
GROUP 3

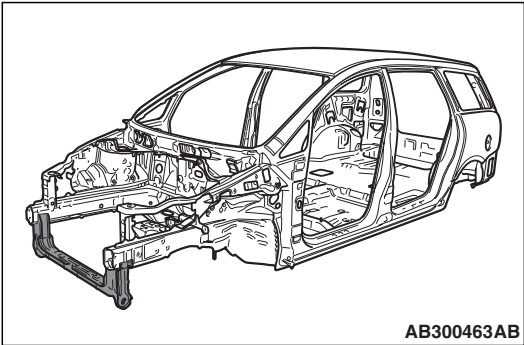
WELDED PANEL REPLACEMENT


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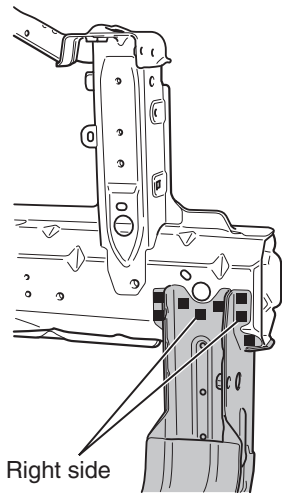
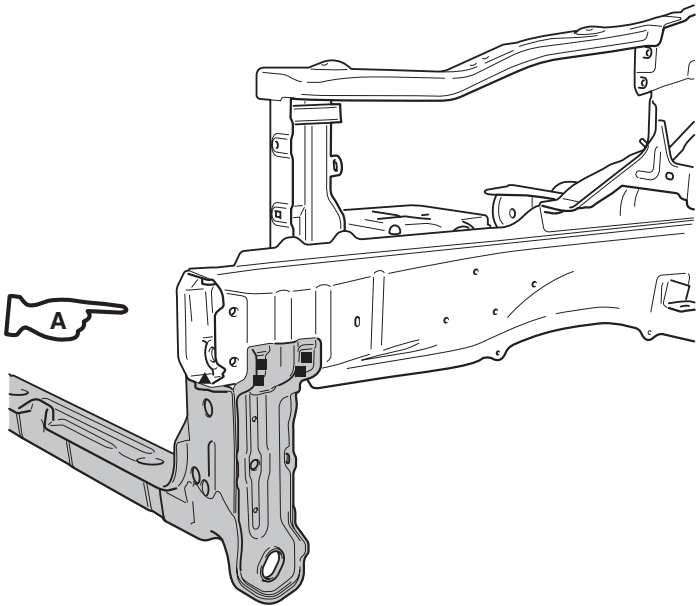
HEADLAMP SUPPORT

M4030003000274



Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
+ + + +	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

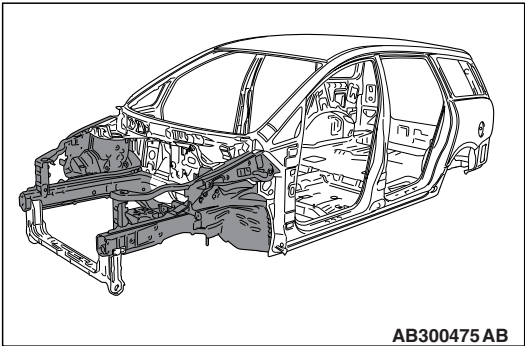
REPAIR WELDS




AB300525AB

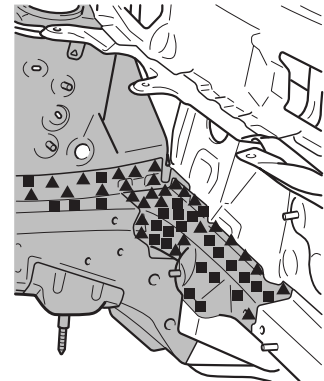
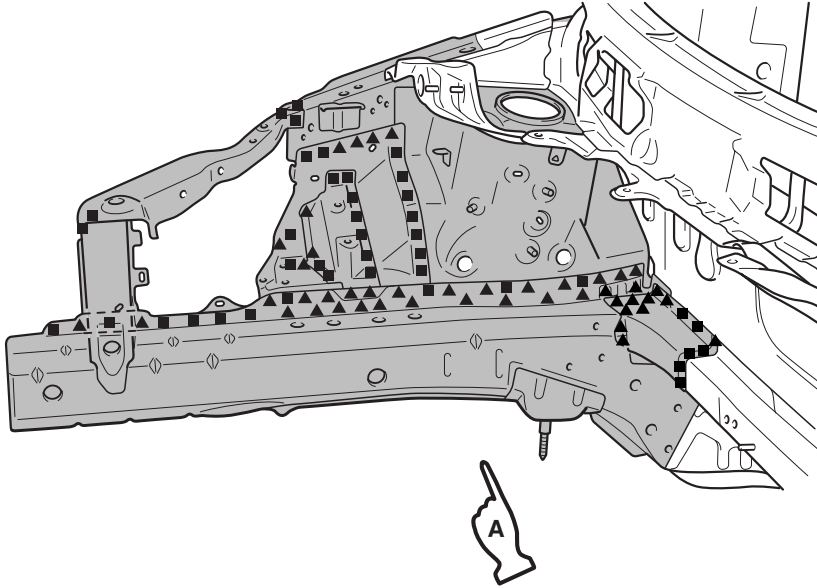
FENDER SHIELD

M4030004000307

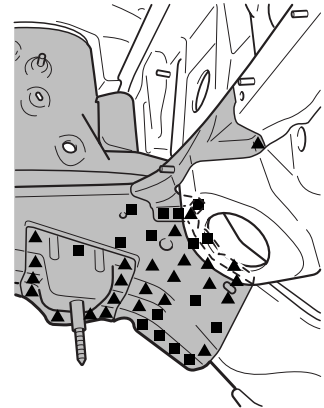
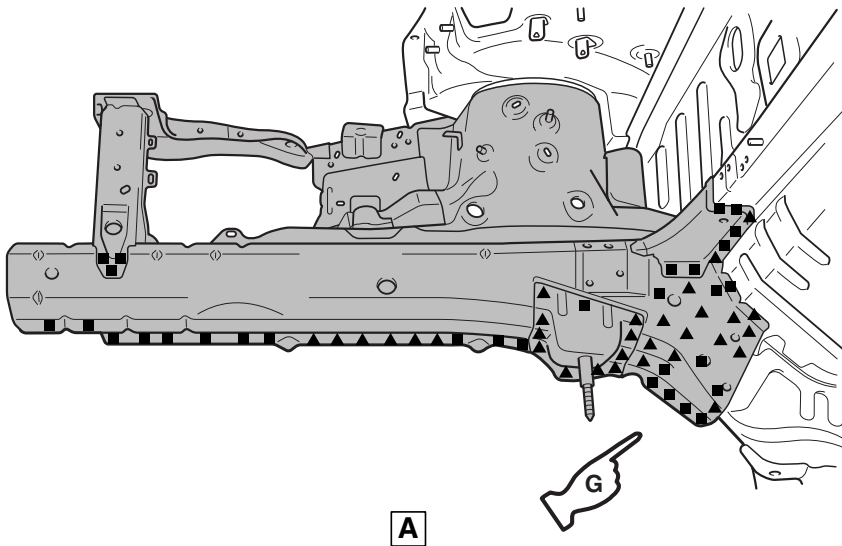


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
+ + + +	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS



(R. H. Drive vehicles)

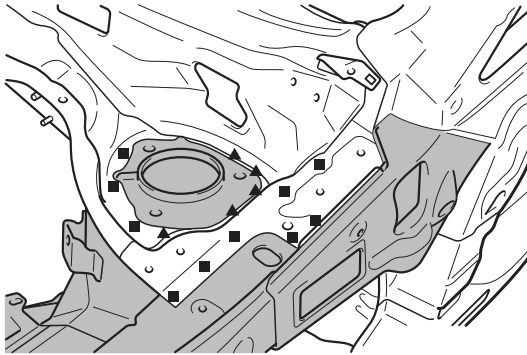
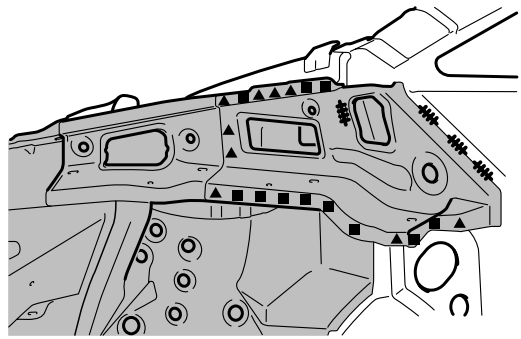
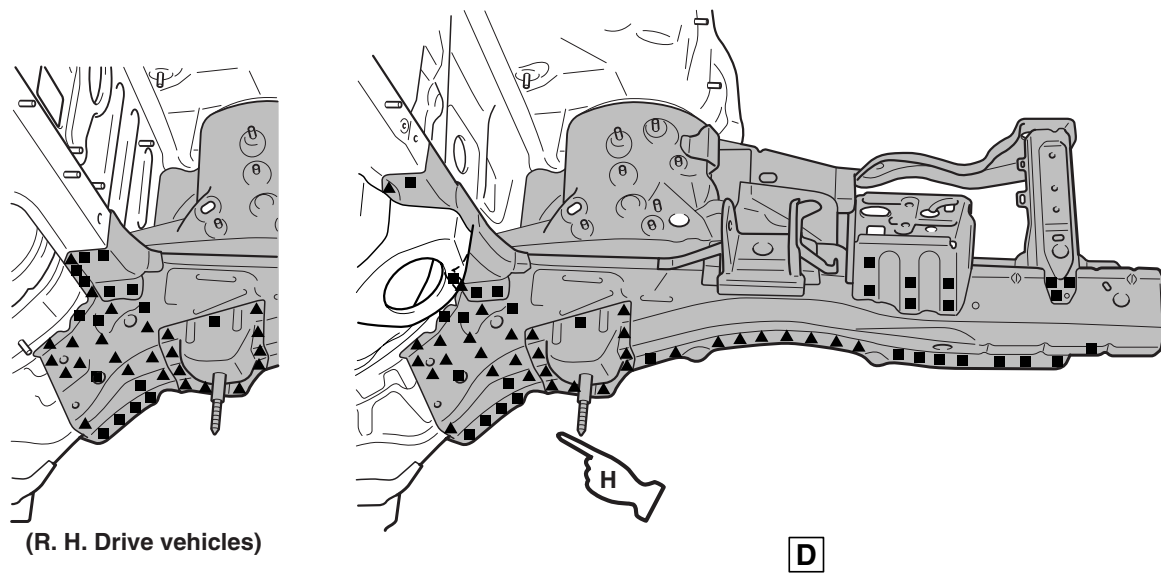
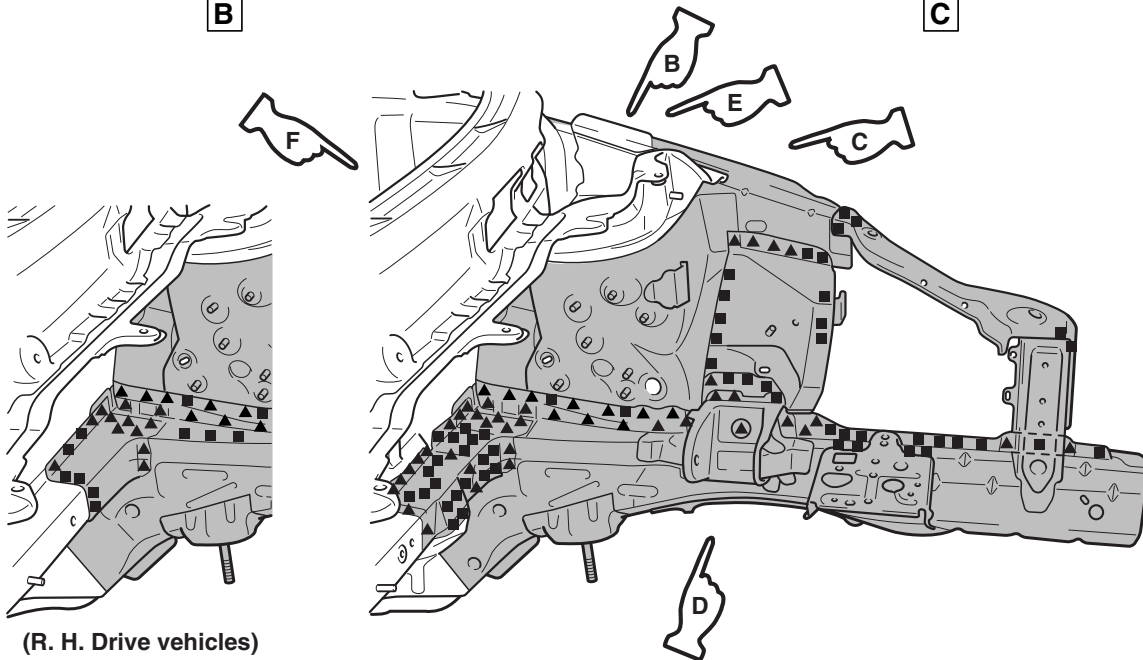


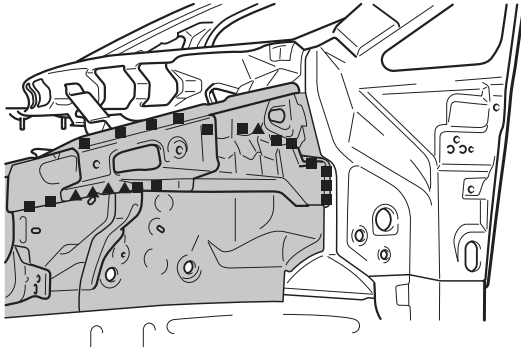
(R. H. Drive vehicles)

AB302007AB

NOTE:

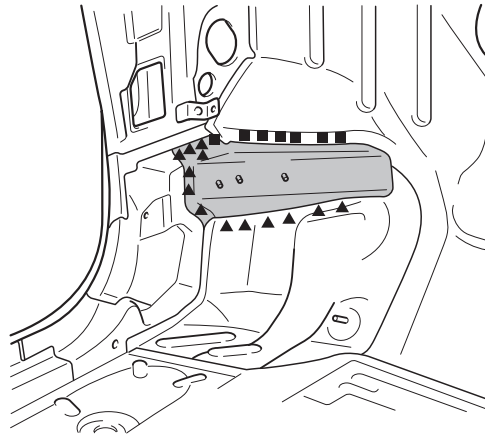
- Refer to the Headlamp Support Section on [P.3-2](#) for the welding point with headlamp support.

**B****C****D**

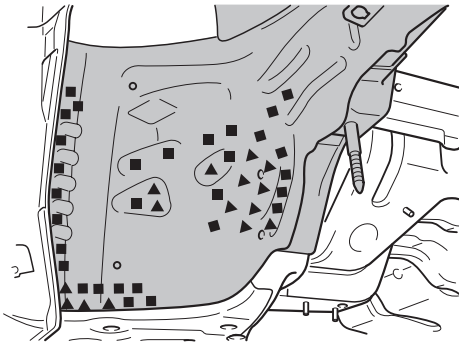


E

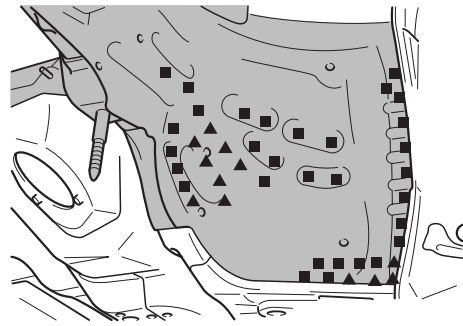
(With the front upper frame extension outer removed)



F



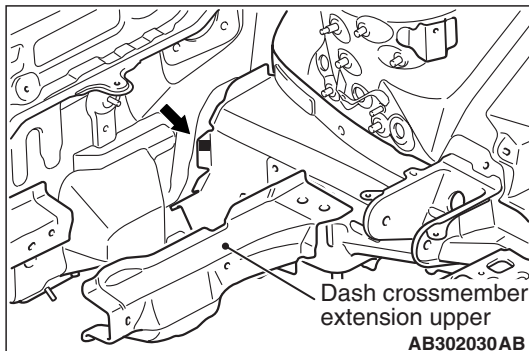
G



H

AB302016 AB

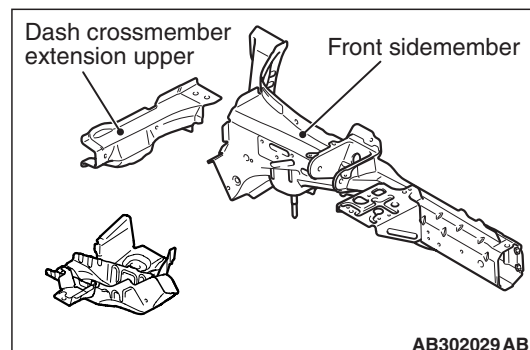
NOTE ON REPAIR WORK REMOVAL



AB302030 AB

The welding point between front sidemember inner and dash panel extension is hidden by the dash crossmember extension upper. Therefore, when removing the front sidemember, remove the dash crossmember extension upper in advance.

INSTALLATION

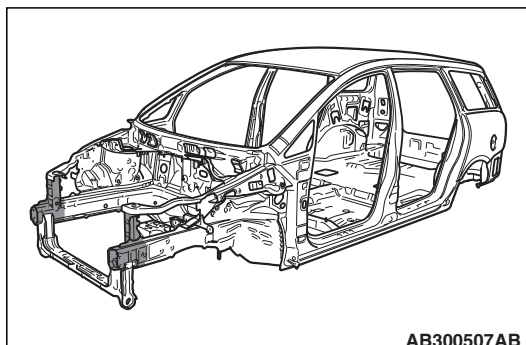


AB302029 AB

1. Remove the front sidemember brace lower, suspension crossmember bracket rear and dash crossmember extension lower from the new front sidemember.
2. Remove the dash crossmember extension upper from the new front sidemember and install the front sidemember, and then install the dash crossmember extension upper.

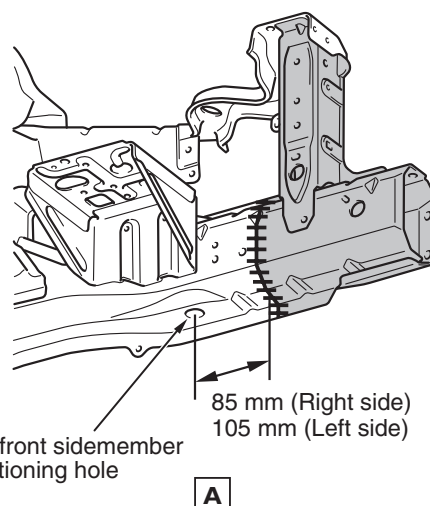
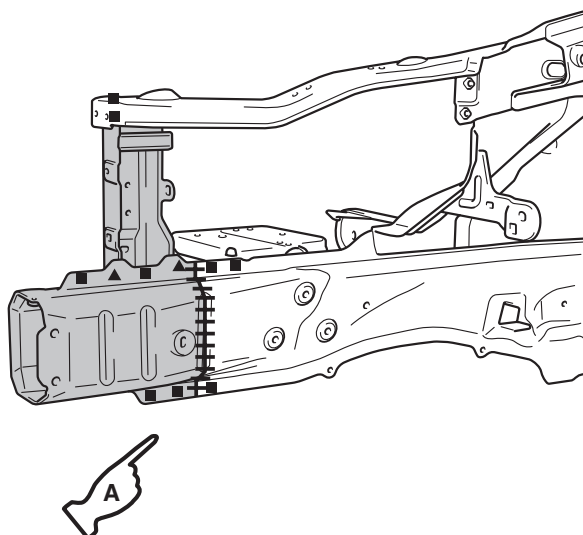
FRONT SIDEMEMBER (PARTIAL REPLACEMENT)

M4030000100175



Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
○○○○○○	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

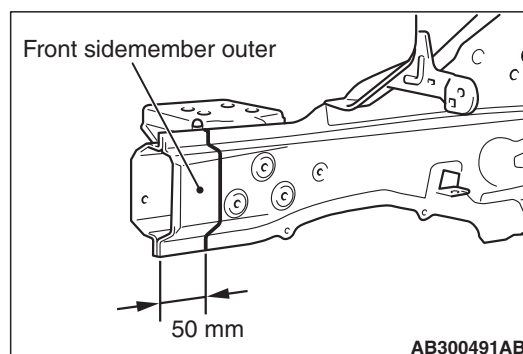
REPAIR WELDS



AB300511AB

NOTE: Refer to the Headlamp Support Section on [P.3-2](#) for the welding point with headlamp support.

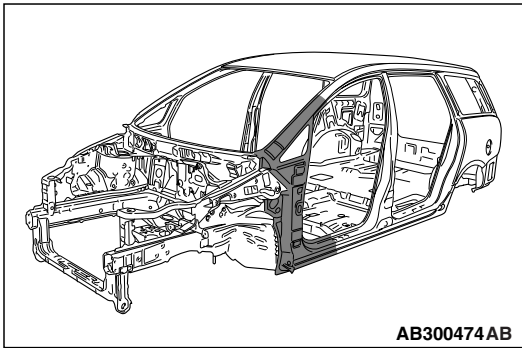
NOTE ON REPAIR WORK REMOVAL



To reinforce the strength of the front sidemember cut area, cut the front sidemember outer 50 mm behind the cut-out part.

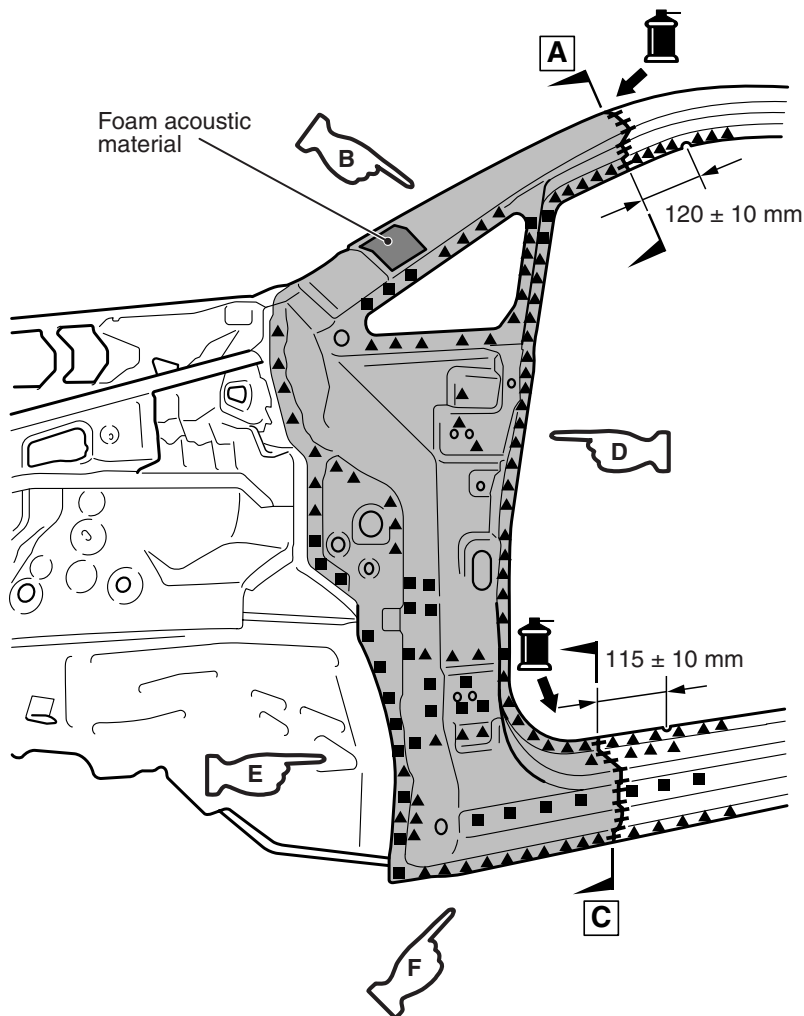
FRONT PILLAR (DRIVERS SIDE)

M4030005300011

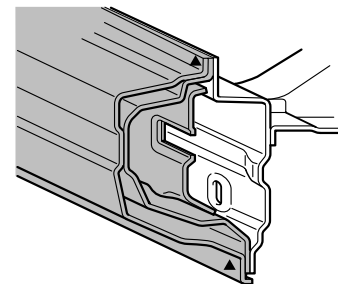
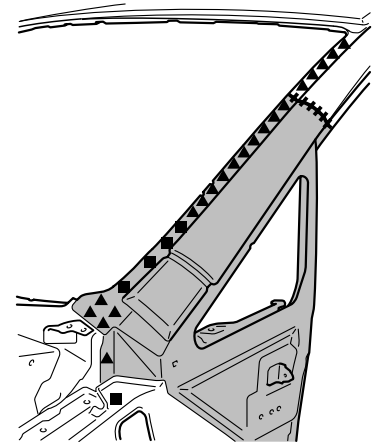
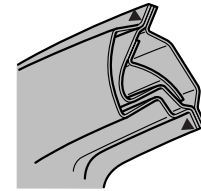


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
oooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS



(With the front upper frame extension outer removed)



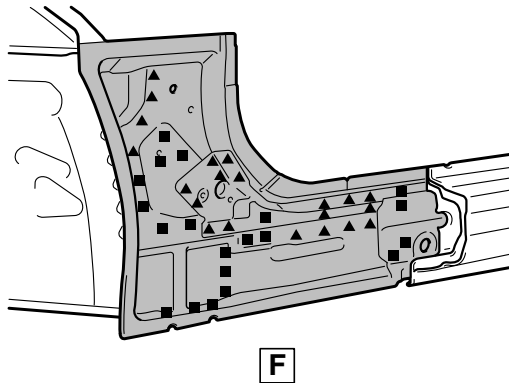
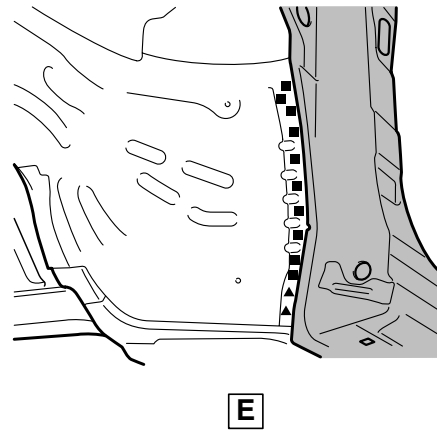
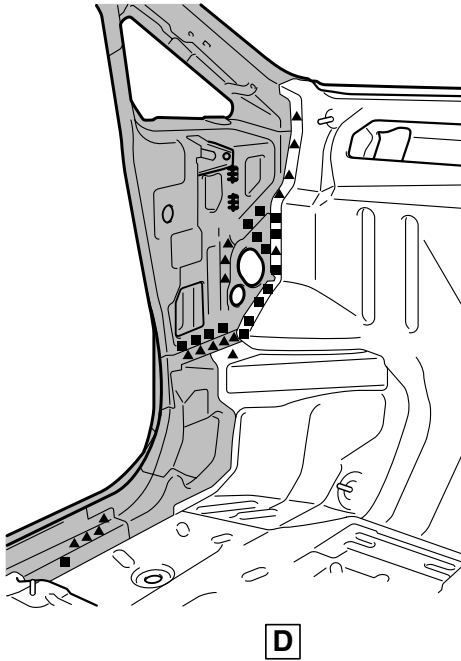
AB301982AB

CAUTION

When repairing the area using foam materials do not use firing tools since the foaming materials may burn.

NOTE:

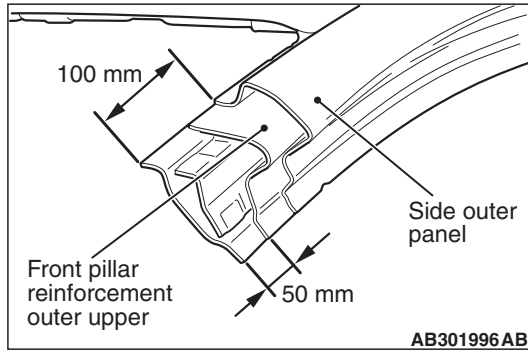
- Refer to the Fender Shield Section on [P.3-2](#) for the welding point with front upper frame extension outer.



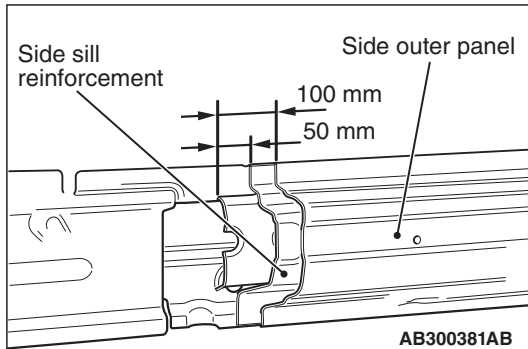
(With the side sill outer reinforcement removed)

NOTE ON REPAIR WORK

INSTALLATION

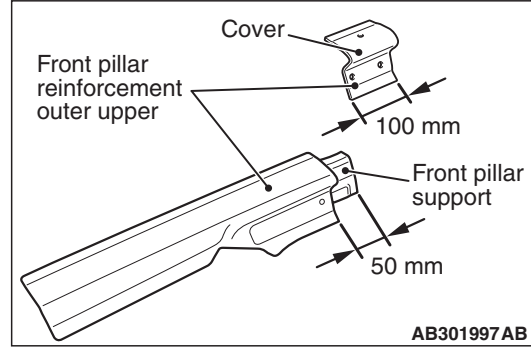


1. To reinforce the strength of the front pillar cut area, cut the side outer panel 100 mm above the cut-out part and front pillar reinforcement outer upper 50 mm above the cut-out part.



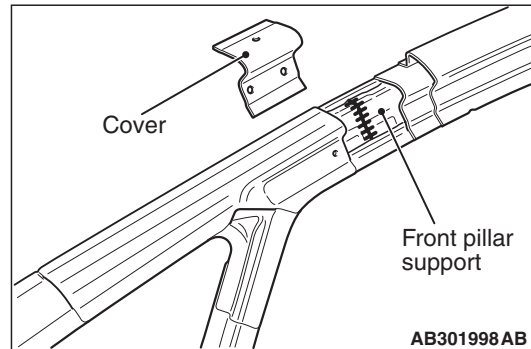
2. To reinforce the strength of the side sill cut area, cut the side outer panel 100 mm behind the cut-out part and the side sill reinforcement 50 mm behind the cut-out part.
3. Cut the new front pillar inner upper by aligning it with the body side, and then assemble it with the new front pillar inner lower and install it to the body. After that, install the front floor side sill inner front.

CAUTION

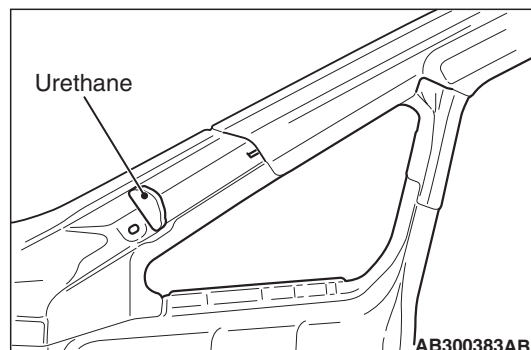


Weld and repair if the front pillar support is damaged.

4. Cut the new front pillar reinforcement outer upper and the front pillar support by aligning them with the front pillar reinforcement outer upper of the body side. Next, cut only the front pillar reinforcement outer upper 100 mm downwards from the cut area to create a cover, and then cut the front pillar support 50 mm above the cut area.

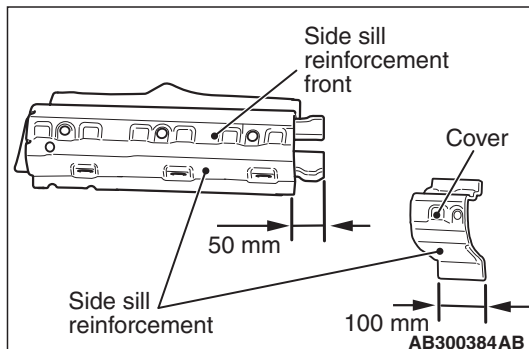


5. To install the front pillar reinforcement outer upper, weld the front pillar support, and then weld the cover of front pillar reinforcement outer upper.



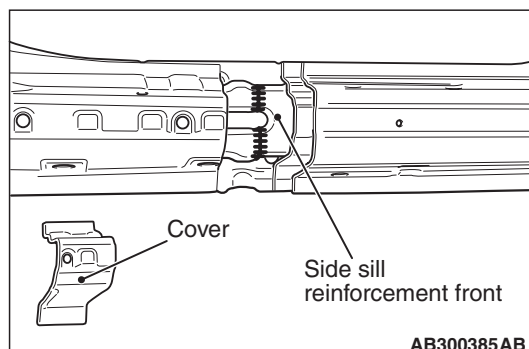
6. To prevent the foam materials dripping in filling them, apply urethane in the area shown in the figure to bury the inside of the front pillar.

CAUTION

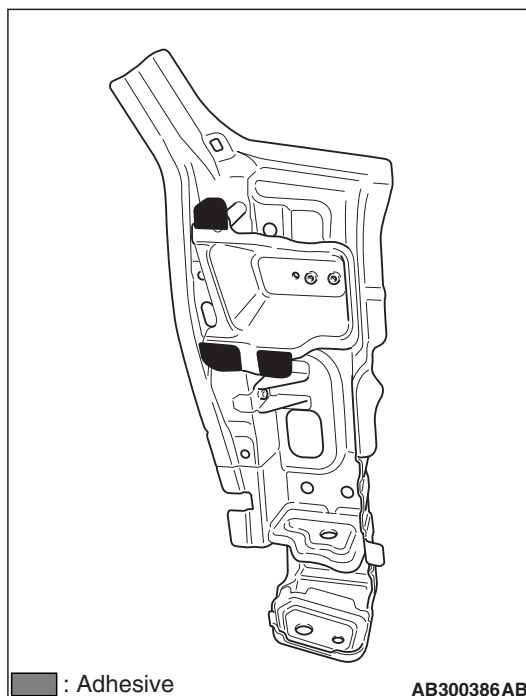


Weld and repair if the side sill reinforcement front is damaged.

- Cut the new side sill reinforcement and the side sill reinforcement front by aligning them with the cut area of side sill reinforcement in the body side. Next, cut only the side sill reinforcement 100 mm forwards from the cut area to create a cover, and then cut the side sill reinforcement front 50 mm backwards from the cut area.

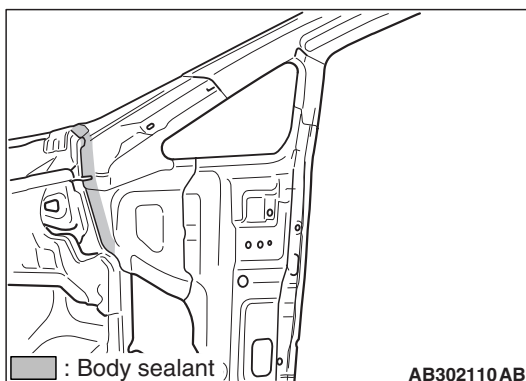


- To install the side sill reinforcement, weld the side sill reinforcement front, and then weld the cover of side sill reinforcement.

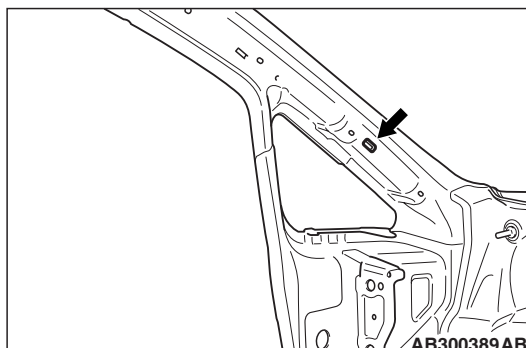


- When assembling the new front pillar outer reinforcement lower, apply structural adhesives in the areas shown in the figure.

Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent

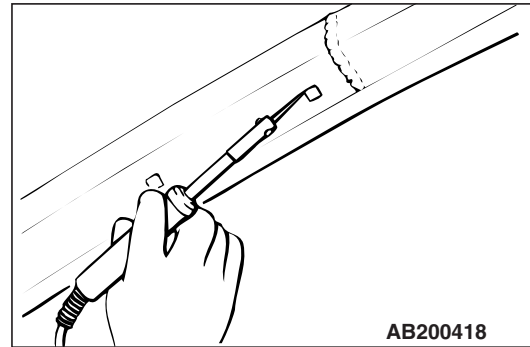


- When assembling the new front pillar outer, apply body sealant in the areas shown in the figure of body side.



11. Assemble the front pillar outer, then bolt and tape the hole and flange with aluminium tape and fill the hole with foam materials as shown in the figure of the instructions.

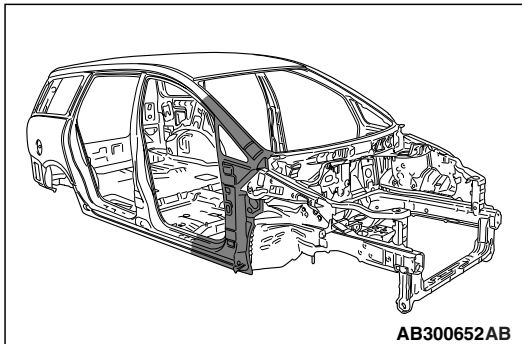
**FOAM: 3M ATD ULTRAPRO Panel
foam-Yellow**




12. Wait 2 hours after filling the foam materials to remove the bolt and aluminium tape, then melt the foam materials with a soldering gun so a clip, etc. can thoroughly be inserted in the hole filled with foam materials.

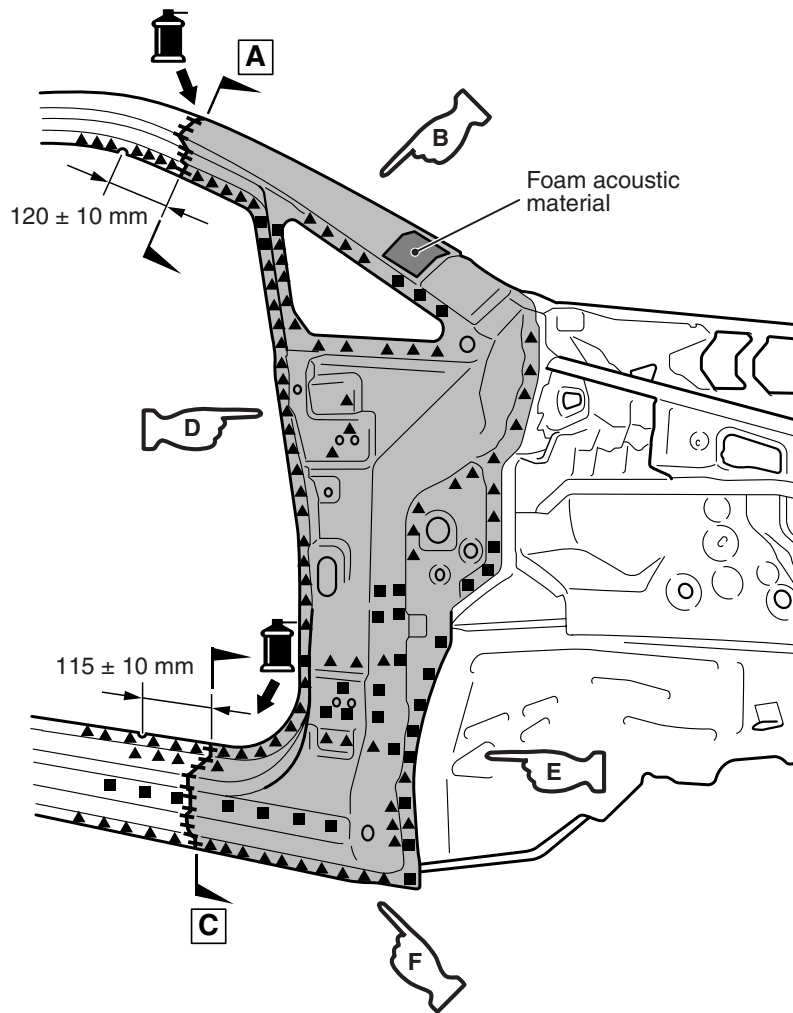
FRONT PILLAR (PASSENGERS SIDE)

M4030005400018

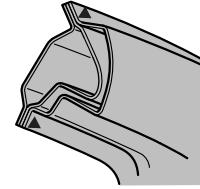


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
+++++	MIG arc welding (continuous)
ooooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

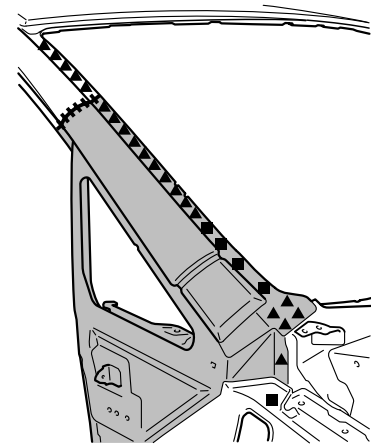
REPAIR WELDS



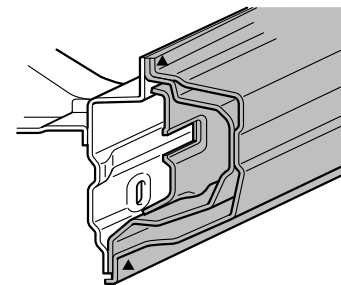
(With the front upper frame extension outer removed)



A



B



C

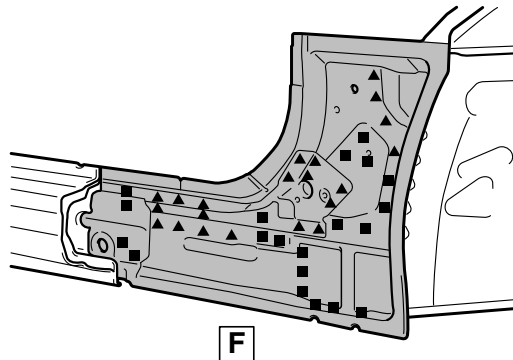
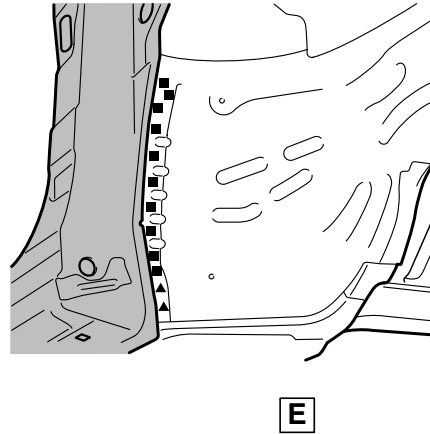
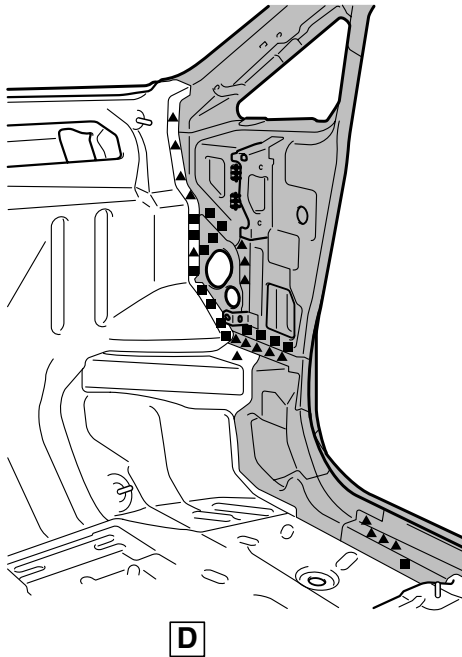
AB301983AB

CAUTION

When repairing the area using foam materials do not use firing tools since the foaming materials may burn.

NOTE:

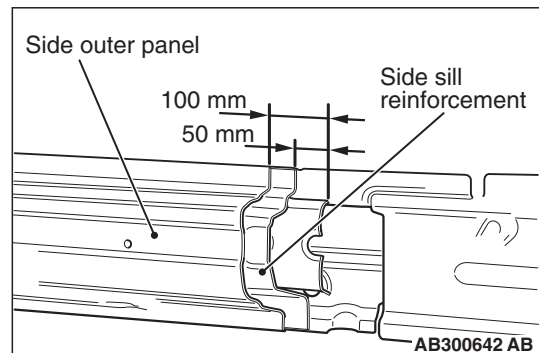
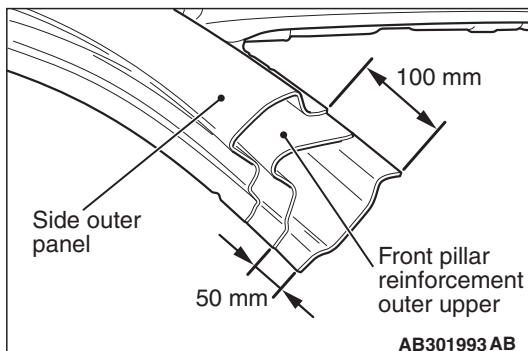
- Refer to the Fender Shield Section on [P.3-2](#) for the welding point with front upper frame extension outer.



(With the side sill outer reinforcement removed)

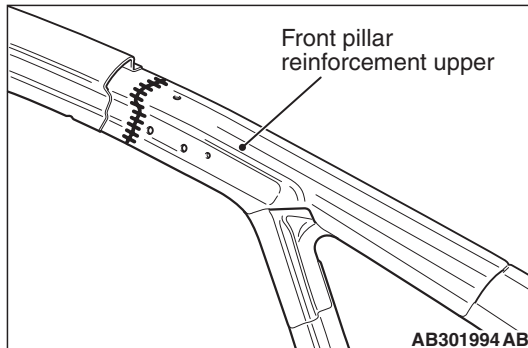
AB301985AB

NOTE ON REPAIR WORK INSTALLATION

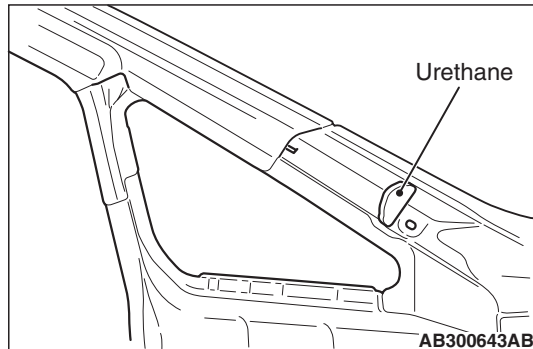


1. To reinforce the strength of the front pillar cut area, cut the side outer panel 100 mm above the cut-out part and front pillar reinforcement outer upper 50 mm above the cut-out part.
2. To reinforce the strength of the side sill cut area, cut the side outer panel 100 mm behind the cut-out part and the side sill reinforcement 50 mm behind the cut-out part.

3. Cut the new front pillar inner upper by aligning it with the body side, and then assemble it with the new front pillar inner lower and install it to the body. After that, install the front floor side sill inner front.

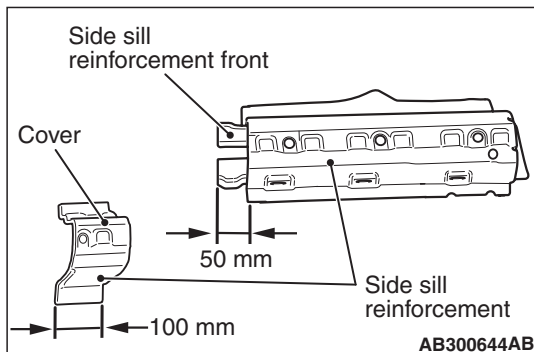


4. Cut the new front pillar reinforcement outer upper in alignment with the body-side and install it.



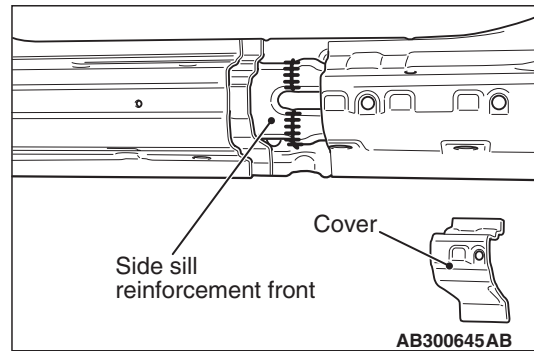
5. To prevent the foam materials dripping in filling them, apply urethane in the area shown in the figure to bury the inside of the front pillar.

CAUTION

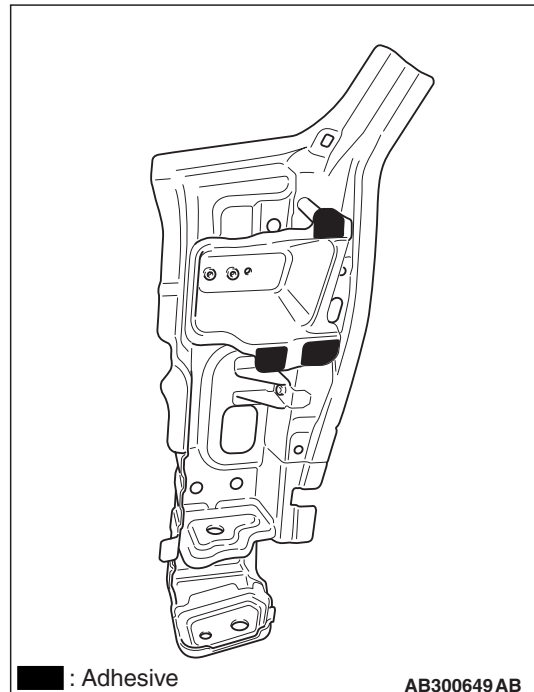


Weld and repair if the side sill reinforcement front is damaged.

6. Cut the new side sill reinforcement and the side sill reinforcement front by aligning them with the cut area of side sill reinforcement in the body side. Next, cut only the side sill reinforcement 100 mm forwards from the cut area to create a cover, and then cut the side sill reinforcement front 50 mm backwards from the cut area.

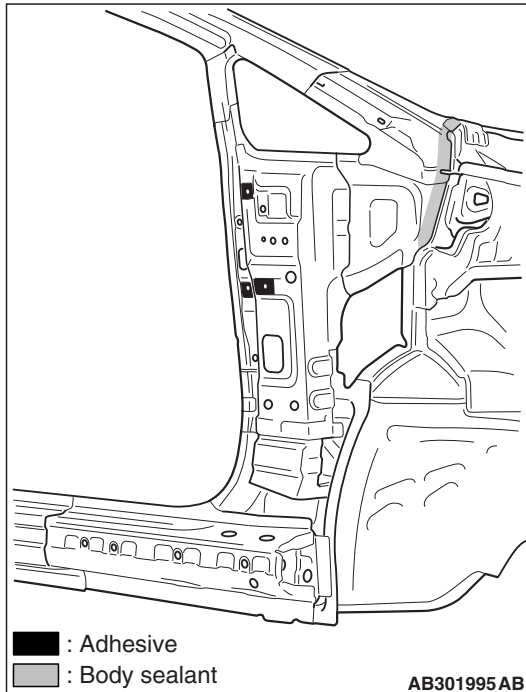


7. To install the side sill reinforcement, weld the side sill reinforcement front, and then weld the cover of side sill reinforcement.



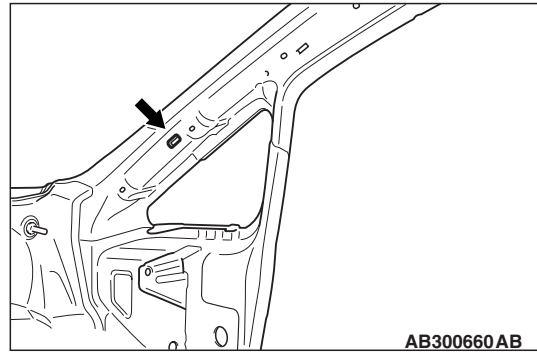
8. When assembling the new front pillar outer reinforcement lower, apply structural adhesives in the areas shown in the figure.

**Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent**



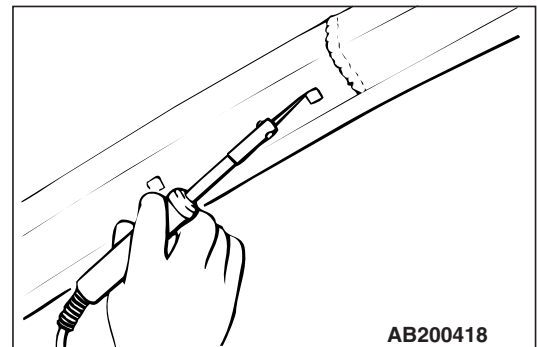
9. When assembling the new front pillar outer, apply body sealant and structural adhesives in the areas shown in the figure of body side.

Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent



10. Assemble the front pillar outer, then bolt and tape the hole and flange with aluminium tape and fill the hole with foam materials as shown in the figure of the instructions.

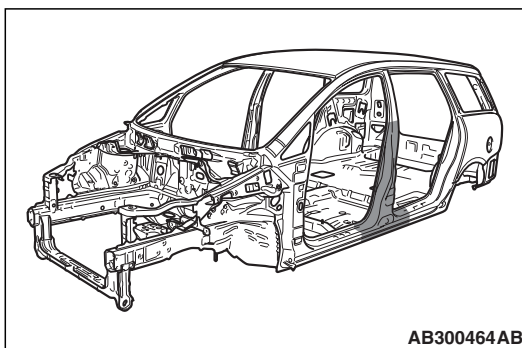
FOAM: 3M ATD ULTRAPRO Panel foam-Yellow




11. Wait 2 hours after filling the foam materials to remove the bolt and aluminium tape, then melt the foam materials with a soldering gun so a clip, etc. can thoroughly be inserted in the hole filled with foam materials.

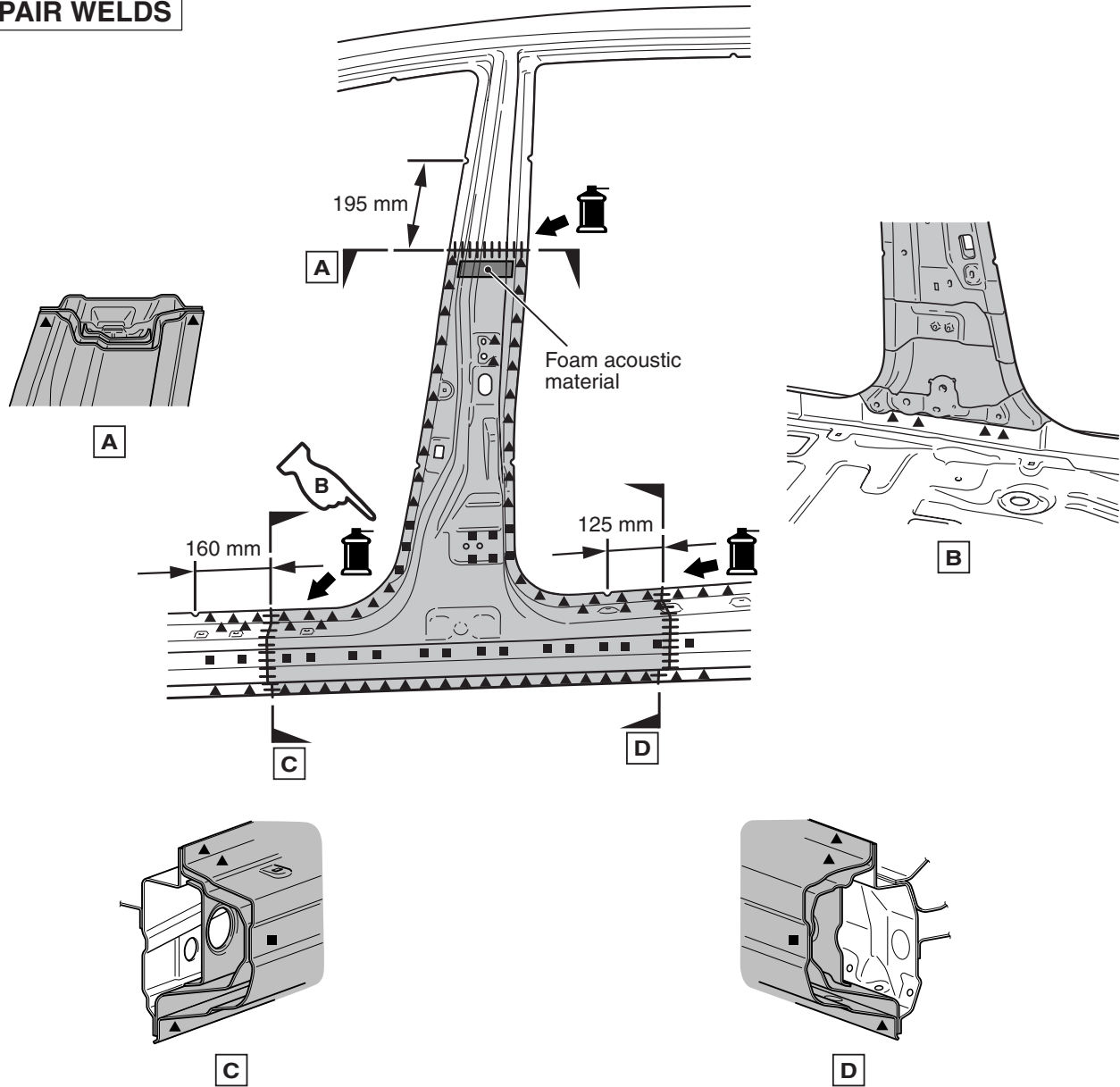
CENTRE PILLAR

M4030006000284



Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
#####	MIG arc welding (continuous)
oooooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS

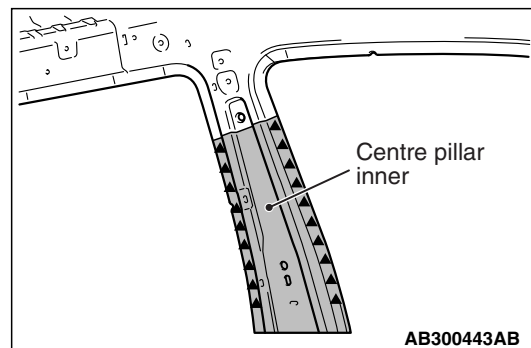


AB300517AB

CAUTION

When repairing the area using foam materials do not use firing tools since the foaming materials may burn.

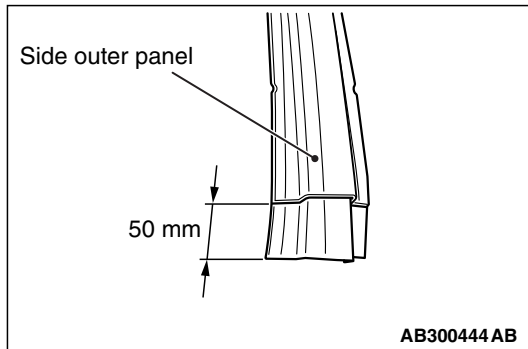
NOTE ON REPAIR WORK REMOVAL



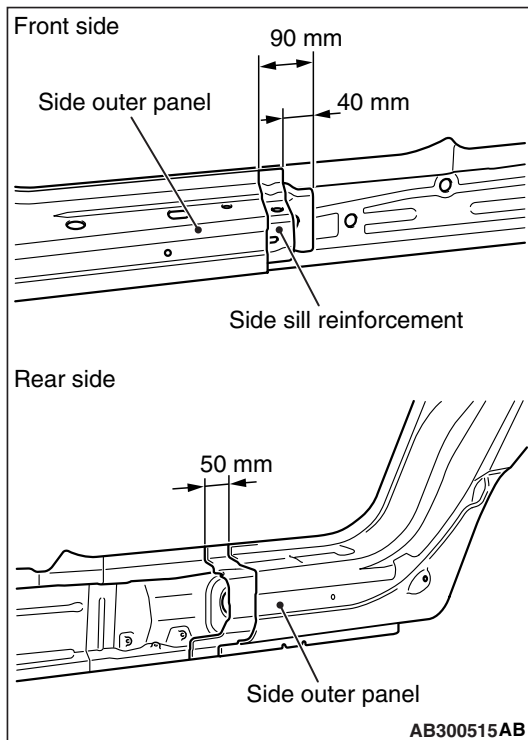
AB300443AB

After removing the centre pillar, remove the centre pillar inner left on the body side.

INSTALLATION

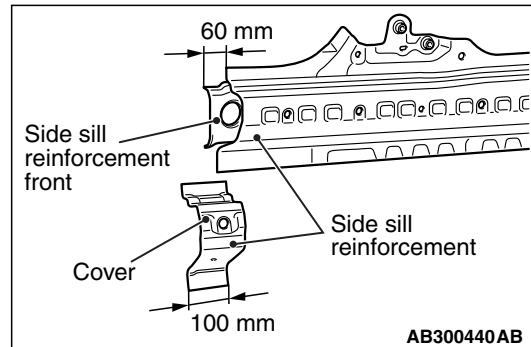


1. To reinforce the strength of the centre pillar cut area, cut the side outer panel 50 mm above the cut-out part.



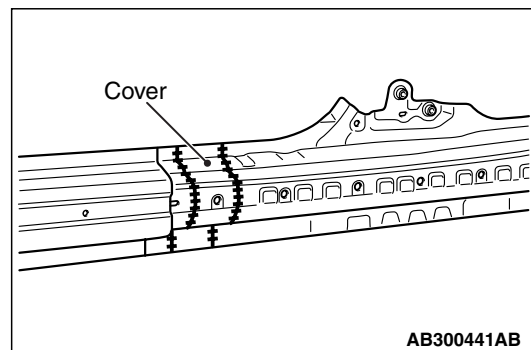
2. To reinforce the strength of the side sill cut area, cut the side outer panel 90 mm forwards and the side sill reinforcement 40 mm forwards from the cut-out part in the front side. Cut the side outer panel 50 mm behind the cut-out part in the rear side.

CAUTION

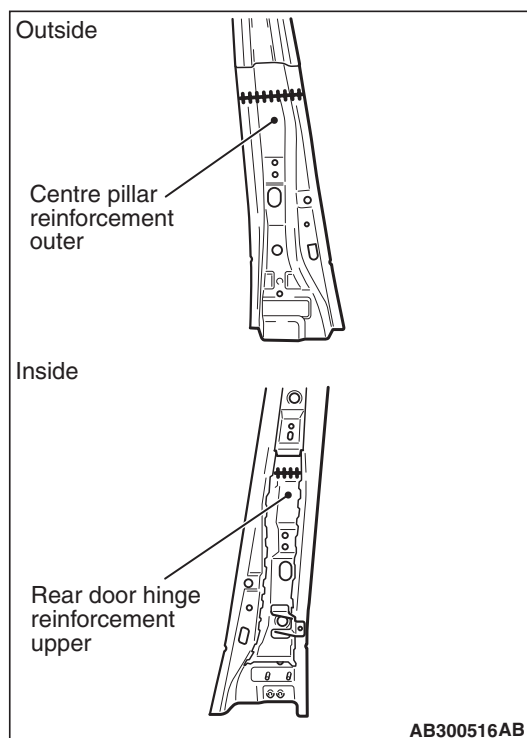


Weld and repair if the side sill reinforcement front is damaged.

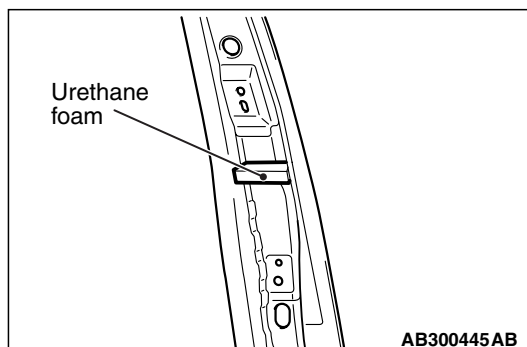
3. Cut the new side sill reinforcement and the side sill reinforcement front by aligning them with the cut area of side sill reinforcement in the body side. Next, cut only the side sill reinforcement 100 mm behind the cut area to create a cover, and then cut the side sill reinforcement front 60 mm forwards from the cut area of the side sill reinforcement.



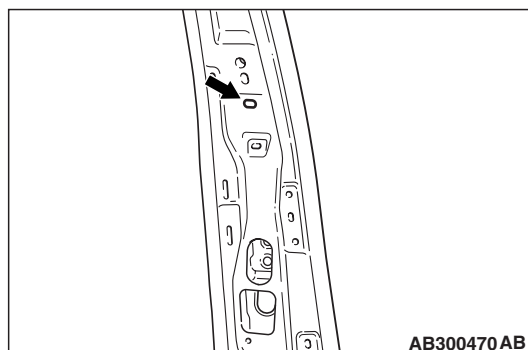
4. To install the side sill reinforcement, weld the side sill reinforcement front, and then weld the cover of side sill reinforcement.



5. Cut the new centre pillar reinforcement outer and the rear door hinge reinforcement upper by aligning them with the cut-out part of body side, and then weld the centre pillar reinforcement outer from outside and rear door hinge reinforcement upper from inside respectively.

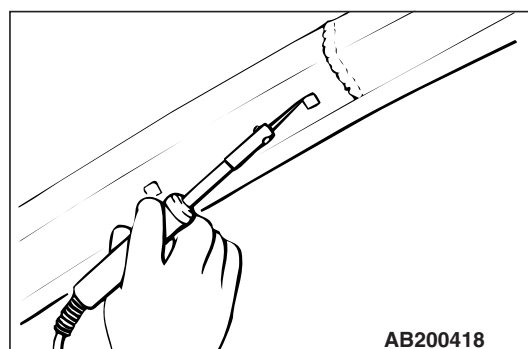


6. After assembling the new centre pillar outer, to prevent the foaming materials from dripping in the area shown in the figure of the instructions, adhere urethane foam to fill (bury) the centre pillar interior.



7. After assembling the new centre pillar inner, seal the hole and flange with bolt and sheet-metal tape, and then fill the hole with foam materials as shown in the figure of the instructions.

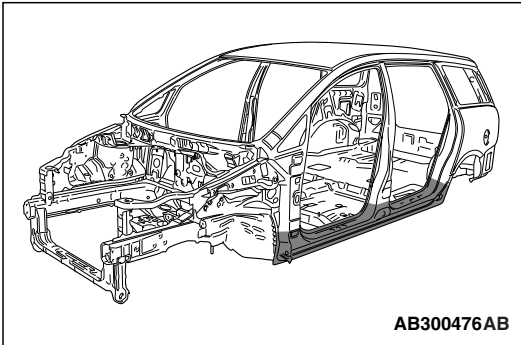
Foam: 3M ATD ULTRAPRO Panel foam-Yellow




8. Wait 2 hours after filling the foam materials to remove the bolt and sheet-metal tape, then melt the foam materials with a soldering gun so a clip, etc. can thoroughly be inserted in the hole filled with foam materials.

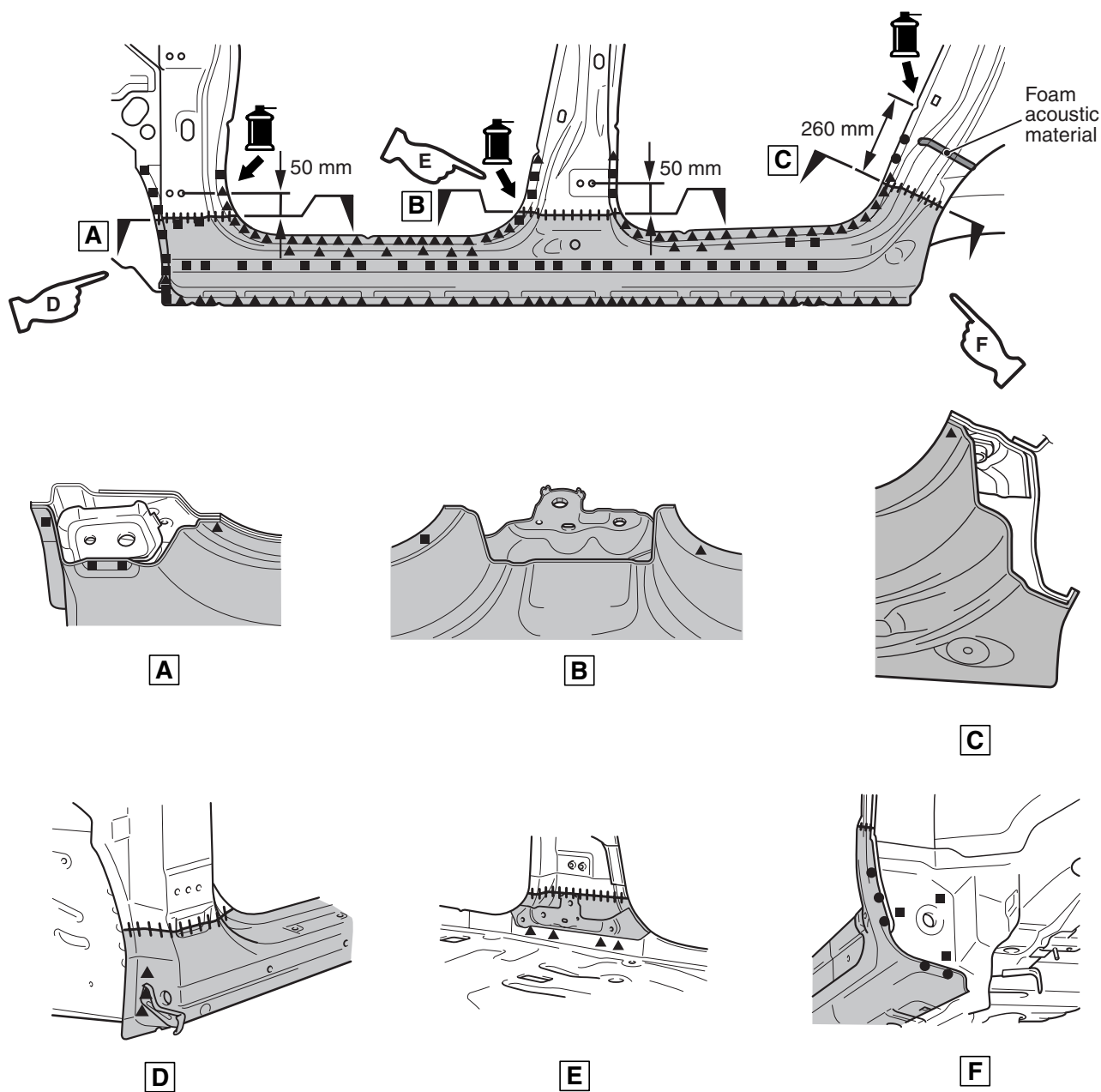
SIDE SILL

M4030007000340



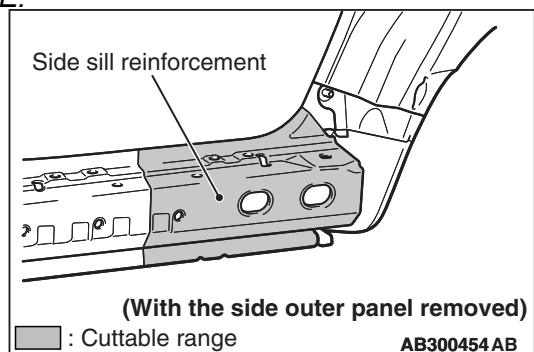
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
+ + + +	MIG spot welding
	MIG arc welding (continuous)
○○○○○○	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS



AB300534AB

NOTE:



on the range of damage.

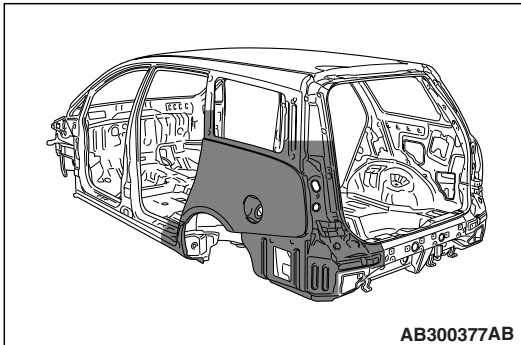
CAUTION

Cut the side sill reinforcement by displacing 50 mm from the butt welding area with the side outer panel.

Partial replacement of side sill is possible depending

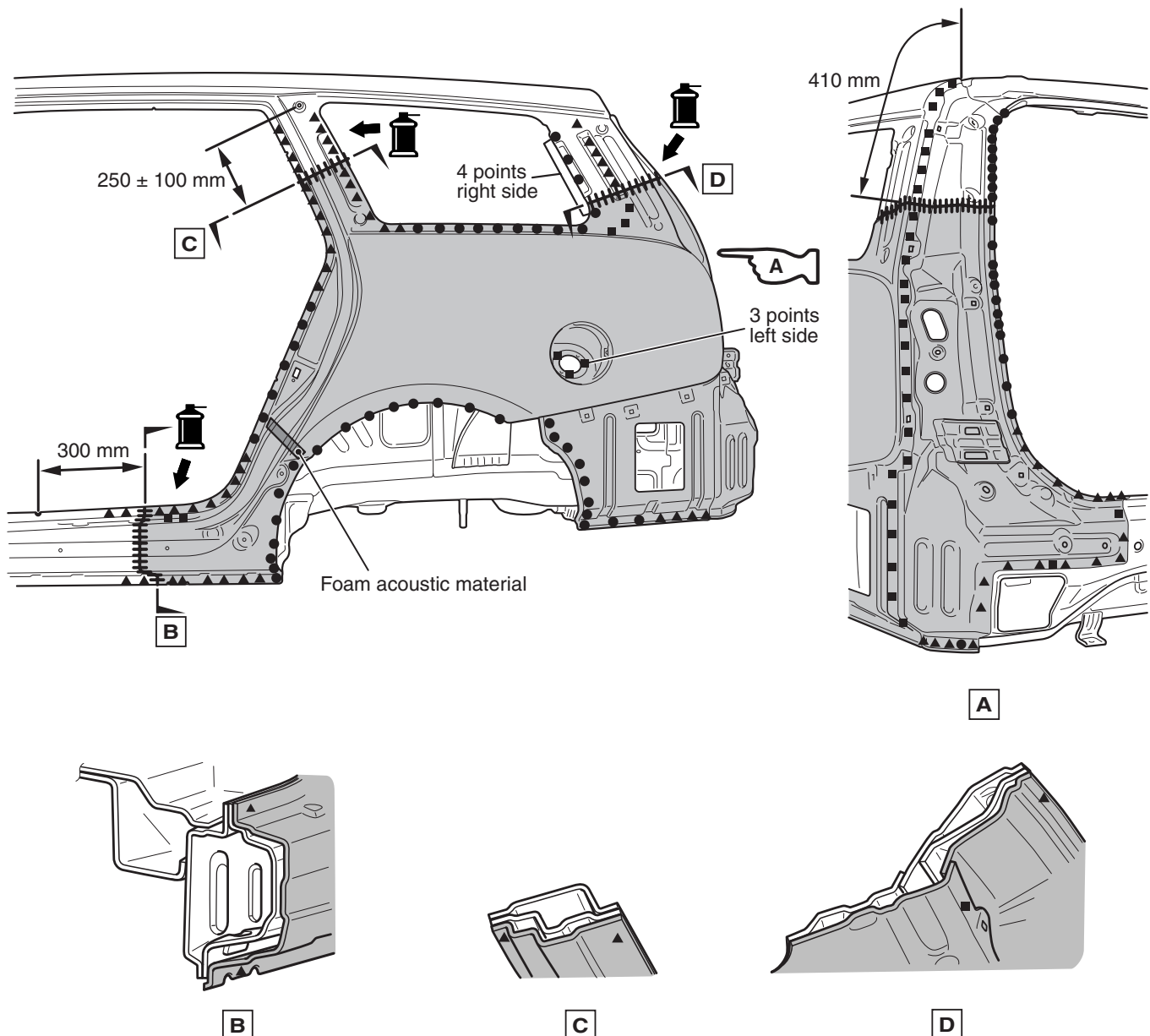
QUARTER OUTER

M4030008000279



Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

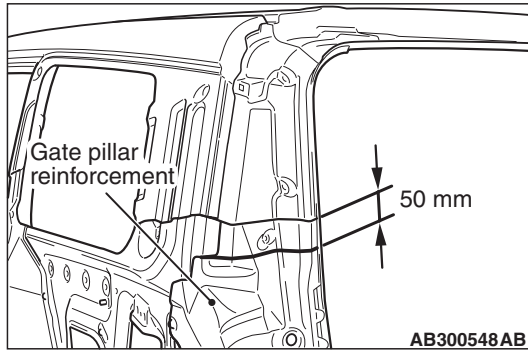
REPAIR WELDS



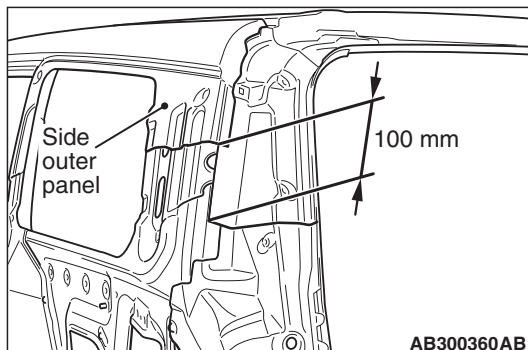
AB300522AB

CAUTION

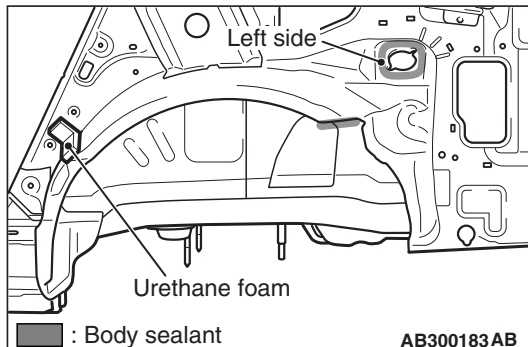
When repairing the area using foam materials do not use firing tools since the foaming materials may burn.

**NOTE ON REPAIR WORK
REMOBAL**

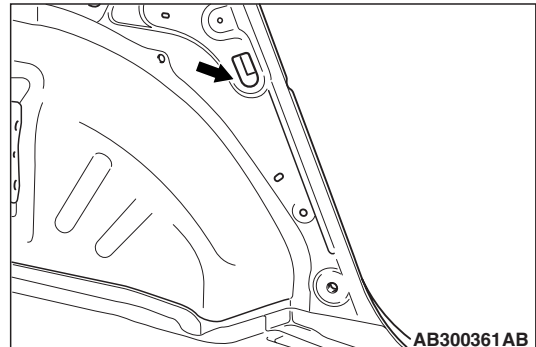
When replacing the gate pillar reinforcement, cut it 50 mm downwards from the cut area of rear gate pillar.

INSTALLATION

1. To reinforce the strength of the rear gate pillar cut area, cut the side outer panel 100 mm above the cut-out part.

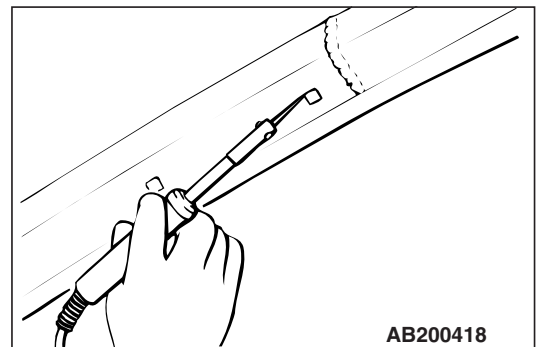


2. When assembling the new rear quarter outer panel, apply in advance body sealant to the areas shown in the figure of the instructions. In addition, to prevent the foam materials from dripping, apply urethane foam to bury the inside of the wheel arch.



3. Assemble the quarter outer panel, bolt and tape the hole and flange with aluminium tape, then fill the hole with foam materials as shown in the figure of the instructions.

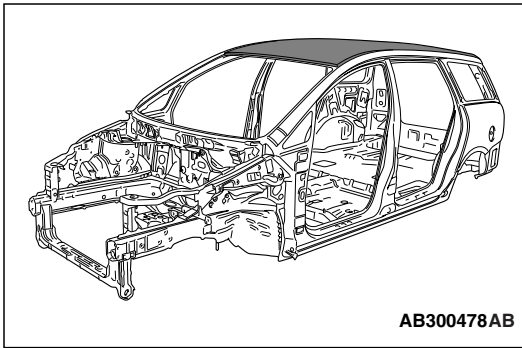
**Foam: 3M ATD ULTRAPRO Panel
foam-Yellow**



4. Wait 2 hours after filling the foam materials to remove the bolt and aluminium tape. Then melt the foam materials with a soldering gun so a clip, etc. can thoroughly be inserted in the hole that was clogged with foam materials, to bore open the hole.

ROOF

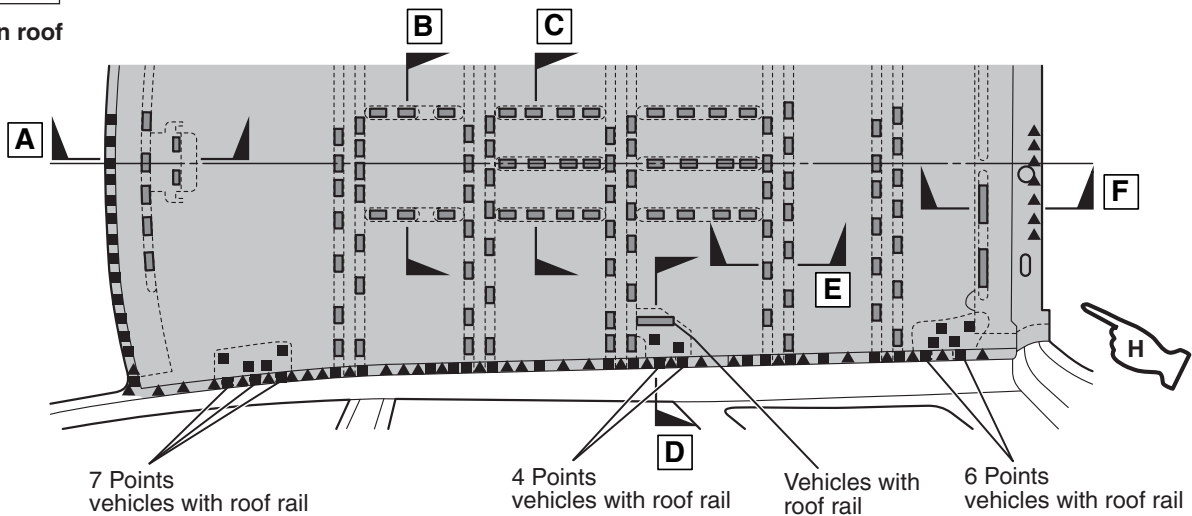
M4030011000280



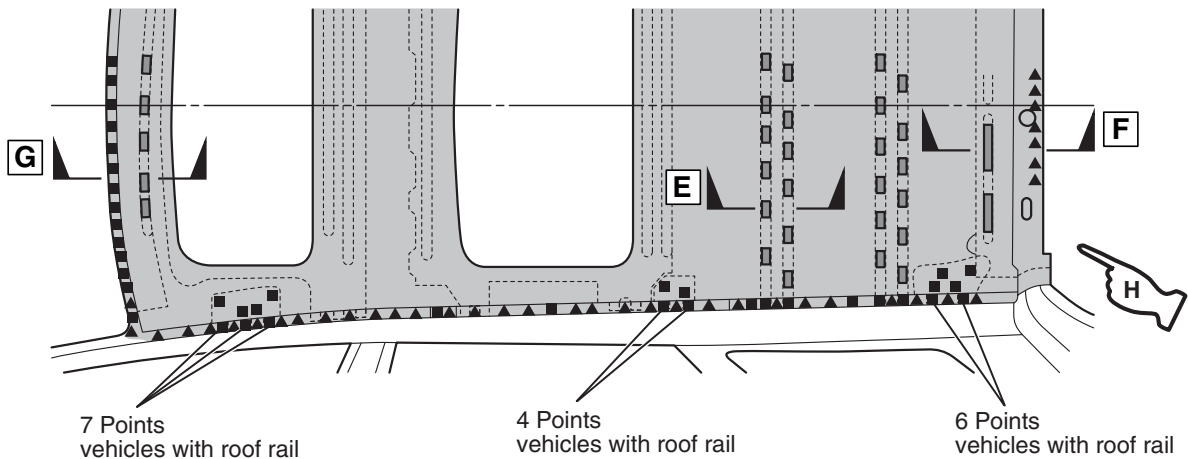
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

Repair welds

Except for sun roof



Vehicles with sun roof

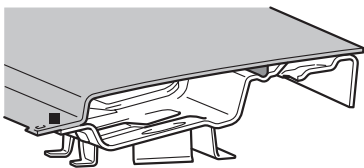


: Adhesive

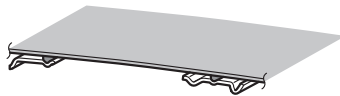
AB302123AB

Adhesive: Urethane body sealer

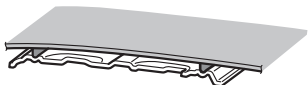
Brand: 3M ATD Part No.8542 or equivalent



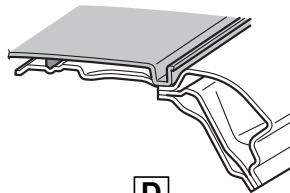
A



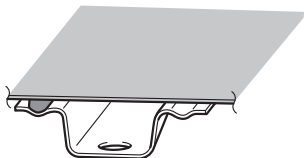
B



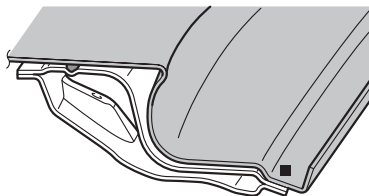
C



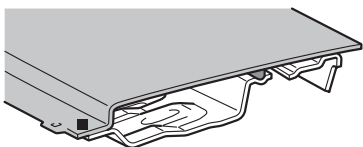
D



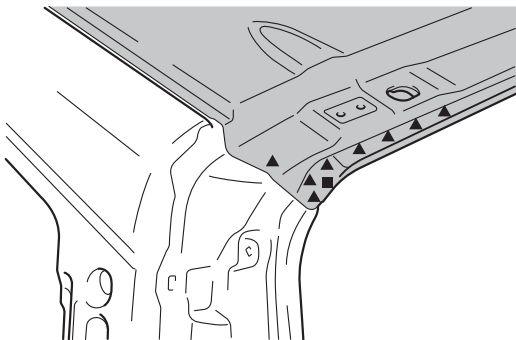
E



F



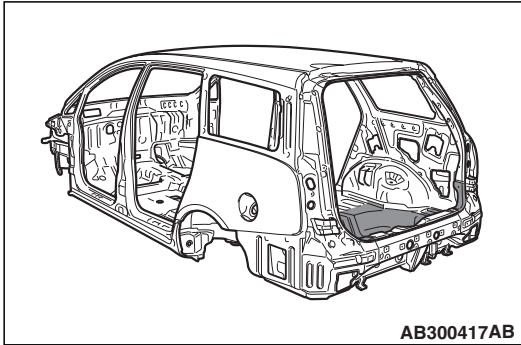
G



H

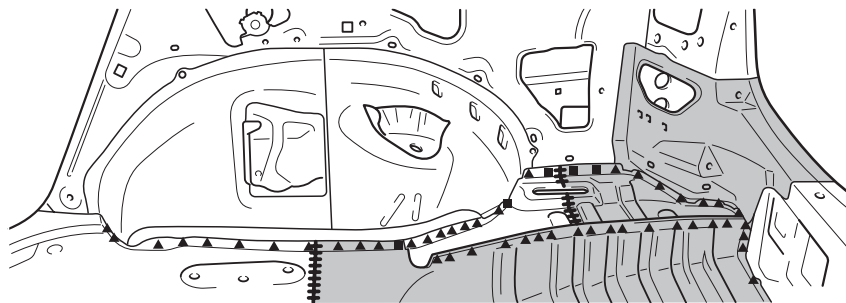
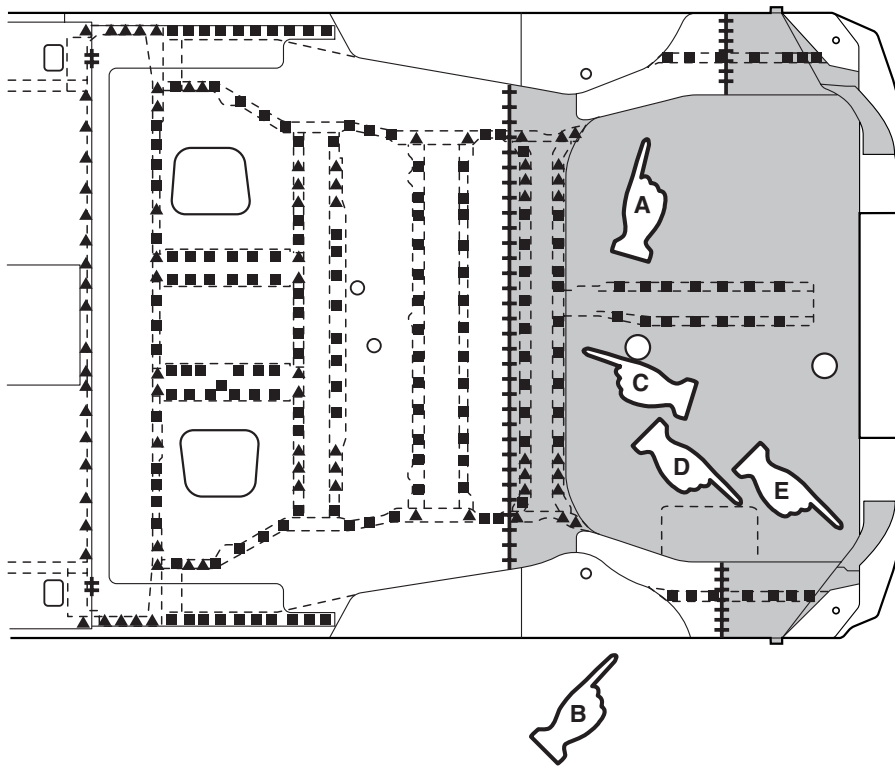
REAR FLOOR

M4030010000287



Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

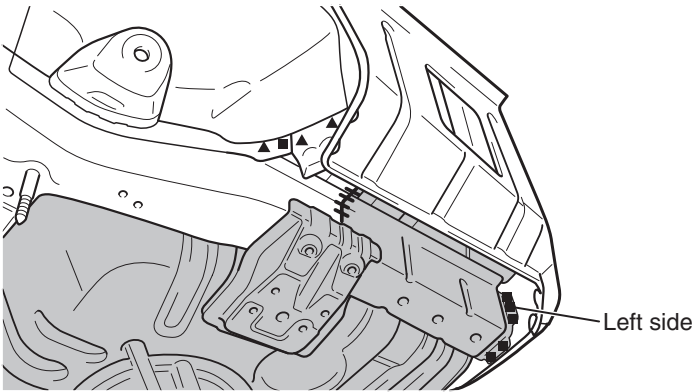
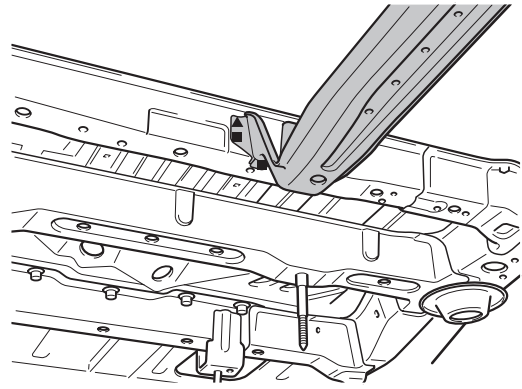
REPAIR WELDS



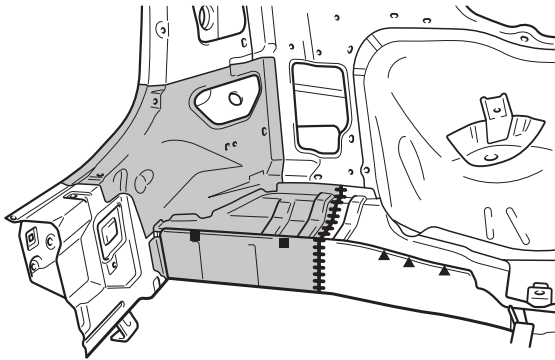
A

AB302125AB

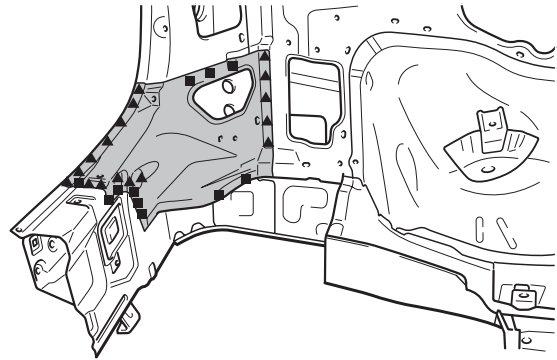
NOTE: Refer to the Rear End Panel Section on [P.3-27](#) for the welding points with the rear end panel.

**B****C**

(With the rear floor pan removed)

**D**

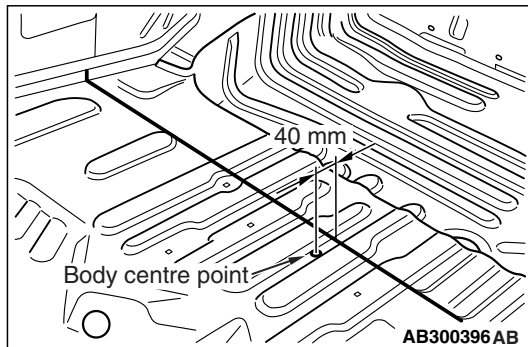
(With the rear floor pan removed)

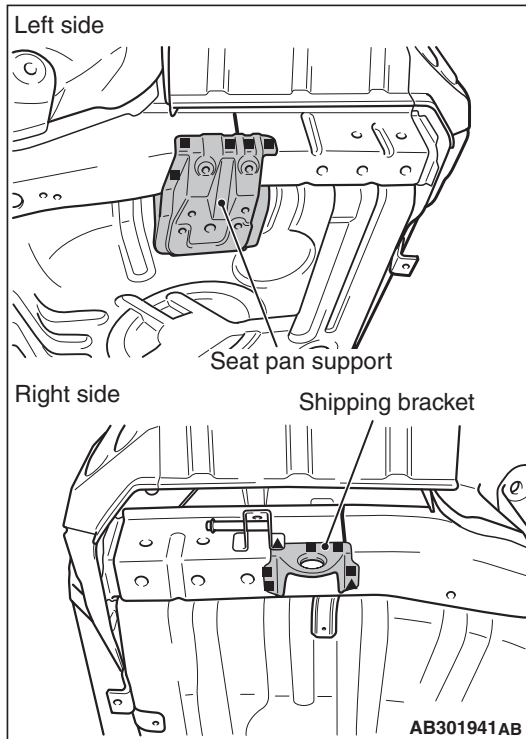
**E**(With the rear floor sidemember
and rear floor side pan removed)

AB301940 AB

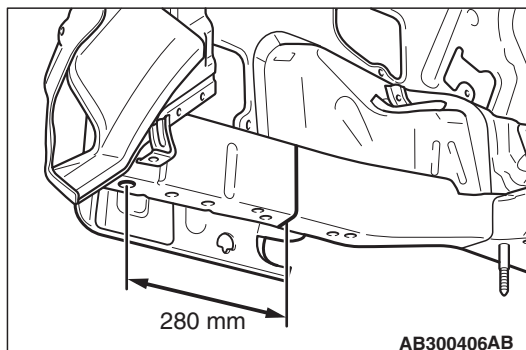
NOTE ON REPAIR WORK REMOVAL

1. When cutting the rear floor pan, cut it 40 mm behind the body centre point as shown.



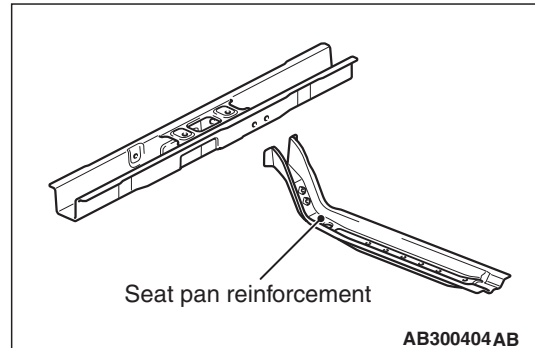


2. Remove the seat pan support and shipping bracket (right side) on the cut area in advance when cutting the rear floor sidemember.

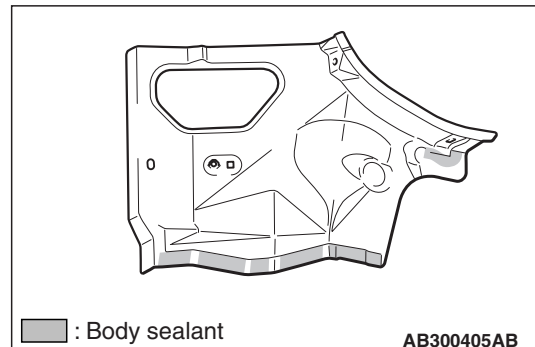


3. Cut the rear floor sidemember 280 mm forward from the hitch member mounting hole (This hole also serves as a shipping bracket mounting hole on left side). In addition, cut the rear floor side pan in the same area.

INSTALLATION



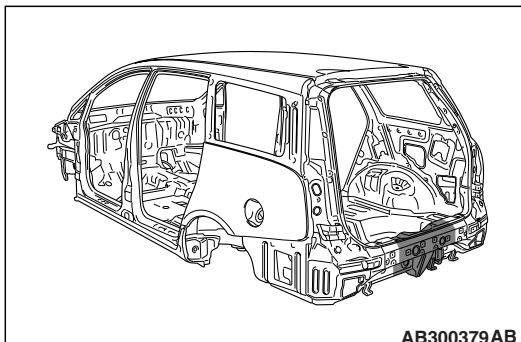
1. Remove the seat pan reinforcement from the new rear floor crossmember (D).



2. When assembling the new quarter inner extension lower, apply in advance body sealant to the areas shown in the figure of the instructions.

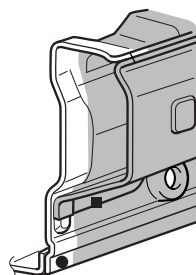
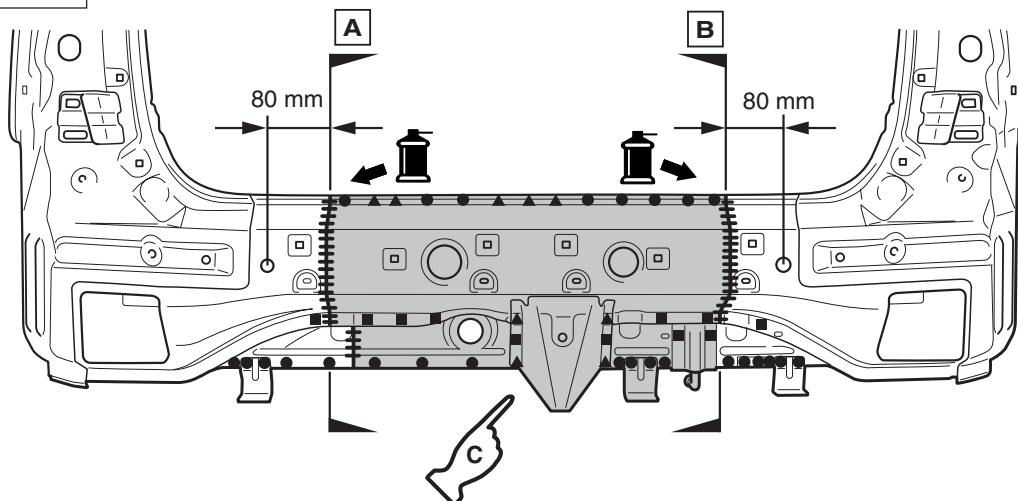
REAR END PANEL

M4030000300038

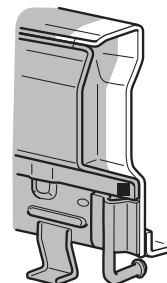


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
oooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

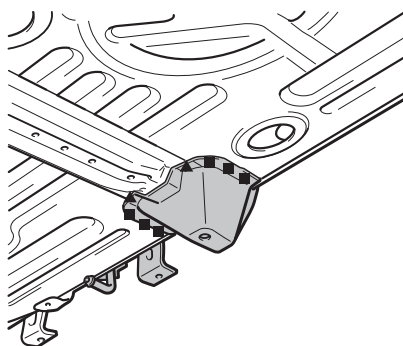
REPAIR WELDS



A



B

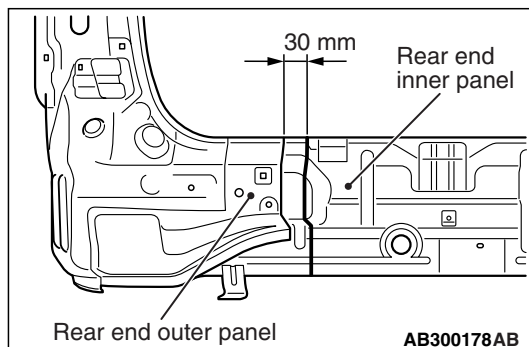


C

AB300523 AB

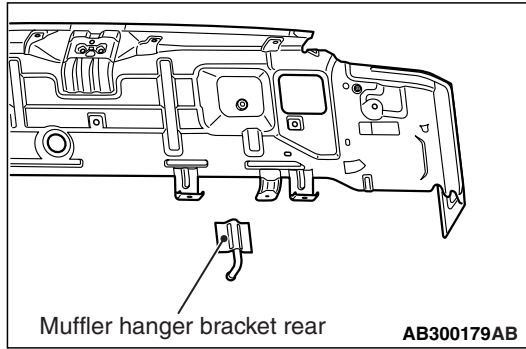
NOTE ON REPAIR WORK REMOVAL

After removing the rear end outer panel, to reinforce the strength of the rear end panel cut area, cut the rear end inner panel 30 mm centre of vehicle side from the rear end outer panel cut areas to remove it.



AB300178AB

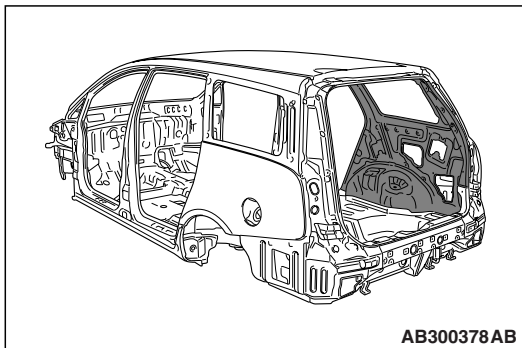
INSTALLATION



Remove the muffler hanger bracket rear from the new rear end inner panel. Cut and install the rear end inner panel while aligning it with the cut area of body side, and then install the muffler hanger bracket rear.

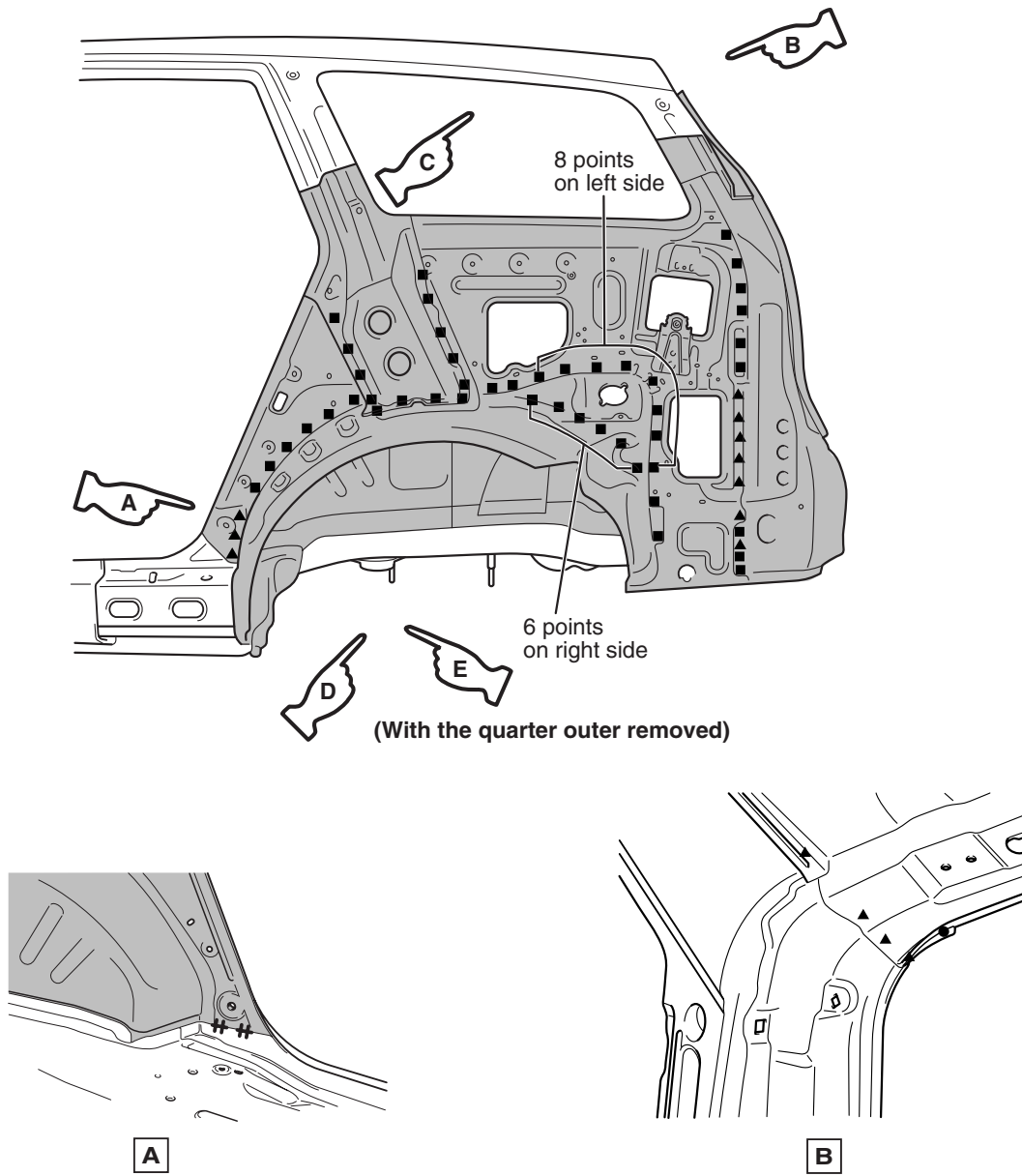
QUARTER, INNER

M4030012000272



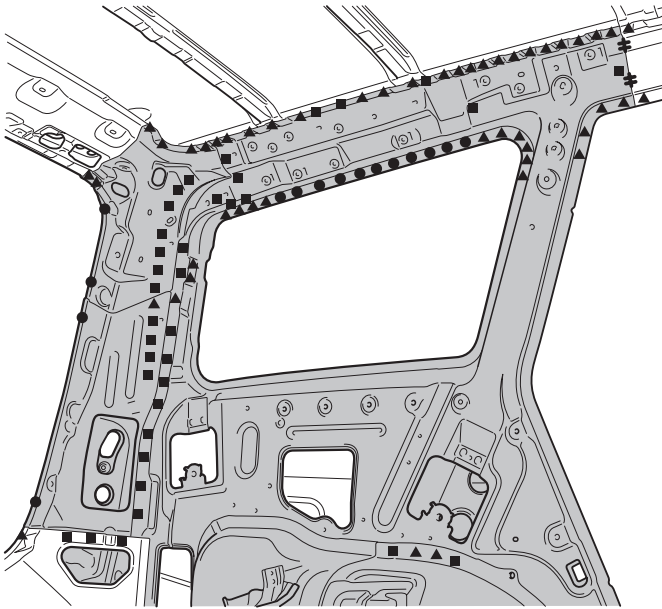
Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
#####	MIG arc welding (continuous)
ooooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

REPAIR WELDS

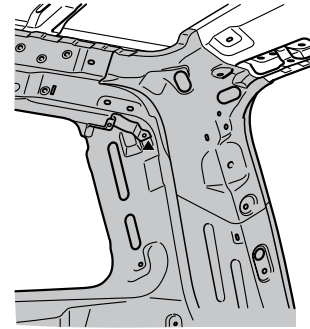


AB300524 AB

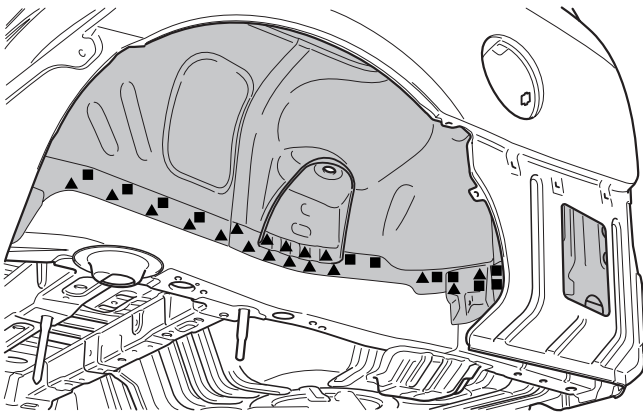
NOTE: Refer to the Quarter Outer Section on [P.3-21](#) for the welding points with the quarter outer.



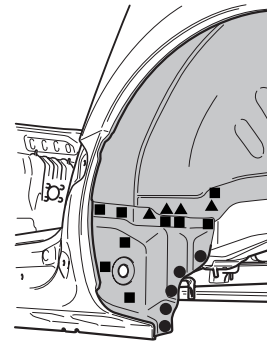
C



C
(Right side)



D



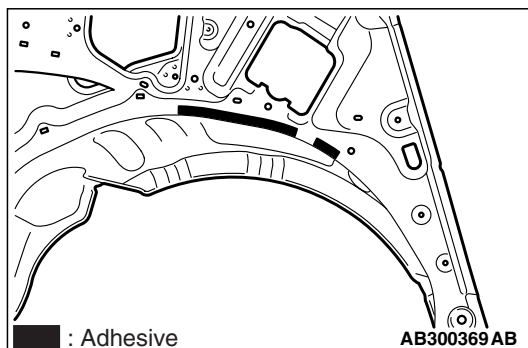
E

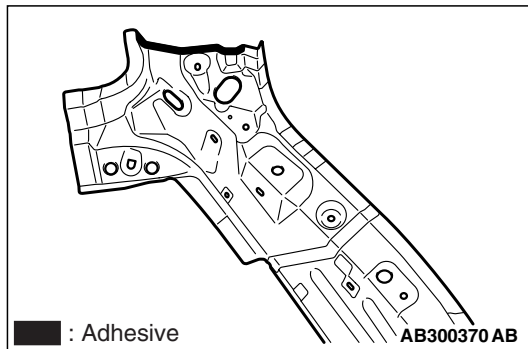
AB300532 AB

NOTE ON REPAIR WORK INSTALLATION

1. When assembling the new quarter inner panel, apply in advance structural adhesives to the areas shown in the figure of the instructions.

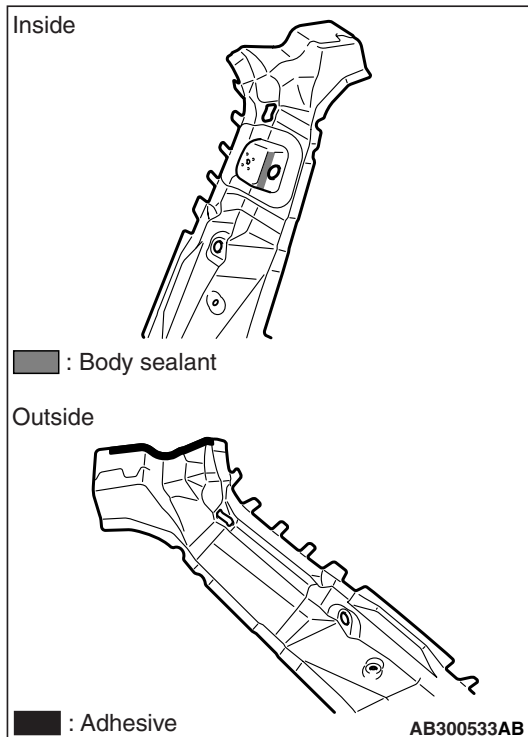
Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent





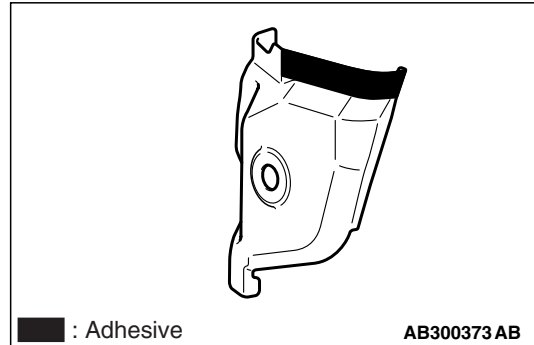
2. When assembling the new quarter inner extension, apply in advance structural adhesives to the areas shown in the figure of the instructions.

Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent



3. When assembling the new gate pillar reinforcement, adhere in advance structural adhesives and body sealant in the areas shown in the figure.

Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent

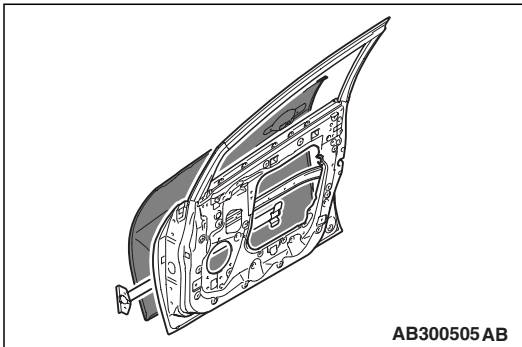


4. When assembling the new shield plate front, apply in advance structural adhesives to the areas shown in the figure of the instructions.

Adhesive: Epoxyayresin adhesive
Brand: 3M ATD Part No.8115 or equivalent

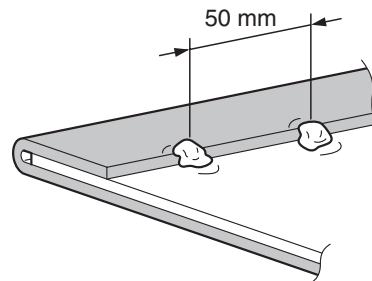
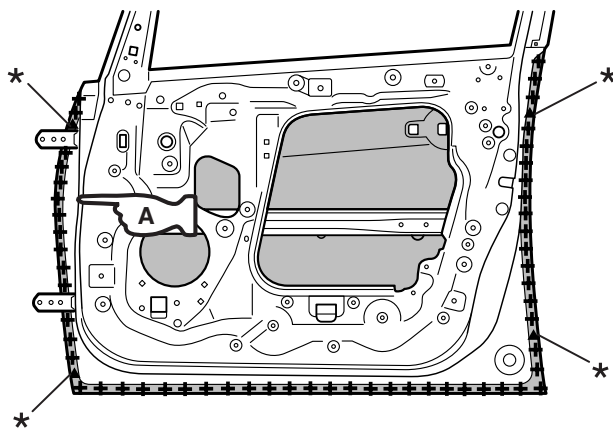
FRONT DOOR OUTER PANEL

M4030013000264

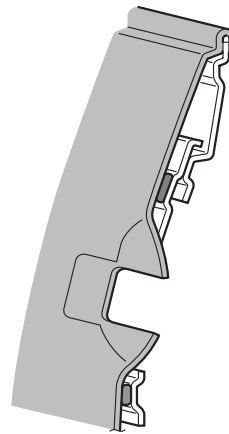


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
#####	MIG arc welding (continuous)
ooooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

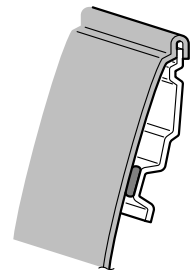
REPAIR WELDS



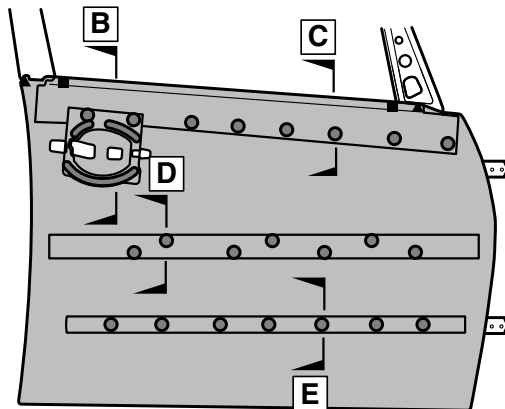
A



B

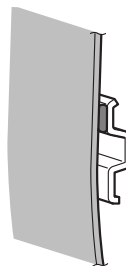


C

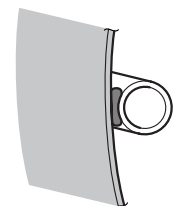


D

E



D



E

AB300530 AB

■ : Adhesive

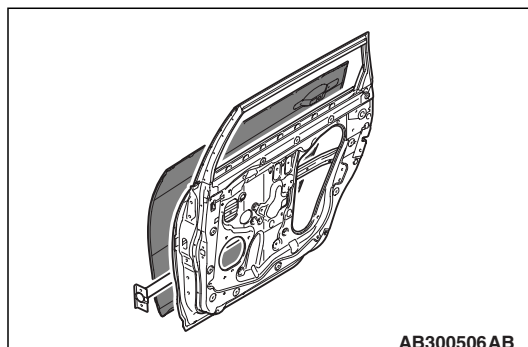
Adhesive: Urethane body sealer
Brand: 3M ATD Part No.8542 or equivalent


NOTE:

- * : indicates the welding points of maker joint. (It is not necessary for repair)
- After hemming the front door outer panel, MIG spot weld the flange overlap section at a pitch of 50 mm.

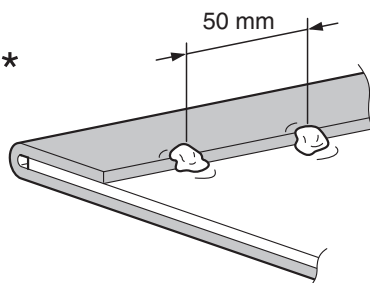
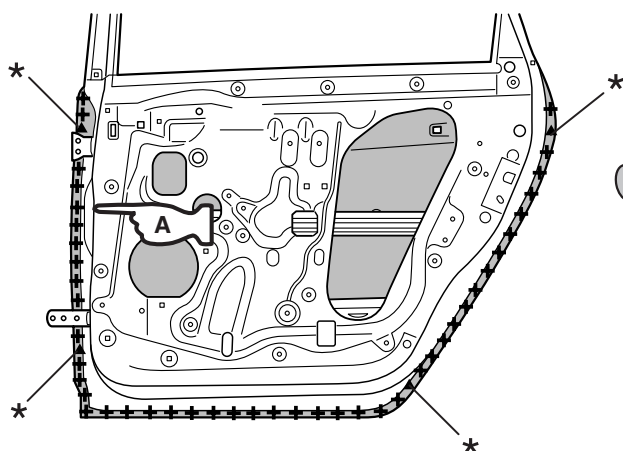
REAR DOOR OUTER PANEL

M4030014000256

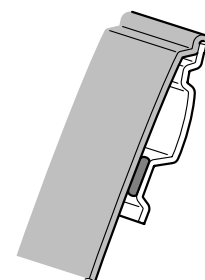


Symbol	Operation description
● ● ● ●	Spot welding
■ ■ ▲ ▲	MIG plug welding (■: indicates two panels to be welded ▲: indicates three panels to be welded)
++++	MIG spot welding
	MIG arc welding (continuous)
ooooo	Braze welding
	Anti-corrosion agent application locations (Use access holes to apply liberally to butt-welded joints.)

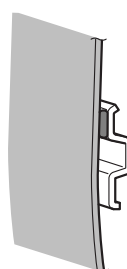
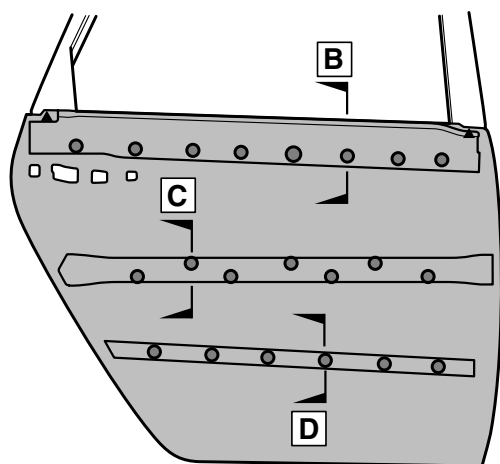
REPAIR WELDS



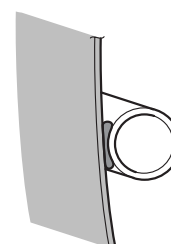
A



B



C



D

 : Adhesive

Adhesive: Urethane body sealer
Brand: 3M ATD Part No.8542 or equivalent

AB300531AB

NOTE:

- *: indicates the welding points of maker joint. (It is not necessary for repair)
- After hemming the rear door outer panel, MIG spot weld the flange overlap section at a pitch of 50 mm.