

SECTION **BRM** BODY REPAIR

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BODY EXTERIOR PAINT COLOR

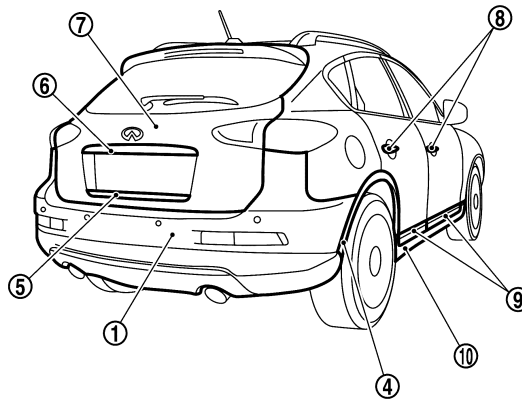
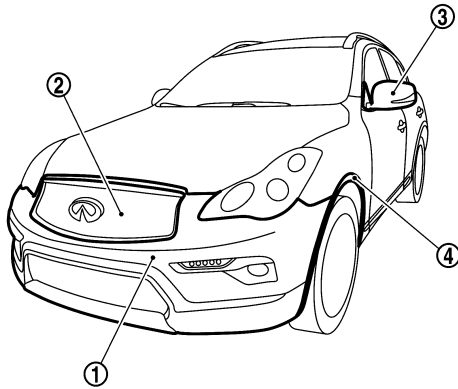
< VEHICLE INFORMATION >

VEHICLE INFORMATION

BODY EXTERIOR PAINT COLOR

Body Exterior Paint Color

INFOID:0000000012167968



JSKIA7175ZZ

Component			Color code	BK23	BKH3	BQAB	BKAD	BNAB	BGAC	BRBP
			Description	Silver	Black	White	Gray	Dark Red	Black	Grayish Blue
			Paint type ^{note}	2M	2S	3P	2M	2P	2P	2M
			Anti scratch advanced paint	×	×	×	×	×	×	×
①	Front and rear bumper fascia		Body color	BK23	BKH3	BQAB	BKAD	BNAB	BGAC	BRBP
	Front and rear bumper protector		Silver	Silver	Silver	Silver	Silver	Silver	Silver	Silver
	Front bumper finisher		Black	Black	Black	Black	Black	Black	Black	Black
	Front bumper molding		Silver	Silver	Silver	Silver	Silver	Silver	Silver	Silver
	Fog lamp finisher		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr
②	Front grille	Grille	Black	Black	Black	Black	Black	Black	Black	Black
		Molding	Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr
③	Door outside mirror	Cover	Body color	BK23	BKH3	BQAB	BKAD	BNAB	BGAC	BRBP
		Housing	Black	Black	Black	Black	Black	Black	Black	Black
		Finisher	Black	Black	Black	Black	Black	Black	Black	Black
		Inner cover	Black	Black	Black	Black	Black	Black	Black	Black
		Base	Black	Black	Black	Black	Black	Black	Black	Black
		Base under cover	Black	Black	Black	Black	Black	Black	Black	Black
④	Fillet molding		Black	Black	Black	Black	Black	Black	Black	Black
⑤	Back door finisher (Lower)		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr
⑥	Back door finisher (Upper)		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr
⑦	Back door		Body color	BK23	BKH3	BQAB	BKAD	BNAB	BGAC	BRBP
⑧	Door outside handle		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr

BODY EXTERIOR PAINT COLOR

< VEHICLE INFORMATION >

Component			Color code	BK23	BKH3	BQAB	BKAD	BNAB	BGAC	BRBP
			Description	Silver	Black	White	Gray	Dark Red	Black	Grayish Blue
			Paint type ^{note}	2M	2S	3P	2M	2P	2P	2M
			Anti scratch advanced paint	×	×	×	×	×	×	×
⑨	Front and rear door outside lower molding	Body	Material color	—	—	—	—	—	—	—
		Molding	Silver	Silver	Silver	Silver	Silver	Silver	Silver	Silver
⑩	Center mud guard	Body	Black	Black	Black	Black	Black	Black	Black	Black
		Molding	Silver	Silver	Silver	Silver	Silver	Silver	Silver	Silver

NOTE:

- 2M: 2-Coat metallic
- 2P: 2-Coat pearl
- 2S: 2-Coat solid
- 3P: 3-Coat pearl

PAINTING BACK DOOR (SERVICE PART)

The supplied back door (service part) is painted by Color Code BK23 (silver).

CAUTION:

- **Glass may drop off. To prevent the glass from dropping off, do not paint the bonding surface (masking area) of the glass.**
- **Sand and degrease the paint surface before painting it in body color. (For painting methods, observe the instructions provided by the paint manufacturer.)**
- **Repaint the surface by BK23 even when the body color is color code BK23. (The paint surface is grinded.)**

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

Precautions for Body Repair

INFOID:0000000014627609

WARNING:

- The repair information in this section is intended for trained body repair technicians who have attained a high level of skill and experience (e.g. ASE Collision Repair Certification, I-CAR Professional Development Program [PDP] training, etc.) in repairing collision damaged vehicles using appropriate tools and equipment. Performing repairs without the proper training, tools or equipment could damage the vehicle or cause personal injury or death to you or others.
- The information in this Body Repair Manual is a guideline for repairing collision damaged vehicles. However, this information cannot cover all possible ways that a vehicle can be damaged. As such, the body repair technician is responsible for making sure that the repair does not affect the structural integrity or safety of the vehicle. Improper repair of a damaged vehicle may result in a collision, property damage, personal injury or death.
- Infiniti recommends using only new genuine Infiniti replacement body parts. Use of used, salvaged or aftermarket body parts is not recommended by Infiniti. Non-genuine Infiniti components may affect the vehicle's structural integrity and crash safety performance, which could result in serious personal injury or death in an accident.

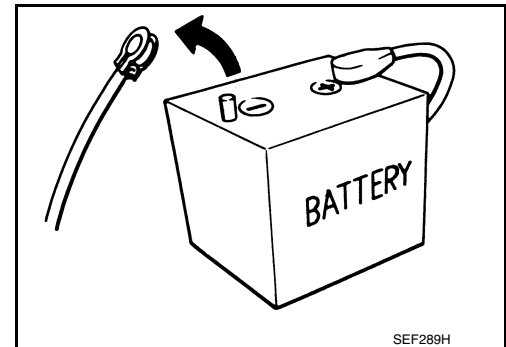
Precautions for Removing Battery Terminal

INFOID:0000000012791141

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	YD25DDTi	: 2 minutes
D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		



SEF289H

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.

REPAIRING HIGH STRENGTH STEEL

< PRECAUTION >

REPAIRING HIGH STRENGTH STEEL

High Strength Steel (HSS)

INFOID:0000000012790100

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:

UNDERBODY COMPONENT PARTS

Tensile strength	Major applicable parts
440 - 780 MPa	<ul style="list-style-type: none"> • Side radiator core support (Radiator core support assembly component part) • Front strut housing assembly • Upper front hoodledge • Hoodledge reinforcement • Lower dash crossmember • Lower dash complete • Center front floor (Rear) (Center front floor component part) • Trans control reinforcement (Center front floor component part) • 2nd crossmember (Front floor component part) • Front floor gusset (Front floor component part) • Inner front seat mounting front bracket (Front floor component part) • Front side member rear stiffener (Front floor component part) • 3rd crossmember (Front floor component part) • Front side member extension reinforcement (Front floor component part) • Front side member center extension (Front floor component part) • Inner sill • Rear seat crossmember reinforcement assembly • Rear floor belt anchor reinforcement • Front side member • Front side member closing plate • Front side member rear extension • Side member outrigger assembly • Rear seat crossmember assembly • Rear side member front (Rear side member component part) • Rear side member front reinforcement (Rear side member component part) • Rear tie down hook bracket (Rear side member component part) • Rear side member extension • Rear side member extension reinforcement assembly
Tensile strength	Major applicable parts
1350 MPa	<ul style="list-style-type: none"> • Front side member stiffener (Front floor component part)

BODY COMPONENT PARTS

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REPAIRING HIGH STRENGTH STEEL

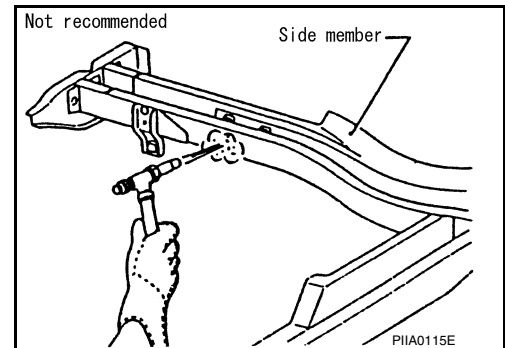
< PRECAUTION >

Tensile strength	Major applicable parts
440 - 780 MPa	<ul style="list-style-type: none"> • Front pillar brace • Side roof rail reinforcement (Outer side roof rail reinforcement component part) • Outer sill reinforcement • Inner side roof rail • Inner center pillar (Upper) (Inner center pillar component part) • Rear pillar seat belt anchor (Inner rear pillar component part) • Outer rear wheelhouse extension (Upper) • Outer rear wheelhouse extension (Lower)
Tensile strength	Major applicable parts
980 – 1530 MPa	<ul style="list-style-type: none"> • Center pillar reinforcement (Upper) (Center pillar reinforcement component part) • Center pillar seat belt reinforcement (Center pillar reinforcement component part) • Outer front pillar reinforcement (Outer side roof rail reinforcement component part) • Outer side roof rail (Outer side roof rail reinforcement component part) • Center sill reinforcement (Outer sill reinforcement component part) • Center pillar seat belt anchor (Inner center pillar component part)

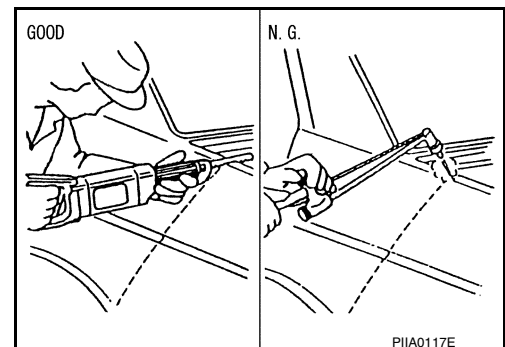
Read the following precautions when repairing HSS:

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.)



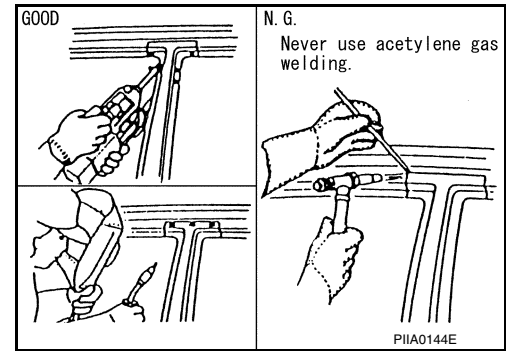
- When straightening body panels, use caution in pulling any HSS panel. Because HSS is very strong, pulling may cause deformation in adjacent sections of the body. In this case, increase the number of measuring points, and carefully pull the HSS panel.
- When cutting HSS panels, avoid gas (torch) cutting 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 (1.97 in).



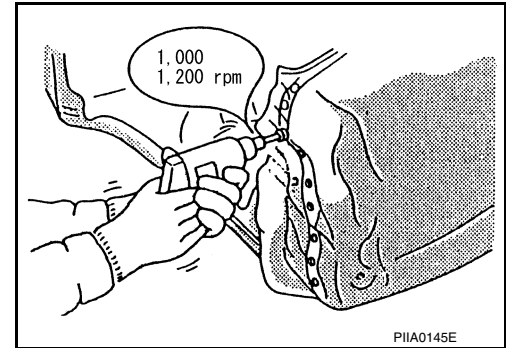
REPAIRING HIGH STRENGTH STEEL

< PRECAUTION >

- 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.



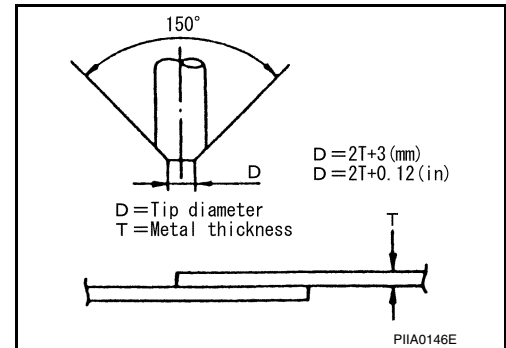
- Spot welding on HSS panels is harder than that of an ordinary steel panel.
Therefore, when cutting spot welds on a HSS panel, use a low speed high torque drill (1,000 to 1,200 rpm) to increase drill bit durability and facilitate the operation.



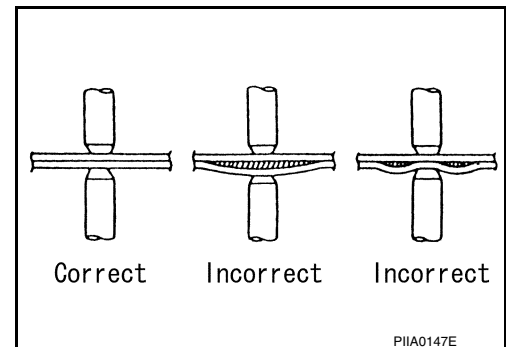
2. Precautions in spot welding HSS

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.



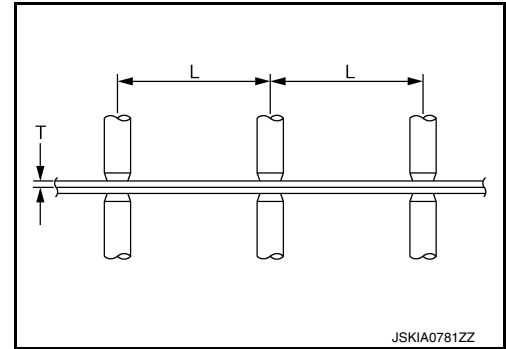
REPAIRING HIGH STRENGTH STEEL

< PRECAUTION >

- 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



REPAIRING MATERIAL

< PREPARATION >

PREPARATION

REPAIRING MATERIAL

Foam Repair

INFOID:0000000012792847

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.

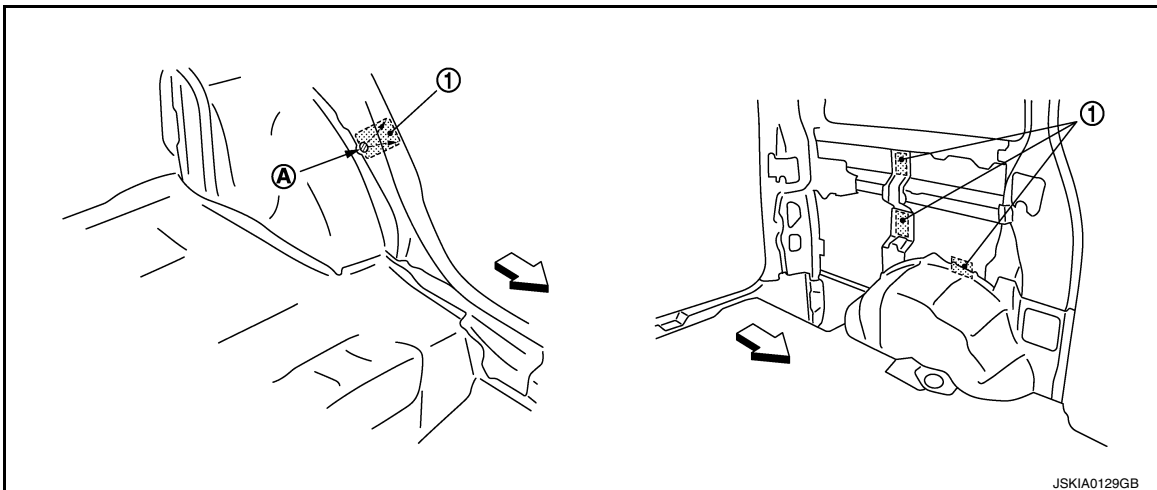
<Urethane foam for foaming agent>

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
- Ⓐ 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.

REPAIRING MATERIAL

< PREPARATION >

- ① Urethane foam
- Ⓐ Fill while avoiding flange area
- ⇐ Vehicle front

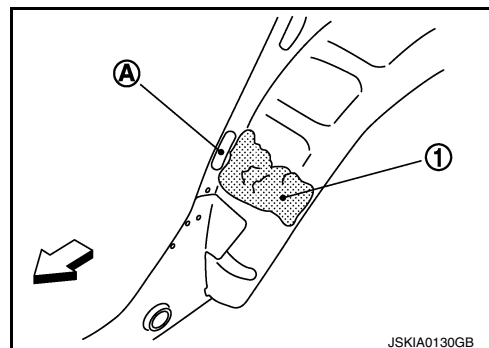
NOTE:

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

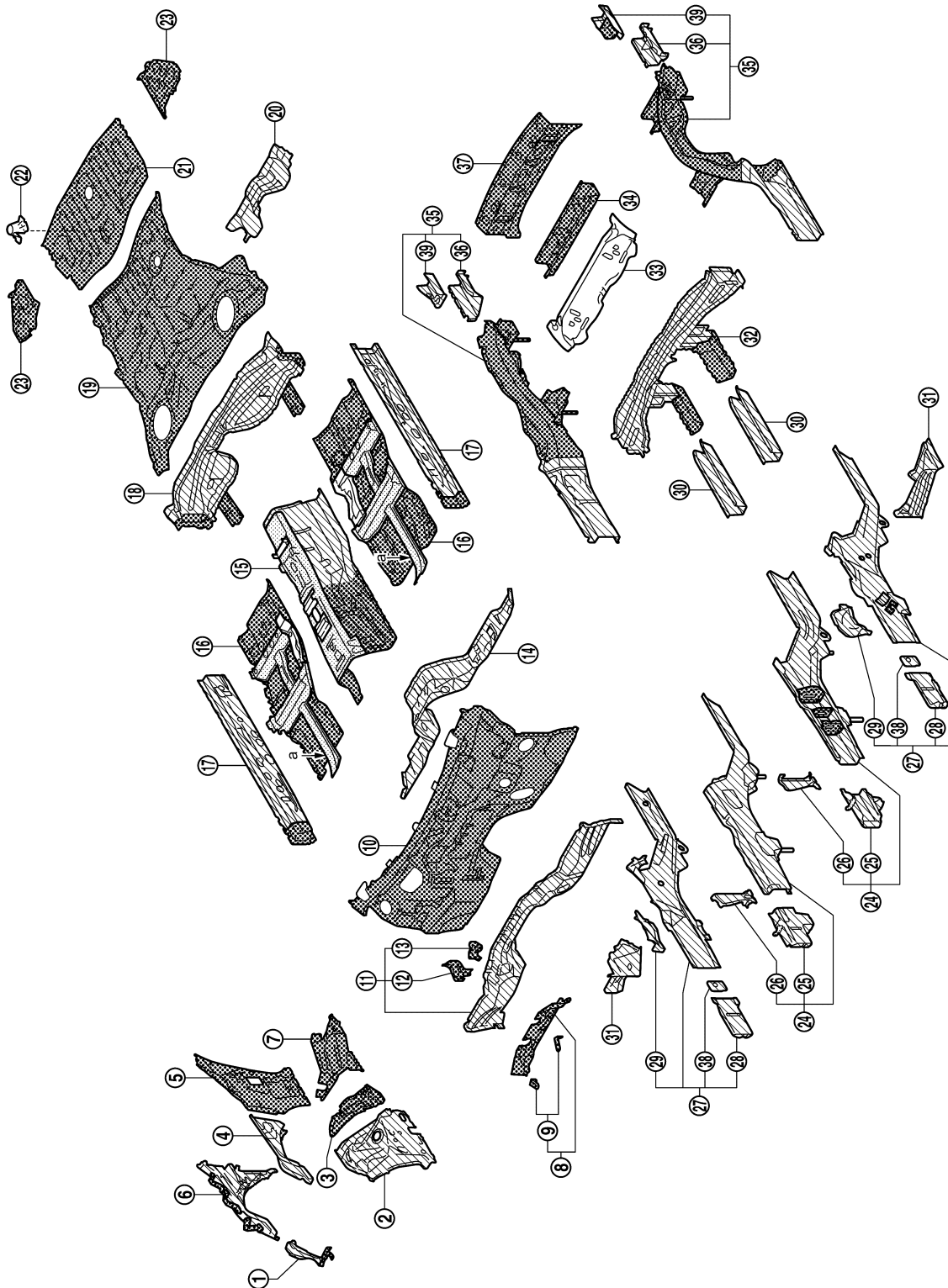
< PREPARATION >

BODY COMPONENT PARTS

Underbody Component Parts (2WD)

INFOID:0000000012793017

Refer to parts catalogue for the replacement parts.




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BODY COMPONENT PARTS

< PREPARATION >

 Both sided anti-corrosive precoated steel sections

 High strength steel (HSS) sections

 Both sided anti-corrosive steel and HSS sections

No.	Parts name		Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections
①	Radiator core support assembly (RH & LH)		440	×
②	Front strut housing assembly (RH & LH)		590	×
③	Lower rear hoodledge (RH & LH)		Under 440	×
④	Upper front hoodledge (RH & LH)		440	×
⑤	Upper rear hoodledge (RH & LH)		Under 440	×
⑥	Hoodledge reinforcement (RH & LH)		590	×
⑦	Upper side cowl top (RH & LH)		Under 440	×
⑧	Upper front cowl top assembly		Under 440	×
⑨	Cowl top bracket		Under 440	×
⑩	Upper dash assembly		440	×
⑪	Lower dash crossmember		590	×
⑫	Lower battery support bracket (RH)		Under 440	×
⑬	Lower battery support bracket (LH)		Under 440	×
⑭	Lower dash complete		440	×
⑮	Center front floor		440	×
⑯	Front floor (RH & LH)	a. 1350MPa ^{caution} T=1.6 mm (0.063 in)	590	×
⑰	Inner sill (RH & LH)		590	×
⑱	Rear seat crossmember reinforcement assembly		590	×
⑲	Rear floor front		Under 440	×
⑳	Rear floor belt anchor reinforcement		590	×
㉑	Rear floor rear		Under 440	×
㉒	Spare tire clamp bracket		Under 440	—
㉓	Rear floor rear side (RH & LH)		Under 440	×
㉔	Front side member (RH & LH)		590	×
㉕	Front side member front extension (RH & LH)		440	×
㉖	Front side member connector assembly (RH & LH)		440	×
㉗	Front side member closing plate (RH & LH)		590	×
㉘	Side member front closing plate (RH & LH)		440	×
㉙	Side member center closing plate (RH & LH)		440	×
㉚	Front side member rear extension (RH & LH)		590	×
㉛	Side member outrigger assembly (RH & LH)		590	×
㉜	Rear seat crossmember assembly		590	×
㉝	2nd rear crossmember		590	—

BODY COMPONENT PARTS

< PREPARATION >

No.	Parts name	Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections
③④	Rear crossmember center assembly	Under 440	×
③⑤	Rear side member (RH & LH)	590	×
③⑥	Rear side member extension (RH & LH)	590	×
③⑦	Rear end crossmember assembly	Under 440	×
③⑧	Front side rear closing reinforcement (RH & LH)	590	×
③⑨	Rear side member extension reinforcement assembly (RH & LH)	440	×

CAUTION:

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

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.

Underbody Component Parts (AWD)

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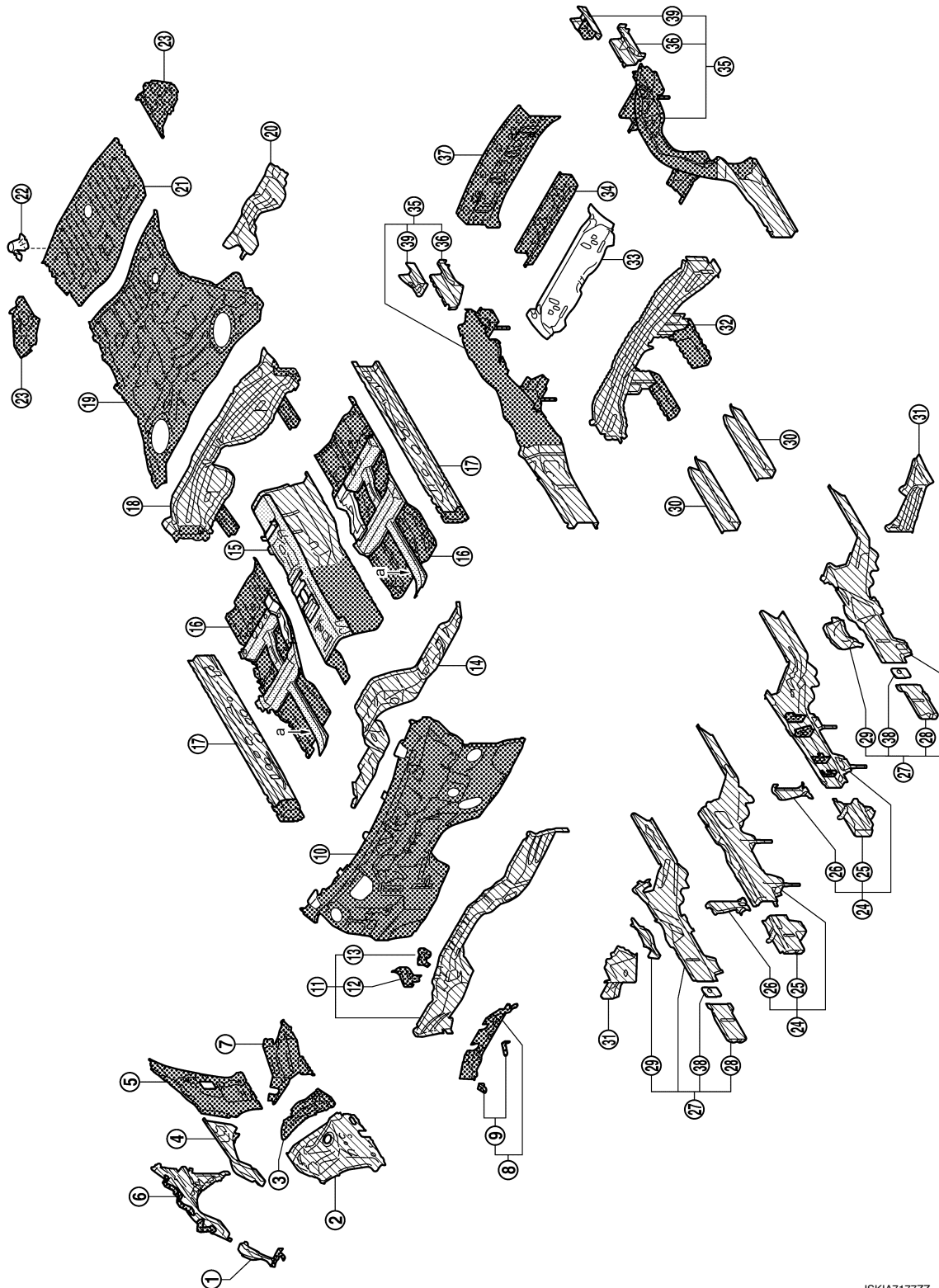
Refer to parts catalogue for the replacement parts.

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
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BODY COMPONENT PARTS

< PREPARATION >



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-  Both sided anti-corrosive precoated steel sections
-  High strength steel (HSS) sections
-  Both sided anti-corrosive steel and HSS sections

BODY COMPONENT PARTS

< PREPARATION >

No.	Parts name			Tensile strength (MPa)	Both sided anti-corrosive pre-coated steel sections
①	Radiator core support assembly (RH & LH)			440	×
②	Front strut housing assembly (RH & LH)			590	×
③	Lower rear hoodledge (RH & LH)			Under 440	×
④	Upper front hoodledge (RH & LH)			440	×
⑤	Upper rear hoodledge (RH & LH)			Under 440	×
⑥	Hoodledge reinforcement (RH & LH)			590	×
⑦	Upper side cowl top (RH & LH)			Under 440	×
⑧	Upper front cowl top assembly			Under 440	×
⑨	Cowl top bracket			Under 440	×
⑩	Upper dash assembly			440	×
⑪	Lower dash crossmember			590	×
⑫	Lower battery support bracket (RH)			Under 440	×
⑬	Lower battery support bracket (LH)			Under 440	×
⑭	Lower dash complete			440	×
⑮	Center front floor			440	×
⑯	Front floor (RH & LH)	a.	1350MPa ^{caution} T=1.6 mm (0.063 in)	590	×
⑰	Inner sill (RH & LH)			590	×
⑱	Rear seat crossmember reinforcement assembly			590	×
⑲	Rear floor front			Under 440	×
⑳	Rear floor belt anchor reinforcement			590	×
㉑	Rear floor rear			Under 440	×
㉒	Spare tire clamp bracket			Under 440	—
㉓	Rear floor rear side (RH & LH)			Under 440	×
㉔	Front side member (RH & LH)			590	×
㉕	Front side member front extension (RH & LH)			440	×
㉖	Front side member connector assembly (RH & LH)			440	×
㉗	Front side member closing plate (RH & LH)			590	×
㉘	Side member front closing plate (RH & LH)			440	×
㉙	Side member center closing plate (RH & LH)			440	×
㉚	Front side member rear extension (RH & LH)			590	×
㉛	Side member outrigger assembly (RH & LH)			590	×
㉜	Rear seat crossmember assembly			590	×
㉝	2nd rear crossmember			590	—
㉞	Rear crossmember center assembly			Under 440	×
㉟	Rear side member (RH & LH)			590	×
㊱	Rear side member extension (RH & LH)			590	×

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BODY COMPONENT PARTS

< PREPARATION >

No.	Parts name	Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections
③7	Rear end crossmember assembly	Under 440	×
③8	Front side rear closing reinforcement (RH & LH)	590	×
③9	Rear side member extension reinforcement assembly (RH & LH)	440	×

CAUTION:

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

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.

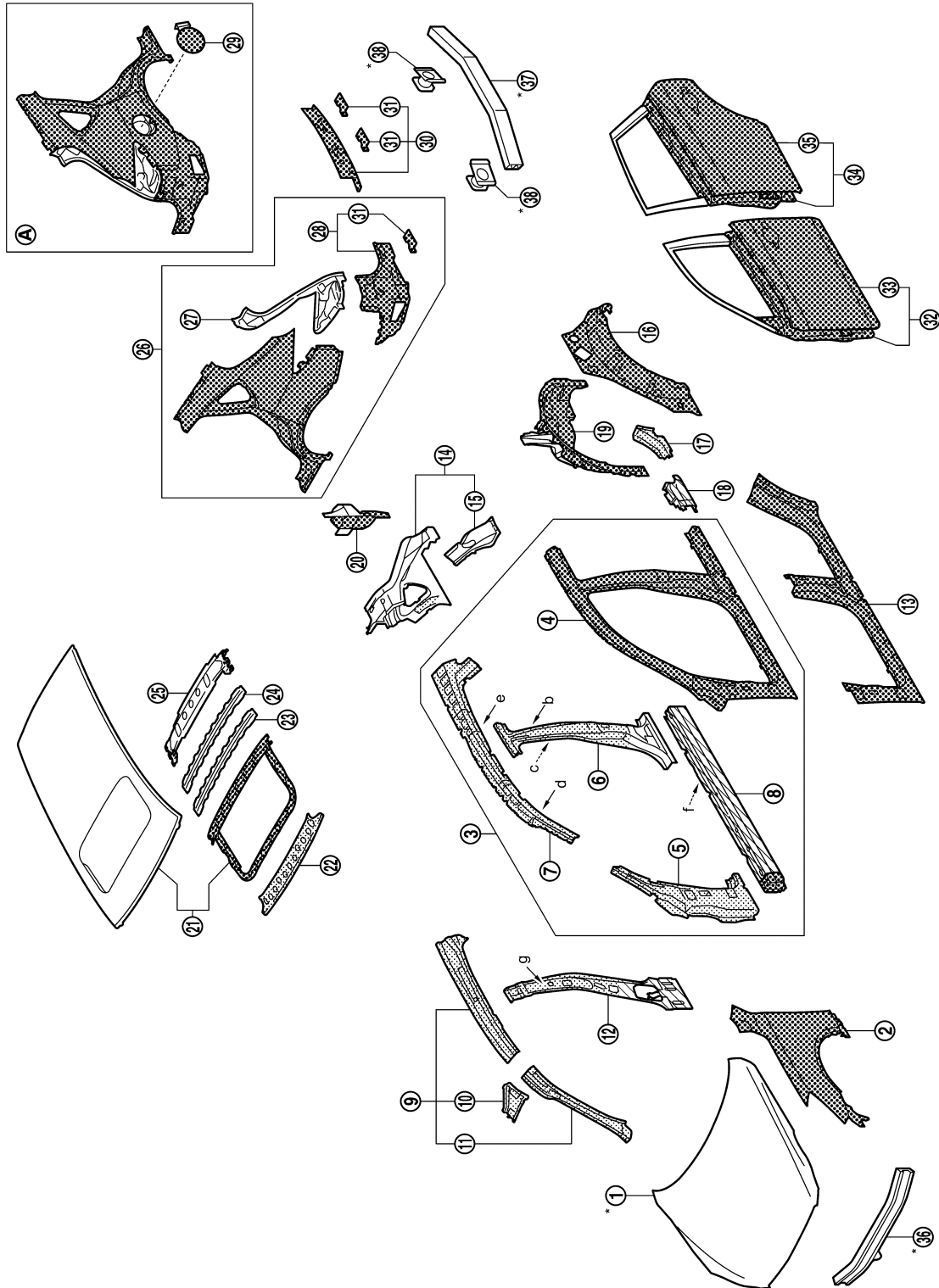
Body Component Parts

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Refer to parts catalogue for the replacement parts.

BODY COMPONENT PARTS

< PREPARATION >



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(A) Right side

▨: Both sided anti-corrosive precoated steel sections

▧: High strength steel (HSS) sections

▩: Both sided anti-corrosive steel and HSS sections

*: Aluminum portion

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BODY COMPONENT PARTS

< PREPARATION >

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	Side body assembly (RH & LH)			Refer to No. ④ – ⑧		
④	Outer front side body (RH & LH)			Under 440	×	—
⑤	Front pillar brace (RH & LH)			590	—	—
⑥	Center pillar reinforcement (RH & LH)	b.	980MPa ^{caution} T=1.6 mm (0.063 in)	Under 440	—	—
		c.	980MPa ^{caution} T=2.0 mm (0.079 in)			
⑦	Outer side roof rail reinforcement (RH & LH)	d.	980MPa ^{caution} T=1.2 mm (0.047 in)	590	—	—
		e.	1530MPa ^{caution} T=1.8 mm (0.071 in)			
⑧	Outer sill reinforcement (RH & LH)	f.	980MPa ^{caution} T=1.2 mm (0.047 in)	590	×	—
⑨	Inner side roof rail (RH & LH)			590	—	—
⑩	Front roof rail brace (RH & LH)			590	—	—
⑪	Upper inner front pillar (RH & LH)			590	—	—
⑫	Inner center pillar (RH & LH)	g.	980MPa ^{caution} T=1.6 mm (0.063 in)	590	—	—
⑬	Outer sill assembly (RH & LH)			Under 440	×	—
⑭	Inner rear pillar (RH & LH)			440	—	—
⑮	Inner rear pillar reinforcement (RH & LH)			Under 440	—	—
⑯	Outer rear wheelhouse (RH & LH)			Under 440	×	—
⑰	Outer rear wheelhouse extension (Upper RH & LH)			590	—	—
⑱	Outer rear wheelhouse extension (Lower RH & LH)			590	×	—
⑲	Inner rear wheelhouse (RH & LH)			590	×	—
⑳	Lower inner rear pillar (RH & LH)			Under 440	×	—
㉑	Roof			Under 440	—	—
㉒	Front roof rail			590	—	—
㉓	Roof bow 3rd			Under 440	—	—
㉔	Roof bow 4th			Under 440	—	—
㉕	Rear roof rail			Under 440	—	—
㉖	Rear fender (RH & LH)			Under 440	×	—
㉗	Outer back pillar (RH & LH)			Under 440	—	—
㉘	Back pillar assembly (RH & LH)			Under 440	×	—
㉙	Fuel filler lid assembly			Under 440	×	—
㉚	Upper rear panel			Under 440	×	—
㉛	Upper rear bumper retainer			Under 440	×	—

BODY COMPONENT PARTS

< PREPARATION >

No.	Parts name	Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections	Aluminum portion
③②	Front door assembly (RH & LH)	440	×	—
③③	Outer front door panel (RH & LH)	Under 440	×	—
③④	Rear door assembly (RH & LH)	440	×	—
③⑤	Outer rear door panel (RH & LH)	Under 440	×	—
③⑥	Inner center front bumper reinforcement	—	—	×
③⑦	Inner center rear bumper reinforcement	—	—	×
③⑧	Rear bumper stay (RH & LH)	—	—	×

CAUTION:

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

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.

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CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

CORROSION PROTECTION

Description

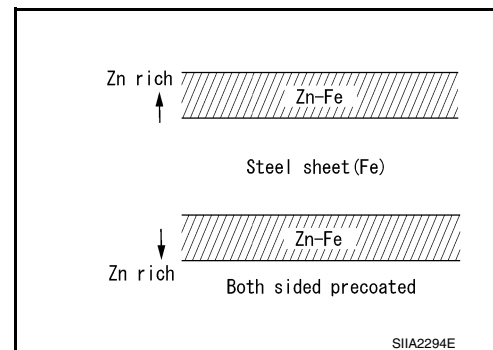
INFOID:000000012794936

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 reparability and corrosion resistance, a new type of anti-corrosive precoated steel sheet is 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.



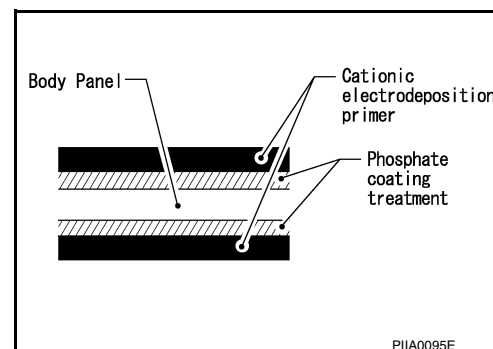
NISSAN genuine parts are fabricated from galvannealed steel. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

PHOSPHATE COATING TREATMENT AND CATIONIC ELECTRODEPOSITION PRIMER

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

CAUTION:

Confine paint removal during welding operation to an absolute minimum.



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

Anti-corrosive Wax

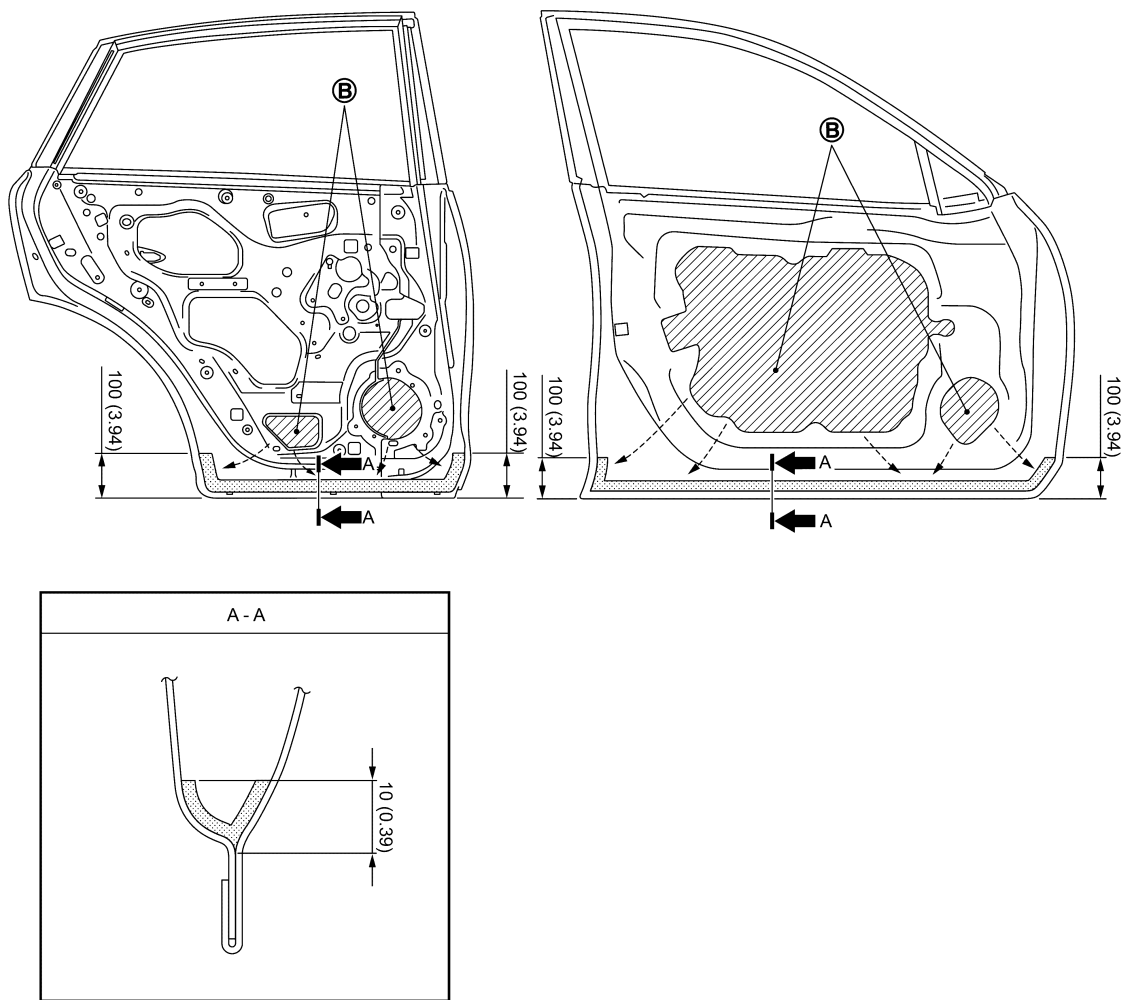
INFOID:000000012167974

To improve corrosion resistance, anti-corrosive wax is applied inside the body sill and inside other closed sections. Accordingly, when replacing these parts, be sure to apply anti-corrosive wax to the appropriate areas of the new parts. Select an excellent anti-corrosive wax which will penetrate after application and has a long shelf life.

DOOR

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >



JSKIA7180GB

Ⓑ Nozzle insert hole

▨ : Anti-corrosive wax coated portions

Undercoating

INFOID:0000000012794937

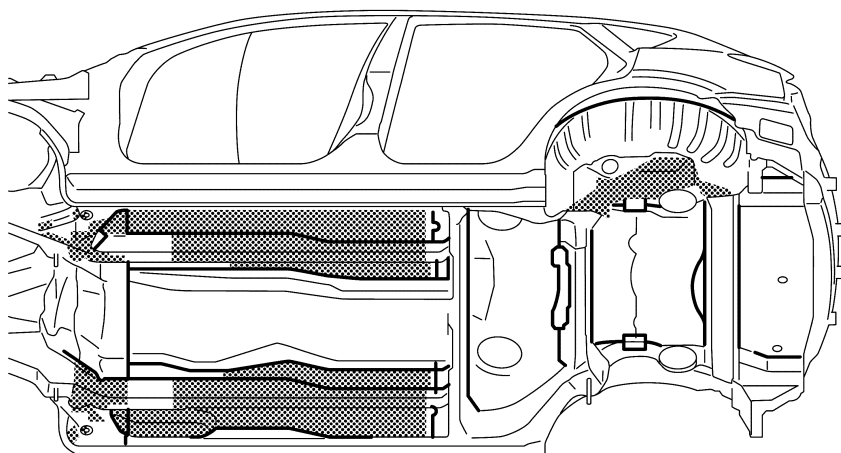
The underside of the floor and wheelhouse are undercoated to prevent rust, vibration, noise and stone chipping. Therefore, when such a panel is replaced or repaired, apply undercoating to that part. Use an undercoating which is rust resistant, soundproof, vibration-proof, shock-resistant, adhesive, and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


CORROSION PROTECTION

< REMOVAL AND INSTALLATION >



JSKIA7181ZZ

 Undercoated areas

 Sealed portions

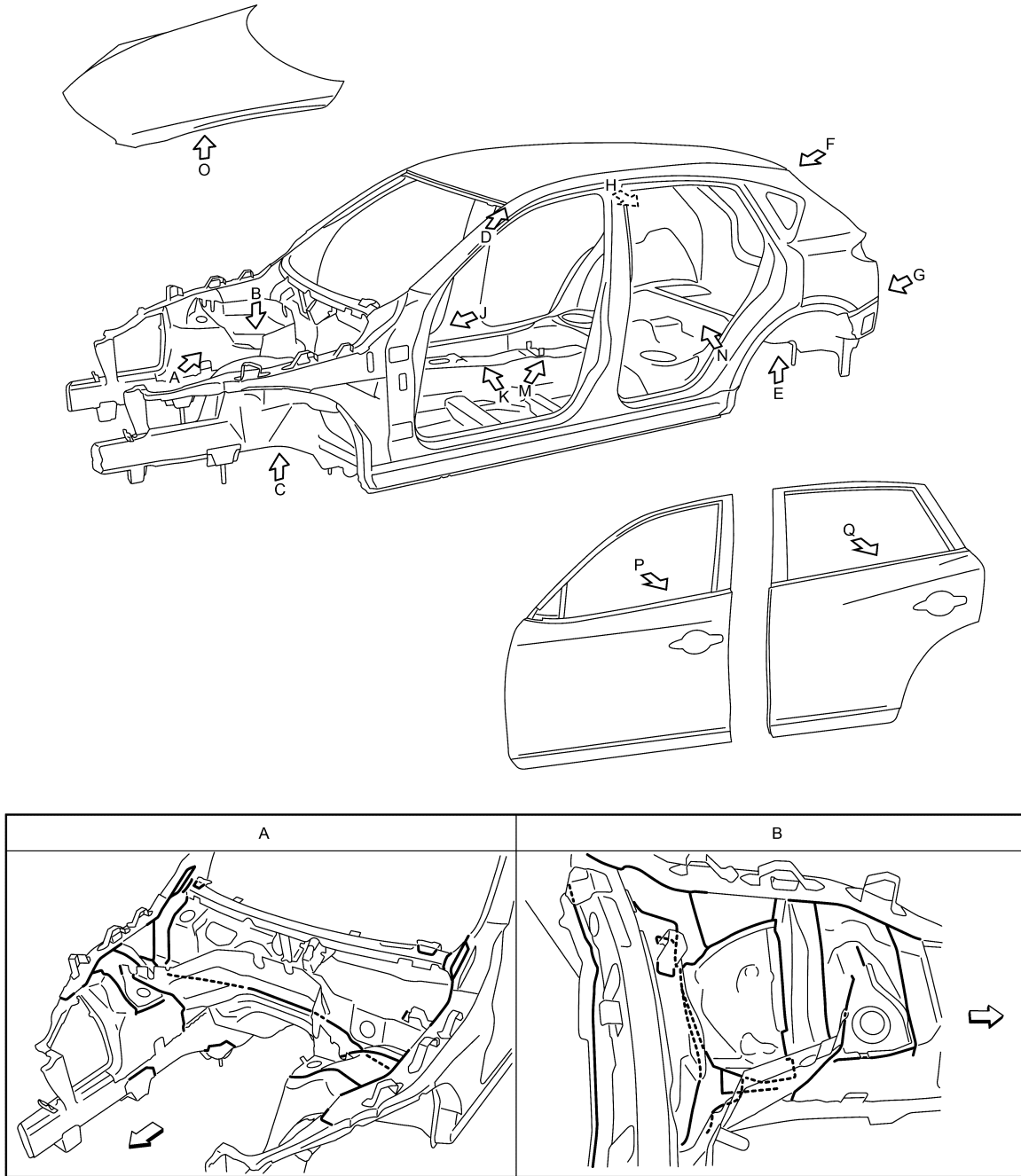
Body Sealing (2WD)

INFOID:0000000012167976

The following figure shows the areas which are sealed at the factory. Sealant which has been 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.

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

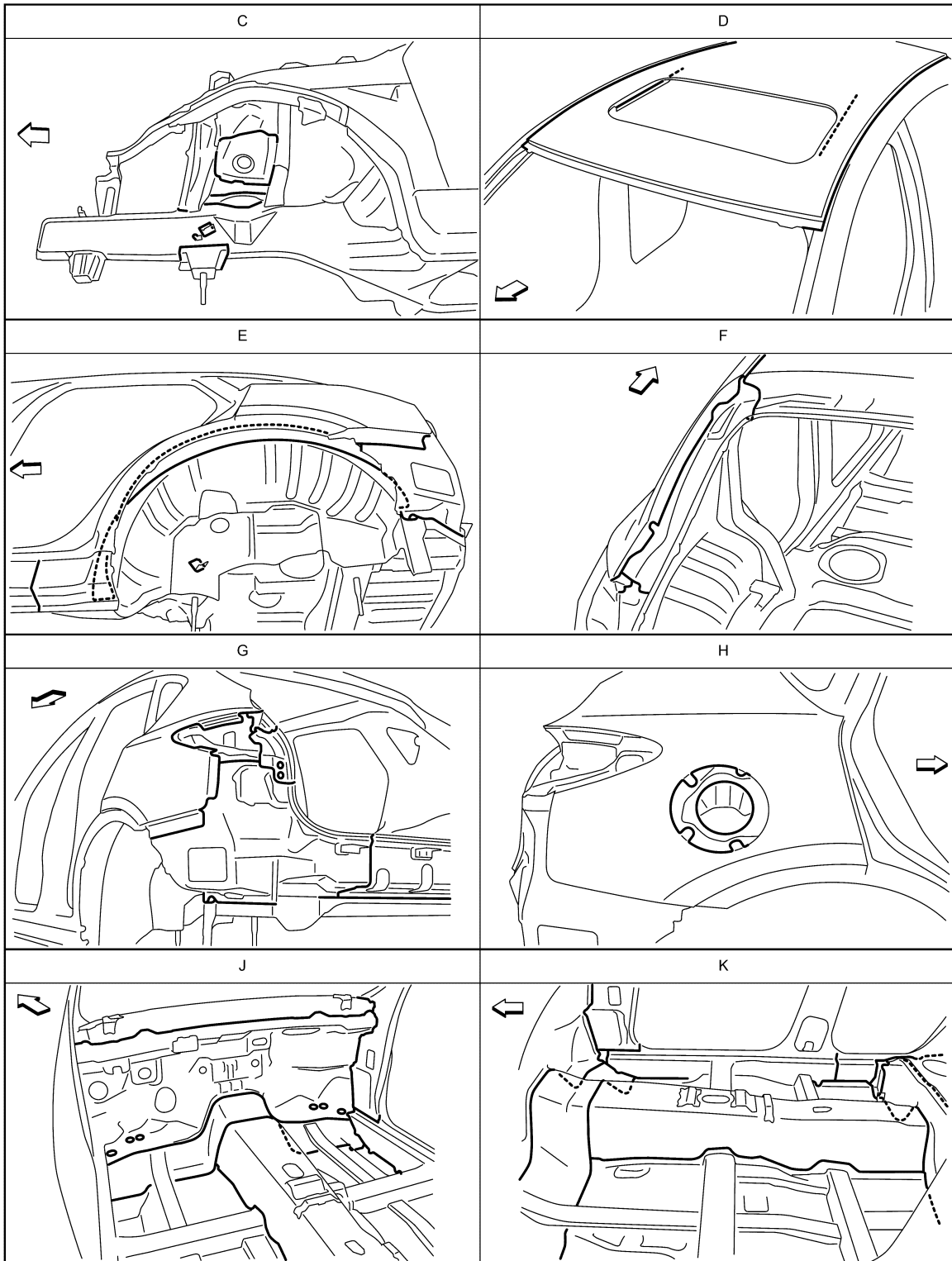


JSKIA7182ZZ

: Vehicle front
: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

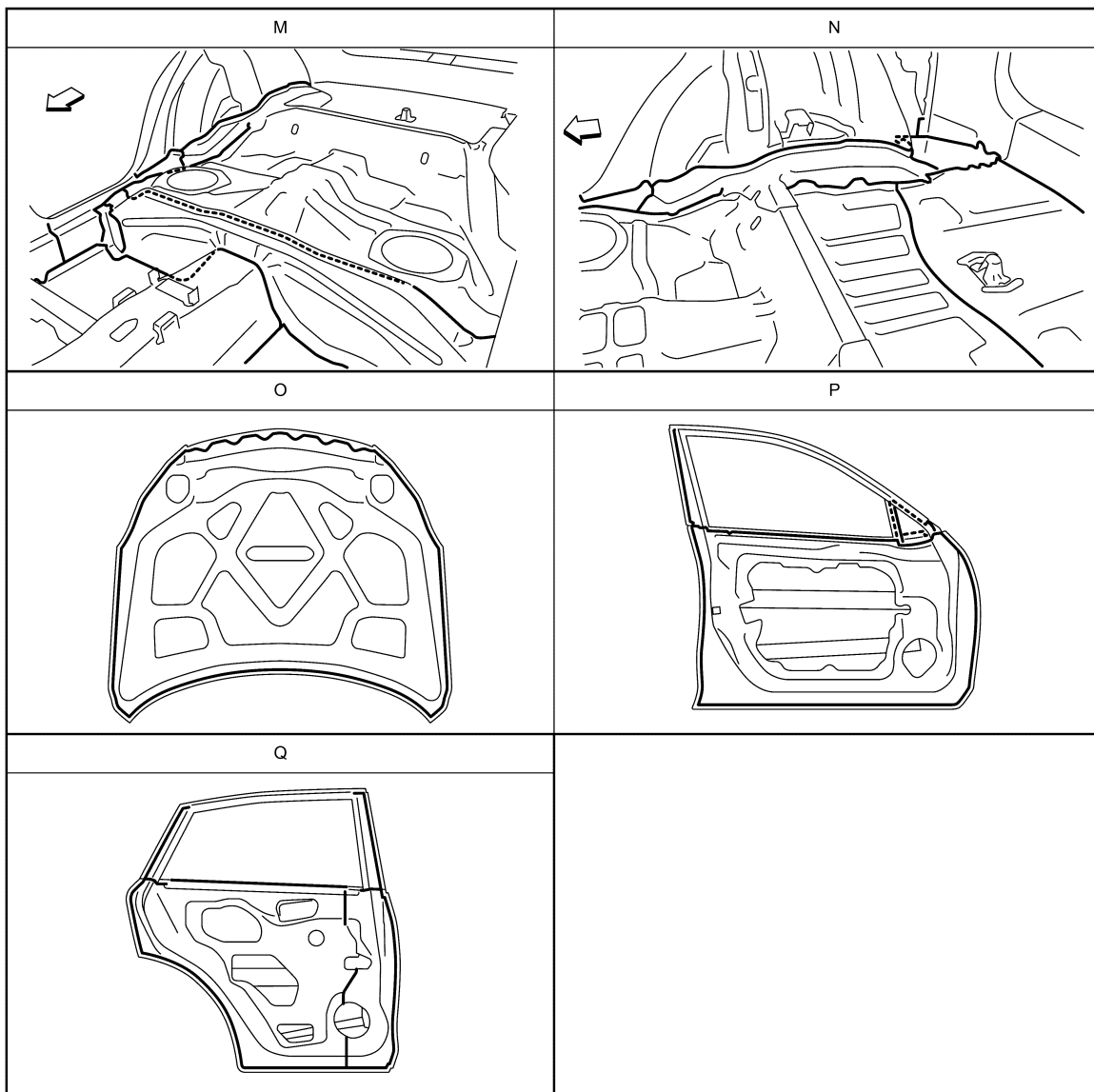


JSKIA7183ZZ

↩: Vehicle front
—: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >



: Vehicle front
: Sealed portions

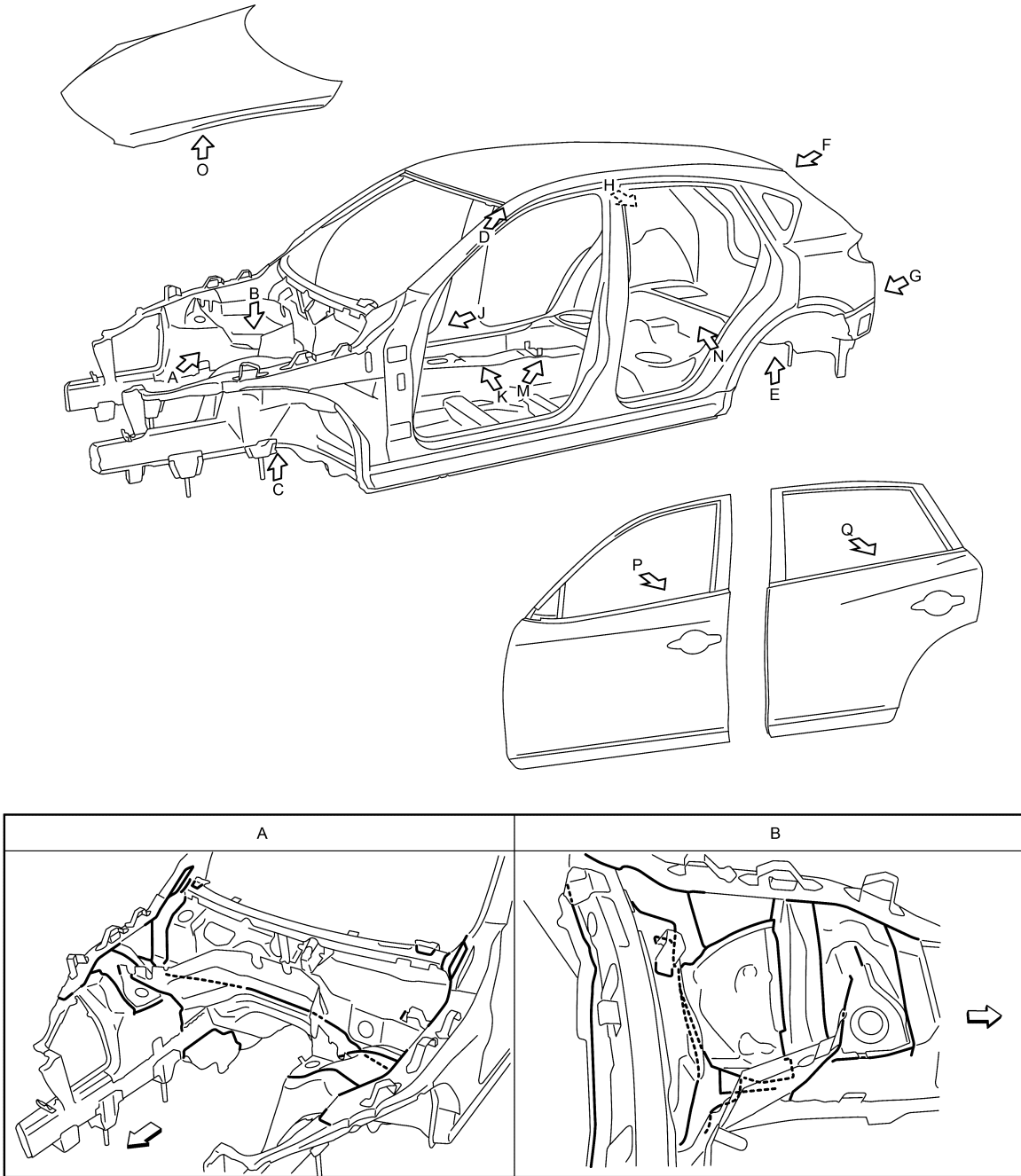
Body Sealing (AWD)

INFOID:0000000012733137

The following figure shows the areas which are sealed at the factory. Sealant which has been 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.

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

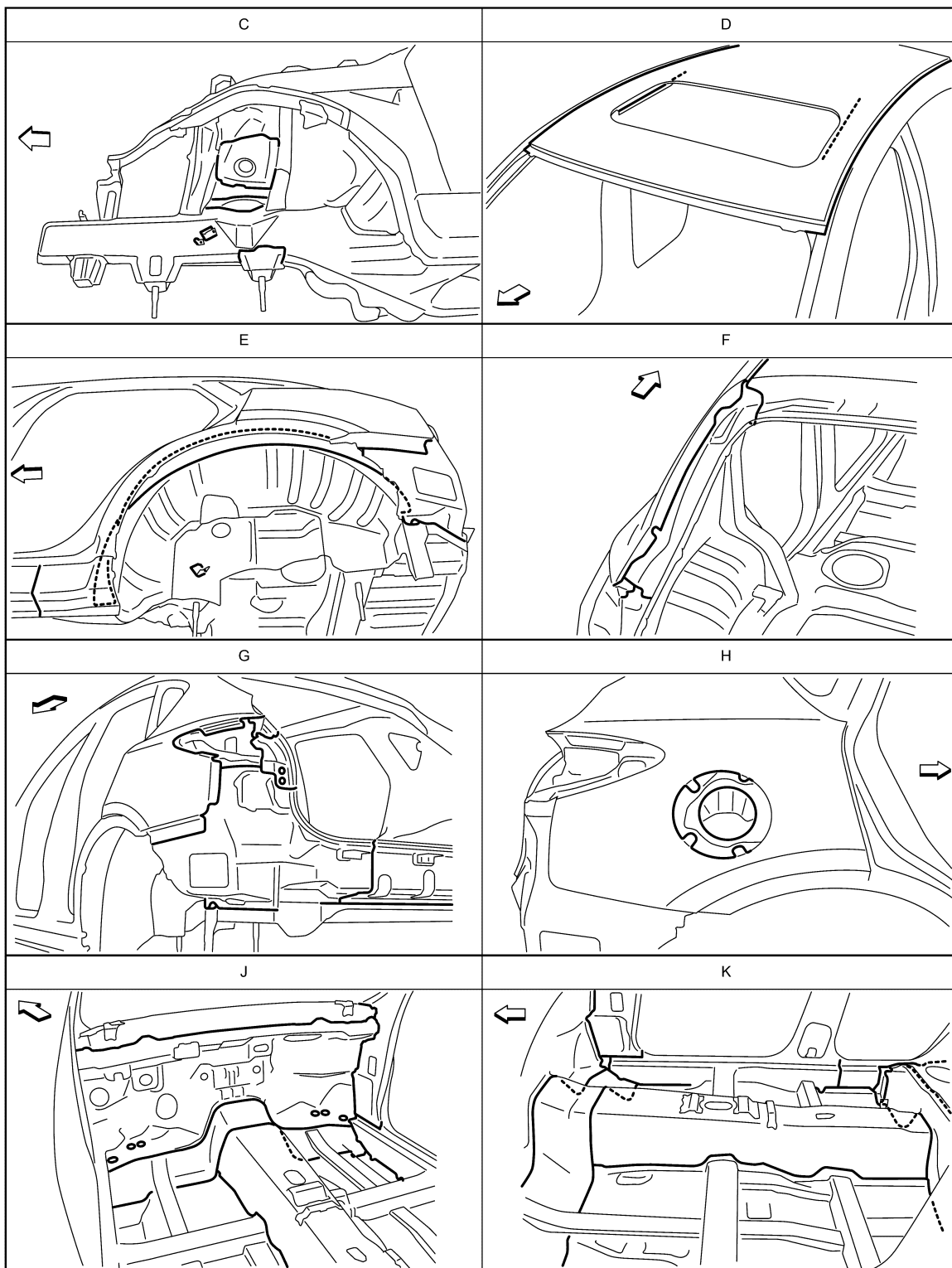


JSKIA7185ZZ

↩: Vehicle front
—: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >



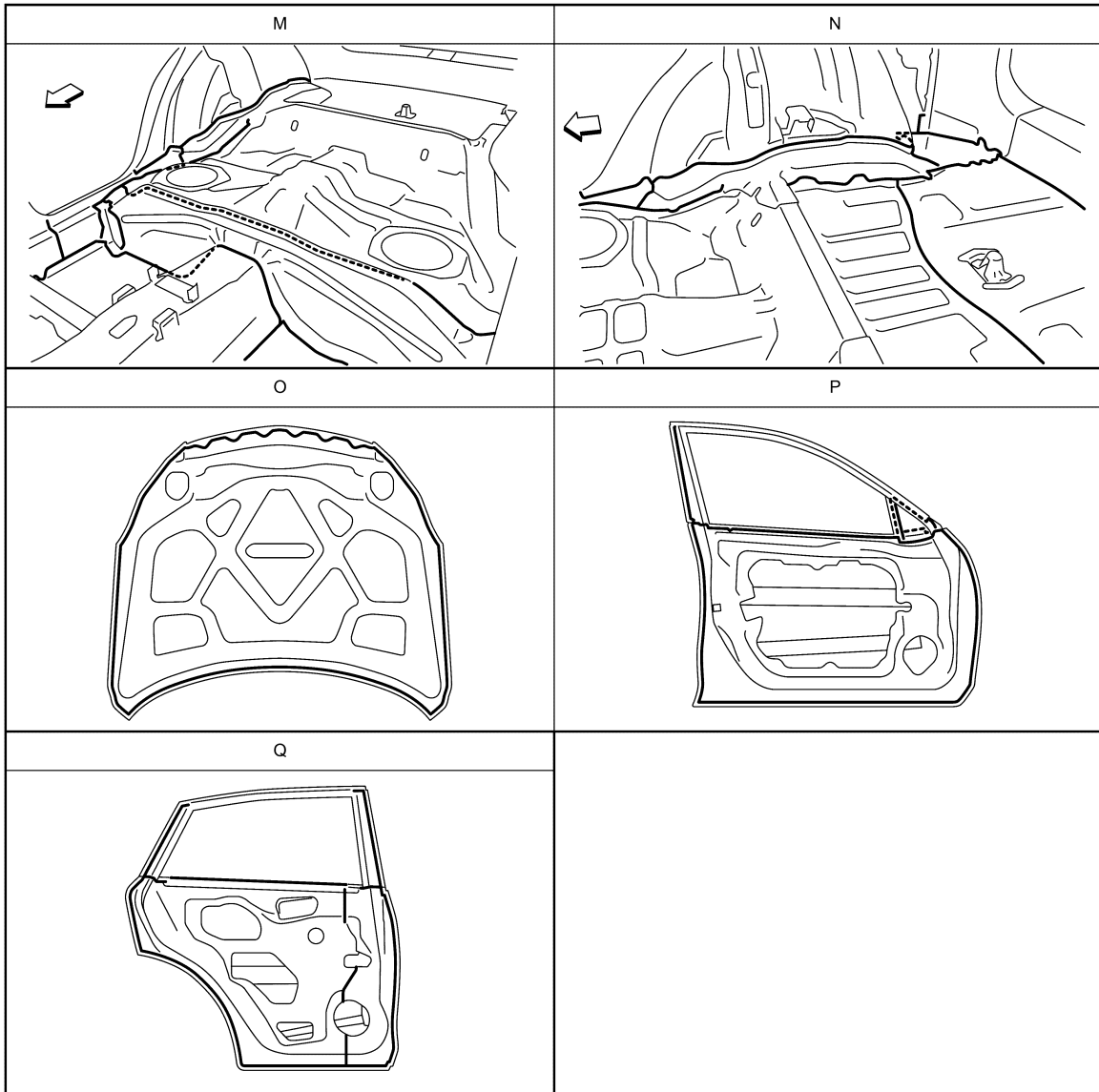
JSK1A7186ZZ

↶: Vehicle front
 —: Sealed portions

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CORROSION PROTECTION

< REMOVAL AND INSTALLATION >



JSKIA7184ZZ

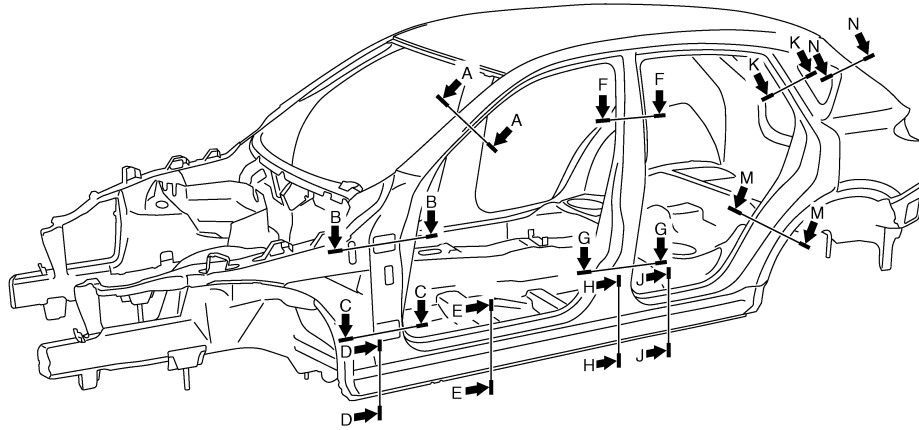
BODY CONSTRUCTION

< REMOVAL AND INSTALLATION >

BODY CONSTRUCTION

Body Construction

INFOID:000000012794938



<p>A - A</p>	<p>B - B</p>	<p>C - C</p>	<p>D - D</p>
<p>E - E</p>	<p>F - F</p>	<p>G - G</p>	<p>H - H</p>
<p>J - J</p>	<p>K - K</p>	<p>M - M</p>	<p>N - N</p>

- ① Outer side body
- ② Outer front pillar reinforcement
- ③ Upper inner front pillar
- ④ Front pillar hinge brace
- ⑤ Hoodledge reinforcement
- ⑥ Upper hoodledge reinforcement
- ⑦ Upper rear hoodledge
- ⑧ Upper dash
- ⑨ Upper hinge plate

BODY CONSTRUCTION

< REMOVAL AND INSTALLATION >

- | | | |
|---|------------------------------------|--------------------------------|
| ⑩ Weld nut | ⑪ Lower hinge plate | ⑫ Rear hoodledge reinforcement |
| ⑬ Hoodledge reinforcement gusset | ⑭ Lower dash crossmember | ⑮ Lower front pillar gusset |
| ⑯ Outer sill reinforcement | ⑰ Front side member outrigger | ⑱ Lower dash |
| ⑲ Inner sill | ⑳ Lower front pillar reinforcement | ㉑ Front floor |
| ㉒ Front floor gusset | ㉓ Outer sill extension | ㉔ Center pillar reinforcement |
| ㉕ Center pillar seat belt reinforcement | ㉖ Center pillar seat belt anchor | ㉗ Inner center pillar |
| ㉘ 3rd crossmember | ㉙ Seat belt anchor | ㉚ Center sill reinforcement |
| ㉛ Rear side member front | ㉜ Side roof rail reinforcement | ㉝ Inner rear pillar |
| ㉞ Upper rear pillar seat belt anchor | ㉟ Inner rear pillar reinforcement | ㊱ Outer rear wheelhouse |
| ㊲ Inner rear wheelhouse | ㊳ Upper back pillar reinforcement | ㊴ Rear pillar brace |
| ㊵ Back pillar main | | |

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

REPLACEMENT OPERATIONS

Precautions for Body Repair

INFOID:0000000014627610

WARNING:


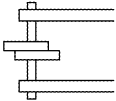


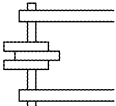
- The repair information in this section is intended for trained body repair technicians who have attained a high level of skill and experience (e.g. ASE Collision Repair Certification, I-CAR Professional Development Program [PDP] training, etc.) in repairing collision damaged vehicles using appropriate tools and equipment. Performing repairs without the proper training, tools or equipment could damage the vehicle or cause personal injury or death to you or others.
- The information in this Body Repair Manual is a guideline for repairing collision damaged vehicles. However, this information cannot cover all possible ways that a vehicle can be damaged. As such, the body repair technician is responsible for making sure that the repair does not affect the structural integrity or safety of the vehicle. Improper repair of a damaged vehicle may result in a collision, property damage, personal injury or death.
- Infiniti recommends using only new genuine Infiniti replacement body parts. Use of used, salvaged or aftermarket body parts is not recommended by Infiniti. Non-genuine Infiniti components may affect the vehicle's structural integrity and crash safety performance, which could result in serious personal injury or death in an accident.

Description

INFOID:0000000014627611

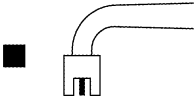
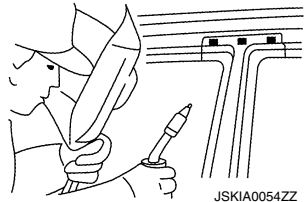
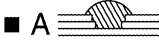
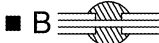
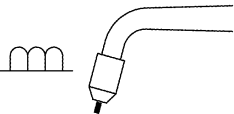
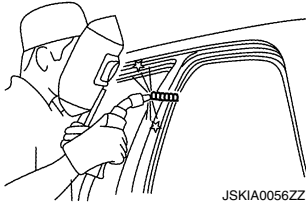
- Technicians are encouraged to read the Body Repair Manual (Fundamentals) in order to ensure that the original functions and quality of the vehicle are maintained. The Body Repair Manual (Fundamentals) contains additional information, including cautions and warnings, that are not including in this manual. 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.

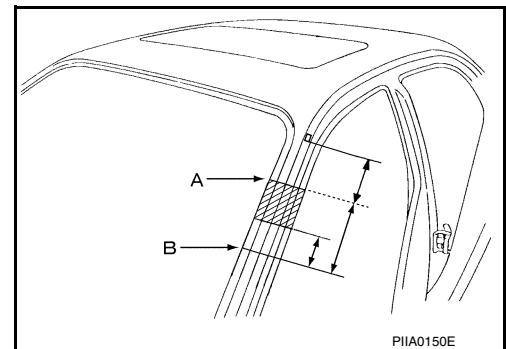
Symbol marks	Description	
"Number"	"Number" after symbol mark is the total number of welds to apply. Example 1: ■"4"A = 4 MIG plug welds for 3-panel plug weld method. Example 2: ◻"1" × 20 (0.79) = 1 MIG seam weld by length 20 mm (0.79 in).	
  JSKIA0049ZZ	2-panel spot weld	 JSKIA0053ZZ
  JSKIA0050ZZ	3-panel spot weld	

REPLACEMENT OPERATIONS

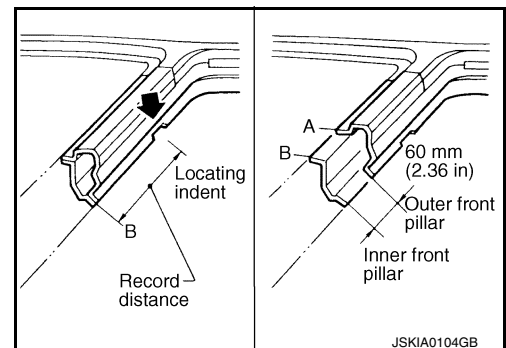
< REMOVAL AND INSTALLATION >

Symbol marks	Description	
 JSKIA0051ZZ	MIG plug weld	 JSKIA0054ZZ For 3-panel plug weld method   JSKIA0055ZZ
 JSKIA0052ZZ	MIG seam weld / Point weld	 JSKIA0056ZZ

- 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.



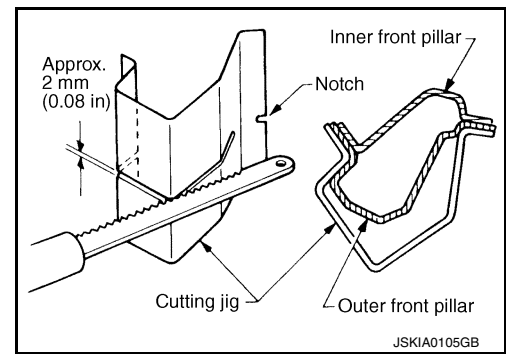
- Determine cutting position and record distance from the locating indent. Use this distance when cutting the service part. Cut outer front pillar over 60 mm (2.36 in) above the inner front pillar cut position.



REPLACEMENT OPERATIONS

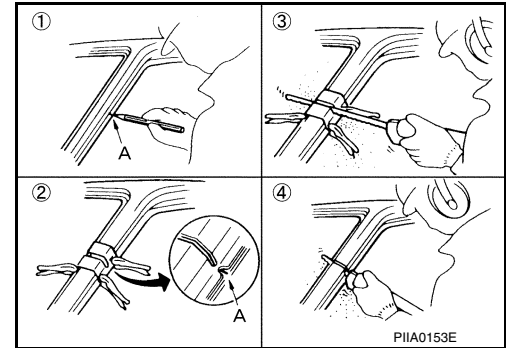
< REMOVAL AND INSTALLATION >

- 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.



Welding of Ultra High Strength Steel

INFOID:0000000014627612

PLUG WELDING

To weld ultra high strength steel of tensile strength 980 MPa or more, perform plug welding observing the welding hole diameter described in the manual.

CAUTION:

- To perform plug welding, use fuel mixture (Ar 80% + CO2 20%) for shielding gas of welder.
- Never use carbon dioxide gas (CO2 100%) as shielding gas of welder. Using CO2 100% gas results in inadequate weld strength.
- When welding hole diameter cannot be met, make multiple holes (smaller diameter) so that the sum of the hole areas equals the area of the original weld hole.

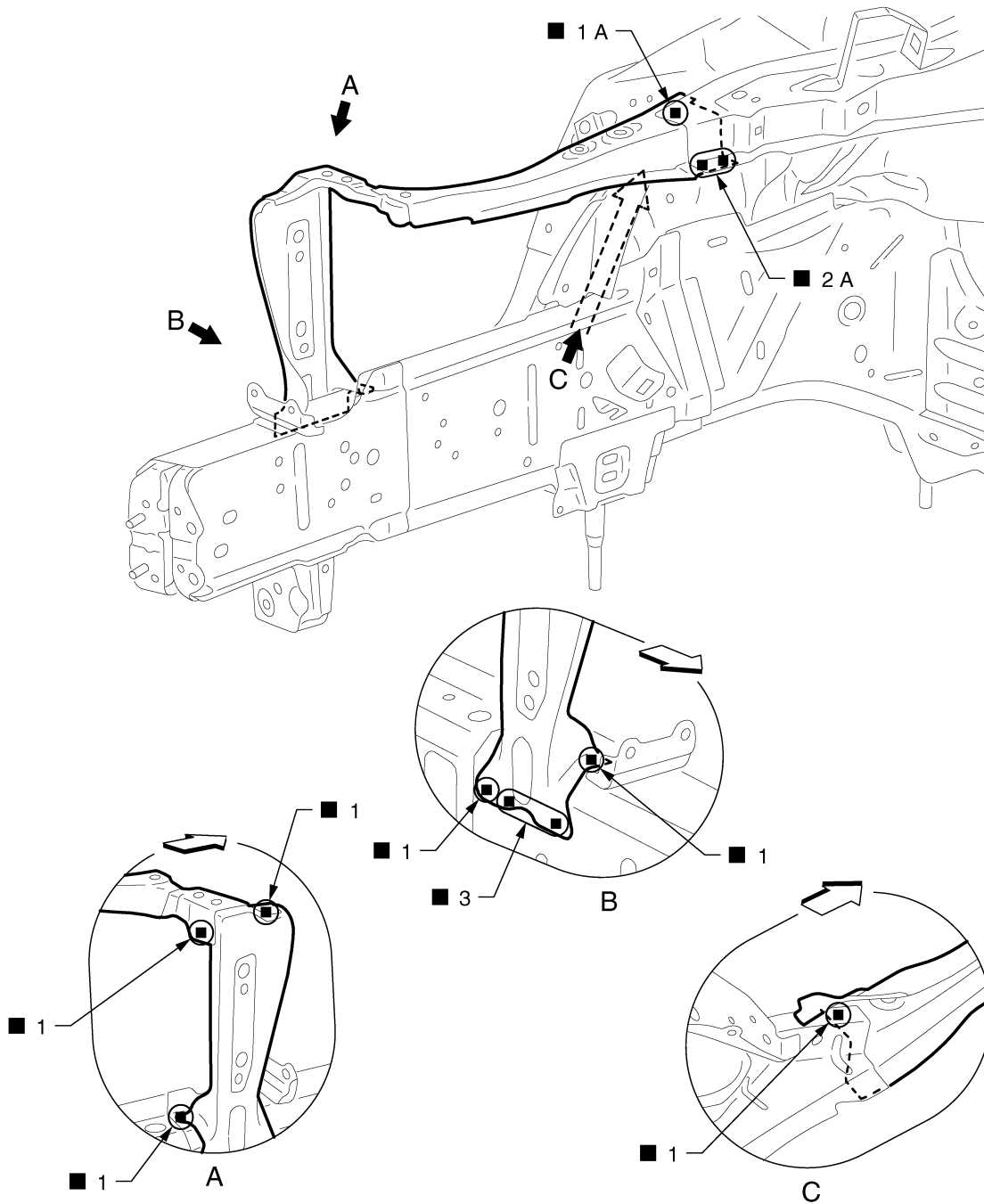
BRM

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Radiator Core Support

INFOID:0000000012167979



JSKIA0592ZZ

⇐: Vehicle front

Replacement part

● Radiator core support assembly

● Front side member connector assembly

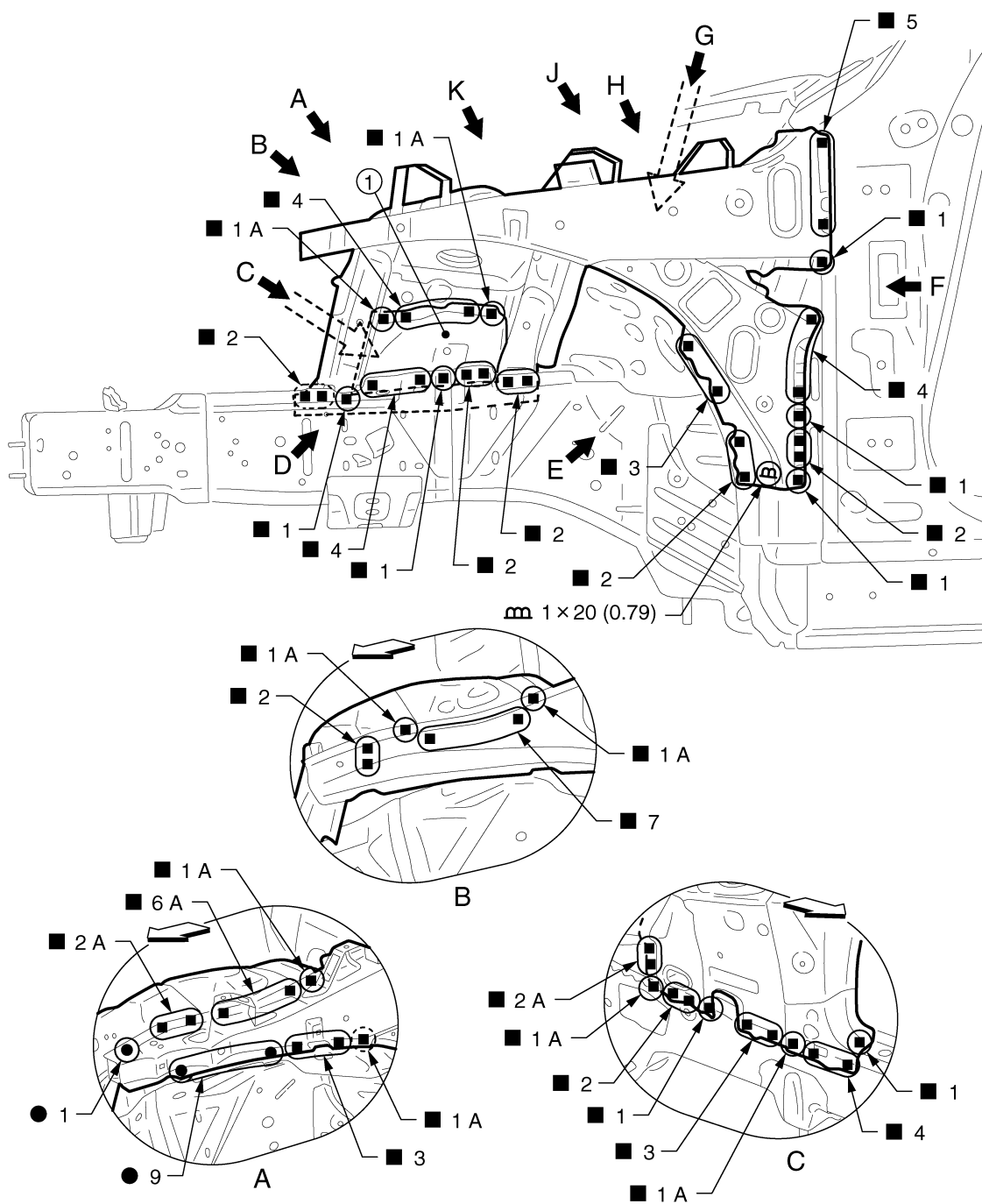
Hoodledge

INFOID:0000000012167980

Work after radiator core support is removed.
Remove the side member center closing plate (Reusable).

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



① Side member center closing plate
(Reusable)

Unit: mm (in)

⇐: Vehicle front

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

Replacement part

● Upper front hoodledge

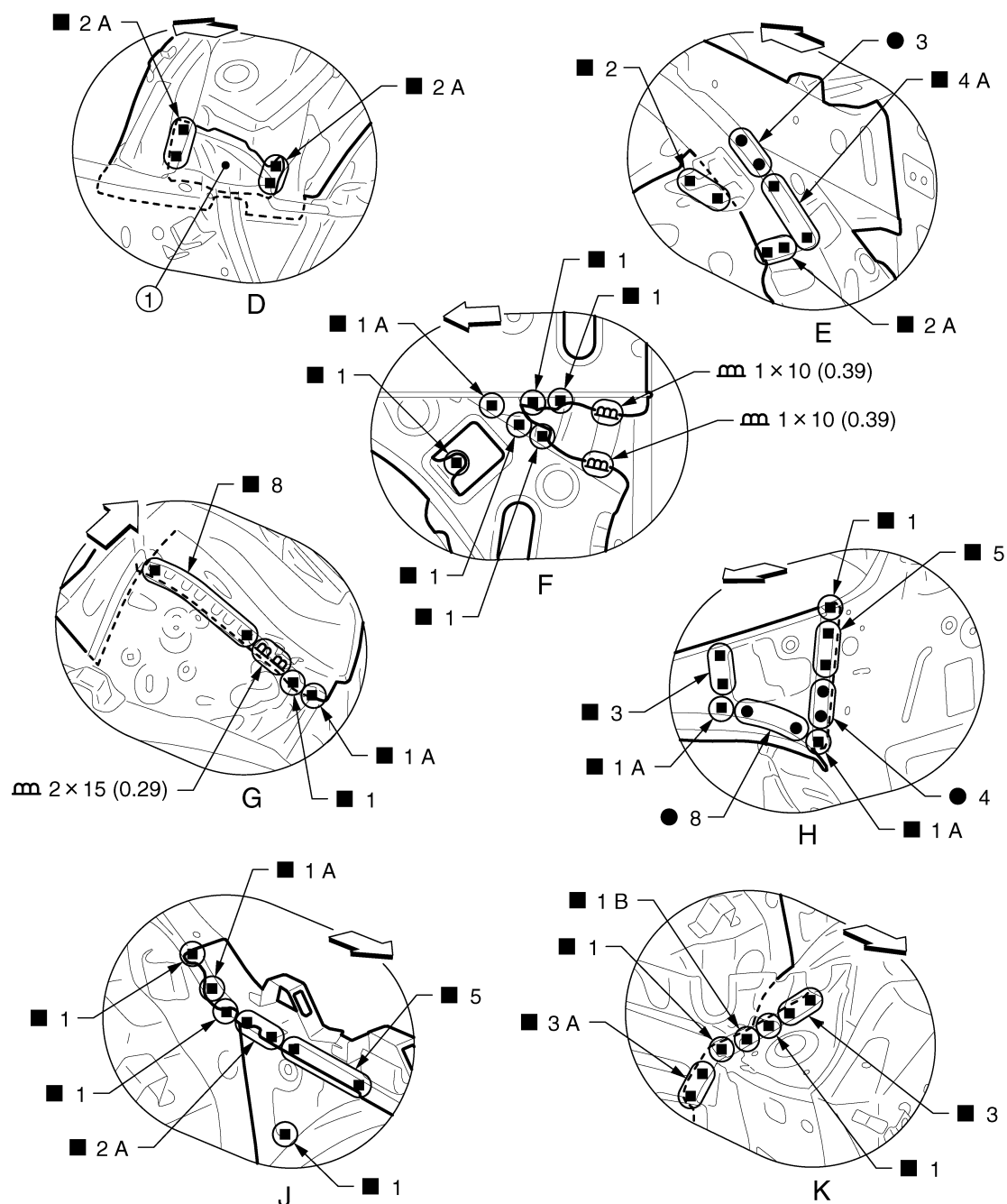
● Hoodledge reinforcement

● Front strut housing assembly

View B: Before installing hoodledge reinforcement

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7206GB

① Side member center closing plate
(Reusable)

Unit: mm (in)

⇐: Vehicle front

View H: Before installing hoodledge reinforcement

Front Side Member (2WD)

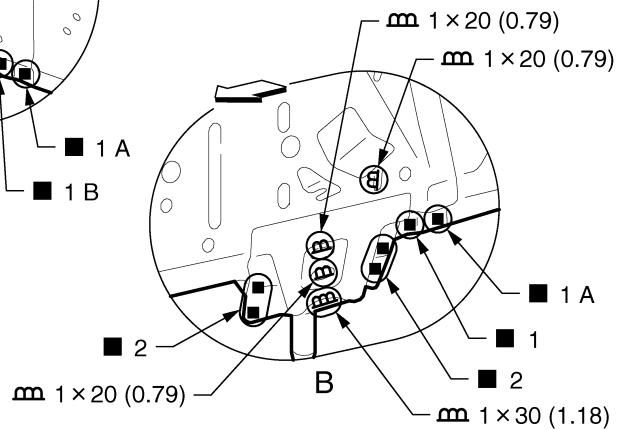
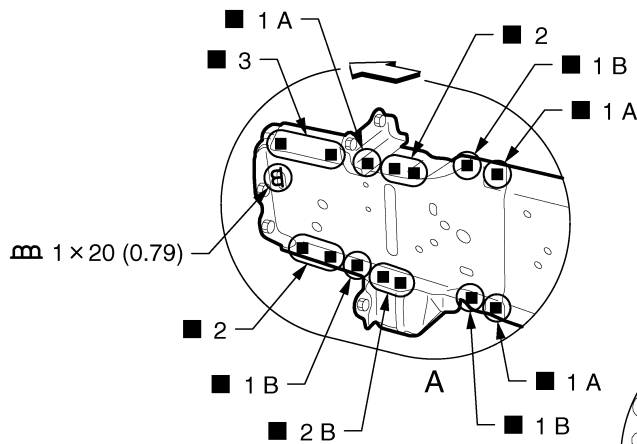
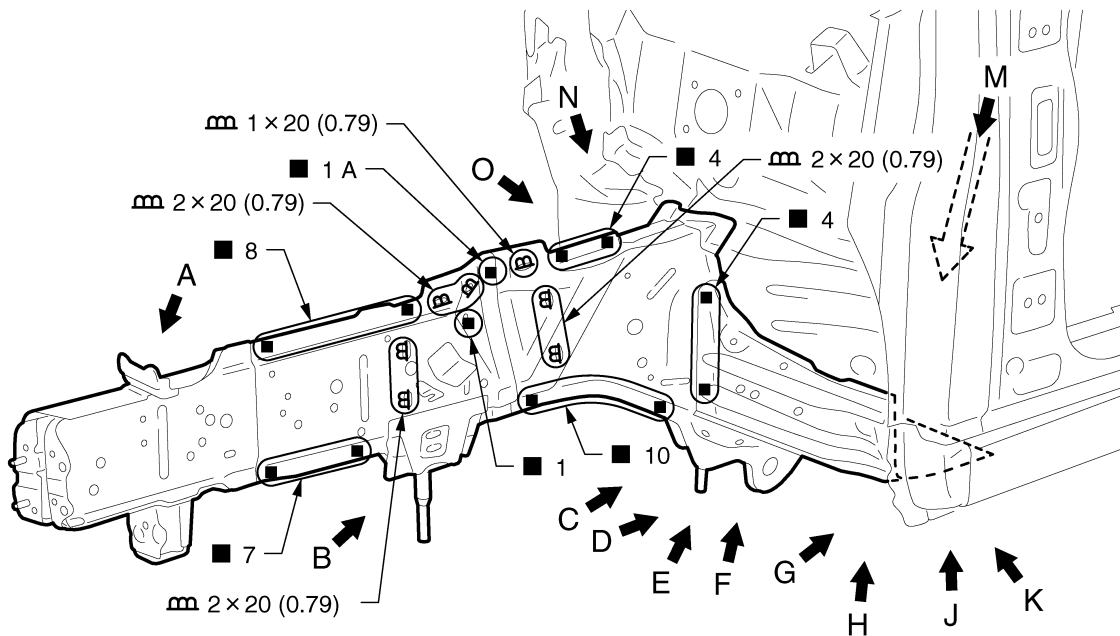
INFOID:0000000012167981

Work after radiator core support and hoodledge are removed.

Assemble the hoodledge and check the fitting according to Body Alignment before replacing the side member center closing plate.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA0595GB

Unit: mm (in)

⇐: Vehicle front

Replacement part

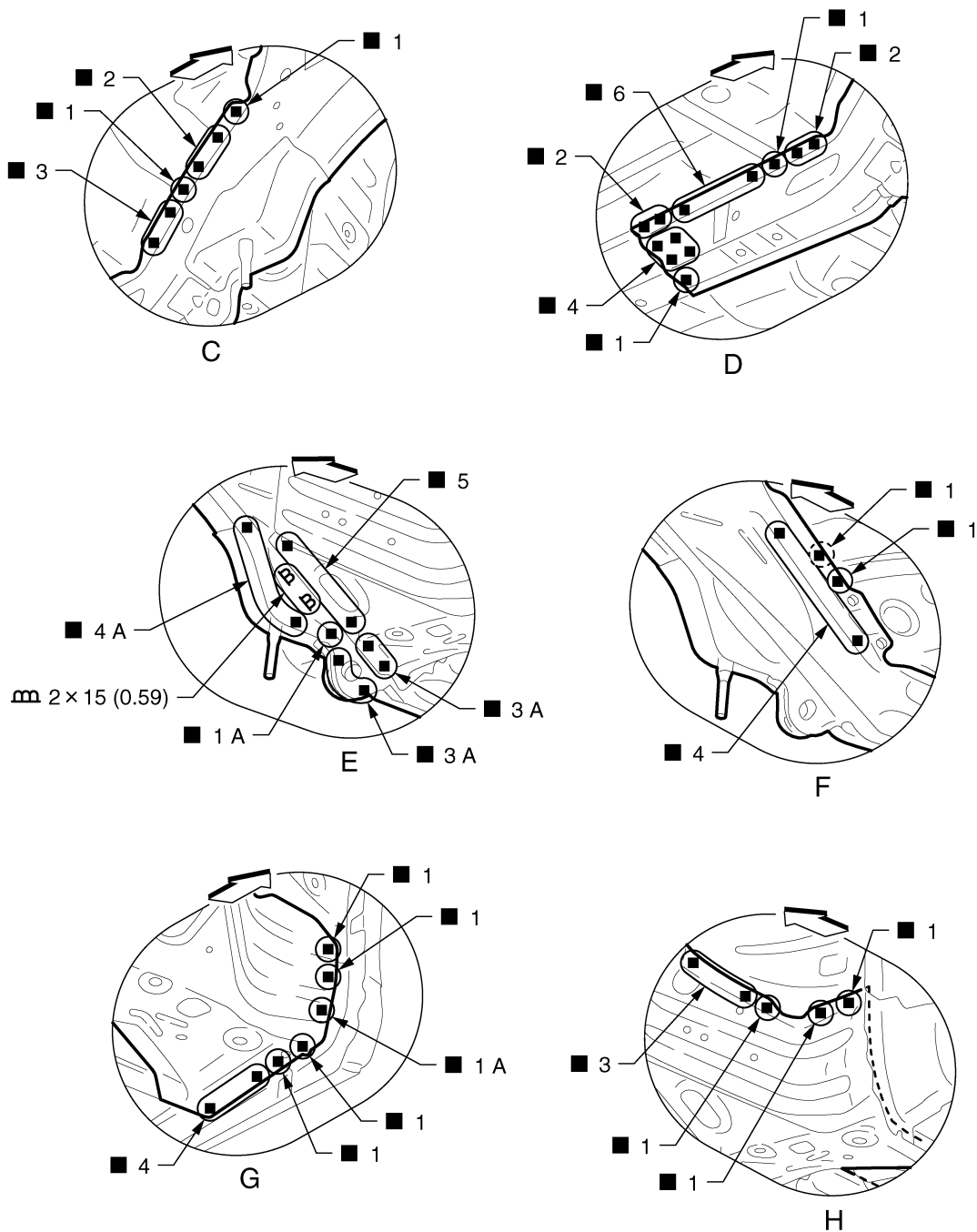
● Front side member

● Front side member closing plate

● Side member outrigger assembly

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA0596GB

Unit: mm (in)

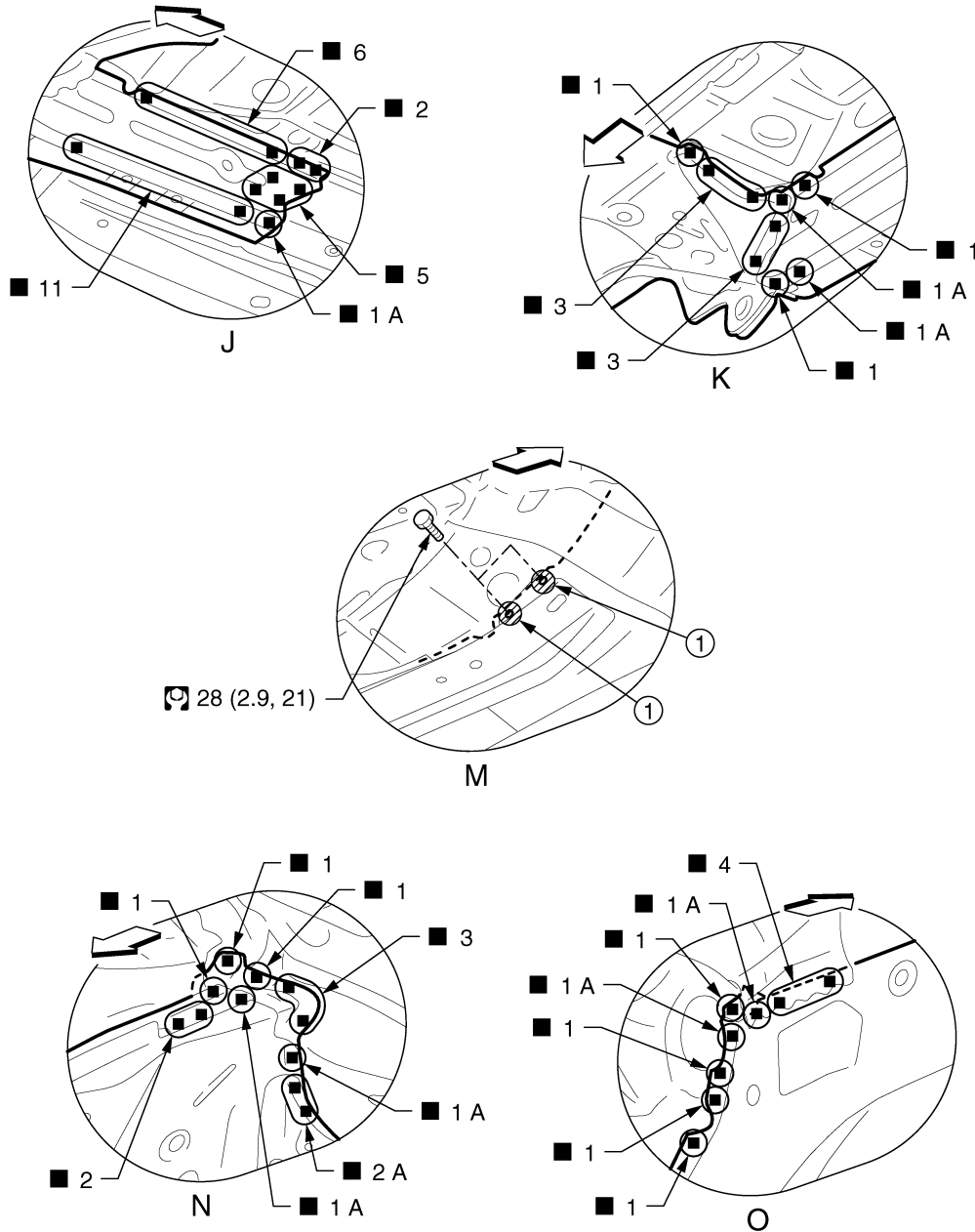
↔: Vehicle front

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

View F: Before installing side member outrigger assembly

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



① Body sealing

⇐: Vehicle front

Ⓒ: N·m (kg-m, ft-lb)

Front Side Member (AWD)

Work after radiator core support and hoodledge are removed.

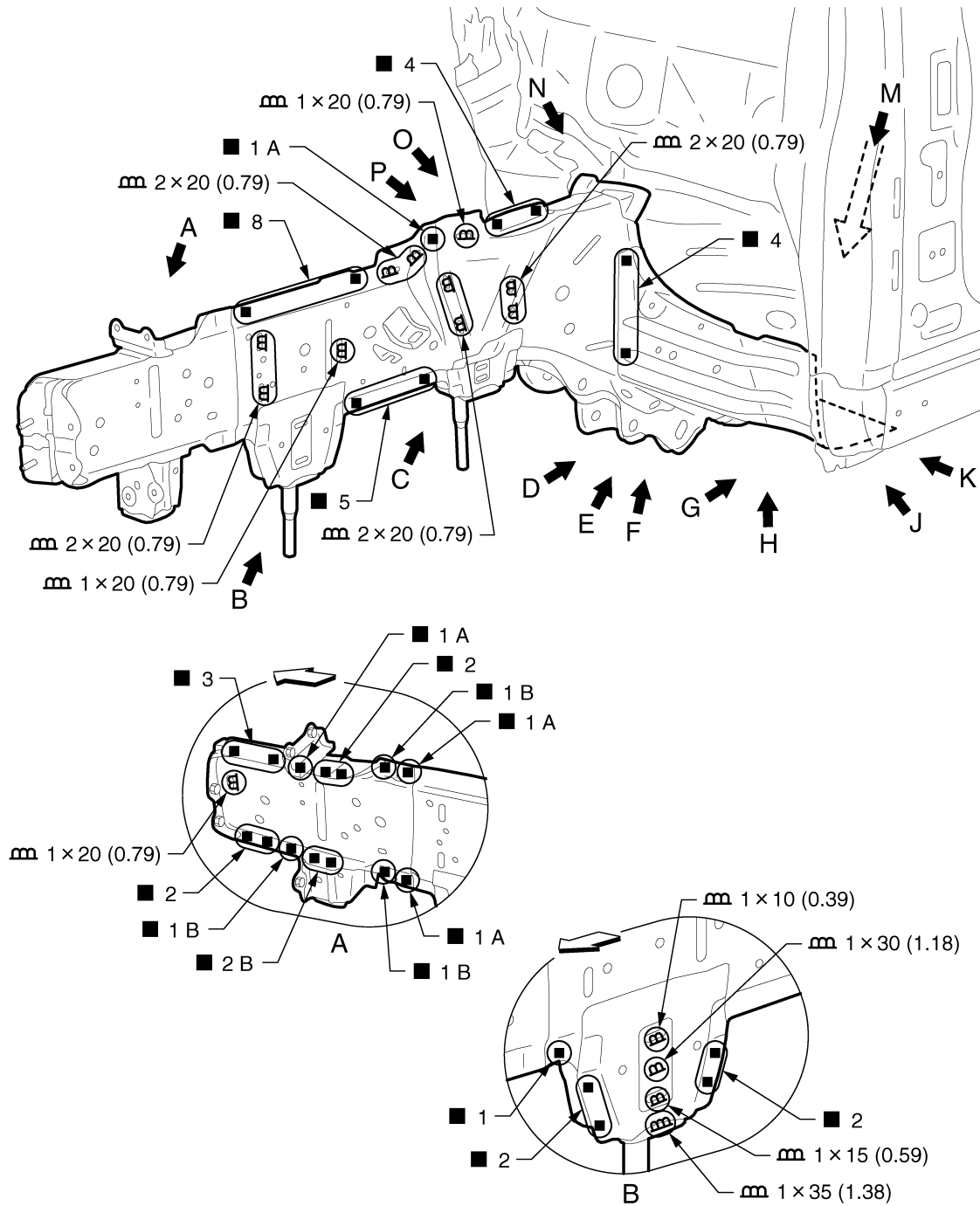
Assemble the hoodledge and check the fitting according to Body Alignment before replacing the side member center closing plate.

JSKIA6149GB

INFOID:000000012167982

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7207GB

Unit: mm (in)

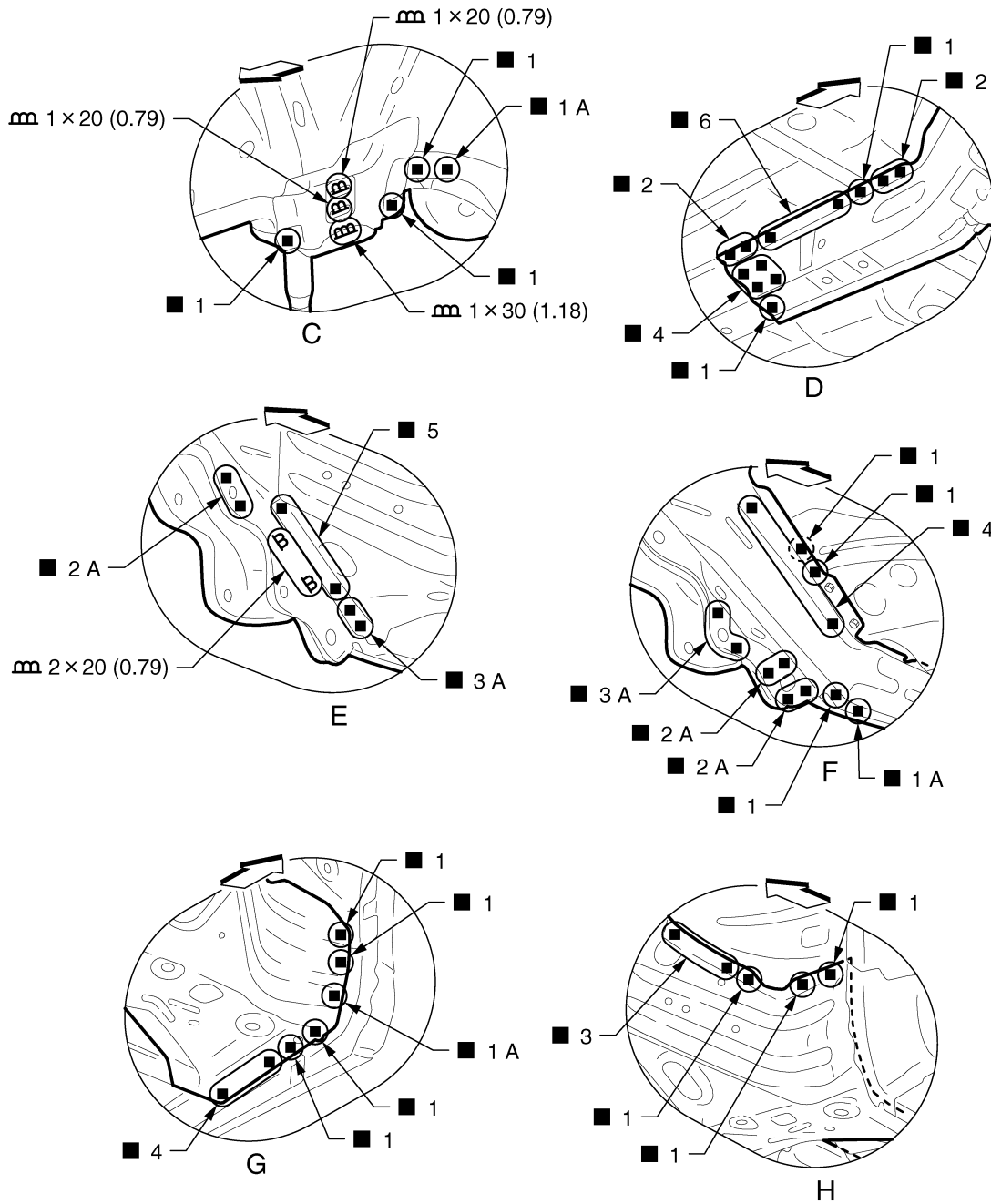
↔: Vehicle front

Replacement part

- Front side member
- Front side member closing plate
- Side member outrigger assembly

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



Unit: mm (in)

⇐: Vehicle front

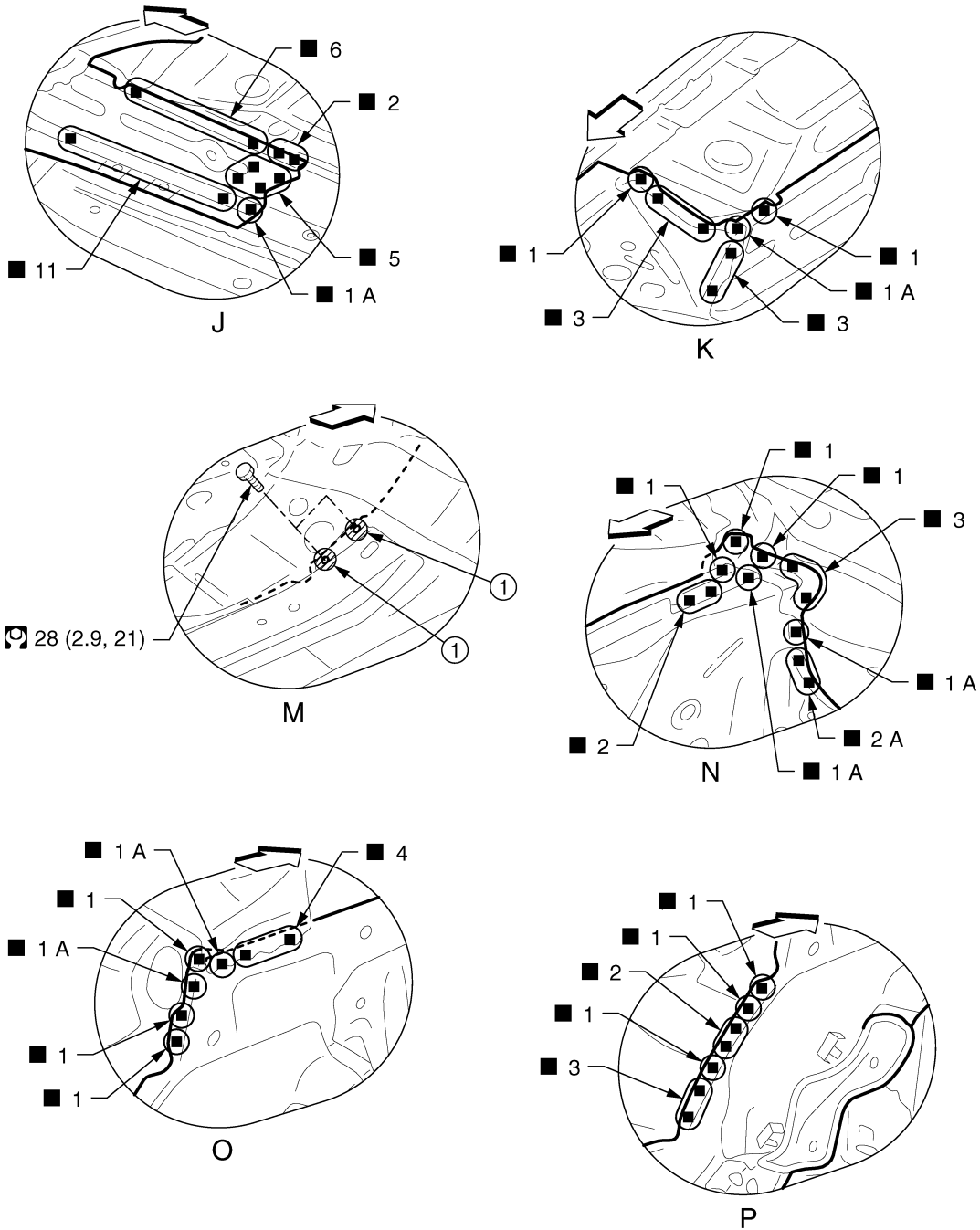
○: Weld the parts onto the back of the component part.

View F: Before installing side member outrigger assembly

JSKIA0599GB

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA6150GB

① Body sealing

⇐: Vehicle front

Ⓒ: N·m (kg-m, ft-lb)

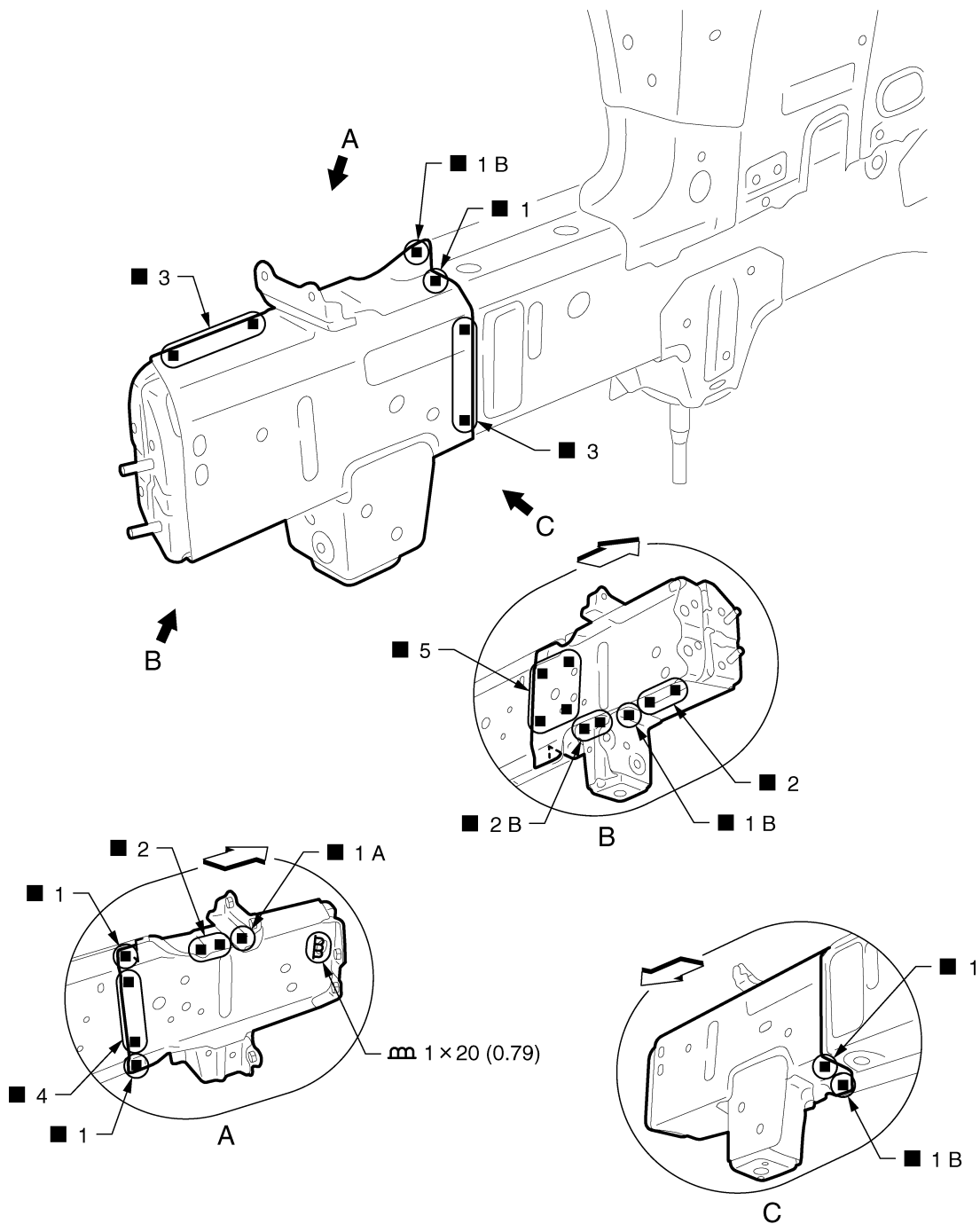
Front Side Member (Partial Replacement)

INFOID:0000000012167983

Work after radiator core support is removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA1062GB

Unit: mm (in)

⇐: Vehicle front

Replacement part

- Front side member front extension
- Side member front closing plate
- Front side rear closing reinforcement

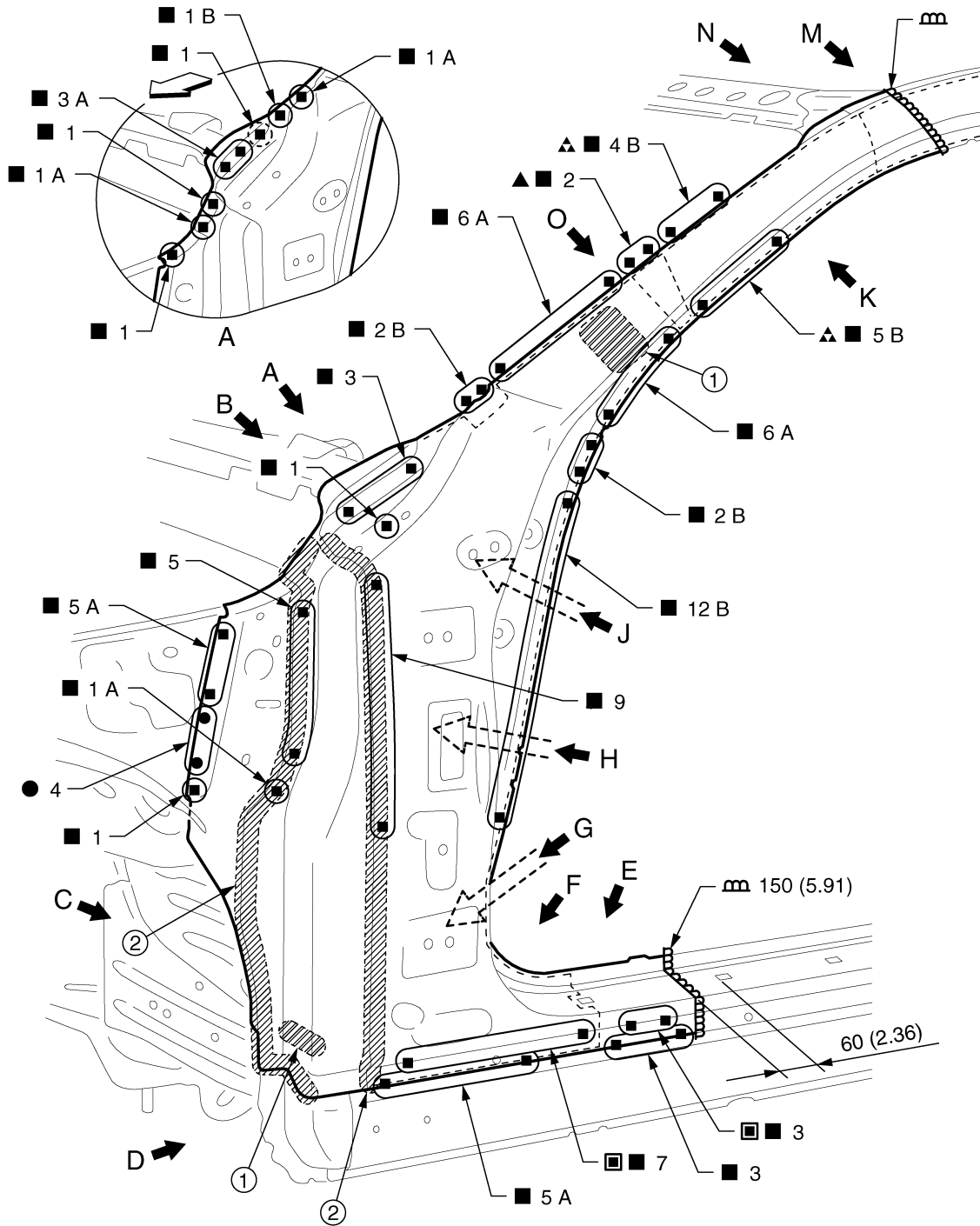
Front Pillar

INFOID:0000000012167984

Work after hoodledge reinforcement and roof are removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7208GB

① Urethane foam

② Body sealing

Unit: mm (in)

↖: Vehicle front

■: Perform the plug welding instead of the laser welding.

▲: Drill $\phi 6$ mm (0.24 in) hole for the plug welding hole (Ultra high strength steel).

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

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

Replacement part

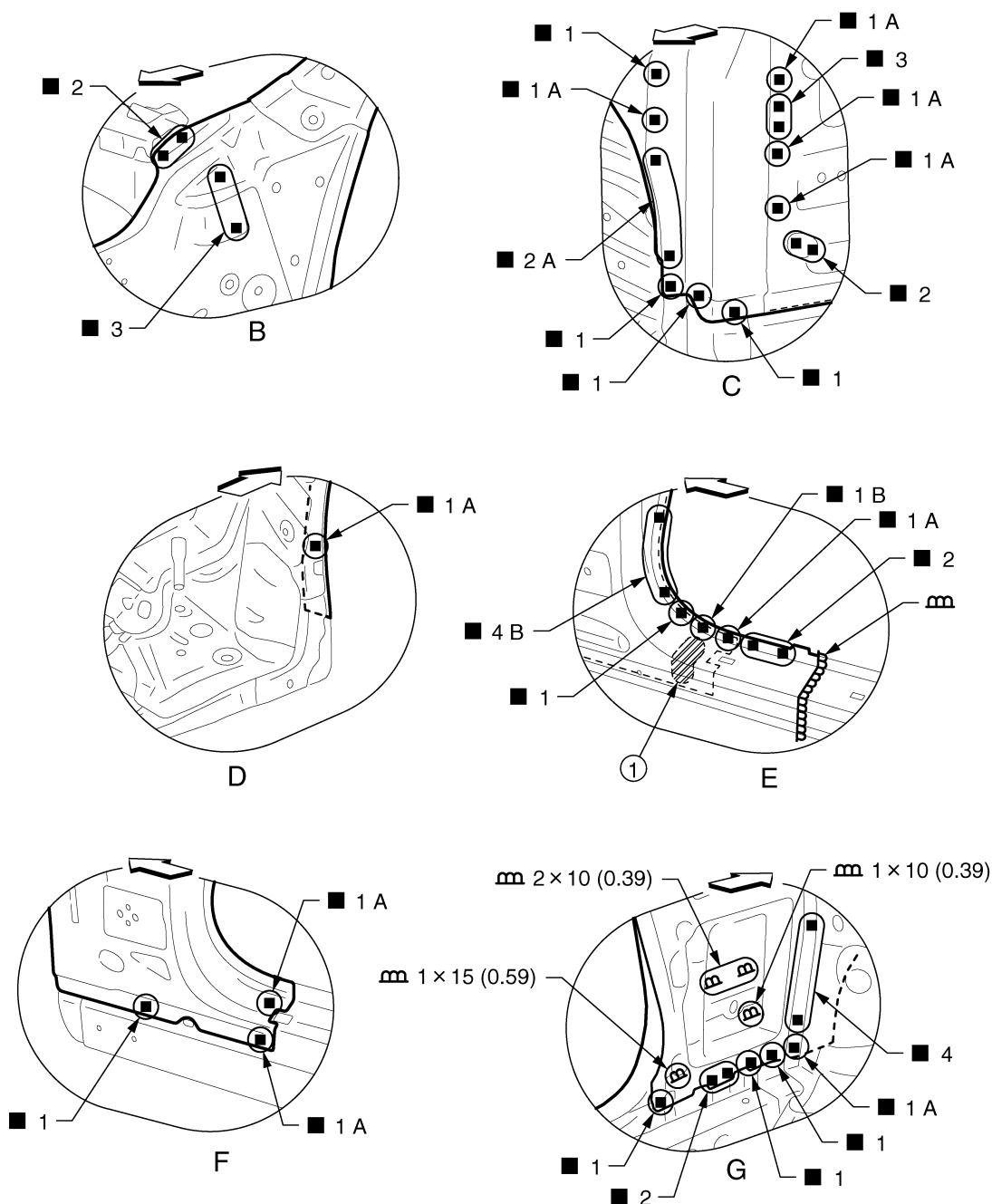
- Outer front side body
- Upper rear hoodledge

- Front pillar brace
- Upper inner front pillar

- Outer side roof rail reinforcement

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



① Urethane foam

Unit: mm (in)

↔ Vehicle front

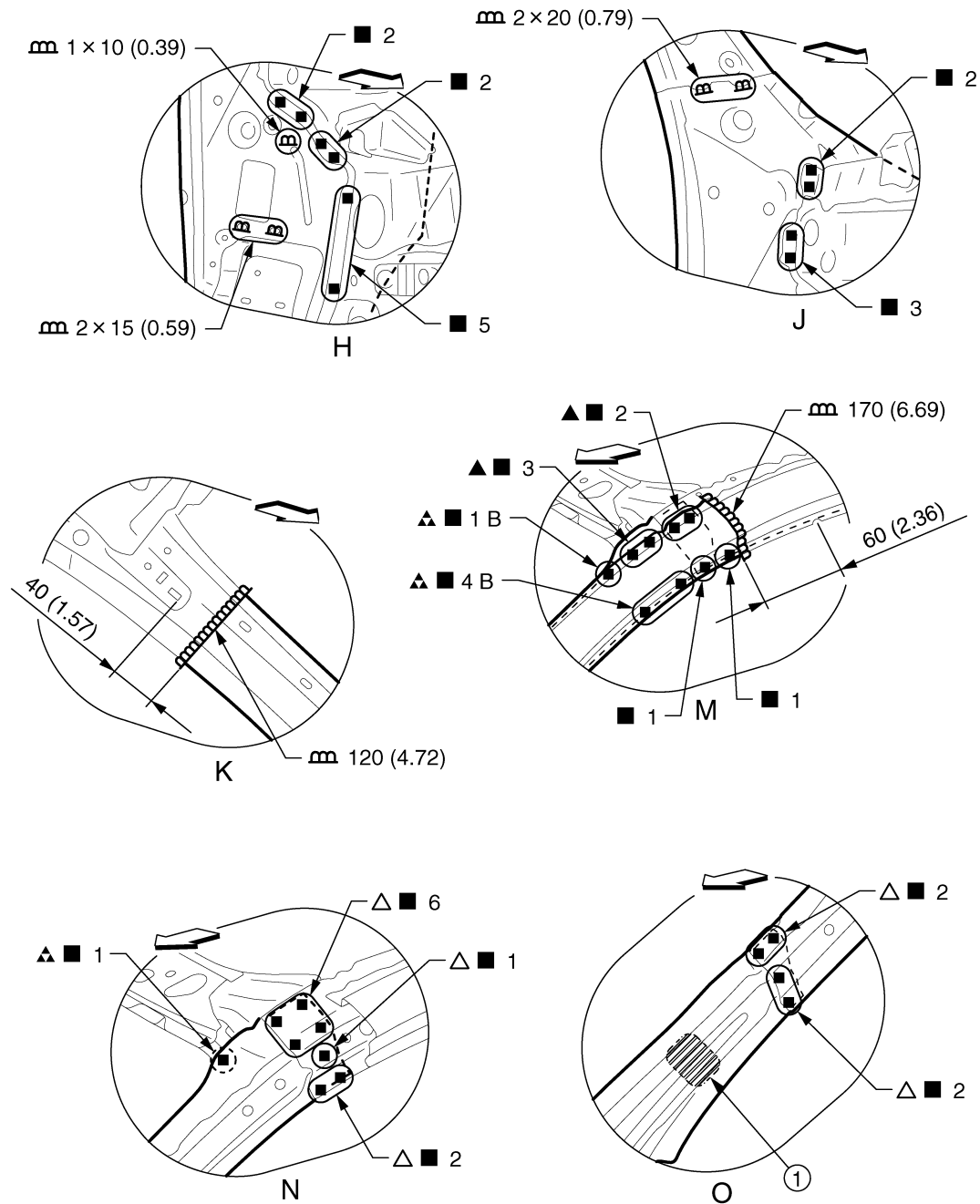
View B: Before installing outer front side body and front pillar brace

View F: Before installing outer front side body

JSKIA7209GB

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7210GB

① Urethane foam

Unit: mm (in)

↖ Vehicle front

▲: Drill $\phi 6$ mm (0.24 in) hole for the plug welding hole (Ultra high strength steel).

△: Drill $\phi 8$ mm (0.31 in) hole for the plug welding hole (Ultra high strength steel).

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

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

View K: Before installing outer front side body and outer side roof rail reinforcement

View N and O: Before installing outer front side body

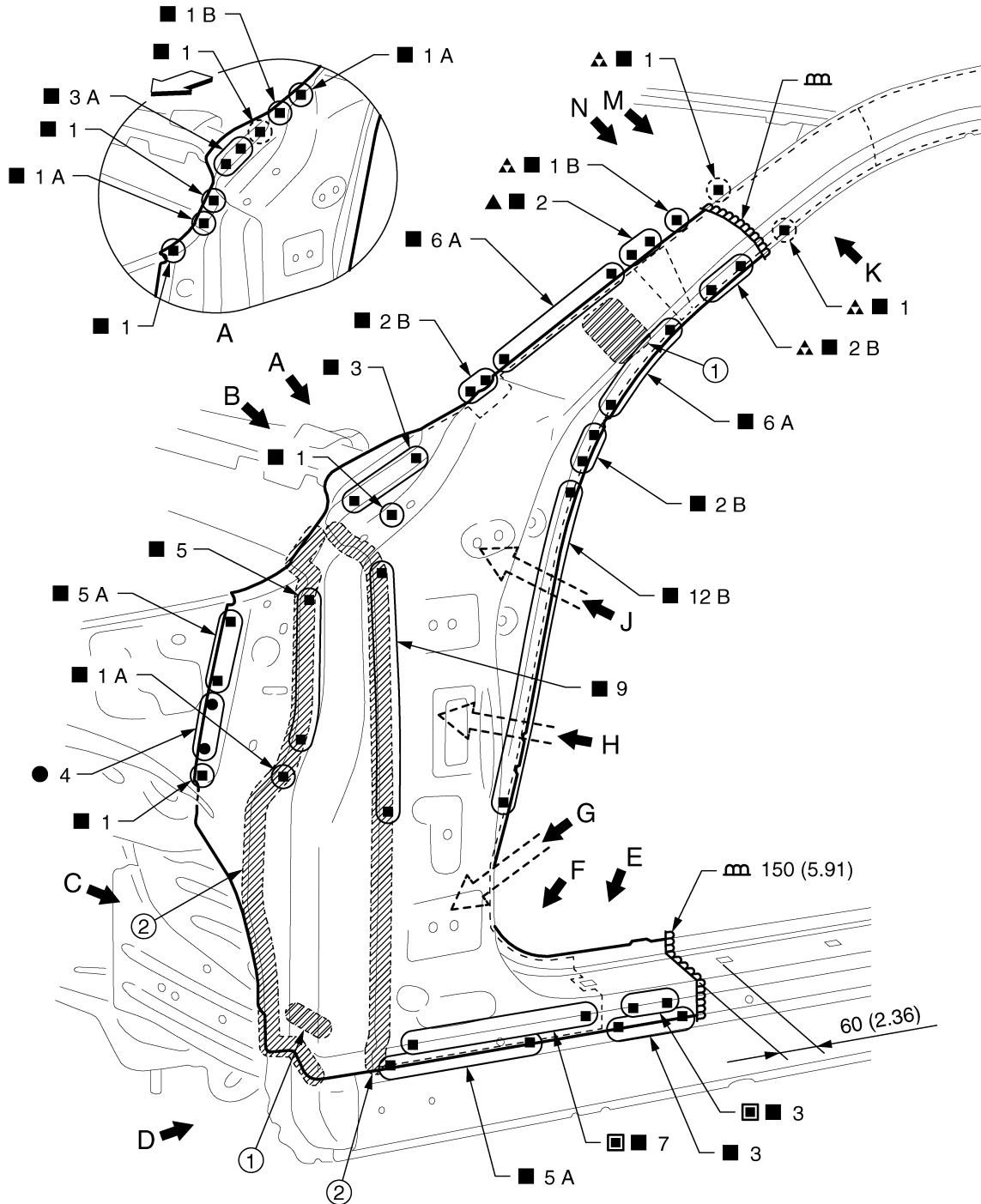
REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Front Pillar (Partial Replacement)

INFOID:000000012167985

Work after hoodledge reinforcement is removed.



① Urethane foam

② Body sealing

Unit: mm (in)

↔: Vehicle front

■: Perform the plug welding instead of the laser welding.

▲: Drill $\phi 6$ mm (0.24 in) hole for the plug welding hole (Ultra high strength steel).

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

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

JSKIA7211GB

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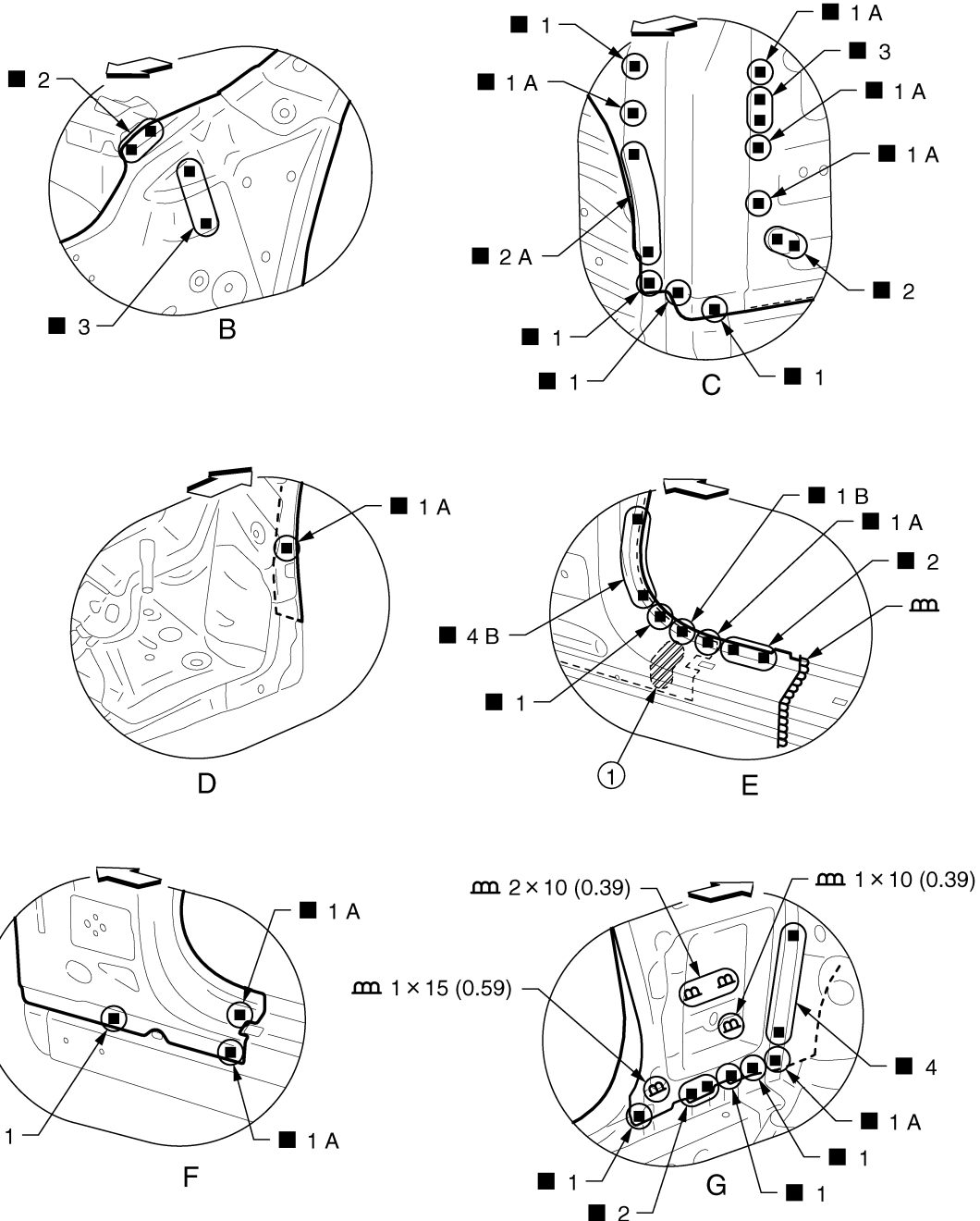
BRM

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Replacement part

- Outer front side body
- Front pillar brace
- Upper rear hoodledge
- Upper inner front pillar



JSKIA7209GB

① Urethane foam

Unit: mm (in)

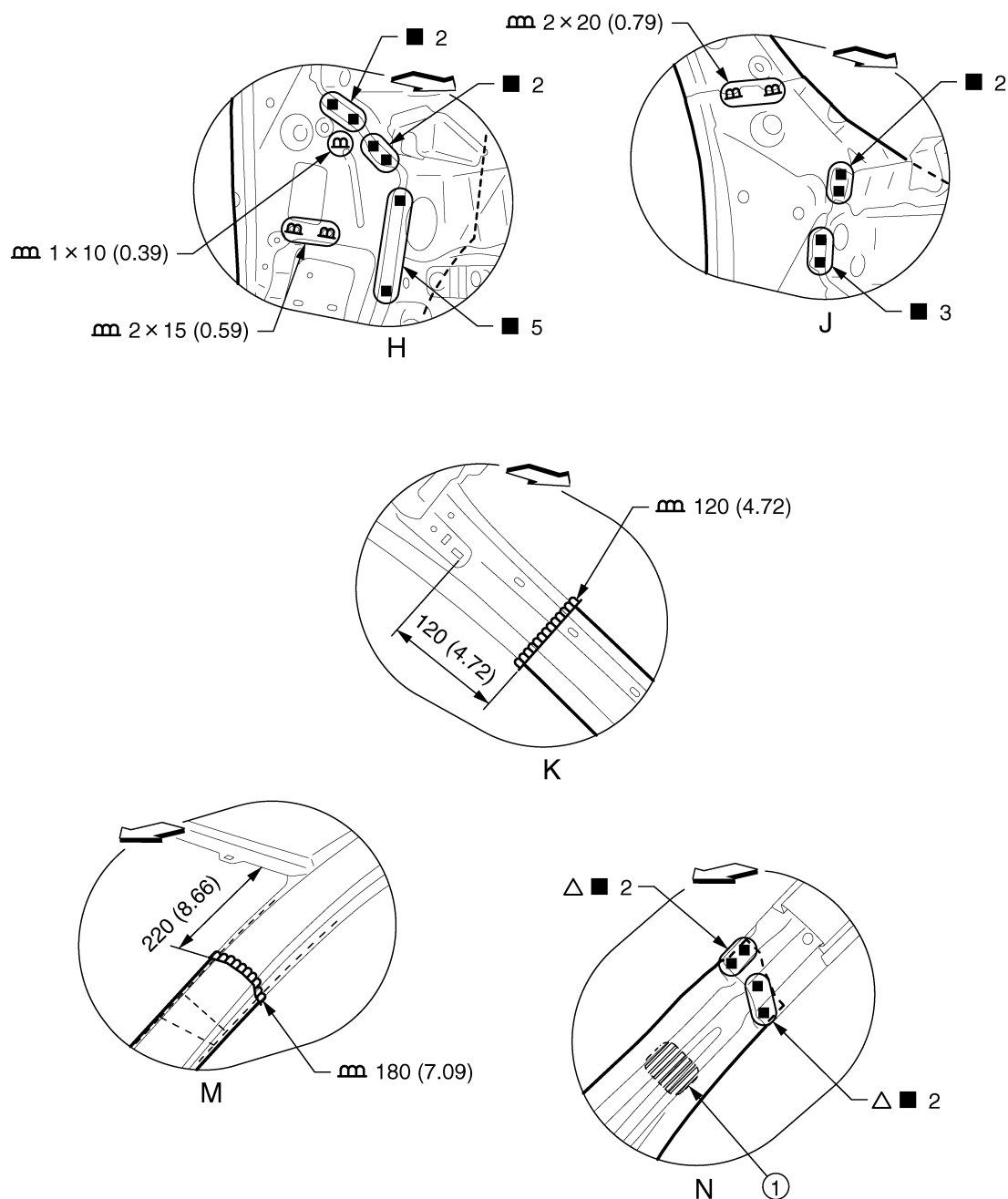
↔ Vehicle front

View B: Before installing outer front side body and front pillar brace

View F: Before installing outer front side body

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7212GB

① Urethane foam

Unit: mm (in)

⇐: Vehicle front

△: Drill $\phi 8$ mm (0.31 in) hole for the plug welding hole (Ultra high strength steel).

View N: Before installing outer front side body

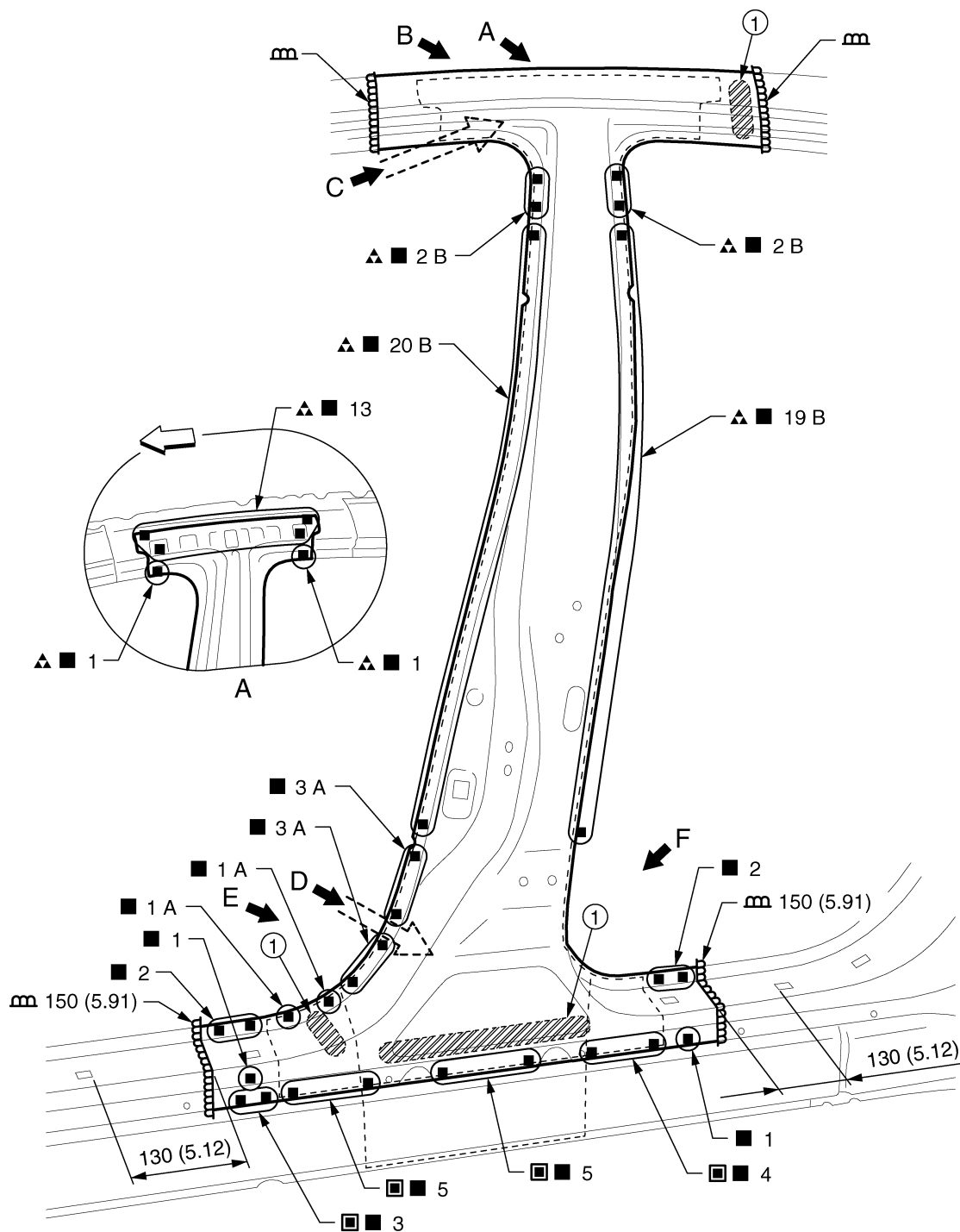
Center Pillar

INFOID:0000000012167986

Work after roof is removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7213GB

① Urethane foam

Unit: mm (in)

◀: Vehicle front

■: Perform the plug welding instead of the laser welding.

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

Replacement part

● Outer front side body

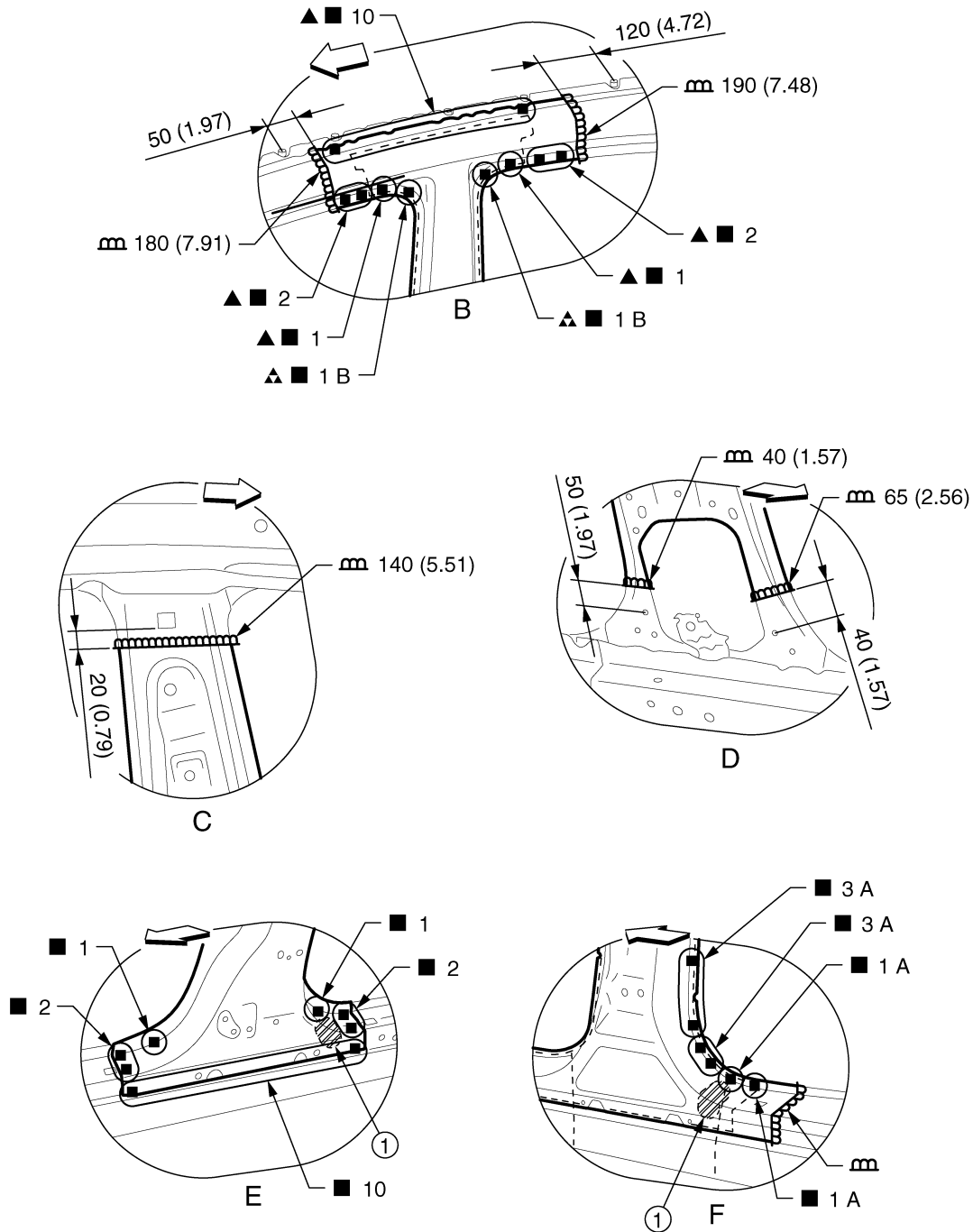
● Center pillar reinforcement

● Inner center pillar

View A: Before installing outer front side body

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



① Urethane foam

Unit: mm (in)

↔ Vehicle front

▲: Drill $\phi 6$ mm (0.24 in) hole for the plug welding hole (Ultra high strength steel).

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

View E: Before installing outer front side body

Outer Sill

Work after hoodledge reinforcement is removed.

Remove the front pillar brace and the center pillar reinforcement (Reusable).

Revision: July 2016

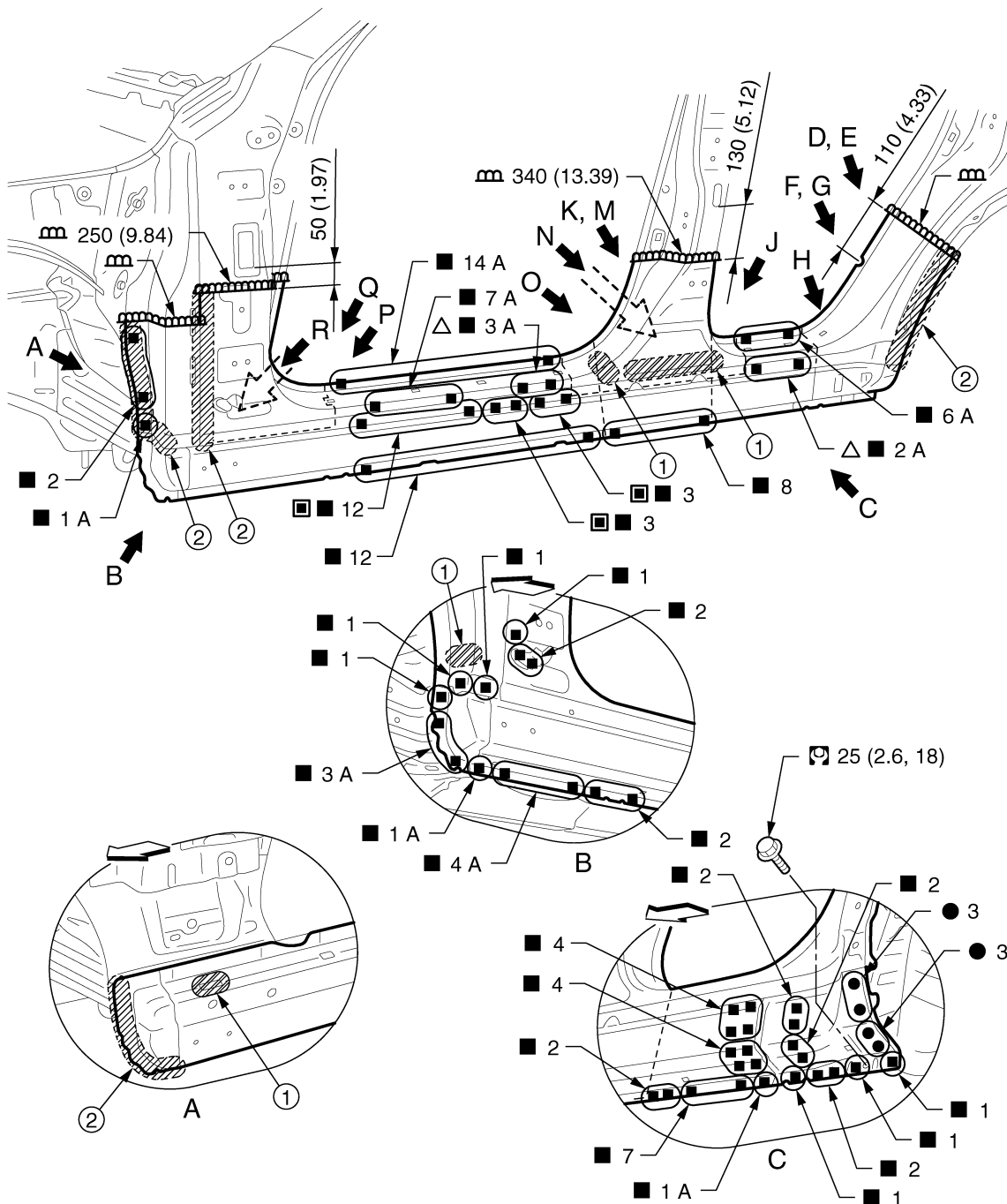
BRM-51

INFOID:000000012167987

2016 QX50

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



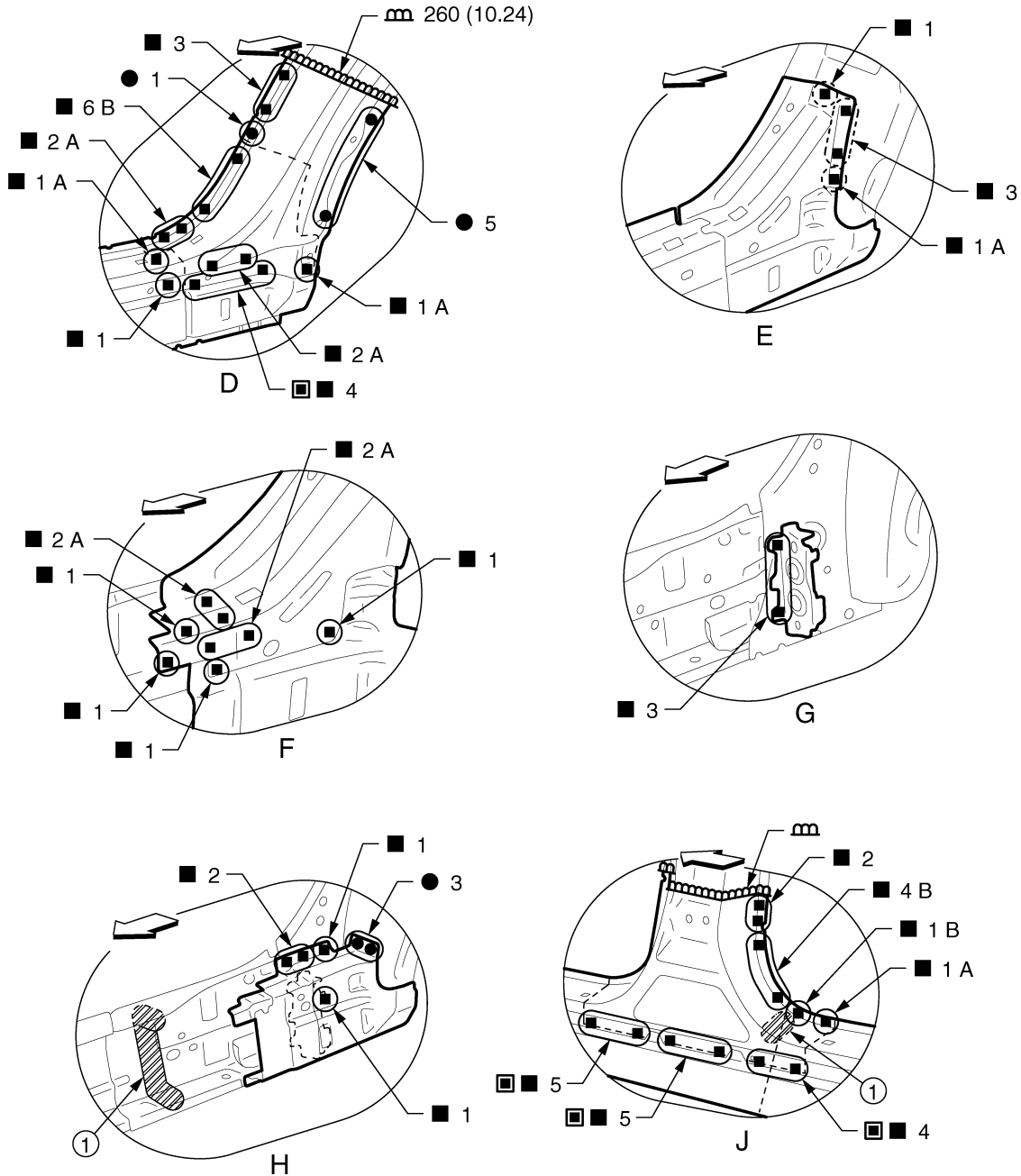
JSKIA7215GB

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

- Outer sill assembly
- Outer sill reinforcement
- Outer rear wheelhouse extension (Upper)
- Outer rear wheelhouse extension (Lower)

View A: Before installing outer sill and front pillar brace



① Urethane foam

Unit: mm (in)

⇐ Vehicle front

■: Perform the plug welding instead of the laser welding.

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

REPLACEMENT OPERATIONS

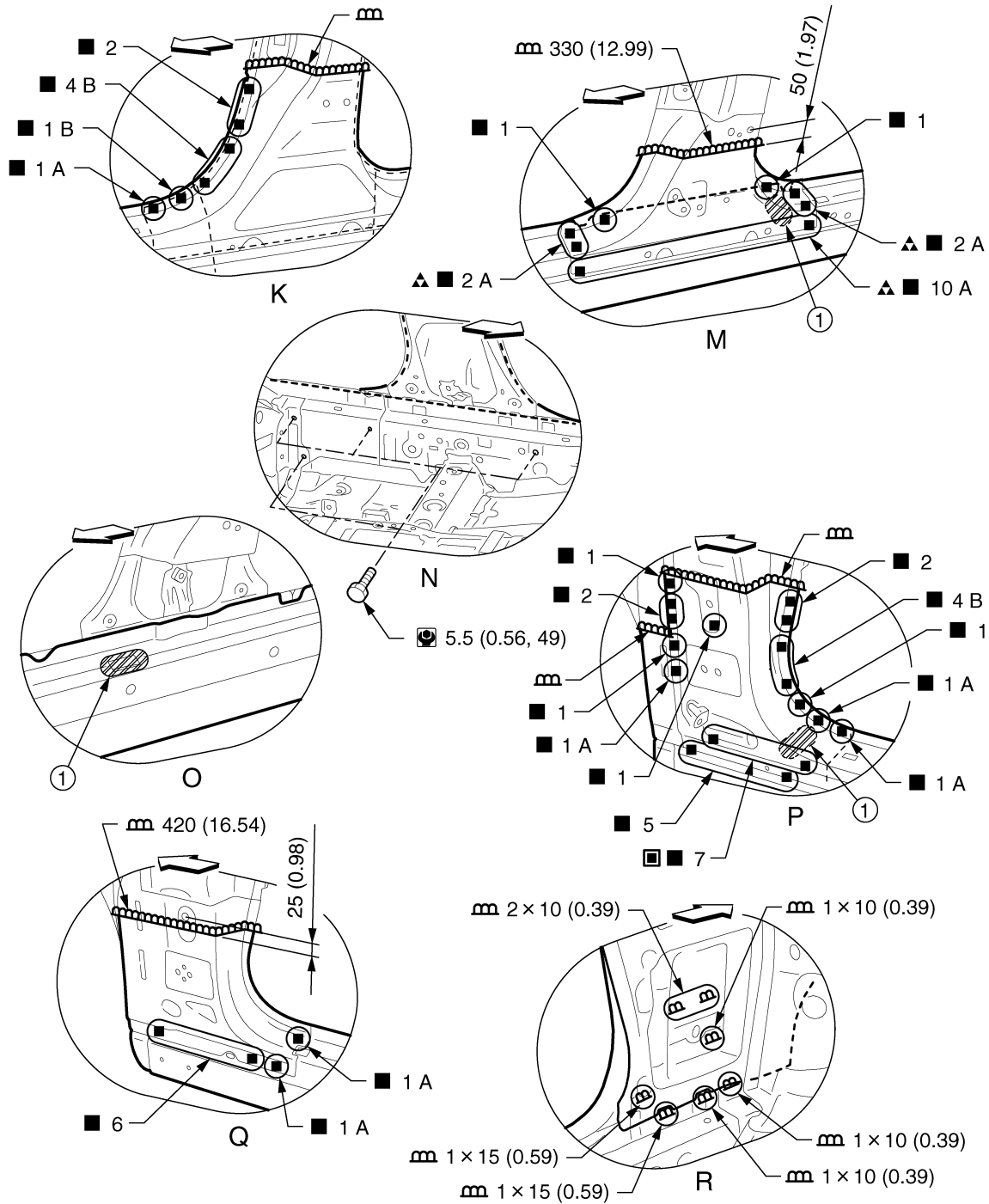
< REMOVAL AND INSTALLATION >

View E: Before installing outer sill assembly

View F: Before installing outer sill assembly and outer sill reinforcement

View G: Before installing outer sill assembly, outer sill reinforcement, outer rear wheelhouse extension (Upper), and outer rear wheelhouse extension (Lower)

View H: Before installing outer sill assembly, outer sill reinforcement, and outer rear wheelhouse extension (Upper)



JSKIA7217GB

① Urethane foam

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Unit: mm (in)

⇐: Vehicle front

■: Perform the plug welding instead of the laser welding.

▲: Drill $\phi 10$ mm (0.39 in) hole for the plug welding hole (Ultra high strength steel).

⚙: N·m (kg-m, in-lb)

View M and Q: Before installing outer sill assembly

View O: Before installing outer sill assembly and center pillar reinforcement

Rear Fender

INFOID:0000000012167988

Remove the tail outer back pillar and back pillar assembly from the rear fender service part for easier installation.

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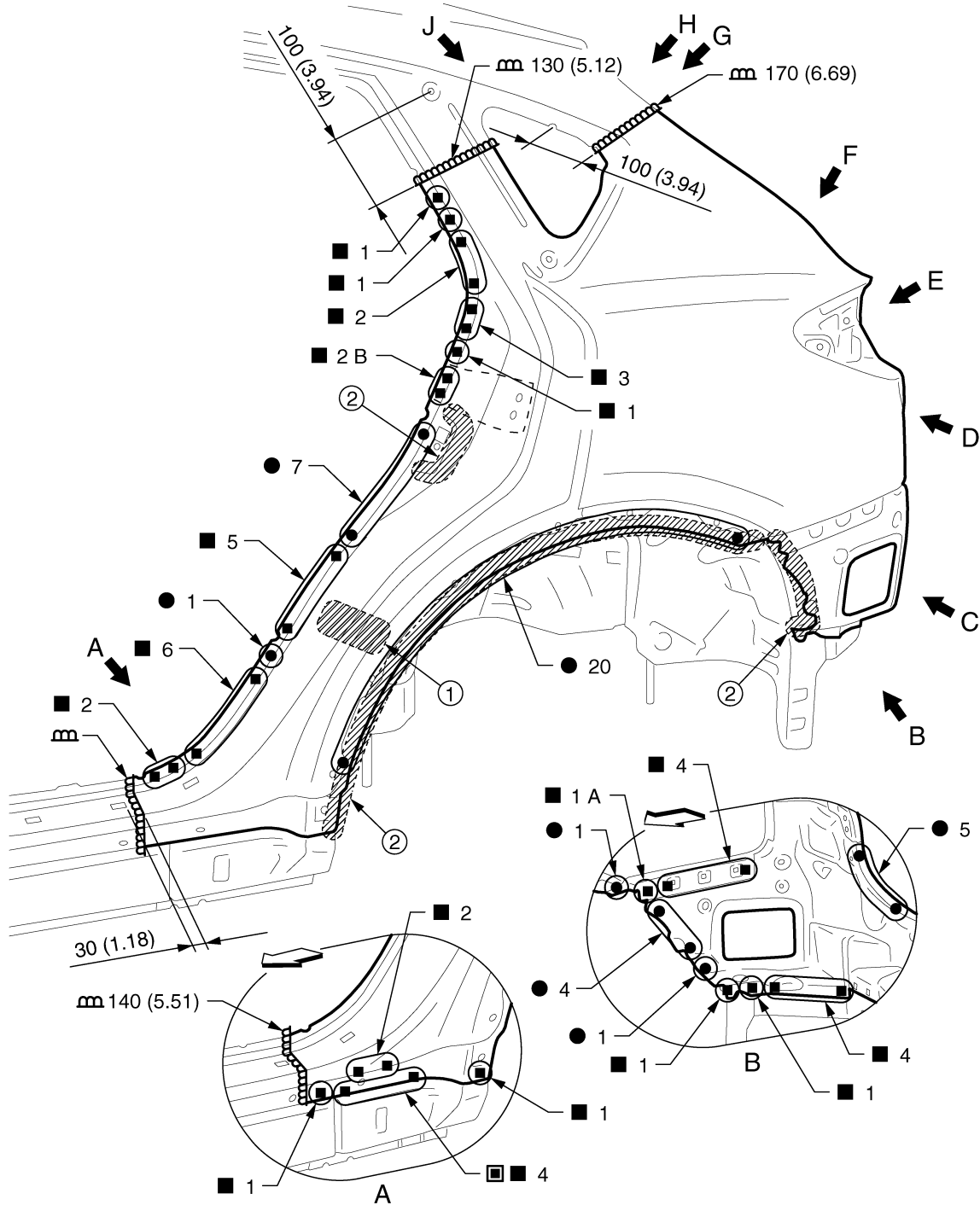
N

O

P

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7218GB

① Urethane foam

② Body sealing

Unit: mm (in)

◀: Vehicle front

■: Perform the plug welding instead of the laser welding.

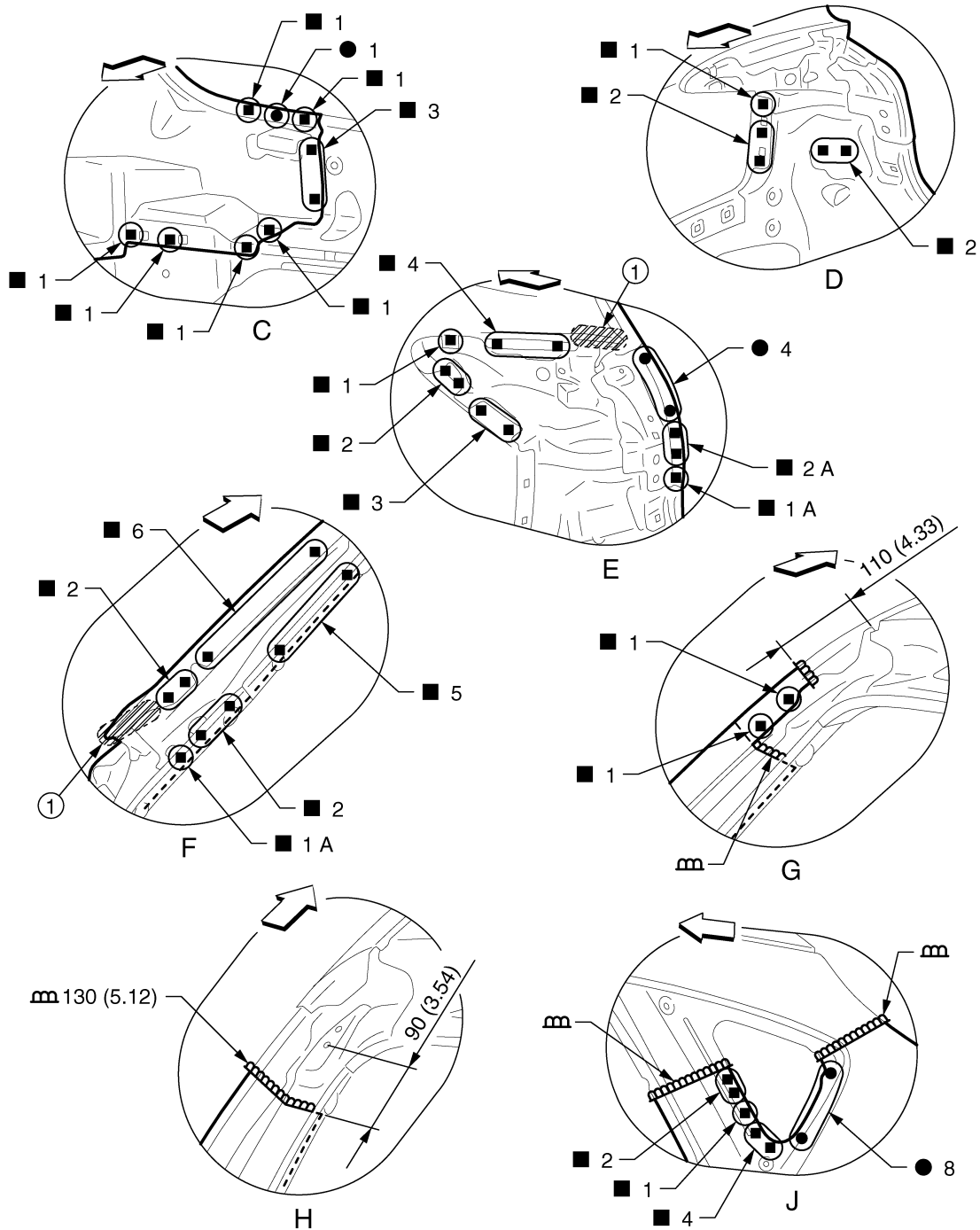
○: Weld the parts onto the back of the component part.

Replacement part

● Rear fender

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



① Urethane foam

Unit: mm (in)

⇐: Vehicle front

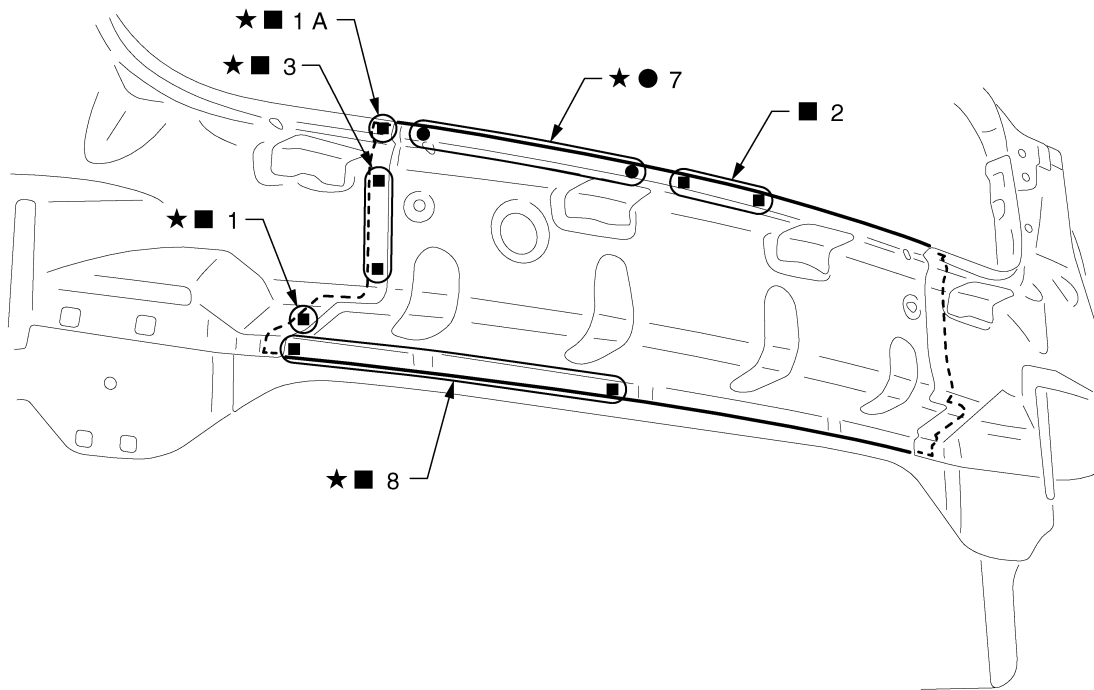
View H: Before installing rear fender

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Rear Panel

INFOID:0000000012167989



JSKIA7220ZZ

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

Replacement part

- Upper rear panel

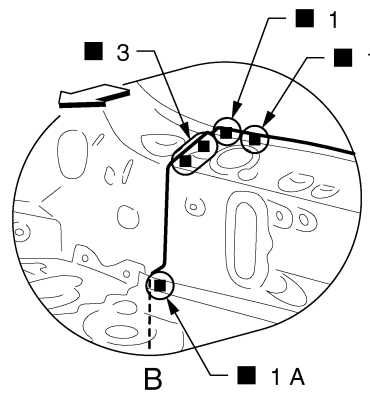
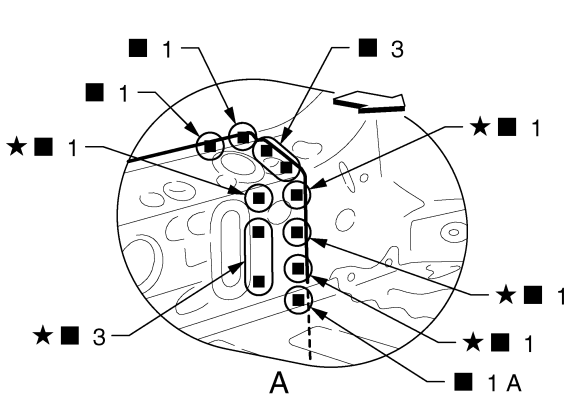
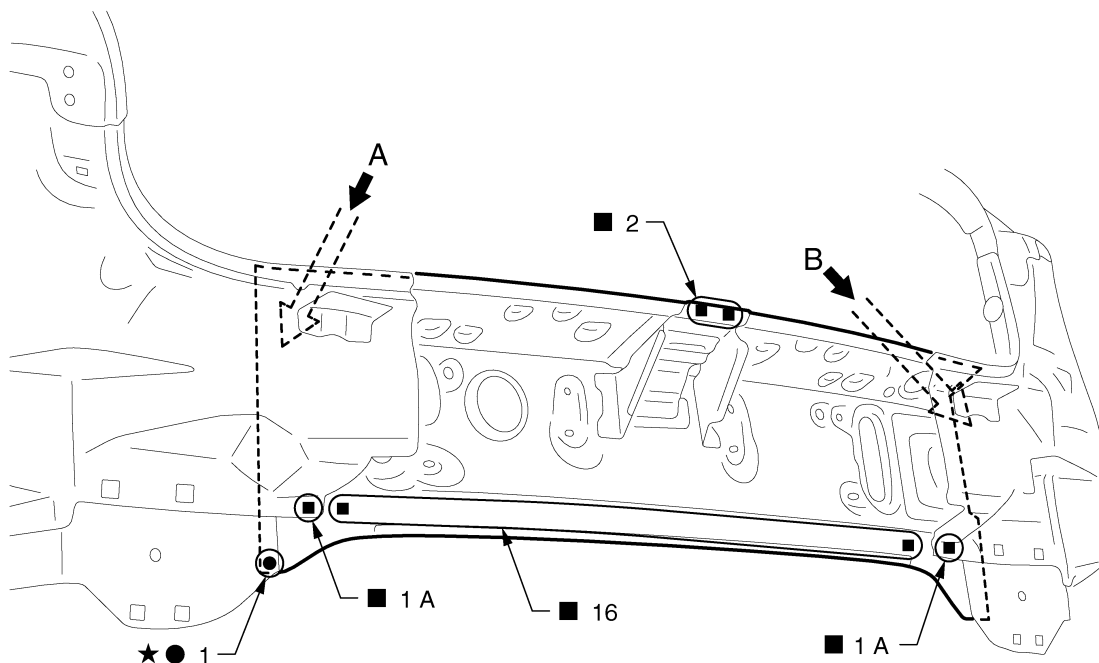
Rear End Crossmember

INFOID:0000000012167990

Work after rear panel is removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



JSKIA7221ZZ

⇐: Vehicle front

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

Replacement part

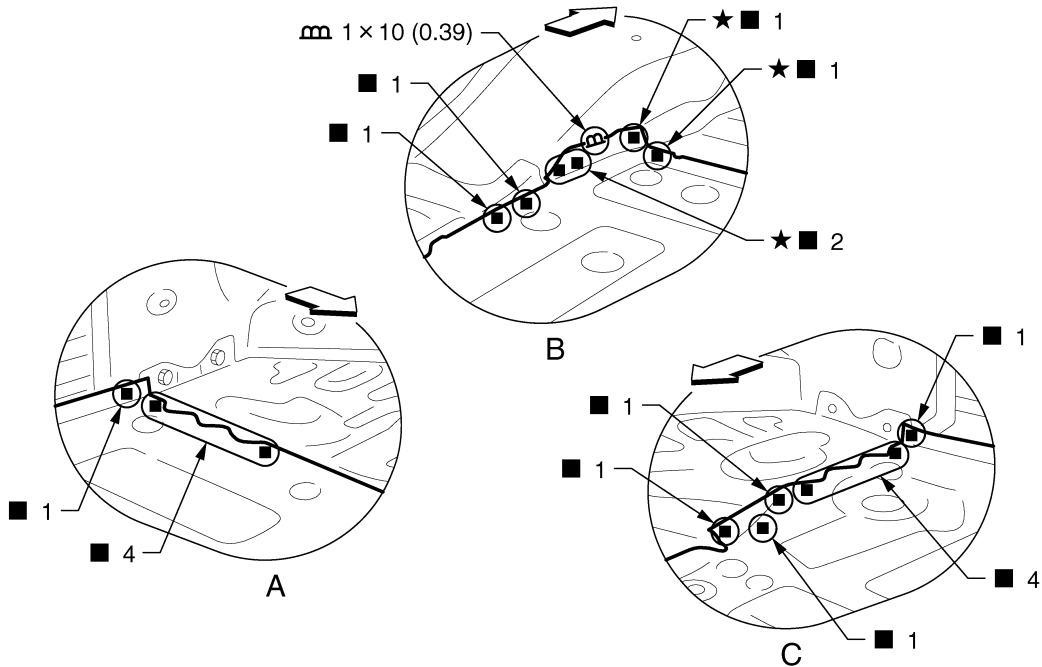
- Rear end crossmember assembly

Rear Floor Rear

INFOID:0000000012167991

Work after rear panel and rear end crossmember assembly are removed.

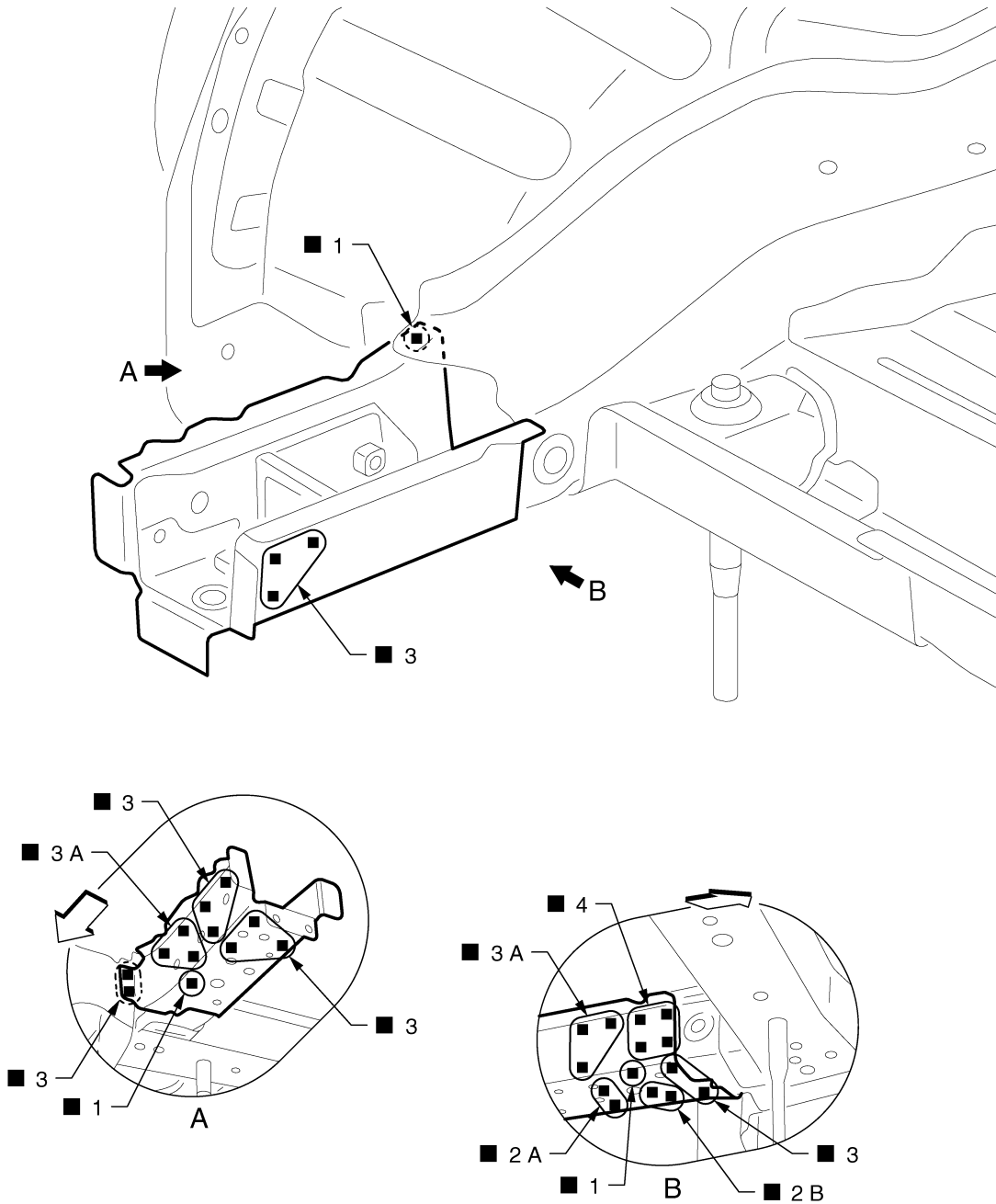
< REMOVAL AND INSTALLATION >



2016 QX50

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >



←: Vehicle front

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

Replacement part

- Rear side member extension
- Rear side member extension reinforcement assembly

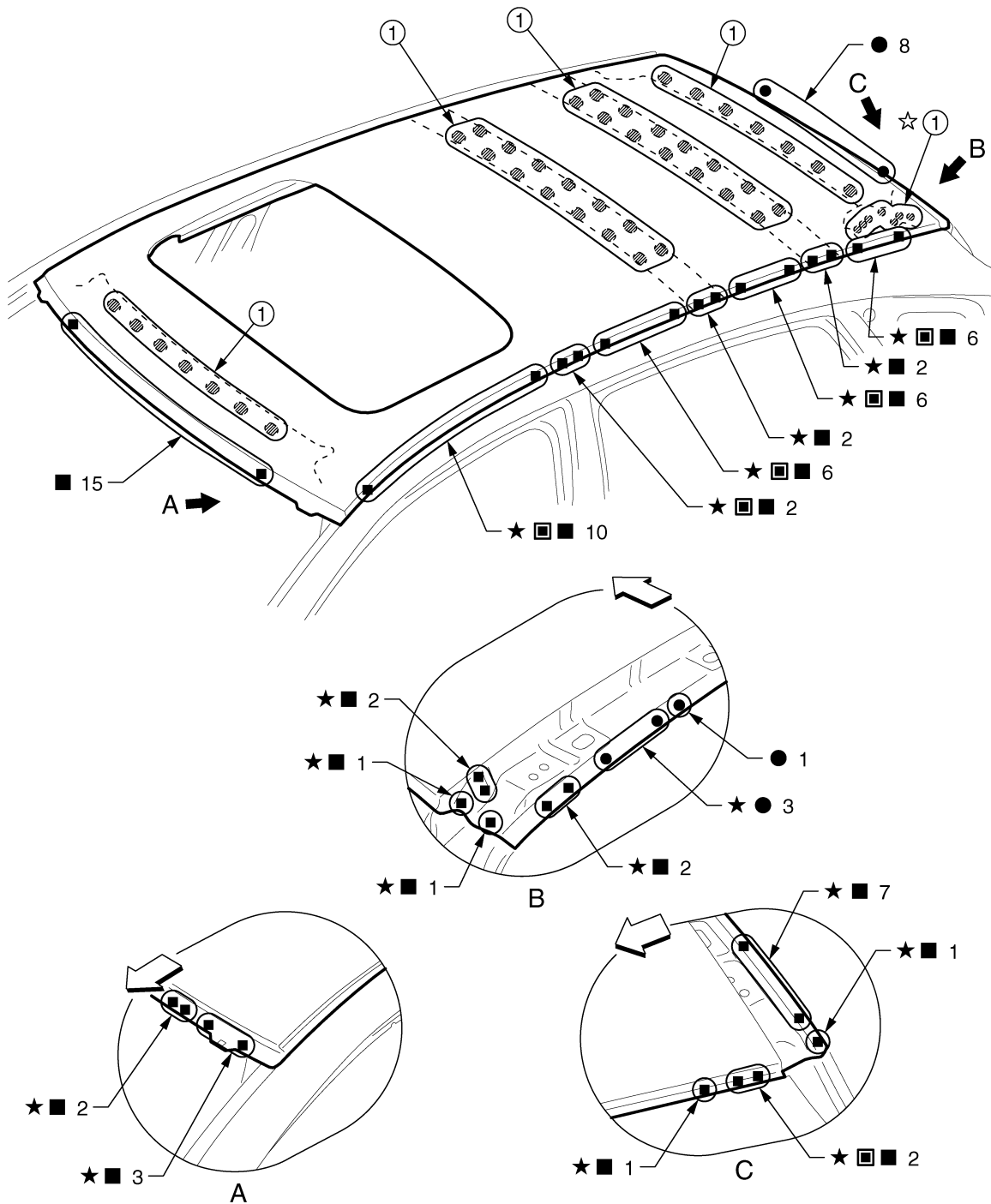
JSKIA1955ZZ

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

Roof

INFOID:000000012738437



JSKIA7223ZZ

① Body sealing

◁: Vehicle front

■: Perform the plug welding instead of the laser welding.

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

☆: Sealing portion apply to both side of the vehicle.

Replacement part

● Roof

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

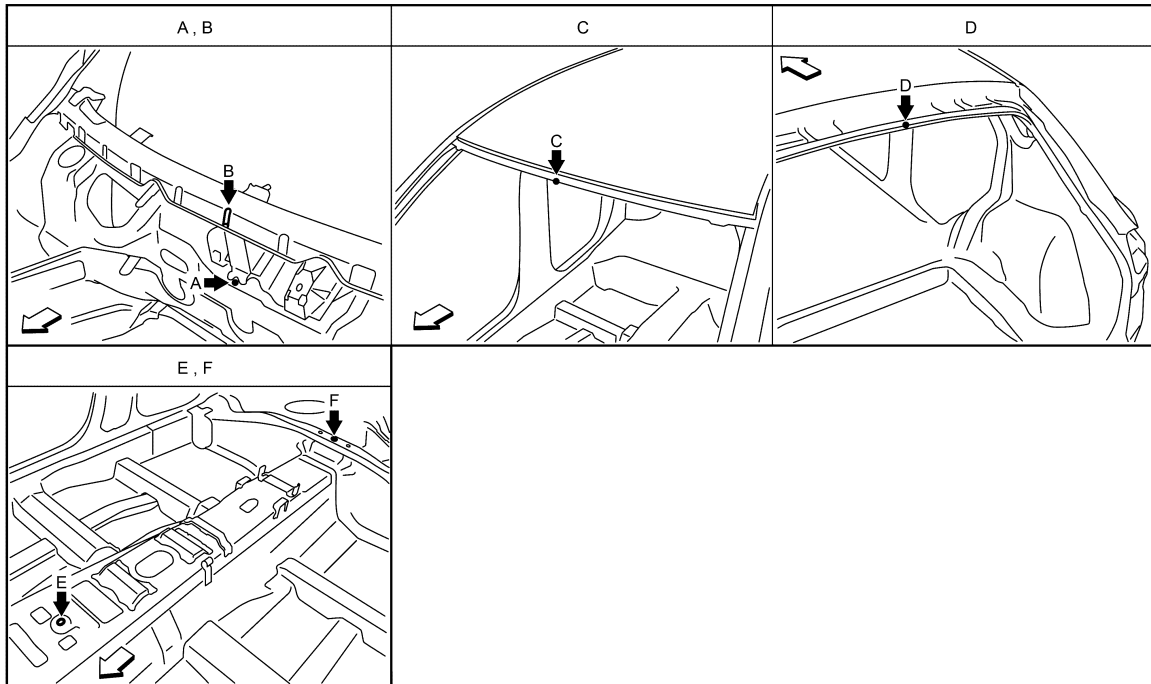
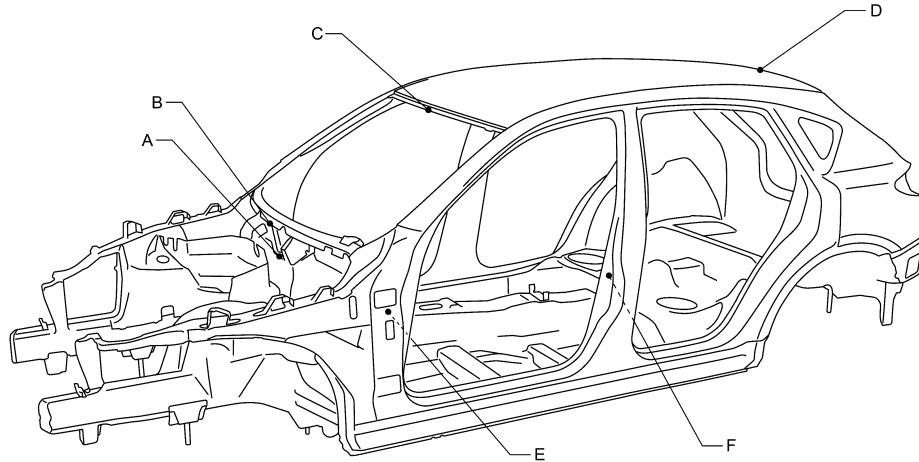
SERVICE DATA AND SPECIFICATIONS (SDS)

BODY ALIGNMENT

Body Center Marks

INFOID:0000000012795485

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.



JSKIA7189ZZ

↩: Vehicle front

Unit: mm (in)

Points	Portion	Marks
A	Upper dash	Embossment
B	Upper dash crossmember	Bead
C	Front roof	Embossment
D	Rear roof	Indent

BODY ALIGNMENT

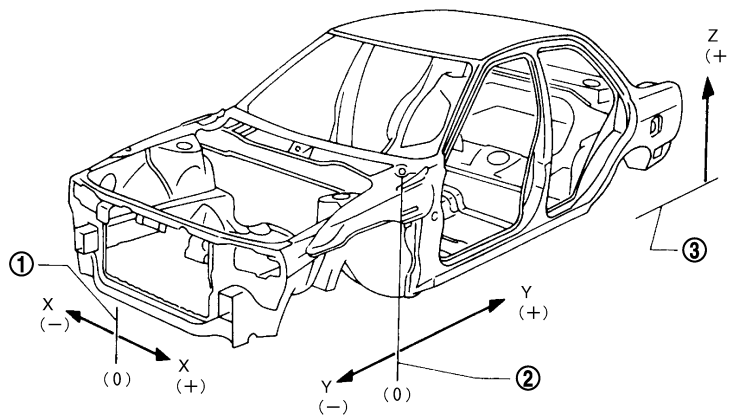
< SERVICE DATA AND SPECIFICATIONS (SDS)

Points	Portion	Marks
E	Trans control reinforcement	Hole 12×14 (0.47×0.55)
F	Rear seat crossmember reinforcement	Hole $\phi 5$ (0.20)

Description

INFOID:0000000012795068

- 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

Engine Compartment (2WD)

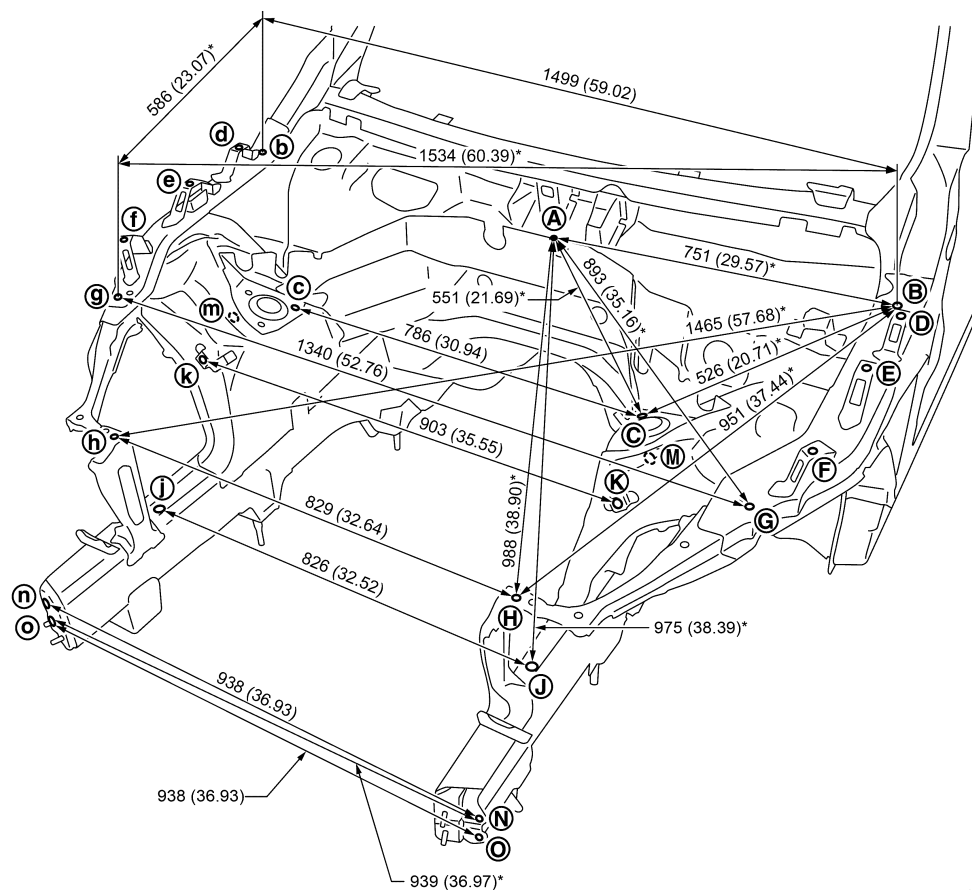
INFOID:0000000012167995

MEASUREMENT

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

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSKIA7191GB

Unit: mm (in)

«The others»

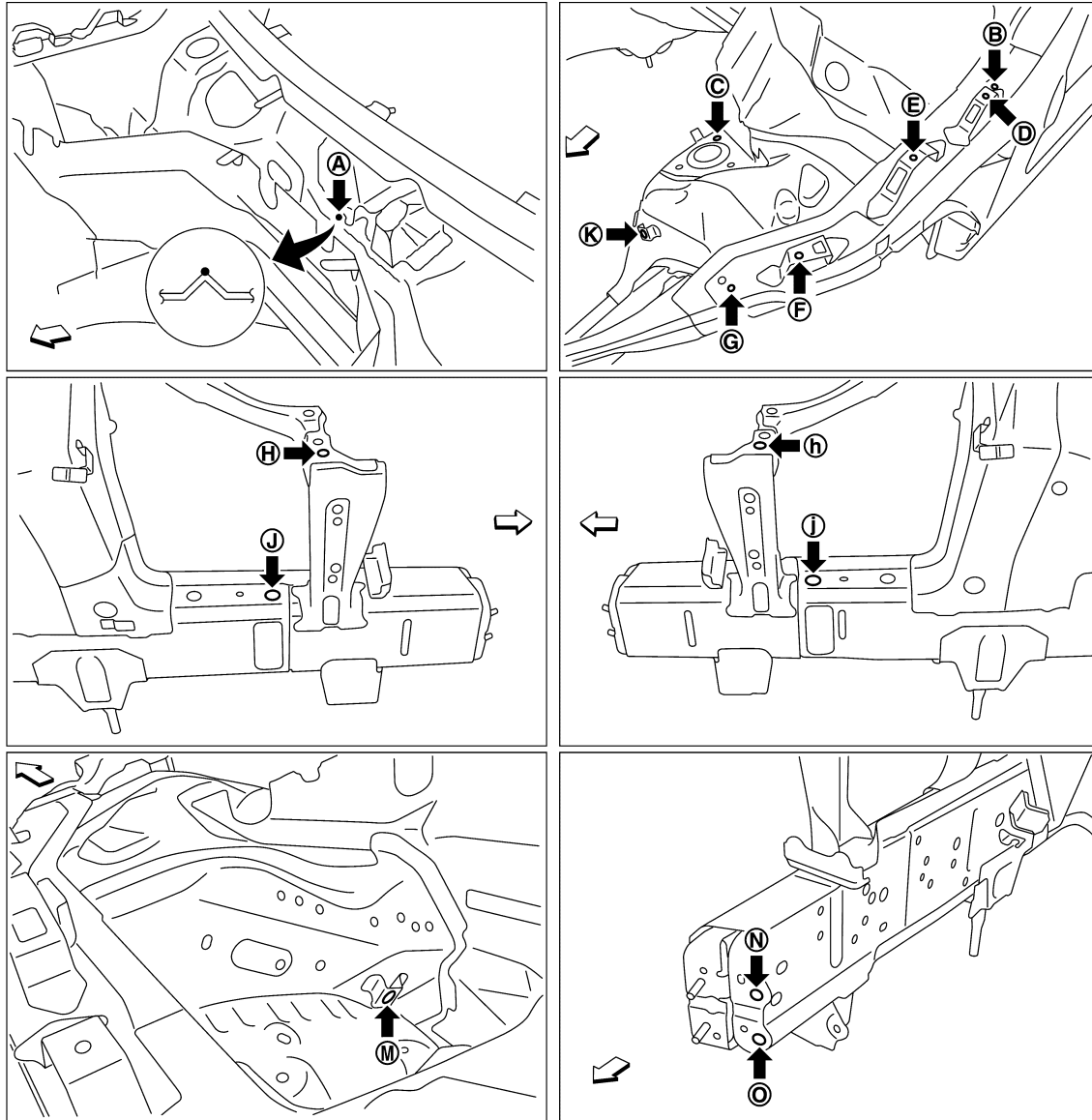
Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
(A) – (D)	770 (30.31)*		(C) – (k)	875 (34.45)*		(H) – (k)	913 (35.94)*	
(A) – (E)	797 (31.38)*		(D) – (d)	1525 (60.04)		(M) – (m)	903 (35.55)	
(A) – (F)	894 (35.20)*		(E) – (e)	1502 (59.13)		—	—	
(A) – (M)	559 (22.01)*		(F) – (f)	1471 (57.91)		—	—	
(B) – (C)	1206 (47.48)*		(H) – (K)	292 (11.50)*		—	—	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSKIA7192ZZ

↶: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
(A)	Upper dash positioning mark of center positioning mark	(H) (h)	Side radiator core stay hole center $\phi 12$ (0.47)
(B) (b) (G) (g)	Hoodedge reinforcement hole center (B) (b): $\phi 9$ (0.35) (G) (g): $\phi 5$ (0.20)	(J) (j)	Front side member hole center $\phi 20$ (0.79)
(C) (c)	Front suspension installing hole center $\phi 11$ (0.43)	(K) (k) (M) (m)	Nut holder hole center $\phi 16$ (0.63)
(D) (d) (E) (e) (F) (f)	Front fender installing hole center $\phi 7$ (0.28)	(N) (n) (O) (o)	Front bumper reinforcement installing hole center $\phi 11$ (0.43)

Engine Compartment (AWD)

INFOID:0000000012167996

MEASUREMENT

Revision: July 2016

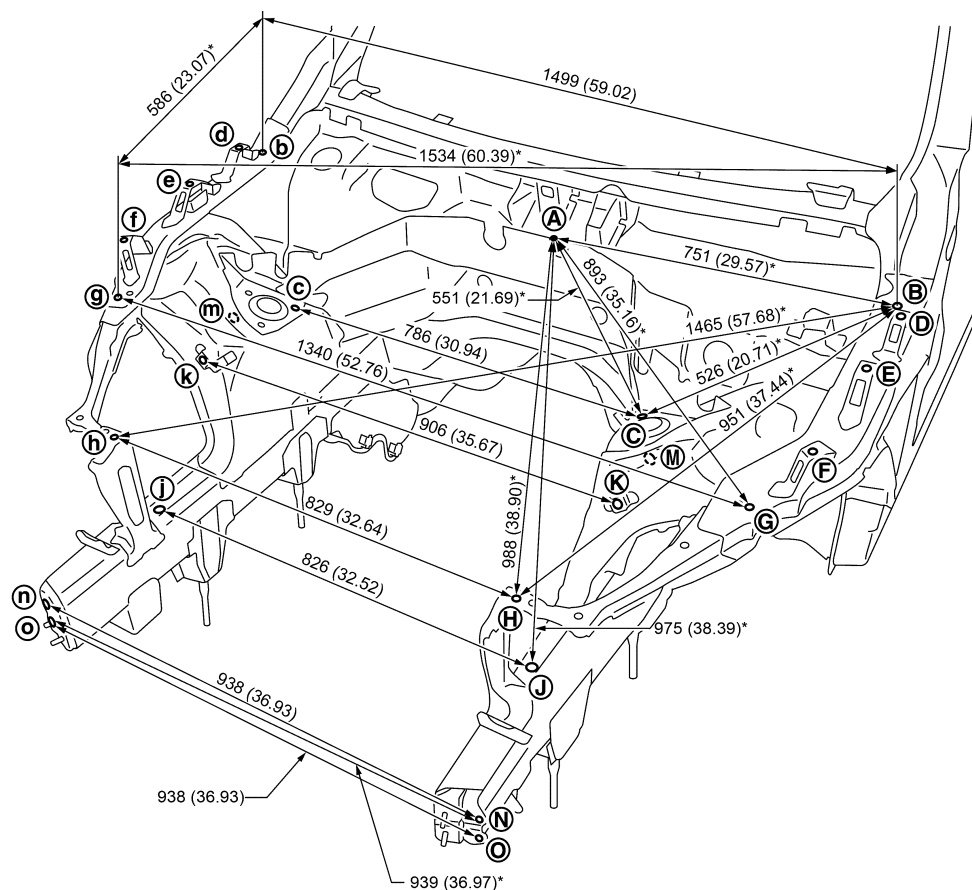
BRM-66

2016 QX50

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

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



JSKIA7193GB

Unit: mm (in)

«The others»

Unit: mm (in)

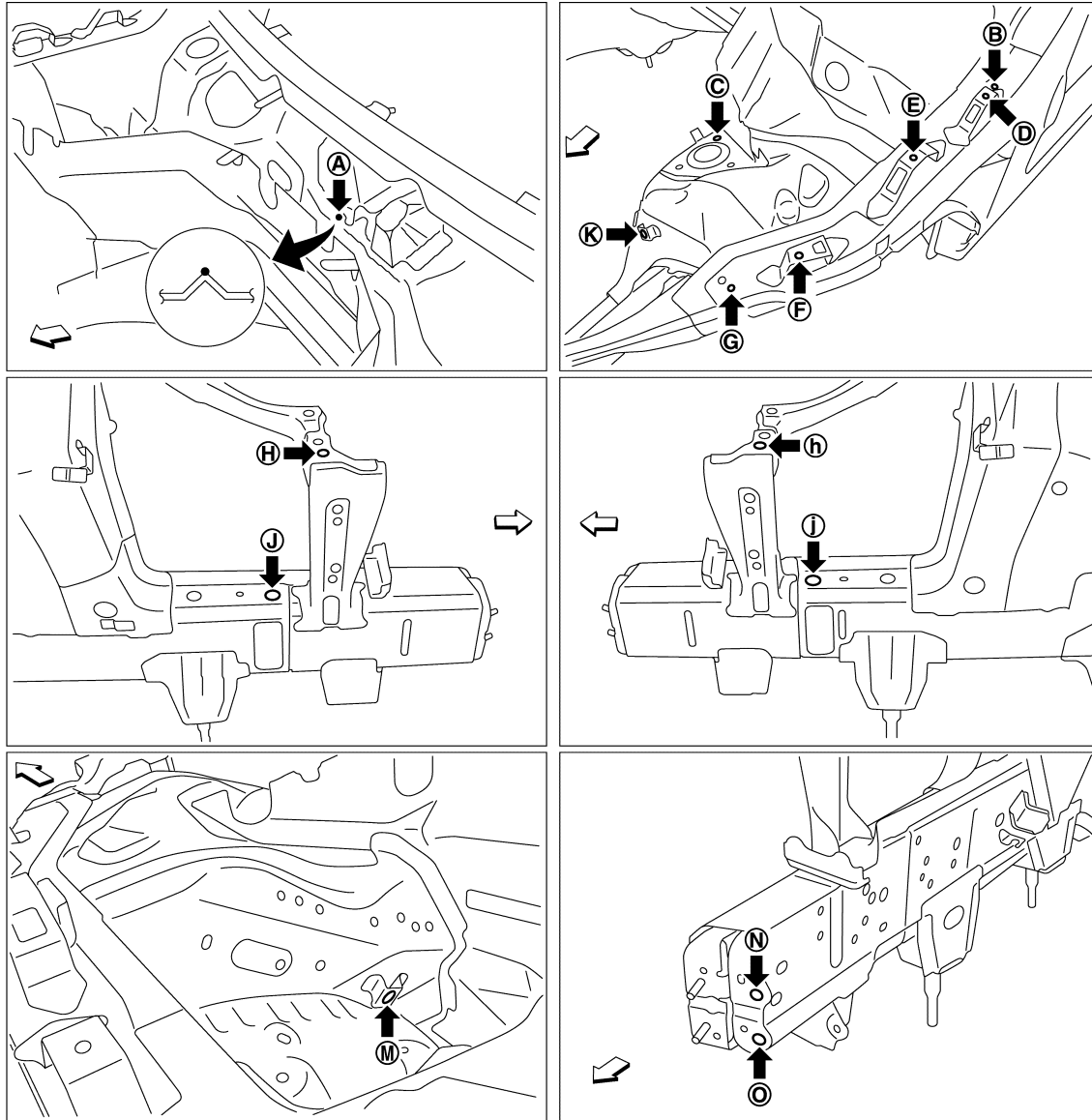
BRM

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
(A) – (D)	770 (30.31)*		(C) – (k)	878 (34.57)*		(H) – (k)	913 (35.94)*	
(A) – (E)	797 (31.38)*		(D) – (d)	1525 (60.04)		(M) – (m)	906 (35.67)	
(A) – (F)	894 (35.20)*		(E) – (e)	1502 (59.13)		—	—	
(A) – (M)	568 (22.36)*		(F) – (f)	1471 (57.91)		—	—	
(B) – (C)	1206 (47.48)*		(H) – (K)	289 (11.38)*		—	—	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSK1A6106ZZ

↶: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
Ⓐ	Upper dash positioning mark of center positioning mark	Ⓗ Ⓜ	Side radiator core stay hole center $\phi 12$ (0.47)
Ⓑ Ⓑ Ⓒ Ⓓ	Hoodedge reinforcement hole center Ⓑ Ⓑ: $\phi 9$ (0.35) Ⓒ Ⓒ: $\phi 5$ (0.20)	Ⓙ Ⓛ	Front side member hole center $\phi 20$ (0.79)
Ⓒ Ⓒ	Front suspension installing hole center $\phi 11$ (0.43)	Ⓚ Ⓚ Ⓜ Ⓜ	Nut holder hole center $\phi 16$ (0.63)
Ⓓ Ⓓ Ⓔ Ⓕ Ⓕ Ⓕ	Front fender installing hole center $\phi 7$ (0.28)	Ⓝ Ⓝ Ⓞ Ⓞ	Front bumper reinforcement installing hole center $\phi 11$ (0.43)

Underbody (2WD)

INFOID:000000012167997

MEASUREMENT

Revision: July 2016

BRM-68

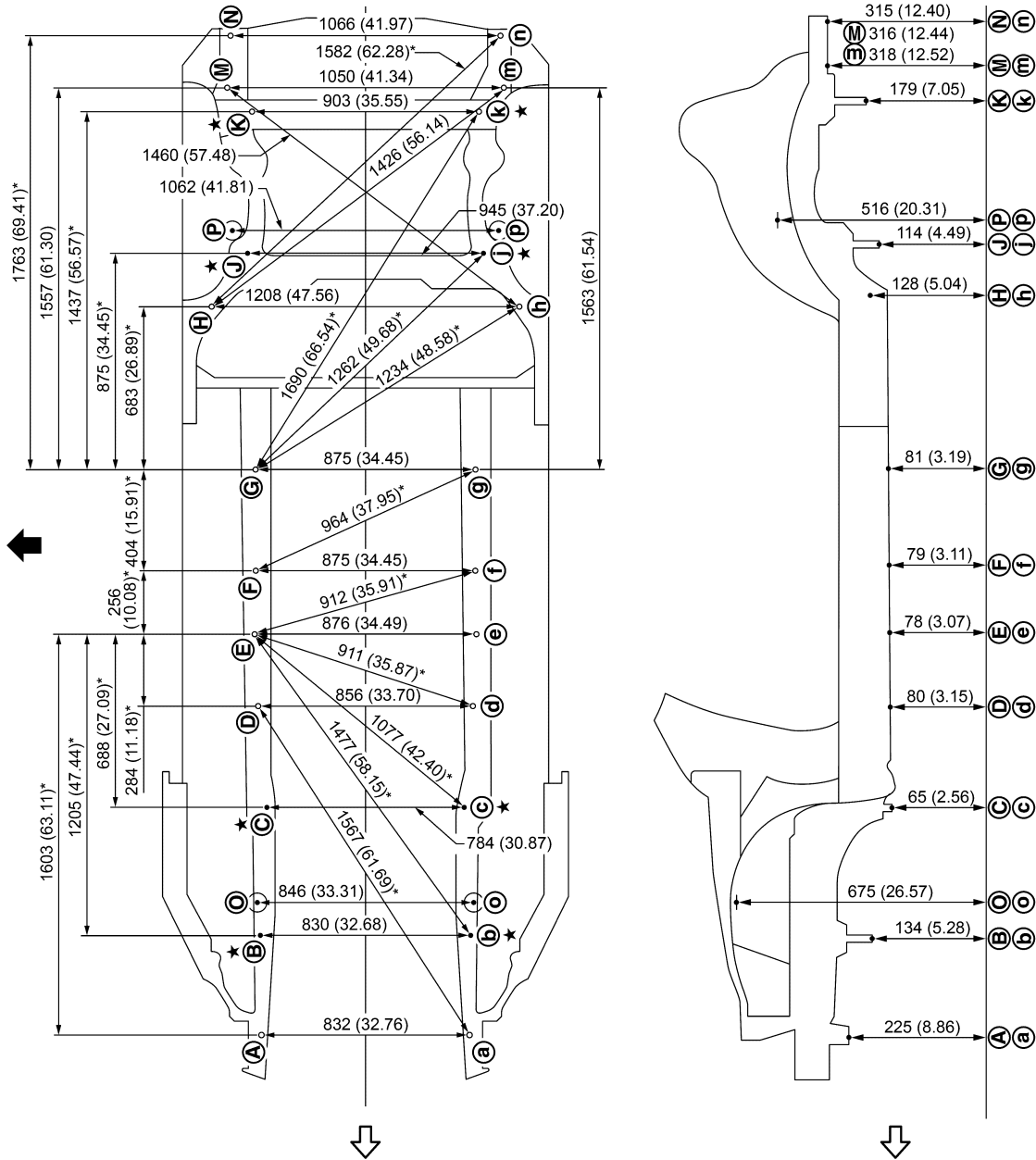
2016 QX50

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

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.

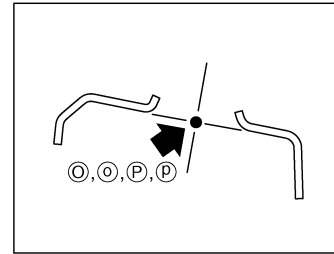
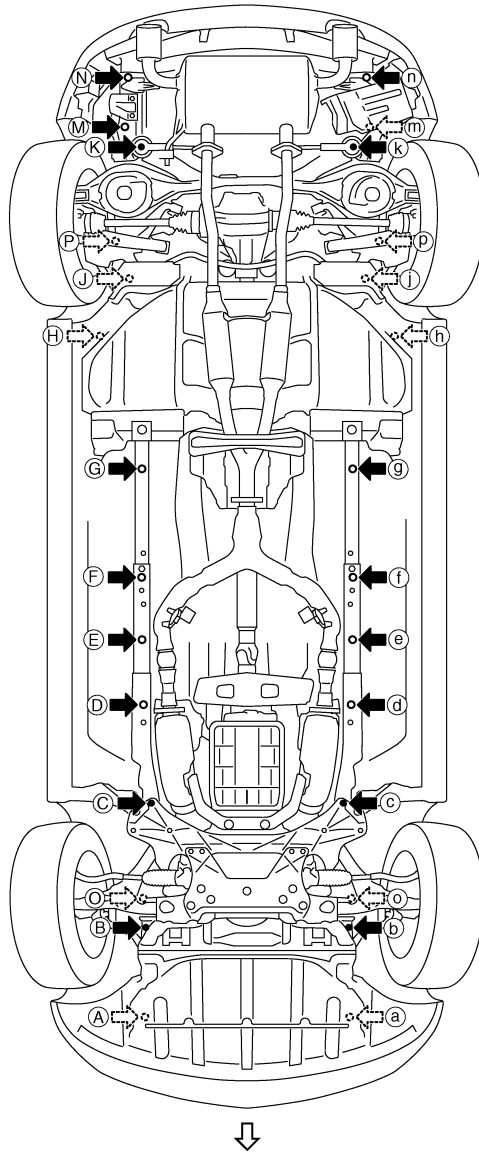


JSKIA7195GB

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

MEASUREMENT POINTS



JSK1A0564ZZ

↩: Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓐ Ⓐ	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	⓵ ⓵	±472.6 (±18.606)	2633.8 (103.693)	114.0 (4.488)	Bolt head
Ⓑ Ⓑ	±415.0 (±16.339)	-104.0 (-4.094)	133.5 (5.256)	Bolt head	Ⓚ Ⓚ	±451.5 (±17.776)	3193.9 (125.744)	179.1 (7.051)	Bolt head
Ⓒ Ⓒ	±392.0 (±15.433)	414.0 (16.299)	64.5 (2.539)	Bolt head	Ⓜ	550.0 (21.654)	3294.6 (129.708)	316.4 (12.457)	Hole φ8 (0.31)
Ⓓ Ⓓ	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	Ⓜ	-500.0 (-19.685)	3303.3 (130.051)	318.0 (12.520)	Hole φ8 (0.31)
Ⓔ Ⓔ	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	Ⓝ Ⓝ	±533.0 (±20.984)	3505.0 (137.992)	315.4 (12.417)	Hole φ16 (0.63)

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓕ Ⓕ	±437.5 (±17.224)	1355.9 (53.382)	78.8 (3.102)	Hole φ15 (0.59)	Ⓢ Ⓢ	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50 (1.97)
Ⓖ Ⓖ	±437.5 (±17.224)	1760.0 (69.291)	81.2 (3.197)	Hole φ16 (0.63)	Ⓟ Ⓟ	±531.2 (±20.913)	2722.7 (107.193)	515.6 (20.299)	Hole φ64 (2.52)
Ⓗ Ⓗ	±604.0 (±23.779)	2420.5 (95.295)	128.3 (5.051)	Hole φ13 (0.51)	—	—	—	—	—

Underbody (AWD)

INFOID:0000000012167998

MEASUREMENT

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

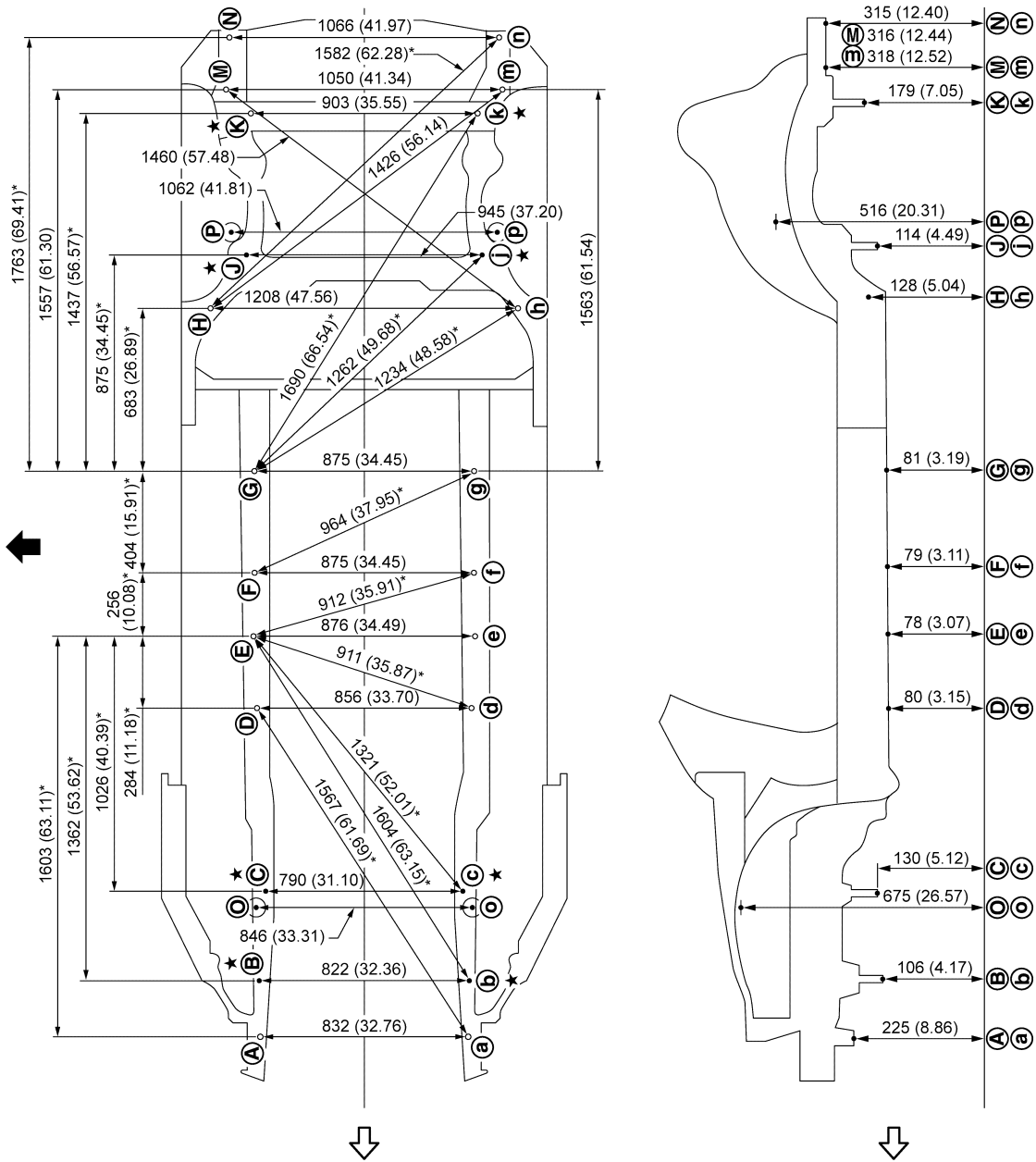
The following figure shows a bottom view and a side view of the vehicle.

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSK1A6107GB

Unit: mm (in)

↔: Vehicle front

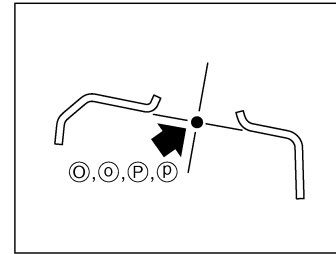
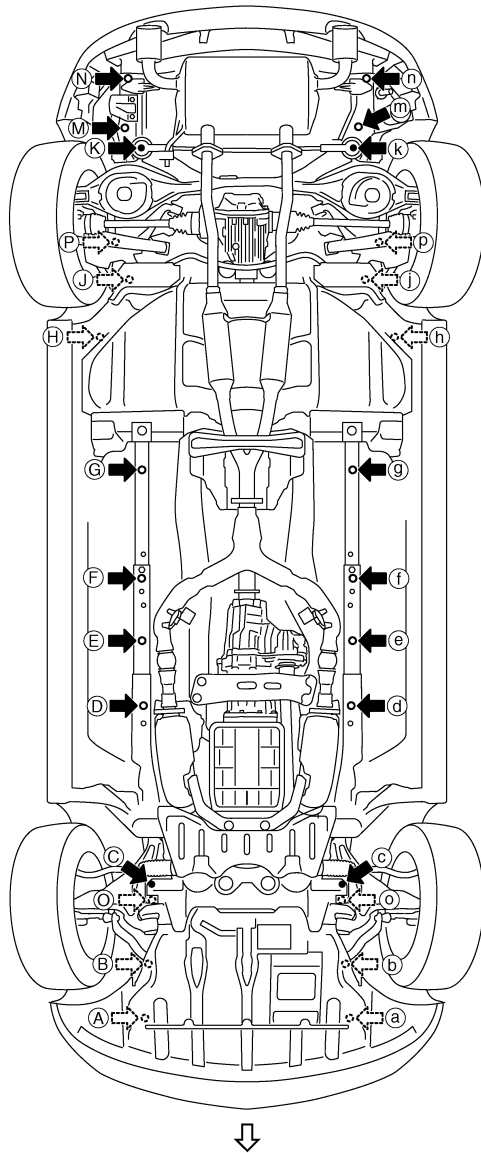
←: Vehicle left side

★: Bolt head

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSKIA0567ZZ

←: Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
(A) (a)	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	(J) (j)	±472.6 (±18.606)	2633.8 (103.693)	114.0 (4.488)	Bolt head
(B) (b)	±411.0 (±16.181)	-261.0 (-10.276)	105.5 (4.154)	Bolt head	(K) (k)	±451.5 (±17.776)	3193.9 (125.744)	179.1 (7.051)	Bolt head
(C) (c)	±395.0 (±15.551)	76.0 (2.992)	129.5 (5.098)	Bolt head	(M)	550.0 (21.654)	3294.6 (129.708)	316.4 (12.457)	Hole φ8 (0.31)
(D) (d)	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	(m)	-500.0 (-19.685)	3303.3 (130.051)	318.0 (12.520)	Hole φ8 (0.31)
(E) (e)	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	(N) (n)	±533.0 (±20.984)	3505.0 (137.992)	315.4 (12.417)	Hole φ16 (0.63)
(F) (f)	±437.5 (±17.224)	1355.9 (53.382)	78.8 (3.102)	Hole φ15 (0.59)	(O) (o)	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50 (1.97)

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

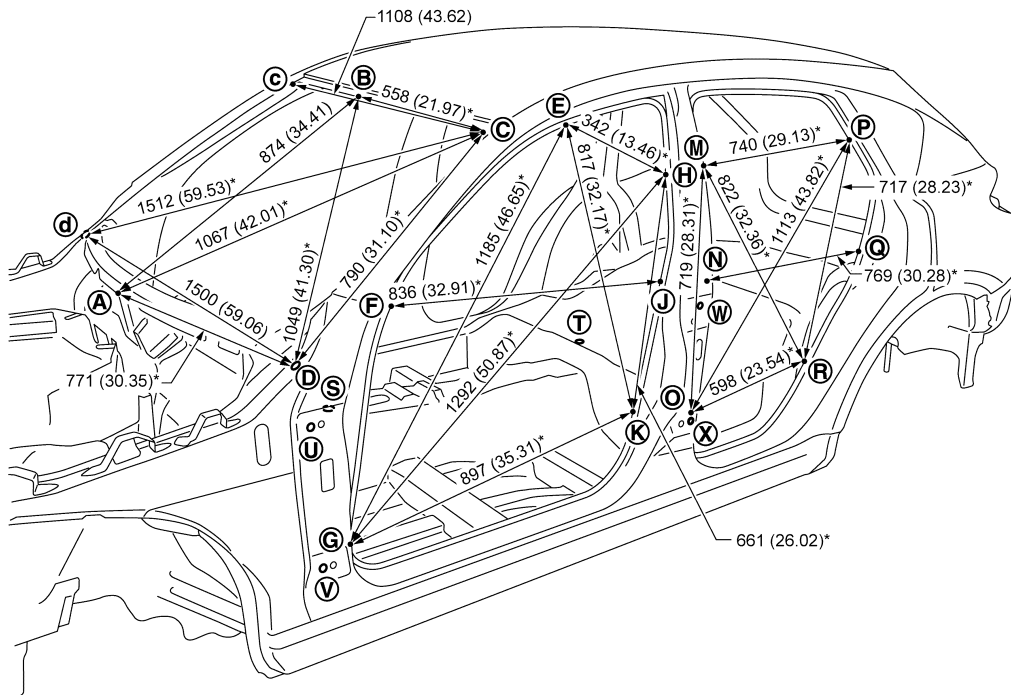
Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓔ Ⓕ	±437.5 (±17.224)	1760.0 (69.291)	81.2 (3.197)	Hole φ16 (0.63)	Ⓐ Ⓐ	±531.2 (±20.913)	2722.7 (107.193)	515.6 (20.299)	Hole φ64 (2.52)
Ⓗ Ⓗ	±604.0 (±23.779)	2420.5 (95.295)	128.3 (5.051)	Hole φ13 (0.51)	—	—	—	—	—

Passenger Compartment

INFOID:0000000012167999

MEASUREMENT

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



JSKIA6109GB

Unit: mm (in)

«The others»

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓔ - ⓔ	1183 (46.57)		Ⓜ - Ⓡ	1619 (63.74)*		Ⓣ - Ⓜ	1005 (39.57)*	
Ⓔ - ⓖ	1776 (69.92)*		Ⓝ - Ⓝ	1452 (57.17)		Ⓣ - Ⓝ	879 (34.61)*	
Ⓔ - ⓗ	1302 (51.26)*		Ⓝ - ⓓ	1636 (64.41)*		Ⓣ - Ⓞ	777 (30.59)*	
Ⓔ - Ⓚ	1557 (61.30)*		Ⓞ - Ⓞ	1451 (57.13)		Ⓣ - Ⓟ	1136 (44.72)*	
Ⓕ - ⓕ	1424 (56.06)		Ⓞ - Ⓟ	1759 (69.25)*		Ⓣ - Ⓠ	994 (39.13)*	
Ⓕ - ⓖ	1666 (65.59)*		Ⓞ - Ⓡ	1578 (62.13)*		Ⓣ - Ⓡ	805 (31.69)*	
Ⓖ - ⓖ	1478 (58.19)		Ⓟ - Ⓟ	1280 (50.39)		Ⓤ - Ⓤ	1587 (62.48)	
Ⓖ - ⓗ	1907 (75.08)*		Ⓟ - Ⓡ	1547 (60.91)*		Ⓤ - Ⓦ	1182 (46.54)*	
Ⓖ - Ⓚ	1732 (68.19)*		Ⓠ - Ⓠ	1436 (56.54)		Ⓤ - Ⓧ	1182 (46.54)*	
ⓗ - ⓗ	1333 (52.48)		Ⓡ - Ⓡ	1469 (57.83)		Ⓥ - Ⓥ	1618 (63.70)	
ⓗ - Ⓚ	1554 (61.18)*		Ⓢ - Ⓔ	1206 (47.48)*		Ⓥ - Ⓦ	1247 (49.09)*	
Ⓣ - Ⓣ	1459 (57.44)		Ⓢ - ⓕ	894 (35.20)*		Ⓥ - Ⓧ	1150 (45.28)*	
Ⓚ - Ⓚ	1485 (58.46)		Ⓢ - ⓖ	764 (30.08)*		Ⓦ - Ⓦ	1588 (62.52)	
Ⓜ - Ⓜ	1325 (52.17)		Ⓢ - ⓗ	1311 (51.61)*		Ⓧ - Ⓧ	1625 (63.98)	
Ⓜ - Ⓞ	1562 (61.50)*		Ⓢ - Ⓣ	1168 (45.98)*		-	-	
Ⓜ - Ⓟ	1498 (58.98)*		Ⓢ - Ⓚ	1024 (40.31)*		-	-	

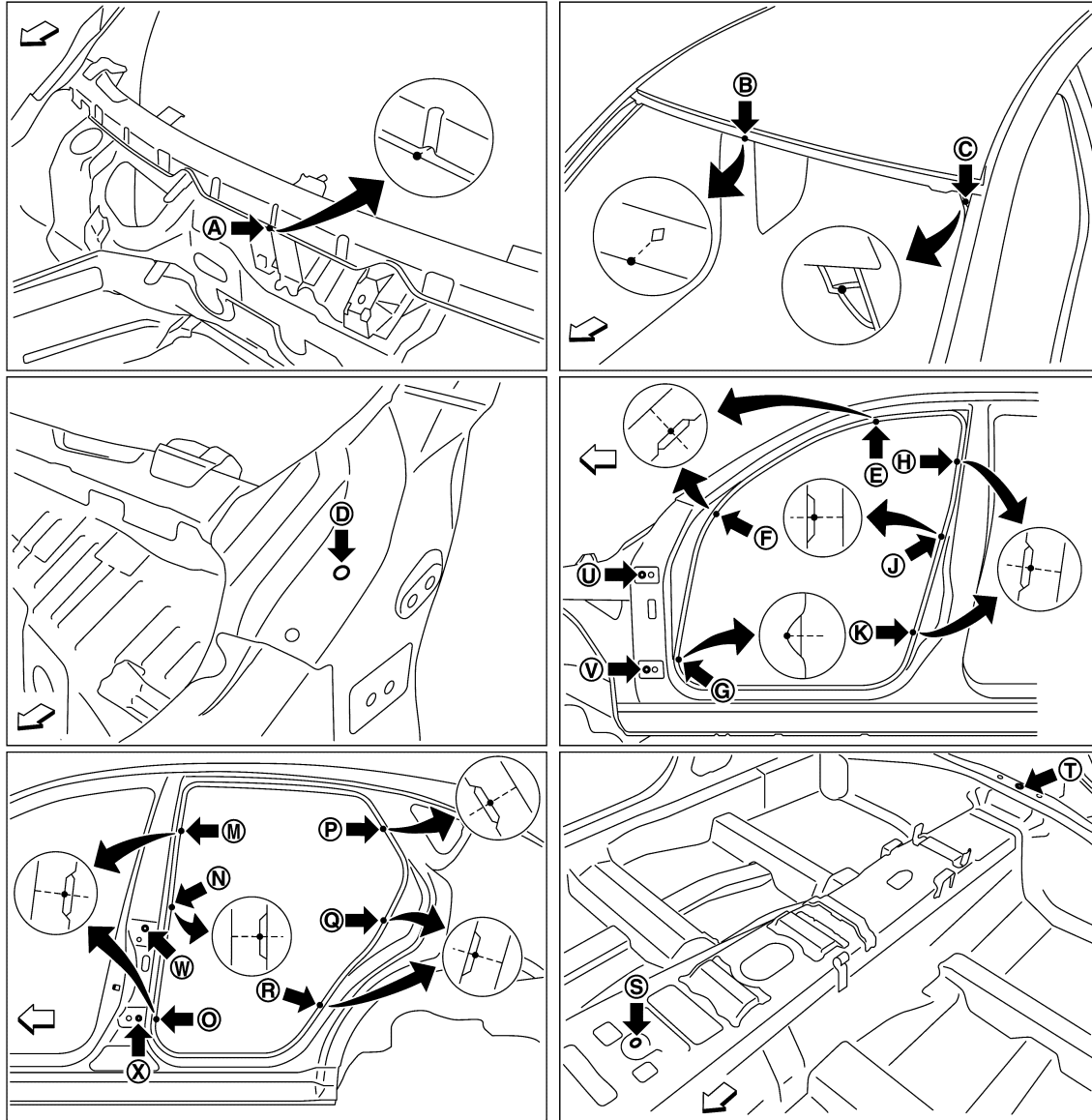
MEASUREMENT POINTS

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSK1A7200ZZ

↖: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
Ⓐ	Upper dash crossmember flange end of center positioning mark	Ⓗ Ⓖ Ⓙ ⓫ Ⓚ Ⓛ Ⓜ Ⓞ Ⓝ Ⓟ Ⓡ	Center pillar indent
Ⓑ	Roof flange end of center positioning mark	Ⓟ Ⓡ Ⓢ Ⓣ Ⓡ Ⓣ	Rear fender indent
Ⓒ Ⓒ	Outer front pillar reinforcement joggle	Ⓢ	Trans control reinforcement hole center of center positioning mark 12×14 (0.47×0.55)
Ⓓ Ⓓ	Hood hinge installing hole center $\phi 12$ (0.47)	Ⓣ	Rear seat crossmember reinforcement hole center of center positioning mark $\phi 5$ (0.20)
Ⓔ Ⓔ Ⓕ Ⓖ Ⓖ Ⓖ	Front pillar indent	Ⓤ Ⓤ Ⓥ Ⓥ Ⓦ Ⓦ Ⓧ Ⓧ	Door hinge installing hole center Ⓤ Ⓤ Ⓥ Ⓥ Ⓧ Ⓧ: $\phi 12$ (0.47) Ⓦ Ⓦ: 9×11 (0.35×0.43)

BODY ALIGNMENT

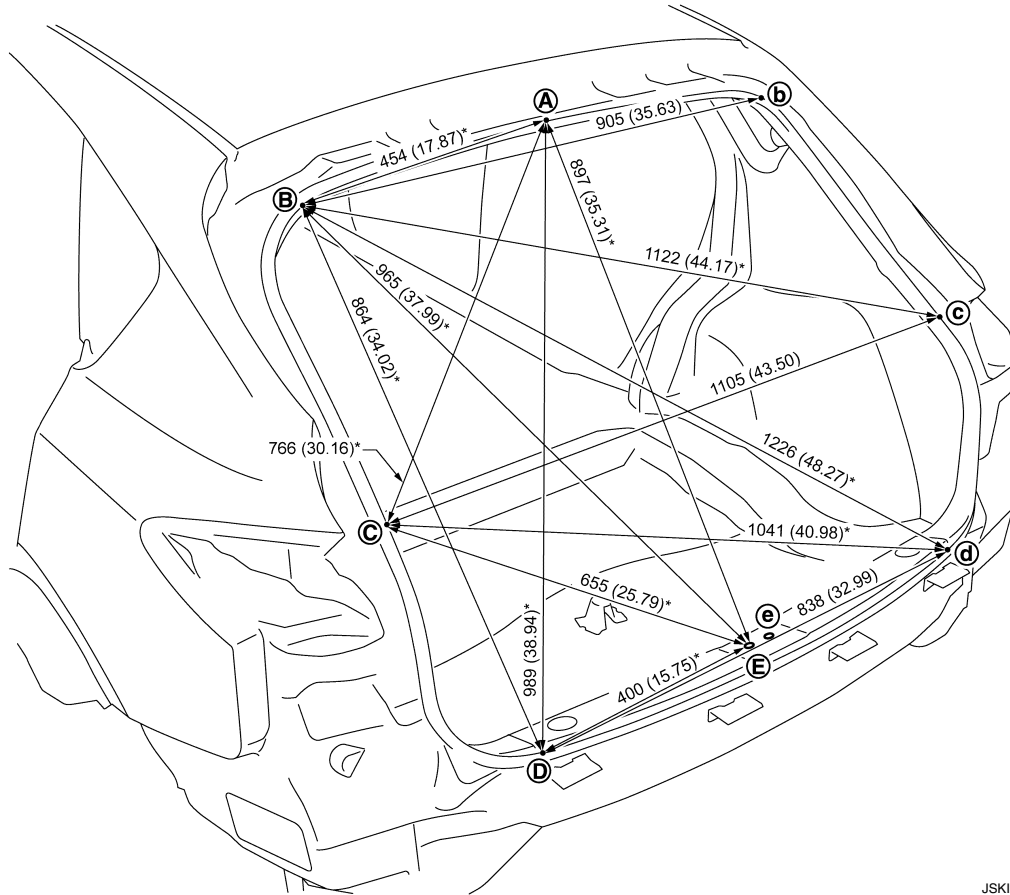
< SERVICE DATA AND SPECIFICATIONS (SDS)

Rear Body

INFOID:0000000012796939

MEASUREMENT

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

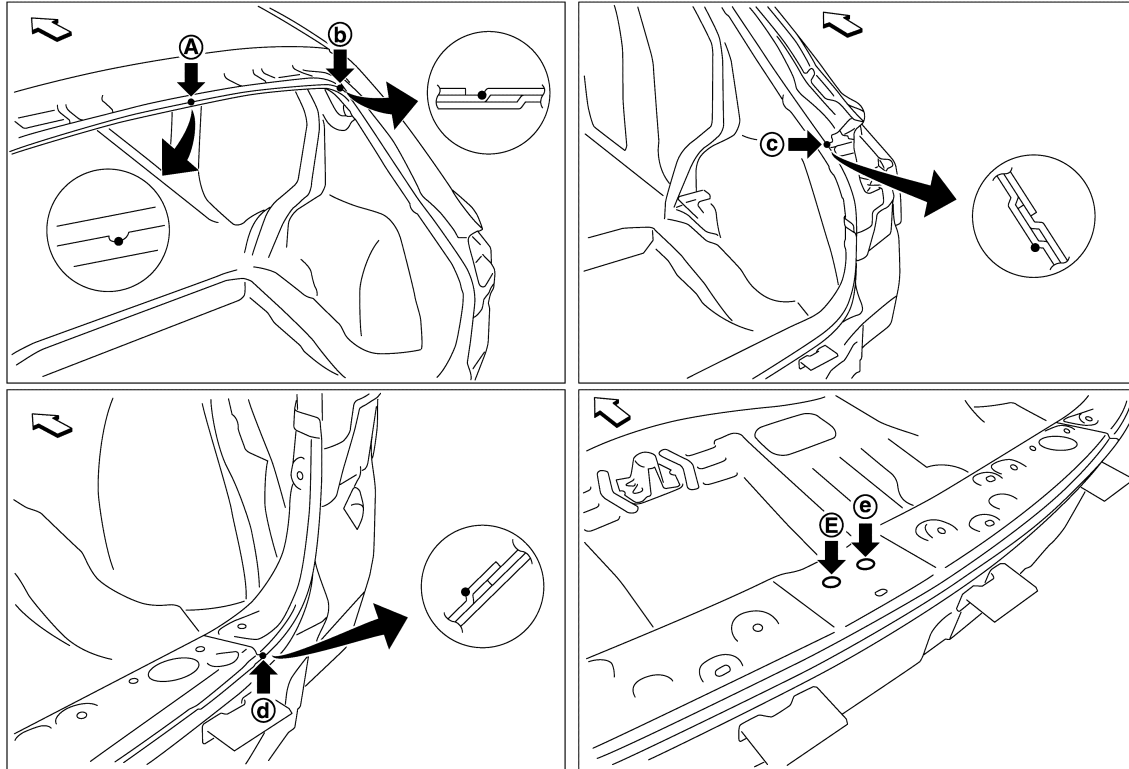


Unit: mm (in)

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSKIA6112ZZ

↶: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
Ⓐ	Roof indent of center positioning mark	Ⓓ ⓓ	Rear end crossmember joggle
Ⓑ ⓑ	Back pillar main joggle	Ⓔ ⓔ	Back door striker installing hole center φ14 (0.55)
ⓒ ⓒ	Inner back pillar joggle	—	—

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

LOCATION OF PLASTIC PARTS

Precautions for Plastics

INFOID:0000000012796940

Abbreviation	Material name	Heatresisting 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.	—
AES	Acrylonitrile Ethylene Styrene	80 (176)	↑	—
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:

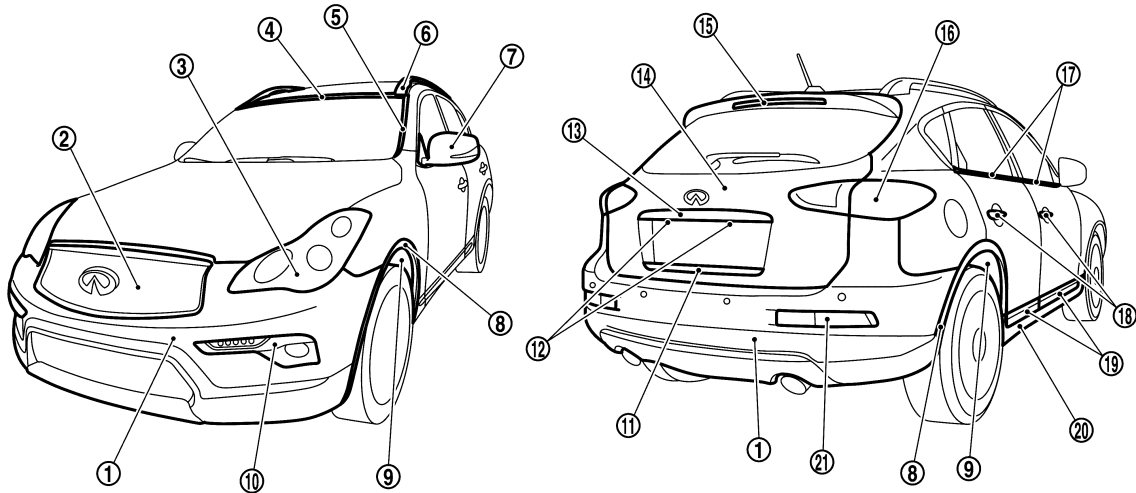
- When repairing and painting a portion of the body adjacent to plastic parts, consider their characteristics (influence of heat and solvent) and remove them if necessary or take suitable measures to protect them.
- Plastic parts should be repaired and painted using methods suiting the materials' characteristics.

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

Location of Plastic Parts

INFOID:0000000012168002



JSKIA7203ZZ

Component			Material	Component			Material
①	Front bumper	Bumper fascia assembly	PP + EPM	⑫	License plate lamp	Lens	PC
		Bumper protector	PP + EPM			Housing	PC
		Bumper finisher	PP + EPM	⑬	Back door finisher (Upper)		ABS
		Bumper molding	PP + EPM				
	Rear bumper	Bumper fascia	PP + EPM	⑭	Back door	Outer	PP
		Bumper protector	PP + EPM			Inner	PP + Glass fiber
						Inner cover	PP

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

Component			Material	Component			Material		
②	Front grille		ABS	⑮	High-mounted stop lamp	Lens	PMMA		
③	Front combination lamp	Lens	PC			Housing	ABS		
		Housing	PP	⑯	Rear combination lamp	Lens	PMMA		
④	Upper windshield molding		TPO			Inner lens	PMMA		
⑤	Roof side molding		PVC + Stainless			Housing	ASA		
⑥	Roof rail assembly	Pipe	Aluminum		Back-up lamp	Lens	PMMA		
	Roof rail cover		ABS			Inner lens	PC		
⑦	Door outside mirror	Cover	ABS			⑰	Door outside molding	Housing	ASA
		Housing	ABS	Molding	Stainless				
		Finisher	ABS	End cap	AES				
		Inner cover	ASA	⑱	Door outside handle	Front	Grip body	PC + PET + Glass fiber	
			Base				PA	Grip cover	PC + ABS
			Base under cover				ASA	Escutcheon	PC + ABS
⑧	Fillet molding		PP + EPM			Rear	Grip body	PC + ABS	
⑨	Fender protector	Front	PP	⑲	Front and rear door outside lower molding	Body	PP		
		Rear	PET			Molding	ABS		
⑩	Daytime running light	Lens	PC	⑳	Center mud guard	Body	PP + EPM		
		Housing	ABS			Molding	ABS		
	Front fog lamp	Lens	PC	㉑	Rear turn signal lamp	Lens	Pink	PC	
		Housing	PBT + ASA + Glass fiber				Red	PMMA	
	Fog lamp finisher		ABS			Housing	PP		
⑪	Back door finisher (Lower)		ABS	—	—		—		

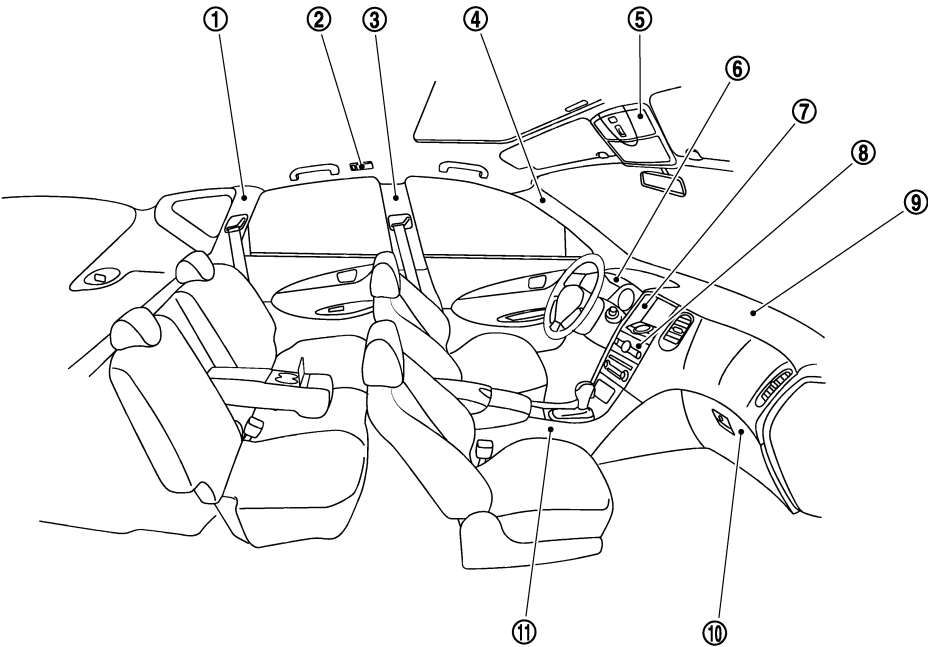
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LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)



JSKIA0581ZZ

Component			Material	Component			Material	
①	Luggage side finisher		PP	⑩	Glove box as- sembly	Outer lid	Skin	PVC
②	Personal lamp	Lens	PC				Pad	PUR
		Finisher	PP					Core
		Knob	PP			Inner lid		

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

Component				Material	Component				Material	
③	Center pillar garnish			PP	⑪	Instrument side panel			PP + EPDM	
④	Front pillar garnish			PP		Center console assembly	Console panel		PC + ABS	
⑤	Map lamp assembly	Lens		PC			Upper console panel		PC + ABS	
		Housing		PP			Console box		ABS	
		Switch knob		PP		Console lid assembly	Lid finisher		PVC	
	Sunglass holder	Case		PP			Insert lid		PP	
		Holder		PC + ABS			Inner lid		PP	
⑥	Cluster lid A			PP		Console finisher assembly	AT console finisher	Standard	PC + ABS	
	Cluster lid A (Upper)			PC + ABS				Wood	ABS + Glass fiber	
⑦	Cluster lid D			PC + ABS			Indicator finisher		ABS	
⑧	Cluster lid C	Standard		PC + ABS			Boot		PVC	
		Wood		ABS + Glass fiber		Pocket			ABS	
⑨	Instrument panel assembly	Skin		TPU		Inner ashtray			ABS	
		Pad		PUR		Ashtray lid	Standard		PC + ABS	
		Core		PP + EPDM			Wood		ABS + Glass fiber	
	Center and side ventilator grille	Finisher		PC + ABS		Switch panel			ABS	
		Case		ABS		Console center finisher			ABS	
		Louver	Horizontal			PBT + Glass fiber	Console rear finisher			PP
			Vertical			PP	—			—
		Knob		POM		—			—	

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