

SECTION **BRM**
 BODY REPAIR

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FOR USA AND CANADA

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BODY EXTERIOR PAINT COLOR

< VEHICLE INFORMATION >

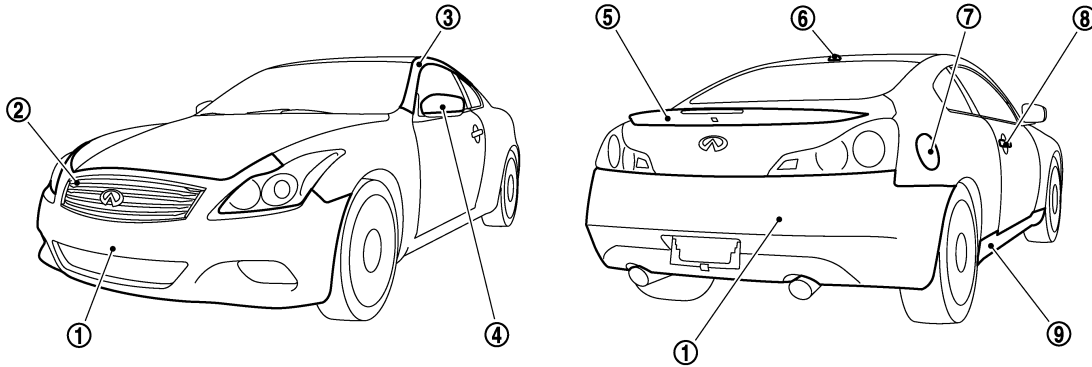
[FOR USA AND CANADA]

VEHICLE INFORMATION

BODY EXTERIOR PAINT COLOR

Body Exterior Paint Color

INFOID:000000008478929



JSKIA0361GB

Component		Color code	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
		Description	Red	Black	Black	Silver	Gray	Dark Gray	White	Blue	
		Paint type ^{Note}	CS	P	2S	M	M	PM	3P	PM	
		Hard clear coat	×	×	×	-	-	×	-	×	
1	Bumper fascia	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
2	Front grille	Chromium plate	Cr	Cr	Cr	Cr	Cr	Cr	Cr	Cr	
3	Front pillar finisher	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
4	Door outside mirror	Cover	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW
5	Trunk lid finisher	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
6	Satellite radio antenna	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
7	Fuel filler lid	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
8	Door outside handle	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	
9	Center mudguard	Body color	BA54	BGAC	BKH3	BK23	BKAD	BK52	BQAA	BRAW	

NOTE:

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

REPAIRING HIGH STRENGTH STEEL

< PRECAUTION >

[FOR USA AND CANADA]

PRECAUTION

REPAIRING HIGH STRENGTH STEEL

High Strength Steel (HSS)

INFOID:000000008478930

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
370 - 590 MPa	<ul style="list-style-type: none"> • Front strut housing • Hoodledge reinforcement • Lower dash crossmember assembly • Lower dash • Upper front pillar reinforcement • Trans control reinforcement (Center front floor component part) • 2nd and 3rd crossmember (Front floor component part) • Inner sill • Outer sill reinforcement • Outer lock pillar reinforcement • Upper outer rear wheelhouse extension • Front side member assembly • Front side member closing plate assembly • Front side member outrigger assembly • Rear side member assembly • Outer door panel • Trunk lid • Other reinforcements
780 - 1350 MPa	<ul style="list-style-type: none"> • Front side member stiffener (Front floor component part) • Upper inner lock pillar reinforcement (Outer lock pillar reinforcement component part) • Outer rear sill reinforcement (Lower outer rear wheelhouse extension component part)

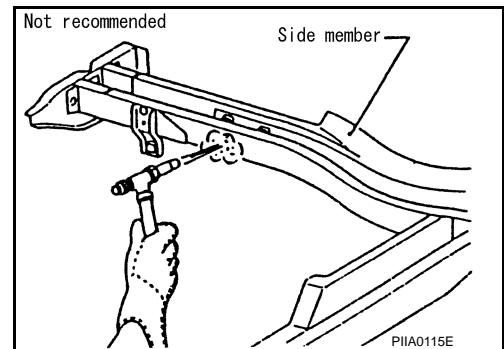
Read the following precautions when repairing HSS:

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.)

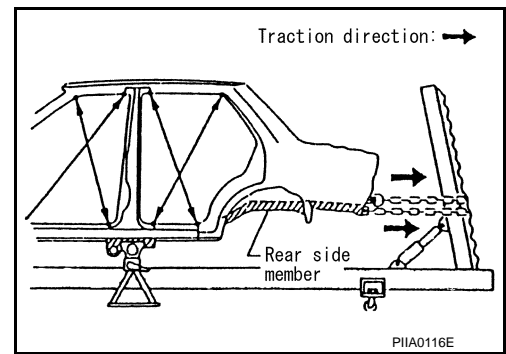


REPAIRING HIGH STRENGTH STEEL

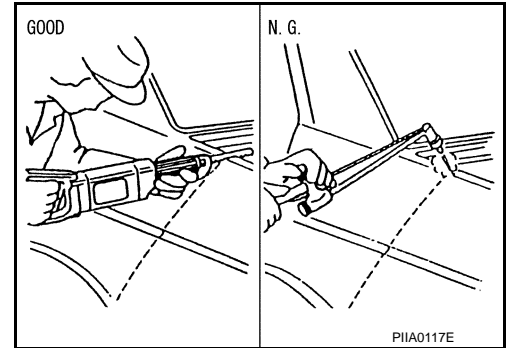
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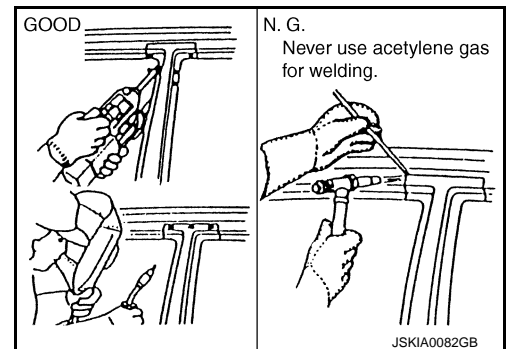
- When straightening body panels, use caution in pulling any HSS panel. Because HSS is very strong, pulling may cause deformation in adjacent sections of the body. In this case, increase the number of measuring points, and carefully pull the HSS panel.



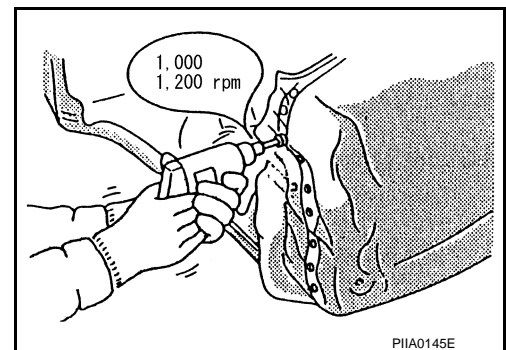
- When cutting HSS panels, avoid gas (torch) cutting if possible. Instead, use a saw to avoid weakening surrounding areas due to heat. If gas (torch) cutting is unavoidable, allow a minimum margin of 50 mm (1.97in).



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



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



REPAIRING HIGH STRENGTH STEEL

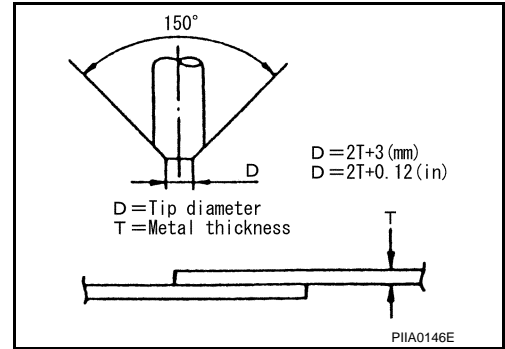
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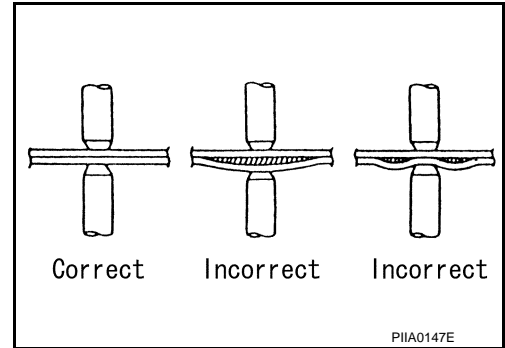
2. Precautions in spot welding HSS

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.



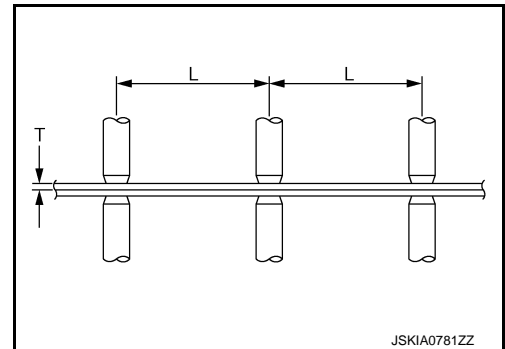
- The panel surfaces must fit flush to each other, leaving no gaps.



- Follow the specifications for the proper welding pitch.

Unit: mm (in)

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



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PREPARATION

REPAIRING MATERIAL

Foam Repair

INFOID:000000008478931

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

URETHANE FOAM APPLICATIONS

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

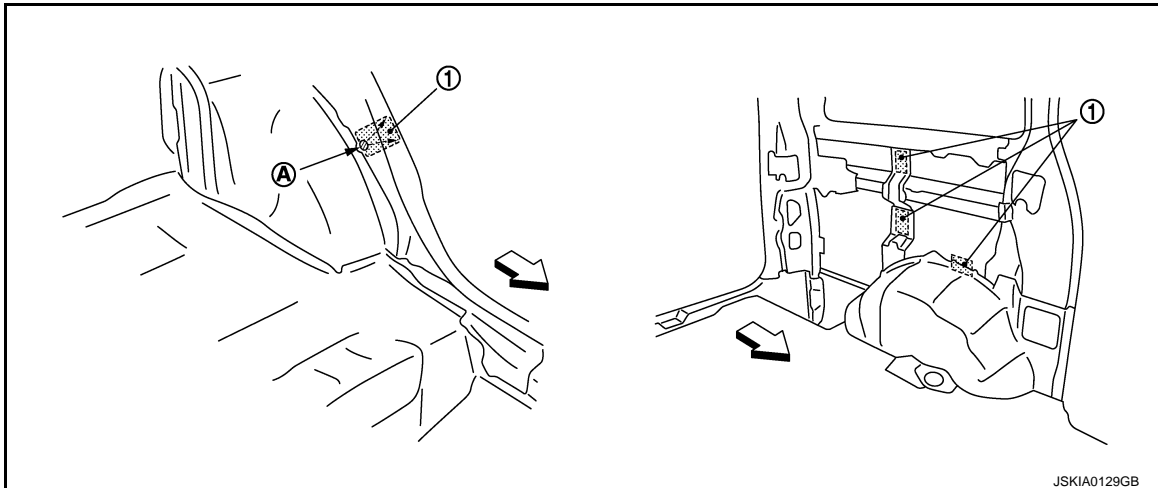
<Urethane foam for foaming agent>

3M™ Automix™ Flexible Foam 08463 or equivalent

Read instructions on product for fill procedures.

Example of foaming agent filling operation procedure

1. Fill procedures after installation of service part.
 - a. Eliminate foam material remaining on vehicle side.
 - b. Clean area after eliminating form insulator and foam material.
 - c. Install service part.
 - d. Insert nozzle into hole near fill area and fill foam material or fill enough to close gap with the service part.



1. Urethane foam
 - A. Nozzle insert hole
- ↙: Vehicle front

2. Fill procedures before installation of service part.
 - a. Eliminate foam material remaining on vehicle side.
 - b. Clean area after eliminating foam insulator and foam material.
 - c. Fill foam material on wheelhouse outer side.

REPAIRING MATERIAL

< PREPARATION >

[FOR USA AND CANADA]

- 1. Urethane foam
- A. Fill while avoiding flange area

←: Vehicle front

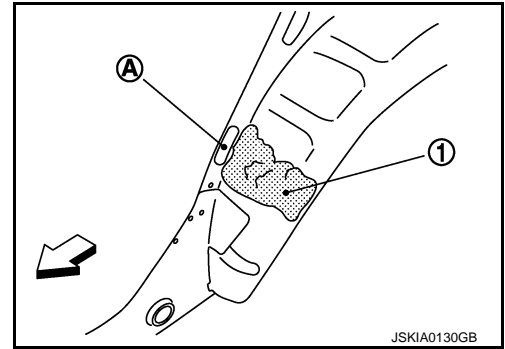
NOTE:

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

- d. Install service part.

NOTE:

Refer to label for information on working times.



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BODY COMPONENT PARTS

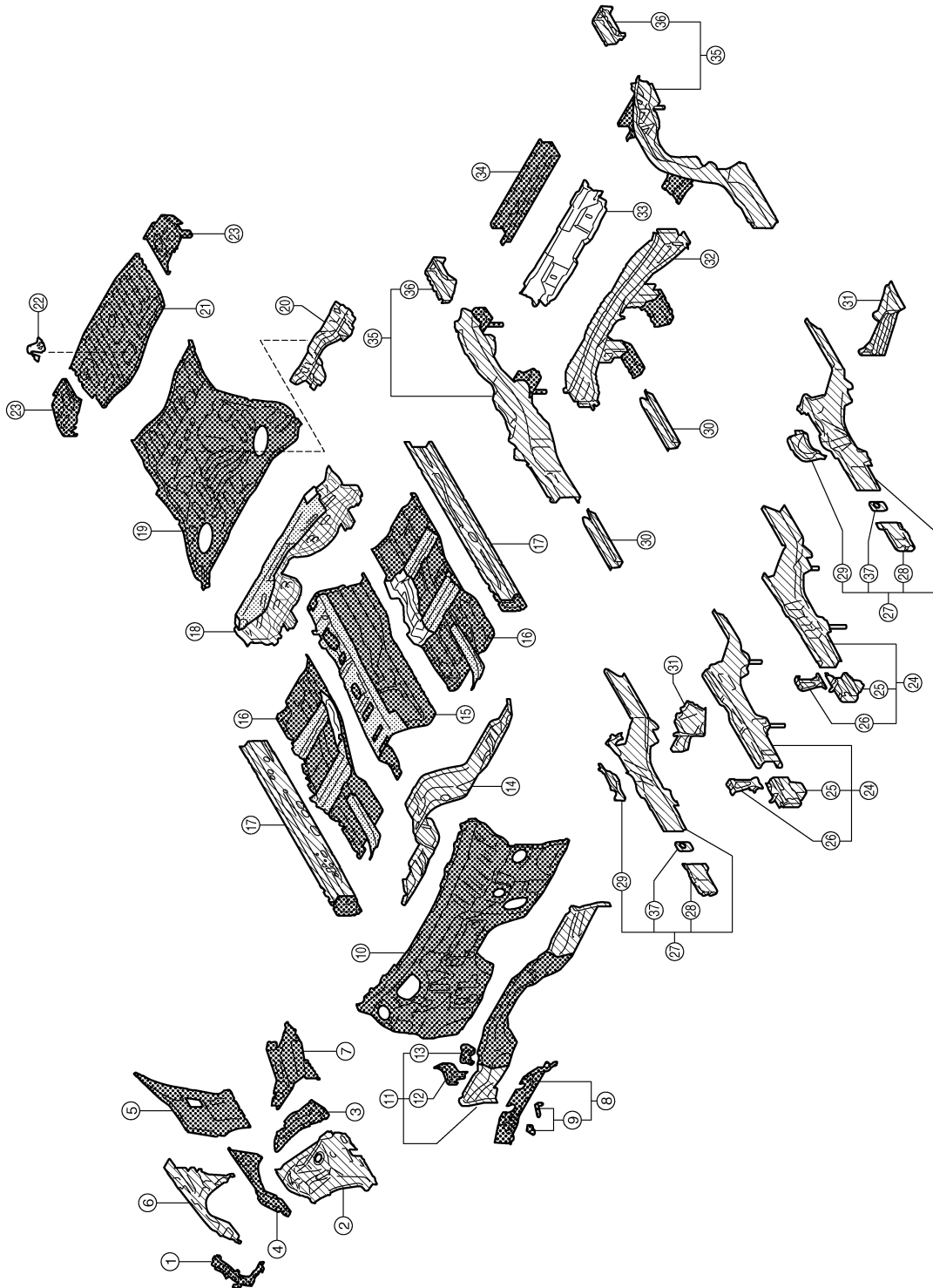
< PREPARATION >

[FOR USA AND CANADA]

BODY COMPONENT PARTS

Underbody Component Parts

INFOID:000000008478932



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- | | | |
|---|-----------------------------------|--------------------------------------|
| 1. Radiator core support assembly (RH & LH) | 2. Front strut housing (RH & LH) | 3. Lower rear hoodledge (RH & LH) |
| 4. Upper front hoodledge (RH & LH) | 5. Upper rear hoodledge (RH & LH) | 6. Hoodledge reinforcement (RH & LH) |


BODY COMPONENT PARTS


[FOR USA AND CANADA]

< PREPARATION >

- | | | | |
|---|--|--|---|
| 7. Upper side cowl top (RH & LH) | 8. Upper front cowl top assembly | 9. Cowl top bracket | |
| 10. Upper dash | 11. Lower dash crossmember assembly | 12. Lower outer battery support bracket | A |
| 13. Lower battery support bracket | 14. Lower dash | 15. Center front floor | |
| 16. Front floor (RH & LH) | 17. Inner sill (RH & LH) | 18. Rear seat crossmember reinforcement assembly | B |
| 19. Rear floor front | 20. Rear floor seat belt anchor reinforcement | 21. Rear floor rear | |
| 22. Spare tire clamp bracket | 23. Rear floor side (RH & LH) | 24. Front side member assembly (RH & LH) | C |
| 25. Front side member front extension (RH & LH) | 26. Front side member connector assembly (RH & LH) | 27. Front side member closing plate assembly (RH & LH) | D |
| 28. Front side member front closing plate (RH & LH) | 29. Front side member center closing plate (RH & LH) | 30. Front side member rear extension (RH & LH) | |
| 31. Front side member outrigger assembly (RH & LH) | 32. Rear seat crossmember | 33. 2nd rear crossmember | E |
| 34. Rear crossmember center assembly | 35. Rear side member assembly (RH & LH) | 36. Rear side member extension (RH & LH) | F |
| 37. Front side rear closing reinforcement (RH & LH) | | | |

 Both sided anti-corrosive pre-coated steel sections

 High strength steel (HSS) sections

 Both sided anti-corrosive steel and HSS sections

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.

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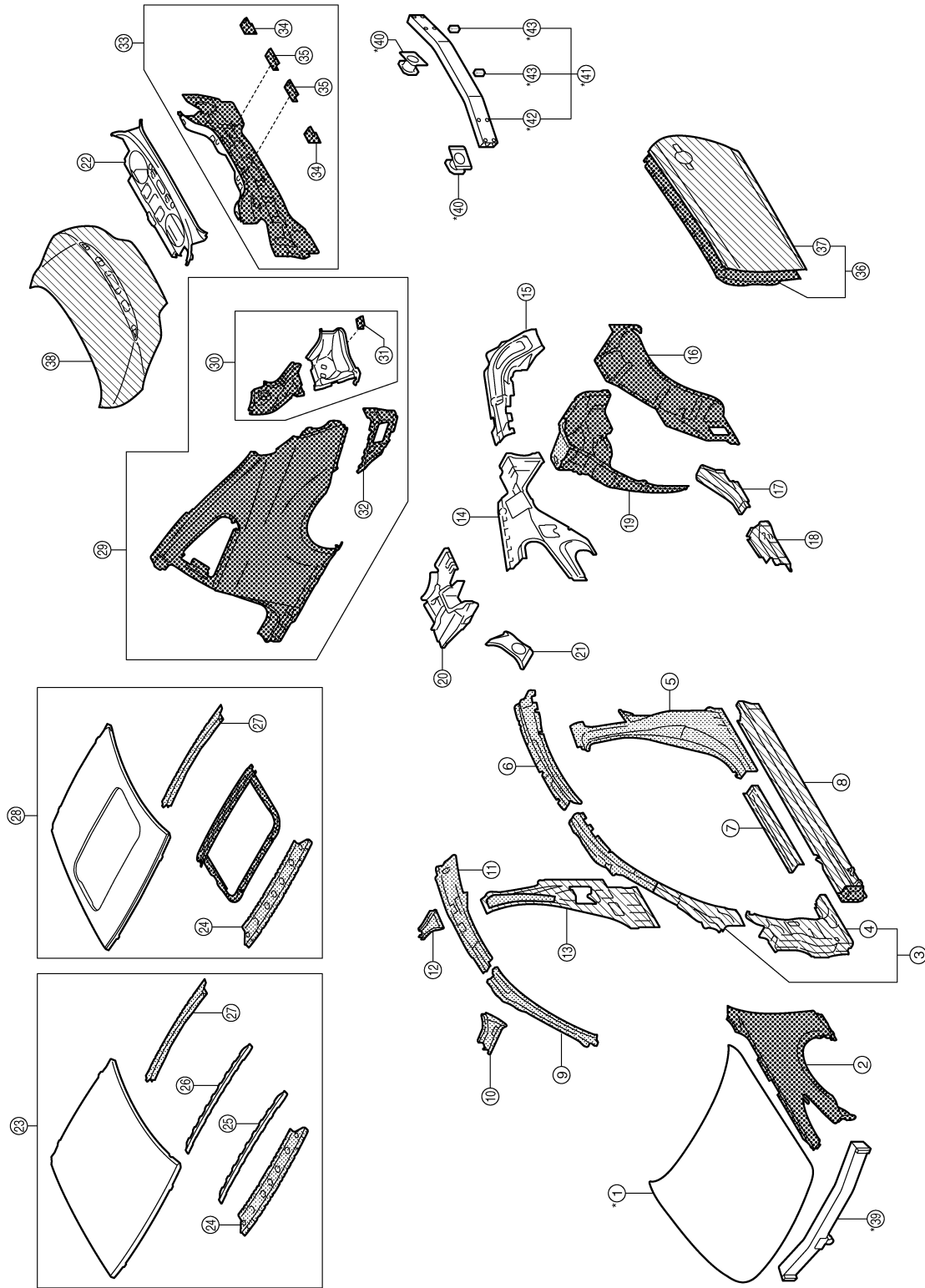
BODY COMPONENT PARTS

< PREPARATION >

[FOR USA AND CANADA]

Body Component Parts

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- | | | |
|---------------------------------|--|---|
| 1. Hood | 2. Front fender (RH & LH) | 3. Upper front pillar reinforcement (RH & LH) |
| 4. Front pillar brace (RH & LH) | 5. Outer lock pillar reinforcement (RH & LH) | 6. Outer side roof rail reinforcement (RH & LH) |


BODY COMPONENT PARTS


< PREPARATION >

[FOR USA AND CANADA]

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|--|---|---|---|
| 7. Outer step sill (RH & LH) | 8. Outer sill reinforcement (RH & LH) | 9. Upper inner front pillar assembly (RH & LH) | A |
| 10. Front roof rail brace (RH & LH) | 11. Inner side roof rail (RH & LH) | 12. Rear roof rail brace (RH & LH) | |
| 13. Inner center pillar (RH & LH) | 14. Inner rear pillar (RH & LH) | 15. Rear pillar reinforcement (RH & LH) | |
| 16. Outer rear wheelhouse (RH & LH) | 17. Upper outer rear wheelhouse extension (RH & LH) | 18. Lower outer rear wheelhouse extension (RH & LH) | B |
| 19. Inner rear wheelhouse (RH & LH) | 20. Side parcel shelf (RH & LH) | 21. Seat back support (RH & LH) | |
| 22. Parcel shelf with rear waist | 23. Roof | 24. Front roof rail | C |
| 25. Roof bow No.1 | 26. Roof bow No.2 | 27. Rear roof rail | |
| 28. Roof assembly | 29. Rear fender assembly (RH & LH) | 30. Tail pillar assembly (RH & LH) | |
| 31. Rear bumper center bracket (RH & LH) | 32. Rear fender extension (RH & LH) | 33. Rear panel assembly | D |
| 34. Rear bumper fascia center bracket | 35. Rear bumper fascia bracket | 36. Door assembly (RH & LH) | |
| 37. Outer door panel (RH & LH) | 38. Trunk lid | 39. Inner center front bumper reinforcement | E |
| 40. Rear bumper stay (RH & LH) | 41. Inner center rear bumper reinforcement assembly | 42. Center rear bumper reinforcement | |
| 43. Rear bumper overrider assembly | | | F |

: Both sided anti-corrosive precoated steel sections

: High strength steel (HSS) sections

: Both sided anti-corrosive steel and HSS sections

*: Aluminum portion

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.

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REMOVAL AND INSTALLATION

CORROSION PROTECTION

Description

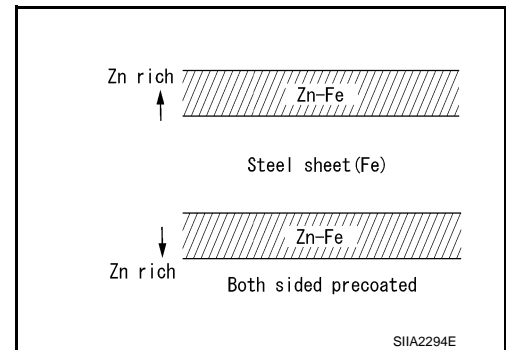
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To provide improved corrosion prevention, the following anti-corrosive measures have been implemented in NISSAN production plants. When repairing or replacing body panels, it is necessary to use the same anti-corrosive measures.

Anti-Corrosive Precoated Steel (Galvannealed Steel)

To improve reparability and corrosion resistance, a new type of anti-corrosive precoated steel sheet is adopted replacing conventional zinc-coated steel sheet.

Galvannealed steel is electroplated and heated to form Zinc-iron alloy, which provides excellent and long term corrosion resistance with cationic electrodeposition primer.



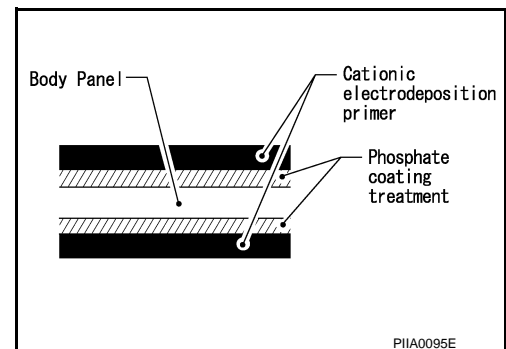
NISSAN genuine parts are fabricated from galvannealed steel. Therefore, it is recommended that NISSAN genuine parts or an equivalent be used for panel replacement to maintain the anti-corrosive performance built into the vehicle at the factory.

Phosphate Coating Treatment and Cationic Electrodeposition Primer

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

CAUTION:

Confine paint removal during welding operation to an absolute minimum.



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

Anti-corrosive Wax

INFOID:000000008478935

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

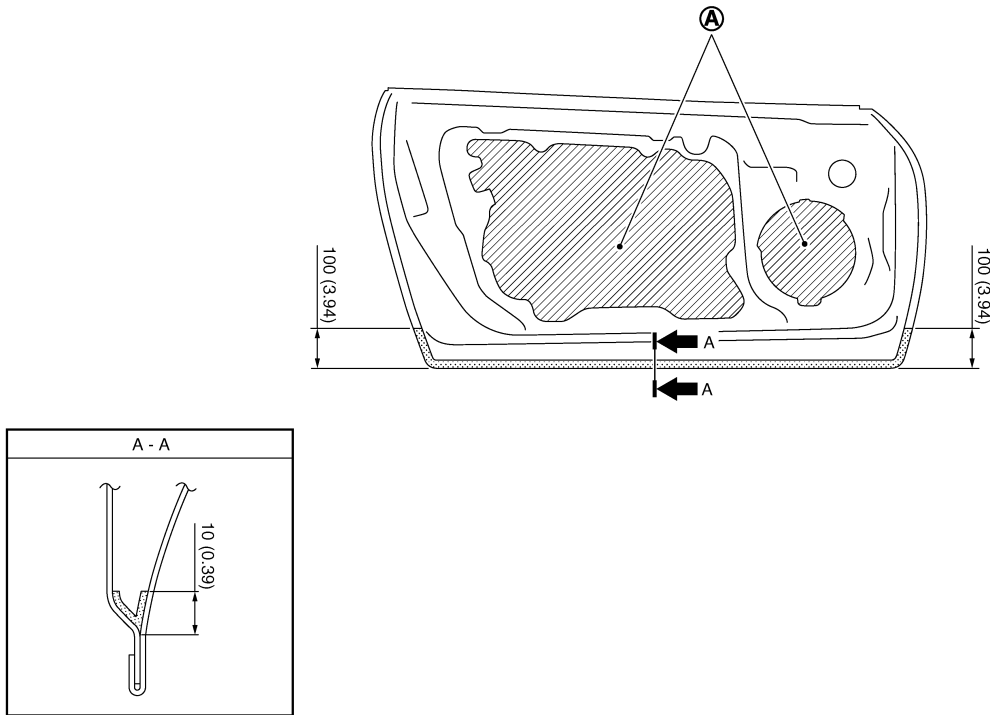
DOOR

CORROSION PROTECTION


< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

Unit : mm (in)



A. Nozzle insert hole

: Anti-corrosive wax coated portions

Undercoating (2WD)

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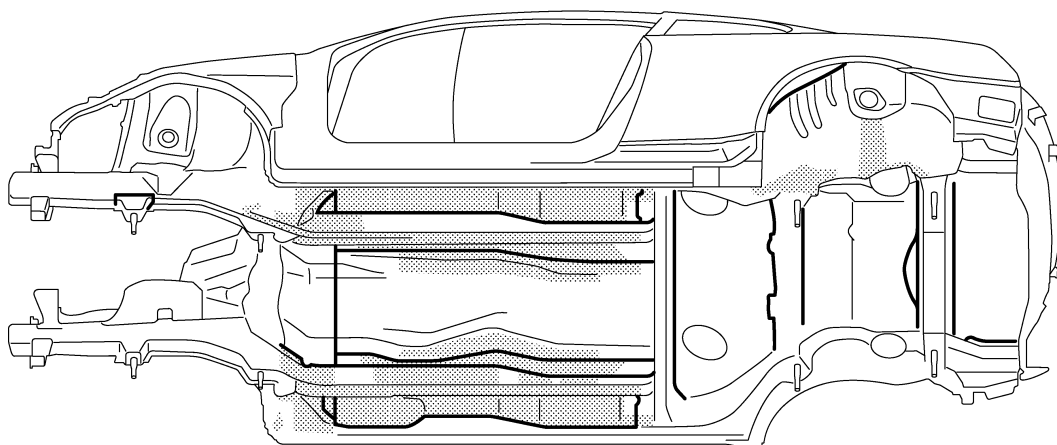
The underside of the floor and wheelhouse are undercoated to prevent rust, vibration, noise and stone chipping. Therefore, when such a panel is replaced or repaired, apply undercoating to that part. Use an undercoating which is rust resistant, soundproof, vibration-proof, shock-resistant, adhesive, and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

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 Undercoated areas

 Sealed portions

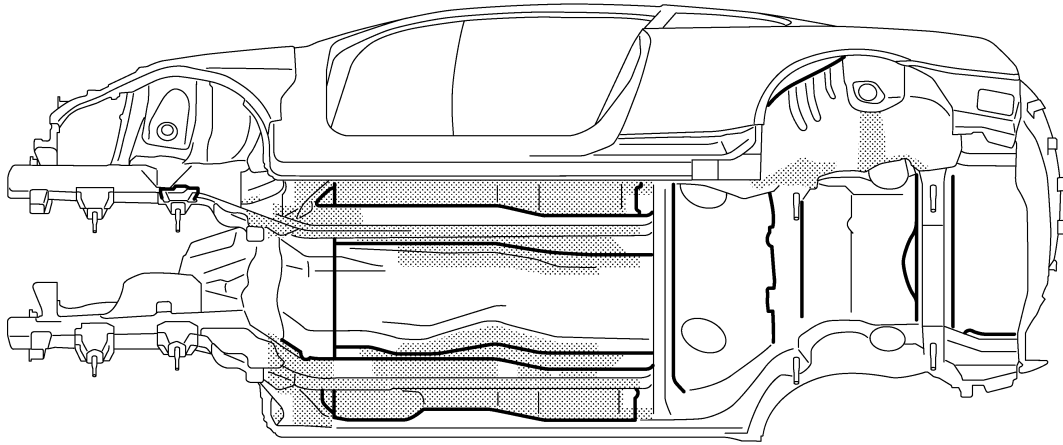
Undercoating (AWD)

INFOID:000000008476937

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.



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 Undercoated areas

 Sealed portions

Body Sealing (2WD)

INFOID:000000008478938

DESCRIPTION

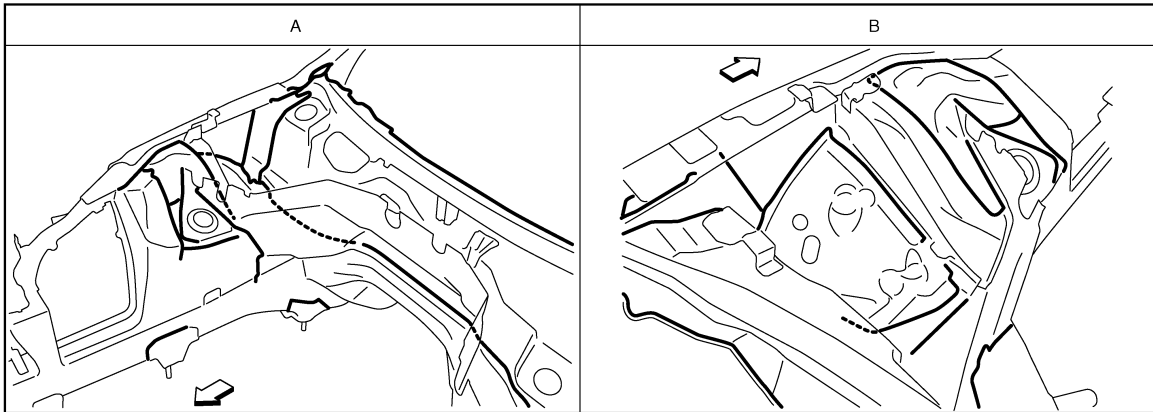
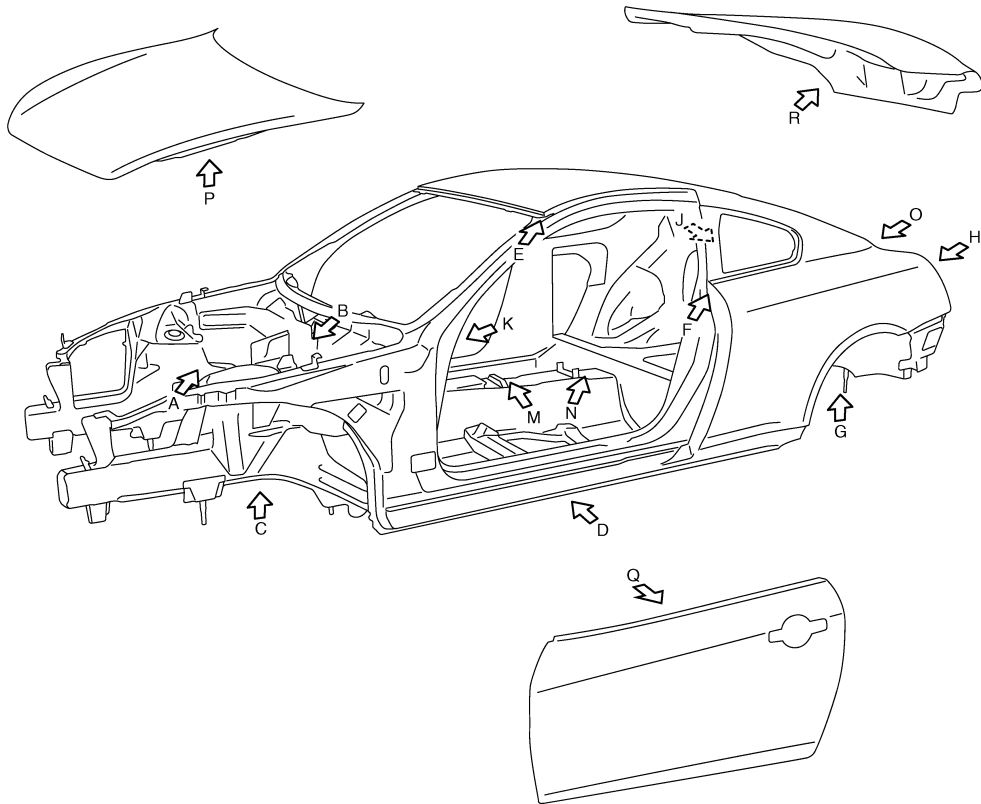
The following figure shows the areas that are sealed at the factory. Sealant that is applied to these areas should be smooth and free from cuts or gaps. Care should be taken not to apply an excess amount of sealant and not to allow other unaffected parts to come into contact with the sealant.

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CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



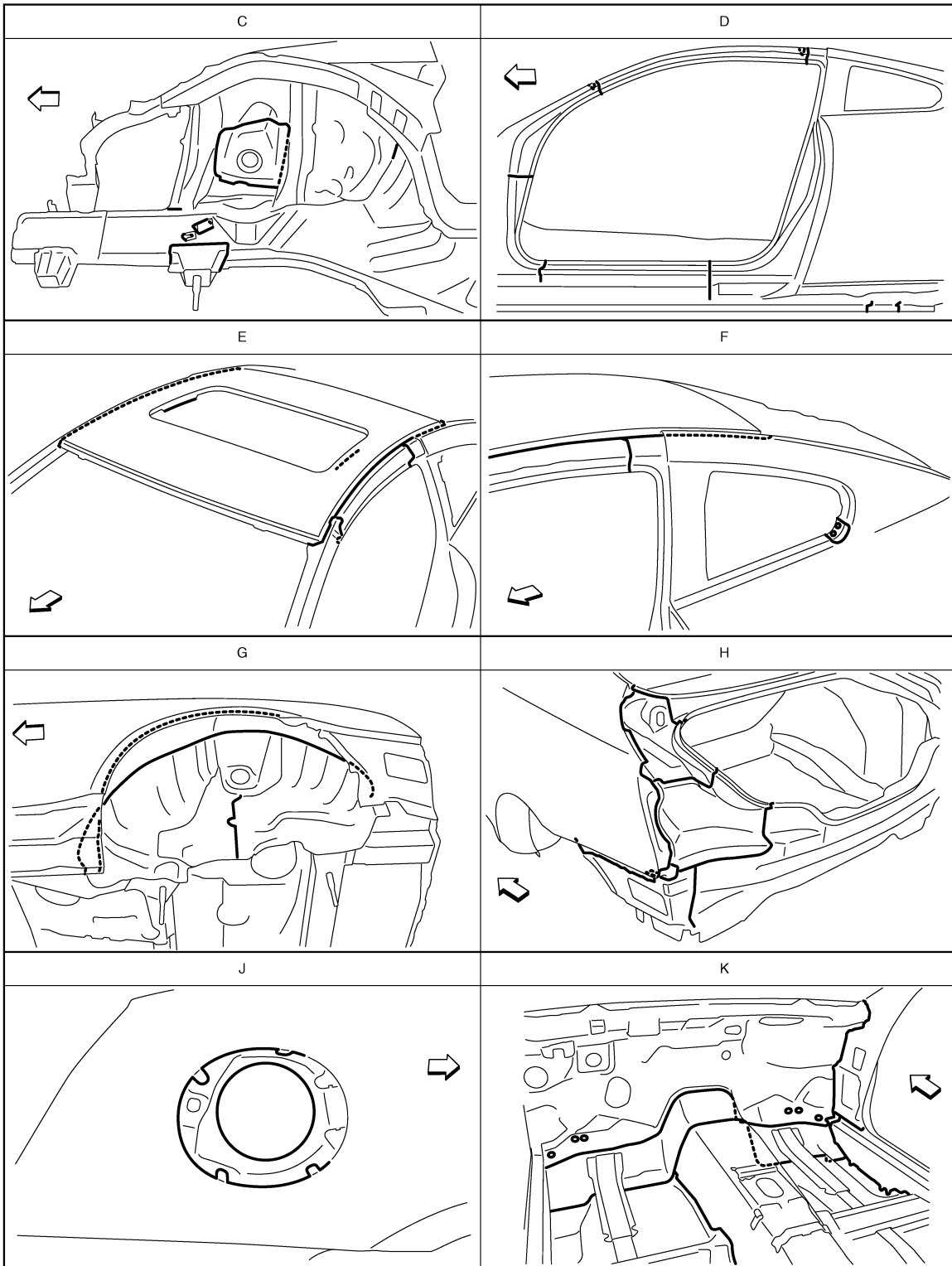
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←: Vehicle front
—: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

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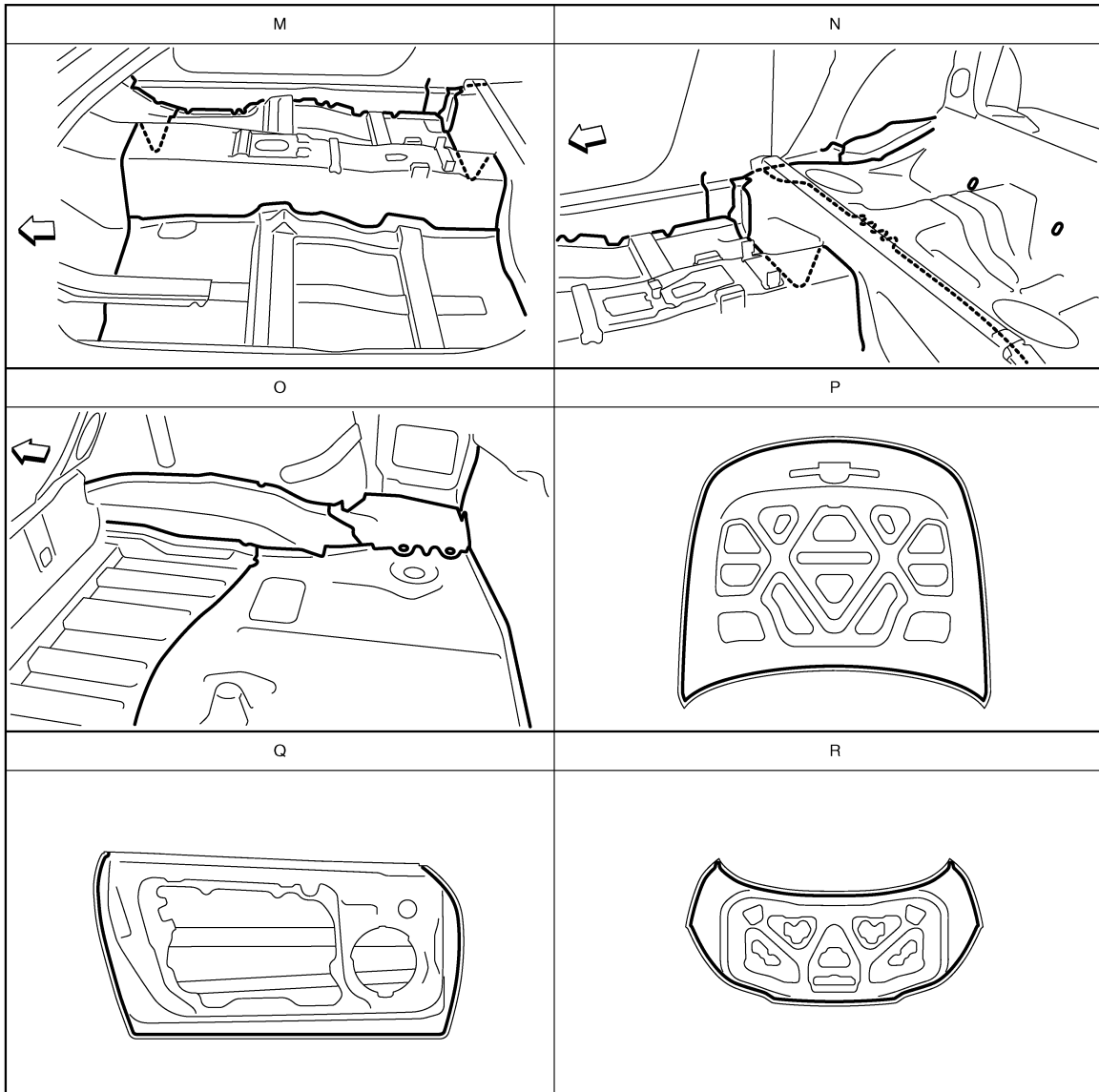
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←: Vehicle front
 —: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



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←: Vehicle front

■: Sealed portions

Body Sealing (AWD)

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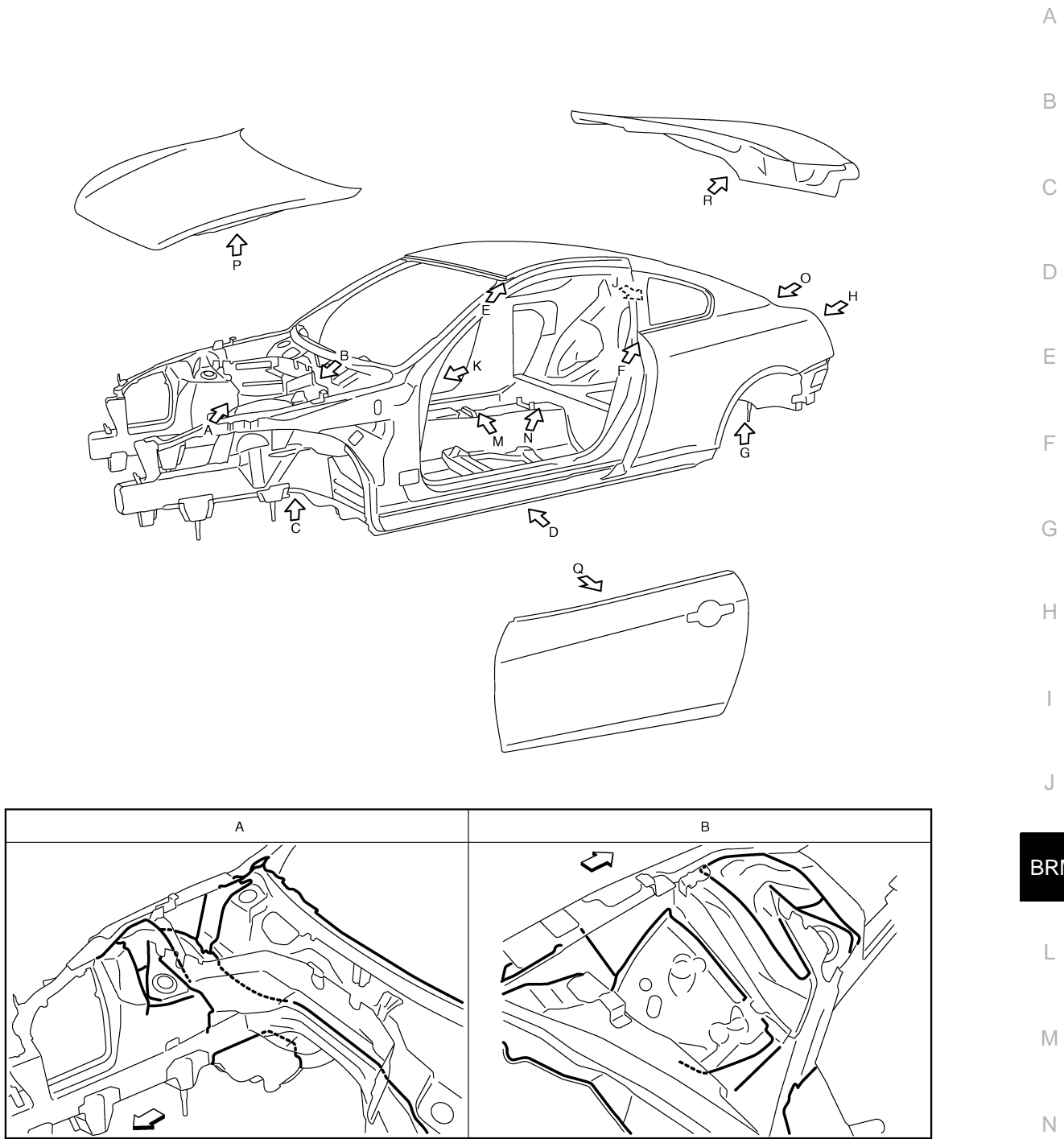
DESCRIPTION

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.

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

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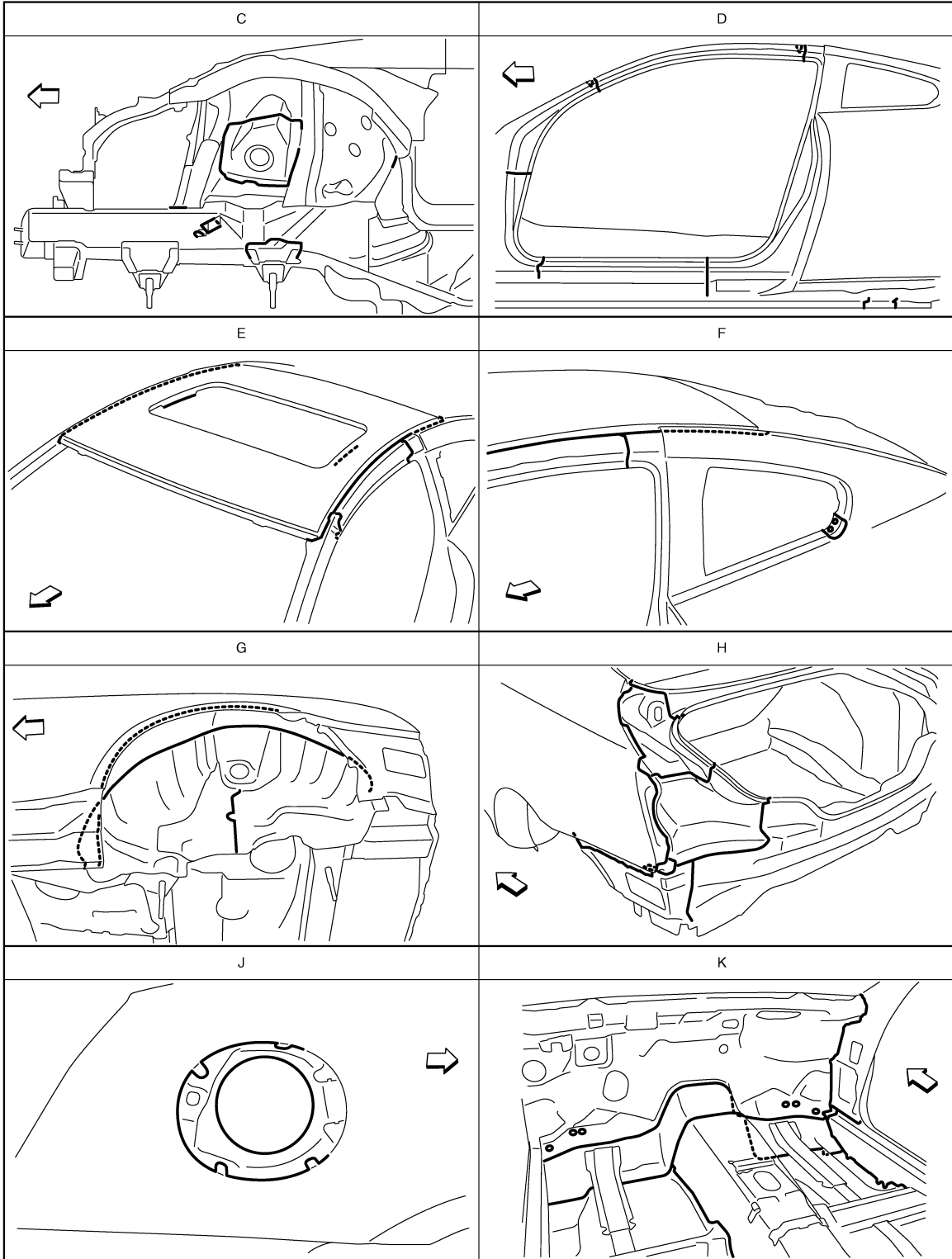
←: Vehicle front
—: Sealed portions

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CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



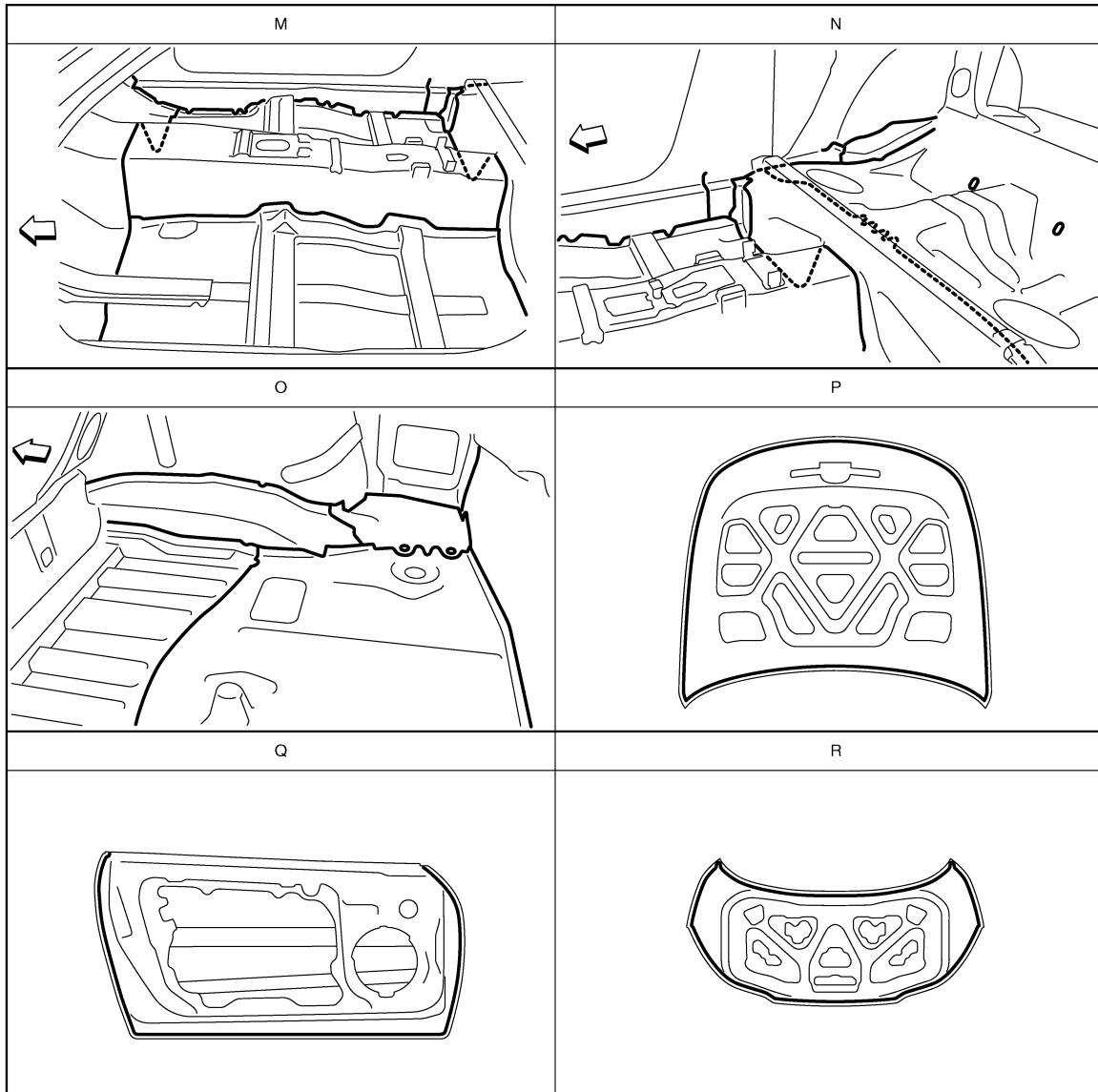
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↶: Vehicle front
—: Sealed portions

CORROSION PROTECTION

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



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←: Vehicle front
—: Sealed portions

BODY CONSTRUCTION

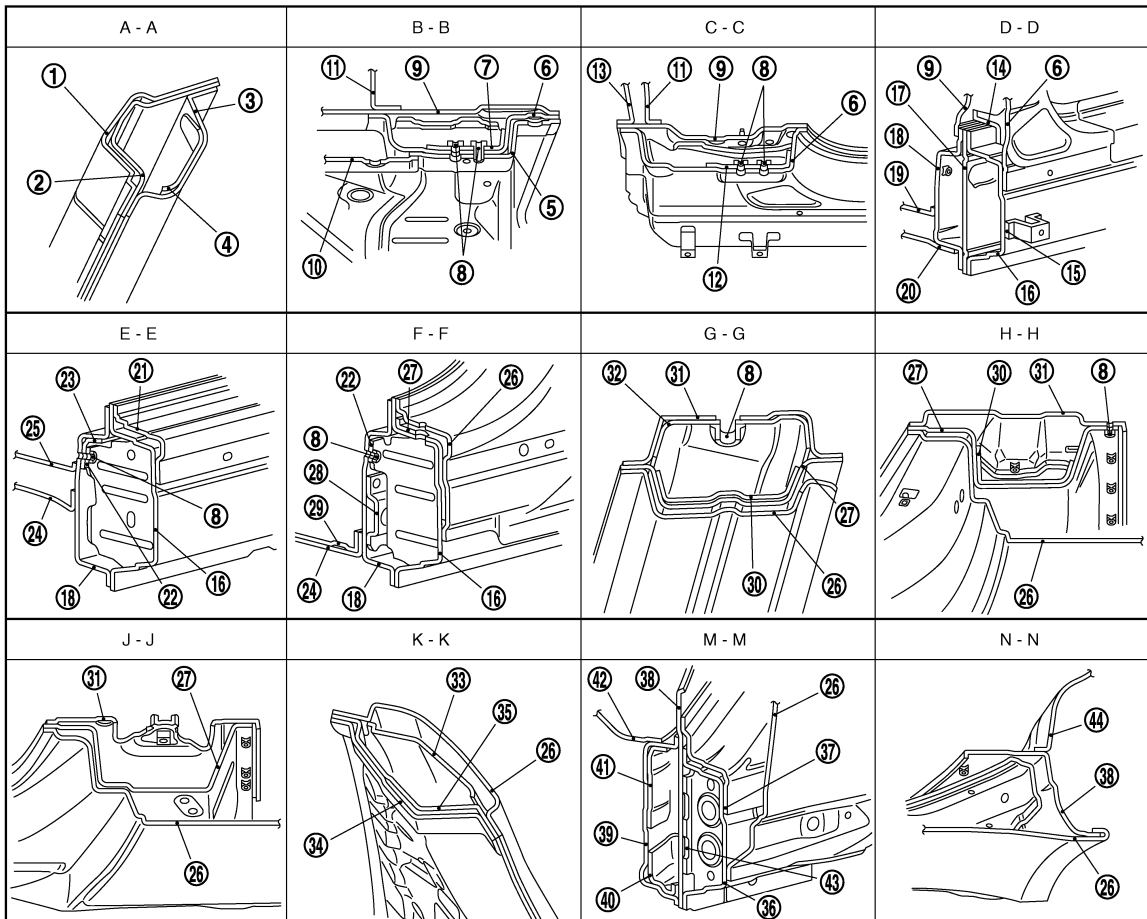
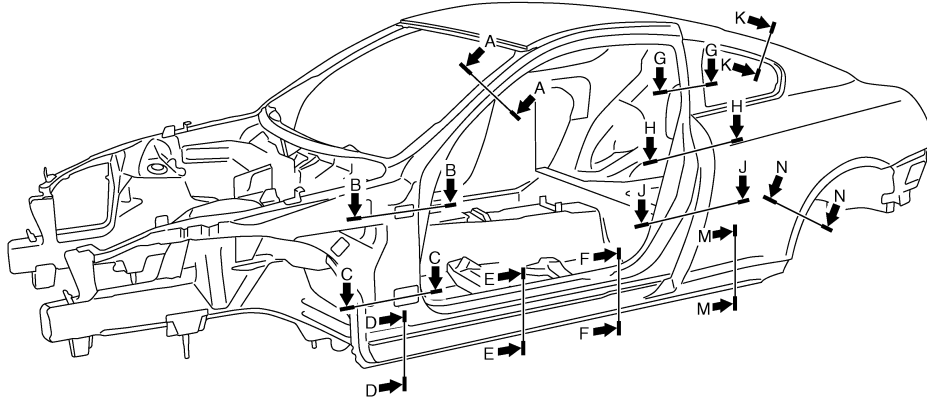
< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

BODY CONSTRUCTION

Body Construction

INFOID:000000008478940



- | | | |
|-------------------------------------|-------------------------------------|-----------------------------|
| 1. Upper outer front pillar | 2. Outer front pillar reinforcement | 3. Upper inner front pillar |
| 4. Inner front pillar reinforcement | 5. Lower outer front pillar | 6. Front pillar hinge brace |
| 7. Upper hinge plate | 8. Weld nut | 9. Upper rear hoodledge |

JSKIA0371GB

BODY CONSTRUCTION

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

10. Hoodledge reinforcement	11. Upper dash	12. Lower hinge plate
13. Lower dash crossmember	14. Lower front pillar gusset	15. Front fender bracket
16. Outer sill reinforcement	17. Lower front pillar reinforcement	18. Inner sill
19. Lower dash	20. Front side member outrigger	21. Outer step sill
22. Outer sill brace	23. Inner sill reinforcement	24. Front floor
25. 2nd crossmember	26. Rear fender	27. Lock pillar reinforcement
28. Center sill reinforcement	29. 3rd crossmember	30. Upper inner lock pillar reinforcement
31. Inner lock pillar	32. Lock pillar seat belt anchor	33. Rear pillar reinforcement
34. Inner side roof rail	35. Inner rear pillar	36. Outer rear sill reinforcement
37. Outer rear wheelhouse extension	38. Outer rear wheelhouse	39. Rear side member front
40. Rear tie down hook bracket	41. Rear side member front reinforcement	42. Rear floor front
43. Outer rear wheelhouse brace	44. Inner rear wheelhouse	

Rear Fender Hemming Process

INFOID:000000008478941

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:

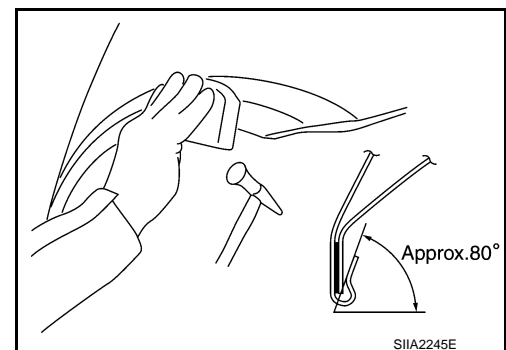
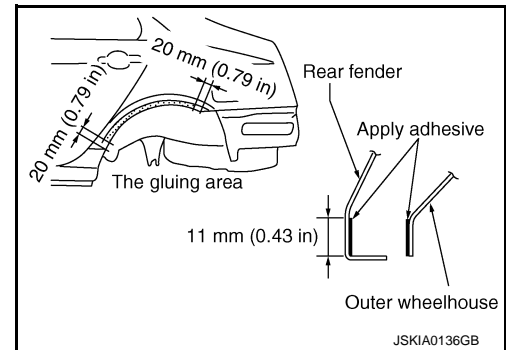
Ensure that the area that is to be glued around the outer wheelhouse is undamaged or defaced.

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.



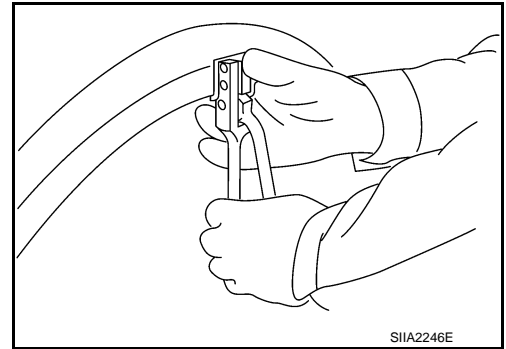
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BODY CONSTRUCTION

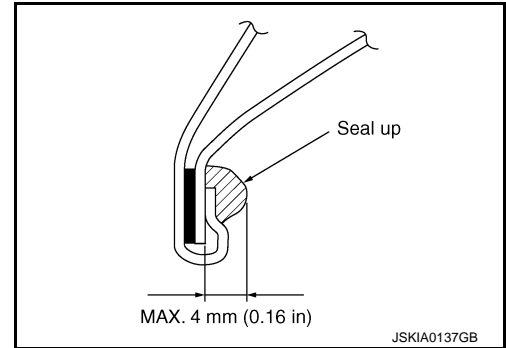
< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

- 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

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

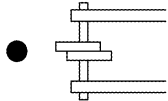
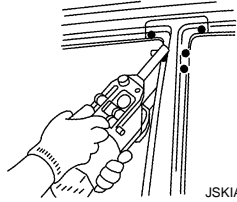
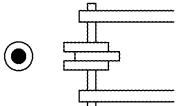
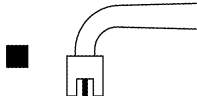



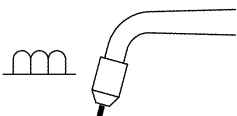
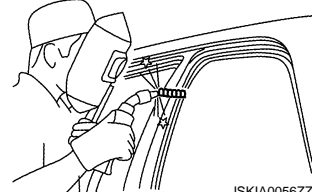
REPLACEMENT OPERATIONS

Description

INFOID:000000008478942

- 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.

Symbol marks	Description	
 <p>JSKIA0049ZZ</p>	2-spot welds	 <p>JSKIA0053ZZ</p>
 <p>JSKIA0050ZZ</p>	3-spot welds	
 <p>JSKIA0051ZZ</p>	MIG plug weld	 <p>JSKIA0054ZZ</p> <p>For 3 panels plug weld method</p> <div style="display: flex; flex-direction: column; align-items: center;"> <div data-bbox="1136 1438 1299 1480"> <p>■ A </p> </div> <div data-bbox="1136 1533 1299 1575"> <p>■ B </p> </div> </div> <p>JSKIA0055ZZ</p>
 <p>JSKIA0052ZZ</p>	MIG seam weld / Point weld	 <p>JSKIA0056ZZ</p>

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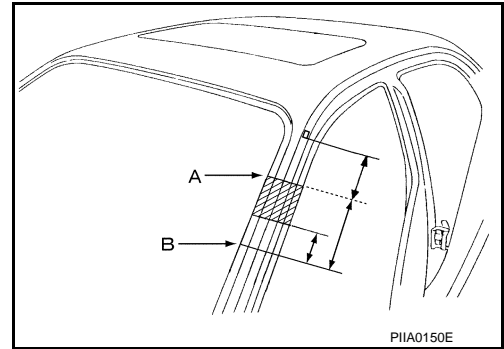
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REPLACEMENT OPERATIONS

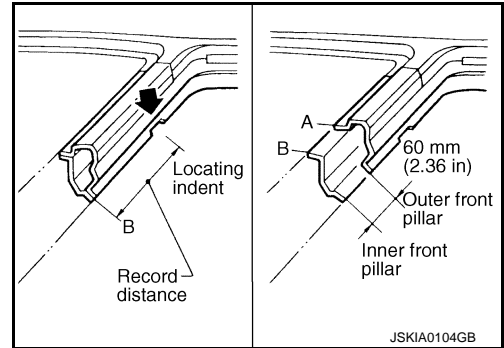
[FOR USA AND CANADA]

< REMOVAL AND INSTALLATION >

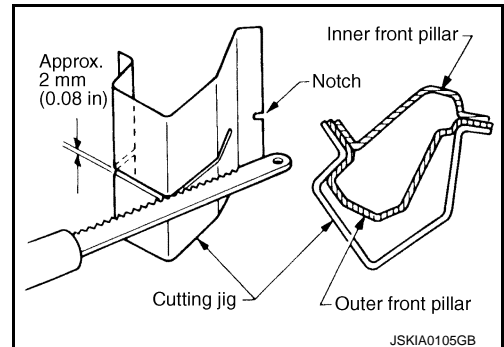
- Front pillar butt joint can be determined anywhere within shaded area as shown in the figure. The best location for the butt joint is at position A due to the construction of the vehicle.



- 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.

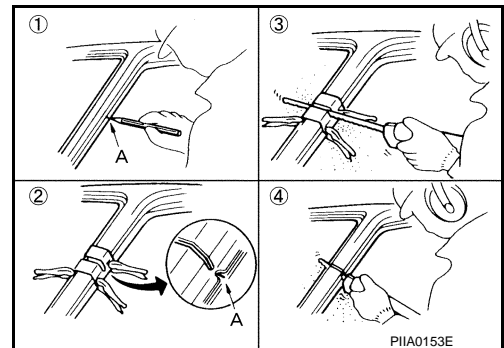


- Prepare a cutting jig to make outer pillar easier to cut. Also, this will permit the service part to be accurately cut at the joint position.



- 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.



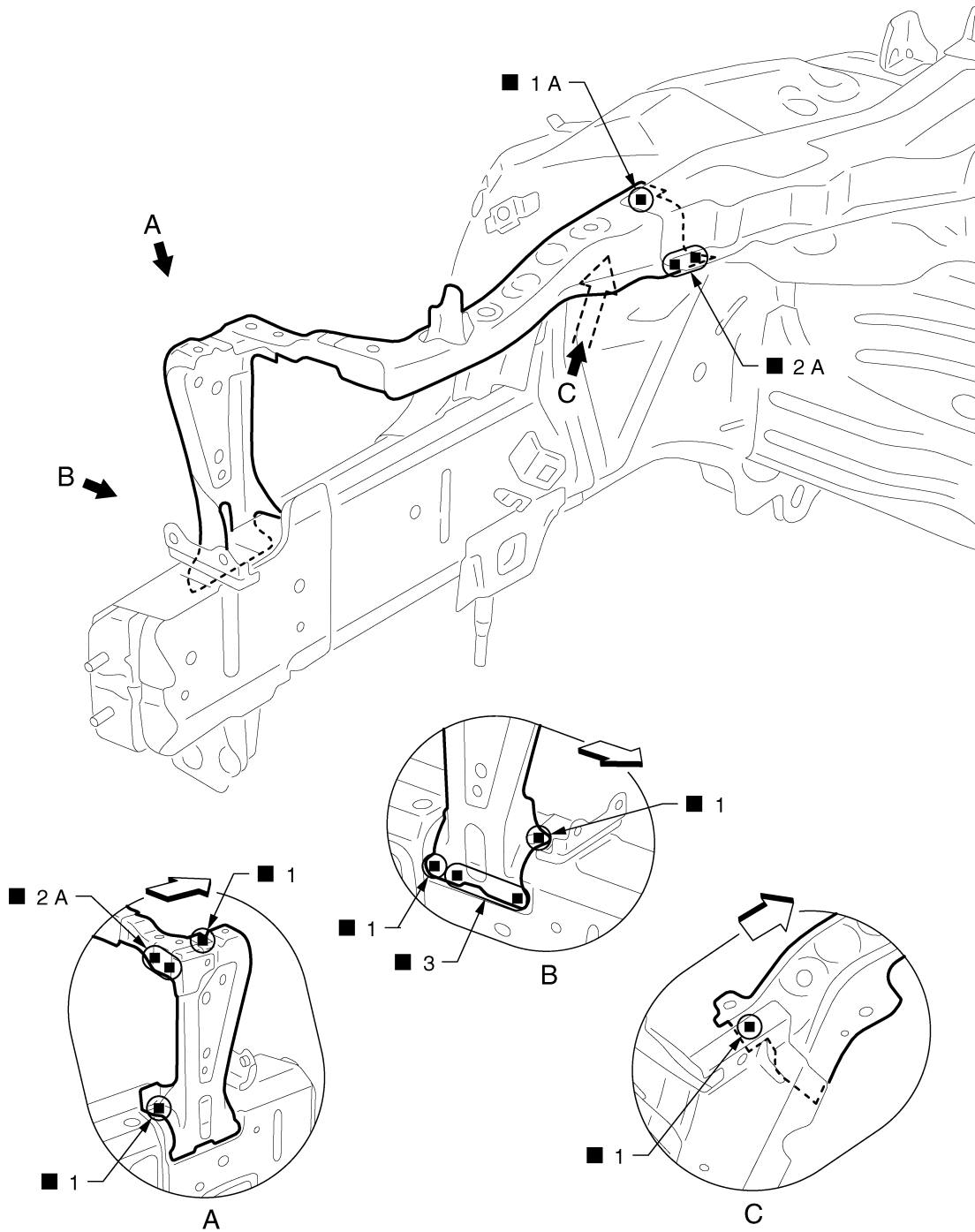
REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

Radiator Core Support

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←: Vehicle front

Replacement parts

- Radiator core support assembly (LH)
- Front side member connector assembly (LH)

Hoodledge

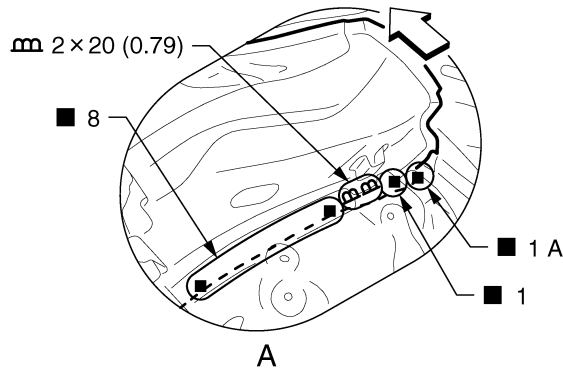
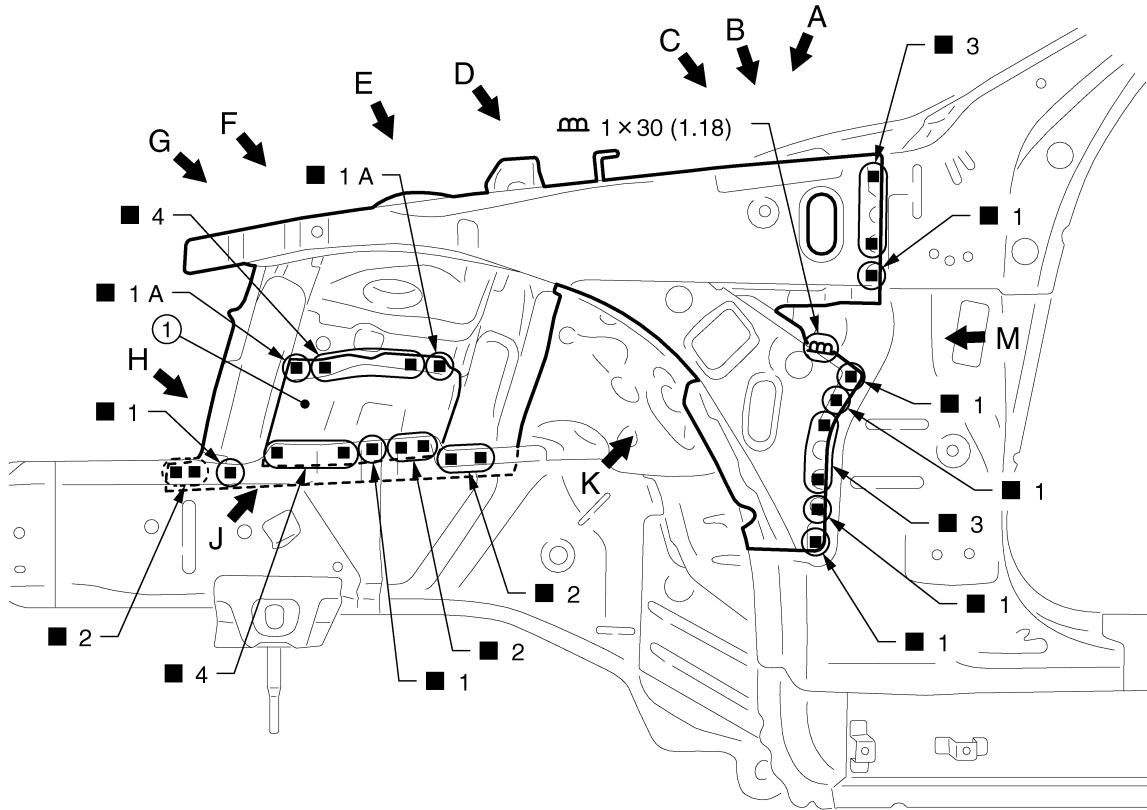
INFOID:000000008478944

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

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0374GB

1. Front side member center closing plate

← Vehicle front

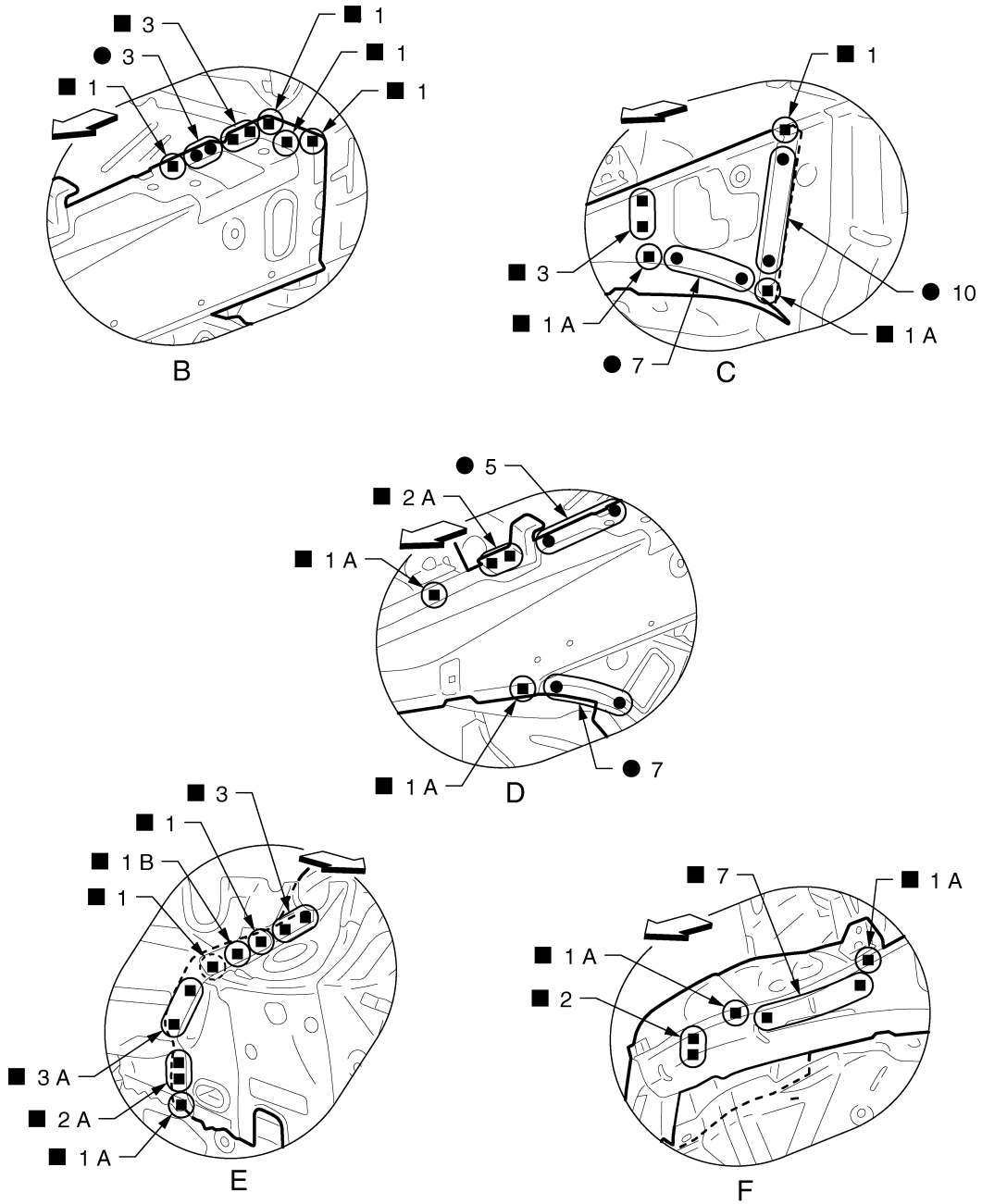
Replacement parts

- Upper front hoodledge (LH)
- Hoodledge reinforcement (LH)
- Front strut housing (LH)

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0375GB

← Vehicle front

View C and F: Before installing hoodledge reinforcement

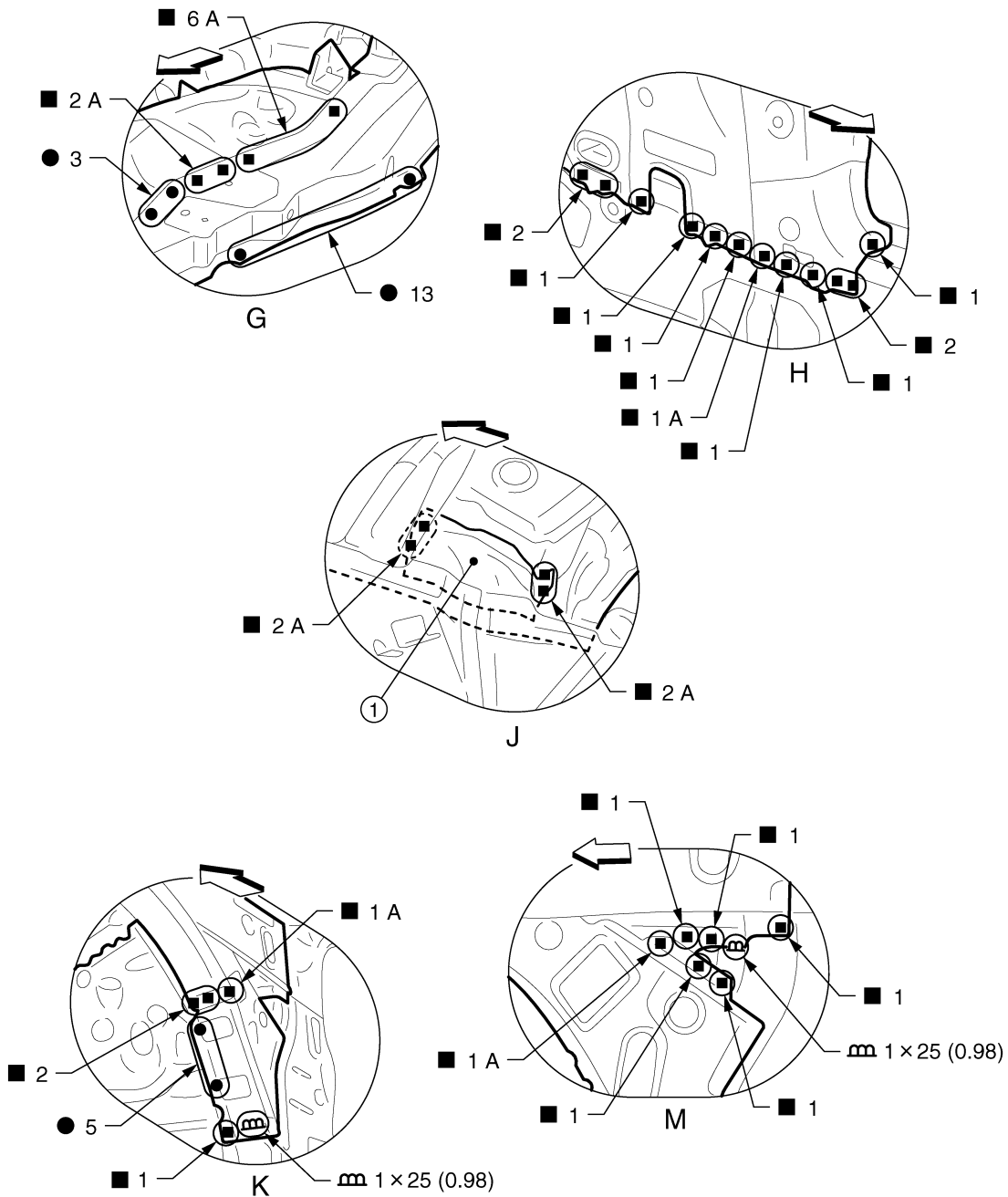
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REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0376GB

- 1. Front side member center closing plate

↔: Vehicle front

Front Side Member (2WD)

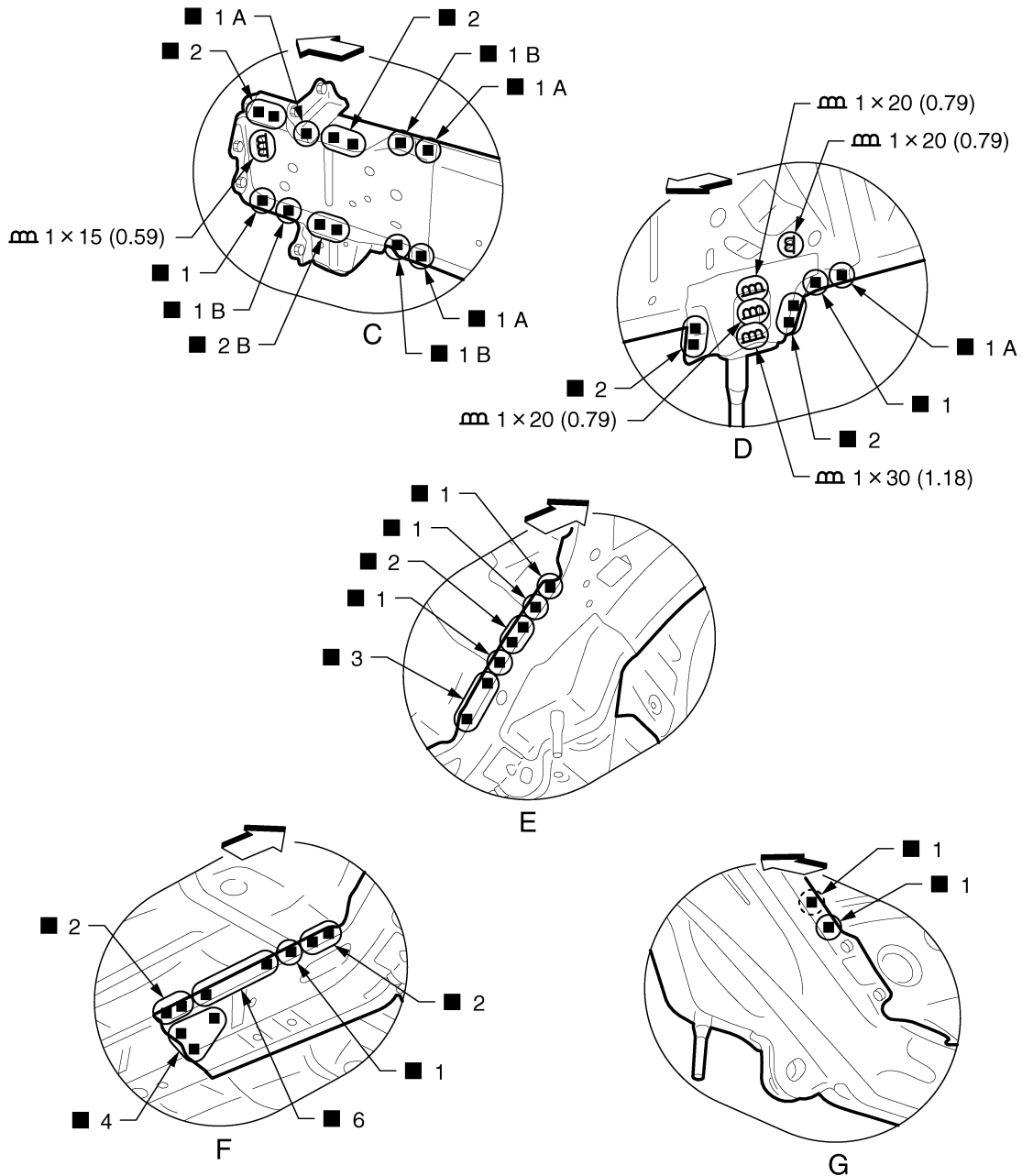
INFOID:000000008478945

Work after radiator core support and hoodledge are removed.
 Assemble the hoodledge and check the fitting according to Body Alignment before replacing the front side member center closing plate.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0378GB

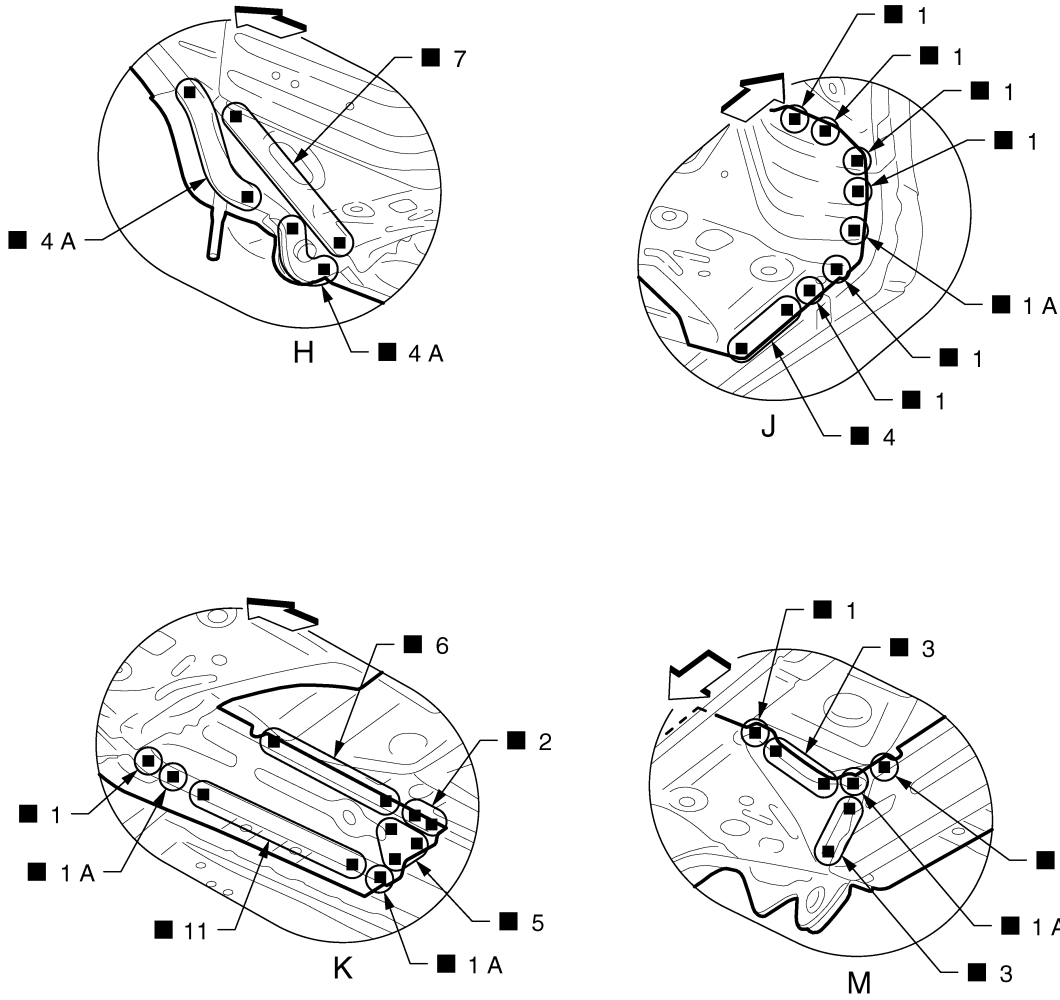
↔: Vehicle front

View G: Before installing front side member outrigger assembly

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



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JSKIA0379GB

← Vehicle front

Front Side Member (AWD)

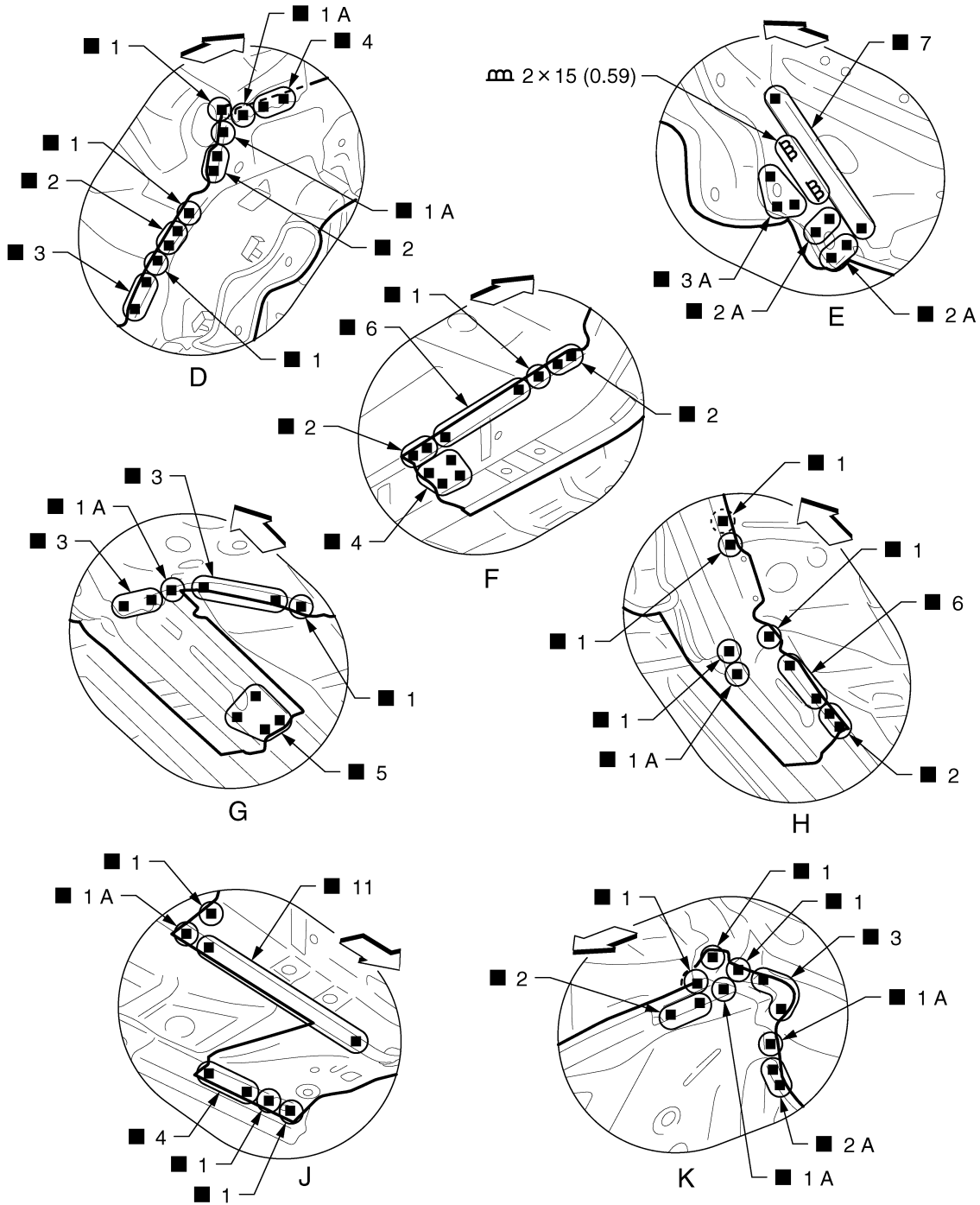
INFOID:000000008478946

Work after radiator core support and hoodledge are removed.
Assemble the hoodledge and check the fitting according to Body Alignment before replacing the front side member center closing plate.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

↔: Vehicle front

View F and H: Before installing front side member outrigger assembly

Front Side Member (Partial Replacement)

Work after radiator core support is removed.

JSKIA0867GB

INFOID:000000008478947

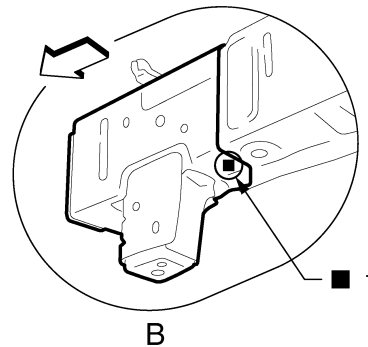
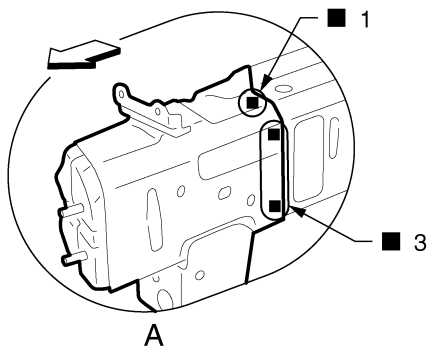
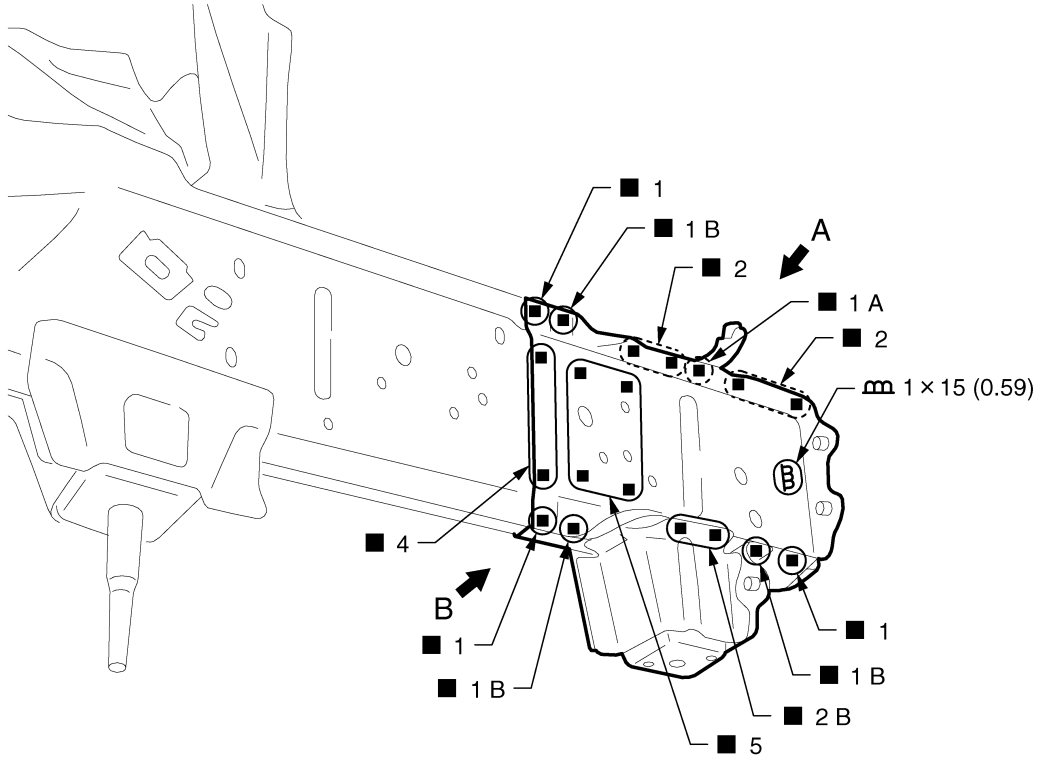
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REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0873GB

Unit: mm (in)

↔: Vehicle front

Replacement parts

- Front side member front extension (RH)
- Front side member front closing plate (RH)

Front Pillar

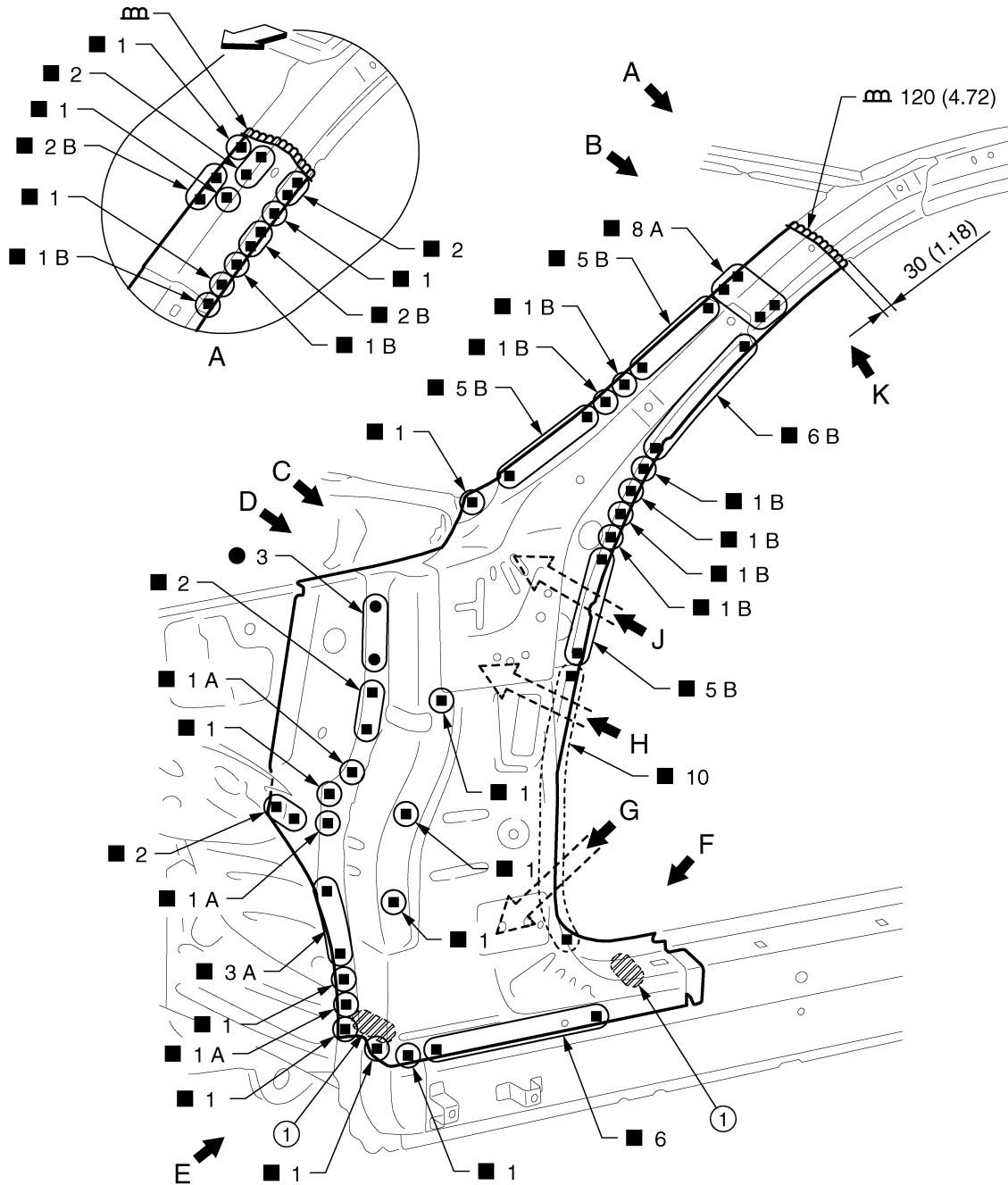
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Work after hoodledge reinforcement and outer step sill are removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0381GB

1. Urethane foam

↔: Vehicle front

Replacement parts

- Upper front pillar reinforcement (LH)
- Upper rear hoodledge (LH)
- Upper inner front pillar assembly (LH)

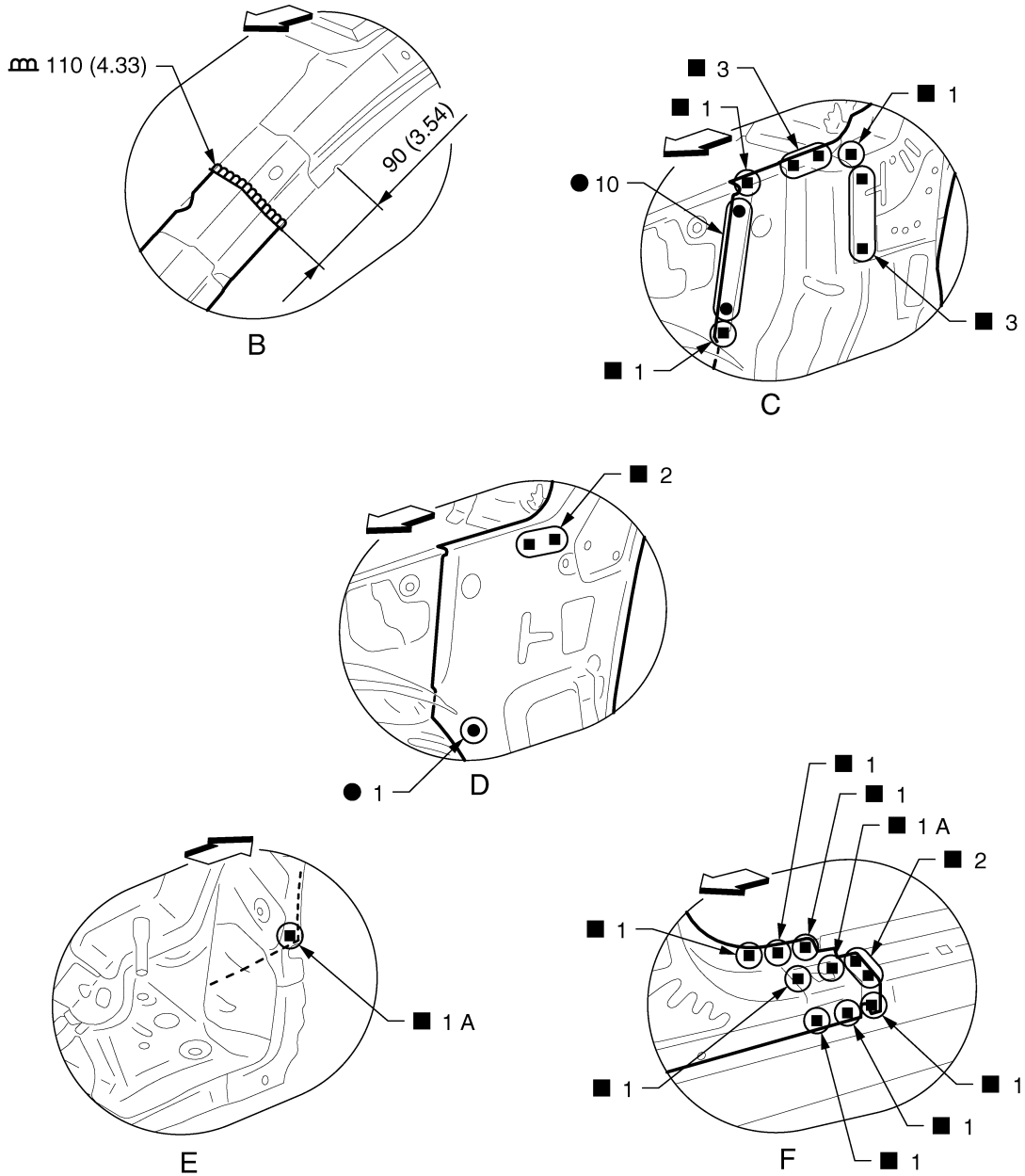
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REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

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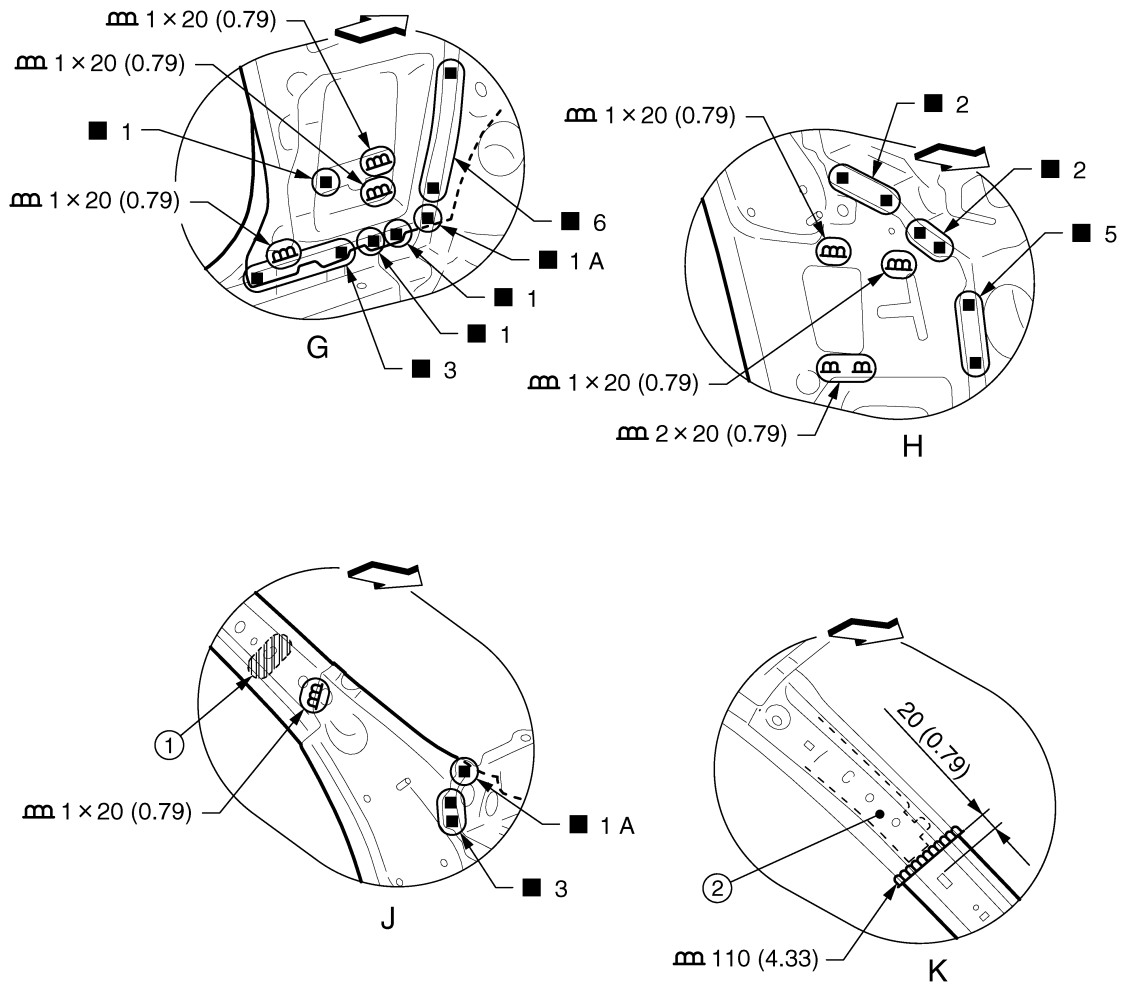
← Vehicle front

View D: Before installing upper front pillar reinforcement

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0383GB

1. Urethane foam

2. Inner front pillar reinforcement

←: Vehicle front

Outer Sill

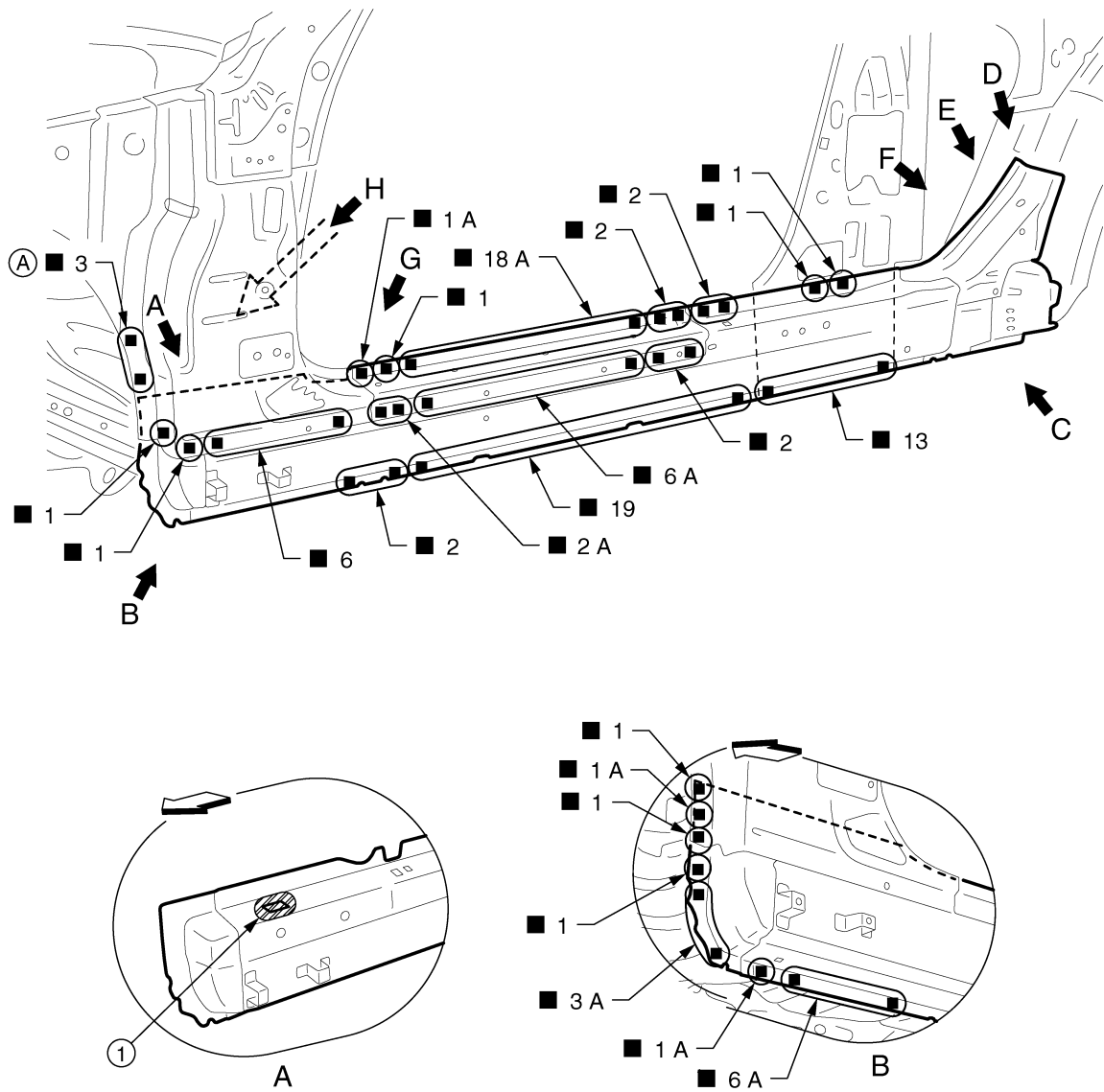
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Work after hoodledge reinforcement, outer lock pillar reinforcement and rear fender are removed.
Remove the welding point (A) for easier replacement.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0384GB

1. Urethane foam (Cover the hole with urethane foam completely.)

←: Vehicle front

Replacement parts

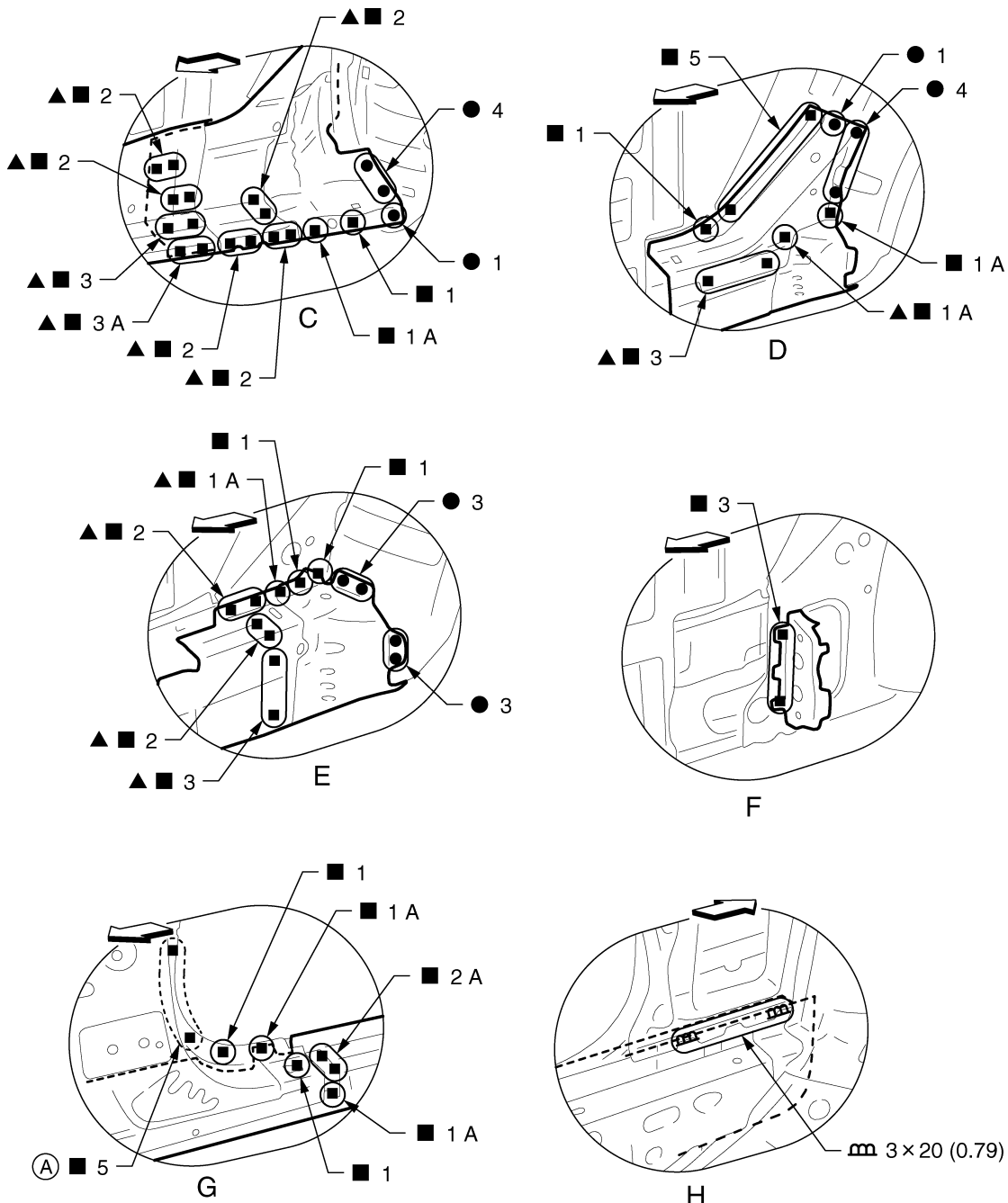
- Outer step sill (LH)
- Outer sill reinforcement (LH)
- Upper outer rear wheelhouse extension (LH)
- Lower outer rear wheelhouse extension (LH)

Remove the welding point (A) for easier replacement.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0385GB

← Vehicle front

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

View D: Before installing outer sill reinforcement

View E: Before installing outer sill reinforcement and upper outer rear wheelhouse extension

View F: Before installing outer sill reinforcement, upper outer rear wheelhouse extension and lower outer rear wheelhouse extension

View G: Before installing outer step sill

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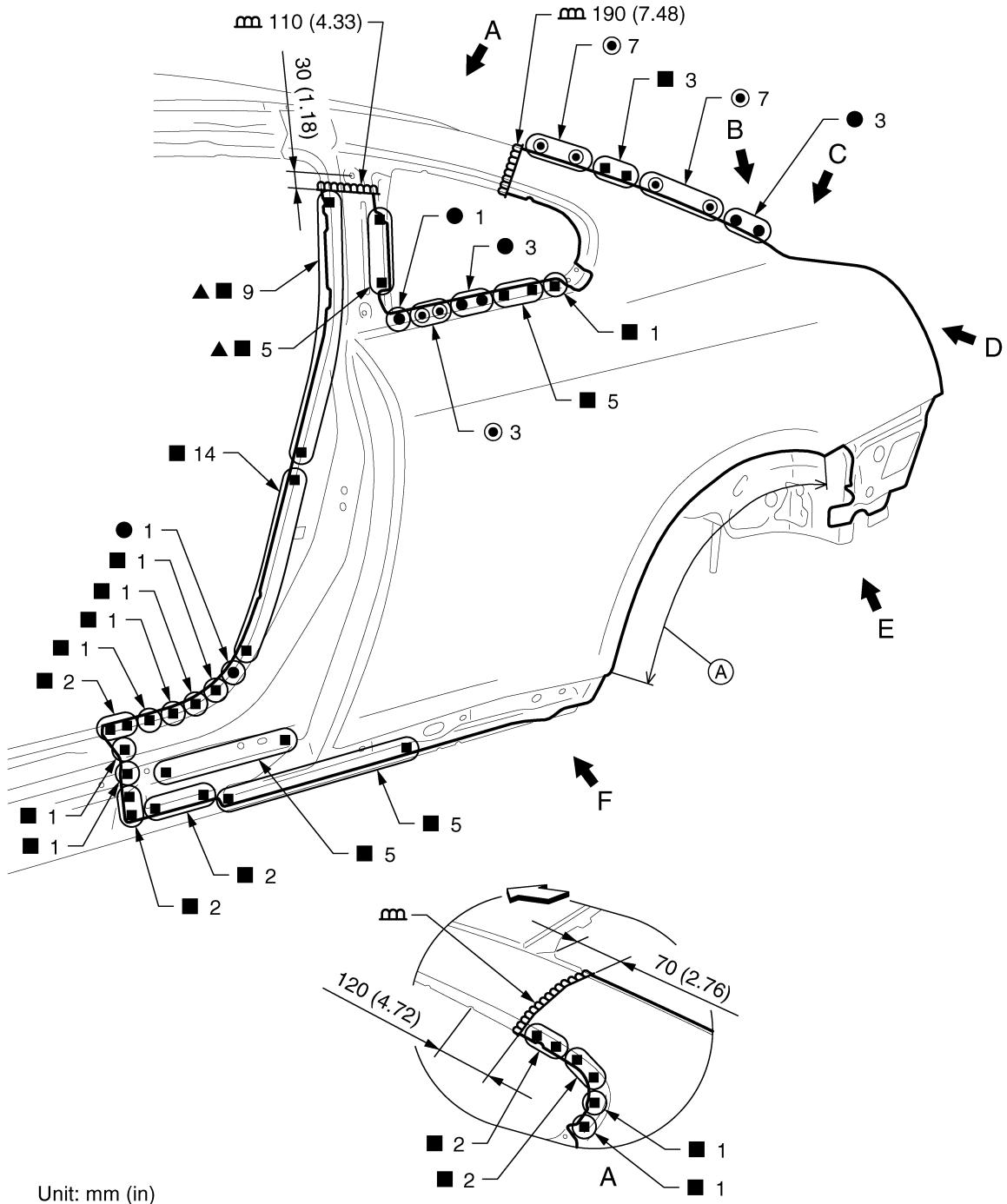
REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

Rear Fender

INFOID:000000008478950



Unit: mm (in)

JSKIA0386GB

A. Hemming portion

↔: Vehicle front

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

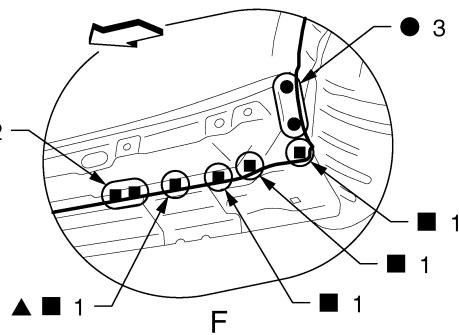
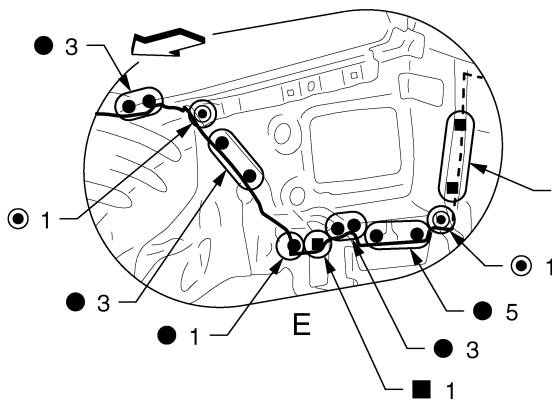
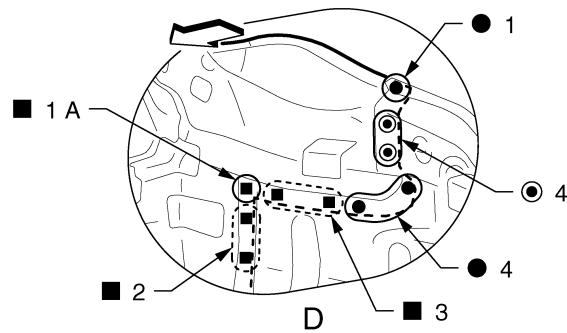
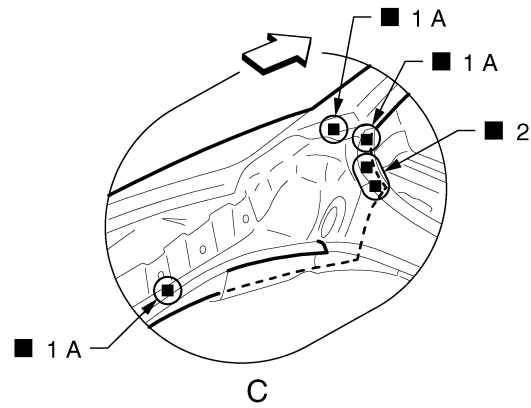
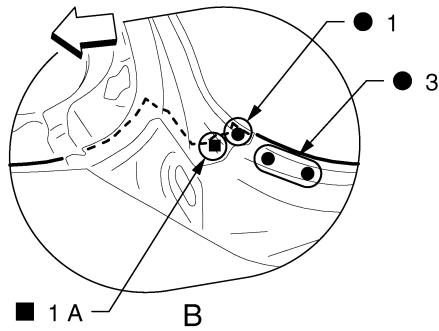
Replacement parts

- Rear fender assembly (LH)

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



↔: Vehicle front

▲: Drill $\phi 8$ mm (0.31 in) hole for the plug welding hole (ultra high strength plate).

INSTALLATION NOTES

JSKIA0387GB

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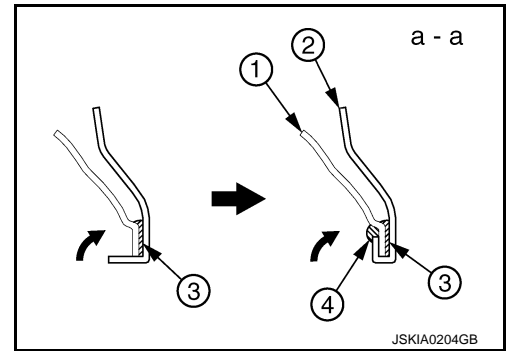
REPLACEMENT OPERATIONS

[FOR USA AND CANADA]

< REMOVAL AND INSTALLATION >

- Apply the adhesive to the flange of wheel arch and hem it.
- Seal up the area around the hemmed end of the flange.
- Refer to [BRM-23. "Rear Fender Hemming Process"](#).

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



Lock Pillar Reinforcement

INFOID:000000008478951

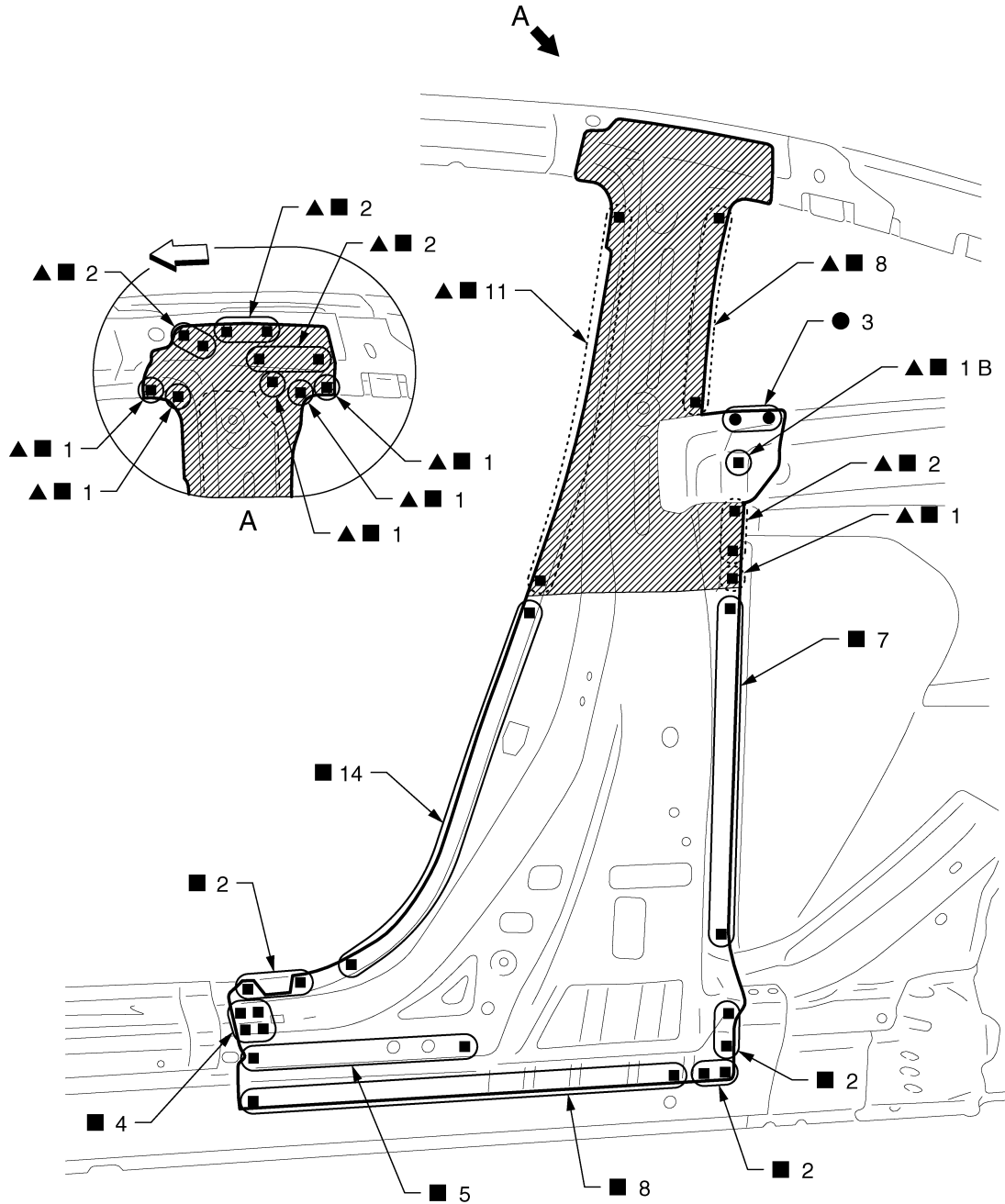
Work after roof and rear fender are removed.

Never cut and joint the shaded area (see Figure) of lock pillar reinforcement, because it is made of ultra high strength steel plate.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0388GB

← Vehicle front

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

Replacement parts

- Outer lock pillar reinforcement (LH)

Lock Pillar Reinforcement (Partial Replacement)

INFOID:0000000008478952

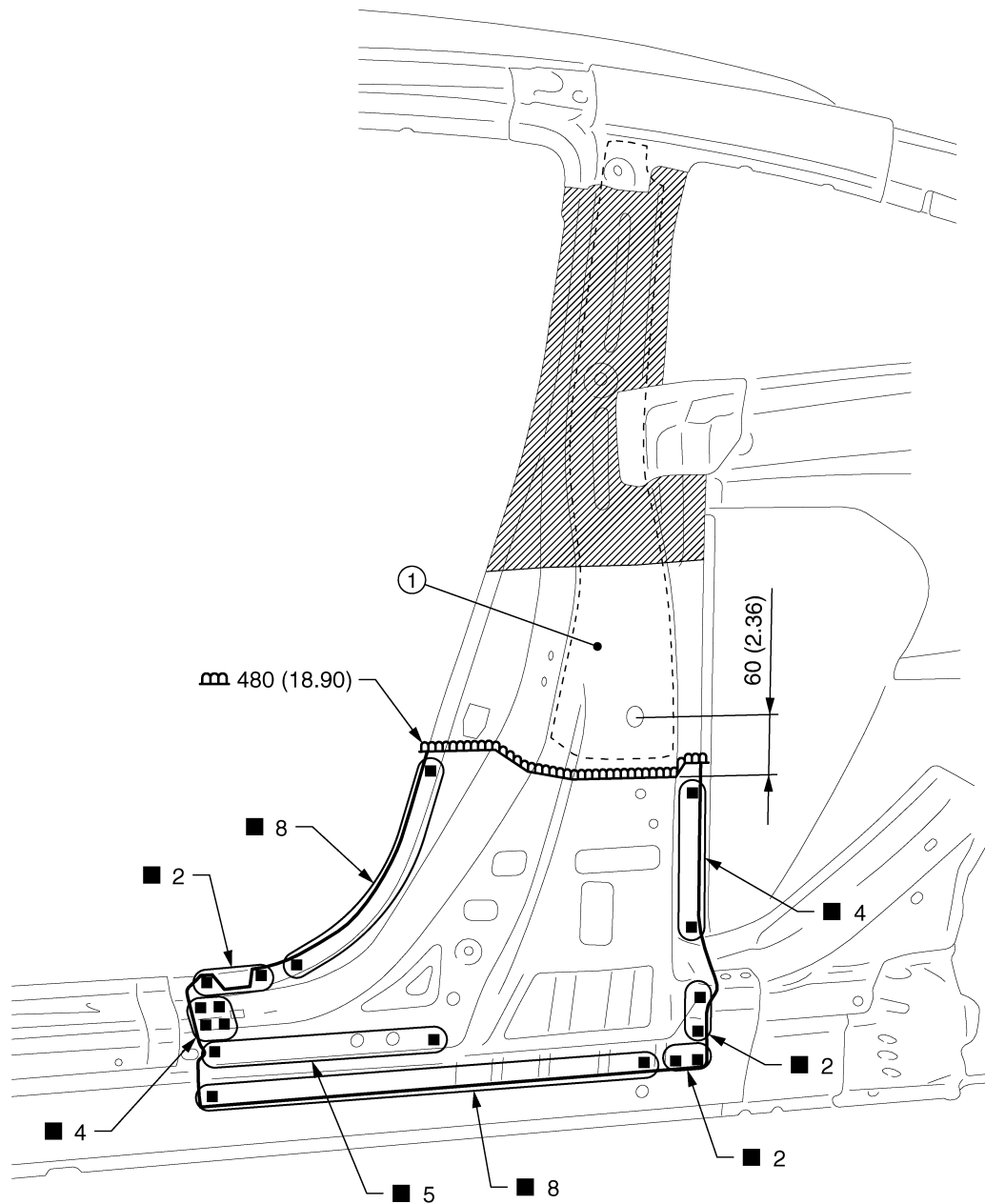
Work after rear fender are removed.

Never cut and joint the shaded area (see Figure) of lock pillar reinforcement and the upper inner lock pillar reinforcement, because they are made of ultra high strength steel plate.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0389GB

1. Upper inner lock pillar reinforcement

↔: Vehicle front

Replacement parts

● Outer lock pillar reinforcement (LH)

Outer Wheelhouse

INFOID:000000008478953

Work after rear fender is removed.

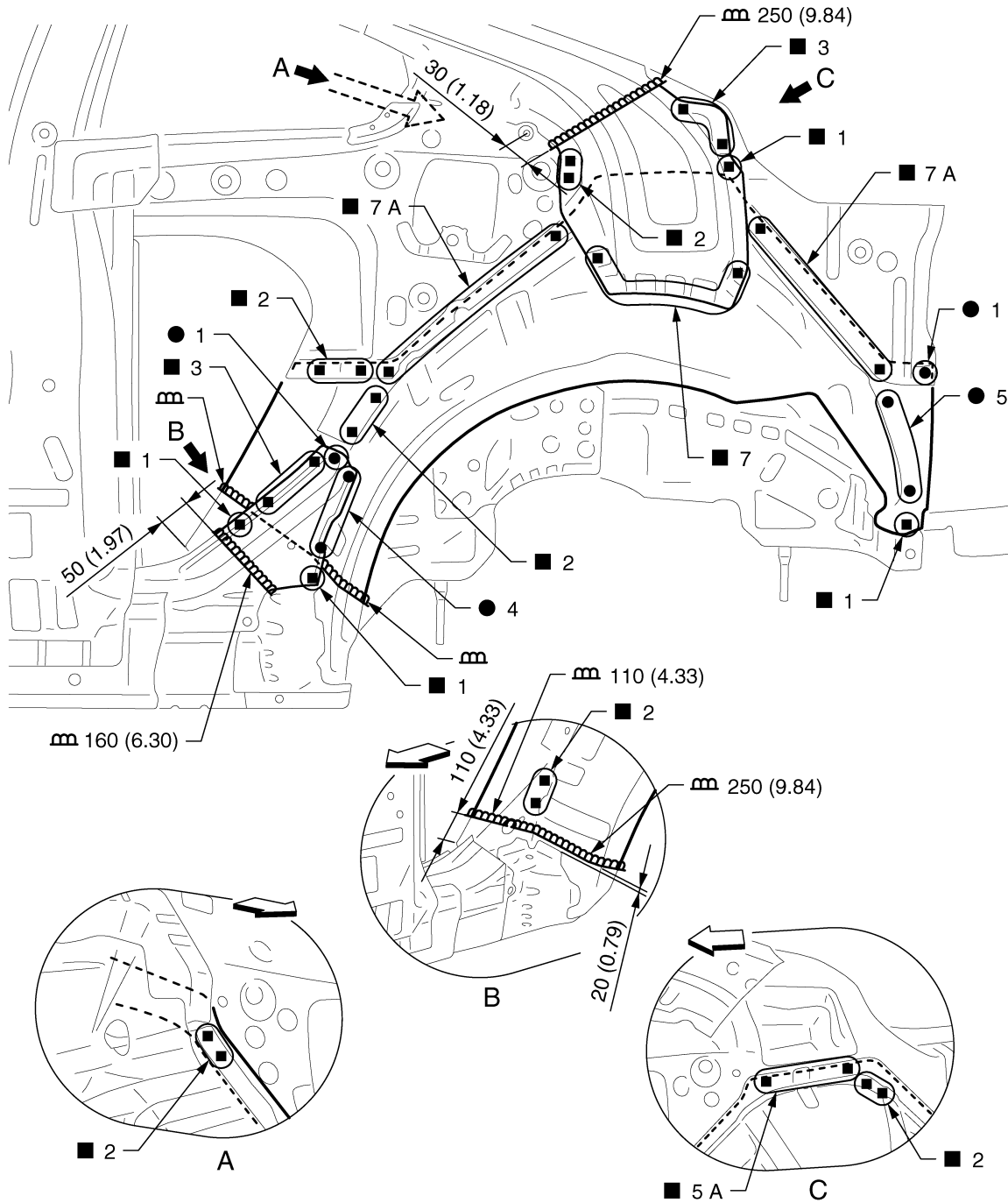
Cut the upper outer rear wheelhouse extension and the rear pillar reinforcement as shown in the figure for repairing the hidden welding point.

Reuse the upper outer rear wheelhouse extension and the rear pillar reinforcement (cut parts).

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0390GB

← vehicle front

Replacement parts

● Outer rear wheelhouse (LH)

View B: Before installing upper outer rear wheelhouse extension

View C: Before installing rear pillar reinforcement

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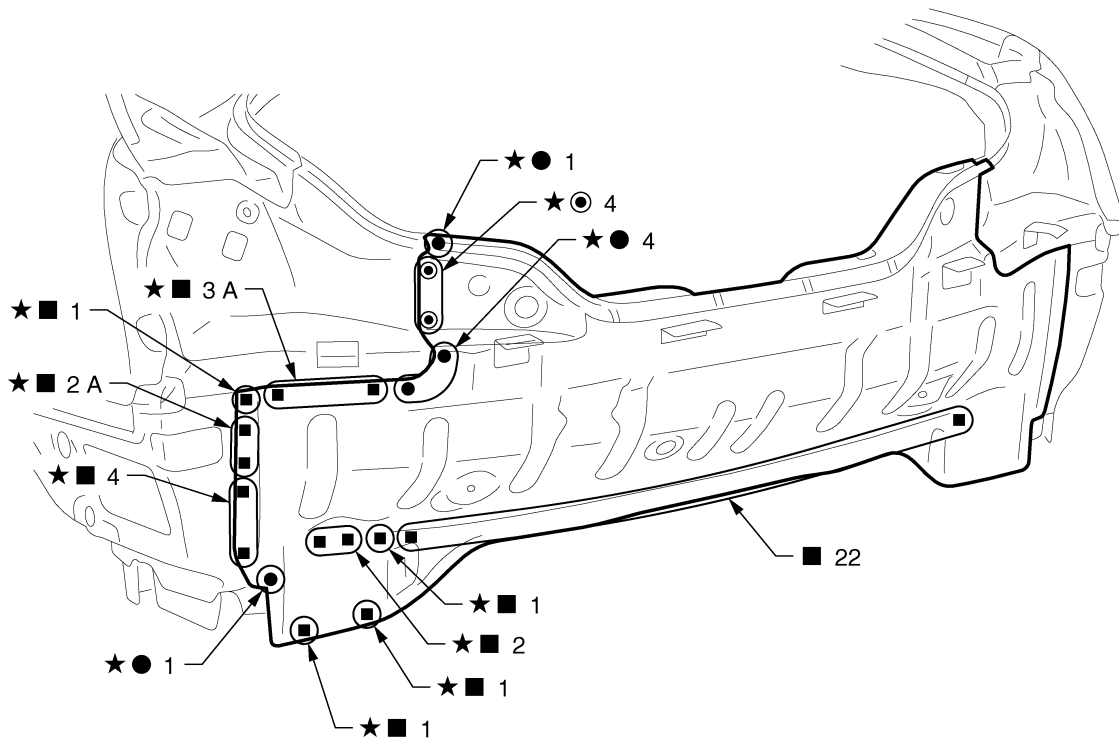
REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]

Rear Panel

INFOID:000000008478954



JSKIA0391GB

★: An equivalent welding portion with the same dimensions is on the opposite side.

Replacement parts

- Rear panel assembly

Rear Floor Rear

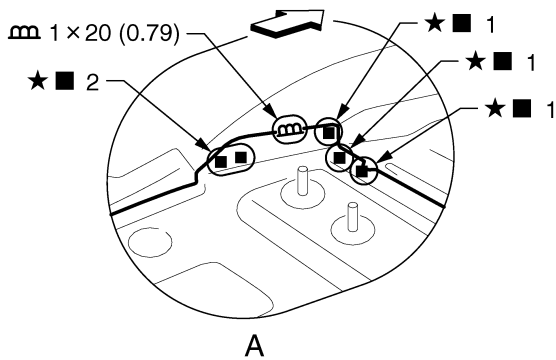
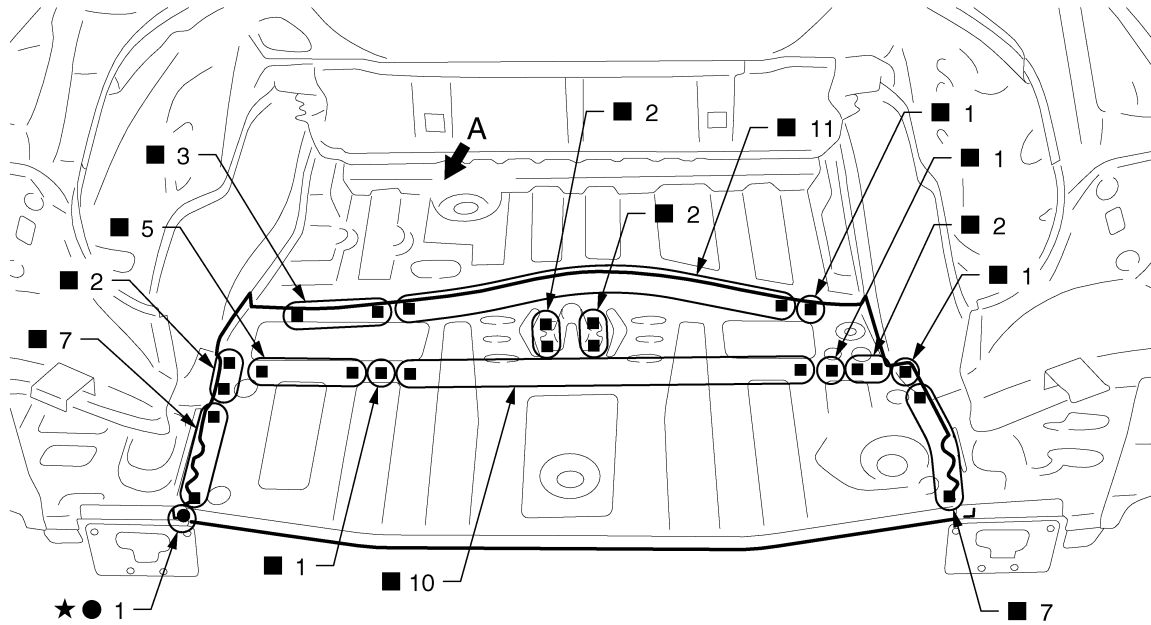
INFOID:000000008478955

Work after rear panel is removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



Unit: mm (in)

JSKIA0392GB

⇐ Vehicle front

★: An equivalent welding portion with the same dimensions is on the opposite side.

Replacement parts

- Rear floor rear
- Spare tire clamp bracket

Rear Side Member Extension (2WD)

INFOID:0000000008478956

Work after rear panel is removed.

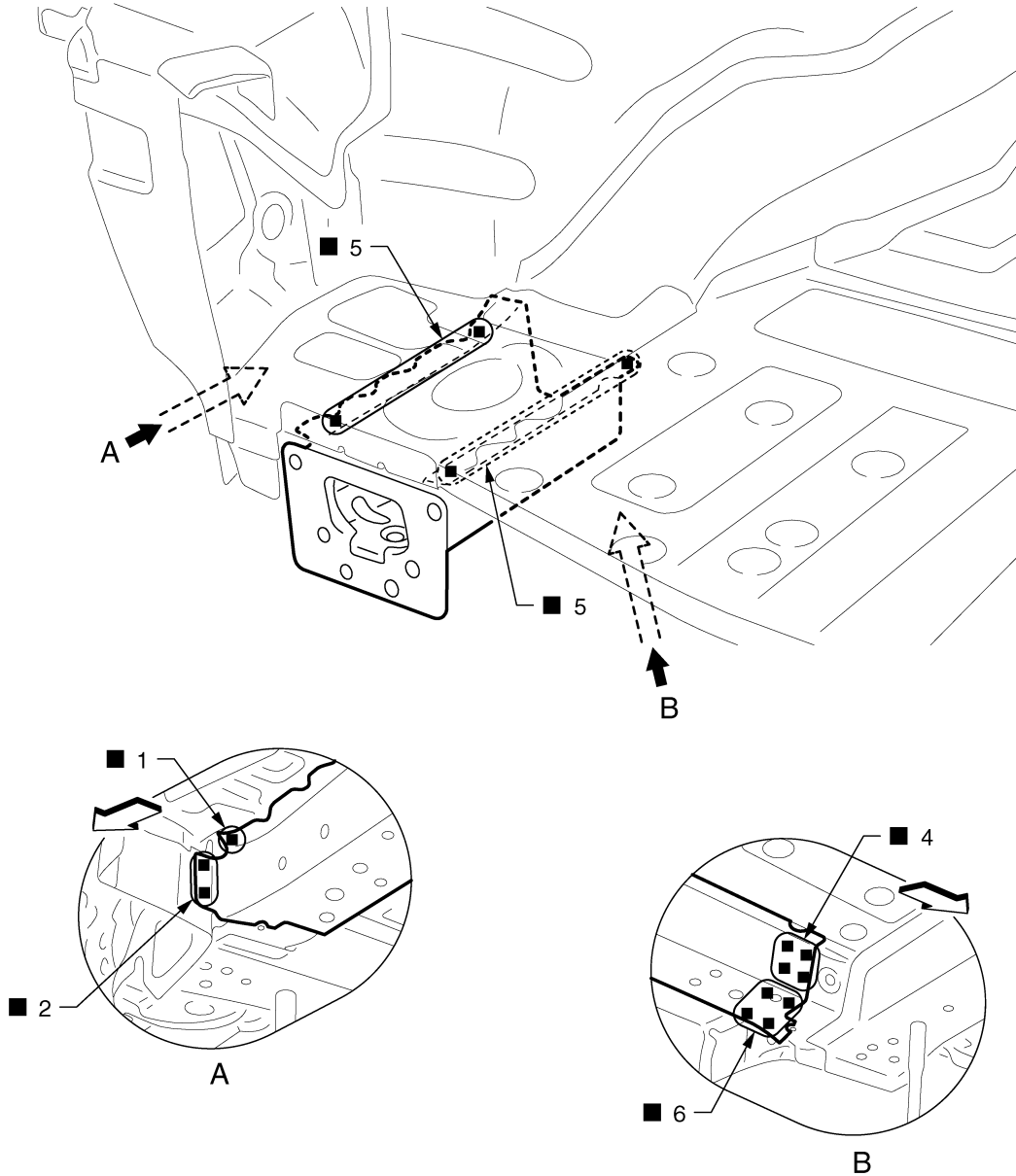
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REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0393GB

←: Vehicle front

Replacement parts

- Rear side member extension (LH)

Rear Side Member Extension (AWD)

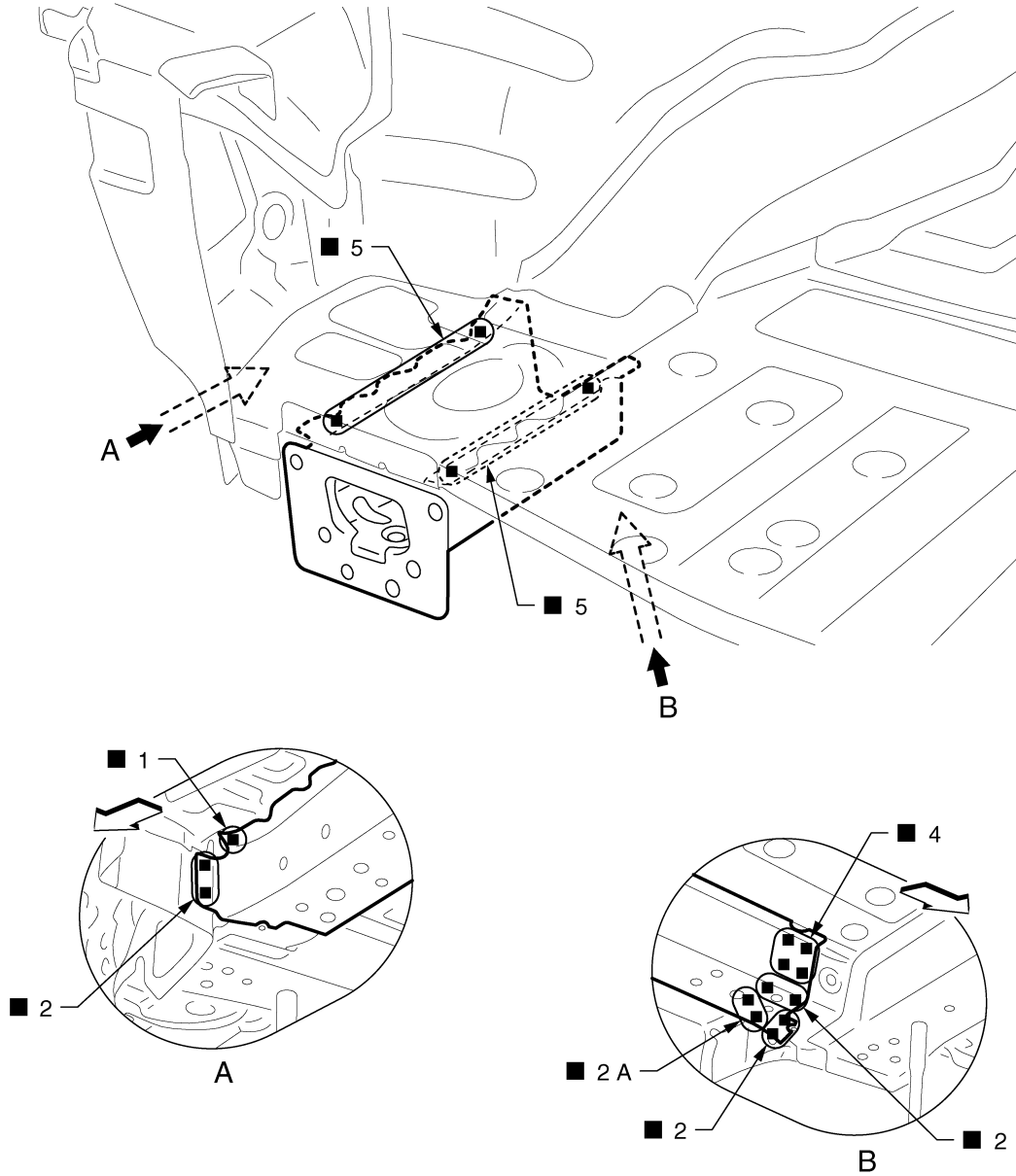
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Work after rear panel is removed.

REPLACEMENT OPERATIONS

< REMOVAL AND INSTALLATION >

[FOR USA AND CANADA]



JSKIA0869ZZ

←: Vehicle front

Replacement parts

- Rear side member extension (LH)

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

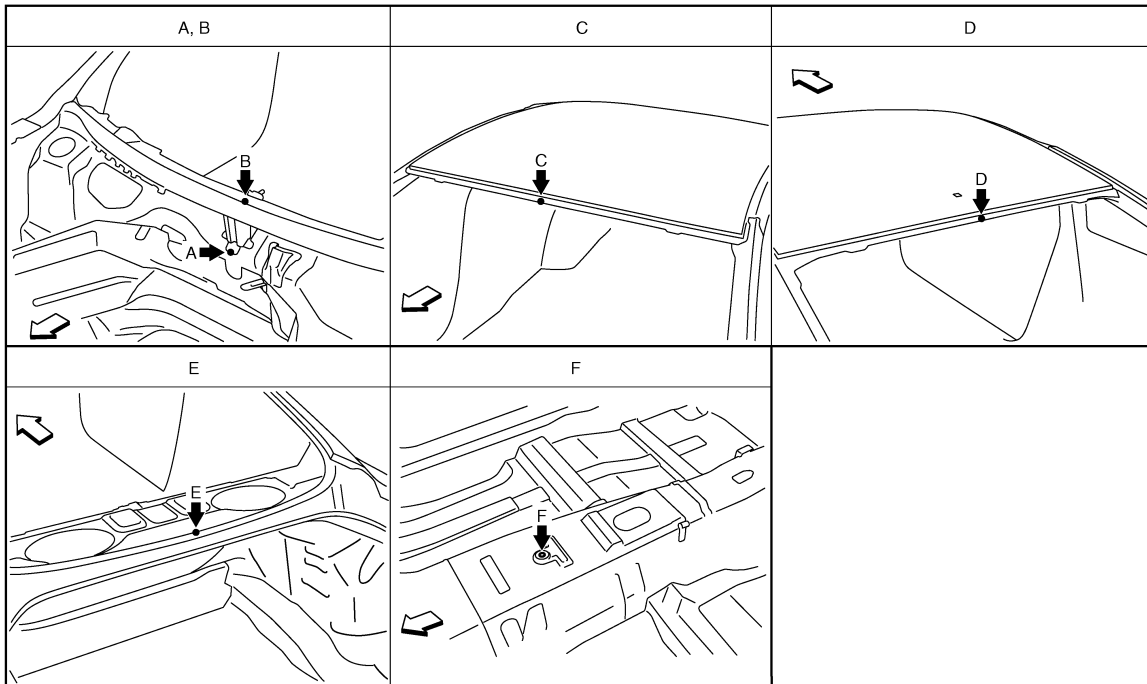
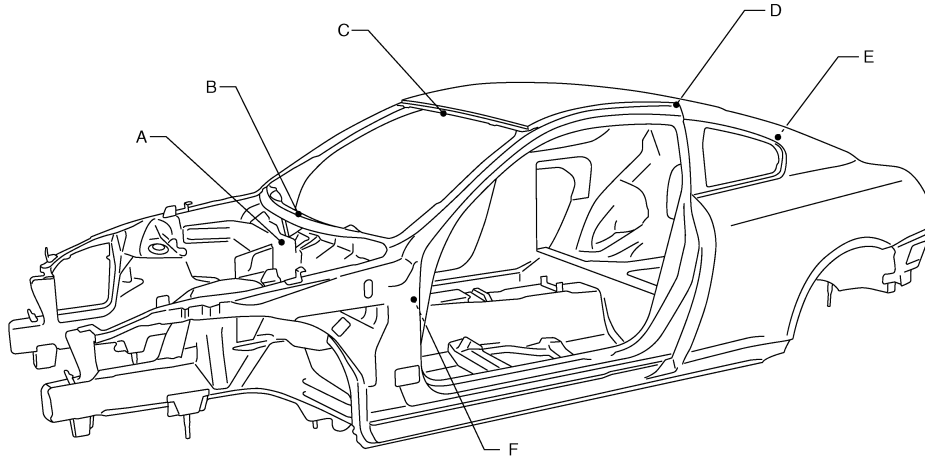
SERVICE DATA AND SPECIFICATIONS (SDS)

BODY ALIGNMENT

Body Center Marks

INFOID:000000008478958

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.



JSKIA0372GB

↶: Vehicle front

Unit: mm (in)

Points	Portion	Marks
A, B	Upper dash	Embossment
C	Front roof	Embossment
D	Rear roof	Embossment

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

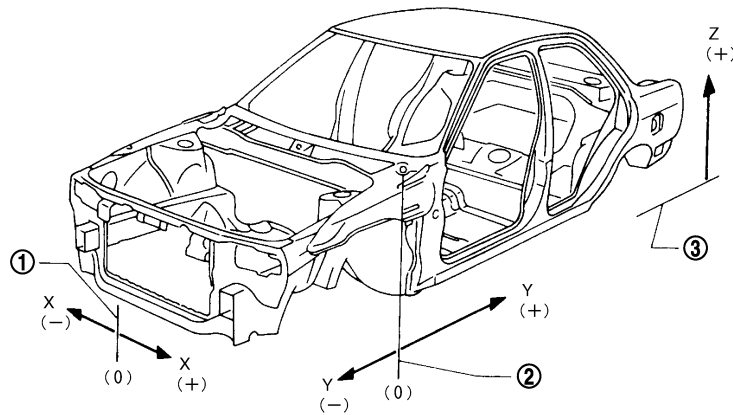
[FOR USA AND CANADA]

Points	Portion	Marks
E	Rear waist	Embossment
F	Trans control reinforcement	Hole 14×12 (0.55×0.47)

Description

INFOID:000000008478959

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



JSKIA0073GB

1. Vehicle center

2. Front axle center

3. Imaginary base line

Engine Compartment (2WD)

INFOID:000000008478960

MEASUREMENT

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

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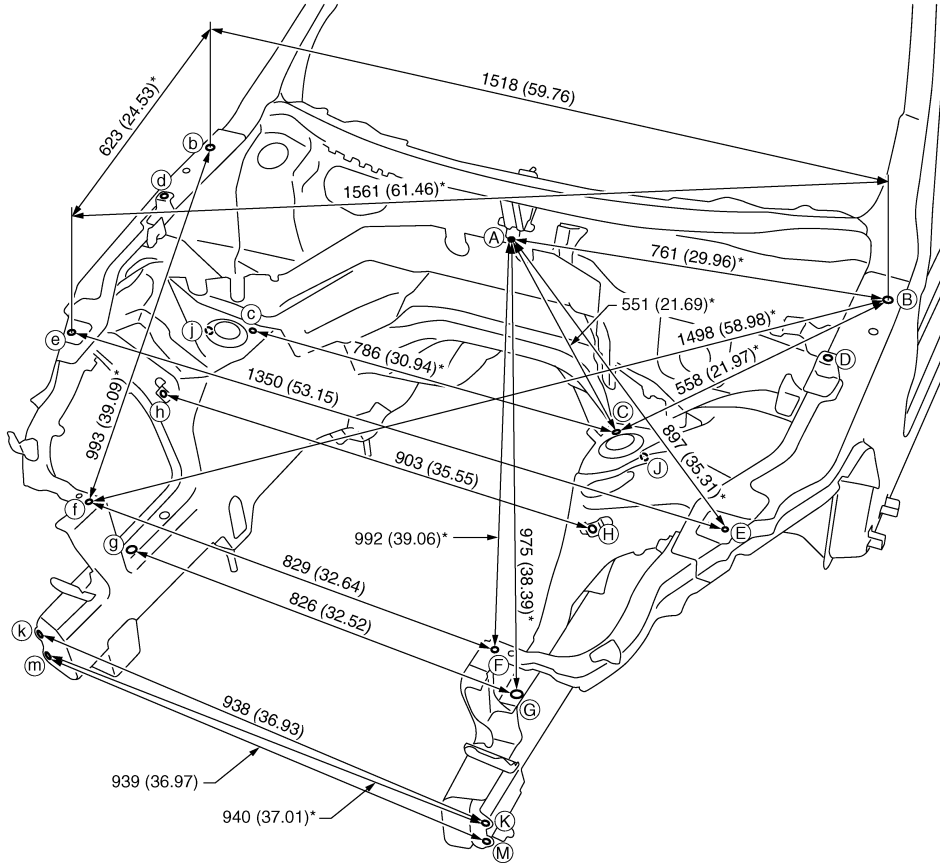
BRM

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

Unit : mm (in)



JSKIA0352GB

«The others»

Unit: mm (in)

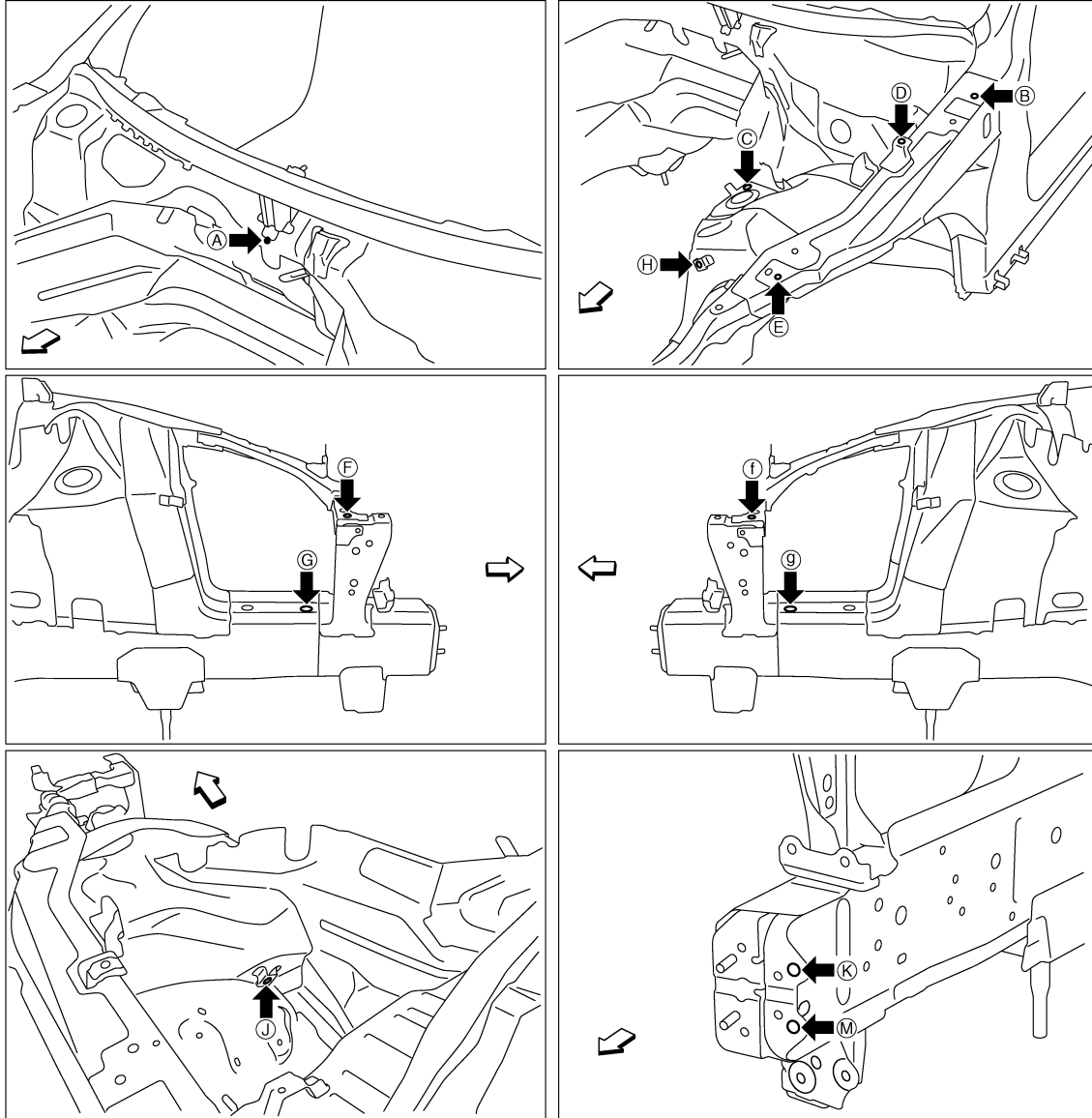
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
A - D	744 (29.29)*		B - d	1489 (58.62)*		D - d	1427 (56.18)	
B - D	227 (8.94)*		C - h	875 (34.45)*		J - j	903 (35.55)	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



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JSKIA0353GB

← Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash indent of center positioning mark	F, f	Radiator core stay installing hole center $\phi 12$ (0.47)
B, b	Hood hinge installing hole center $\phi 12$ (0.47)	G, g	Front side member hole center $\phi 20$ (0.79)
C, c	Front strut installing hole center 16×10 (0.63 \times 0.39)	H, h, J, j	Nut holder hole center $\phi 16$ (0.63)
D, d	Upper front fender bracket installing hole center $\phi 7$ (0.28)	K, k, M, m	Front bumper stay installing hole center $\phi 11$ (0.43)
E, e	Hoodledge reinforcement hole center $\phi 12$ (0.47)		

Engine Compartment (AWD)

INFOID:000000008478961

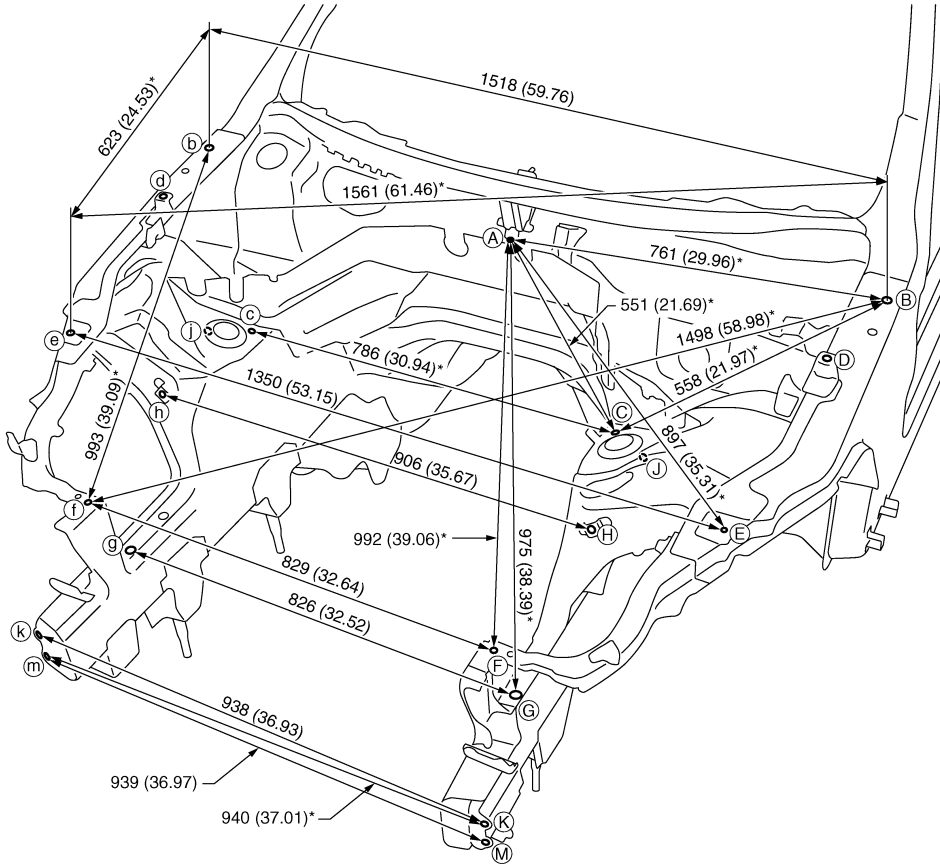
Measurement

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

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



JSKIA0874GB

Unit: mm (in)

«The others»

Unit: mm (in)

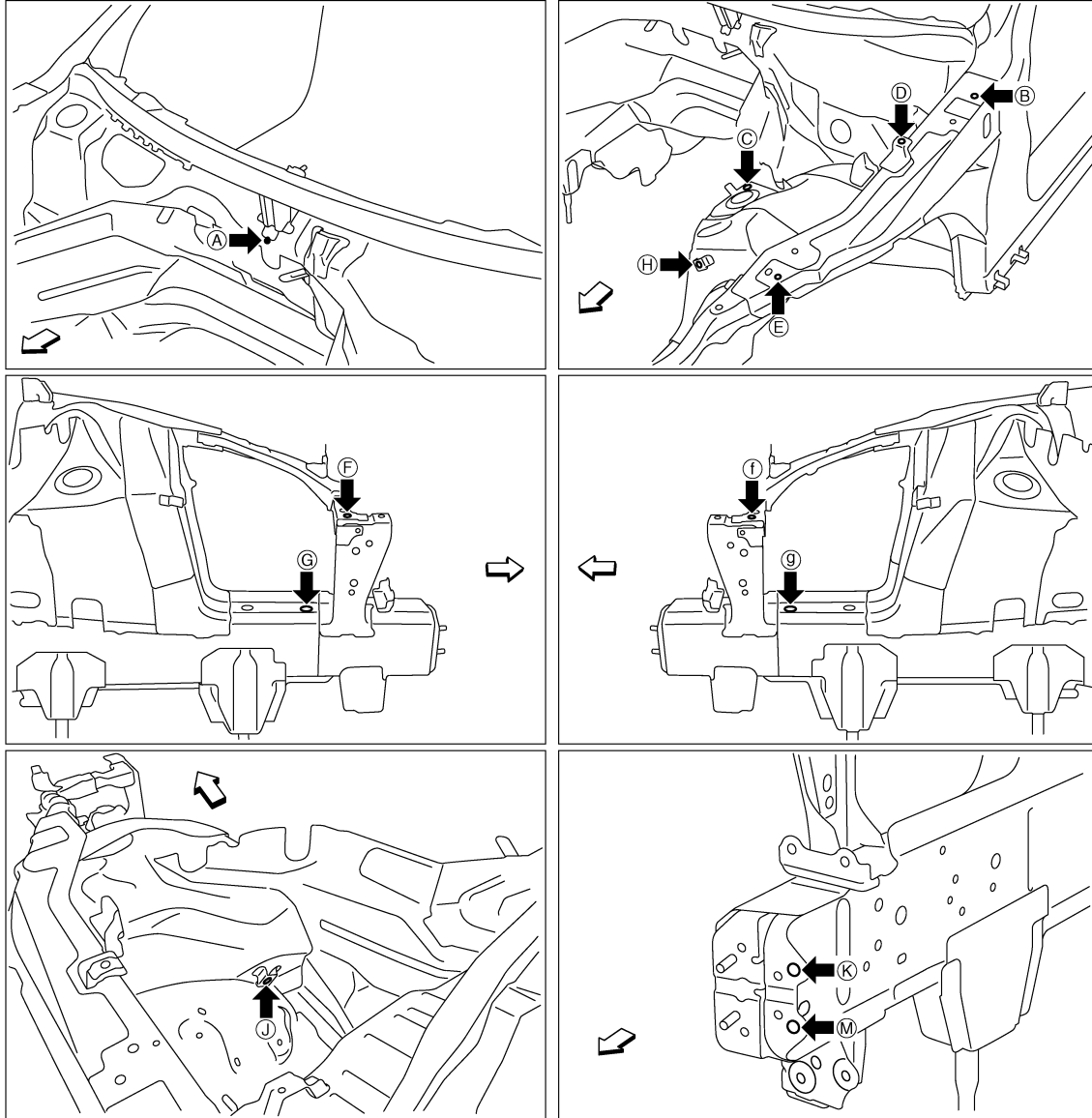
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
A - D	744 (29.29)*		B - d	1489 (58.62)*		D - d	1427 (56.18)	
B - D	227 (8.94)*		C - h	878 (34.57)*		J - j	906 (35.67)	

Measurement Points

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0875ZZ

←: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash indent of center positioning mark	F, f	Radiator core stay installing hole center $\phi 12$ (0.47)
B, b	Hood hinge installing hole center $\phi 12$ (0.47)	G, g	Front side member hole center $\phi 20$ (0.79)
C, c	Front strut installing hole center 16×10 (0.63×0.39)	H, h, J, j	Nut holder hole center $\phi 16$ (0.63)
D, d	Upper front fender bracket installing hole center $\phi 7$ (0.28)	K, k, M, m	Front bumper stay installing hole center $\phi 11$ (0.43)
E, e	Hoodledge reinforcement hole center $\phi 12$ (0.47)		

Underbody (2WD)

INFOID:000000008478962

MEASUREMENT

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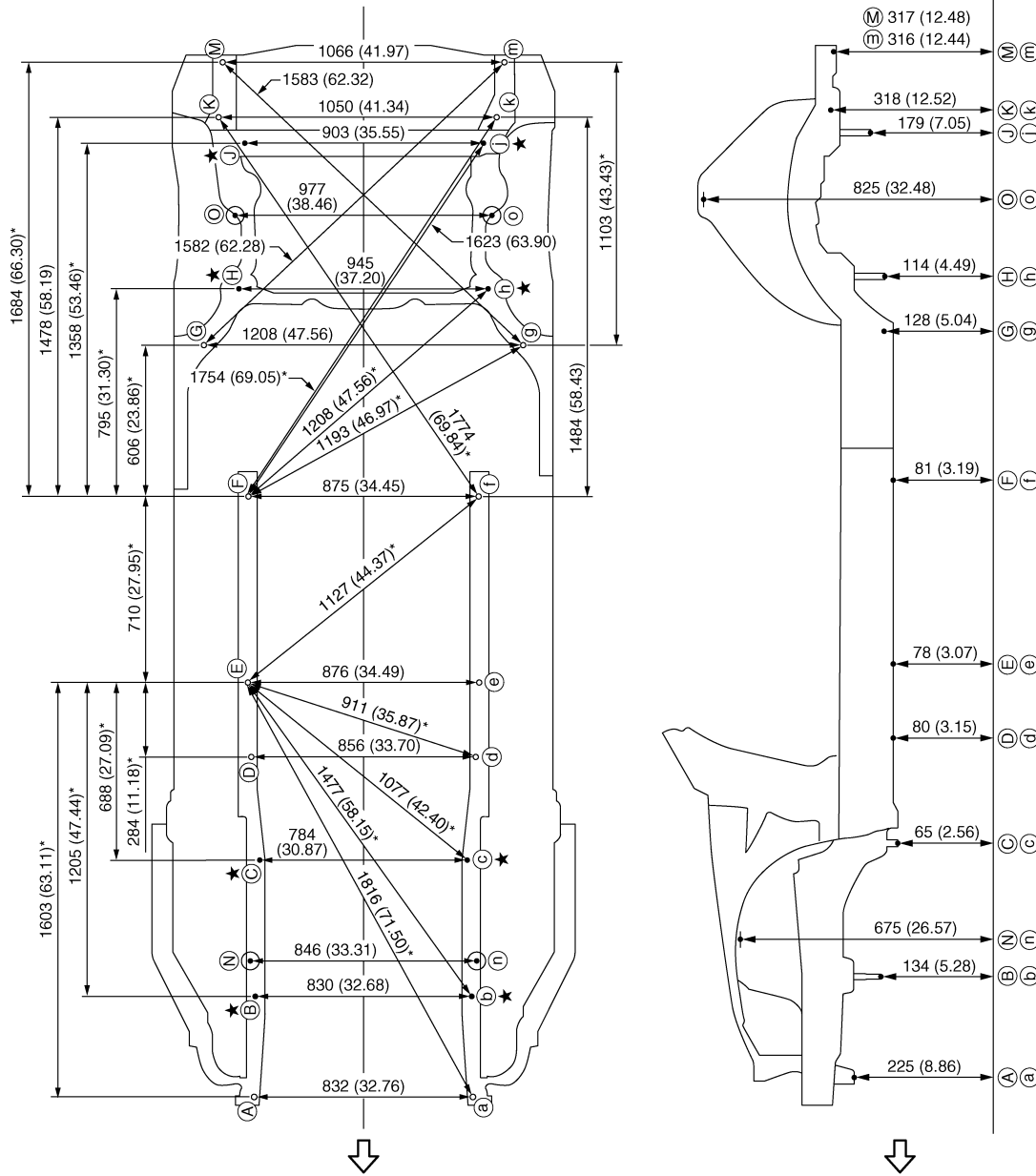
BRM

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

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



JSKIA0893GB

Unit: mm (in)

↳ Vehicle front

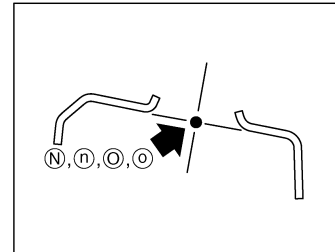
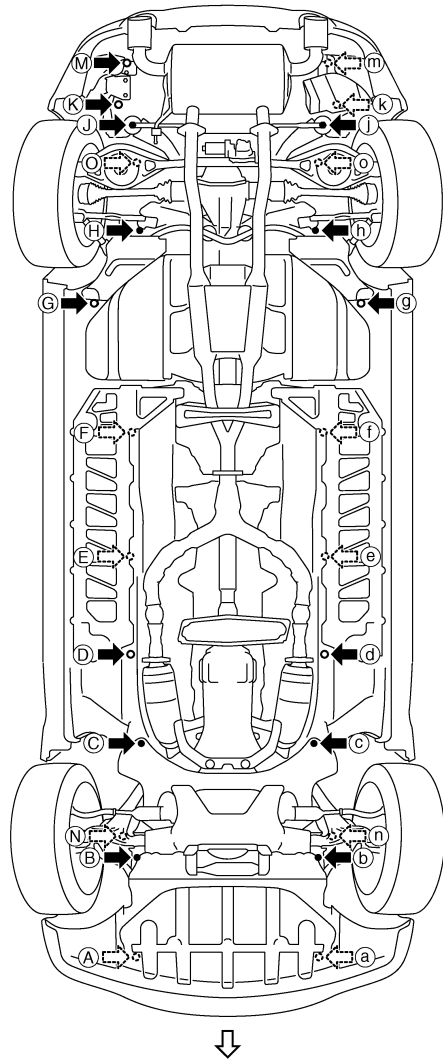
★: Bolt head

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0355GB

←: Vehicle front

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
A, a	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	J, j	±451.5 (±17.776)	3163.9 (124.563)	179.1 (7.051)	Bolt head
B, b	±415.0 (±16.339)	-104.0 (-4.094)	133.5 (5.256)	Bolt head	K	550.0 (21.654)	3264.6 (128.527)	318.0 (12.520)	Hole φ8 (0.31)
C, c	±392.0 (±15.433)	414.0 (16.299)	64.5 (2.539)	Bolt head	k	-500.0 (-19.685)	3273.3 (128.870)	318.0 (12.520)	Hole φ8 (0.31)
D, d	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	M	533.0 (20.984)	3475.0 (136.811)	317.0 (12.480)	Hole φ16 (0.63)
E, e	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	m	-533.0 (-20.984)	3475.0 (136.811)	316.4 (12.457)	Hole φ16 (0.63)
F, f	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole φ16 (0.63)	N, n	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50.1 (1.972)
G, g	±604.0 (±23.779)	2390.5 (94.114)	128.3 (5.051)	Hole φ13 (0.51)	O, o	±488.4 (±19.228)	2891.7 (113.846)	825.0 (32.480)	Hole φ68 (2.68)
H, h	±472.6 (±18.606)	2603.8 (102.512)	114.0 (4.488)	Bolt head					

Underbody (AWD)

INFOID:000000008478963

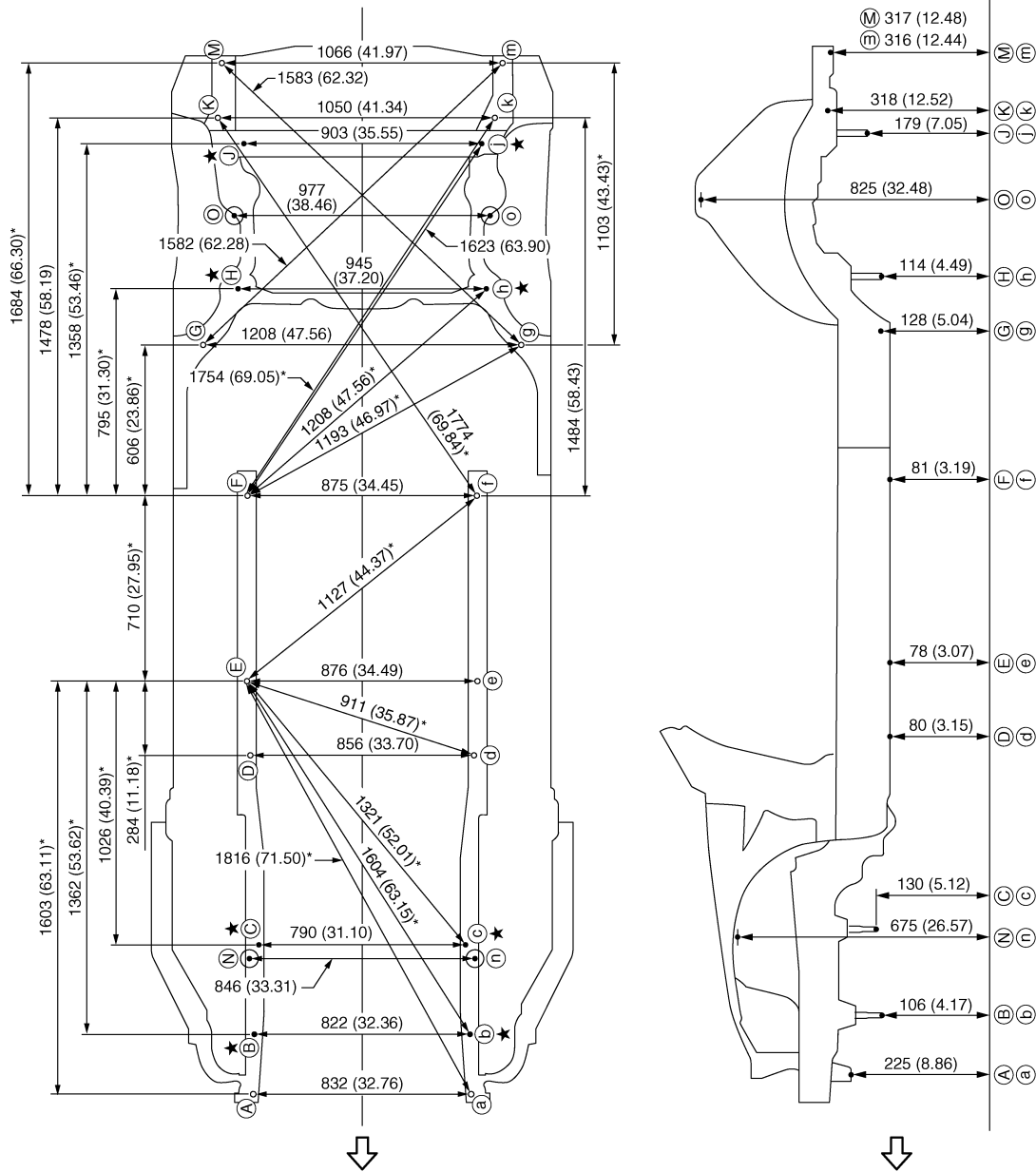
MEASUREMENT

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

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



Unit: mm (in)

↔: Vehicle front

★: Bolt head

MEASUREMENT POINTS

JSKIA0876GB

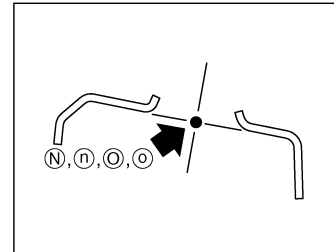
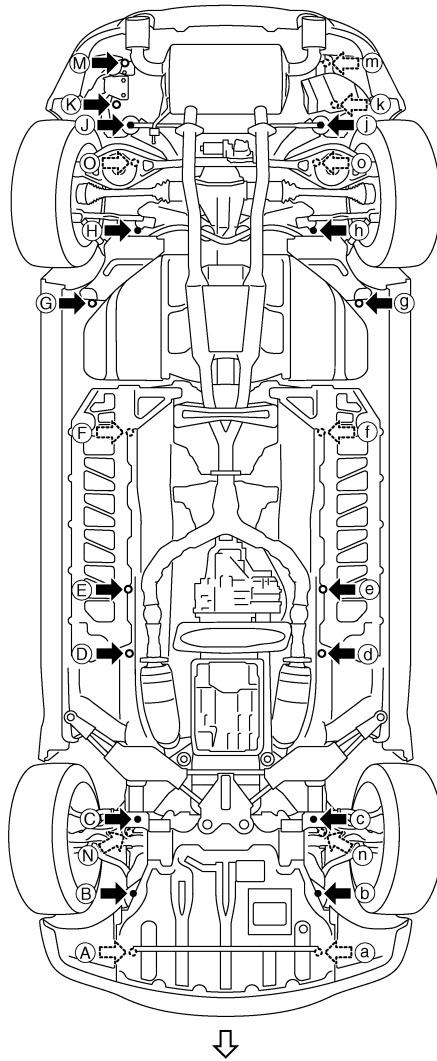
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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0877ZZ

↶ Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
A, a	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	J, j	±451.5 (±17.776)	3163.9 (124.563)	179.1 (7.051)	Bolt head
B, b	±411.0 (±16.181)	-261.0 (-10.276)	105.5 (4.154)	Bolt head	K	±550.0 (21.654)	3264.6 (128.527)	318.0 (12.520)	Hole φ8 (0.31)
C, c	±395.0 (±15.551)	76.0 (2.992)	129.5 (5.098)	Bolt head	k	-500.0 (-19.685)	3273.3 (128.870)	318.0 (12.520)	Hole φ8 (0.31)
D, d	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	M	533.0 (20.984)	3475.0 (136.811)	317.0 (12.480)	Hole φ16 (0.63)
E, e	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	m	-533.0 (-20.984)	3475.0 (136.811)	316.4 (12.457)	Hole φ16 (0.63)
F, f	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole φ16 (0.63)	N, n	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50.1 (1.972)

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
G, g	±604.0 (±23.779)	2390.5 (94.114)	128.3 (5.051)	Hole φ13 (0.51)	O, o	±488.4 (±19.228)	2891.7 (113.846)	825.0 (32.480)	Hole φ68 (2.68)
H, h	±472.6 (±18.606)	2603.8 (102.512)	114.0 (4.488)	Bolt head					

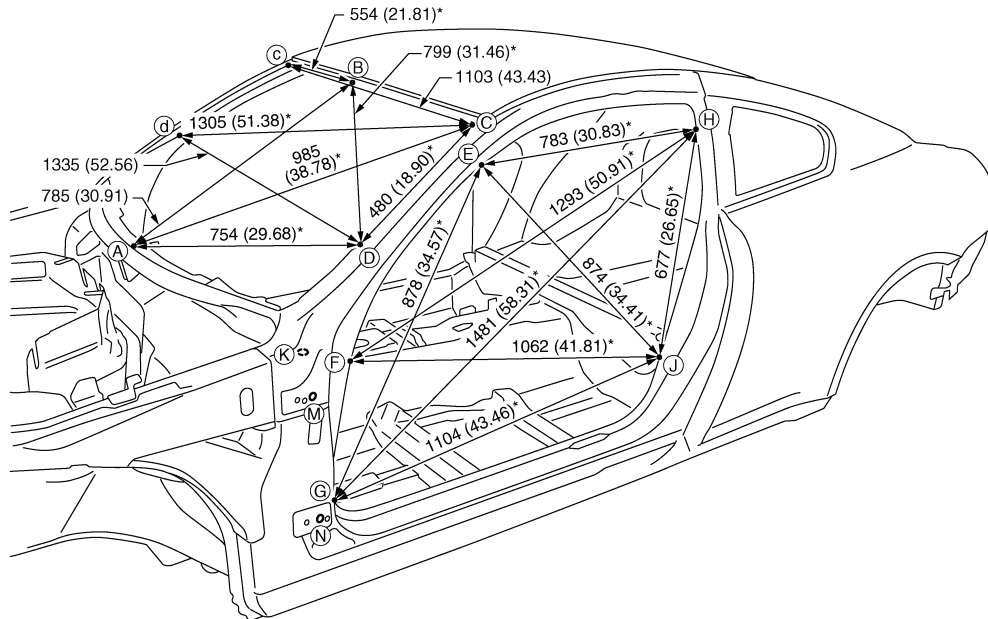
Passenger Compartment

INFOID:000000008478964

MEASUREMENT

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

Unit : mm (in)



JSKIA0356GB

«The others»

Unit: mm (in)

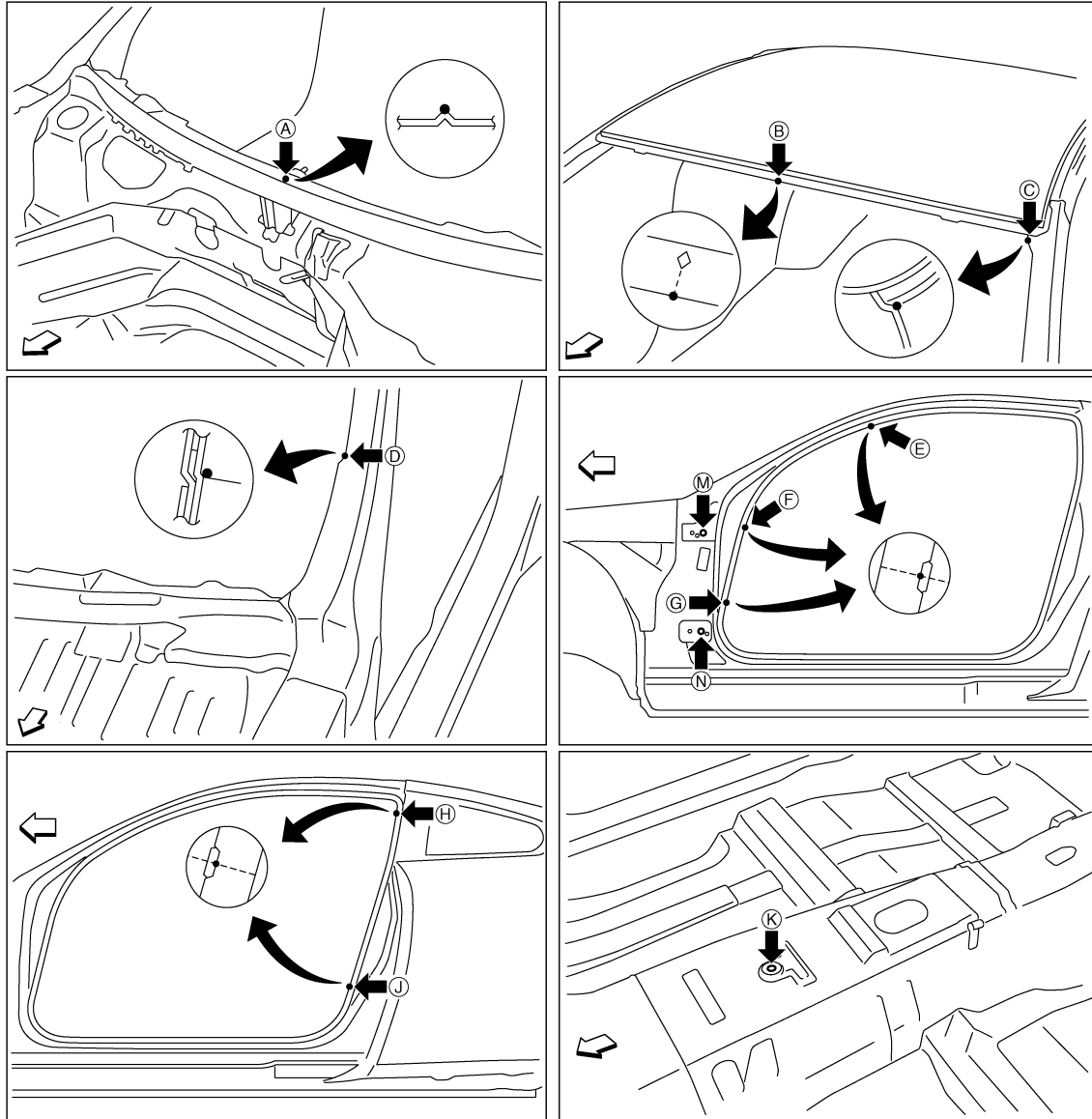
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
E - e	1253 (49.33)		F - j	1796 (70.71)*		J - j	1451 (57.13)		M - m	1574 (61.97)	
E - g	1607 (63.27)*		G - g	1447 (56.97)		K - E	987 (38.86)*		M - H	1434 (56.46)*	
E - h	1472 (57.95)*		G - h	1997 (78.62)*		K - F	793 (31.22)*		M - J	1186 (46.69)*	
E - j	1607 (63.27)*		G - j	1822 (71.73)*		K - G	749 (29.49)*		N - n	1596 (62.83)	
F - f	1446 (56.93)		H - h	1240 (48.82)		K - H	1443 (56.81)*		N - H	1558 (61.34)*	
F - h	1861 (73.27)*		H - j	1503 (59.17)*		K - J	1164 (45.83)*		N - J	1170 (46.06)*	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0357GB

↶: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash positioning mark of center positioning mark	H, h, J, j	Rear fender indent
B	Roof flange end of center positioning mark	K	Trans control reinforcement hole center of center positioning mark 14×12 (0.55×0.47)
C, c, D, d	Front pillar joggle	M, m, N, n	Door hinge installing hole center M, m: $\phi 14$ (0.55) N, n: $\phi 12$ (0.47)
E, e, F, f, G, g	Front pillar indent		

Rear Body

INFOID:000000008478965

MEASUREMENT

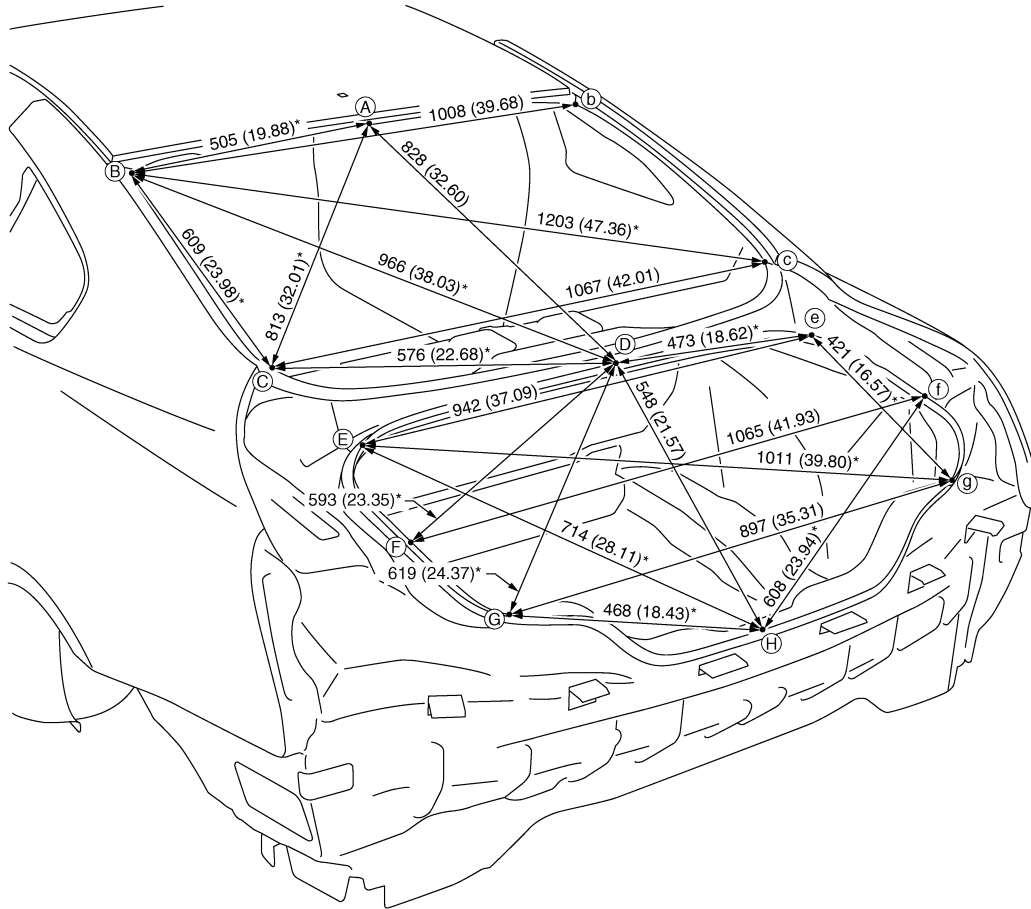
BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

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

Unit : mm (in)



MEASUREMENT POINTS

JSKIA0358GB

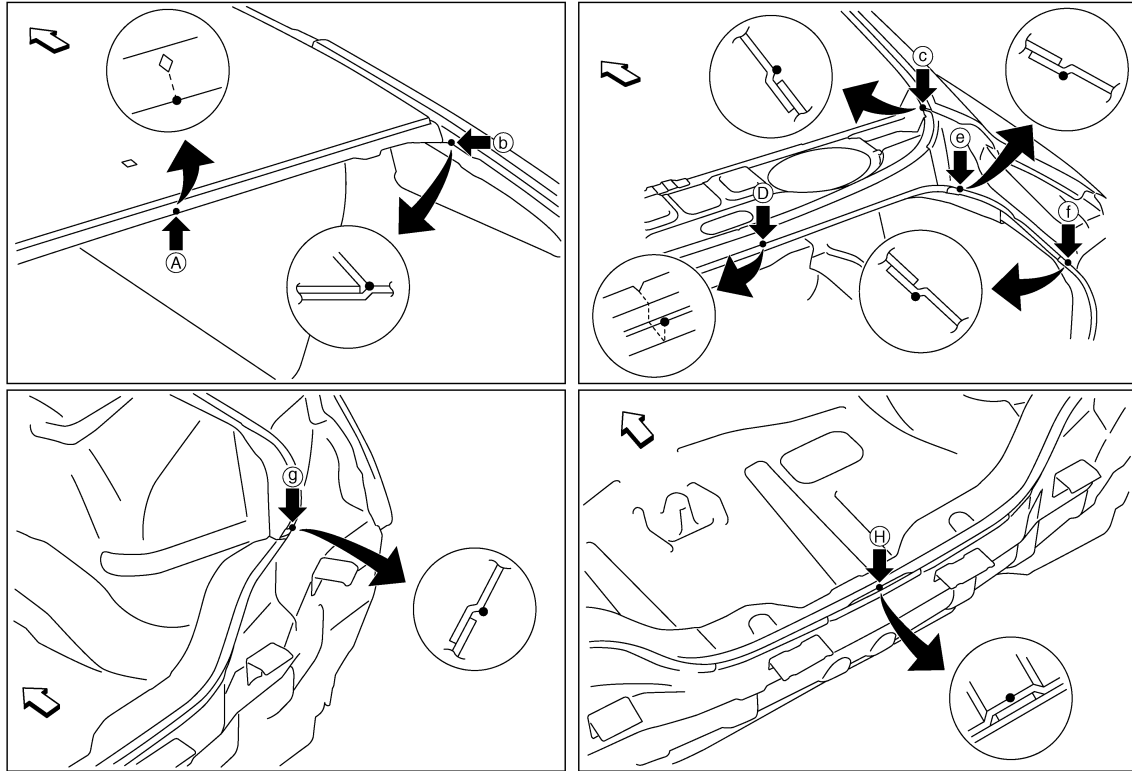
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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0359GB

↶: Vehicle front

Point	Material	Point	Material
A	Roof flange end of center positioning mark	F, f, G, g	Rear combination lamp base joggle
B, b, C, c, E, e	Rear fender corner joggle	H	Upper rear panel flange end of center positioning mark
D	Rear waist flange end of center positioning mark		

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

LOCATION OF PLASTIC PARTS

Precautions for Plastics

INFOID:000000008478966

Abbreviation	Material name	Heatresisting temperature °C (°F)	Resistance to gasoline and solvents	Other cautions
PE	Polyethylene	60 (140)	Gasoline and most solvents are harmless if applied for a very short time (wipe out quickly).	Flammable
ABS	Acrylonitrile Butadiene Styrene	80 (176)	Avoid gasoline and solvents.	—
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.

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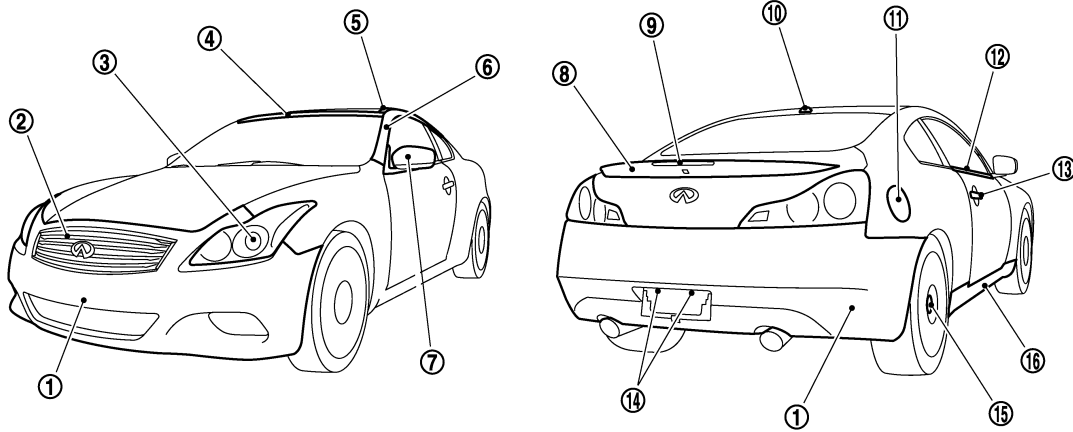
LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]

Location of Plastic Parts

INFOID:000000008478967



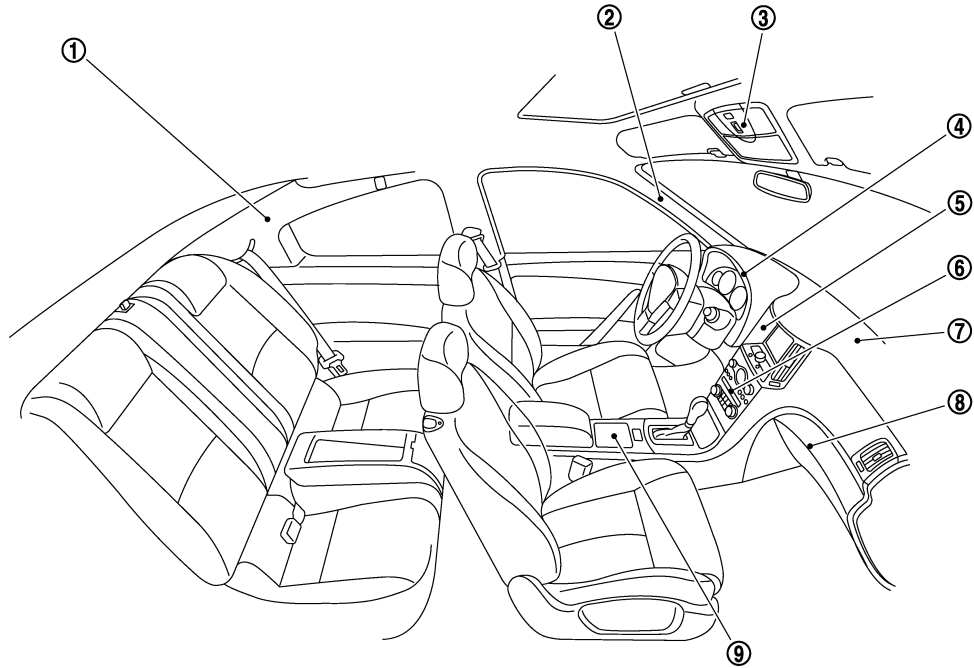
JSKIA0362GB

Component		Material	Component		Material		
1	Bumper fascia	PP	9	High mount stop lamp	Lens	PMMA	
2	Front grille	ABS			Housing	ABS	
3	Front combination lamp	Lens	10	Satellite radio antenna		ASA + PC	
		Housing	PP	11	Fuel filler lid		PA + PPE
4	Windshield molding	TPO	12	Door outside molding		PVC + Stainless	
5	Roof side molding	PVC + Stainless	13	Door outside handle		PC + PET	
6	Front pillar finisher	PC + PET	14	License plate lamp	Lens	PMMA	
7	Door outside mirror	Cover			ABS	Housing	PC
		Housing	PP	15	Wheel disk cap		PC + ABS
		Base	PA + Glass fiber	16	Center mudguard		PP
8	Trunk lid finisher	ABS					

LOCATION OF PLASTIC PARTS

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR USA AND CANADA]



JSKIA0363GB

Component		Material	Component		Material		
1	Rear pillar finisher	PP	7	Instrument panel	Core	PP	
2	Front pillar finisher	PP			Pad	PUR	
3	Map lamp	Lens	PC		Skin	TPU	
		Housing	PP	8	Glove box	Core	ABS
4	Cluster lid A	Upper	ABS			Pad	PUR
		Lower	PP			Skin	PVC
5	Cluster lid D	ABS	9	Center console	PP + PVC		
6	Cluster lid C	Standard finisher	ABS				
		Wood finisher	PC + ABS				

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

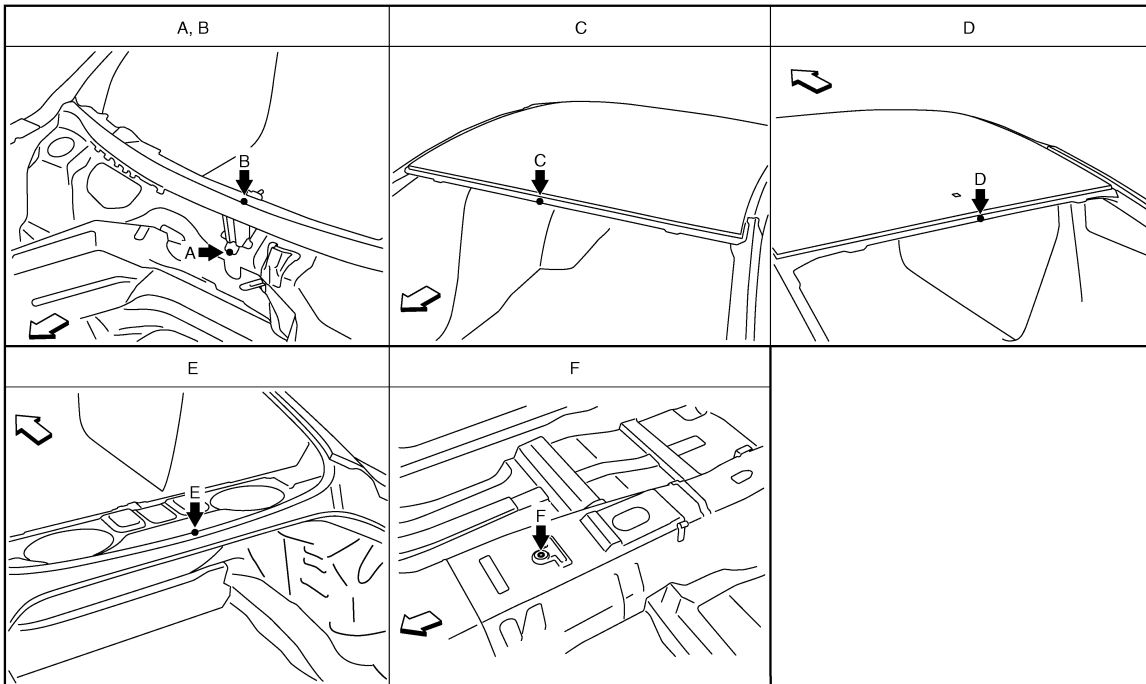
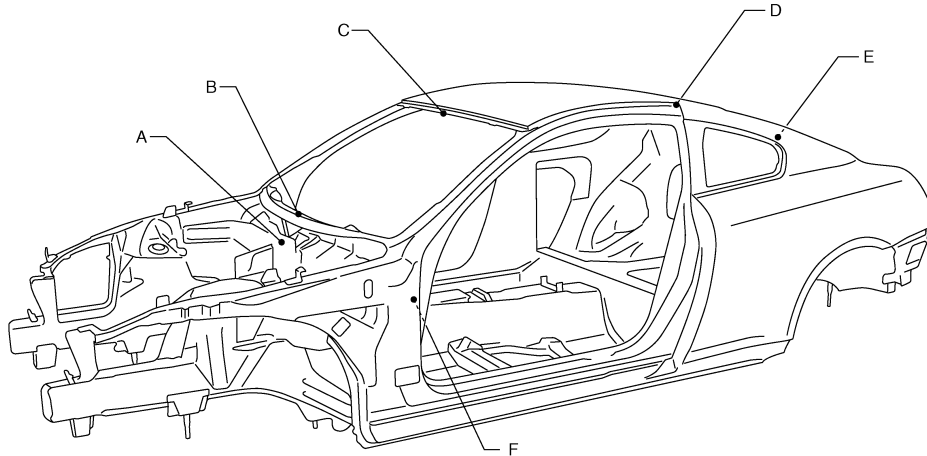
SERVICE DATA AND SPECIFICATIONS (SDS)

BODY ALIGNMENT

Body Center Marks

INFOID:000000008826813

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.



JSKIA0372GB

↶: Vehicle front

Unit: mm (in)

Points	Portion	Marks
A, B	Upper dash	Embossment
C	Front roof	Embossment
D	Rear roof	Embossment

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

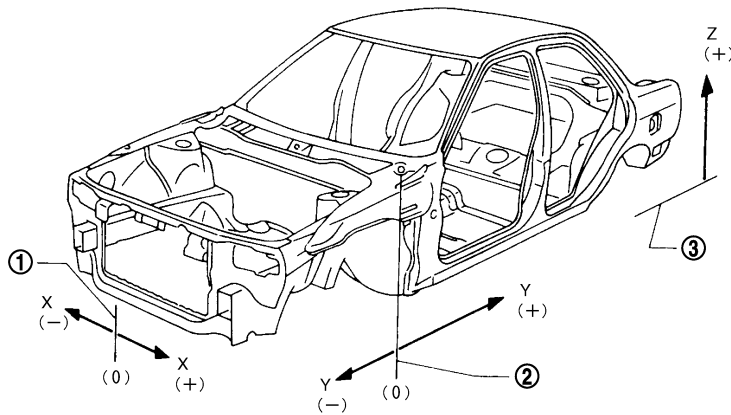
[FOR MEXICO]

Points	Portion	Marks
E	Rear waist	Embossment
F	Trans control reinforcement	Hole 14×12 (0.55×0.47)

Description

INFOID:000000008826814

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



JSKIA0073GB

1. Vehicle center

2. Front axle center

3. Imaginary base line

Engine Compartment (2WD)

INFOID:000000008826815

MEASUREMENT

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

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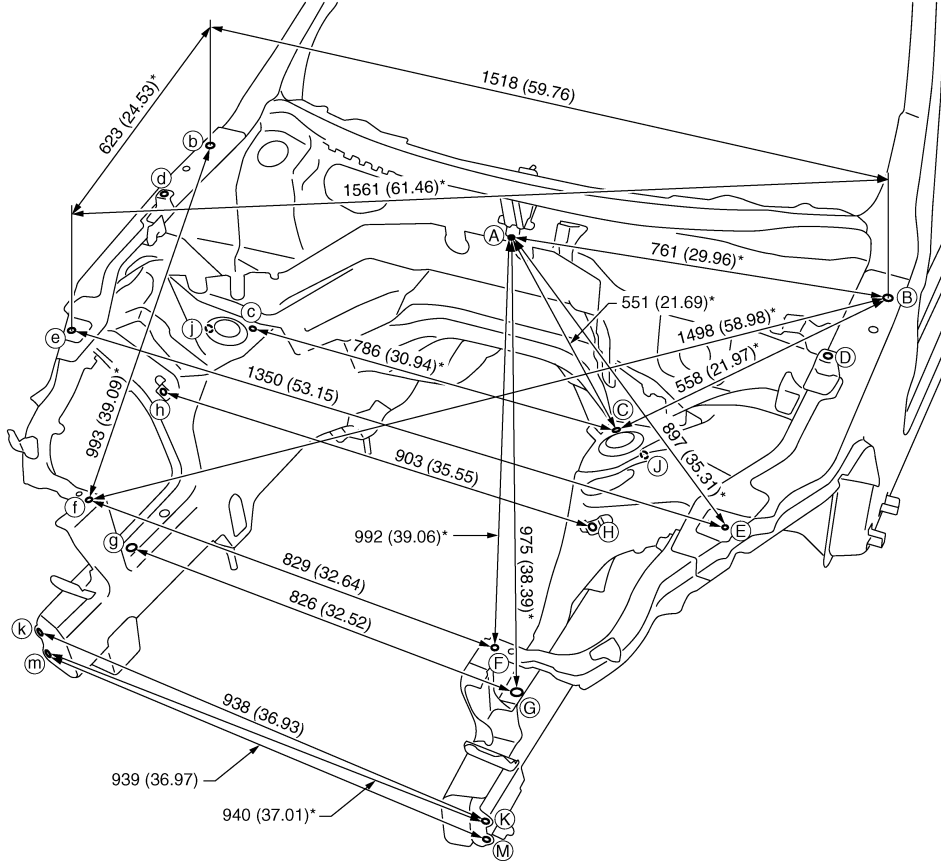
BRM

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

Unit : mm (in)



JSKIA0352GB

«The others»

Unit: mm (in)

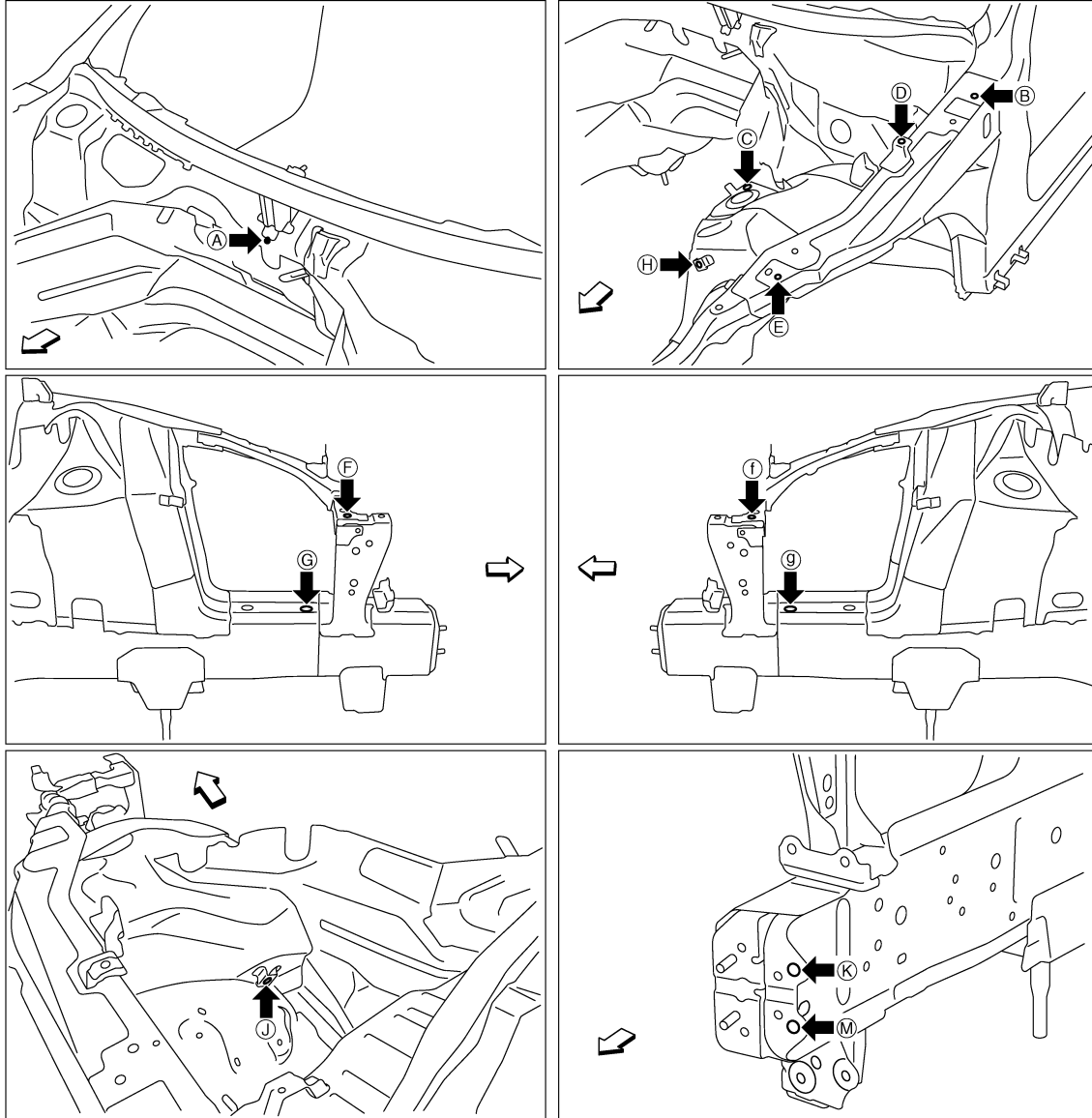
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
A - D	744 (29.29)*		B - d	1489 (58.62)*		D - d	1427 (56.18)	
B - D	227 (8.94)*		C - h	875 (34.45)*		J - j	903 (35.55)	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



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JSKIA0353GB

← Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash indent of center positioning mark	F, f	Radiator core stay installing hole center $\phi 12$ (0.47)
B, b	Hood hinge installing hole center $\phi 12$ (0.47)	G, g	Front side member hole center $\phi 20$ (0.79)
C, c	Front strut installing hole center 16×10 (0.63×0.39)	H, h, J, j	Nut holder hole center $\phi 16$ (0.63)
D, d	Upper front fender bracket installing hole center $\phi 7$ (0.28)	K, k, M, m	Front bumper stay installing hole center $\phi 11$ (0.43)
E, e	Hoodledge reinforcement hole center $\phi 12$ (0.47)		

Engine Compartment (AWD)

INFOID:0000000008826816

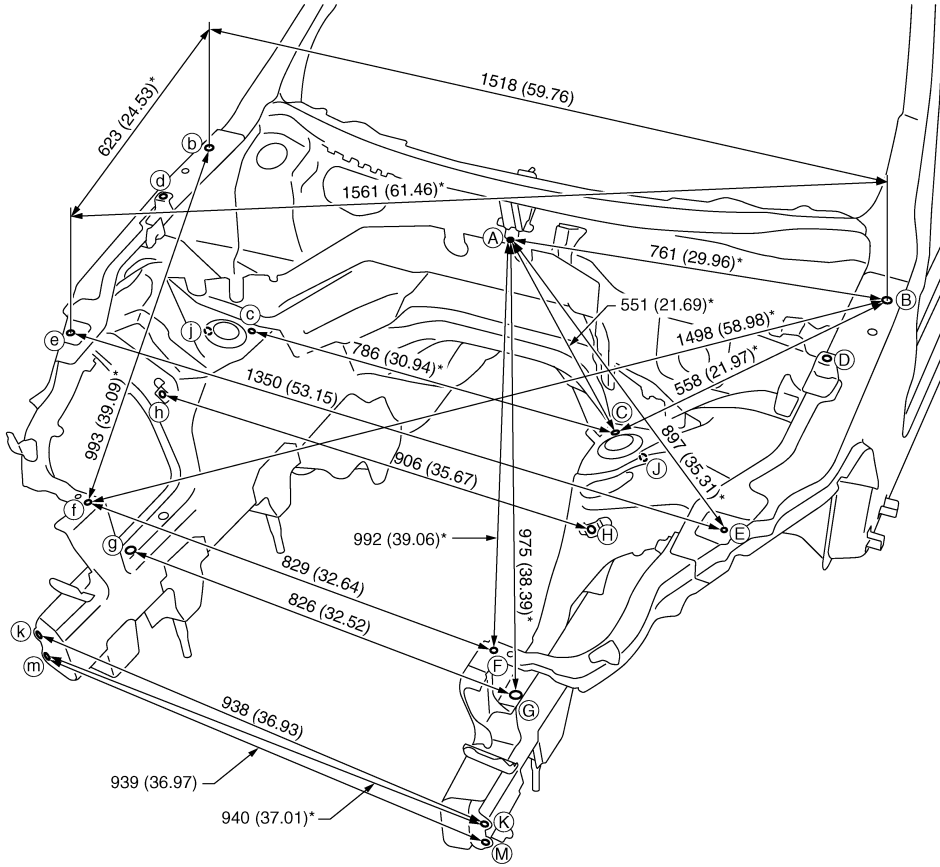
Measurement

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

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



JSKIA0874GB

Unit: mm (in)

«The others»

Unit: mm (in)

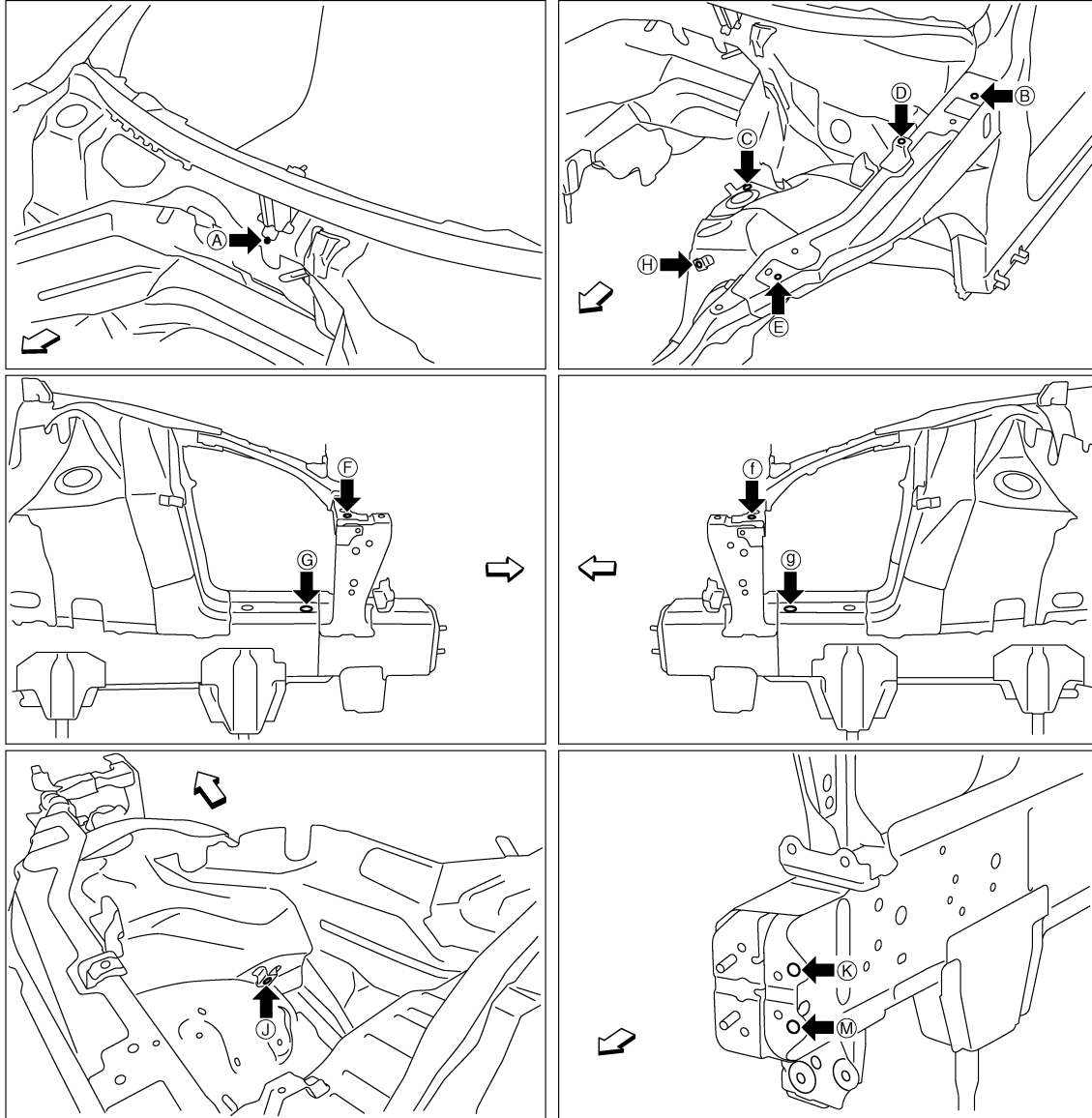
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
A - D	744 (29.29)*		B - d	1489 (58.62)*		D - d	1427 (56.18)	
B - D	227 (8.94)*		C - h	878 (34.57)*		J - j	906 (35.67)	

Measurement Points

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



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JSKIA0875ZZ

↔: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash indent of center positioning mark	F, f	Radiator core stay installing hole center $\phi 12$ (0.47)
B, b	Hood hinge installing hole center $\phi 12$ (0.47)	G, g	Front side member hole center $\phi 20$ (0.79)
C, c	Front strut installing hole center 16×10 (0.63×0.39)	H, h, J, j	Nut holder hole center $\phi 16$ (0.63)
D, d	Upper front fender bracket installing hole center $\phi 7$ (0.28)	K, k, M, m	Front bumper stay installing hole center $\phi 11$ (0.43)
E, e	Hoodledge reinforcement hole center $\phi 12$ (0.47)		

Underbody (2WD)

INFOID:0000000008826817

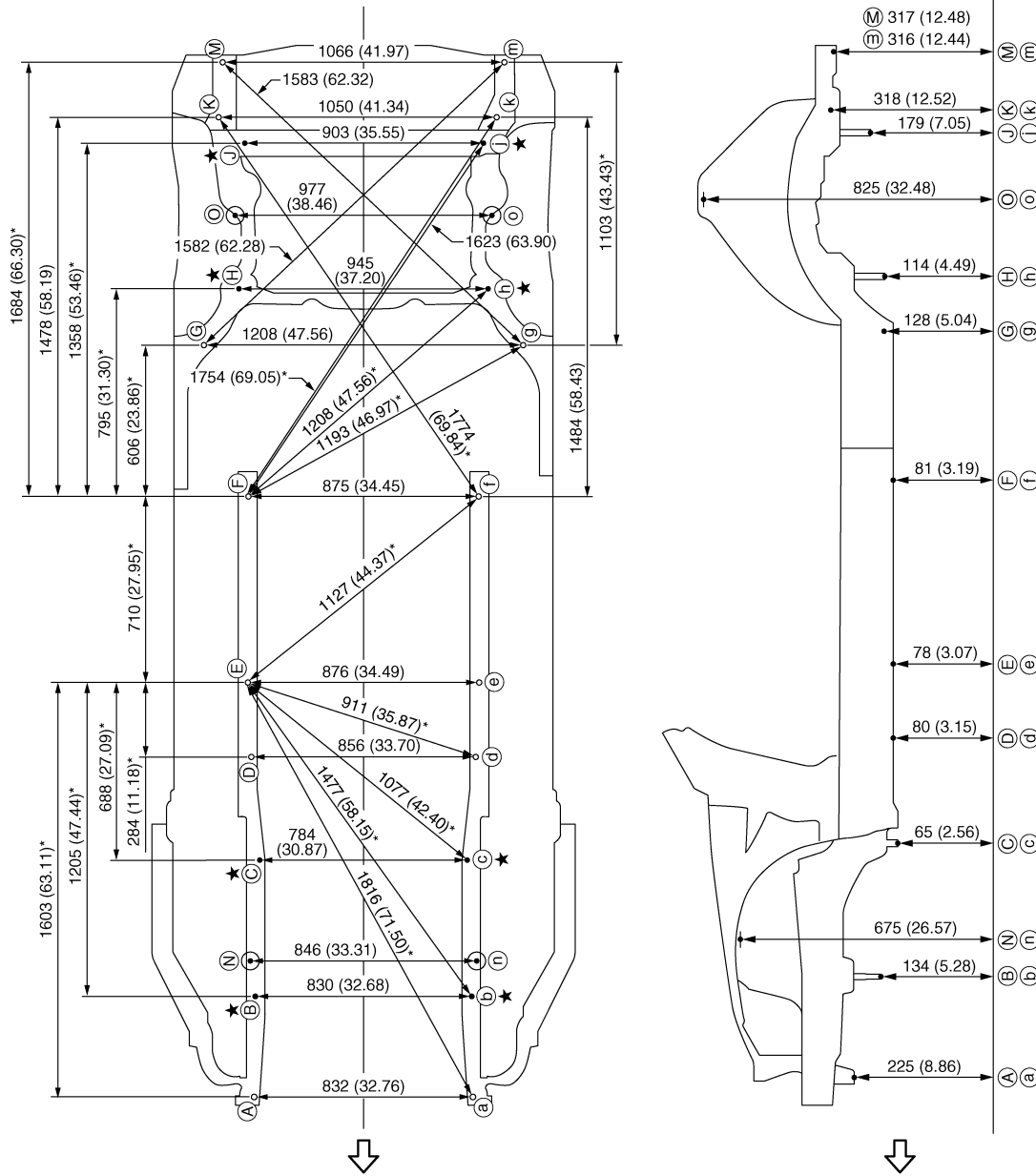
MEASUREMENT

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

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



JSKIA0893GB

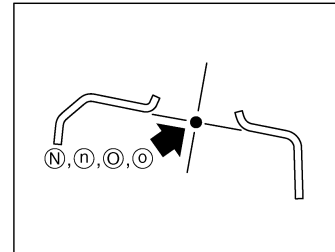
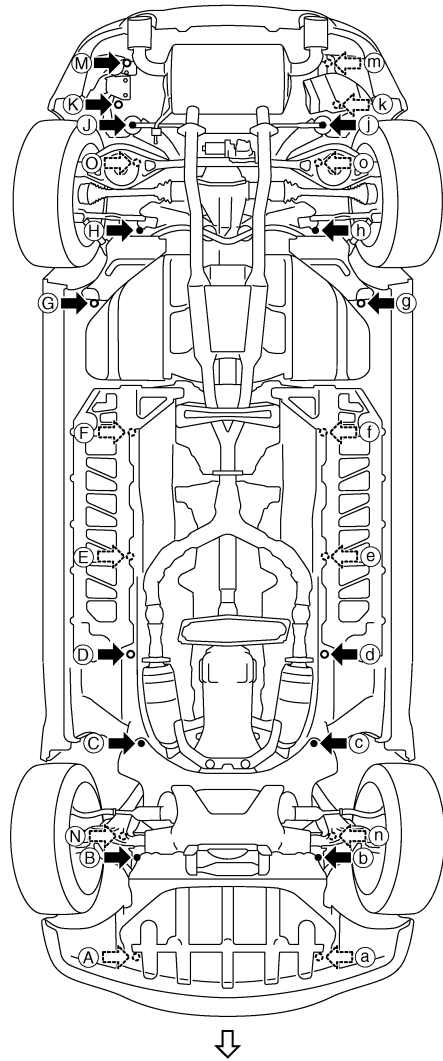
Unit: mm (in)
 ↙ Vehicle front
 ★: Bolt head

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



JSKIA0355GB

←: Vehicle front

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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
A, a	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	J, j	±451.5 (±17.776)	3163.9 (124.563)	179.1 (7.051)	Bolt head
B, b	±415.0 (±16.339)	-104.0 (-4.094)	133.5 (5.256)	Bolt head	K	550.0 (21.654)	3264.6 (128.527)	318.0 (12.520)	Hole φ8 (0.31)
C, c	±392.0 (±15.433)	414.0 (16.299)	64.5 (2.539)	Bolt head	k	-500.0 (-19.685)	3273.3 (128.870)	318.0 (12.520)	Hole φ8 (0.31)
D, d	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	M	533.0 (20.984)	3475.0 (136.811)	317.0 (12.480)	Hole φ16 (0.63)
E, e	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	m	-533.0 (-20.984)	3475.0 (136.811)	316.4 (12.457)	Hole φ16 (0.63)
F, f	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole φ16 (0.63)	N, n	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50.1 (1.972)
G, g	±604.0 (±23.779)	2390.5 (94.114)	128.3 (5.051)	Hole φ13 (0.51)	O, o	±488.4 (±19.228)	2891.7 (113.846)	825.0 (32.480)	Hole φ68 (2.68)
H, h	±472.6 (±18.606)	2603.8 (102.512)	114.0 (4.488)	Bolt head					

Underbody (AWD)

INFOID:000000008826818

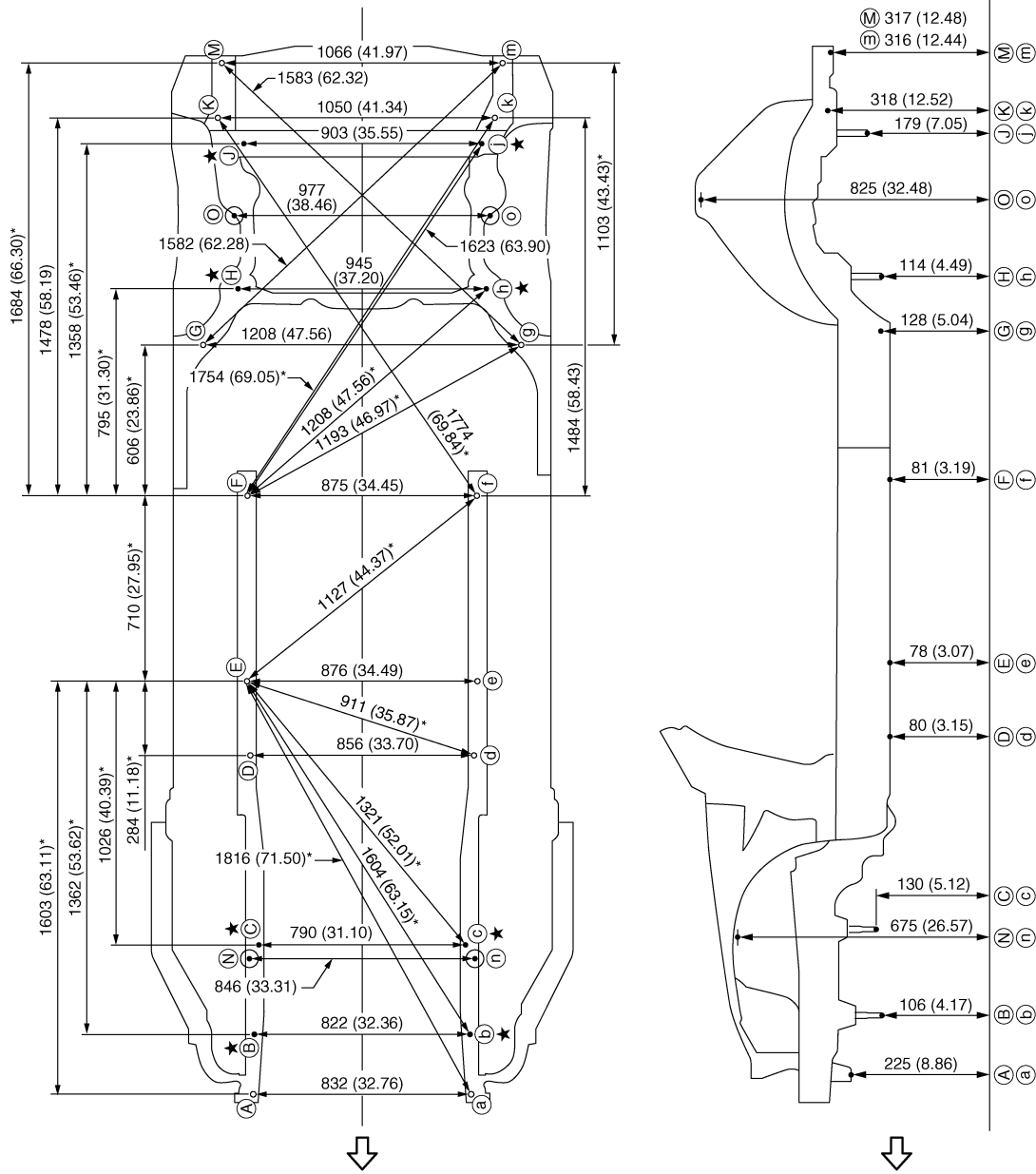
MEASUREMENT

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

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



Unit: mm (in)

↔: Vehicle front

★: Bolt head

MEASUREMENT POINTS

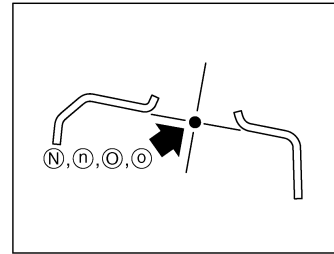
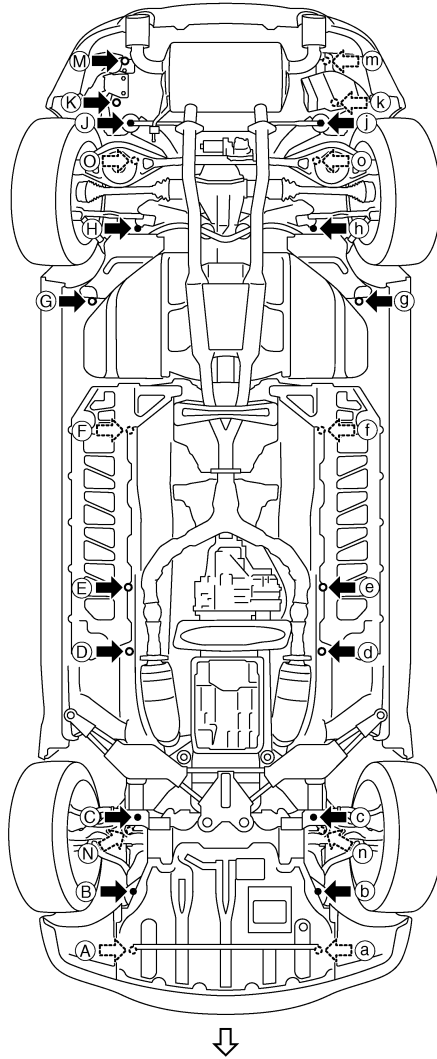
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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



JSKIA0877ZZ

↶ Vehicle front

Unit: mm (in)

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
A, a	±416.0 (±16.378)	-496.0 (-19.528)	224.5 (8.839)	Hole φ13 (0.51)	J, j	±451.5 (±17.776)	3163.9 (124.563)	179.1 (7.051)	Bolt head
B, b	±411.0 (±16.181)	-261.0 (-10.276)	105.5 (4.154)	Bolt head	K	±550.0 (21.654)	3264.6 (128.527)	318.0 (12.520)	Hole φ8 (0.31)
C, c	±395.0 (±15.551)	76.0 (2.992)	129.5 (5.098)	Bolt head	k	-500.0 (-19.685)	3273.3 (128.870)	318.0 (12.520)	Hole φ8 (0.31)
D, d	±428.0 (±16.850)	816.6 (32.150)	80.0 (3.150)	Hole 16×18 (0.63×0.71)	M	533.0 (20.984)	3475.0 (136.811)	317.0 (12.480)	Hole φ16 (0.63)
E, e	±438.0 (±17.244)	1100.0 (43.307)	78.0 (3.071)	Hole φ16 (0.63)	m	-533.0 (-20.984)	3475.0 (136.811)	316.4 (12.457)	Hole φ16 (0.63)
F, f	±437.5 (±17.224)	1810.0 (71.260)	81.2 (3.197)	Hole φ16 (0.63)	N, n	±423.0 (±16.654)	38.0 (1.496)	674.5 (26.555)	Hole φ50.1 (1.972)

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

Points	Coordinates			Remarks	Points	Coordinates			Remarks
	X	Y	Z			X	Y	Z	
G, g	±604.0 (±23.779)	2390.5 (94.114)	128.3 (5.051)	Hole φ13 (0.51)	O, o	±488.4 (±19.228)	2891.7 (113.846)	825.0 (32.480)	Hole φ68 (2.68)
H, h	±472.6 (±18.606)	2603.8 (102.512)	114.0 (4.488)	Bolt head					

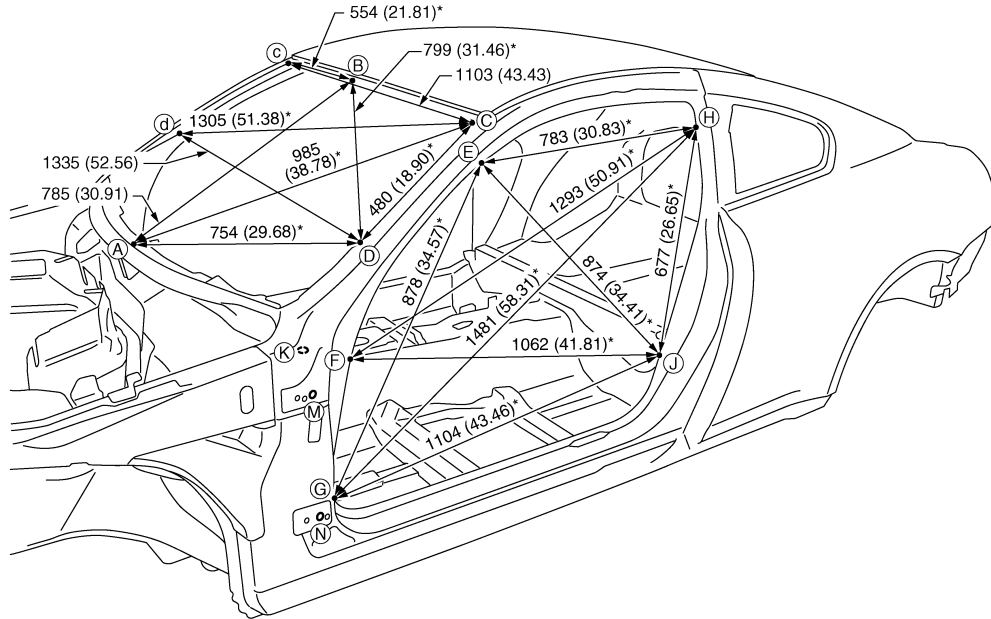
Passenger Compartment

INFOID:000000008826819

MEASUREMENT

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

Unit : mm (in)



JSKIA0356GB

«The others»

Unit: mm (in)

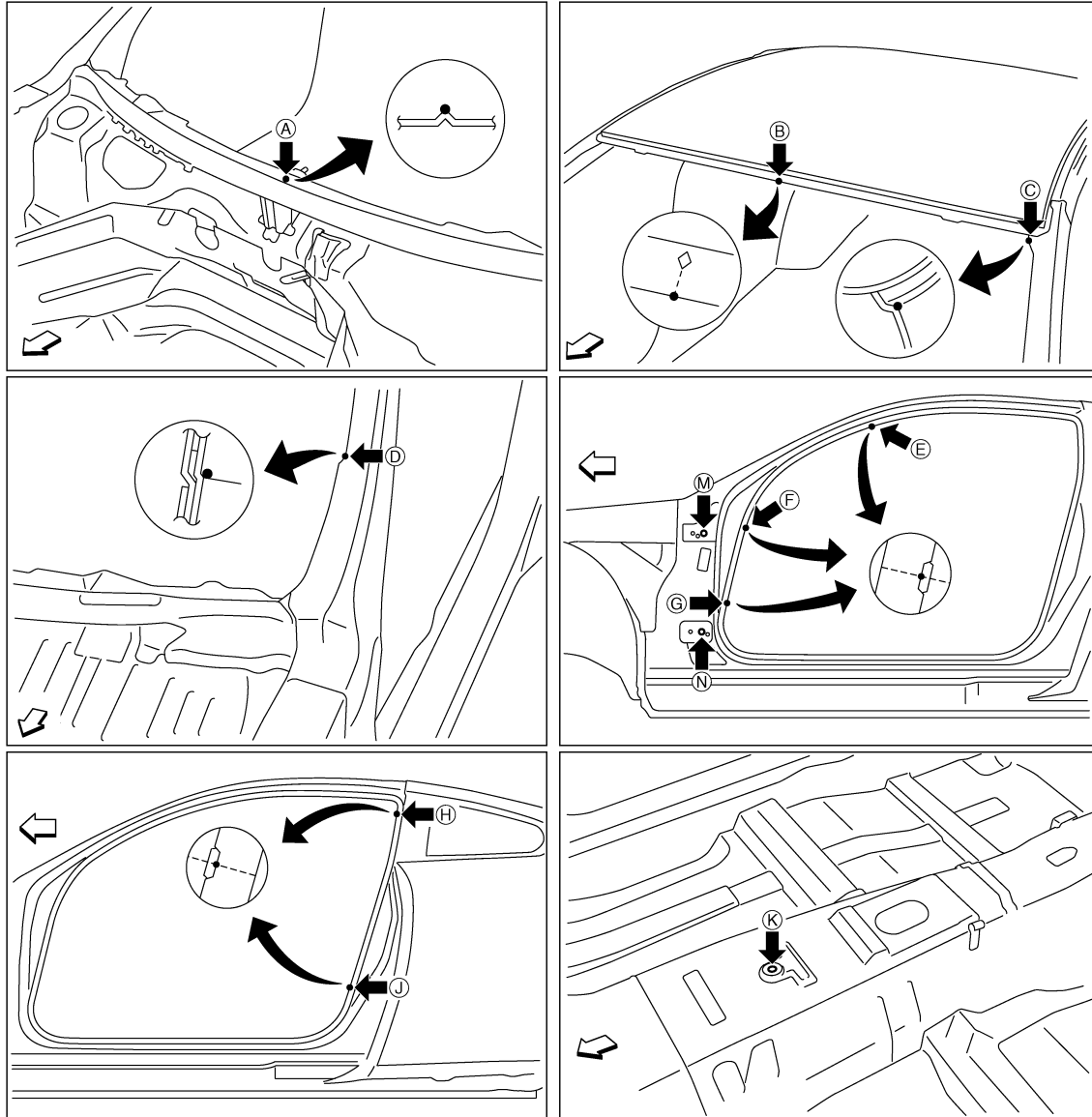
Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo	Point	Dimension	Memo
E - e	1253 (49.33)		F - j	1796 (70.71)*		J - j	1451 (57.13)		M - m	1574 (61.97)	
E - g	1607 (63.27)*		G - g	1447 (56.97)		K - E	987 (38.86)*		M - H	1434 (56.46)*	
E - h	1472 (57.95)*		G - h	1997 (78.62)*		K - F	793 (31.22)*		M - J	1186 (46.69)*	
E - j	1607 (63.27)*		G - j	1822 (71.73)*		K - G	749 (29.49)*		N - n	1596 (62.83)	
F - f	1446 (56.93)		H - h	1240 (48.82)		K - H	1443 (56.81)*		N - H	1558 (61.34)*	
F - h	1861 (73.27)*		H - j	1503 (59.17)*		K - J	1164 (45.83)*		N - J	1170 (46.06)*	

MEASUREMENT POINTS

BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



JSKIA0357GB

↶: Vehicle front

Unit: mm (in)

Point	Material	Point	Material
A	Upper dash positioning mark of center positioning mark	H, h, J, j	Rear fender indent
B	Roof flange end of center positioning mark	K	Trans control reinforcement hole center of center positioning mark 14×12 (0.55×0.47)
C, c, D, d	Front pillar joggle	M, m, N, n	Door hinge installing hole center M, m: $\phi 14$ (0.55) N, n: $\phi 12$ (0.47)
E, e, F, f, G, g	Front pillar indent		

Rear Body

INFOID:00000000826820

MEASUREMENT

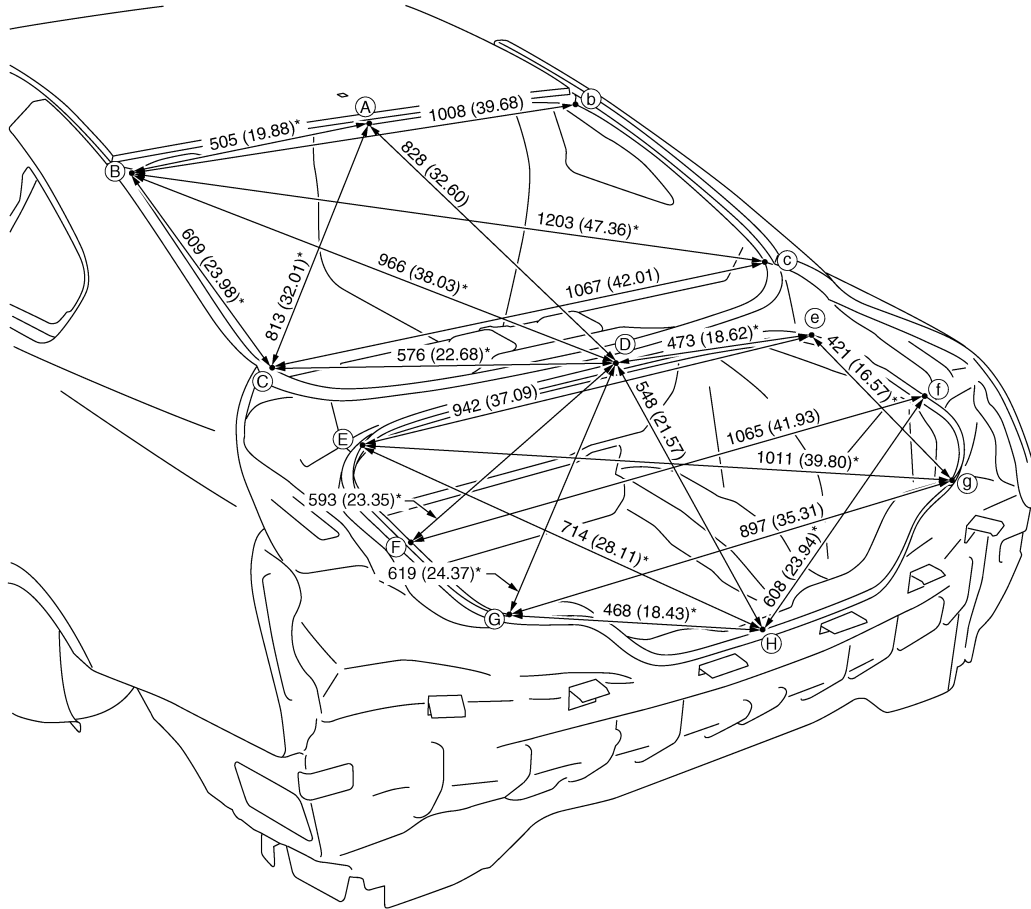
BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]

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

Unit : mm (in)



MEASUREMENT POINTS

JSKIA0358GB

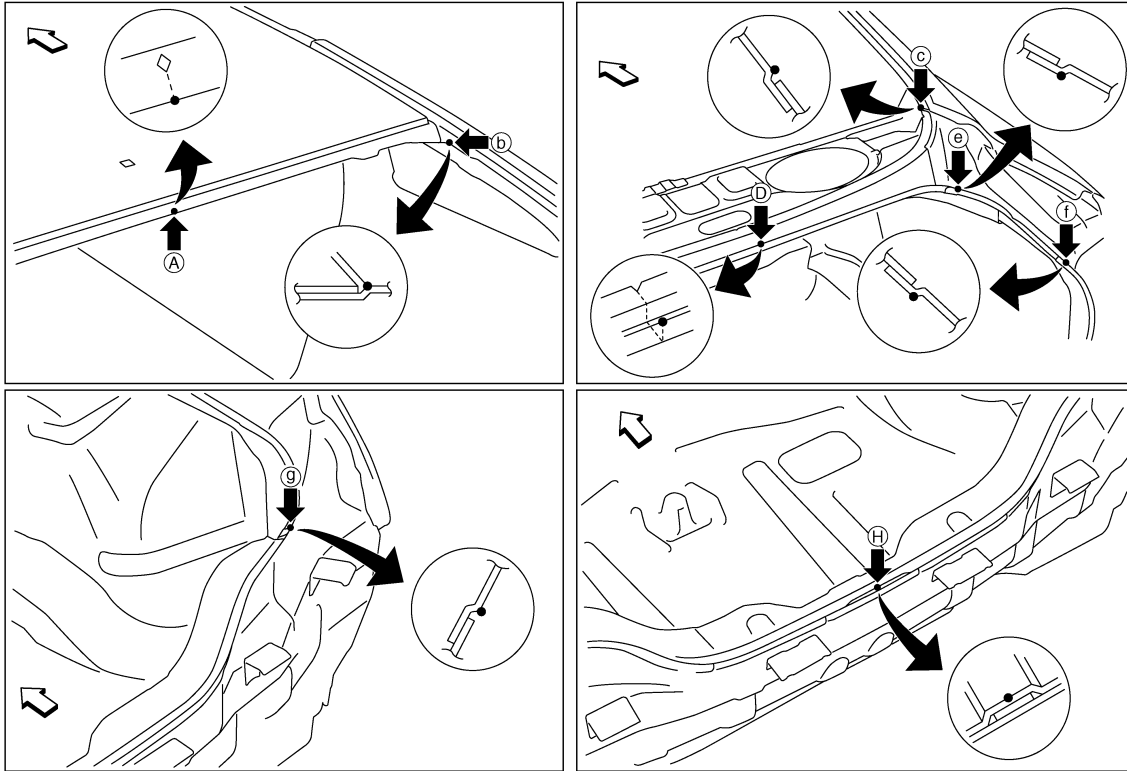
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BODY ALIGNMENT

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR MEXICO]



JSKIA0359GB

↶: Vehicle front

Point	Material	Point	Material
A	Roof flange end of center positioning mark	F, f, G, g	Rear combination lamp base joggle
B, b, C, c, E, e	Rear fender corner joggle	H	Upper rear panel flange end of center positioning mark
D	Rear waist flange end of center positioning mark		