# SECTION BRM
# BODY REPAIR

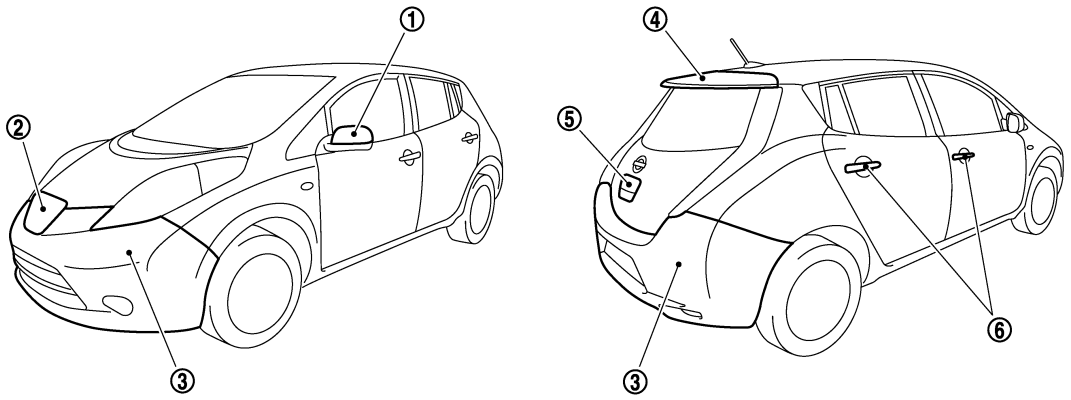
## CONTENTS

# VEHICLE INFORMATION

## BODY EXTERIOR PAINT COLOR

### Body Exterior Paint Color

INFOID:0000000006956121




JSKIA2267ZZ

| Component | | Color code | BKH3 | BK23 | BNAH | BQX1 | BRAT |
|---|---|---|---|---|---|---|---|
| | | Description | Black | Silver | Red | White | Blue |
| | | Paint type [Note] | 2S | M | PM | 3P | 3PM |
| | | Hard clear coat | × | – | × | – | – |
| 1 | Outside mirror cover | Body color | BKH3 | BK23 | BNAH | BQX1 | BRAT |
| 2 | Charge port lid | Body color | BKH3 | BK23 | BNAH | BQX1 | BRAT |
| 3 | Bumper fascia | Body color | BKH3 | BK23 | BNAH | BQX1 | BRAT |
| 4 | Rear spoiler | Body color | BKH3 | BK23 | BNAH | BQX1 | BRAT |
| 5 | Back door handle | Body color | BKH3 | BK23 | BNAH | BQX1 | BRAT |
| 6 | Door outside handle | Chromium plate | Cr | Cr | Cr | Cr | Cr |

**NOTE:**

- S: Solid
- 2S: Solid + Clear
- CS: Color clear solid
- M: Metallic
- P: 2-Coat pearl
- 3P: 3-Coat pearl
- 3PM: 3-Coat pearl metallic
- FPM: Iron oxide pearl
- RPM: Multi flex color
- TM: Micro titanium metallic
- PM: Pearl metallic

# PRECAUTION

## PRECAUTIONS

### High Voltage Precautions

INFOID:0000000006956122

**WARNING:**

- **Because hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.**
- **Be sure to remove the service plug in order to shut off the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **Be sure to put the removed service plug in your pocket and carry it with you so that another person does not accidentally connect it while work is in progress.**
- **Be sure to wear insulating protective equipment consisting of glove, shoes and face shield before beginning work on the high voltage system.**
- **Clearly identify the persons responsible for high voltage work and ensure that other persons do not touch the vehicle. When not working, cover high voltage parts with an insulating cover sheet or similar item to prevent other persons from contacting them.**

**CAUTION:**

**There is the possibility of a malfunction occurring if the vehicle is changed to READY status while the service plug is removed. Therefore do not change the vehicle to READY status unless instructed to do so in the Service Manual.**

#### HIGH VOLTAGE HARNESS AND EQUIPMENT IDENTIFICATION

The colors of the high voltage harnesses and connectors are all orange. Orange "High Voltage" labels are applied to the Li-ion battery and other high voltage devices. Do not carelessly touch these harnesses and parts.

#### HANDLING OF HIGH VOLTAGE HARNESS AND TERMINALS

Immediately insulate disconnected high voltage connectors and terminals with insulating tape.

#### REGULATIONS ON WORKERS WITH MEDICAL ELECTRONICS

**WARNING:**

**The vehicle contains parts that contain powerful magnets. If a person who is wearing a pacemaker or other medical device is close to these parts, the medical device may be affected by the magnets. Such persons must not perform work on the vehicle.**

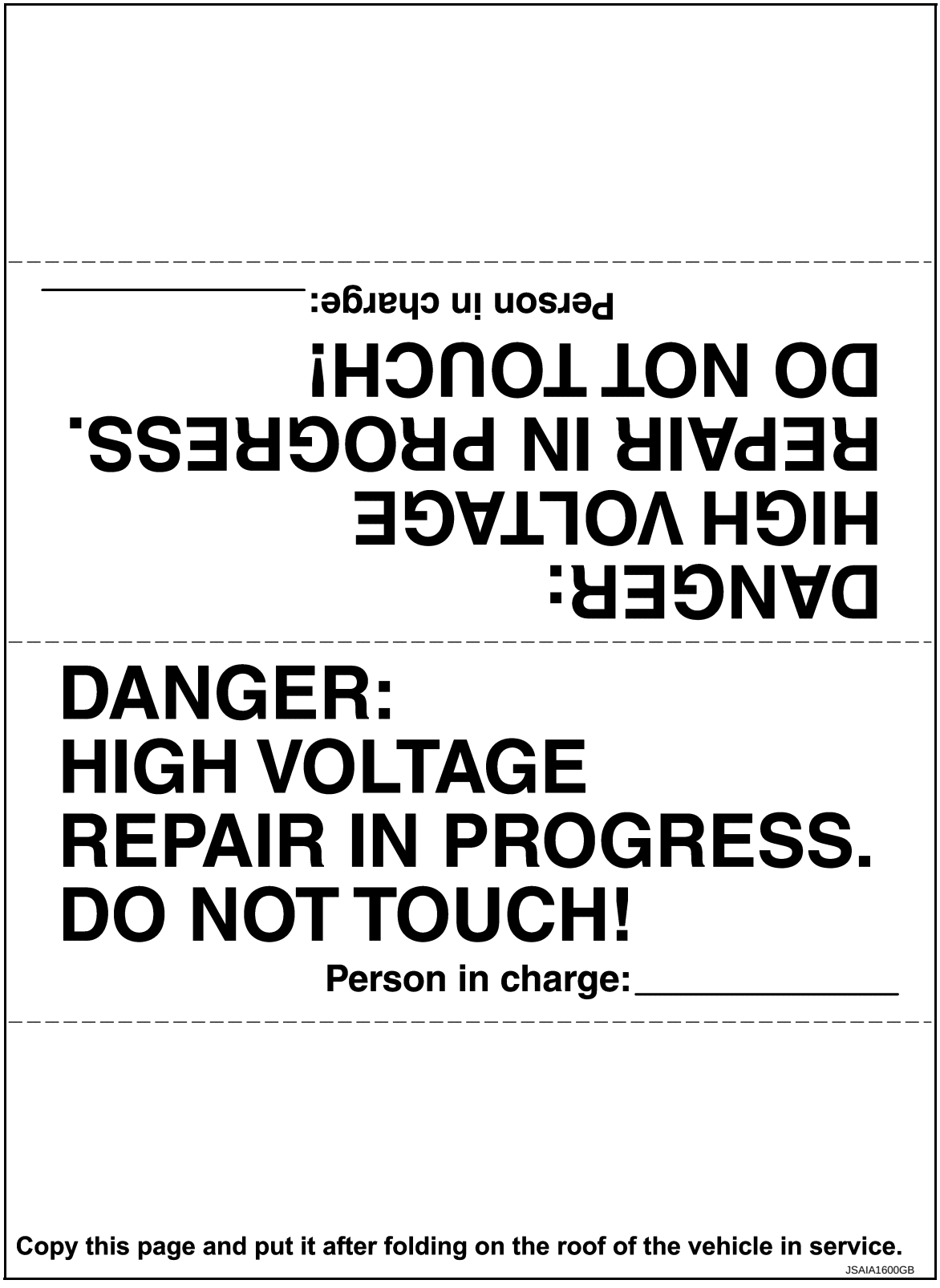
#### PROHIBITED ITEMS TO CARRY DURING THE WORK

Because this vehicle uses components that contain high voltage and powerful magnetism, due not carry any metal products which may cause short circuits, or any magnetic media (cash cards, prepaid cards, etc.) which may be damaged on your person when working.

#### POSTING A SIGN OF “DANGER! HIGH VOLTAGE AREA. KEEP OUT”

< PRECAUTION >

To call the attention of other workers, indicate "High voltage work in progress. Do not touch!" on vehicles where work is being performed on the high voltage systems.



# REPAIRING HIGH STRENGTH STEEL

## High Strength Steel (HSS)

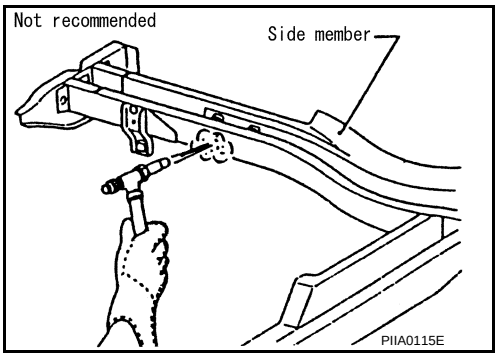
INFOID:0000000006956123

High strength steel is used for body panels in order to reduce vehicle weight.
Accordingly, precautions in repairing automotive bodies made of high strength steel are described below:

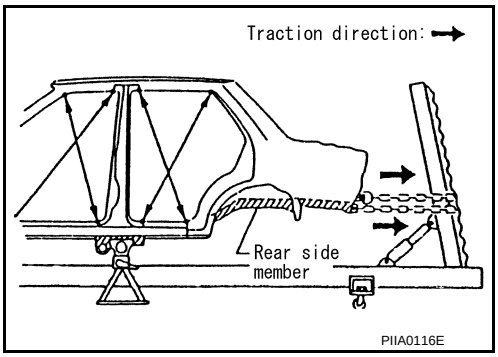
| Tensile strength | Major applicable parts |
|---|---|
| 440 - 780 MPa | • Rear side member closing plate<br>• Trans control reinforcement (Center front floor component part)<br>• Rear side member front extension (Front floor component part)<br>• Front floor front (Front floor component part)<br>• 2nd crossmember (Front floor component part)<br>• 3rd crossmember (Front floor component part)<br>• Inner sill reinforcement (Inner sill component part)<br>• Side dash<br>• Front suspension spring support (Front strut housing component part)<br>• Front side member front assembly<br>• Front side member assembly<br>• Front side member closing plate assembly<br>• Rear seat crossmember<br>• Rear crossmember center assembly<br>• Rear side member<br>• Rear side member extension reinforcement assembly<br>• Rear side member extension<br>• Inner side roof rail<br>• Upper inner front pillar<br>• Front pillar brace<br>• Lower center pillar brace<br>• Outer sill reinforcement<br>• Inner rear pillar reinforcement<br>• Lower rear panel reinforcement (Upper rear panel component part)<br>• Front roof rail (Lower) (Front roof rail component part)<br>• Roof member reinforcement (Center roof reinforcement component part) |
| 980 MPa | • Front side member center extension (Front floor component part)<br>• Front side member rear extension (Front floor component part)<br>• Inner sill<br>• Inner front sill reinforcement (Upper & Lower) (Inner sill component part)<br>• Lower dash crossmember (Upper RH & LH) (Lower dash component part)<br>• Lower dash crossmember (Lower)<br>• Center pillar seat belt anchor (Inner center pillar assembly component part)<br>• Inner center pillar assembly (Upper side)<br>• Outer side roof rail reinforcement<br>• Center pillar reinforcement (Lower center pillar brace component part)<br>• Front roof rail reinforcement (Front roof rail component part) |

Read the following precautions when repairing HSS:

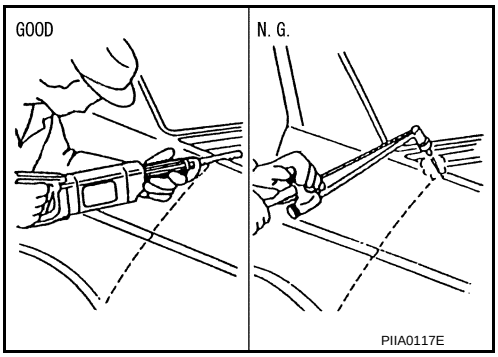
1. Additional points to consider
   - The repair of reinforcements (such as side members) by heating is not recommended, because it may weaken the component. When heating is unavoidable, never heat HSS parts above 550°C (1,022°F).
     Verify heating temperature with a thermometer.
     (Crayon-type and other similar type thermometer are appropriate.)



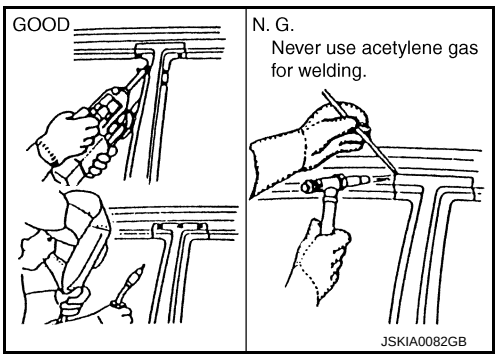

   - When straightening body panels, use caution in pulling any HSS panel. Because HSS is very strong, pulling may cause deformation in adjacent sections of the body. In this case, increase the number of measuring points, and carefully pull the HSS panel.



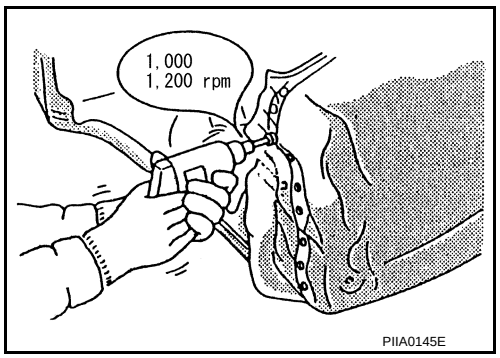

   - When cutting HSS panels, avoid gas (torch) cutting if possible. Instead, use a saw to avoid weakening surrounding areas due to heat. If gas (torch) cutting is unavoidable, allow a minimum margin of 50 mm (1.97in).



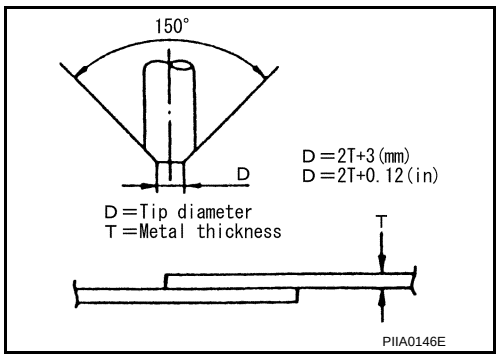

   - When welding HSS panels, use spot welding whenever possible in order to minimize weakening surrounding areas due to heat.
     If spot welding is impossible, use MIG. welding. Do not use gas (torch) for welding because it is inferior in welding strength.



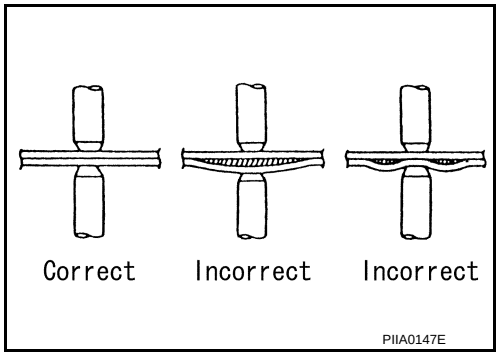
- Spot welding on HSS panels is harder than that of an ordinary steel panel.
  Therefore, when cutting spot welds on a HSS panel, use a low speed high torque drill (1,000 to 1,200 rpm) to increase drill bit durability and facilitate the operation.




2. Precautions in spot welding HSS
   This work should be performed under standard working conditions. Always note the following when spot welding HSS:
   - The electrode tip diameter must be sized properly according to the metal thickness.



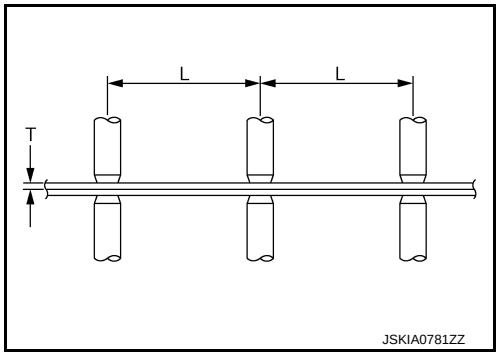

   - The panel surfaces must fit flush to each other, leaving no gaps.




   - Follow the specifications for the proper welding pitch.

Unit: mm (in)

| Thickness (T) | Minimum pitch (L) |
|---|---|
| 0.6 (0.024) | 10 (0.39) or more |
| 0.8 (0.031) | 12 (0.47) or more |
| 1.0 (0.039) | 18 (0.71) or more |
| 1.2 (0.047) | 20 (0.79) or more |
| 1.6 (0.063) | 27 (1.06) or more |
| 1.8 (0.071) | 31 (1.22) or more |




## Handling of Ultra High Strength Steel Plate Parts

INFOID:0000000006956124

### PROHIBITION OF CUT AND CONNECTION

Never cut and Joint the stiffener front side member (front floor inside frame parts) because its material is high strength steel plate (ultra high strength steel plate).
The front floor assembly must be replaced if this part is damaged.

# PAINTING BOOTH

## Criteria for Battery Removal When Drying Painting

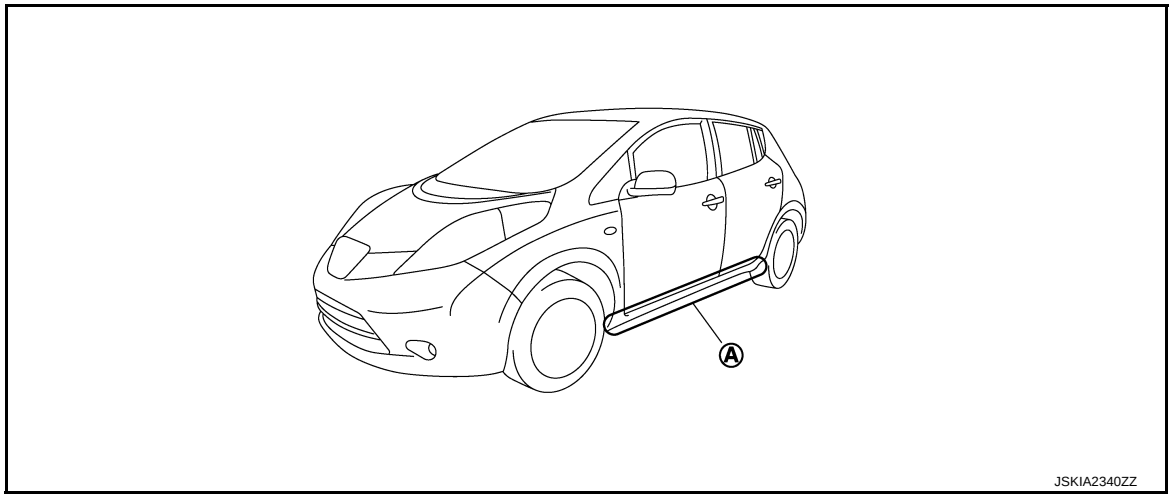
INFOID:0000000006956125

To use painting booth, maintain outer sill (A) temperature at 60°C (140°F) or less to prevent deterioration in li-ion battery.

**NOTE:**

- Measure the temperature with a noncontact thermometer.
- If a sill cover (resin) is included, remove the sill cover to measure the temperature.

If outer sill (A) temperature is more than 60°C (140°F), remove li-ion battery beforehand and place in the painting booth.




A. Outer sill temperature measurement part

# PROTECTION OF VEHICLE

## Protection of Vehicle

INFOID:0000000006956126

The seats, glass, and carpet must be removed or covered with appropriate material (spatter cover), according to the type of work to be done, to prevent contamination and welding spatter.
In addition, when cutting the vehicle in an area close to high voltage parts or performing a welding operation, the high voltage parts must be covered with a heat-resistant insulating cover (spatter cover).

# PREPARATION

## REPAIRING MATERIAL

### Foam Repair

INFOID:0000000006956127

During factory body assembly, foam insulators are installed in certain body panels and locations around the vehicle. Use the following procedure(s) to replace any factory-installed foam insulators.

URETHANE FOAM APPLICATIONS

Use commercially available Urethane foam for sealant (foam material) repair of material used on vehicle.

**<Urethane foam for foaming agent>** **3M™ Automix™ Flexible Foam 08463 or equivalent**

Read instructions on product for fill procedures.

Example of foaming agent filling operation procedure

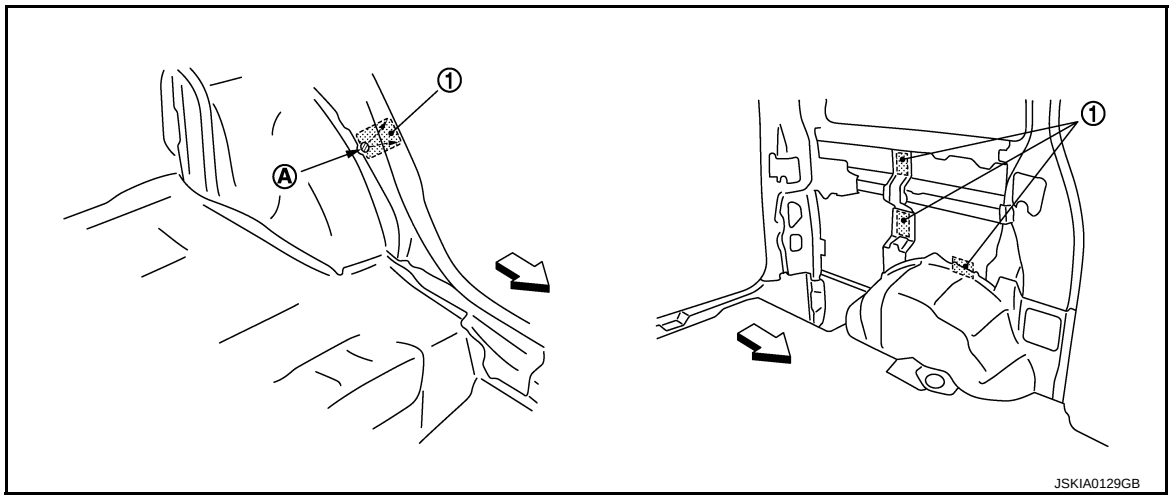
1. Fill procedures after installation of service part.

a. Eliminate foam material remaining on vehicle side.

b. Clean area after eliminating form insulator and foam material.

c. Install service part.

d. Insert nozzle into hole near fill area and fill foam material or fill enough to close gap with the service part.




1. Urethane foam

A. Nozzle insert hole

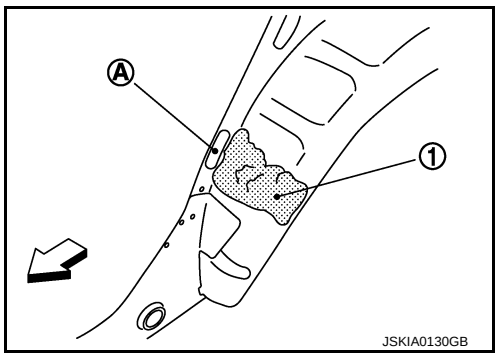
⇦: Vehicle front

2. Fill procedures before installation of service part.

a. Eliminate foam material remaining on vehicle side.

b. Clean area after eliminating foam insulator and foam material.

c. Fill foam material on wheelhouse outer side.




1. Urethane foam
A. Fill while avoiding flange area

⇦: Vehicle front

**NOTE:**
Fill enough to close gap with service part while avoiding flange area.

d. Install service part.

**NOTE:**
Refer to label for information on working times.

# BODY COMPONENT PARTS

## Underbody Component Parts

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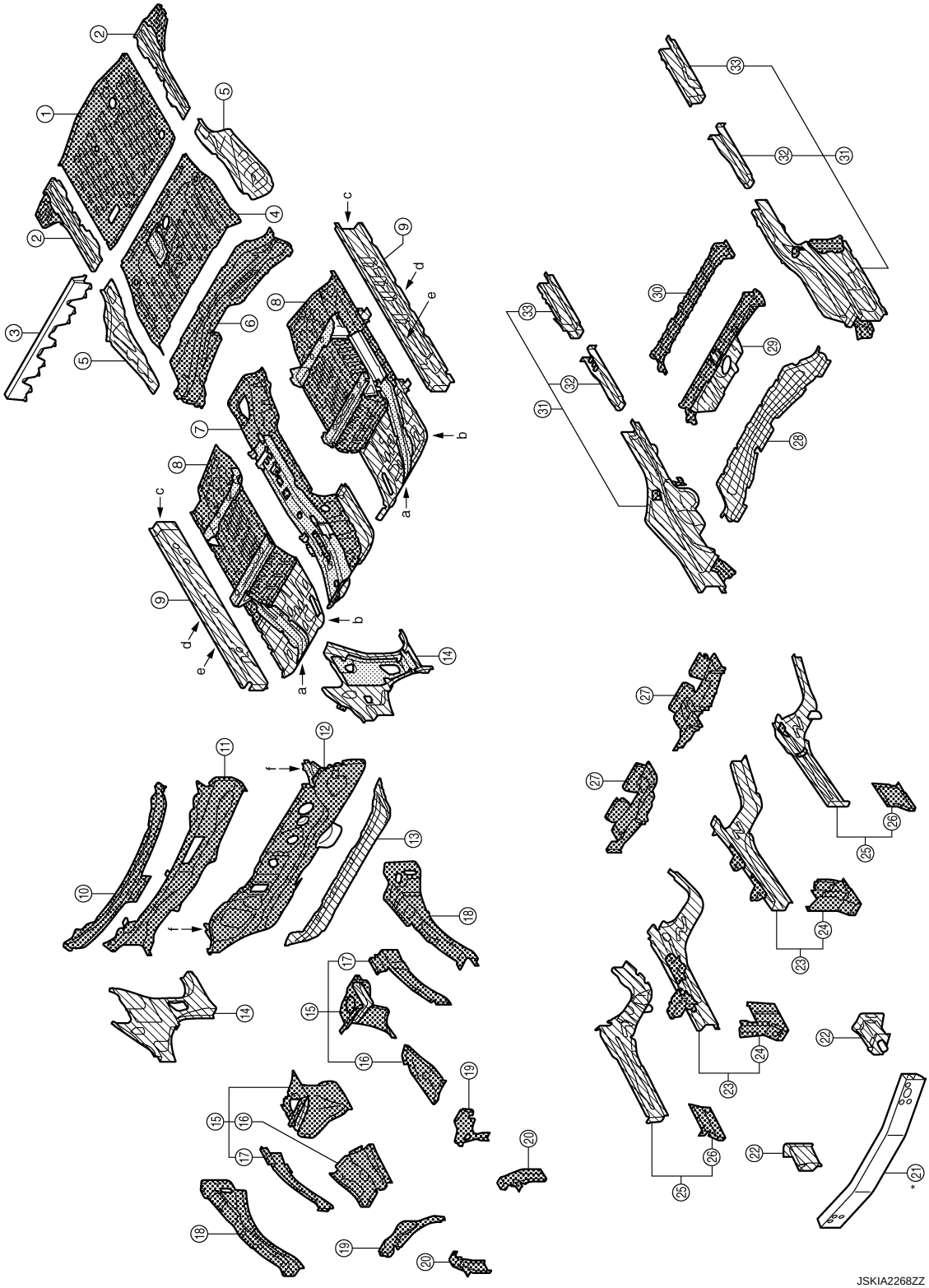

: Both sided anti-corrosive precoated steel sections
: High strength steel (HSS) sections
: Both sided anti-corrosive steel and HSS sections
*: Aluminum portion

| No. | Parts name | | | Tensile strength (MPa) | Both sided anti-corrosive precoated steel sections | Aluminum portion |
|---|---|---|---|---|---|---|
| 1. | Rear floor rear | | | Under 440 | × | — |
| 2. | Rear floor rear side (RH & LH) | | | 590 | × | — |
| 3. | Upper seat crossmember assembly | | | Under 440 | — | — |
| 4. | Rear floor front | | | 440 | × | — |
| 5. | Rear side member closing plate (RH & LH) | | | 590 | × | — |
| 6. | Rear floor front extension | | | Under 440 | × | — |
| 7. | Center front floor | | | 440 | × | — |
| 8. | Front floor (RH & LH) | a. | T=1.8 mm (0.071 in) | 980[caution] | × | — |
| | | b. | T=1.8 mm (0.071 in) | 980[caution] | | |
| 9. | Inner sill (RH & LH) | c. | T=1.4 mm (0.055 in) | 980[caution] | × | — |
| | | d. | T=2.0 mm (0.079 in) | 980[caution] | | |
| | | e. | T=1.6 mm (0.063 in) | 980[caution] | | |
| 10. | Cowl top | | | Under 440 | × | — |
| 11. | Upper dash | | | Under 440 | × | — |
| 12. | Lower dash | f. | T=1.4 mm (0.055 in) | 980[caution] | × | — |
| 13. | Lower dash crossmember | | T=2.0 mm (0.079 in) | 980[caution] | × | — |
| 14. | Side dash (RH & LH) | | | 590 | × | — |
| 15. | Front strut housing (RH & LH) | | | 590 | × | — |
| 16. | Lower front hoodledge (RH & LH) | | | Under 440 | × | — |
| 17. | Upper hoodledge (RH & LH) | | | Under 440 | × | — |
| 18. | Hoodledge reinforcement (RH & LH) | | | Under 440 | × | — |
| 19. | Hoodledge connector (RH & LH) | | | Under 440 | × | — |
| 20. | Side radiator core support (RH & LH) | | | Under 440 | × | — |
| 21. | Inner center front bumper reinforcement | | | — | — | × |
| 22. | Front side member front assembly (RH & LH) | | | 590 | × | — |
| 23. | Front side member assembly (RH & LH) | | | 780 | × | — |
| 24. | Front suspension mounting bracket (RH & LH Front) | | | 590 | × | — |
| 25. | Front side member closing plate assembly (RH & LH) | | | 780 | × | — |
| 26. | Outer add on frame bracket (RH & LH) | | | Under 440 | × | — |
| 27. | Front suspension mounting bracket (RH & LH Rear) | | | Under 440 | × | — |
| 28. | Rear seat crossmember | | | 440 | × | — |
| 29. | Rear crossmember center assembly | | | 440 | × | — |
| 30. | 7th crossmember | | | Under 440 | × | — |

| No. | Parts name | Tensile strength (MPa) | Both sided anti-corrosive precoated steel sections | Aluminum portion |
|---|---|---|---|---|
| 31. | Rear side member (RH & LH) | 780 | × | — |
| 32. | Rear side member extension reinforcement assembly (RH & LH) | 440 | × | — |
| 33. | Rear side member extension (RH & LH) | 590 | × | — |

**NOTE:**

- For the parts without a number described in the figure, it is supplied only with the assembly part that the part is included with.
- Tensile strength column shows the largest strength value of a part in the component part.

**CAUTION:**

**If the high strength steel (ultra high strength steel) of this is broken, replace by assembly for the supply part.**

## Body Component Parts

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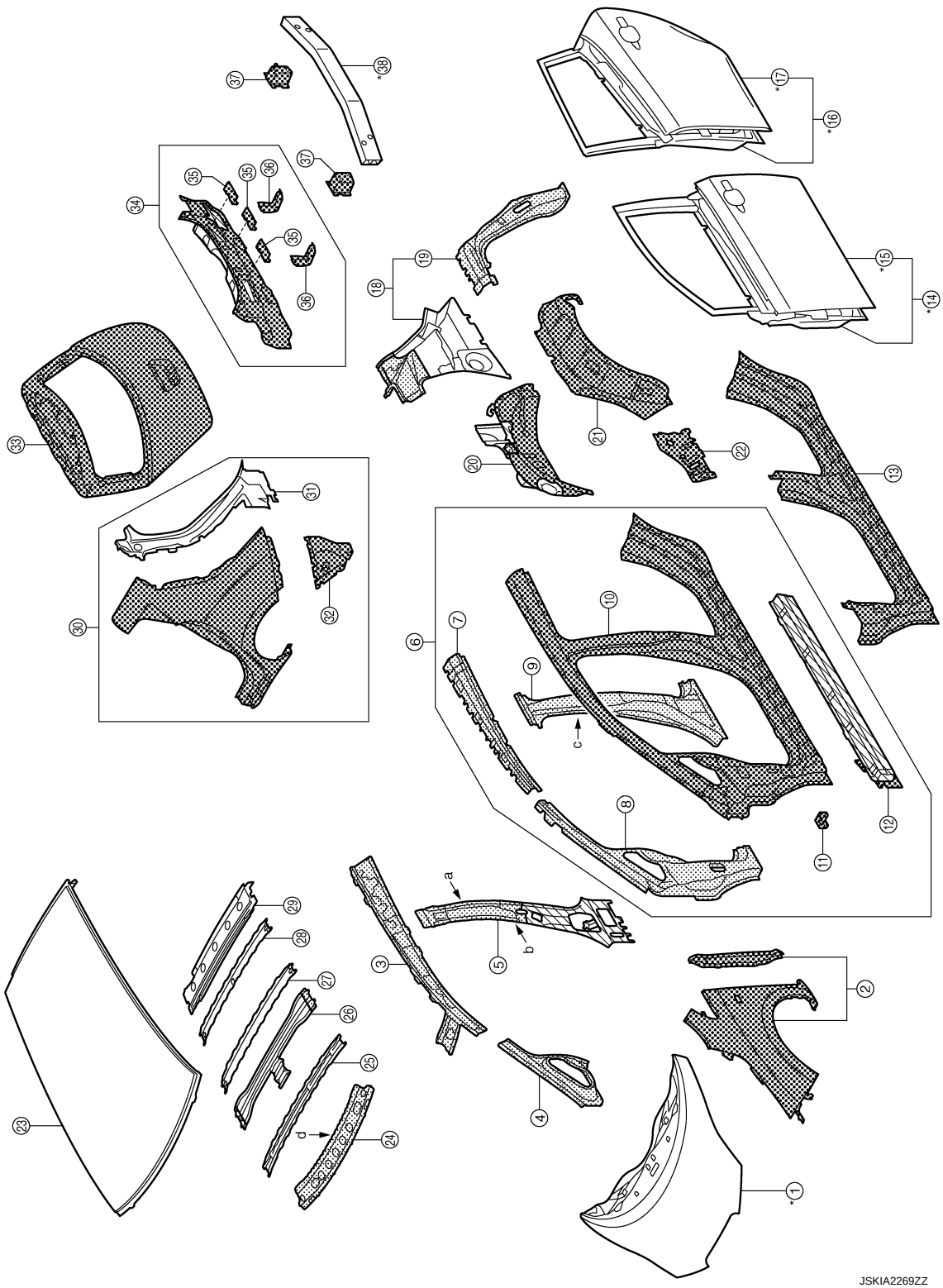



: Both sided anti-corrosive precoated steel sections
: High strength steel (HSS) sections
: Both sided anti-corrosive steel and HSS sections
*: Aluminum portion

| No. | Parts name | | | Tensile strength (MPa) | Both sided anti-corrosive precoated steel sections | Aluminum portion |
|---|---|---|---|---|---|---|
| 1. | Hood | | | — | — | × |
| 2. | Front fender (RH & LH) | | | Under 440 | × | — |
| 3. | Inner side roof rail (RH & LH) | | | 780 | — | — |
| 4. | Upper inner front pillar (RH & LH) | | | 780 | — | — |
| 5. | Inner center pillar assembly (RH & LH) | a. | T=1.6 mm (0.063 in) | 980[caution] | — | — |
| | | b. | T=1.4 mm (0.055 in) | 980[caution] | — | — |
| 6. | Side body assembly (RH & LH) | | | Refer to No.7–12 | | |
| 7. | Outer side roof rail reinforcement (RH & LH) | | T=1.4 mm (0.055 in) | 980[caution] | — | — |
| 8. | Front pillar brace (RH & LH) | | | 590 | — | — |
| 9. | Lower center pillar brace (RH & LH) | c. | T=1.2 mm (0.047 in) | 980[caution] | — | — |
| 10. | Outer front side body (RH & LH) | | | Under 440 | × | — |
| 11. | Front fender bracket assembly (RH & LH) | | | Under 440 | × | — |
| 12. | Outer sill reinforcement (RH & LH) | | | 780 | × | — |
| 13. | Outer sill (RH & LH) | | | Under 440 | × | — |
| 14. | Front door (RH & LH) | | | — | — | × |
| 15. | Outer front door panel (RH & LH) | | | — | — | × |
| 16. | Rear door (RH & LH) | | | — | — | × |
| 17. | Outer rear door panel (RH & LH) | | | — | — | × |
| 18. | Inner rear pillar (RH & LH) | | | 440 | — | — |
| 19. | Inner rear pillar reinforcement (RH & LH) | | | 440 | — | — |
| 20. | Inner rear wheelhouse (RH & LH) | | | 590 | × | — |
| 21. | Outer rear wheelhouse (RH & LH) | | | Under 440 | × | — |
| 22. | Outer rear wheelhouse extension (RH & LH) | | | Under 440 | × | — |
| 23. | Roof | | | Under 440 | — | — |
| 24. | Front roof rail | d. | T=1.0 mm (0.039 in) | 980[caution] | — | — |
| 25. | Roof bow No.1 | | | Under 440 | — | — |
| 26. | Center roof reinforcement | | | 590 | — | — |
| 27. | Roof bow No.3 | | | Under 440 | — | — |
| 28. | Roof bow No.4 | | | Under 440 | — | — |
| 29. | Rear roof rail | | | Under 440 | — | — |
| 30. | Rear fender (RH & LH) | | | Under 440 | × | — |
| 31. | Rear fender extension (RH & LH) | | | Under 440 | — | — |
| 32. | Rear fender corner (RH & LH) | | | Under 440 | × | — |
| 33. | Back door | | | Under 440 | × | — |
| 34. | Upper rear panel | | | 440 | × | — |
| 35. | Upper rear bumper retainer | | | Under 440 | × | — |
| 36. | Rear side bumper bracket | | | Under 440 | × | — |

| No. | Parts name | Tensile strength (MPa) | Both sided anti-corrosive precoated steel sections | Aluminum portion |
|---|---|---|---|---|
| 37. | Rear bumper stay (RH & LH) | Under 440 | × | — |
| 38. | Inner center rear bumper reinforcement | — | — | × |

**NOTE:**

- For the parts without a number described in the figure, it is supplied only with the assembly part that the part is included with.
- Tensile strength column shows the largest strength value of a part in the component part.

**CAUTION:**

**If the high strength steel (ultra high strength steel) of this is broken, replace by assembly for the supply part.**

# BASIC INSPECTION

## REPAIR WORK FLOW

### Repair Judgment Flow

INFOID:0000000006956130

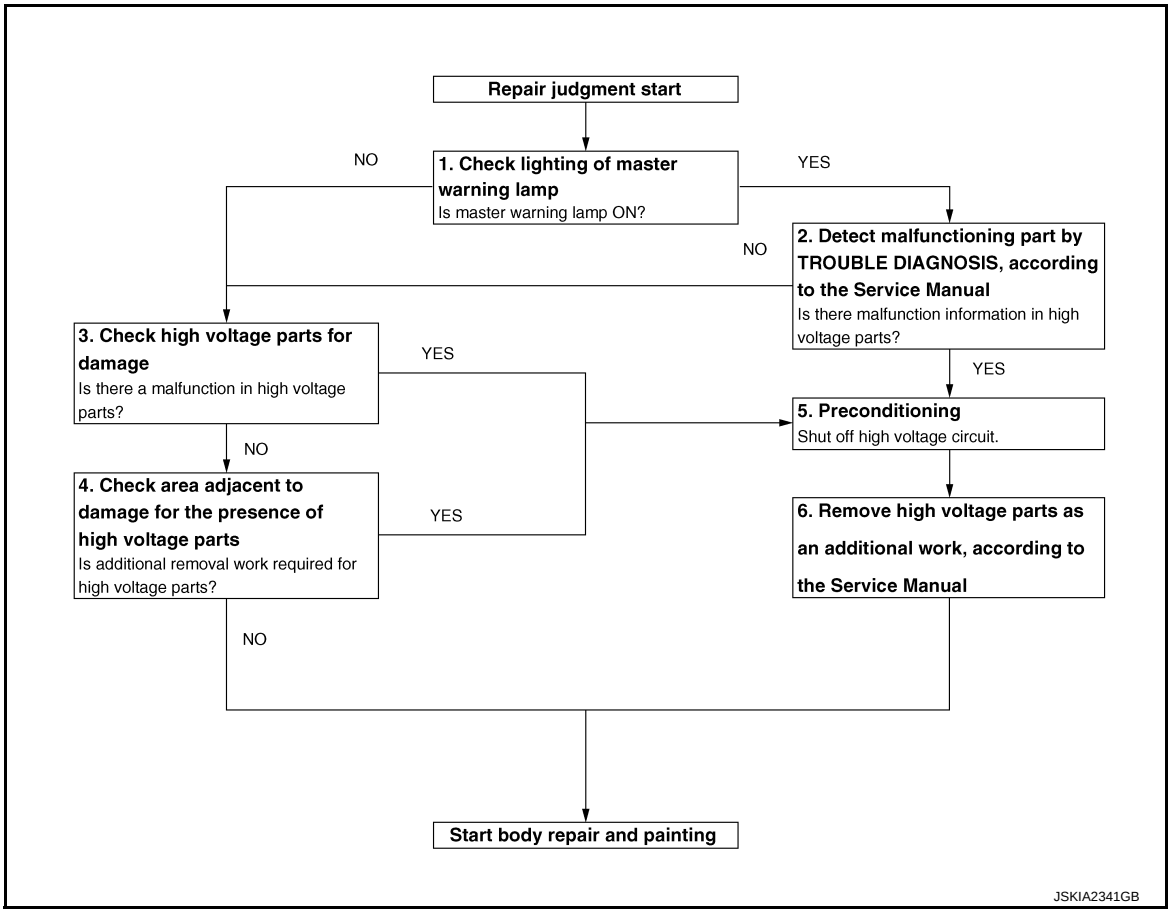
**WARNING:**

- **Because hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.**
- **Be sure to remove the service plug in order to shut off the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **Be sure to put the removed service plug in your pocket and carry it with you so that another person does not accidentally connect it while work is in progress.**
- **Be sure to wear insulating protective gear consisting of glove, shoes and glasses/face shield before beginning work on the high voltage system.**
- **Clearly identify the persons responsible for high voltage work and ensure that other persons do not touch the vehicle. When not working, cover high voltage parts with an insulating cover sheet or similar item to prevent other persons from contacting them.**
- **Refer to BRM-3, "High Voltage Precautions".**

**CAUTION:**

**There is the possibility of a malfunction occurring if the vehicle is changed to READY status while the service plug is removed. Therefore do not change the vehicle to READY status unless instructed to do so in the Service Manual.**

OVERALL SEQUENCE




DETAILED FLOW

### 1. CHECK LIGHTING OF MASTER WARNING LAMP

Check that the master warning lamp is ON.

Is master warning lamp ON?

YES >> GO TO 2.
NO >> GO TO 3.

## 2. DETECT MALFUNCTIONING PART BY TROUBLE DIAGNOSIS, ACCORDING TO THE SERVICE MANUAL

Connect CONSULT to check malfunction information.

Is there malfunction information in high voltage parts?

YES >> GO TO 5.
NO >> GO TO 3.

## 3. CHECK HIGH VOLTAGE PARTS FOR DAMAGE

Visually check high voltage parts for damage.

**WARNING:**

**When performing high voltage-related work, always wear insulating protective gear.**

Is there a malfunction in high voltage parts?

YES >> GO TO 5.
NO >> GO TO 4.

## 4. CHECK AREA ADJACENT TO DAMAGE FOR THE PRESENCE OF HIGH VOLTAGE PARTS

Check high voltage parts requiring additional removal work.

Is additional removal work required for high voltage parts?

YES >> GO TO 5.
NO >> Start body repair and painting.

## 5. PRECONDITIONING

**WARNING:**

**Shut off high voltage circuit. Refer to GI-31, "How to Cut Off High Voltage".**

Check voltage in high voltage circuit. (Check that condenser are discharged.)

1. Disconnect high voltage connector from front side of Li-ion battery. Refer to EVB-136, "Removal and Installation".

   **DANGER:**

   **Always use protective gear as touching high voltage components without using them will cause electrocution. (where high voltage might remain/is present on terminals.)**

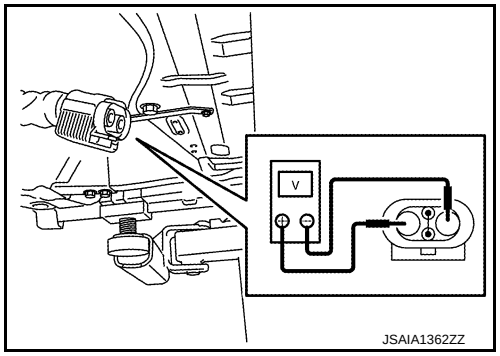
2. Measure voltage between high voltage harness terminals.

   **DANGER:**

   **Always use protective gear as touching high voltage components without using them will cause electrocution. (where high voltage might remain/is present on terminals.)**

   **Standard : 5 V or less**

   **CAUTION:**

   **For voltage measurements, use a tester which can measure to 500V or higher.**

>> GO TO 6.

## 6. REMOVE HIGH VOLTAGE PARTS AS AN ADDITIONAL WORK, ACCORDING TO THE SERVICE MANUAL

Remove high voltage parts as an additional work, according to the Service Manual.

**WARNING:**

**When performing high voltage-related work, always wear insulating protective gear.**

>> Start body repair and painting.

# REMOVAL AND INSTALLATION

## CORROSION PROTECTION

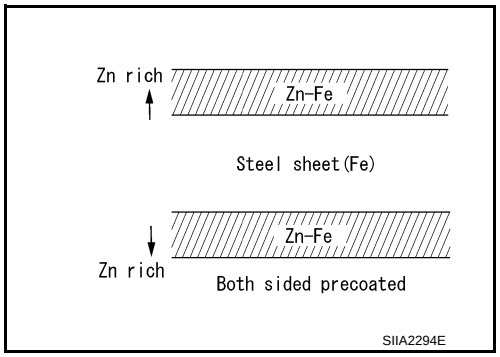
### Description

INFOID:0000000006956131

To provide improved corrosion prevention, the following anti-corrosive measures have been implemented in NISSAN production plants. When repairing or replacing body panels, it is necessary to use the same anti-corrosive measures.

#### ANTI-CORROSIVE PRECOATED STEEL (GALVANNEALED STEEL)

To improve repairability and corrosion resistance, a new type of anti-corrosive precoated steel sheet has been adopted replacing conventional zinc-coated steel sheet.
Galvannealed steel is electroplated and heated to form Zinc-iron alloy, which provides excellent and long term corrosion resistance with cationic electrodeposition primer.



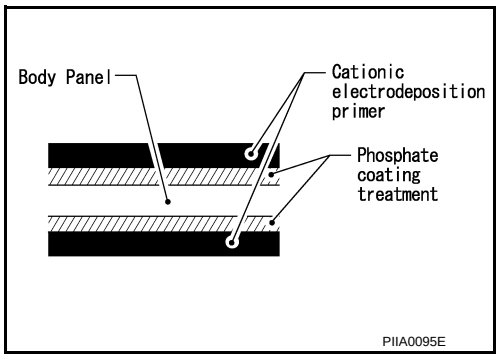

Nissan Genuine Service Parts are fabricated from galvannealed steel. Therefore, it is recommended that GENUINE NISSAN PARTS or equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

#### PHOSPHATE COATING TREATMENT AND CATIONIC ELECTRODEPOSITION PRIMER

A phosphate coating treatment and a cationic electrodeposition primer, which provide excellent corrosion protection, are employed on all body components.

**CAUTION:**

**Confine paint removal during welding operations to an absolute minimum.**




Nissan Genuine Service Parts are also treated in the same manner. Therefore, it is recommended that GENUINE NISSAN PARTS or an equivalent be used for panel replacement to maintain anti-corrosive performance built into the vehicle at the factory.

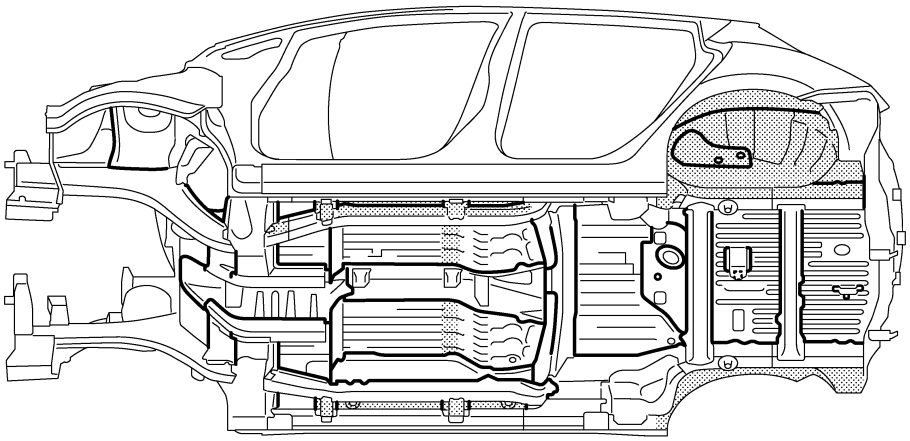
### Undercoating

INFOID:0000000006956132

The underside of the floor and wheelhouse are undercoated to prevent rust, vibration, noise and stone chipping. Therefore, when such a panel is replaced or repaired, apply undercoating to that part. Use an undercoating which is rust resistant, soundproof, vibration-proof, shock-resistant, adhesive, and durable.

#### PRECAUTIONS IN UNDERCOATING

1. Never apply undercoating to any place unless specified (such as the areas above the muffler and three-way catalyst that are subjected to heat).
2. Never undercoat the exhaust pipe or other parts that become hot.
3. Never undercoat rotating parts.
4. Apply bitumen wax after applying undercoating.
5. After putting seal on the vehicle, put undercoating on it.



JSKIA2446ZZ

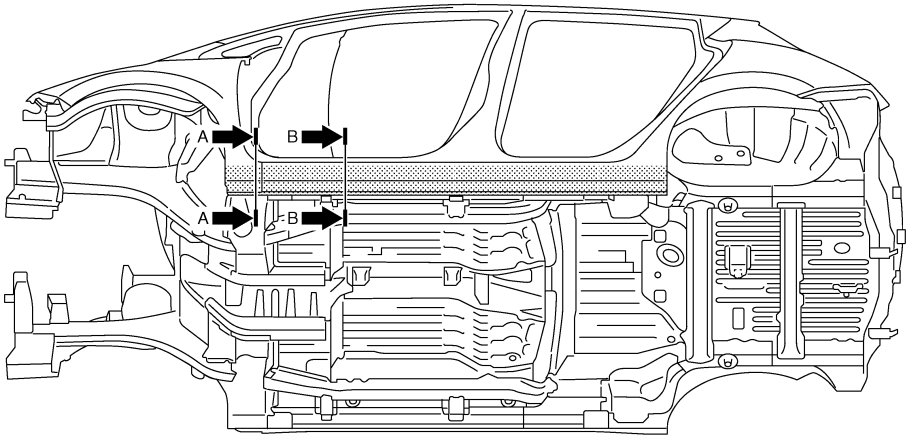
: Undercoated areas

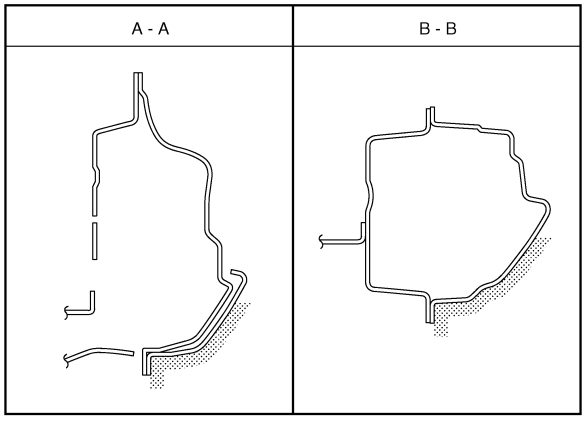
: Sealed portions

## Stone Guard Coat

INFOID:0000000006956133

To prevent damage caused by stones, the lower outer body panel (fender, door, etc.) have an additional layer of Stone Guard Coating over the ED primer coating. When replacing or repairing these panels, apply Stone Guard coating to the same portions as before. Use a coating which is rust preventive, durable, shock-resistant and has a long shelf life.



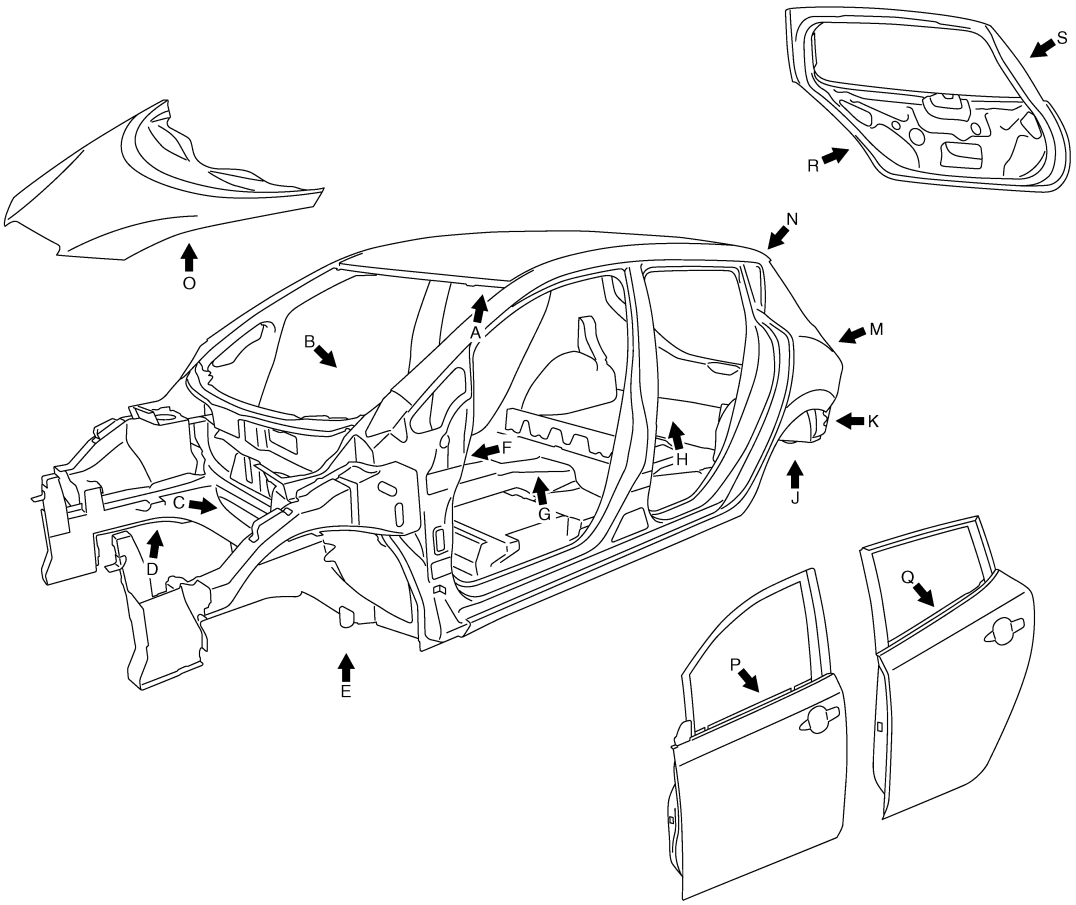

JSKIA2271ZZ

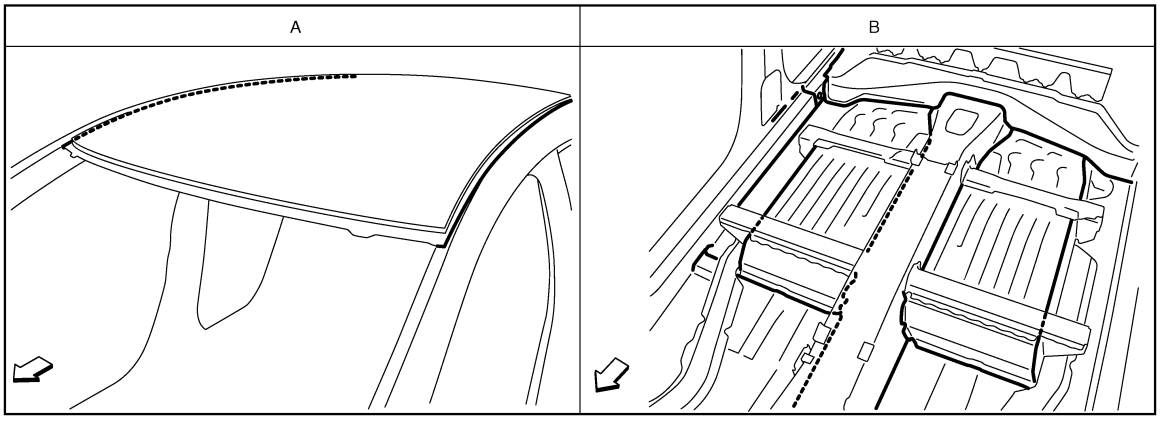
: Stone guard coated portions

## Body Sealing

INFOID:0000000006956134

The following figure shows the areas that are sealed at the factory. Sealant that is applied to these areas should be smooth and free from cuts or gaps. Care should be taken not to apply an excess amount of sealant and not to allow other unaffected parts to come into contact with the sealant.

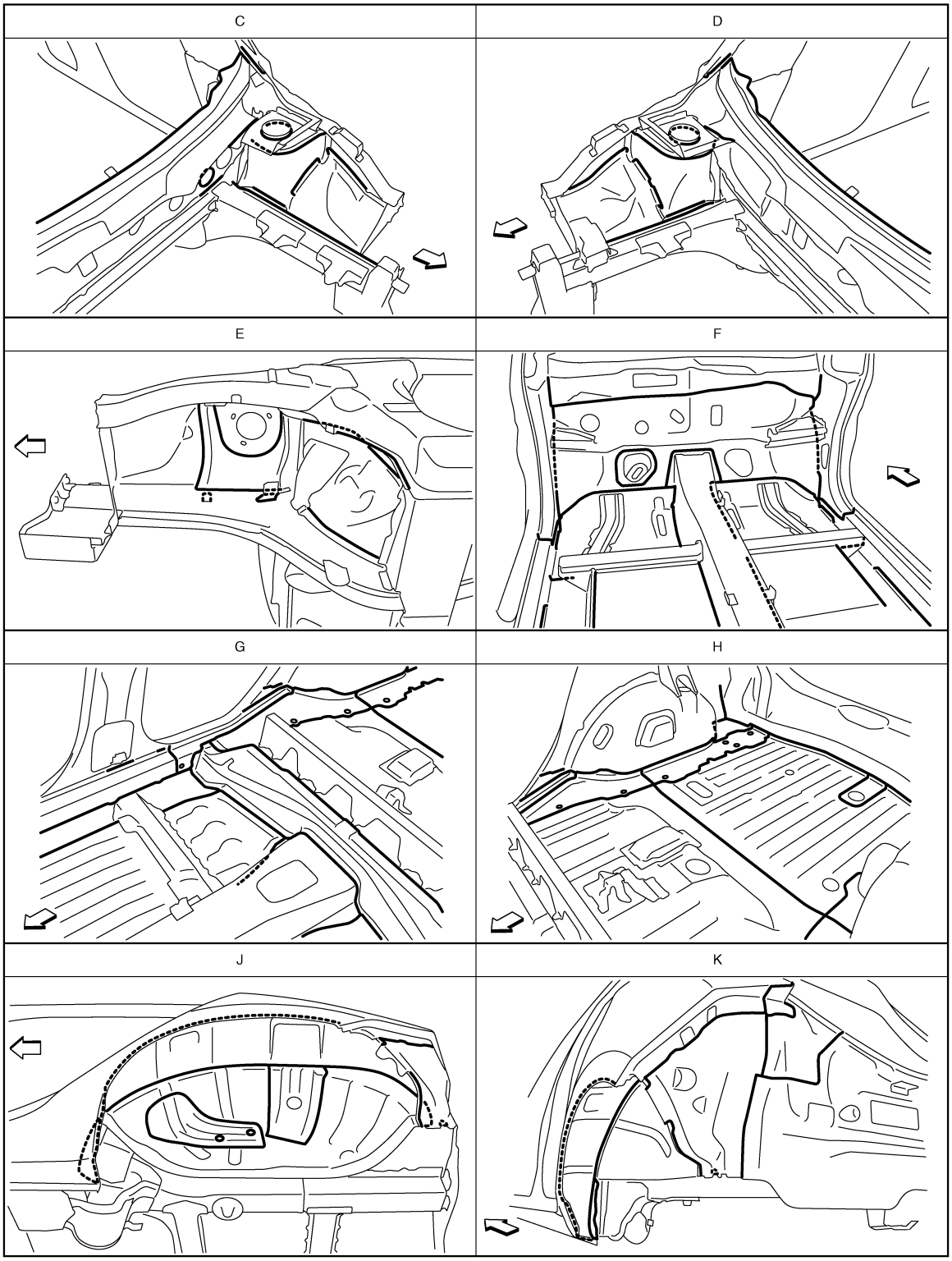



JSKIA2272ZZ

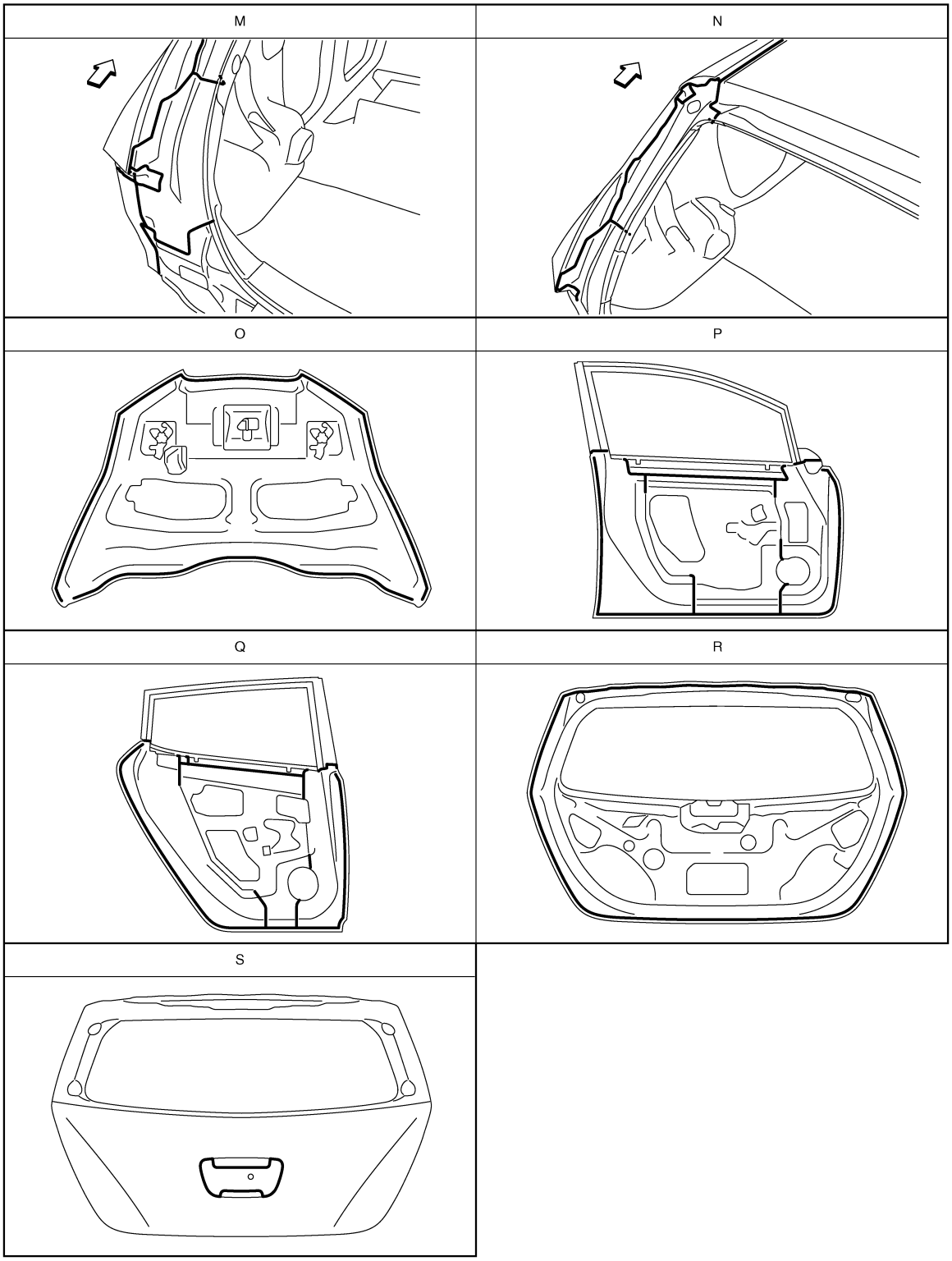
⇦: Vehicle front

▬: Sealed portions




JSKIA2273ZZ

⇦: Vehicle front
▬: Sealed portions




JSKIA2274ZZ

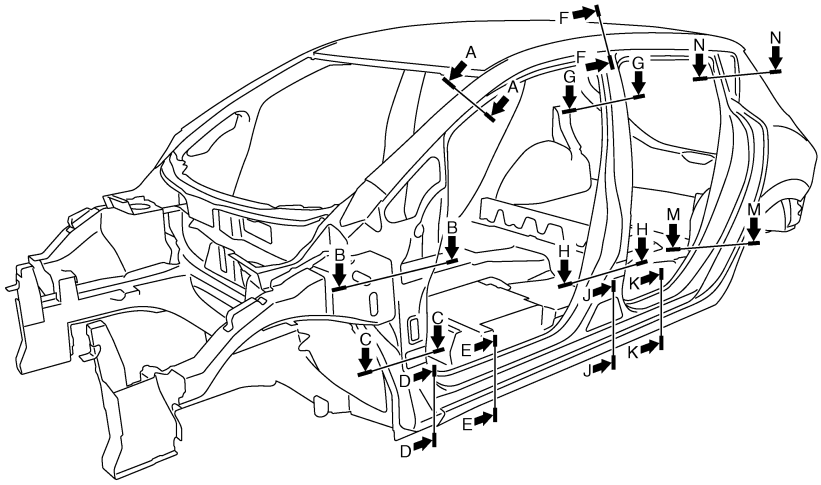
⇦: Vehicle front

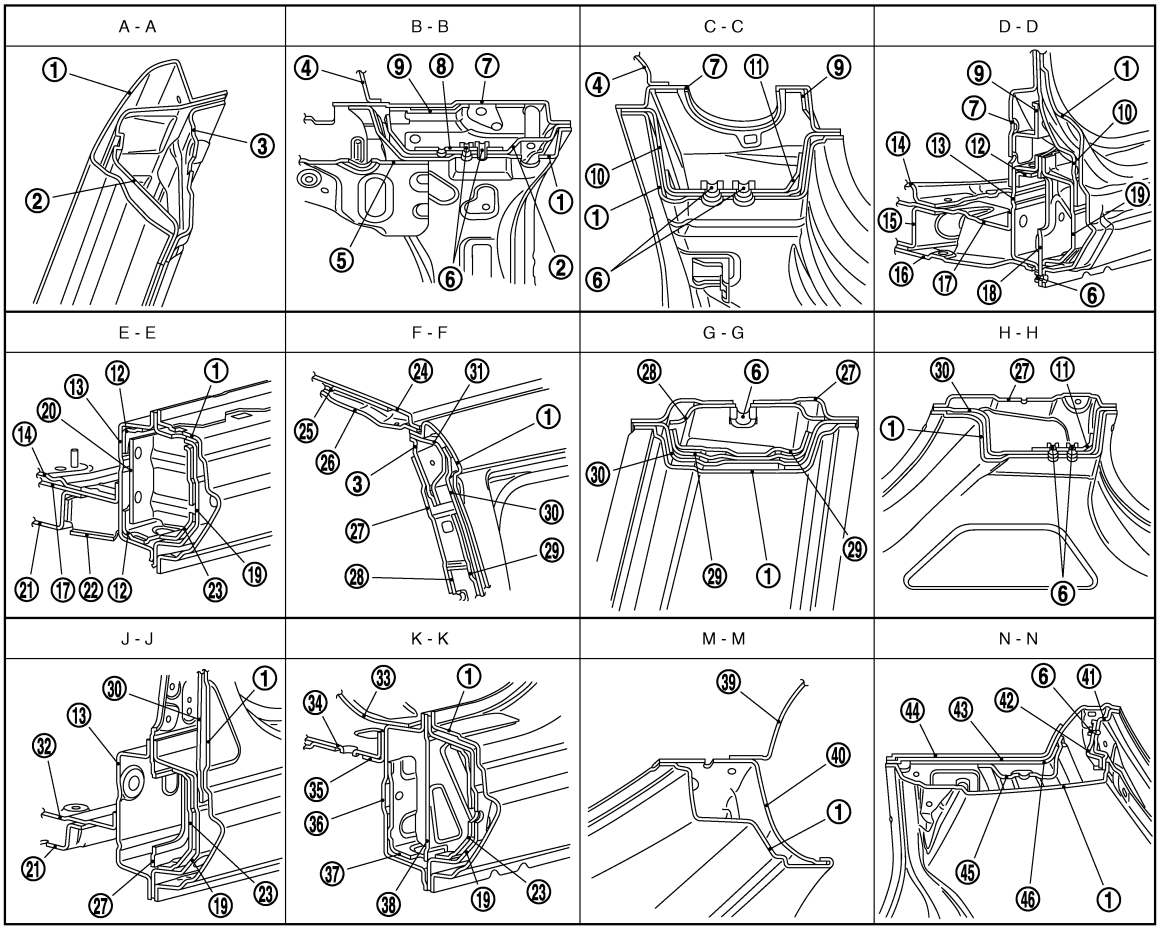
▬: Sealed portions

# BODY CONSTRUCTION

## Body Construction

INFOID:0000000006956135




JSKIA2275ZZ

1. Outer side body
2. Outer front pillar reinforcement
3. Inner front side roof rail
4. Upper dash
5. Hoodledge reinforcement
6. Weld nut
7. Side dash
8. Upper hinge plate
9. Inner front pillar reinforcement

10. Lower front pillar hinge brace
11. Lower hinge plate
12. Inner front sill reinforcement
13. Inner sill
14. Front side member center extension
15. Front side member closing plate
16. Front outrigger
17. Front floor front
18. Lower front pillar reinforcement
19. Outer sill reinforcement
20. Outer sill brace
21. Front side member rear extension
22. Floor member extension
23. Center sill reinforcement
24. Roof
25. Center roof reinforcement
26. Roof member reinforcement
27. Inner center pillar
28. Center pillar seat belt anchor
29. Center pillar reinforcement
30. Center pillar hinge brace
31. Outer side roof rail
32. Front floor side
33. Rear side member closing plate
34. Rear side member reinforcement
35. Rear side member
36. Inner sill extension
37. Inner rear sill reinforcement
38. Outer rear wheelhouse extension
39. Inner rear wheelhouse
40. Outer rear wheelhouse
41. Rear fender extension
42. Back door stay bracket
43. Inner rear pillar
44. Rear roof rail brace
45. Inner rear pillar reinforcement
46. Rear pillar seat belt anchor

## Rear Fender Hemming Process

INFOID:0000000006956136

1. A wheel arch is to be installed and hemmed over the left and right outer wheel houses.
2. In order to hem the wheel arch, it is necessary to repair any damaged or defaced parts around outer wheel house.

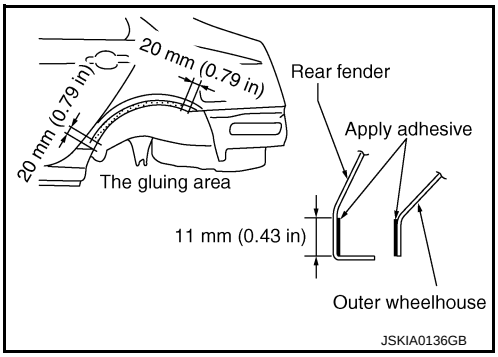
**CAUTION:**

**Ensure that the area that is to be glued around the outer wheelhouse is undamaged or defaced.**

### PROCEDURE OF THE HEMMING PROCESS

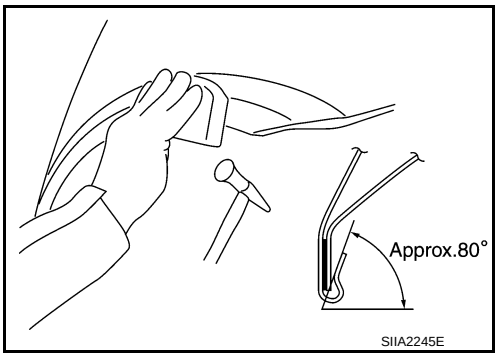
- Peel off old bonding material on the surface of the outer wheelhouse and clean thoroughly.
- Peel off a primer coat in the specified area where new adhesive is to be applied on rear fender (the replacing part).
- Apply new adhesive to both specified areas of the outer wheelhouse and rear fender.

**<Adhesive> 3M™ Automix™ Panel Bonding Adhesive 08115 or equivalent**

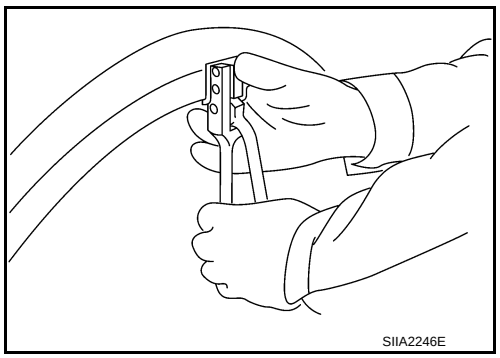



- Attach rear fender to the body of the car, and weld the required part except the hemming part.

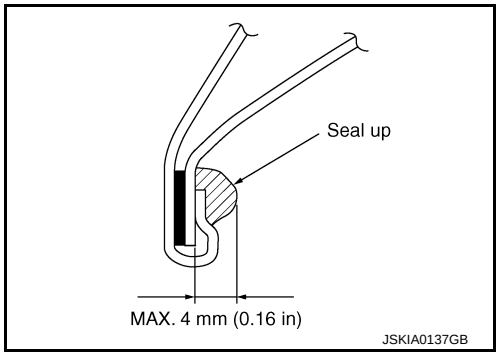
- Bend the welded part starting from the center of the wheel arch gradually with a hammer and a dolly. (Also hem the end of the flange.)
- Hemming with a hammer is conducted to an approximate angle of 80 degrees.



- Starting from the center, hem the wheel arch gradually, using slight back and forth motion with a hemming tool.




- Seal up the area around the hemmed end of the flange.



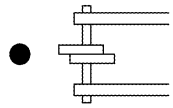
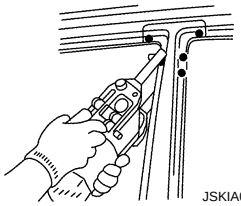
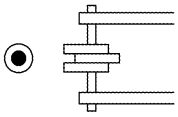
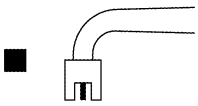
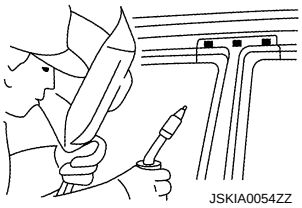
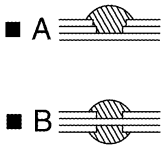
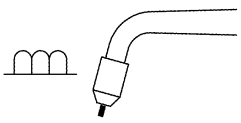
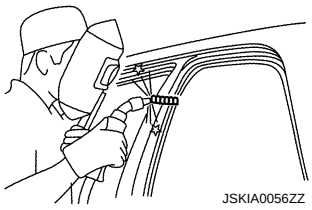
# REPLACEMENT OPERATIONS

## Description

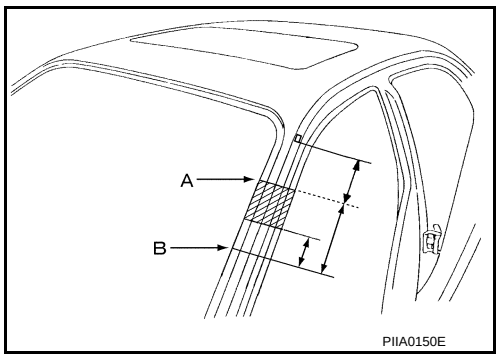
INFOID:0000000006956137

- This section is prepared for technicians who have attained a high level of skill and experience in repairing collision-damaged vehicles and also use modern service tools and equipment. Persons unfamiliar with body repair techniques should not attempt to repair collision-damaged vehicles by using this section.
- Technicians are also encouraged to read the Body Repair Manual (Fundamentals) in order to ensure that the original functions and quality of the vehicle are maintained. The Body Repair Manual (Fundamentals) contains additional information, including cautions and warnings, that are not including in this manual. Technicians should refer to both manuals to ensure proper repair.
- Please note that this information is prepared for worldwide usage, and as such, certain procedures might not apply in some regions or countries.

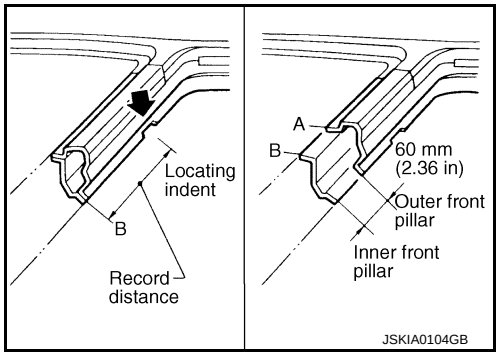
The symbols used in this section for welding operations are shown below.

<table>
<tr><th>Symbol marks</th><th colspan="2">Description</th></tr>
<tr><td>  <br>JSKIA0049ZZ</td><td>2-spot welds</td><td rowspan="2">  <br>JSKIA0053ZZ</td></tr>
<tr><td>  <br>JSKIA0050ZZ</td><td>3-spot welds</td></tr>
<tr><td>  <br>JSKIA0051ZZ</td><td>MIG plug weld</td><td>  <br>JSKIA0054ZZ<br>For 3 panels plug weld method<br>  <br>JSKIA0055ZZ</td></tr>
<tr><td>  <br>JSKIA0052ZZ</td><td>MIG seam weld / Point weld</td><td>  <br>JSKIA0056ZZ</td></tr>
</table>

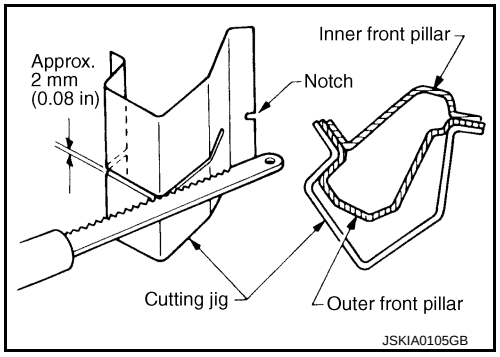
- Front pillar butt joint can be determined anywhere within shaded area as shown in the figure. The best location for the butt joint is at position A due to the construction of the vehicle.




- Determine cutting position and record distance from the locating indent. Use this distance when cutting the service part. Cut outer front pillar over 60 mm (2.36 in) above the inner front pillar cut position.

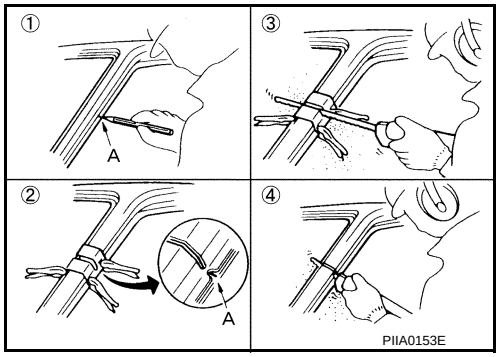



- Prepare a cutting jig to make outer pillar easier to cut. Also, this will permit the service part to be accurately cut at the joint position.



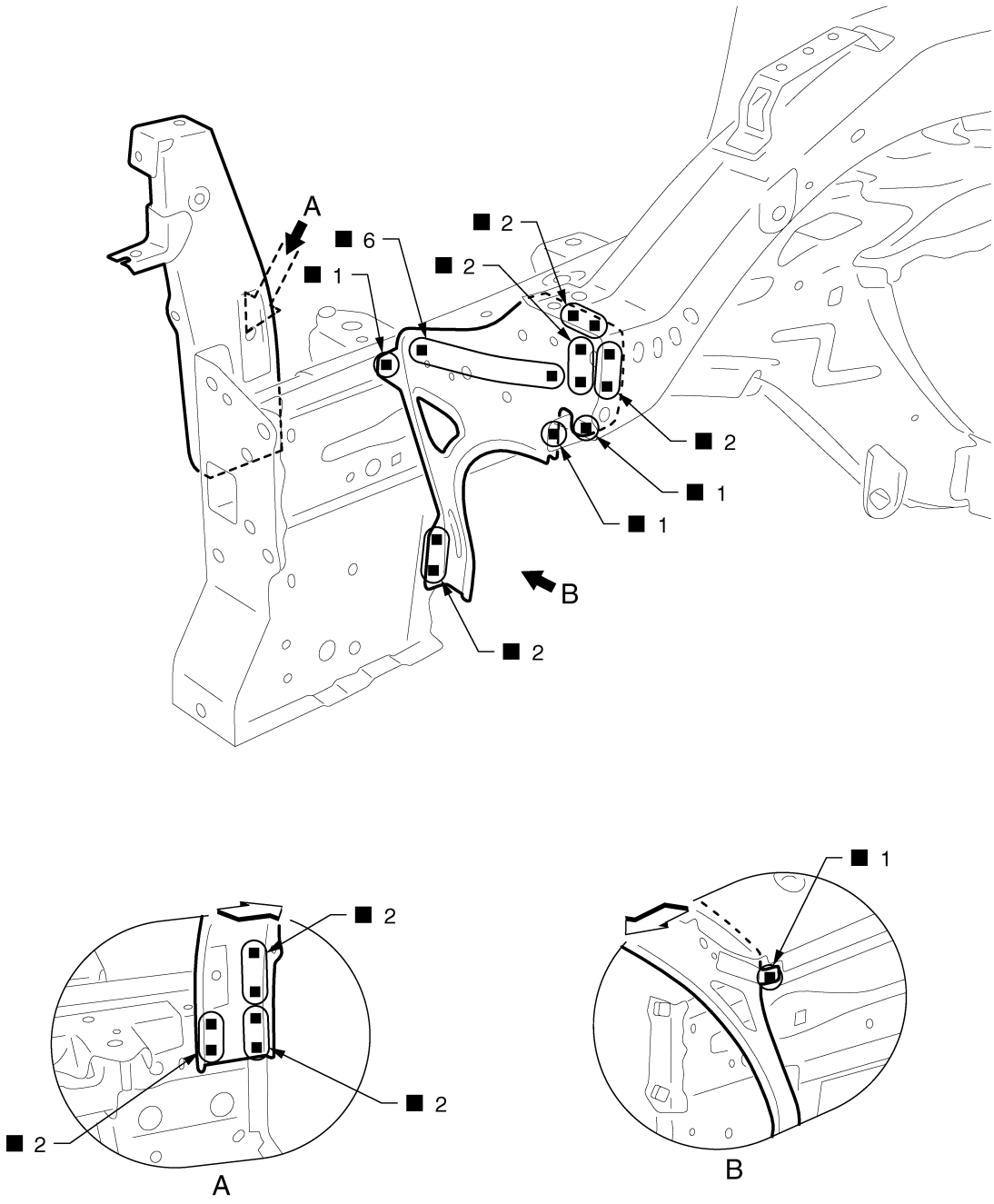

- An example of cutting operation using a cutting jig is as per the following.

1. Mark cutting lines.
   A: Cut position of outer pillar
   B: Cut position of inner pillar
2. Align cutting line with notch on jig. Clamp jig to pillar.
3. Cut outer pillar along groove of jig (at position A).
4. Remove jig and cut remaining portions.
5. Cut inner pillar at position B in same manner.



# Radiator Core Support

INFOID:0000000006956138




JSKIA2302ZZ

⇦: Vehicle front

Replacement parts

- Side radiator core support (LH)
- Hoodledge connector (LH)

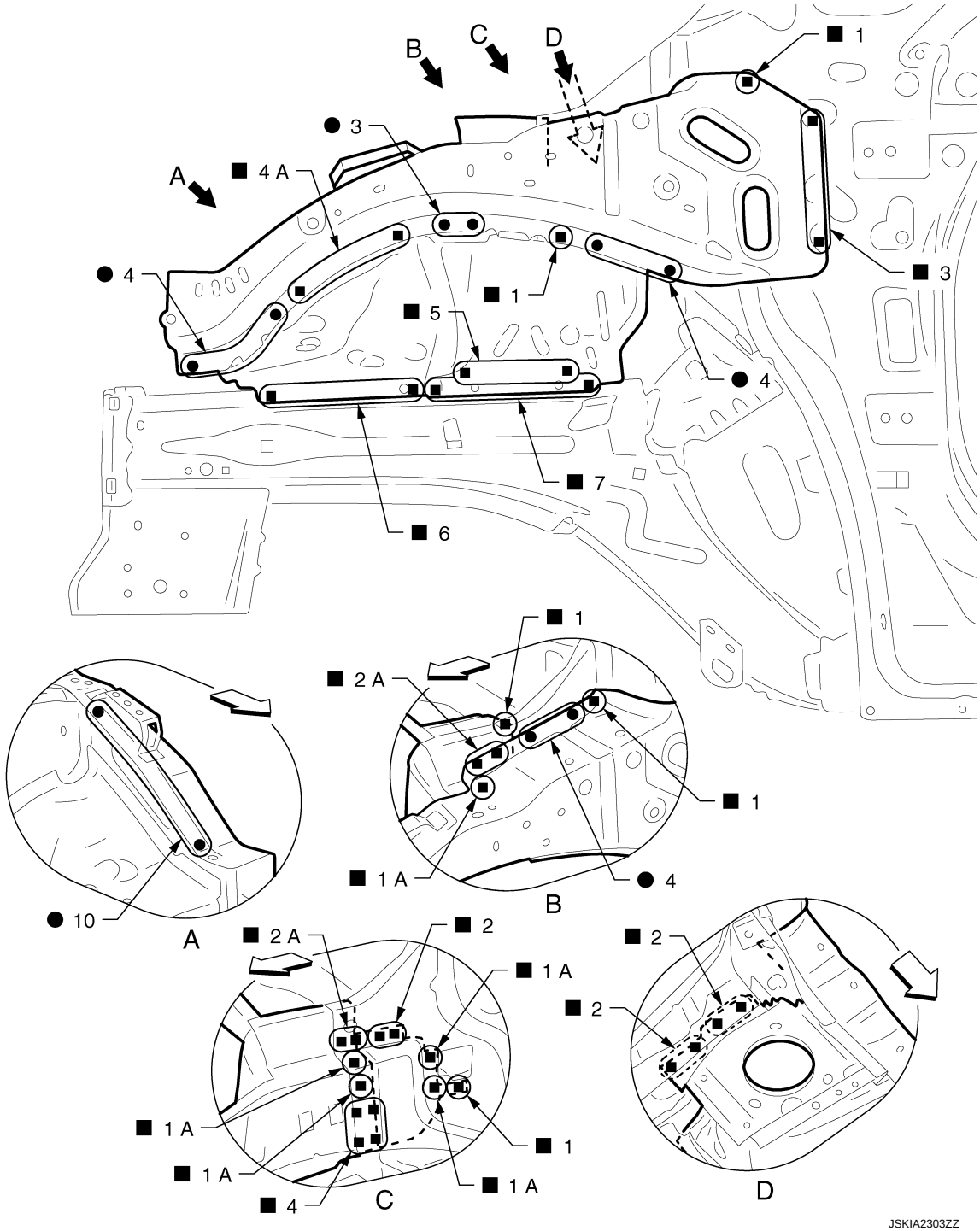
High voltage system parts (Removal required depending on damage)

- Service plug
- Front side Li-ion battery high voltage harness connector
- Charge port

## Hoodledge

INFOID:0000000006956139

Work after radiator core support is removed.




⇦: Vehicle front

(  ): Weld the parts onto the back of the component part.

Replacement parts

- Front strut housing (LH)
- Hoodledge reinforcement (LH)

High voltage system parts (Removal required depending on damage)

- Service plug
- Front side Li-ion battery high voltage harness connector

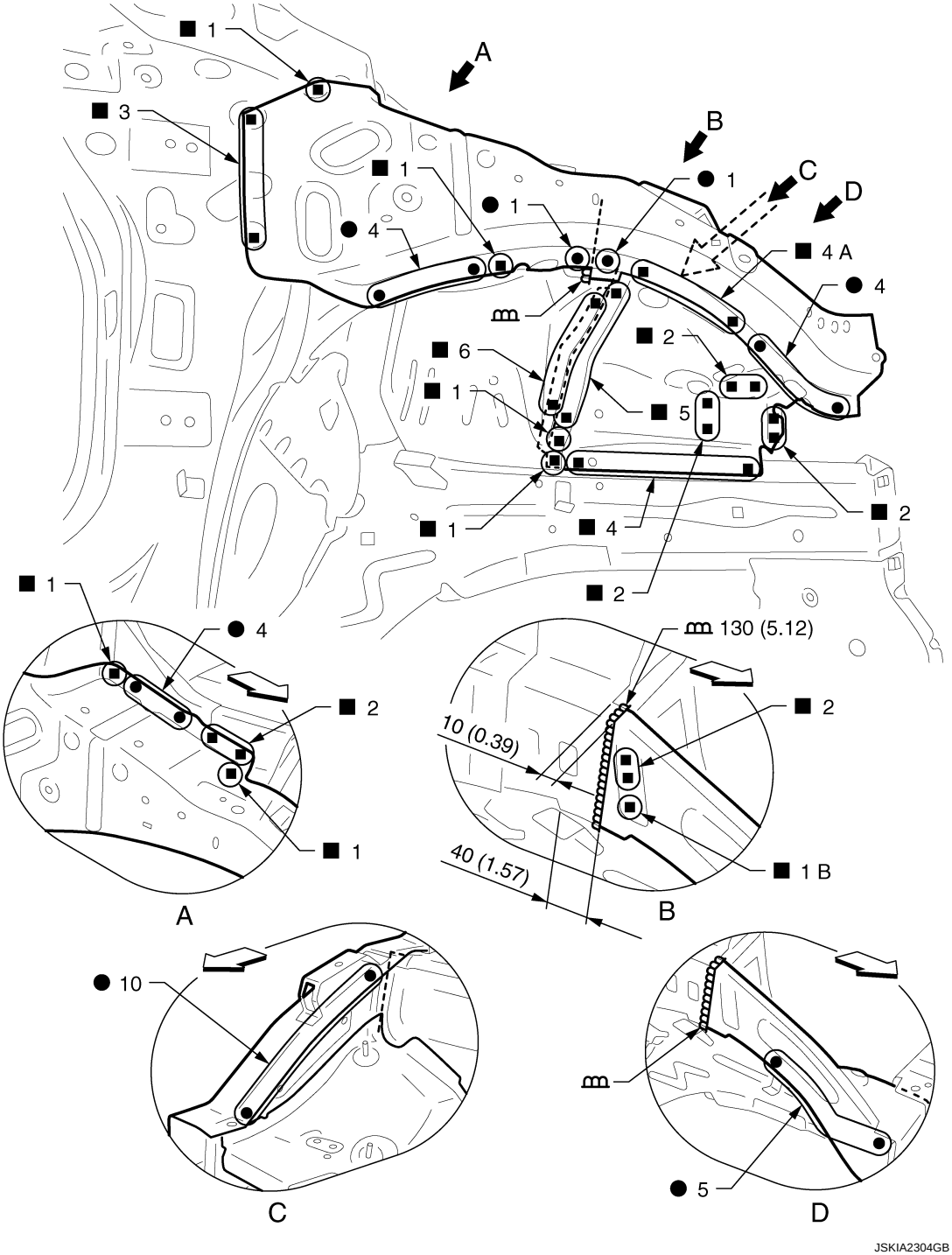
- Charge port
- PTC elements heater
- Traction motor
- Electric compressor
- Traction motor inverter
- DC/DC-J/B

View C: Before installing hoodledge reinforcement

## Hoodledge (Partial Replacement)

INFOID:0000000006956140

Work after radiator core support is removed.




Unit: mm (in)

⇦: Vehicle front

Replacement parts

- Upper hoodledge (RH)
- Lower front hoodledge (RH)
- Hoodledge reinforcement (RH)

High voltage system parts (Removal required depending on damage)

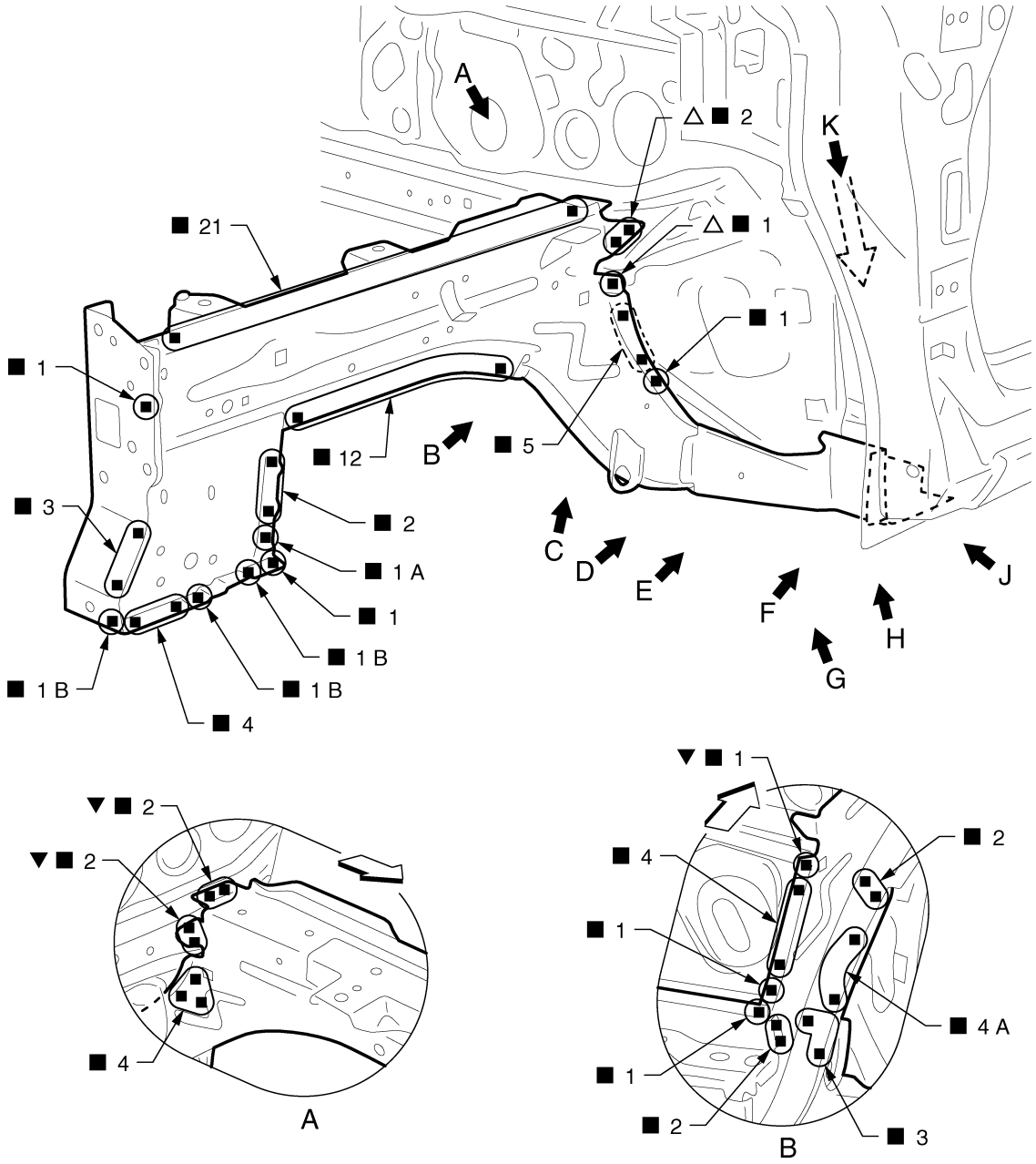
- Service plug
- Charge port
- Electric compressor
- Front side Li-ion battery high voltage harness connector
- PTC elements heater
- Traction motor inverter
- Traction motor
- DC/DC-J/B

View B and D: Before installing hoodledge reinforcement

## Front Side Member

INFOID:0000000006956141

Work after radiator core support and hoodledge are removed.




JSKIA2305ZZ

⇦: Vehicle front

▼: Drill ϕ11 mm (0.43 in) hole for the plug welding hole (ultra high strength steel plate).

△: Drill ϕ12 mm (0.47 in) hole for the plug welding hole (ultra high strength steel plate).

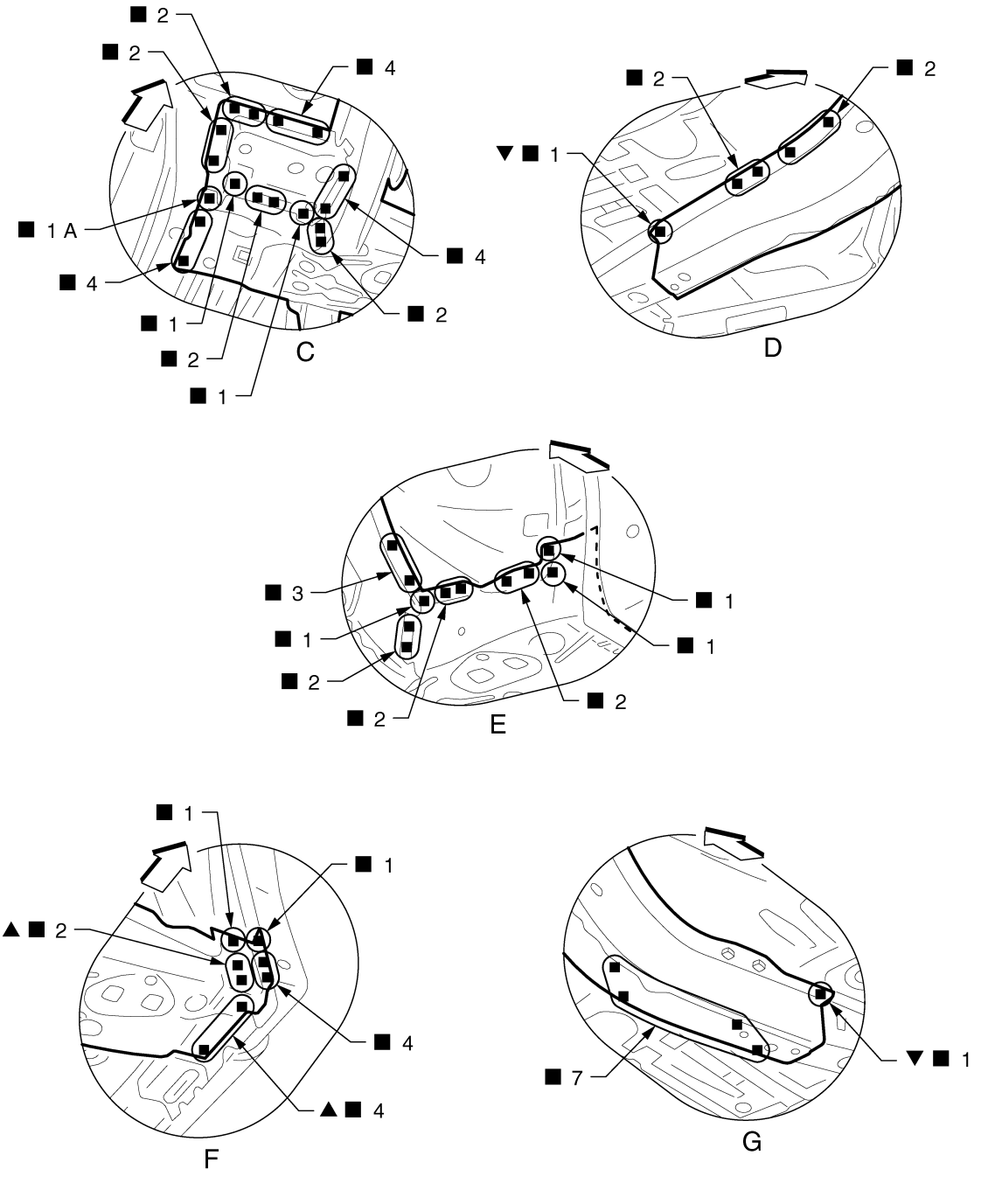
(◌): Weld the parts onto the back of the component part.

Replacement parts

- Front side member assembly (LH)
- Front side member closing plate assembly (LH)
- Front suspension mounting bracket (LH Rear)

High voltage system parts (Removal required depending on damage)

- Service plug
- Front side Li-ion battery high voltage harness connector
- Charge port
- PTC elements heater
- Traction motor
- Electric compressor
- Traction motor inverter
- DC/DC-J/B

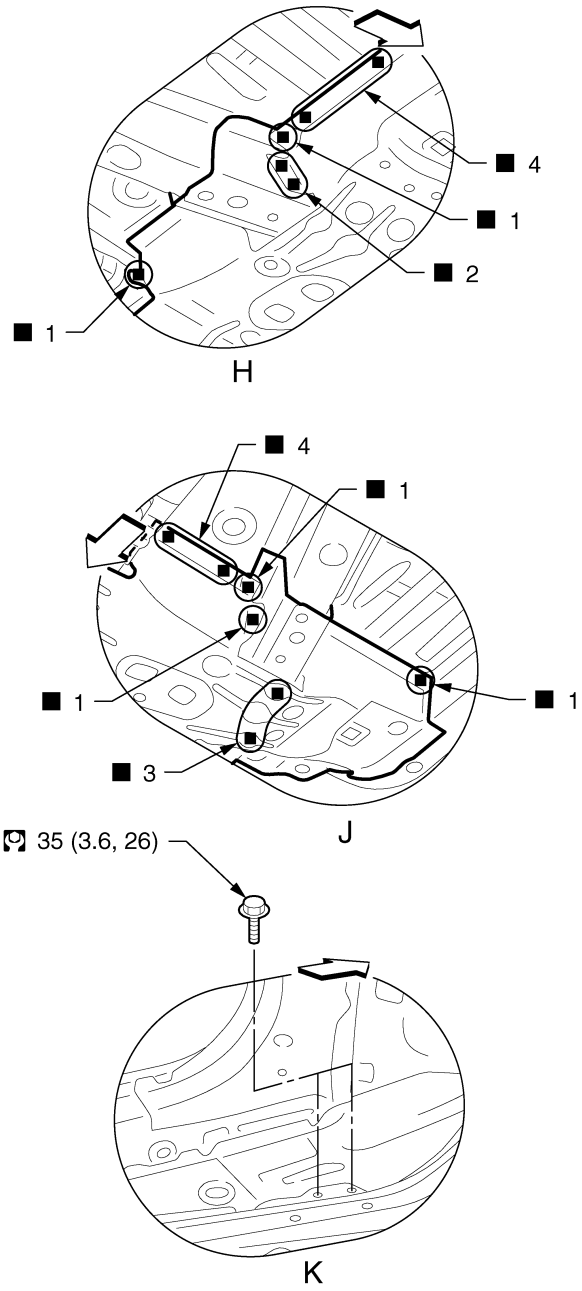



⇦: Vehicle front

▲: Drill ϕ7 mm (0.28 in) hole for the plug welding hole (ultra high strength steel plate).

▼: Drill ϕ11 mm (0.43 in) hole for the plug welding hole (ultra high strength steel plate).

View D and G: Before installing front suspension mounting bracket (Rear)




JSKIA2307GB

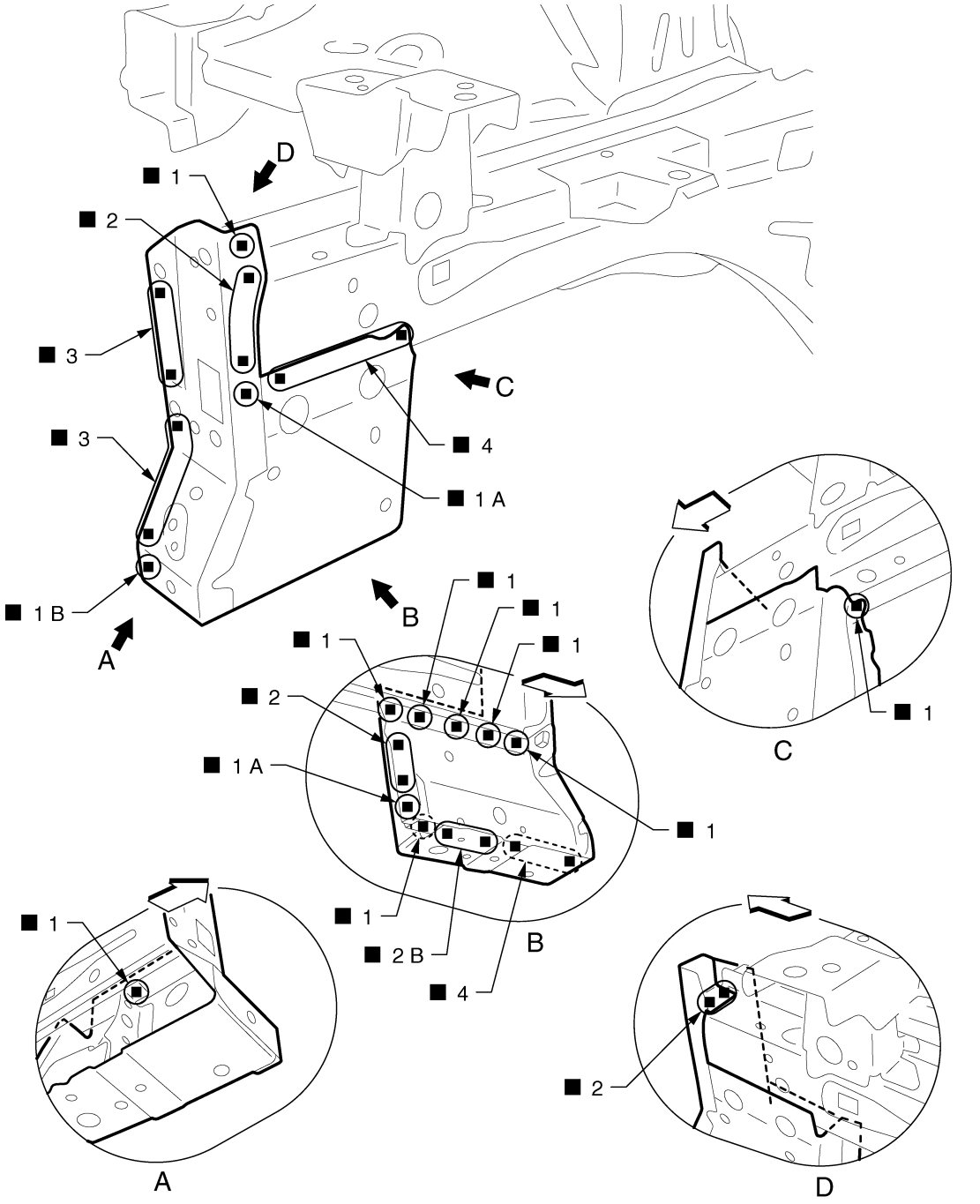
⇦: Vehicle front

: N·m (kg-m, ft-lb)

## Front Side Member (Partial Replacement)

INFOID:0000000006956142

Work after radiator core support is removed.




JSKIA2308ZZ

⇦: Vehicle front

(  ): Weld the parts onto the back of the component part.

Replacement parts

- Front suspension mounting bracket (RH Front)
- Outer add on frame bracket (RH)

High voltage system parts (Removal required depending on damage)

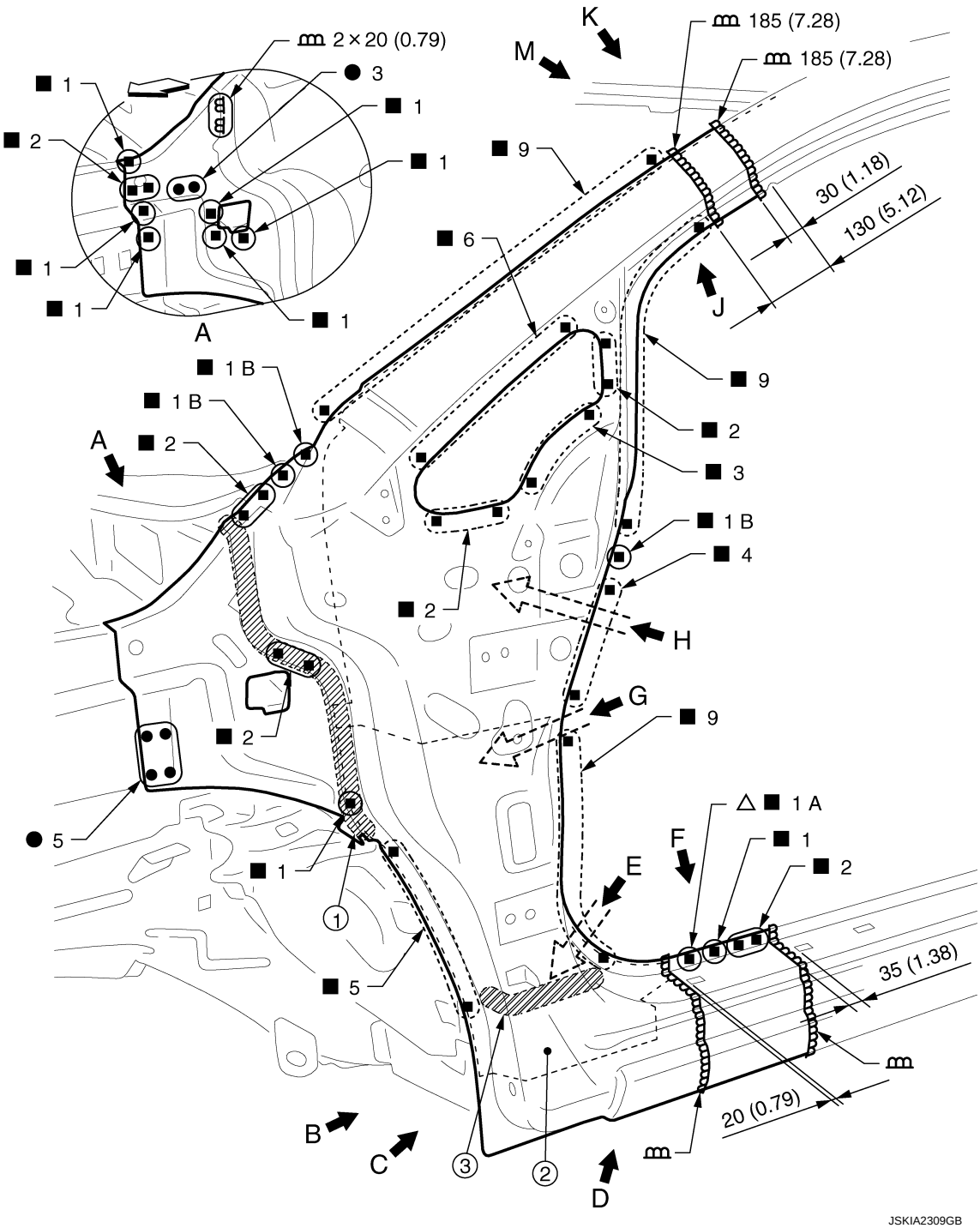
- Service plug
- Charge port
- Front side Li-ion battery high voltage harness connector

View A: Before installing outer add on frame bracket

## Front Pillar

INFOID:0000000006956143

Work after hoodledge reinforcement is removed.




1. Body sealing
2. Front pillar brace
3. Urethane foam

Unit: mm (in)

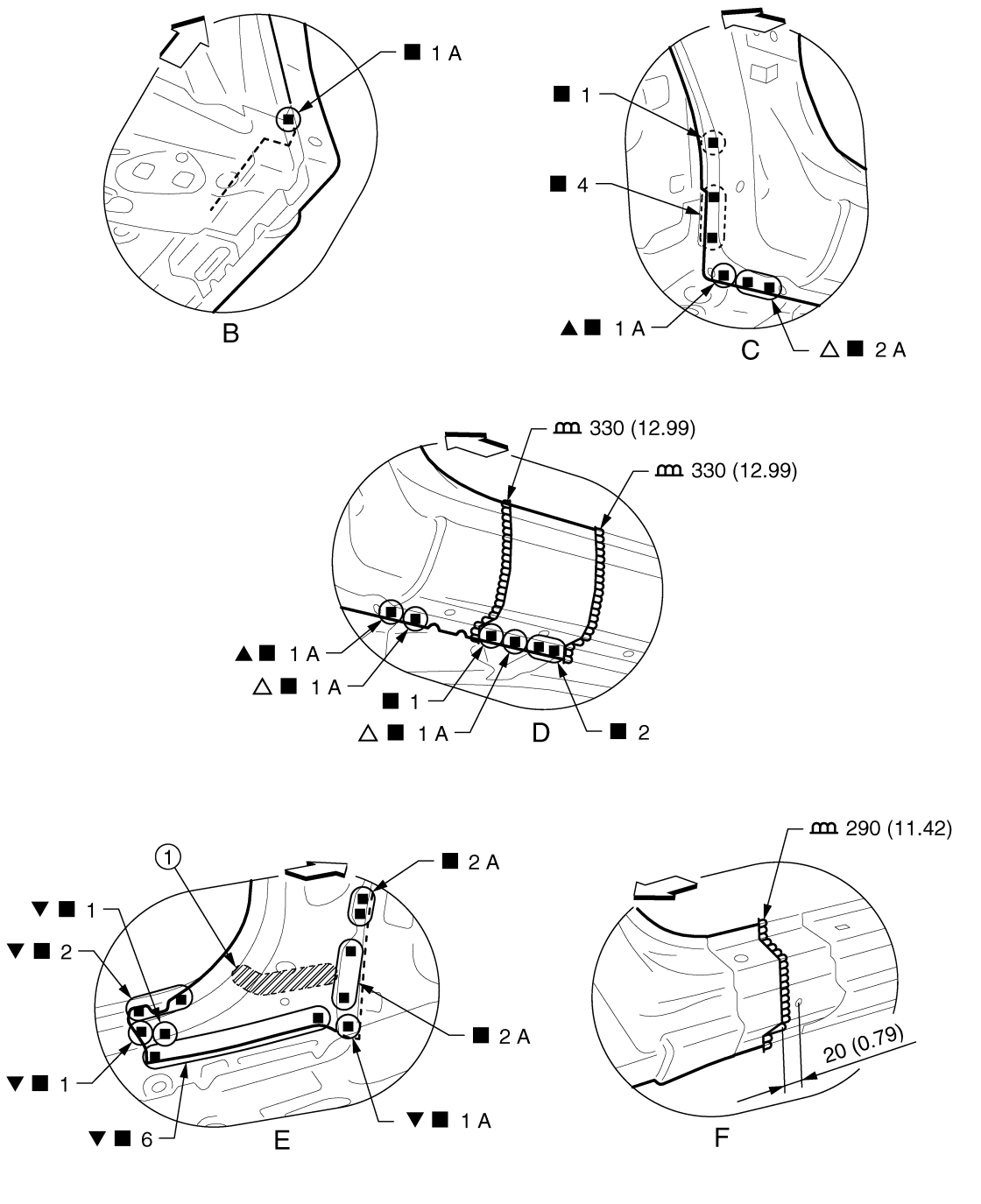
⇦: Vehicle front

△: Drill ϕ9 mm (0.35 in) hole for the plug welding hole (ultra high strength steel plate).

(  ): Weld the parts onto the back of the component part.

Replacement parts

- Side body assembly (LH)
- Side dash (LH)




1. Urethane foam

Unit: mm (in)

⇦: Vehicle front

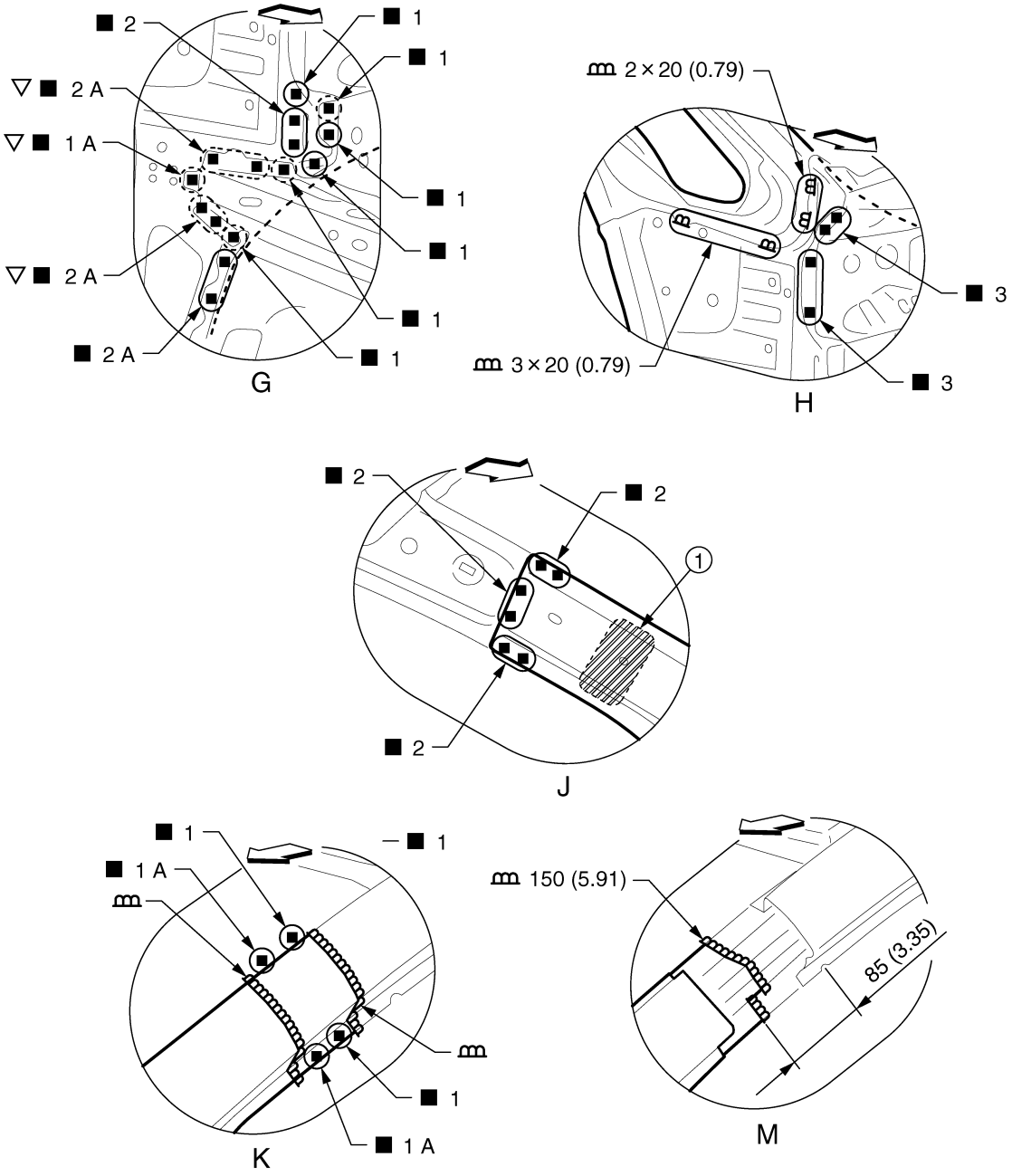
▲: Drill ϕ6 mm (0.24 in) hole for the plug welding hole (ultra high strength steel plate).

▼: Drill ϕ7 mm (0.28 in) hole for the plug welding hole (ultra high strength steel plate).

△: Drill ϕ9 mm (0.35 in) hole for the plug welding hole (ultra high strength steel plate).

⁀: Weld the parts onto the back of the component part.

View F: Before installing outer front side body




JSKIA2311GB

1. Urethane foam

Unit: mm (in)

⇦: Vehicle front

▽: Drill ϕ7 mm (0.28 in) hole for the plug welding hole (ultra high strength steel plate).

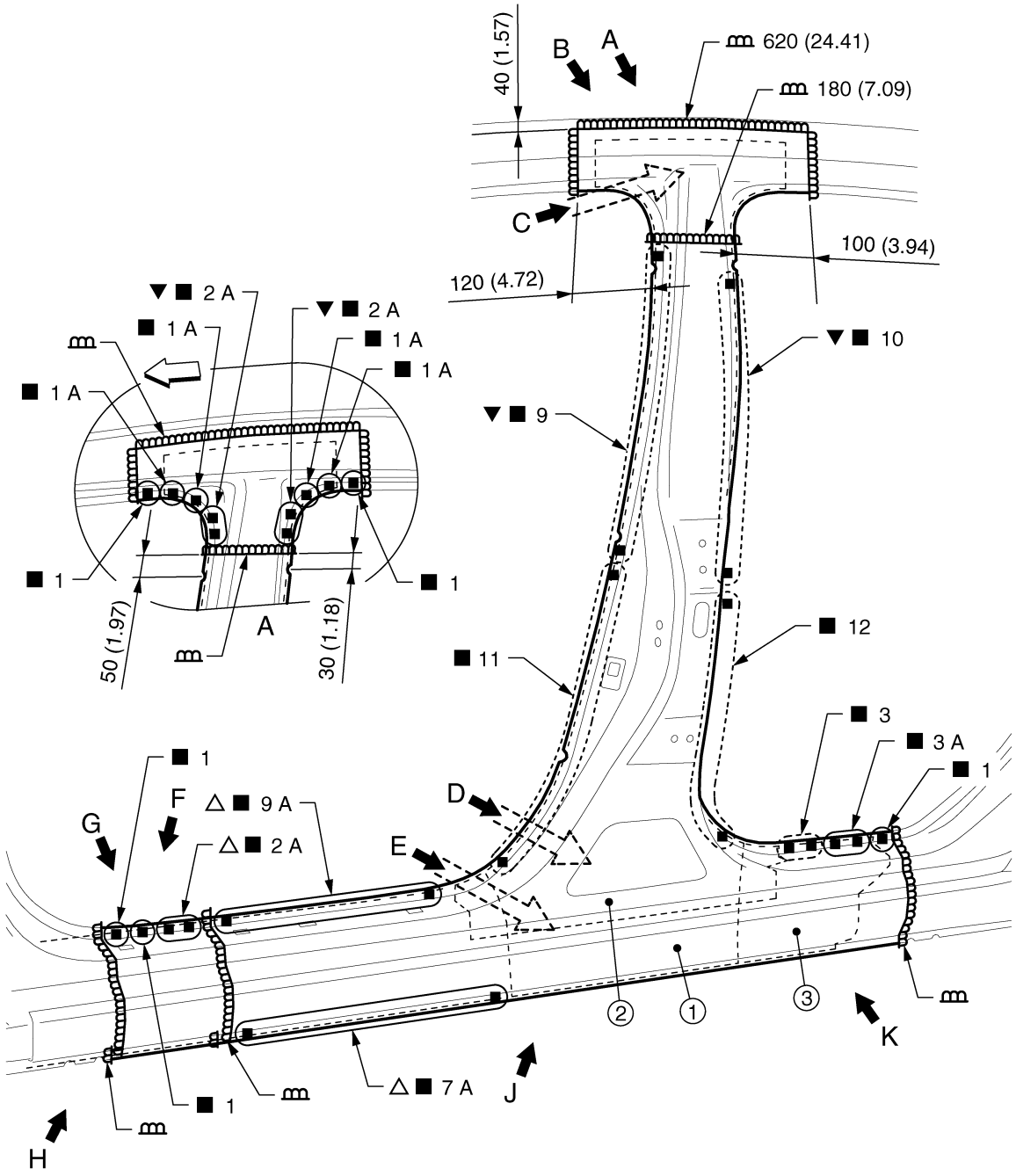
(⋯): Weld the parts onto the back of the component part.

View G: Before installing side body assembly
View M: Before installing outer front side body

## Center Pillar

INFOID:0000000006956144

Install the inner center pillar assembly to the side body assembly as shown in the figure for repairing the hidden welding point "View E".




JSKIA2312GB

1. Inner center pillar assembly
2. Lower center pillar brace
3. Outer sill reinforcement

Unit: mm (in)

⇦: Vehicle front

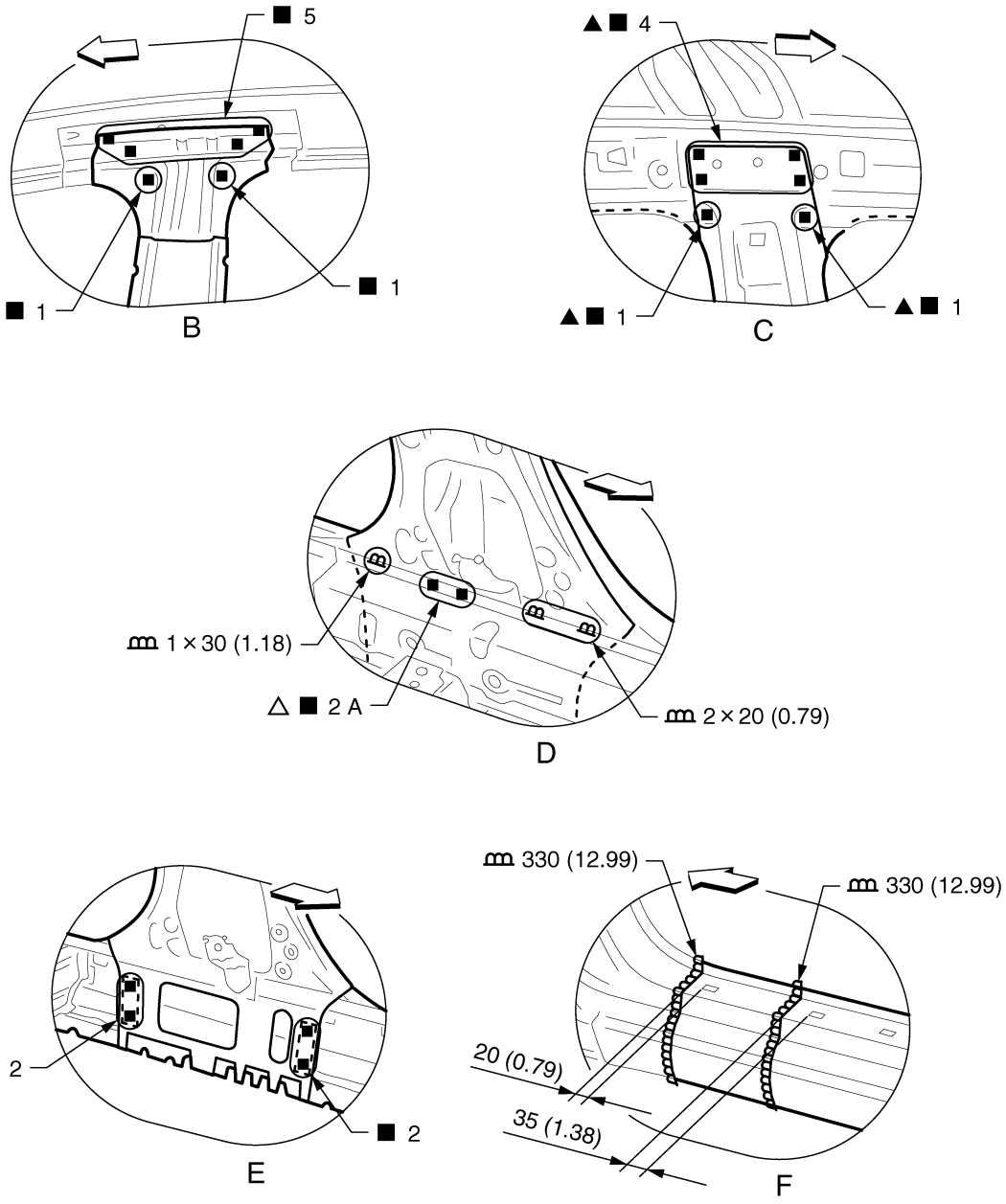
▼: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

△: Drill ϕ9 mm (0.35 in) hole for the plug welding hole (ultra high strength steel plate).

(◌): Weld the parts onto the back of the component part.

Replacement parts

- Side body assembly (LH)
- Inner center pillar assembly (LH)



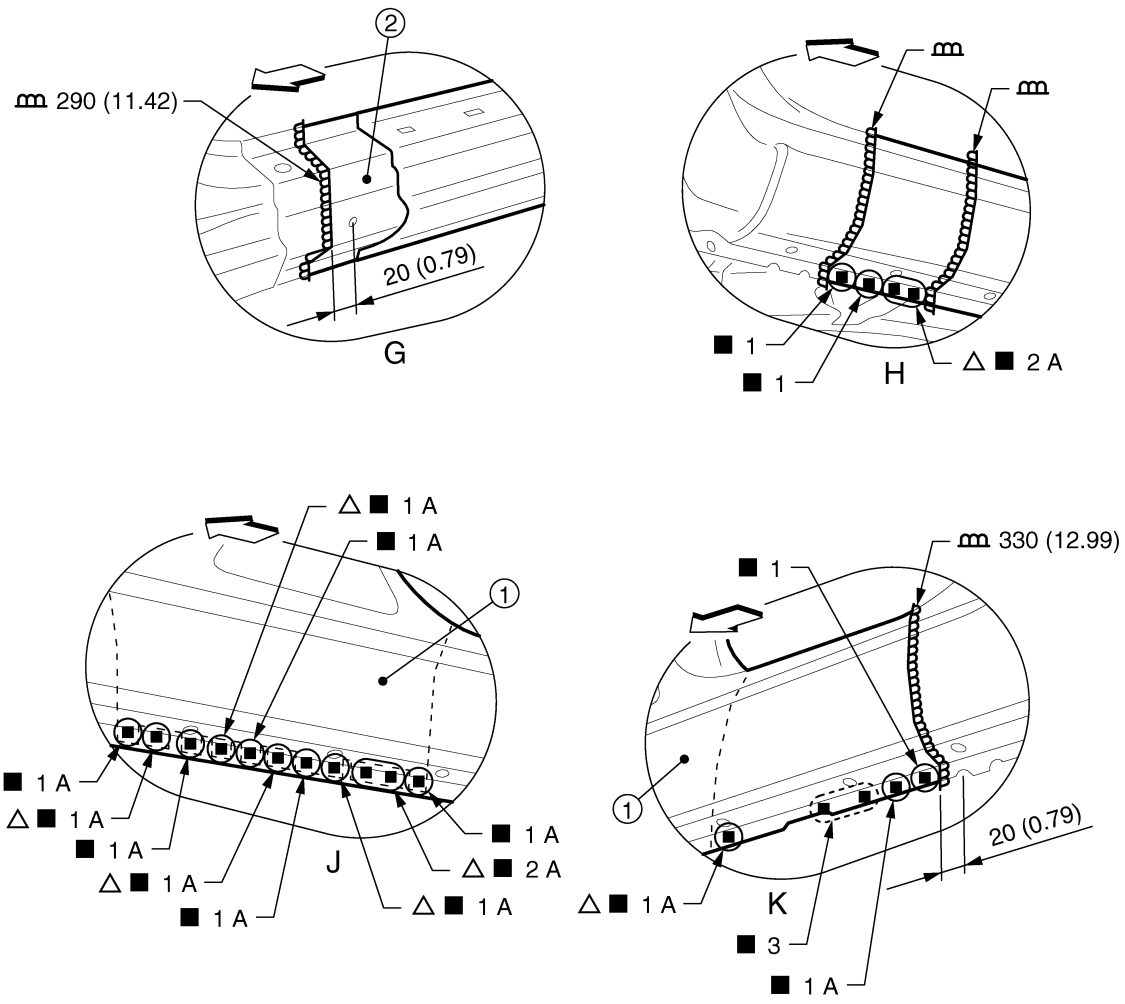

Unit: mm (in)

⇦: Vehicle front

▲: Drill ϕ7 mm (0.28 in) hole for the plug welding hole (ultra high strength steel plate).

△: Drill ϕ9 mm (0.35 in) hole for the plug welding hole (ultra high strength steel plate).

View B: Before installing outer front side body
View E: Inner center pillar assembly and side body assembly (replacement parts)




JSKIA2314GB

1. Inner center pillar assembly 2. Outer sill reinforcement

Unit: mm (in)

⇦: Vehicle front

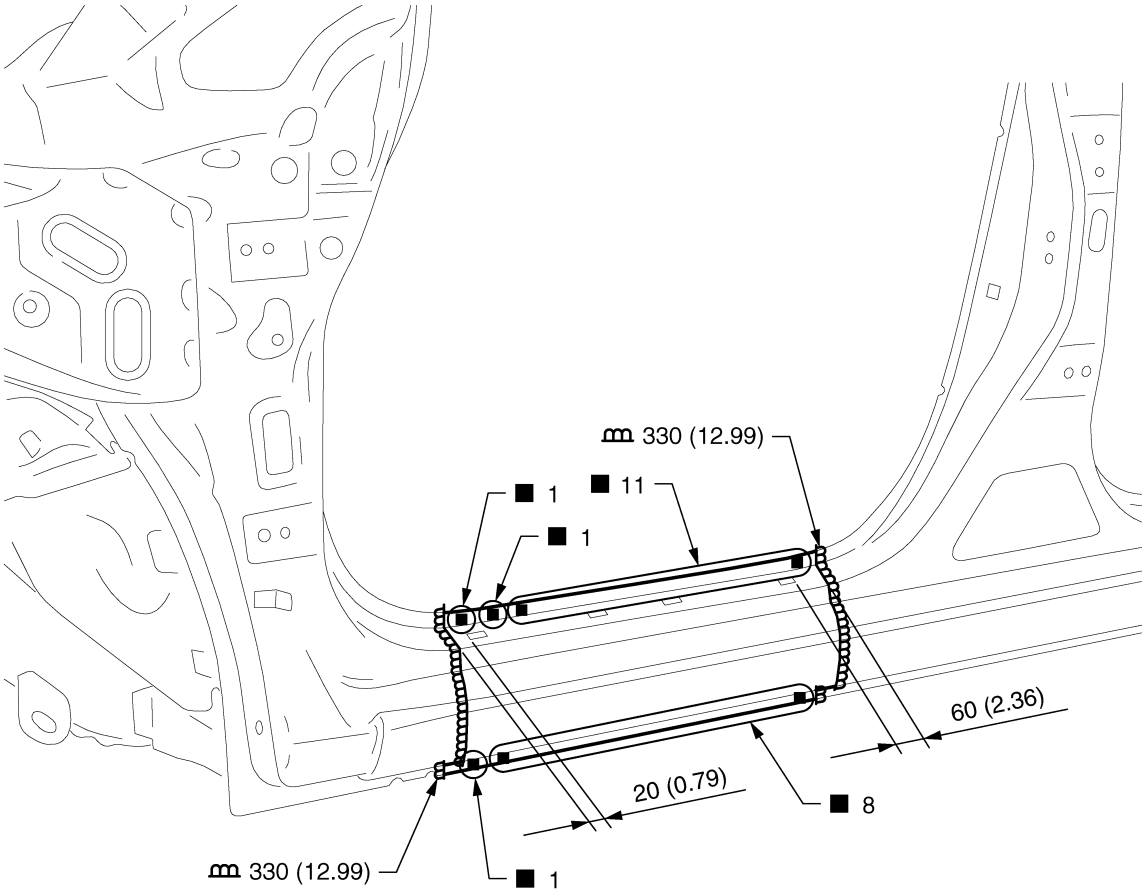
△: Drill ϕ9 mm (0.35 in) hole for the plug welding hole (ultra high strength steel plate).

(‾): Weld the parts onto the back of the component part.

View G: Before installing outer front side body

## Outer Sill (Partial Replacement)

INFOID:0000000006956145




JSKIA2315GB

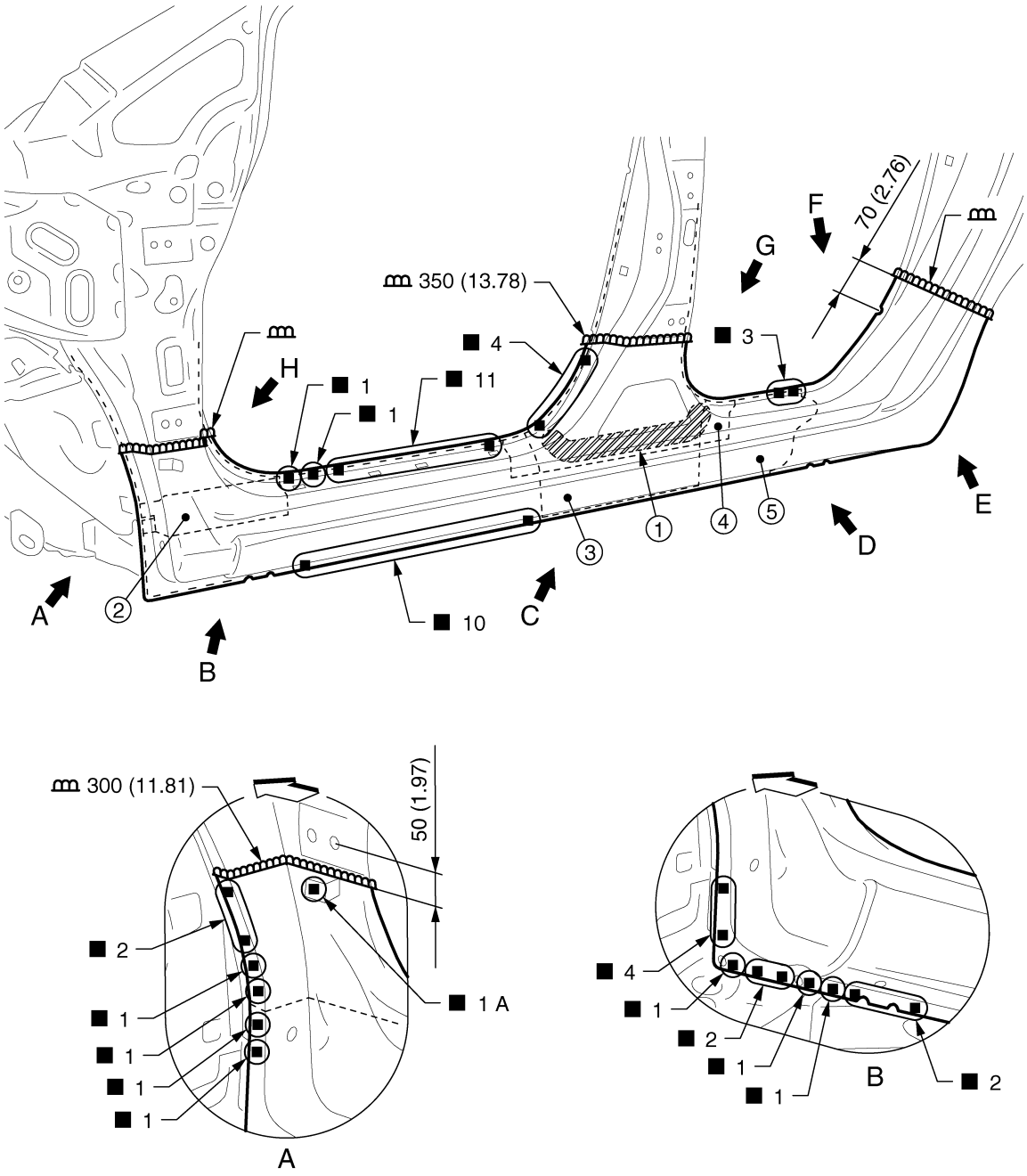
Unit: mm (in)

Replacement parts

- Outer sill (LH)

## Outer Sill

INFOID:0000000006956146




JSKIA2316GB

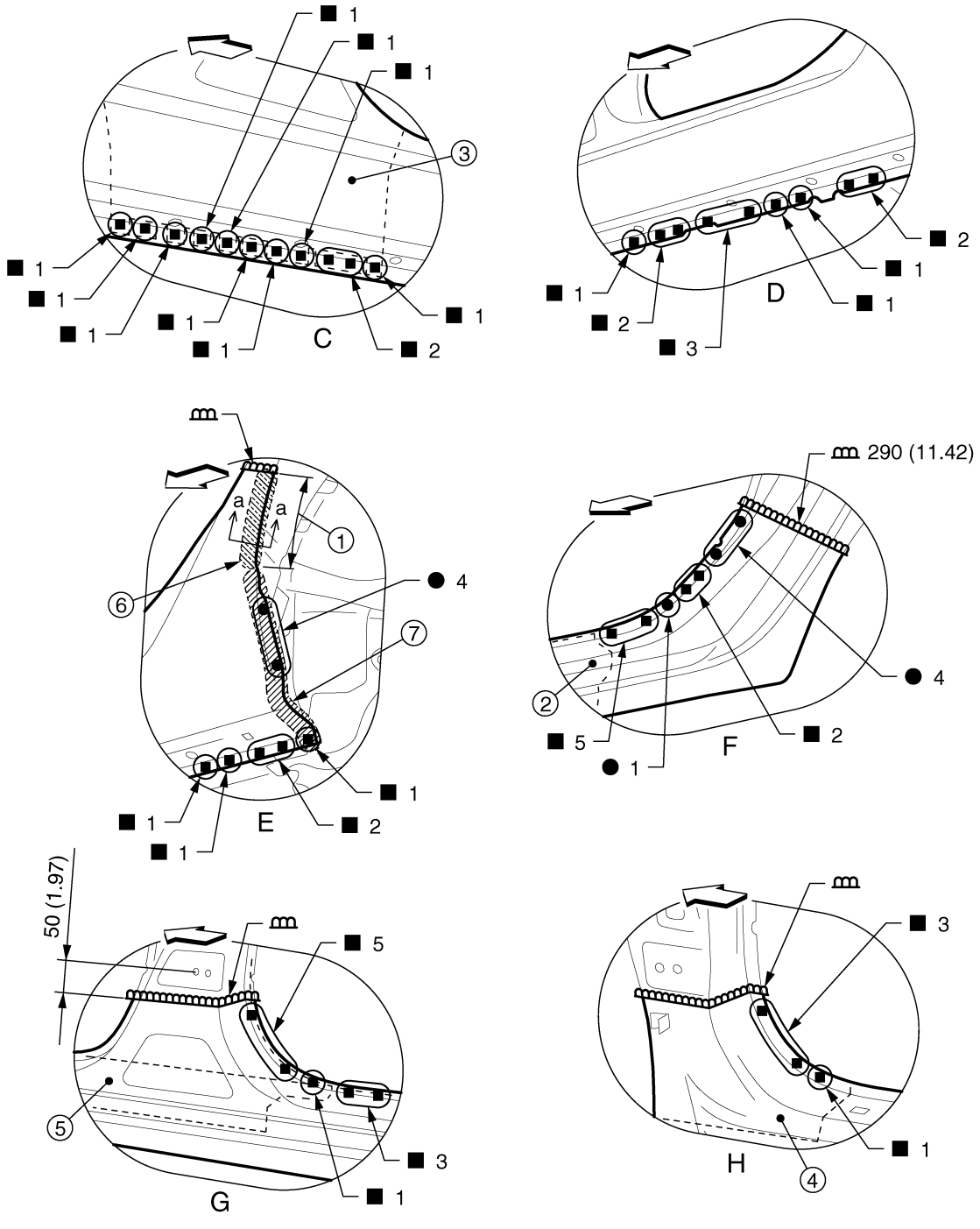
1. Urethane foam
2. Front pillar brace
3. Inner center pillar assembly
4. Lower center pillar brace
5. Outer sill reinforcement

Unit: mm (in)

⇦: Vehicle front

Replacement parts

- Outer sill (LH)
- Front fender bracket assembly (LH)



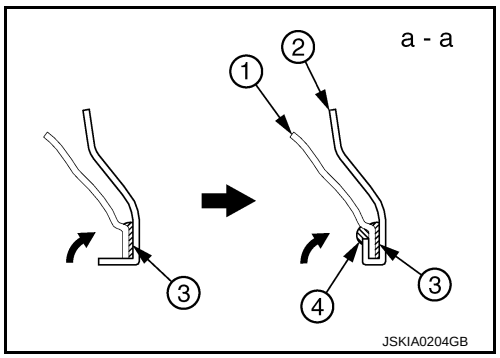

1. Hemming portion
2. Outer sill reinforcement
3. Inner center pillar assembly
4. Front pillar brace
5. Lower center pillar brace
6. Adhesive
7. Body sealing

Unit: mm (in)

⇦: Vehicle front

POINT

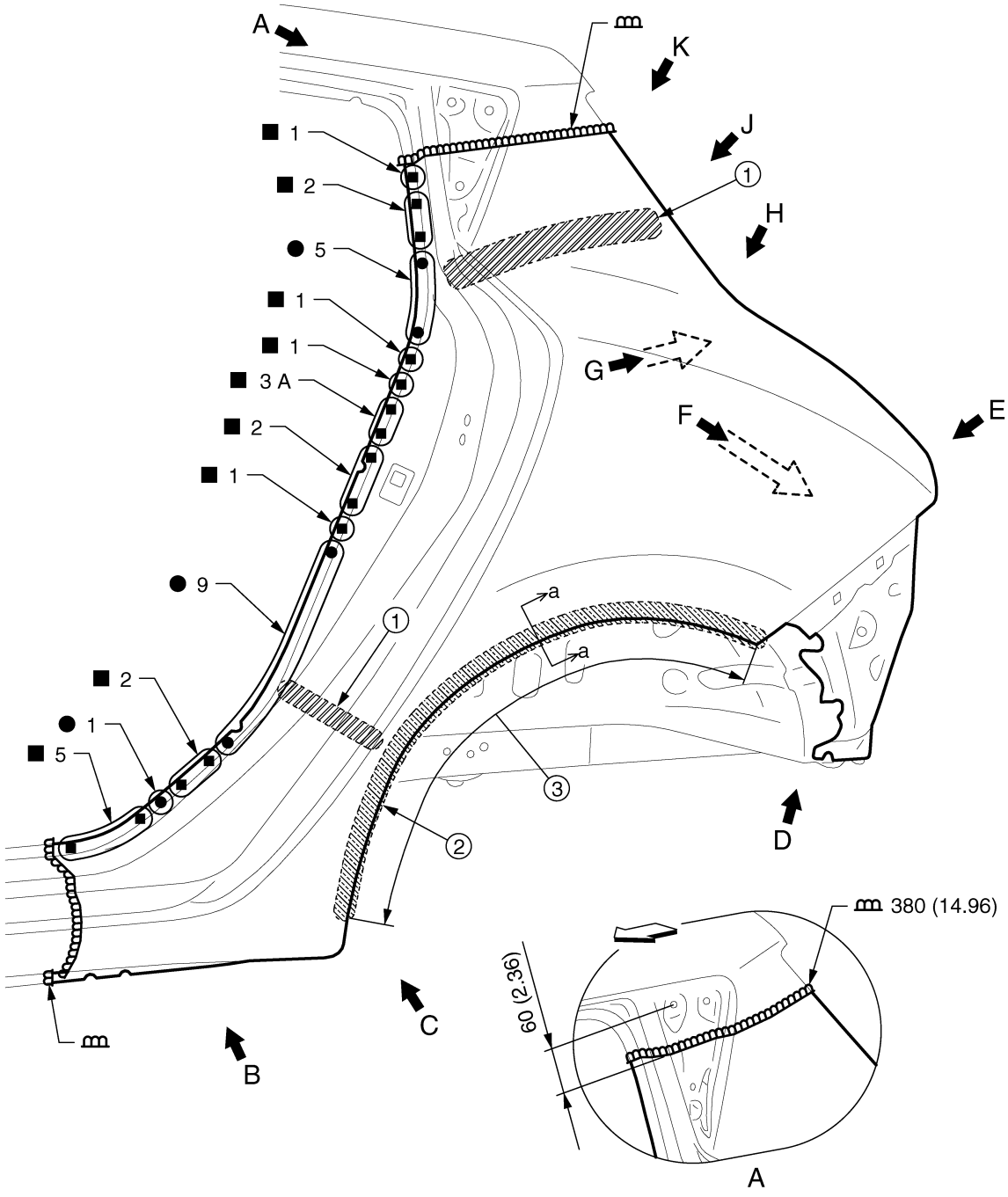
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-28, "Rear Fender Hemming Process".




1. **Outer rear wheelhouse**
2. **Rear fender**
3. **Adhesive**
4. **Sealant**

# Rear Fender

INFOID:0000000006956149



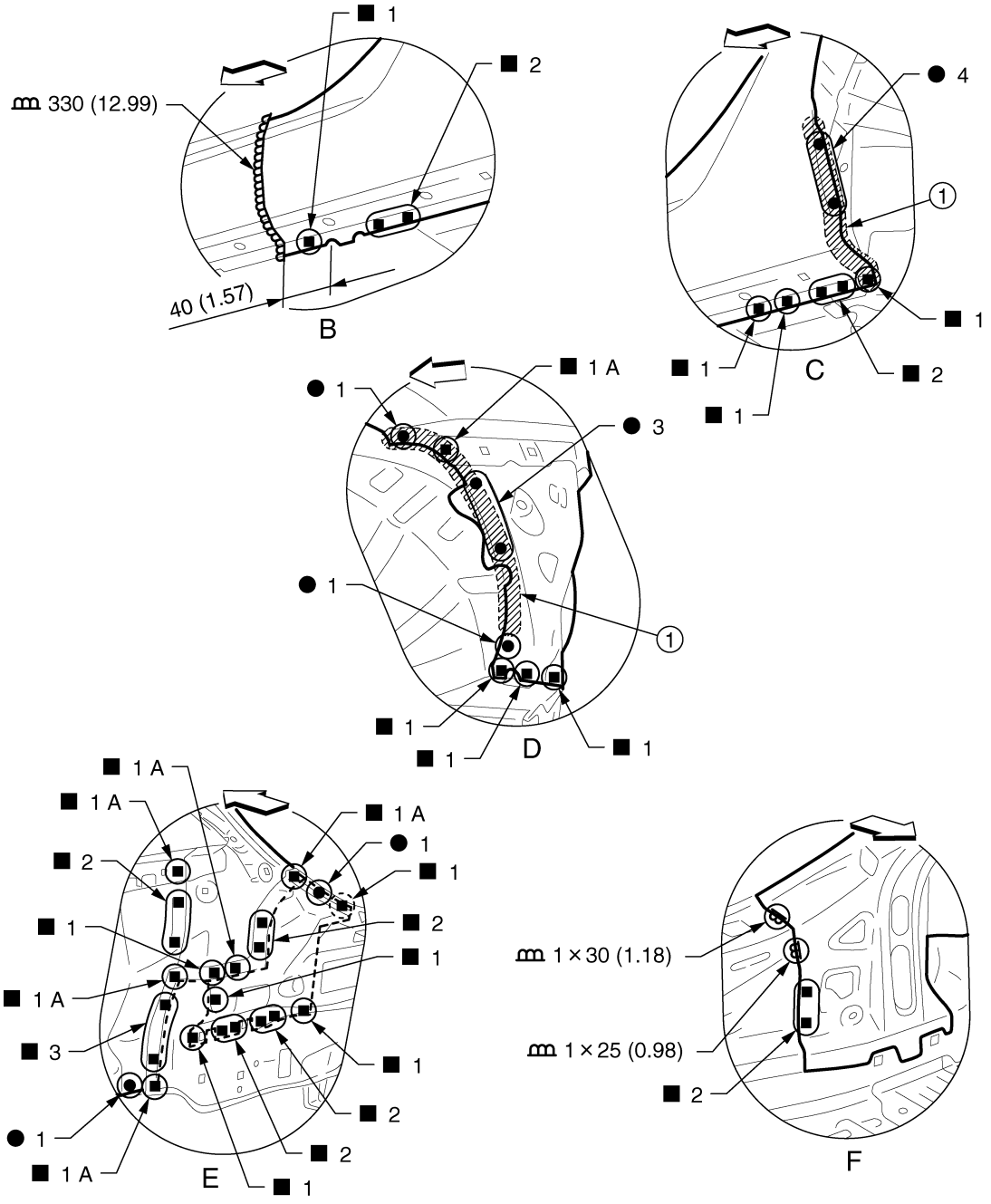

1. Urethane foam
2. Adhesive
3. Hemming portion

Unit: mm (in)

⇦: Vehicle front

Replacement parts

- Rear fender (LH)



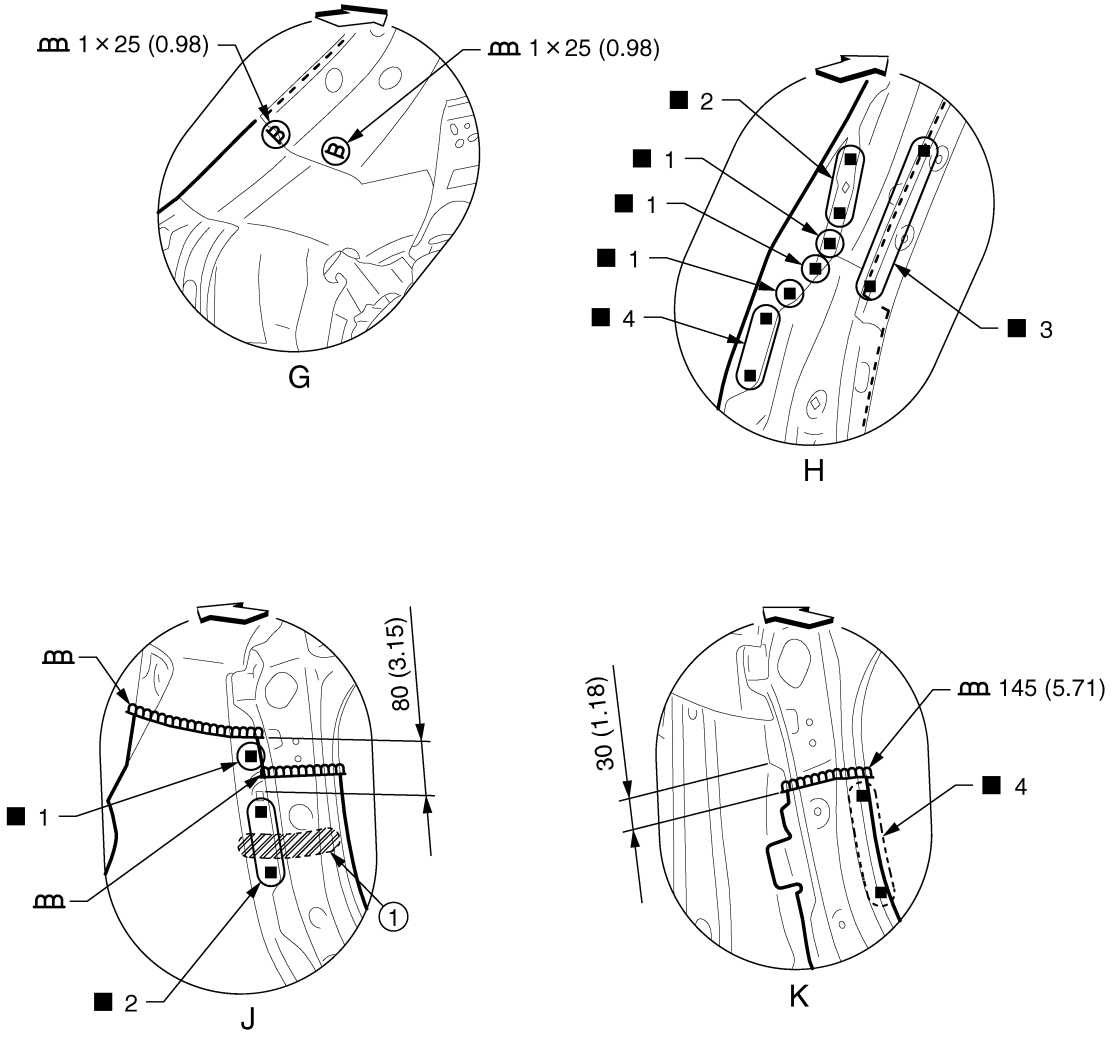

JSKIA2323GB

1. Body sealing

Unit: mm (in)

⇦: Vehicle front

: Weld the parts onto the back of the component part.




JSKIA2324GB

1. Urethane foam

Unit: mm (in)

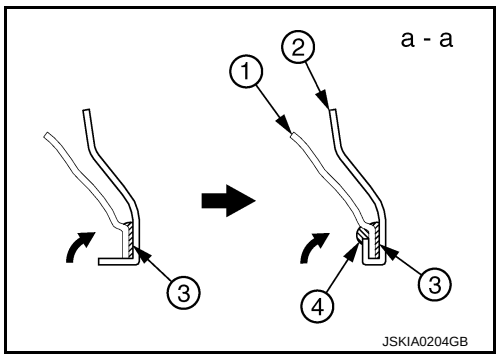
⇦: Vehicle front

(- - -): Weld the parts onto the back of the component part.

View K: Before installing rear fender

POINT

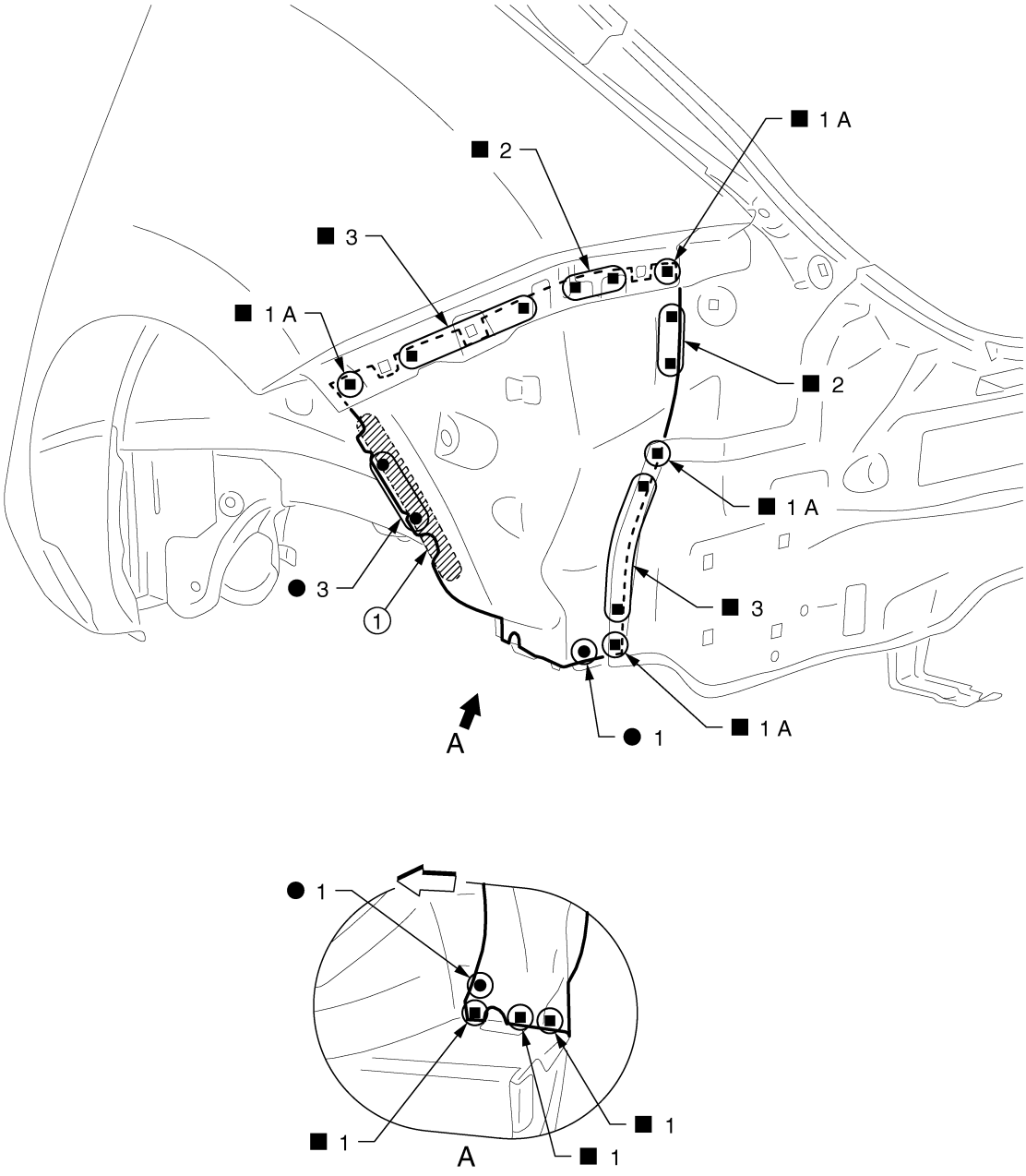
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-28, "Rear Fender Hemming Process".




1. **Outer rear wheelhouse**
2. **Rear fender**
3. **Adhesive**
4. **Sealant**

## Rear Fender Extension

INFOID:0000000006956150




JSKIA2325ZZ

1. Body sealing

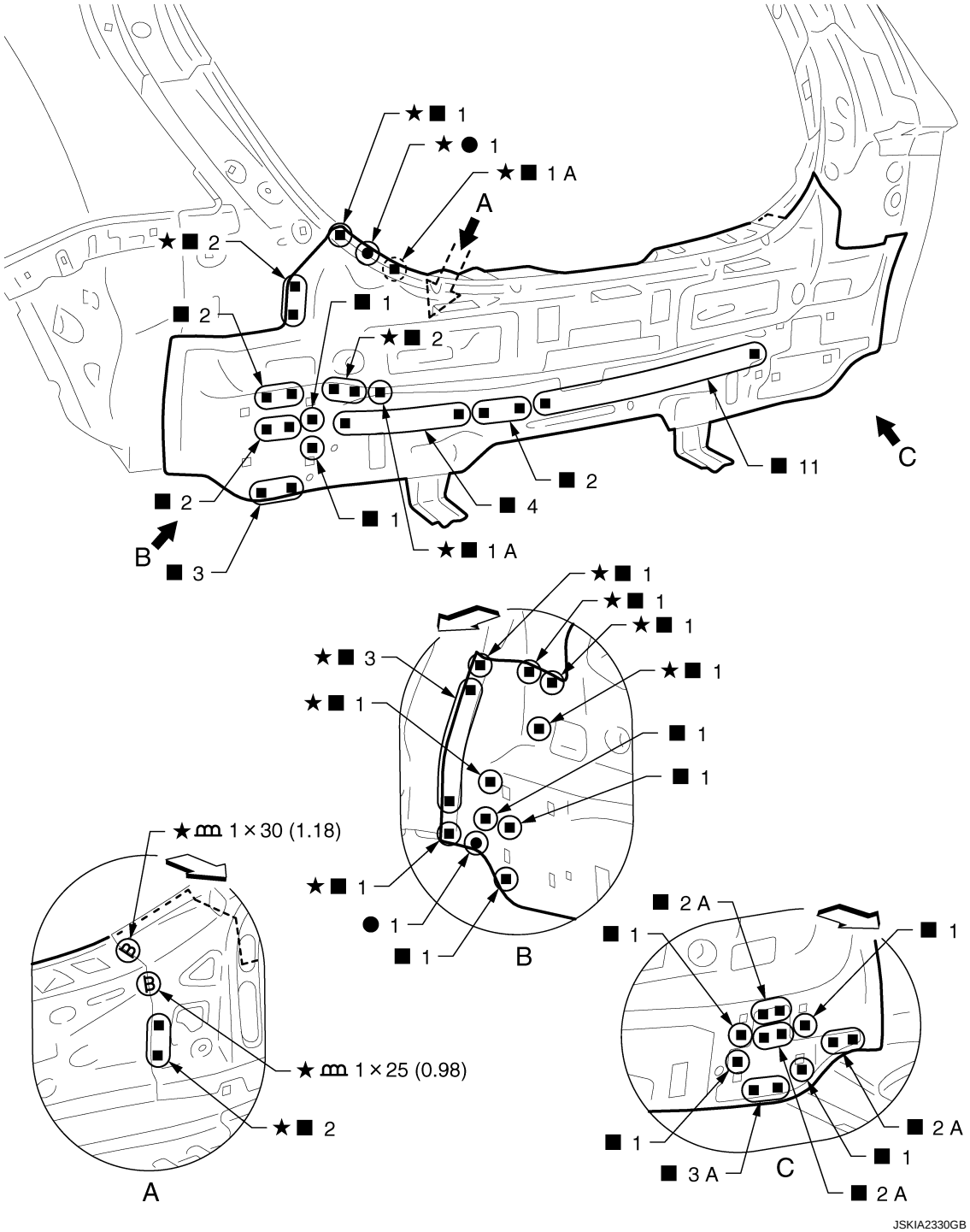
⇦: Vehicle front

Replacement parts

- Rear fender corner (LH)

## Rear Panel

INFOID:0000000006956155




Unit: mm (in)

⇦: Vehicle front

★: Welding method and the number of welding points apply to both side of the vehicle.

(): Weld the parts onto the back of the component part.

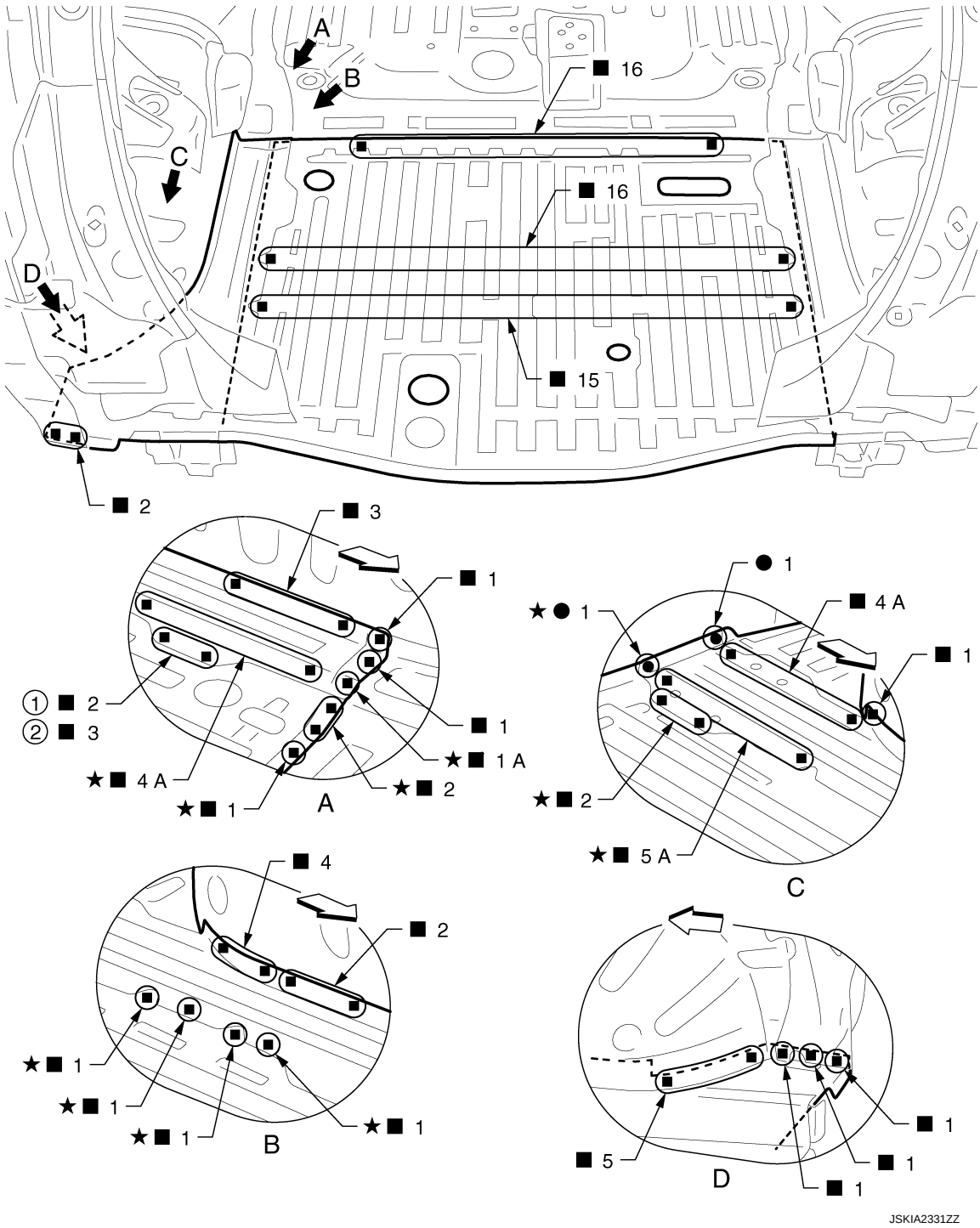
Replacement parts

- Upper rear panel

## Rear Floor Rear

INFOID:0000000006956156

Work after rear panel is removed.




1. LH side
2. RH side

⇦: Vehicle front

★: Welding method and the number of welding points apply to both side of the vehicle.

Replacement parts

- Rear floor rear
- Rear floor rear side (LH)

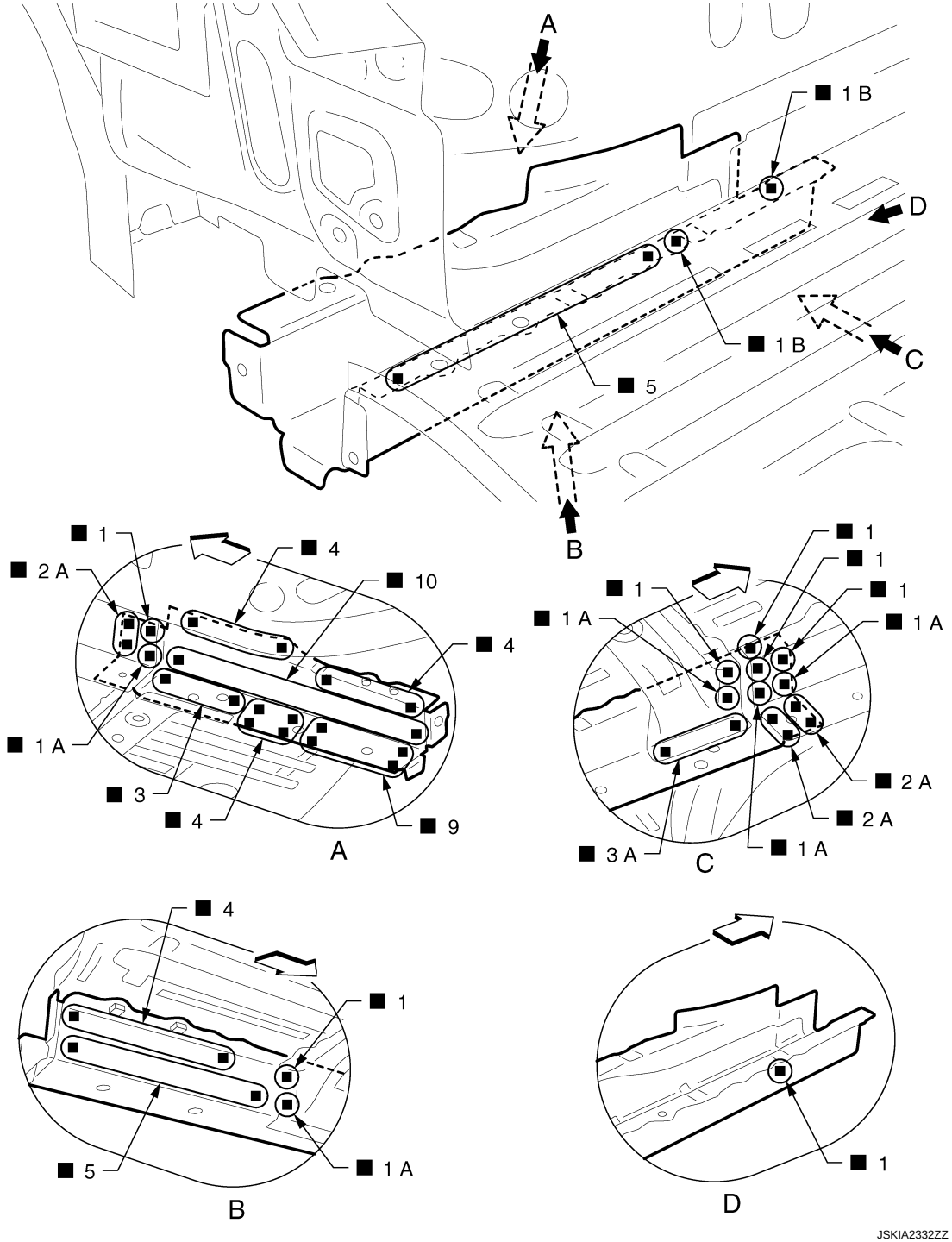
High voltage system parts (Removal required depending on damage)

- Service plug
- On board charger
- Front side Li-ion battery high voltage harness connector

## Rear Side Member Extension

INFOID:0000000006956157

Work after rear panel is removed.




JSKIA2332ZZ

⇦: Vehicle front

Replacement parts

- Rear side member extension (LH)
- Rear side member extension reinforcement assembly (LH)

View D: Before installing replacement parts (Weld the rear side member extension and rear side member extension reinforcement assembly)

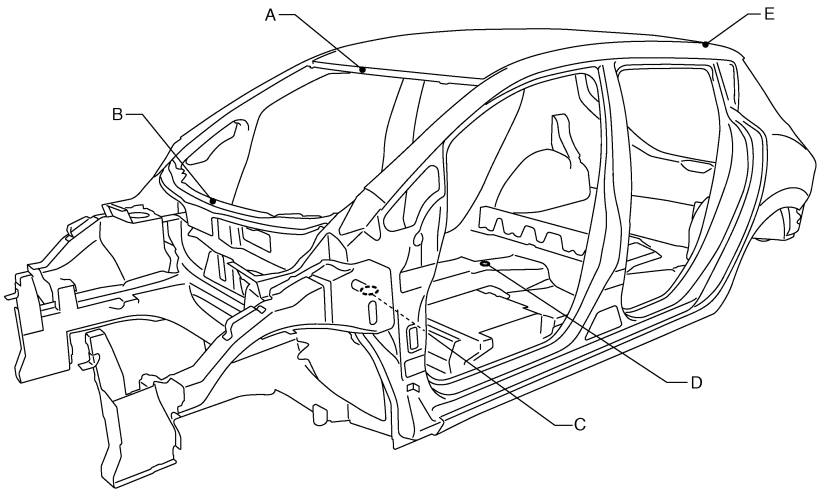
# SERVICE DATA AND SPECIFICATIONS (SDS)

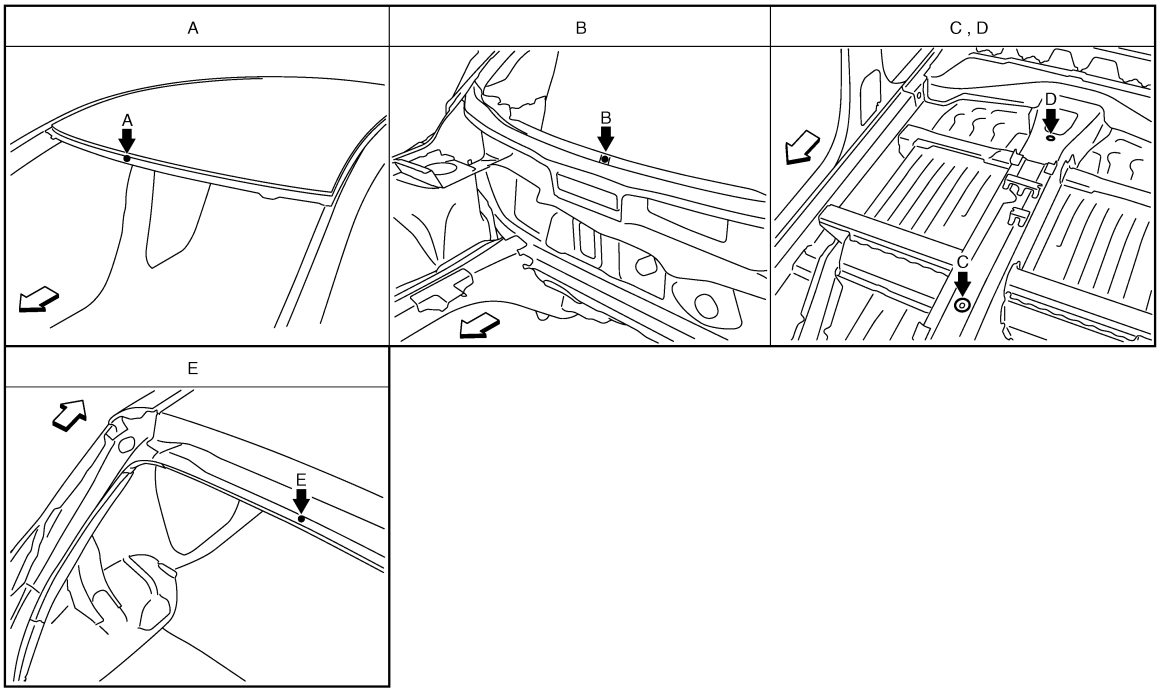
## BODY ALIGNMENT

### Body Center Marks

INFOID:0000000006956160

A mark is placed on each part of the body to indicate the vehicle center. When repairing the vehicle frame (members, pillars, etc.) damaged by an accident which it enables more accurate and effective repair by using these marks together with body alignment specifications.




JSKIA2276ZZ

⇦: Vehicle front

Unit: mm (in)

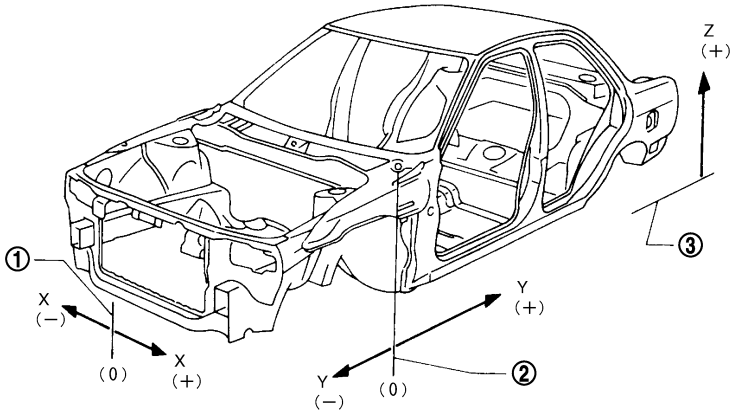
| Points | Portion | Marks |
|---|---|---|
| A | Front roof | Embossment |
| B | Cowl top | Embossment |
| C | Trans control reinforcement | Hole ϕ31 (1.22) |

| Points | Portion | Marks |
|---|---|---|
| D | Center front floor | Hole ϕ11 (0.43) |
| E | Rear roof | Embossment |

## Description

INFOID:0000000006956161

- All dimensions indicated in the figures are actual.
- When using a tracking gauge, adjust both pointers to equal length. Then check the pointers and gauge itself to make sure there is no free play.
- When a measuring tape is used, check to be sure there is no elongation, twisting or bending.
- Measurements should be taken at the center of the mounting holes.
- An asterisk (*) following the value at the measuring point indicates that the measuring point on the other side is symmetrically the same value.
- The coordinates of the measurement points are the distances measured from the standard line of ″X″, ″Y″ and ″Z″.
- ″Z″: Imaginary base line [200 mm (7.87 in) below datum line (″0Z″ at design plan)]




JSKIA0073GB

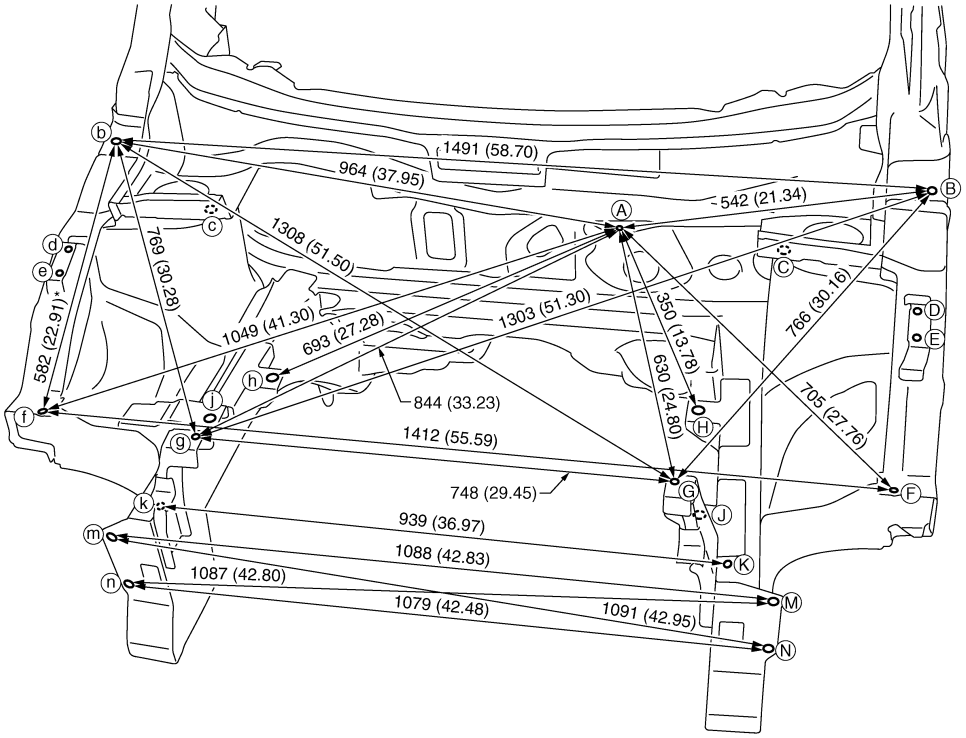
1. Vehicle center
2. Front axle center
3. Imaginary base line

## Motor Room

INFOID:0000000006956162

### MEASUREMENT

Dimensions marked with ″*″ indicate symmetrically identical dimensions on both the right and left hand of the vehicle.




JSKIA2277GB

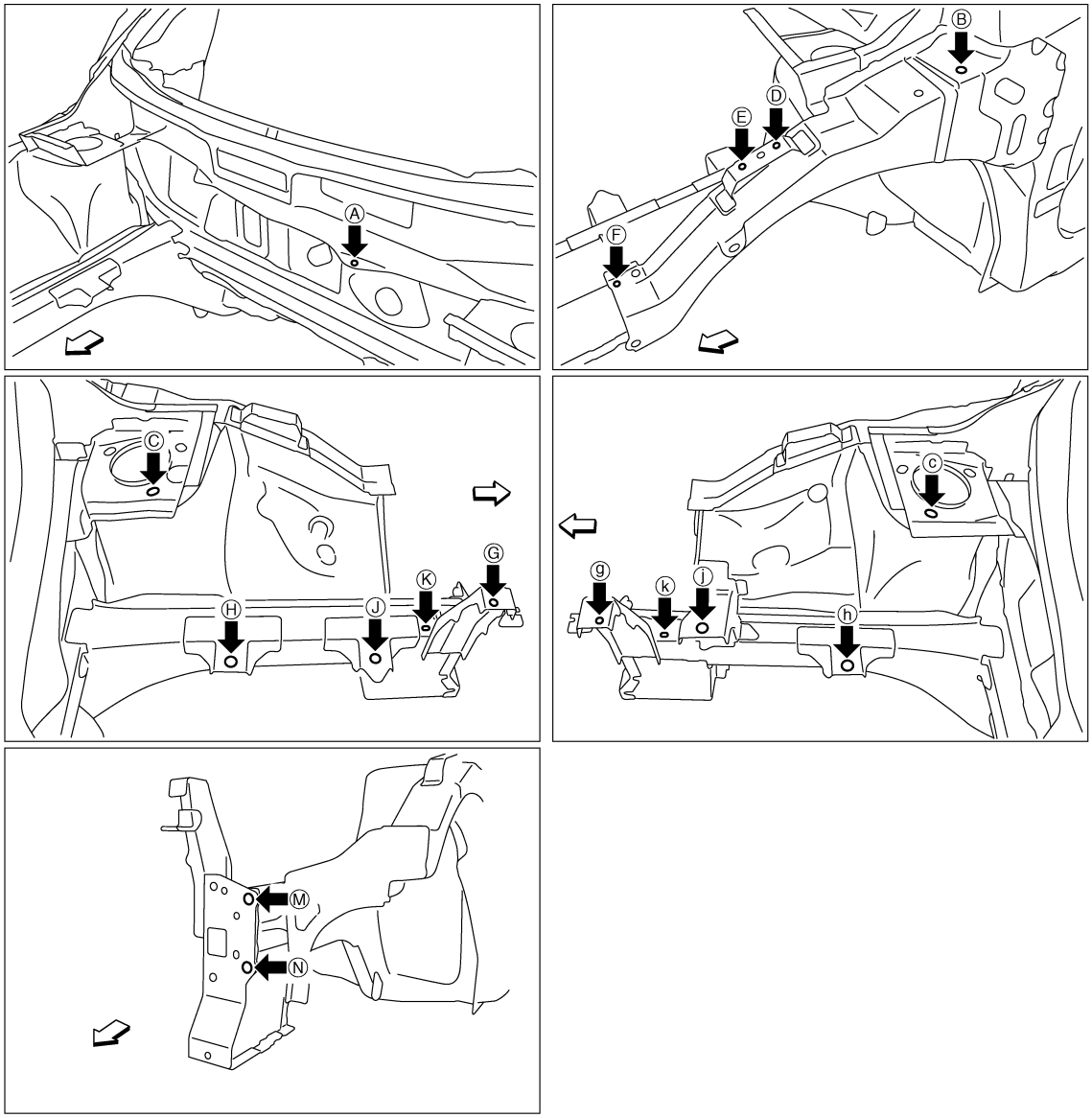
Unit: mm (in)

«The others»

Unit: mm (in)

| Point | Dimension | Memo | Point | Dimension | Memo | Point | Dimension | Memo | Point | Dimension | Memo |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A - C | 319 (12.56) | | A - j | 790 (31.10) | | D - d | 1447 (56.97) | | H - j | 843 (33.19) | |
| A - c | 738 (29.06) | | A - K | 659 (25.94) | | E - e | 1447 (56.97) | | h - J | 840 (33.07) | |
| A - D | 565 (22.24) | | A - k | 914 (35.98) | | F - G | 358 (14.09) | | H - k | 923 (36.34) | |
| A - d | 968 (38.11) | | B - C | 268 (10.55)* | | f - g | 363 (14.29) | | h - K | 937 (36.89) | |
| A - E | 588 (23.15) | | B - c | 1272 (50.08)* | | F - g | 1086 (42.76) | | J - j | 822 (32.36) | |
| A - e | 982 (38.66) | | B - f | 1563 (61.54)* | | f - G | 1092 (42.99) | | J - k | 878 (34.57) | |
| A - J | 550 (21.65) | | C - c | 1037 (40.83) | | H - h | 782 (30.79) | | j - K | 893 (35.16) | |

MEASUREMENT POINTS




JSKIA2278ZZ

⇦: Vehicle front

Unit: mm (in)

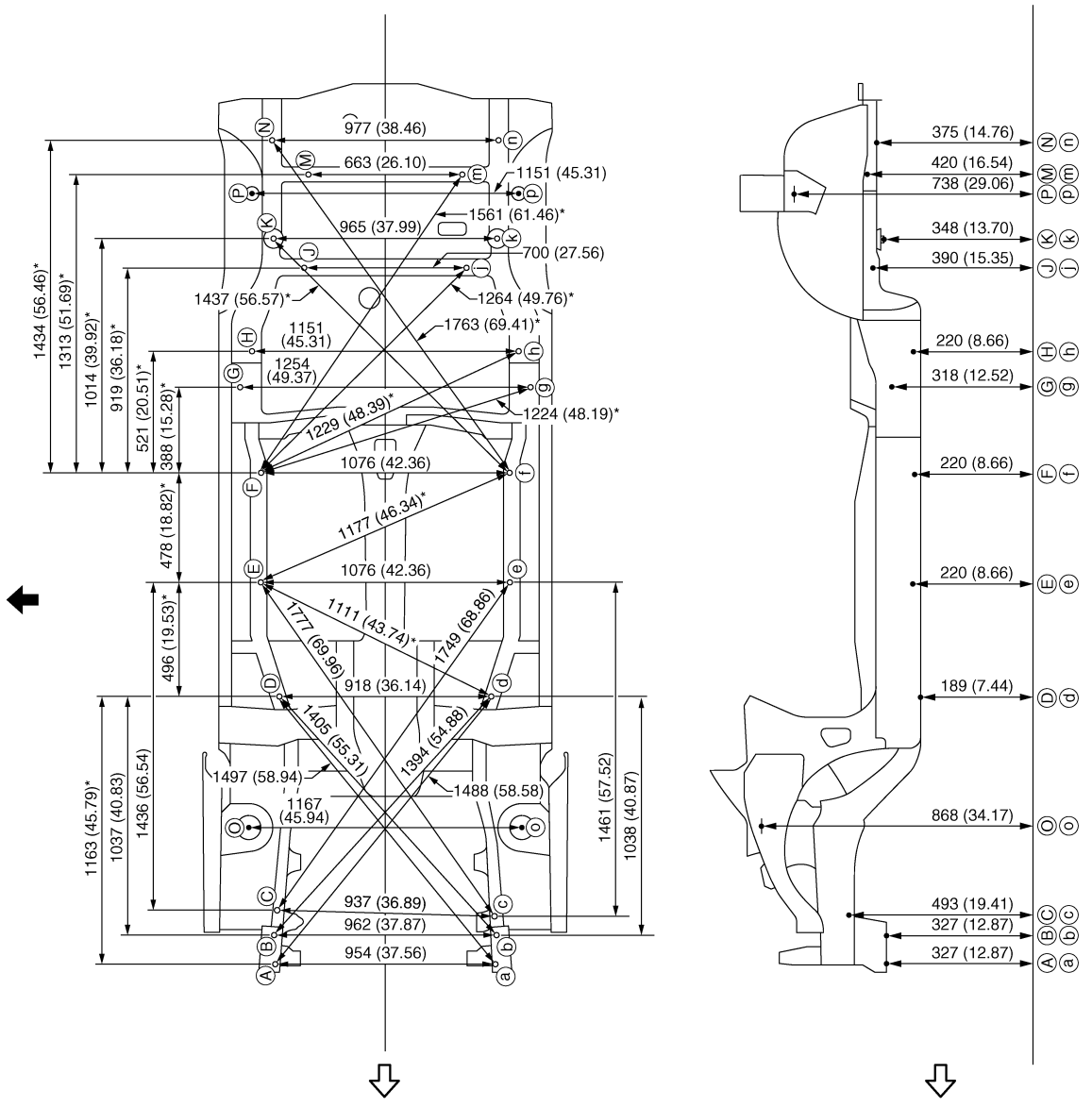
| Point | Material | Point | Material |
|---|---|---|---|
| A | Upper dash hole center ϕ7 (0.28) | G, g | Side radiator core support hole center ϕ9 (0.35) |
| B, b | Hood hinge installing hole center ϕ11 (0.43) | H, h, J, j | Traction motor inverter member mounting hole center ϕ18 (0.71) |
| C, c | Front strut installing hole center 18×13 (0.71×0.51) | K, k | Front side member hole center 12×7 (0.47×0.28) |
| D, d, E, e | Front fender installing hole center ϕ7 (0.28) | M, m, N, n | Front bumper stay installing hole center ϕ15 (0.59) |
| F, f | Hoodledge reinforcement hole center ϕ12 (0.47) | | |

## Underbody

INFOID:0000000006956163

### MEASUREMENT

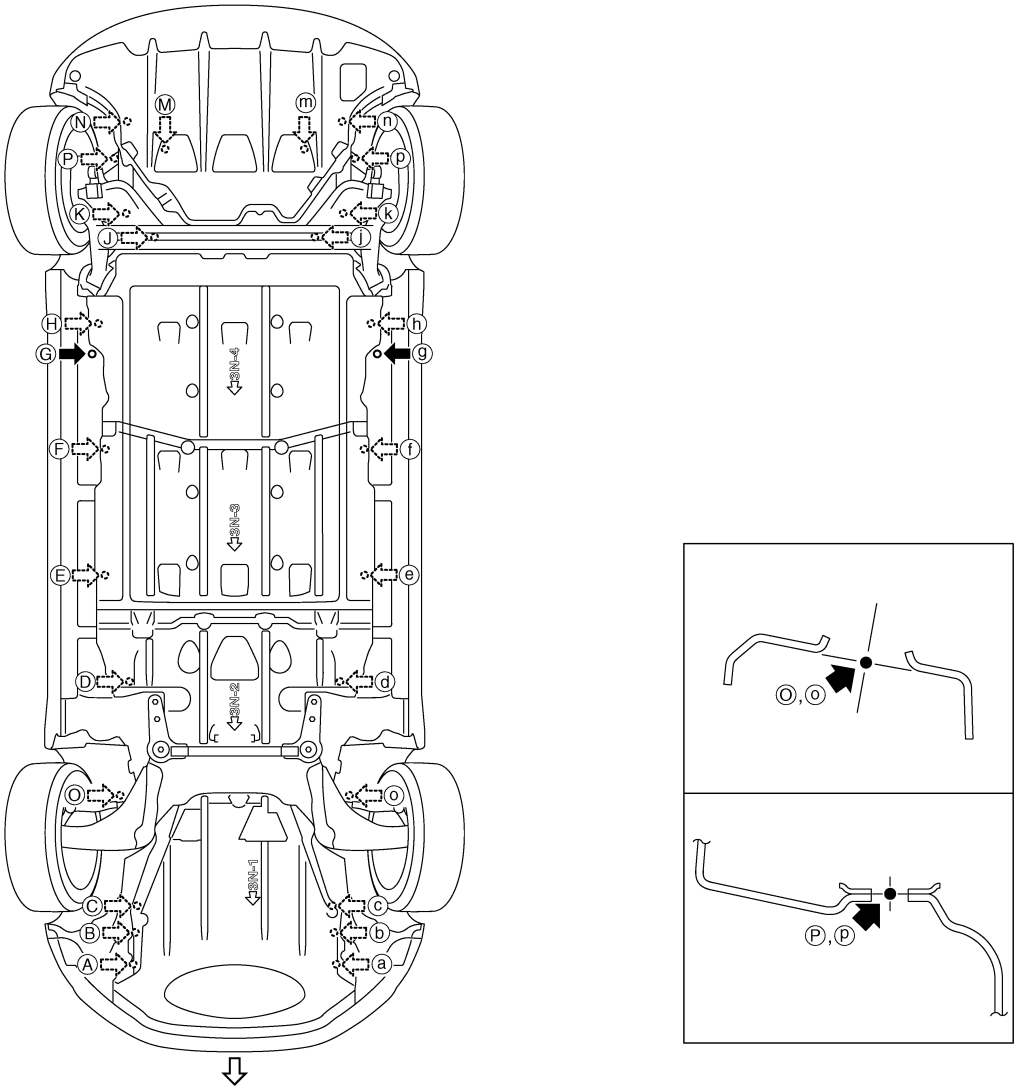
Dimensions marked with "*" indicate symmetrically identical dimensions on both the right and left hand of the vehicle.
The following figure shows a bottom view and a side view of the vehicle.




JSKIA2279GB

Unit: mm (in)
⇦: Vehicle front
⬅: Vehicle left side

## MEASUREMENT POINTS




JSKIA2280ZZ

⇦: Vehicle front

Unit: mm (in)

| Points | Coordinates | | | Remarks | Points | Coordinates | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | X | Y | Z | | | X | Y | Z | |
| A | 470.0 (18.504) | –582.0 (–22.913) | 327.3 (12.886) | Hole ϕ11 (0.43) | G, g | ±626.8 (±24.677) | 1904.4 (74.976) | 318.0 (12.520) | Hole ϕ16 (0.63) |
| a | –484.0 (–19.055) | –582.0 (–22.913) | 327.3 (12.886) | Hole ϕ11 (0.43) | H, h | ±575.4 (±22.653) | 2060.0 (81.102) | 220.0 (8.661) | Hole ϕ13 (0.51) |
| B | 472.4 (18.598) | –455.0 (–17.913) | 327.3 (12.886) | Hole ϕ20 (0.79) | J, j | ±350.0 (±13.780) | 2423.0 (95.394) | 390.4 (15.370) | Hole ϕ16 (0.63) |
| b | –489.7 (–19.279) | –455.0 (–17.913) | 327.3 (12.886) | Hole ϕ20 (0.79) | K, k | ±482.3 (±18.988) | 2544.2 (100.165) | 348.3 (13.713) | Hole ϕ12 (0.47) |
| C | 462.4 (18.205) | –346.0 (–13.622) | 492.8 (19.402) | Hole ϕ16 (0.63) | M, m | ±331.3 (±13.043) | 2821.5 (111.082) | 419.8 (16.528) | M: Hole ϕ16 (0.63) m: Hole 18×16 (0.71×0.63) |

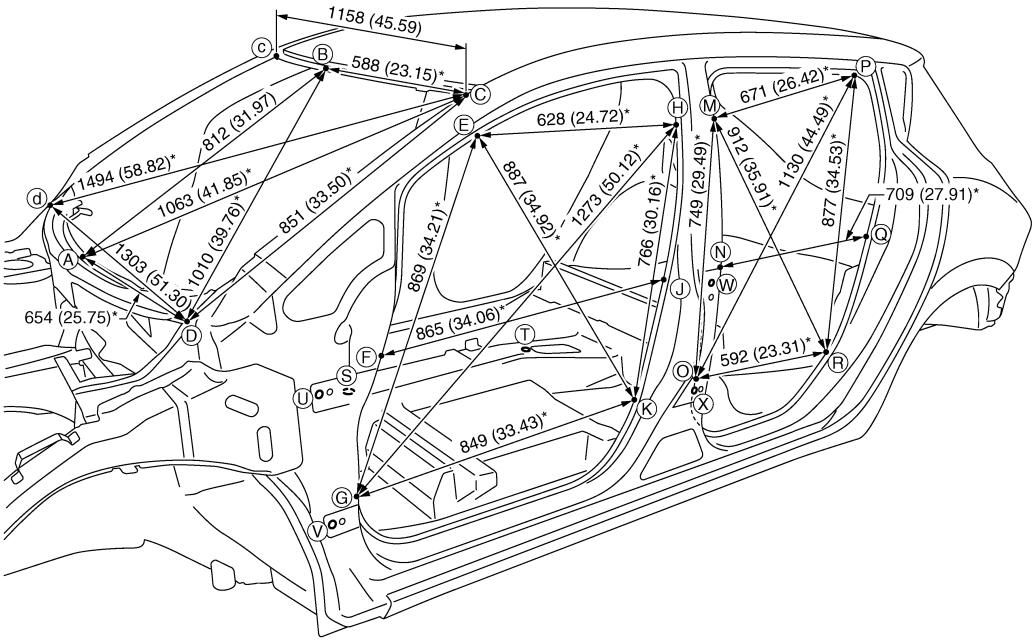
| Points | Coordinates | | | Remarks | Points | Coordinates | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | X | Y | Z | | | X | Y | Z | |
| c | −474.7 (−18.689) | −372.0 (−14.646) | 492.8 (19.402) | Hole ϕ16 (0.63) | N, n | ±488.5 (±19.232) | 2964.4 (116.708) | 375.4 (14.779) | Hole 17×16 (0.67×0.63) |
| D, d | ±458.8 (±18.063) | 572.9 (22.555) | 189.2 (7.449) | Hole ϕ16 (0.63) | O, o | ±583.6 (±22.976) | 6.6 (0.260) | 868.2 (34.181) | Hole ϕ98 (3.86) |
| E, e | ±538.0 (±21.181) | 1062.0 (41.811) | 220.0 (8.661) | Hole ϕ15 (0.59) | P, p | ±575.4 (±22.653) | 2739.3 (107.846) | 737.6 (29.039) | Hole ϕ20 (0.79) |
| F, f | ±538.0 (±21.181) | 1540.0 (60.630) | 220.0 (8.661) | Hole ϕ15 (0.59) | | | | | |

## Passenger Compartment

INFOID:0000000006956164

### MEASUREMENT

Dimensions marked with "*" indicate symmetrically identical dimensions on both the right and left hand of the vehicle.




JSKIA2281GB

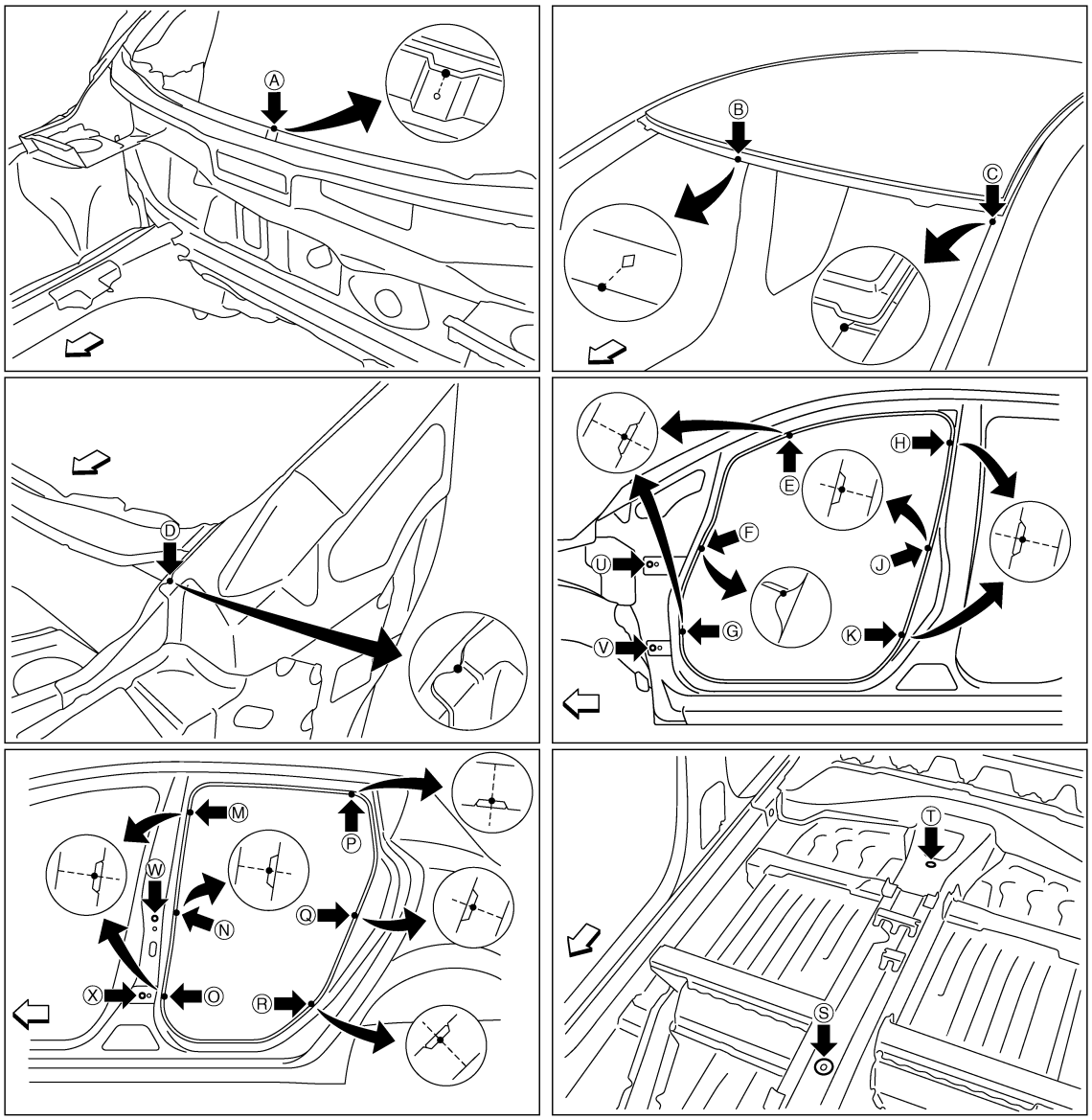
Unit: mm (in)

«The others»

Unit: mm (in)

| Point | Dimension | Memo | Point | Dimension | Memo | Point | Dimension | Memo | Point | Dimension | Memo |
|---|---|---|---|---|---|---|---|---|---|---|---|
| E - e | 1227 (48.31) | | J - j | 1420 (55.91) | | P - p | 1160 (45.67) | | T - N | 847 (33.35)* | |
| E - g | 1582 (62.28)* | | K - k | 1441 (56.73) | | P - r | 1562 (61.50)* | | T - O | 732 (28.82)* | |
| E - h | 1397 (55.00)* | | M - m | 1267 (49.88) | | Q - q | 1392 (54.80) | | T - P | 1378 (54.25)* | |
| E - k | 1599 (62.95)* | | M - o | 1545 (60.83)* | | R - r | 1441 (56.73) | | T - Q | 1169 (46.02)* | |
| F - f | 1420 (55.91) | | M - p | 1385 (54.53)* | | S - E | 1068 (42.05)* | | T - R | 983 (38.70)* | |
| F - j | 1663 (65.47)* | | M - r | 1630 (64.17)* | | S - F | 855 (33.66)* | | U - W | 1162 (45.75)* | |
| G - g | 1425 (56.10) | | N - n | 1420 (55.91) | | S - G | 772 (30.39)* | | U - X | 1133 (44.61)* | |
| G - h | 1852 (72.91)* | | N - q | 1575 (62.01)* | | S - H | 1297 (51.06)* | | V - W | 1215 (47.83)* | |
| G - k | 1666 (65.59)* | | O - o | 1441 (56.73) | | S - J | 1068 (42.05)* | | V - X | 1105 (43.50)* | |
| H - h | 1270 (50.00) | | O - p | 1717 (67.60)* | | S - K | 925 (36.42)* | | | | |
| H - k | 1555 (61.22)* | | O - r | 1558 (61.34)* | | T - M | 1070 (42.13)* | | | | |

MEASUREMENT POINTS




JSKIA2282ZZ

⇦: Vehicle front

Unit: mm (in)

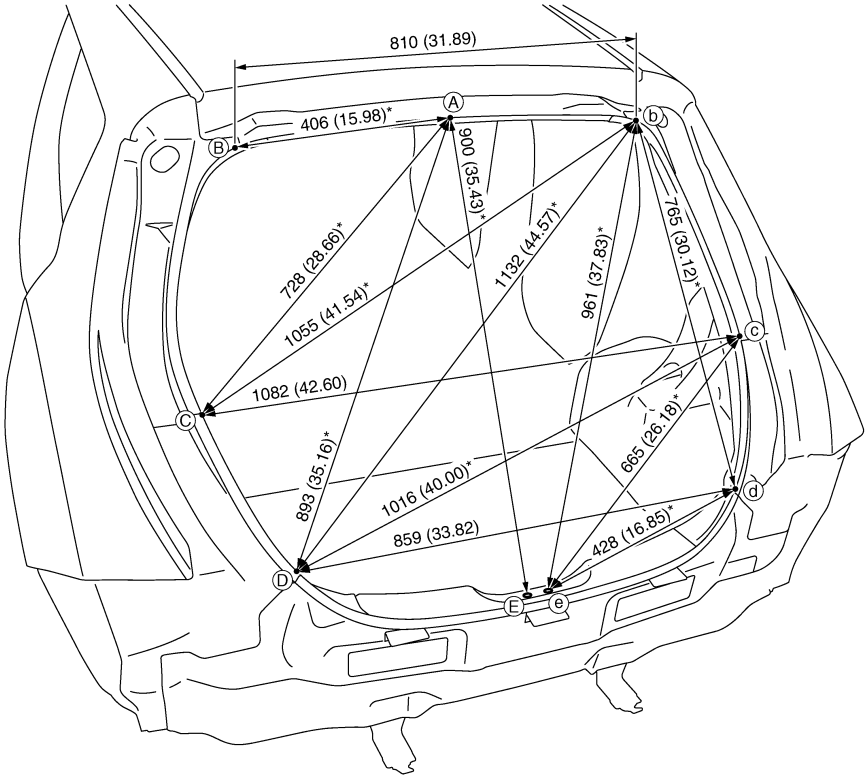
| Point | Material | Point | Material |
|---|---|---|---|
| A | Cowl top flange end of center positioning mark | P, p, Q, q, R, r | Rear fender indent |
| B | Roof flange end of center positioning mark | S | Trans control reinforcement hole center of center positioning mark ϕ31 (1.22) |
| C, c, F, f | Outer side body joggle | T | Center front floor hole center of center positioning mark ϕ11 (0.43) |
| D, d, E, e, G, g | Outer side body indent | U, u, V, v, W, w, X, x | Door hinge installing hole center<br>U, u, V, v, X, x: ϕ12 (0.47)<br>W, w: ϕ9 (0.35) |
| H, h, J, j, K, k, M, m, N, n, O, o | Center pillar indent | | |

## Rear Body

INFOID:0000000006956165

### MEASUREMENT

Dimensions marked with "*" indicate symmetrically identical dimensions on both the right and left hand of the vehicle.

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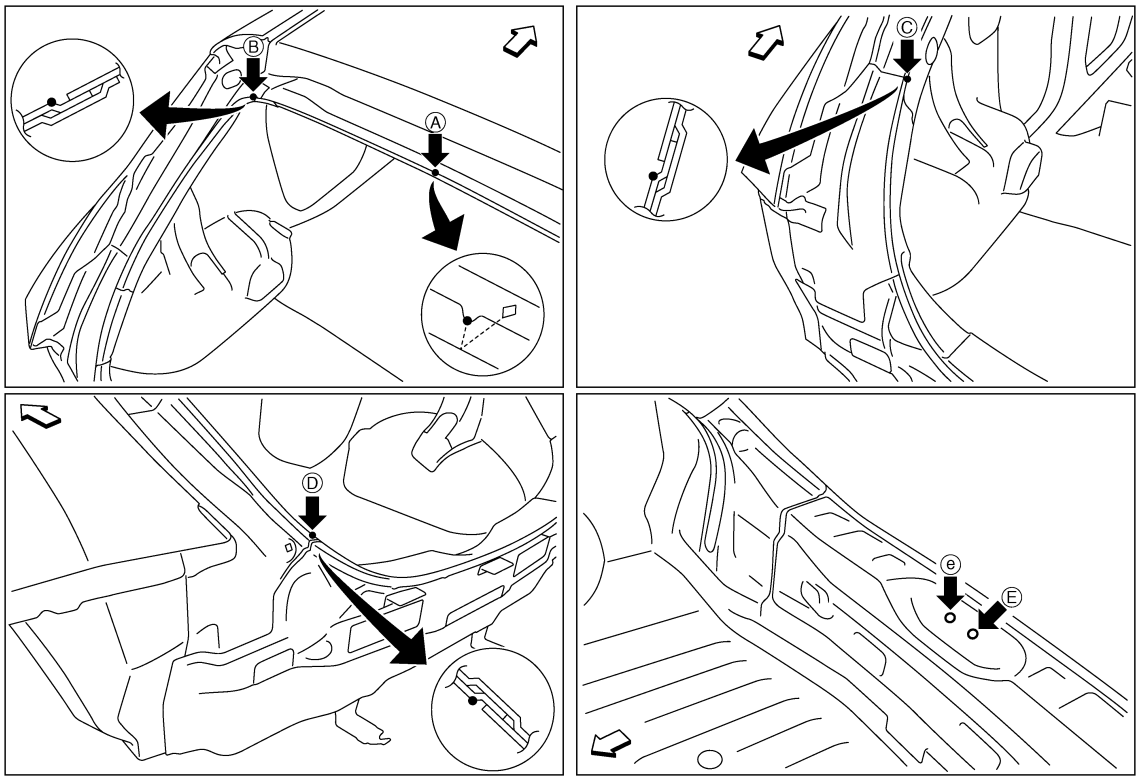
Unit: mm (in)

### MEASUREMENT POINTS

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⇦: Vehicle front

Unit: mm (in)

| Point | Material | Point | Material |
|---|---|---|---|
| A | Roof indent of center positioning mark | C, c, D, d | Rear combination lamp base joggle |
| B, b | Rear fender extension joggle | E, e | Back door striker installing hole center ϕ15 (0.59) |

# LOCATION OF PLASTIC PARTS

## Precautions for Plastics

INFOID:0000000006956166

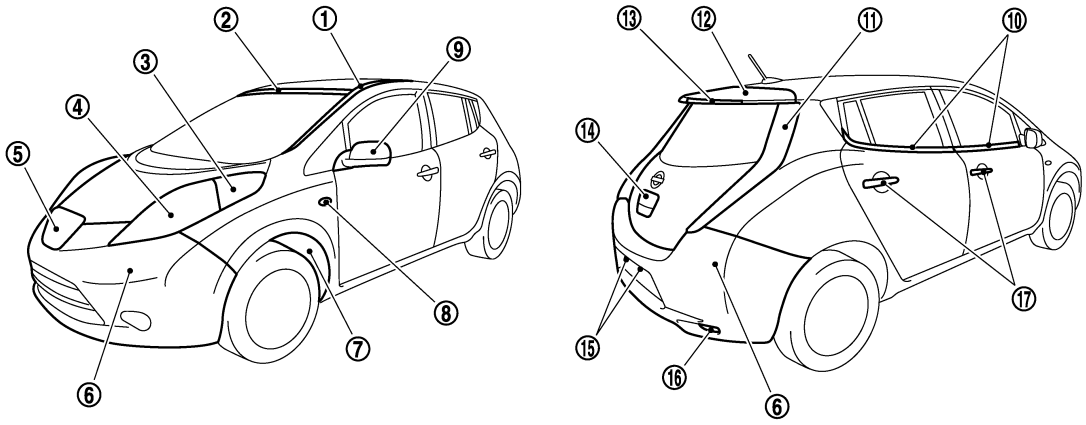
| Abbreviation | Material name | Heat resisting temperature °C (°F) | Resistance to gasoline and solvents | Other cautions |
|---|---|---|---|---|
| PE | Polyethylene | 60 (140) | Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly). | Flammable |
| ABS | Acrylonitrile Butadiene Styrene | 80 (176) | Avoid gasoline and solvents. | — |
| EPM/ EPDM | Ethylene Propylene (Diene) copolymer | 80 (176) | Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly). | Flammable |
| PS | Polystyrene | 80 (176) | Avoid solvents. | Flammable |
| PVC | Poly Vinyl Chloride | 80 (176) | Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly). | Poisonous gas is emitted when burned. |
| TPO | Thermoplastic Olefine | 80 (176) | ↑ | Flammable |
| AAS | Acrylonitrile Acrylic Styrene | 85 (185) | Avoid gasoline and solvents. | — |
| PMMA | Poly Methyl Methacrylate | 85 (185) | ↑ | — |
| EVAC | Ethylene Vinyl Acetate | 90 (194) | ↑ | — |
| PP | Polypropylene | 90 (194) | Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly). | Flammable, avoid battery acid. |
| PUR | Polyurethane | 90 (194) | Avoid gasoline and solvents. | — |
| UP | Unsaturated Polyester | 90 (194) | ↑ | Flammable |
| ASA | Acrylonitrile Styrene Acrylate | 100 (212) | ↑ | Flammable |
| PPE | Poly Phenylene Ether | 110 (230) | ↑ | — |
| TPU | Thermoplastic Urethane | 110 (230) | ↑ | — |
| PBT+ PC | Poly Butylene Terephthalate + Polycarbonate | 120 (248) | ↑ | Flammable |
| PC | Polycarbonate | 120 (248) | ↑ | — |
| POM | Poly Oxymethylene | 120 (248) | ↑ | Avoid battery acid. |
| PA | Polyamide | 140 (284) | ↑ | Avoid immersing in water. |
| PBT | Poly Butylene Terephthalate | 140 (284) | ↑ | — |
| PAR | Polyarylate | 180 (356) | ↑ | — |
| PET | Polyethylene terephthalate | 180 (356) | ↑ | — |
| PEI | Polyetherimide | 200 (392) | ↑ | — |

**CAUTION:**

- **When repairing and painting a portion of the body adjacent to plastic parts, consider their characteristics (influence of heat and solvent) and remove them if necessary or take suitable measures to protect them.**
- **Plastic parts should be repaired and painted using methods suiting the materials' characteristics.**

## Location of Plastic Parts

INFOID:0000000006956167

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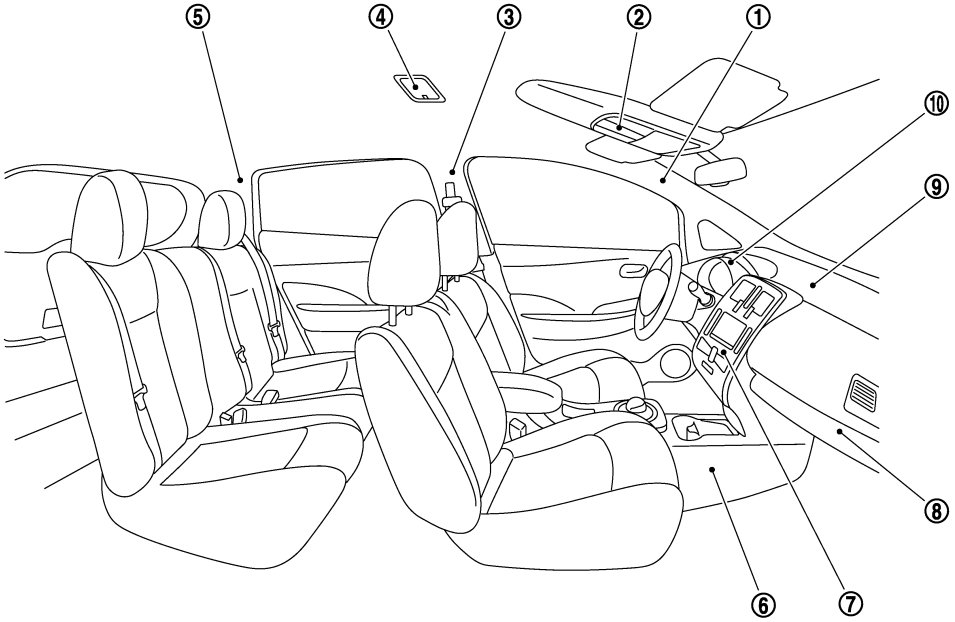
| Component | | | Material | Component | | | Material |
|---|---|---|---|---|---|---|---|
| 1 | Side roof molding | | PVC + Stainless | 10 | Door outside molding | | PVC + Stainless |
| | Lower side molding | | ASA | 11 | Rear combination lamp | Lens | PMMA |
| 2 | Upper windshield molding | | TPO | | | Housing | ASA |
| 3 | Front side marker lamp | Lens | PMMA | 12 | Rear spoiler | | ABS |
| | | Housing | PP | 13 | High mount stop lamp | Lens | PMMA |
| 4 | Front combination lamp | Lens | PC | | | Housing | ABS |
| | | Housing | PP | 14 | Back door handle | | ABS |
| 5 | Charge port lid | | PC + PET | 15 | License plate lamp | Lens | PMMA |
| 6 | Bumper fascia | | PP + EPM | | | Housing | PC |
| 7 | Front fender protector | | PP | 16 | Reflex reflector | Lens | PMMA |
| 8 | Side turn signal lamp | Lens | PMMA | | | Housing | ABS |
| | | Housing | PC + ABS | 17 | Door outside handle | Grip body | PC + PET + Glass fiber |
| 9 | Door outside mirror | Case | PP + Glass fiber | | | Grip cover | PC + ABS |
| | | Base | PBT + PET + Glass fiber | | | | |
| | | Cover | ABS | | | | |

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| Component | | | Material | Component | | | Material |
|---|---|---|---|---|---|---|---|
| 1 | Front pillar garnish | | PP | 5 | Rear pillar finisher | | PP |
| 2 | Map lamp | Lens | PC | 6 | Center console | Body | PP |
| | | Housing | PP | | | Console finisher | PC + ABS |
| | | Center cover | PP | 7 | Cluster lid C | | PC + ABS |
| | Sunglass holder | Case | PP | 8 | Glove box | | PP |
| | | Holder | PC + ABS | 9 | Instrument panel | | PP |
| 3 | Center pillar garnish | | PP | 10 | Cluster lid A | | PP |
| 4 | Room lamp | Lens | PC | | Cluster lid finisher | | PP |
| | | Housing | PP | | Meter cover | | PC + ABS |