SECTION BRM
BODY REPAIR

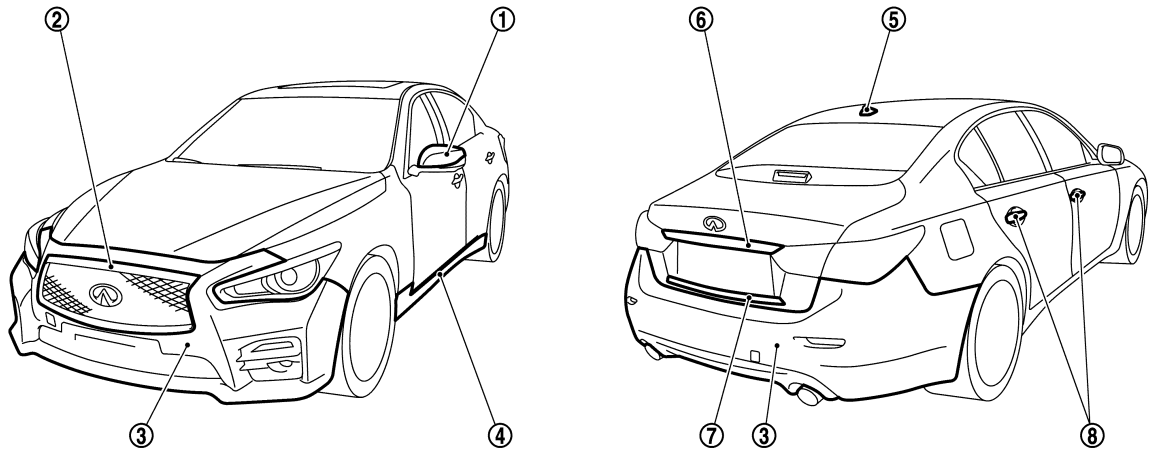
CONTENTS

VEHICLE INFORMATION

BODY EXTERIOR PAINT COLOR

Body Exterior Paint Color

INFOID:0000000011568497



JSKIA3260ZZ

Component			Color code	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
			Description	Brown	Black	Silver	Gray	Black	Red	White	Grayish Blue
			Paint type [note]	2M	2P	2M	2M	2S	2PM	3P	2M
			Anti scratch advanced paint	×	×	×	×	×	×	×	×
①	Door mirror cover		Body color	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
②	Front grille		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr
③	Bumper fascia		Body color	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
④	Sill cover		Body color	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
⑤	Antenna base cover		Body color	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
⑥	Trunk lid finisher		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr
⑦	Trunk lid molding		Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr
⑧	Door out-side handle	Grip body	Body color	BCAN	BGAC	BK23	BKAD	BKH3	BNAH	BQAA	BRBP
		Grip finisher	Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr

NOTE:

- 2M: 2-Coat Metallic
- 2P: 2-Coat pearl
- 2S: Solid + Clear
- 3P: 3-Coat pearl
- 2PM: 2-Coat Pearl metallic

PRECAUTION

REPAIRING HIGH STRENGTH STEEL

High Strength Steel (HSS)

INFOID:0000000011568498

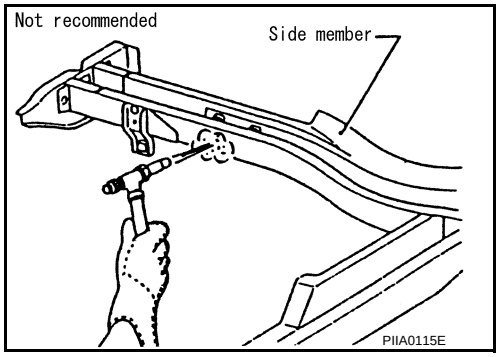
High strength steel is used for body panels in order to reduce vehicle weight.
Accordingly, precautions in repairing automotive bodies made of high strength steel are described below:

Tensile strength	Major applicable parts
440 - 780 MPa	• Rear side floor (Rear floor rear side component part) • Rear seat crossmember reinforcement assembly • Trans control reinforcement (Center front floor component part) • Front side member center extension (Front floor component part) • 2nd and 3rd crossmember (Front floor component part) • Inner sill • Lower dash • Lower dash crossmember • Upper front hoodledge • Front hoodledge reinforcement • Hoodledge reinforcement • Front strut housing • Front side member closing plate assembly • Front side member center closing plate • Front side member front closing plate • Front side member assembly • Add on frame bracket • Front side member front extension • Front side member outrigger (Front side member outrigger assembly component part) • Rear seat crossmember (Rear seat crossmember component part) • Rear floor belt anchor reinforcement • Rear side member front (Rear side member assembly component part) • Rear side member rear • Rear side member extension • Rear roof rail • Inner side roof rail • Front roof rail brace • Inner center pillar (Lower) (Inner center pillar component part) • Center pillar reinforcement (Lower) (Center pillar reinforcement component part) • Front pillar hinge brace (Front pillar brace component part) • Outer sill reinforcement • Rear roof rail brace (Inner rear pillar component part) • Outer rear wheelhouse extension (Rear) (Outer rear wheelhouse extension component part)

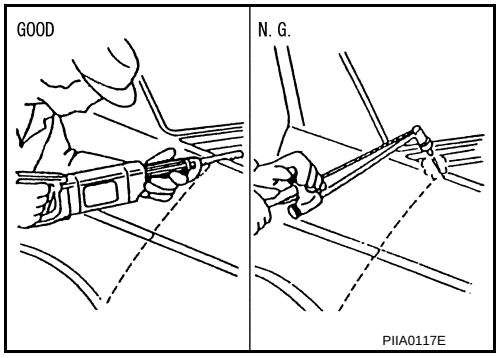
Tensile strength	Major applicable parts
980 - 1350 MPa	• Front side member stiffener (Front floor component part) • Center sill reinforcement (Inner sill component part) • Outrigger reinforcement (Front side member outrigger assembly component part) • Front side member rear extension • Rear side member rear reinforcement (Rear side member assembly component part) • Front roof rail • Roof reinforcement assembly • Side roof reinforcement • Inner center pillar (Upper) (Inner center pillar component part) • Center pillar seat belt anchor (Inner center pillar component part) • Outer side roof rail reinforcement • Center pillar reinforcement (Upper) (Center pillar reinforcement component part) • Center pillar seat belt reinforcement (Center pillar reinforcement component part) • Center sill reinforcement (Outer sill reinforcement component part) • Outer rear sill reinforcement (Outer rear wheelhouse extension component part)

Read the following precautions when repairing HSS:

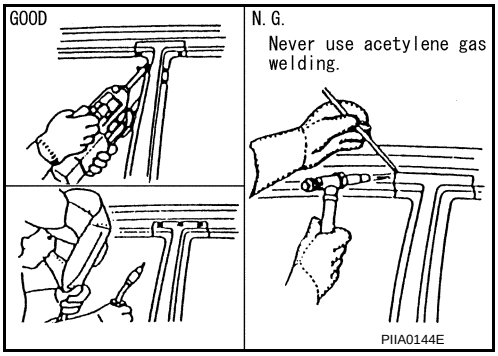
1. Additional points to consider
   - The repair of reinforcements (such as side members) by heating is not recommended, because it may weaken the component. When heating is unavoidable, never heat HSS parts above 550°C (1,022°F).
     Verify heating temperature with a thermometer.
     (Crayon-type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



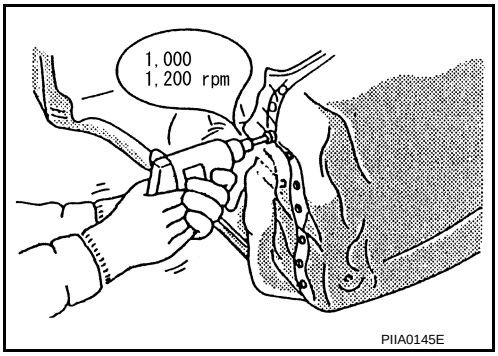
   - When straightening body panels, use caution in pulling any HSS panel. Because HSS is very strong, pulling may cause deformation in adjacent sections of the body. In this case, increase the number of measuring points, and carefully pull the HSS panel.
   - When cutting HSS panels, avoid gas (torch)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



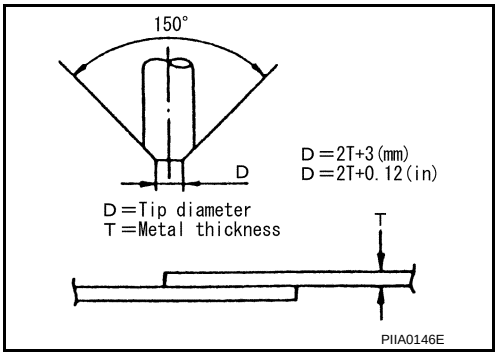
- When welding HSS panels, use spot welding whenever possible in order to minimize weakening surrounding areas due to heat.
  If spot welding is impossible, use MIG. welding. Do not use gas (torch) for welding because it is inferior in welding strength.



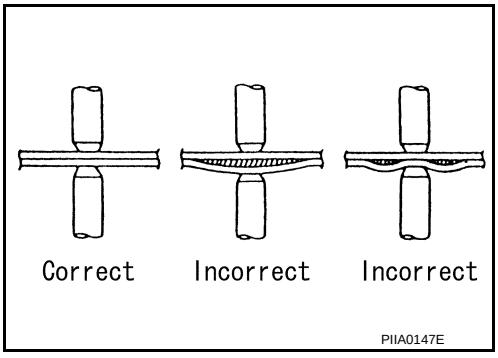
- Spot welding on HSS panels is harder than that of an ordinary steel panel.
  Therefore, when cutting spot welds on a HSS panel, use a low speed high torque drill (1,000 to 1,200 rpm) to increase drill bit durability and facilitate the operation.



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.



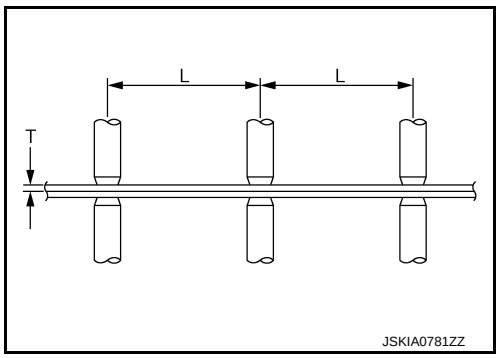
- The panel surfaces must fit flush to each other, leaving no gaps.



- 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:0000000011568499

PROHIBITION OF CUT AND CONNECTION

Never cut and joint the lower lock pillar reinforcement (center pillar reinforcement inside frame parts) because its material is high strength steel plate (ultra high strength steel plate).
The center pillar reinforcement must be replaced if this part is damaged.

PREPARATION

REPAIRING MATERIAL

Foam Repair

INFOID:0000000011568500

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

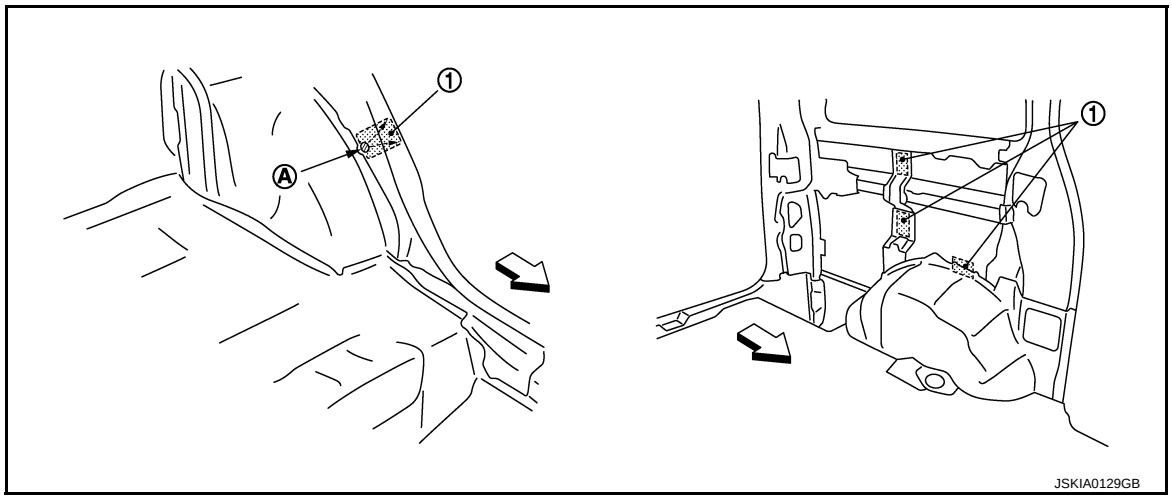
1. Fill procedures after installation of service part.

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

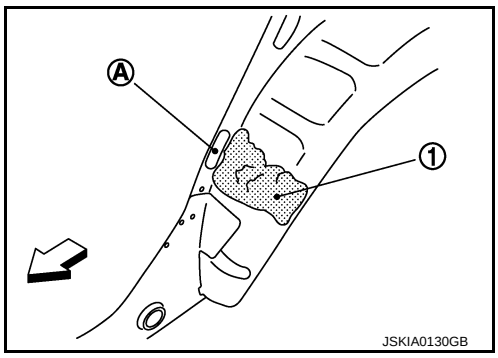
⇦: Vehicle front

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.



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

2WD

2WD : Underbody Component Parts

INFOID:0000000011568501

Refer to parts catalogue for the replacement parts.

JSKIA3261ZZ

: 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	Spare wheel clamp reinforcement			Under 440	—	—
②	Rear floor rear			Under 440	×	—
③	Rear floor rear side (RH & LH)			590	×	—
④	2nd rear crossmember (Upper)			590	—	—
⑤	Rear floor front			Under 440	×	—
⑥	Rear seat crossmember reinforcement assembly			590	×	—
⑦	Center front floor			440	×	—
⑧	Front floor (RH & LH)	a.	1350MPa[caution] T=1.6 mm (0.063 in)	590	×	—
⑨	Inner sill (RH & LH)	b.	980MPa[caution] T=1.0 mm (0.039 in)	590	×	—
⑩	Lower dash			440	×	—
⑪	Upper dash			Under 440	×	—
⑫	Side dash (RH & LH)			Under 440	×	—
⑬	Upper front cowl top assembly			Under 440	×	—
⑭	Cowl top bracket			Under 440	×	—
⑮	Lower dash crossmember			590	×	—
⑯	Lower battery support bracket			Under 440	×	—
⑰	Front cowl top assembly (RH & LH)			Under 440	×	—
⑱	Upper front hoodledge (RH & LH)			440	×	—
⑲	Front hoodledge reinforcement (RH & LH)			Under 440	×	—
⑳	Hoodledge reinforcement (RH & LH)			440	×	—
㉑	Battery support bracket			Under 440	×	—
㉒	Lower rear hoodledge (RH & LH)			Under 440	×	—
㉓	Side radiator core support (RH & LH)			Under 440	×	—
㉔	Front strut housing (RH & LH)			440	×	—
㉕	Inner center front bumper reinforcement			—	—	×
㉖	Front bumper armature assembly			—	—	×
㉗	Side apron bracket assembly (RH & LH)			Under 440	—	—
㉘	Front bumper stay (RH & LH)			Under 440	—	—
㉙	Front side member closing plate assembly (RH & LH)			590	×	—
㉚	Front side member center closing plate (RH & LH)			440	×	—
㉛	Bumper reinforcement bracket (RH & LH)			Under 440	×	—

No.	Parts name			Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections	Aluminum portion
㉜	Front side member front closing plate (RH & LH)			590	×	—
㉝	Front side member assembly (RH & LH)			590	×	—
㉞	Front side member connector assembly (RH & LH)			Under 440	×	—
㉟	Add on frame bracket (RH & LH)			440	×	—
㊱	Front side member front extension (RH & LH)			780	×	—
㊲	Front side member outrigger assembly (RH & LH)	c.	980MPa[caution] T=2.0 mm (0.079 in)	590	×	—
㊳	Front side member rear extension (RH & LH)		980MPa[caution] T=1.2 mm (0.047 in)	—	×	—
㊴	Rear seat crossmember			590	×	—
㊵	Rear floor belt anchor reinforcement			590	×	—
㊶	2nd rear crossmember (Lower)			590	×	—
㊷	Rear side member assembly (RH & LH)	d.	980MPa[caution] T=1.2 mm (0.047 in)	590	×	—
㊸	Rear side member rear (RH & LH)			590	×	—
㊹	Rear side member extension (RH & LH)			780	×	—

CAUTION:

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

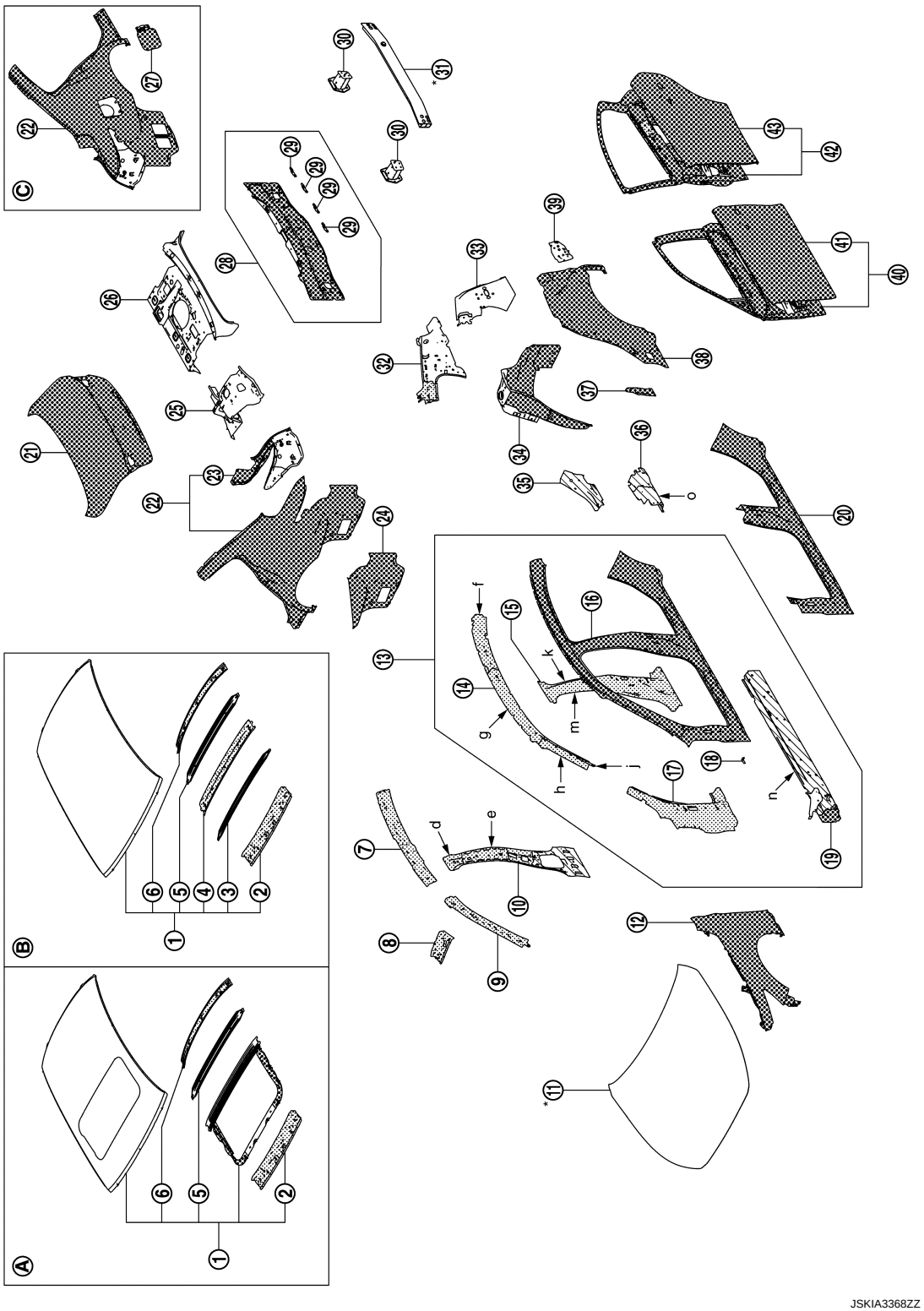
NOTE:

- 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.

2WD : Body Component Parts

INFOID:0000000011568502

Refer to parts catalogue for the replacement parts.



Ⓐ Sunroof models Ⓑ Without sunroof models Ⓒ Right side

: 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	Roof assembly			590	—	—
②	Front roof rail		1180MPa[caution] T=1.0 mm (0.039 in)	—	—	—
③	Roof bow No.1			Under 440	—	—
④	Roof reinforcement assembly		980MPa[caution] T=1.0 mm (0.039 in)	—	—	—
⑤	Roof bow No.2			Under 440	—	—
⑥	Rear roof rail			590	—	—
⑦	Inner side roof rail (RH & LH)			590	—	—
⑧	Front roof rail brace (RH & LH)			590	—	—
⑨	Side roof reinforcement (RH & LH)		1180MPa[caution] T=1.2 mm (0.047 in)	—	—	—
⑩	Inner center pillar (RH & LH)	d.	1180MPa[caution] T=1.2 mm (0.047 in)	440	—	—
		e.	1350MPa[caution] T=1.8 mm (0.071 in)			
⑪	Hood			—	—	×
⑫	Front fender (RH & LH)			Under 440	×	—
⑬	Side body assembly (RH & LH)			Refer to No. ⑭ - ⑲		
⑭	Outer side roof rail reinforcement (RH & LH)	f.	1180MPa[caution] T=1.0 mm (0.039 in)	—	—	—
		g.	1350MPa[caution] T=1.4 mm (0.055 in)			
		h.	1180MPa[caution] T=1.2 mm (0.047 in)			
		j.	980MPa[caution] T=1.6 mm (0.063 in)			
⑮	Center pillar reinforcement (RH & LH)	k.	1180MPa[caution] T=1.2 mm (0.047 in)	440	—	—
		m.	1350MPa[caution] T=1.4 mm (0.055 in)			
⑯	Outer front side body (RH & LH)			Under 440	×	—
⑰	Front pillar brace (RH & LH)			590	—	—
⑱	Cowl top bracket extension (RH & LH)			Under 440	×	—
⑲	Outer sill reinforcement (RH & LH)	n.	1180MPa[caution] T=1.0 mm (0.039 in)	590	×	—
⑳	Outer sill (RH & LH)			Under 440	×	—
㉑	Trunk lid			Under 440	×	—
㉒	Rear fender (RH & LH)			Under 440	×	—
㉓	Tail pillar assembly (RH & LH)			Under 440	—	—
㉔	Rear fender extension (RH & LH)			Under 440	×	—

No.	Parts name	Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections	Aluminum portion
㉕	Side parcel shelf (RH & LH)	Under 440	—	—
㉖	Parcel shelf	Under 440	—	—
㉗	Fuel filler lid	Under 440	×	—
㉘	Upper rear panel assembly	Under 440	×	—
㉙	Rear bumper bracket	Under 440	×	—
㉚	Rear bumper stay (RH & LH)	Under 440	—	—
㉛	Inner center rear bumper reinforcement	—	—	×
㉜	Inner rear pillar (RH & LH)	590	—	—
㉝	Inner rear pillar reinforcement (RH & LH)	Under 440	—	—
㉞	Inner rear wheelhouse (RH & LH)	Under 440	×	—
㉟	Outer rear wheelhouse extension (RH & LH Upper)	590	×	—
㊱	Outer rear wheelhouse extension (RH & LH Lower) o. 980MPa[caution] T=1.0 mm (0.039 in)	590	×	—
㊲	Inner rear wheelhouse front extension (RH & LH)	Under 440	×	—
㊳	Outer rear wheelhouse (RH & LH)	Under 440	×	—
㊴	Outer rear wheelhouse extension (RH & LH Rear)	Under 440	—	—
㊵	Front door assembly (RH & LH)	440	×	—
㊶	Outer front door panel (RH & LH)	Under 440	×	—
㊷	Rear door assembly (RH & LH)	440	×	—
㊸	Outer rear door panel (RH & LH)	Under 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.

AWD

AWD : Underbody Component Parts

INFOID:0000000011568503

Refer to parts catalogue for the replacement parts.

JSKIA3263ZZ

: 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	Spare wheel clamp reinforcement			Under 440	—	—
②	Rear floor rear			Under 440	×	—
③	Rear floor rear side (RH & LH)			590	×	—
④	2nd rear crossmember (Upper)			590	—	—
⑤	Rear floor front			Under 440	×	—
⑥	Rear seat crossmember reinforcement assembly			590	×	—
⑦	Center front floor			440	×	—
⑧	Front floor (RH & LH)	a.	1350MPa[caution] T=1.6 mm (0.063 in)	590	×	—
⑨	Inner sill (RH & LH)	b.	980MPa[caution] T=1.0 mm (0.039 in)	590	×	—
⑩	Lower dash			440	×	—
⑪	Upper dash			Under 440	×	—
⑫	Side dash (RH & LH)			Under 440	×	—
⑬	Upper front cowl top assembly			Under 440	×	—
⑭	Cowl top bracket			Under 440	×	—
⑮	Lower dash crossmember			590	×	—
⑯	Lower battery support bracket			Under 440	×	—
⑰	Front cowl top assembly (RH & LH)			Under 440	×	—
⑱	Upper front hoodledge (RH & LH)			440	×	—
⑲	Front hoodledge reinforcement (RH & LH)			Under 440	×	—
⑳	Hoodledge reinforcement (RH & LH)			440	×	—
㉑	Battery support bracket			Under 440	×	—
㉒	Lower rear hoodledge (RH & LH)			Under 440	×	—
㉓	Side radiator core support (RH & LH)			Under 440	×	—
㉔	Front strut housing (RH & LH)			440	×	—
㉕	Inner center front bumper reinforcement			—	—	×
㉖	Front bumper armature assembly			—	—	×
㉗	Side apron bracket assembly (RH & LH)			Under 440	—	—
㉘	Front bumper stay (RH & LH)			Under 440	—	—
㉙	Front side member closing plate assembly (RH & LH)			590	×	—
㉚	Front side member center closing plate (RH & LH)			440	×	—
㉛	Bumper reinforcement bracket (RH & LH)			Under 440	×	—
㉜	Front side member front closing plate (RH & LH)			590	×	—
㉝	Front side member assembly (RH & LH)			590	×	—
㉞	Front side member connector assembly (RH & LH)			Under 440	×	—
㉟	Add on frame bracket (RH & LH)			440	×	—

No.	Parts name			Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections	Aluminum portion
㊱	Front side member front extension (RH & LH)			780	×	—
㊲	Front side member outrigger assembly (RH & LH)	c.	980MPa[caution] T=2.0 mm (0.079 in)	590	×	—
㊳	Front side member rear extension (RH & LH)		980MPa[caution] T=1.2 mm (0.047 in)	—	×	—
㊴	Rear seat crossmember			590	×	—
㊵	Rear floor belt anchor reinforcement			590	×	—
㊶	2nd rear crossmember (Lower)			590	×	—
㊷	Rear side member assembly (RH & LH)	d.	980MPa[caution] T=1.2 mm (0.047 in)	590	×	—
㊸	Rear side member rear (RH & LH)			590	×	—
㊹	Rear side member extension (RH & LH)			780	×	—

CAUTION:

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

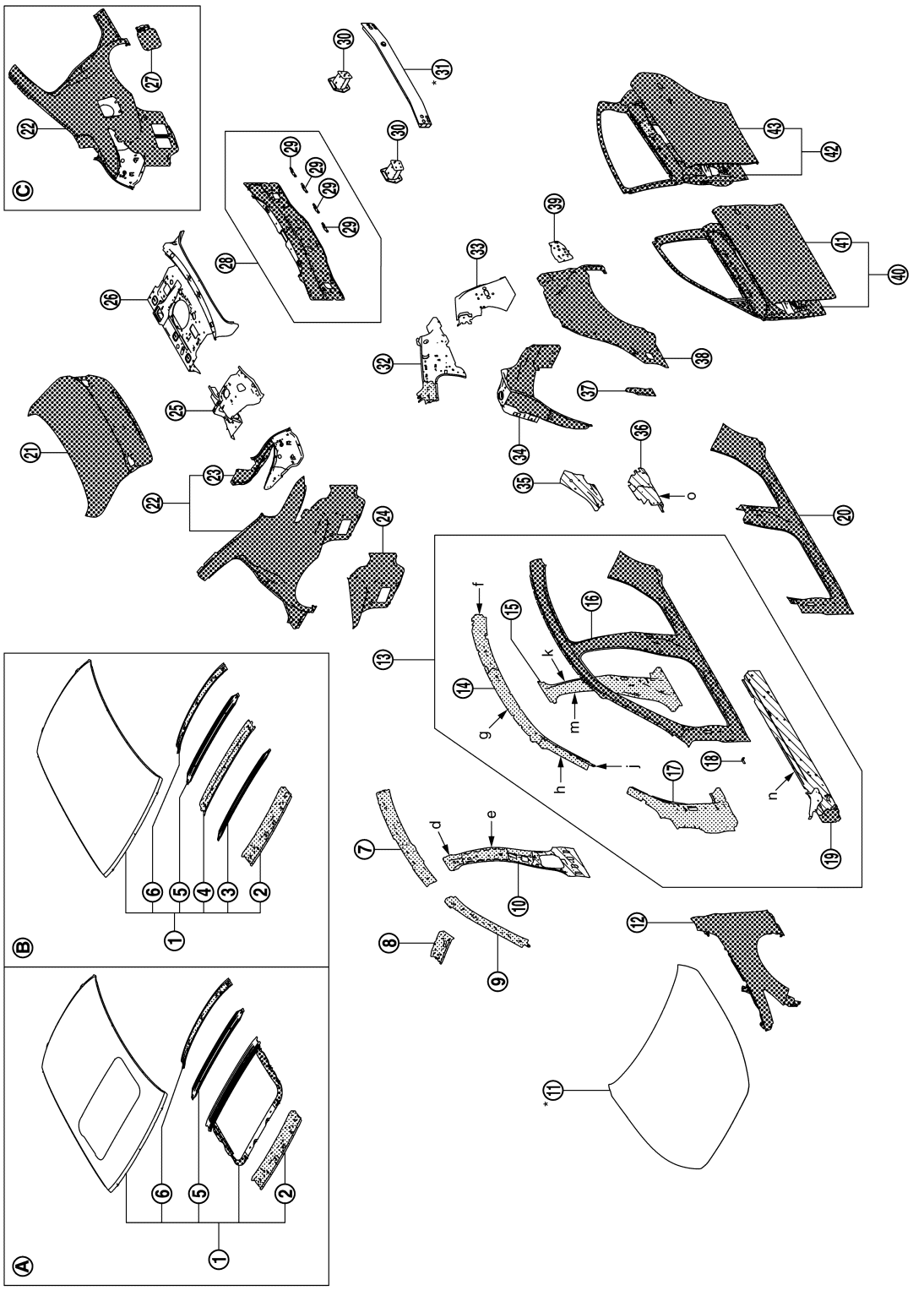
NOTE:

- 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.

AWD : Body Component Parts

INFOID:0000000011568504

Refer to parts catalogue for the replacement parts.



Ⓐ Sunroof models Ⓑ Without sunroof models Ⓒ Right side

: 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	Roof assembly			590	—	—
②	Front roof rail		1180MPa[caution] T=1.0 mm (0.039 in)	—	—	—
③	Roof bow No.1			Under 440	—	—
④	Roof reinforcement assembly		980MPa[caution] T=1.0 mm (0.039 in)	—	—	—
⑤	Roof bow No.2			Under 440	—	—
⑥	Rear roof rail			590	—	—
⑦	Inner side roof rail (RH & LH)			590	—	—
⑧	Front roof rail brace (RH & LH)			590	—	—
⑨	Side roof reinforcement (RH & LH)		1180MPa[caution] T=1.2 mm (0.047 in)	—	—	—
⑩	Inner center pillar (RH & LH)	d.	1180MPa[caution] T=1.2 mm (0.047 in)	440	—	—
		e.	1350MPa[caution] T=1.8 mm (0.071 in)			
⑪	Hood			—	—	×
⑫	Front fender (RH & LH)			Under 440	×	—
⑬	Side body assembly (RH & LH)			Refer to No. ⑭ - ⑲		
⑭	Outer side roof rail reinforcement (RH & LH)	f.	1180MPa[caution] T=1.0 mm (0.039 in)	—	—	—
		g.	1350MPa[caution] T=1.4 mm (0.055 in)			
		h.	1180MPa[caution] T=1.2 mm (0.047 in)			
		j.	980MPa[caution] T=1.6 mm (0.063 in)			
⑮	Center pillar reinforcement (RH & LH)	k.	1180MPa[caution] T=1.2 mm (0.047 in)	440	—	—
		m.	1350MPa[caution] T=1.4 mm (0.055 in)			
⑯	Outer front side body (RH & LH)			Under 440	×	—
⑰	Front pillar brace (RH & LH)			590	—	—
⑱	Cowl top bracket extension (RH & LH)			Under 440	×	—
⑲	Outer sill reinforcement (RH & LH)	n.	1180MPa[caution] T=1.0 mm (0.039 in)	590	×	—
⑳	Outer sill (RH & LH)			Under 440	×	—
㉑	Trunk lid			Under 440	×	—
㉒	Rear fender (RH & LH)			Under 440	×	—
㉓	Tail pillar assembly (RH & LH)			Under 440	—	—
㉔	Rear fender extension (RH & LH)			Under 440	×	—

No.	Parts name	Tensile strength (MPa)	Both sided anti-corrosive precoated steel sections	Aluminum portion
㉕	Side parcel shelf (RH & LH)	Under 440	—	—
㉖	Parcel shelf	Under 440	—	—
㉗	Fuel filler lid	Under 440	×	—
㉘	Upper rear panel assembly	Under 440	×	—
㉙	Rear bumper bracket	Under 440	×	—
㉚	Rear bumper stay (RH & LH)	Under 440	—	—
㉛	Inner center rear bumper reinforcement	—	—	×
㉜	Inner rear pillar (RH & LH)	590	—	—
㉝	Inner rear pillar reinforcement (RH & LH)	Under 440	—	—
㉞	Inner rear wheelhouse (RH & LH)	Under 440	×	—
㉟	Outer rear wheelhouse extension (RH & LH Upper)	590	×	—
㊱	Outer rear wheelhouse extension (RH & LH Lower) o. 980MPa[caution] T=1.0 mm (0.039 in)	590	×	—
㊲	Inner rear wheelhouse front extension (RH & LH)	Under 440	×	—
㊳	Outer rear wheelhouse (RH & LH)	Under 440	×	—
㊴	Outer rear wheelhouse extension (RH & LH Rear)	Under 440	—	—
㊵	Front door assembly (RH & LH)	440	×	—
㊶	Outer front door panel (RH & LH)	Under 440	×	—
㊷	Rear door assembly (RH & LH)	440	×	—
㊸	Outer rear door panel (RH & LH)	Under 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.

REMOVAL AND INSTALLATION

CORROSION PROTECTION

2WD

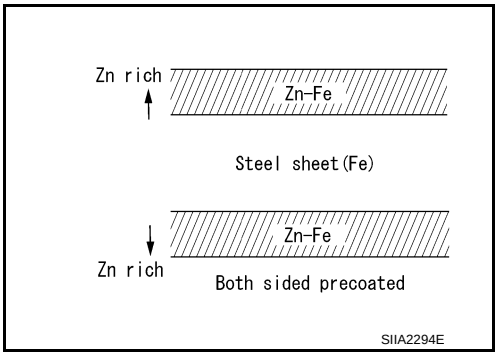
2WD : Description

INFOID:0000000011568505

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 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.



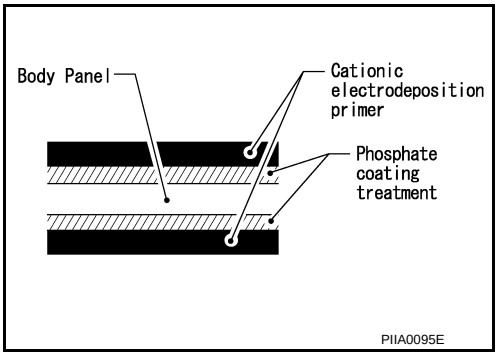
NISSAN genuine parts are fabricated from galvannealed steel. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

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.



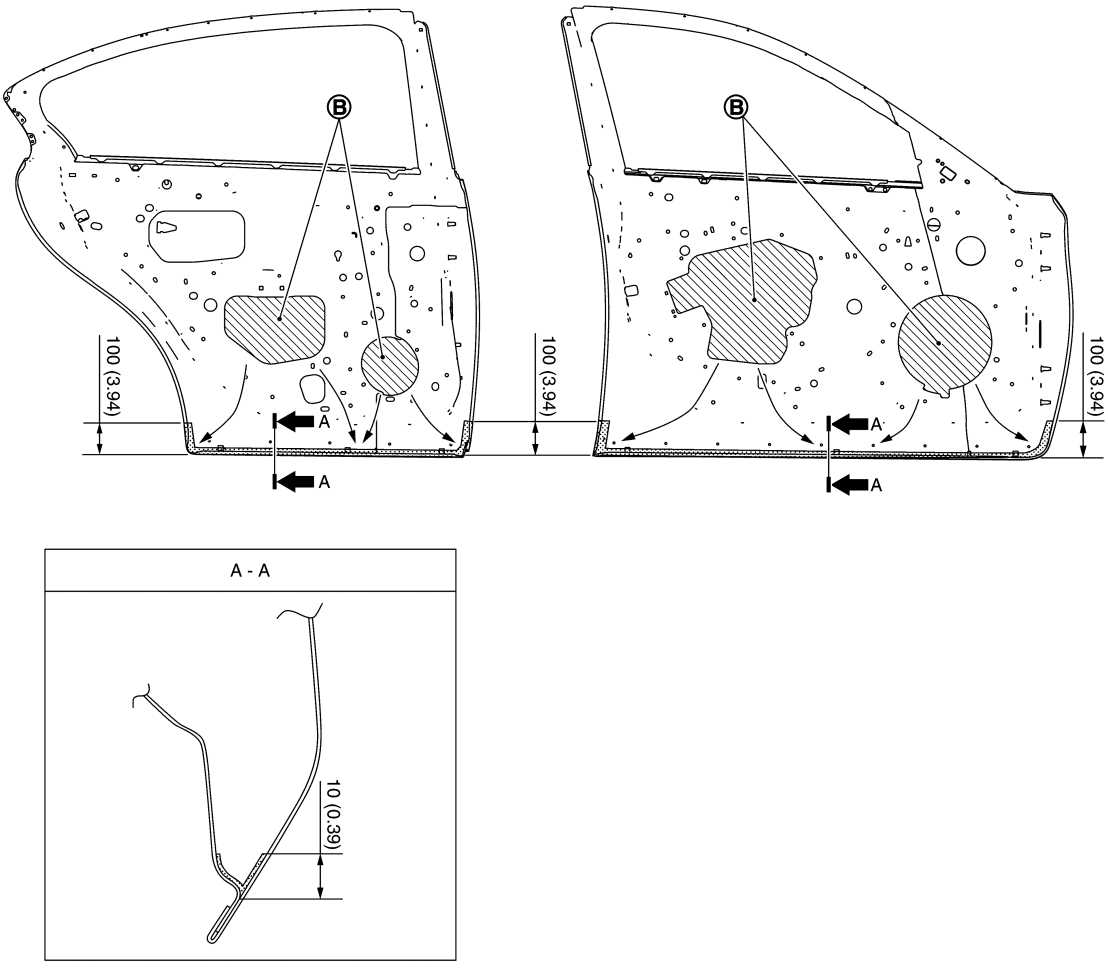
NISSAN genuine parts are also treated in the same manner. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain anti-corrosive performance built into the vehicle at the factory.

2WD : Anti-corrosive Wax

INFOID:0000000011568506

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



JSKIA3265GB

Ⓑ Nozzle insert hole

Unit: mm (in)

: Anti-corrosive wax coated portions

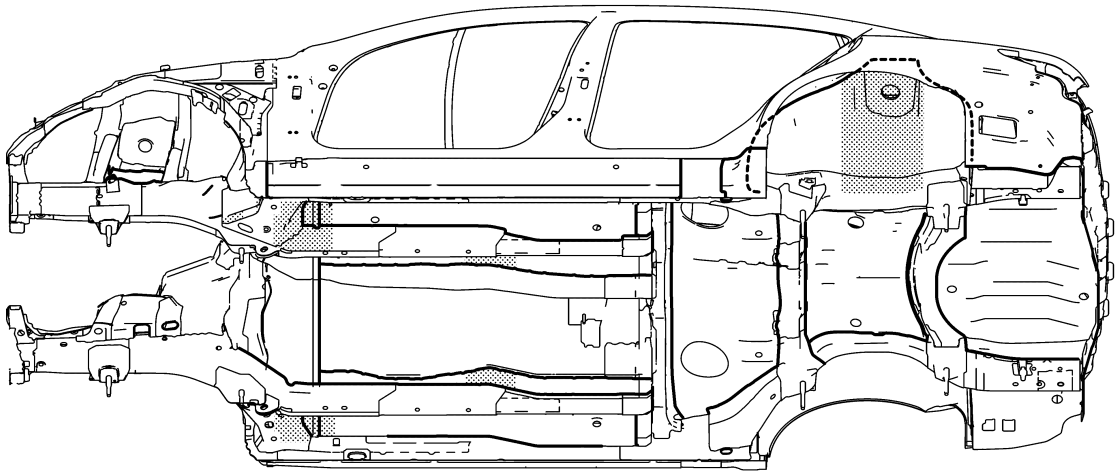
2WD : Undercoating

INFOID:0000000011568507

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.



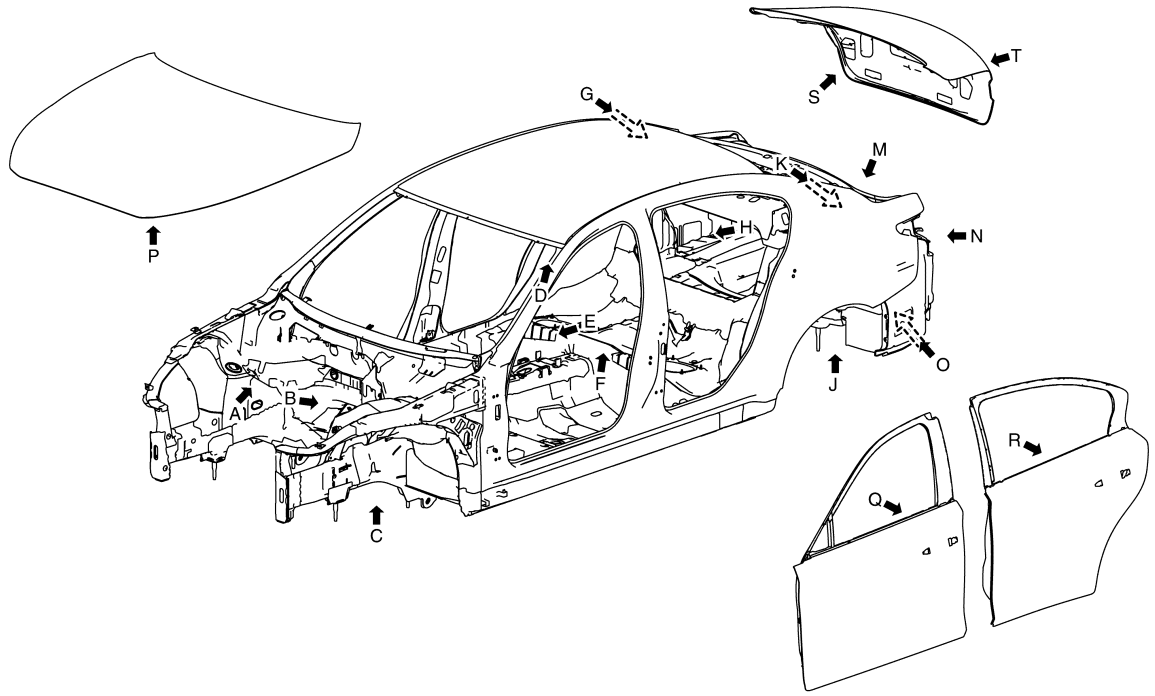
JSKIA3266ZZ

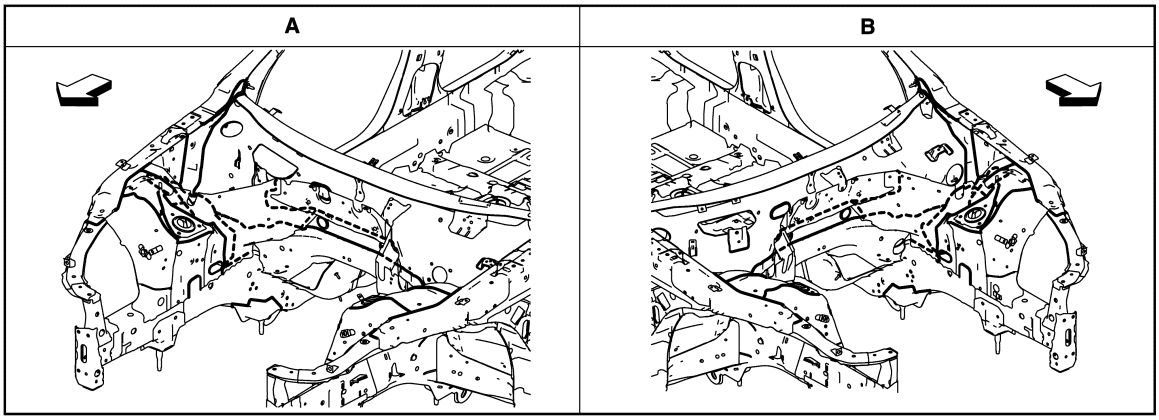
: Undercoated areas
: Sealed portions

2WD : Body Sealing

INFOID:0000000011568508

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.

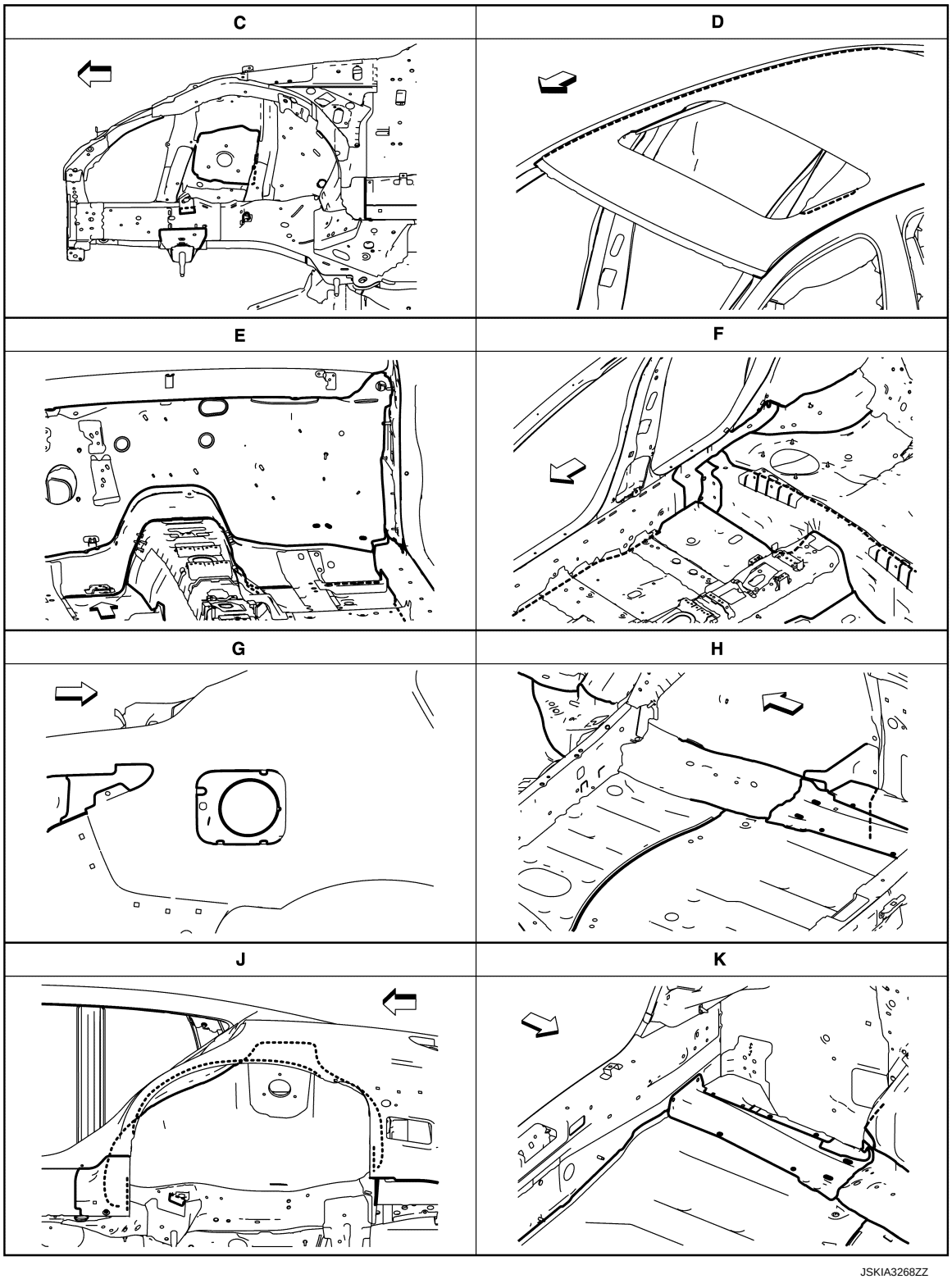




JSKIA4132ZZ

⇦: Vehicle front

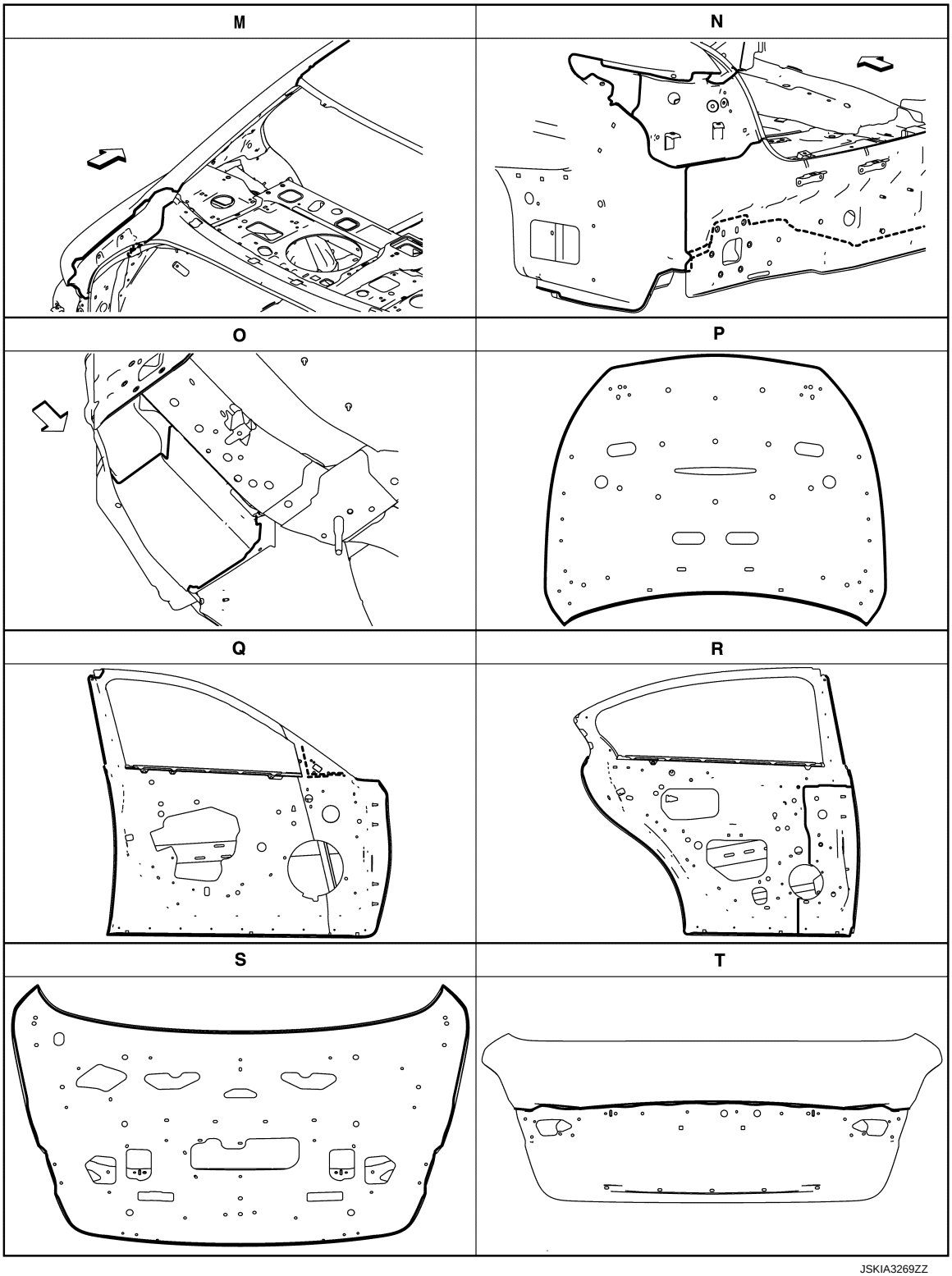
▬: Sealed portions



JSKIA3268ZZ

⇦: Vehicle front

▬: Sealed portions



⇦: Vehicle front

▬: Sealed portions

AWD

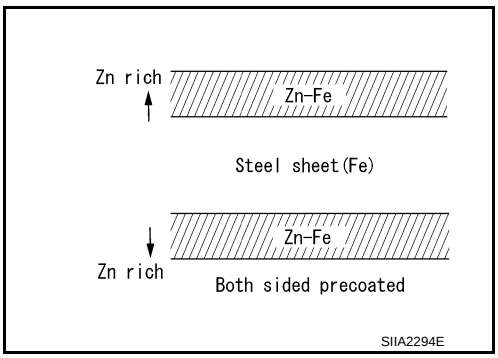
AWD : Description

INFOID:0000000011568509

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 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.



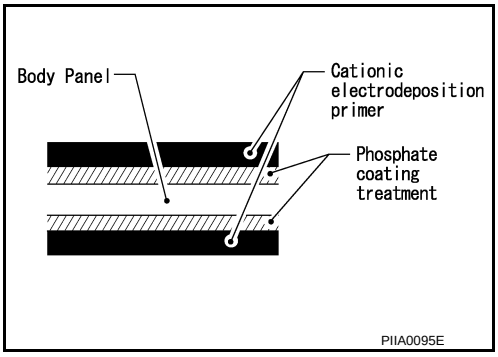
NISSAN genuine parts are fabricated from galvannealed steel. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

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.



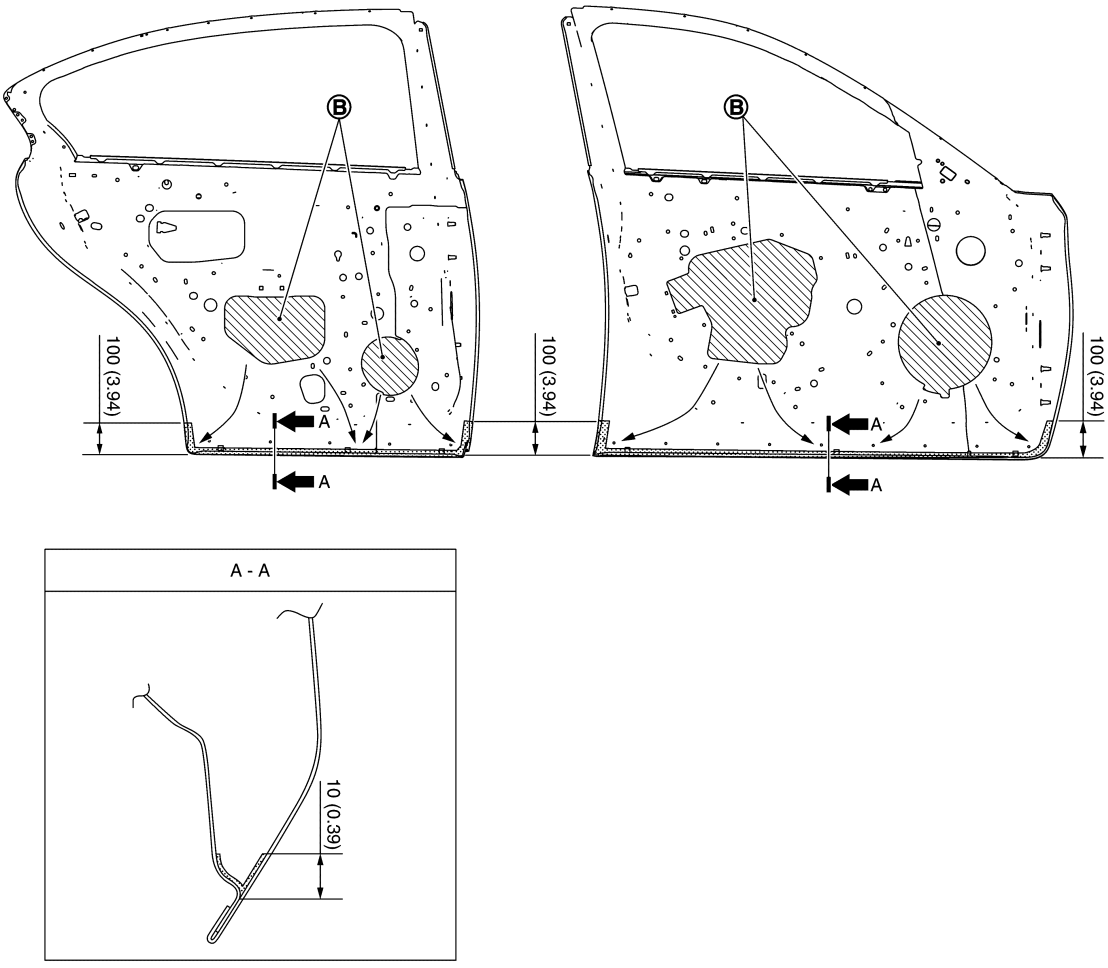
NISSAN genuine parts are also treated in the same manner. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain anti-corrosive performance built into the vehicle at the factory.

AWD : Anti-corrosive Wax

INFOID:0000000011568510

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



JSKIA3265GB

Ⓑ Nozzle insert hole

Unit: mm (in)

: Anti-corrosive wax coated portions

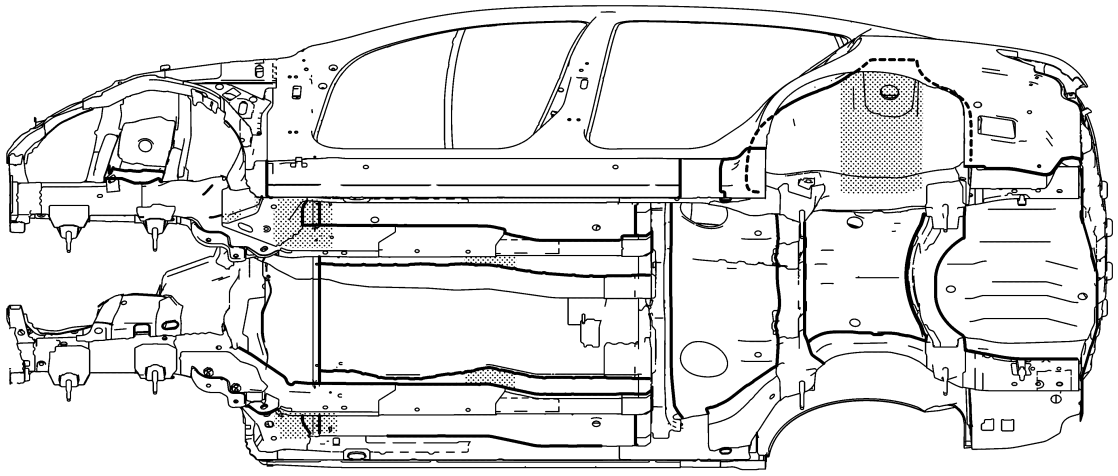
AWD : Undercoating

INFOID:0000000011568511

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.



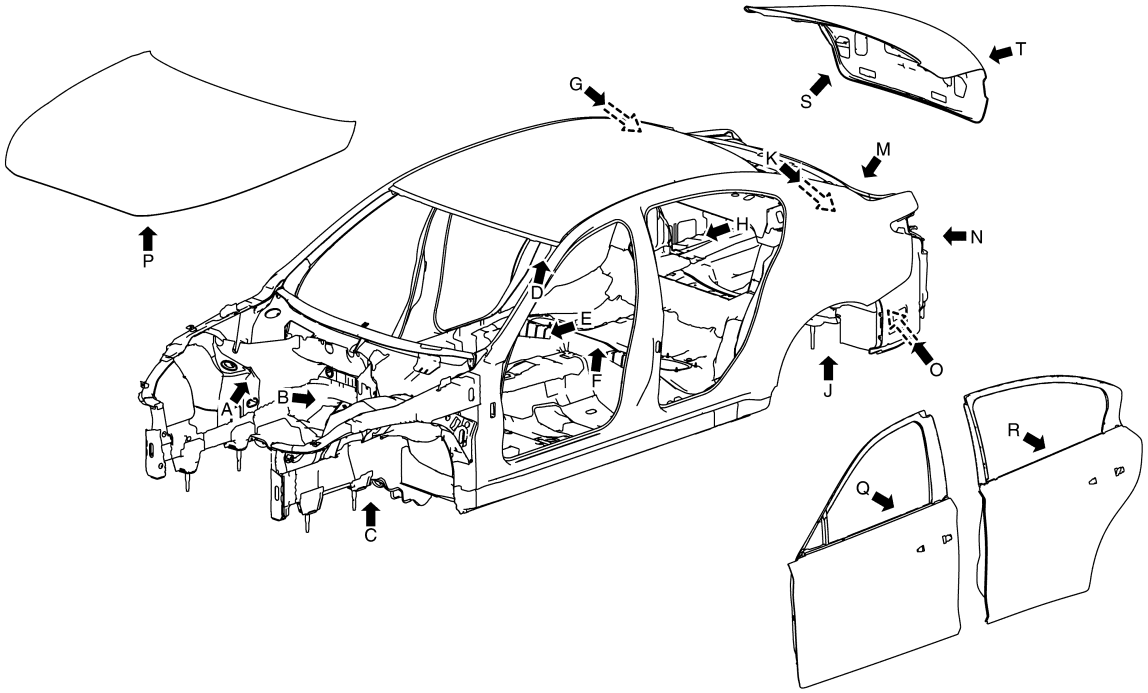
JSKIA3270ZZ

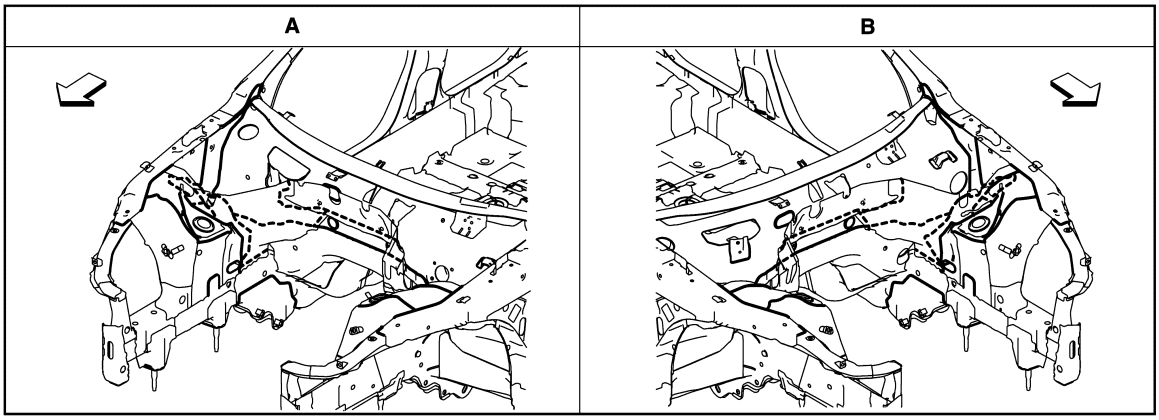
: Undercoated areas
: Sealed portions

AWD : Body Sealing

INFOID:0000000011568512

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.

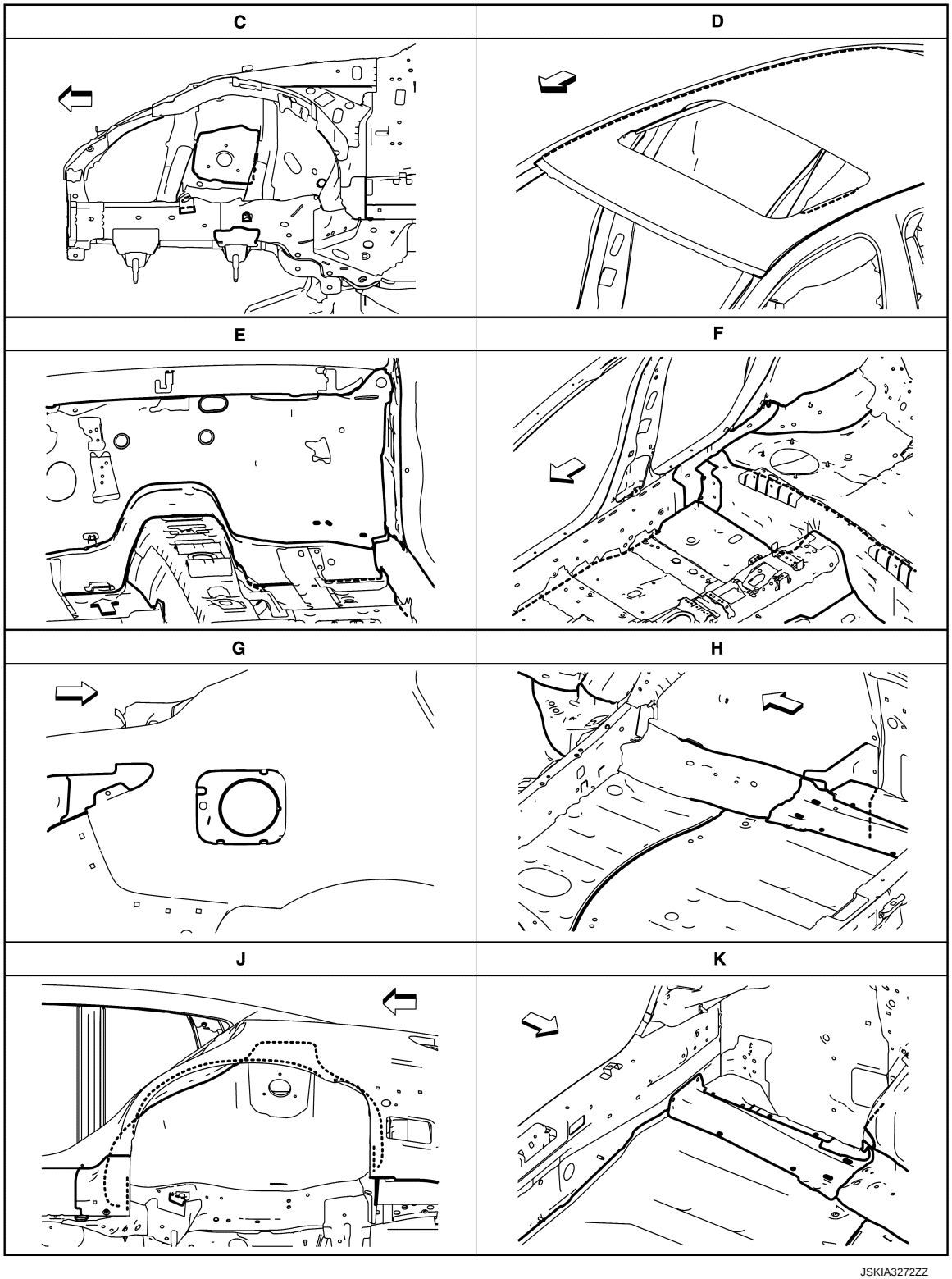




JSKIA4131ZZ

⇦: Vehicle front

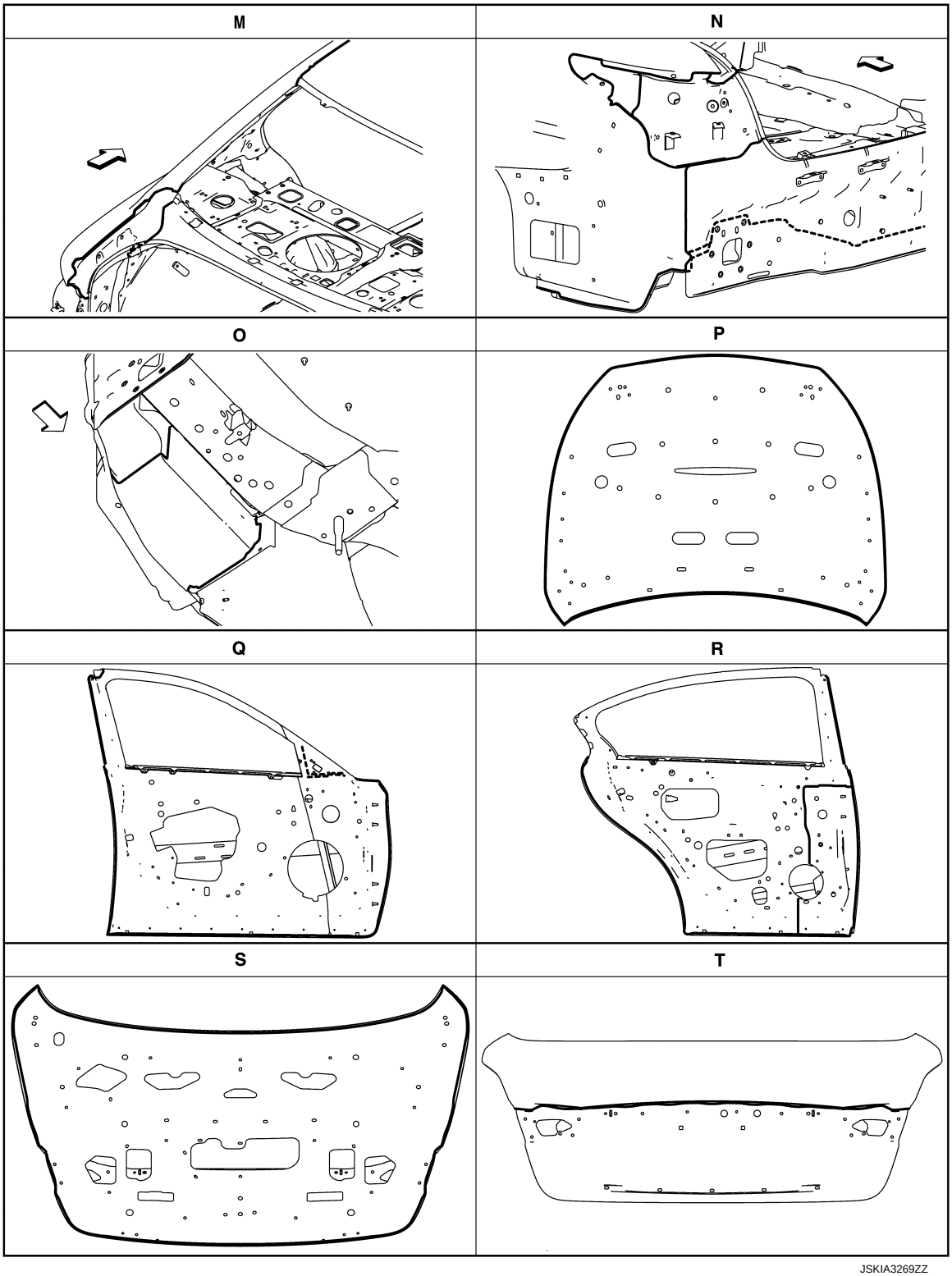
▬: Sealed portions



JSKIA3272ZZ

⇦: Vehicle front

▬: Sealed portions



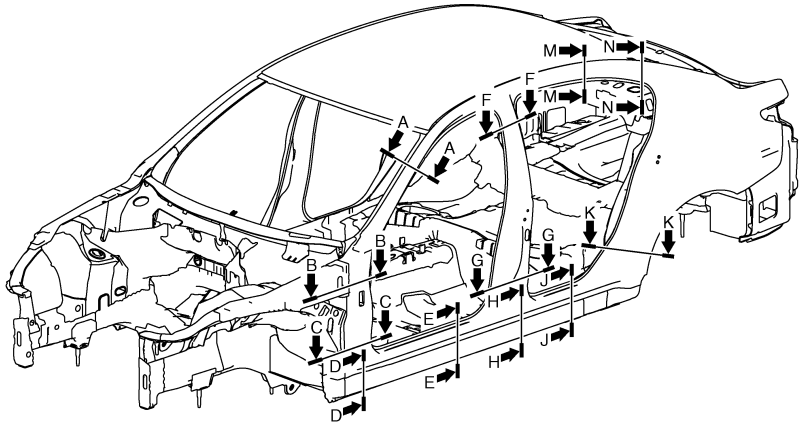
⇦: Vehicle front

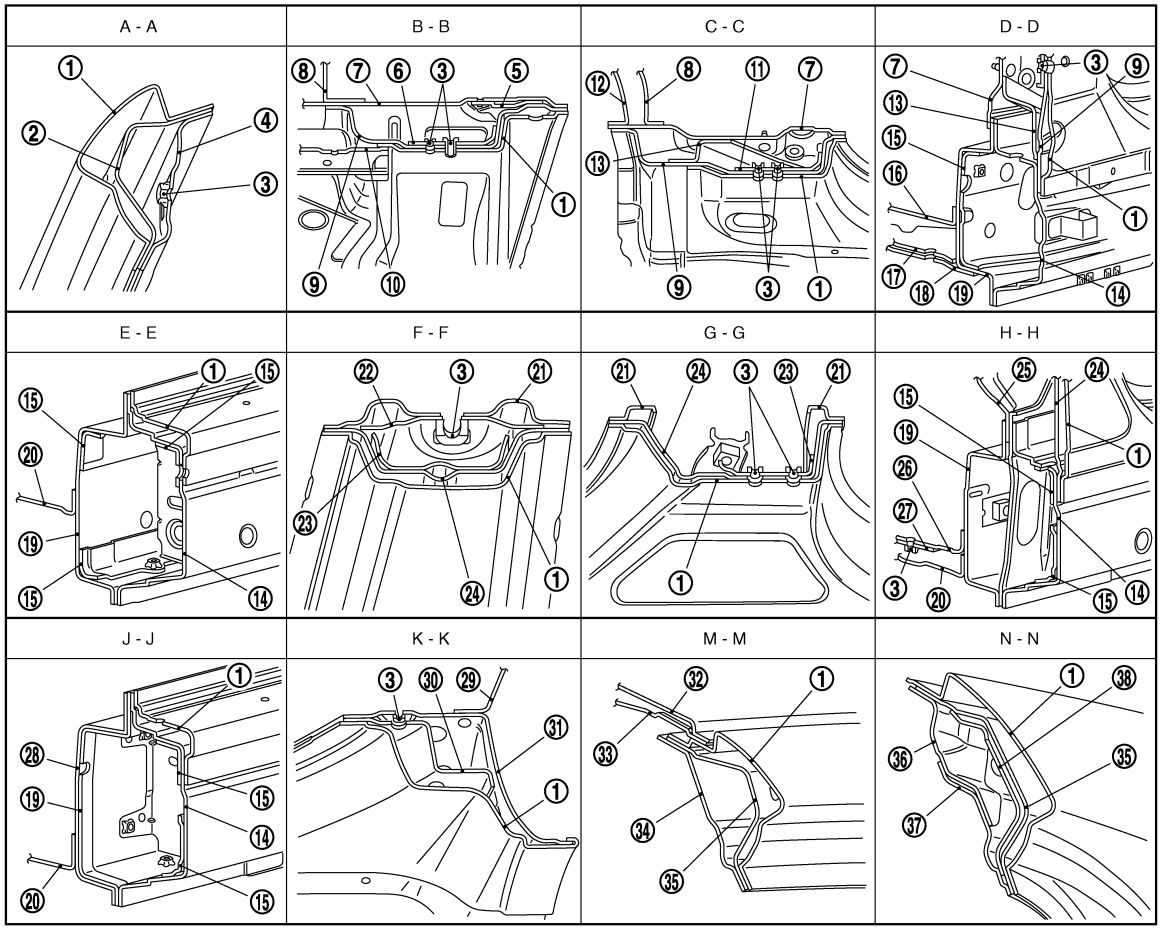
▬: Sealed portions

BODY CONSTRUCTION

Body Construction

INFOID:0000000011568513





JSKIA3274ZZ

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

⑩ Hoodledge reinforcement	⑪ Lower hinge plate	⑫ Lower dash crossmember
⑬ Lower front pillar gusset	⑭ Outer sill reinforcement	⑮ Center sill reinforcement
⑯ Lower dash	⑰ Outrigger reinforcement	⑱ Front side member outrigger
⑲ Inner sill	⑳ Front floor	㉑ Inner center pillar
㉒ Center pillar seat belt anchor	㉓ Center pillar seat belt reinforcement	㉔ Center pillar reinforcement
㉕ Seat belt anchor	㉖ 3rd crossmember	㉗ Nut plate
㉘ Rear side member front	㉙ Inner rear wheelhouse	㉚ Outer rear wheelhouse extension
㉛ Outer rear wheelhouse	㉜ Roof	㉝ 2nd roof bow
㉞ Inner side roof rail	㉟ Side roof rail reinforcement	㊱ Rear roof rail brace
㊲ Inner rear pillar	㊳ Inner rear pillar reinforcement	

Rear Fender Hemming Process

INFOID:0000000011568514

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.

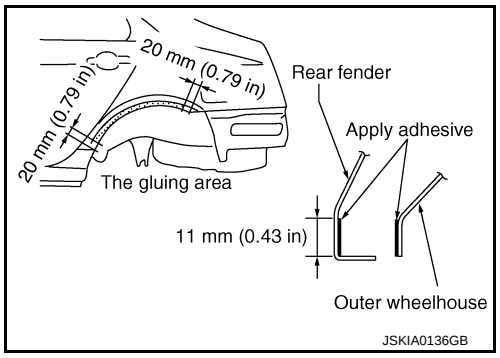
CAUTION:

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

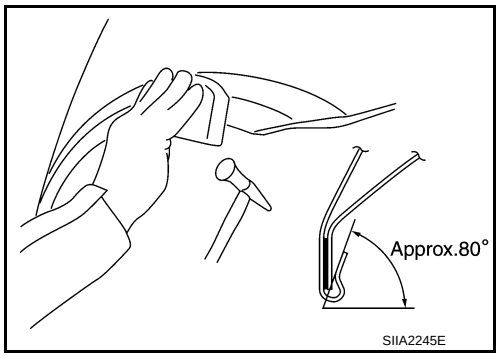
PROCEDURE OF THE HEMMING PROCESS

- 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.

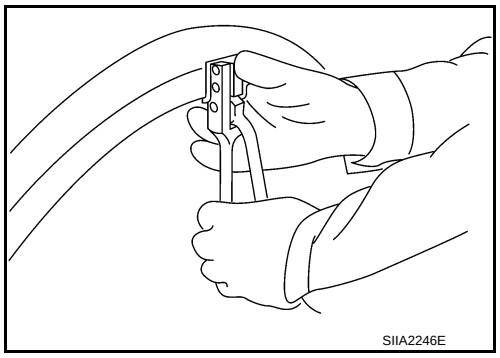
<Adhesive> 3M™ Automix™ Panel Bonding Adhesive 08115 or equivalent



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

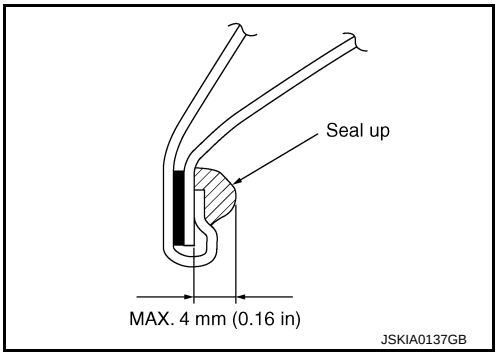


- Bend the welded part starting from the center of the wheel arch gradually with a hammer and a dolly. (Also hem the end of the flange.)
- Hemming with a hammer is conducted to an approximate angle of 80 degrees.



- 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

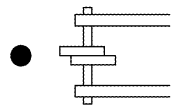
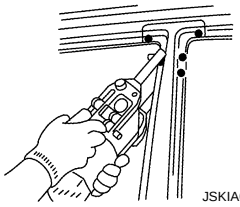
2WD

2WD : Description

INFOID:0000000011568515

- 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> 
JSKIA0049ZZ</td><td>2-spot welds</td><td rowspan="2"> 
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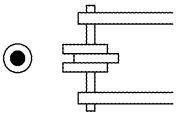
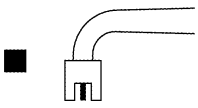
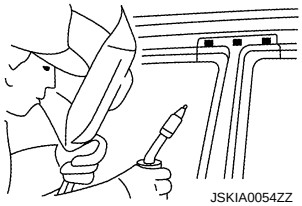
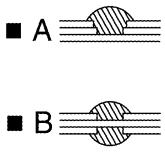
<tr><td> 
JSKIA0050ZZ</td><td>3-spot welds</td></tr>
<tr><td> 
JSKIA0051ZZ</td><td>MIG plug weld</td><td> 
JSKIA0054ZZ
For 3 panels plug weld method
 
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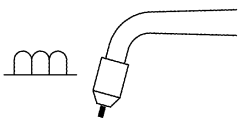
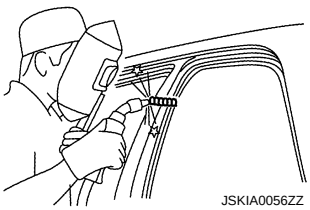
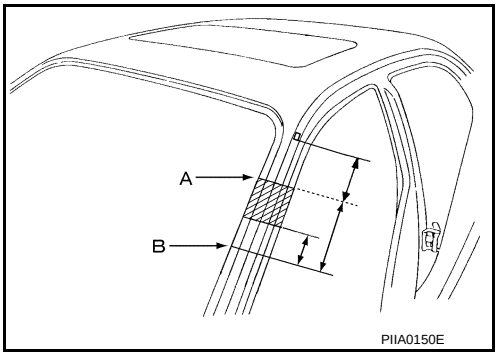
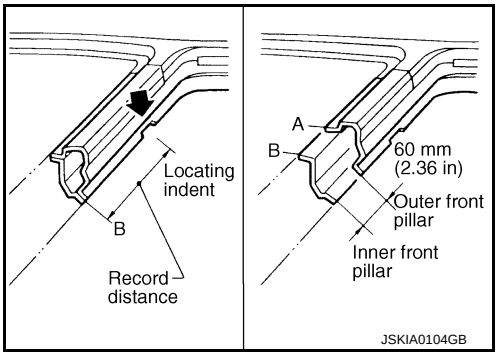
<tr><td> 
JSKIA0052ZZ</td><td>MIG seam weld / Point weld</td><td> 
JSKIA0056ZZ</td></tr>
</table>

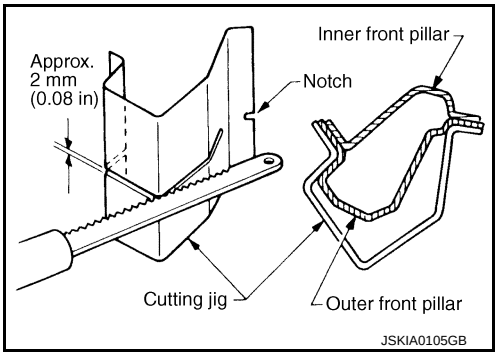
- Front pillar butt joint can be determined anywhere within shaded area as shown in the figure. The best location for the butt joint is at position A due to the construction of the vehicle.



- 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.

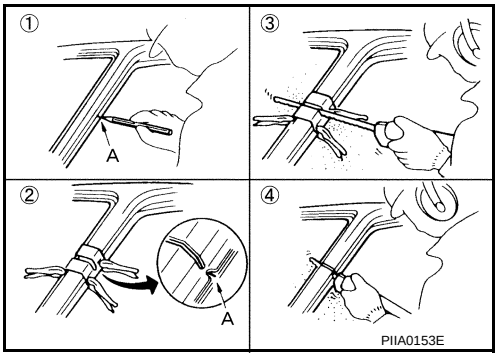


- Prepare a cutting jig to make outer pillar easier to cut. Also, this will permit the service part to be accurately cut at the joint position.



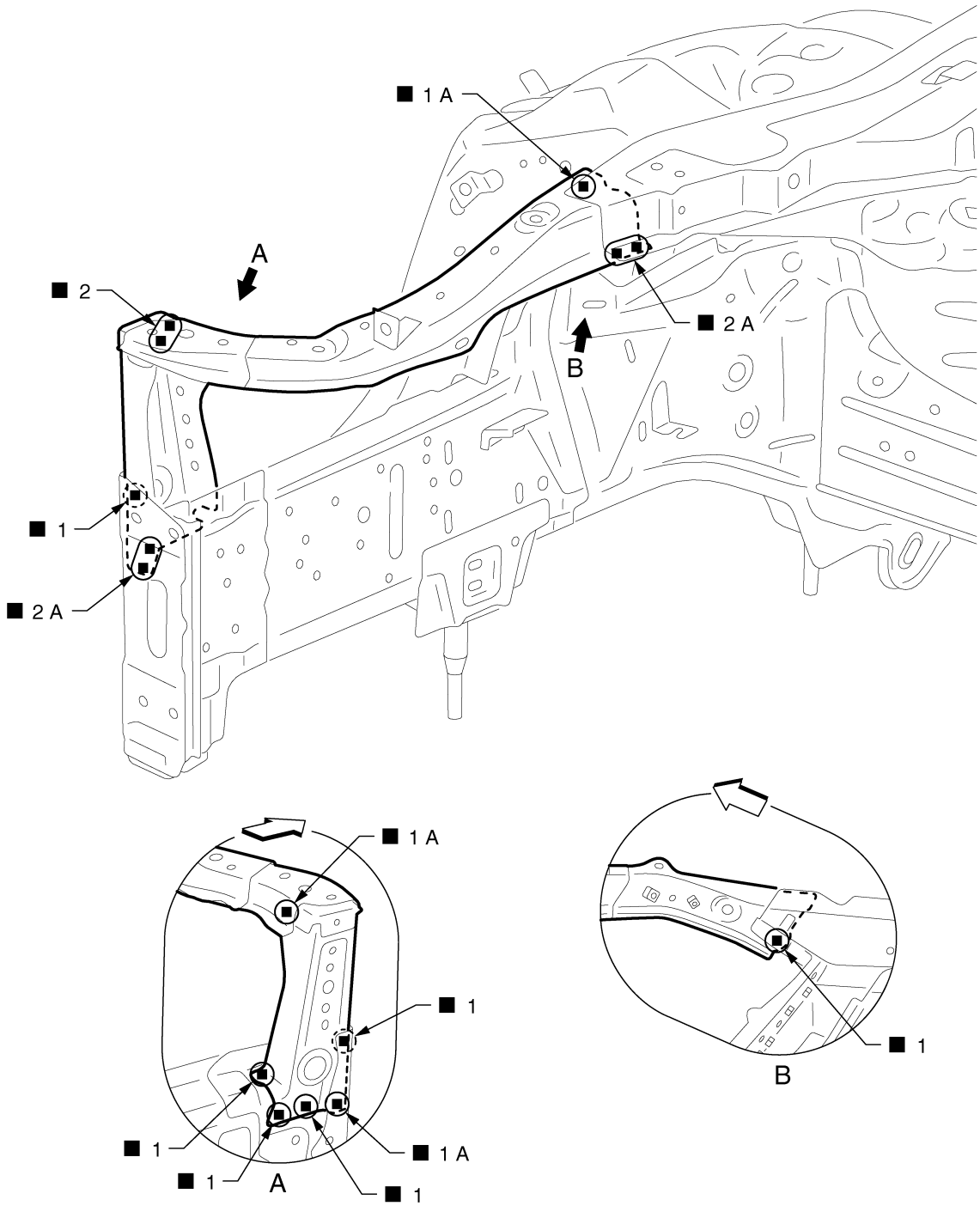
- An example of cutting operation using a cutting jig is as per the following.

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.



2WD : Radiator Core Support

INFOID:0000000011568516



⇦: Vehicle front

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

Replacement parts

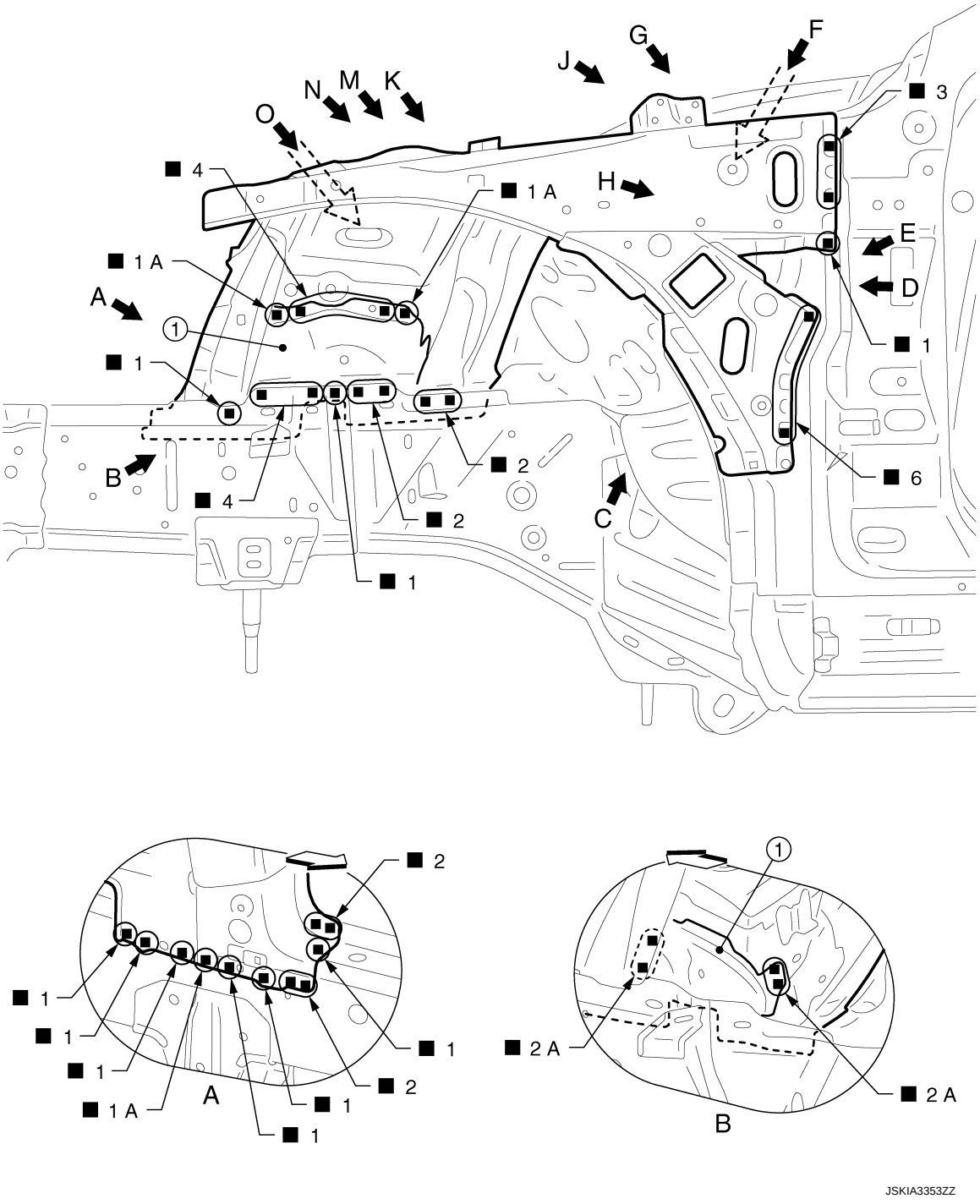
- Side radiator core support
- Front side member connector assembly

2WD : Hoodledge

INFOID:0000000011568517

Work after radiator core support is removed.

Remove the front side member center closing plate (reusable).



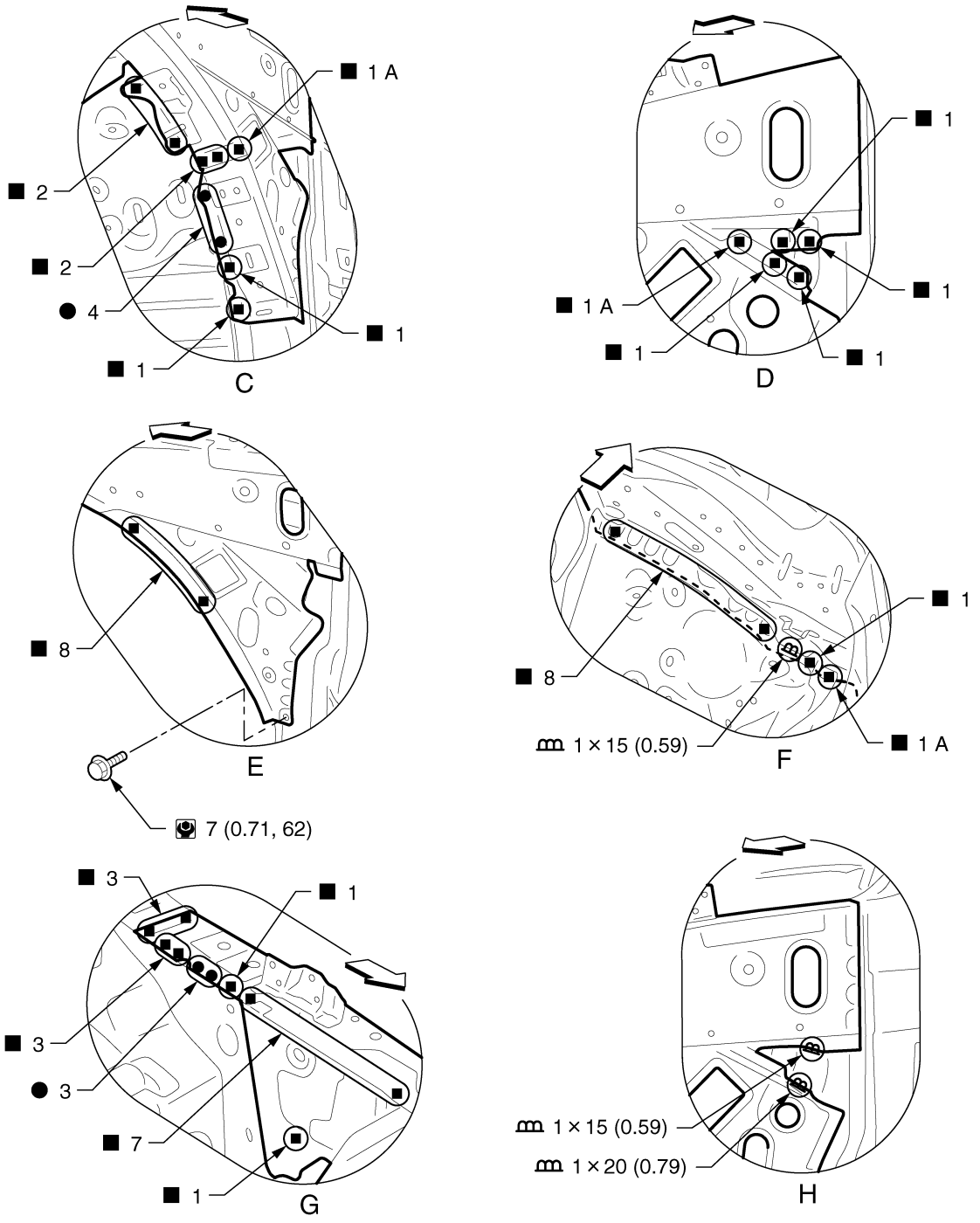
① Front side member center closing plate (reusable)

⇦: Vehicle front

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

Replacement parts

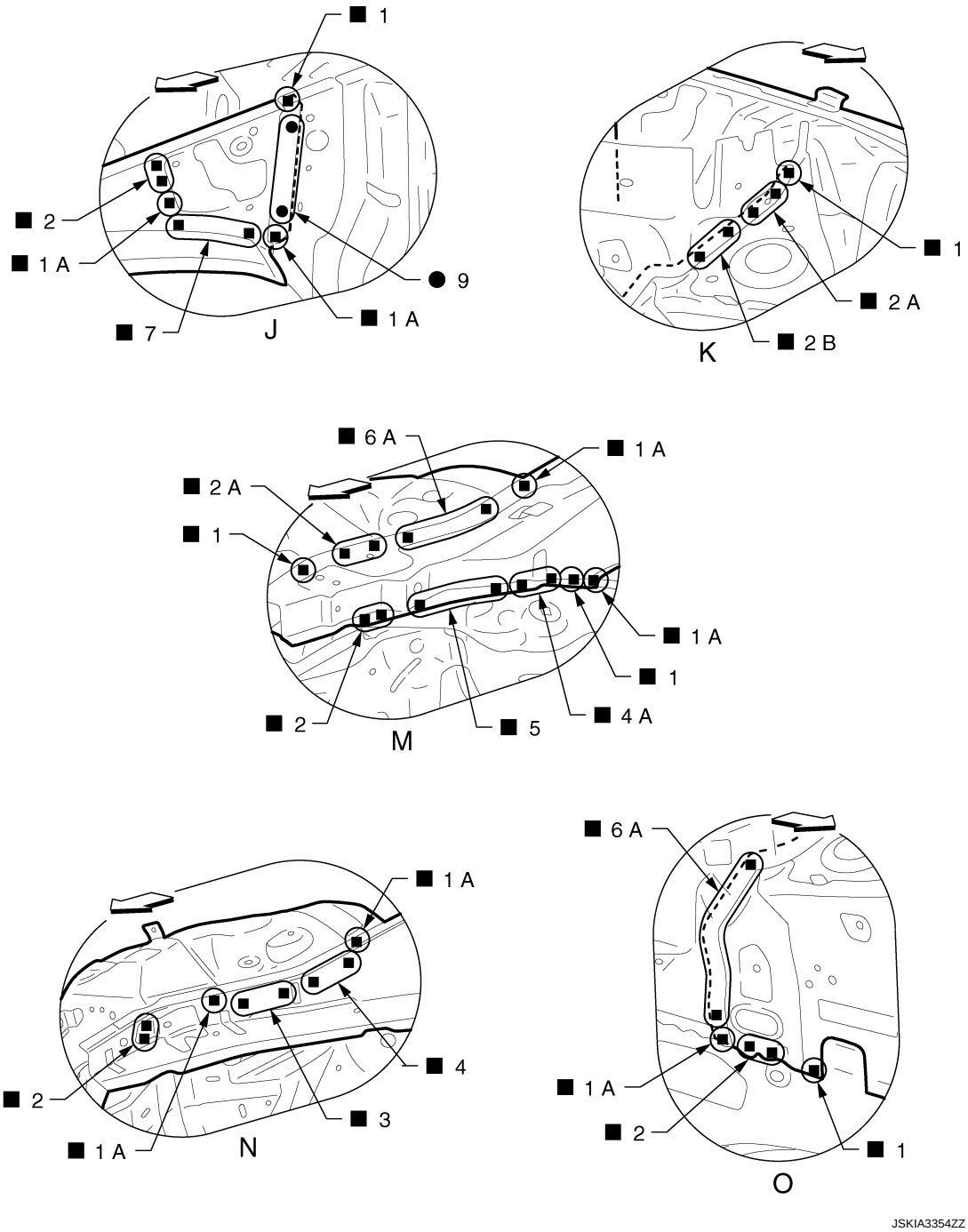
- Upper front hoodledge
- Hoodledge reinforcement
- Front strut housing



Unit: mm (in)

⇦: Vehicle front

: N·m (kg-m, in-lb)



JSKIA3354ZZ

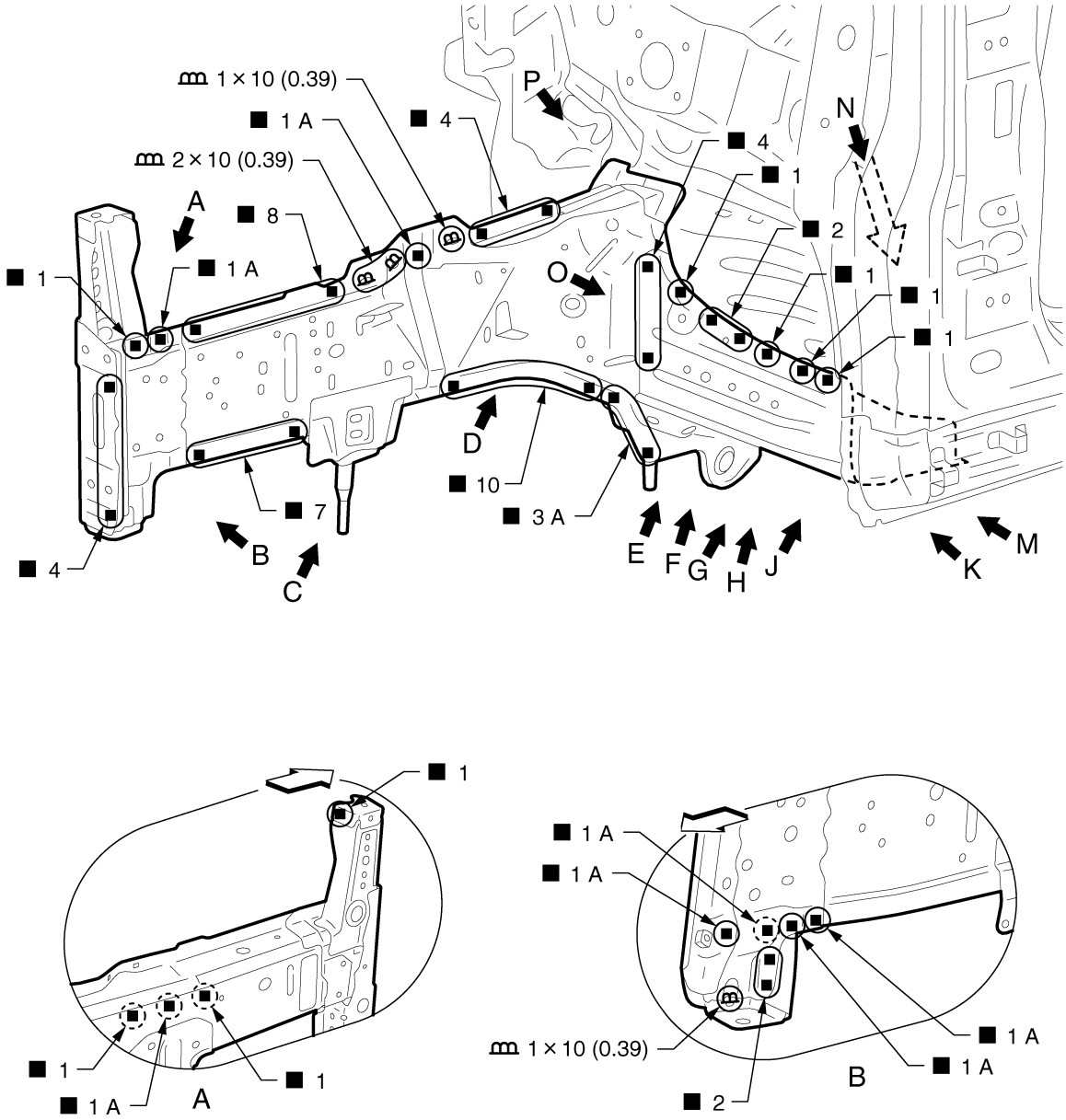
⇦: Vehicle front

View J and N: Before installing hoodledge reinforcement

2WD : Front Side Member

INFOID:0000000011568518

Work after radiator core support and hoodledge are removed.
Remove the front side member outrigger (reusable).
Remove the front side member center closing plate (reusable) from the service part ″front side member closing plate assembly″ for easier installation of hoodledge.



JSKIA3355GB

Unit: mm (in)

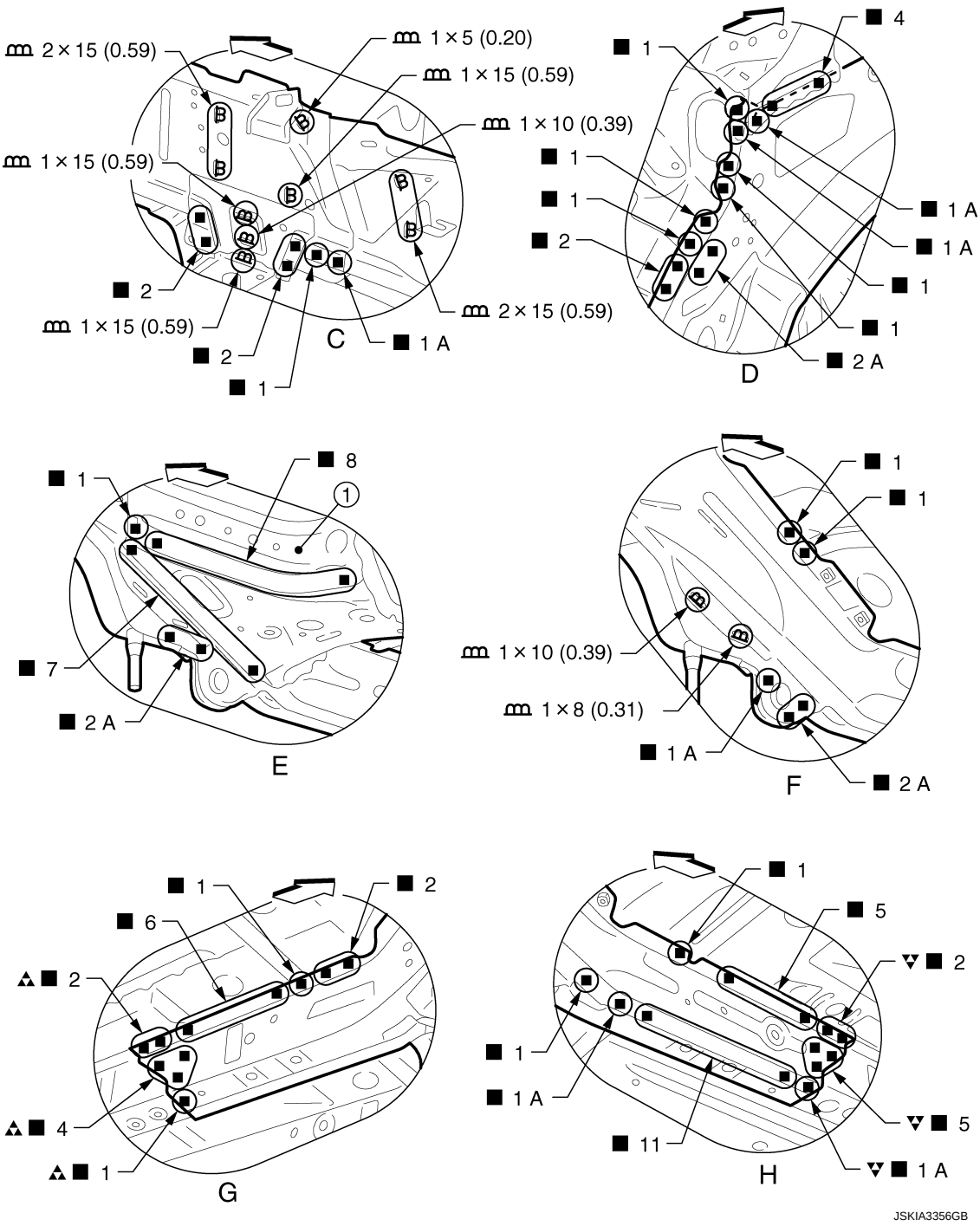
⇦: Vehicle front

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

Replacement parts

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

View A: Before installing front side member closing plate assembly



① Front side member outrigger (reusable)

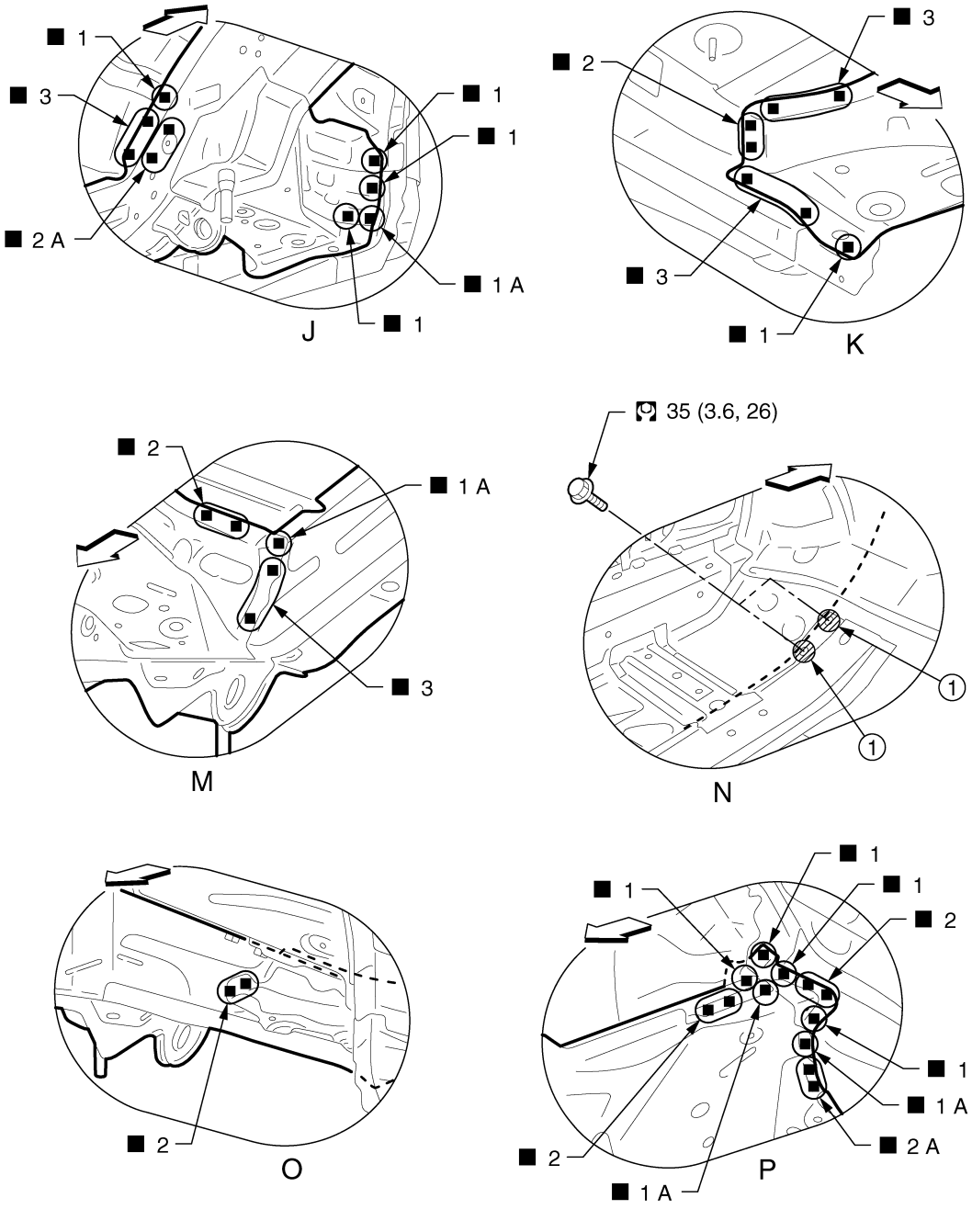
Unit: mm (in)

⇦: Vehicle front

▲: Drill ϕ10 mm (0.39 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 F and H: Before installing front side member outrigger assembly



JSKIA4349GB

① Body sealing

⇦: Vehicle front

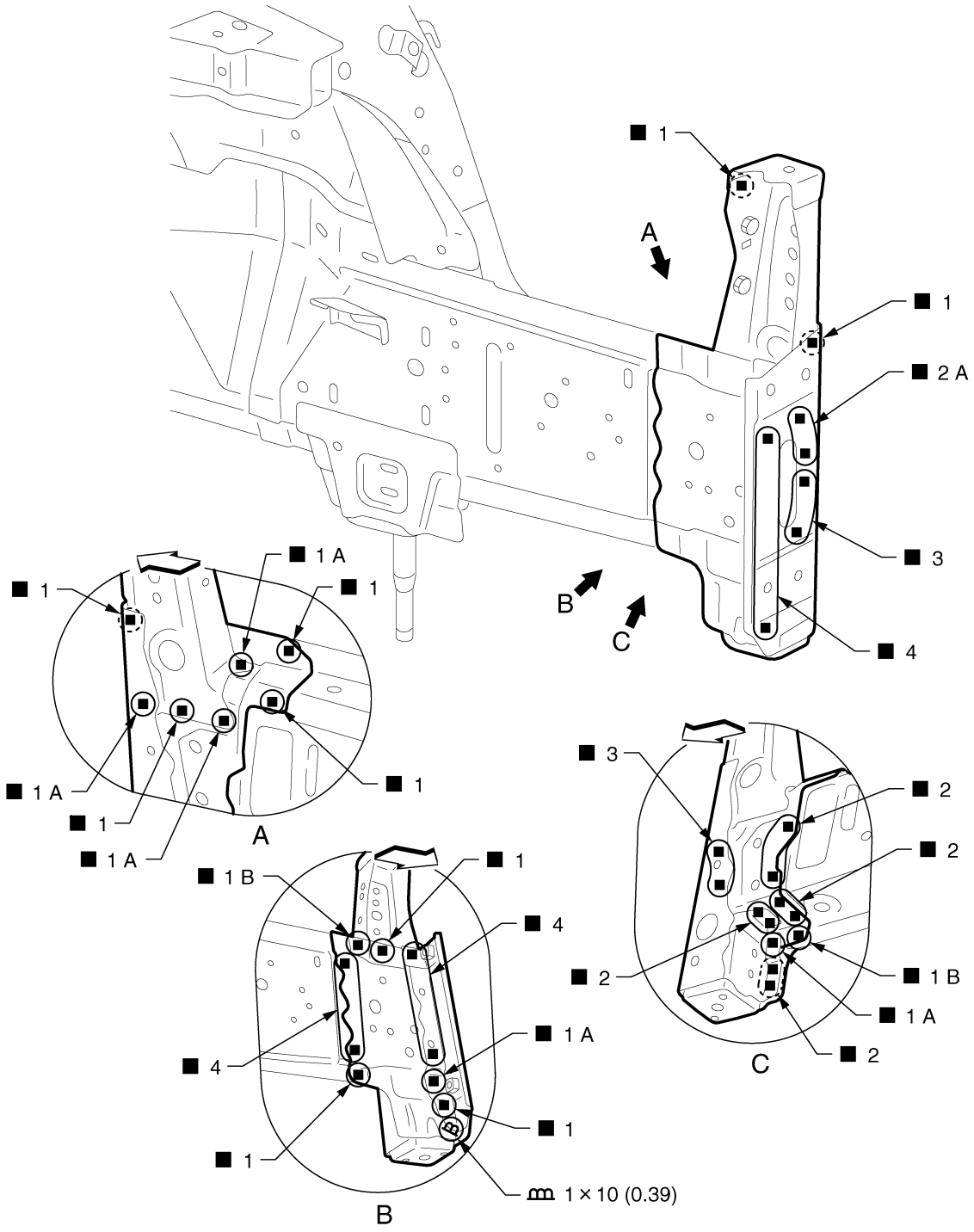
: N·m (kg-m, ft-lb)

View O: Before installing front side member outrigger (reusable)

2WD : Front Side Member (Partial Replacement)

INFOID:0000000011568519

Work after side radiator core support is removed.



Unit: mm (in)

⇦: Vehicle front

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

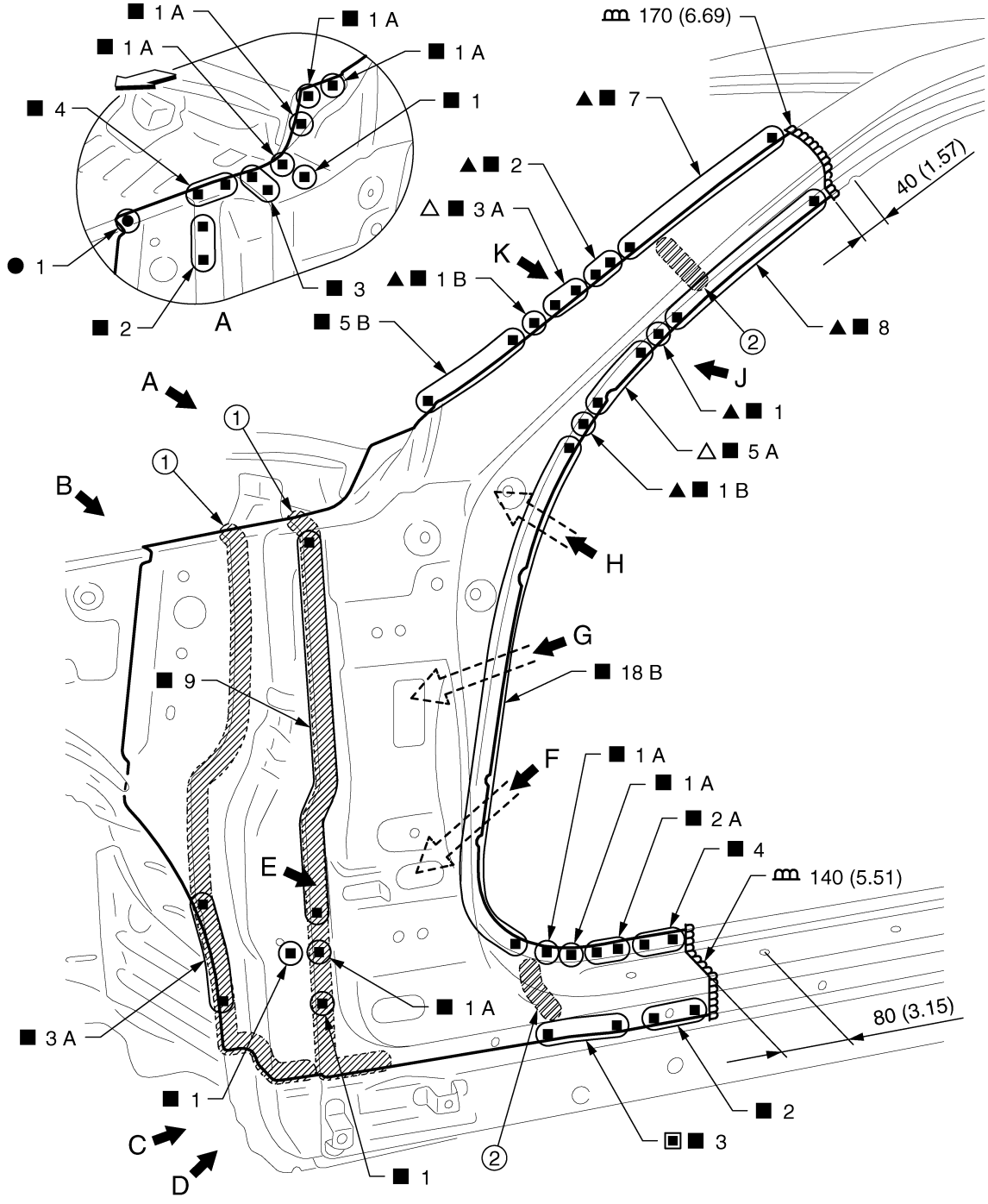
Replacement parts

- Front side member front extension
- Front side member front closing plate
- Add on frame bracket
- Front side member connector assembly
- Bumper reinforcement bracket

2WD : Front Pillar

INFOID:0000000011568520

Work after hoodledge reinforcement is removed.
Remove the upper front pillar reinforcement (reusable).



① Body sealing ② Urethane foam

Unit: mm (in)

⇦: Vehicle front

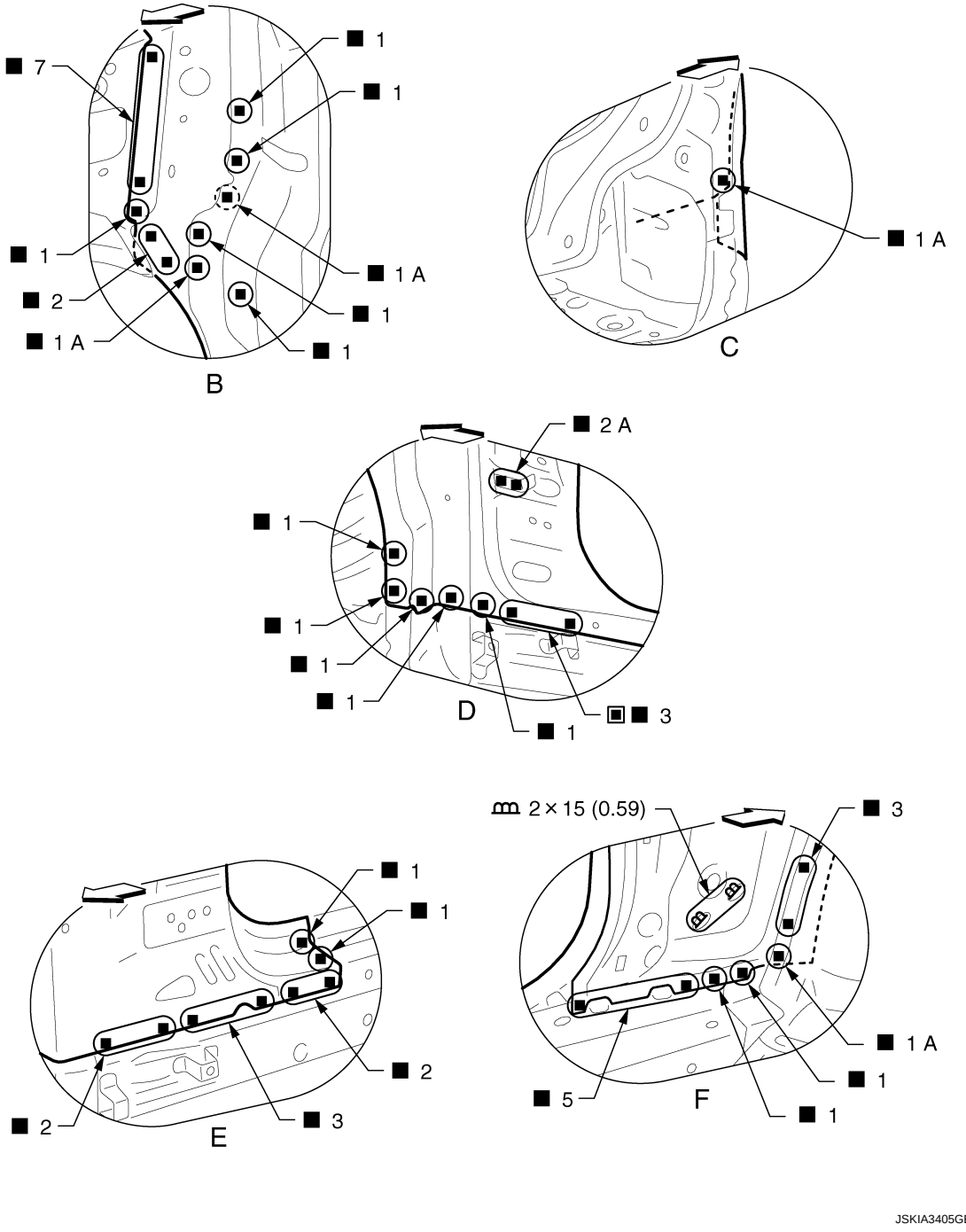
■: Perform the plug welding instead of the laser welding.

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

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

Replacement parts

- Outer front side body
- Front pillar brace
- Side dash
- Cowl top bracket extension



JSKIA3405GB

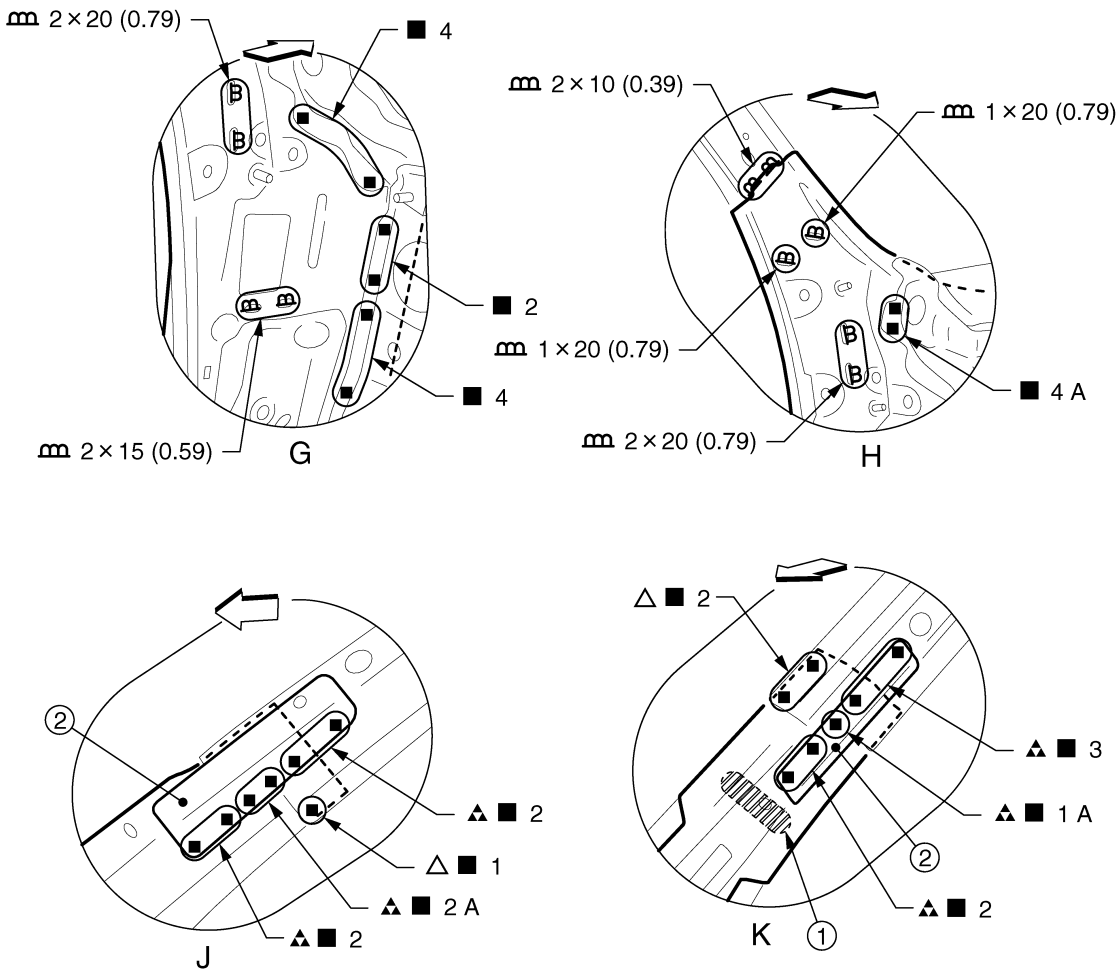
Unit: mm (in)

⇦: Vehicle front

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

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

View E: Before installing outer front side body



JSKIA3324GB

① Urethane foam

② Upper front pillar reinforcement (re-usable)

Unit: mm (in)

⇦: Vehicle front

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

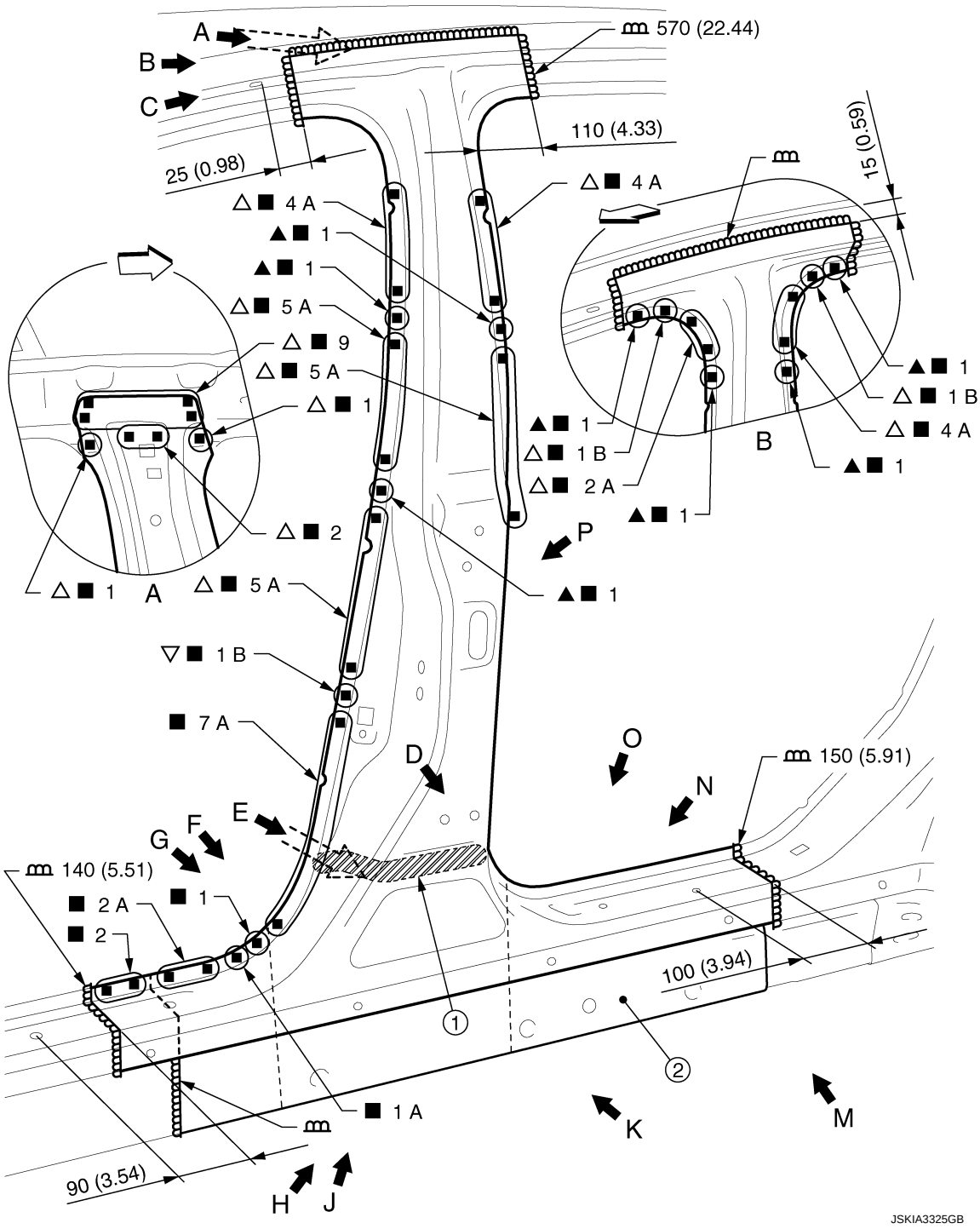
▲: Drill ϕ10 mm (0.39 in) hole for the plug welding hole (ultra high strength steel plate).

View J and K: Before installing outer front side body

2WD : Center Pillar

INFOID:0000000011568521

Remove the outer sill reinforcement (reusable).



① Urethane foam ② Outer sill reinforcement (reusable)

Unit: mm (in)

⇦: Vehicle front

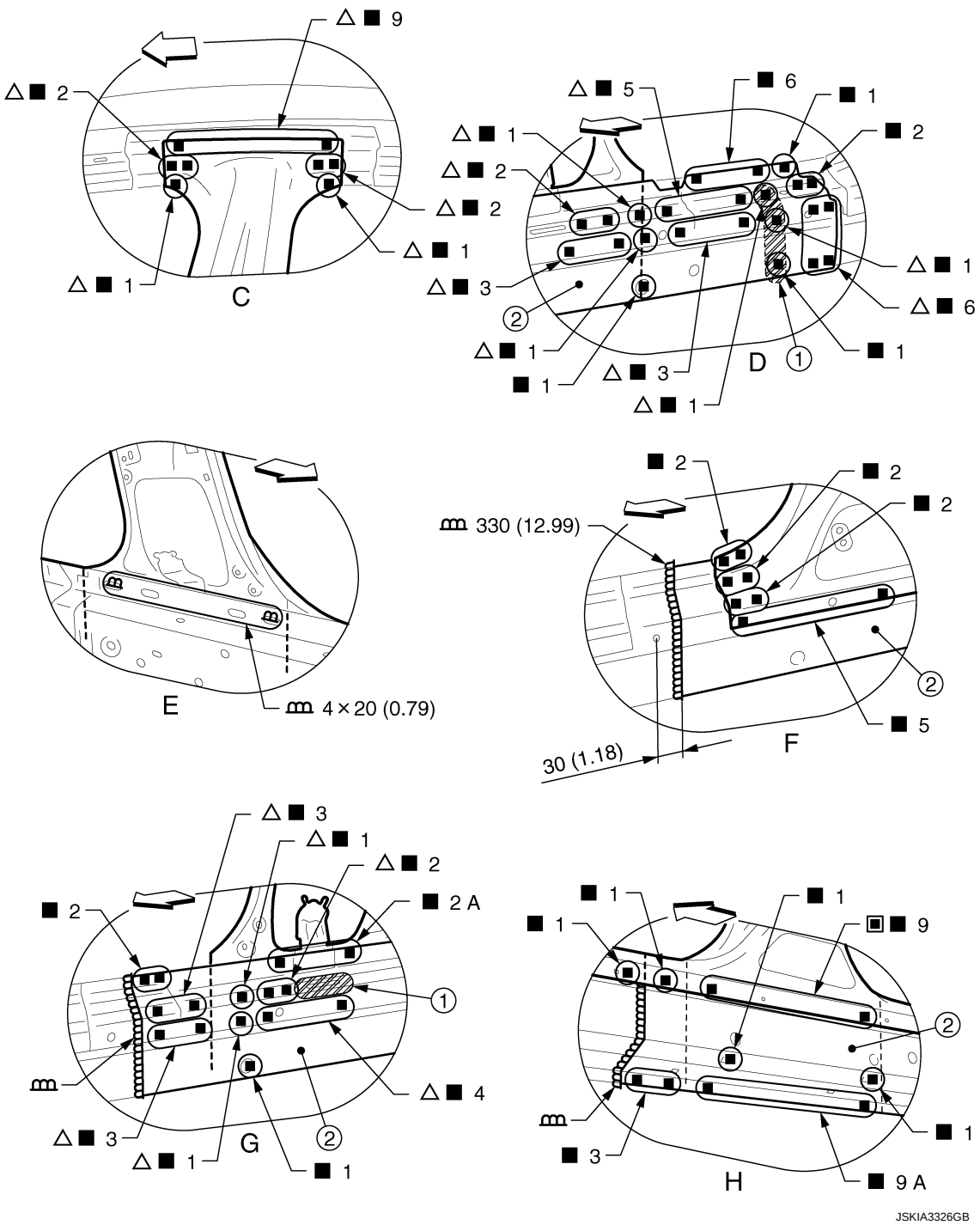
▲: Drill ϕ6 mm (0.24 in) hole for the plug welding hole (ultra high strength steel plate).

△: 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).

Replacement parts

- Outer front side body
- Center pillar reinforcement
- Inner center pillar



① Urethane foam ② Outer sill reinforcement (reusable)

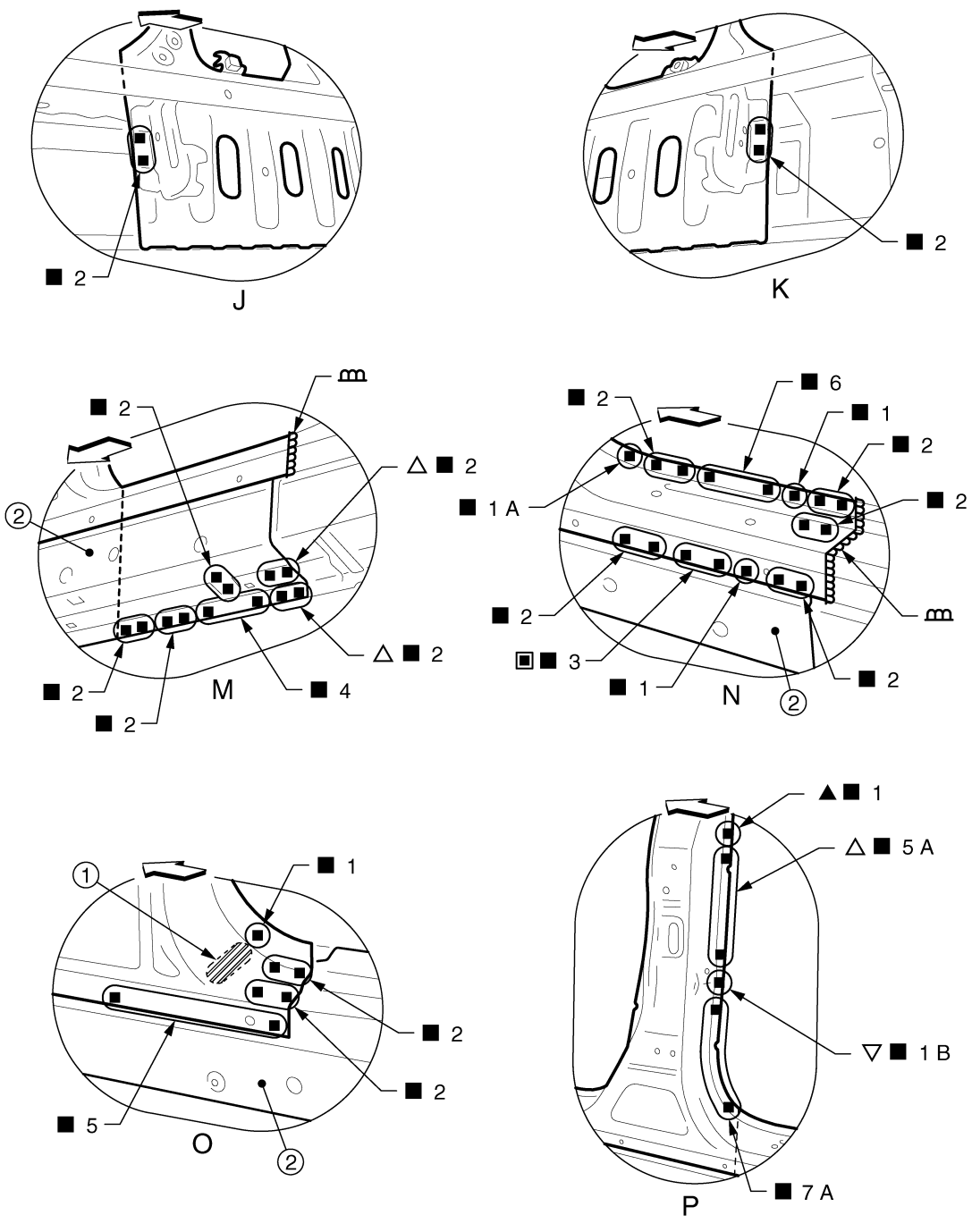
Unit: mm (in)

⇦: Vehicle front

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

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

View C and F: Before installing outer front side body
View D and G: Before installing outer front side body and center pillar reinforcement



JSKIA3327ZZ

① Urethane foam ② Outer sill reinforcement (reusable)

⇦: Vehicle front

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

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

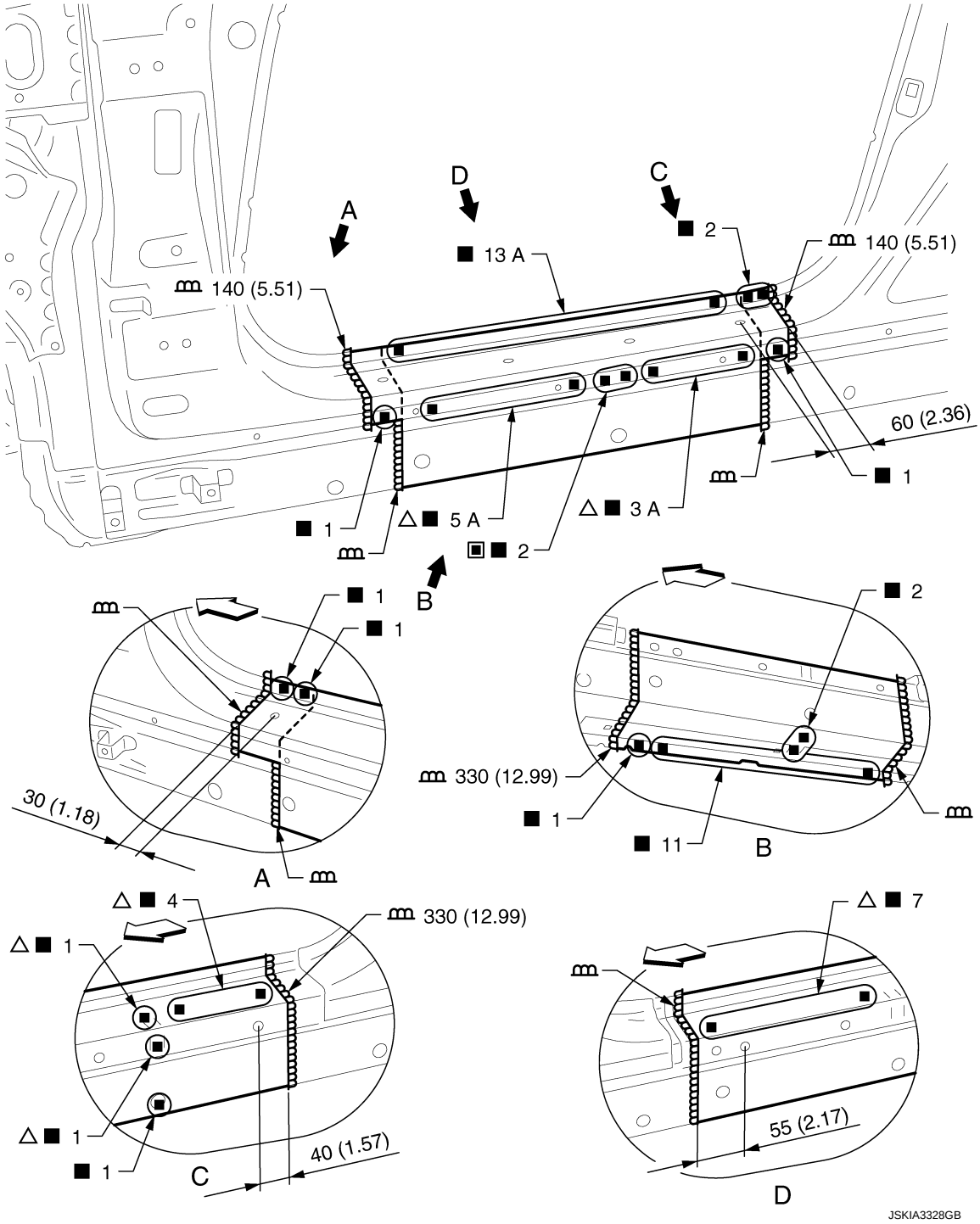
△: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

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

View J and K: Before installing outer front side body, center pillar reinforcement, and outer sill reinforcement (reusable)
View O: Before installing outer front side body

2WD : Outer Sill (Partial Replacement)

INFOID:0000000011568522



Unit: mm (in)

⇦: Vehicle front

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

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

Replacement parts

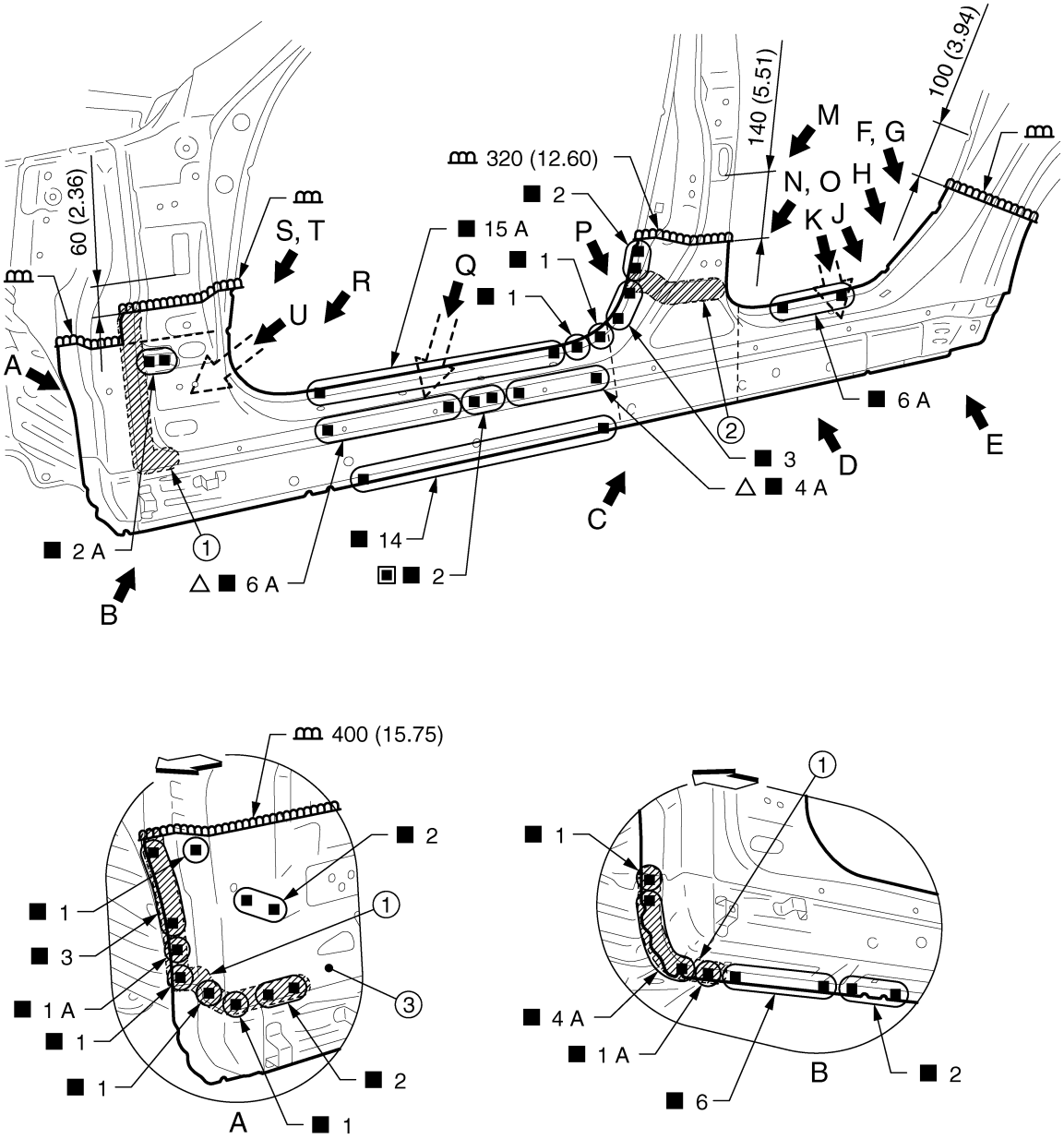
- Outer sill
- Outer sill reinforcement

View B, C, and D: Before installing outer sill

2WD : Outer Sill

INFOID:0000000011568523

Work after hoodledge reinforcement is removed.
Remove the front pillar brace (reusable) and center pillar reinforcement (reusable) for easier installation.



JSKIA4290GB

① Body sealing ② Urethane foam ③ Front pillar brace (reusable)

Unit: mm (in)

⇦: Vehicle front

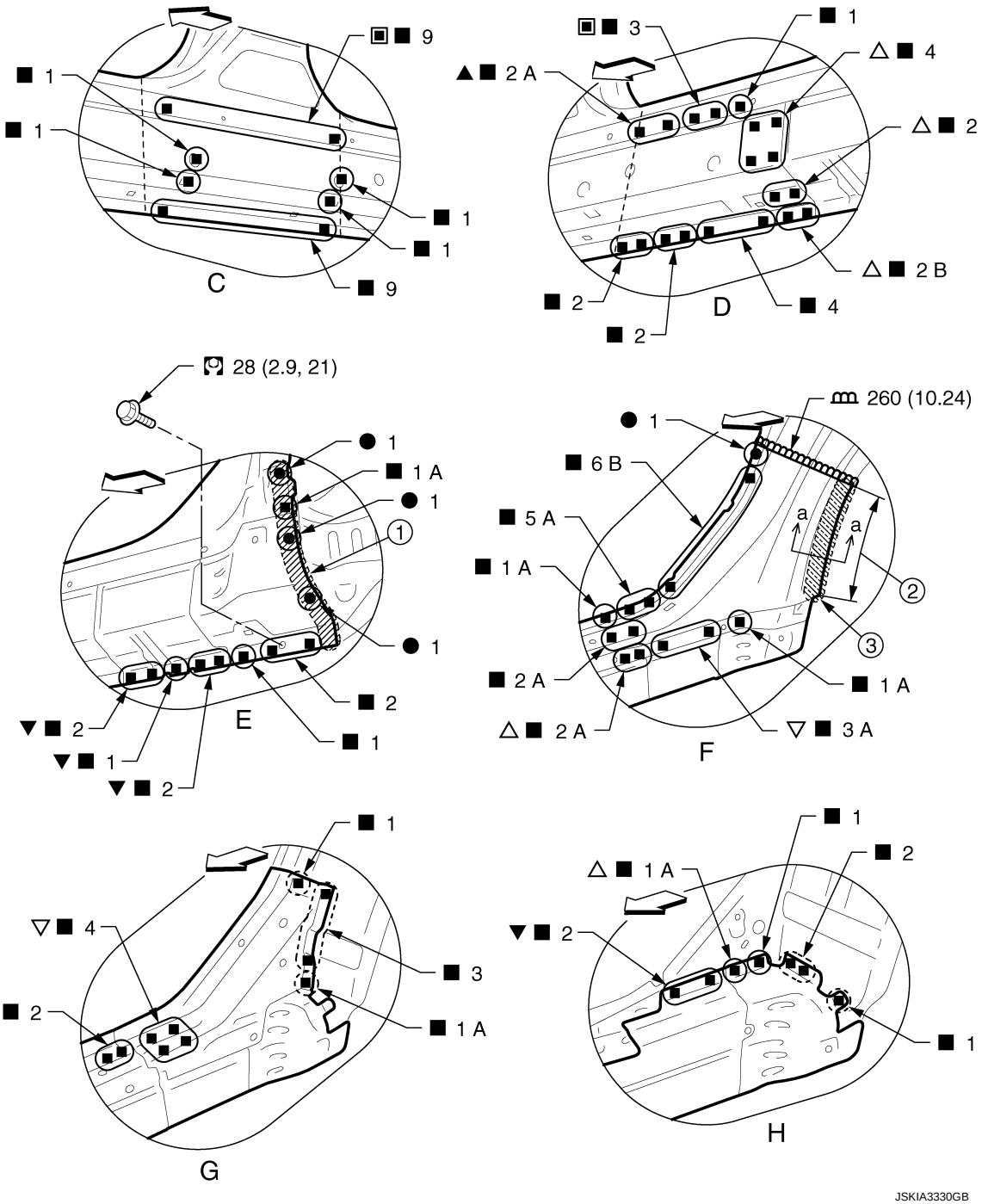
■: Perform the plug welding instead of the laser welding.

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

Replacement parts

- Outer sill
- Outer sill reinforcement
- Outer rear wheelhouse extension (Upper)
- Outer rear wheelhouse extension (Lower)
- Cowl top bracket extension

View A: Before installing outer sill and cowl top bracket extension



① Body sealing ② Hemming portion ③ Adhesive

Unit: mm (in)

⇦: Vehicle front

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

▲: 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).

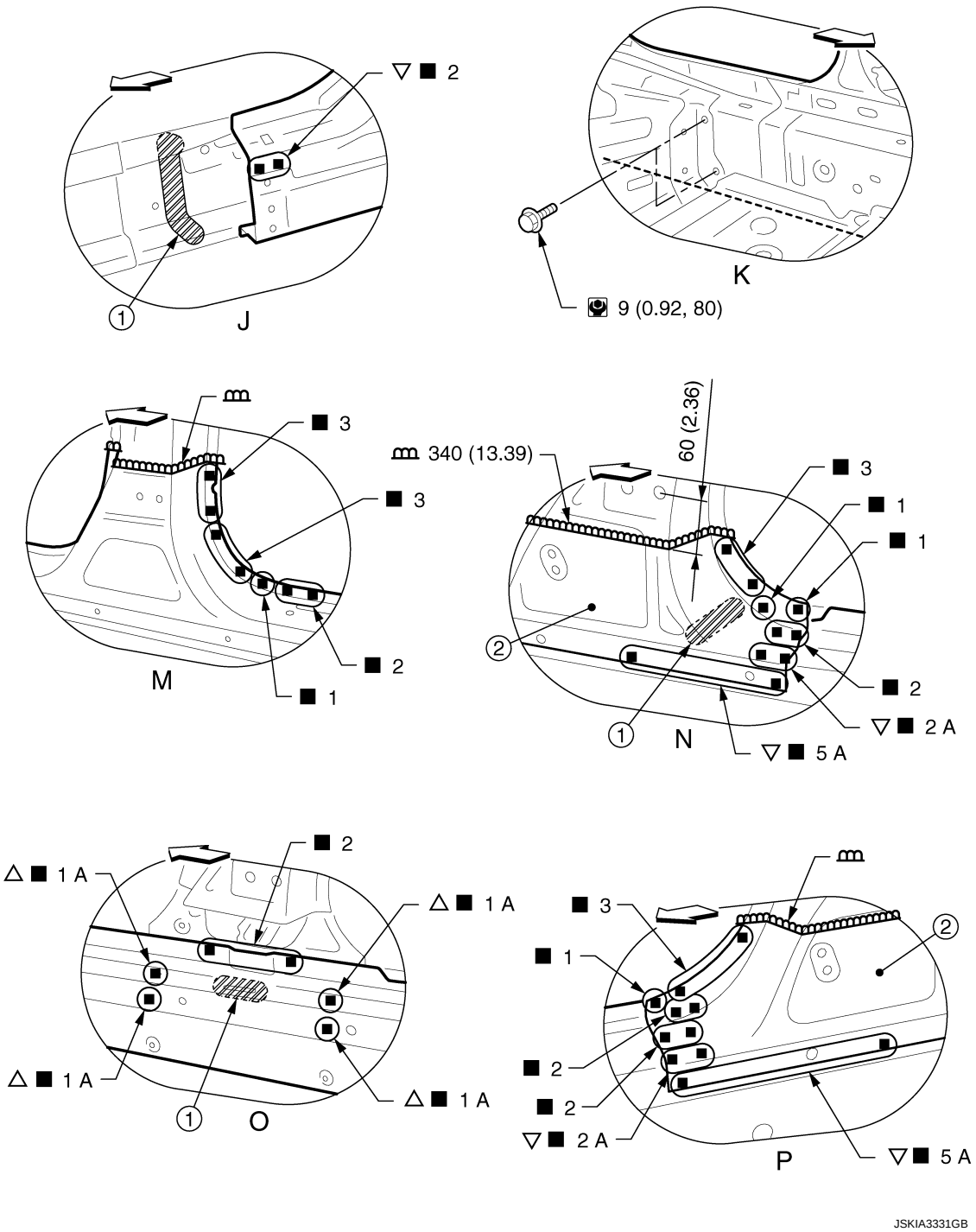
△: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

▽: 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.

: N·m (kg-m, ft-lb)

View G: Before installing outer sill
View H: Before installing outer sill, outer sill reinforcement, and outer rear wheelhouse extension (upper)



① Urethane foam

② Center pillar reinforcement (reusable)

Unit: mm (in)

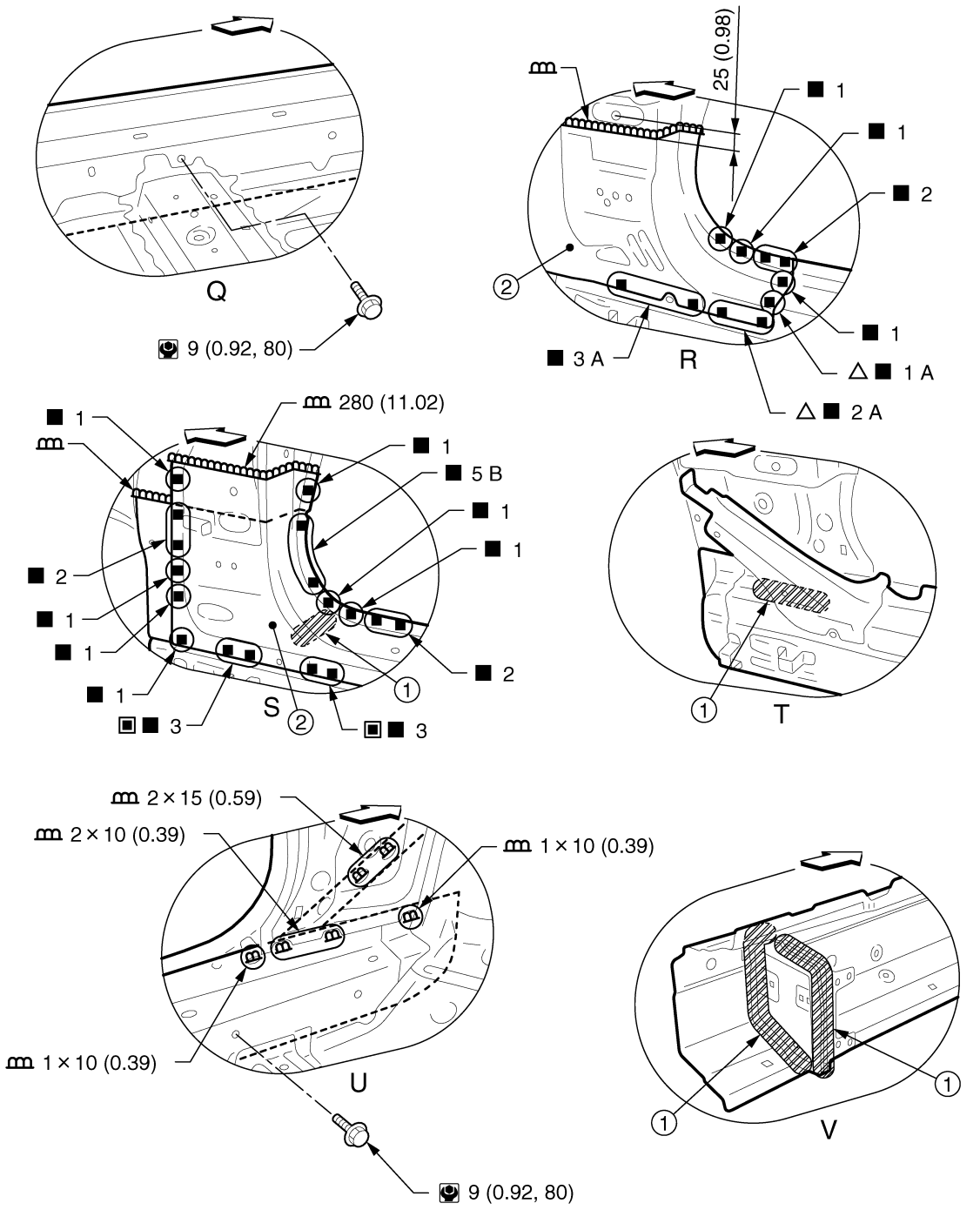
⇦: Vehicle front

△: 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).

: N·m (kg-m, in-lb)

View J: Before installing outer sill and outer sill reinforcement
View N and P: Before installing outer sill
View O: Before installing outer sill and center pillar reinforcement (reusable)



① Urethane foam ② Front pillar brace (reusable)

Unit: mm (in)

⇦: Vehicle front

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

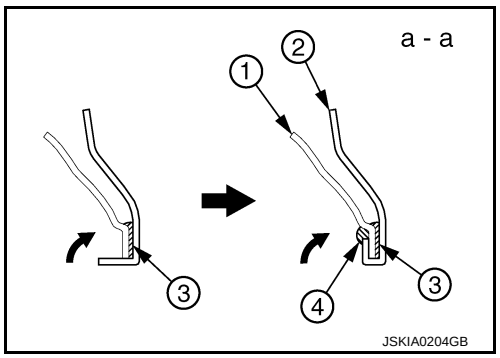
△: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

: N·m (kg-m, in-lb)

View R: Before installing outer sill
View T: Before installing outer sill and front pillar brace (reusable)
View V: Outer sill reinforcement (replacement parts)

POINT

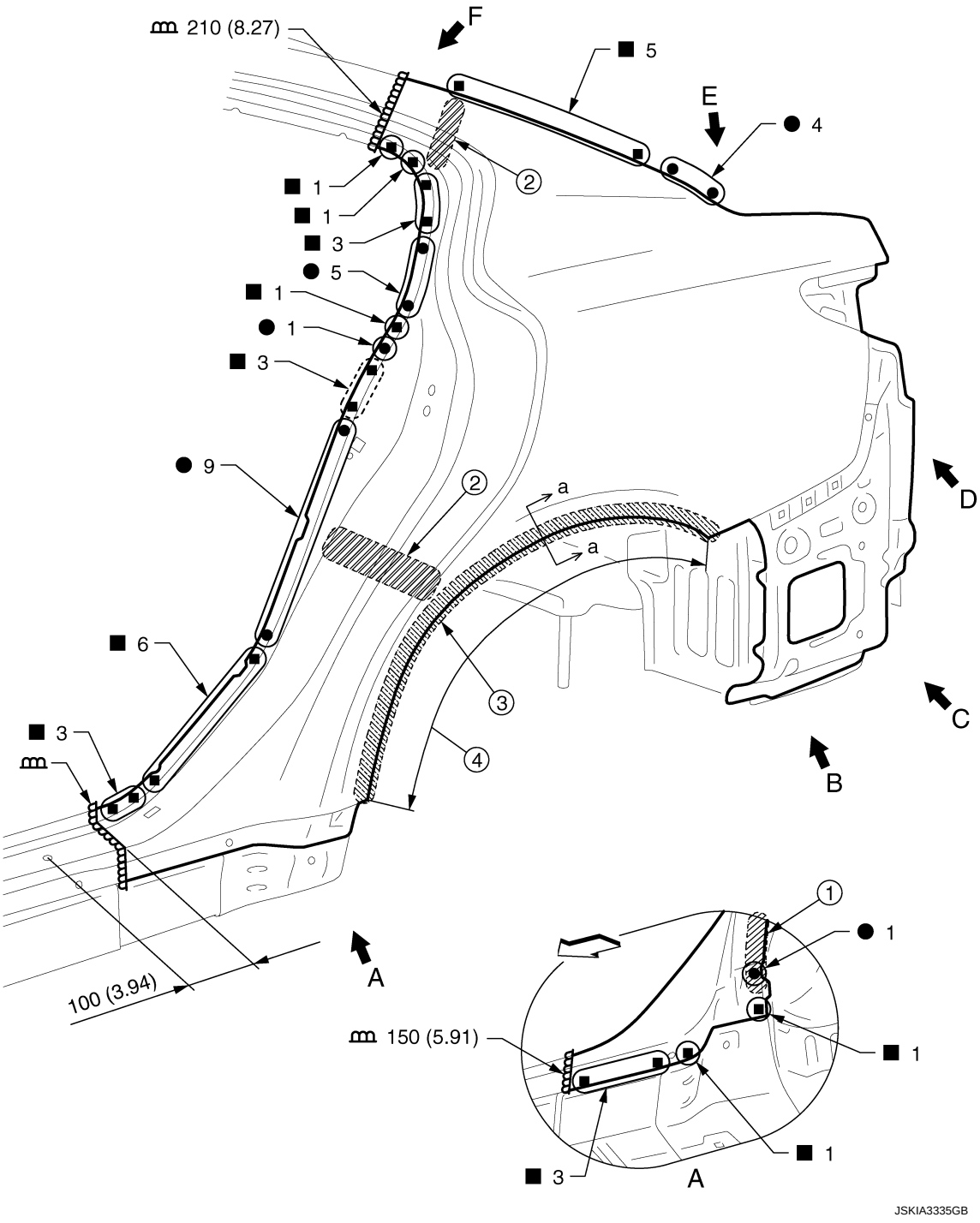
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-35, "Rear Fender Hemming Process".



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

2WD : Rear Fender

INFOID:0000000011568524



① Body sealing ② Urethane foam ③ Adhesive

④ Hemming portion

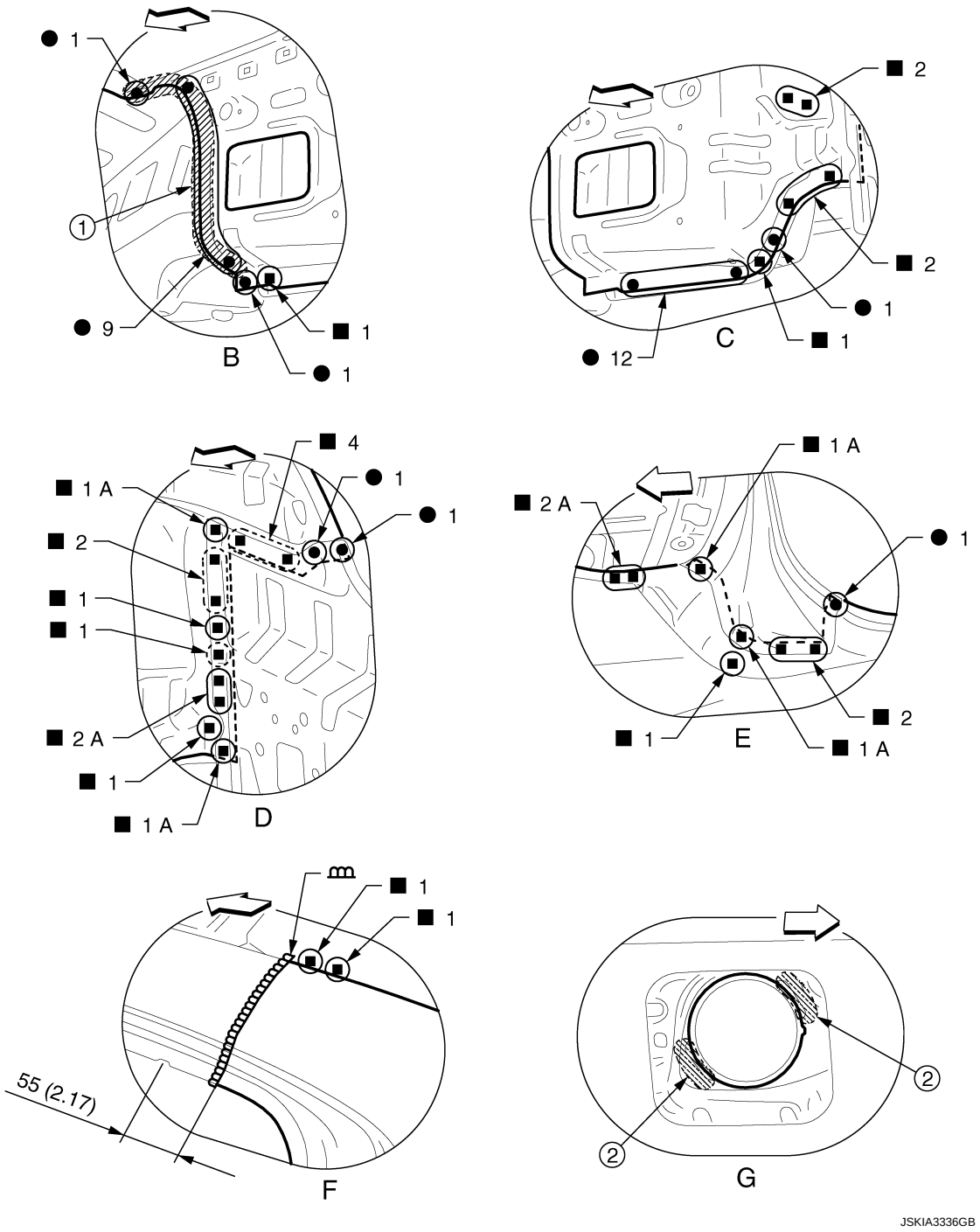
Unit: mm (in)

⇦: Vehicle front

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

Replacement parts

- Rear fender



① Body sealing ② Adhesive

Unit: mm (in)

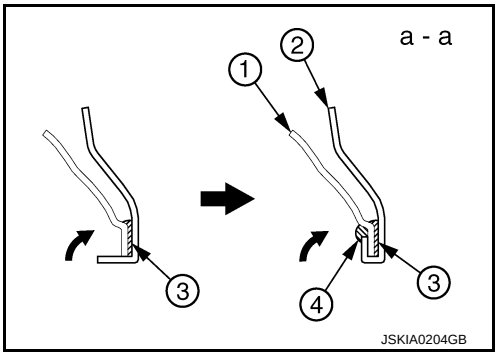
⇦: Vehicle front

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

View G: Right side rear fender

POINT

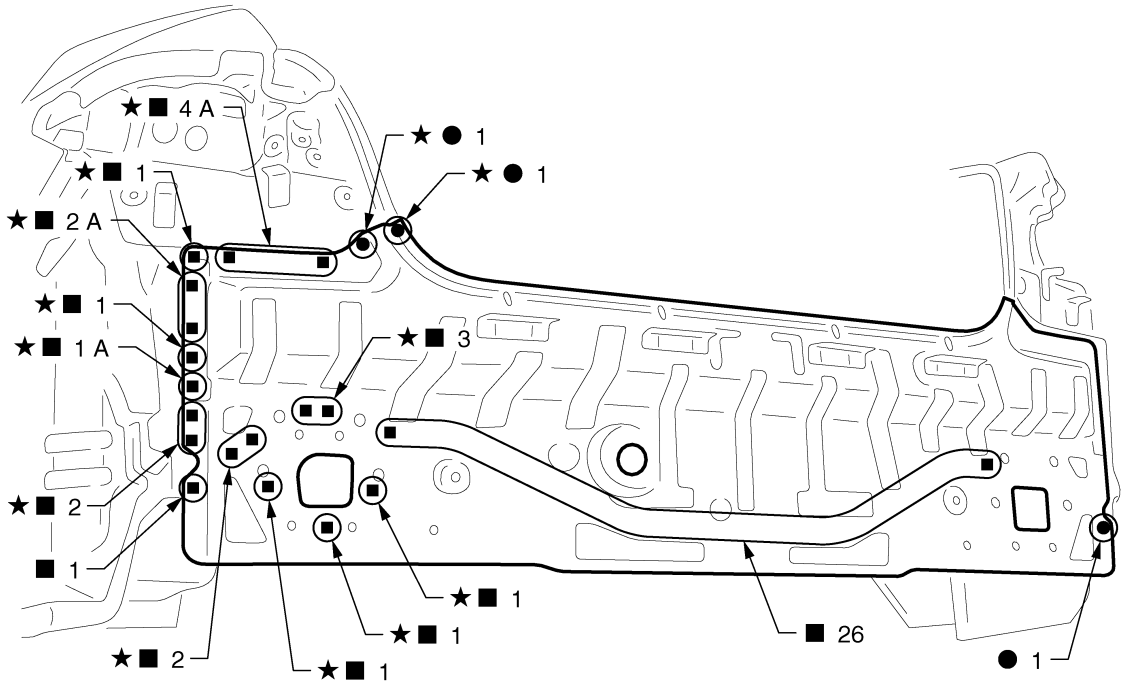
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-35, "Rear Fender Hemming Process".



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

2WD : Rear Panel

INFOID:0000000011568525



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

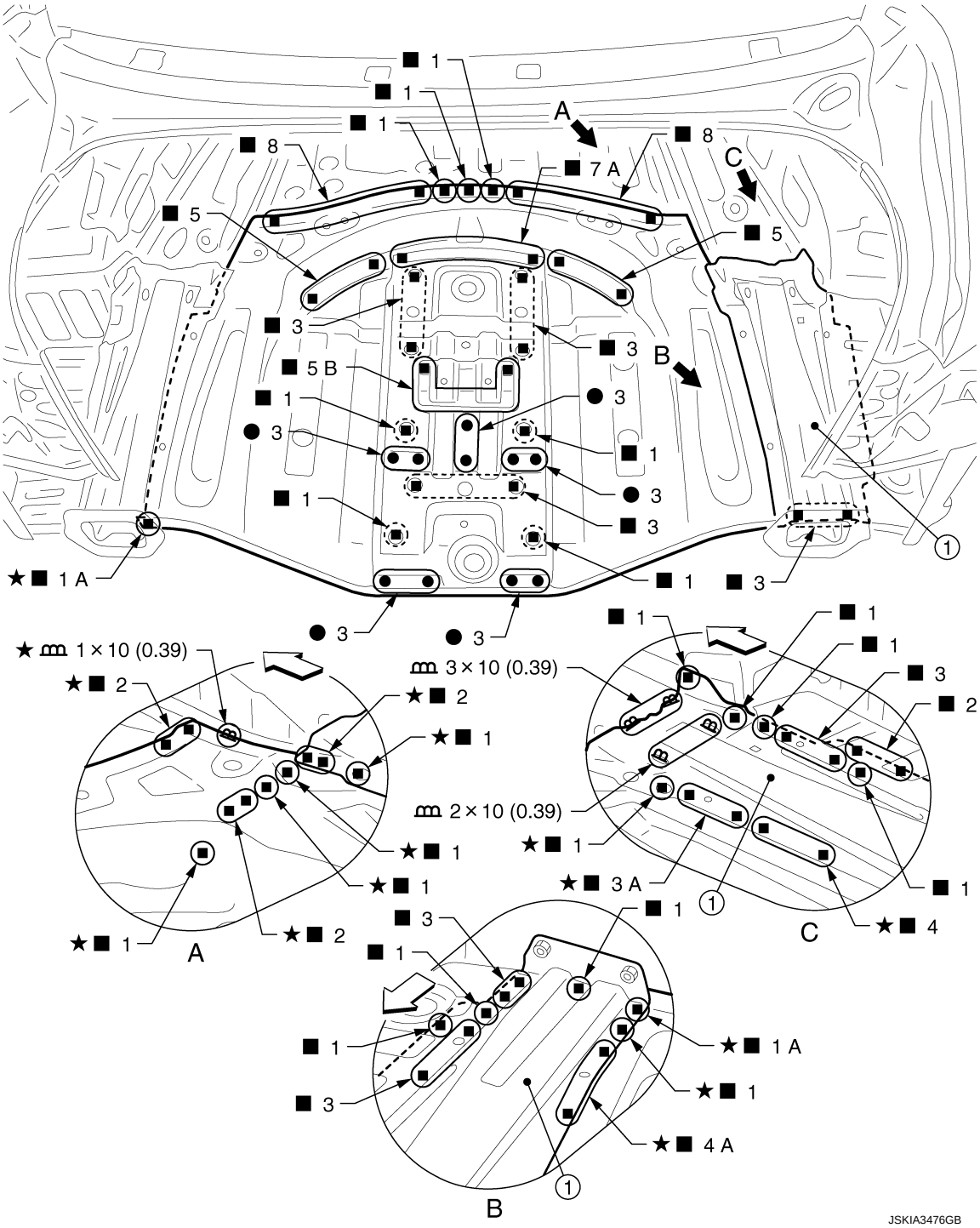
Replacement parts

- Upper rear panel assembly

2WD : Rear Floor Rear

INFOID:0000000011568526

Work after rear panel is removed.
Remove the rear floor rear side (reusable).



① Rear floor rear side (reusable)

Unit: mm (in)

⇦: Vehicle front

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

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

Replacement parts

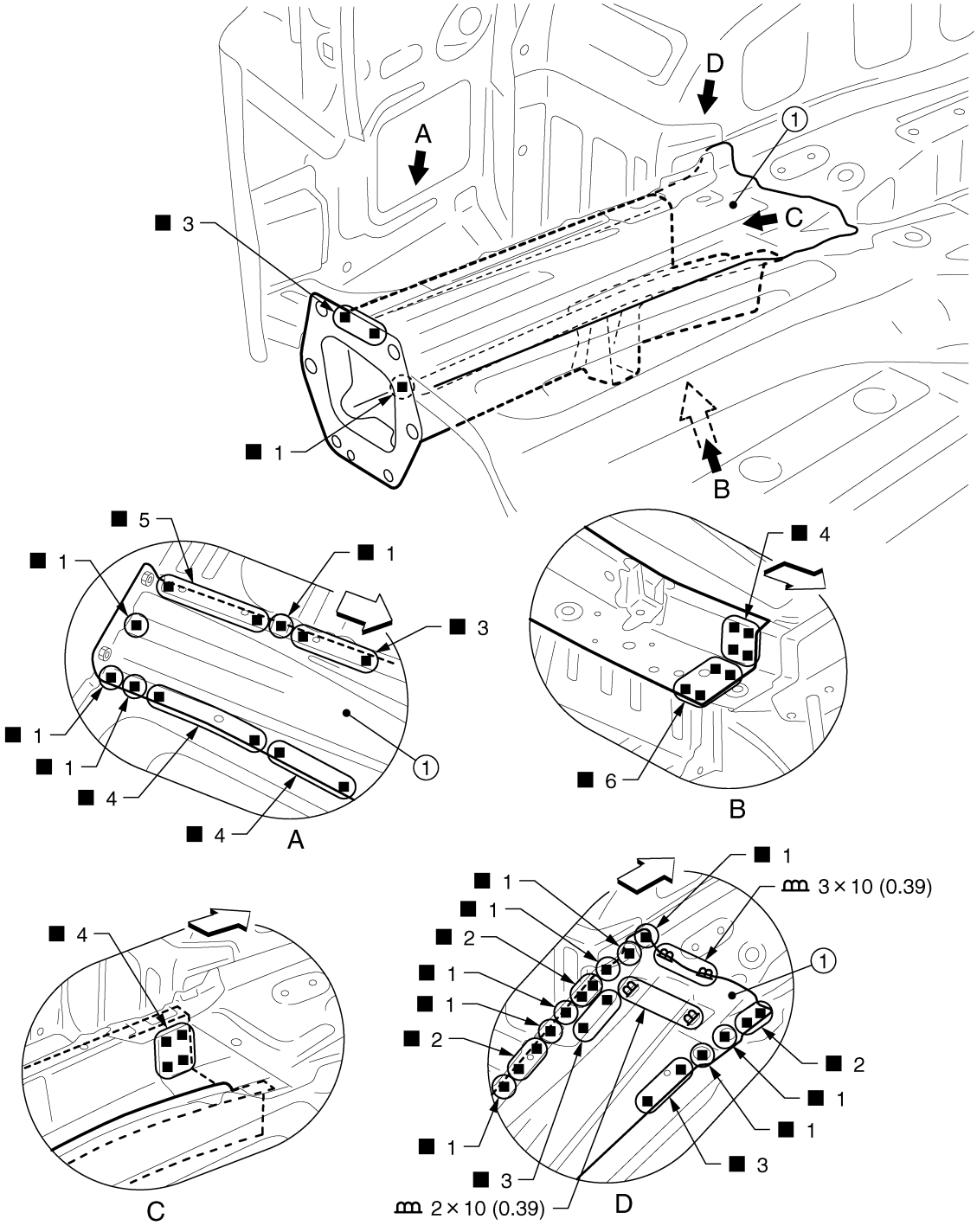
- Rear floor rear
- Spare wheel clamp reinforcement

2WD : Rear Side Member Extension

INFOID:0000000011568527

Work after rear panel is removed.

Remove the rear floor rear side (reusable).



① Rear floor rear side (reusable)

Unit: mm (in)

⇦: Vehicle front

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

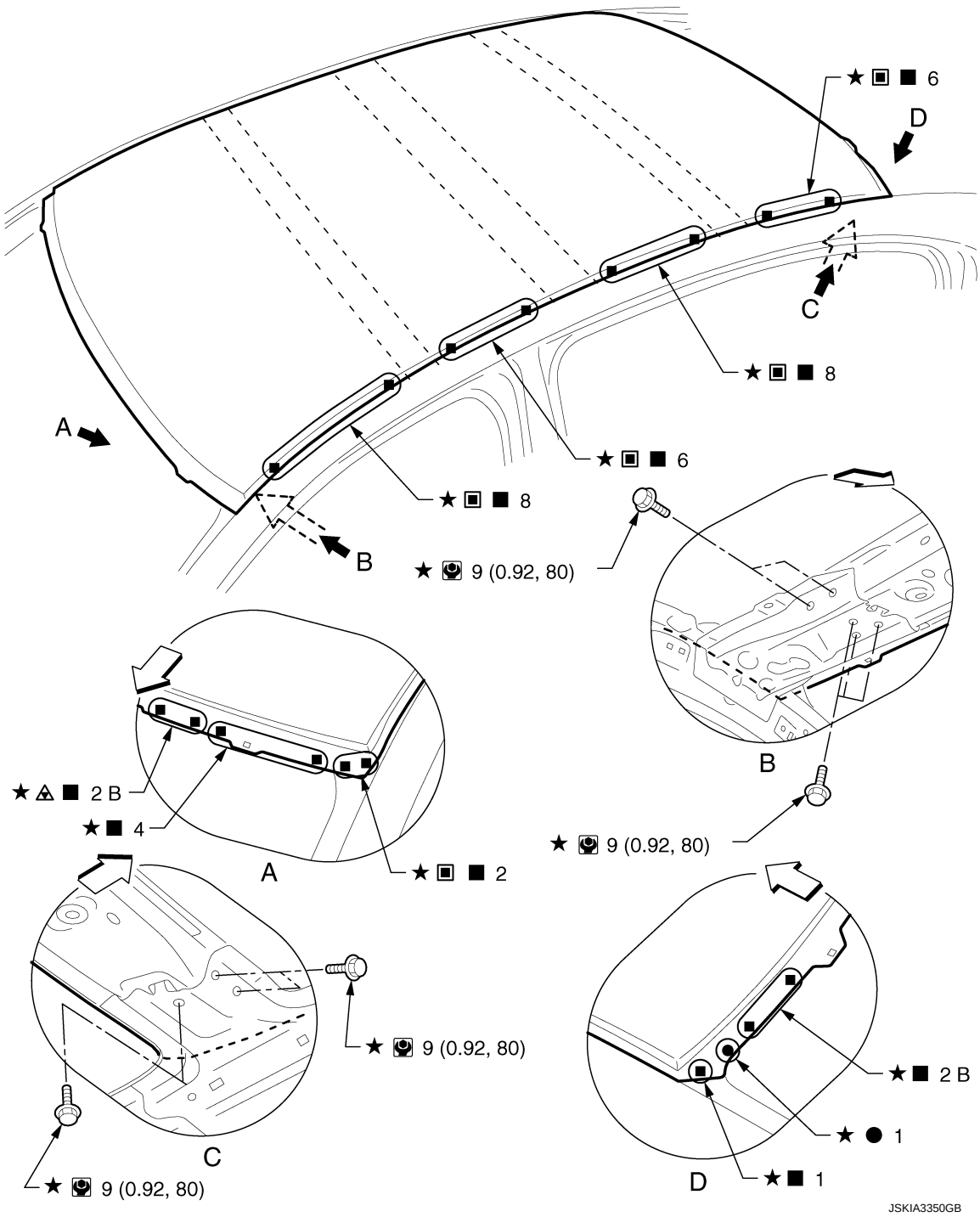
Replacement parts

- Rear side member extension

View C: Before installing rear floor rear side (reusable)

2WD : Roof

INFOID:0000000011568561



⇦: Vehicle front

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

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

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

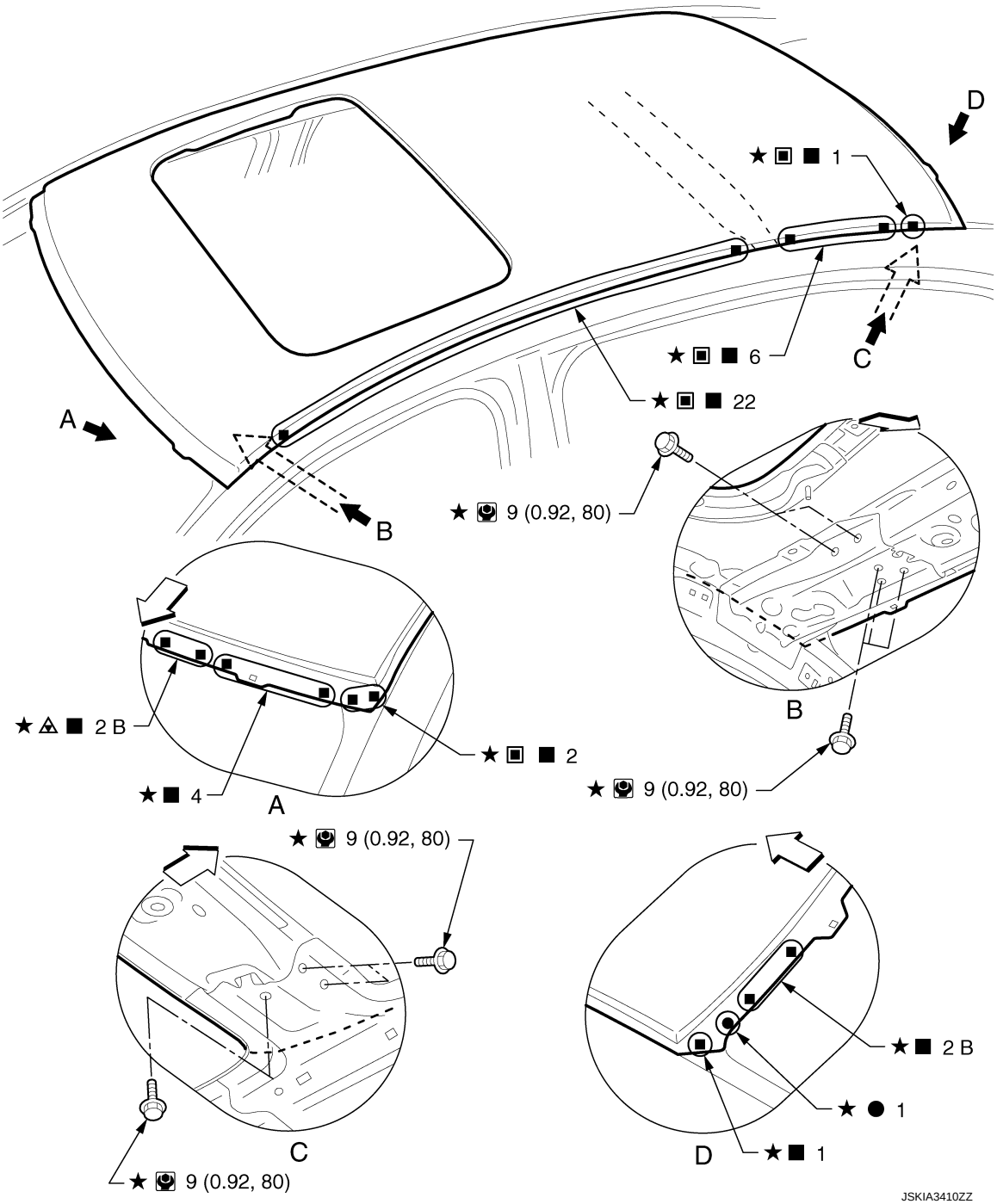
: N·m (kg-m, in-lb)

Replacement parts

- Roof assembly

2WD : Roof (Sunroof)

INFOID:0000000011568562



⇦: Vehicle front

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

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

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

: N·m (kg-m, in-lb)

Replacement parts

- Roof assembly

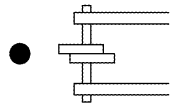
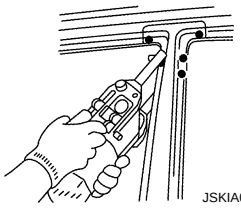
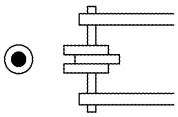
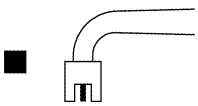
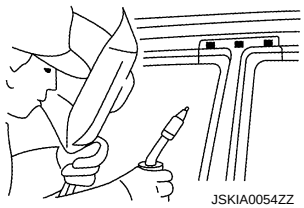
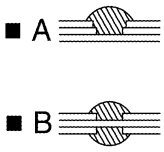
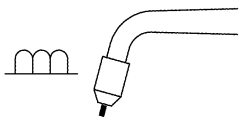
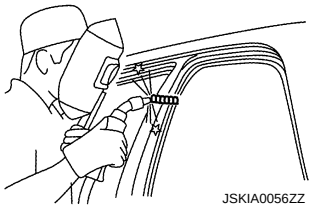
AWD

AWD : Description

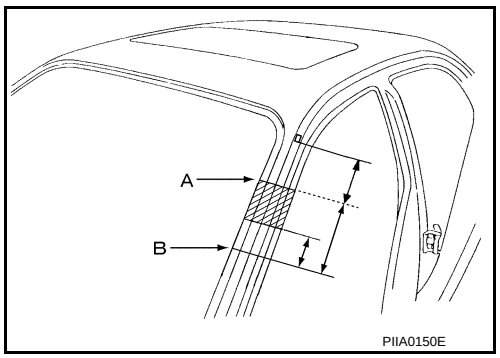
INFOID:0000000011568528

- 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.

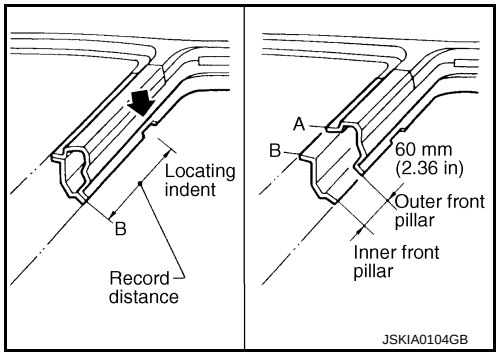
The symbols used in this section for welding operations are shown below.

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

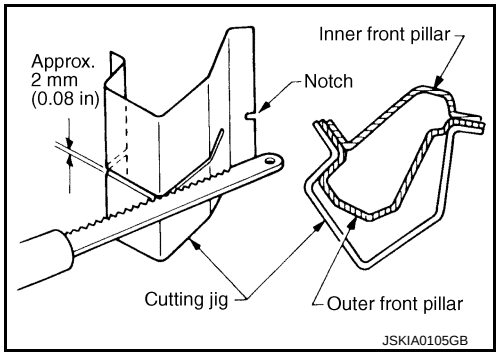
- Front pillar butt joint can be determined anywhere within shaded area as shown in the figure. The best location for the butt joint is at position A due to the construction of the vehicle.



- 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.

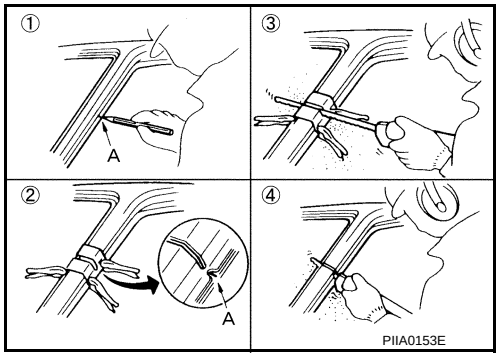


- Prepare a cutting jig to make outer pillar easier to cut. Also, this will permit the service part to be accurately cut at the joint position.



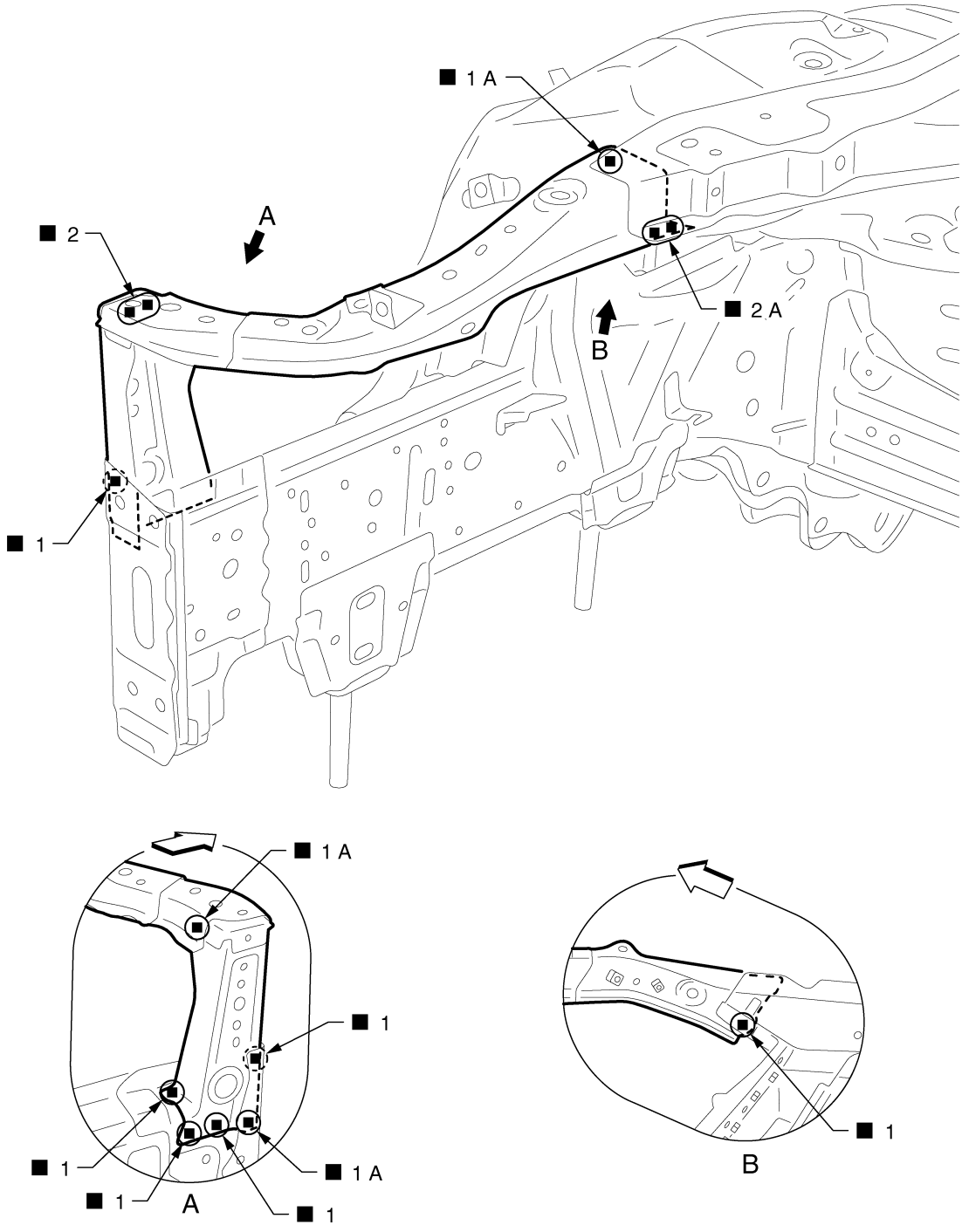
- An example of cutting operation using a cutting jig is as per the following.

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.



AWD : Radiator Core Support

INFOID:0000000011568529



JSKIA3314ZZ

⇦: Vehicle front

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

Replacement parts

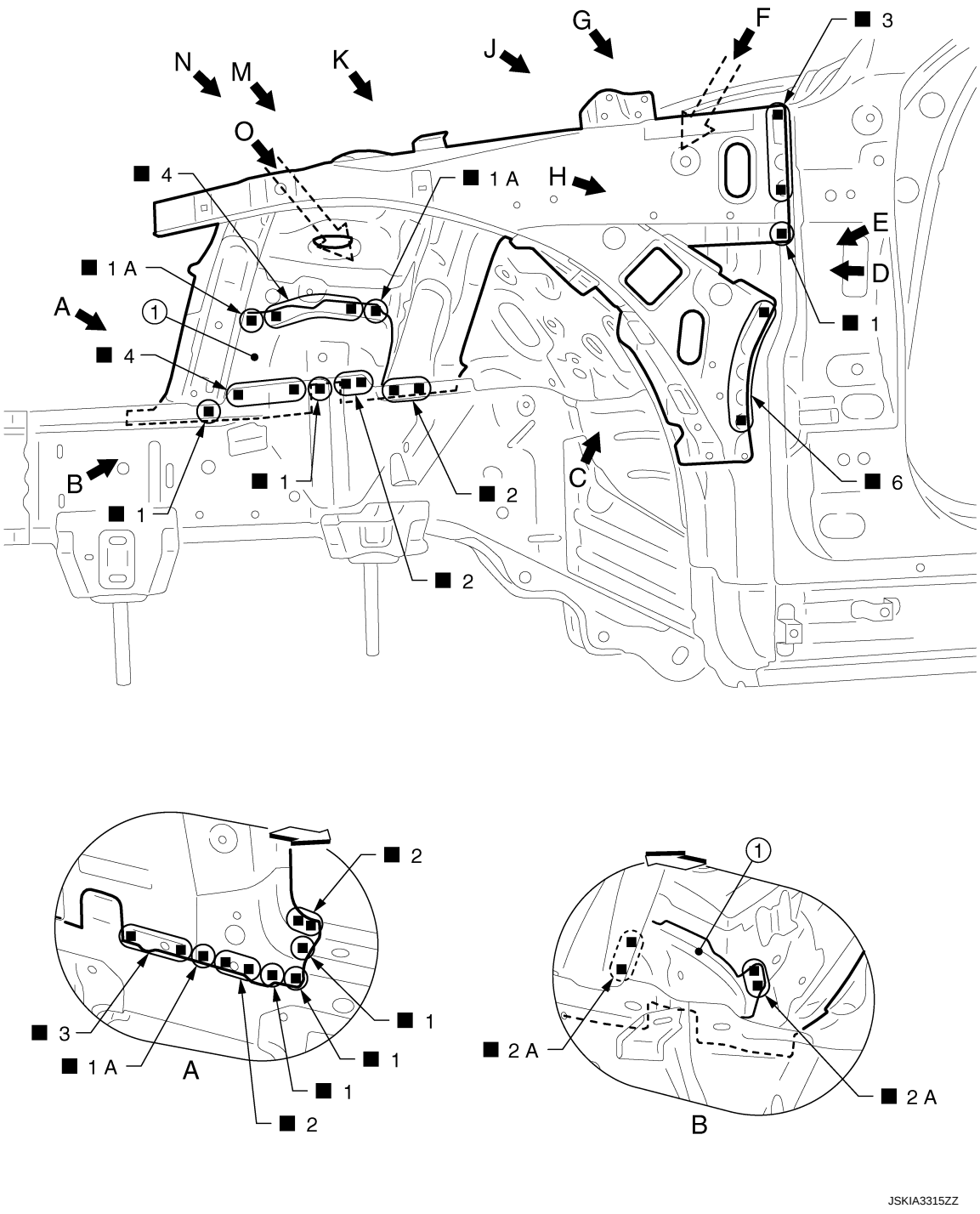
- Side radiator core support
- Front side member connector assembly

AWD : Hoodledge

INFOID:0000000011568530

Work after radiator core support is removed.

Remove the front side member center closing plate (reusable).



JSKIA3315ZZ

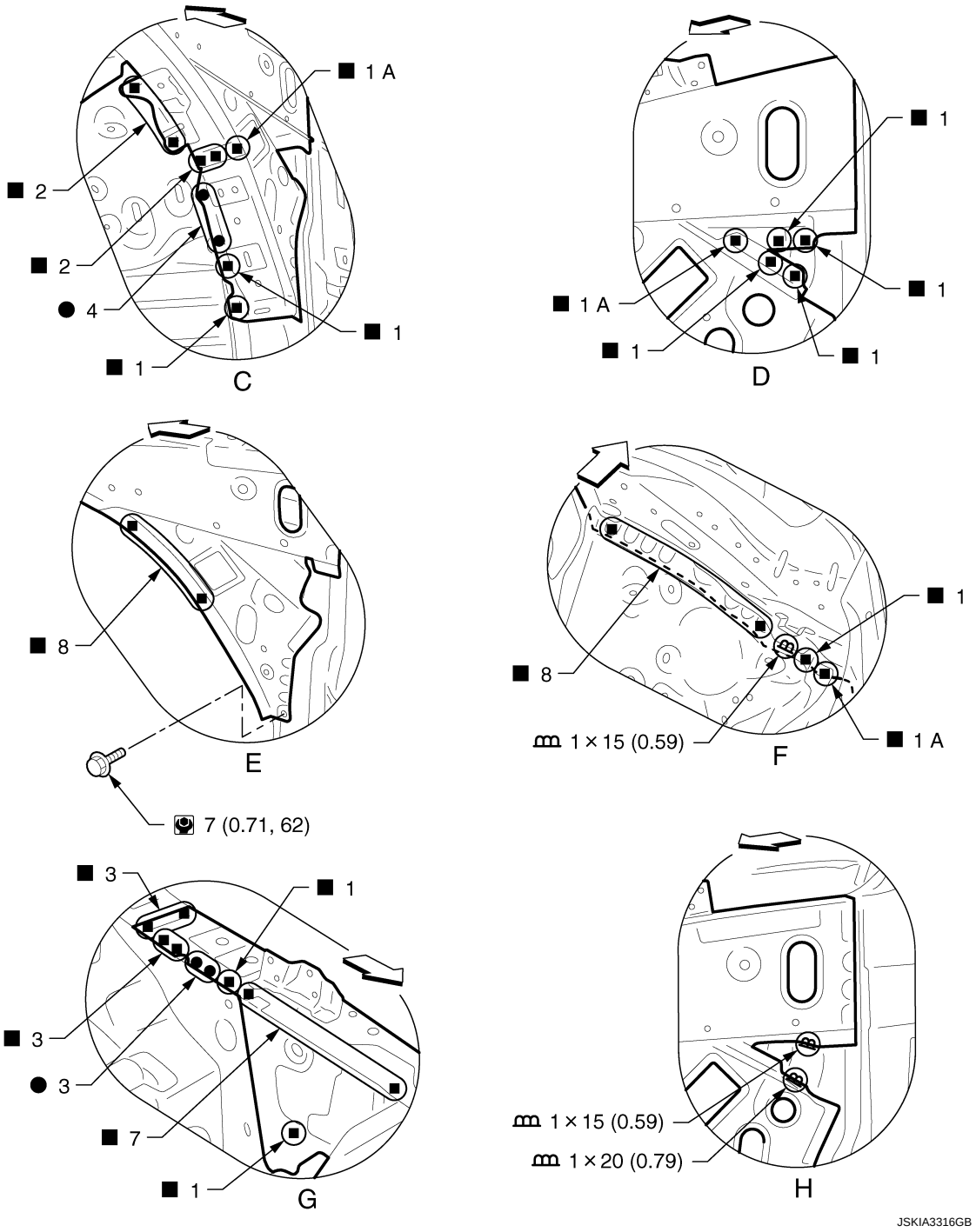
① Front side member center closing plate (reusable)

⇦: Vehicle front

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

Replacement parts

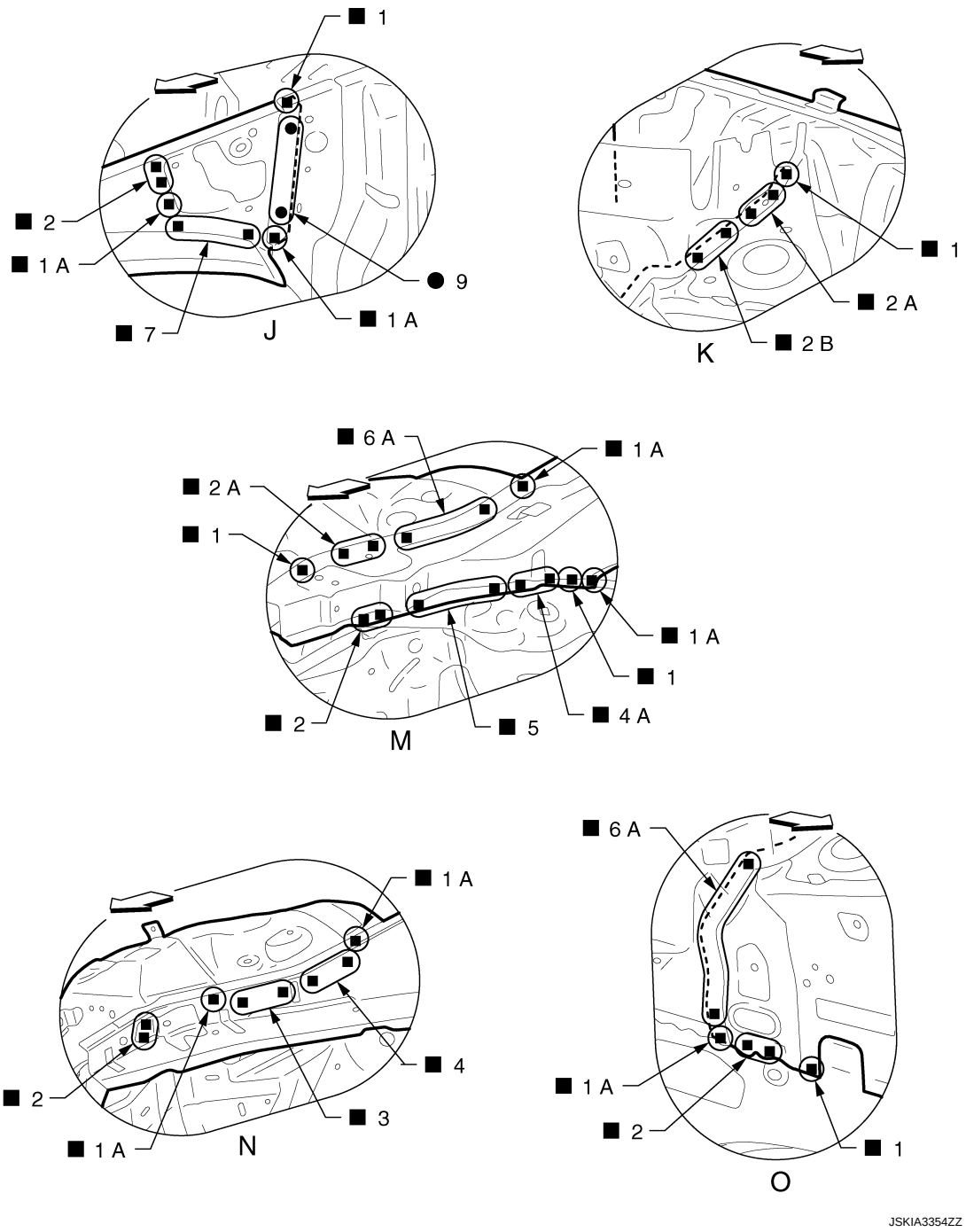
- Upper front hoodledge
- Hoodledge reinforcement
- Front strut housing



Unit: mm (in)

⇦: Vehicle front

: N·m (kg-m, in-lb)



JSKIA3354ZZ

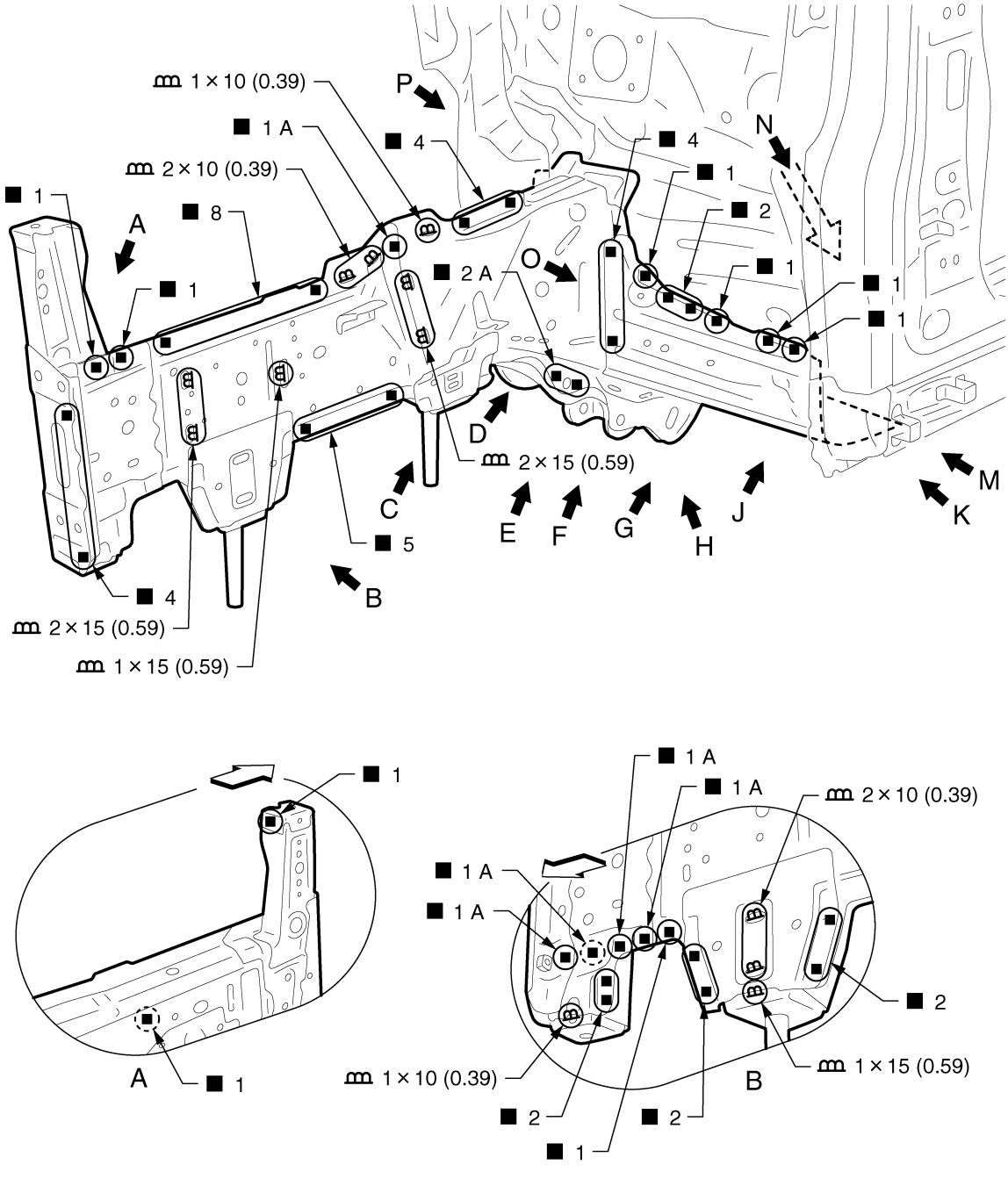
⇦: Vehicle front

View J and N: Before installing hoodledge reinforcement

AWD : Front Side Member

INFOID:0000000011568531

Work after radiator core support and hoodledge are removed.
Remove the front side member outrigger (reusable).
Remove the front side member center closing plate (reusable) from the service part ″front side member closing plate assembly″ for easier installation of hoodledge.



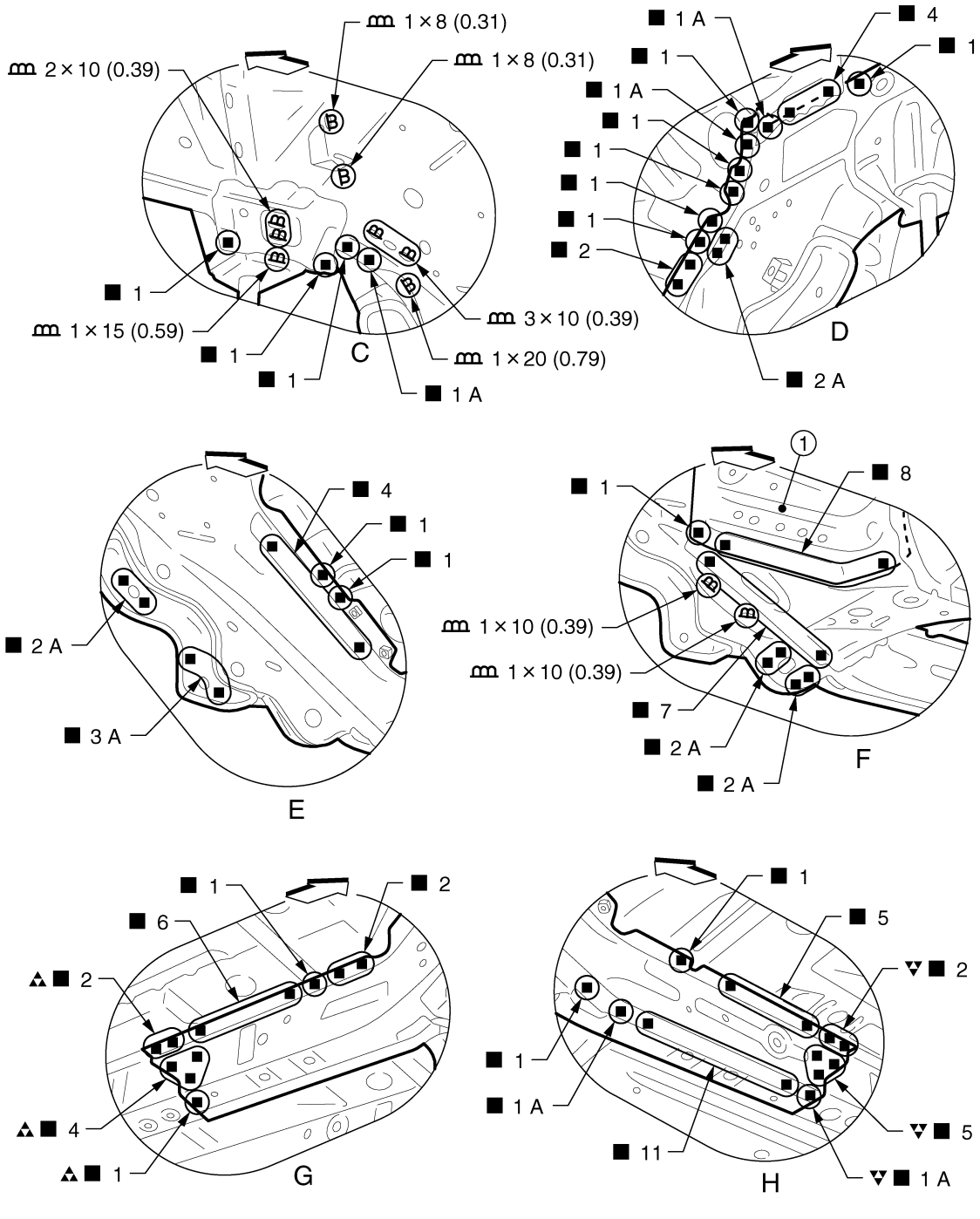
Unit: mm (in)

⇦: Vehicle front

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

Replacement parts

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



① Front side member outrigger (reusable)

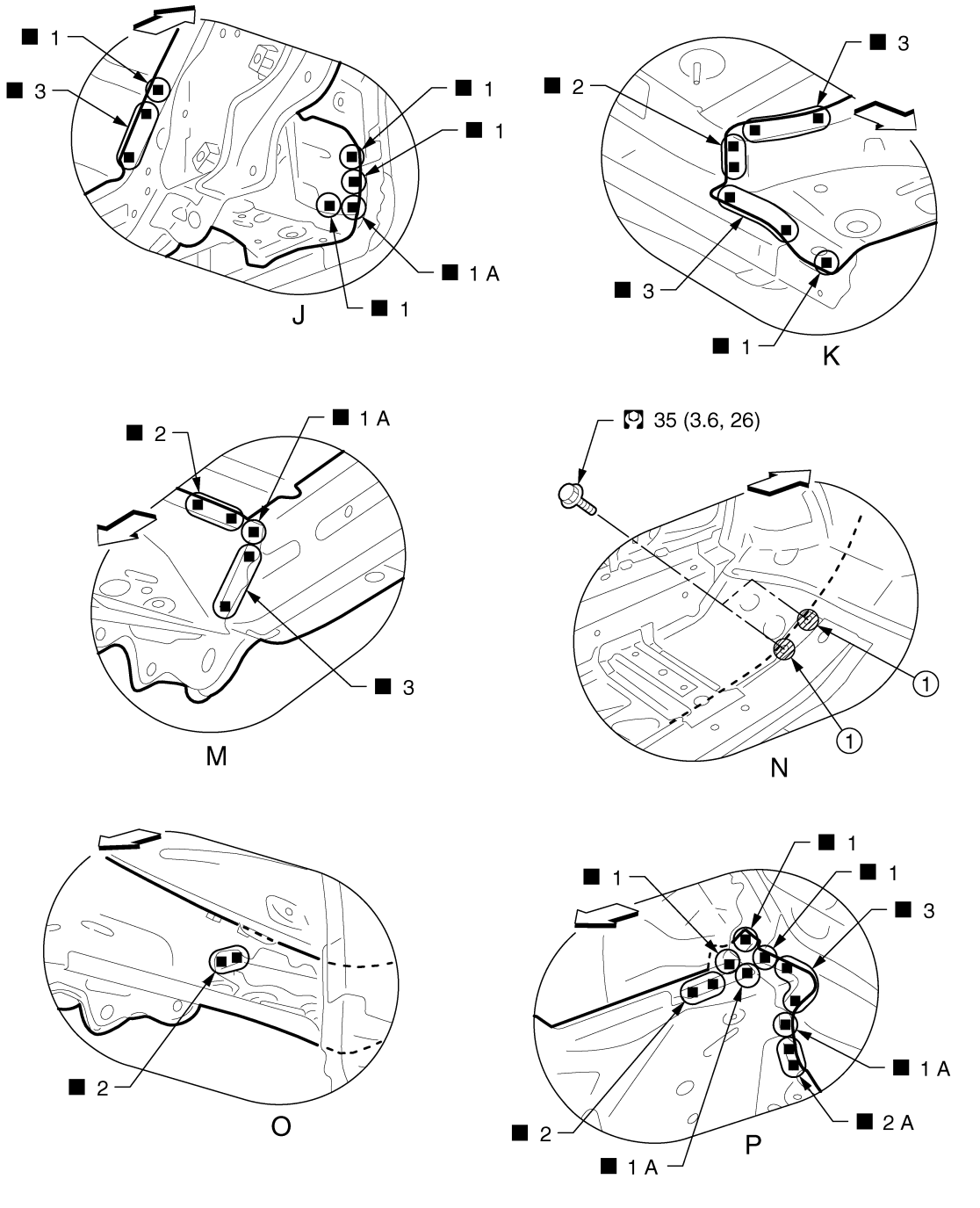
Unit: mm (in)

⇦: Vehicle front

▲: Drill ϕ10 mm (0.39 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 E and H: Before installing front side member outrigger assembly



JSKIA4350GB

① Body sealing

⇦: Vehicle front

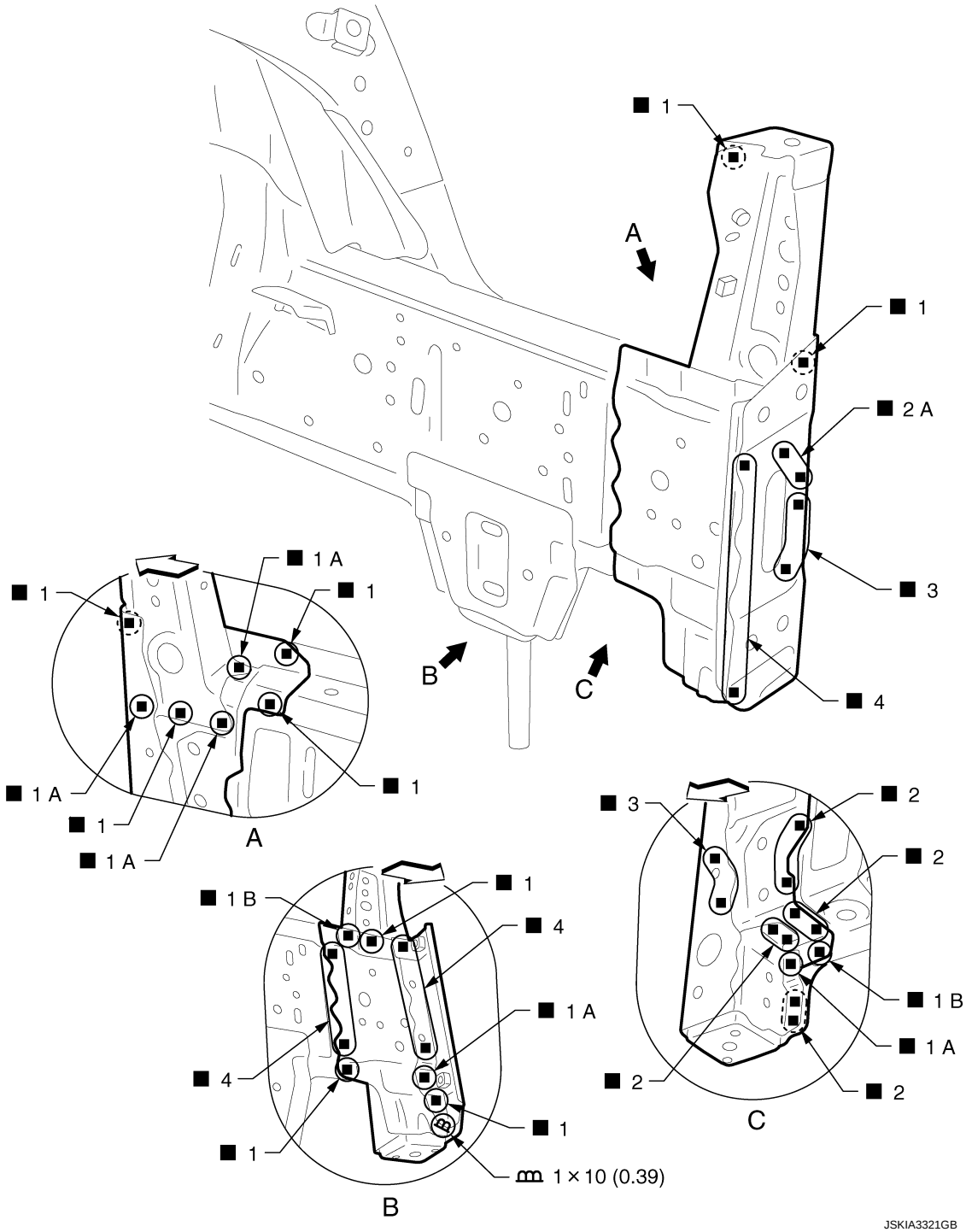
: N·m (kg-m, ft-lb)

View O: Before installing front side member outrigger (reusable)

AWD : Front Side Member (Partial Replacement)

INFOID:0000000011568532

Work after side radiator core support is removed.



Unit: mm (in)

⇦: Vehicle front

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

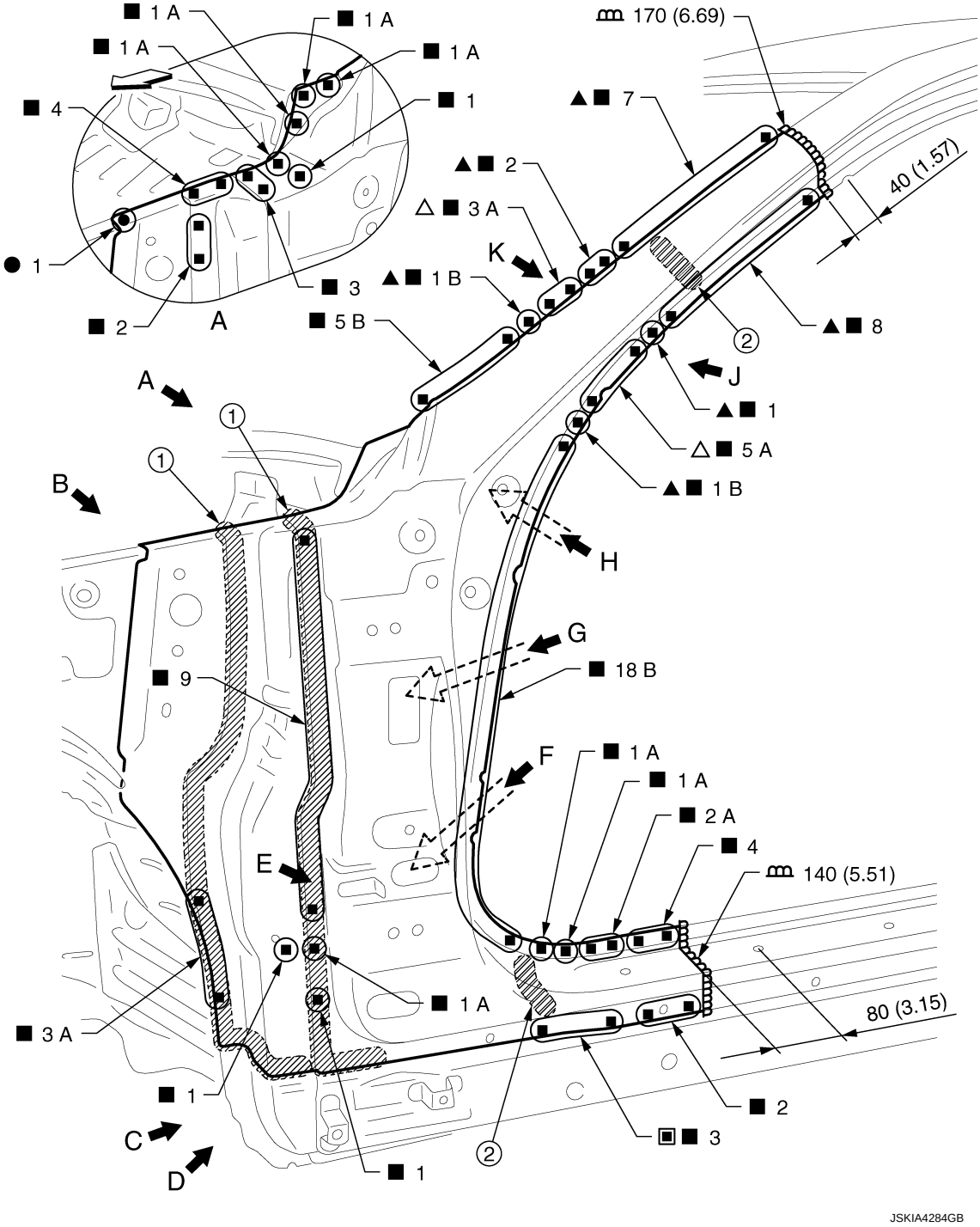
Replacement parts

- Front side member front extension
- Front side member front closing plate
- Add on frame bracket
- Front side member connector assembly
- Bumper reinforcement bracket

AWD : Front Pillar

INFOID:0000000011568533

Work after hoodledge reinforcement is removed.
Remove the upper front pillar reinforcement (reusable).



① Body sealing ② Urethane foam

Unit: mm (in)

⇦: Vehicle front

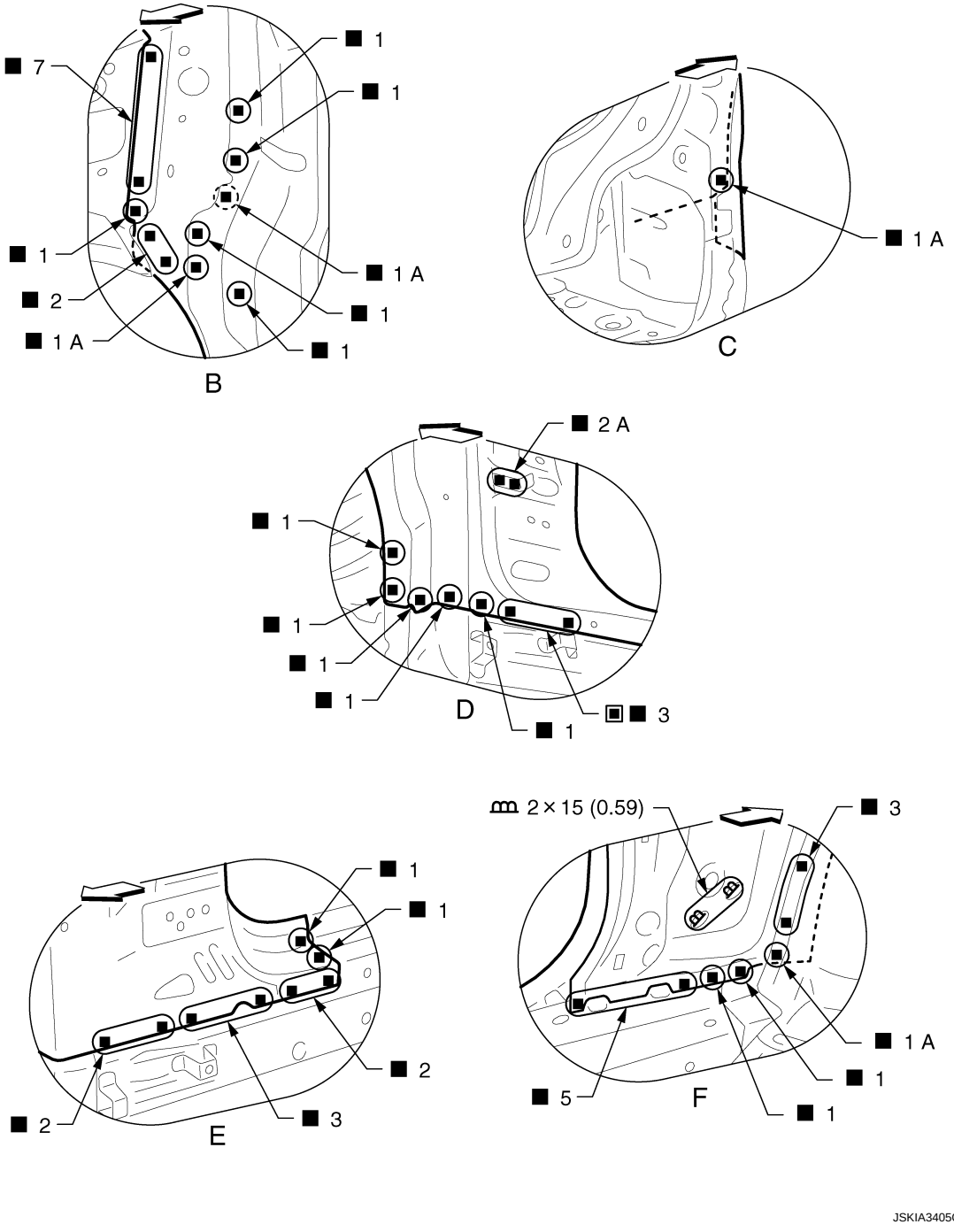
▣: Perform the plug welding instead of the laser welding.

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

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

Replacement parts

- Outer front side body
- Front pillar brace
- Side dash
- Cowl top bracket extension



JSKIA3405GB

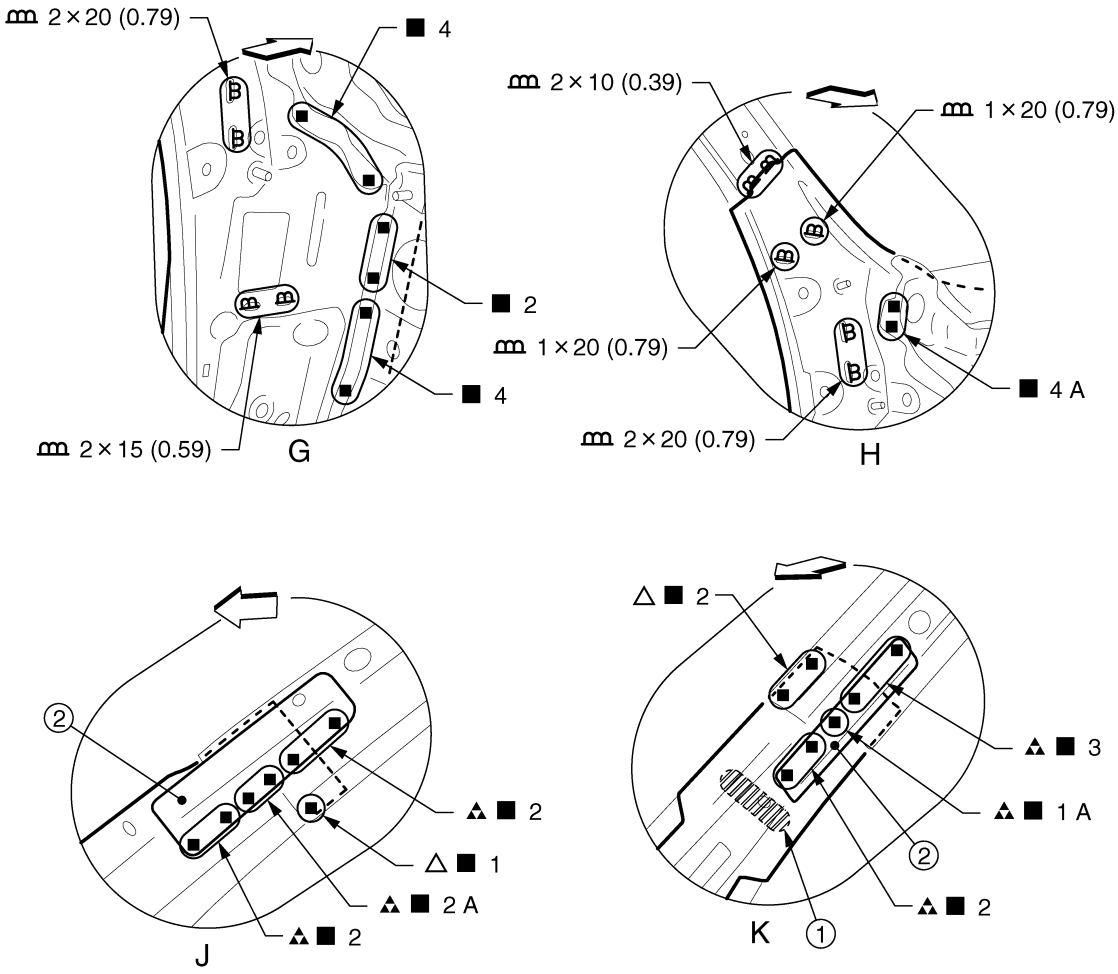
Unit: mm (in)

⇦: Vehicle front

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

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

View E: Before installing outer front side body



JSKIA3324GB

① Urethane foam

② Upper front pillar reinforcement (reusable)

Unit: mm (in)

⇦: Vehicle front

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

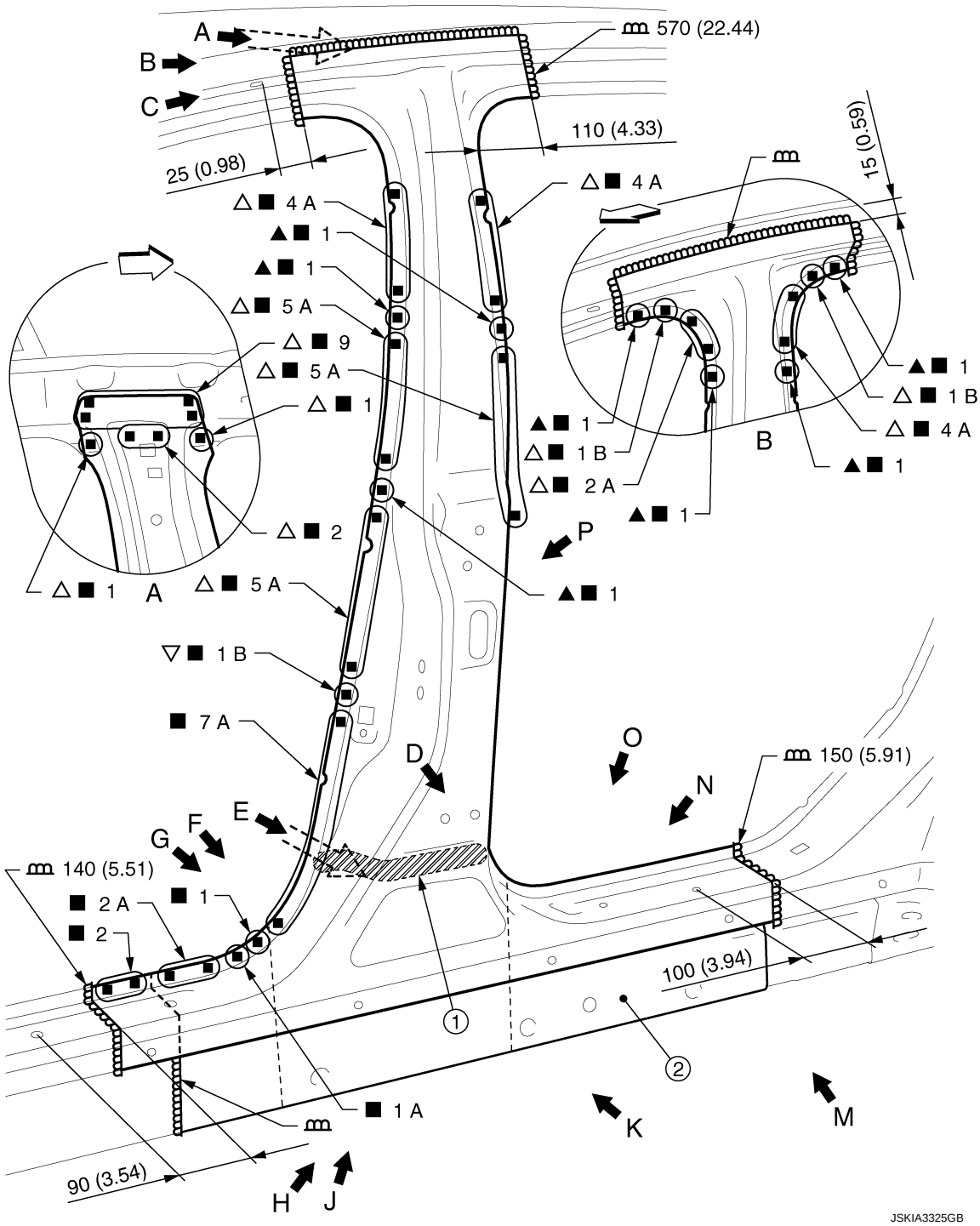
▲: Drill ϕ10 mm (0.39 in) hole for the plug welding hole (ultra high strength steel plate).

View J and K: Before installing outer front side body

AWD : Center Pillar

INFOID:0000000011568534

Remove the outer sill reinforcement (reusable).



① Urethane foam ② Outer sill reinforcement (reusable)

Unit: mm (in)

⇦: Vehicle front

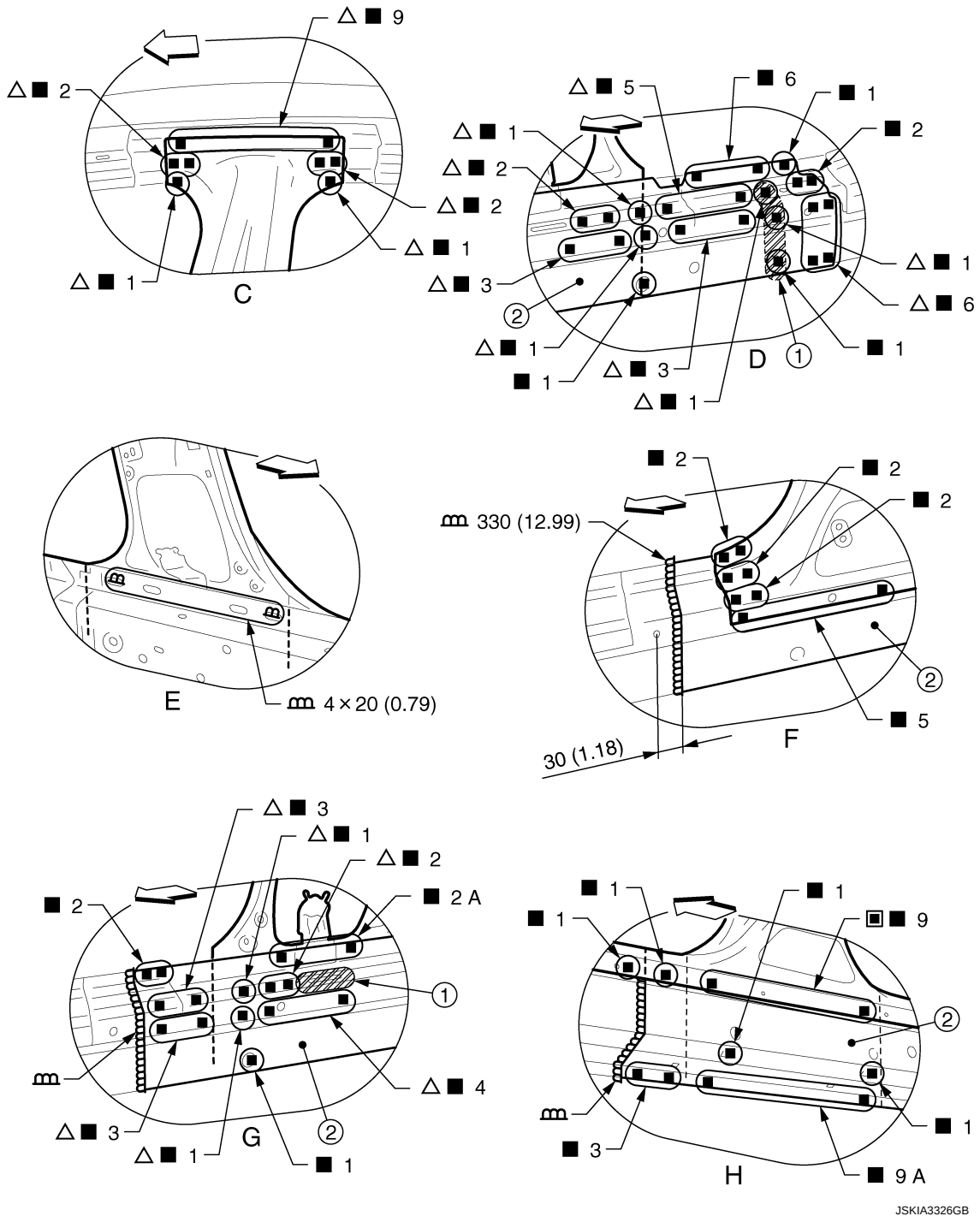
▲: Drill ϕ6 mm (0.24 in) hole for the plug welding hole (ultra high strength steel plate).

△: 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).

Replacement parts

- Outer front side body
- Center pillar reinforcement
- Inner center pillar



① Urethane foam
② Outer sill reinforcement (reusable)

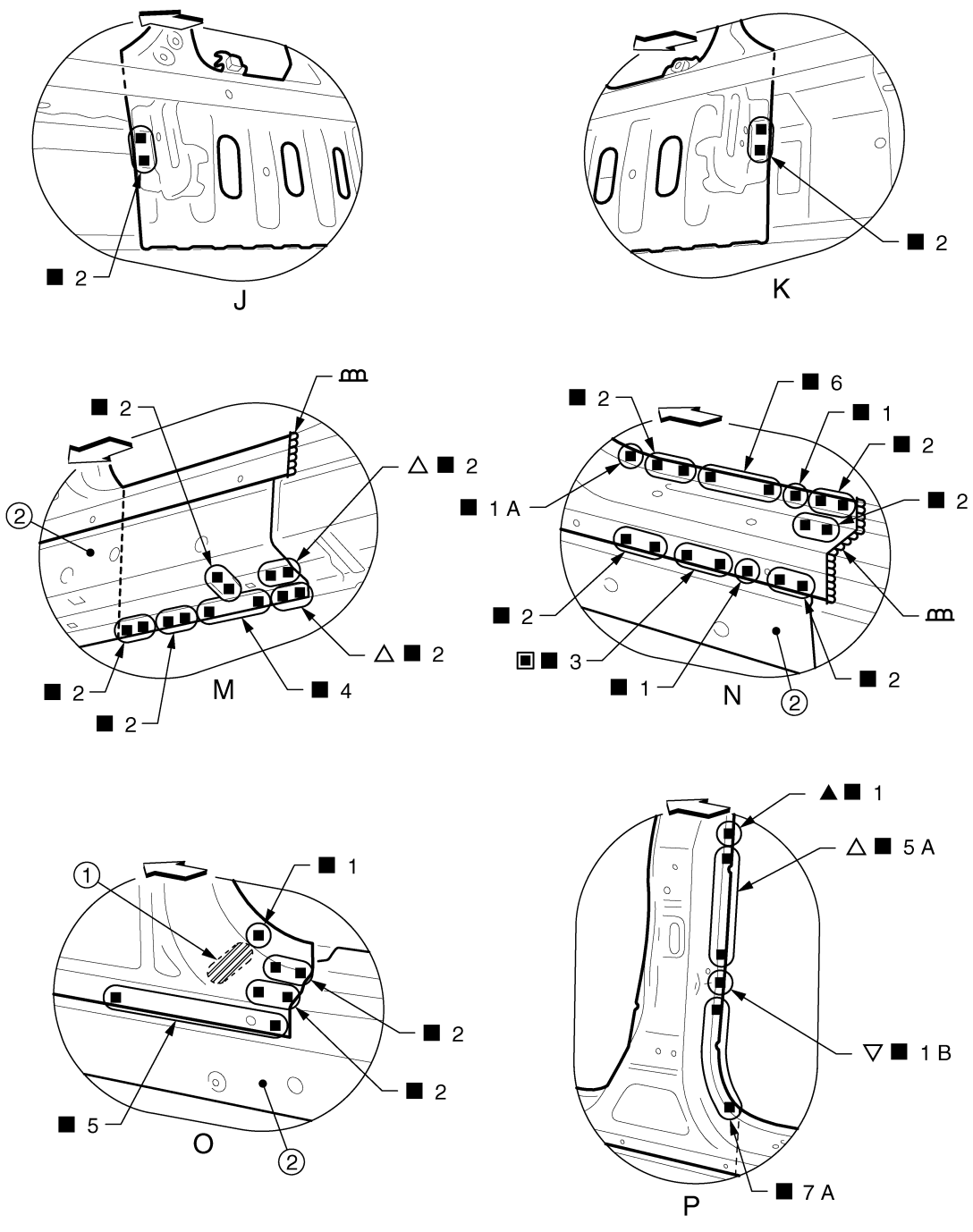
Unit: mm (in)

⇦: Vehicle front

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

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

View C and F: Before installing outer front side body
View D and G: Before installing outer front side body and center pillar reinforcement



JSKIA3327ZZ

① Urethane foam ② Outer sill reinforcement (reusable)

⇦: Vehicle front

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

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

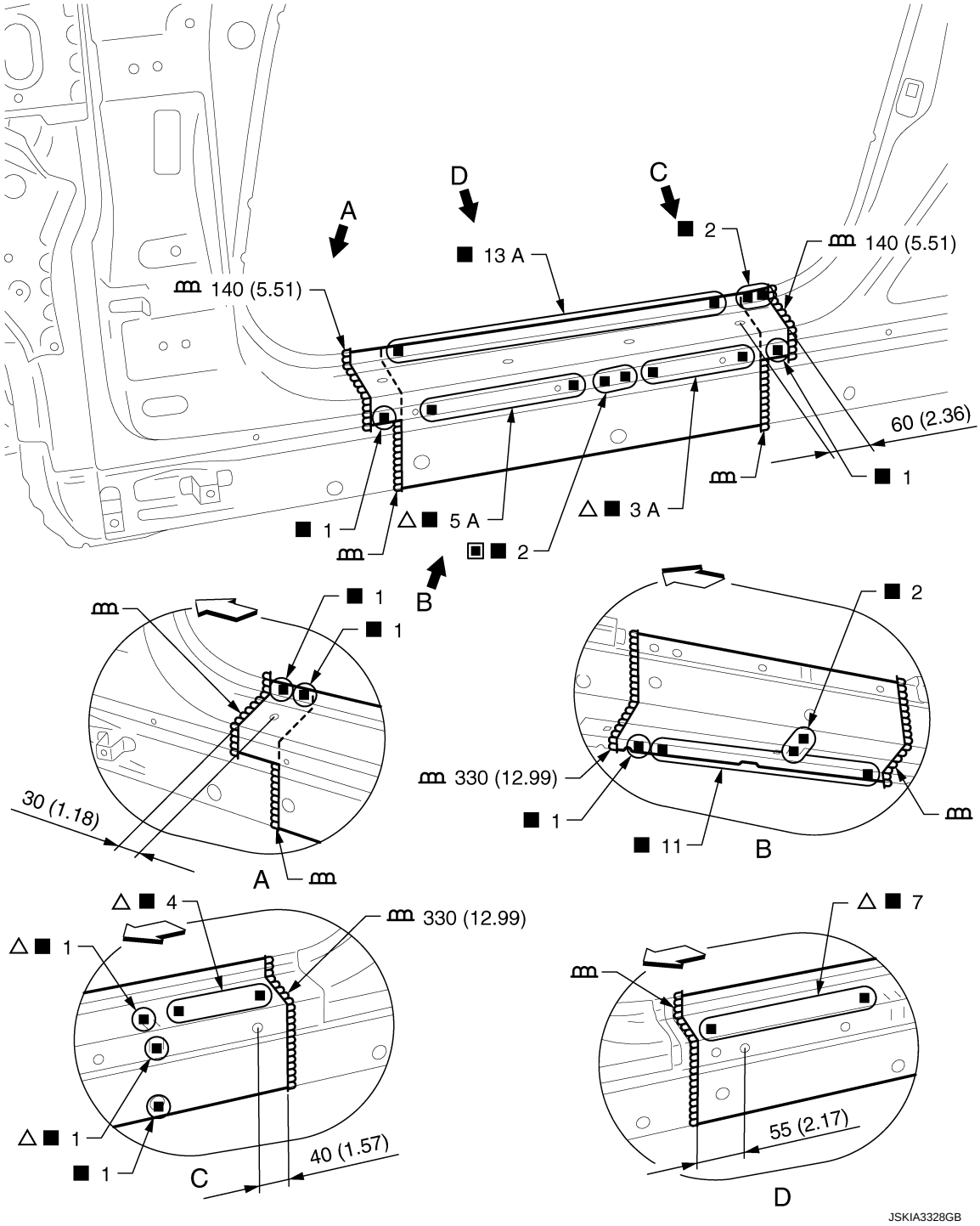
△: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

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

View J and K: Before installing outer front side body, center pillar reinforcement, and outer sill reinforcement (reusable)
View O: Before installing outer front side body

AWD : Outer Sill (Partial Replacement)

INFOID:0000000011568535



Unit: mm (in)

⇦: Vehicle front

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

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

Replacement parts

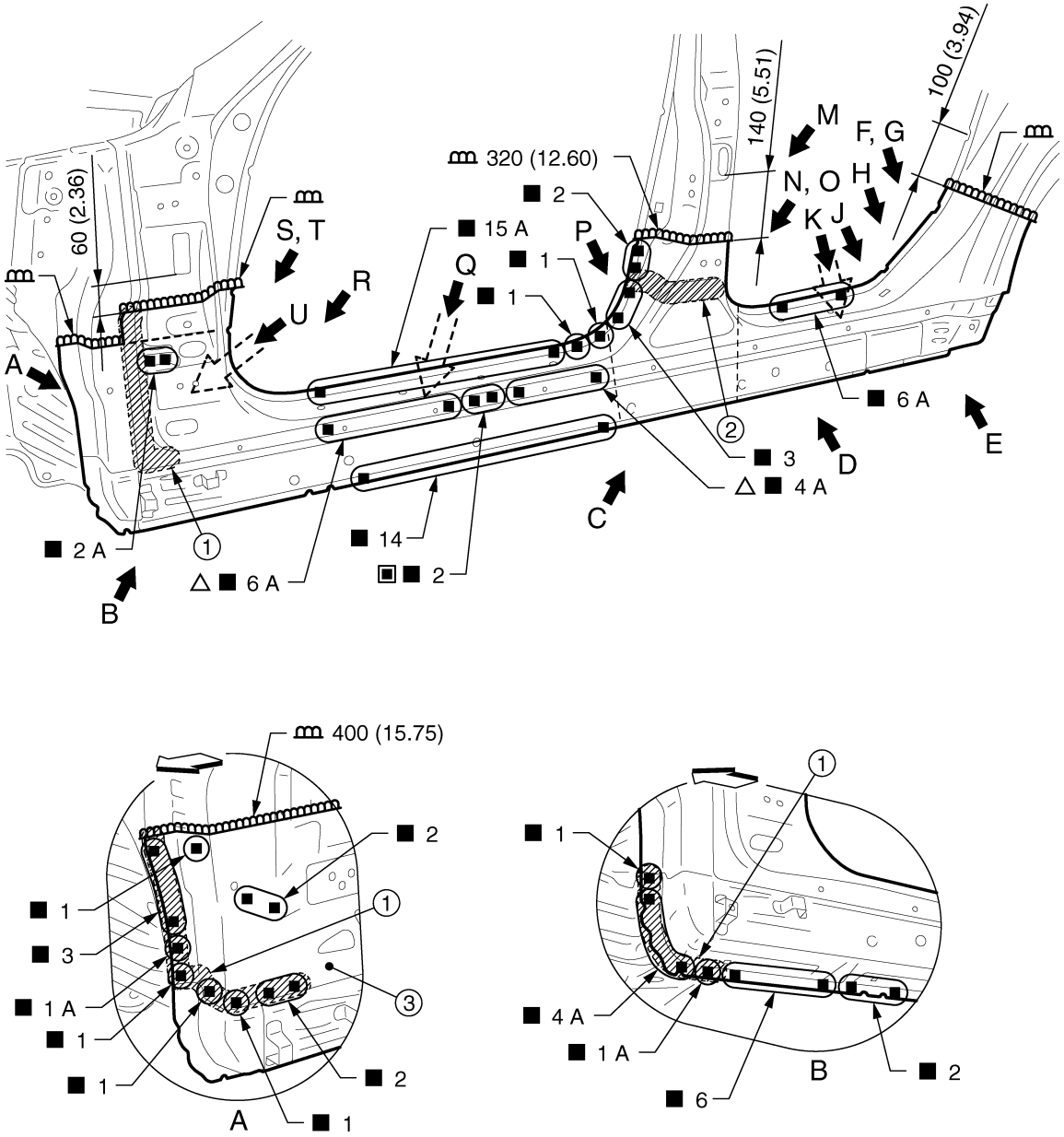
- Outer sill
- Outer sill reinforcement

View B, C, and D: Before installing outer sill

AWD : Outer Sill

INFOID:0000000011568536

Work after hoodledge reinforcement is removed.
Remove the front pillar brace (reusable) and center pillar reinforcement (reusable) for easier installation.



① Body sealing ② Urethane foam ③ Front pillar brace (reusable)

Unit: mm (in)

⇦: Vehicle front

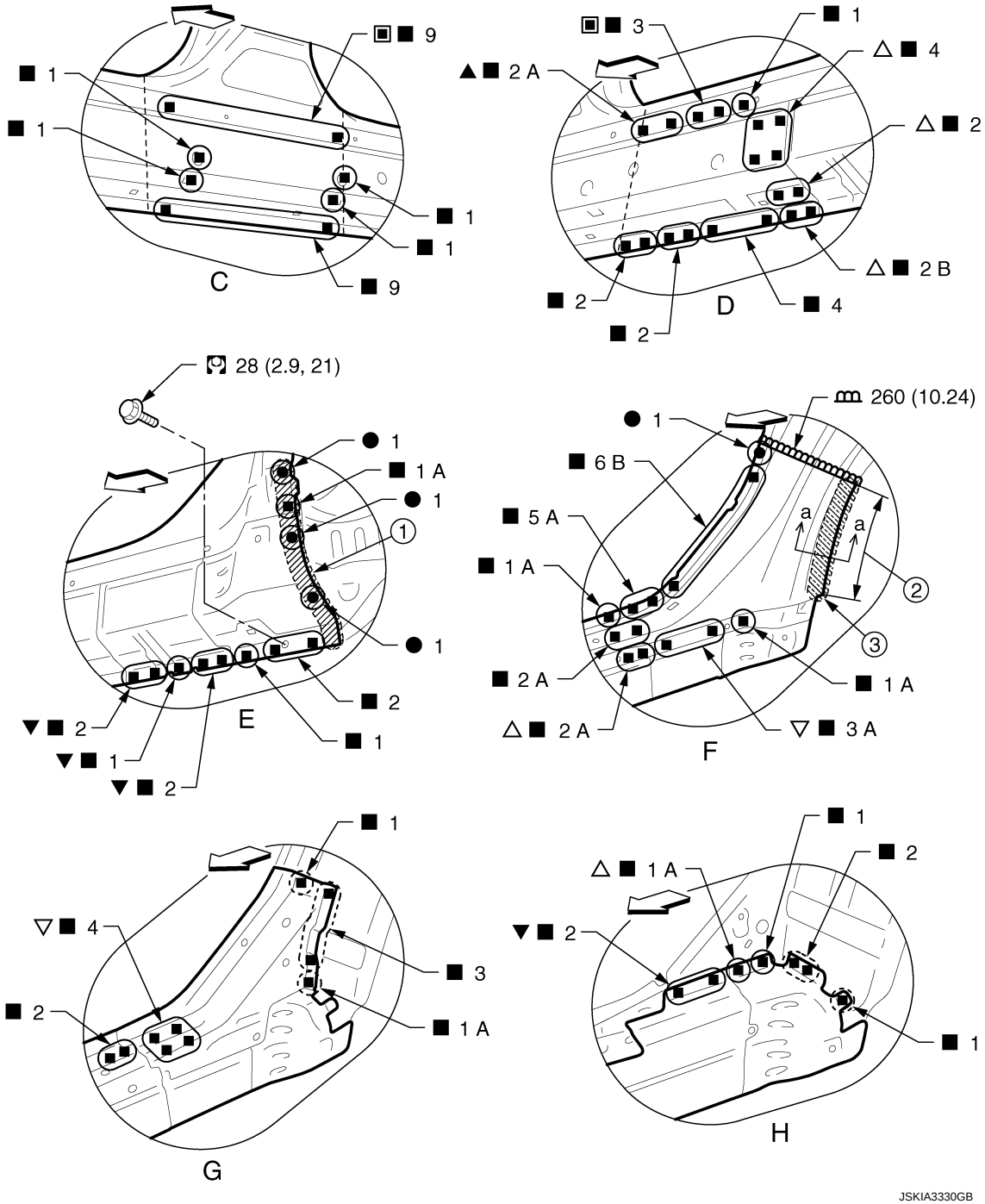
■: Perform the plug welding instead of the laser welding.

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

Replacement parts

- Outer sill
- Outer sill reinforcement
- Outer rear wheelhouse extension (Upper)
- Outer rear wheelhouse extension (Lower)
- Cowl top bracket extension

View A: Before installing outer sill and cowl top bracket extension

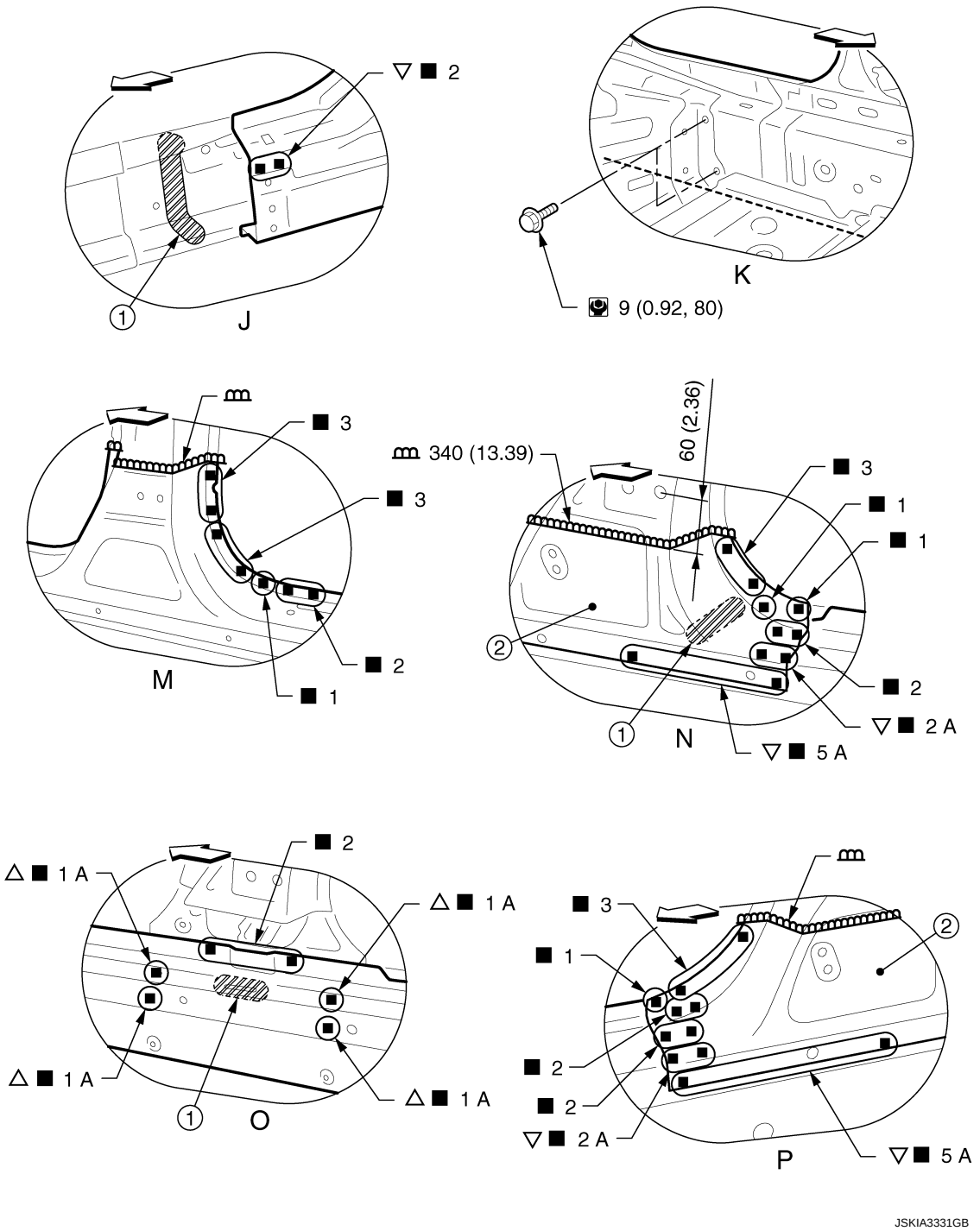


① Body sealing
② Hemming portion
③ Adhesive

Unit: mm (in)

⇦: Vehicle front
■: Perform the plug welding instead of the laser welding.
▲: 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 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.
: N·m (kg-m, ft-lb)

View G: Before installing outer sill
View H: Before installing outer sill, outer sill reinforcement, and outer rear wheelhouse extension (upper)



① Urethane foam

② Center pillar reinforcement (reusable)

Unit: mm (in)

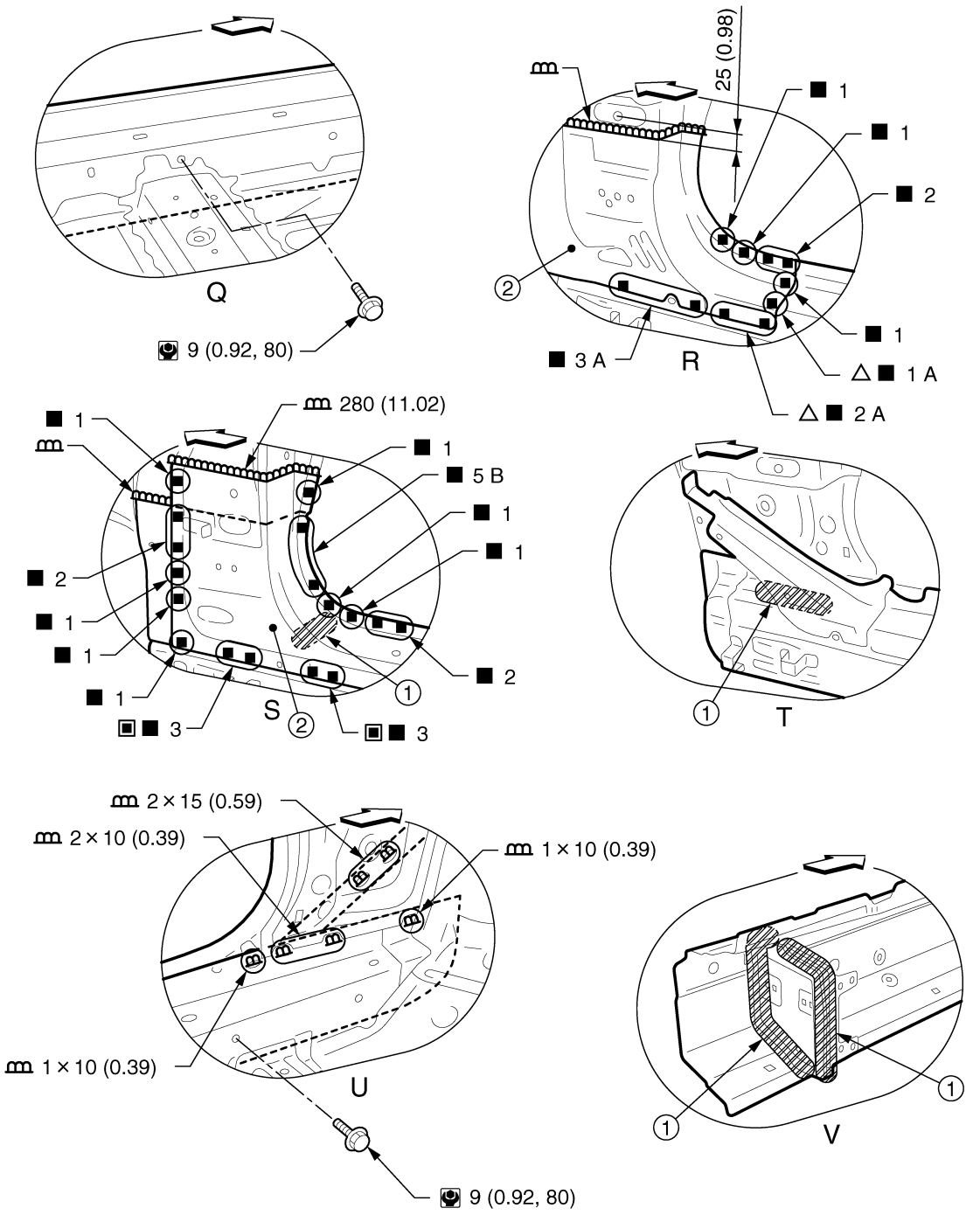
⇦: Vehicle front

△: 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).

: N·m (kg-m, in-lb)

View J: Before installing outer sill and outer sill reinforcement
View N and P: Before installing outer sill
View O: Before installing outer sill and center pillar reinforcement (reusable)



① Urethane foam ② Front pillar brace (reusable)

Unit: mm (in)

⇦: Vehicle front

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

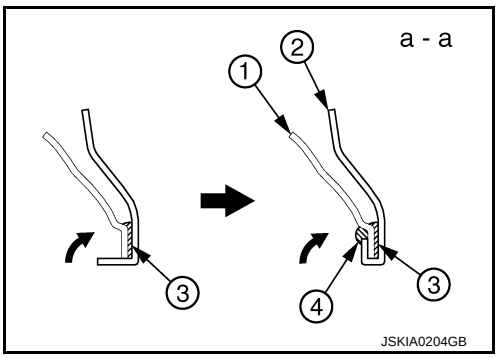
△: Drill ϕ8 mm (0.31 in) hole for the plug welding hole (ultra high strength steel plate).

: N·m (kg-m, in-lb)

View R: Before installing outer sill
View T: Before installing outer sill and front pillar brace (reusable)
View V: Outer sill reinforcement (replacement parts)

POINT

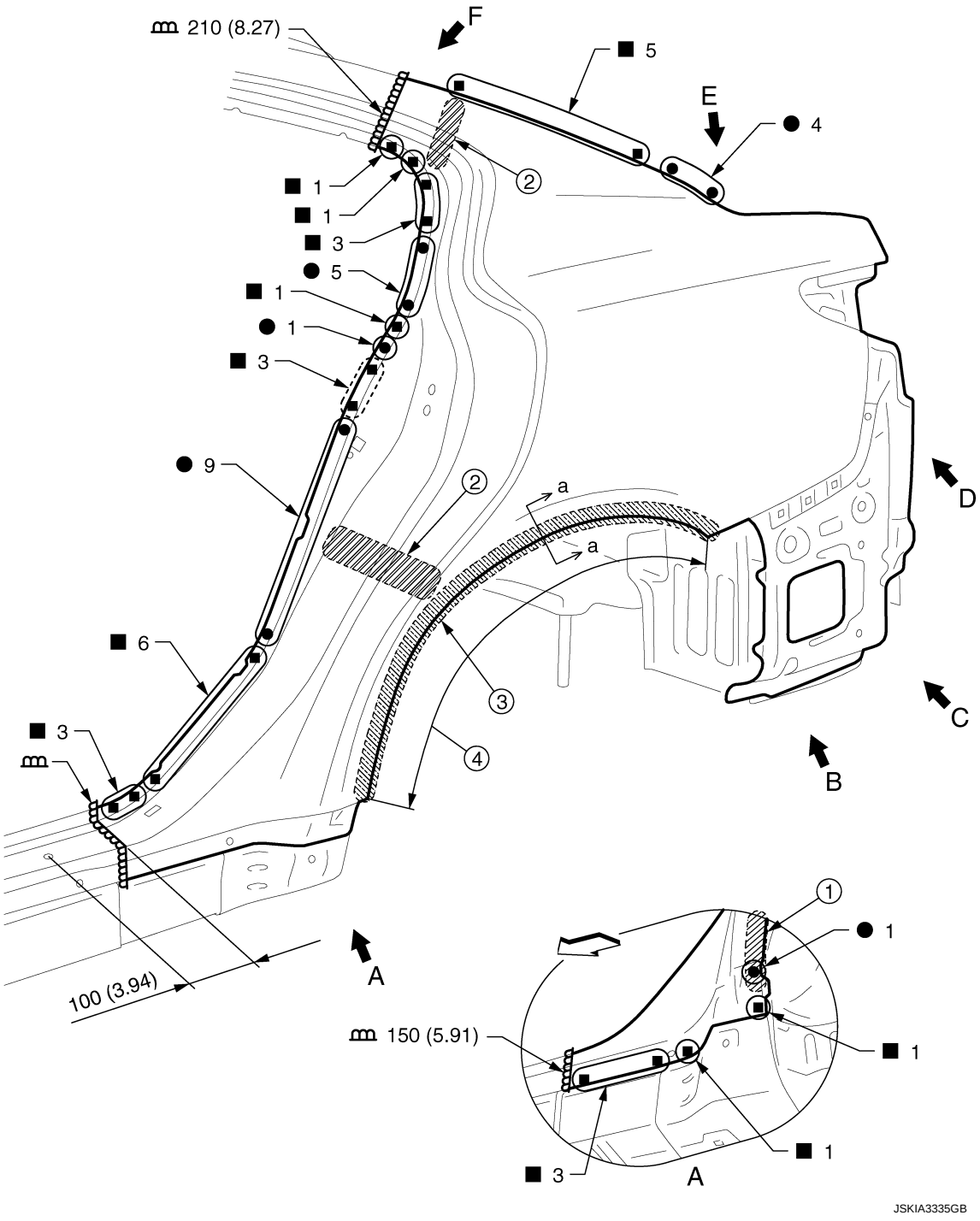
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-35, "Rear Fender Hemming Process".



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

AWD : Rear Fender

INFOID:0000000011568537



① Body sealing ② Urethane foam ③ Adhesive

④ Hemming portion

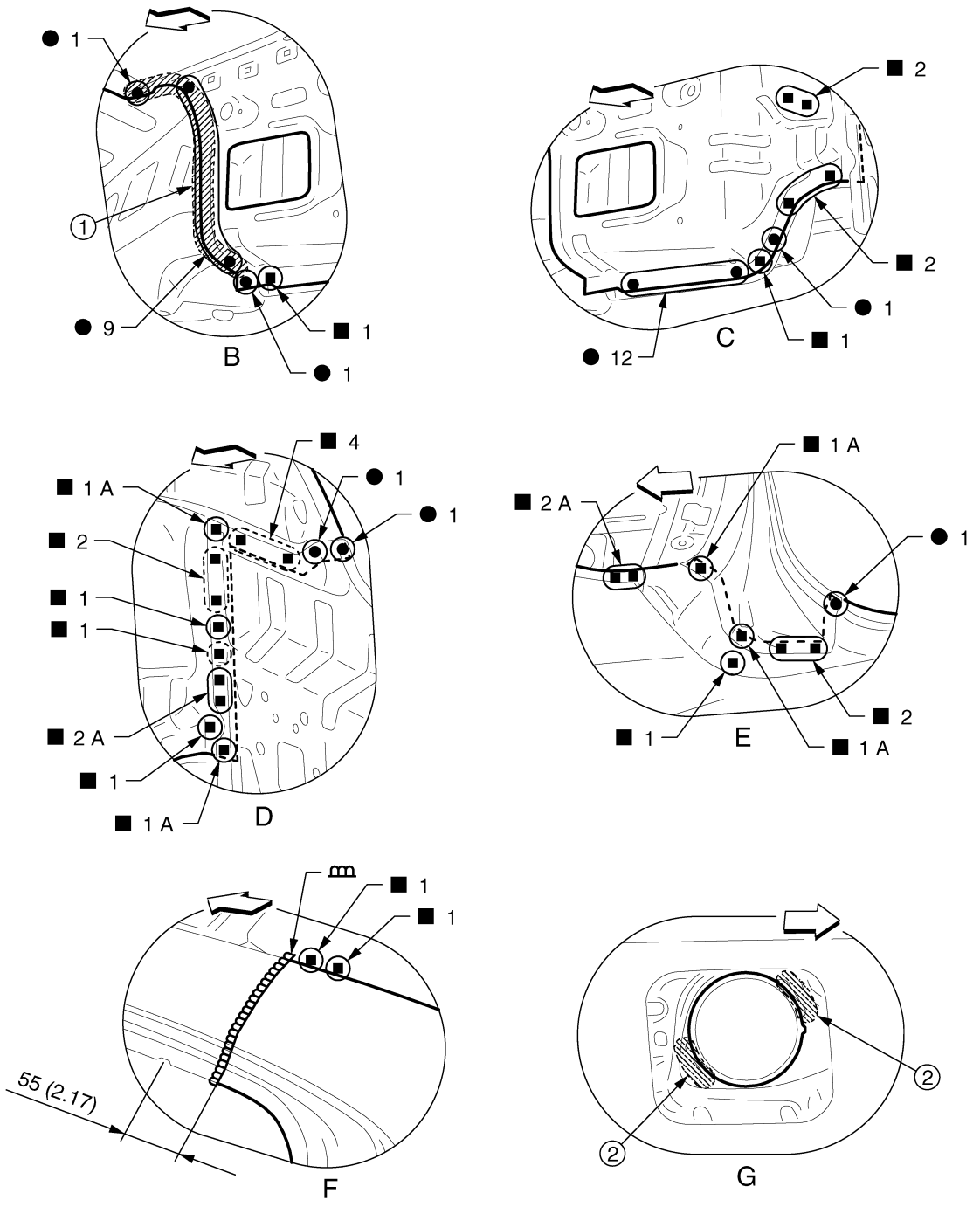
Unit: mm (in)

⇦: Vehicle front

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

Replacement parts

- Rear fender



① Body sealing ② Adhesive

Unit: mm (in)

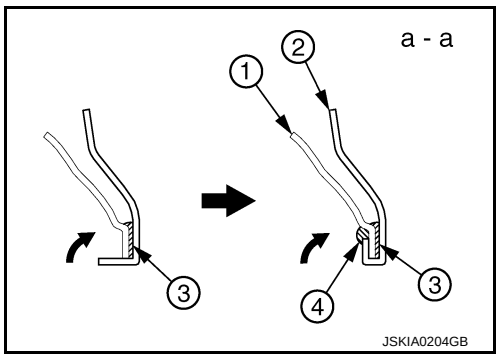
⇦: Vehicle front

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

View G: Right side rear fender

POINT

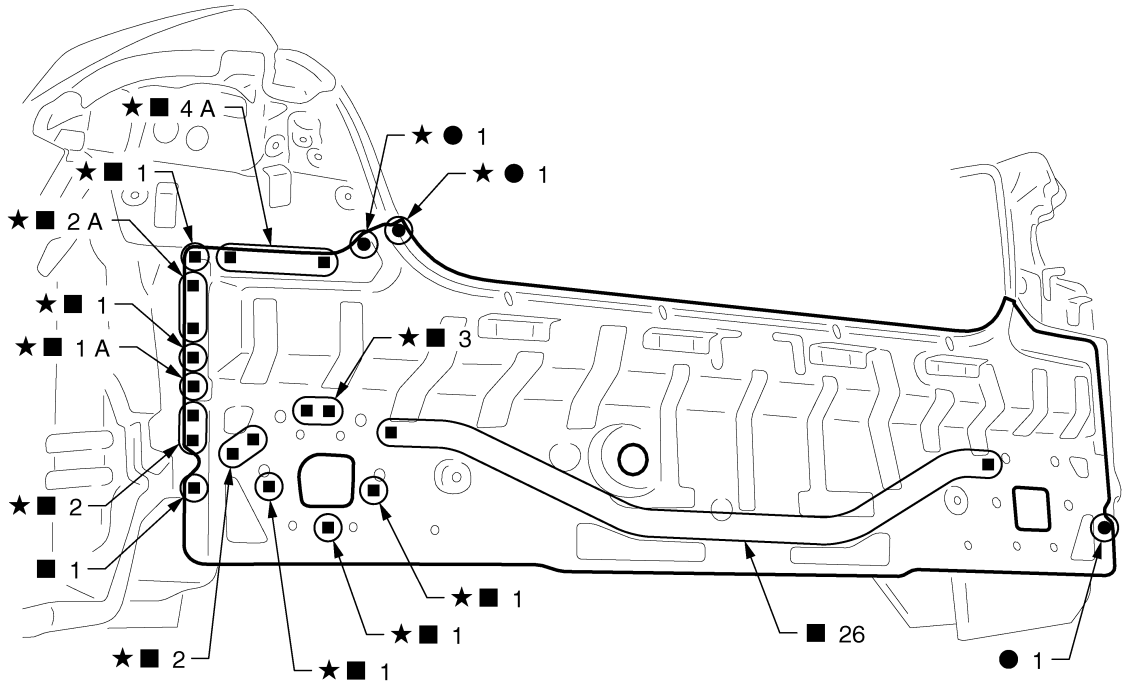
- Perform the hemming to the flange of wheelarch after applying the adhesive.
- Apply the sealing to the flange end.
- Refer to BRM-35, "Rear Fender Hemming Process".



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

AWD : Rear Panel

INFOID:0000000011568538



JSKIA3345ZZ

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

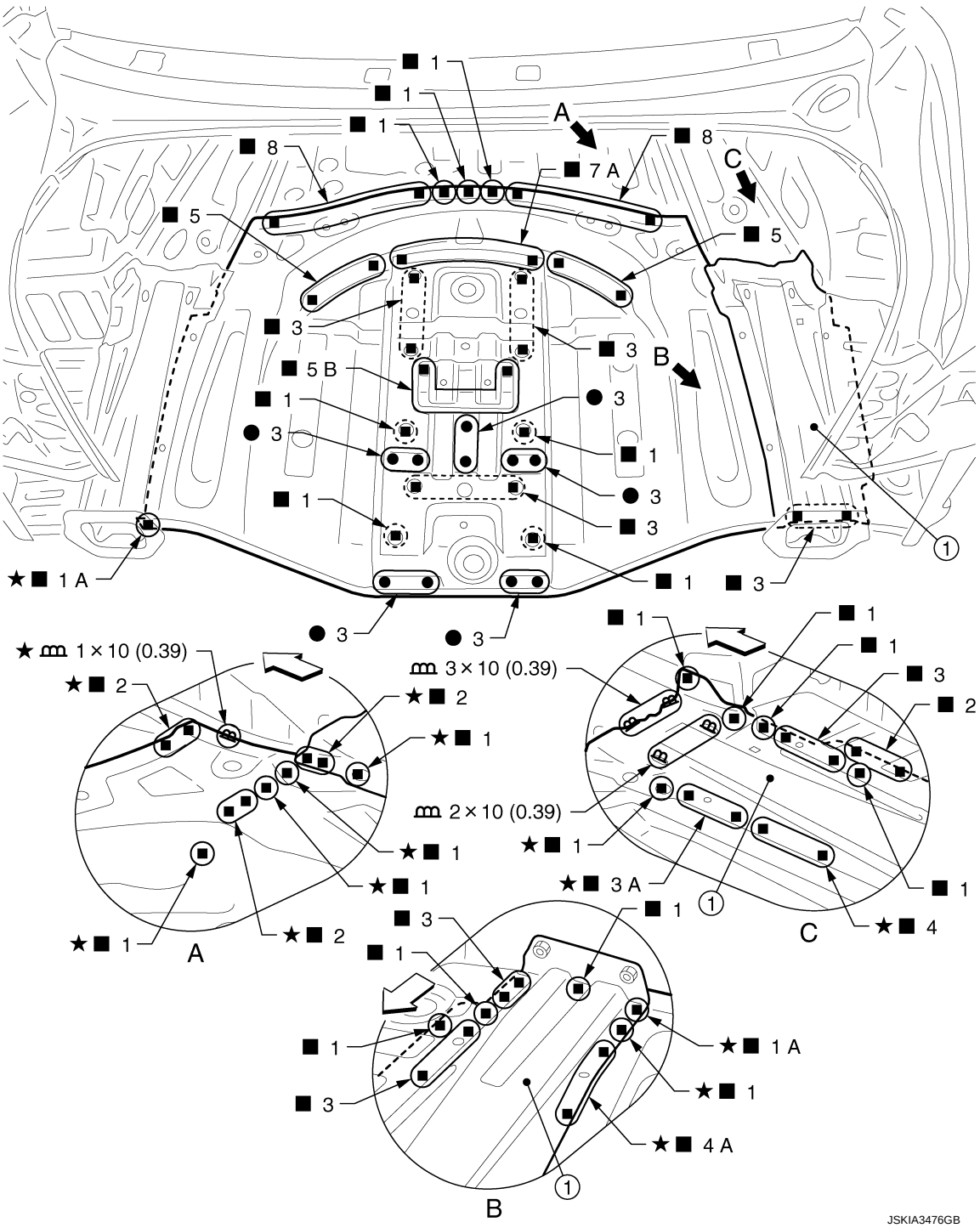
Replacement parts

- Upper rear panel assembly

AWD : Rear Floor Rear

INFOID:0000000011568539

Work after rear panel is removed.
Remove the rear floor rear side (reusable).



① Rear floor rear side (reusable)

Unit: mm (in)

⇦: Vehicle front

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

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

Replacement parts

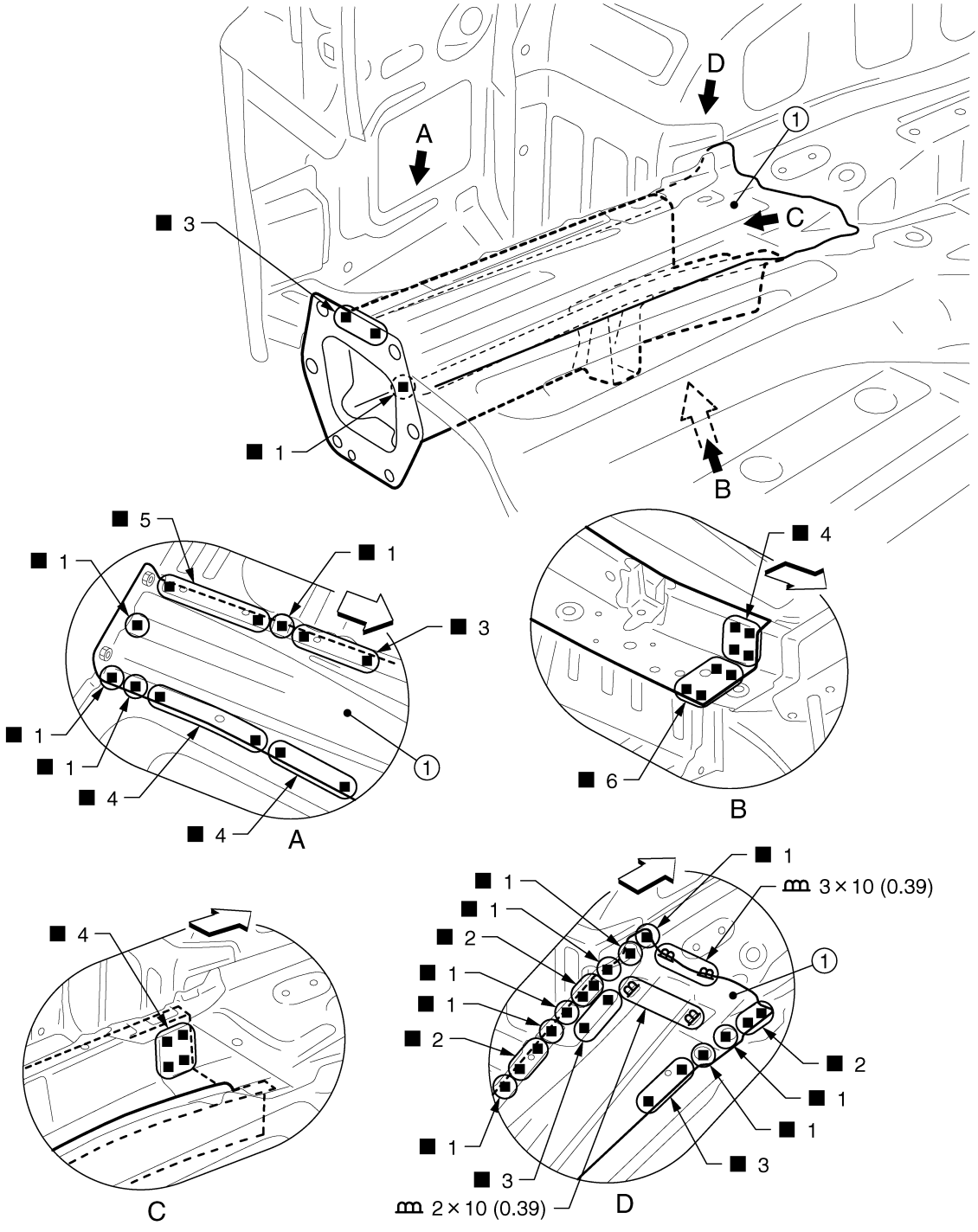
- Rear floor rear
- Spare wheel clamp reinforcement

AWD : Rear Side Member Extension

INFOID:0000000011568540

Work after rear panel is removed.

Remove the rear floor rear side (reusable).



① Rear floor rear side (reusable)

Unit: mm (in)

⇦: Vehicle front

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

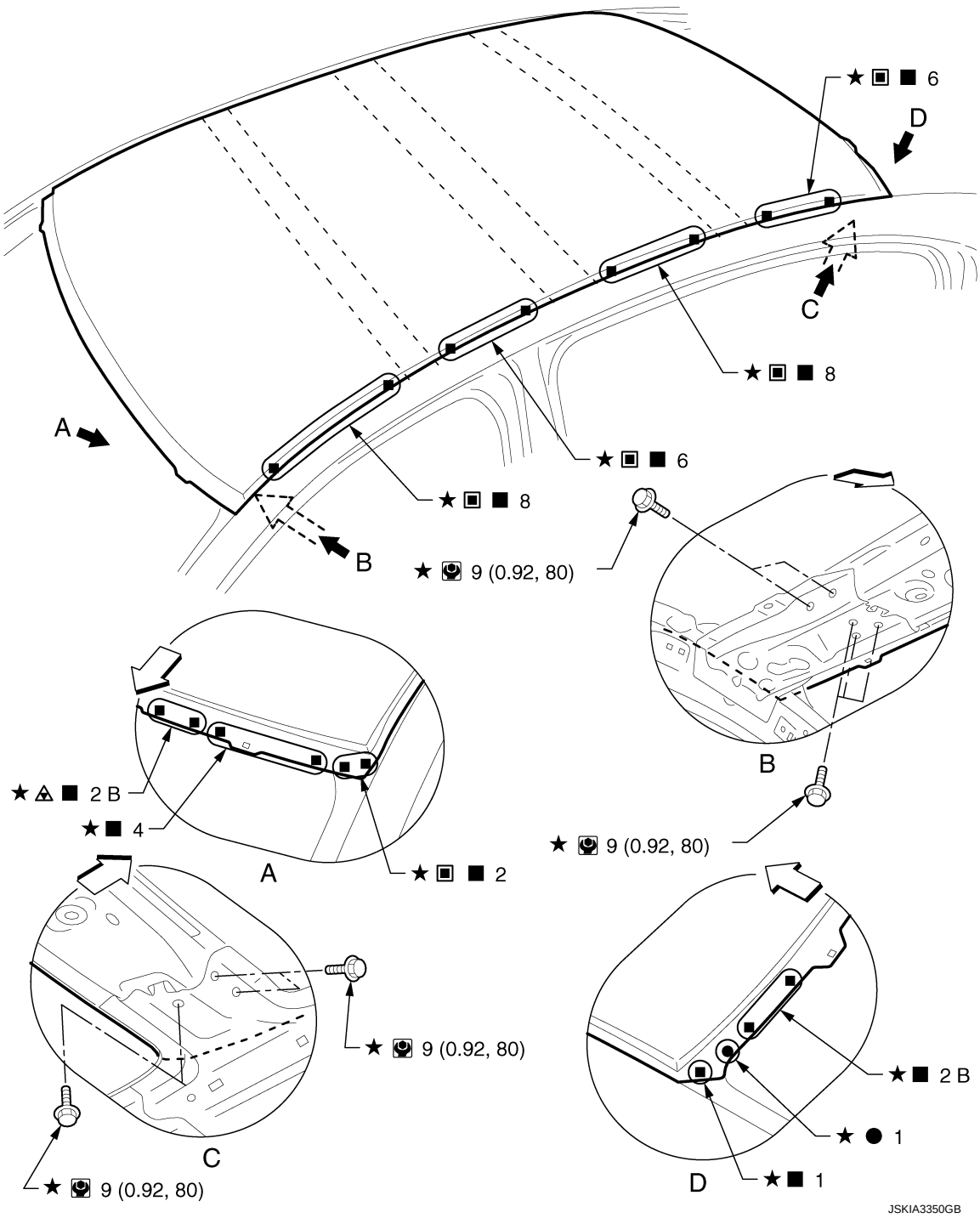
Replacement parts

- Rear side member extension

View C: Before installing rear floor rear side (reusable)

AWD : Roof

INFOID:0000000011568564



⇦: Vehicle front

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

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

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

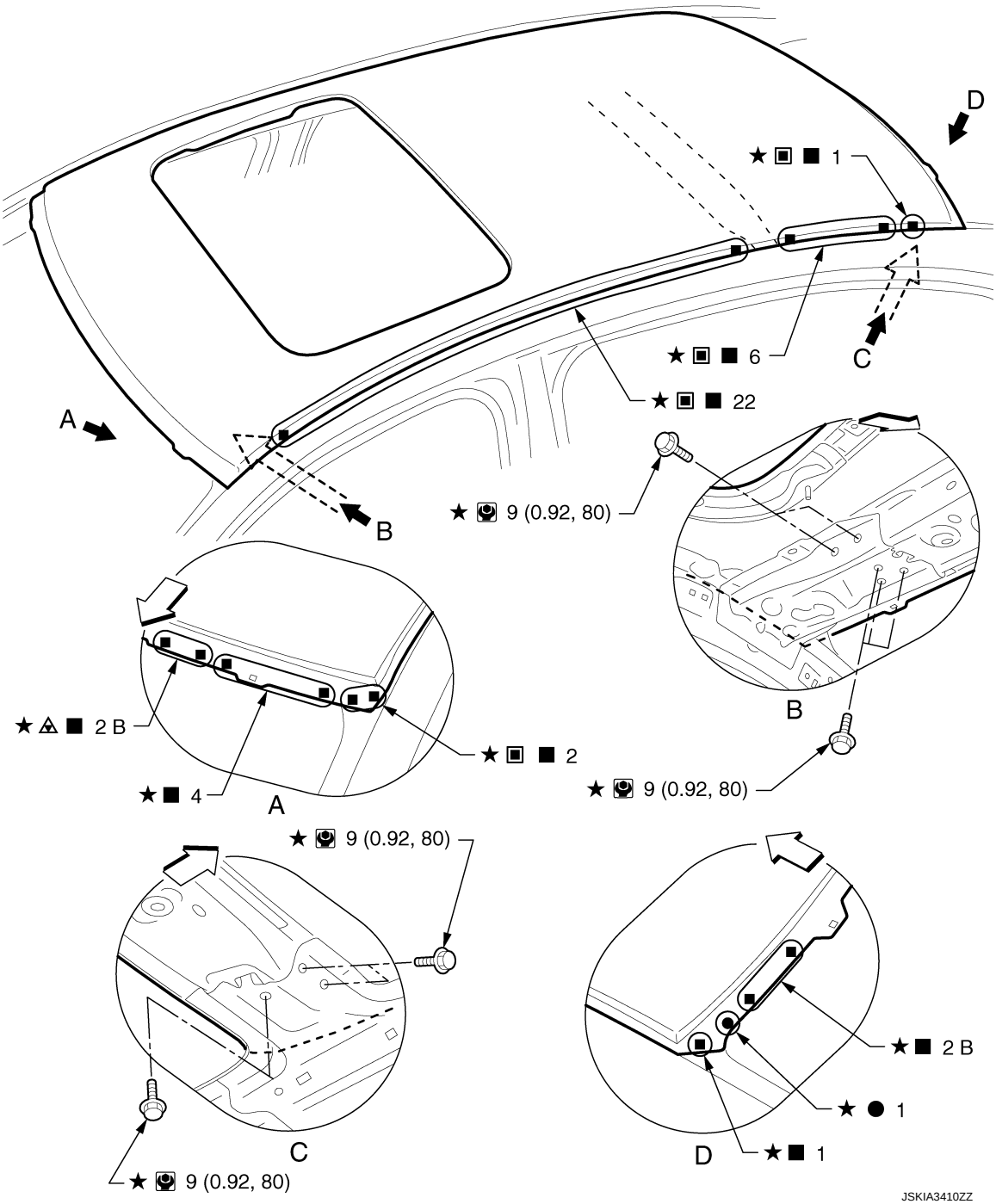
: N·m (kg-m, in-lb)

Replacement parts

- Roof assembly

AWD : Roof (Sunroof)

INFOID:0000000011568565



⇦: Vehicle front

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

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

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

: N·m (kg-m, in-lb)

Replacement parts

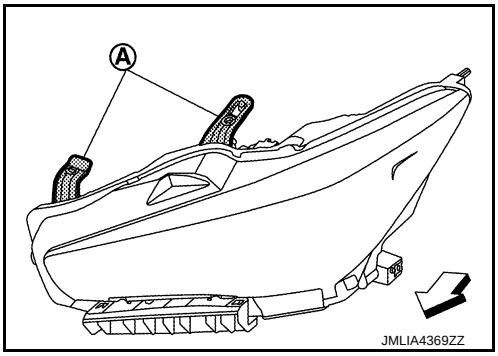
- Roof assembly

FRONT COMBINATION LAMP

Installing service bracket

INFOID:0000000011568572

If only part Ⓐ as shown in the figure is damaged, and front combination lamp housing itself is not damaged, repair can be completed easily by installing service brackets.



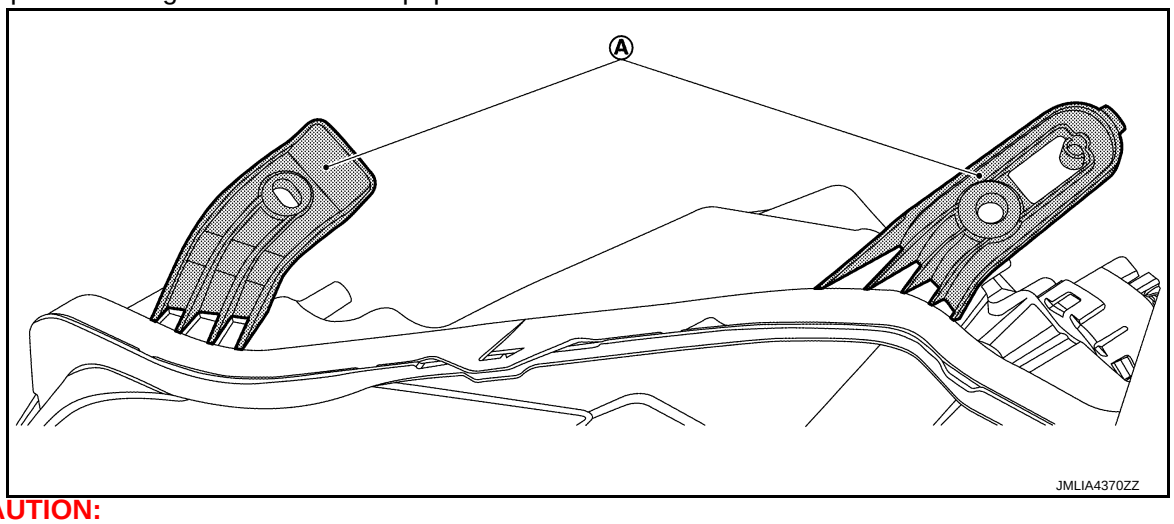
⇦ : Vehicle front

CAUTION:

- **Installation of service bracket is possible only if part Ⓐ is damaged.**
- **If front combination housing or other part of front combination lamp except part Ⓐ is damaged, replace front combination lamp assembly.**

Removal

1. Remove front combination lamp. Refer to EXL-169, "Removal and Installation".
2. If part Ⓐ is damaged, cut the whole part from fixing section to the front combination lamp housing, then shape the cutting surface with sandpaper.

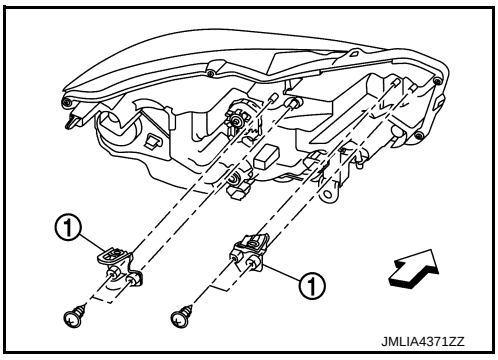


CAUTION:

Be careful to not shape the cutting surface more than necessary, and shape while adjusting with the new service brackets to be installed.

Installation

Install service brackets ① to front combination lamp housing with screws.



⇦ : Vehicle front

SERVICE DATA AND SPECIFICATIONS (SDS)

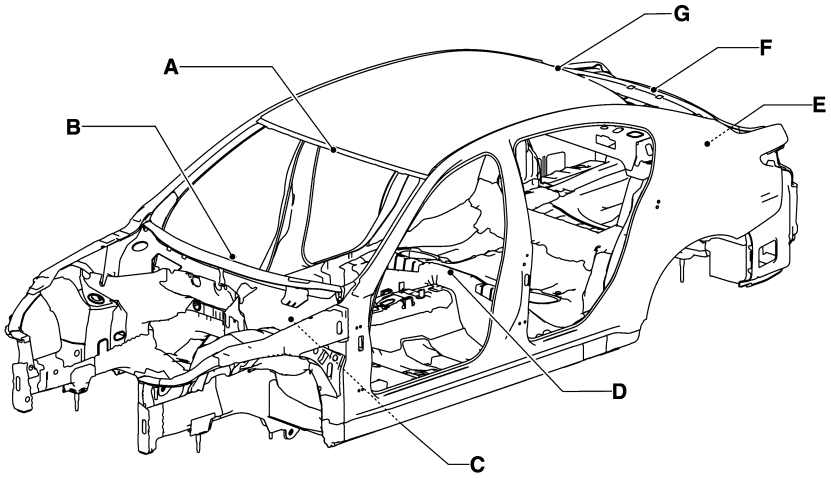
BODY ALIGNMENT

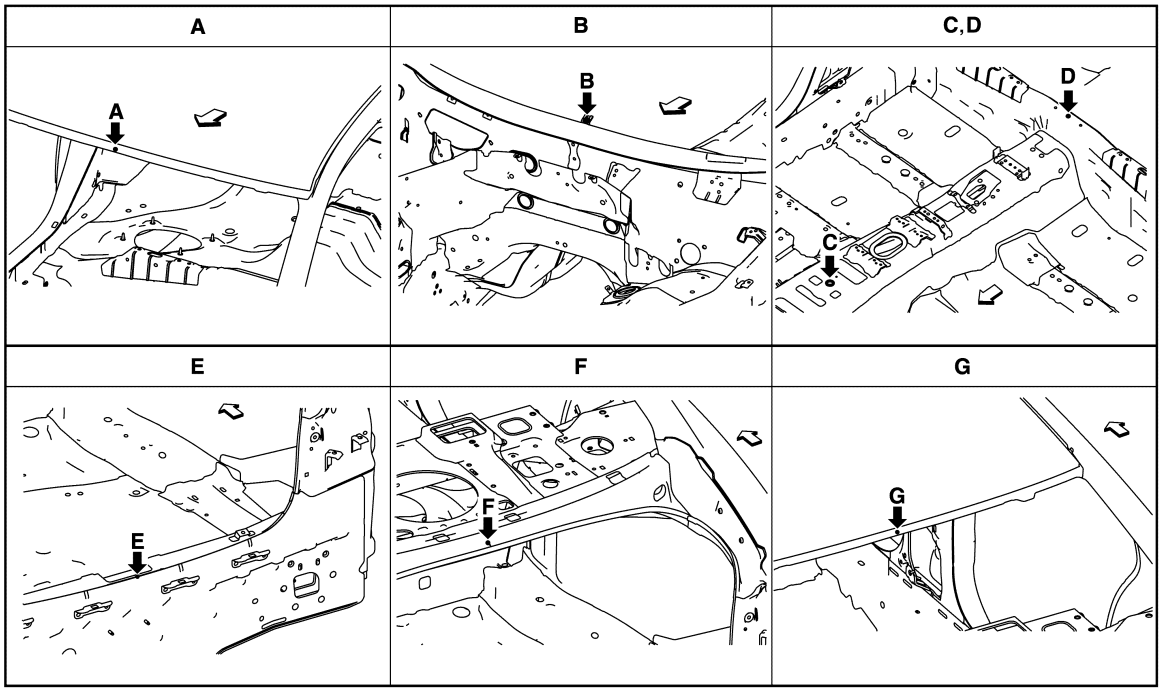
2WD

2WD : Body Center Marks

INFOID:0000000011568541

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.





JSKIA3275ZZ

⇦: Vehicle front

Unit: mm (in)

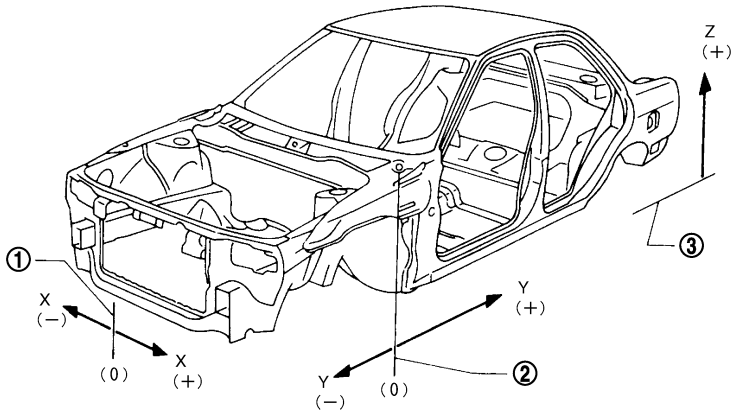
Points	Portion	Marks
A	Front roof	Embossment
B	Upper dash	Hole ϕ8 (0.31)
C	Trans control reinforcement	Hole 14×12 (0.55×0.47)

Points	Portion	Marks
D	Rear seat crossmember reinforcement	Hole ϕ5 (0.20)
E	Upper rear panel	Indent
F	Rear waist	Bead
G	Rear roof	Embossment

2WD : Description

INFOID:0000000011568542

- 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

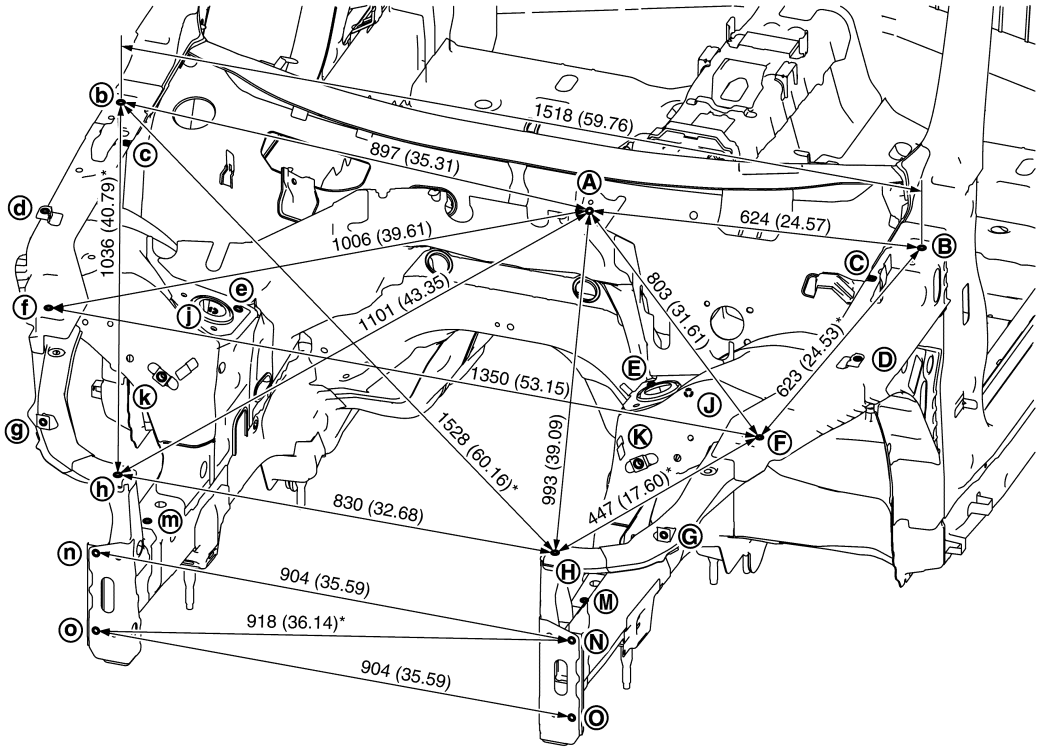
① Vehicle center ② Front axle center ③ Imaginary base line

2WD : Engine Compartment

INFOID:0000000011568543

MEASUREMENT

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



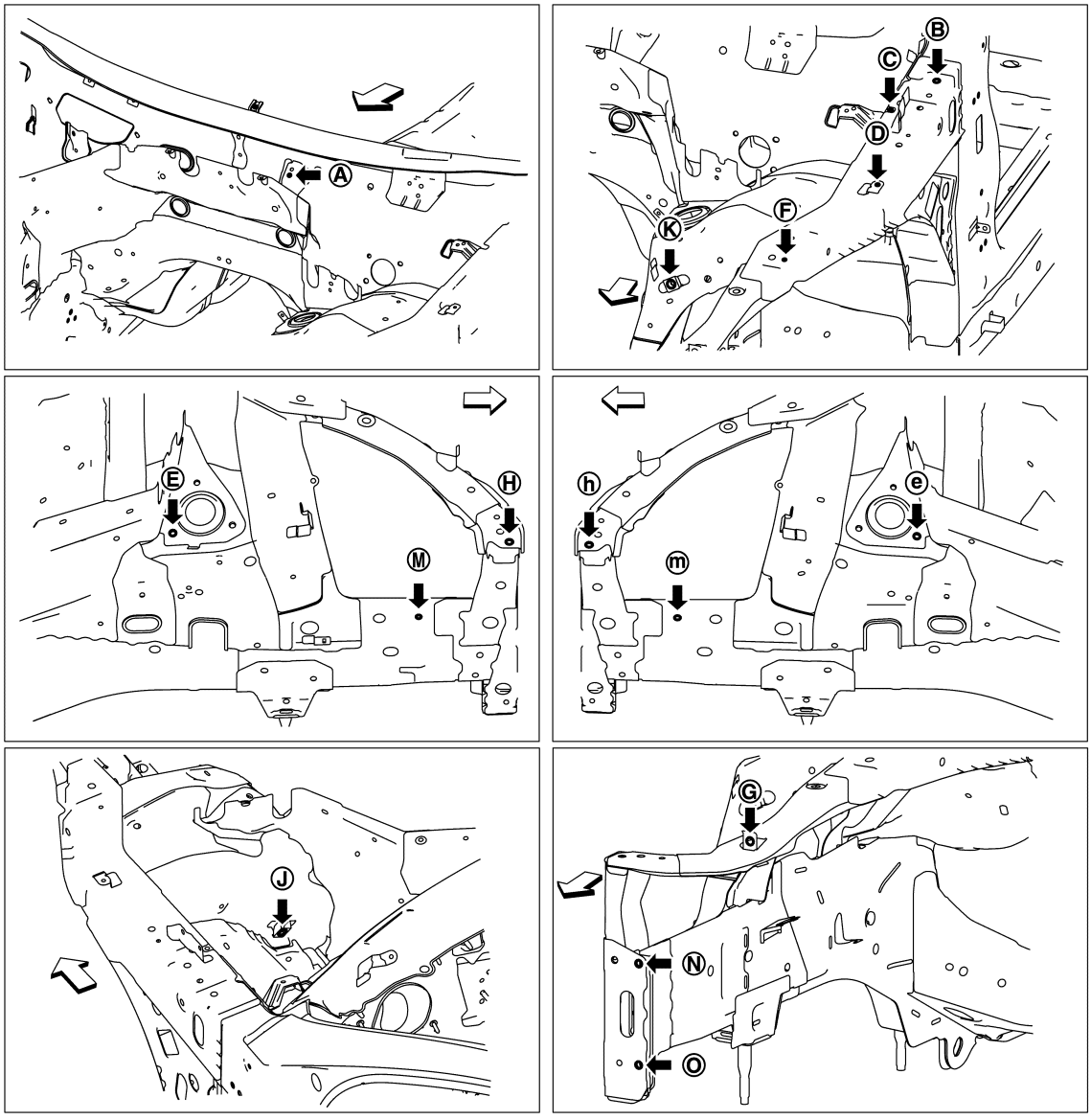
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓐ – Ⓒ	580 (22.83)		Ⓑ – Ⓔ	558 (21.97)*		Ⓔ – ⓔ	786 (30.94)	
Ⓐ – ⓒ	850 (33.46)		Ⓑ – ⓔ	1227 (48.31)*		Ⓔ – ⓗ	985 (38.78)*	
Ⓐ – Ⓓ	722 (28.43)		Ⓑ – ⓕ	1561 (61.46)*		Ⓔ – ⓜ	934 (36.77)*	
Ⓐ – ⓓ	971 (38.23)		Ⓑ – Ⓙ	488 (19.21)*		Ⓕ – ⓗ	1149 (45.24)*	
Ⓐ – Ⓔ	469 (18.46)		Ⓒ – ⓒ	1416 (55.75)		Ⓖ – ⓖ	1179 (46.42)	
Ⓐ – ⓔ	659 (25.94)		Ⓒ – Ⓕ	504 (19.84)*		Ⓖ – Ⓗ	197 (7.76)*	
Ⓐ – Ⓖ	975 (38.39)		Ⓒ – ⓕ	1472 (57.95)*		Ⓖ – Ⓝ	254 (10.00)*	
Ⓐ – ⓖ	1128 (44.41)		Ⓒ – Ⓗ	912 (35.91)*		Ⓙ – ⓙ	903 (35.55)	
Ⓐ – Ⓜ	898 (35.35)		Ⓒ – ⓗ	1417 (55.79)*		Ⓚ – ⓚ	903 (35.55)	
Ⓐ – ⓜ	1017 (40.04)		Ⓓ – ⓓ	1544 (60.79)		Ⓜ – ⓜ	833 (32.80)	

MEASUREMENT POINTS



JSKIA3277ZZ

⇦: Vehicle front

Unit: mm (in)

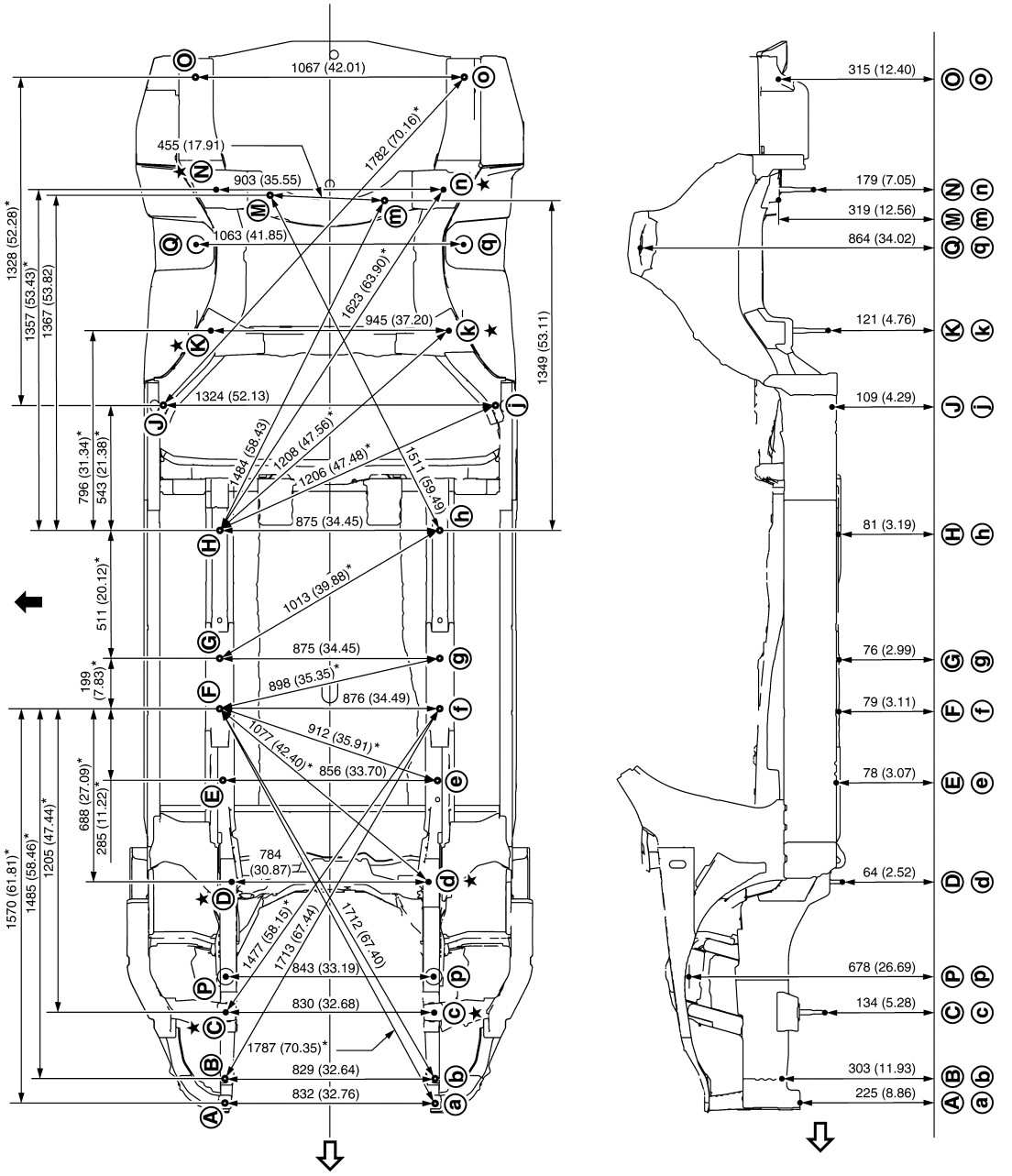
Point	Material	Point	Material
Ⓐ	Wiper mounting bracket hole center ϕ7 (0.28)	Ⓕ ⓕ	Hoodledge reinforcement hole center ϕ6 (0.24)
Ⓑ ⓑ	Hood hinge installing hole center ϕ12 (0.47)	Ⓗ ⓗ	Side radiator core support hole center ϕ12 (0.47)
Ⓒ ⓒ	Upper hoodledge hole center ϕ8 (0.31)	Ⓙ ⓙ Ⓚ ⓚ	Nut holder hole center ϕ16 (0.63)
Ⓓ ⓓ Ⓖ ⓖ	Front fender installing hole center Ⓓ ⓓ: ϕ7 (0.28) Ⓖ ⓖ: ϕ12 (0.47)	Ⓜ ⓜ	Front side member hole center ϕ7 (0.28)
Ⓔ ⓔ	Front strut installing hole center ϕ11 (0.43)	Ⓝ ⓝ Ⓞ ⓞ	Front bumper stay installing hole center ϕ11 (0.43)

2WD : Underbody

INFOID:0000000011568544

MEASUREMENT

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



JSKIA3278GB

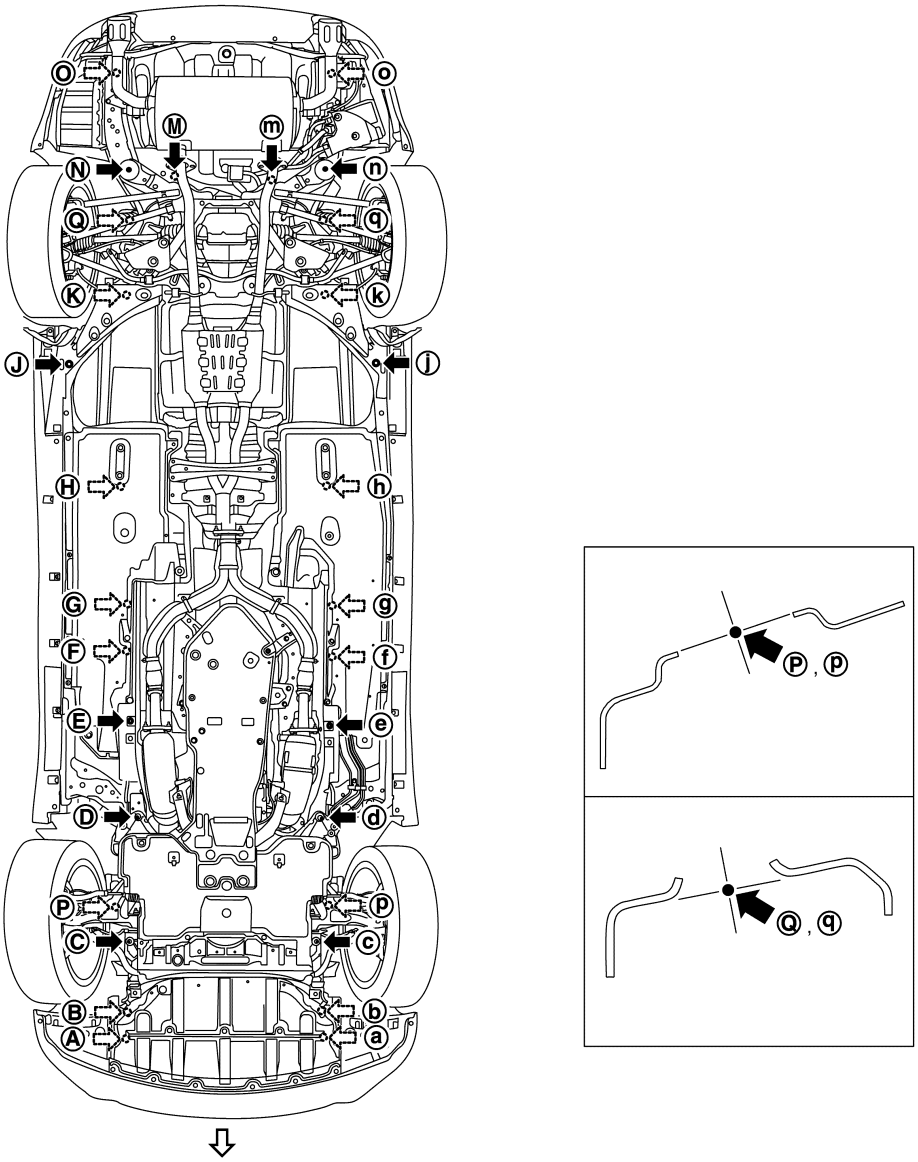
Unit: mm (in)

⇦: Vehicle front

⬅: Vehicle left side

★: Bolt head

MEASUREMENT POINTS



JSKIA3279ZZ

⇦: Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓐ ⓐ	±415.8 (±16.370)	−463.0 (−18.228)	224.6 (8.843)	Hole ϕ13 (0.51)	Ⓙ ⓙ	±662.0 (±26.063)	2304.0 (90.708)	108.5 (4.272)	Hole ϕ8 (0.31)
Ⓑ	416.2 (16.386)	−368.0 (−14.488)	303.2 (11.937)	Hole ϕ16 (0.63)	Ⓚ ⓚ	±472.6 (±18.606)	2603.8 (102.512)	120.8 (4.756)	Bolt head
ⓑ	−413.2 (−16.268)	−368.0 (−14.488)	303.2 (11.937)	Hole ϕ16 (0.63)	Ⓜ	238.0 (9.370)	3141.0 (123.661)	318.6 (12.543)	Hole ϕ16 (0.63)
Ⓒ ⓒ	±415.0 (±16.339)	−104.0 (−4.094)	133.9 (5.272)	Bolt head	ⓜ	−217.0 (−8.543)	3120.0 (122.834)	318.6 (12.543)	Hole 16×18 (0.63×0.71)
Ⓓ ⓓ	±392.0 (±15.433)	414.0 (16.299)	64.3 (2.531)	Bolt head	Ⓝ ⓝ	±451.5 (±17.776)	3163.9 (124.563)	179.0 (7.047)	Bolt head

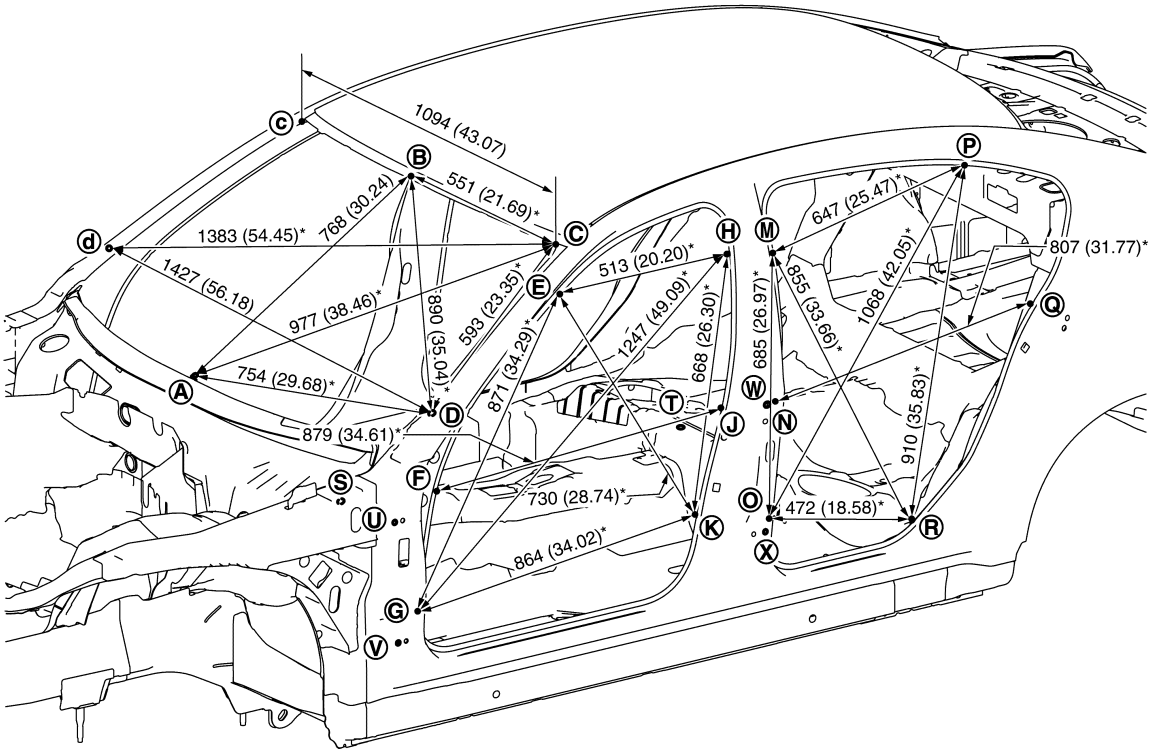
Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓔ ⓔ	±428.0 (±16.850)	815.0 (32.087)	78.4 (3.087)	Hole 16×20 (0.63×0.79)	Ⓞ ⓞ	±533.5 (±21.004)	3609.8 (142.118)	315.2 (12.409)	Hole 16×20 (0.63×0.79)
Ⓕ ⓕ	±438.0 (±17.244)	1100.0 (43.307)	79.0 (3.110)	Hole ϕ16 (0.63)	Ⓟ ⓟ	±421.6 (±16.598)	38.2 (1.504)	677.9 (26.689)	Hole ϕ50.1 (1.972)
Ⓖ ⓖ	±437.5 (±17.224)	1299.0 (51.142)	76.1 (2.996)	Hole ϕ16 (0.63)	Ⓠ ⓠ	±531.3 (±20.917)	2945.8 (115.976)	864.1 (34.020)	Hole ϕ71.8 (2.827)
Ⓗ ⓗ	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole ϕ16 (0.63)					

2WD : Passenger Compartment

INFOID:0000000011568545

MEASUREMENT

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



JSKIA3280GB

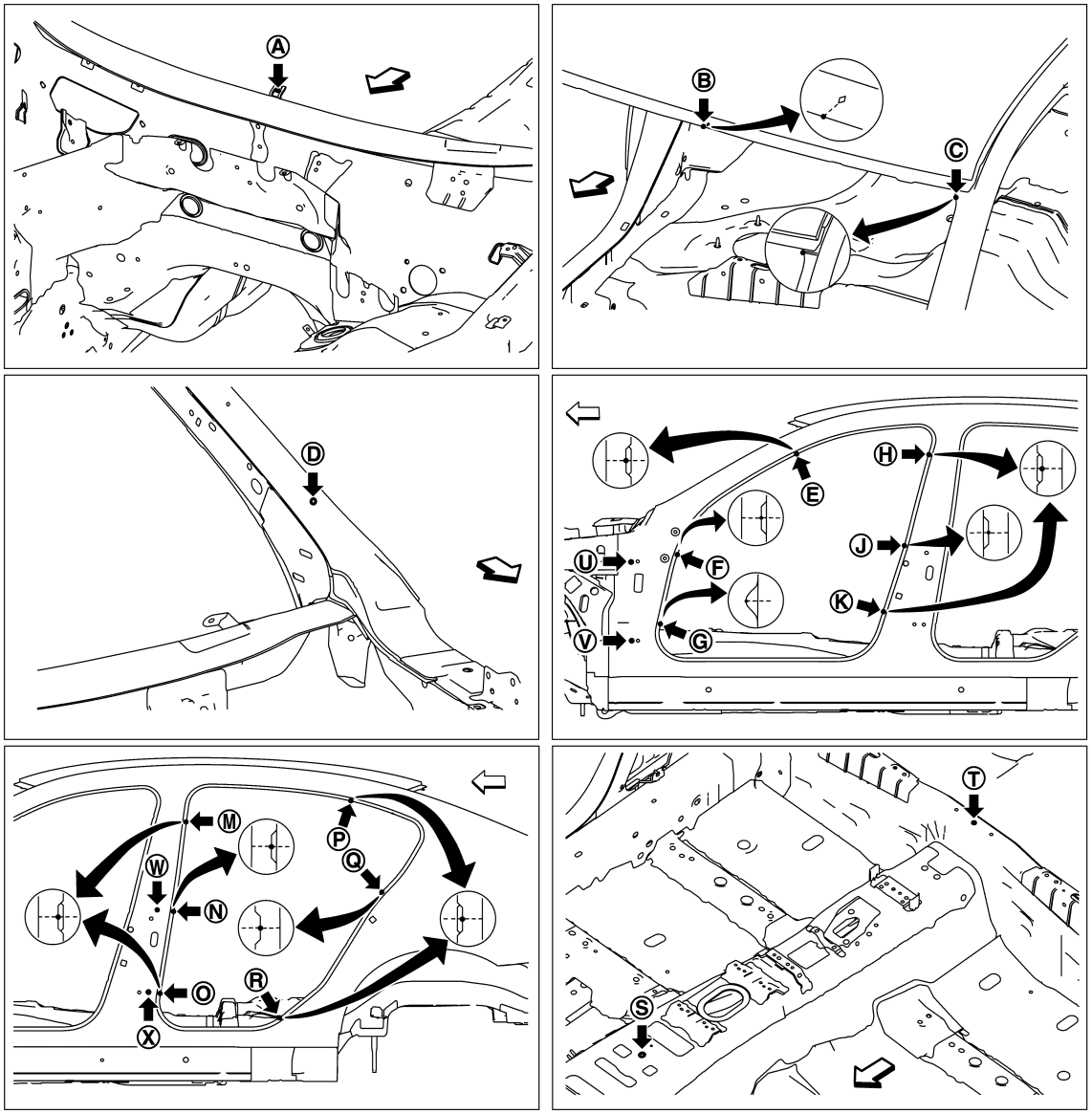
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓔ - ⓔ	1232 (48.50)		Ⓜ - ⓡ	1619 (63.74)*		Ⓣ - Ⓜ	953 (37.52)*	
Ⓔ - ⓖ	1604 (63.15)*		Ⓝ - ⓝ	1450 (57.09)		Ⓣ - Ⓝ	829 (32.64)*	
Ⓔ - ⓗ	1344 (52.91)*		Ⓝ - ⓠ	1637 (64.45)*		Ⓣ - Ⓞ	785 (30.91)*	
Ⓔ - ⓚ	1529 (60.20)*		Ⓞ - ⓞ	1477 (58.15)		Ⓣ - Ⓟ	1072 (42.20)*	
Ⓕ - ⓕ	1444 (56.85)		Ⓞ - ⓟ	1682 (66.22)*		Ⓣ - Ⓠ	1003 (39.49)*	
Ⓕ - ⓙ	1693 (66.65)*		Ⓞ - ⓡ	1555 (61.22)*		Ⓣ - Ⓡ	772 (30.39)*	
Ⓖ - ⓖ	1474 (58.03)		Ⓟ - ⓟ	1144 (45.04)		Ⓤ - ⓤ	1584 (62.36)	
Ⓖ - ⓗ	1844 (72.60)*		Ⓟ - ⓡ	1590 (62.60)*		Ⓤ - Ⓦ	1164 (45.83)*	
Ⓖ - ⓚ	1705 (67.13)*		Ⓠ - ⓠ	1401 (55.16)		Ⓤ - Ⓧ	1157 (45.55)*	
Ⓗ - ⓗ	1253 (49.33)		Ⓡ - ⓡ	1485 (58.46)		Ⓥ - ⓥ	1611 (63.43)	
Ⓗ - ⓚ	1511 (59.49)*		Ⓢ - Ⓔ	994 (39.13)*		Ⓥ - Ⓦ	1226 (48.27)*	
Ⓙ - ⓙ	1450 (57.09)		Ⓢ - Ⓕ	791 (31.14)*		Ⓥ - Ⓧ	1129 (44.45)*	
Ⓚ - ⓚ	1466 (57.72)		Ⓢ - Ⓖ	761 (29.96)*		Ⓦ - ⓦ	1588 (62.52)	
Ⓜ - ⓜ	1273 (50.12)		Ⓢ - Ⓗ	1268 (49.92)*		Ⓧ - ⓧ	1623 (63.90)	
Ⓜ - ⓞ	1533 (60.35)*		Ⓢ - Ⓙ	1099 (43.27)*				
Ⓜ - ⓟ	1369 (53.90)*		Ⓢ - Ⓚ	999 (39.33)*				

MEASUREMENT POINTS



JSKIA3281ZZ

⇦: Vehicle front

Unit: mm (in)

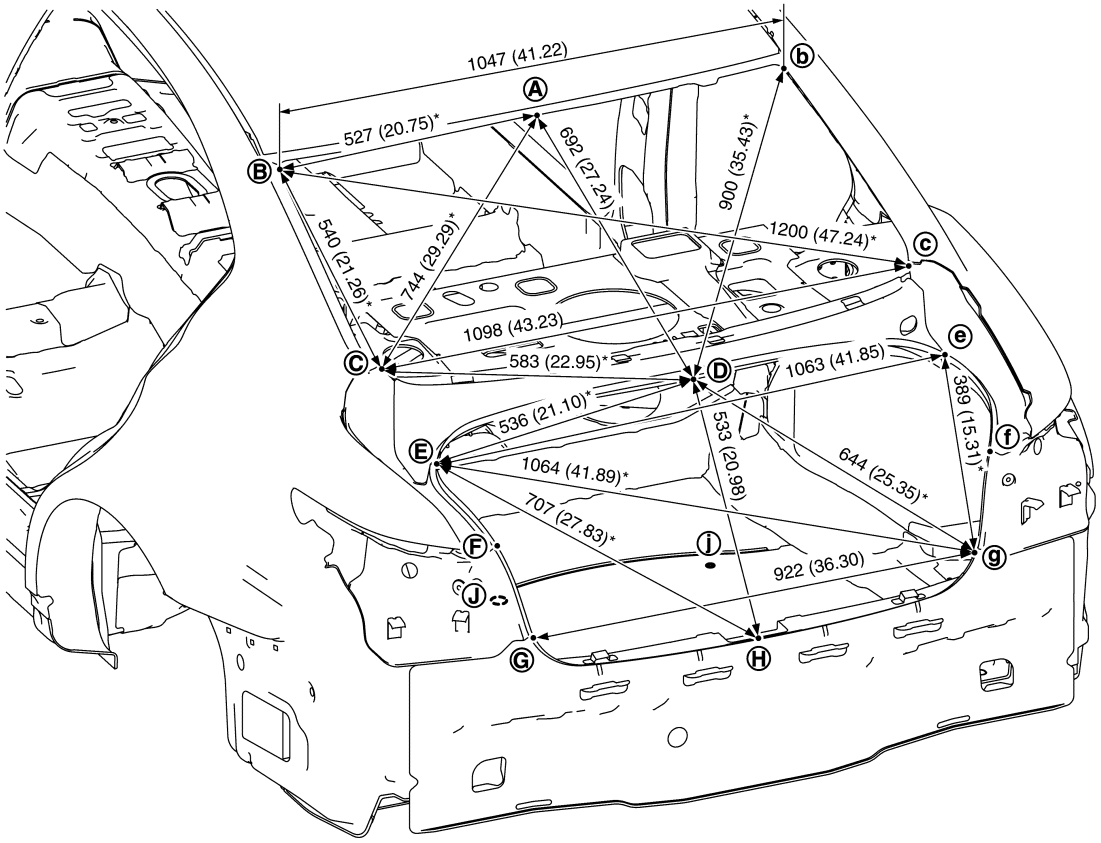
Point	Material	Point	Material
Ⓐ	Upper dash hole center of center positioning mark ϕ8 (0.31)	Ⓗ ⓗ Ⓙ ⓙ Ⓚ ⓚ Ⓜ ⓜ Ⓝ ⓝ Ⓞ ⓞ	Center pillar indent
Ⓑ	Roof flange end of center positioning mark	Ⓟ ⓟ Ⓠ ⓠ Ⓡ ⓡ	Rear fender indent
Ⓒ ⓒ	Outer side body joggle	Ⓢ	Trans control reinforcement hole center of center positioning mark 14×12 (0.55×0.47)
Ⓓ ⓓ	Outer side body hole center ϕ4 (0.16)	Ⓣ	Rear seat crossmember reinforcement hole center of center positioning mark ϕ5 (0.20)
Ⓔ ⓔ Ⓕ ⓕ Ⓖ ⓖ	Front pillar indent	Ⓤ ⓤ Ⓥ ⓥ Ⓦ ⓦ Ⓧ ⓧ	Door hinge installing hole center Ⓤ ⓤ Ⓥ ⓥ Ⓧ ⓧ: ϕ12 (0.47) Ⓦ ⓦ: 11×9 (0.43×0.35)

2WD : Rear Body

INFOID:0000000011568546

MEASUREMENT

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



JSKIA3282GB

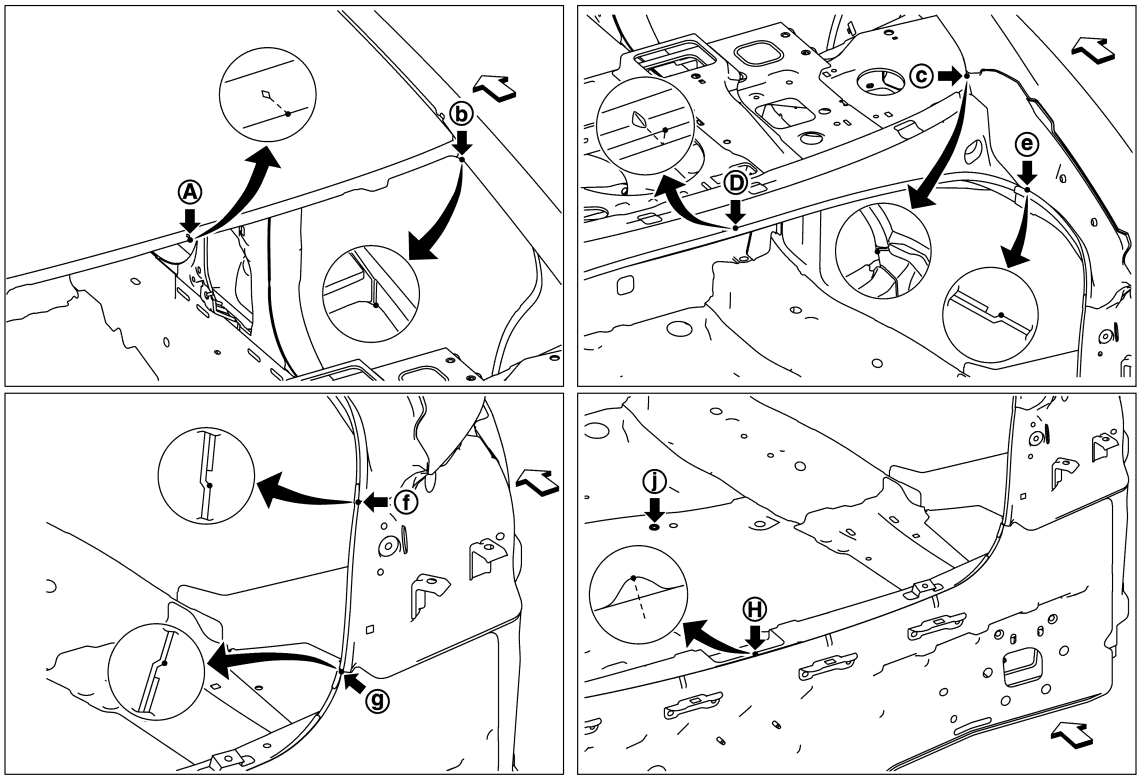
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓐ – Ⓔ	916 (36.06)*		Ⓔ – Ⓙ	726 (28.58)*		Ⓖ – Ⓗ	469 (18.46)*	
Ⓐ – Ⓖ	1207 (47.52)*		Ⓔ – ⓙ	995 (39.17)*		Ⓖ – Ⓙ	750 (29.53)*	
Ⓐ – Ⓗ	1190 (46.85)		Ⓕ – ⓕ	1019 (40.12)		Ⓖ – ⓙ	981 (38.62)*	
Ⓒ – ⓔ	1108 (43.62)*		Ⓕ – Ⓗ	573 (22.56)*		Ⓗ – Ⓙ	754 (29.68)*	
Ⓓ – Ⓕ	592 (23.31)*		Ⓕ – Ⓙ	801 (31.54)*				
Ⓓ – Ⓙ	725 (28.54)*		Ⓕ – ⓙ	1041 (40.98)*				

MEASUREMENT POINTS



JSKIA3283ZZ

⇦: Vehicle front

Unit: mm (in)

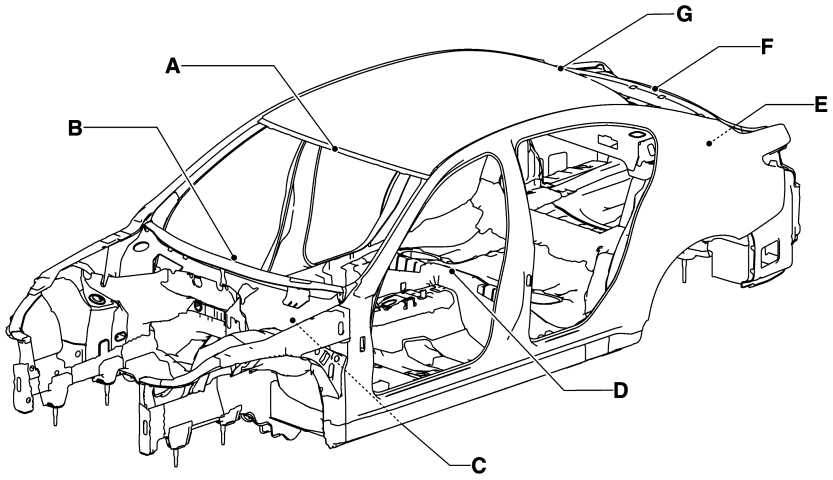
Point	Material	Point	Material
Ⓐ	Roof flange end of center positioning mark	ⒻⓕⒼⓖ	Rear combination lamp base joggle
Ⓑⓑ	Outer side body joggle	Ⓗ	Upper rear panel indent of center positioning mark
ⒸⓒⒺⓔ	Rear fender corner joggle	Ⓙⓙ	Rear floor rear hole center ϕ12 (0.47)
Ⓓ	Rear waist flange end of center positioning mark		

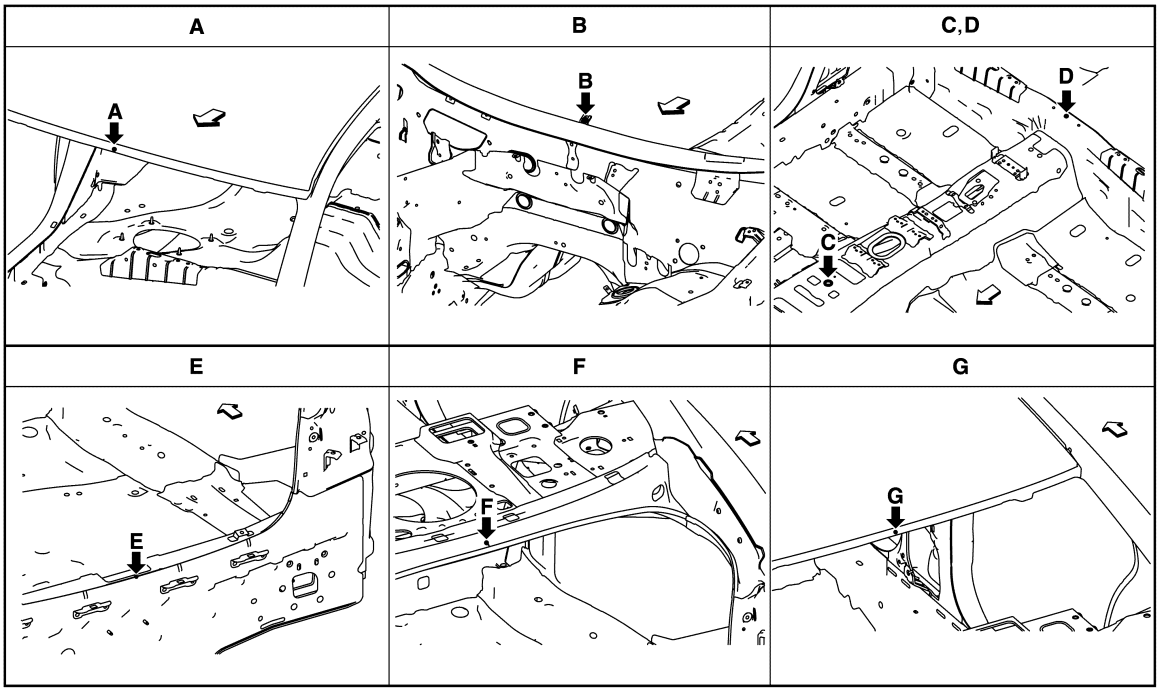
AWD

AWD : Body Center Marks

INFOID:0000000011568547

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.





JSKIA3284ZZ

⇦: Vehicle front

Unit: mm (in)

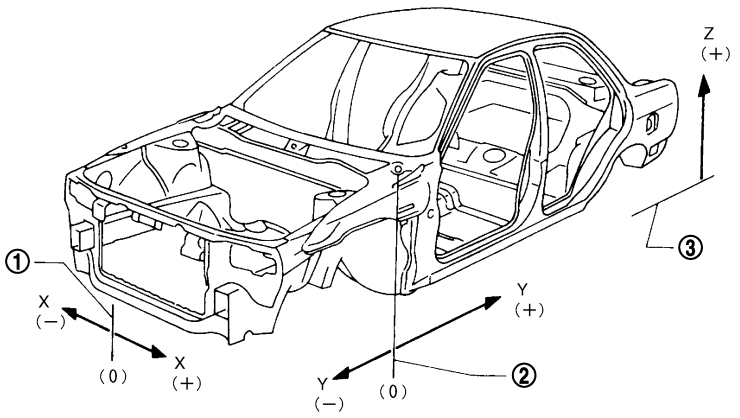
Points	Portion	Marks
A	Front roof	Embossment
B	Upper dash	Hole ϕ8 (0.31)
C	Trans control reinforcement	Hole 14×12 (0.55×0.47)
D	Rear seat crossmember reinforcement	Hole ϕ5 (0.20)
E	Upper rear panel	Indent
F	Rear waist	Bead
G	Rear roof	Embossment

AWD : Description

INFOID:0000000011568548

- 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

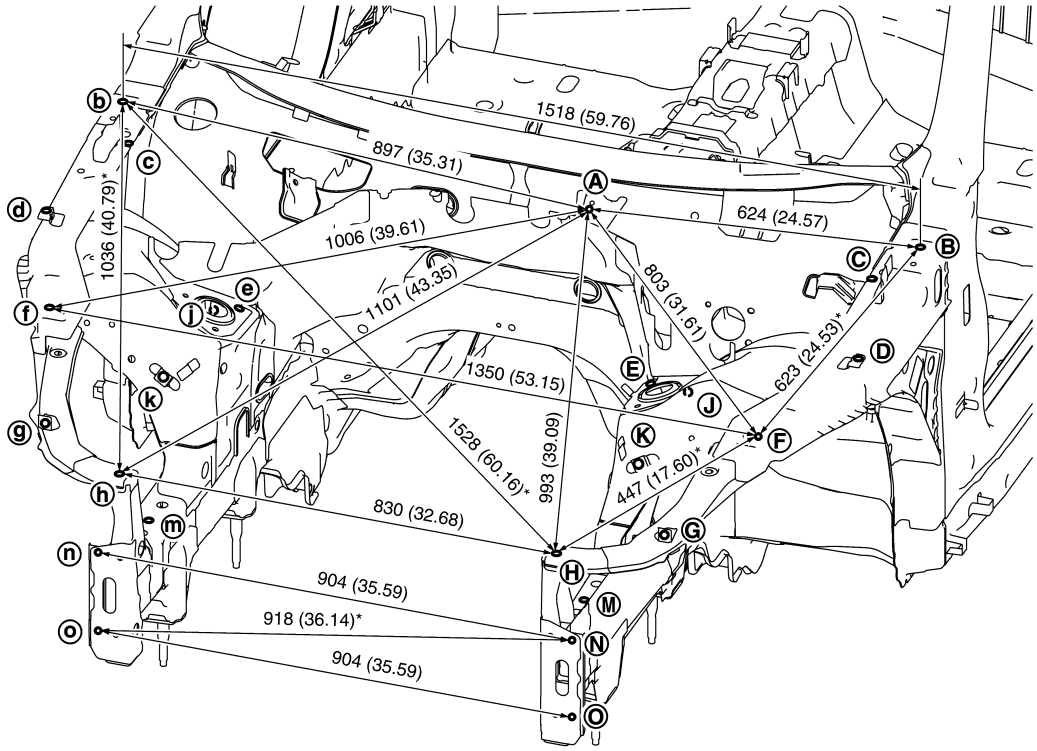
① Vehicle center ② Front axle center ③ Imaginary base line

AWD : Engine Compartment

INFOID:0000000011568549

MEASUREMENT

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



JSKIA3285GB

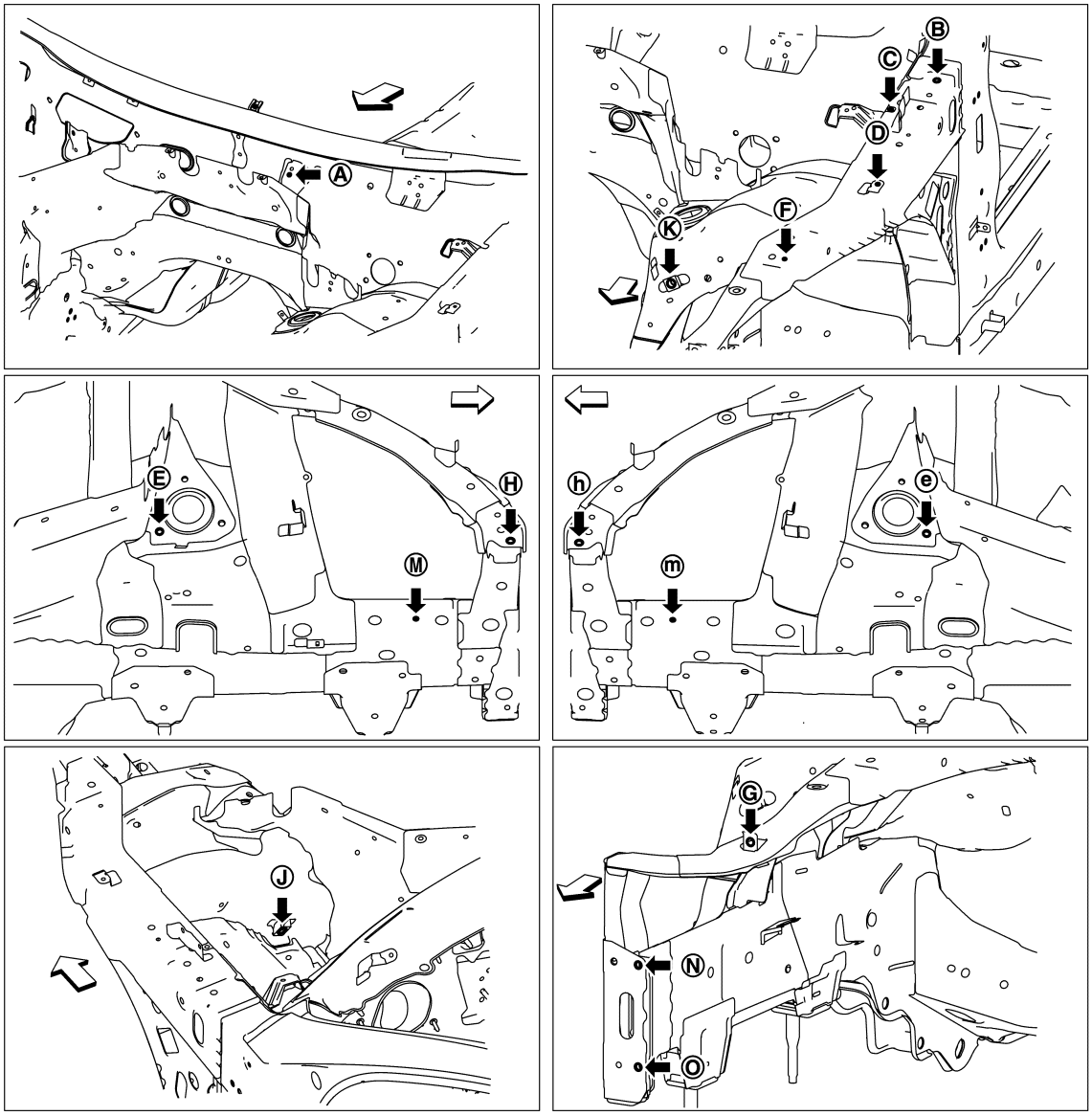
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓐ – Ⓒ	580 (22.83)		Ⓑ – Ⓔ	558 (21.97)*		Ⓔ – ⓔ	786 (30.94)	
Ⓐ – ⓒ	850 (33.46)		Ⓑ – ⓔ	1227 (48.31)*		Ⓔ – ⓗ	985 (38.78)*	
Ⓐ – Ⓓ	722 (28.43)		Ⓑ – ⓕ	1561 (61.46)*		Ⓔ – ⓜ	934 (36.77)*	
Ⓐ – ⓓ	971 (38.23)		Ⓑ – Ⓙ	497 (19.57)*		Ⓕ – ⓗ	1149 (45.24)*	
Ⓐ – Ⓔ	469 (18.46)		Ⓒ – ⓒ	1416 (55.75)		Ⓖ – ⓖ	1179 (46.42)	
Ⓐ – ⓔ	659 (25.94)		Ⓒ – Ⓕ	504 (19.84)*		Ⓖ – Ⓗ	197 (7.76)*	
Ⓐ – Ⓖ	975 (38.39)		Ⓒ – ⓕ	1472 (57.95)*		Ⓖ – Ⓝ	254 (10.00)*	
Ⓐ – ⓖ	1128 (44.41)		Ⓒ – Ⓗ	912 (35.91)*		Ⓙ – ⓙ	906 (35.67)	
Ⓐ – Ⓜ	898 (35.35)		Ⓒ – ⓗ	1417 (55.79)*		Ⓚ – ⓚ	906 (35.67)	
Ⓐ – ⓜ	1017 (40.04)		Ⓓ – ⓓ	1544 (60.79)		Ⓜ – ⓜ	833 (32.80)	

MEASUREMENT POINTS



JSKIA3286ZZ

⇦: Vehicle front

Unit: mm (in)

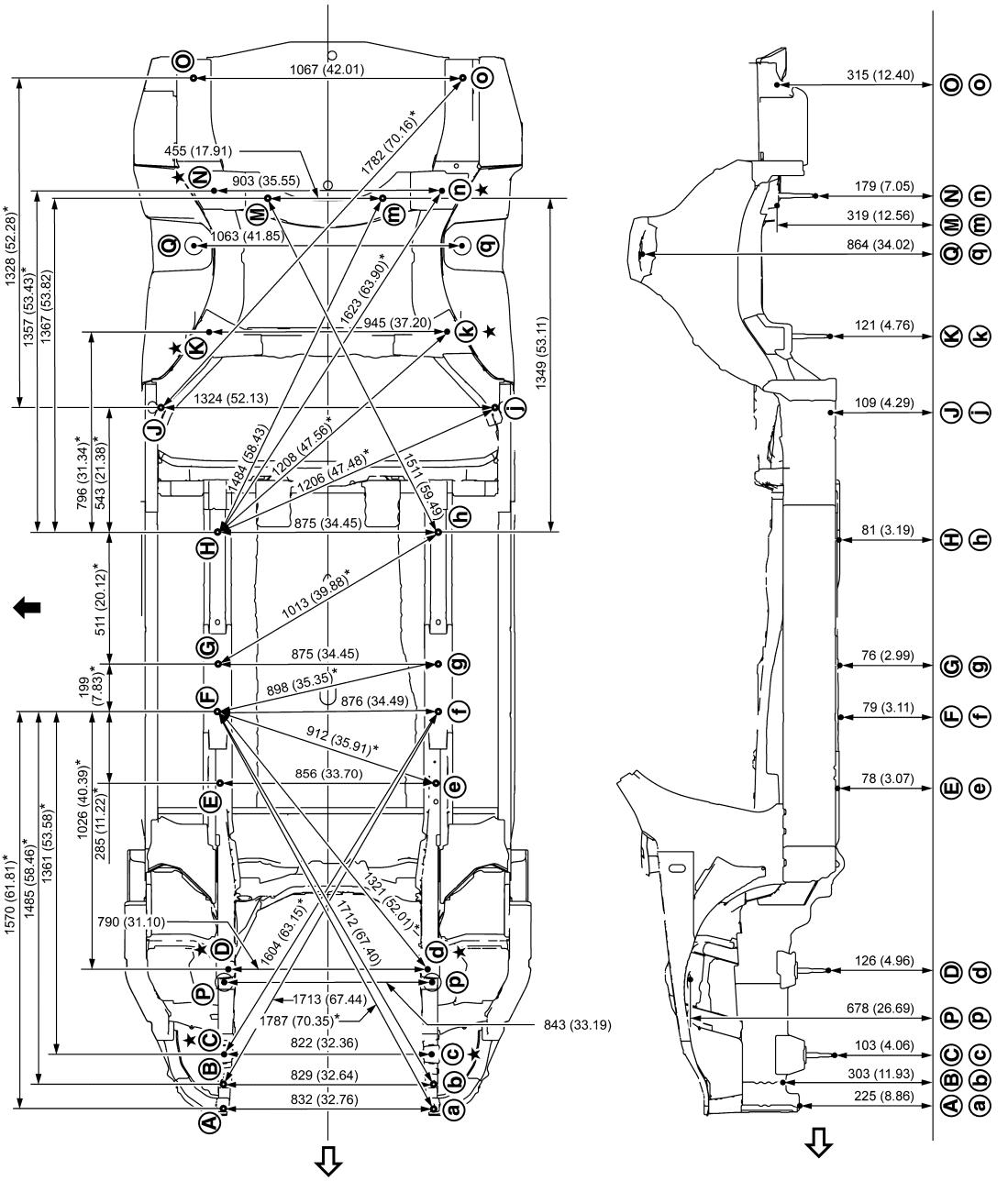
Point	Material	Point	Material
Ⓐ	Wiper mounting bracket hole center ϕ7 (0.28)	Ⓕ ⓕ	Hoodledge reinforcement hole center ϕ6 (0.24)
Ⓑ ⓑ	Hood hinge installing hole center ϕ12 (0.47)	Ⓗ ⓗ	Side radiator core support hole center ϕ12 (0.47)
Ⓒ ⓒ	Upper hoodledge hole center ϕ8 (0.31)	Ⓙ ⓙ Ⓚ ⓚ	Nut holder hole center ϕ16 (0.63)
Ⓓ ⓓ Ⓖ ⓖ	Front fender installing hole center Ⓓ ⓓ: ϕ7 (0.28) Ⓖ ⓖ: ϕ12 (0.47)	Ⓜ ⓜ	Front side member hole center ϕ7 (0.28)
Ⓔ ⓔ	Front strut installing hole center ϕ11 (0.43)	Ⓝ ⓝ Ⓞ ⓞ	Front bumper stay installing hole center ϕ11 (0.43)

AWD : Underbody

INFOID:0000000011568550

MEASUREMENT

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



JSKIA3287GB

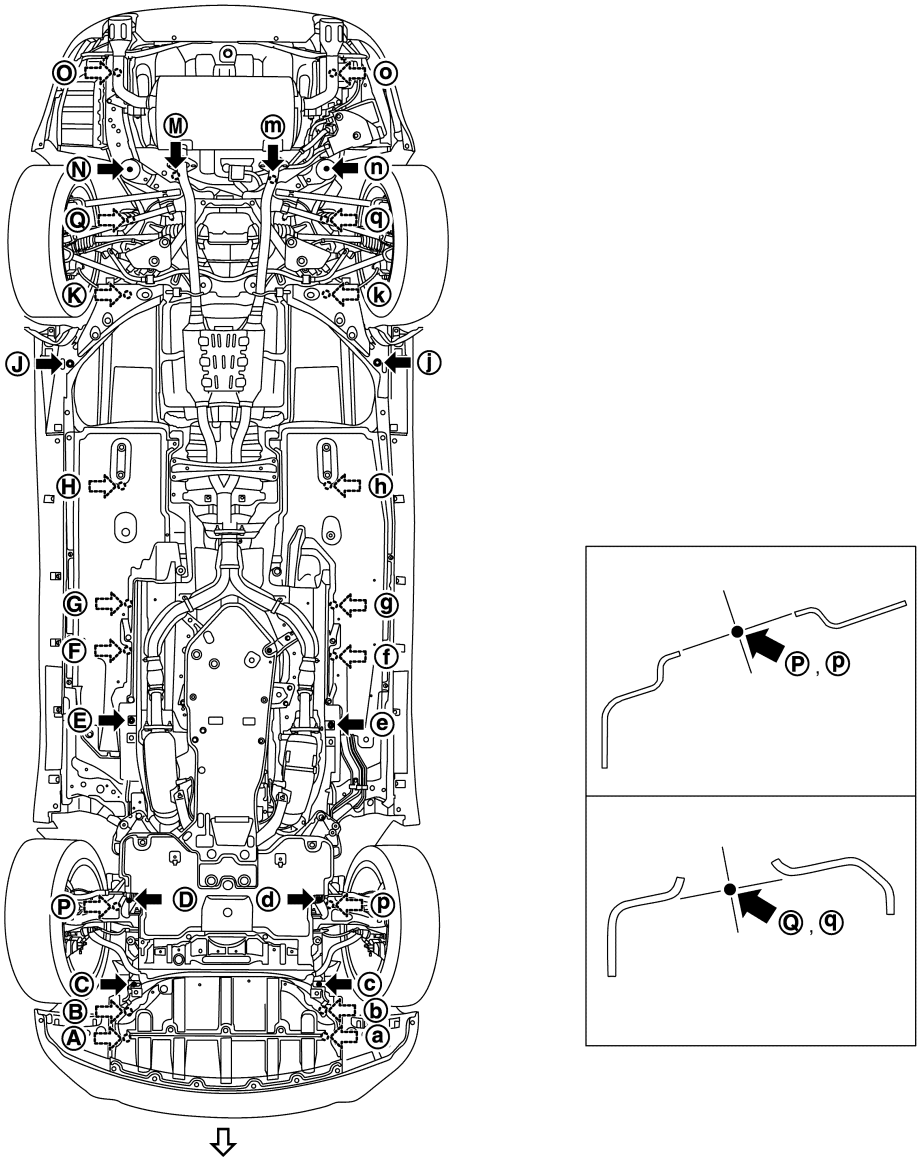
Unit: mm (in)

⇦: Vehicle front

⬅: Vehicle left side

★: Bolt head

MEASUREMENT POINTS



JSKIA3288ZZ

⇦: Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓐ ⓐ	±415.8 (±16.370)	–463.0 (–18.228)	224.6 (8.843)	Hole ϕ13 (0.51)	Ⓙ ⓙ	±662.0 (±26.063)	2304.0 (90.708)	108.5 (4.272)	Hole ϕ8 (0.31)
Ⓑ	416.2 (16.386)	–368.0 (–14.488)	303.2 (11.937)	Hole ϕ16 (0.63)	Ⓚ ⓚ	±472.6 (±18.606)	2603.8 (102.512)	120.8 (4.756)	Bolt head
ⓑ	–413.2 (–16.268)	–368.0 (–14.488)	303.2 (11.937)	Hole ϕ16 (0.63)	Ⓜ	238.0 (9.370)	3141.0 (123.661)	318.6 (12.543)	Hole ϕ16 (0.63)
Ⓒ ⓒ	±411.0 (±16.181)	–261.0 (–10.276)	103.3 (4.067)	Bolt head	ⓜ	–217.0 (–8.543)	3120.0 (122.834)	318.6 (12.543)	Hole 16×18 (0.63×0.71)
Ⓓ ⓓ	±395.0 (±15.551)	76.0 (2.992)	126.3 (4.972)	Bolt head	Ⓝ ⓝ	±451.5 (±17.776)	3163.9 (124.563)	179.0 (7.047)	Bolt head

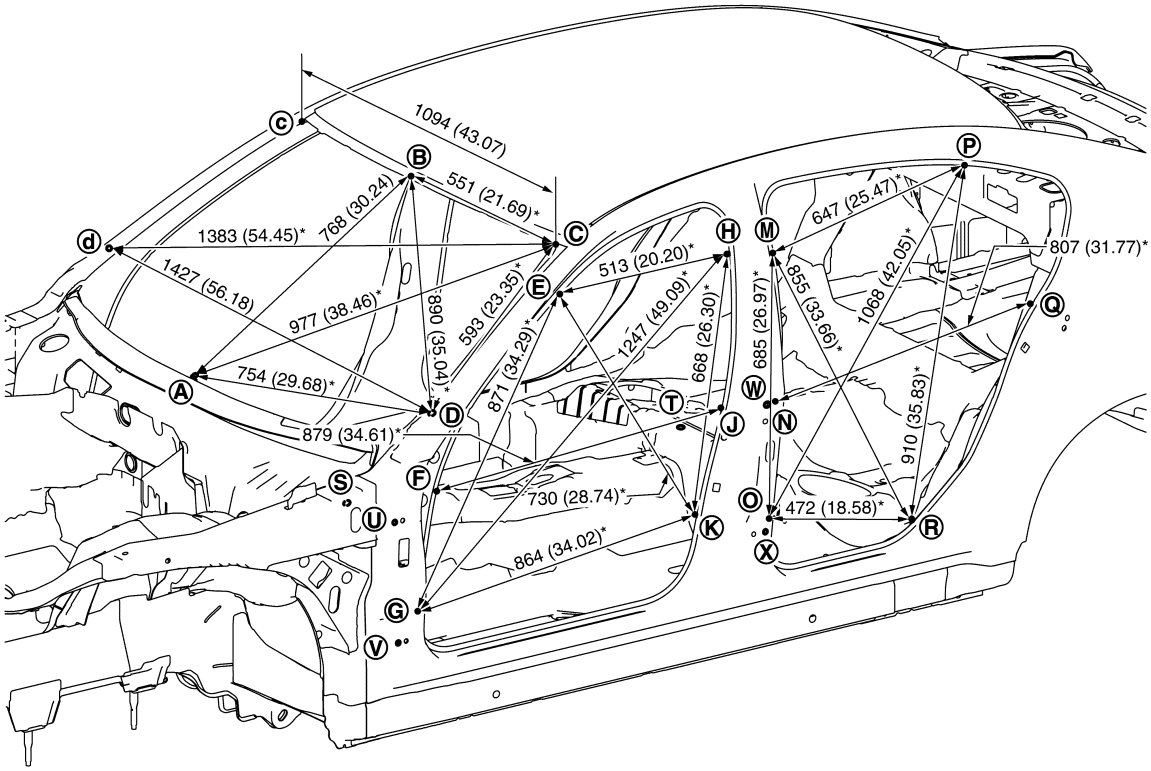
Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
Ⓔ ⓔ	±428.0 (±16.850)	815.0 (32.087)	78.4 (3.087)	Hole 16×20 (0.63×0.79)	Ⓞ ⓞ	±533.5 (±21.004)	3609.8 (142.118)	315.2 (12.409)	Hole 16×20 (0.63×0.79)
Ⓕ ⓕ	±438.0 (±17.244)	1100.0 (43.307)	79.0 (3.110)	Hole ϕ16 (0.63)	Ⓟ ⓟ	±421.6 (±16.598)	38.2 (1.504)	677.9 (26.689)	Hole ϕ50.1 (1.972)
Ⓖ ⓖ	±437.5 (±17.224)	1299.0 (51.142)	76.1 (2.996)	Hole ϕ16 (0.63)	Ⓠ ⓠ	±531.3 (±20.917)	2945.8 (115.976)	864.1 (34.020)	Hole ϕ71.8 (2.827)
Ⓗ ⓗ	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole ϕ16 (0.63)					

AWD : Passenger Compartment

INFOID:0000000011568551

MEASUREMENT

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



JSKIA3289GB

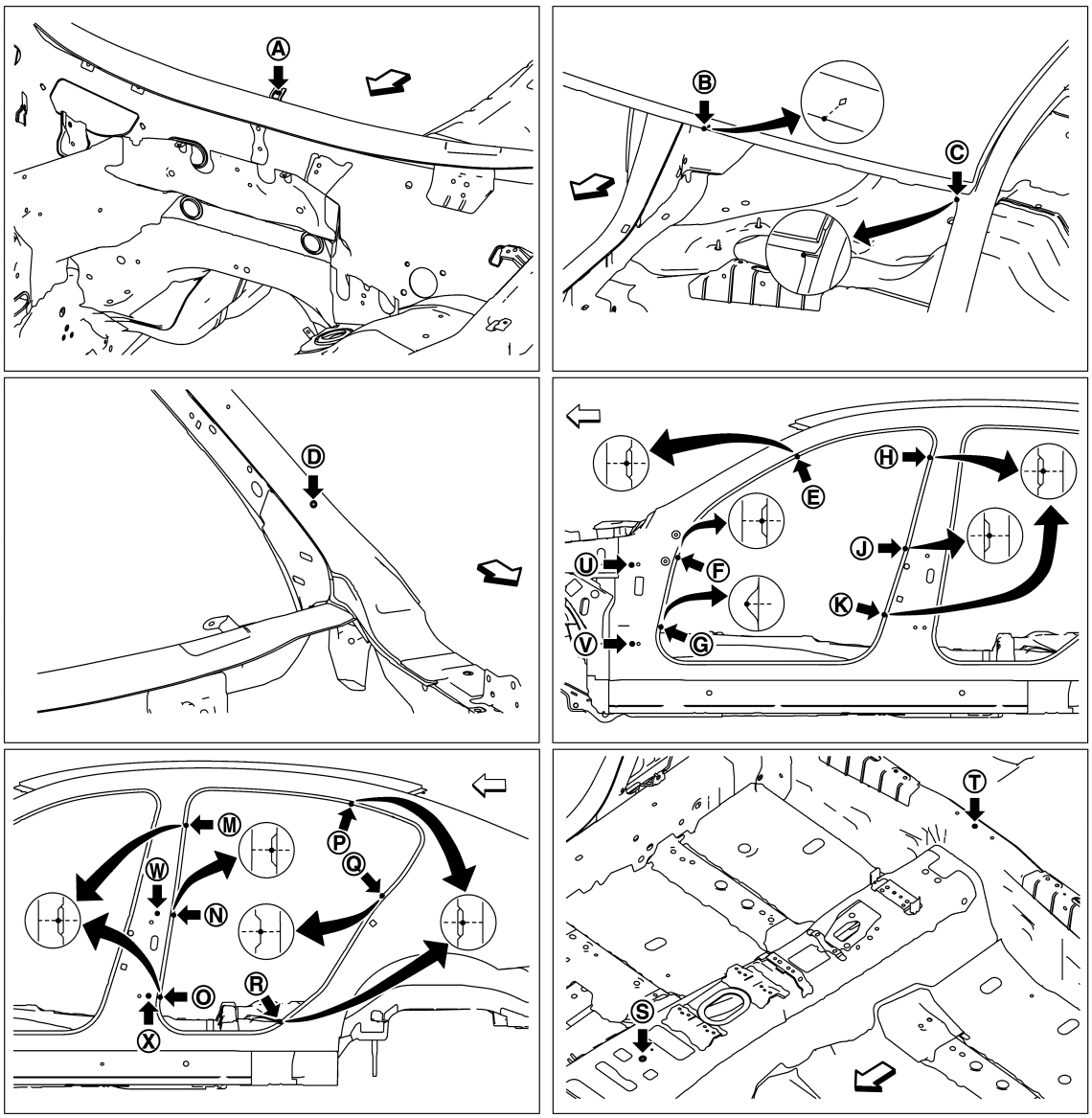
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓔ - ⓔ	1232 (48.50)		Ⓜ - ⓡ	1619 (63.74)*		Ⓣ - Ⓜ	953 (37.52)*	
Ⓔ - ⓖ	1604 (63.15)*		Ⓝ - ⓝ	1450 (57.09)		Ⓣ - Ⓝ	829 (32.64)*	
Ⓔ - ⓗ	1344 (52.91)*		Ⓝ - ⓠ	1637 (64.45)*		Ⓣ - Ⓞ	785 (30.91)*	
Ⓔ - ⓚ	1529 (60.20)*		Ⓞ - ⓞ	1477 (58.15)		Ⓣ - Ⓟ	1072 (42.20)*	
Ⓕ - ⓕ	1444 (56.85)		Ⓞ - ⓟ	1682 (66.22)*		Ⓣ - Ⓠ	1003 (39.49)*	
Ⓕ - ⓙ	1693 (66.65)*		Ⓞ - ⓡ	1555 (61.22)*		Ⓣ - Ⓡ	772 (30.39)*	
Ⓖ - ⓖ	1474 (58.03)		Ⓟ - ⓟ	1144 (45.04)		Ⓤ - ⓤ	1584 (62.36)	
Ⓖ - ⓗ	1844 (72.60)*		Ⓟ - ⓡ	1590 (62.60)*		Ⓤ - Ⓦ	1164 (45.83)*	
Ⓖ - ⓚ	1705 (67.13)*		Ⓠ - ⓠ	1401 (55.16)		Ⓤ - Ⓧ	1157 (45.55)*	
Ⓗ - ⓗ	1253 (49.33)		Ⓡ - ⓡ	1485 (58.46)		Ⓥ - ⓥ	1611 (63.43)	
Ⓗ - ⓚ	1511 (59.49)*		Ⓢ - Ⓔ	994 (39.13)*		Ⓥ - Ⓦ	1226 (48.27)*	
Ⓙ - ⓙ	1450 (57.09)		Ⓢ - Ⓕ	791 (31.14)*		Ⓥ - Ⓧ	1129 (44.45)*	
Ⓚ - ⓚ	1466 (57.72)		Ⓢ - Ⓖ	761 (29.96)*		Ⓦ - ⓦ	1588 (62.52)	
Ⓜ - ⓜ	1273 (50.12)		Ⓢ - Ⓗ	1268 (49.92)*		Ⓧ - ⓧ	1623 (63.90)	
Ⓜ - ⓞ	1533 (60.35)*		Ⓢ - Ⓙ	1099 (43.27)*				
Ⓜ - ⓟ	1369 (53.90)*		Ⓢ - Ⓚ	999 (39.33)*				

MEASUREMENT POINTS



JSKIA3290ZZ

⇦: Vehicle front

Unit: mm (in)

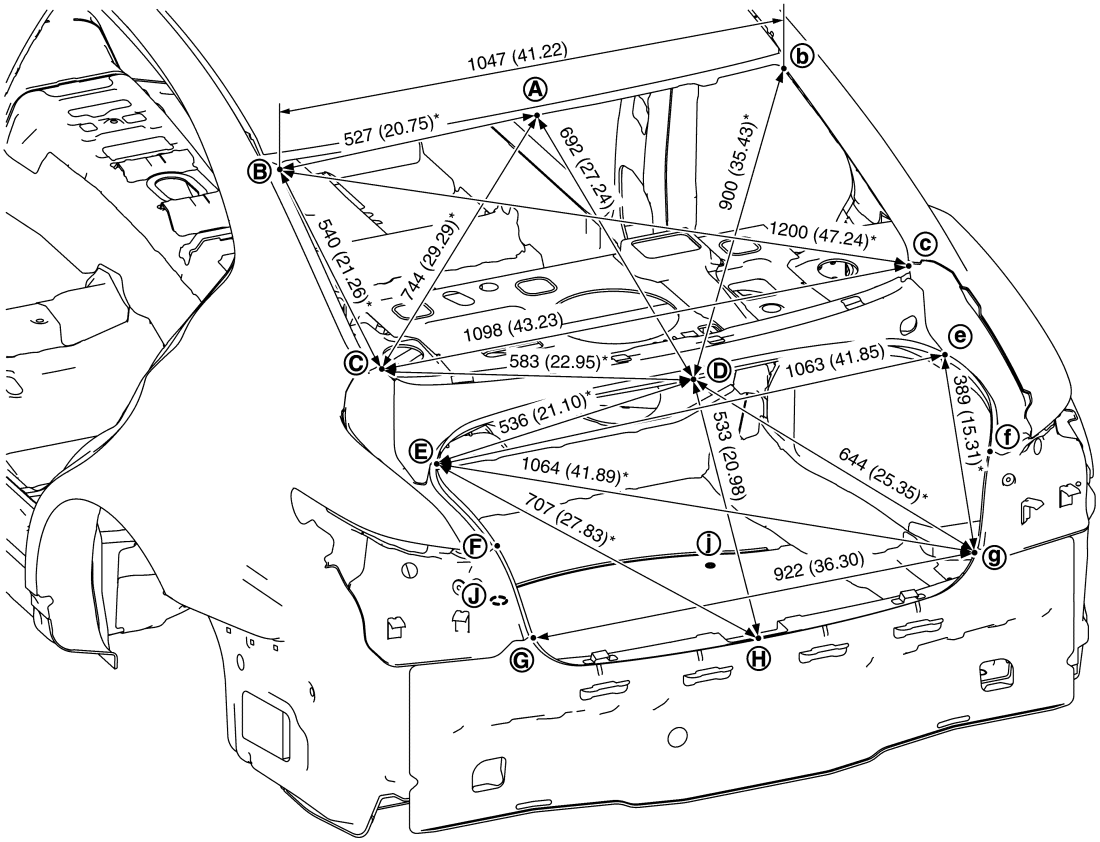
Point	Material	Point	Material
Ⓐ	Upper dash hole center of center positioning mark ϕ8 (0.31)	Ⓗ ⓗ Ⓙ ⓙ Ⓚ ⓚ Ⓜ ⓜ Ⓝ ⓝ Ⓞ ⓞ	Center pillar indent
Ⓑ	Roof flange end of center positioning mark	Ⓟ ⓟ Ⓠ ⓠ Ⓡ ⓡ	Rear fender indent
Ⓒ ⓒ	Outer side body joggle	Ⓢ	Trans control reinforcement hole center of center positioning mark 14×12 (0.55×0.47)
Ⓓ ⓓ	Outer side body hole center ϕ4 (0.16)	Ⓣ	Rear seat crossmember reinforcement hole center of center positioning mark ϕ5 (0.20)
Ⓔ ⓔ Ⓕ ⓕ Ⓖ ⓖ	Front pillar indent	Ⓤ ⓤ Ⓥ ⓥ Ⓦ ⓦ Ⓧ ⓧ	Door hinge installing hole center Ⓤ ⓤ Ⓥ ⓥ Ⓧ ⓧ: ϕ12 (0.47) Ⓦ ⓦ: 11×9 (0.43×0.35)

AWD : Rear Body

INFOID:0000000011568552

MEASUREMENT

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



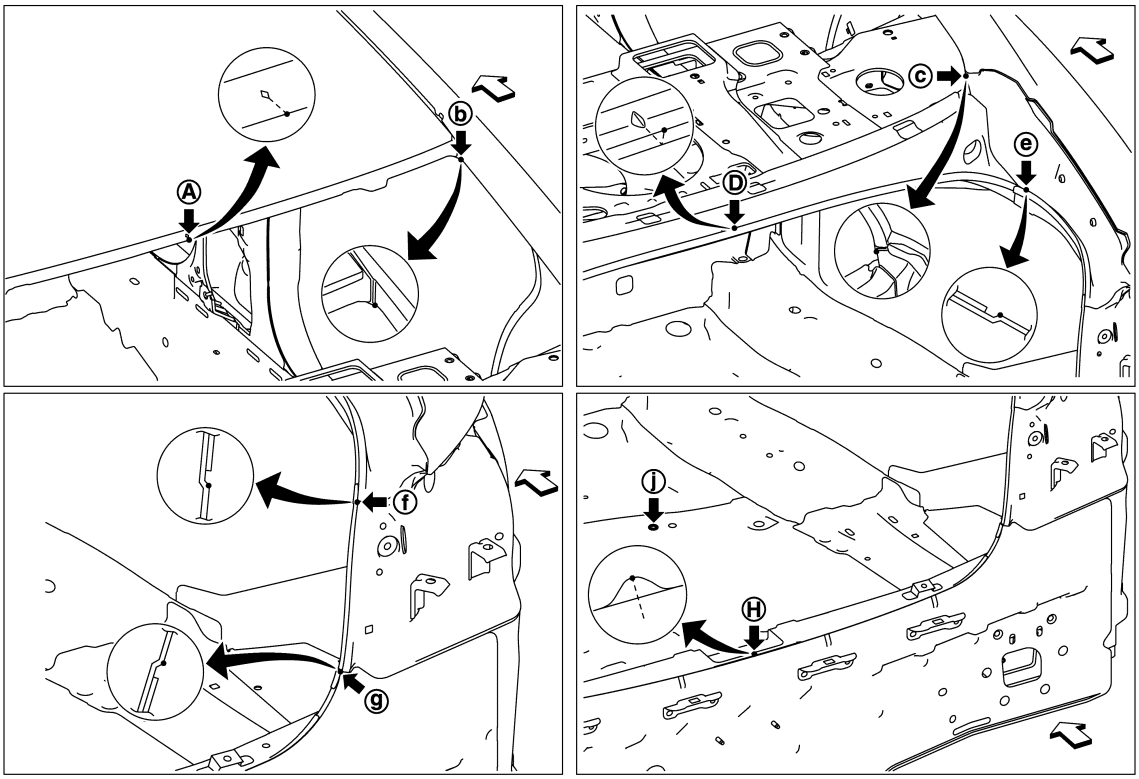
Unit: mm (in)

«The others»

Unit: mm (in)

Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
Ⓐ – Ⓔ	916 (36.06)*		Ⓔ – Ⓙ	726 (28.58)*		Ⓖ – Ⓗ	469 (18.46)*	
Ⓐ – Ⓖ	1207 (47.52)*		Ⓔ – ⓙ	995 (39.17)*		Ⓖ – Ⓙ	750 (29.53)*	
Ⓐ – Ⓗ	1190 (46.85)		Ⓕ – ⓕ	1019 (40.12)		Ⓖ – ⓙ	981 (38.62)*	
Ⓒ – ⓔ	1108 (43.62)*		Ⓕ – Ⓗ	573 (22.56)*		Ⓗ – Ⓙ	754 (29.68)*	
Ⓓ – Ⓕ	592 (23.31)*		Ⓕ – Ⓙ	801 (31.54)*				
Ⓓ – Ⓙ	725 (28.54)*		Ⓕ – ⓙ	1041 (40.98)*				

MEASUREMENT POINTS



JSKIA3283ZZ

⇦: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
Ⓐ	Roof flange end of center positioning mark	Ⓕ ⓕ Ⓖ ⓖ	Rear combination lamp base joggle
Ⓑ ⓑ	Outer side body joggle	Ⓗ	Upper rear panel indent of center positioning mark
Ⓒ ⓒ Ⓔ ⓔ	Rear fender corner joggle	Ⓙ ⓙ	Rear floor rear hole center ϕ12 (0.47)
Ⓓ	Rear waist flange end of center positioning mark		

LOCATION OF PLASTIC PARTS

Precautions for Plastics

INFOID:0000000011568553

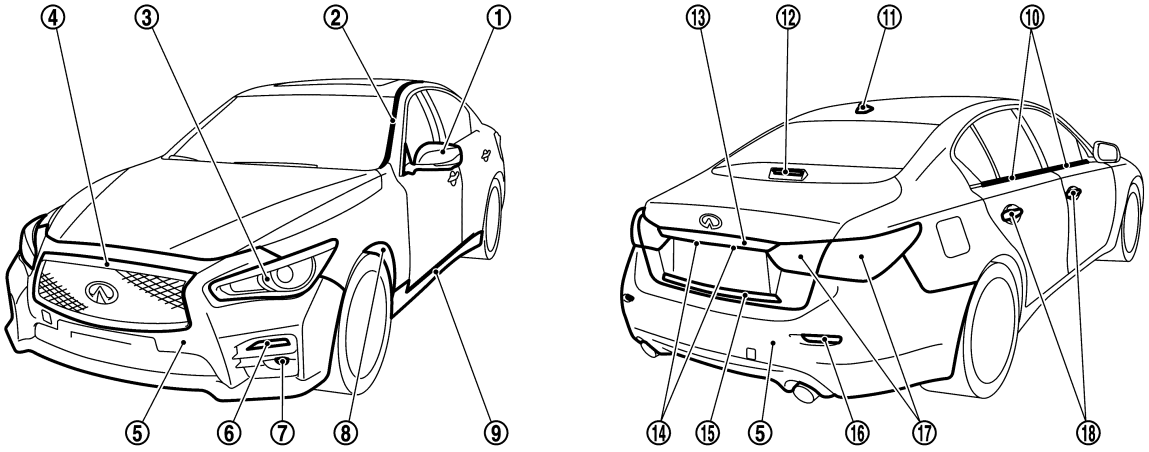
Abbre-viation	Material name	Heat resisting temperature °C (°F)	Resistance to gasoline and solvents	Other cautions
PE	Polyethylene	60 (140)	Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly).	Flammable
ABS	Acrylonitrile Butadiene Styrene	80 (176)	Avoid gasoline and solvents.	—
AES	Acrylonitrile Ethylene Styrene	80 (176)	↑	—
EPM/ EPDM	Ethylene Propylene (Diene) co-polymer	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

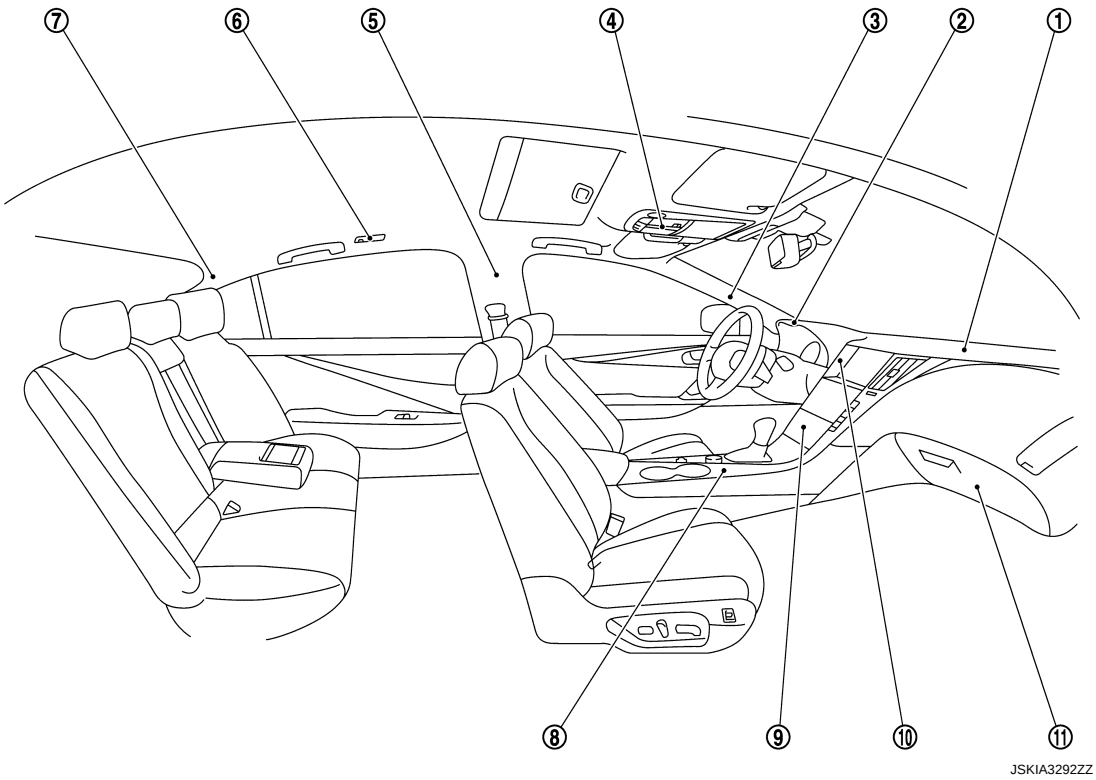
INFOID:0000000011568554



JSKIA3291ZZ

Component				Material
①	Door mirror		Cover	ABS
			Base	PA
		With camera	Housing	ABS
			finisher	ABS
		Without camera	Housing	ASA
			finisher	ASA
	Side turn signal lamp		Lens	PMMA
			Housing	ABS
②	Side roof molding			PVC + Stainless
	Lower side molding			ASA
③	Front combination lamp		Lens	PC
			Housing	PP
④	Front grille			ABS
⑤	Bumper fascia			PP + EPM
⑥	Front turn signal lamp		Lens	PC
			Housing	PC
⑦	Front fog lamp		Lens	PC
			Housing	PBT + ASA + Glass fiber

Component			Material
⑧	Front fender protector		PP
⑨	Sill cover		PP + EPM
⑩	Door outside molding		PVC + Stainless
⑪	Antenna base cover		ASA + PC
⑫	High mount stop lamp	Lens	PC
		Housing	PC + ABS
⑬	Trunk lid finisher	Outer	ABS
		Inner	ASA
⑭	License plate lamp	Lens	PC
		Housing	PC
⑮	Trunk lid molding		ABS
⑯	Reflex reflector	Lens	PMMA
		Housing	ABS
⑰	Rear combination lamp	Lens	PMMA
		Housing	ABS + ASA
⑱	Door outside handle	Grip body	PC + PET
		Grip finisher	ABS



Component			Material
①	Instrument panel	Skin	TPU
		Pad	PUR
		Core	PP + EPDM
②	Cluster lid A		PP
③	Front pillar garnish	Base	PP
		Skin	PET
④	Map lamp	Switch finisher	PP
		Console	PP
	Lid box assembly		PC + ABS
⑤	Center pillar garnish	Base	PP
		Skin	PET
⑥	Personal lamp	Lens	PC
		Housing	PP
⑦	Rear pillar finisher	Base	PP
		Skin	PET

Component				Material
⑧	Center console	Body		PP
		Console box		ABS
		Console lid	Insert lid	PC + ABS
			Inner lid	PP
		Instrument side panel		PP + EPDM
		Console finisher		PC + ABS
		Upper rear console	Aluminum	PC + ABS
			Wood	PC + Glass fiber
⑨	Console finisher			ABS
⑩	Instrument finisher C		Aluminum	PC + ABS
			Wood	PC + Glass fiber
	Side ventilator grille			PC + ABS
⑪	Glove box		Skin	PVC
			Pad	PUR
			Core	ABS