

2008-2012 ACCORD Body Repair Manual

INTRODUCTION

How to Use This Manual

This manual covers the repairs of a 2008-2012 model-series Accord that has been involved in an accident, and it describes the work related to the replacement of damaged body parts. Please read through these instructions and familiarize yourself with them before actually using this manual.

NOTE: Refer to the appropriate Accord Service Manual, for specifications, wire harness locations, safety stand support points, etc.

Special Information

WARNING

You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION

You CAN be HURT if you don't follow instructions.

NOTE: Gives helpful information.

CAUTION

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. Please note that this manual does contain warnings and cautions against some specific service methods which could cause PERSONAL INJURY, damage a vehicle, or make it unsafe. Please understand that these warnings cannot cover all conceivable ways in which service, whether or not recommended by Honda, might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda, must satisfy himself thoroughly that neither personal safety or vehicle safety will be jeopardized.

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice. No part of this publication may be reproduced, stored in retrieval system, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. This includes text, figures and tables.

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1 General Information

2 Paint Information

3 *Replacement

4 Body Dimensional Drawings

5 Rust Prevention

General Safety Precautions

Reference

Sections with an * include SRS components; special caution is required when servicing.

A Few Words About Safety

Service Information

The repair information contained in this manual is intended for use by qualified, professional technicians. Attempting repairs without the proper training, tools, and equipment could cause injury to you or others. It could also damage the vehicle or create an unsafe condition.

This manual describes the proper methods and procedures for doing repairs. Some procedures require the use of specially designed tools and dedicated equipment. Any person who intends to use a replacement part, repair procedure or a tool that is not recommended by Honda, must determine the risks to their personal safety and the safe operation of the vehicle.

If you need to replace a part, use Honda parts with the correct part number, or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.

FOR YOUR CUSTOMER'S SAFETY

Proper repair is essential to the customer's safety and the reliability of the vehicle. Any error or oversight while repairing a vehicle can result in faulty operation, damage to the vehicle, or injury to others.

WARNING

Improper repairs can create an unsafe condition that can cause your customer or others to be seriously hurt or killed.

Follow the procedures and precautions in this manual and other service materials carefully.

FOR YOUR SAFETY

Because this manual is intended for the professional service technician, we do not provide warnings about many basic shop safety practices (for example, hot part-wear gloves). If you have not received shop safety training or do not feel confident about your knowledge of safe repairing practices, we recommend that you do not attempt the procedures described in this manual.

WARNING

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

Some of the most important general service safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in doing repair procedures. Only you can decide whether or not you should do a given task.

IMPORTANT SAFETY PRECAUTIONS

- Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and using safety equipment. When doing any repair task, be especially careful of the following:
 - Read all of the instructions before you begin, and make sure you have the tools, the replacement or repair parts, and the skills required to do the tasks safely and completely.
 - Protect your eyes by using proper safety glasses, goggles, or face shields any time you hammer, drill, grind, or work around pressurized air or liquids and springs or other stored-energy components. If there is any doubt, put on eye protection.
 - Use other protective wear when necessary, for example, gloves or safety shoes. Handling hot or sharp parts can cause severe burns or cuts. Before you grab something that looks like it can hurt you, stop and put on gloves.
 - Protect yourself and others whenever you have the vehicle up in the air. Any time you raise the vehicle, either with a lift or a jack, make sure that it is always securely supported. Use jack stands.
 - Protect yourself by wearing an approved welding helmet, gloves, and safety shoes any time you are welding. Protect yourself from burns from hot parts; allow the parts to cool before working in that area.
 - Protect yourself from paints and harmful chemicals by wearing an approved respirator, eye protection, and gloves whenever you are painting. Spray paint only in an approved paint booth that is well ventilated.

Introduction

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NOTE: Refer to the appropriate Accord Service Manual for specifications, wire harness locations, safety stand support points, etc.

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Reference

Symbols

Replacement

The welding symbols in the removal/installation have these meanings.

⊗: 2-Plate spot welding

⊗: 3-Plate spot welding

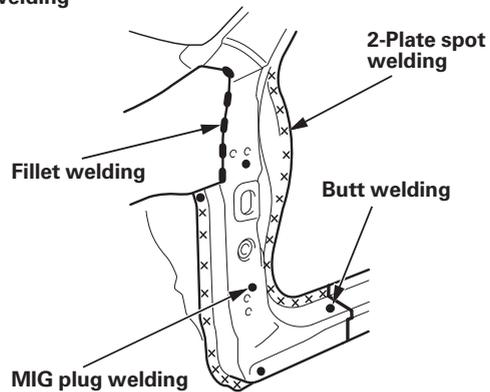
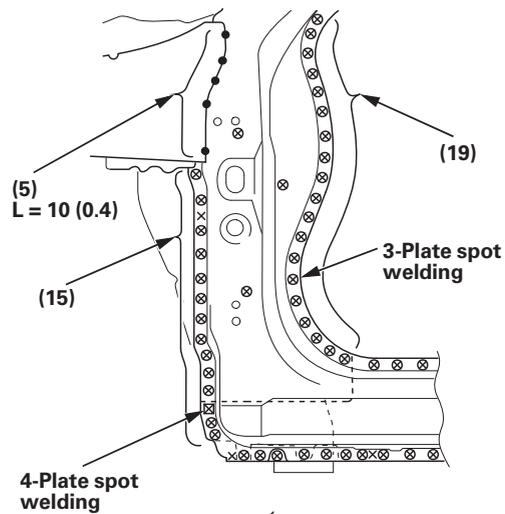
⊗: 4-Plate spot welding

●: MIG plug welding

●: MIG fillet or butt welding

L= Welding length Unit: mm (in.)

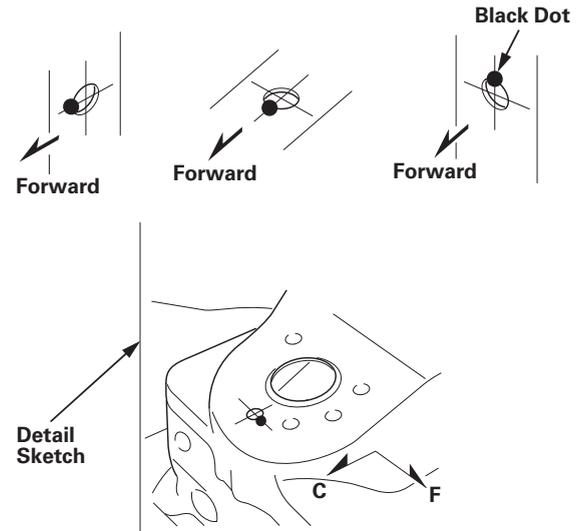
(): The number of welds



Body Dimensional Drawings

Body measuring dimensions show the distance between the forward or upper edge of positioning bosses and/or holes shown in the detail sketches.

Black dots: Measuring point

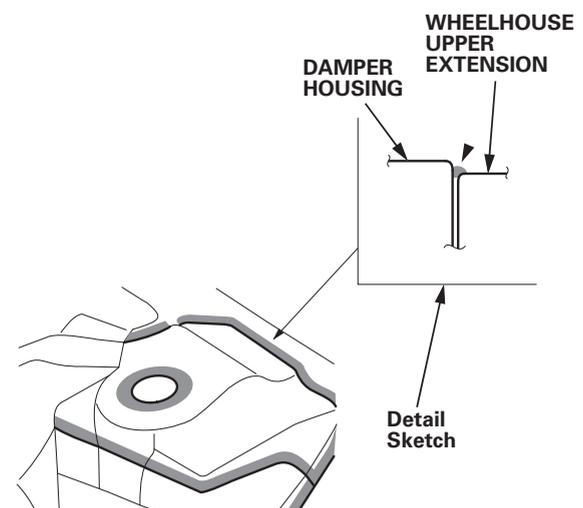


However, the measuring points in the frame repair chart are always the centers of the holes.

Rust Prevention

The sketch shows the areas where sealer is to be applied.

► : Sealing locations



General Information

General Information

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General Information

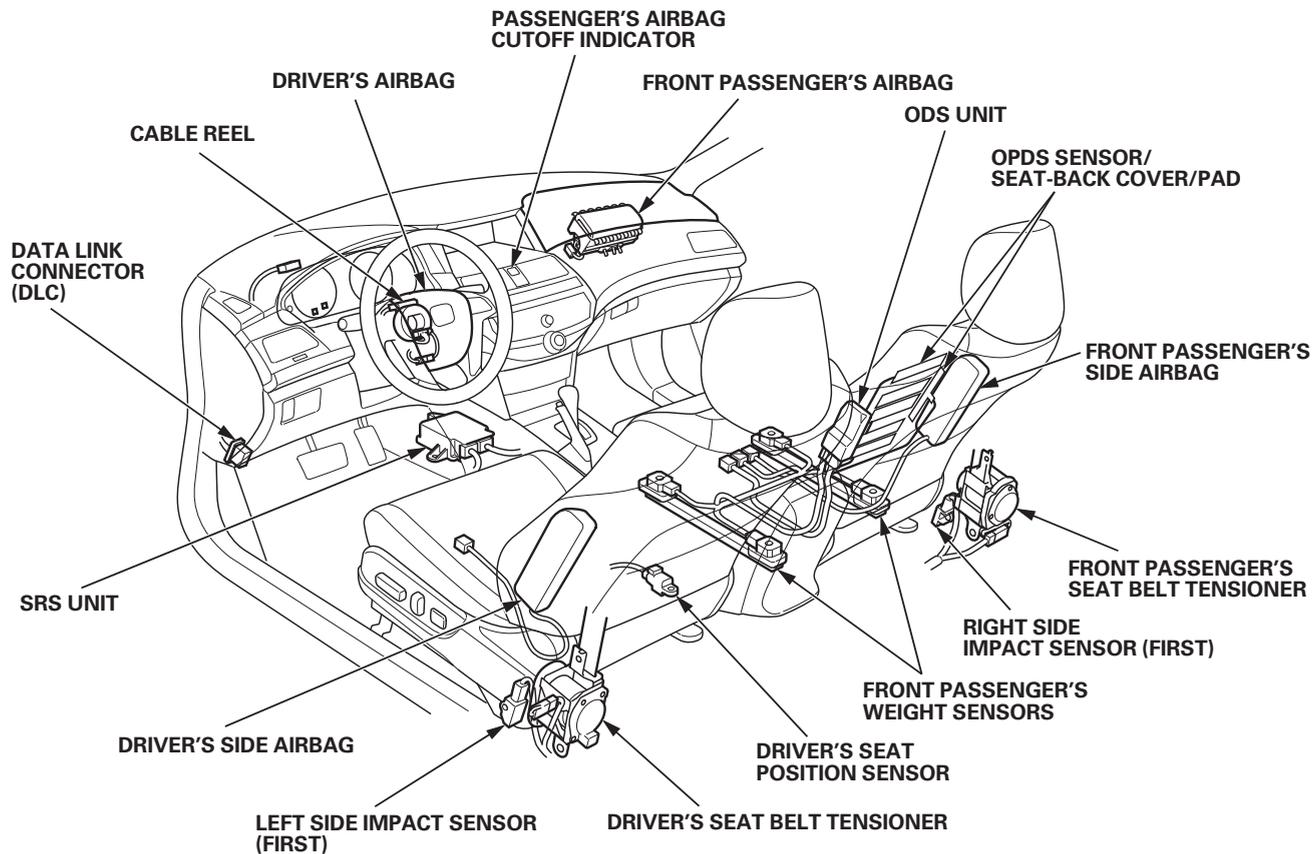
Supplemental Restraint System (SRS)

This model has an SRS which includes a driver's airbag in the steering wheel hub, a passenger's airbag in the dashboard above the glove box, the seat belt tensioners in the front seat belt retractors, the side airbags in the front seat-backs, and the side curtain airbags in the sides of the roof. The SRS unit is separate from the airbag assembly and has built-in sensors. The following precautions should be observed when doing sheet metal work, paint work, and repair work around the locations of the SRS components.

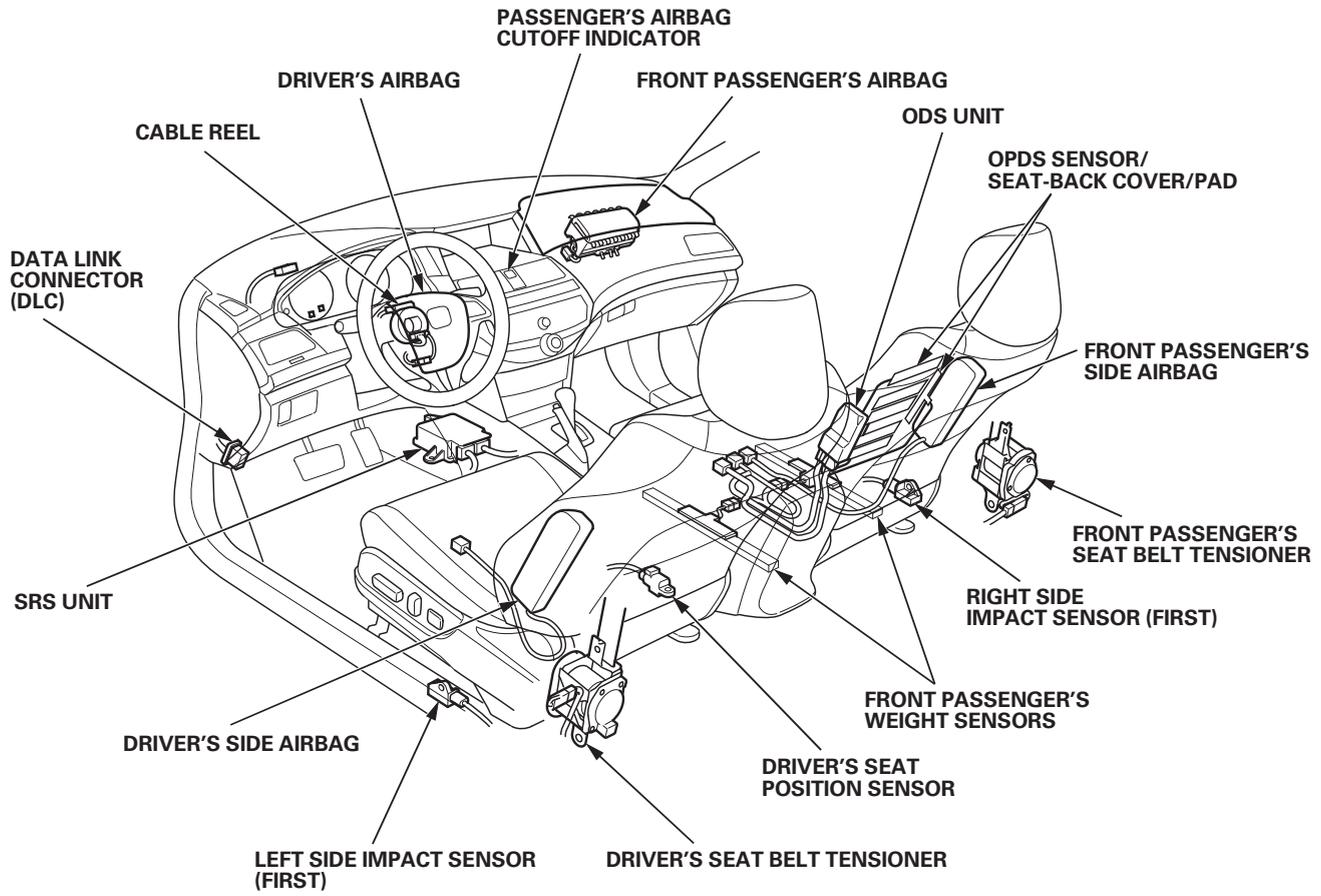
- The SRS unit (including the safing sensor and the impact sensor) is located under the dashboard and the side impact sensors are located in each side sill and rear wheel arch. The front impact sensors are located behind the right and left ends of the front bumper. Avoid any strong impact with a hammer or other tools when repairing the front side frame, the lower part of the dashboard, the side sill, and rear wheel arch. Do not apply heat to these areas with a torch, etc.
- Take extra care when painting or doing body work in the area below the center pillar. Do not expose the seat belt retractor and tensioner to heat guns, welding, or spraying equipment.
- SRS electrical wiring harnesses and connectors are identified with yellow color coding. Take care when repairing this area. Prevent damage to the harness.
- Do not apply heat of more than 212 °F (100 °C) when drying painted surfaces anywhere around the SRS components locations.
- If strong impact or high temperature need to be applied to the areas around the locations of SRS components, remove the components before performing the repair work.
- If any of the SRS related components are damaged or deformed, be sure to replace them.

NOTE: For after-deployment procedures, and removal and replacement of SRS related components, refer to the Accord Service Manual.

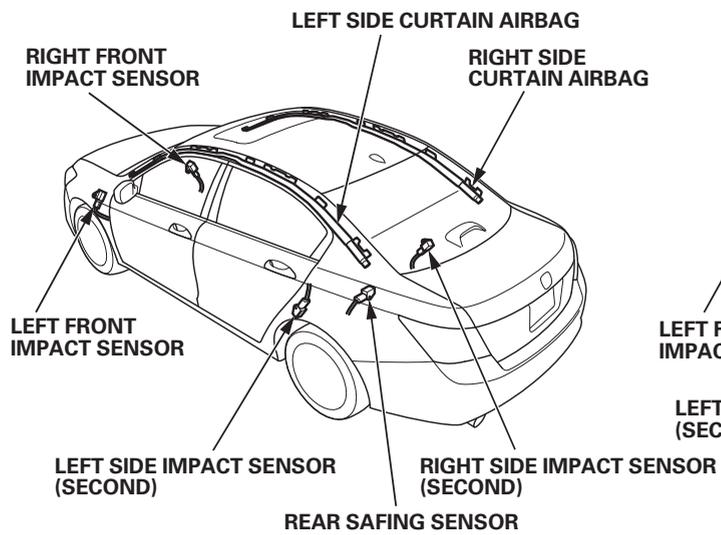
4-door



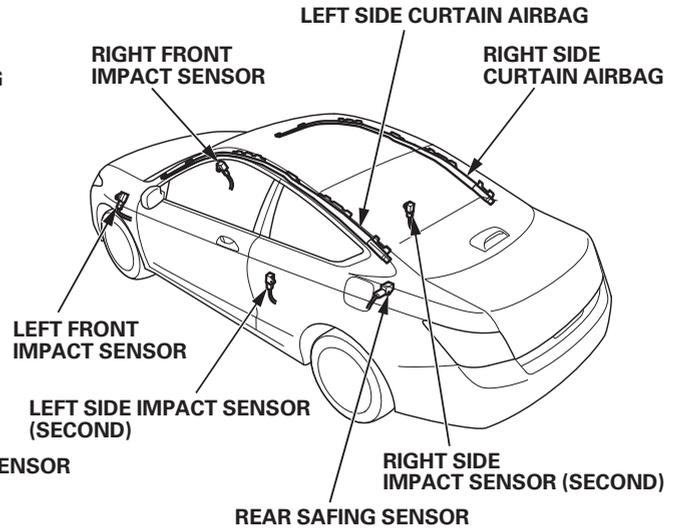
2-door



4-door



2-door



General Information

SRS Component Replacement/Inspection After Deployment

NOTE:

- Before doing any SRS repairs, use the HDS SRS menu method to check for DTCs; refer to the DTC Troubleshooting Index in the appropriate Accord Service Manual for the less obvious deployed parts (seat belt tensioners, front impact sensors, side airbag sensors, etc.)
- Do not replace the ODS unit unless it is physically damaged or a specific fault was found during DTC troubleshooting; refer to the appropriate Accord Service Manual.
- After a vehicle collision, do the ODS unit operation check; refer to the appropriate Accord Service Manual.

After a collision where the seat belt tensioners deployed, replace these items:

- SRS unit
- Seat belt tensioners
- Front impact sensors

After a collision where the front airbag(s) deployed, replace these items:

- SRS unit
- Deployed airbag(s)
- Seat belt tensioners
- Front impact sensors

After a collision where the side airbag(s) deployed, replace these items:

- SRS unit
- Deployed side airbag(s)
- Side impact sensor(s) (first) for the side(s) that deployed
- Side impact sensor(s) (second) for the side(s) that deployed
- B-pillar lower trim
- Complete seat frame

After a collision where a side curtain airbag has deployed, replace the items for the side(s) that deployed:

- SRS unit
- Deployed side curtain airbag(s)
- Seat belt tensioner(s) for the side(s) that deployed
- Side impact sensor(s) (first) for the side(s) that deployed
- Side impact sensor(s) (second) for the side(s) that deployed
- Rear safing sensor
- Roof trim
- A-pillar trim
- B-pillar upper trim
- C-pillar trim
- Front grab handle
- Rear grab handle
- All related trim clips
- Sunvisor

After a moderate to severe side or rear collision, inspect for any damage on the side curtain airbag or other related components. Replace the components as needed.

After a collision, where a side curtain airbag has deployed, replace all trim clips on that side, even if they appear to be undamaged. Replace the clips on these parts:

- A-pillar trim
- C-pillar trim

During the repair process, inspect these areas:

- Inspect all the SRS wire harnesses. Replace, do not repair, any damaged harnesses.
- Inspect the cable reel for heat damage. If there is any damage, replace the cable reel.

After the vehicle is completely repaired, turn the ignition switch to ON (II). If the SRS indicator comes on for about 6 seconds and then goes off, the SRS is OK. If the indicator does not function properly, use the HDS SRS Menu Method to read the DTC, and refer to the 2008 Accord Service Manual. If you cannot retrieve a code, go to SRS Symptom Troubleshooting in the appropriate Accord Service Manual.

Battery Terminal Disconnection/Reconnection

Disconnection

NOTE: Some system store data in memory is lost when the battery is disconnected. Do the following procedures before disconnecting the battery.

1. Make sure you have the anti-theft code(s) for the audio and/or the navigation system (if equipped).

NOTE: For some models, it maybe necessary to write down the audio presets (AM and FM), because the audio unit does not retain the presets after the battery is disconnected.

2. Write down the XM audio presets (if equipped).

3. With driver's position memory system (DPMS) models: Make sure you have both keyless transmitters (driver 1 and driver 2).

NOTE: If only one keyless transmitter is available, only the available transmitter will work with the DPMS until the other transmitter is synced to the DPMS.

4. Make sure the ignition switch is in LOCK (0).
5. Disconnect and isolate the negative cable from the battery.

NOTE: Always disconnect the negative cable from the battery first.

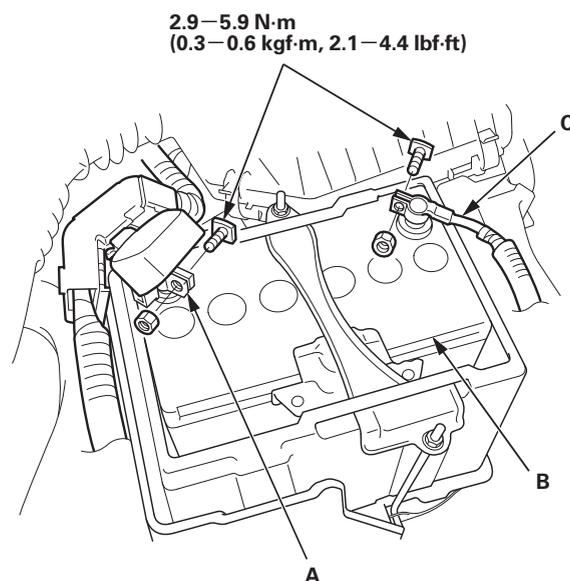
6. Disconnect the positive cable from the battery.

Reconnection

NOTE: Some system store data in memory is lost when the battery is disconnected. Do the following procedures to restore the systems back to normal operation.

1. Clean the battery terminals.
2. Test the battery ; refer to the appropriate Accord Service Manual.
3. Reconnect the positive cable (A) to the battery (B) first, then reconnect the negative cable (C) to the battery.

NOTE: Always connect the positive cable to the battery first.



4. Apply multipurpose grease to the terminals to prevent corrosion.
5. Enter the anti-theft code(s) for the audio system and/or the navigation system (if equipped).
6. Enter the audio presets (if applicable), and enter the XM audio presets (if equipped).
7. Set the clock (for vehicles without navigation).
8. With DPMS models: Lock and unlock the doors with the keyless transmitter to sync it to the DPMS. Repeat this step for the other transmitter.

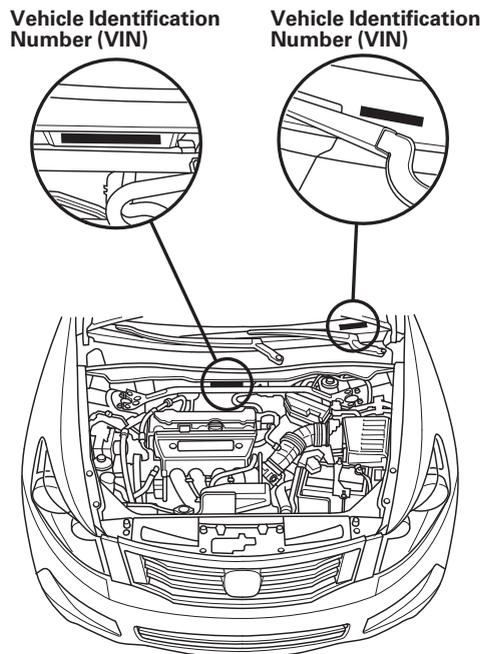
NOTE: If both keyless transmitters (driver 1 and driver 2) are not available, the DPMS will not work properly until the keyless transmitter(s) are synced to the DPMS. If only one keyless transmitter is available, only the available transmitter will work with the DPMS until the other transmitter is synced to the DPMS.

General Information

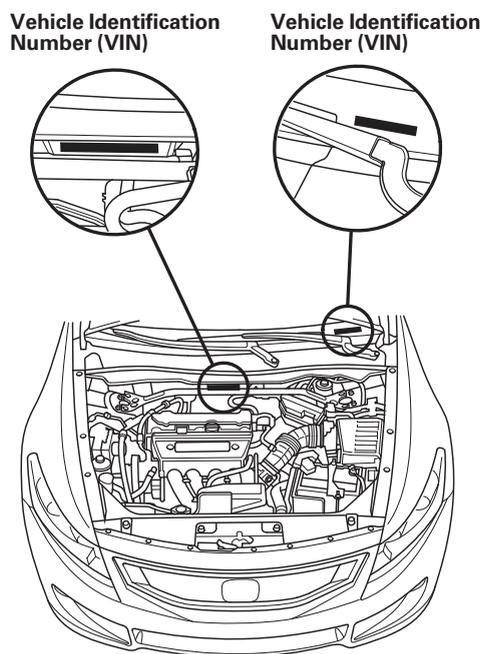
Identification Number Locations

L4 Engine Models

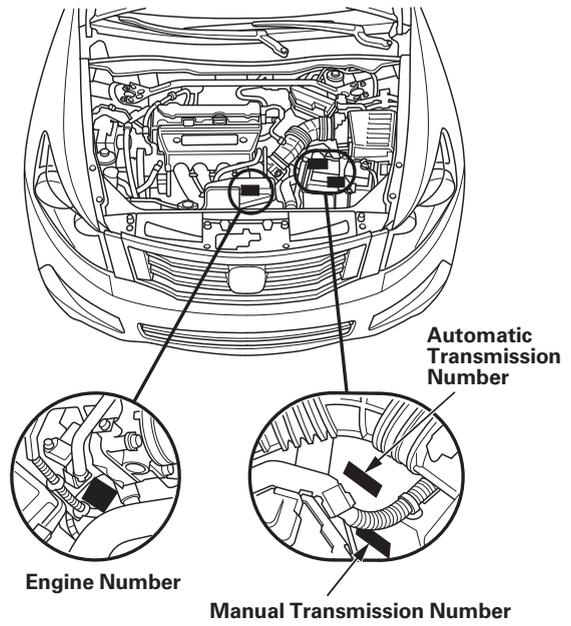
4-door



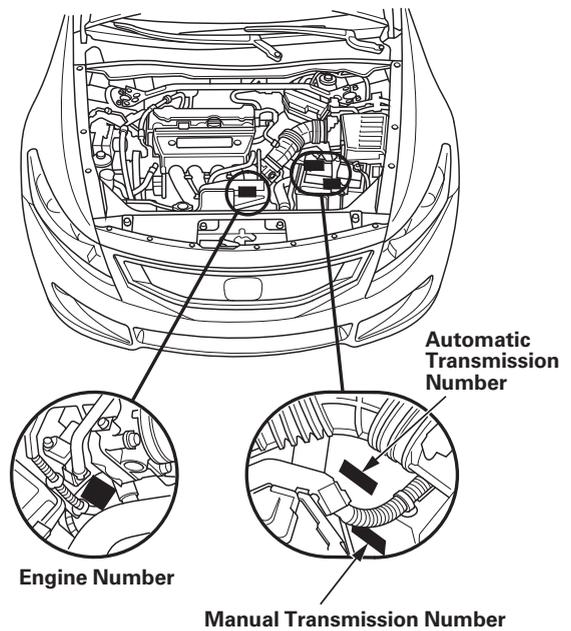
2-door



4-door

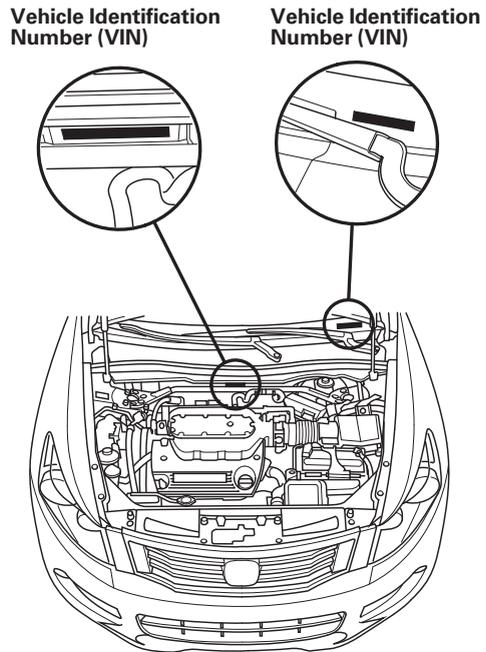


2-door

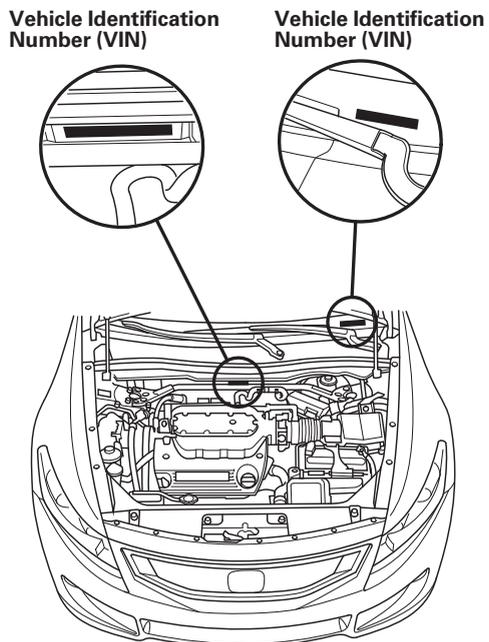


V6 Engine Models

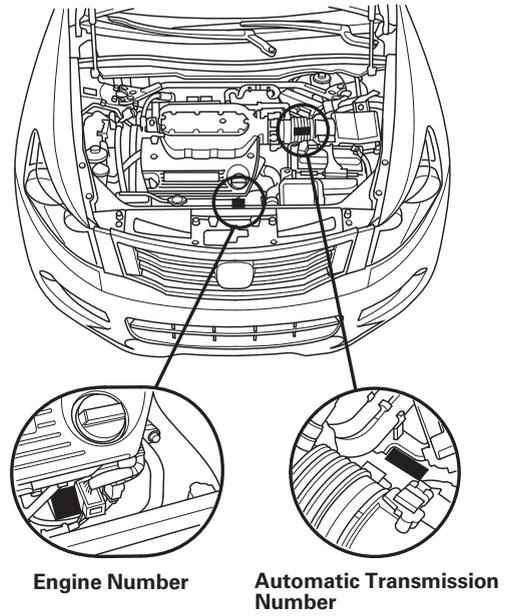
4-door



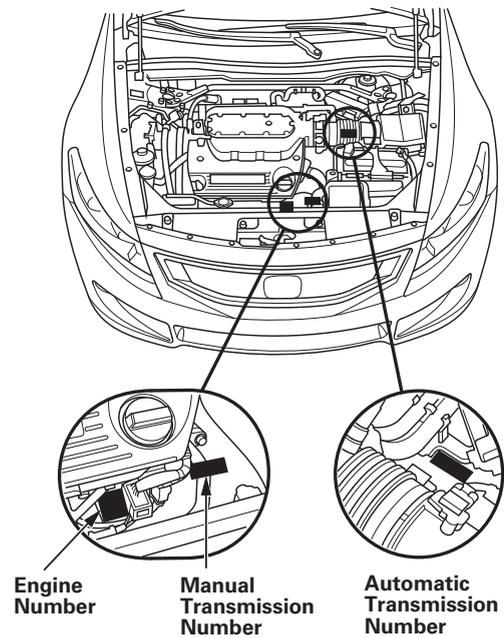
2-door



4-door



2-door

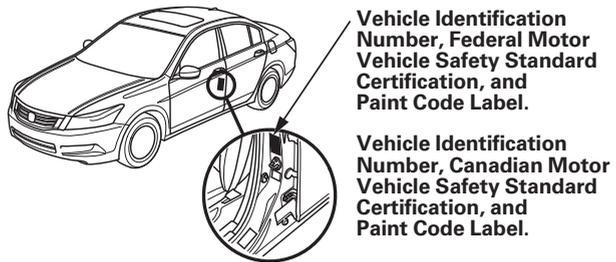


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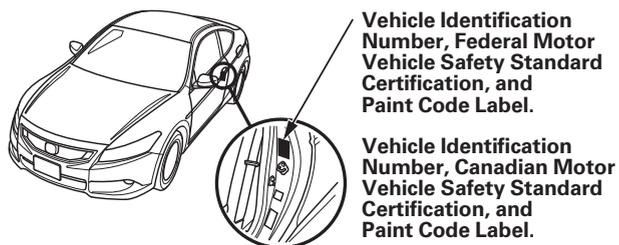
General Information

Identification Number Locations (cont'd)

4-door



2-door



Parts Marking

To deter vehicle theft, certain major components are marked with the vehicle identification number (VIN). Original parts have self-adhesive labels. Replacement body parts have generic self-adhesive labels. The original engine or transmission VIN plates are not transferable to a replacement engine and transmission.

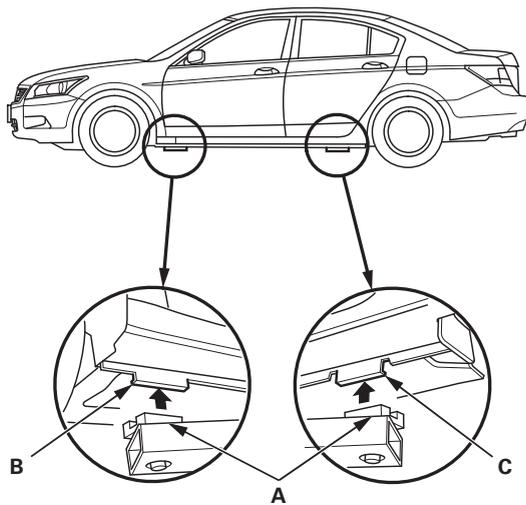
NOTE: Be careful not to damage the parts marking labels during body repair. Mask the labels before repairing the part.

Lift and Support Points

NOTE: If you are going to remove heavy components such as the suspension or the fuel tank from the rear of the vehicle, first support the front of the vehicle with tall safety stands. When substantial weight is removed from the rear of the vehicle, the center of gravity can change causing the vehicle to tip forward on the lift.

Vehicle Lift

1. Position the hoist lift blocks (A) under the vehicle's front support points (B) and rear support points (C).



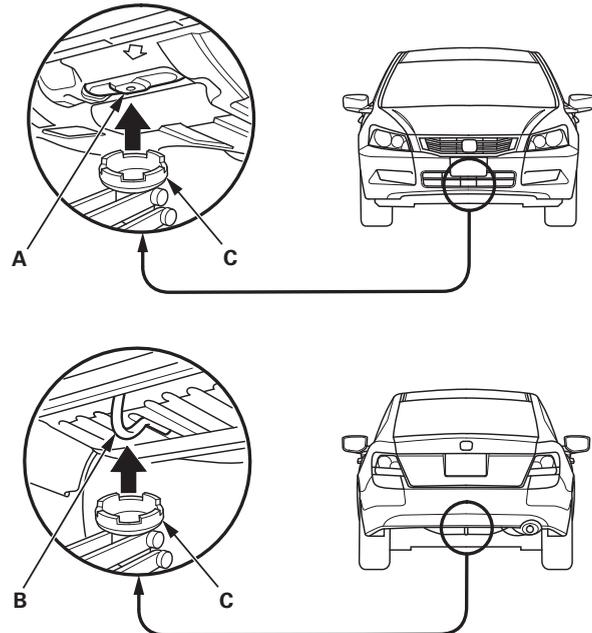
2. Raise the lift a few inches, and rock the vehicle gently to be sure it is firmly supported.
3. Raise the lift to full height, and inspect the vehicle support lift points for solid contact with the lift blocks.

Safety Stands

To support the vehicle on safety stands, use the same support points (B and C) as for a vehicle lift. Always use safety stands when working on or under any vehicle that is supported only by a jack.

Floor Jack

1. When lifting the front of the vehicle, set the parking brake. When lifting the rear of the vehicle, put the shift lever in reverse for manual transmission, or in the P position for automatic transmission.
2. Block the wheels that are not being lifted.
3. Position the floor jack under the front jacking bracket (A) or rear jacking bracket (B). Center the jacking bracket on the jack lift platform (C), and jack up the vehicle high enough to fit the safety stands under it.



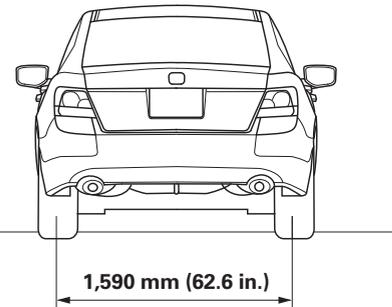
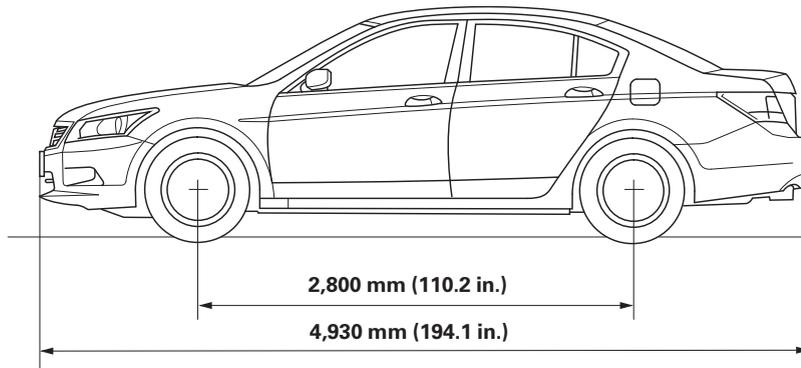
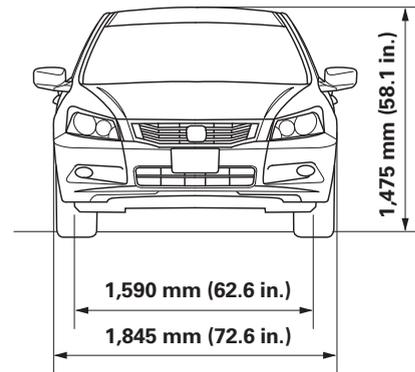
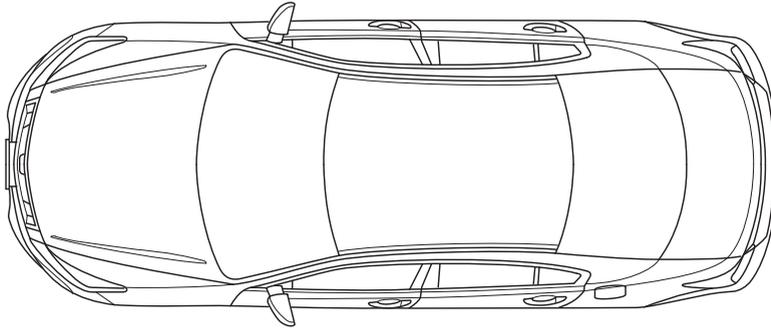
4. Position the safety stands under the support points and adjust them so the vehicle is level.
5. Lower the vehicle onto the stands.

General Information

Body Specifications/Wheel Alignment

V6 Engine Model

4-door



Front Wheel Alignment:

Camber	17 inch wheels: $0^{\circ} 00' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$		
	18 inch wheels: $-0^{\circ} 05' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$		
Caster	$3^{\circ} 48' \begin{smallmatrix} +0^{\circ} 25' \\ -1^{\circ} 05' \end{smallmatrix}$		
Total toe	0 ± 2 mm (0 ± 0.08 in)		
Wheel turning angle	17 inch wheels	in	$39^{\circ} 00' \pm 2^{\circ}$
		out	$31^{\circ} 50'$ (Reference)
	18 inch wheels	in	$37^{\circ} 00' \pm 2^{\circ}$
		out	$30^{\circ} 20'$ (Reference)

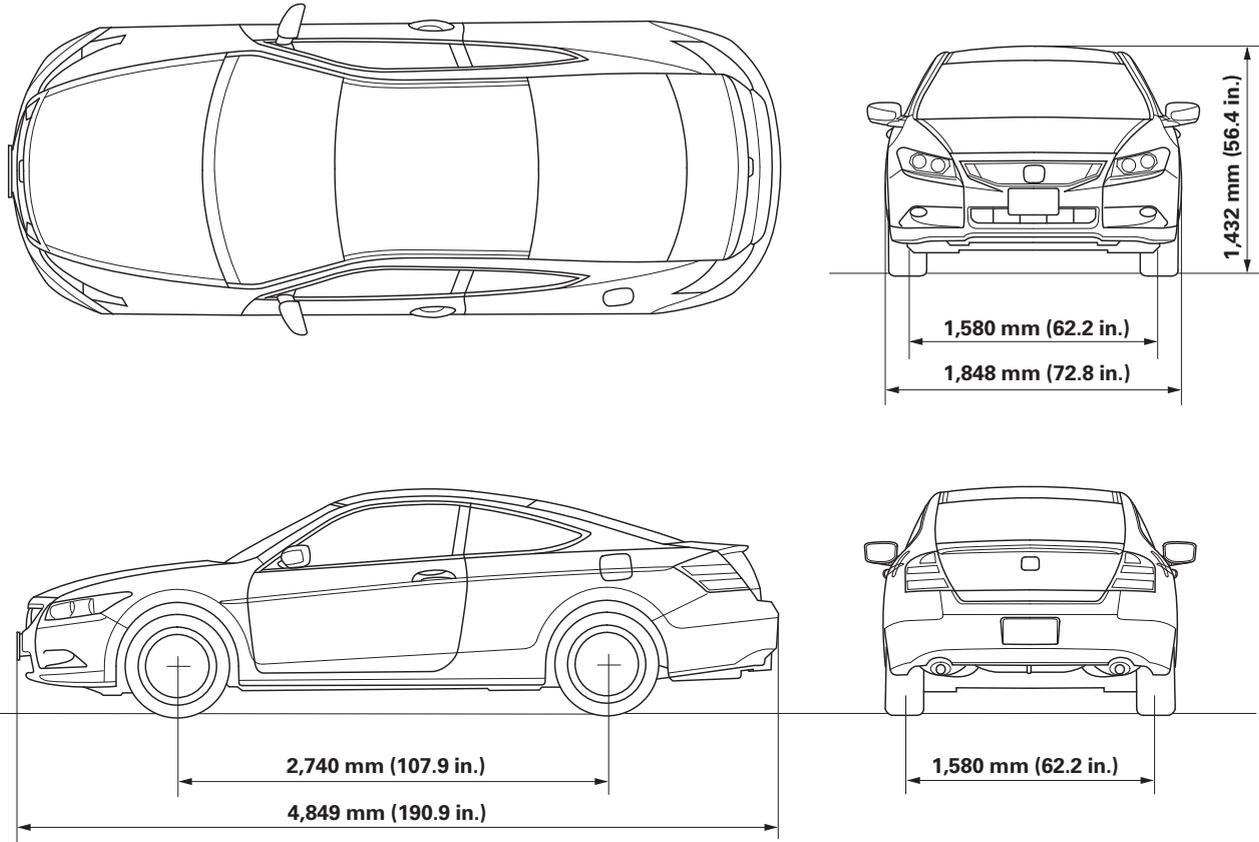
Unit: mm (in.)

Rear Wheel Alignment:

Camber	17 inch wheels: $-1^{\circ} 00' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$	
	18 inch wheels: $-1^{\circ} 19' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$	
Total toe	$IN 2 \pm 2$ mm (0.08 ± 0.08 in)	

Unit: mm (in.)

2-door



Front Wheel Alignment:

Camber	17 inch wheels: $0^{\circ} 00' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$		
	18 inch wheels: $-0^{\circ} 05' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$		
Caster	$3^{\circ} 47' \begin{smallmatrix} +0^{\circ} 25' \\ -1^{\circ} 05' \end{smallmatrix}$		
Total toe	0 ± 2 mm (0 ± 0.08 in)		
Wheel turning angle	17 inch wheels	in	$39^{\circ} 00' \pm 2^{\circ}$
		out	$31^{\circ} 50'$ (Reference)
	18 inch wheels	in	$37^{\circ} 00' \pm 2^{\circ}$
		out	$30^{\circ} 20'$ (Reference)

Unit: mm (in.)

Rear Wheel Alignment:

Camber	17 inch wheels: $-1^{\circ} 00' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$	
	18 inch wheels: $-1^{\circ} 19' \begin{smallmatrix} +30' \\ -45' \end{smallmatrix}$	
Total toe	IN 2 ± 2 mm (0.08 ± 0.08 in)	

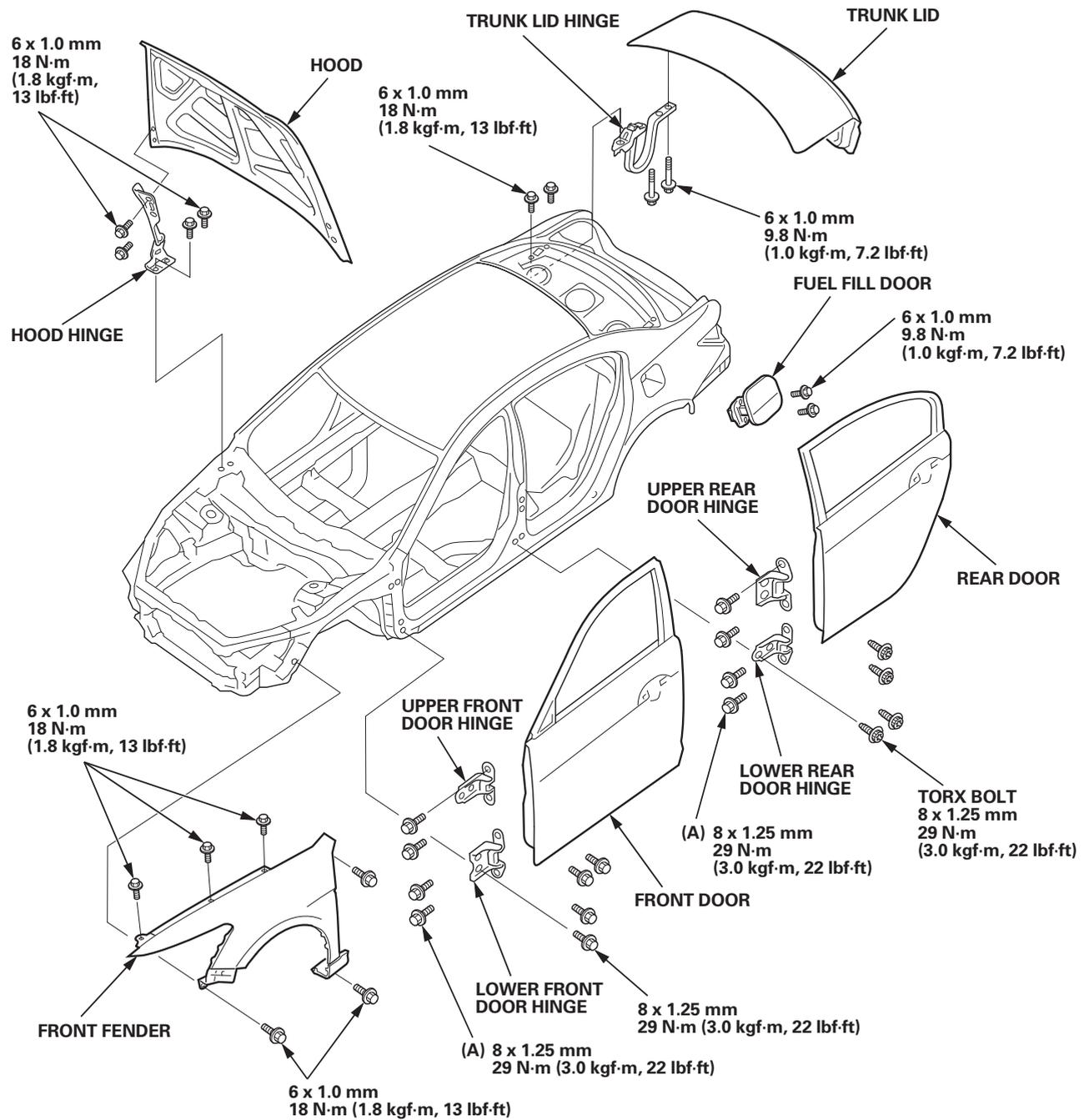
Unit: mm (in.)

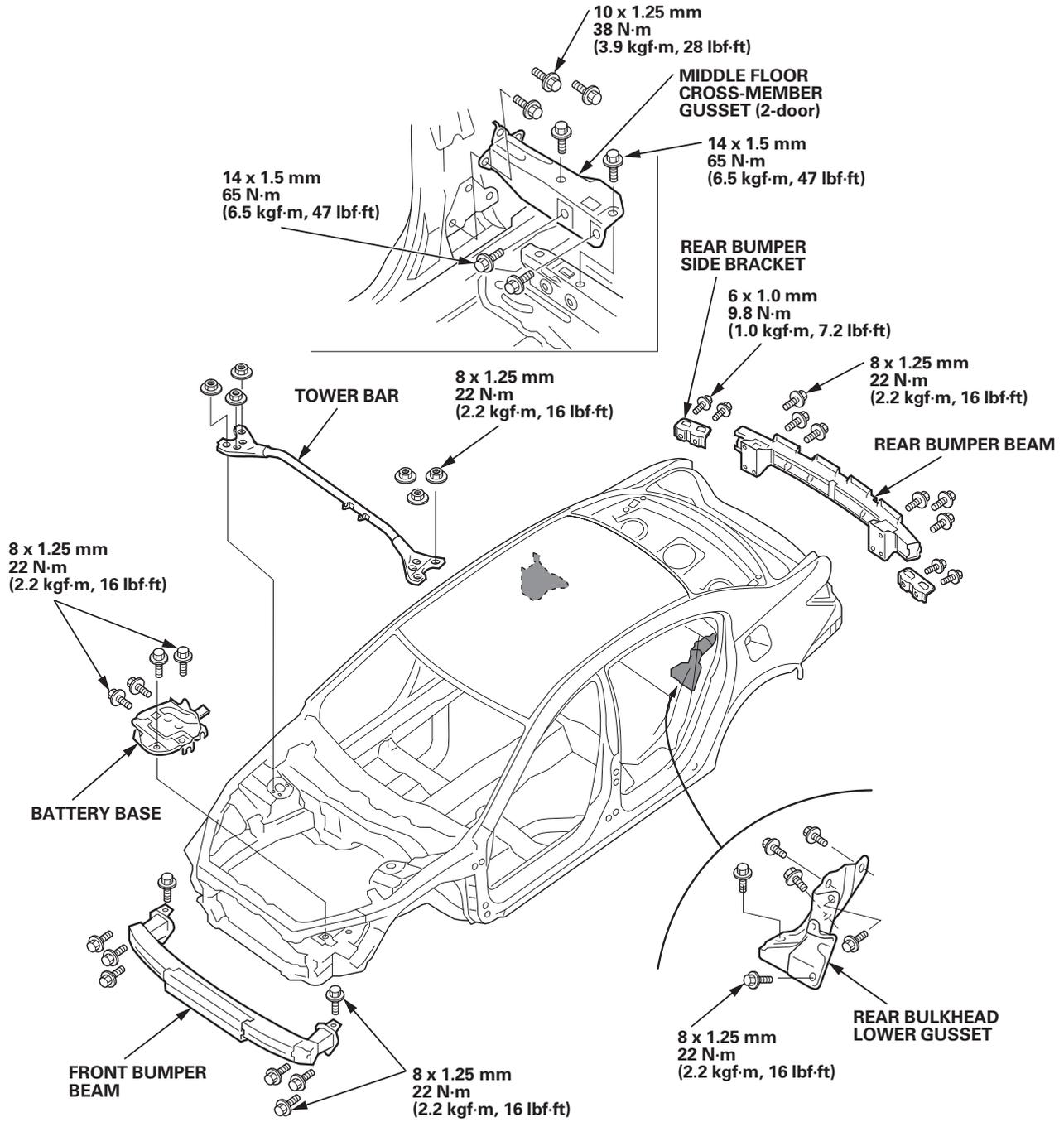
General Information

Exterior Parts Removal/Installation

NOTE:

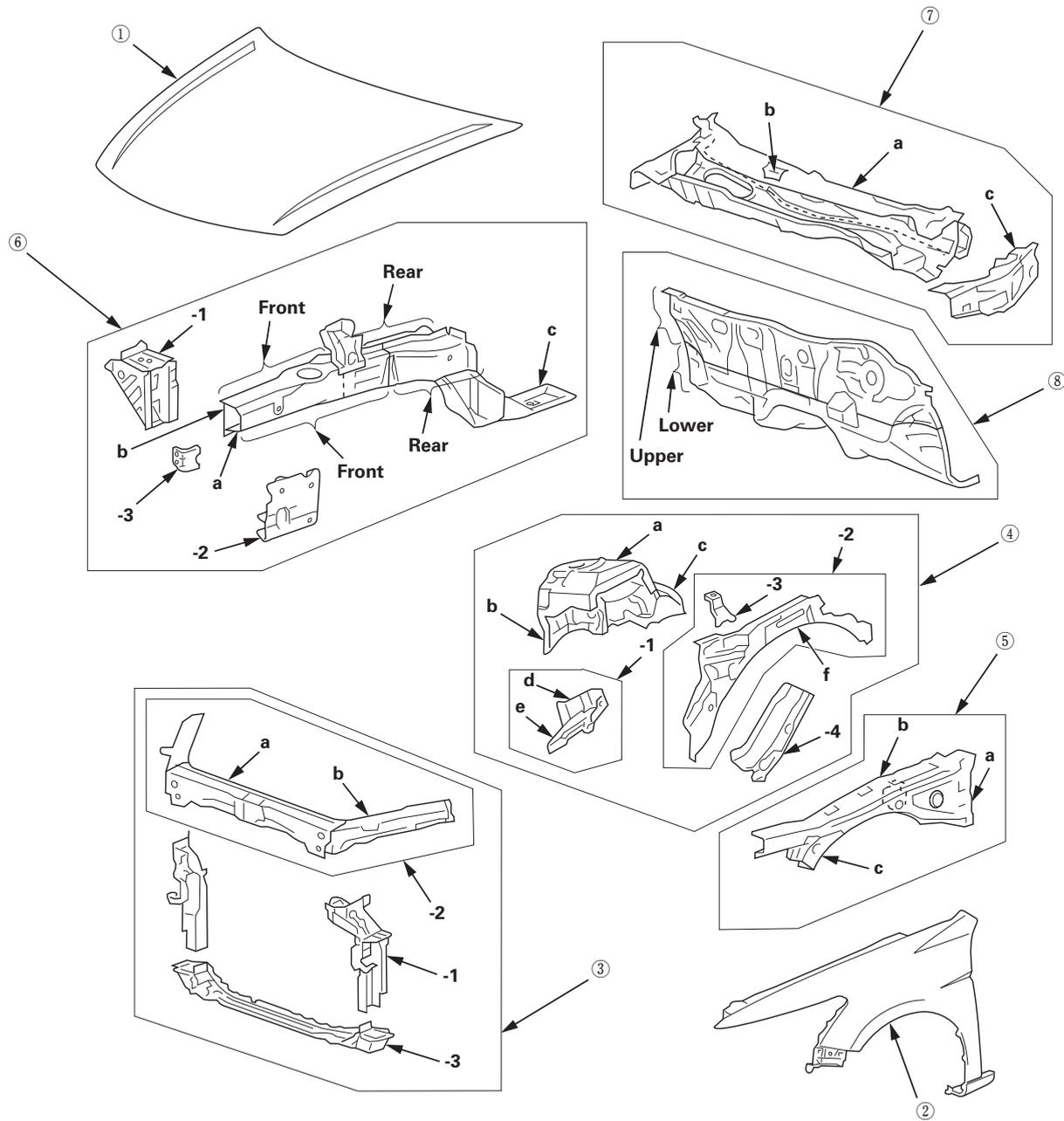
- To adjust the alignment of the hood, the doors, and the tailgate, refer to the Accord Service Manual.
- When adjusting the door in or out, replace the mounting bolts (A) (90102-SFA-305).
- Apply spot sealer to the mating surface, then install the front fender, hood, doors, and hinges.





General Information

Front Body Construction



NOTE:

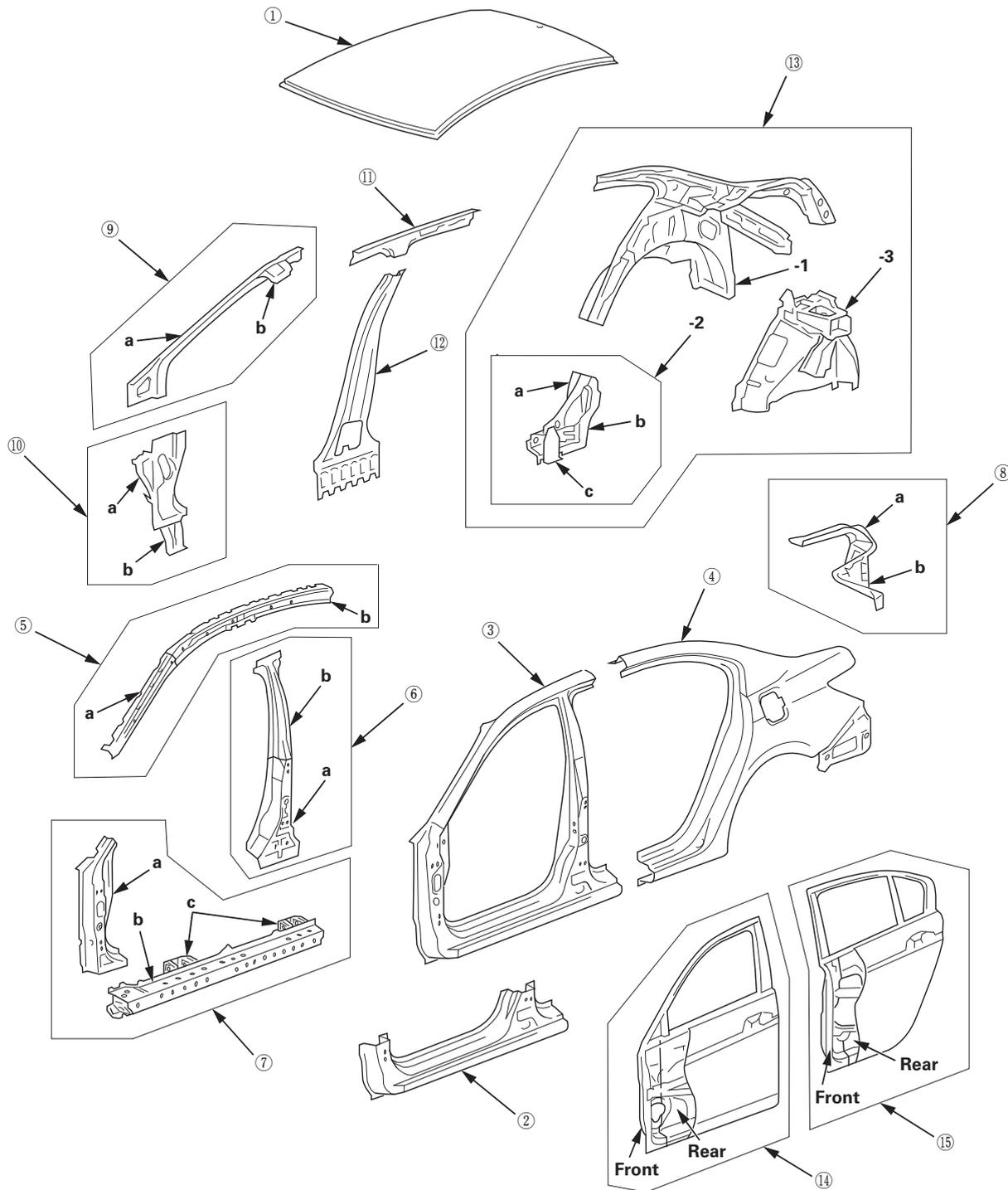
- The parts marked with numbers are sold as repair parts.
- The parts marked with letters are not sold separately and are shown only for reference.
- [] : Thickness unit: mm (in.)
- High-tension steel sheet: Tensioner strength 340 to 590 MPa.

No.	Part Name	Tensioner strength (MPa)	Zinc-plating	
①	Hood	Skin [0.7 (0.028)]	340	○
		Frame [0.55 (0.02)]	270	○
②	Front Fender [0.75 (0.03)]	270	○	
③	Front Bulkhead Comp.			
-1	Front Bulkhead Side Stay Set [0.7 (0.028)]	270	○	
-2	Front Bulkhead Upper Frame Set			
	a: Bulkhead Upper Center Frame [0.8 (0.031)]	270	○	
	b: Bulkhead Upper Side Frame [0.8 (0.031)]	270	○	
-3	Front Bulkhead Lower Cross-member Set [0.8 (0.031)]	270	○	
④	Front Wheelhouse Comp.			
	a: Front Dumper Housing Upper [2.3 (0.09)] /Damper Base [2.0 (0.08)]	270/440	○	
	b: Front Dumper Housing Lower [1.4 (0.06)]	270	○	
	c: Front Dumper Housing Lower Extension [1.0 (0.04)]	270	○	
-1	Front Wheelhouse Sub Set			
	d: Front Wheelhouse [0.7 (0.028)]	270	○	
	e: Front Wheelhouse Gusset [1.0 (0.04)]	590	○	
-2	Front Wheelhouse Upper Inner Set			
	f: Front Wheelhouse Upper Inner [1.0 (0.04)]	590	○	
-3	Front Fender Bracket [1.0 (0.04)]	270	○	
-4	Front Wheelhouse Lower Member [0.6 (0.02)]	590	○	
⑤	Front Wheelhouse Upper Member Comp.			
	a: Front Wheelhouse Upper Member [0.7 (0.028)]	590	○	
	b: Front Wheelhouse Upper Member Bulkhead [1.0 (0.04)]	270	○	
	c: Front Wheelhouse Lower Member Extension [0.6 (0.02)]	590	○	
⑥	Front Side Frame Comp.			
	a: Front Side Frame Front [1.6 (0.06)] , Rear [1.8 (0.07)]	590	○	
	b: Front Side Backplate Front [1.4 (0.06)] , Rear [1.8 (0.07)]	590	○	
	c: Side Frame Rear End [2.0 (0.08)] /Outrigger [1.4 (0.06)]	590	○	
-1	Front Lower Extension Member Set [0.6 (0.02)]	590	○	
-2	Front Subframe Support Bracket Set [1.6 (0.06)]	590	○	
-3	Bumper Beame Side Bracket [2.3 (0.09)]	590	○	
⑦	Dashboard Upper Comp.			
	a: Dashboard Upper [0.7 (0.028)]	270	○	
	b: Dashboard Upper Cross-member [0.7 (0.028)]	270	○	
	c: Dashboard Upper Side Member [1.8 (0.07)]	440	○	
⑧	Dashboard Lower	Upper [0.9 (0.04)]	270	○
		Lower [1.2 (0.05)]	590	○

General Information

Roof and Side Panel Construction

4-door



NOTE:

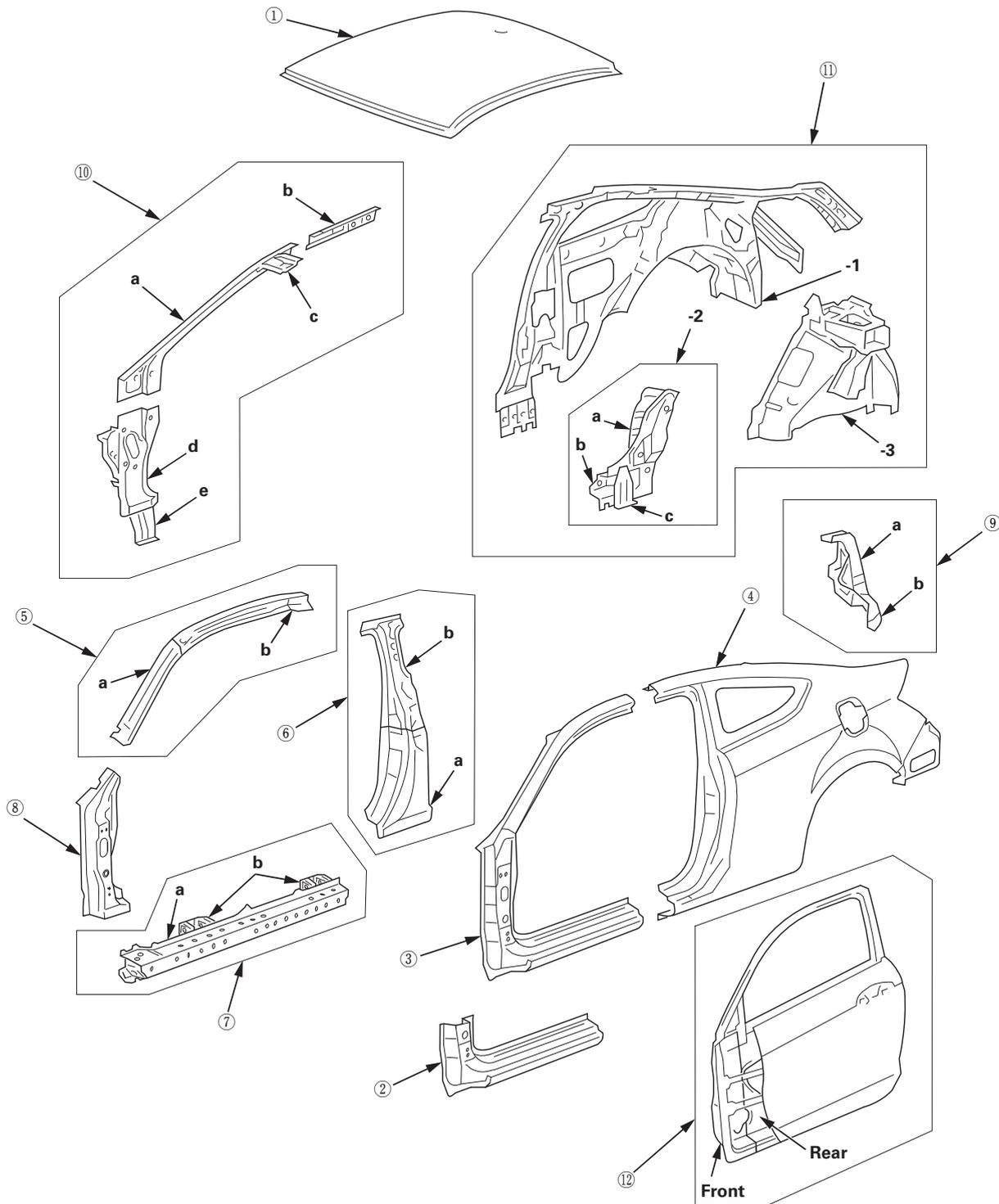
- The parts marked with numbers are sold as repair parts.
- The parts marked with letters are not sold separately and are shown only for reference.
- [] : Thickness unit: mm (in.)
- High-tension steel sheet: Tensioner strength 340 to 590 MPa.

No.	Part Name	Tensioner strength (MPa)	Zinc-plating
①	Roof Panel [0.7 (0.028)]	270	○
②	Side Sill Outer Panel [0.75 (0.03)]	270	○
③	Front Side Outer Panel Set [0.75 (0.03)]	270	○
④	Rear Side Outer Panel Set [0.75 (0.03)]	270	○
⑤	Front Pillar Stiffener Comp.		
	a: Front Pillar Upper Stiffener [1.0 (0.04)]	590	
	b: Roof Side Stiffener [1.8 (0.07)]	590	
⑥	Center Pillar Stiffener Comp.		
	a: Center Pillar Lower Stiffener [1.2 (0.05)]	590	
	b: Center Pillar Upper Stiffener [1.8 (0.07)]	590	
⑦	Side Sill Reinforcement Comp.		
	a: Front Pillar Lower Stiffener [1.0 (0.04)]	440	○
	b: Side Sill Reinforcement [1.6 (0.06)]	590	○
	c: Bulkhead (Front and Rear) [1.2 (0.05)]	590	○
⑧	Rear Gutter Comp.		
	a: Rear Gutter Upper [0.7 (0.028)]	270	○
	b: Rear Combination Adapter/Rear Gutter Lower [0.6 (0.02)]	270	○
⑨	Front Inner Upper Pillar Set		
	a: Front Inner Upper Pillar [1.8 (0.07)]	590	
	b: Front Pillar Inner Upper Extension [2.0 (0.08)]	440	
⑩	Front Inner Lower Pillar Set		
	a: Front Inner Lower Pillar [1.2 (0.05)]	590	○
	b: Front Jack-up Bracket [2.0 (0.08)]	590	○
⑪	Roof Side Rail [1.6 (0.06)]	590	
⑫	Center Inner Pillar [1.4 (0.06)]	590	
⑬	Rear Inner Panel Comp.		
-1	Rear Inner Panel	270	○
-2	Rear Wheel Arch Extension Comp.		
	a: Rear Wheel Arch Extension [0.6 (0.02)]	270	○
	b: Side Sill Reinforcement Rear Extension [1.6 (0.06)]	440	○
	c: Rear Jack-up Bracket [2.0 (0.08)]	590	○
-3	Rear Wheelhouse [0.8 (0.031)] /Damper Base [2.3 (0.09)]	270	○
⑭	Front Door		
	Skin [0.8 (0.031)]	340	○
	Panel Front [1.4 (0.06)] /Rear [0.7 (0.028)]	270	○
⑮	Rear Door		
	Skin [0.8 (0.031)]	340	○
	Panel Front [1.2 (0.05)] /Rear [0.65 (0.026)]	270	○

General Information

Roof and Side Panel Construction (cont'd)

2-door



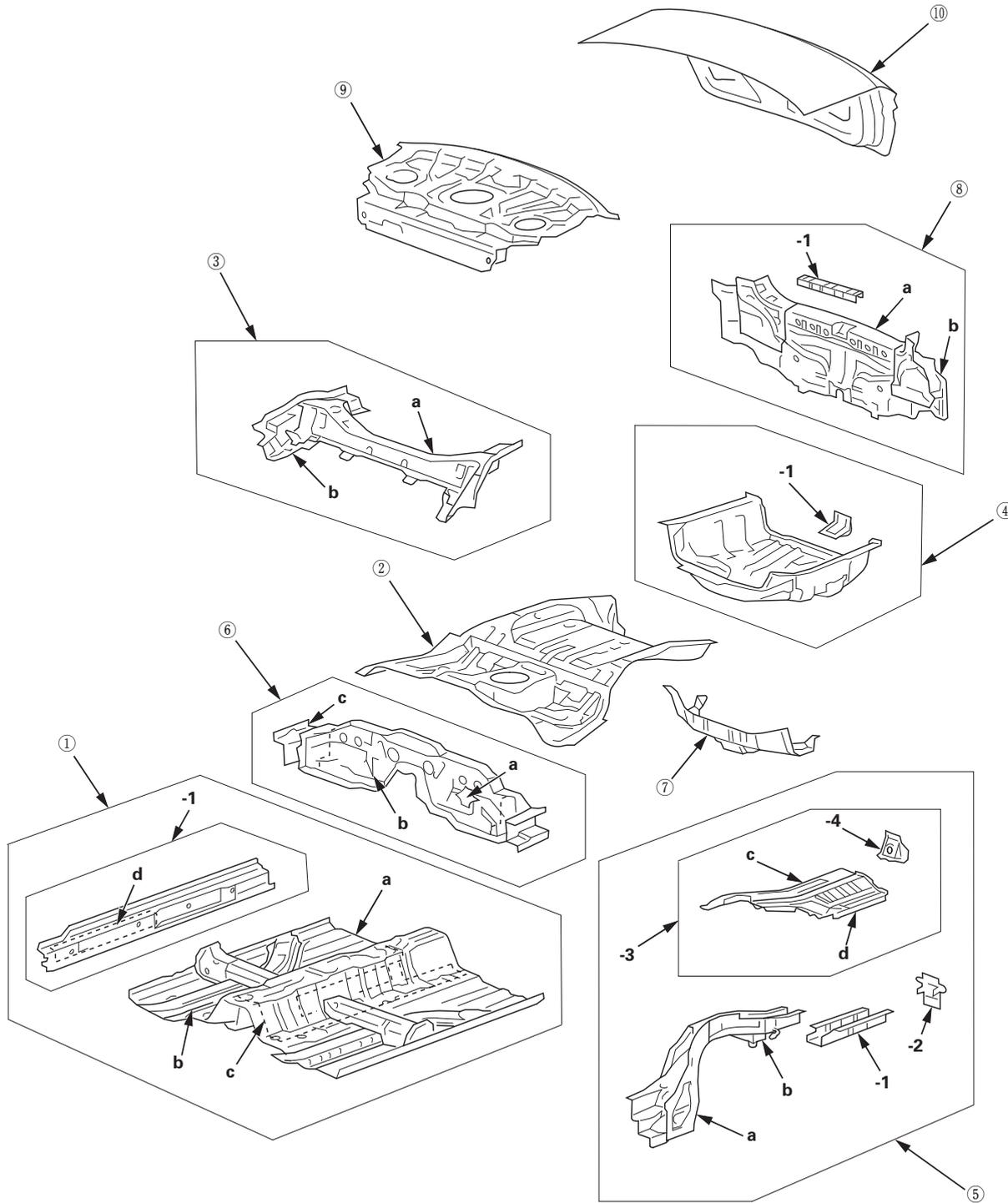
NOTE:

- The parts marked with numbers are sold as repair parts.
- The parts marked with letters are not sold separately and are shown only for reference.
- [] : Thickness unit: mm (in.)
- High-tension steel sheet: Tensioner strength 340 to 590 MPa.

No.	Part Name	Tensioner strength (MPa)	Zinc-plating
①	Roof Panel [0.7 (0.028)]	270	○
②	Side Sill Outer Panel [0.75 (0.03)]	270	○
③	Front Side Outer Panel Set [0.75 (0.03)]	270	○
④	Rear Side Outer Panel Set [0.75 (0.03)]	270	○
⑤	Front Pillar Stiffener Comp.		
	a: Front Pillar Upper Stiffener [1.0 (0.04)]	590	
	b: Roof Side Stiffener [1.8 (0.07)]	590	
⑥	Center Pillar Stiffener Comp.		
	a: Center Pillar Lower Stiffener [1.0 (0.04)]	590	
	b: Center Pillar Upper Stiffener [2.0 (0.08)]	590	
⑦	Side Sill Reinforcement Comp.		
	a: Side Sill Reinforcement [1.6 (0.06)]	590	○
	b: Bulkhead (Front and Rear) [1.2 (0.05)]	590	○
⑧	Front Pillar Lower Stiffener [1.0 (0.04)]	590	○
⑨	Rear Gutter Comp.		
	a: Rear Gutter Upper [0.6 (0.02)]	270	○
	b: Rear Combination Adapter/Rear Gutter Lower [0.6 (0.02)]	270	○
⑩	Front Inner Pillar Set		
	a: Front Inner Upper Pillar [1.8 (0.07)]	590	
	b: Roof Side Rail [1.6 (0.06)]	590	
	c: Front Pillar Inner Upper Extension [2.0 (0.08)]	440	
	d: Front Inner Lower pillar [1.2 (0.05)]	590	○
	e: Front Jack-up Bracket [2.0 (0.08)]	590	○
⑪	Rear Inner Panel Comp.		
-1	Rear Inner Panel	270	○
-2	Rear Wheel Arch Extension Comp.		
	a: Rear Wheel Arch Extension [0.6 (0.02)]	270	○
	b: Side Sill Reinforcement Rear Extension [1.6 (0.06)]	440	○
	c: Rear Jack-up Bracket [2.0 (0.08)]	590	○
-3	Rear Wheelhouse [0.8 (0.031)] /Damper Base [2.3 (0.09)]	270	○
⑫	Door		
	Skin [0.8 (0.031)]	340	○
	Panel Front [1.4 (0.06)] /Rear [0.7 (0.028)]	270	○

General Information

Floor and Rear Body Construction



NOTE:

- The parts marked with numbers are sold as repair parts.
- The parts marked with letters are not sold separately and are shown only for reference.
- [] : Thickness unit: mm (in.)
- High-tension steel sheet: Tensioner strength 340 to 590 MPa.

No.	Part Name	Tensioner strength (MPa)	Zinc-plating
①	Front Floor Comp.		
	a: Front Floor [0.65 (0.026)]	270	○
	b: Front Floor Frame	Front [1.4 (0.06)] Rear [1.2 (0.05)]	590 590
	c: Floor Tunnel Frame [0.8 (0.031)]	590	○
-1	Front Inside Sill [1.4 (0.06)]	590	○
	d: Inside Sill Reinforcement [2.0 (0.08)] Driver's Side	590	○
②	Rear Floor Panel [0.65 (0.026)]	270	○
③	Rear Bulkhead Lower Cross-member Comp.		
	a: Bulkhead Lower Cross-member [1.2 (0.05)]	270	
	b: Rear Upper Frame C [1.4 (0.06)]	590	○
④	Spare Tire Pan [0.7 (0.028)]	270	○
-1	Rear Jack Stiffener [1.8 (0.07)]	270	○
⑤	Rear Frame Comp.		
	a: Rear Frame A [1.8 (0.07)]	590	○
	b: Rear Frame B [1.6 (0.06)]	590	○
-1	Rear Frame C [1.4 (0.06)]	590	○
-2	Rear Frame End Plate [2.3 (0.09)]	440	○
-3	Rear Upper Frame Comp.		
	c: Rear Upper Frame B [1.0 (0.04)]	590	○
	d: Rear Floor Side Panel [0.65 (0.026)]	270	○
-4	Rear Panel Gusset [1.0 (0.04)]	270	○
⑥	Middle Floor Cross-member Comp.		
	a: Middle Floor Cross-member [1.2 (0.05)]	590	○
	b: Middle Floor Cross-member Stiffener [0.8 (0.031)]	590	○
	c: Rear Frame Joint [1.8 (0.07)]	590	○
⑦	Rear Floor Cross-member [1.0 (0.04)]	270	○
⑧	Rear Panel Comp.		
-1	Rear Bumper Face Stiffener [1.0 (0.04)]	270	○
	a: Rear Panel [0.6 (0.02)]	270	○
	b: Rear Combination Stiffener [0.8 (0.031)]	270	
⑨	Rear Parcel Shelf [0.6 (0.02)]	270	
⑩	Trunk Lid	Skin Upper [0.7 (0.028)] /Lower [0.6 (0.02)] Frame [0.6 (0.02)]	270 270

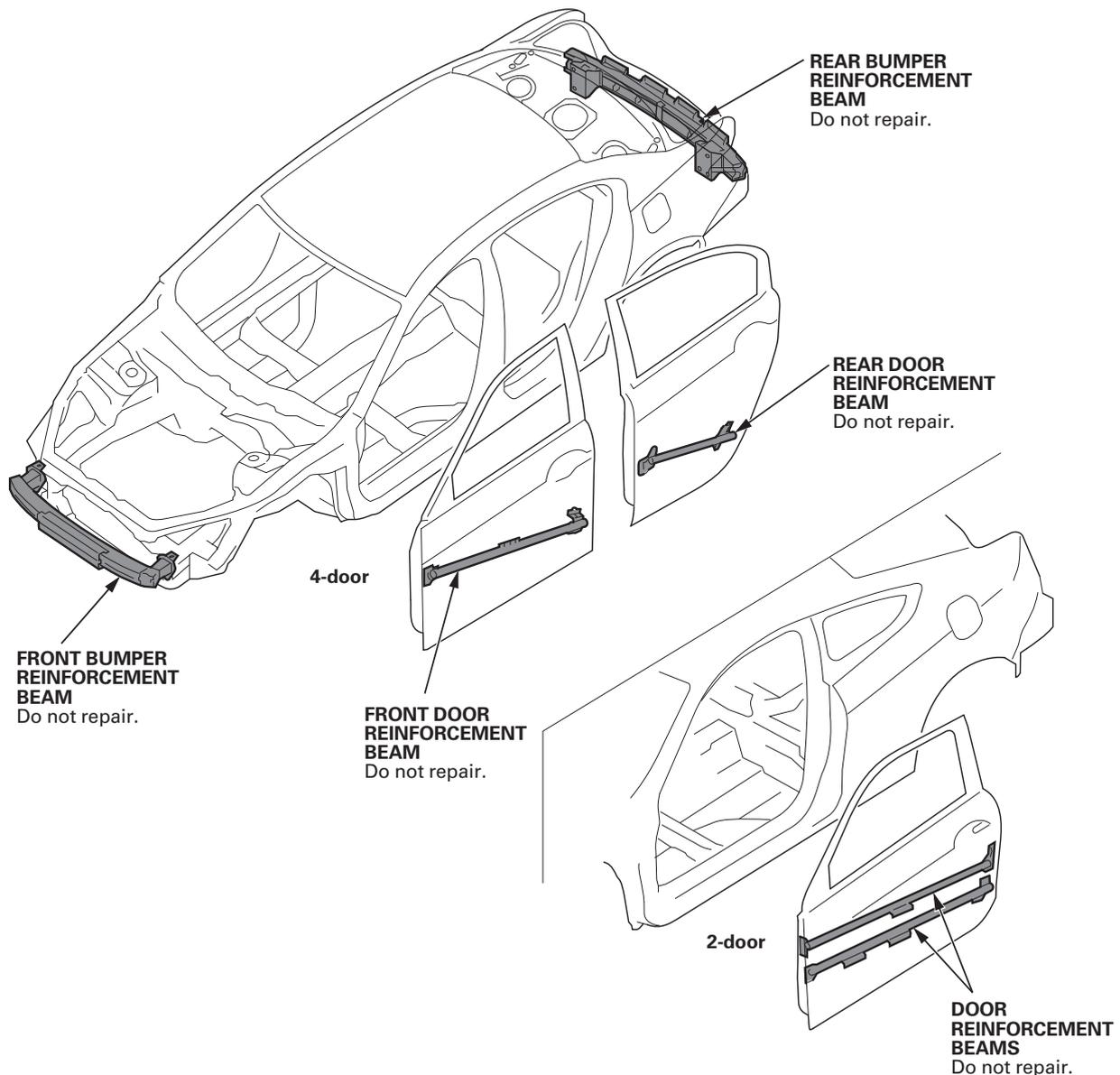
General Information

Door and Bumper Reinforcement Beams

The door and bumper reinforcement beams used on Accord vehicles are made from a metal equivalent to high-strength steel.

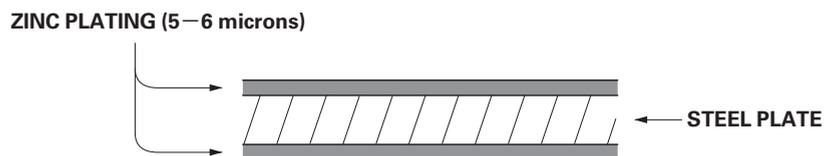
If high-strength steel is heated, the strength of the steel will be reduced. If high-strength steel is damaged, for example, in an accident, and the door and bumper reinforcement beams are bent, the beams may crack when attempting to straighten them. If a door beam is damaged, the whole door panel assembly should be replaced.

For this reason, the door and bumper reinforcement beams should NEVER be replaced; they should be replaced if they are damaged.



Zinc-Plated Steel Plate Repair

The zinc-plated steel plate used in some panels of the Accord require different repair techniques than ordinary steel plate. Refer to "Front Body Construction" (see page 1-14), "Roof and Side Panel Construction (4-door)" (see page 1-16), "Roof and Side Panel Construction (2-door)" (see page 1-18), "Floor and Rear Body Construction" (see page 1-20) for the location of the zinc-plated panels.



1. Before spot welding the zinc-plated steel plate, remove the paint from both sides of the flange to be welded. Apply sealer to the flange after welding.

NOTE: Seal the sanded surfaces thoroughly to prevent rust.

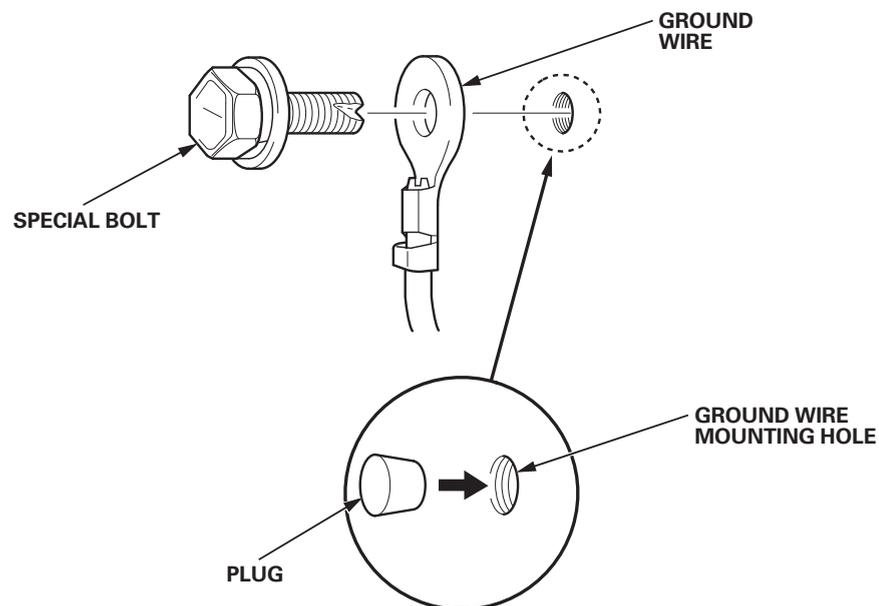
2. The electric continuity properties for zinc-plated steel plates differ from ordinary steel plates. When spot welding, increase the current by 10 to 20 %, or increase the resistance welding time. Also increase the number of weld spots by 10 to 20 %.

NOTE: The MIG welding procedures for zinc-plated steel plates are similar to ordinary steel plates.

3. Before applying putty or body filler to the zinc-plated steel plates, sand the zinc plating thoroughly to promote adhesion and prevent blistering.

NOTE: Use only epoxy-based putties and fillers on zinc-plated steel plates, and follow the manufacturer's specifications.

4. When doing paint work, protect the ground wire and the ground wire mounting hole threads with a bolt or a plug.

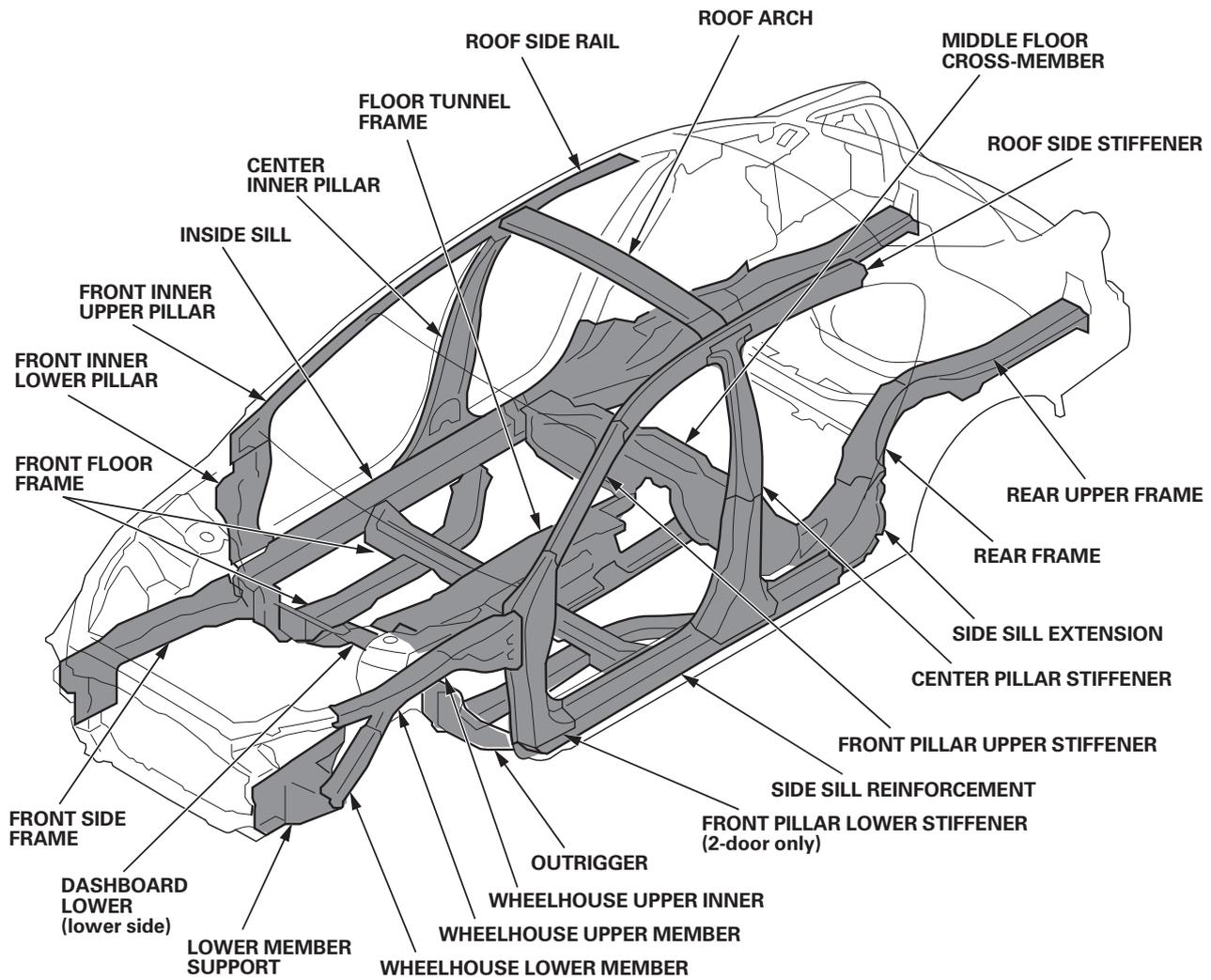


General Information

High-Tension Steel Sheet Framed Area

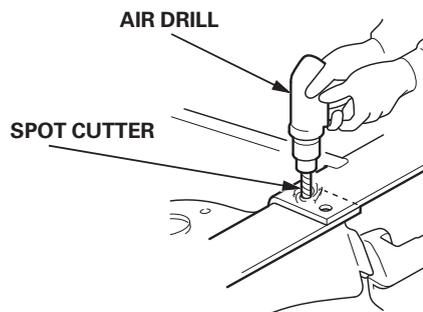
The new high-tension steel sheet has greater tensioner strength than the conventional high-tension steel sheet. Although it's a thinner sheet, it maintains the same strength capacity as the previous thicker ones. Because the manufacturing press process has improved, the usage area has expanded. For this vehicle, the new high-tension steel sheet is used for its main frame and its cabin construction part to make the new model lightweight and to strengthen the safety capacity of the high-crush absorption frame.

 : New high-tension (590 MPa) steel sheet

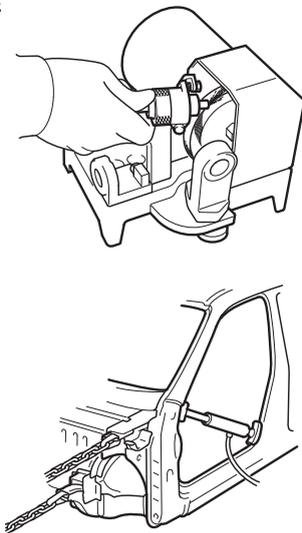


Precautions for High-Tension Steel Parts Area Repair

- The new high-tension steel parts of the frame are all spot welded together. In order to disassemble, drill a hole in the sections that are spot welded together with a very sharp spot weld bit.
- The new high-tension steel sheet is more rigid than previous steel sheets, making it difficult to strengthen. When an automobile's frame is partially constructed with the new high-tension steel sheet, it should be strengthened using an accurate frame straightening system. Inspect the body and frame once the repair is complete for stress-related damage to the sections that are not made from the new high-tension steel.
- High-tension steel has more memory than normal steel, and it is necessary to monitor the body dimensions closely during the straightening process.
- Spot welding is acceptable for replacement parts as long as the proper number of welds is used in the repair. For replacement part welding locations, refer to "Replacement" in this manual. If spot welding does not provide acceptable repairs, plug the welds using an MIG welder.



SPOT CUTTER GRINDING MACHINE

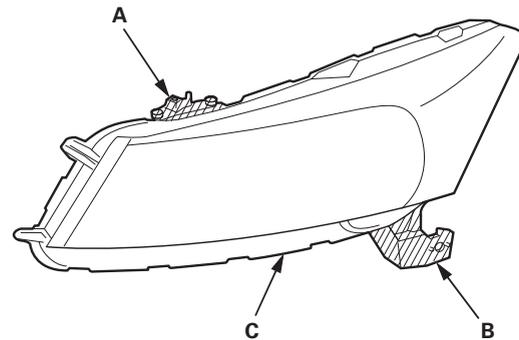


Headlight Bracket Replacement

NOTE: Put on gloves to protect your hands.

When the upper bracket (A) and/or side bracket (B) of the headlight assembly (C) are broken, it can be reinstalled using the repair brackets if it meets this criteria;

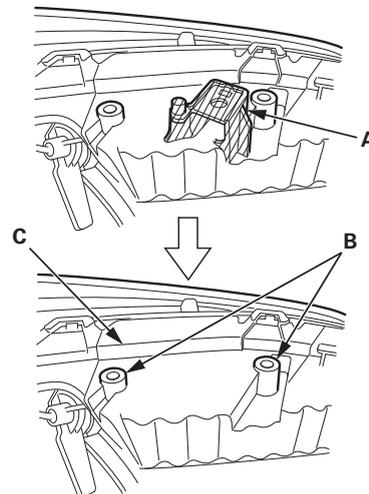
- There is no damage to the headlight assembly.
- The sealing of the headlight lens and headlight housing is maintained.



Replacement

Upper Bracket Replacement

1. Remove the front bumper.
2. Remove the headlight assembly.
3. Cut or grind off the damaged upper bracket (A) so that the bosses (B) of the headlight housing (C) are left as shown. After removing the damaged bracket, finish the cut area with 400 grit sandpaper. Take care not to scratch the headlight assembly.

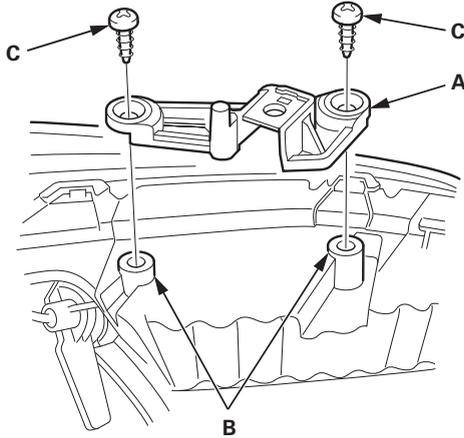


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General Information

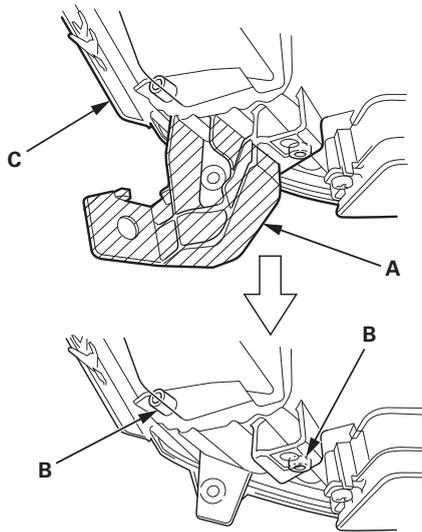
Headlight Bracket Replacement (cont'd)

4. Install the upper repair bracket (A) on the bosses of the headlight housing (B), then fasten it with the screws (C) provided with the repair bracket.

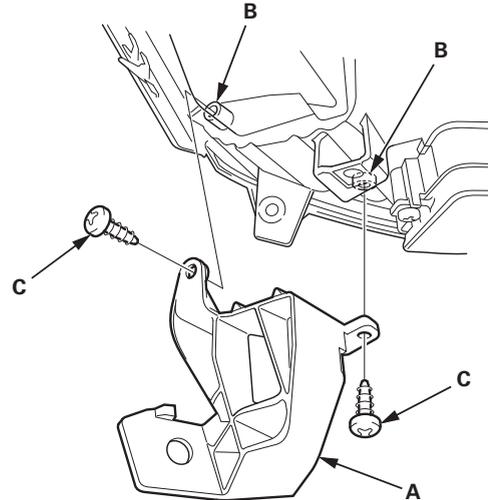


Side Bracket Replacement

5. Cut or grind off the damaged side bracket (A) so that the bosses (B) of the headlight housing (C) are left as shown. After removing the damaged bracket, finish the cut area with 400 grit sandpaper. Take care not to scratch the headlight assembly.



6. Install the side repair bracket (A) on the bosses of the headlight housing (B), then fasten it with the screws (C) provided with the repair bracket.



7. Reinstall the headlight assembly.
8. Reinstall the front bumper.
9. Adjust the headlights to local requirements.

Paint Information

Paint Information

Paint Safety Precautions	2-2
General	2-3
Color Chart Paint Specifications	2-4
Features of Plastic Materials	2-6
Types and Materials of Exterior Plastic Parts	2-7

Soft Chipping Guard Primer Coat

General Safety Precautions	2-9
Coating Diagram	2-10

Paint Information

Paint Safety Precautions



⚠ WARNING

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

Observe the following precautions to maintain a safe painting work area.

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

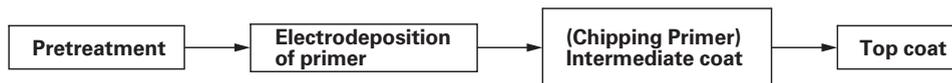
General

The 3-coat-3-bake (3C-3B) paint finish gives the Accord a deep gloss and stunning finish. This manual provides information on paint defects, repair, and refinishing. Throughout, the objective is to explain in a simple yet comprehensive manner the basic items you should know about paint repairs. Select the correct material for the defect and repaint or refinish in the correct manner as described in this manual.

Basic Rules for Repairing a Paint Finish

To repair paint damage, always use the 2-part acrylic urethane paints designated; polish and bake each of the three coats, as in production, to maintain the original film thickness, and to assure the same quality as the original finish.

Outline of factory painting process



Features In Each Work Process

Pretreatment and electrodeposition

In the pretreatment process, the entire body is degreased, cleaned, and coated with zinc phosphate by dipping.

After the body has been cleaned with pure water, it is placed in an electrolytic bath of soluble primer (cationic electrodeposition).

This produces a thorough corrosion inhibiting coating on the inner surface and corners of the body, pillars, sills, and panel joints.

Chipping primer is then applied to the most susceptible areas (see page 2-10).

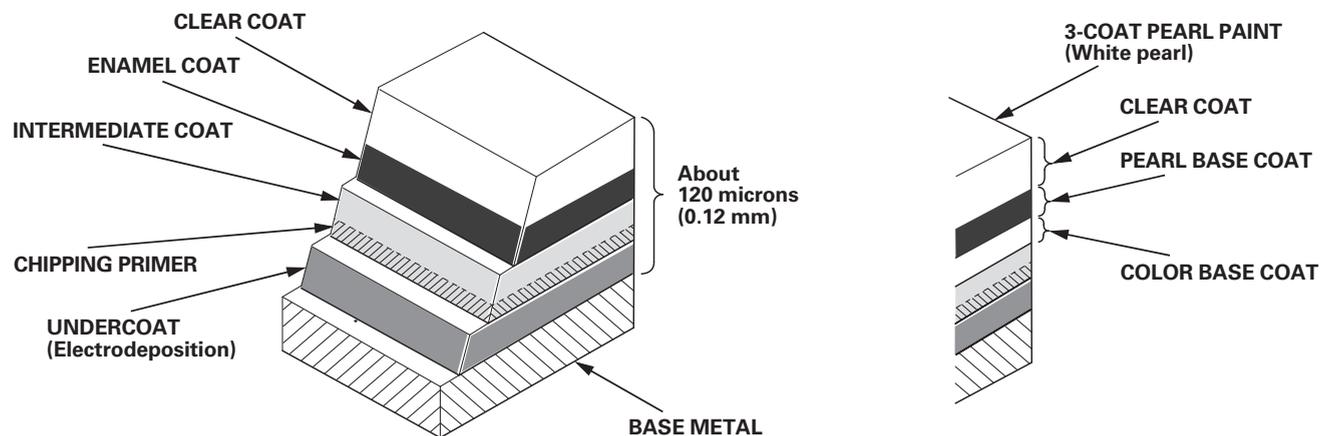
Intermediate coat

The intermediate coat is applied to the prepared surface to further protect against damage.

Top coat

Enamel paint and either polyester or acrylic resin paint are used in the top coat for higher solidity, smoothness, brightness, and weather resistance.

Sectional view of paint coats

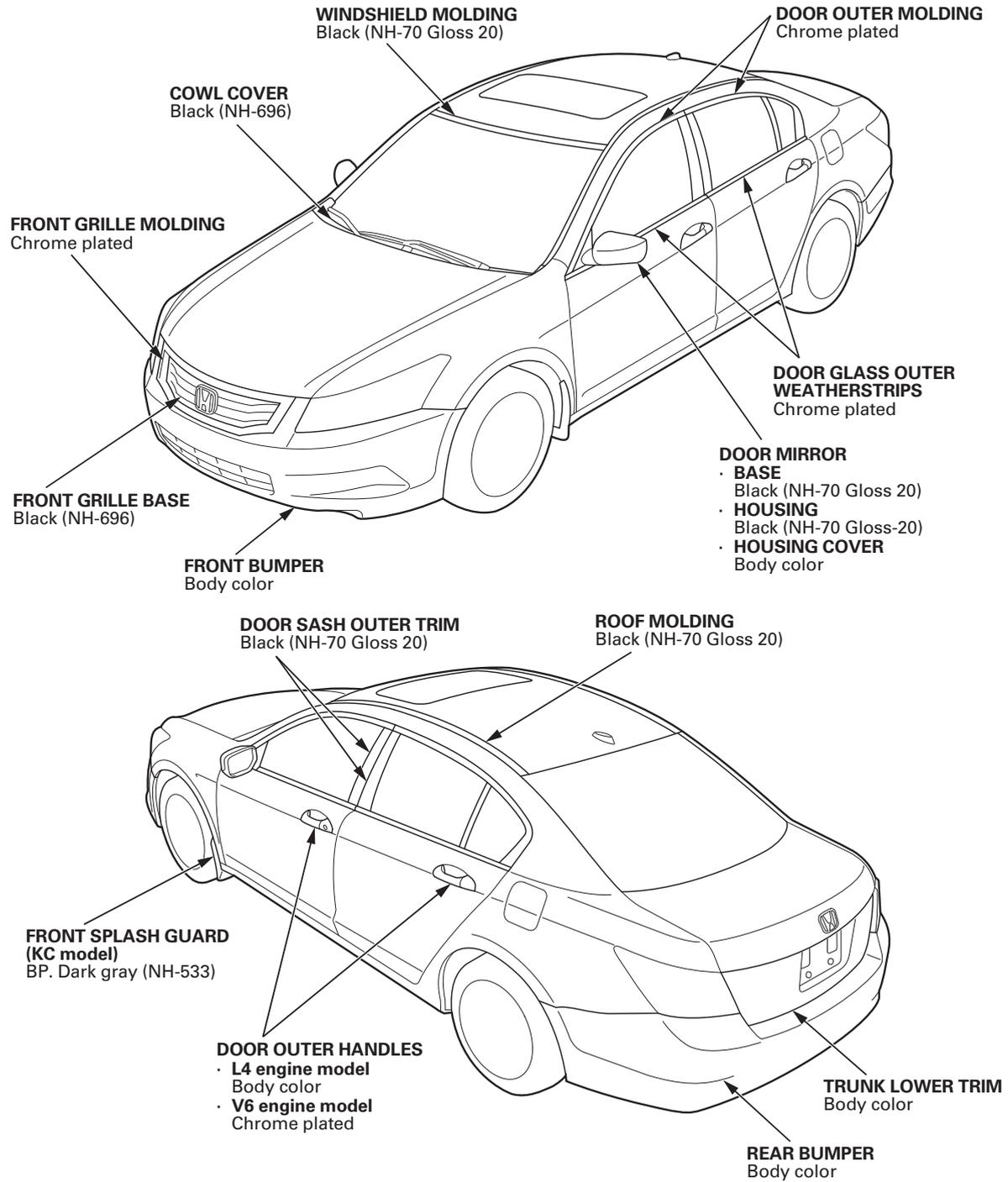


Paint Information

Color Chart Paint Specifications

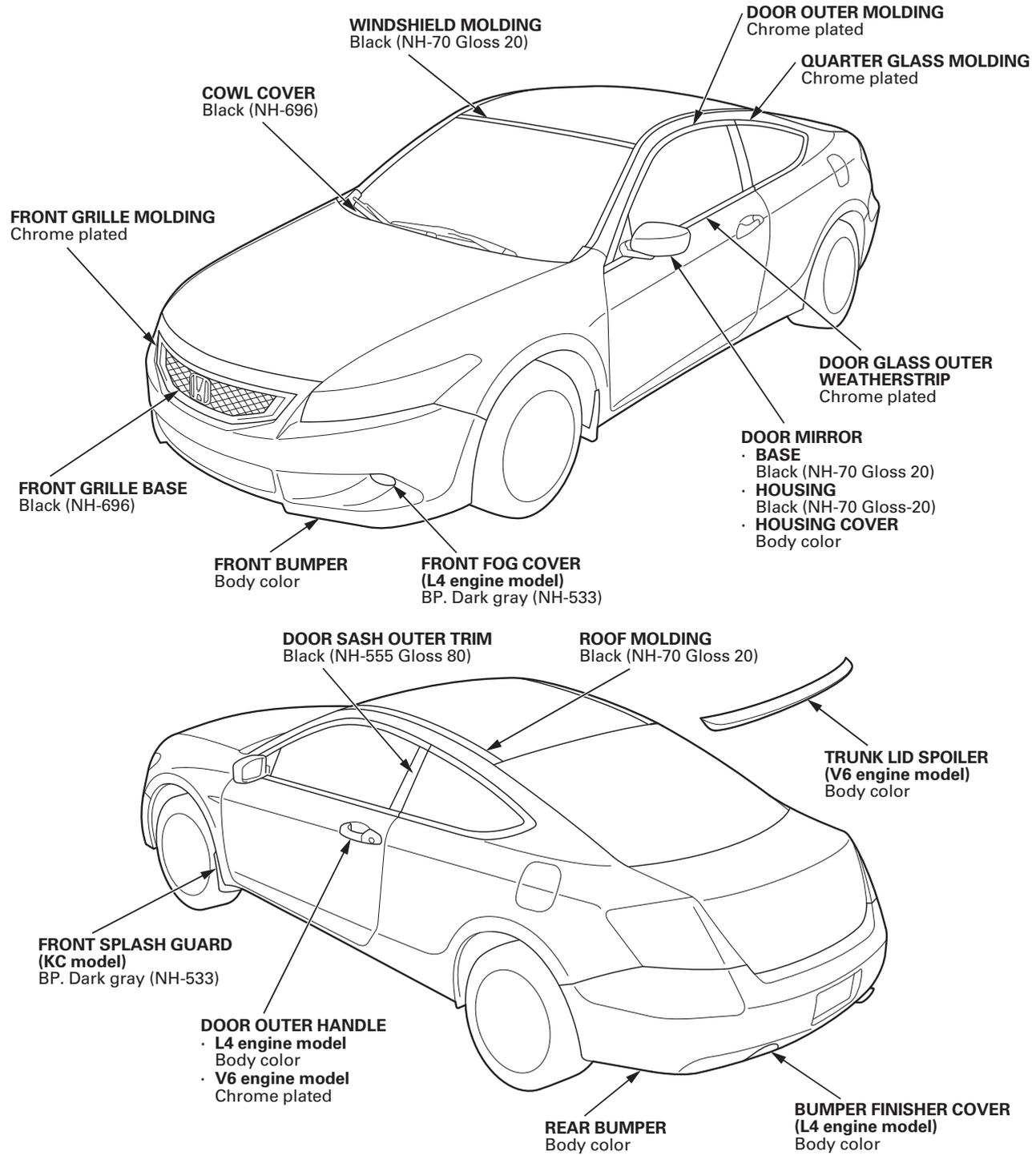
4-door

NOTE: For model year paint code information, refer to the appropriate service manual.



2-door

NOTE: For model year paint code information, refer to the appropriate service manual.



Paint Information

Features of Plastic Materials

- Check each of the plastic parts for solvent resistance and heat resistance before you do any repair work.
- Select the repair material according to materials of the plastic parts.
- Alcohol can be used for degreasing in small amounts, and for short periods of time. Do not soak.
- Contact your paint and material supplier for other recommended cleaners for the type of plastic you are working on.

Standard Symbol	Name	Heat Resistance Temperature °F (°C)	Note
AAS	Acrylonitrile acrylic styrene	176 (80)	
ABS	Acrylonitrile butadiene styrene	176 (80)	
AES	Acrylonitrile ethylene styrene	176 (80)	
A/EPDM/S	Acrylonitrile/ethylene propylene diene rubber/styrene	176 (80)	
ASA	Acrylonitrile styrene acrylate	176 (80)	
CAB	Cellulose acetate butylate	176 (80)	
E/VAC	Ethylene-vinyl acetate	176 (80)	
PA	Polyamide	176 (80)	Battery acid (sulfuric acid) can damage the material.
PBT	Polybutylene terephthalate	320 (160)	Solvent can damage the material.
PC	Polycarbonate plastics	248 (120)	Brake fluid, wax, and grease remover can damage the material.
PE	Polyethylene	176 (80)	Solvent can damage the material.
PF	Phenol form aldehyde	176 (80)	
PMMA	Polymethyl methacrylate	176 (80)	Wash remover off with water thoroughly.
POM	Polyoxymethylene polyacetal	212 (100)	Solvent can damage the material.
PP	Polypropylene	176 (80)	Solvent can damage the material.
PPO (PPE)	Polyphenylene oxide	212 (100)	
PS	Polystyrene	140 (60)	
PUR	Polyurethane	176 (80)	
PVC	Polyvinyl chloride	176 (80)	
SAN	Styrene acrylonitrile	176 (80)	
SMC	Sheet molding compound	356 (180)	Solvent can damage the material.
TPE	Thermoplastic polyester elastomer	176 (80)	Wash remover off with water thoroughly.
TPS	Thermoplastic styrene elastomer	176 (80)	Wash remover off with water thoroughly.
TPO	Thermoplastic olefin/elastomer	176 (80)	Wash remover off with water thoroughly.
TPU	Thermoplastic/urethane/elastomer	176 (80)	Wash remover off with water thoroughly.
UP	Polyester	230 (110)	Alkali can damage the material.

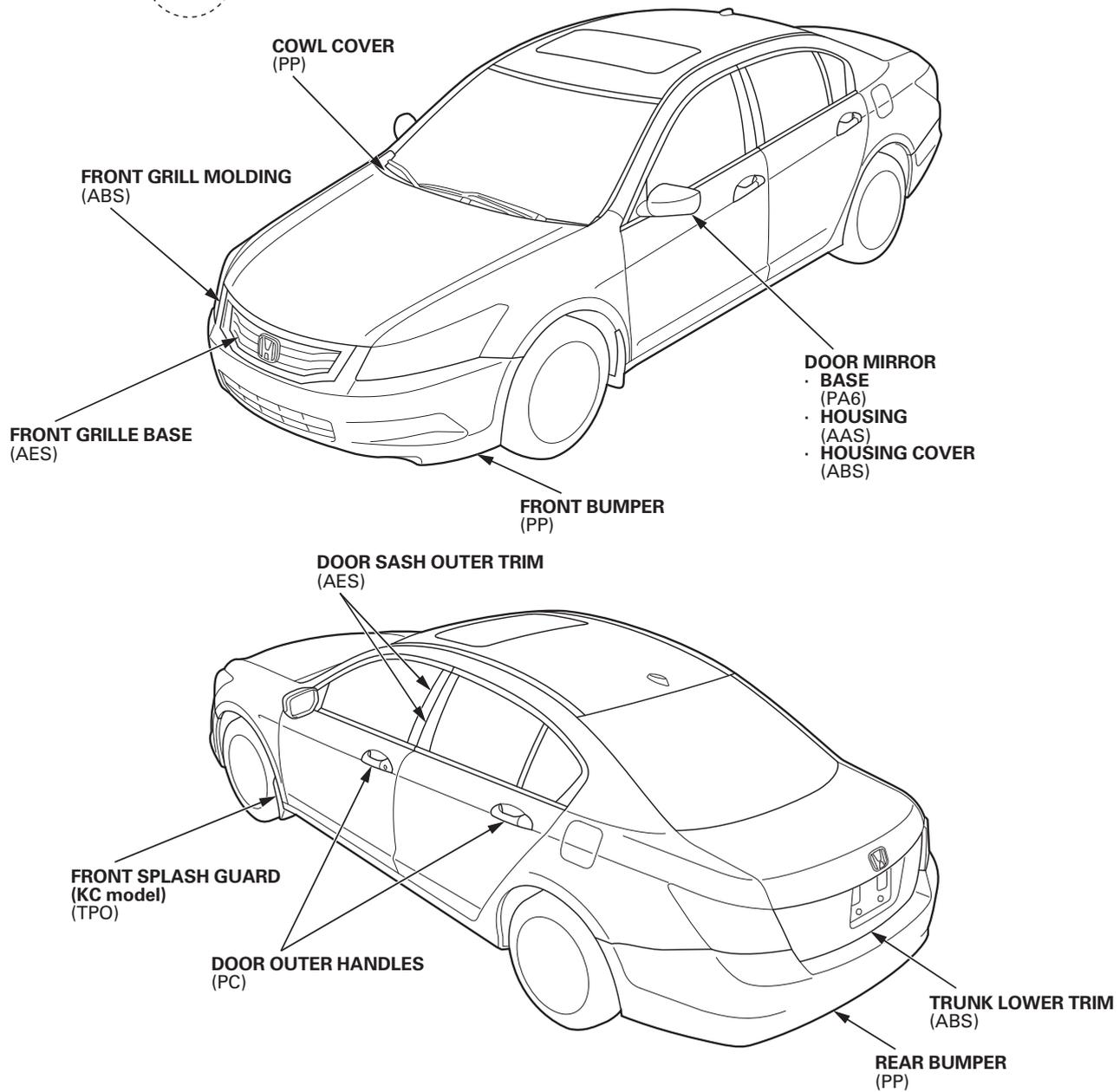
Types and Materials of Exterior Plastic Parts

4-door

NOTE:

- For the full plastic name, refer to the features of plastic materials (see page 2-6).
- A standard symbol is stamped on the underside of each resin part to show the type of material used.

Example:



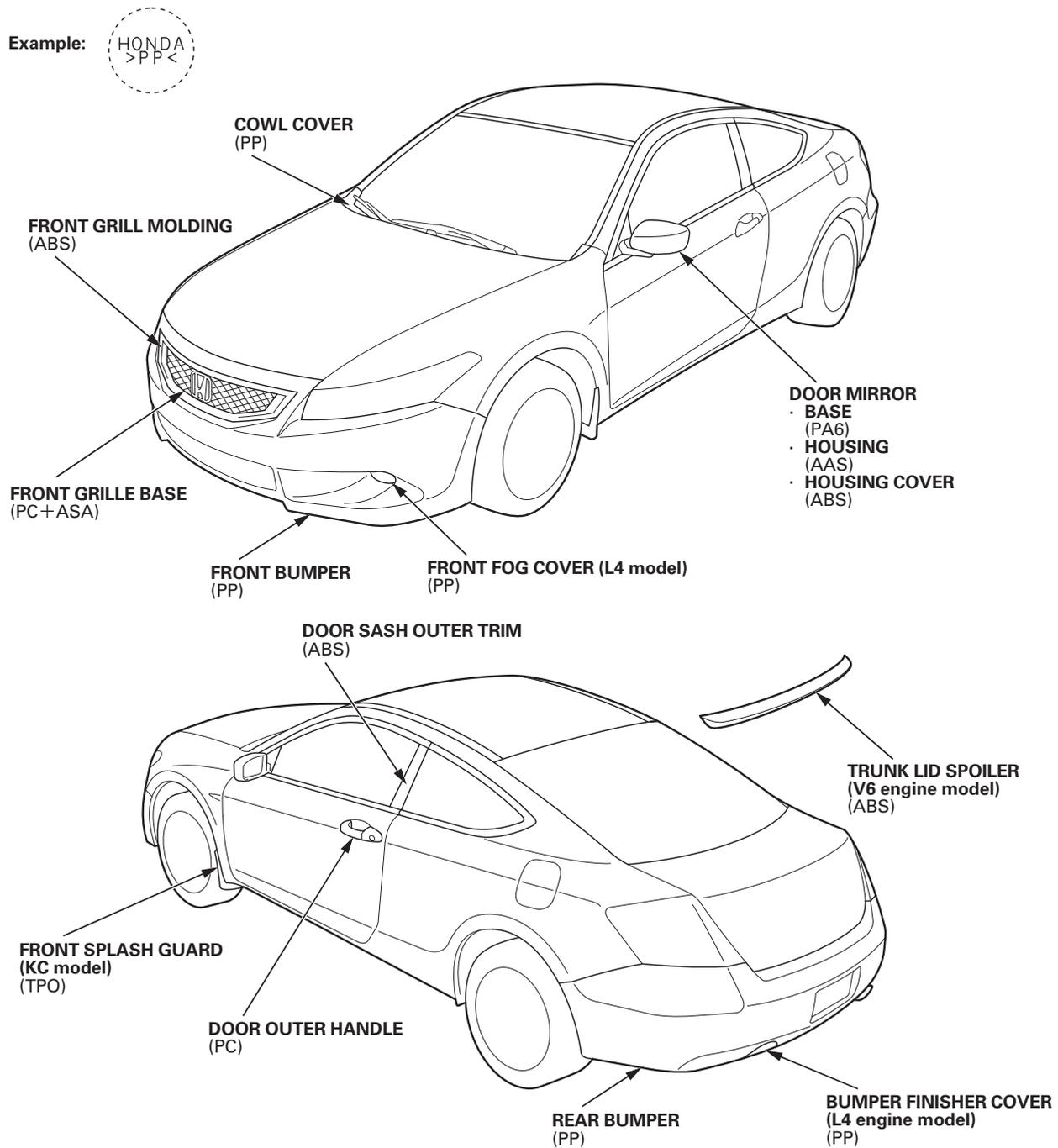
Paint Information

Types and Materials of Exterior Plastic Parts (cont'd)

2-door

NOTE:

- For the full plastic name, refer to the features of plastic materials (see page 2-6).
- A standard symbol is stamped on the underside of each resin part to show the type of material used.



Soft Chipping Guard Primer Coat

General Safety Precautions

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

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

Sectional view of paint coats:

Top coat
Intermediate coat +
Chipping guard primer
Electrodeposition
Base metal

- A soft chipping guard primer coat is then applied to the most susceptible area (see page 2-10).
- Spray the primer surface (2-part urethane primer surfacer) on the soft chipping guard primer coating areas when you replace parts using soft chipping guard primer coat.

Coating Procedures

⚠ WARNING

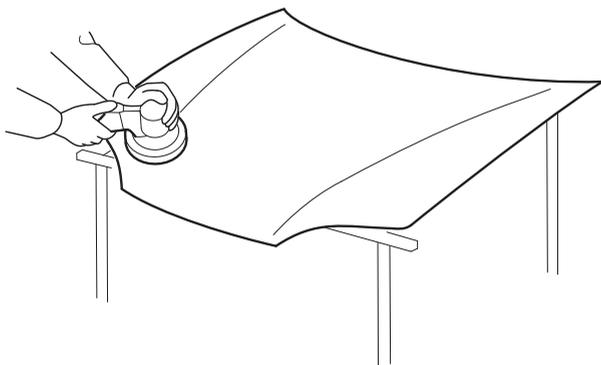
- Wear goggles or safety glasses to prevent eye injury.
- Ventilate when spraying undercoat.

1. Sanding the replacement part.

Use a double action sander and 400 grit sandpaper.

NOTE:

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



2. Air blowing/degreasing.

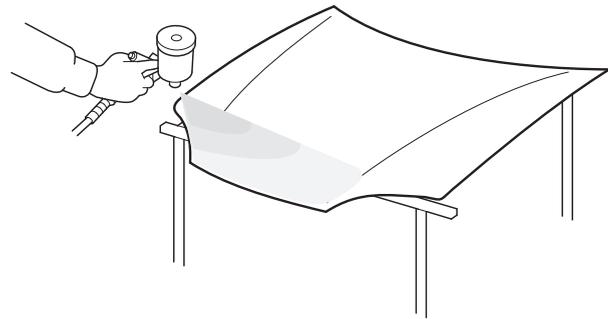
Use alcohol, and wax and grease remover.

3. Protect from overspray.

Use masking tape and paper to protect the related areas from overspray.

4. Spraying primer surfacer.

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



5. Drying.

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

6. Polishing.

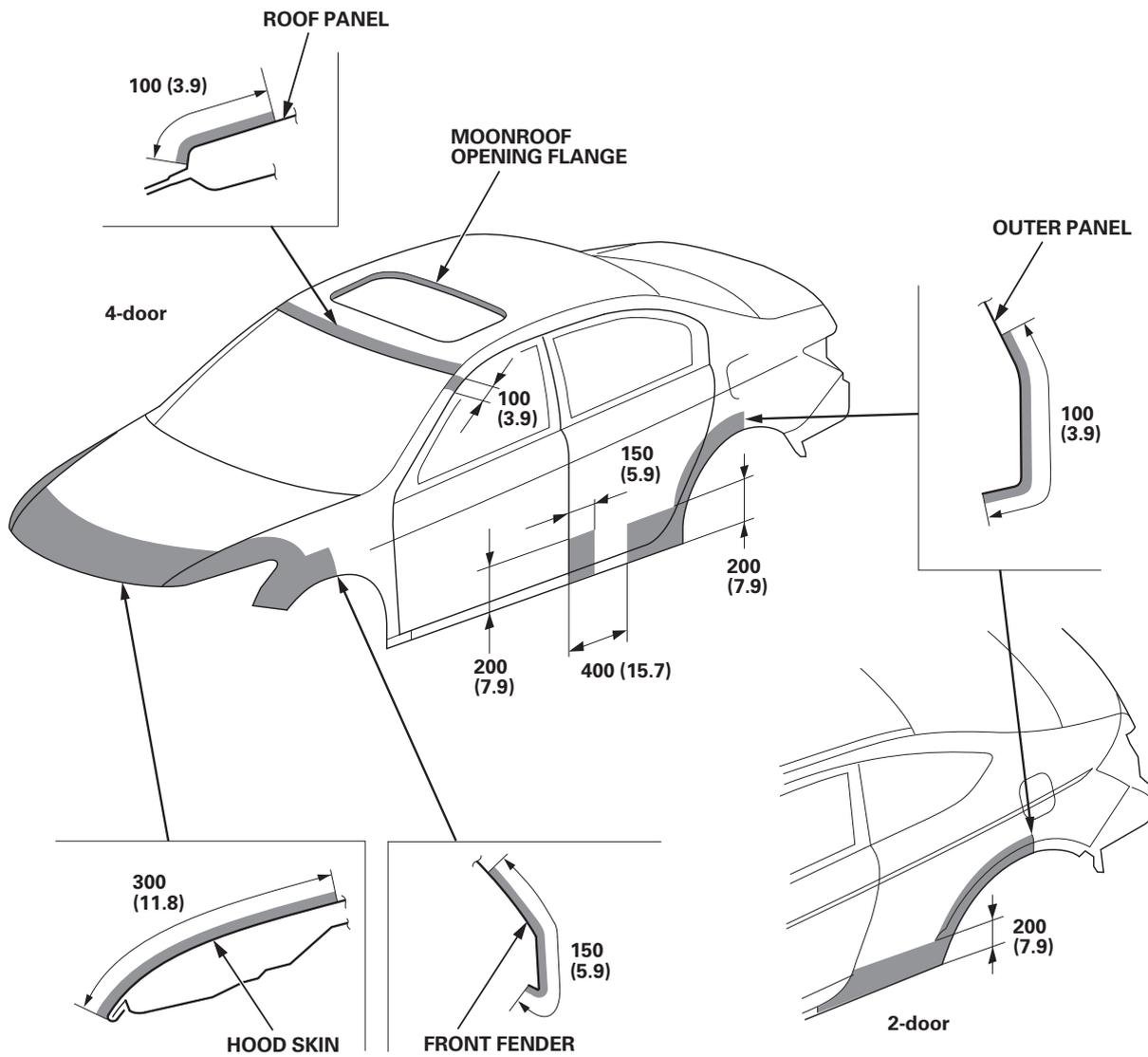
- Check that the primer surfacer has dried thoroughly, then sand the primer surfacer.
- Use a double action sander and 400–600 grit sandpaper.

7. Intermediate coating and top coating.

Soft Chipping Guard Primer Coat

Coating Diagram

■ indicates chipping guard primer coating area.
NOTE: Make sure to coat the flange on front and rear wheel arch.
Unit: mm (in.)



Replacement

Front Bulkhead

Removal	3-2
Installation	3-4

Front Wheelhouse/Damper Housing

Removal	3-6
Installation	3-9

Front Side Frame/Outrigger

Removal	3-12
Installation	3-15

Front Pillar Outer Panel

Removal	3-17
Installation	3-20

Side Sill Outer Panel

Removal	3-22
Installation	3-24

Center Pillar Outer Panel

Removal	3-26
Installation	3-29

Roof Panel

Removal	3-33
Installation	3-35

Rear Side Outer Panel

Removal	3-36
Installation	3-42

Rear Panel

Removal	3-48
Installation	3-50

Spare Tire Pan/Rear Frame

Removal	3-51
Installation	3-55

Floor Insulators

Insulator Locations	3-59
Insulator Sizes	3-60
Insulator Coating	3-65

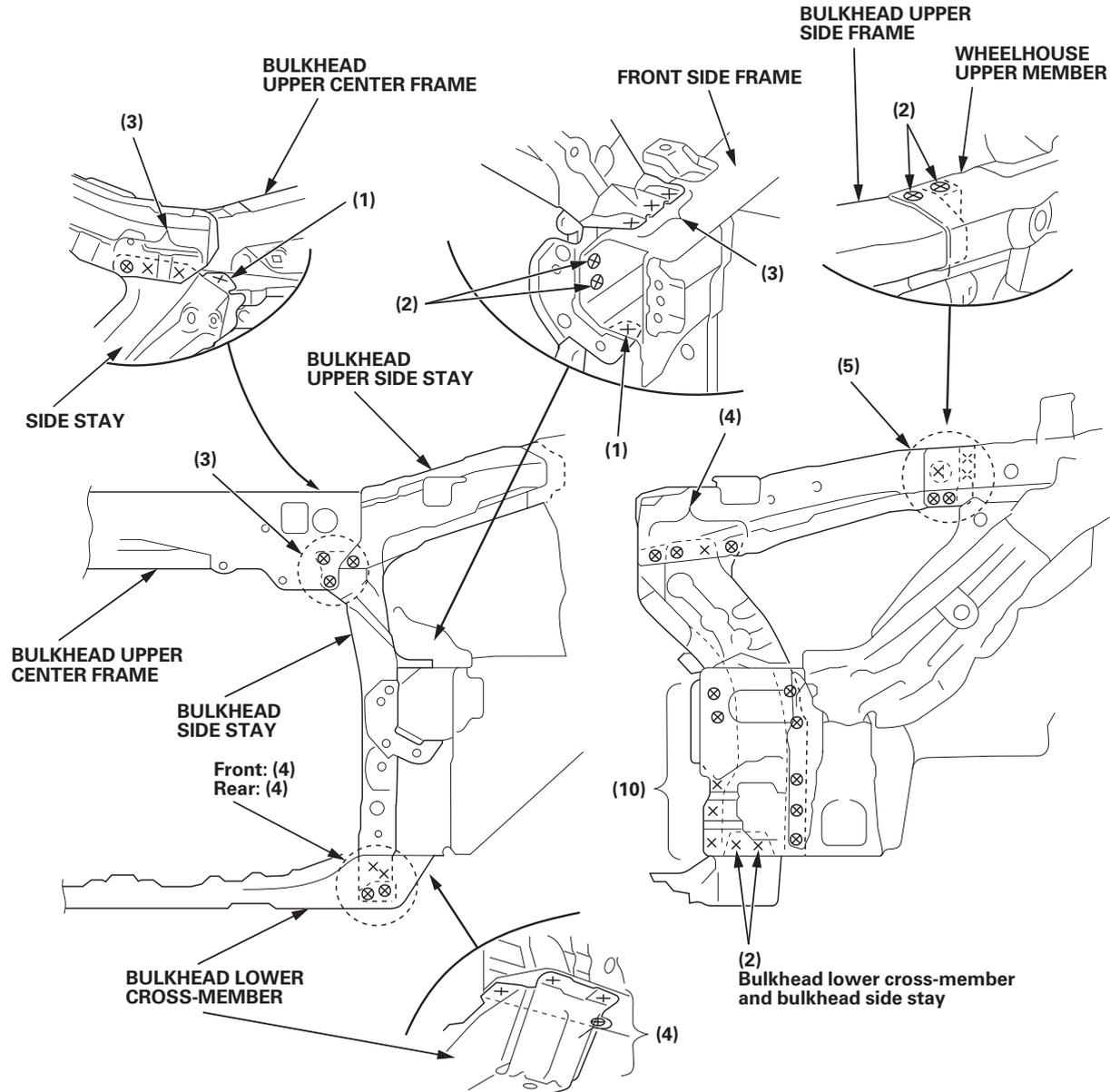
Front Bulkhead

Removal

Mass production body welding position and number

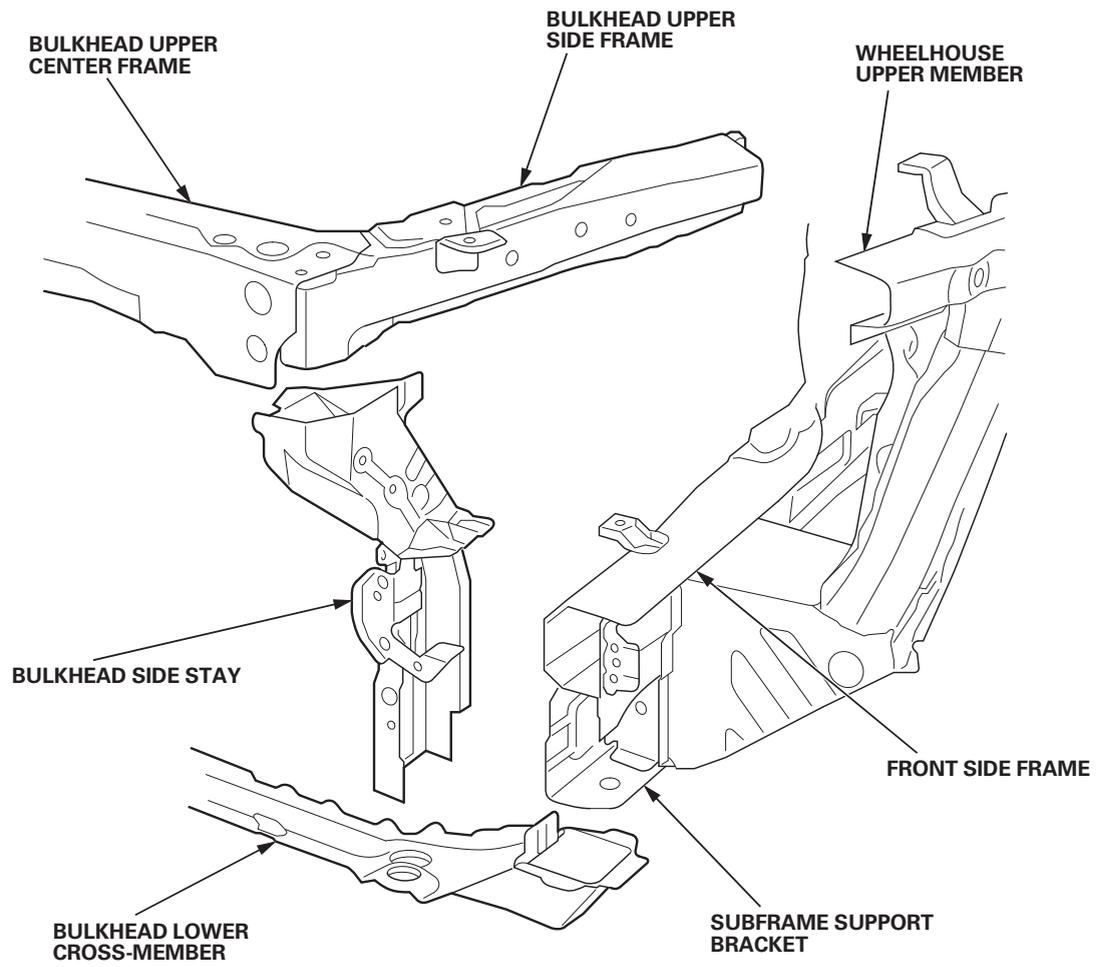
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



Construction

- Replace the bulkhead upper center frame and side frame as an assembly.
- If necessary, replace the bulkhead side stay and bulkhead lower cross member.



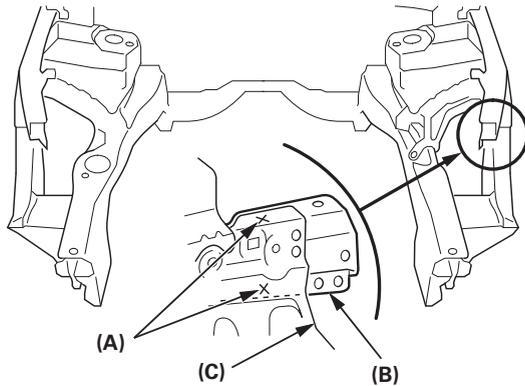
Front Bulkhead

Installation

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - : MIG fillet or butt welding
- L= Welding length Unit: mm (in.)
- (): The number of welds

1. Before setting the bulkhead upper frame, drill the 2-point spot welds (A) at the joint between the wheelhouse upper member (B) and wheelhouse upper inner (C) on one side.



2. Set the new bulkhead parts, and measure the front compartment diagonally.

3. Check the body dimensions.

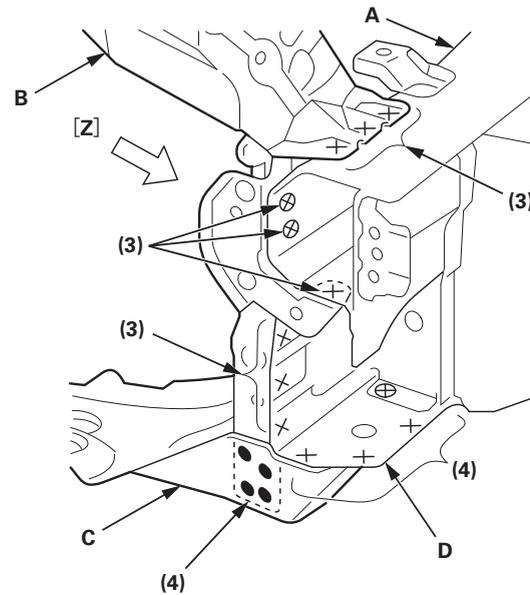
- Engine compartment (see page 4-3)
- Front wheelhouse lower member position (see page 4-5)
- Engine compartment and front floor under view (see page 4-12)
- Repair chart, top view (see page 4-14)
- Repair chart, side view (see page 4-16)

4. Tack weld the new parts into position.

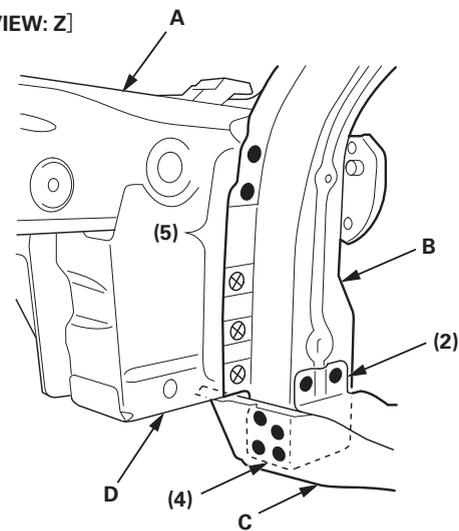
5. Temporarily install the front fender, hood, and door, then check for differences in level and clearance. Check the external parts fitting position (see page 4-10). If necessary, check the headlight and front bumper positions. Make sure the body lines flow smoothly.

6. Do the main welding.

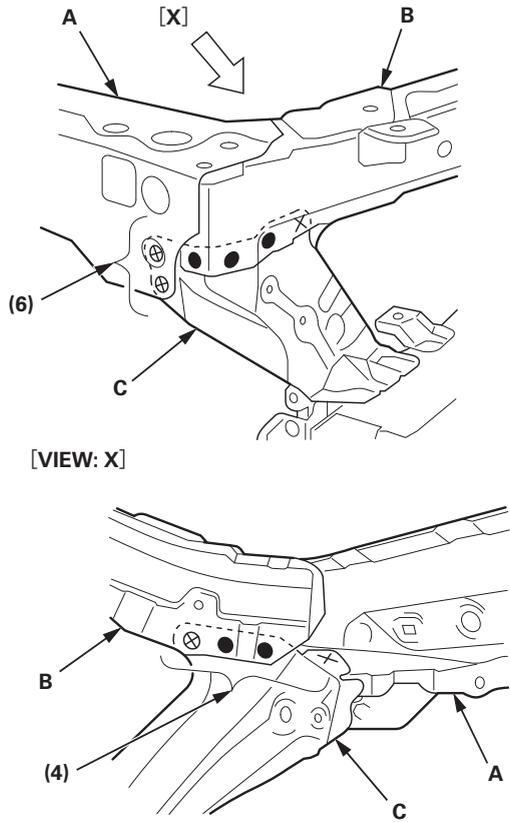
- Weld the front side frame (A) and bulkhead side stay (B).
- Weld the bulkhead side stay and bulkhead lower cross-member (C) to the subframe support bracket (D).



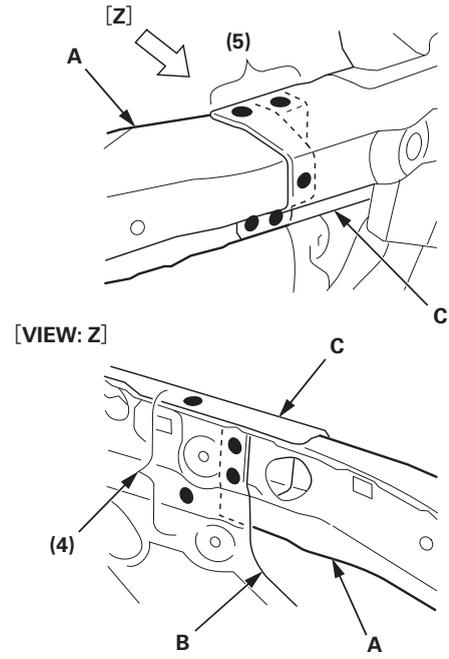
[VIEW: Z]



7. Weld the bulkhead upper center frame (A) and side frame (B) to the bulkhead side stay (C).



8. Weld the bulkhead upper side frame (A) to the wheelhouse upper inner (B) and wheelhouse upper member (C).



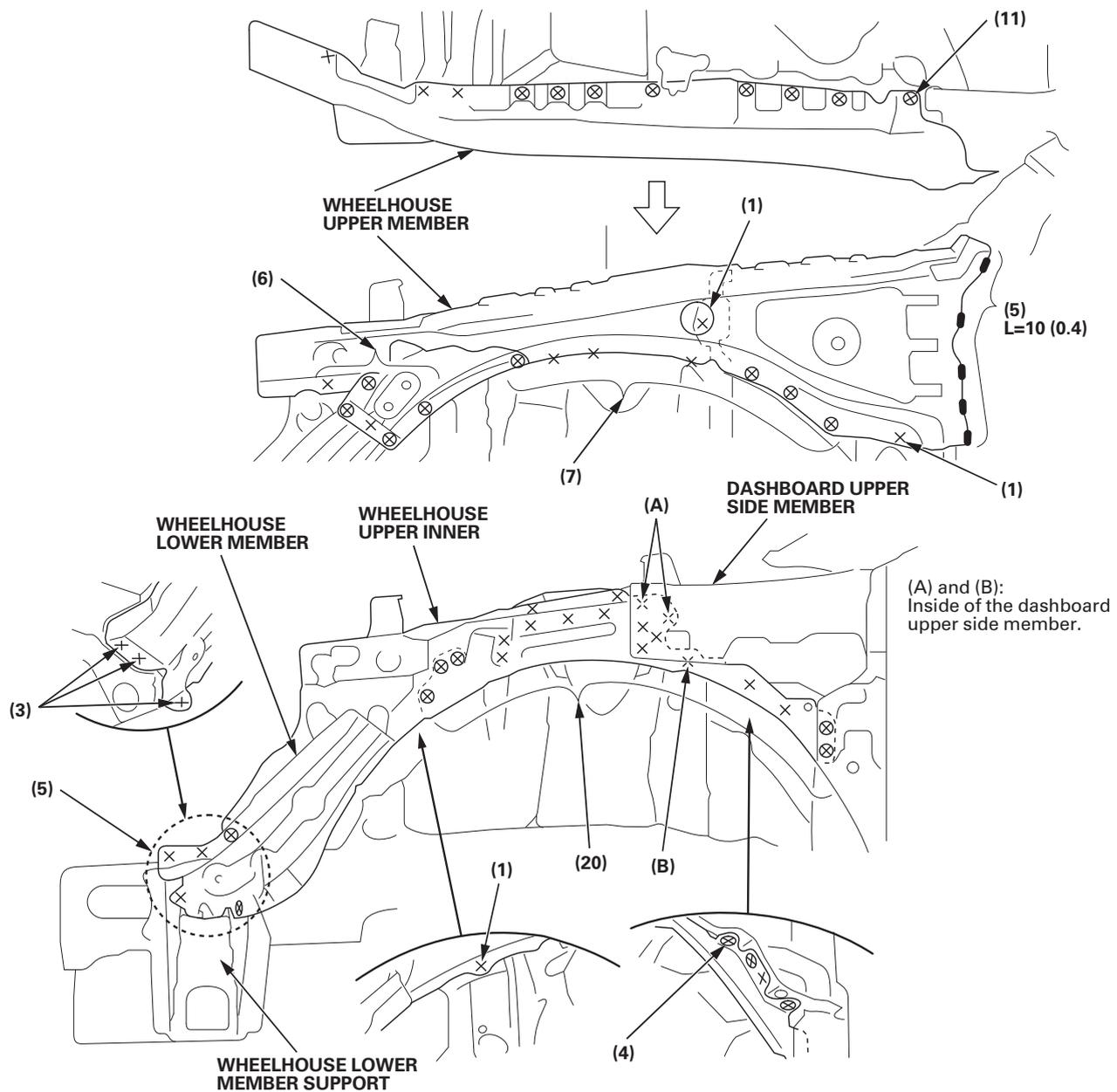
Front Wheelhouse/Damper Housing

Removal

Mass production body welding position and number (Wheelhouse upper member and wheelhouse upper inner)

NOTE:

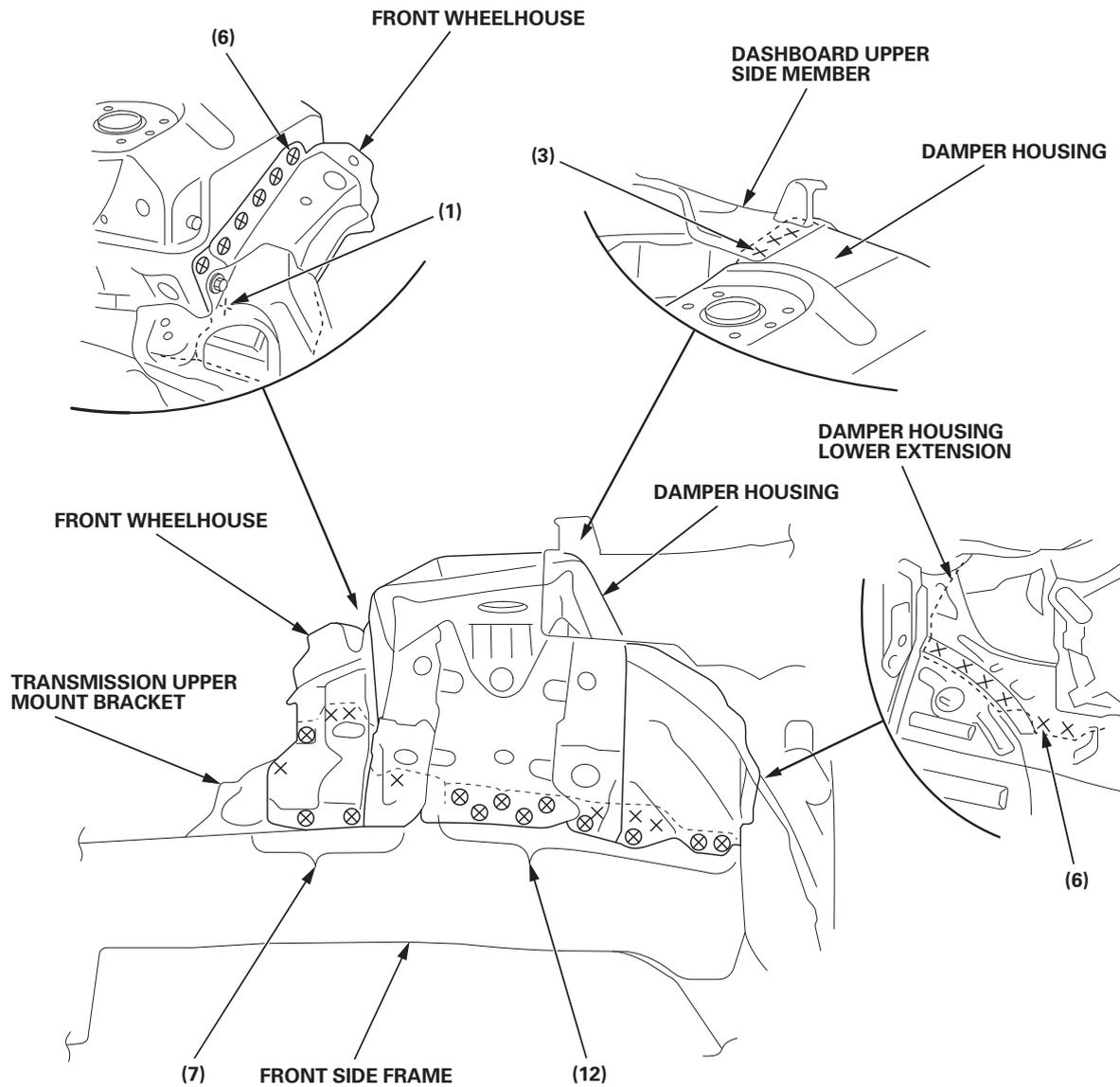
- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



Mass production body welding position and number (Front wheelhouse and damper housing)

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



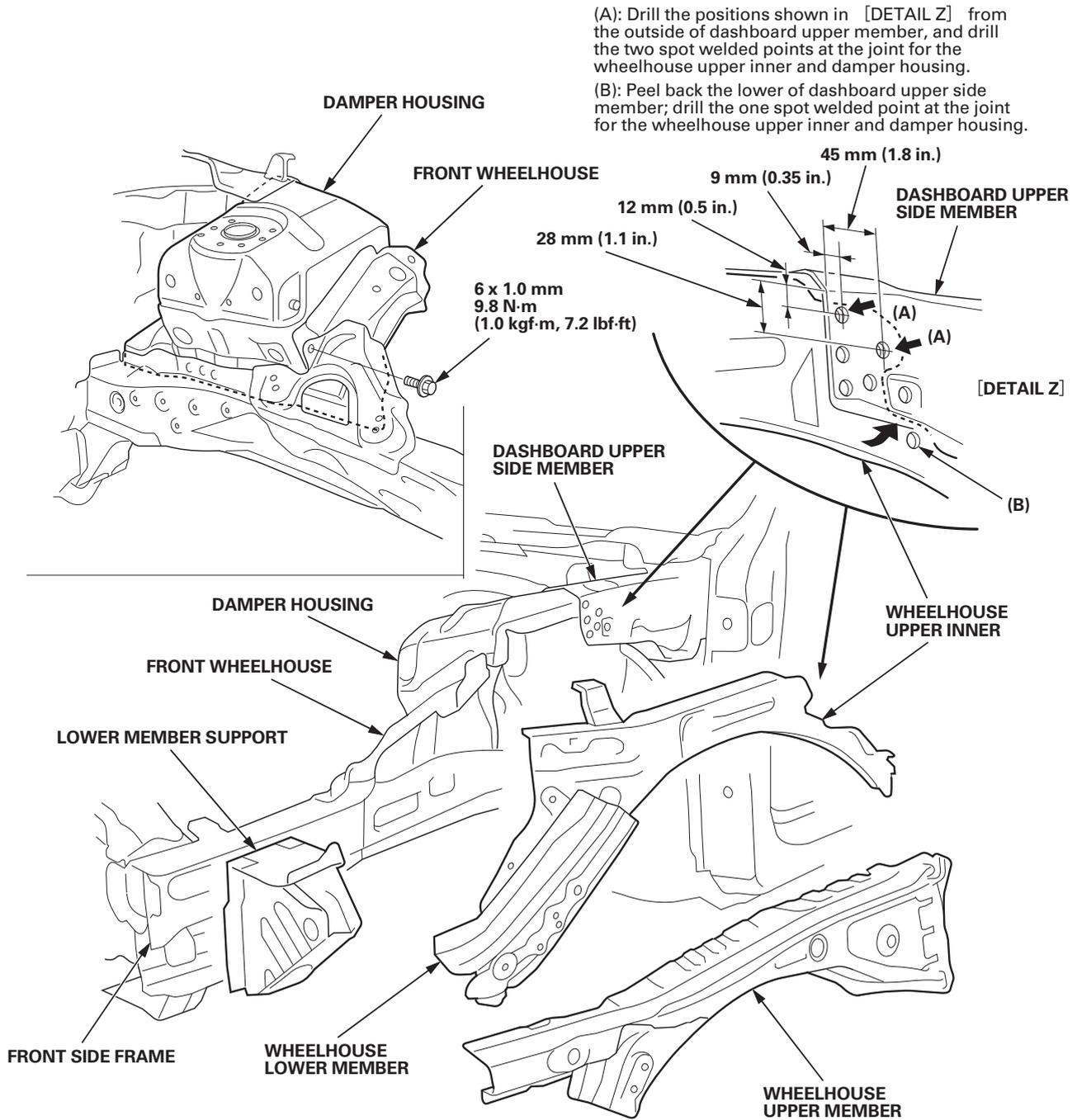
(cont'd)

Front Wheelhouse/Damper Housing

Removal (cont'd)

Construction

- Remove the wheelhouse upper member.
- Replace the wheelhouse upper inner and lower member as an assembly, and check the wheelhouse lower member support position for damage. If necessary, replace it.
- Check the damper position for damage. If necessary, replace the front wheelhouse and damper housing.



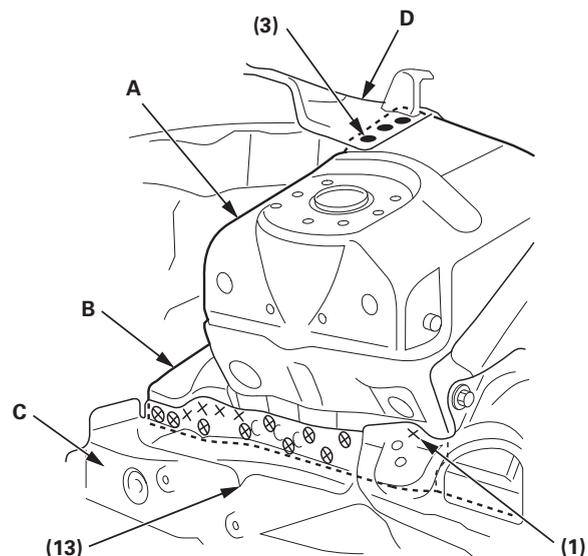
Installation

NOTE:

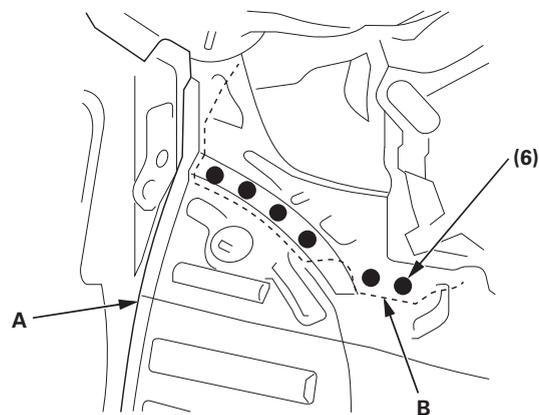
- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - : MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
 - (): The number of welds
1. Clamp the new damper housing, front wheelhouse, wheelhouse upper inner, and front bulkhead, and measure the front compartment diagonally.
 2. Check the body dimensions.
 - Engine compartment (see page 4-3)
 - Engine/transmission mount position (see page 4-4)
 - Front wheelhouse lower member position (see page 4-5)
 - Engine compartment and front floor under view (see page 4-12)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
 3. Tack weld the new parts and front bulkhead into position.
 4. Temporarily install the front subframe, and check the front side frame position.
 5. Temporarily install the front fender, hood, and door, then check for differences in level and clearance. Check the external parts fitting position (see page 4-10). If necessary, check the headlight and front bumper positions. Make sure the body lines flow smoothly.

6. Do the main welding.

- Weld the damper housing (A), damper housing lower extension (B) to the front side frame (C).
- Weld the damper housing and dashboard upper side member (D).



7. From the passenger's side, plug weld the holes in the dashboard lower (A) and damper housing lower extension (B).



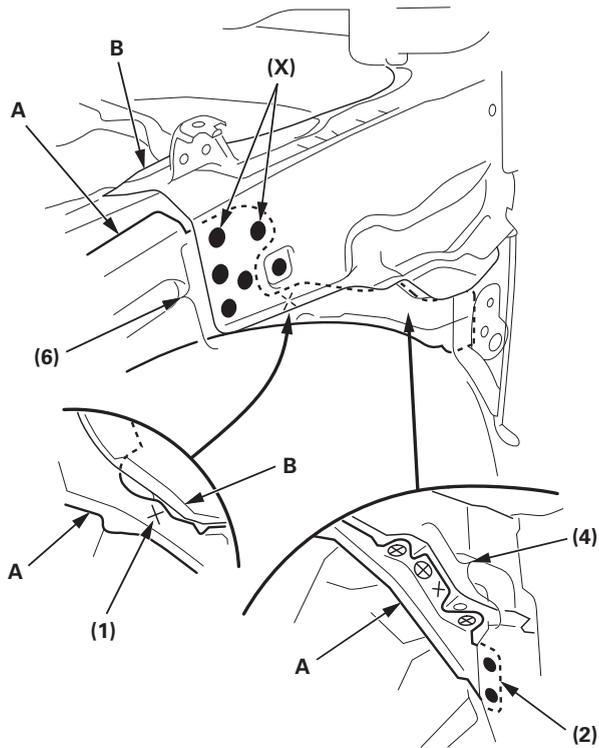
(cont'd)

Front Wheelhouse/Damper Housing

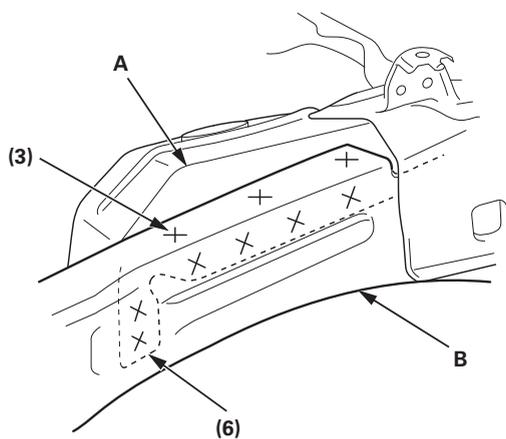
Installation (cont'd)

8. Weld the wheelhouse upper inner (A) and dashboard upper side member (B).

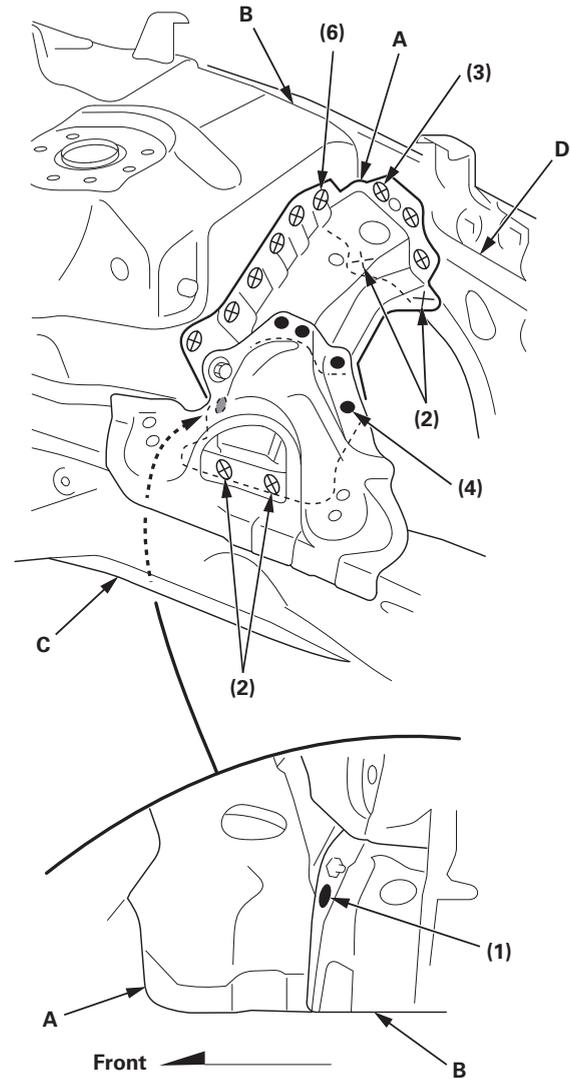
(X): Drill the holes for welding the new wheelhouse upper inner.



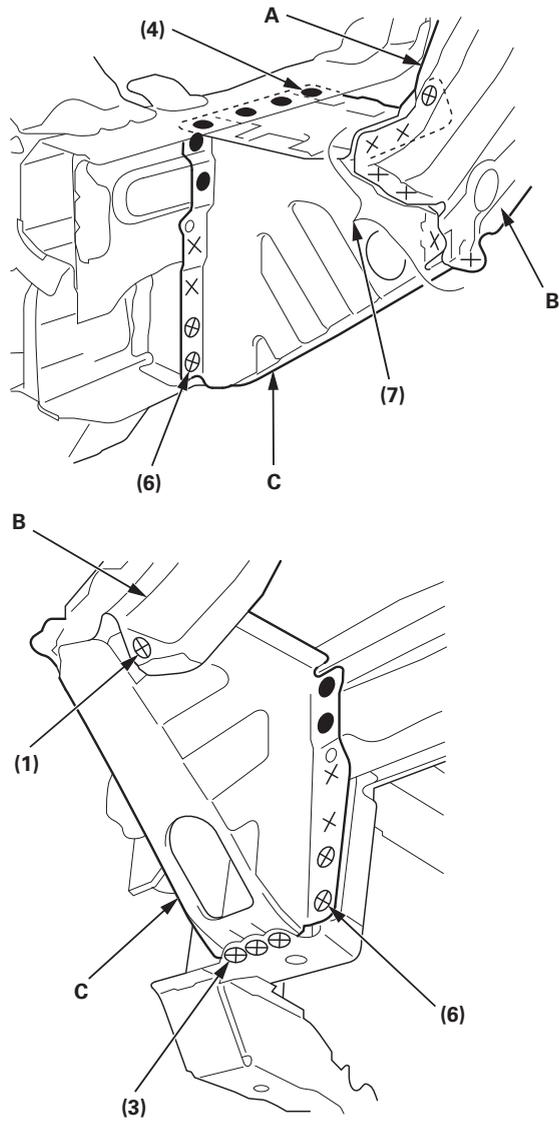
9. Weld the damper housing (A) and wheelhouse upper inner (B).



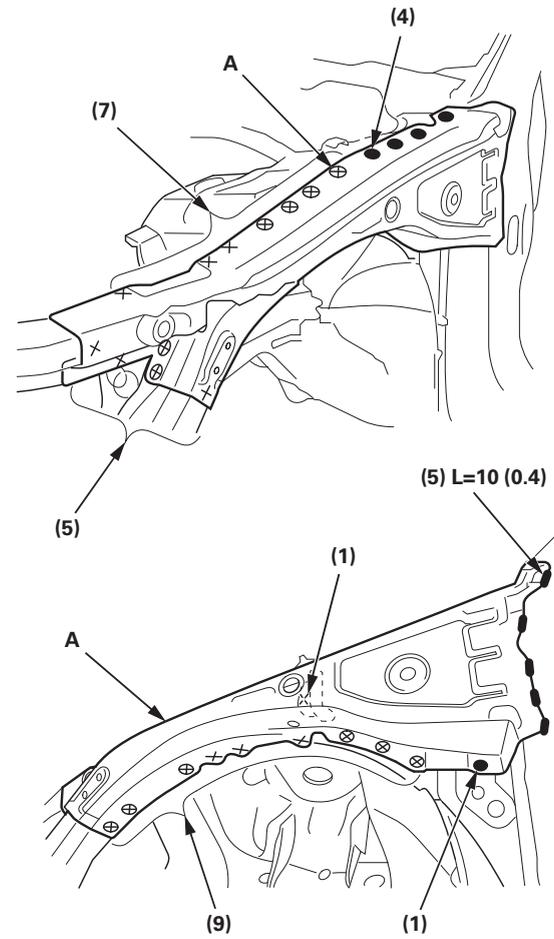
10. Weld the front wheelhouse (A) to the damper housing (B), front side frame (C), and wheelhouse upper inner (D).



11. Weld the wheelhouse upper inner (A), lower member (B), and lower member support (C).



12. Weld the wheelhouse upper member (A).



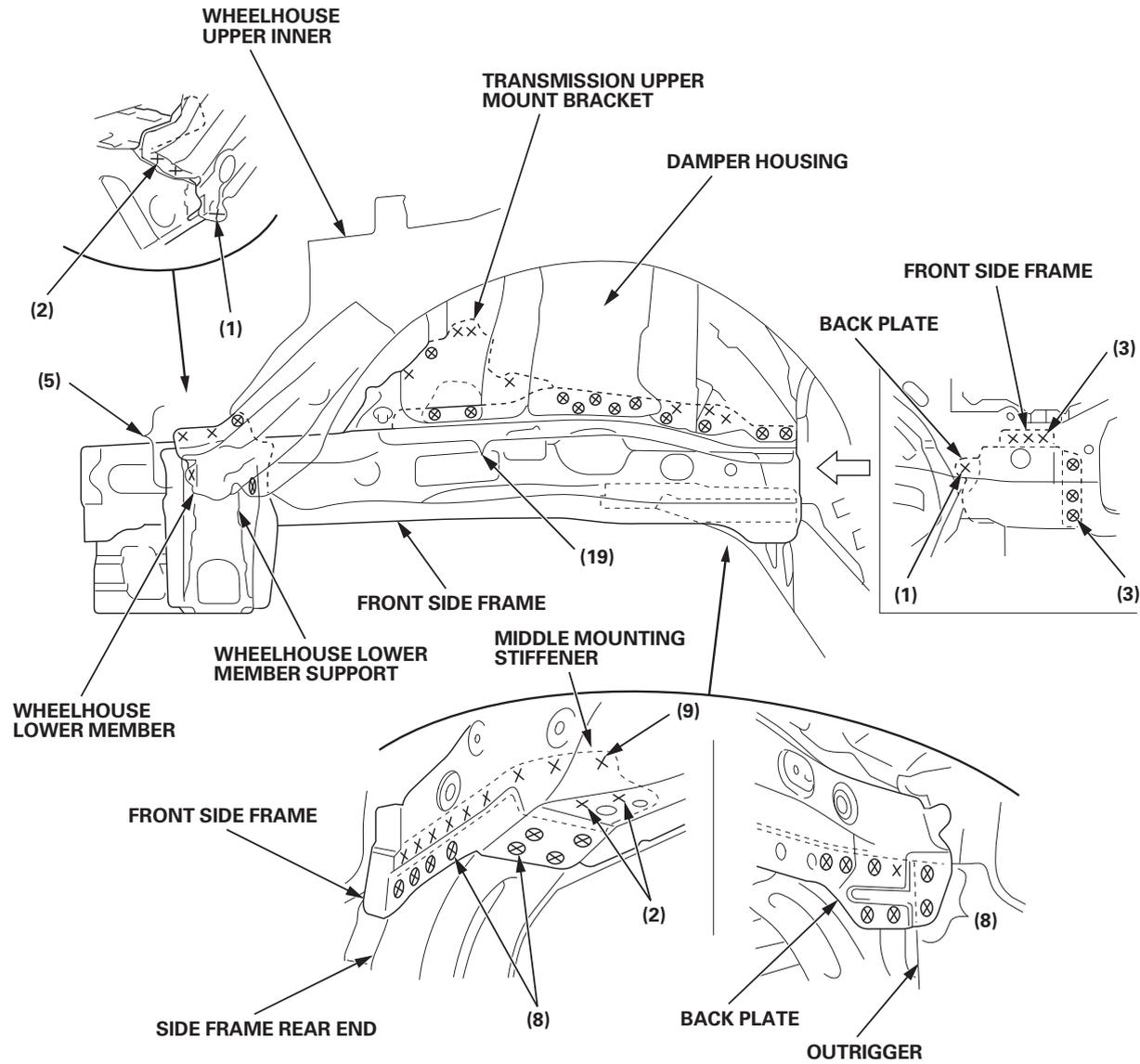
Front Side Frame/Outrigger

Removal

Mass production body welding position and number (Front side frame)

NOTE:

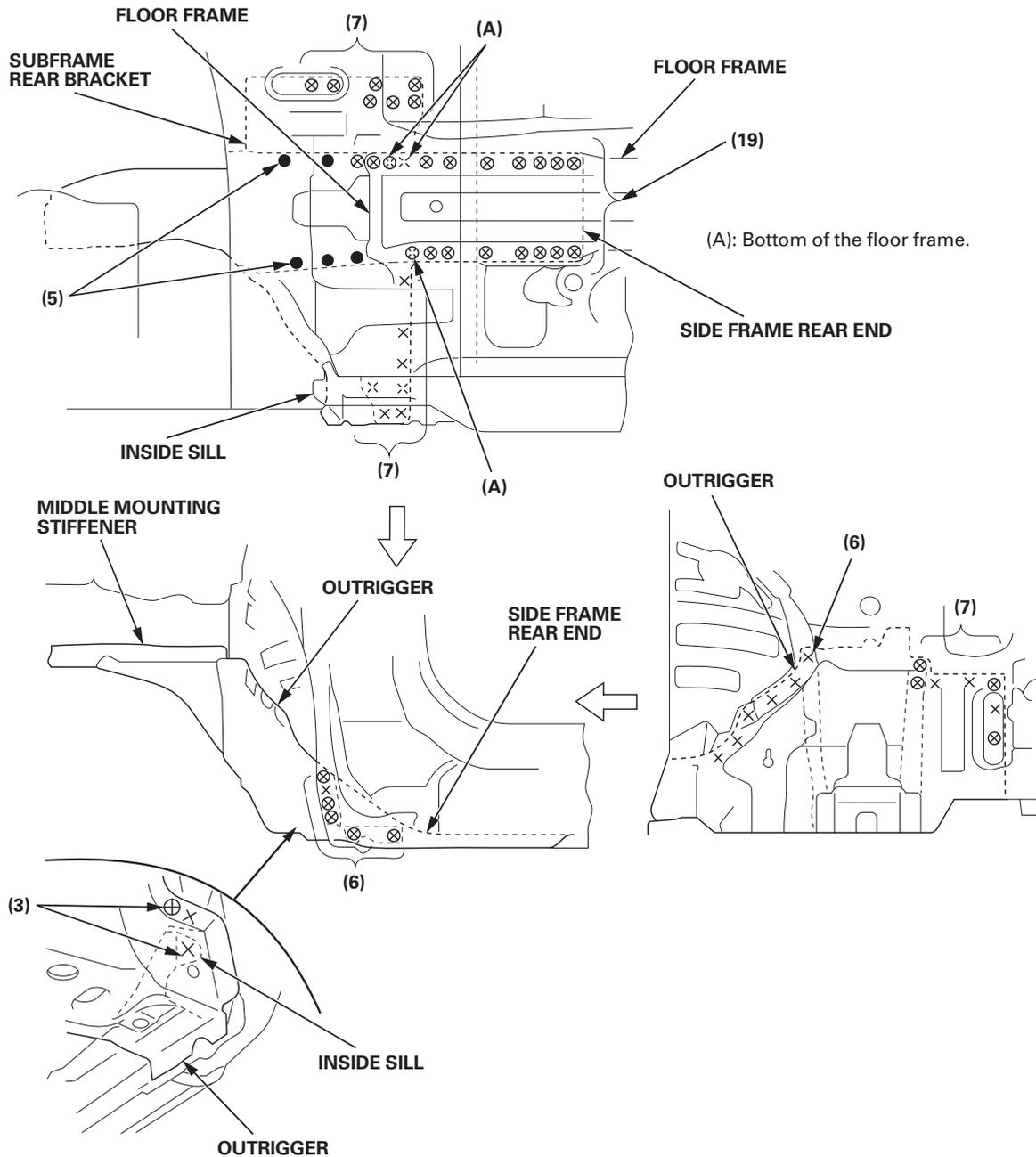
- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



Mass production body welding position and number (Outrigger and side frame rear end)

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



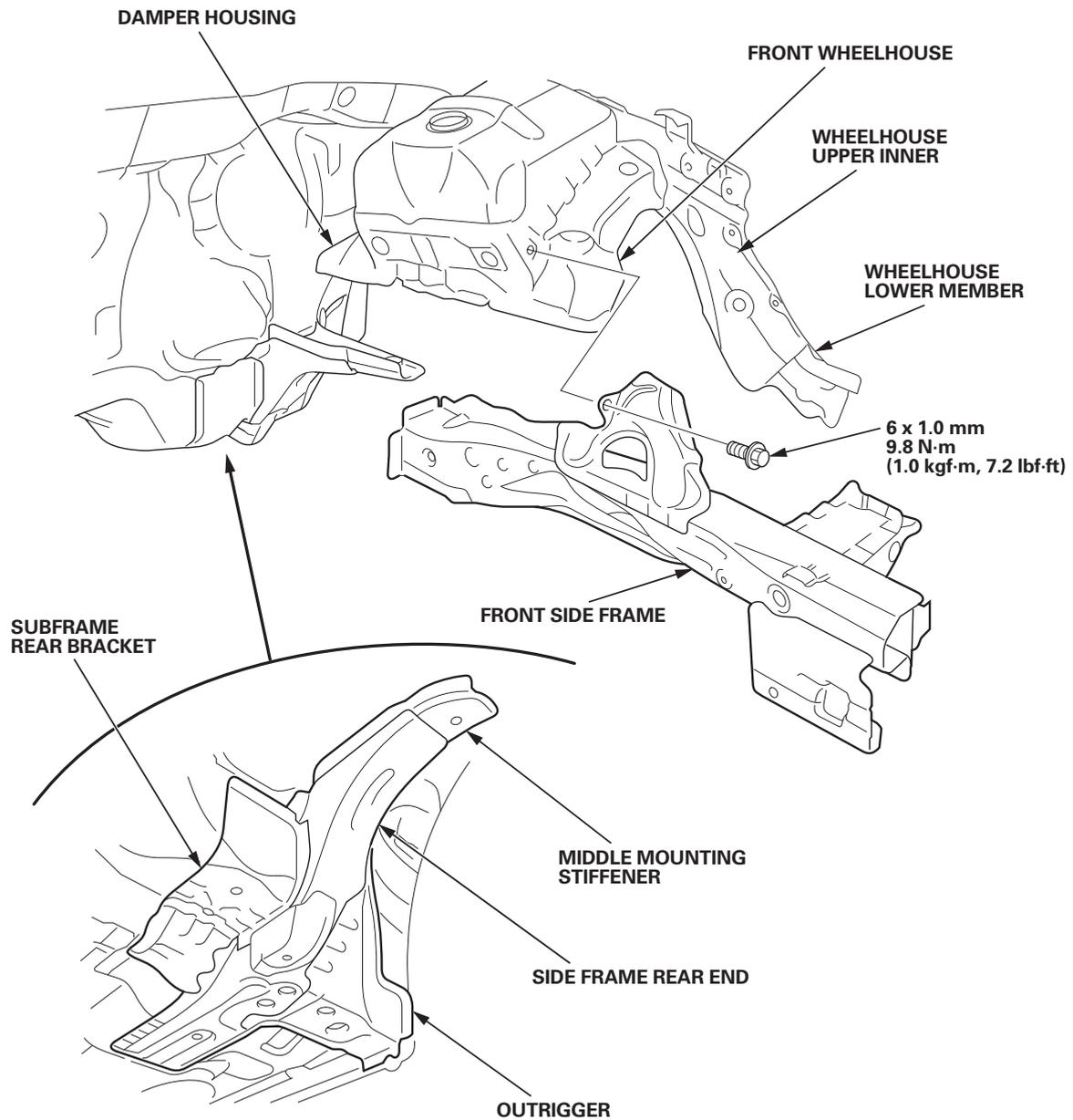
(cont'd)

Front Side Frame/Outrigger

Removal (cont'd)

Construction

- When removing the front side frame, leave the side frame rear end, outrigger, and subframe rear bracket in place.
- Check the side frame rear end, outrigger, and subframe rear bracket position for damage. If necessary, replace them as an assembly.



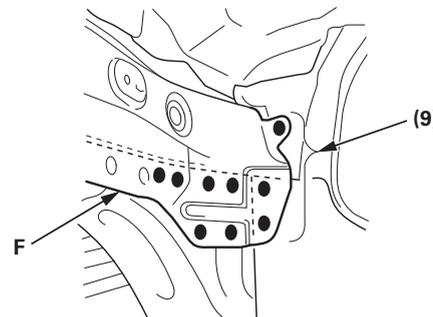
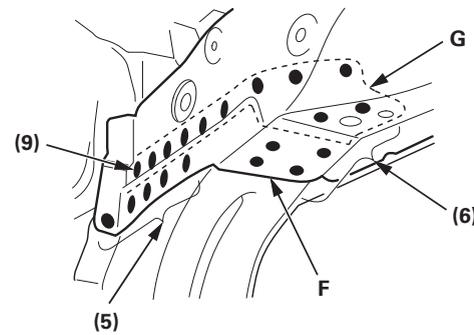
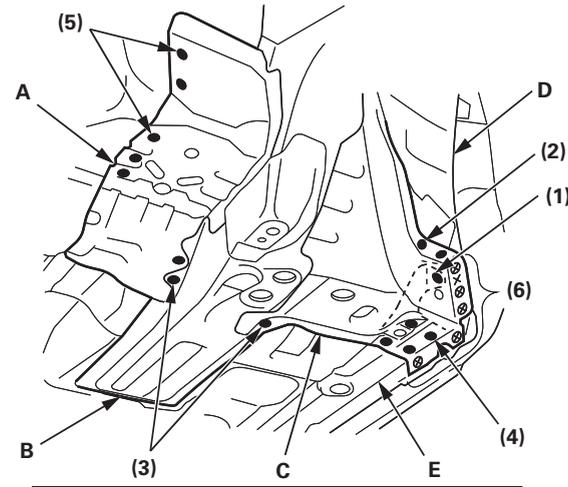
Installation

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - : MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
 - (): The number of welds
1. Clamp the new side frame rear end, and front side frame, and measure the front compartment diagonally.
 2. Check the body dimensions.
 - Engine compartment (see page 4-3)
 - Engine/transmission mount position (see page 4-4)
 - Front wheelhouse lower member position (see page 4-5)
 - Engine compartment and front floor under view (see page 4-12)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
 3. Tack weld the new parts and front bulkhead into position.
 4. Temporarily install the front subframe, and check the front side frame position.
 5. Temporarily install the front fender, hood, and door, then check for differences in level and clearance. Check the external parts fitting position (see page 4-10). If necessary, check the headlight and front bumper positions. Make sure the body lines flow smoothly.

6. Do the main welding.

- Weld the subframe rear bracket (A), side frame rear end (B), and outrigger (C) to the dashboard lower (D) and inside sill (E).
- Weld the front side frame (F) and middle mounting stiffener (G).

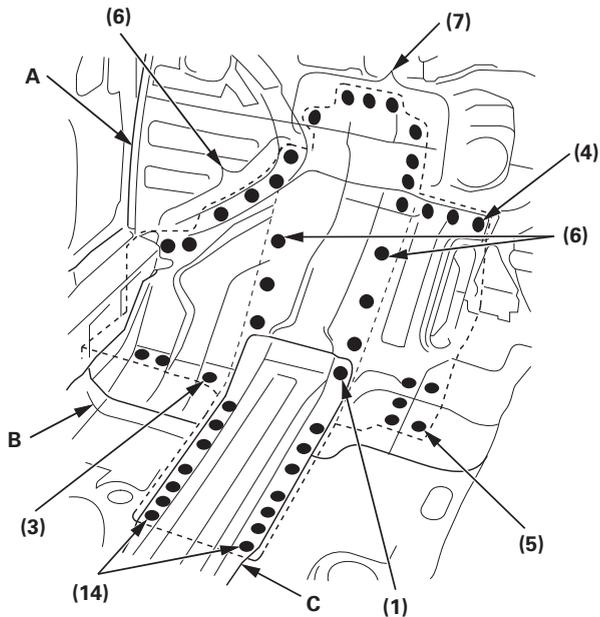


(cont'd)

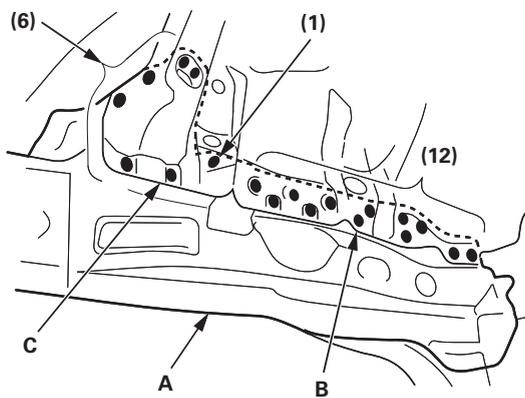
Front Side Frame/Outrigger

Installation (cont'd)

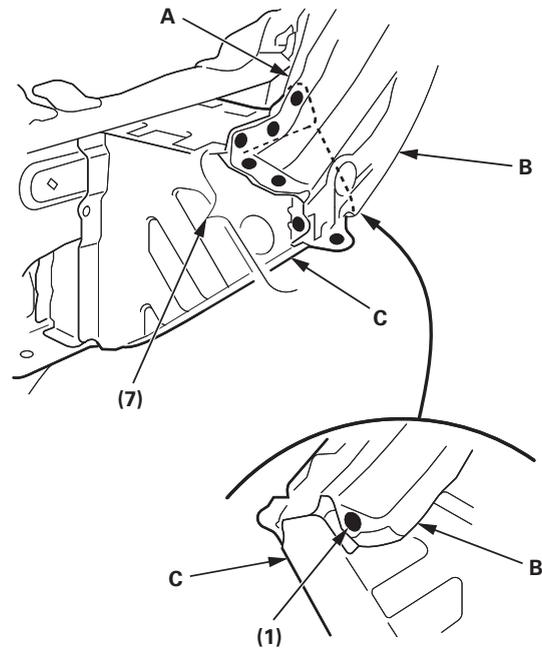
7. From the passenger's side, plug weld the holes in the dashboard lower (A), front floor (B), and floor frame (C).



8. Weld the front side frame (A) to the damper housing (B) and front wheelhouse (C).



9. Weld the wheelhouse upper inner (A), lower member (B), and lower member support (C).



Front Pillar Outer Panel

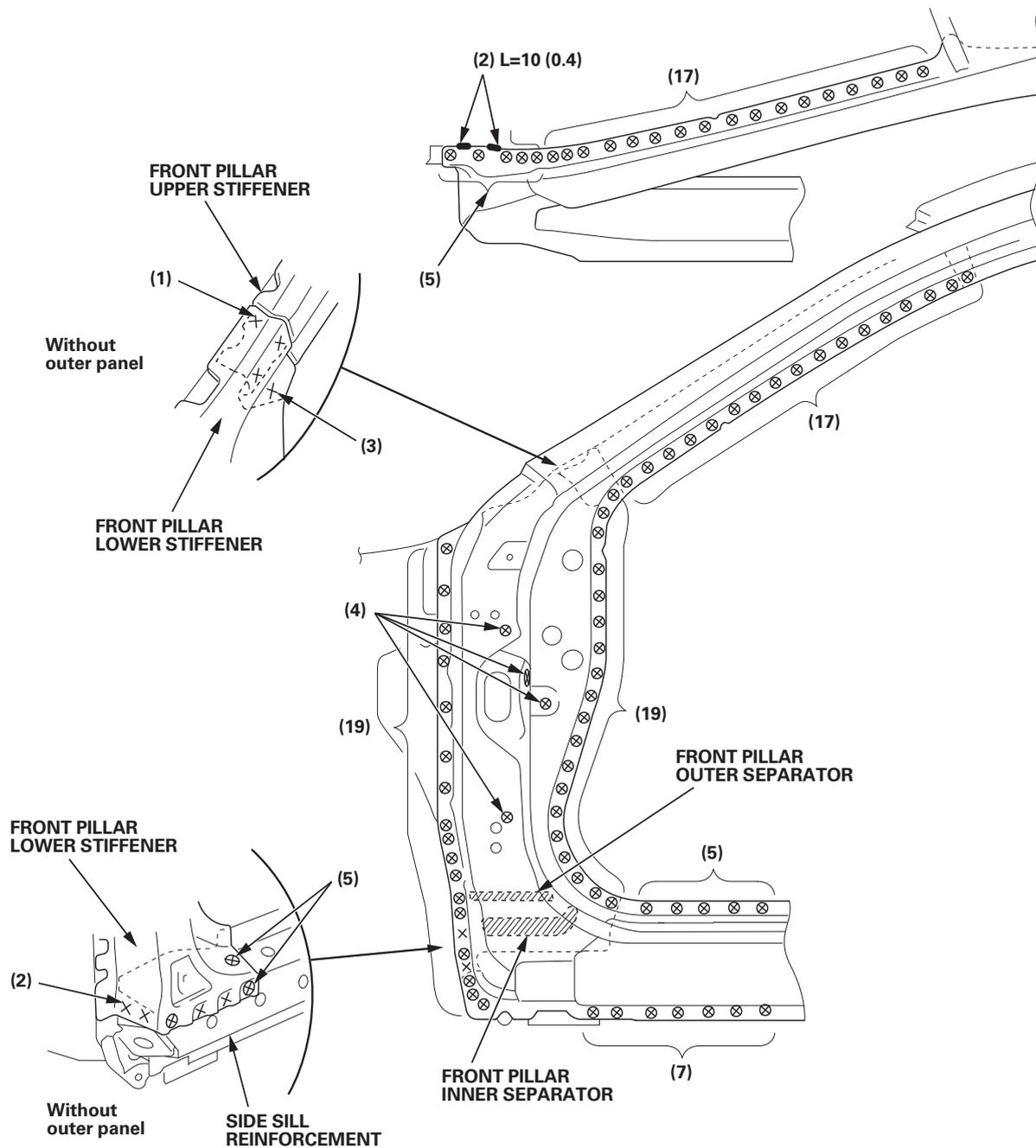
Removal

Mass production body welding position and number (Outer panel and front pillar lower stiffener)

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds

4-door



(cont'd)

Front Pillar Outer Panel

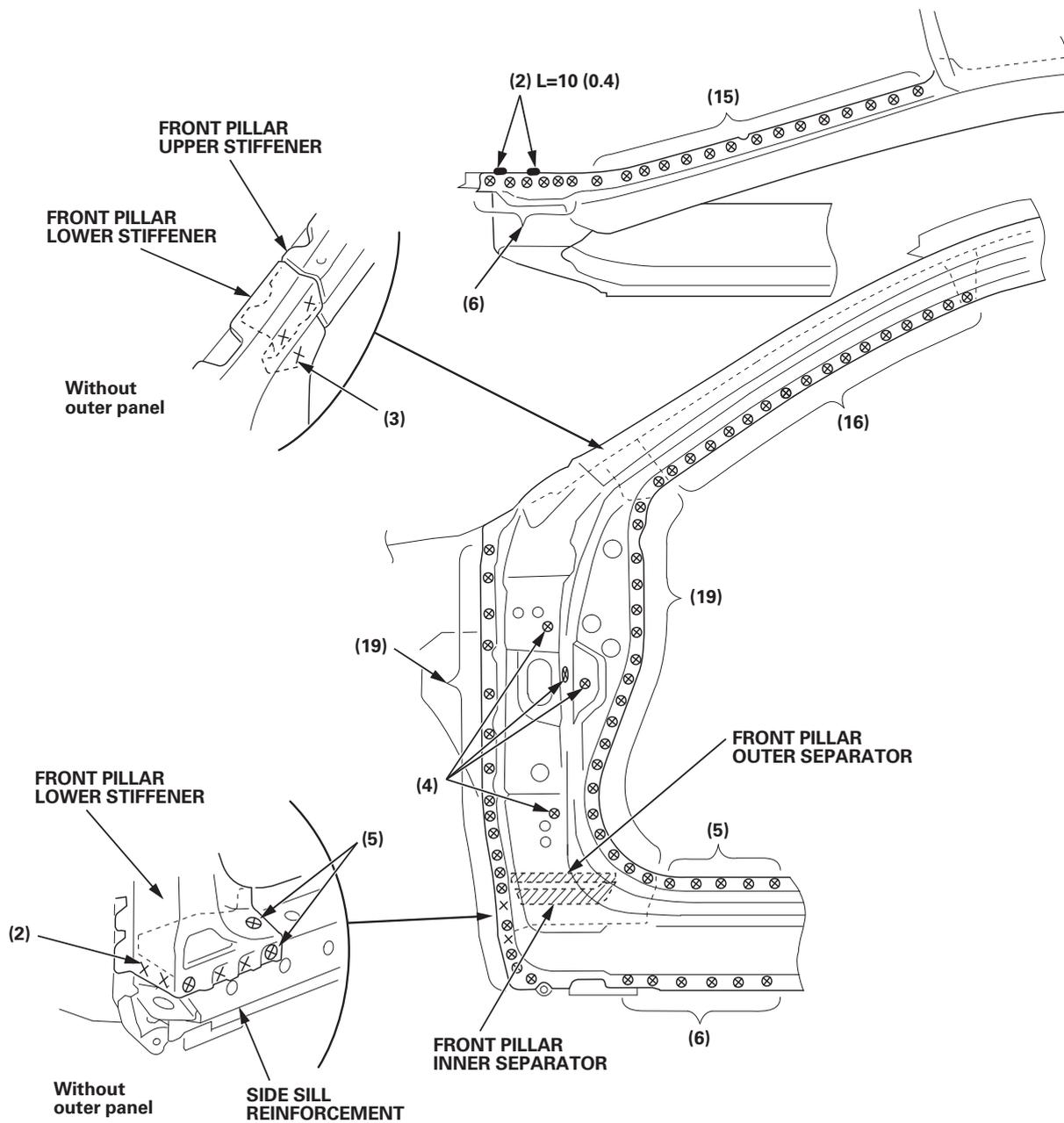
Removal (cont'd)

Mass production body welding position and number (Outer panel and front pillar lower stiffener)

NOTE:

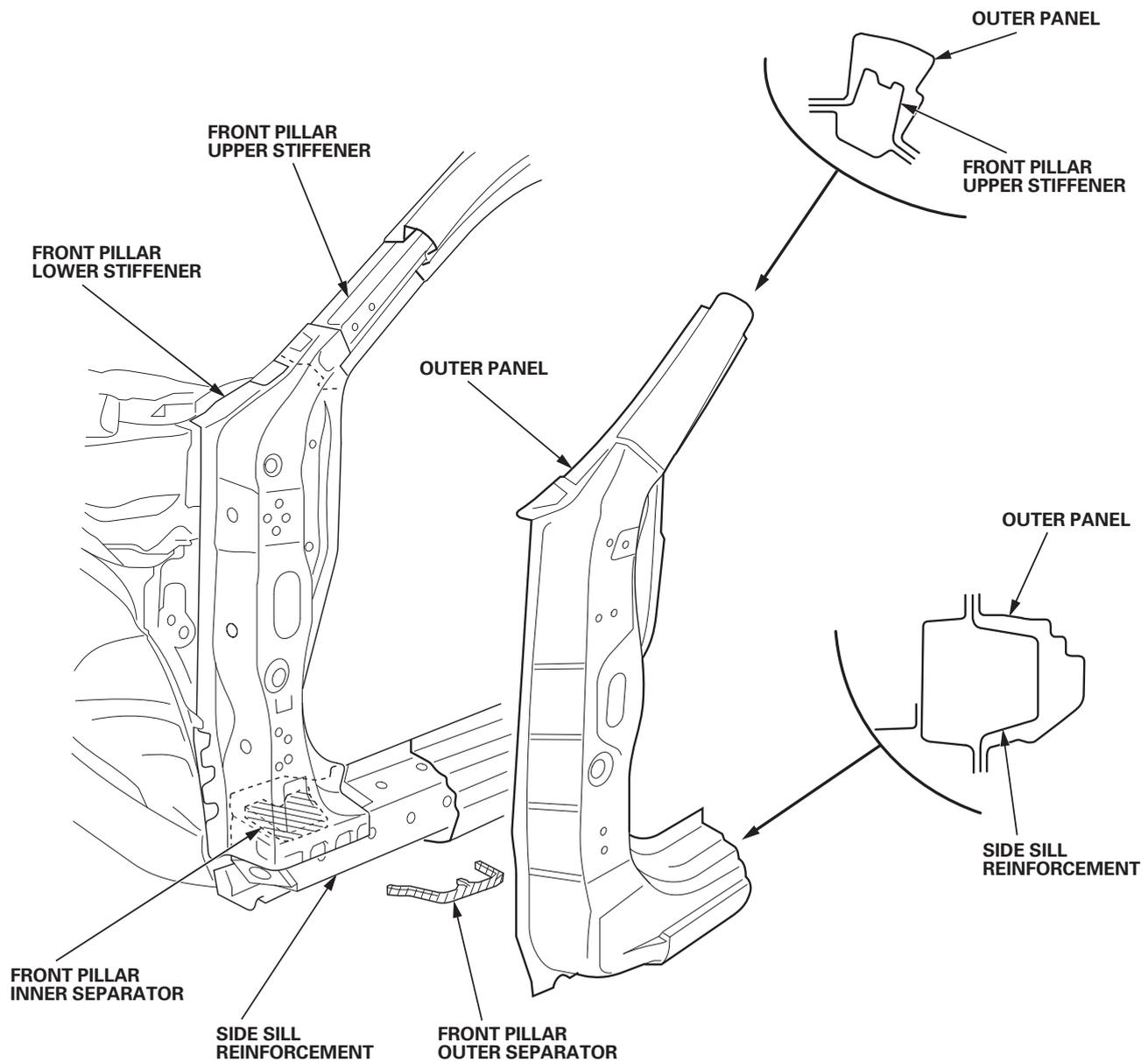
- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds

2-door



Construction

- Remove the wheelhouse upper member (see page 3-6).
- Cut and pry off the outer panel at the front pillar and side sill portion.
NOTE: Select the cutting positions in consideration of the front side outer panel repair part. Refer to "Roof and Side Panel Construction (4-door)" (see page 1-16), "Roof and Side Panel Construction (2-door)" (see page 1-18).
- Replace the front pillar outer separator.
- Check the front pillar lower stiffener position for damage. If necessary, replace it.
- Replace the front pillar inner separator.



Front Pillar Outer Panel

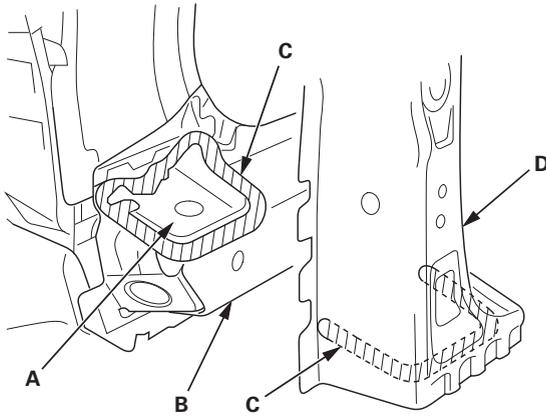
Installation

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - ◐: MIG fillet or butt welding
- L= Welding length Unit: mm (in.)
- (): The number of welds

1. Install the new front pillar inner separator (A) on the side sill reinforcement (B).

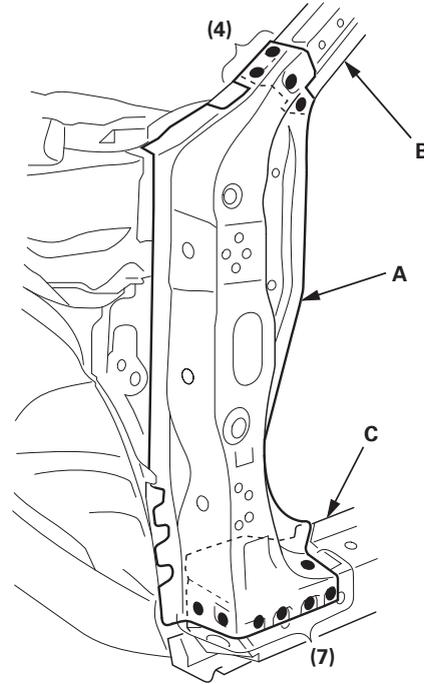
NOTE: Apply the sealer (C) all the way around the separator and inside the front pillar lower stiffener (D) without gaps.



2. Set the front pillar lower stiffener, and tack weld it into position.
3. Rough-cut the front side outer panel repair part, clamp it to the body, and check the dimensions.
 - Front wheelhouse lower member position (see page 4-5)
 - Door hinge mount position (see page 4-6)
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)
4. Temporarily install the windshield, door, hood, and front fender, then check for differences in level and clearance.

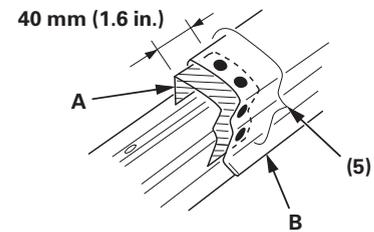
Check the external parts fitting position (see page 4-10). Make sure the body lines flow smoothly.
5. Trim the cut and joint areas of the outer panel repair part as needed, and prepare the butt-welding connections.

6. Remove the outer panel repair part, and weld the front pillar lower stiffener (A) to the upper stiffener (B) and side sill reinforcement (C).

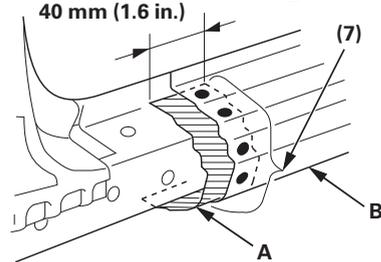


7. Weld the patch (A) at the cut section of the body side outer panel (B).

Front pillar section

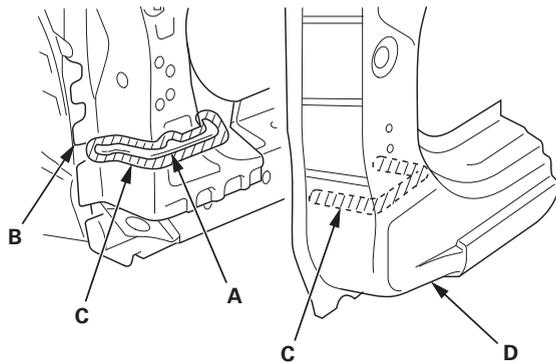


Side sill section



8. Install the new front pillar outer separator (A) on the front pillar lower stiffener (B).

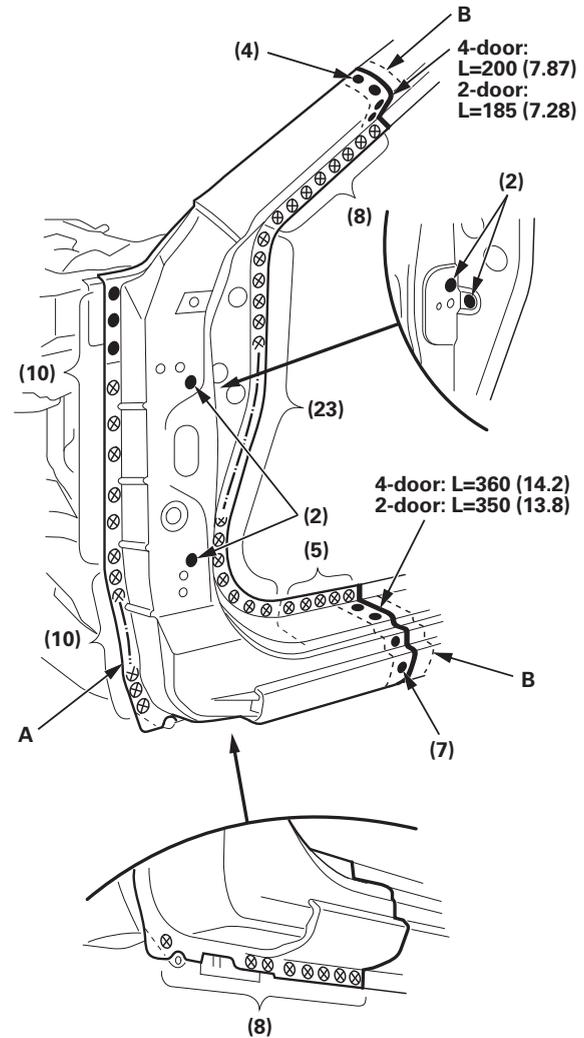
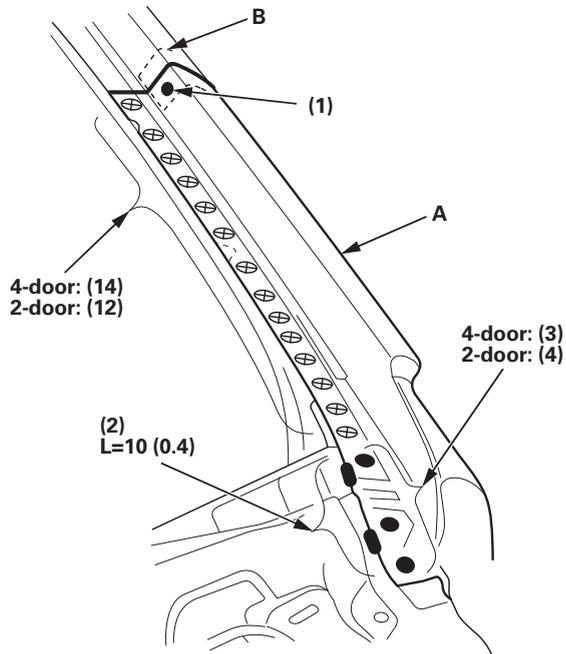
NOTE: Apply the sealer (C) all the way around the separator and inside the outer panel repair part (D) without gaps.



9. Clamp the outer panel repair part, and recheck the clearance and alignment of the door, front fender, and windshield.

10. Do the main welding. Weld the outer panel repair part (A) and patch (B).

Windshield opening



11. Weld the wheelhouse upper member (see step 12 on page 3-11).

Side Sill Outer Panel

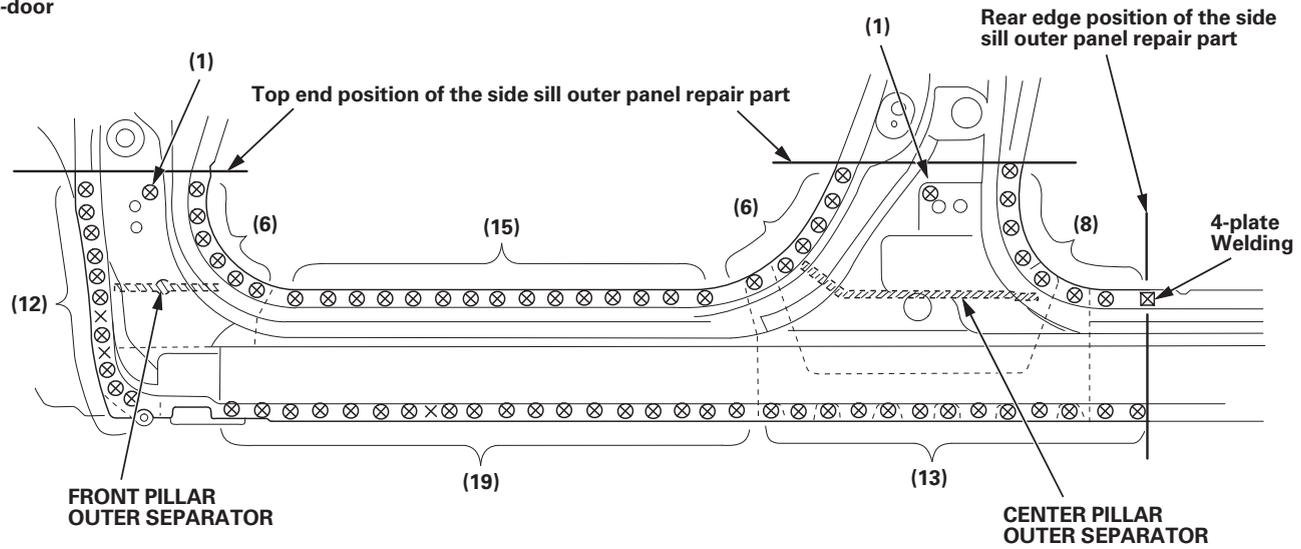
Removal

Mass production body welding position and number

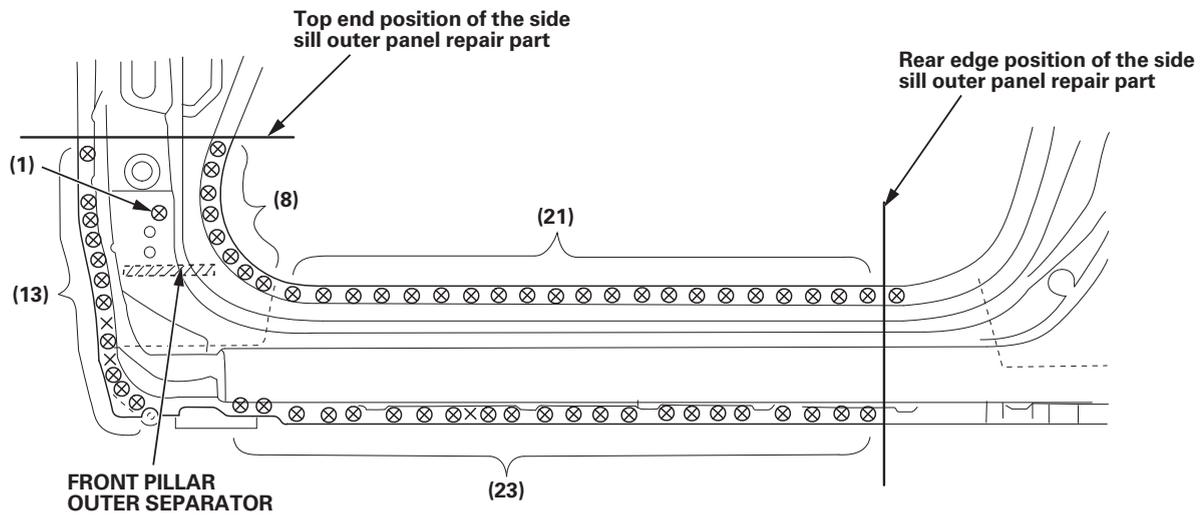
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds

4-door

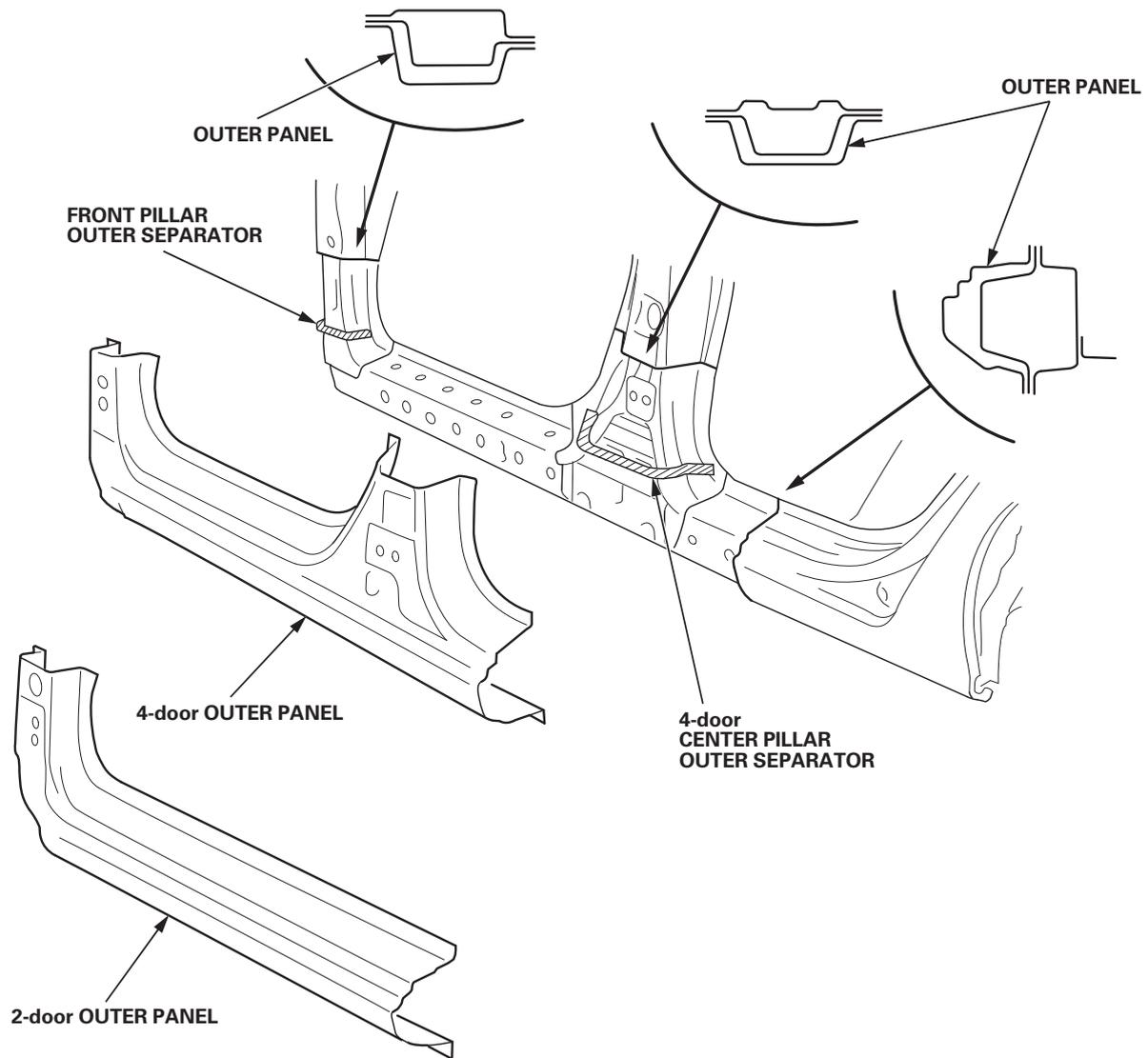


2-door



Construction

- Cut and pry off the side sill outer panel, and replace it.
NOTE: Select the cutting positions in consideration of the side sill outer panel repair part.
- Replace the front pillar outer separator and center pillar outer separator.



Side Sill Outer Panel

Installation

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - ◐: MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
 - (): The number of welds
1. Rough-cut the side sill outer panel repair part, and clamp it to the body.
 2. Check the dimensions.
 - Front wheelhouse lower member position (see page 4-5)
 - Door hinge mount position (see page 4-6)
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)

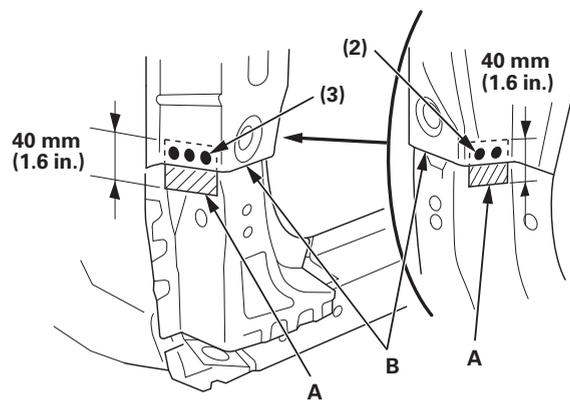
3. Temporarily install the door, hood, and front fender, then check for differences in level and clearance.

Check the external parts fitting position (see page 4-10). Make sure the body lines flow smoothly.

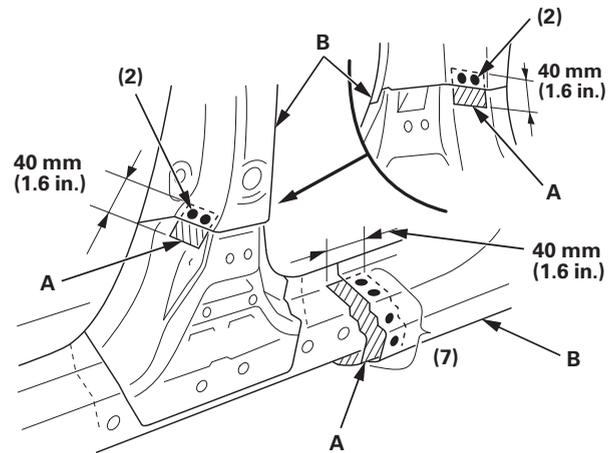
4. Trim the cut and joint areas of the outer panel repair part as needed, and prepare the butt-welding connections.

5. Weld the patch (A) at the cut section of the body side outer panel (B).

Front pillar section

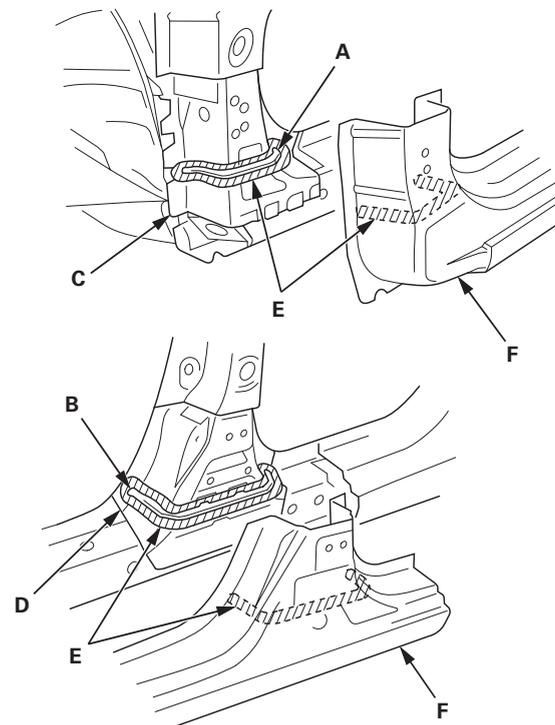


Center pillar section



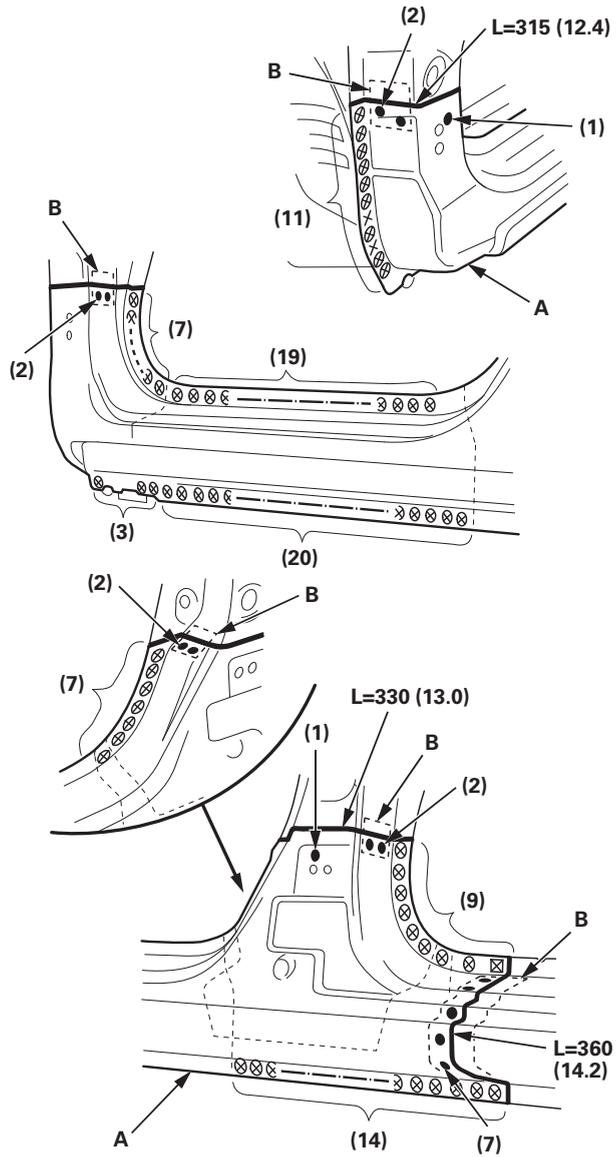
6. Install the new front pillar outer separator (A), center pillar outer separator (B) on the front pillar lower stiffener (C), and center pillar stiffener (D).

NOTE: Apply the sealer (E) all the way around the separator and inside the outer panel repair part (F) without gaps.

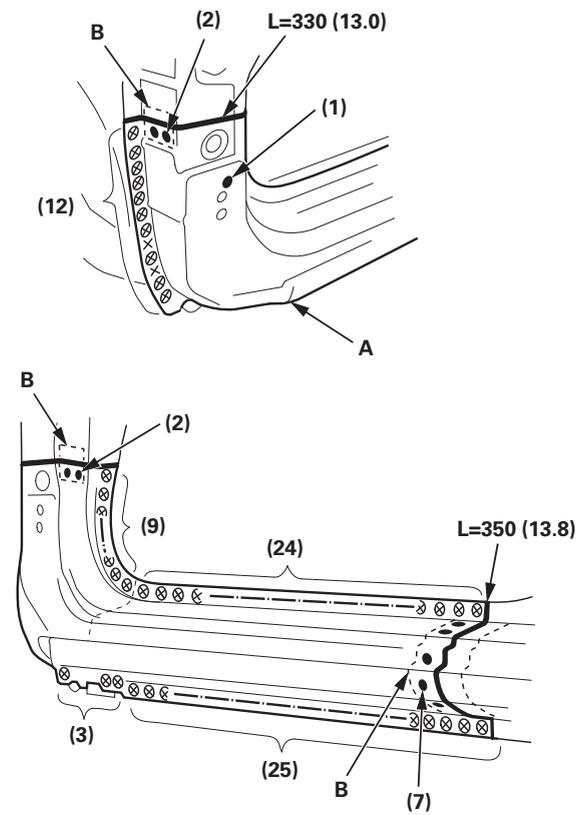


7. Recheck the clearance and alignment of the door and front fender.
8. Do the main welding. Weld the outer panel repair part (A) and patch (B).

4-door



2-door



Center Pillar Outer Panel

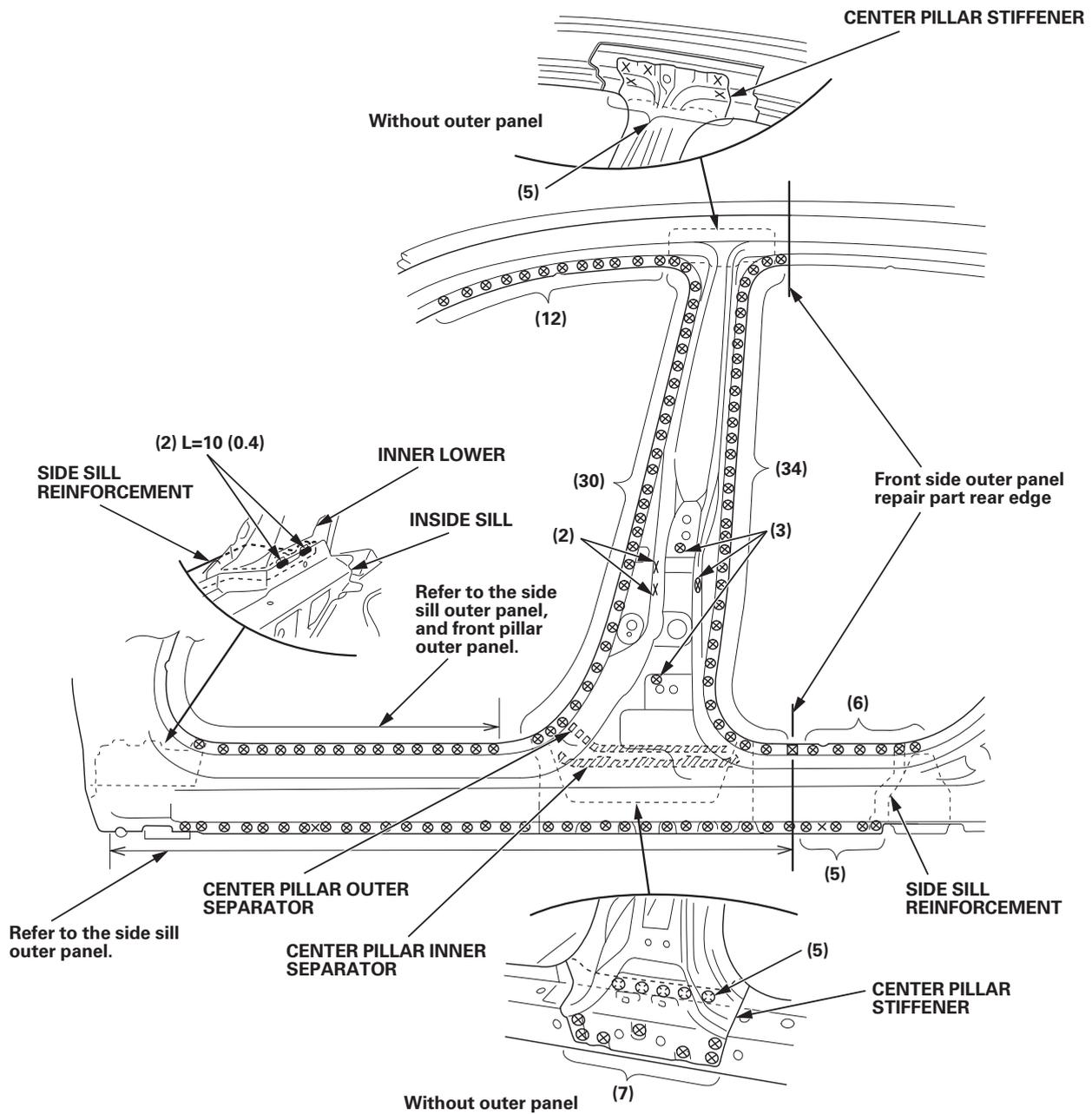
Removal

Mass production body welding position and number (Outer panel, center pillar stiffener and side sill reinforcement)

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/●: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds

4-door

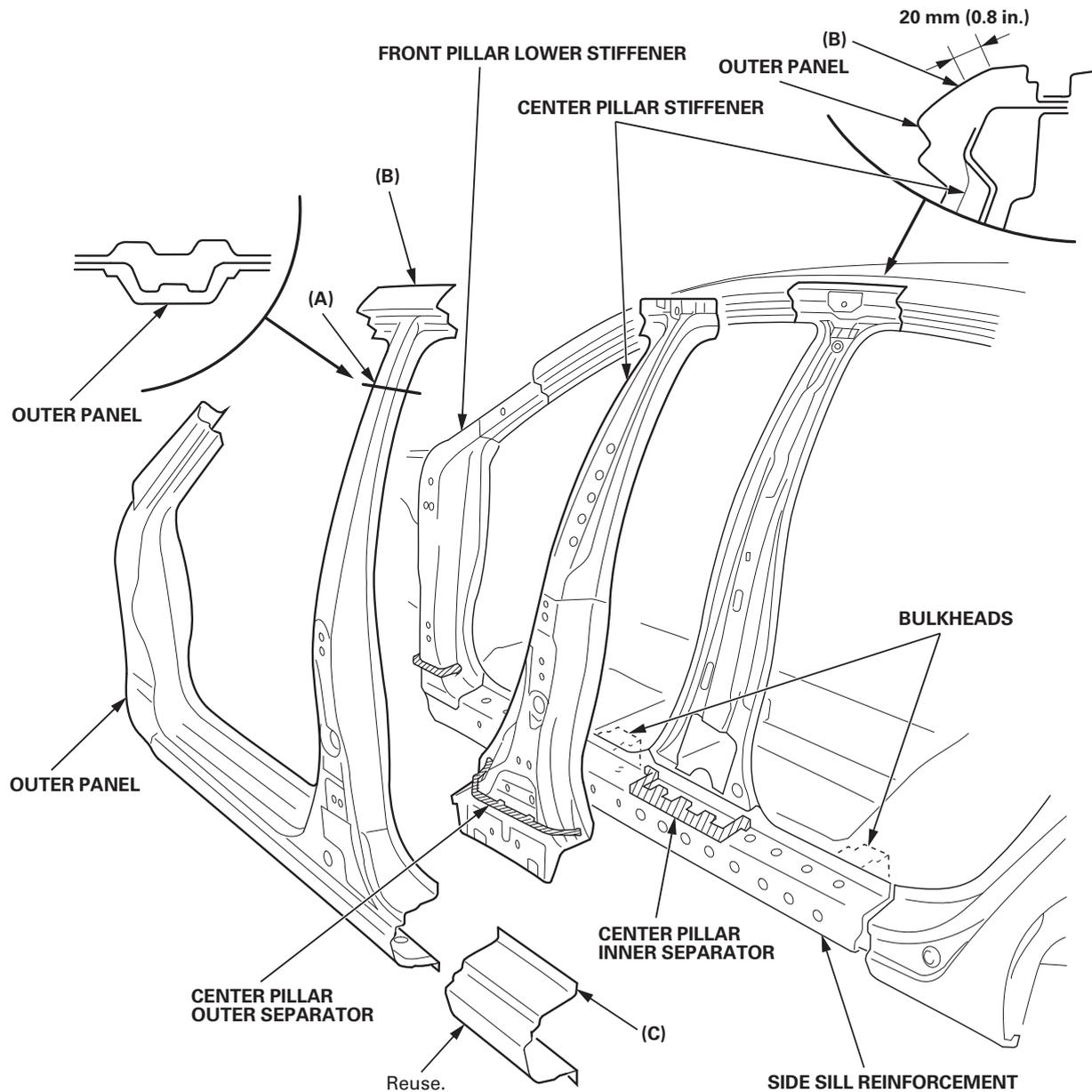


Center Pillar Outer Panel

Removal (cont'd)

4-door construction

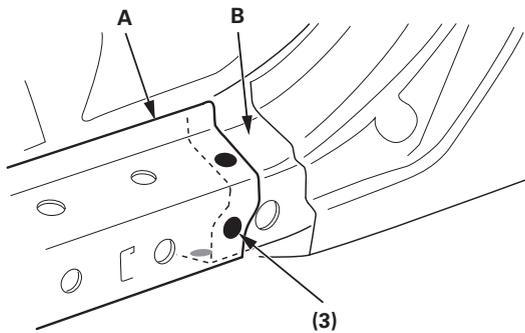
- If there is any damage to the center pillar, cut the (A) position and pry off the outer panel, and replace it.
NOTE: Select the cutting positions in consideration of the front side outer panel repair part.
- Check the side sill reinforcement and center pillar stiffener position for damage.
- If necessary, cut the (B) position of the outer panel, and replace the center pillar stiffener.
- When replacing the side sill reinforcement, remove the front pillar lower stiffener (see page 3-19), and carefully cut the (C) position at the side sill rear portion of the outer panel.
- Replace the front pillar outer and inner separators, and center pillar outer and inner separators.



Installation

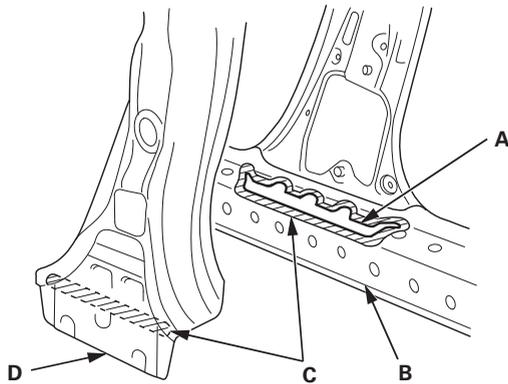
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - ◐: MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
 - (): The number of welds
1. Clamp the side sill reinforcement, and check the body dimensions.
 - Passenger compartment (see page 4-7)
 - Engine compartment and front floor under view (see page 4-12)
 - Front floor and rear floor, under view (see page 4-13)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
 2. Tack weld the side sill reinforcement (A) and reinforcement rear extension (B).

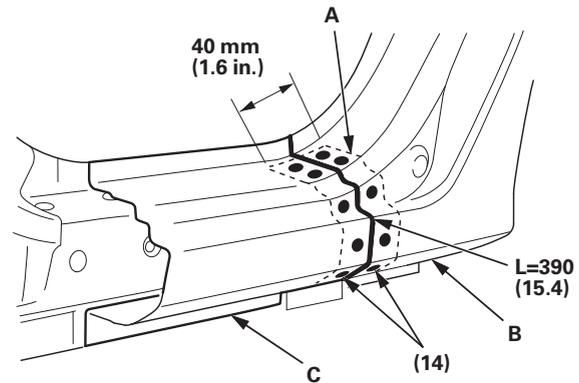


3. Install the new center pillar inner separator (A) on the side sill reinforcement (B).

NOTE: Apply the sealer (C) all the way around the separator and inside the center pillar stiffener (D) without gaps.



4. Clamp the center pillar stiffener, and tack weld it into position.
5. Install the new front pillar inner separator (see step 1 on page 3-20), and tack weld the front pillar lower stiffener into position.
6. Weld the patch (A) at the cut section of the body side outer panel (B) and weld the outer panel reuse part (C).



7. Rough-cut the front side outer panel repair part, and clamp it to the body.
8. Check the dimensions.
 - Front wheelhouse lower member position (see page 4-5)
 - Door hinge position (see page 4-6)
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)
9. Temporarily install the door, hood, and front fender, then check for differences in level and clearance.

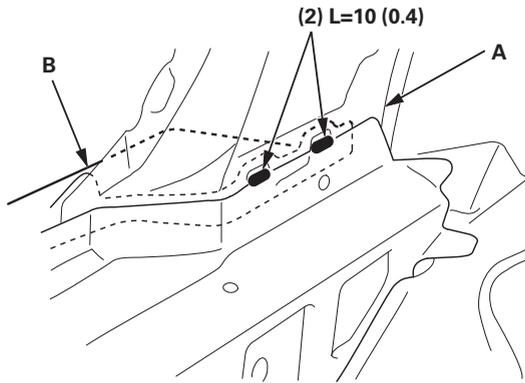
Check the external parts fitting position (see page 4-10). Make sure the body lines flow smoothly.
10. Trim the cut and joint areas of the outer panel repair part as needed, and prepare the butt-welding connections.

(cont'd)

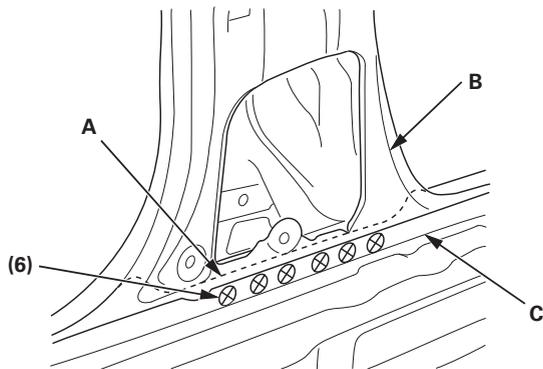
Center Pillar Outer Panel

Installation (cont'd)

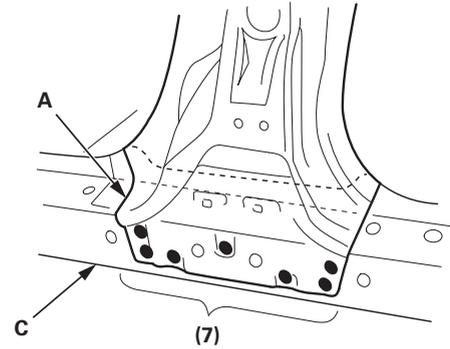
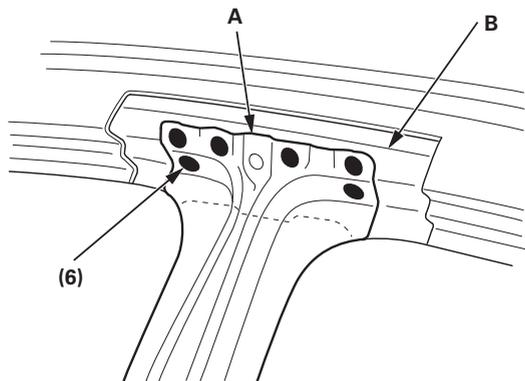
11. From inside the passenger's compartment, plug weld the hole in the inner lower pillar (A) and the front of side sill reinforcement (B).



12. From inside the passenger's compartment, weld the side sill reinforcement (A) to the center pillar inner (B) and inside sill (C).



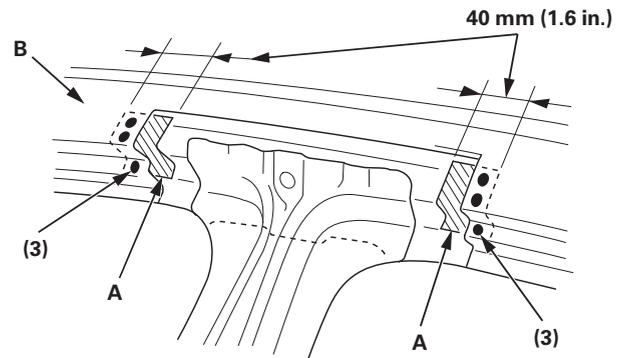
13. Remove the outer panel repair part, and weld the center pillar stiffener (A) to the roof side stiffener (B) and side sill reinforcement (C).



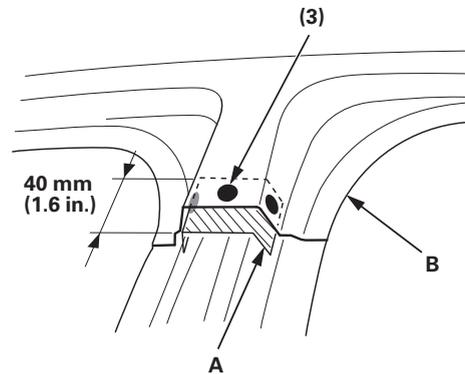
14. Weld the front pillar lower stiffener (see step 6 on page 3-20).

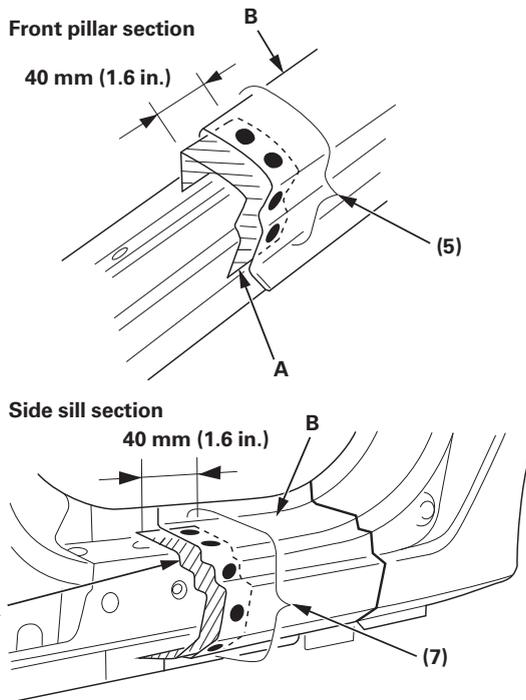
15. Weld the patch (A) at the cut section of the body side outer panel (B).

Center pillar section



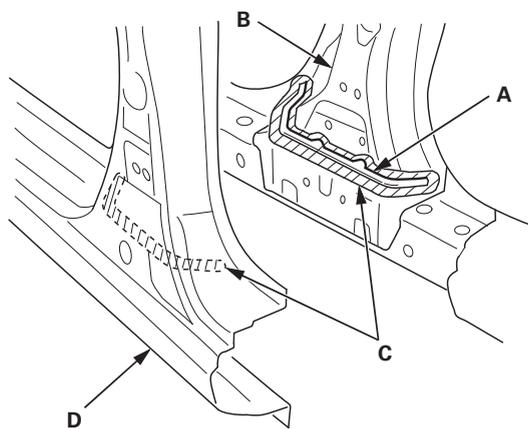
In case of outer panel only.





16. Install the new center pillar outer separator (A) on the center pillar stiffener (B).

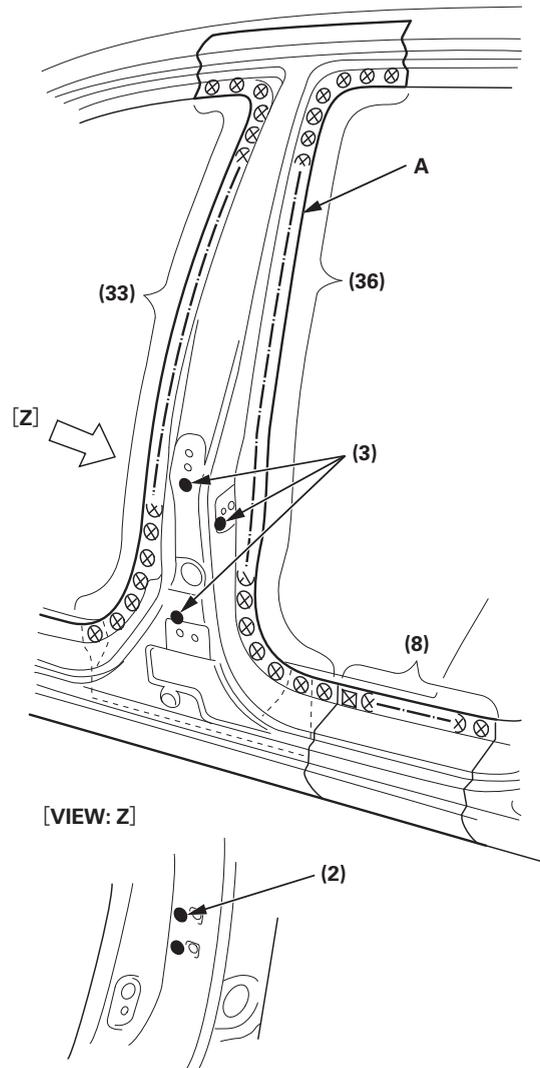
NOTE: Apply the sealer (C) all the way around the separator and inside the outer panel repair part (D) without gaps.



17. Install the new front pillar outer separator on the front pillar lower stiffener, and apply the sealer (see step 8 on page 3-21).

18. Clamp the outer panel repair part, and recheck the clearance and alignment of the door, and front fender.

19. Do the main welding. Weld the outer panel repair part (A) and patch (B).

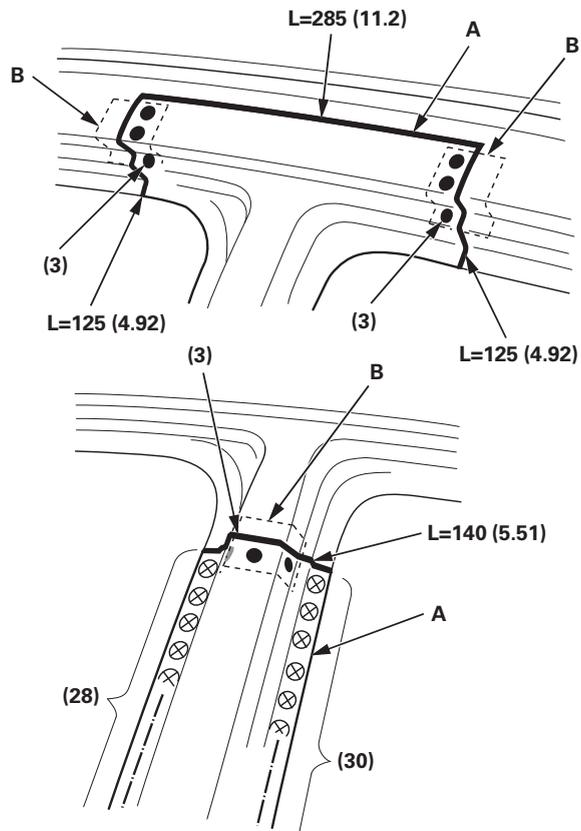


(cont'd)

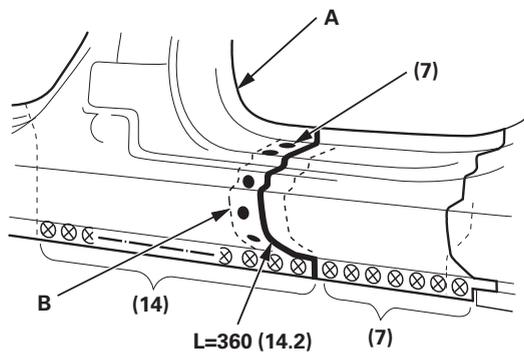
Center Pillar Outer Panel

Installation (cont'd)

Center pillar upper portion



Side sill lower flange



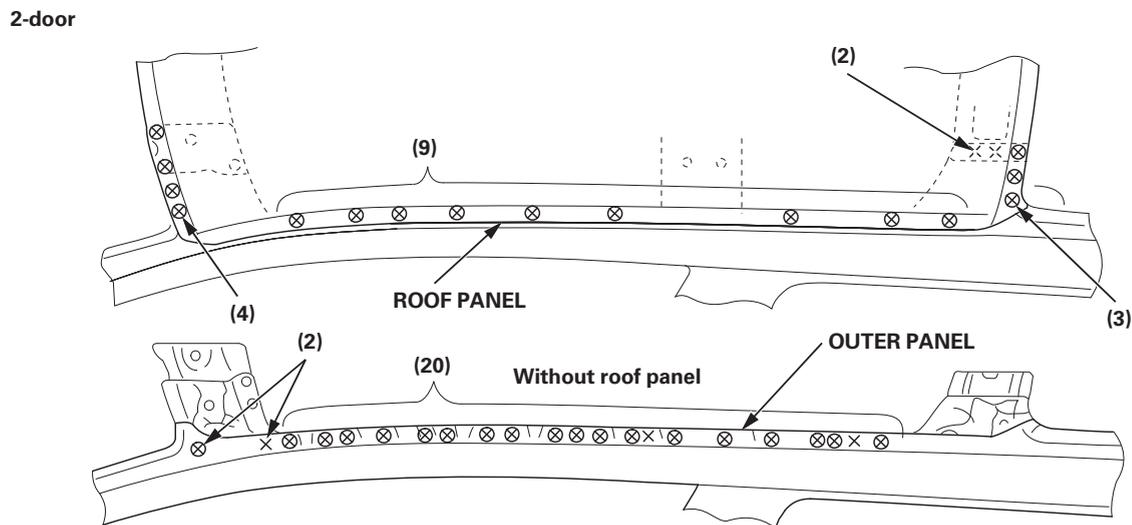
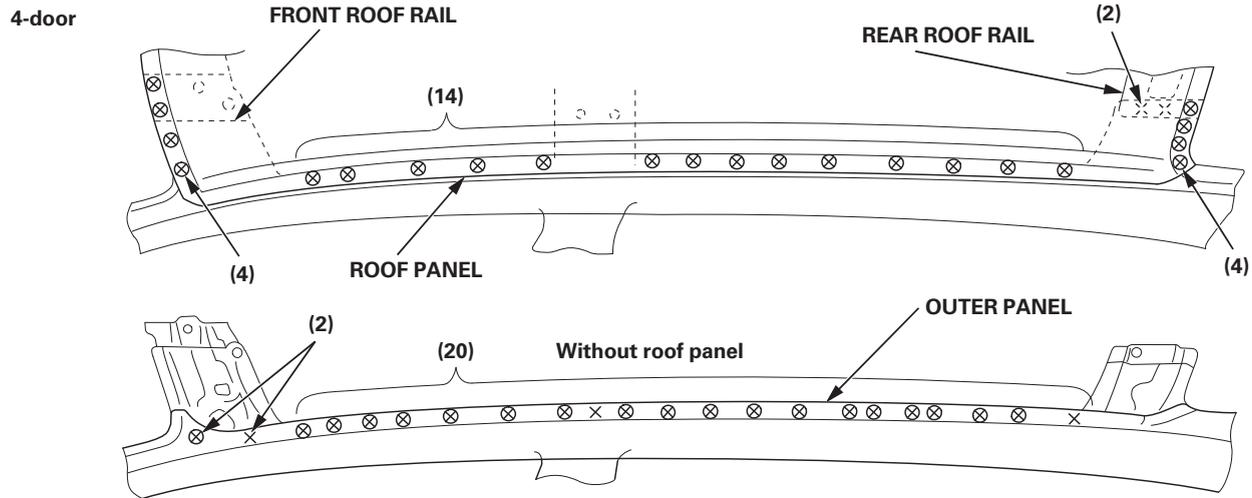
Roof Panel

Removal

Mass production body welding position and number

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



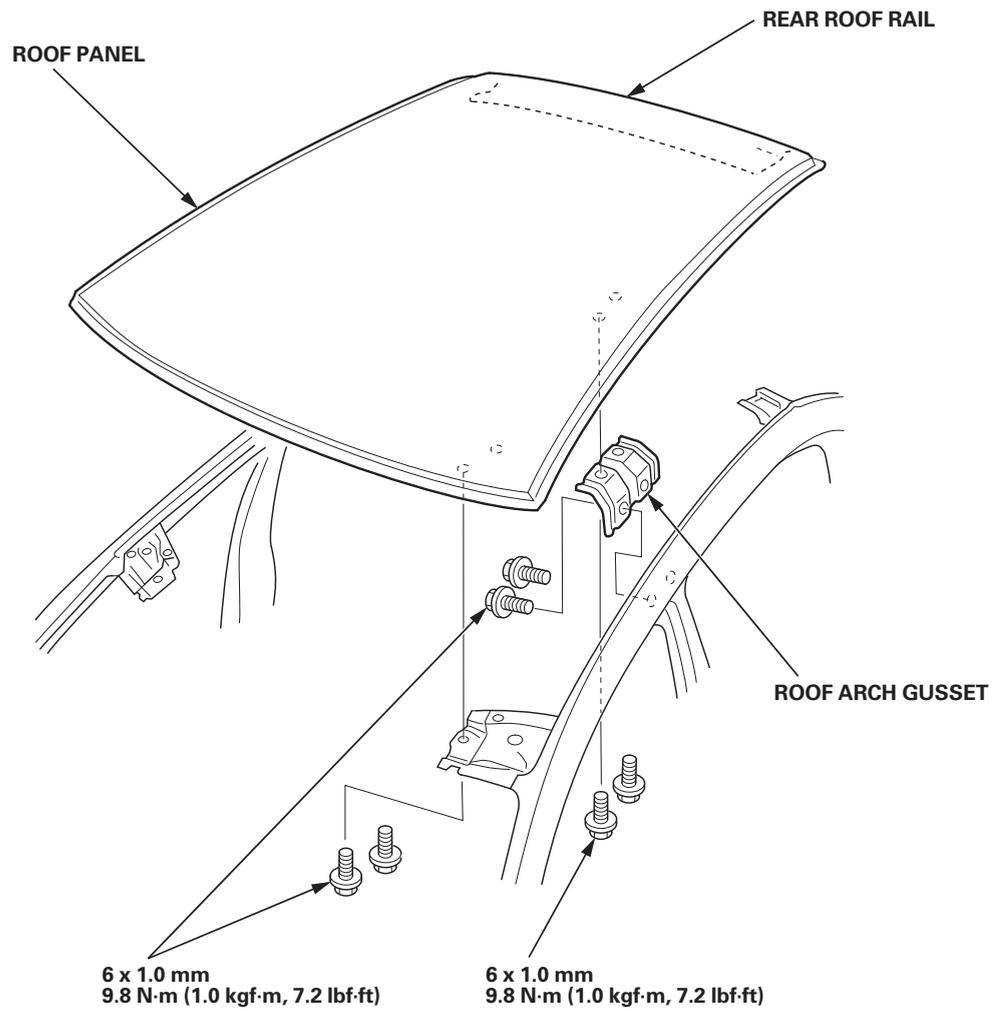
(cont'd)

Roof Panel

Removal (cont'd)

Construction

Remove the mounting bolts and roof arch gusset, and drill the welded flange of the roof panel and rear rail.



Installation

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - ◐: MIG fillet or butt welding
- L= Welding length Unit: mm (in.)
- (): The number of welds

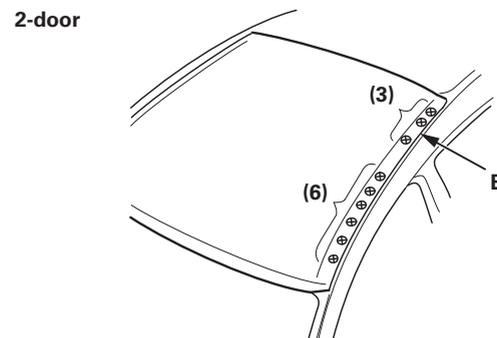
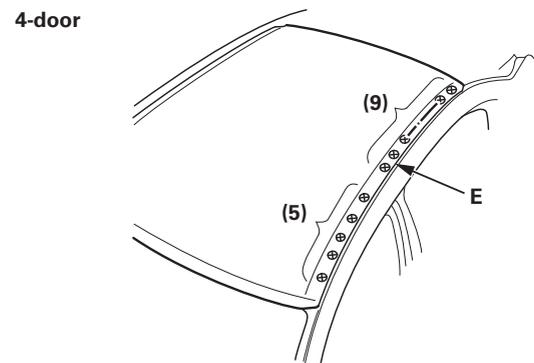
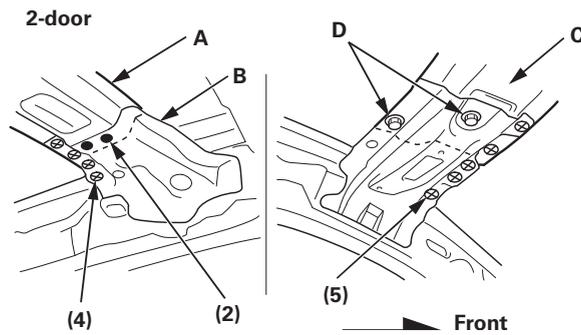
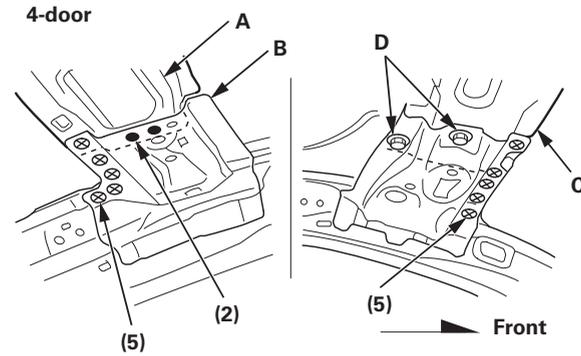
1. Clamp the new roof panel, install the roof arch gusset, and tighten the mounting bolts.
2. Check the body dimensions.
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)
 - Passenger's compartment (see page 4-7)
 - Door hinge position (see page 4-6)

3. Tack weld the front and rear corner edge of the roof panel.

4. Temporarily install the roof molding, windshield, rear window and door, then check for differences in level and clearance.

Check the external parts fitting position (see page 4-10). Make sure the body lines flow smoothly.

5. Do the main welding.
 - From inside the vehicle, weld the rear roof rail (A) and rear rail extension (B).
 - Fix the front roof rail (C) with the mounting bolts (D).
 - Weld the front, rear, and side flange of the roof panel (E).
 - The roof area must be free of burrs and/or sharp edges to prevent damage to the side curtain airbag during deployment.



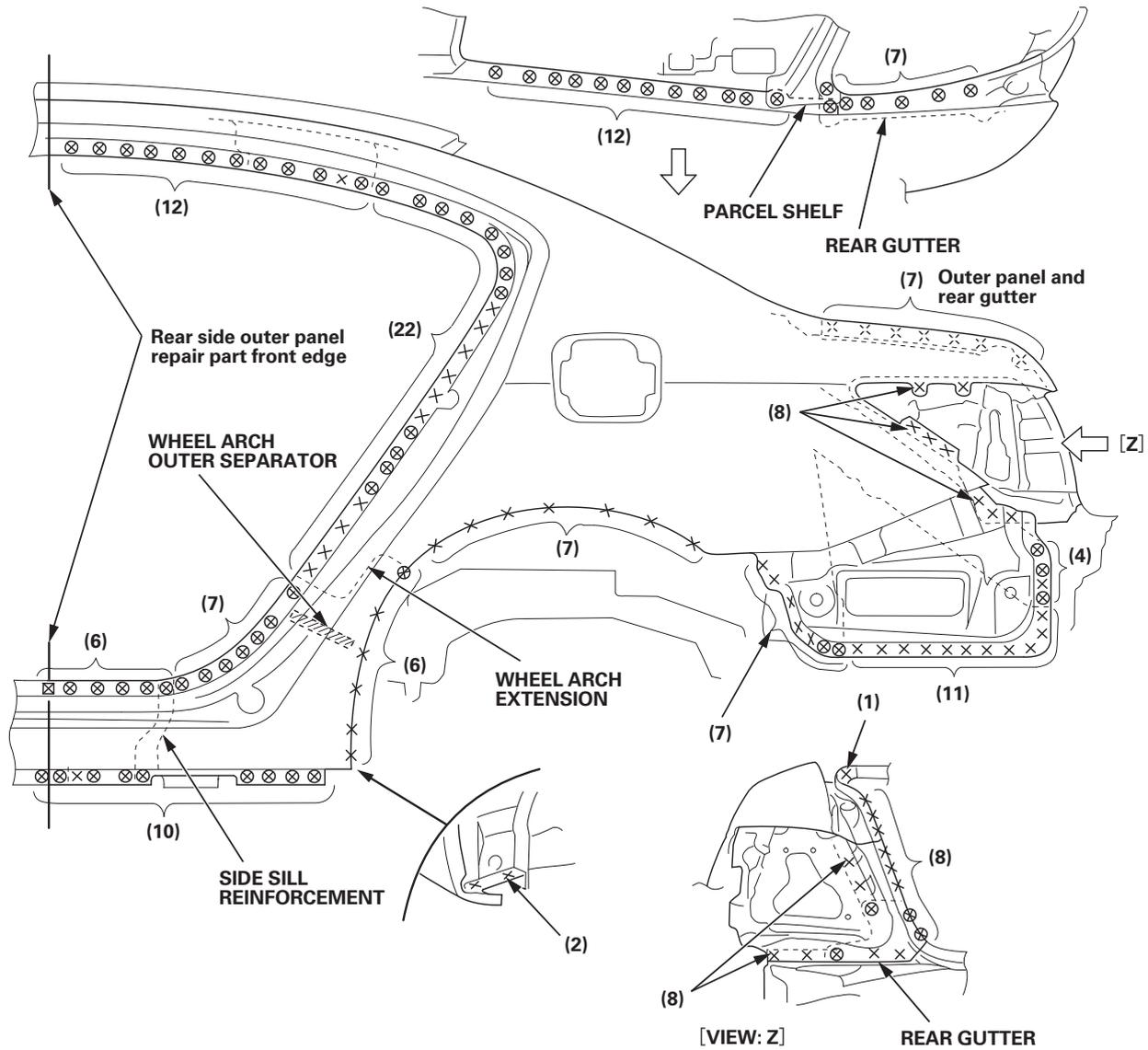
Rear Side Outer Panel

Removal

4-door mass production body welding position and number (Outer panel and rear gutter)

NOTE:

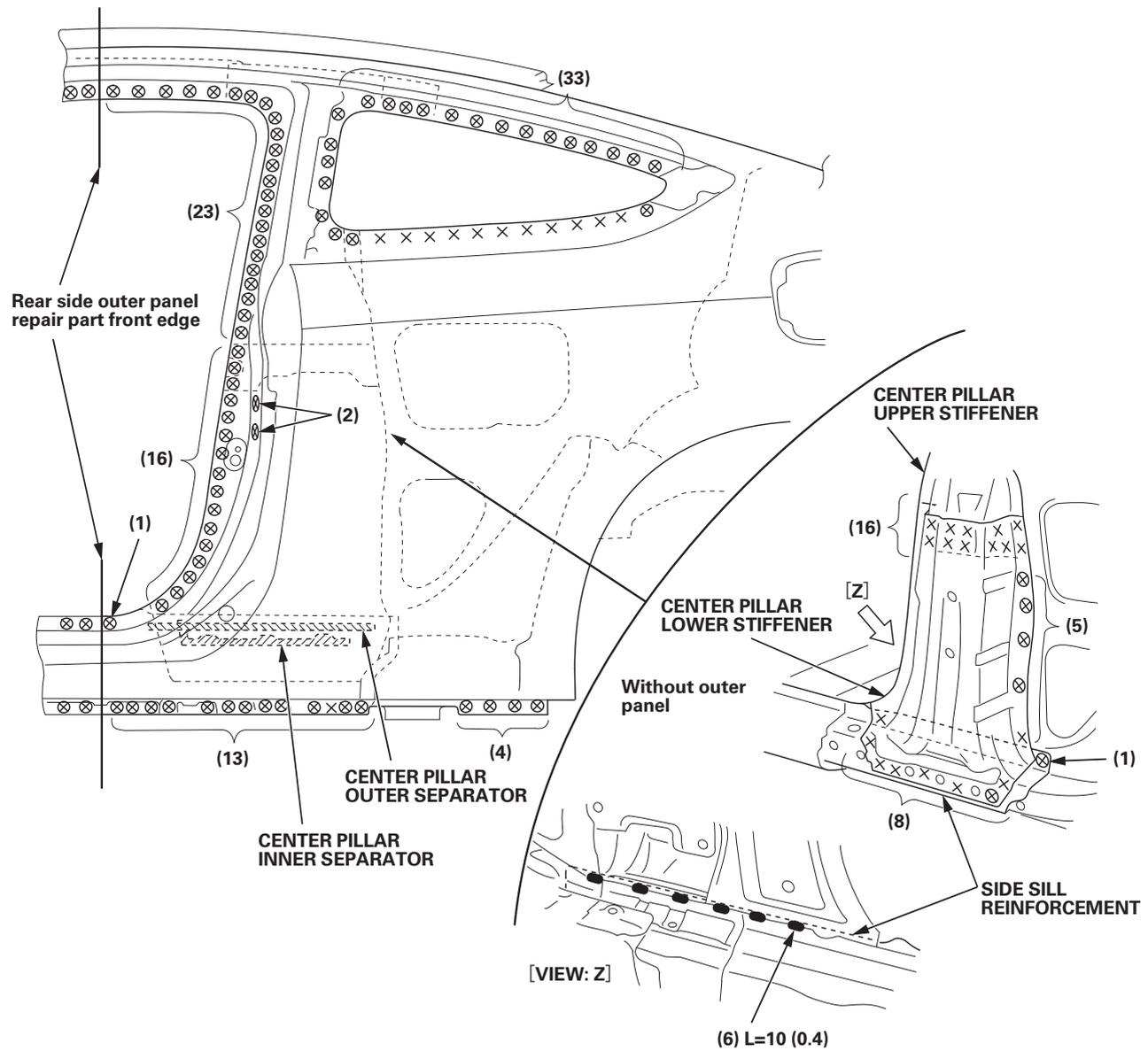
- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



2-door mass production body welding position and number (Door opening, side sill, quarter glass opening, and center pillar lower stiffener)

NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



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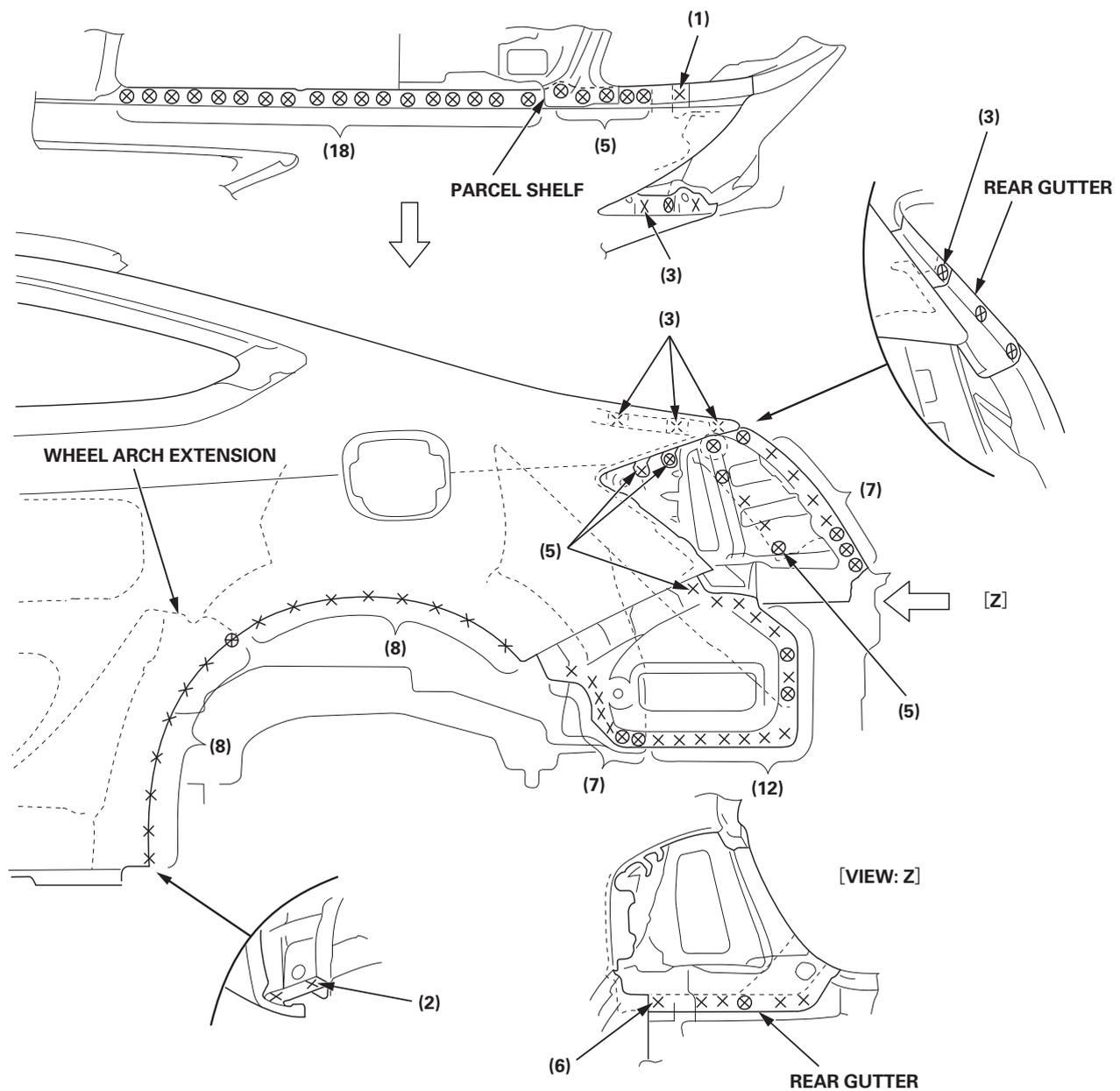
Rear Side Outer Panel

Removal (cont'd)

2-door mass production body welding position and number (Wheel arch, rear window glass opening, and rear gutter)

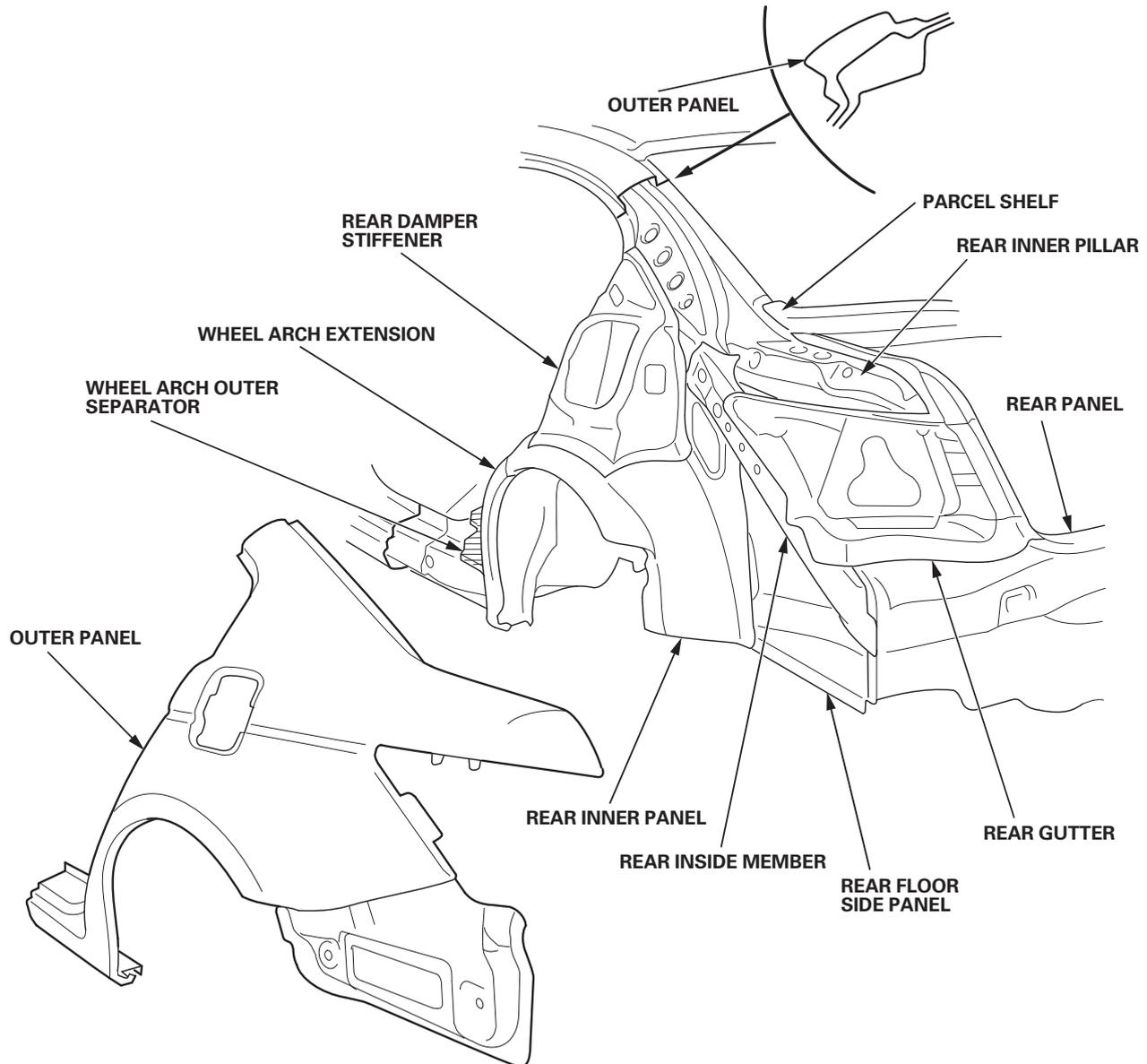
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/●: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



4-door construction

- Cut and pry off the rear side outer panel, and replace it.
NOTE: Select the cutting positions in consideration of the rear side outer panel repair part.
- Check the rear gutter position for damage. If necessary, replace it.
- Replace the wheel arch outer separator.



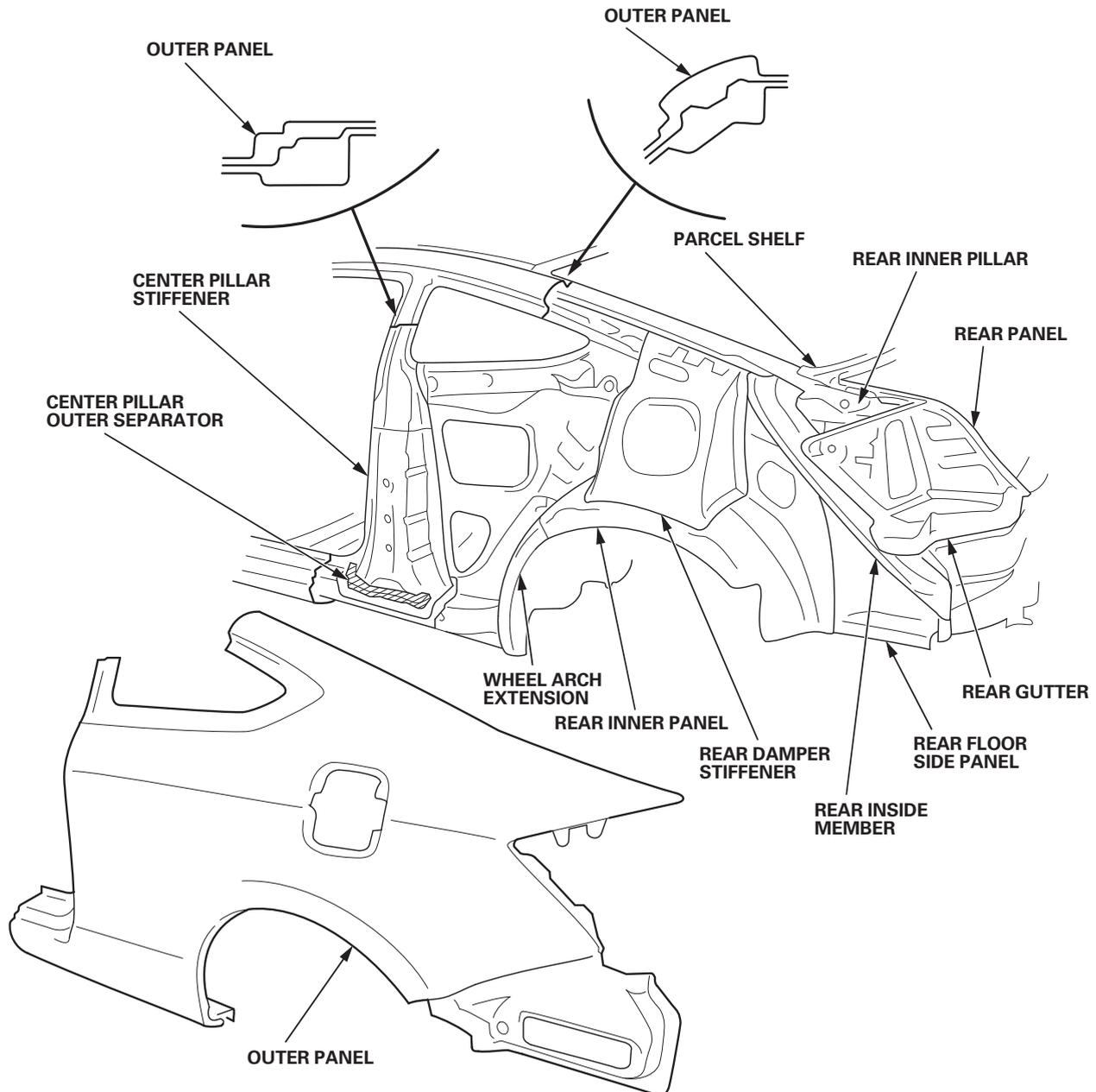
(cont'd)

Rear Side Outer Panel

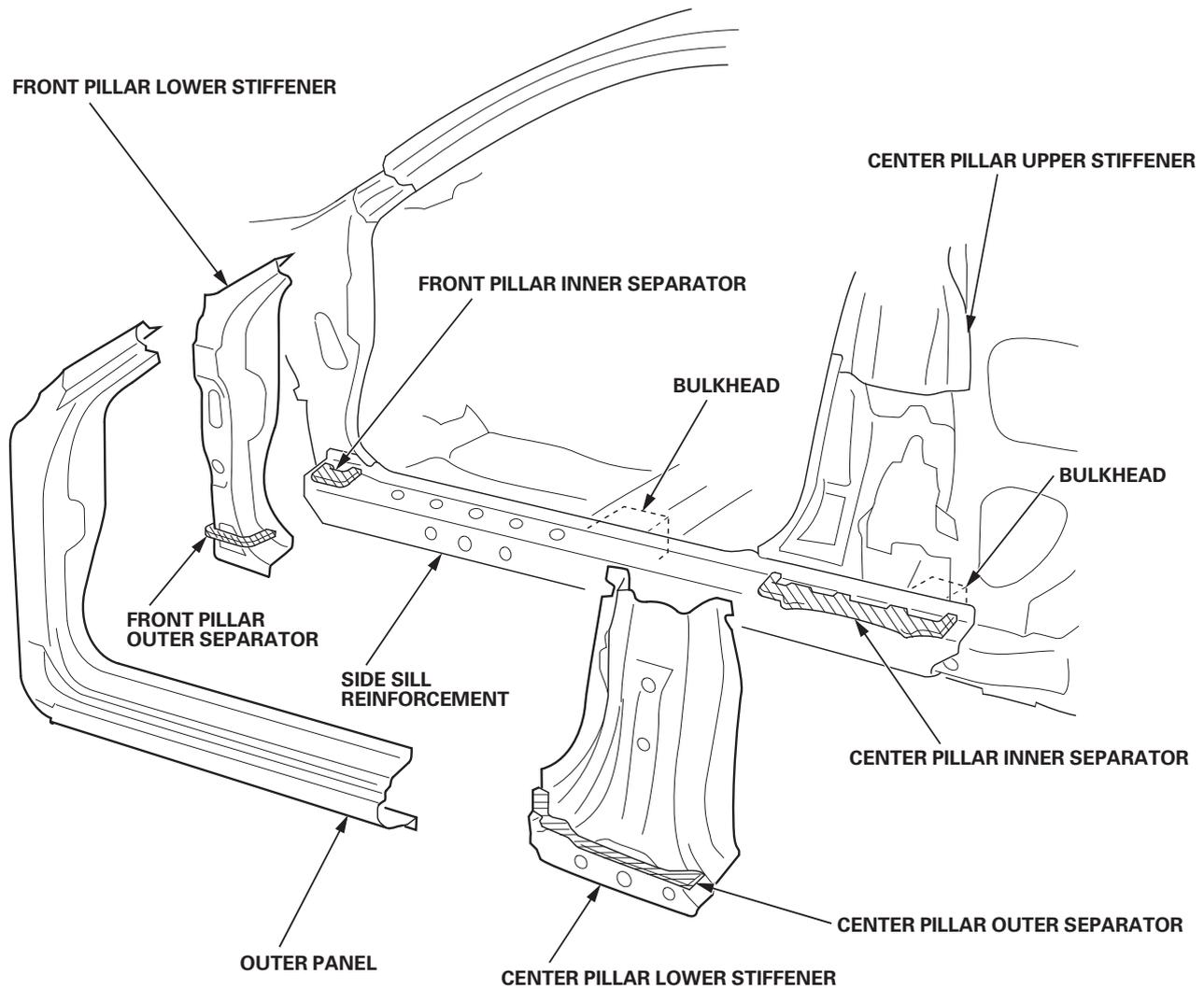
Removal (cont'd)

2-door construction

- Cut and pry off the rear side outer panel, and replace it.
NOTE: Select the cutting positions in consideration of the rear side outer panel repair part.
- Check the rear gutter position for damage. If necessary, replace it.
- Replace the center pillar outer separator.



-
- Check the side sill reinforcement and center pillar lower stiffener position for damage. If necessary, replace them.
 - When replacing the side sill reinforcement, cut the front pillar position at the outer panel, and carefully remove the front pillar lower stiffener.
 - Replace the front pillar outer and inner separators, and center pillar inner separator.



Rear Side Outer Panel

Installation

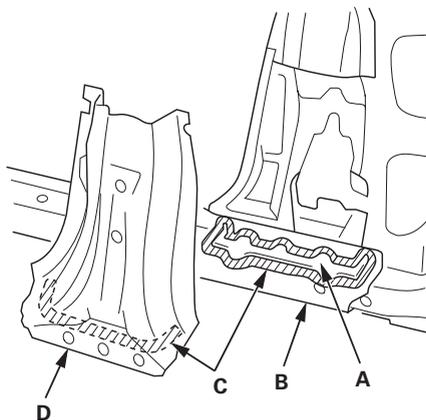
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - : MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
- (): The number of welds

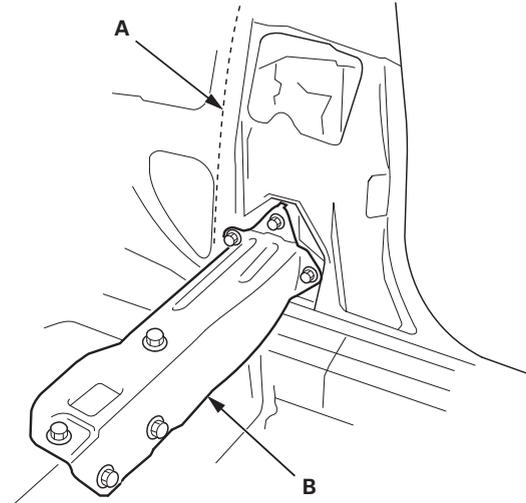
2-door

1. Clamp the side sill reinforcement, and check the body dimensions.
 - Passenger's compartment (see page 4-7)
 - Engine compartment and front floor under view (see page 4-12)
 - Front floor and rear floor, under view (see page 4-13)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
2. Tack weld the side sill reinforcement into position.
3. Install the new front pillar inner separator (see step 1 on page 3-20), and tack weld the front pillar lower stiffener into position.
4. Install the new center pillar inner separator (A) on the side sill reinforcement (B).

NOTE: Apply the sealer (C) all the way around the separator and inside the center pillar lower stiffener (D) without gaps.



5. Clamp the center pillar lower stiffener (A), and install the middle floor cross-member gusset (B). Tack weld the center pillar lower stiffener into position.



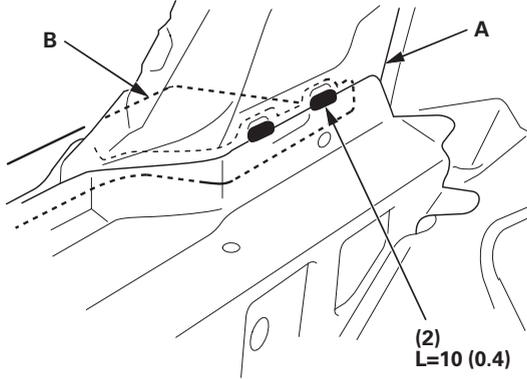
4-door/2-door

6. Clamp the new rear gutter, rough-cut the rear side outer panel repair part, clamp it to the body.
7. Check the body dimensions.
 - Front wheelhouse lower member position (see page 4-5)
 - Door hinge position (see page 4-6)
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)
8. Temporarily install the door, trunk lid, rear window glass, and quarter glass (2-door), then check for differences in level and clearance.

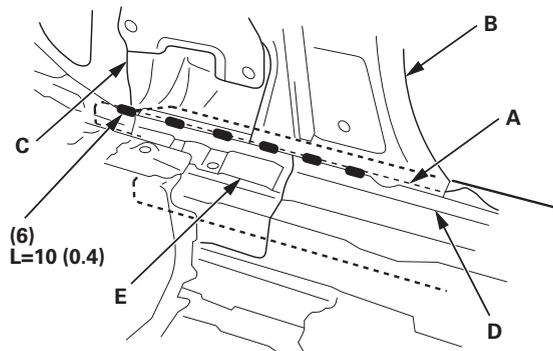
Check the external parts fitting position (see page 4-10). Make sure the body lines flow smoothly.
9. Trim the cut and joint areas of the outer panel repair part as needed, and prepare the butt-welding connections. Remove the outer panel repair part.

2-door

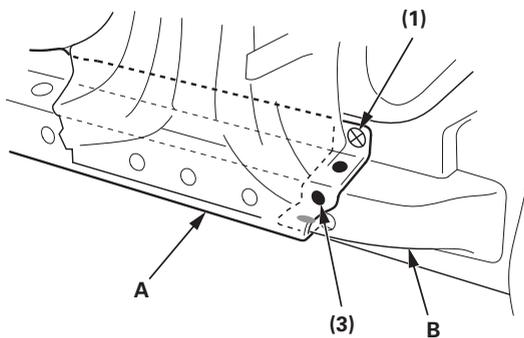
10. From inside the passenger's compartment, plug weld the hole in the inner lower pillar (A) and the front of side sill reinforcement (B).



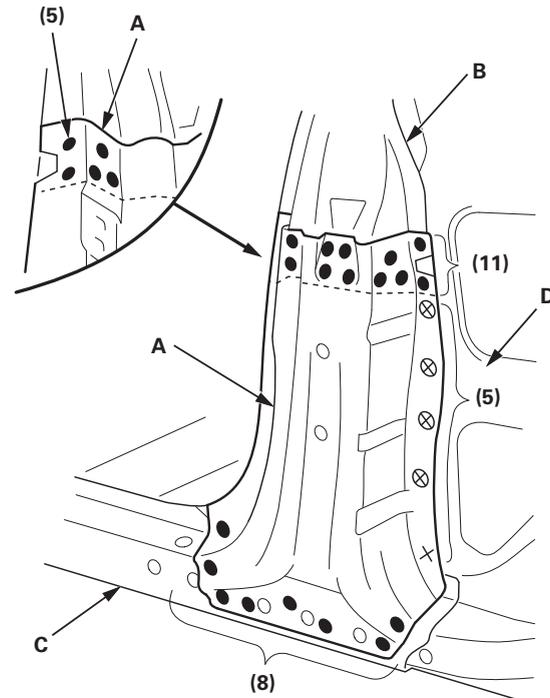
11. From inside the passenger's compartment, plug weld the rear of side sill reinforcement (A) to the center pillar lower inner (B), rear inner panel (C), inside sill (D), and rear frame joint (E).



12. Plug weld the side sill reinforcement (A) and reinforcement rear extension (B).



13. Weld the center pillar lower stiffener (A) to the center pillar upper stiffener (B), side sill reinforcement (C), and inner panel (D).



14. Weld the front pillar lower stiffener (see step 6 on page 3-20).

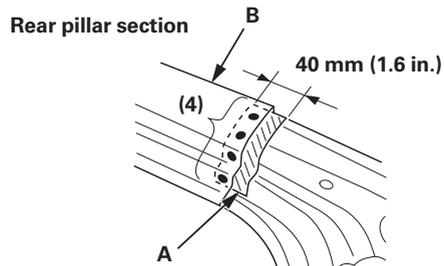
(cont'd)

Rear Side Outer Panel

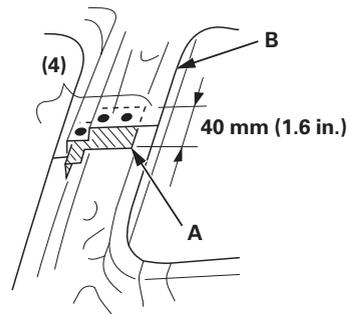
Installation (cont'd)

4-door/2-door

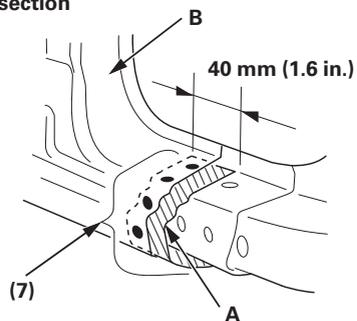
15. Weld the patch (A) at the cut section of the body side outer panel (B).



Center pillar section (2-door)



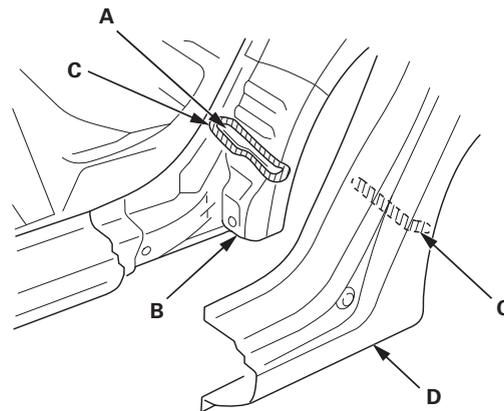
Side sill section



4-door

16. Install the new wheel arch outer separator (A) on the wheel arch extension (B).

NOTE: Apply the sealer (C) all the way around the separator and inside the outer panel repair part (D) without gaps.

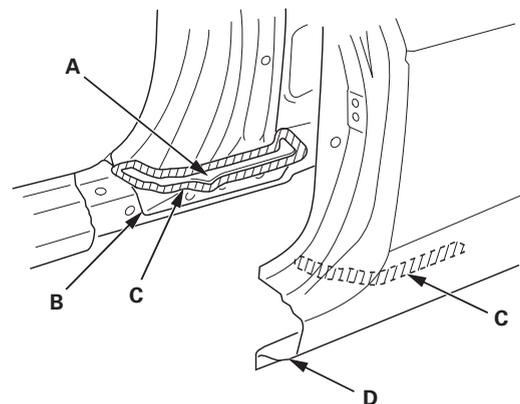


2-door

17. Install the new front pillar outer separator on the front pillar lower stiffener, and apply the sealer (see step 8 on page 3-21).

18. Install the new center pillar outer separator (A) on the center pillar lower stiffener (B).

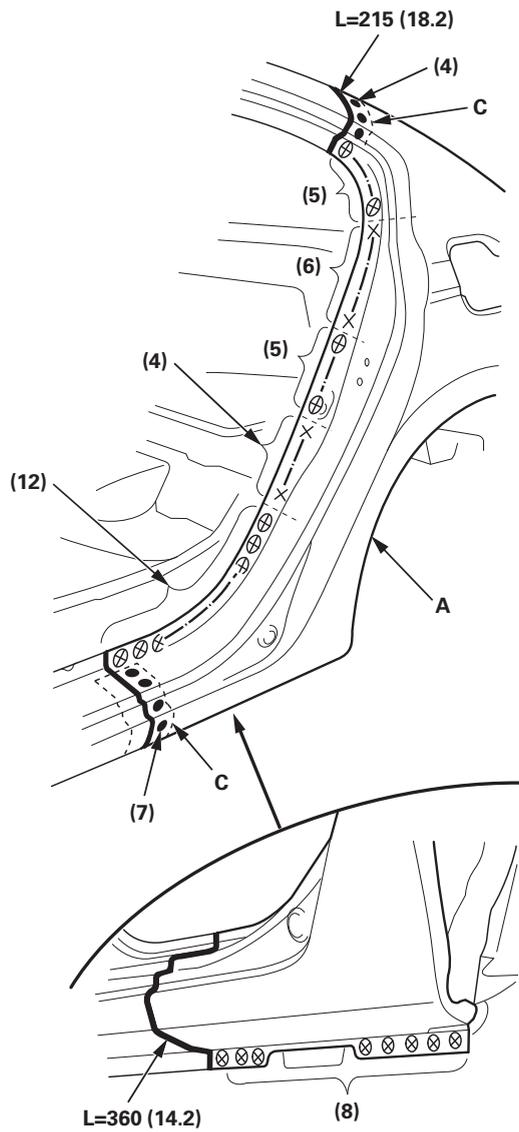
NOTE: Apply the sealer (C) all the way around the separator and inside the outer panel repair part (D) without gaps.



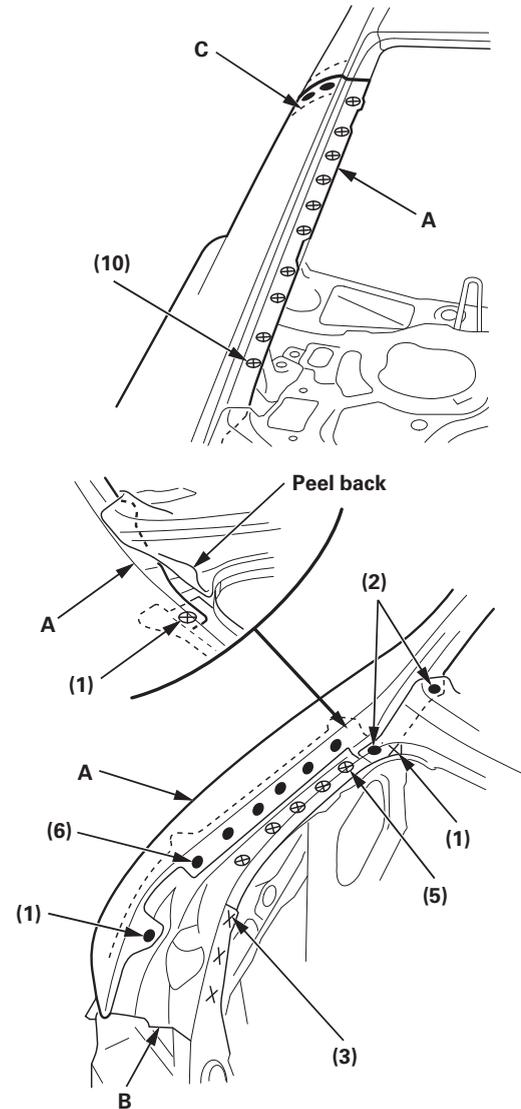
4-door/2-door

19. Clamp the outer panel repair part, and recheck the clearance and alignment of the door, rear window glass, and trunk lid.
20. Do the main welding. Weld the outer panel repair part (A), rear gutter (B), and patch (C).

4-door side sill and door opening area



4-door rear window opening and trunk gutter area

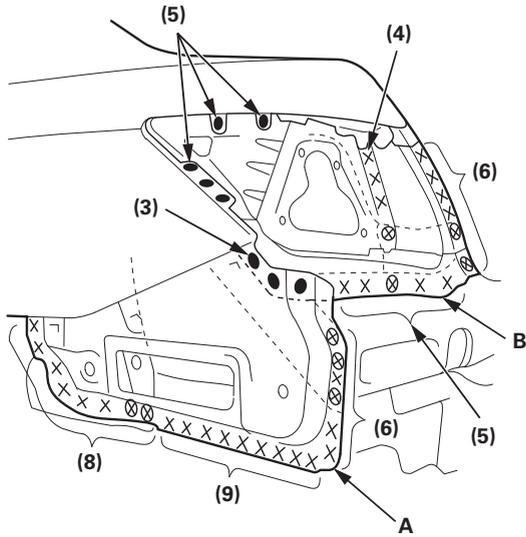


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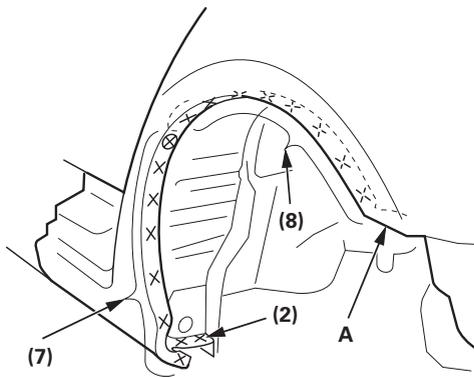
Rear Side Outer Panel

Installation (cont'd)

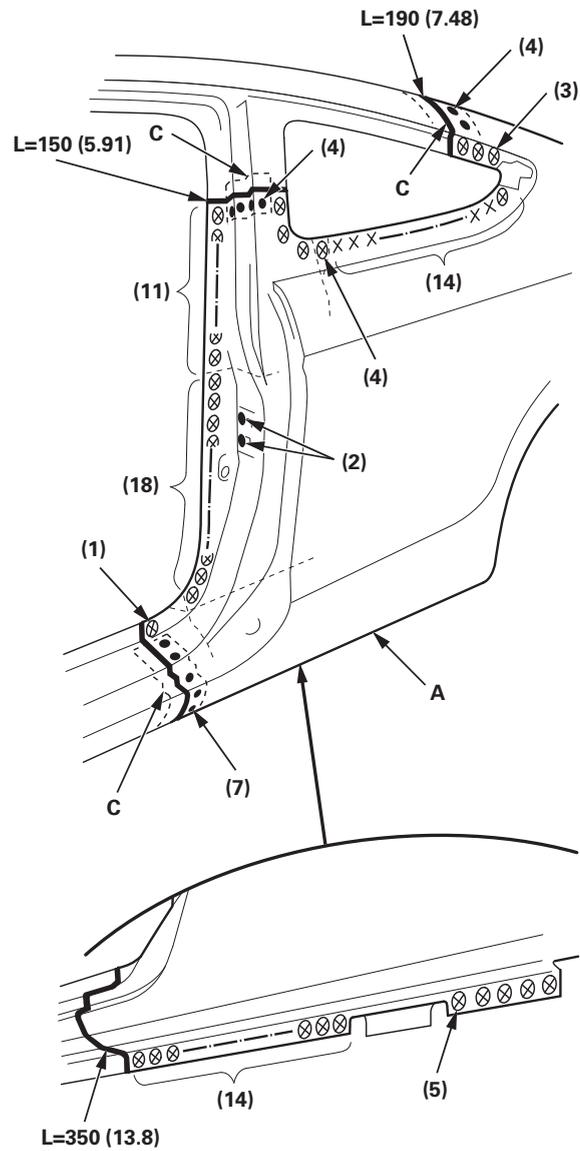
4-door rear gutter and outer panel rear area



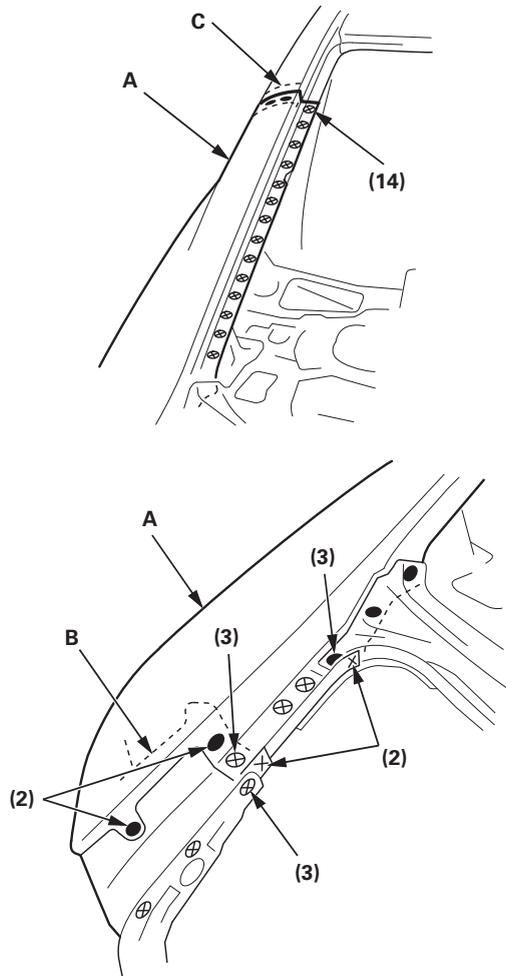
4-door wheel arch portion



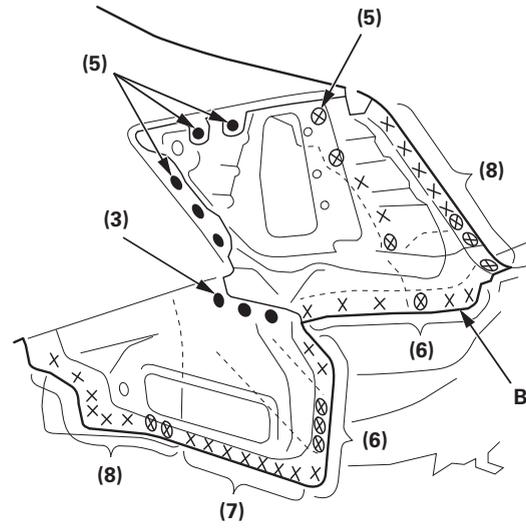
2-door side sill, door opening, and quarter glass area



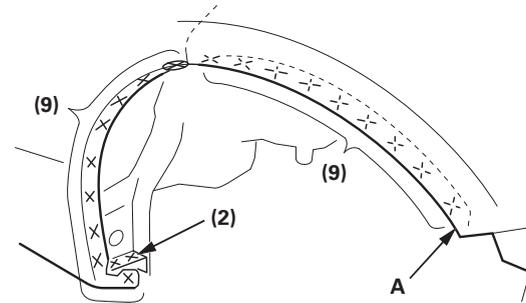
2-door rear window opening and trunk gutter area



2-door rear gutter and outer panel rear area



2-door wheel arch portion



Rear Panel

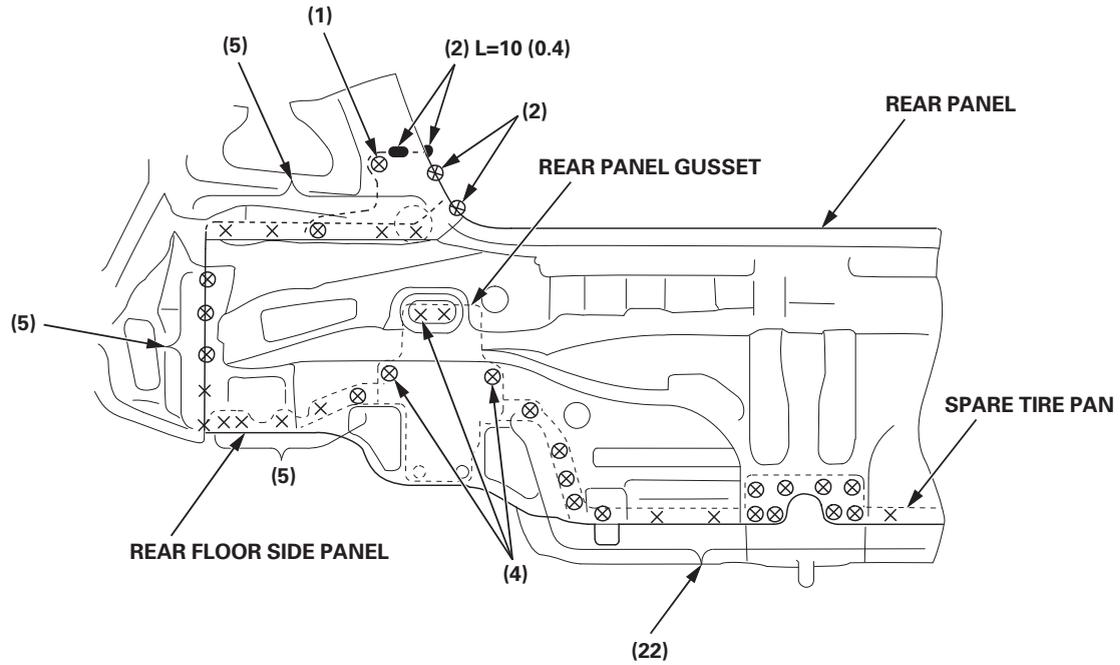
Removal

Mass production body welding position and number

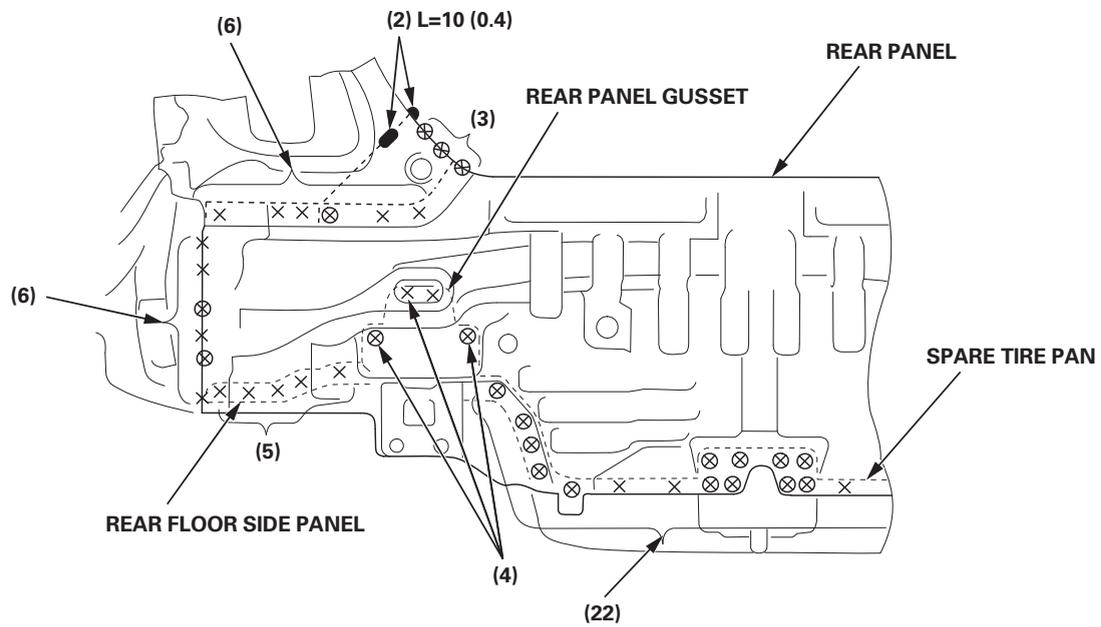
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds

4-door



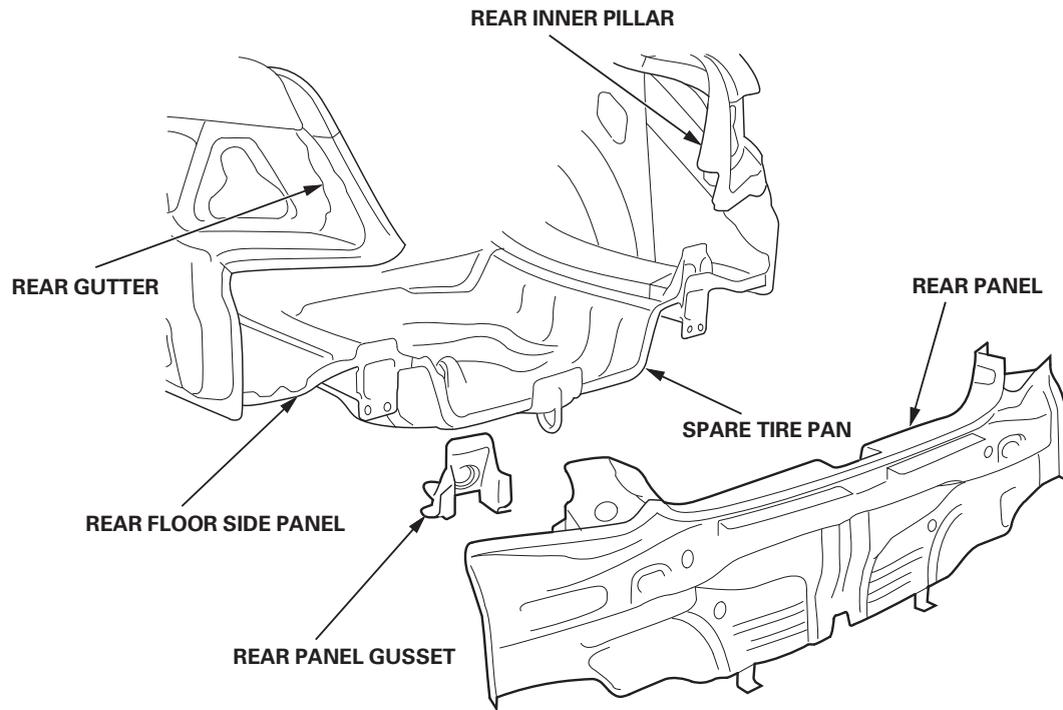
2-door



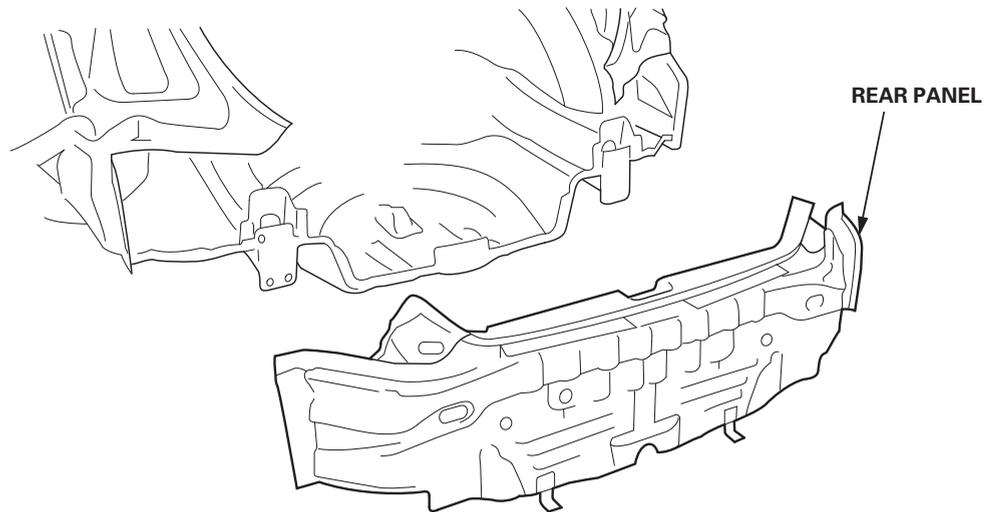
Construction

- Cut and pry off the rear panel, and replace it.
- If necessary, replace the rear panel gusset.

4-door



2-door



Rear Panel

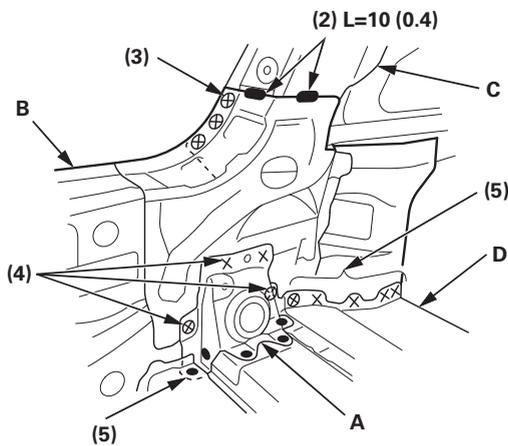
Installation

NOTE:

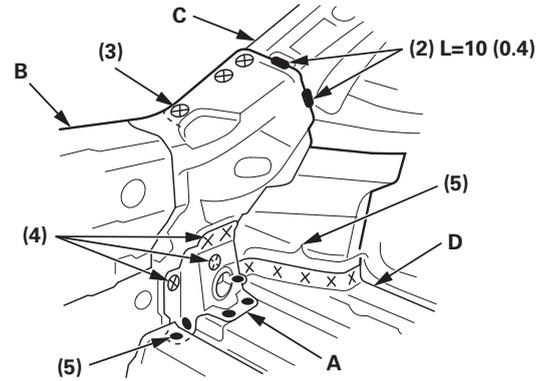
- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - ◐: MIG fillet or butt welding
 - L= Welding length Unit: mm (in.)
 - (): The number of welds
1. Set the rear panel gusset, and clamp the rear panel.
 2. Check the body dimensions.
 - Front floor and rear floor, under view (see page 4-13)
 - Windshield/door and rear window/trunk lid opening, 4-door (see page 4-8), 2-door (see page 4-9)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
 3. Tack weld the rear panel into position.
 4. Temporarily install the trunk lid, then check for differences in level and clearance.

Check the external parts fitting position (see page 4-10). If necessary, check the taillight and rear bumper positions. Make sure the body lines flow smoothly.
 5. Do the main welding. Plug weld the rear panel gusset (A), and weld the rear panel (B) to the rear inner pillar (C) and rear floor side panel (D).

4-door

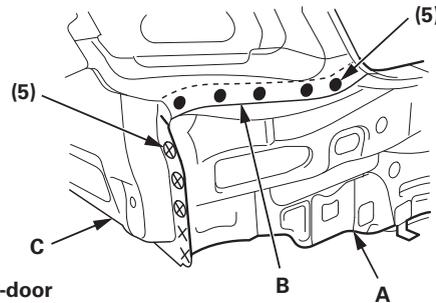


2-door

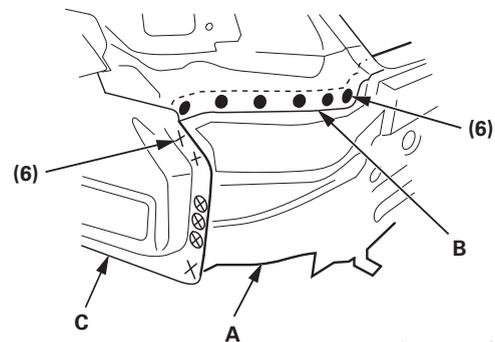


6. Weld the rear panel (A) to the rear gutter (B), outer panel (C), and spare tire pan (D).

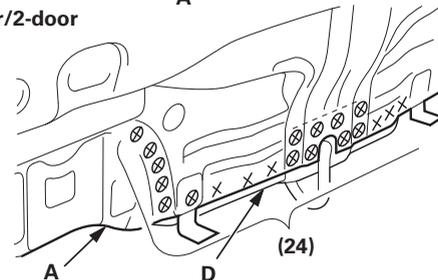
4-door



2-door



4-door/2-door



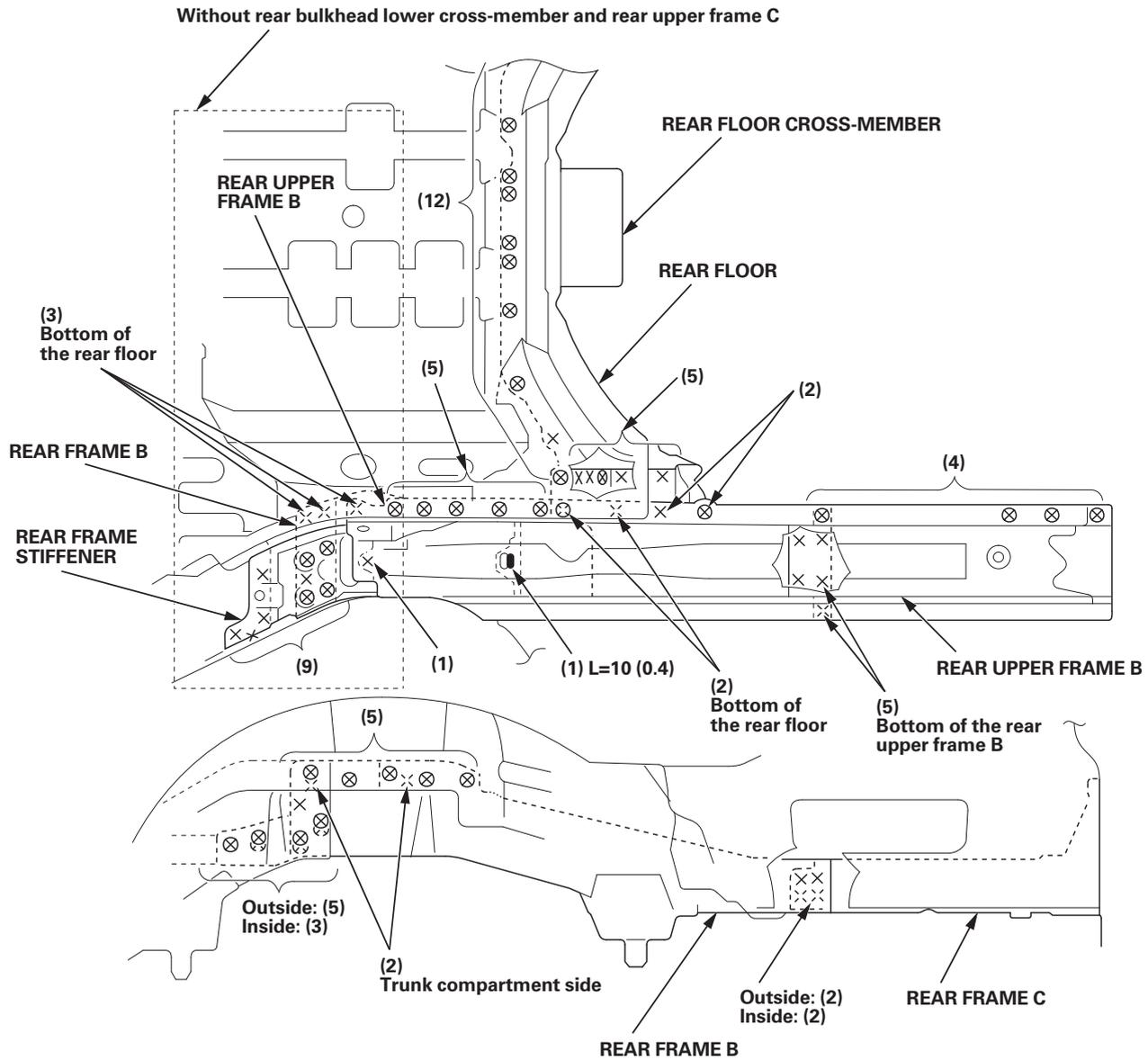
Spare Tire Pan/Rear Frame

Removal (cont'd)

Mass production body welding position and number (Rear frame and rear floor cross-member)

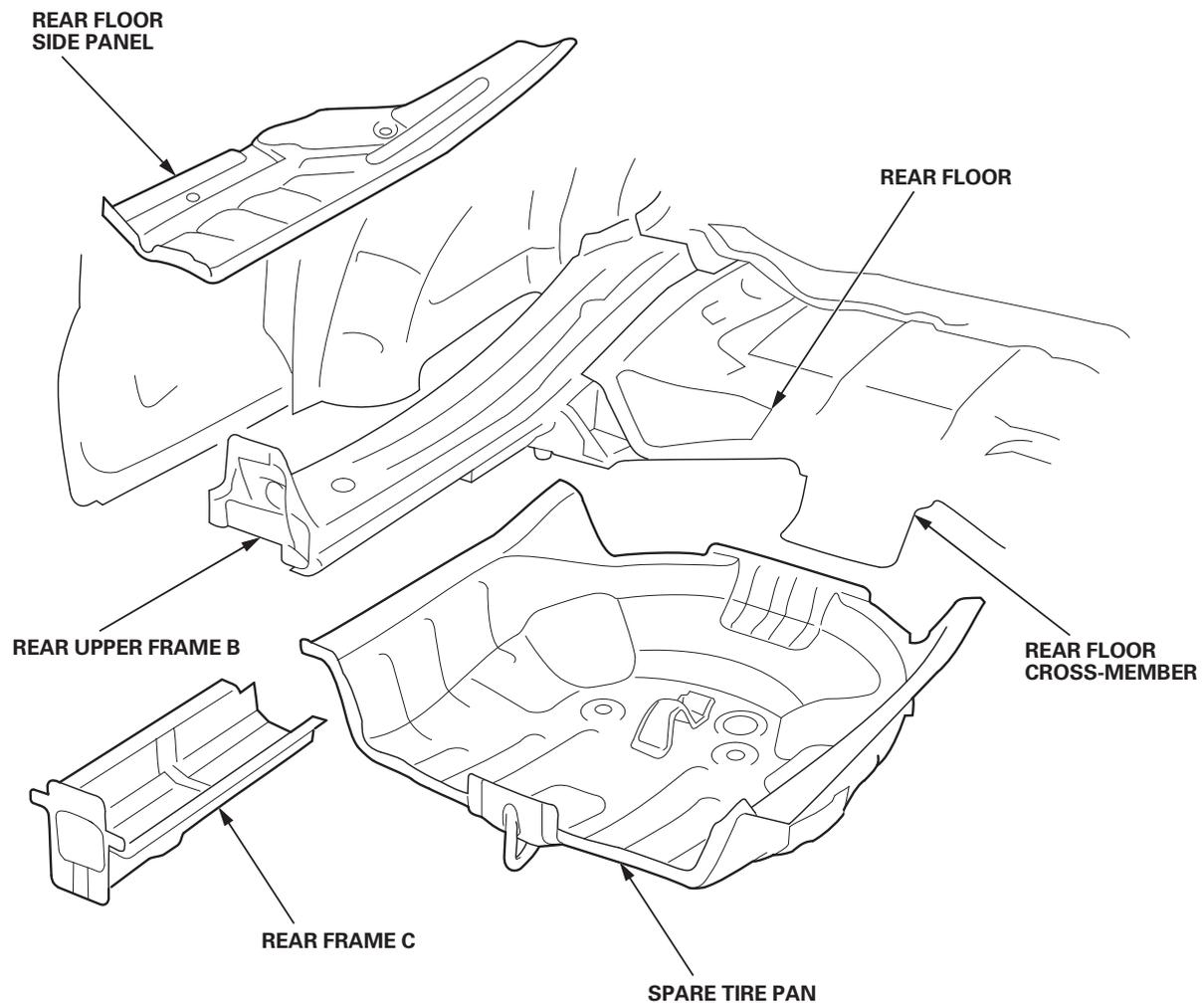
NOTE:

- Welding symbols
 - ×: 2-Plate spot welding/⊗: 3-Plate spot welding/⊠: 4-Plate spot welding/●: MIG plug welding/◐: MIG fillet or butt welding L= Welding length Unit: mm (in.)
- (): The number of welds



Construction

- Remove the spare tire pan and rear floor side panel, and replace them.
- If there is any damage to the rear frame, replace the rear frame C, and repair the rear upper frame B if possible.



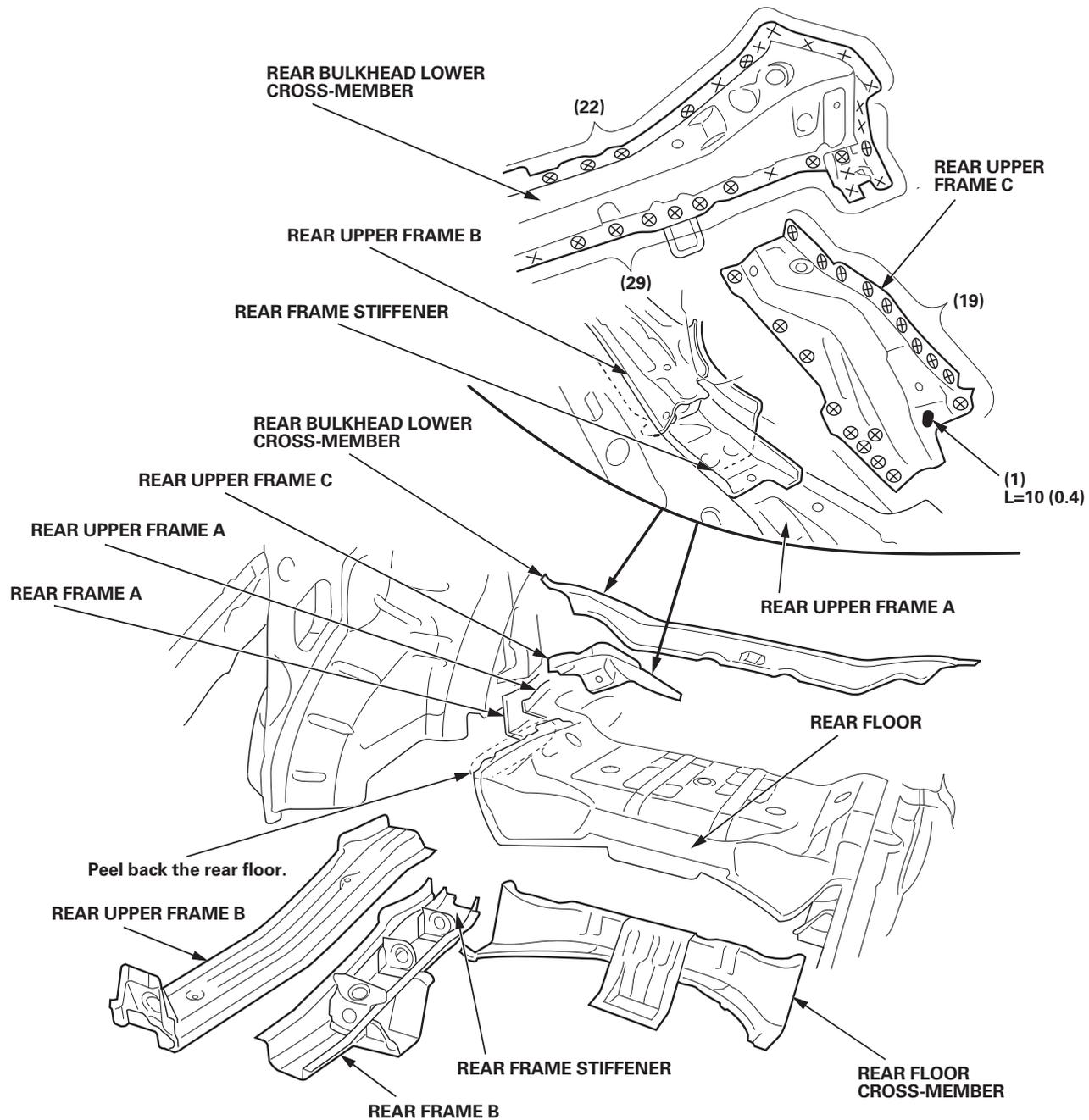
(cont'd)

Spare Tire Pan/Rear Frame

Removal (cont'd)

Construction

- Check the rear upper frame B, rear frame B and rear floor cross-member position for damage. If necessary, replace them.
- When replacing the rear upper frame B and rear frame B, carefully remove the rear bulkhead lower cross-member and rear upper frame C. Drill the spot weld joints for the rear frame stiffener and rear upper frame A.

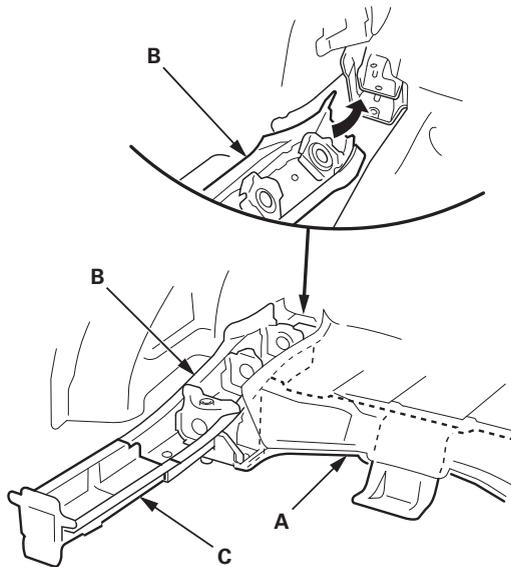


Installation

NOTE:

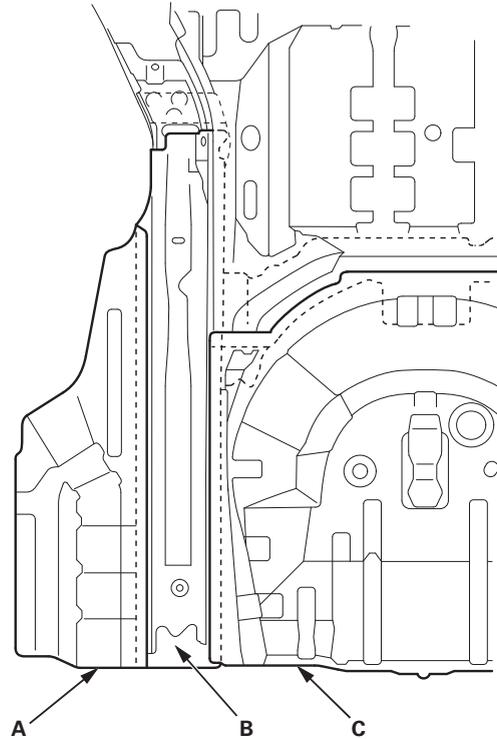
- Welding symbols
 - ×: 2-Plate spot welding
 - ⊗: 3-Plate spot welding
 - ⊠: 4-Plate spot welding
 - : MIG plug welding
 - : MIG fillet or butt welding
- L= Welding length Unit: mm (in.)
- (): The number of welds

1. Set the new rear frame B, rear frame C and rear floor cross-member (A). Measure the rear frame diagonally.



2. Check the body dimensions.
 - Passenger's compartment (see page 4-7)
 - Front floor and rear floor, under view (see page 4-13)
 - Repair chart, top view (see page 4-14)
 - Repair chart, side view (see page 4-16)
3. Tack weld the new parts into position.
4. Temporarily install the rear subframe, check the rear frame A, B, C and rear floor cross-member position.

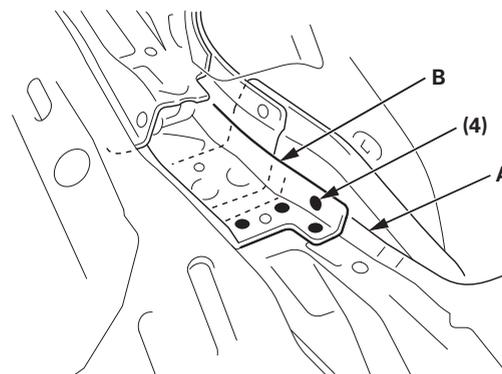
5. Set the rear upper frame B, and clamp the rear floor side panel (A), and spare tire pan (C).



6. Temporarily install the rear panel, and trunk lid, then check for differences in level and clearance.

Check the external parts fitting position (see page 4-10). If necessary, check the taillight and rear bumper positions. Make sure the body lines flow smoothly.

7. Do the main welding. From the passenger's side, drill the holes for welding the new rear frame stiffener (B), and weld it to the rear upper frame A.

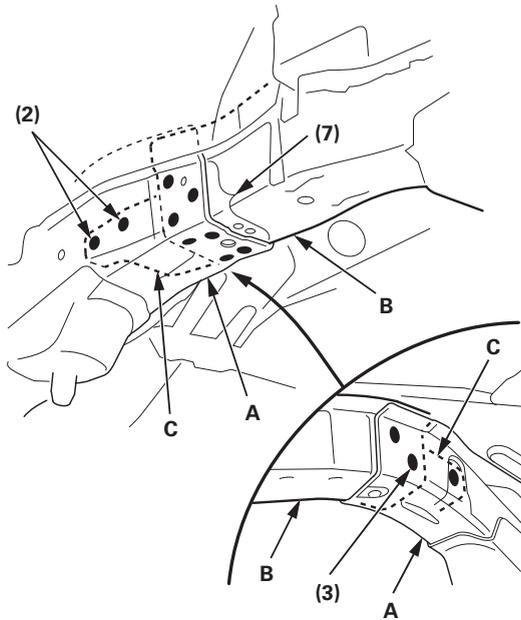


(cont'd)

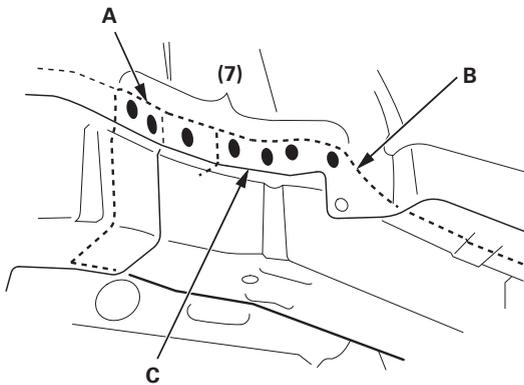
Spare Tire Pan/Rear Frame

Installation (cont'd)

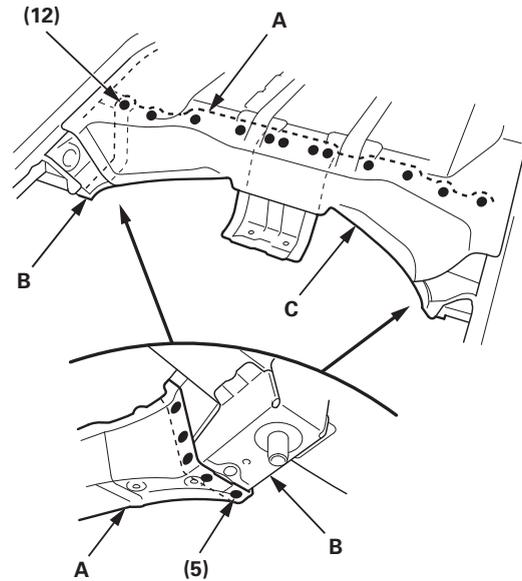
8. Plug weld the rear frame B, and rear frame stiffener (C) to the rear frame A.



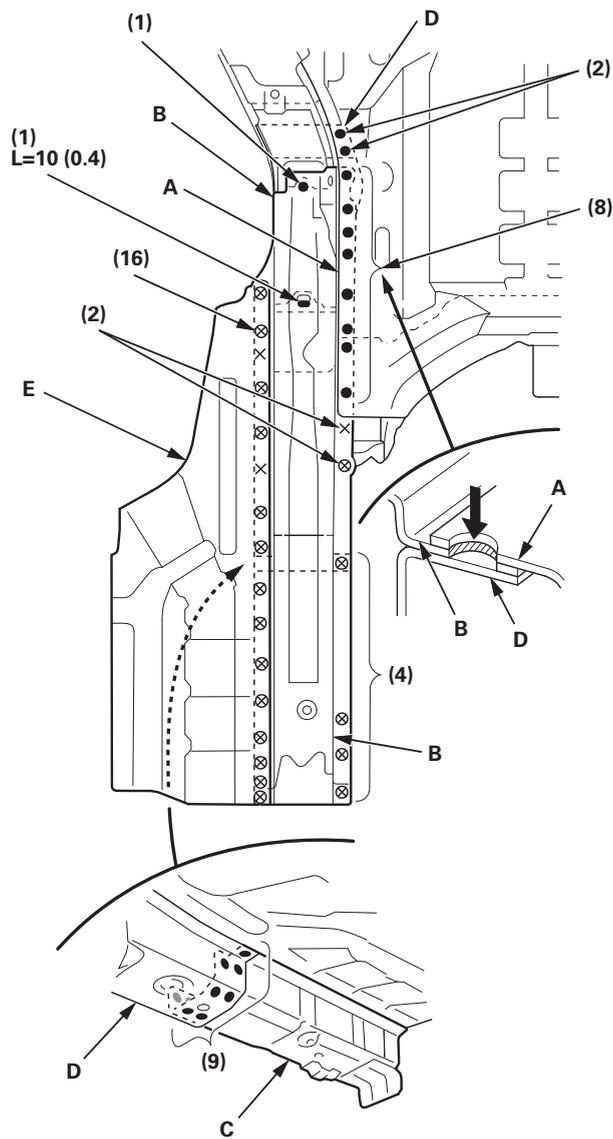
9. Weld the side flange of the rear frame B (A) and rear upper frame B to the rear wheelhouse (C).



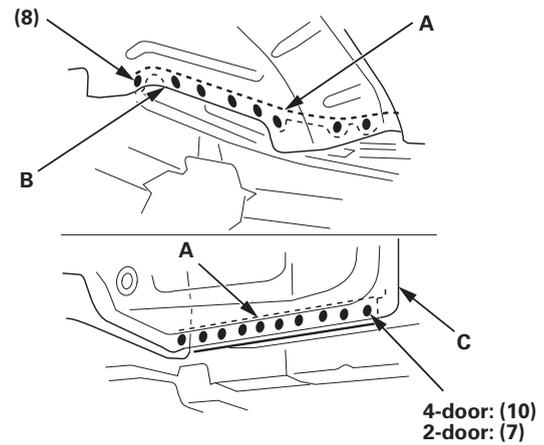
10. Remove the spare tire pan, and weld the rear floor cross-member (A) to the rear frame B and rear floor (C).



11. Drill the holes for welding the overlaps with the rear floor (A) of the rear upper frame B. Weld the rear frame B (D), rear upper frame B, rear frame C, rear floor side panel (E) and rear floor.



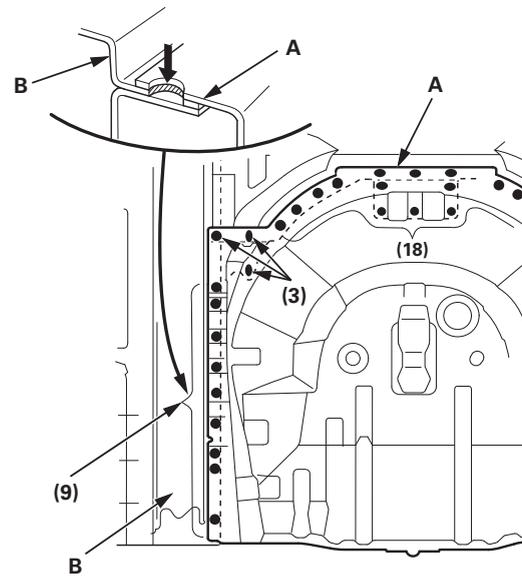
12. Weld the rear floor side panel (A) to the rear wheelhouse (B) and outer panel (C).



4-door: (10)
2-door: (7)

13. Set the spare tire pan, and recheck the alignment of the rear upper frame B and rear panel.

14. Drill the hole for welding the spare tire pan (A) and rear upper frame B. Plug weld the spare tire pan.

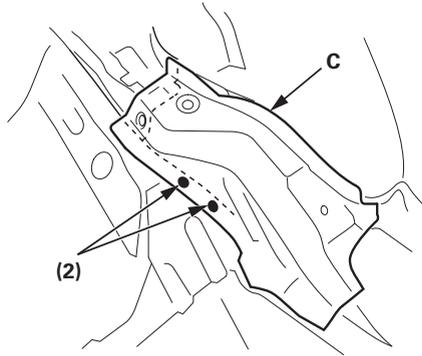


(cont'd)

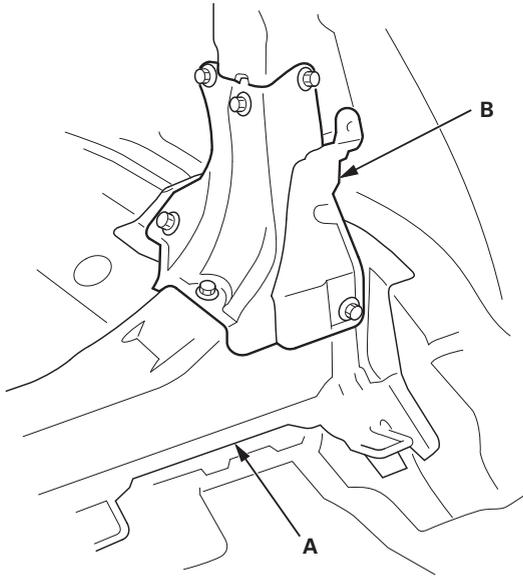
Spare Tire Pan/Rear Frame

Installation (cont'd)

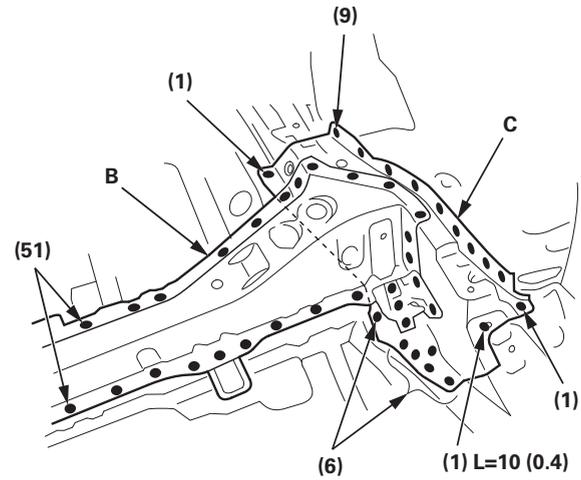
15. Set the rear upper frame C and tack weld it into position.



16. Set the rear bulkhead lower cross-member (A), temporarily install the rear bulkhead lower gusset (B), and check the rear bulkhead lower cross-member position.



17. Weld the rear upper frame C and rear bulkhead lower cross-member (B).



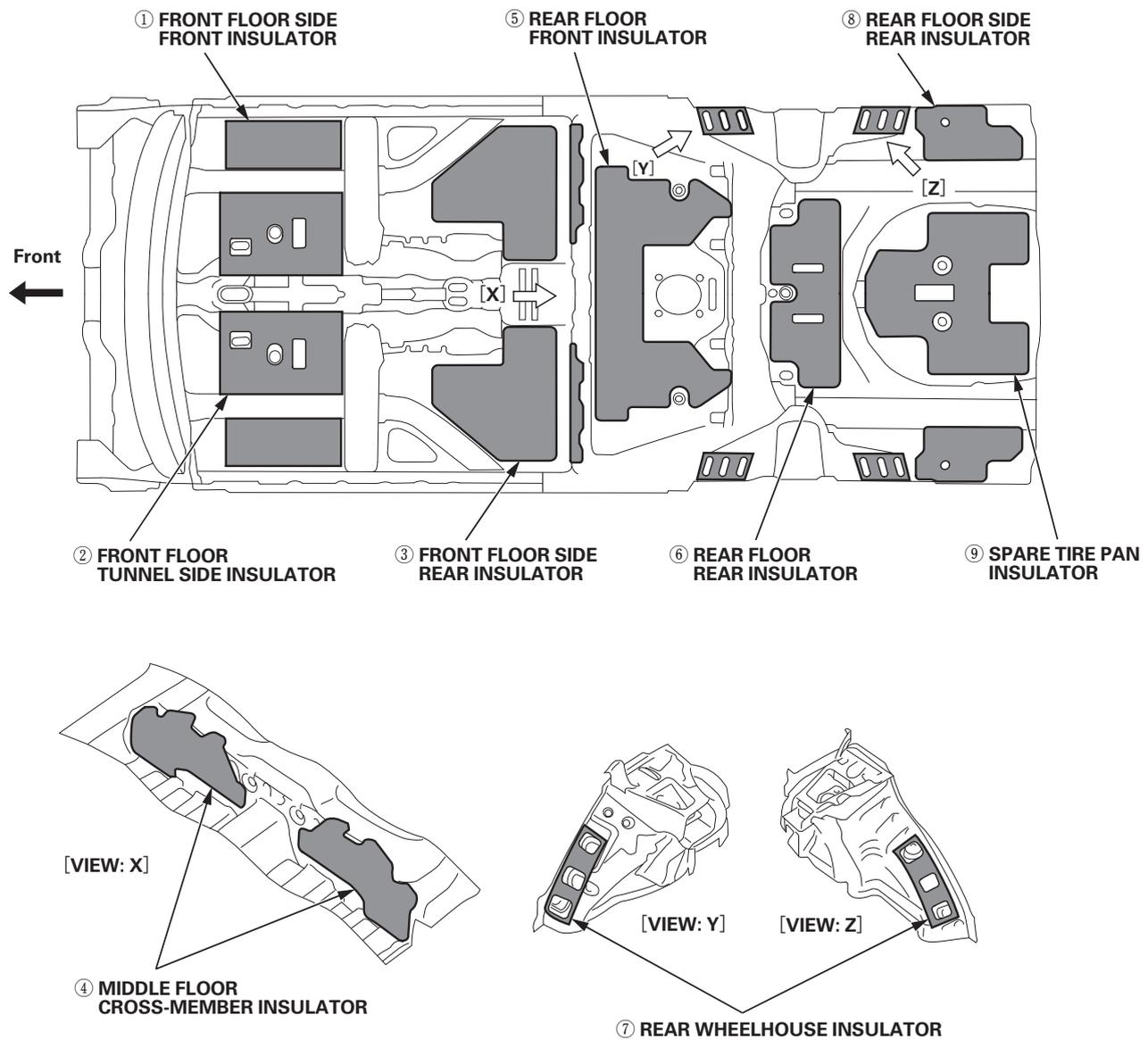
Floor Insulators

Insulator Locations

Japan-produced models

Cut new insulators, and apply as indicated.

NOTE: Before applying, clean and degrease the floor.

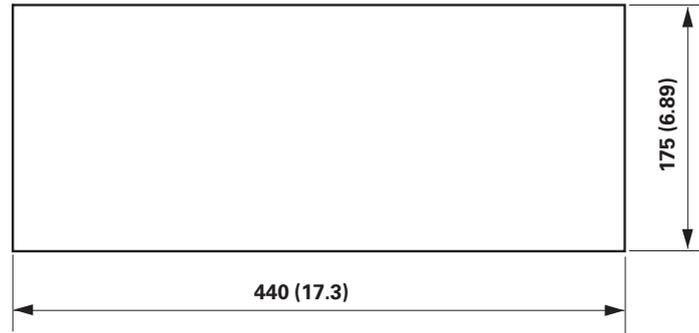


Floor Insulators

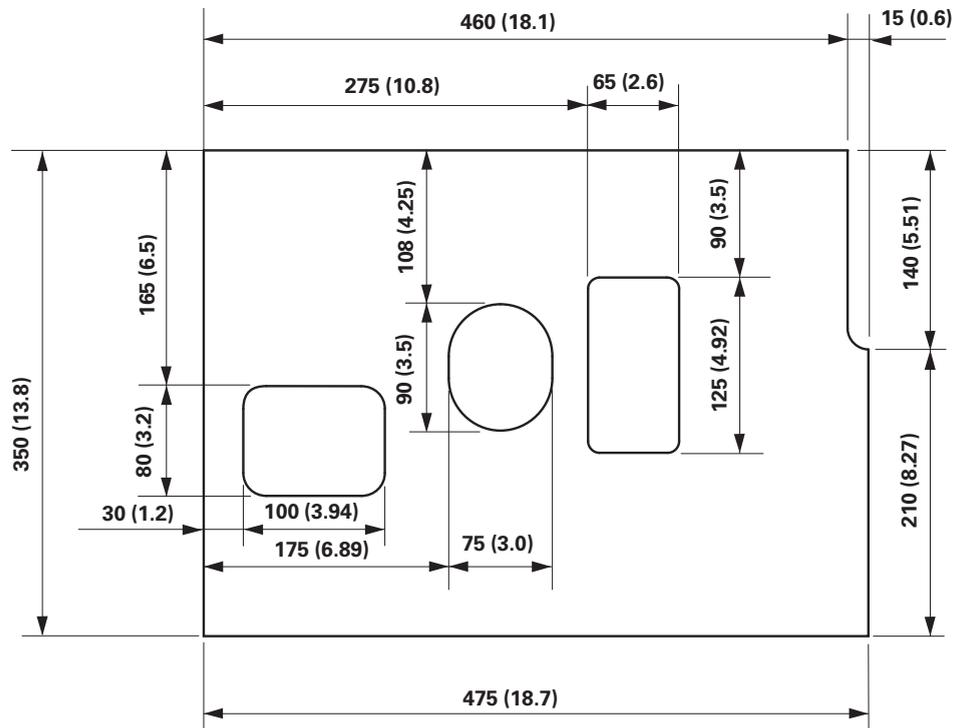
Insulator Sizes

Unit: mm (in.)

① FRONT FLOOR SIDE FRONT INSULATOR

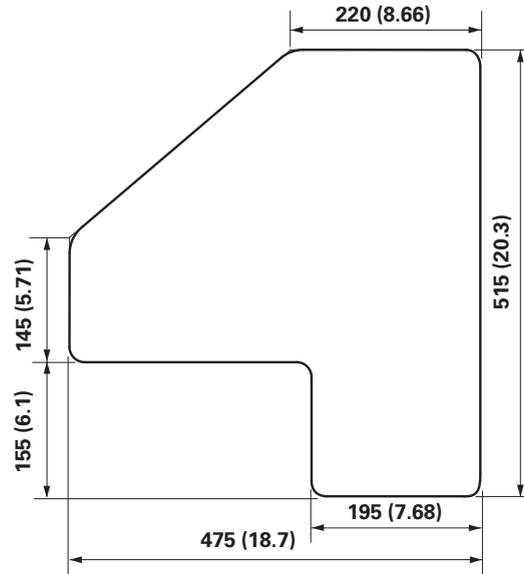


② FRONT FLOOR TUNNEL SIDE INSULATOR

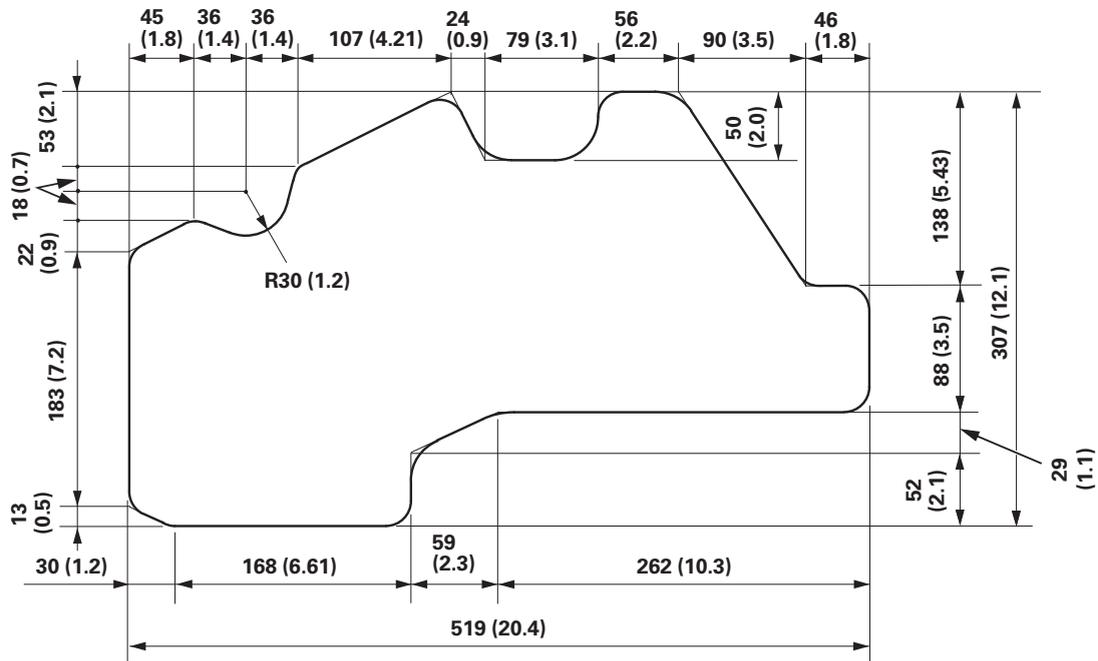


Unit: mm (in.)

③ FRONT FLOOR SIDE REAR INSULATOR



④ MIDDLE FLOOR CROSS-MEMBER INSULATOR



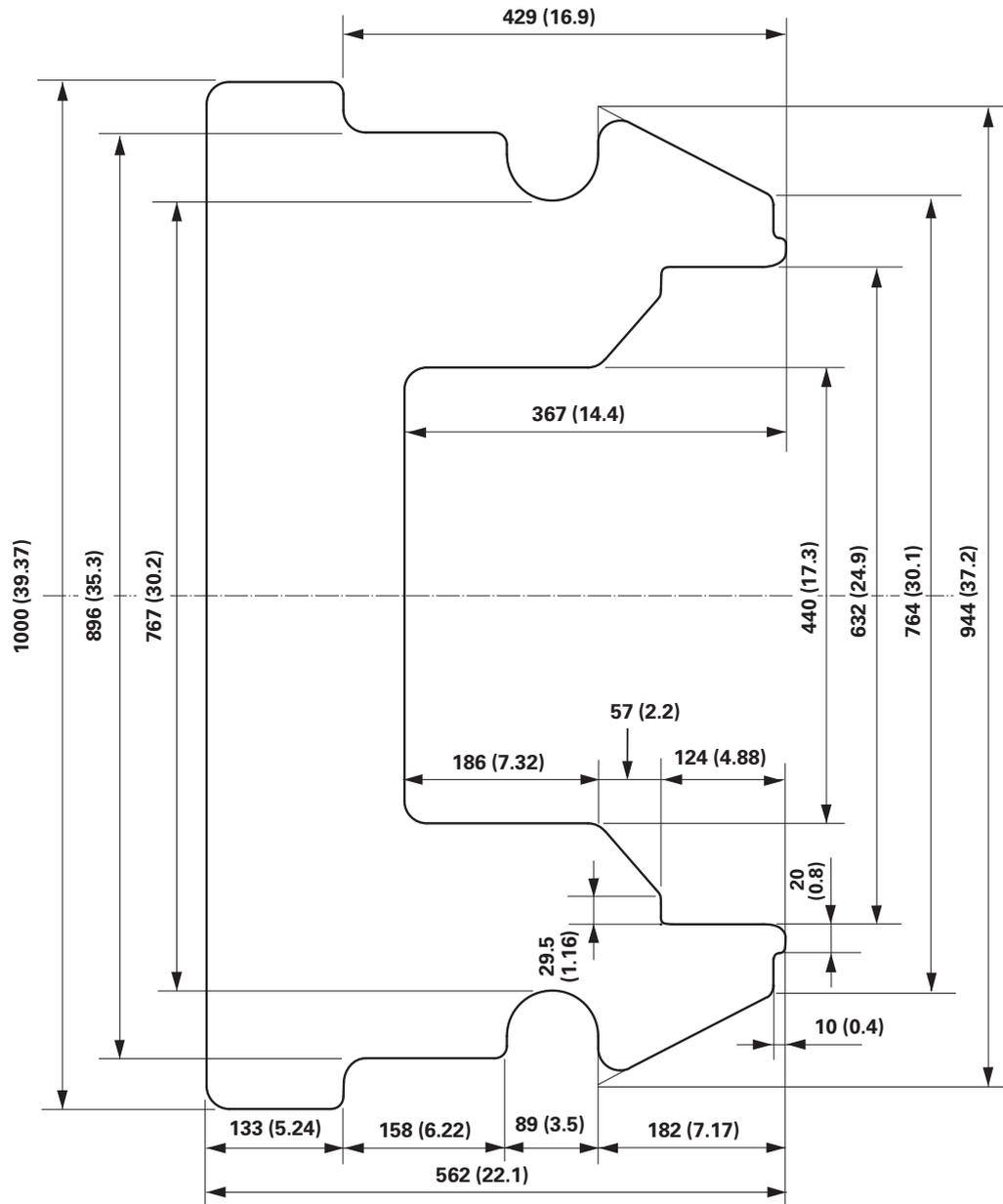
(cont'd)

Floor Insulators

Insulator Sizes (cont'd)

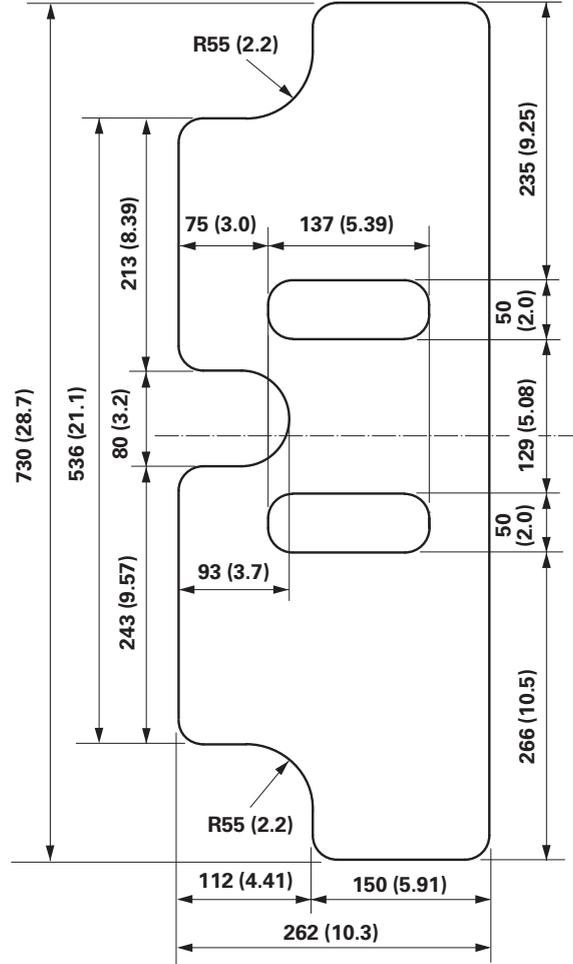
Unit: mm (in.)

⑤ REAR FLOOR FRONT INSULATOR

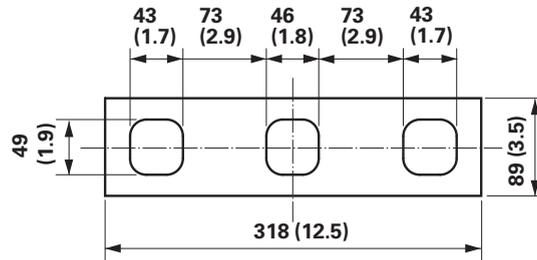


Unit: mm (in.)

⑥ REAR FLOOR REAR INSULATOR



⑦ REAR WHEELHOUSE INSULATOR



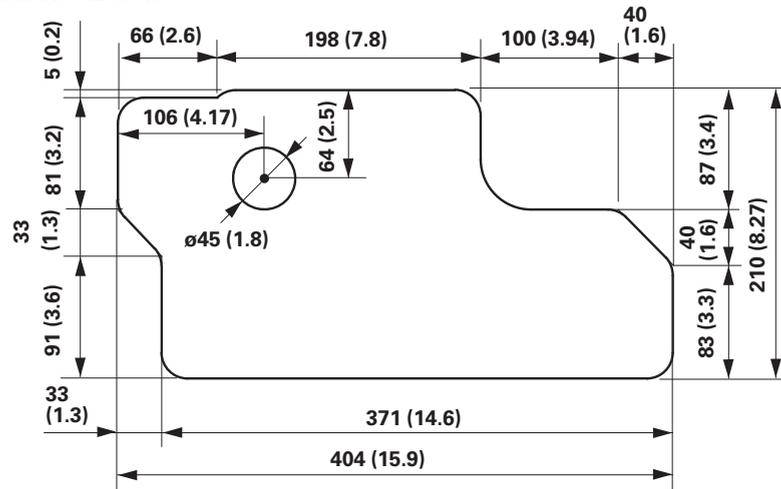
(cont'd)

Floor Insulators

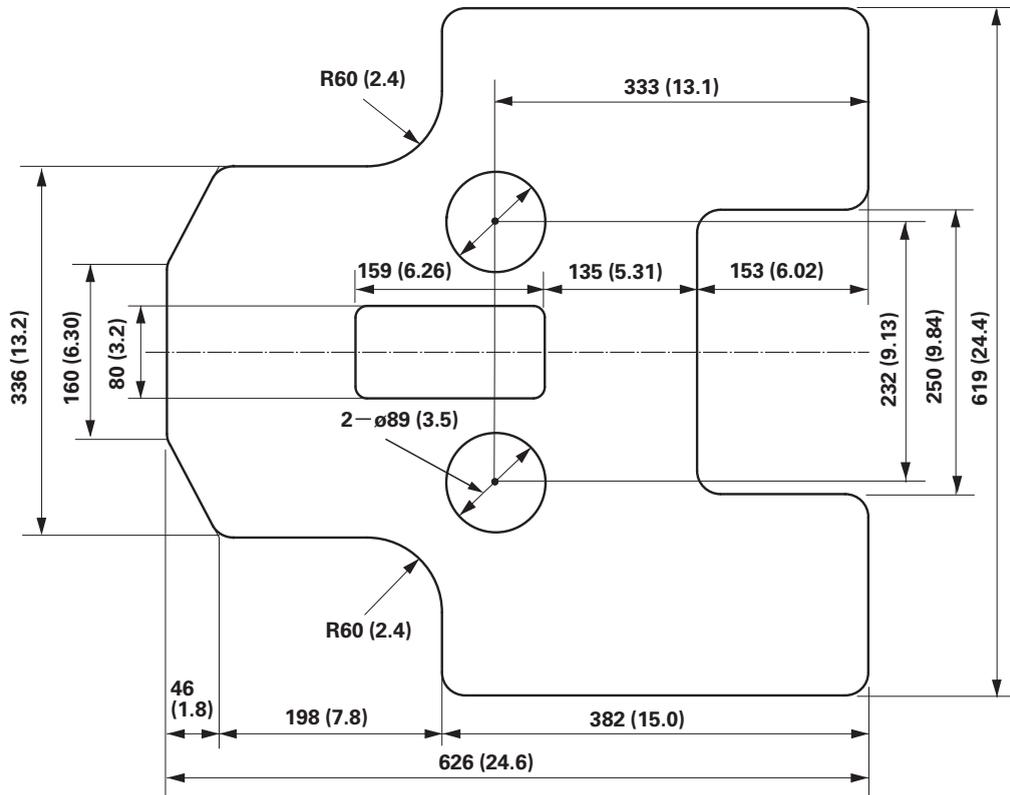
Insulator Sizes (cont'd)

Unit: mm (in.)

⑧ REAR FLOOR SIDE REAR INSULATOR



⑨ SPARE TIRE PAN INSULATOR



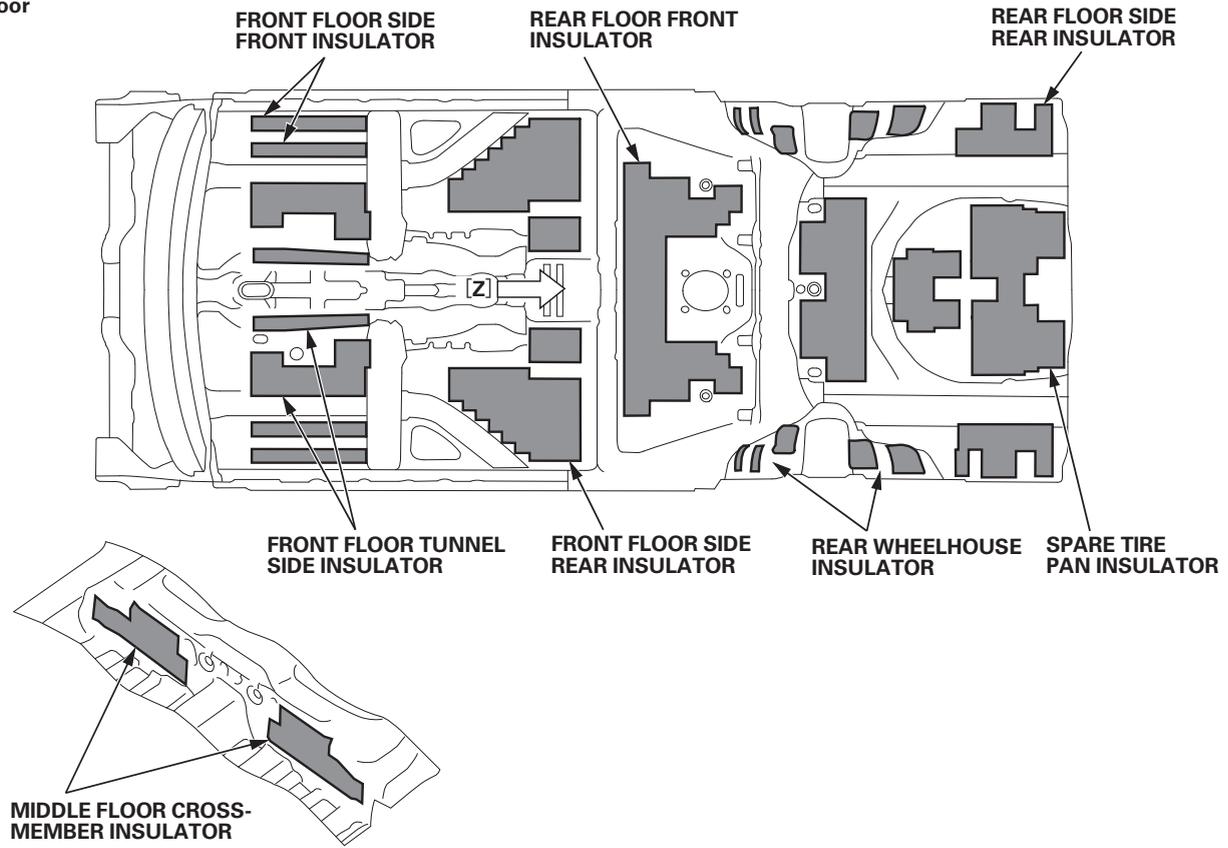
Insulator Coating

U.S.A.-produced models

NOTE: When replacing the insulator, refer to the Japan-produced models information (see page 3-59).

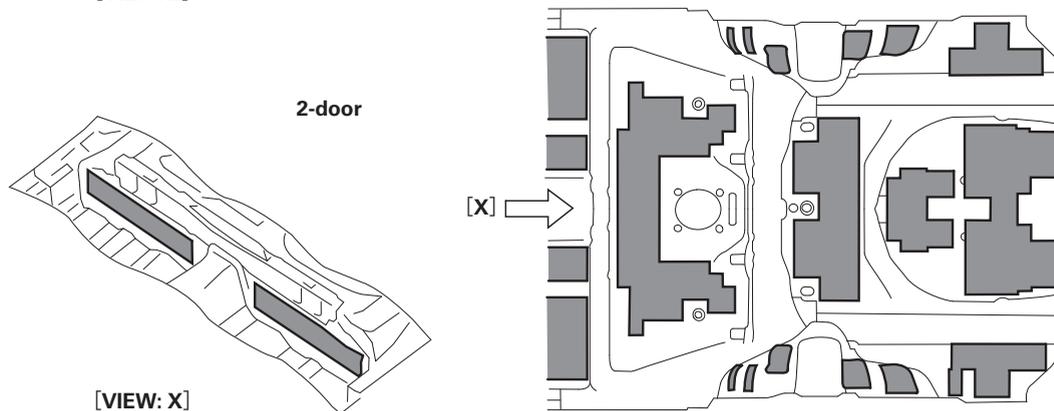
■ : indicates insulator coating area.

4-door



[VIEW: Z]

2-door



[VIEW: X]

Body Dimensional Drawings

Upper Body Measuring Dimensions

Front Fender Position	4-2
Engine Compartment	4-3
Engine/Transmission Mount Position	4-4
Front Wheelhouse Lower Member Position	4-5
Door Hinge Positions	4-6
Passenger's Compartment	4-7
Windshield/Door and Rear Window/Trunk Lid Opening	4-8
External Parts Fitting Positions	4-10

Under Body Measuring Dimensions

Front Subframe Position	4-11
Engine Compartment and Front Floor, Under View . .	4-12
Front Floor and Rear Floor, Under View	4-13

Frame Repair Chart

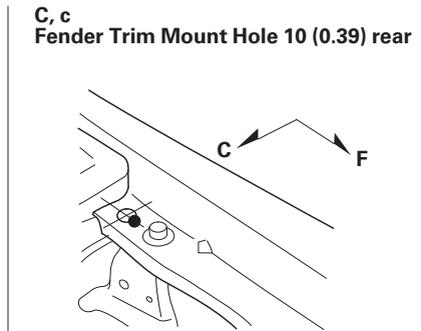
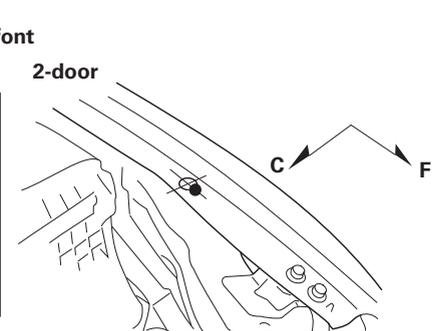
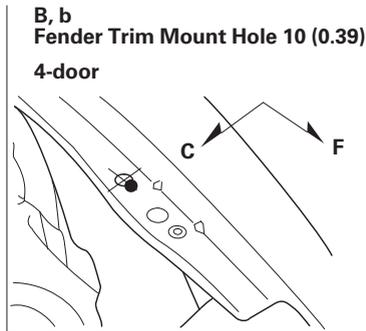
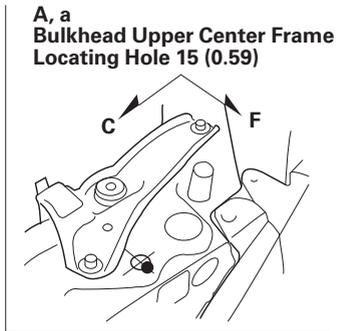
Repair Chart, Top View	4-14
Repair Chart, Side View	4-16

Upper Body Measuring Dimensions

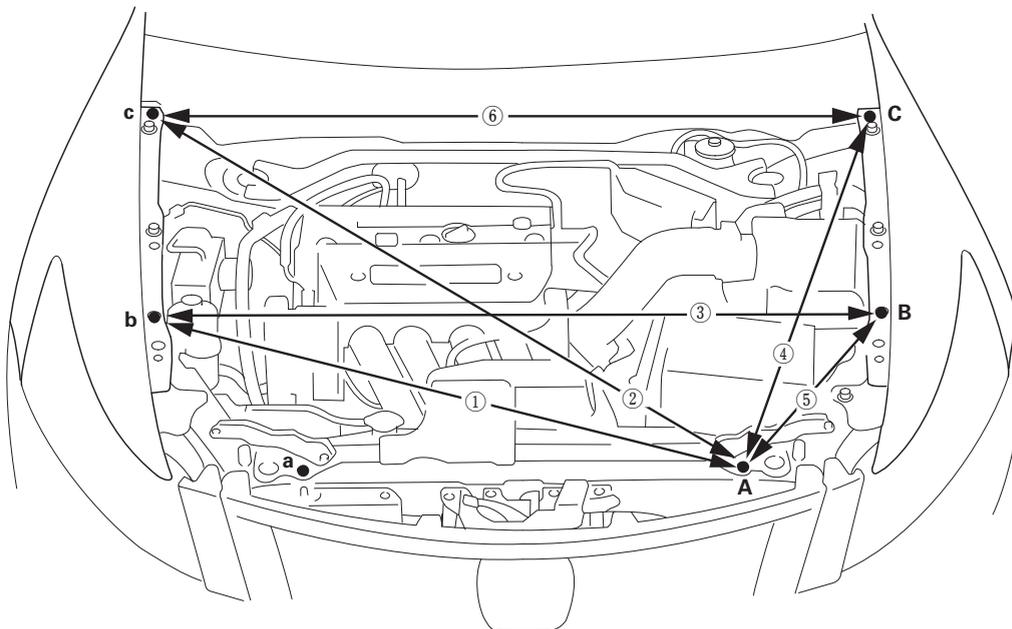
Front Fender Position

NOTE: The front grille cover and front fender trim are removed in the illustrations.

Unit: mm (in.)

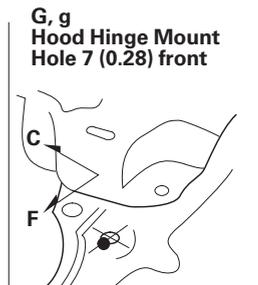
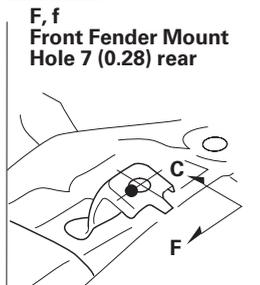
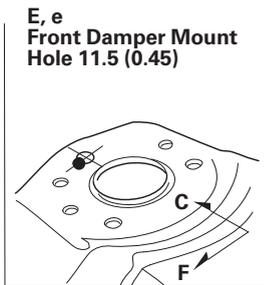
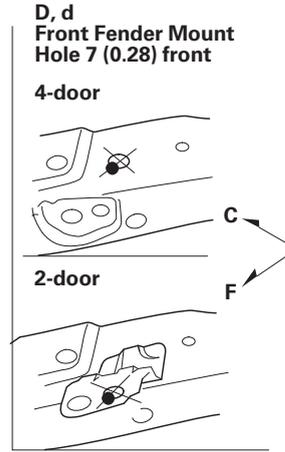
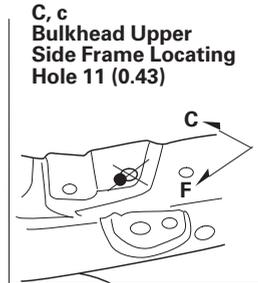
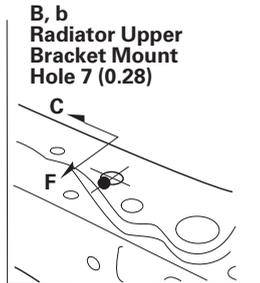
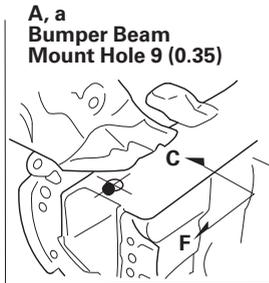


	4-door	2-door
①	943 (37.1)	949 (37.4)
②	1354 (53.31)	1354 (53.31)
③	1158 (45.59)	1160 (45.67)
④	957 (37.7)	957 (37.7)
⑤	351 (13.8)	367 (14.5)
⑥	1392 (54.80)	1390 (54.72)

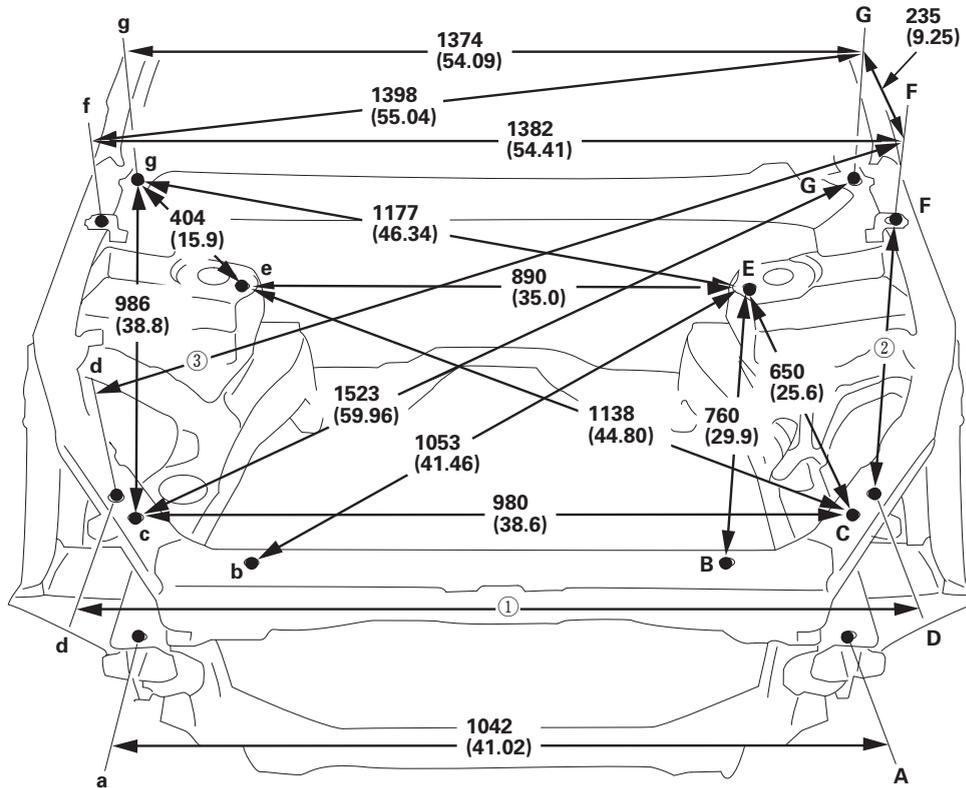


Engine Compartment

Unit: mm (in.)



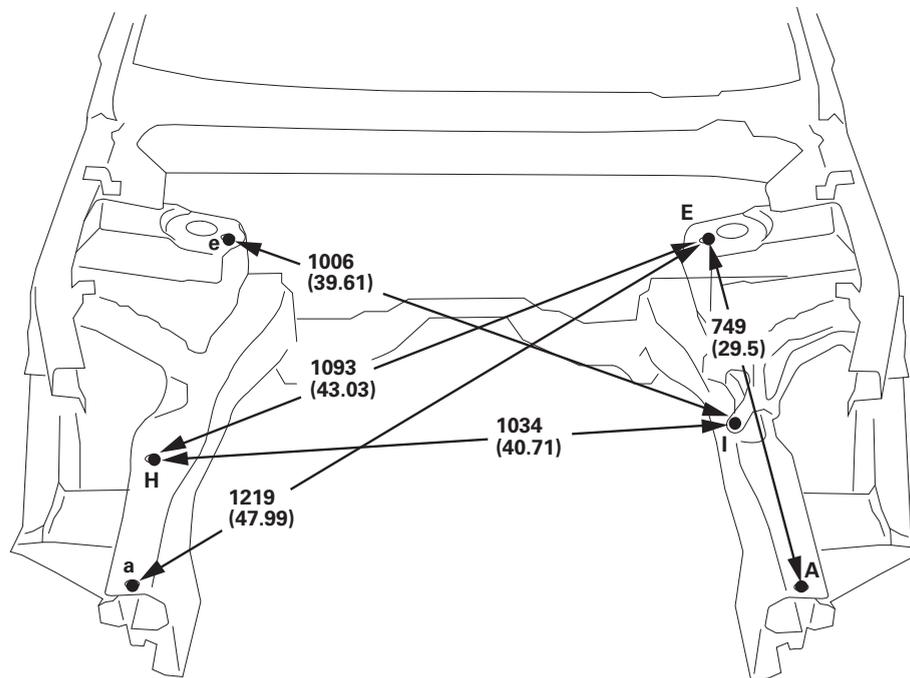
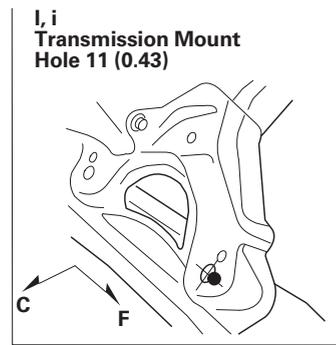
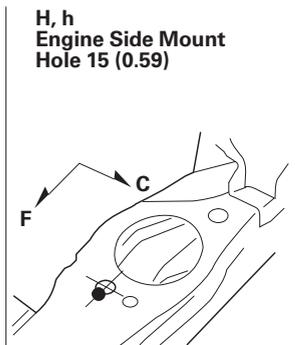
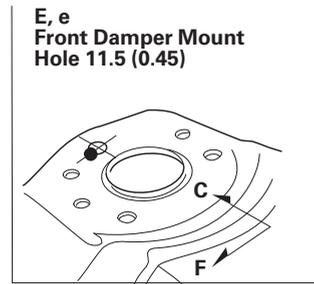
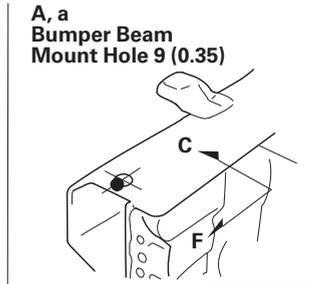
	4-door	2-door
①	1032 (40.63)	1100 (43.31)
②	728 (28.7)	746 (29.4)
③	1399 (55.1)	1441 (56.7)



Upper Body Measuring Dimensions

Engine/Transmission Mount Position

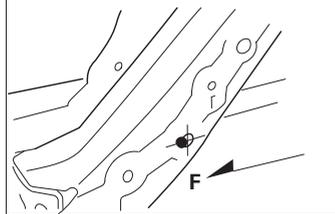
Unit: mm (in.)



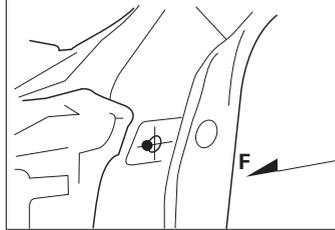
Front Wheelhouse Lower Member Position

Unit: mm (in.)

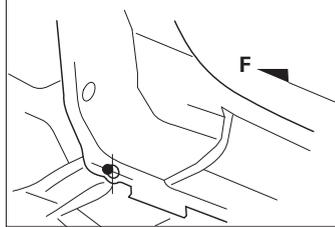
J
Front Fender Front Mount Hole 7 (0.28)



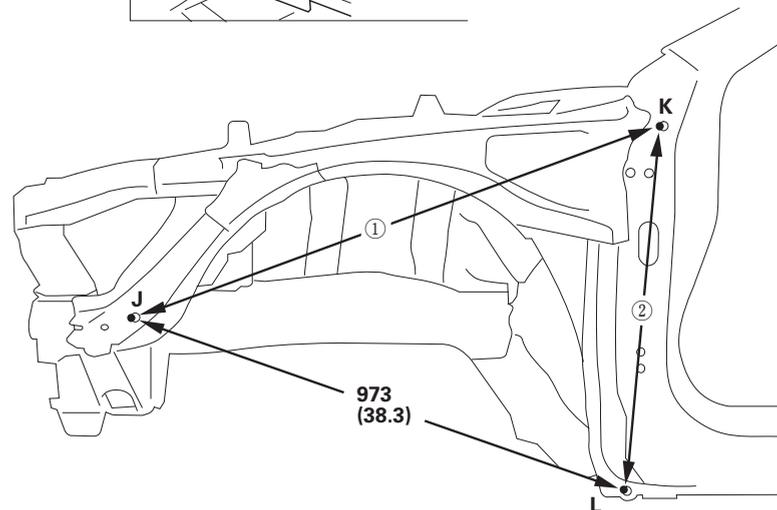
K
Front Fender Upper Mount Hole 9 (0.35)



L
Front Fender Lower Mount Hole 7 (0.28)



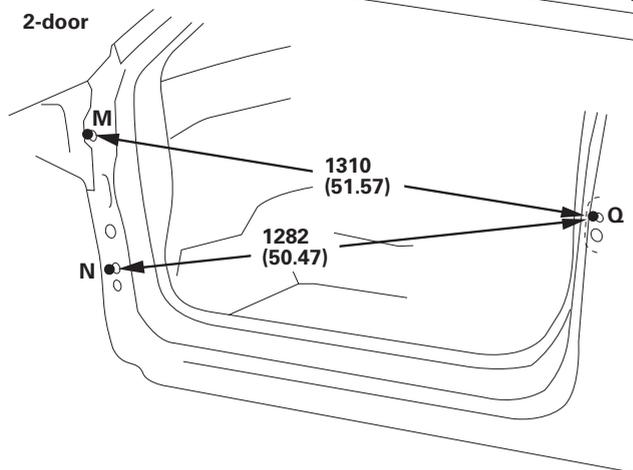
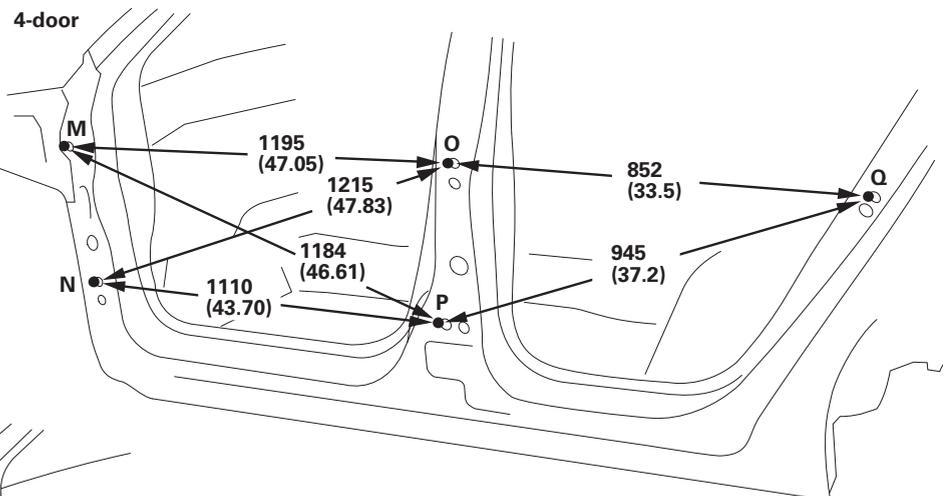
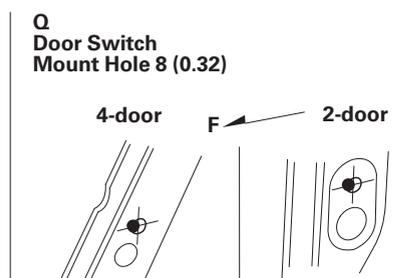
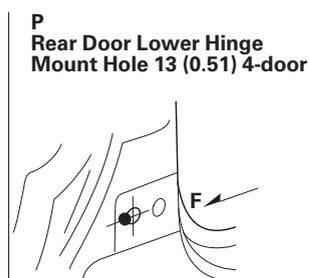
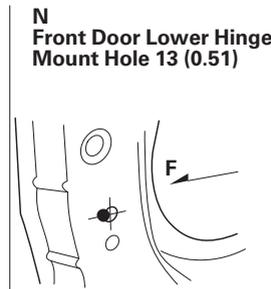
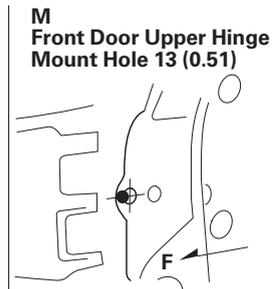
	4-door	2-door
①	984 (38.7)	979 (38.5)
②	695 (27.4)	680 (26.8)



Upper Body Measuring Dimensions

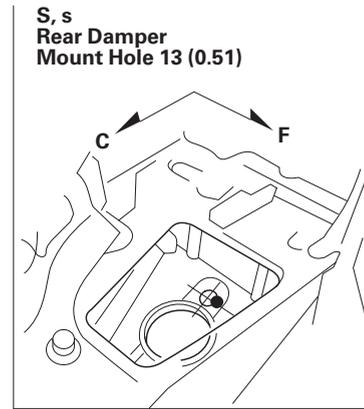
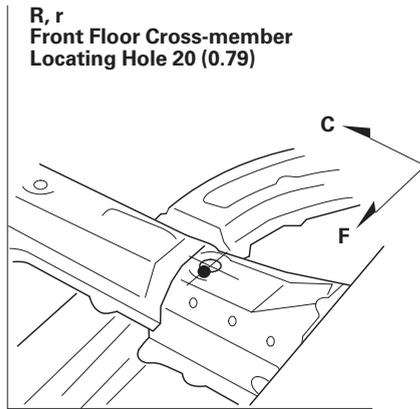
Door Hinge Positions

Unit: mm (in.)

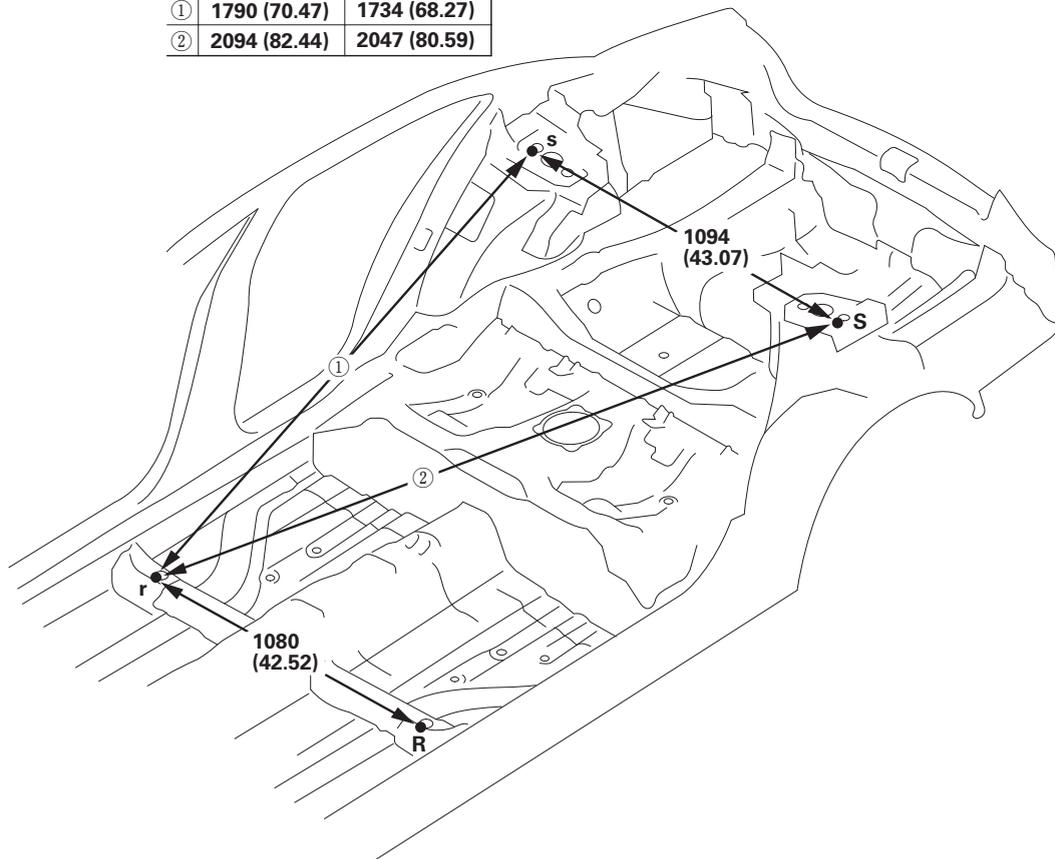


Passenger's Compartment

Unit: mm (in.)



	4-door	2-door
①	1790 (70.47)	1734 (68.27)
②	2094 (82.44)	2047 (80.59)

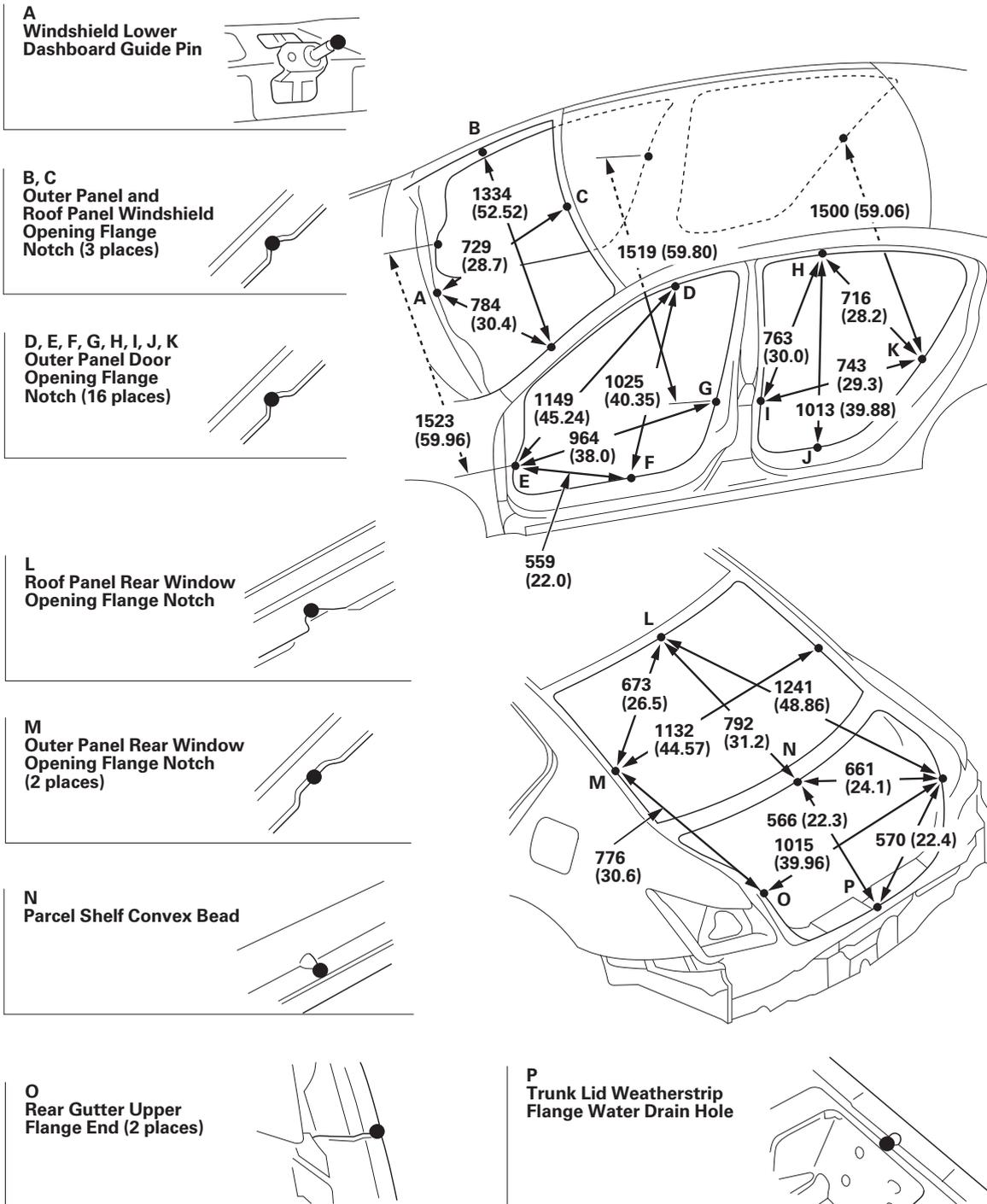


Upper Body Measuring Dimensions

Windshield/Door and Rear Window/Trunk Lid Opening

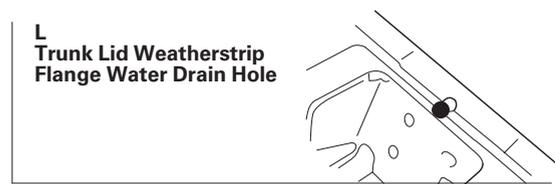
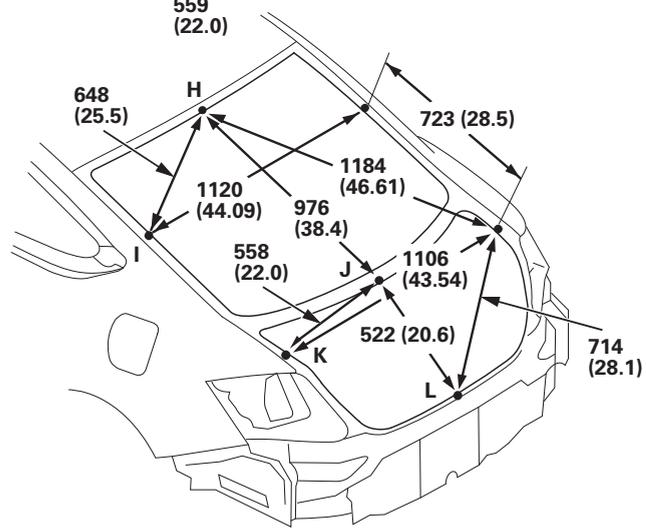
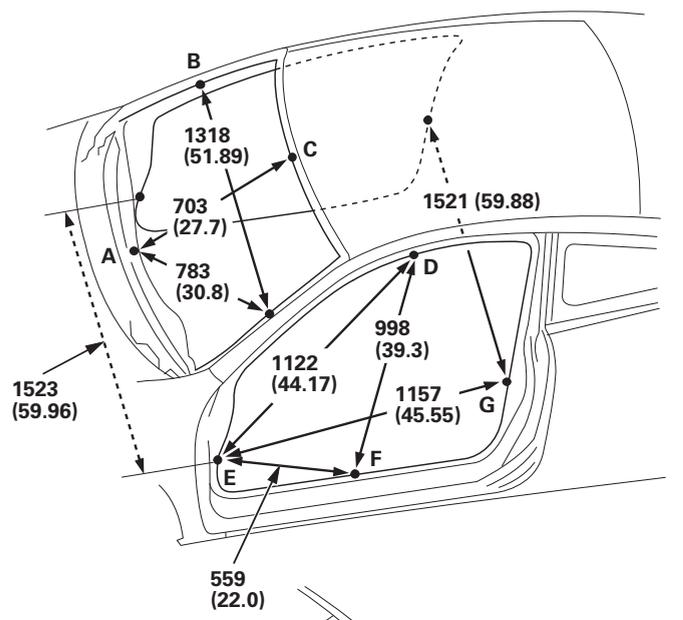
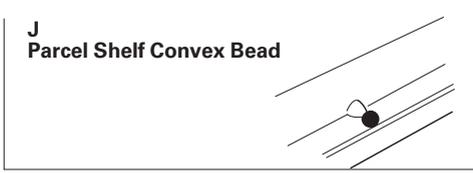
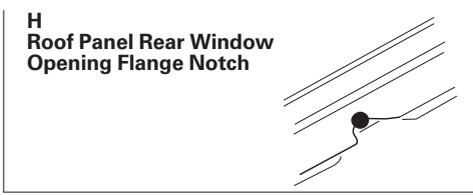
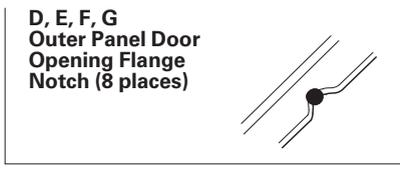
4-door

Unit: mm (in.)



2-door

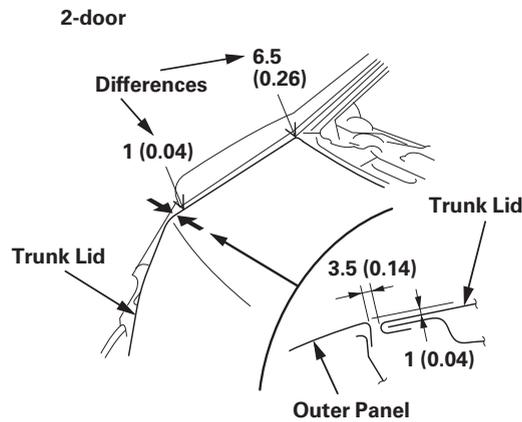
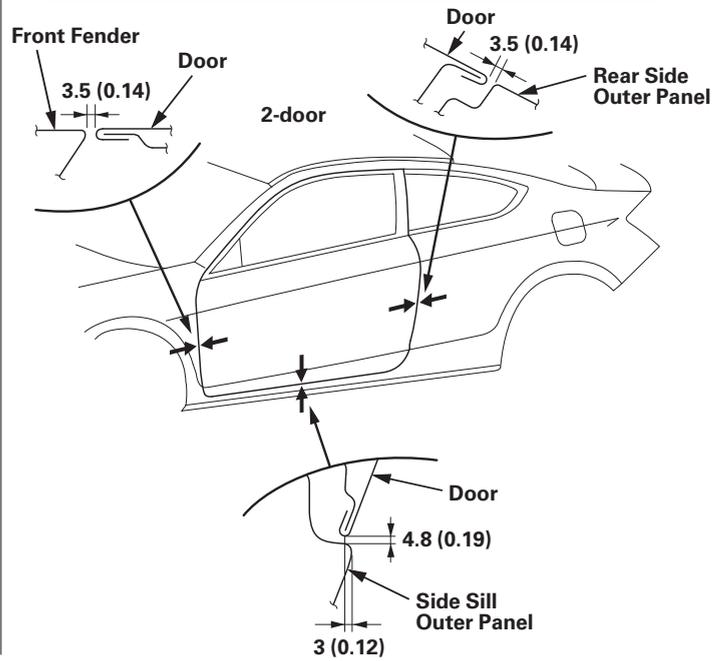
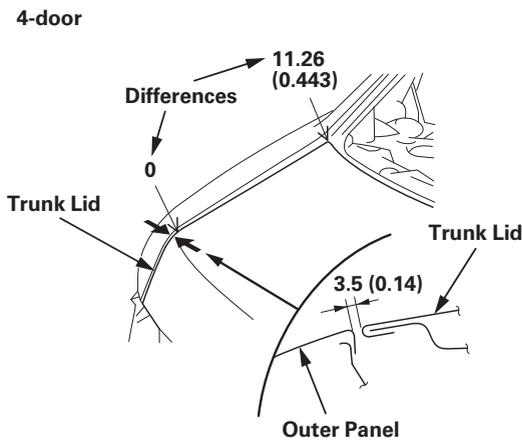
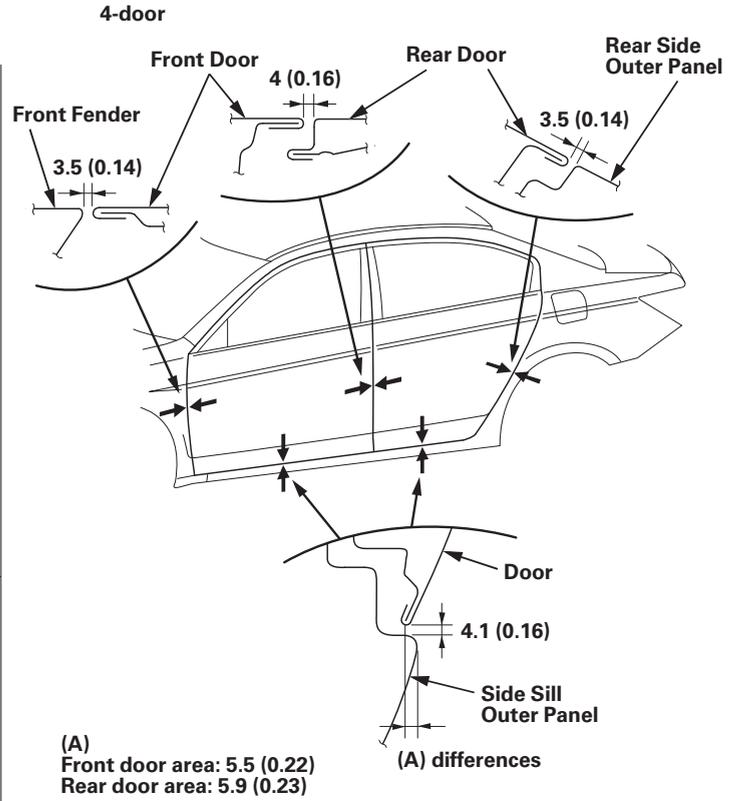
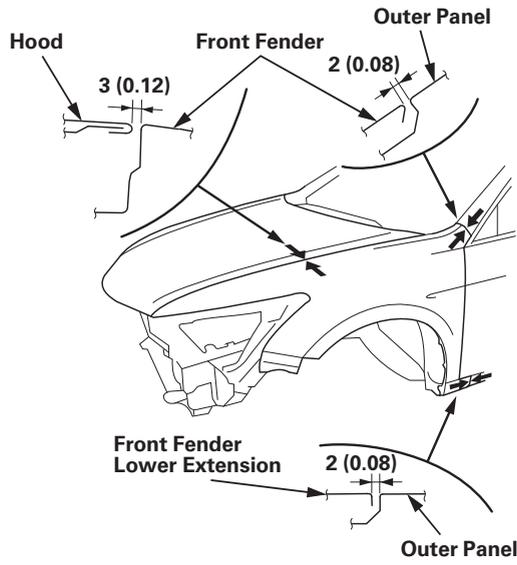
Unit: mm (in.)



Upper Body Measuring Dimensions

External Parts Fitting Positions

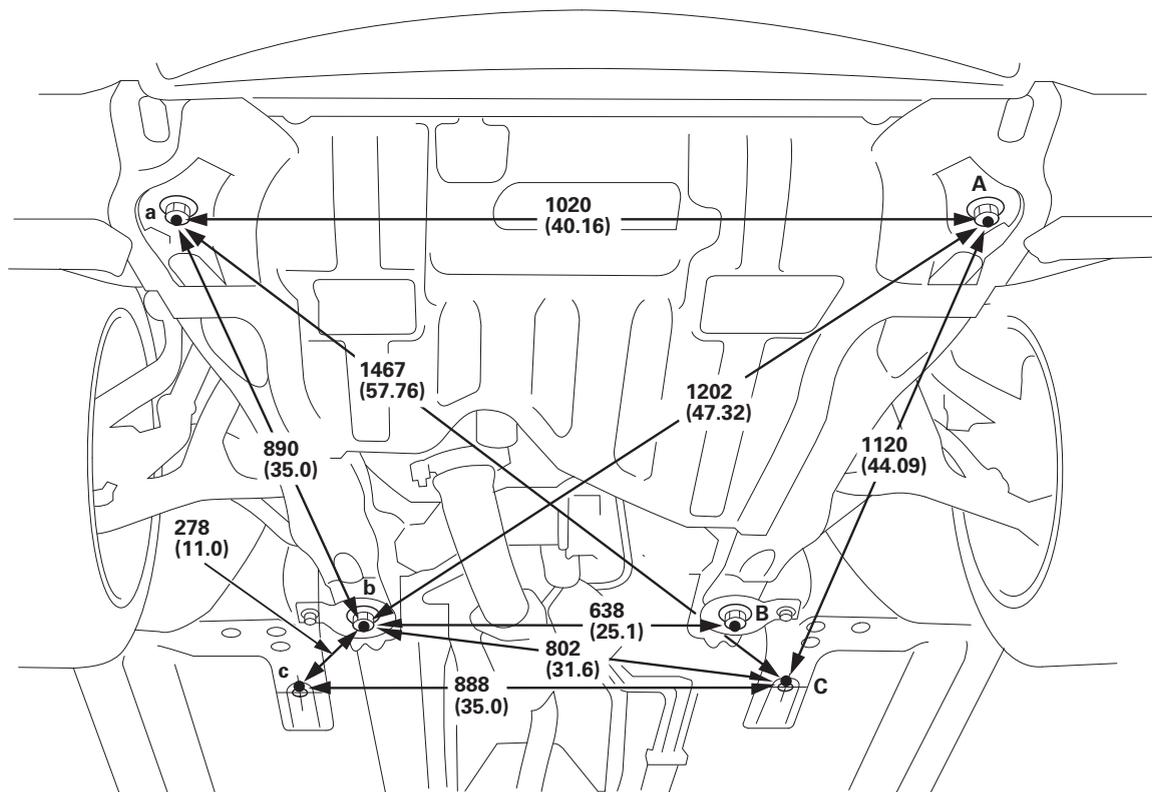
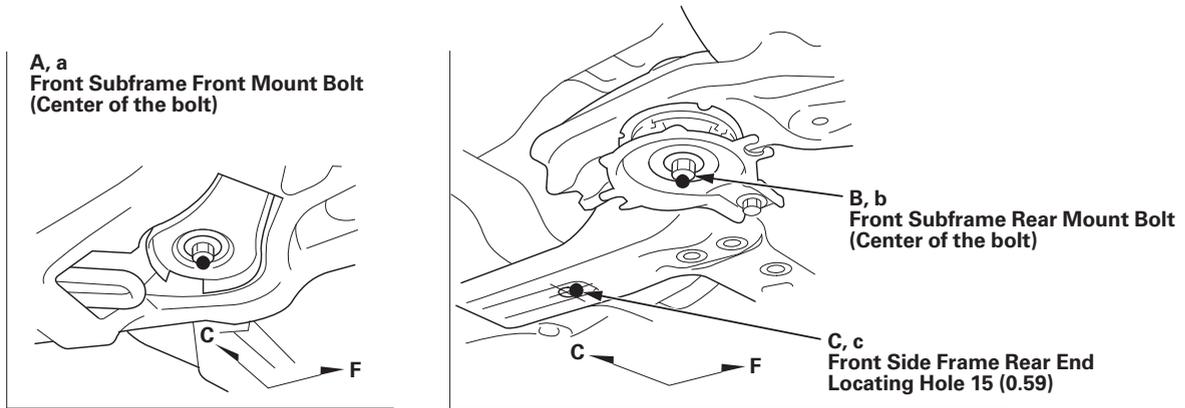
Unit: mm (in.)



Under Body Measuring Dimensions

Front Subframe Position

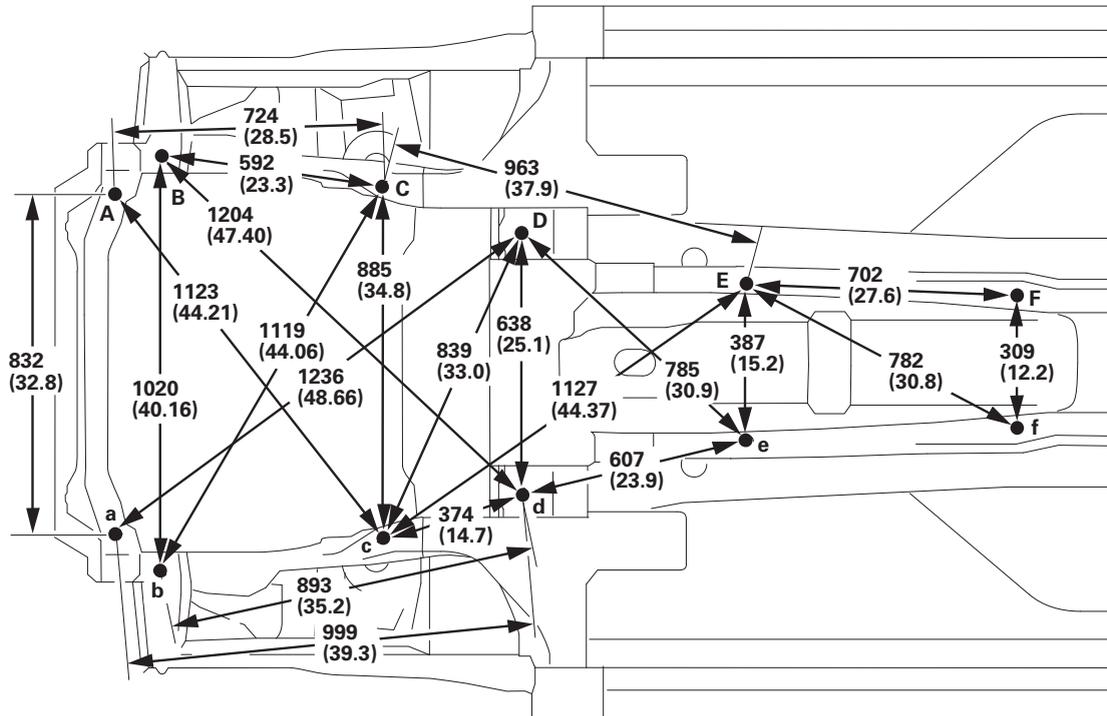
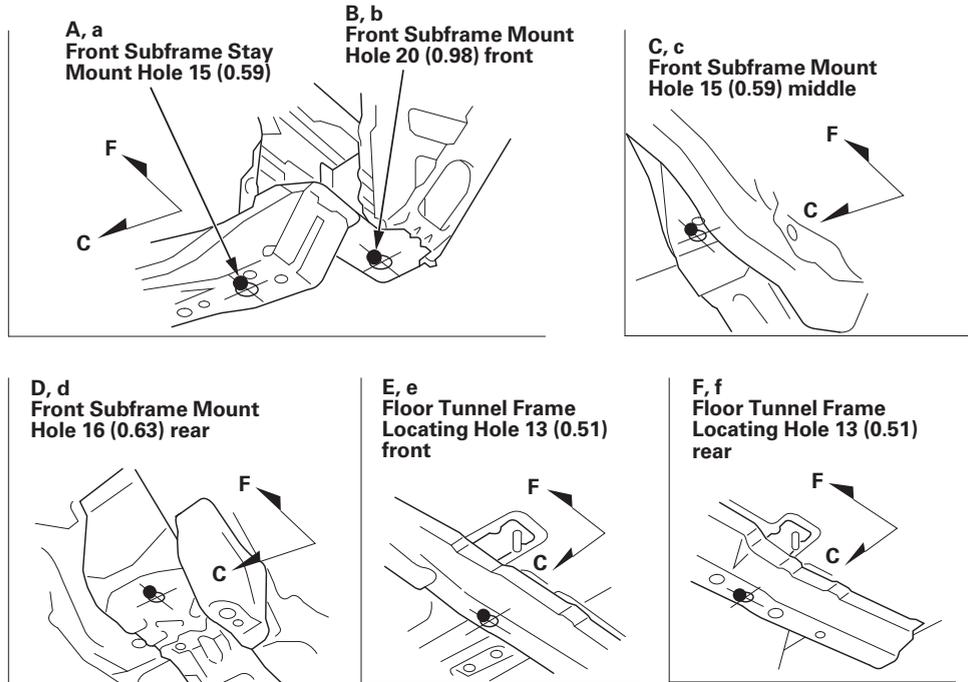
Unit: mm (in.)



Under Body Measuring Dimensions

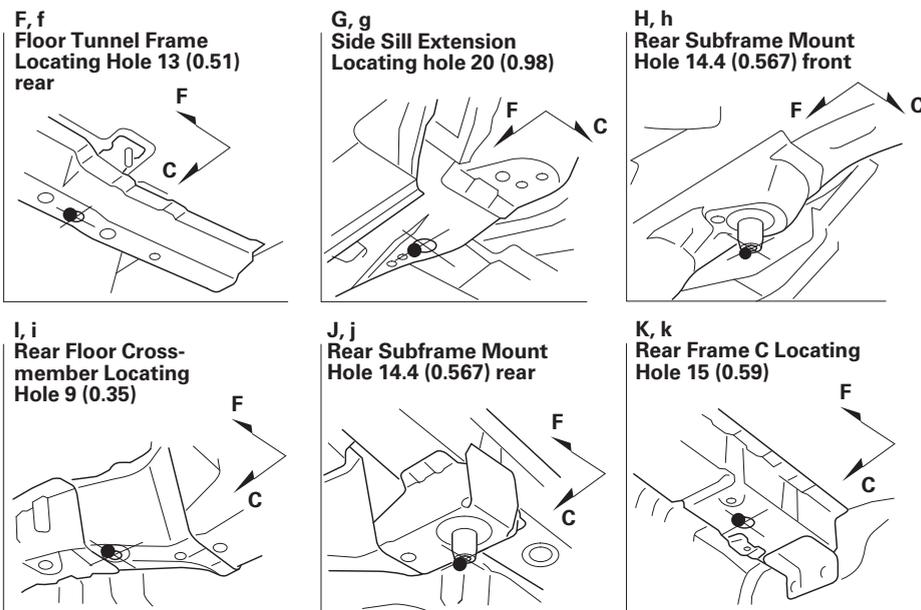
Engine Compartment and Front Floor, Under View

Unit: mm (in.)

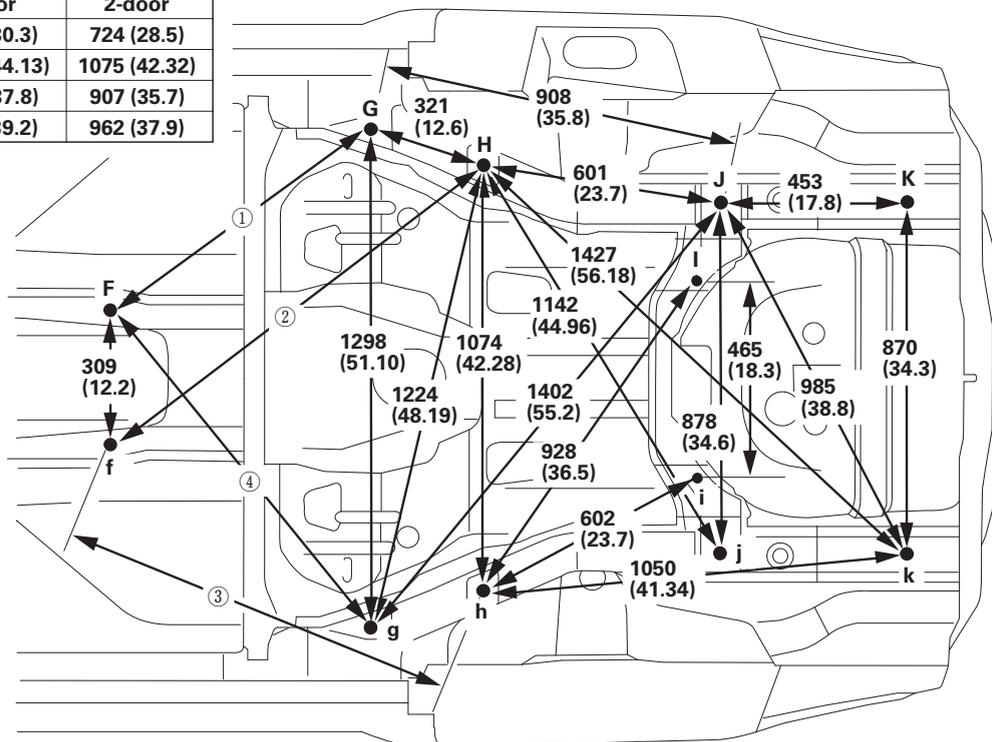


Front Floor and Rear Floor, Under View

Unit: mm (in.)



	4-door	2-door
①	769 (30.3)	724 (28.5)
②	1121 (44.13)	1075 (42.32)
③	961 (37.8)	907 (35.7)
④	996 (39.2)	962 (37.9)



Frame Repair Chart

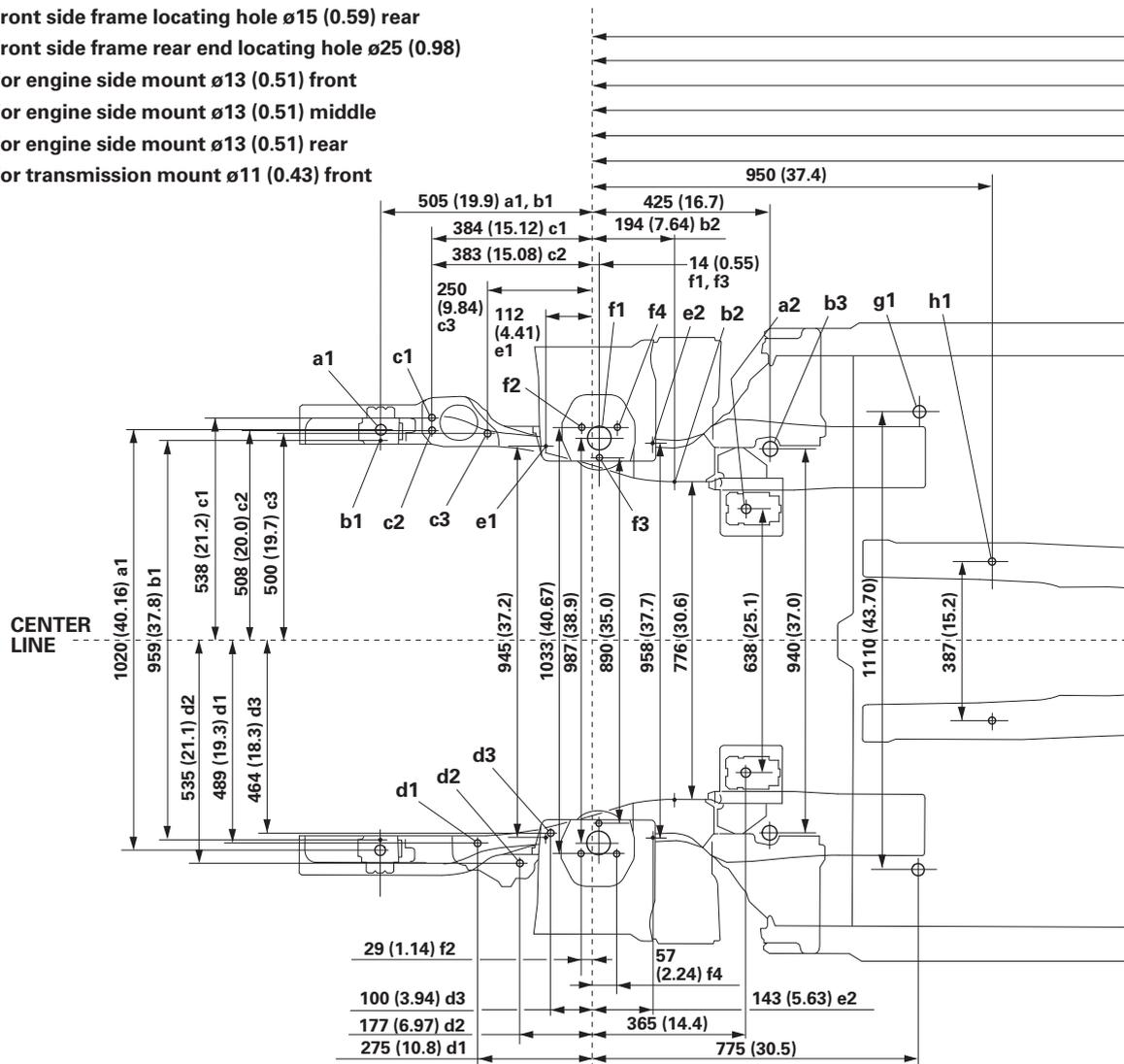
Repair Chart, Top View

Unit: mm (in.)

ø: Inner diameter

- a1 For front subframe mount ø20 (0.79) front
- a2 For front subframe mount ø16 (0.63) rear
- b1 Front side frame locating hole ø25 (0.98) front
- b2 Front side frame locating hole ø15 (0.59) rear
- b3 Front side frame rear end locating hole ø25 (0.98)
- c1 For engine side mount ø13 (0.51) front
- c2 For engine side mount ø13 (0.51) middle
- c3 For engine side mount ø13 (0.51) rear
- d1 For transmission mount ø11 (0.43) front

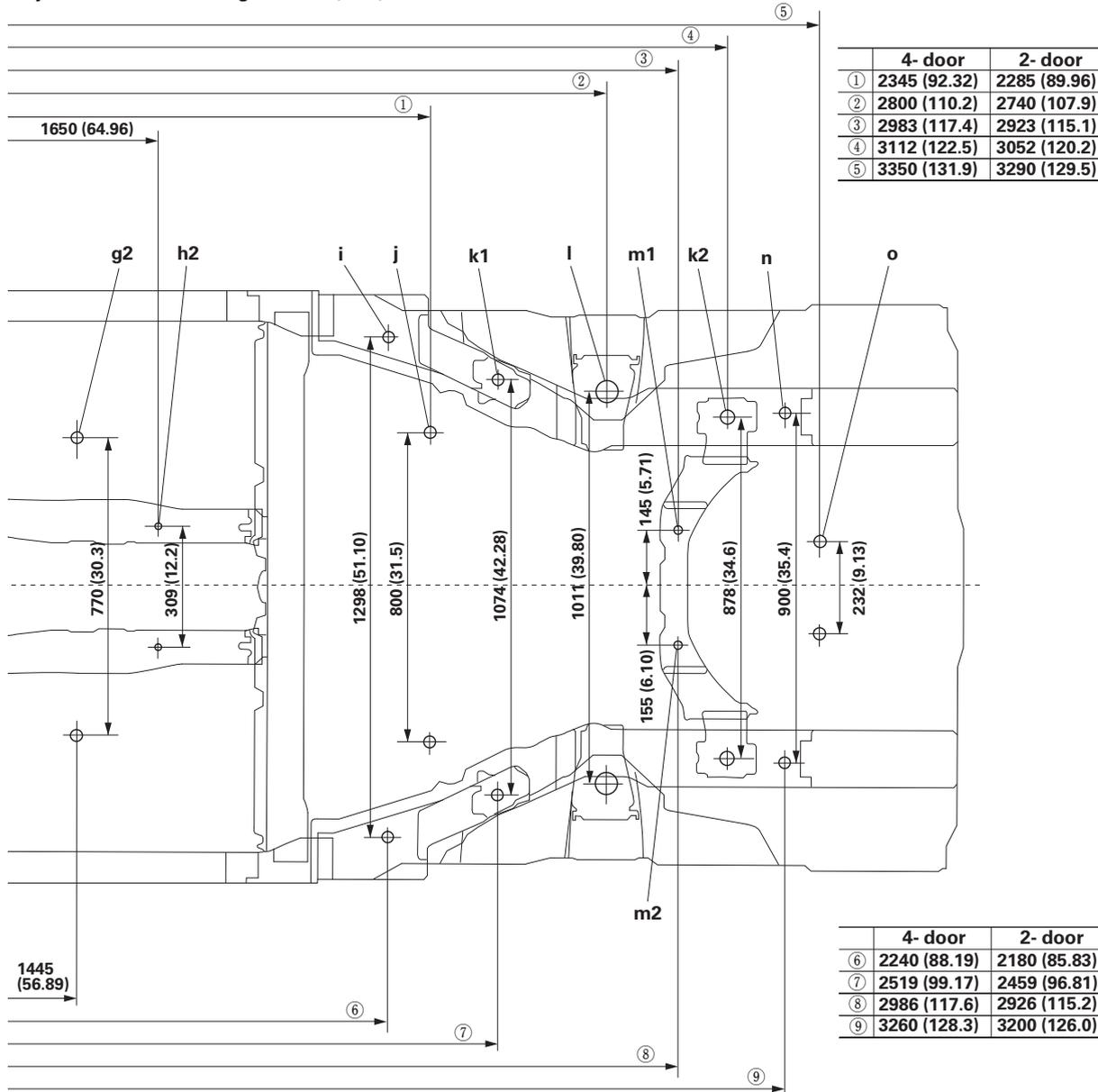
- d2 For transmission mount ø11 (0.43) middle
- d3 For transmission mount ø11 (0.43) rear
- e1 For upper arm mount ø11 (0.43) front



- e2 For upper arm mount ø11 (0.43) rear
- f1 Front damper center hole ø50 (1.97)
- f2 For front damper mount ø11.5 (0.45) front
- f3 For front damper mount ø11.5 (0.45) center side
- f4 For front damper mount ø11.5 (0.45) rear
- g1 Front floor locating hole ø25 (0.98) front
- h1 Front floor tunnel frame locating hole ø13 (0.51) front

- g2 Front floor locating hole $\varnothing 25$ (0.98) rear
- h2 Front floor tunnel frame locating hole $\varnothing 13$ (0.51) rear
- i Rear frame A locating hole $\varnothing 25$ (0.98)
- j Rear floor locating hole $\varnothing 25$ (0.98)

- k1 For rear subframe mount $\varnothing 26.2$ (1.03) front
- k2 For rear subframe mount $\varnothing 26.2$ (1.03) rear
- l Rear damper center hole $\varnothing 52$ (2.05)



- m1 Rear floor cross-member locating hole $\varnothing 15$ (0.59) right side
- m2 Rear floor cross-member locating hole $\varnothing 15$ (0.59) left side

- n Rear frame B locating hole $\varnothing 25$ (0.98)
- o Spare tire pan locating hole $\varnothing 25$ (0.98)

Frame Repair Chart

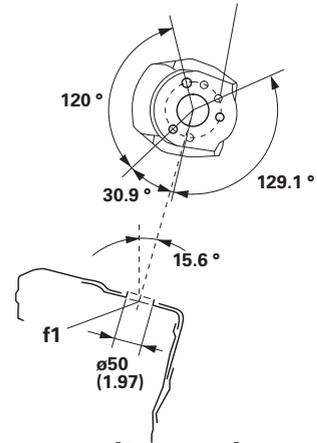
Repair Chart, Side View

Unit: mm (in.)

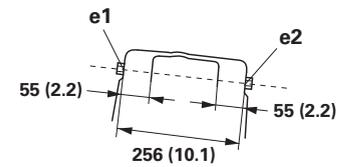
∅: Inner diameter

- a1 For front subframe mount ∅20 (0.79) front
- a2 For front subframe mount ∅16 (0.63) rear
- b1 Front side frame locating hole ∅25 (0.98) front
- b2 Front side frame locating hole ∅15 (0.59) rear
- b3 Front side frame rear end locating hole ∅25 (0.98)
- c1 For engine side mount ∅13 (0.51) front
- c2 For engine side mount ∅13 (0.51) middle
- c3 For engine side mount ∅13 (0.51) rear
- d1 For transmission mount ∅11 (0.43) front
- d2 For transmission mount ∅11 (0.43) middle
- d3 For transmission mount ∅11 (0.43) rear
- e1 For upper arm mount ∅11 (0.43) front
- e2 For upper arm mount ∅11 (0.43) rear
- f1 Front damper center hole ∅50 (1.97)
- f2 For front damper mount ∅11.5 (0.45) front
- f3 For front damper mount ∅11.5 (0.45) center side
- f4 For front damper mount ∅11.5 (0.45) rear
- g1 Front floor locating hole ∅25 (0.98) front
- h1 Front floor tunnel frame locating hole ∅13 (0.51) front

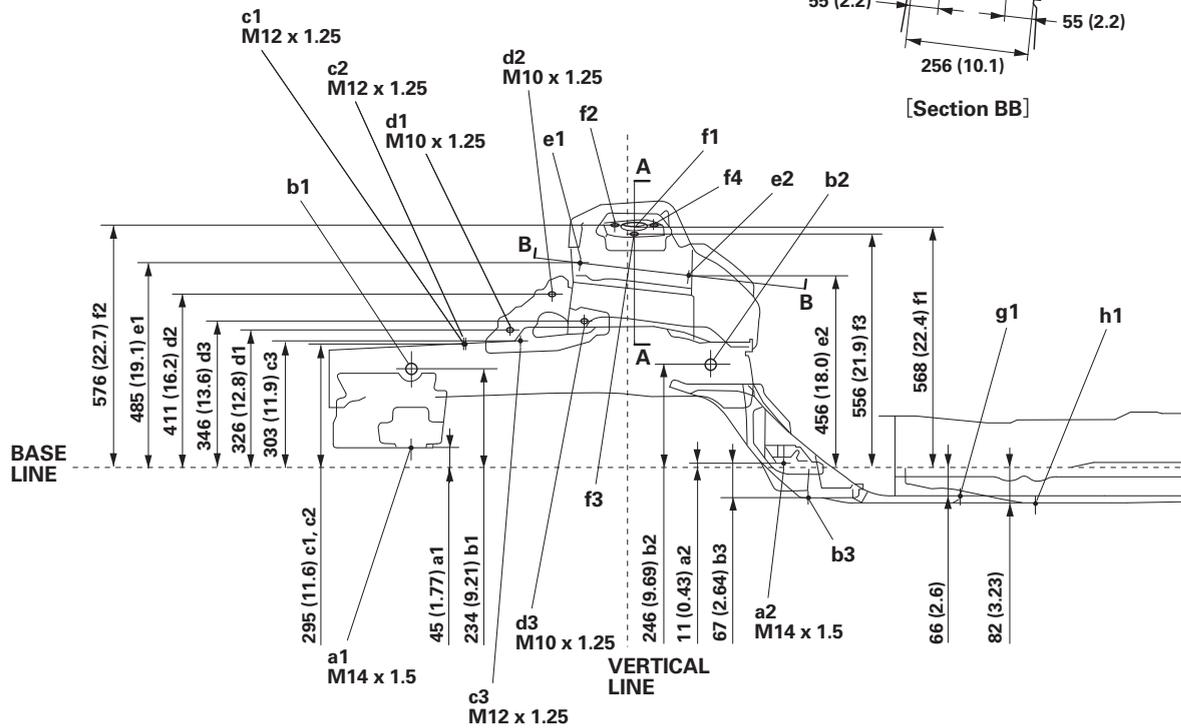
For tower bar mount ∅10 (0.39)



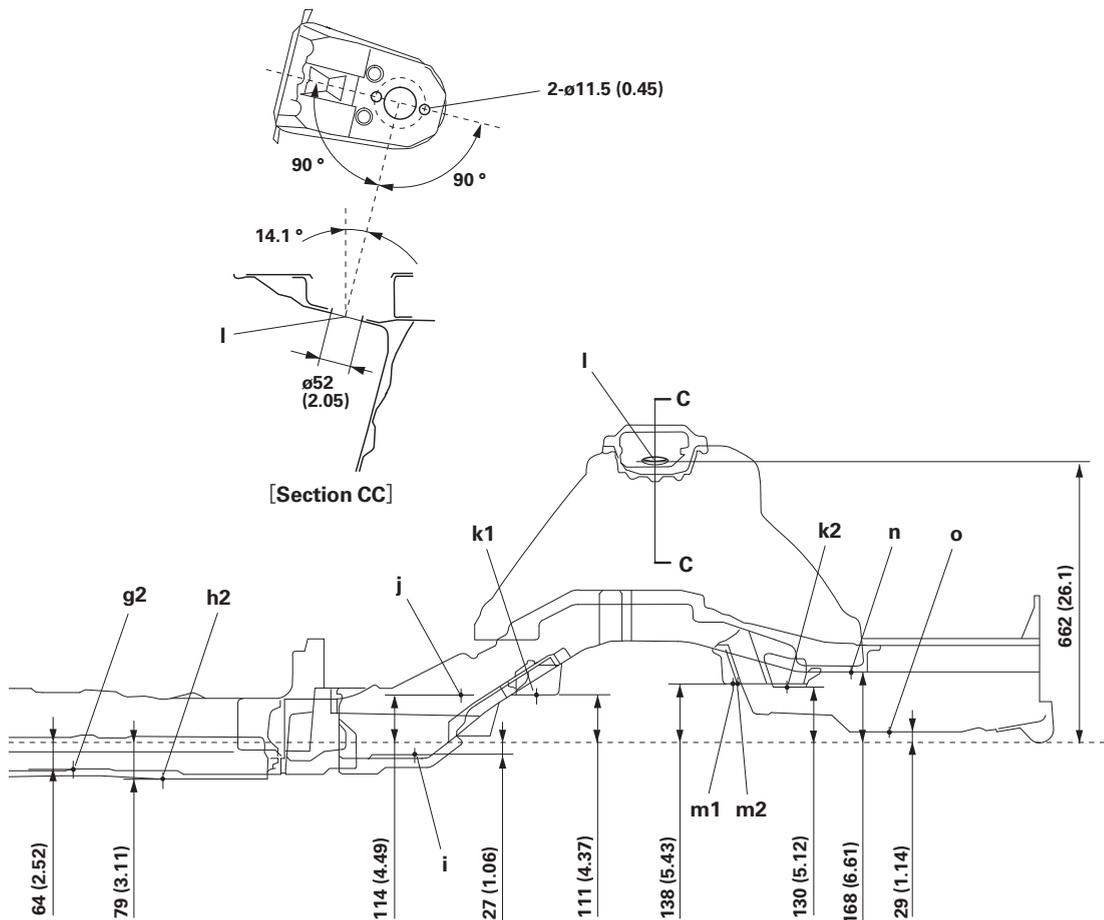
[Section AA]



[Section BB]



- g2 Front floor locating hole $\varnothing 25$ (0.98) rear
- h2 Front floor tunnel frame locating hole $\varnothing 13$ (0.51) rear
- i Rear frame A locating hole $\varnothing 25$ (0.98)
- j Rear floor locating hole $\varnothing 25$ (0.98)
- k1 For rear subframe mount $\varnothing 26.2$ (1.03) front
- k2 For rear subframe mount $\varnothing 26.2$ (1.03) rear
- l Rear damper center hole $\varnothing 52$ (2.05)
- m1 Rear floor cross-member locating hole $\varnothing 15$ (0.59) right side
- m2 Rear floor cross-member locating hole $\varnothing 15$ (0.59) left side
- n Rear frame B locating hole $\varnothing 25$ (0.98)
- o Spare tire pan locating hole $\varnothing 25$ (0.98)



Rust Prevention

Cross Section of Body and Sealants

General	5-2
Engine Compartment and Damper Housing	5-3
Front Wheelhouse and Front Side Frame	5-4
Dashboard Upper, Dashboard Lower, and Front Floor	5-5
Middle Floor	5-6
Rear Floor and Spare Tire Pan/Roof Panel	5-7
Rear Side Outer Panel and Rear Panel	5-8
Rear Wheelhouse	5-9

Rust-Preventive Treatments

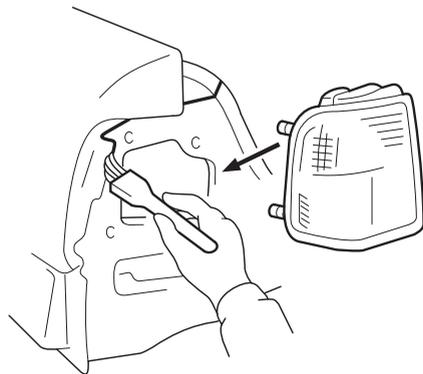
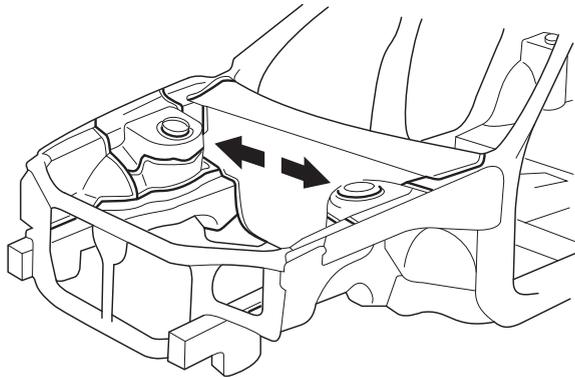
General	5-10
Undercoating Diagram	5-11
Areas to be Covered by Internal Anti-Rust Agents . . .	5-13

Cross Section of Body and Sealants

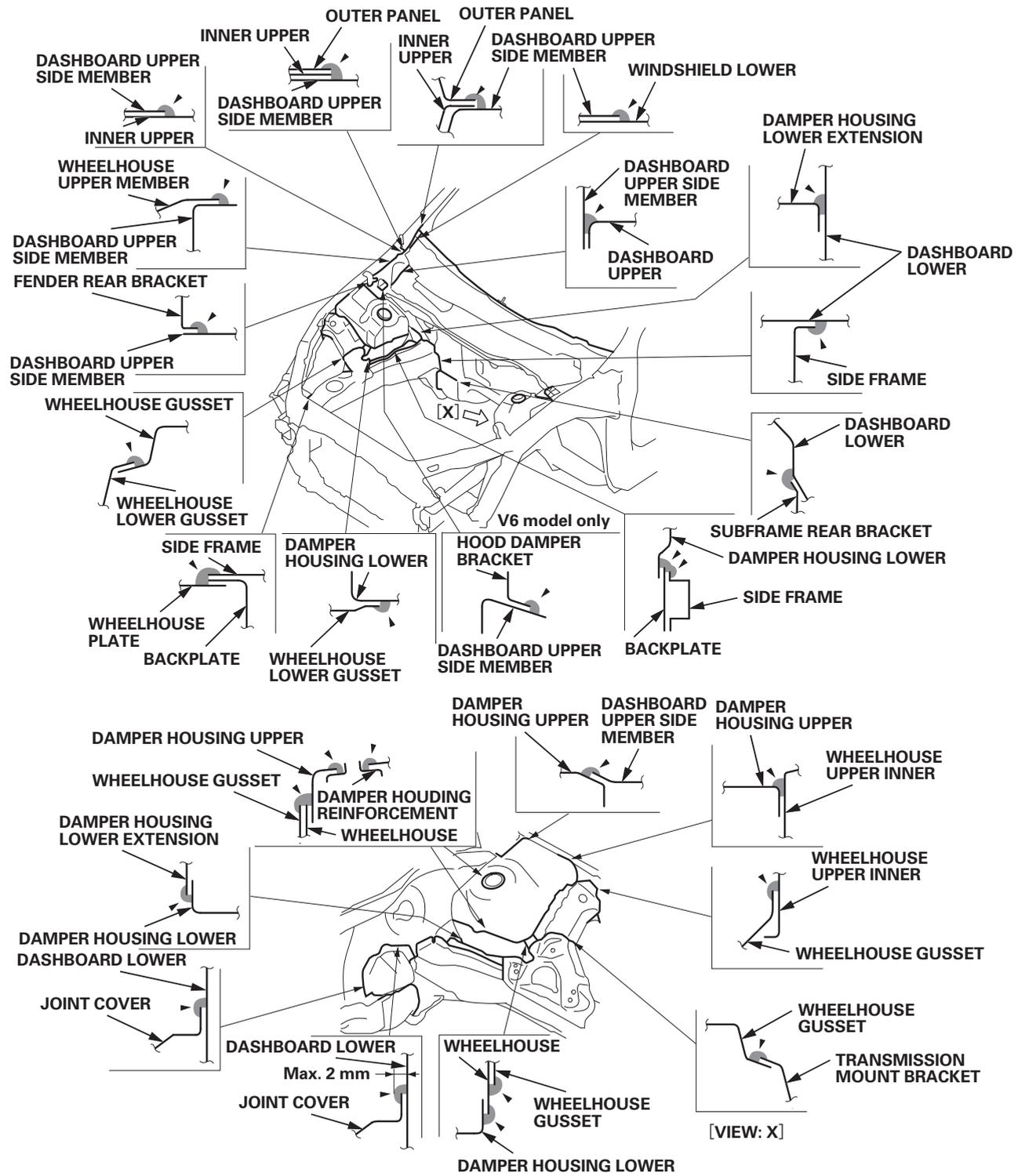
General

NOTE: Follow the sealer manufacturer's instructions, and apply the sealer. Note the following items:

- Clean the areas to be sealed with wax and grease remover.
- Wipe off any excess spot sealer with thinner. After the primer is sprayed, sealer will fill the area where the spot sealer was wiped.
- Make sure you can see the sealant when the sealed part is in its proper location. For the details, refer to engine compartment and damper housing (see page 5-3), front wheelhouse and front side frame (see page 5-4), dashboard upper, dashboard lower, and front floor (see page 5-5), middle floor (see page 5-6), rear floor and spare tire pan/roof panel (see page 5-7), rear side outer panel and rear panel (see page 5-8), and rear wheelhouse (see page 5-9).
- When applying sealant to the engine compartment, the door opening, and the trunk lid gutter, try to match the appearance of the factory sealer. Wipe off any excess sealer.
- Apply sealer to any area that a replacement part will cover. Smooth the sealer with a brush if necessary.

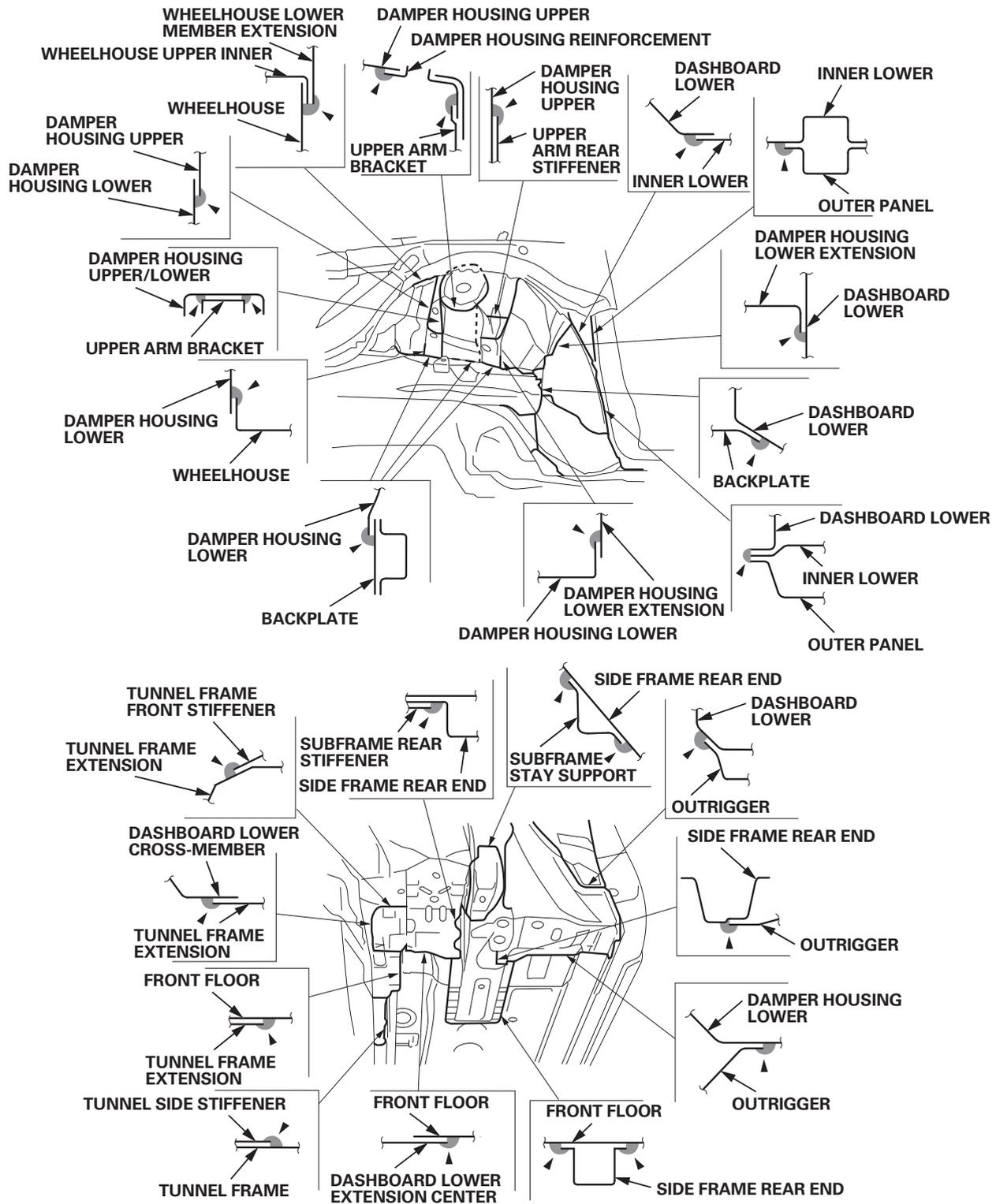


Engine Compartment and Damper Housing



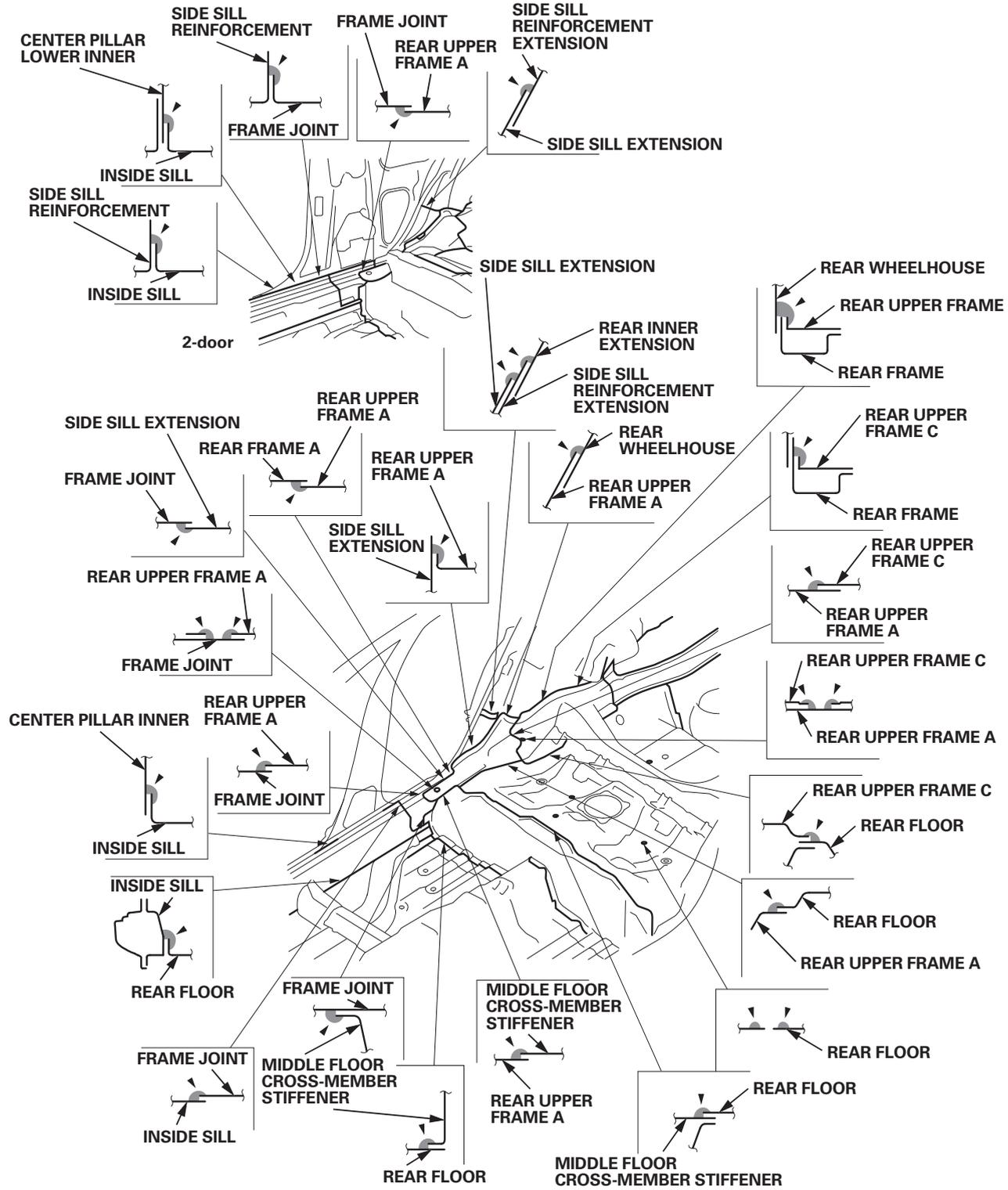
Cross Section of Body and Sealants

Front Wheelhouse and Front Side Frame

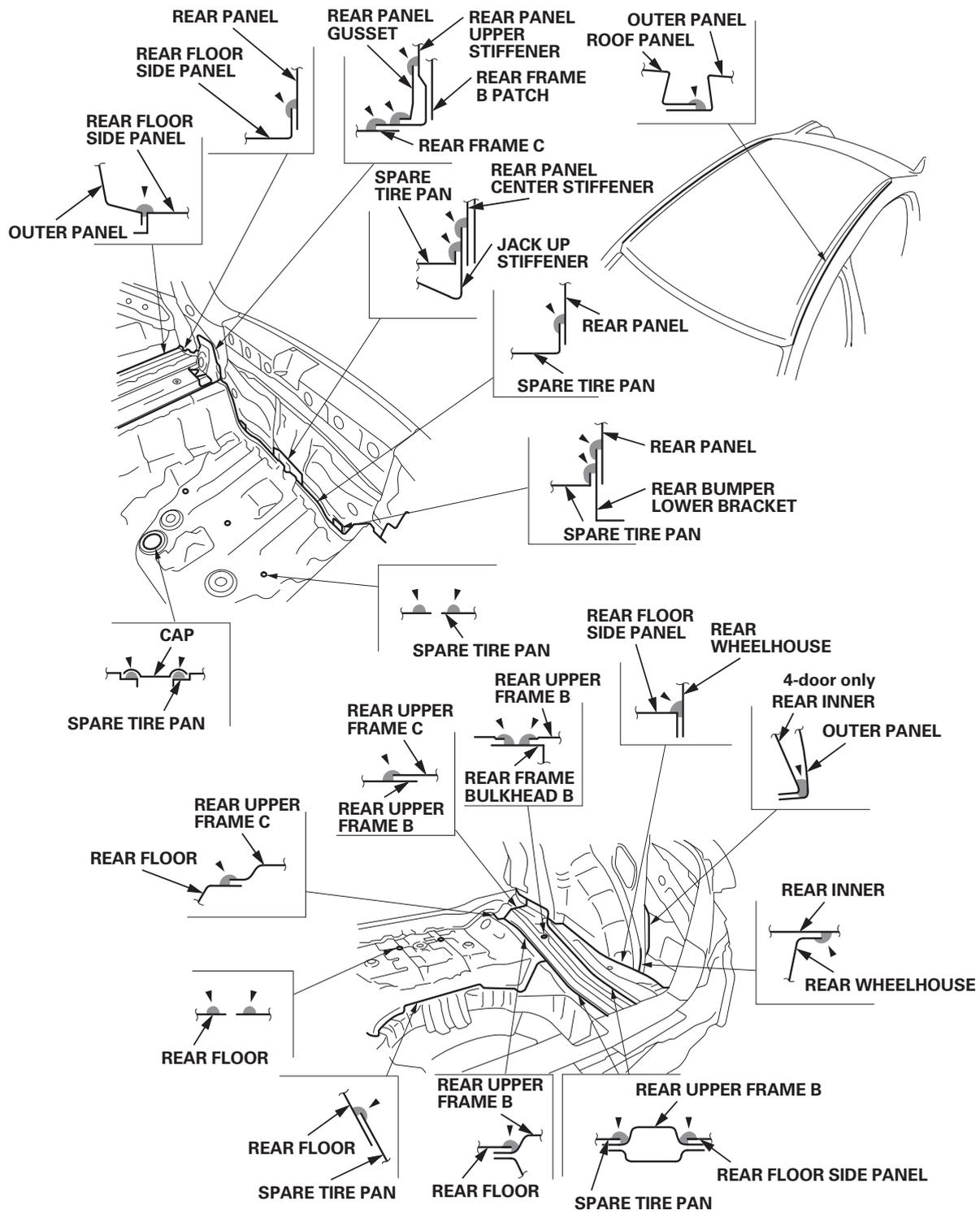


Cross Section of Body and Sealants

Middle Floor

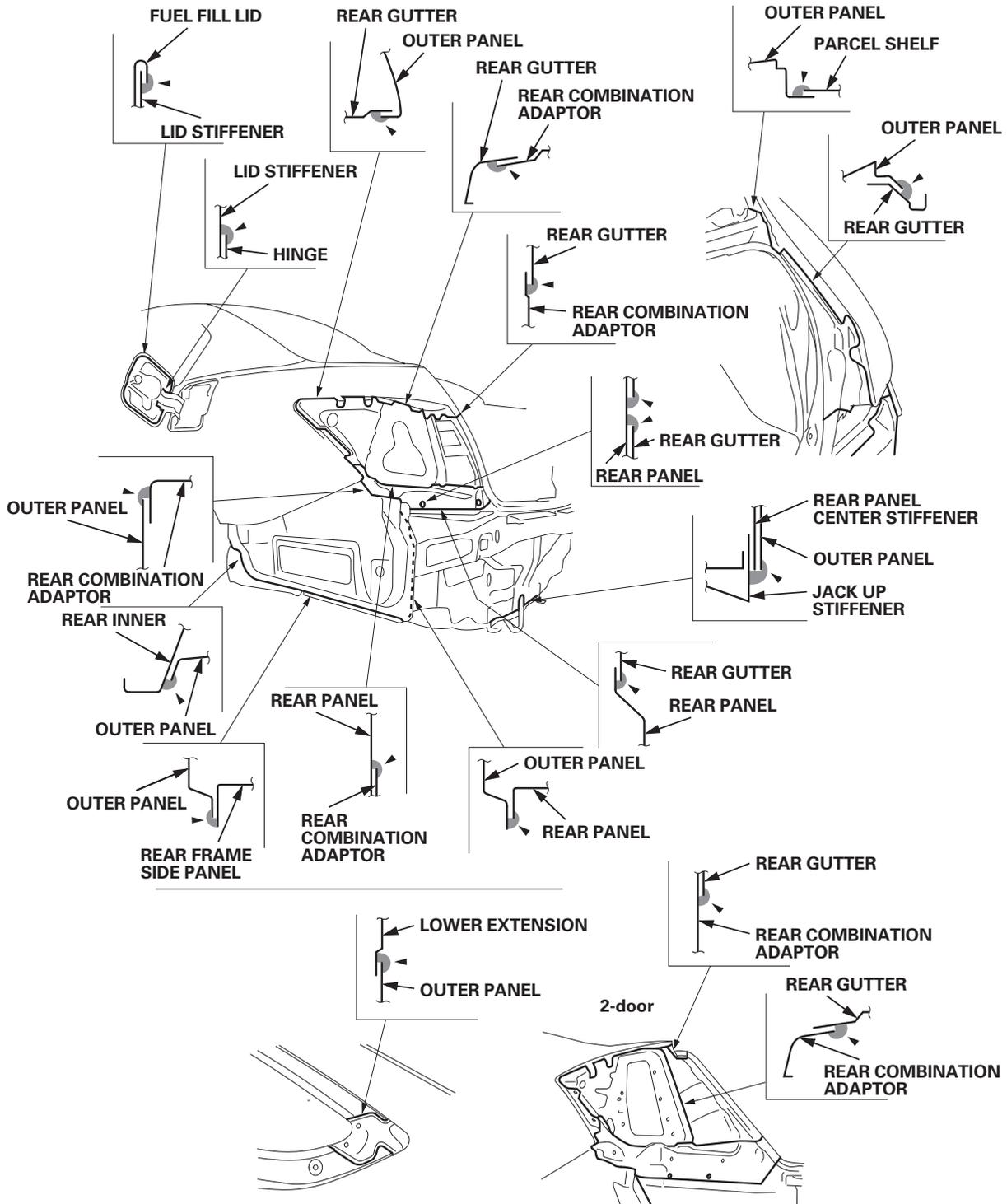


Rear Floor and Spare Tire Pan/Roof Panel

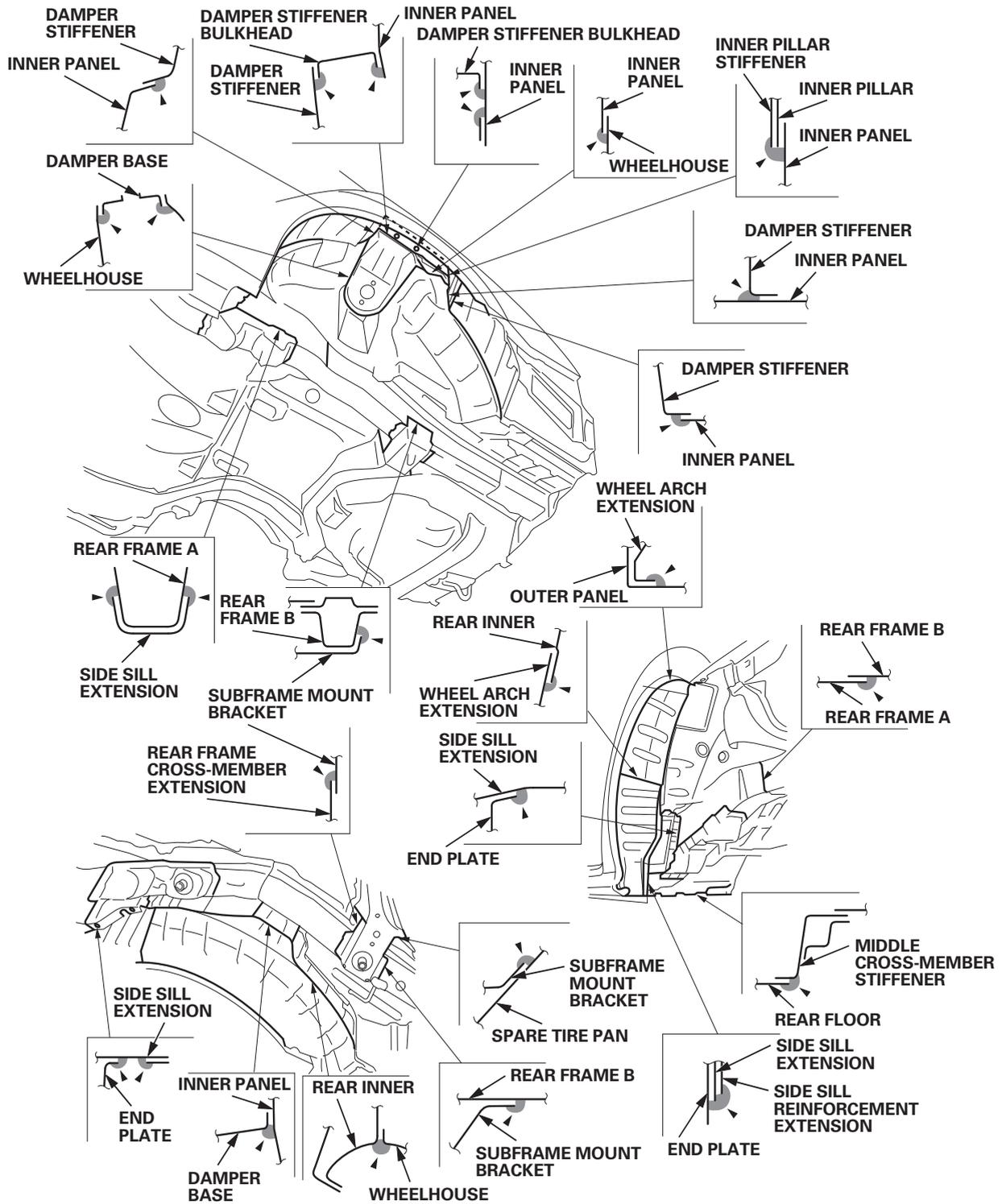


Cross Section of Body and Sealants

Rear Side Outer Panel and Rear Panel



Rear Wheelhouse



Rust-Preventive Treatments

General

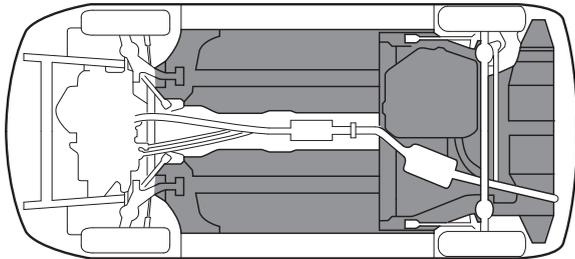
Undercoat

⚠ WARNING

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

NOTE:

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



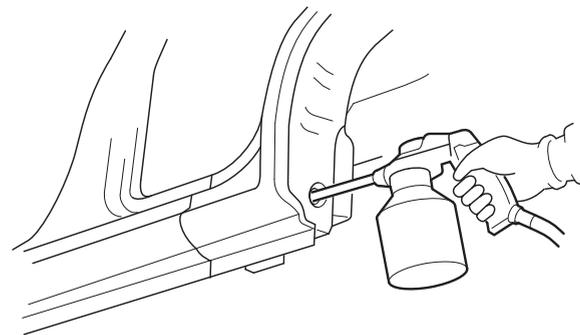
Anti-rust Agents

⚠ WARNING

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

NOTE:

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



Undercoating Diagram

1. Apply undercoat to the areas shown.

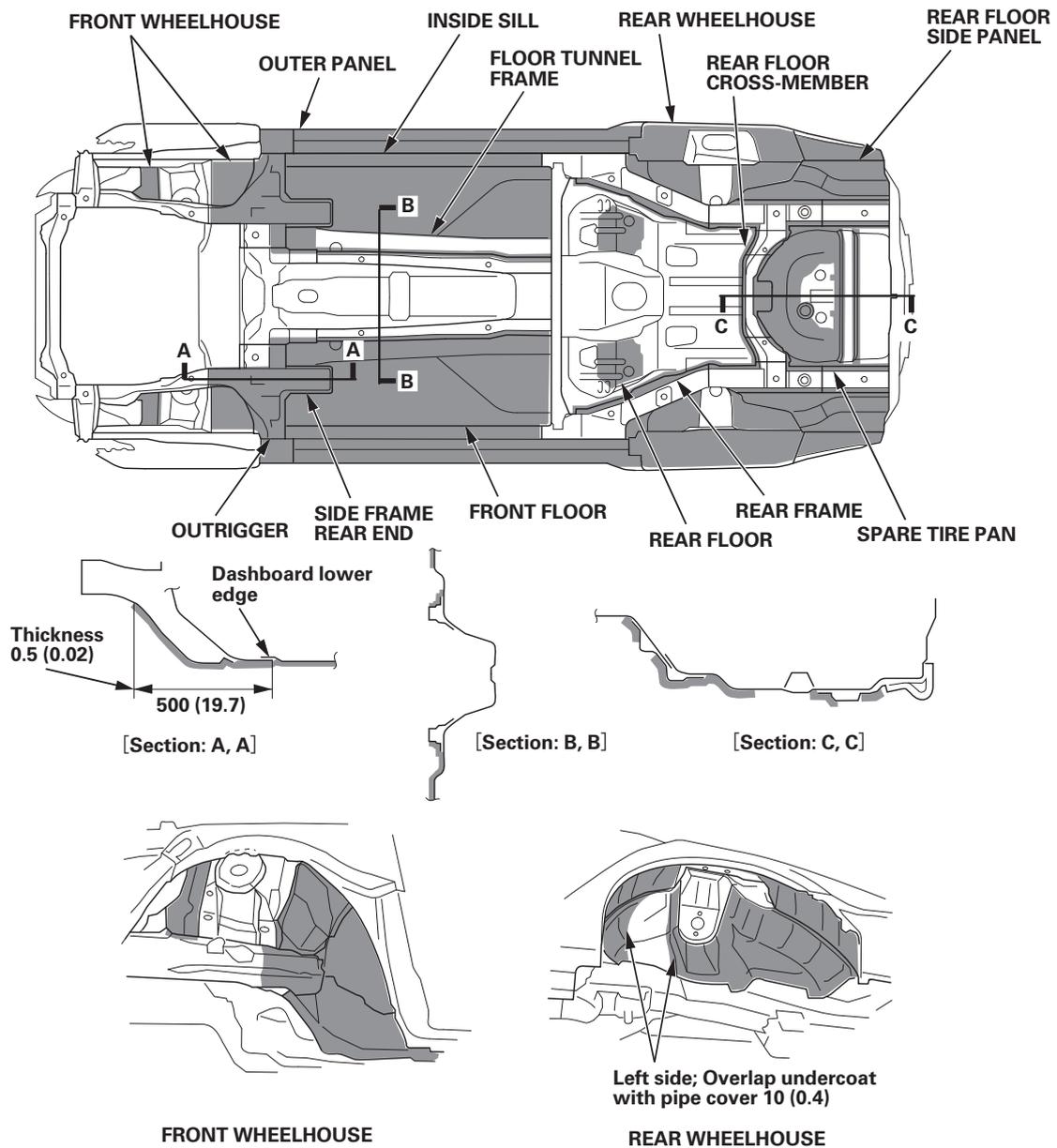
NOTE:

Coating thickness: 0.4 mm (0.016 in.) MIN.

Front wheelhouse, rear wheelhouse, and dashboard lower coating thickness 0.5 mm (0.02 in.).

 : indicates coating area.

Unit: mm (in.)



(cont'd)

Rust-Preventive Treatments

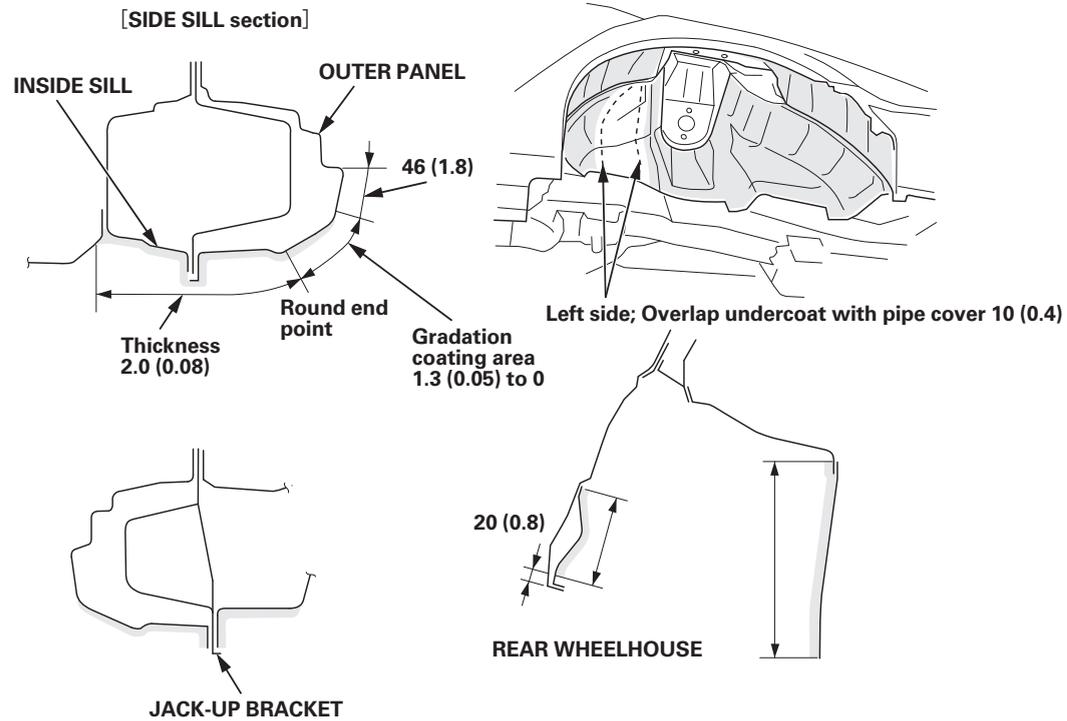
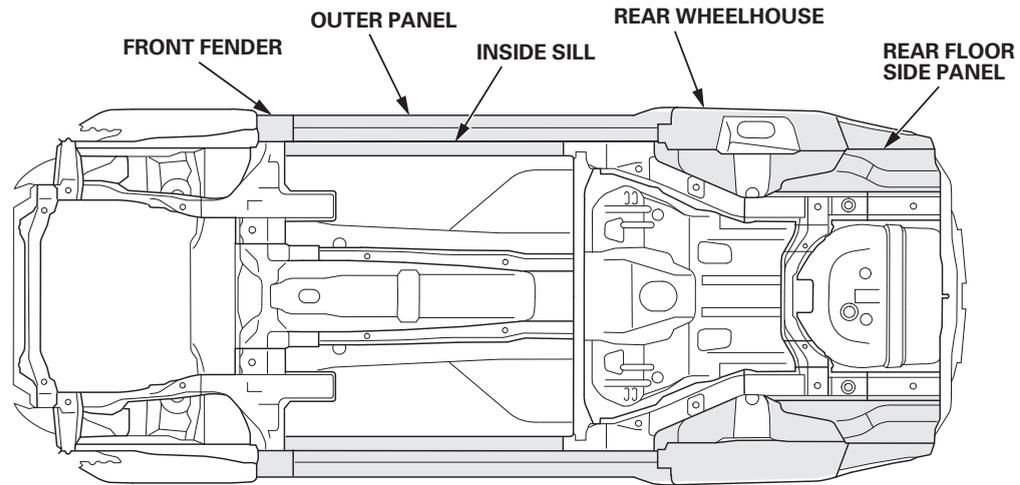
Undercoating Diagram (cont'd)

2. Spray the soundproof coating to the areas shown.

NOTE: Coating thickness: 2.0 mm (0.08 in.) MIN.

 : indicates soundproof coat coating area.

Unit: mm (in.)



Areas to be Covered by Internal Anti-Rust Agents

 : indicates anti-rust agents.

