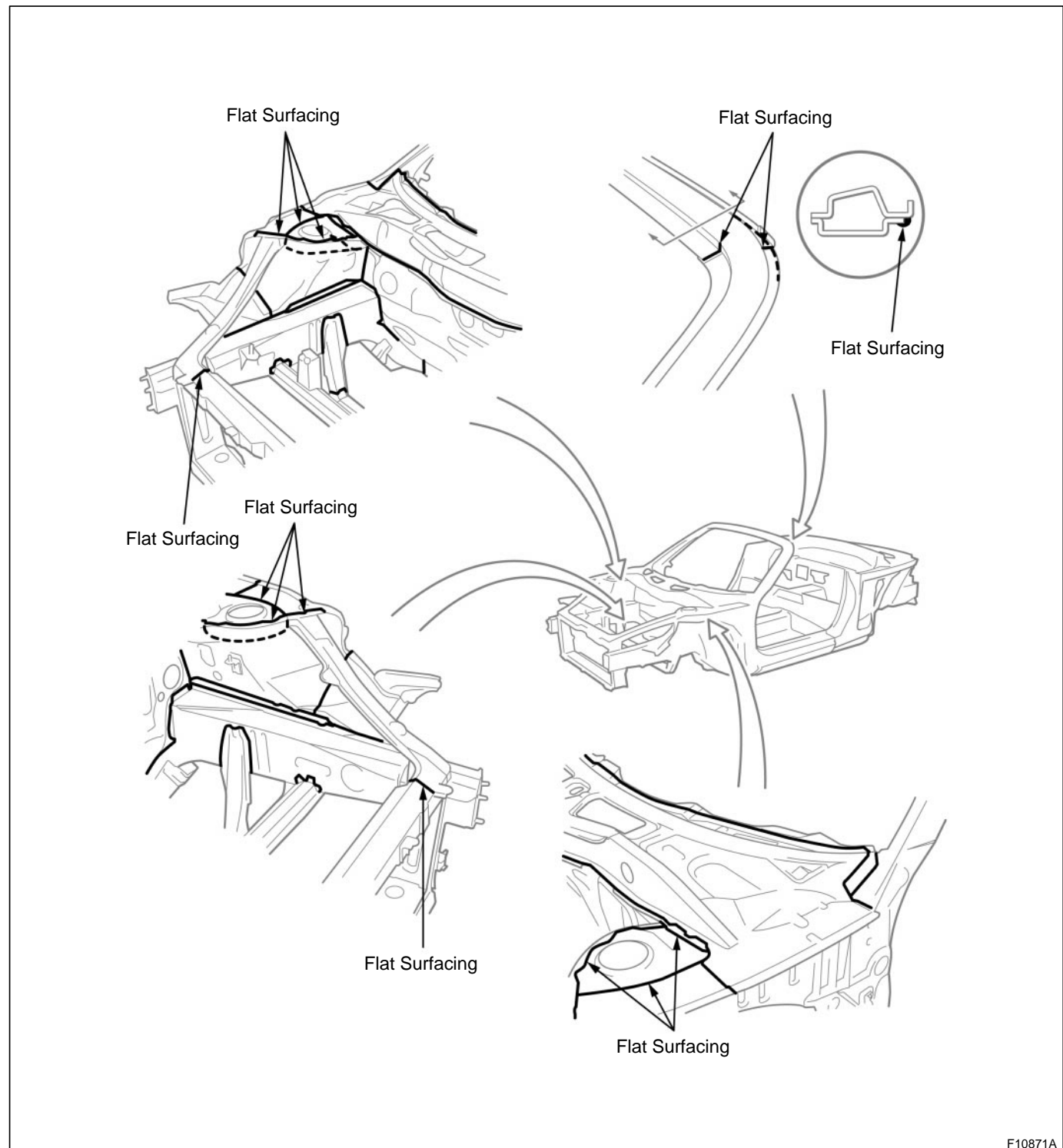
Symbol	Name	Hole dia.	Symbol	Name	Hole dia.
⌀, ⌀	Front side member reinforcement working hole	15 (0.59)	⌀, ⌀	Front floor under reinforcement standard hole	10 (0.39)
⌀, ⌀	Front side member standard hole	18 (0.71)	⌀, ⌀	Rear floor side member standard hole	15 (0.59)
⌀, ⌀	Front luggage end panel standard hole	10 (9.39)	⌀, ⌀	Rear suspension brace installation nut	10 (0.39) nut
⌀, ⌀	Lower arm brace installation nut	12 (0.47) nut	⌀, ⌀	Rear suspension brace installation nut	10 (0.39) nut
⌀, ⌀	Front spring support hole – outer	9 (0.35)	⌀, ⌀	Rear spring support hole outer – front	11 (0.43)
⌀, ⌀	Lower arm brace installation nut	12 (0.47) nut	⌀, ⌀	Rear suspension member installation nut	12 (0.47) nut
⌀, ⌀	Front side member standard hole	18 (0.71)	⌀, ⌀	Rear floor side rear member standard hole	13 (0.51)
⌀, ⌀	Front side member standard hole	18 (0.71)	—	—	—

BODY PANEL SEALING AREAS

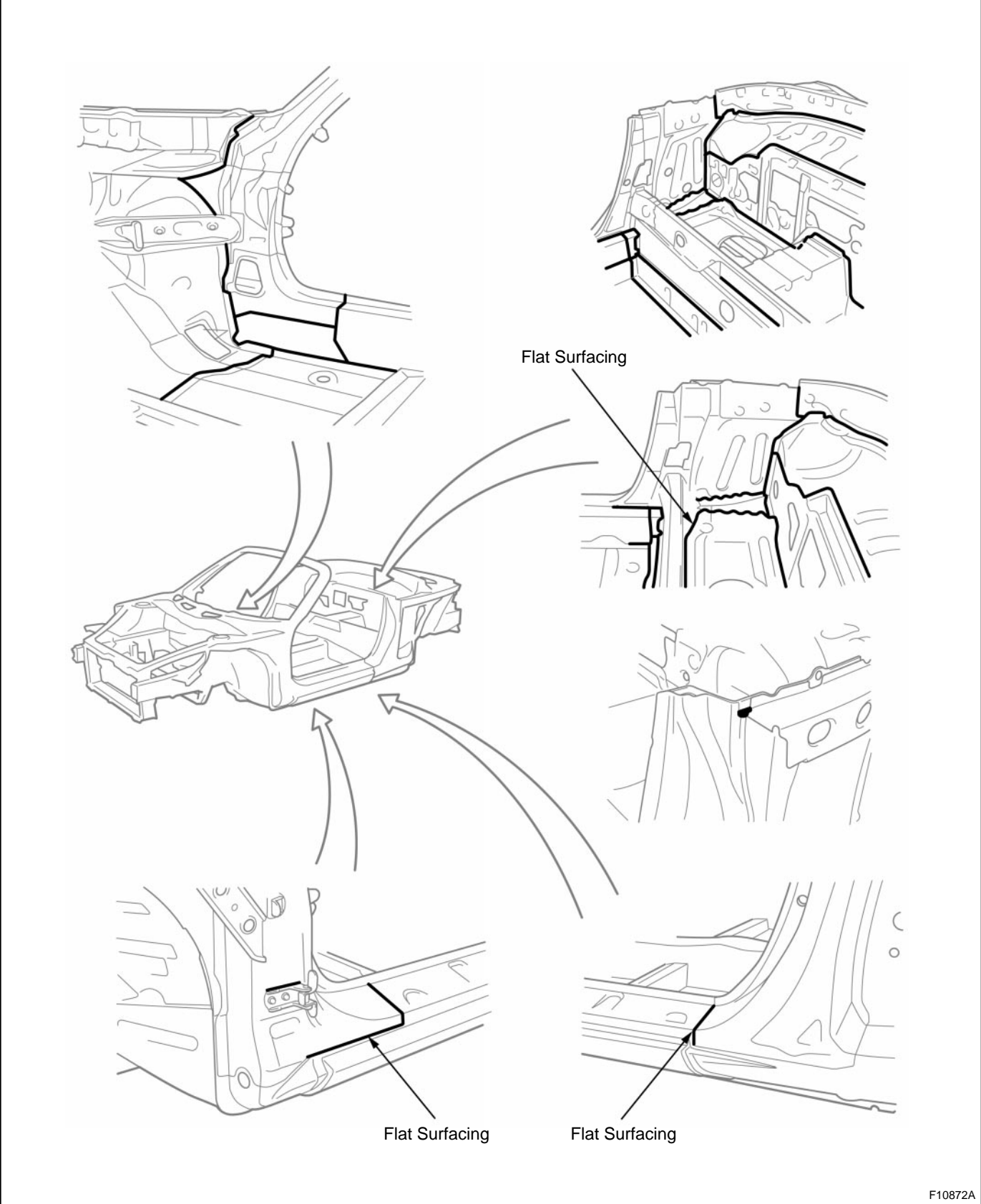
HINT:

1. Prior to applying body sealer, clean the area with a rag soaked in a grease, wax and silicone remover.
2. If weld-through primer was used, first wipe off any excess and coat with anti-corrosion primer before applying body sealer.
3. Wipe off excess body sealer with a rag soaked in a grease, wax and silicone remover.
4. If body sealer is damaged by peeling, cracks, etc., be sure to repair as necessary.

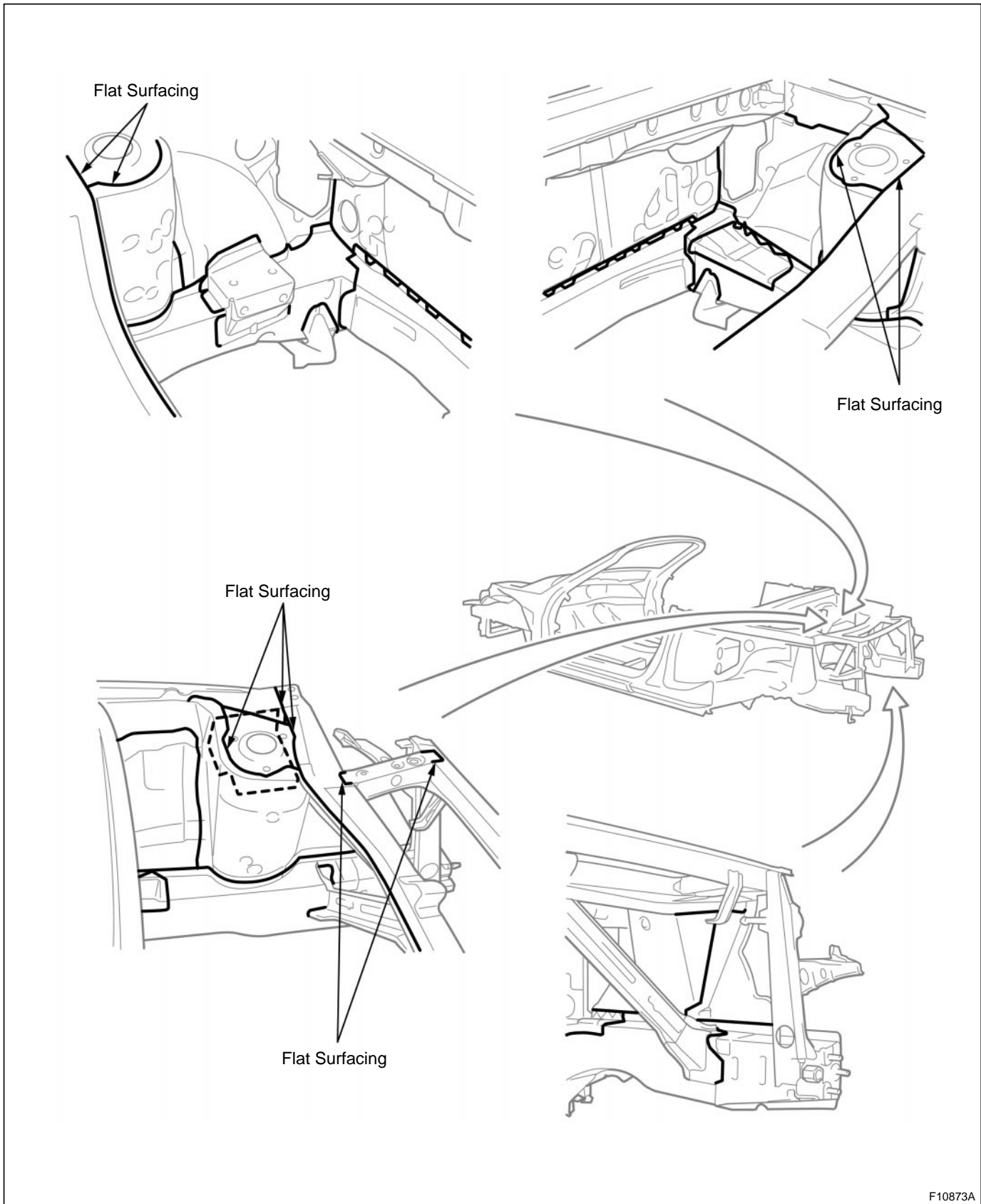
1. FRONT LUGGAGE COMPARTMENT



2. INSIDE

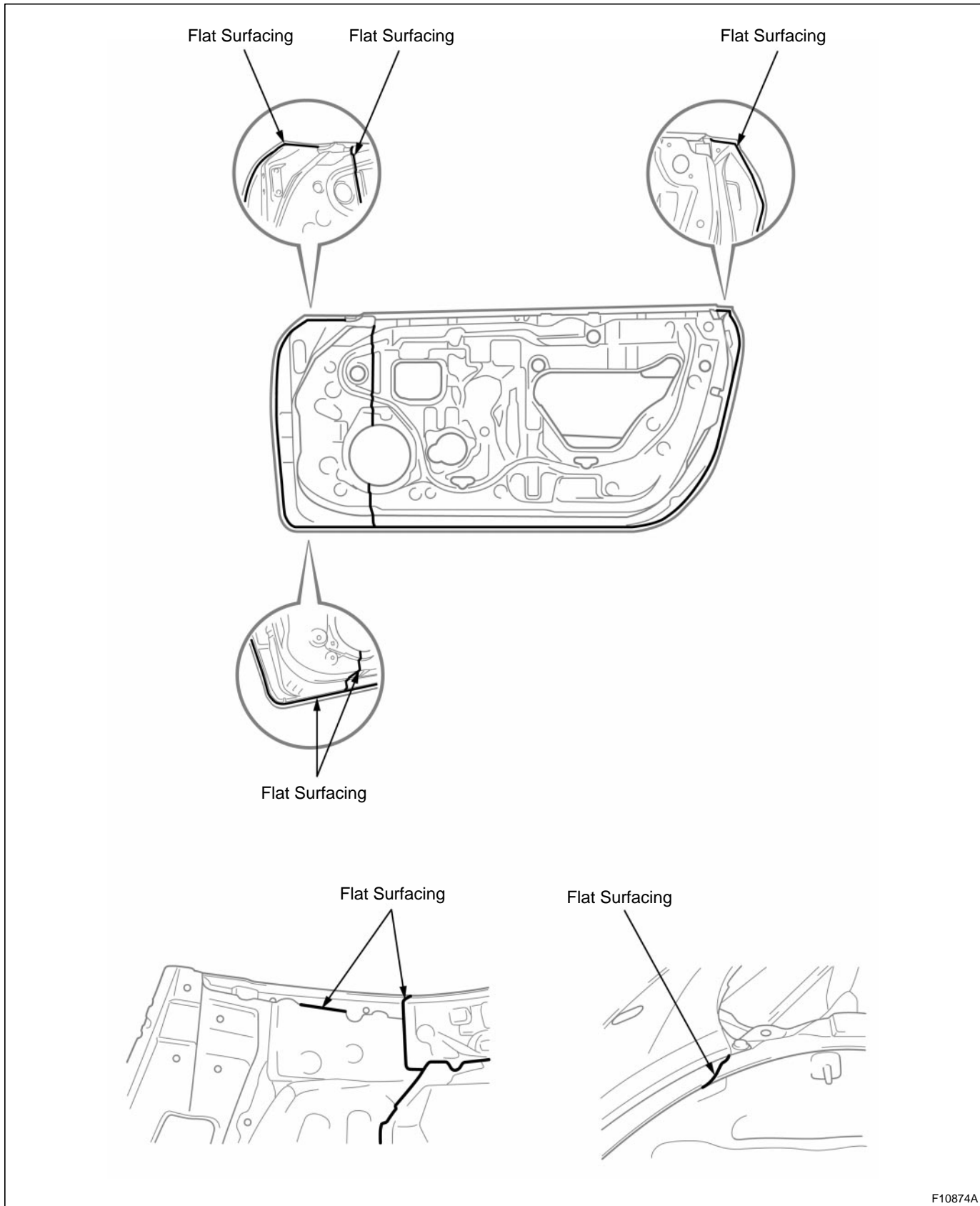


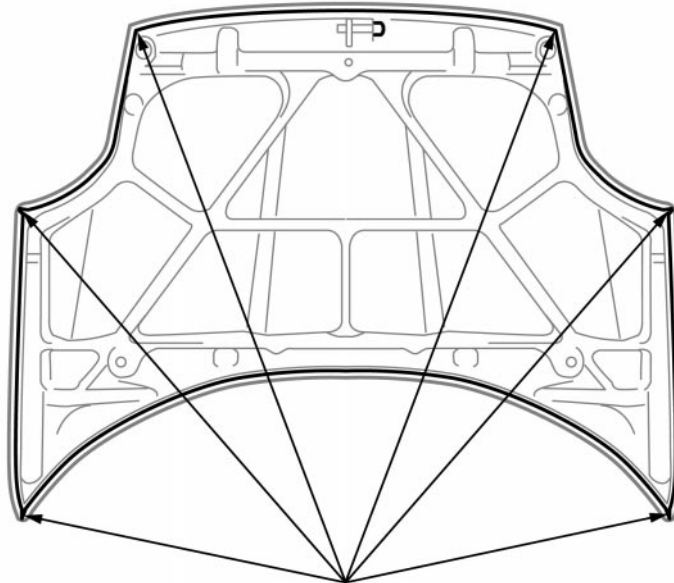
3. ENGINE COMPARTMENT



4. DOOR PARTS

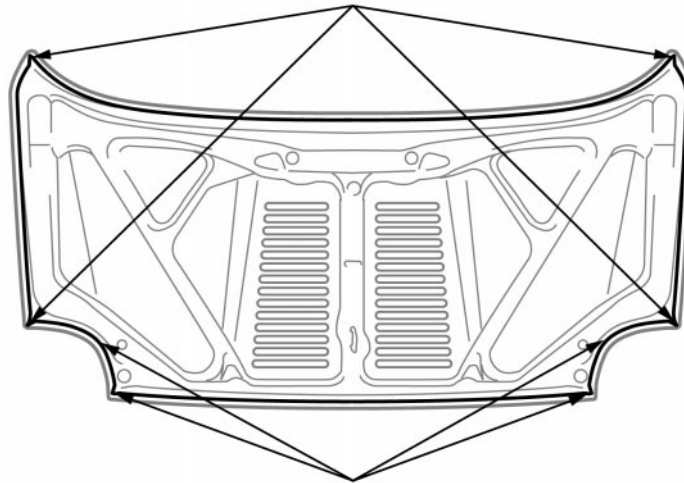
(a) Please be sure to apply body sealer to the places indicated below, if the quarter panel has been removed.





Flat Surfacing

Flat Surfacing

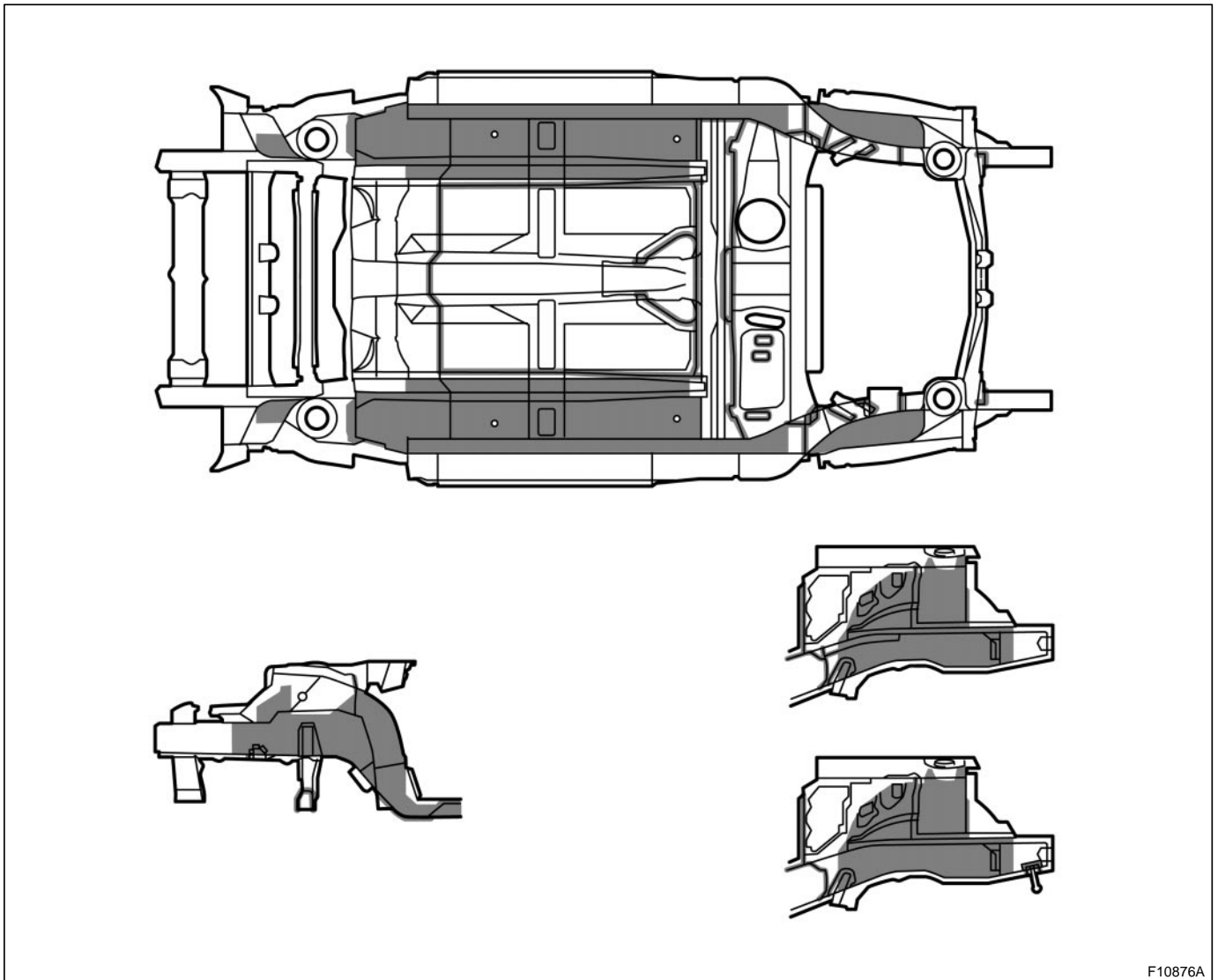


Flat Surfacing

BODY PANEL UNDERCOATING AREAS

HINT:

1. First wipe off any dirt, grease or oil with a rag soaked in a grease, wax and silicone remover.
2. Cover the surrounding areas with masking paper to avoid coating unnecessary areas. If other areas are accidentally coated, wipe off the coating immediately.
3. Apply the first coating of undercoat to all welded areas and panel joints, then apply a second coat over the entire area.
4. Do not coat parts which become hot, such as the tailpipe, or moving parts, such as the propeller shaft.
5. Besides the locations described below, apply undercoating to all weld points under the body to insure corrosion prevention.
6. Be sure to seal the edge of the flange of the member and bracket with undercoating.
7. If undercoat is damaged by peeling, cracks, etc., be sure to repair as necessary.
8. Before the undercoat apply sealer allowing rust prevention to be attained.

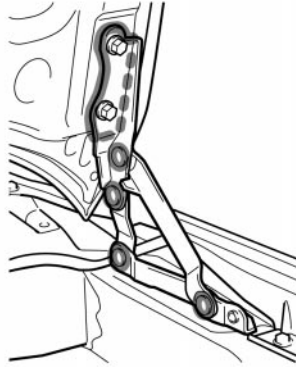
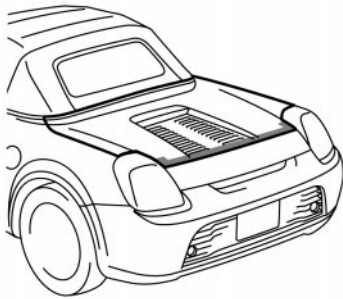


REFERENCE: Referring to the notes above, undercoating should be applied according to the specifications for your country.

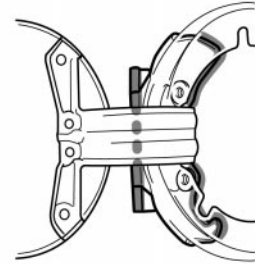
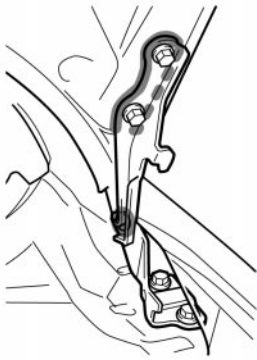
BODY PANEL ANTI-RUST AGENT (WAX) APPLICATION AREAS

HINT:

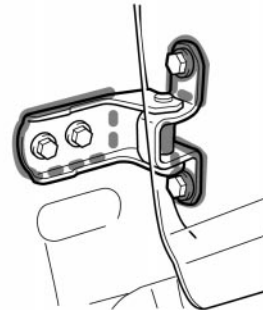
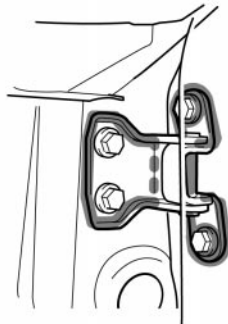
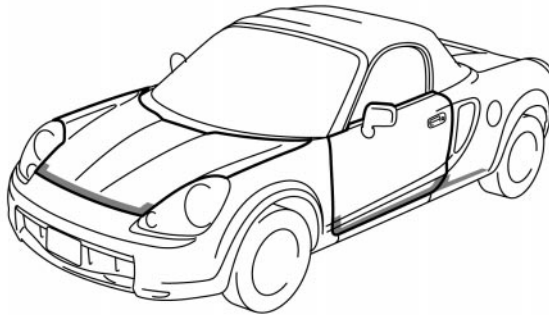
1. Whenever adjusting the doors and hoods, apply anti-rust agent (wax) around the hinges.
2. Even if partially repairing a part, apply anti-rust agent (wax) over the entire application area of the part.
3. Wipe off the anti-rust agent immediately with a rag soaked in a grease, wax and silicone remover, if accidentally applied to other areas.



Engine Hood Hinge

Fuel Filler
Opening Lid Hinge


Hood Hinge




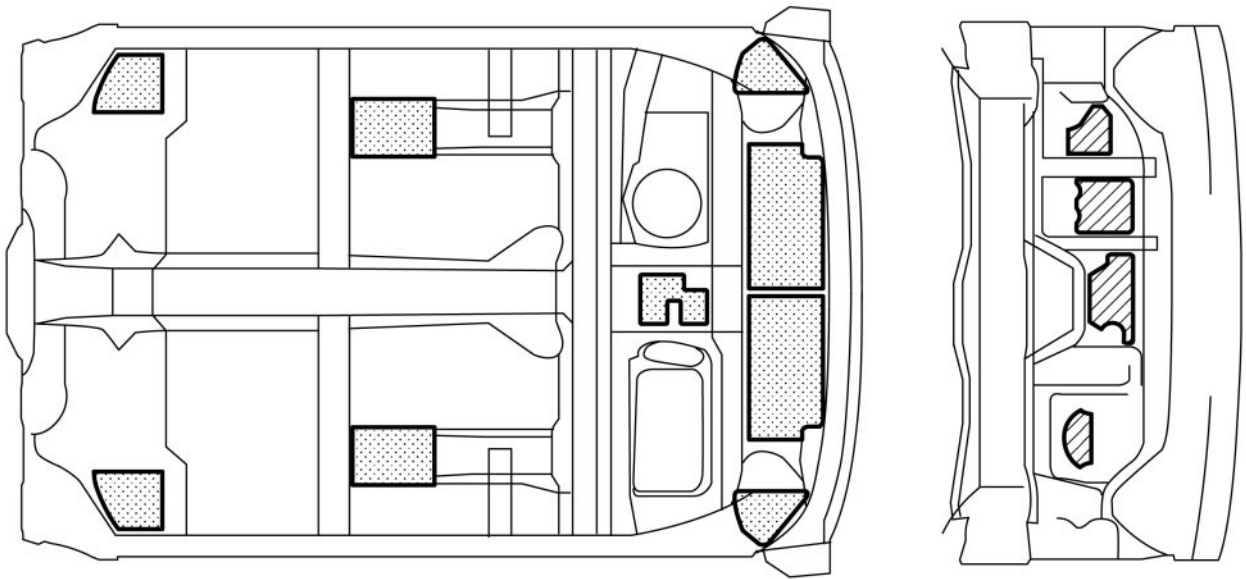
Door Hinge

SILENCER SHEET INSTALLATION AREAS

Thickness of Asphalt Sheet

 ····· 1.5 mm (0.059 in.)

 ····· 3.0 mm (0.118 in.)



BODY PANEL ANTI-CHIPPING PAINT APPLICATION AREAS

HINT:

1. Anti-chipping paint should be applied to some areas before the second coat and to others after the top coat.
2. If other areas are accidentally coated, wipe off the paint immediately with a rag soaked in grease, wax and silicone remover.

