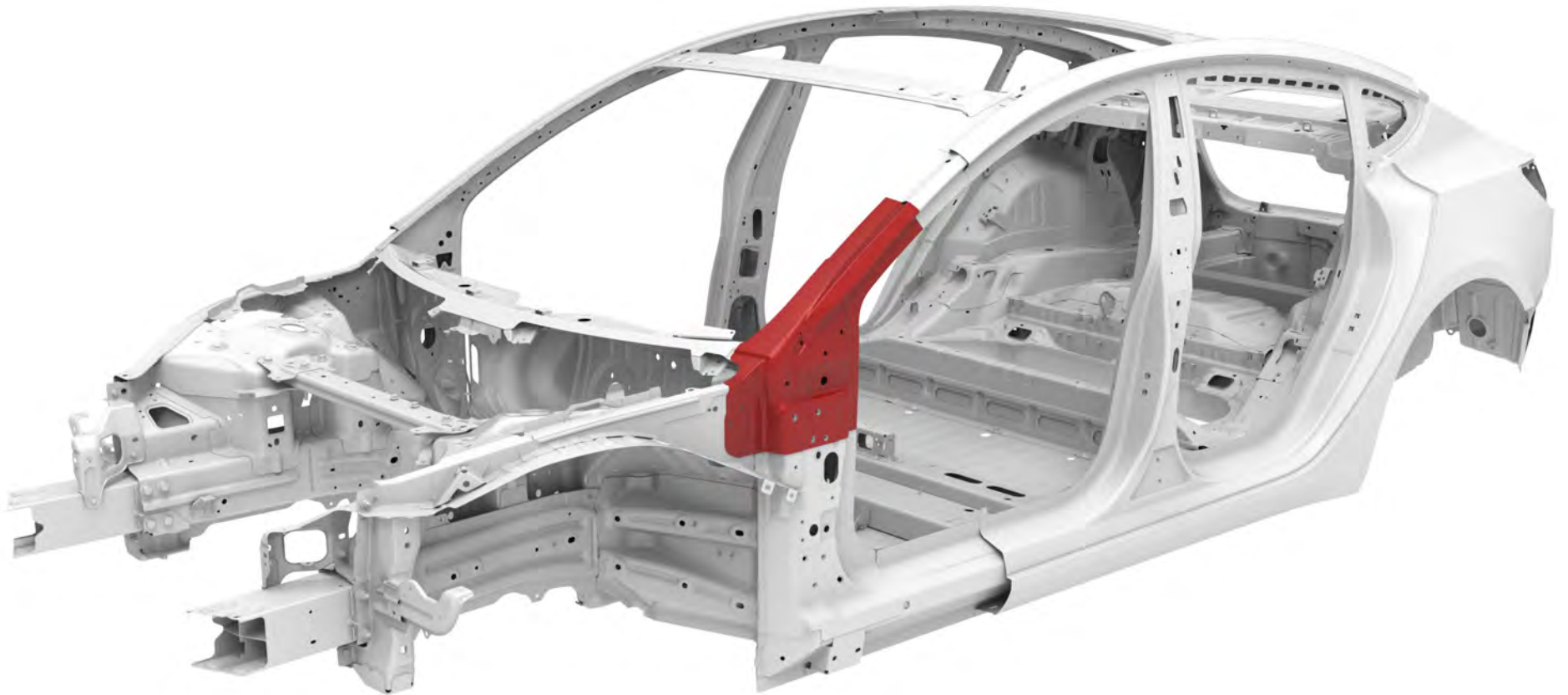




A-Pillar Outer Reinforcement (Section)





Parts List

Quantity	Part Number	Description	Image / Notes
1	1073707-S0-A (LH) 1073708-S0-A (RH)	A-Pillar Outer Reinforcement	
1	1073679-S0-A (LH) 1073680-S0-A (RH)	A-Pillar Body Side Outer	
2 rivets needed, order 10 rivets	1069308-00-A	● Countersunk Rivet, 4.8 mm Short	All rivets come in packages of 10; order all rivets in multiples of 10.
5 rivets needed, order 10 rivets	1069327-00-A	○ Structural Countersunk Rivet, 6.5 mm	All rivets come in packages of 10; order all rivets in multiples of 10.
18 rivets needed, order 20 rivets	1454538-00-A	● High Strength Structural Rivet, 6.5 mm	All rivets come in packages of 10; order all rivets in multiples of 10.
1	—	Urethane Sealant	Refer to BR-17-92-002 , "Obtaining Adhesives, Coolant, and Other Chemicals" for information on how to obtain approved urethane sealant.



Parts List

Quantity	Part Number	Description	Image / Notes
1	—	Structural Adhesive	 WARNING: Use only Tesla-approved structural adhesive; refer to BR-15-92-008 , "Approved Structural Adhesive and Urethane Sealants" for a list of current approved structural adhesives. Refer to BR-17-92-002 , "Obtaining Adhesives, Coolant, and Other Chemicals" for information on how to obtain approved structural adhesive.
1	—	Seam Sealer	Source locally; not available from Tesla.

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the [Parts Manual](#).



Repair Information

Repair Information	Warnings and Cautions	Special Tools
This procedure is for the left-hand component; the procedure is identical for the right-hand component. Installation fasteners that replace factory spot welds in steel-to-steel panel interfaces are specified in this procedure where an approved squeeze-type resistance spot welder with the base welding accessories might not be able to reach. If your approved welder can access a factory spot weld location where this procedure specifies a fastener, an installation spot weld is recommended in place of the specified fastener.	⚠ WARNING: Wear the appropriate personal protective equipment (PPE) when performing this procedure.	The special tools listed below are required to perform this procedure: • Microstop Countersink kit • Resistance Spot Welder Use only an approved resistance spot welder. Refer to BR-16-92-007, "Approved Welders" for a list of current approved resistance spot welders. • Frame bench The vehicle must be properly mounted on an approved frame bench to replace this component. Refer to BR-16-92-006, "Approved Frame Bench Systems" for a list of current approved bench repair systems.



Prerequisites

1

Disconnect 12V and high voltage power (refer to the appropriate section in [BR-17-17-004](#), "Disconnecting 12V and High Voltage Power on Model 3").



WARNING: Before disconnecting the 12V power supply, make sure that all windows are at least slightly open. Attempting to open a door with a fully-closed window when the 12V power supply is disconnected could result in door glass shatter.



NOTE: Before disconnecting the 12V power supply, make sure that the driver's door window is fully open. Failure to lower the driver's door window before disconnecting the 12V power supply could result in vehicle lockout.





Prerequisites

2

Remove the [Shotgun Outer](#).





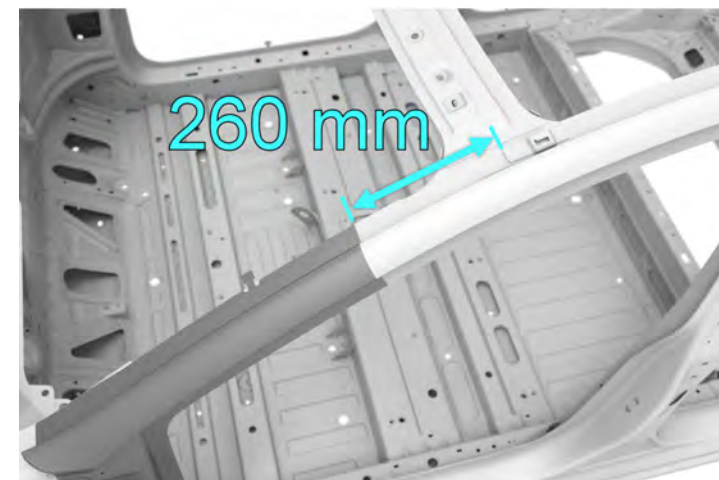
Removal

1 Remove a section of the original Body Side Outer.

A Mark a cut line 260 mm (10 1/4 in) to the front of the roof rack bracket shown.

— — — — — Cut Line

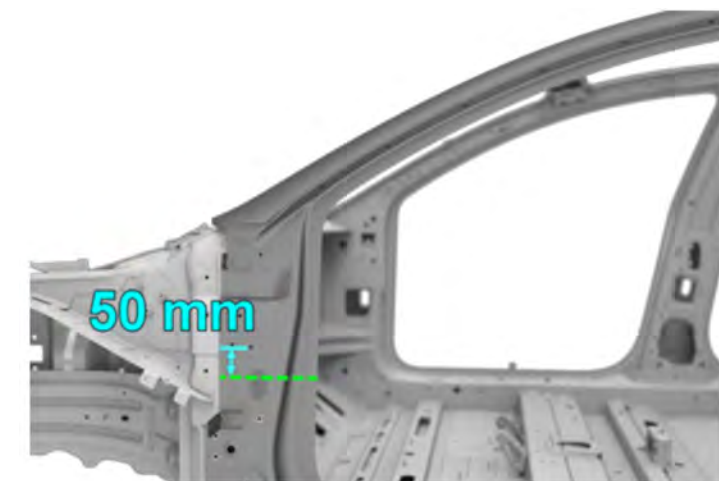
— — — — — Reference Line/Point



B Mark a cut line 50 mm (2 in) below the bottom edge of the door hinge mounting hole shown.

— — — — — Cut Line

— — — — — Reference Line/Point





Removal

2 Remove a section of the original Body Side Outer.

A

Use a drill with a spot weld bit to drill out the factory spot welds.

▲ Factory Spot Weld



NOTE: Factory spot weld locations shown are approximate. Exact spot weld locations and number vary from vehicle to vehicle.



NOTE: The areas highlighted in yellow indicate multiple factory spot welds.



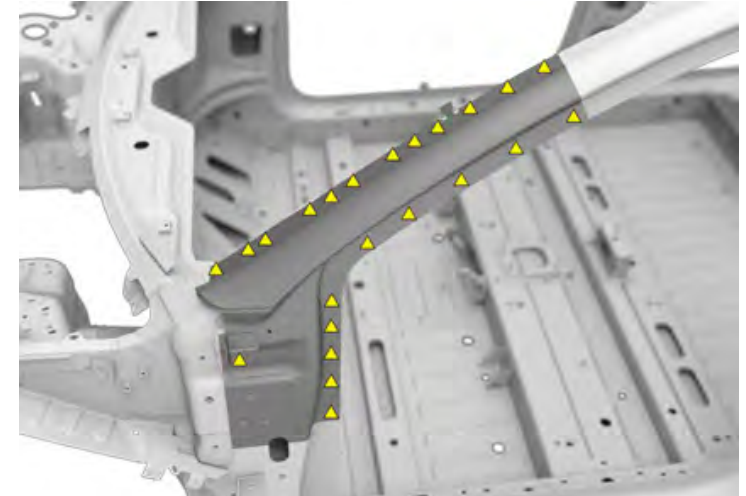
NOTE: Use a belt sander to sand down any factory spot welds that cannot be reached with a drill.

B

Cut through the original Body Side Outer on the cut lines marked in the earlier substeps.



CAUTION: Do not damage the surrounding components.





Removal

2 Remove a section of the original Body Side Outer (continued).

C Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the section of the original Body Side Outer.



WARNING: Do not heat the adhesive joints above 100°C (212°F). Heating the adhesive joints above 100°C (212°F) can weaken the aluminum and compromise vehicle crash integrity.



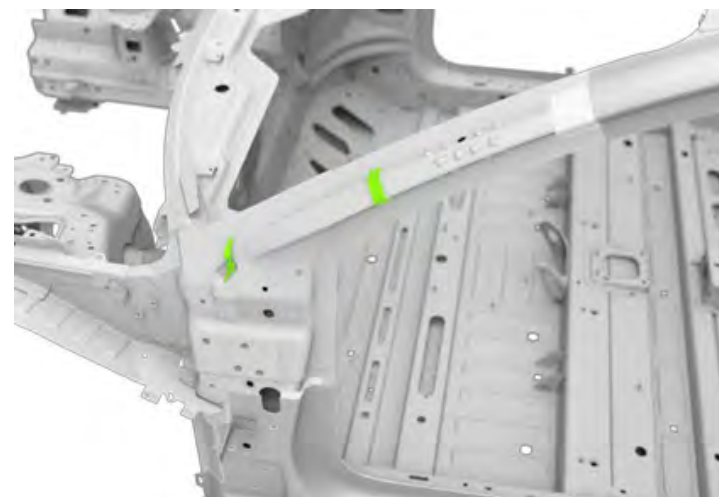
WARNING: Do not heat any adhesive joints of components that are not being removed. Heating adhesive joints weakens the adhesive bond and could compromise vehicle crash integrity.

D

Remove the foam dams.



NOTE: Save the foam dams for reinstallation in a later step.





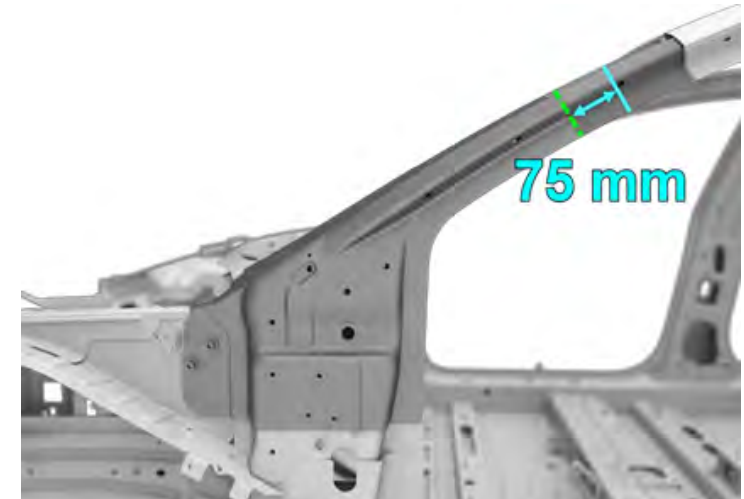
Removal

3 Remove a section of the original A-Pillar Outer Reinforcement.

A Mark a cut line on the A-Pillar Outer Reinforcement 75 mm (3 in) to the front of the trim hole shown.

 Cut Line

 Reference Line/Point



B Use a drill with a spot weld bit to drill out the factory spot welds. Use a belt sander to sand down any factory spot welds that cannot be reached with a drill.

 Factory Spot Weld



NOTE: Factory spot weld locations shown are approximate. Exact spot weld locations and number vary from vehicle to vehicle.





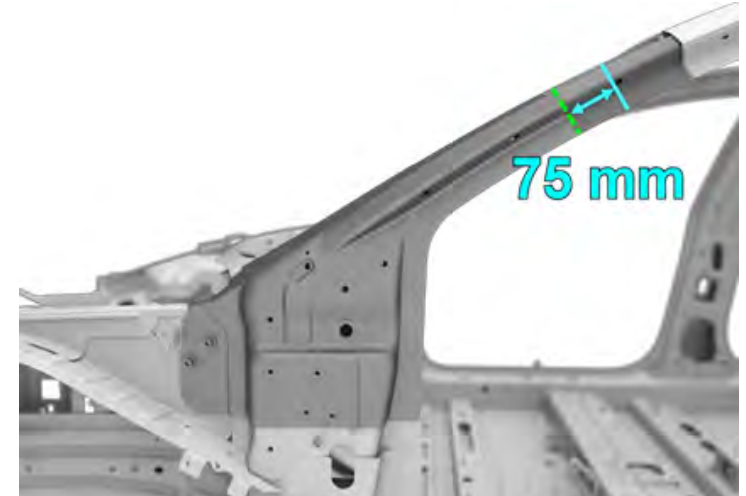
Removal

3 Remove a section of the original A-Pillar Outer Reinforcement (continued).

C Cut the original A-Pillar Outer Reinforcement on the cut line marked in an earlier substep.



CAUTION: Do not damage the surrounding components.



D Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the section of the original A-Pillar Outer Reinforcement.



WARNING: Do not heat the adhesive joints above 100°C (212°F). Heating the adhesive joints above 100°C (212°F) can weaken the aluminum and compromise vehicle crash integrity.



WARNING: Do not heat any adhesive joints of components that are not being removed. Heating adhesive joints weakens the adhesive bond and could compromise vehicle crash integrity.



Removal

4

Use a disc sander with a medium-abrasive surface conditioning disc to remove any remaining materials from the bond paths. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander. Vacuum any adhesive dust.



WARNING: Remove the epoxy adhesive in a well-ventilated area. Wear suitable personal protective equipment.



WARNING: Use only sanding wheels and belts that are 80 grit or finer on steel components. Using sanding wheels or belts that are coarser than 80 grit can cause fractures in the panel.



Replacement

1 Prepare the new A-Pillar Outer Reinforcement section.

A Mark a cut line on the new A-Pillar Outer Reinforcement 75 mm (3 in) to the front of the forward edge of the third trim hole.



B Cut the new A-Pillar Outer Reinforcement on the cut line marked in the previous substep.



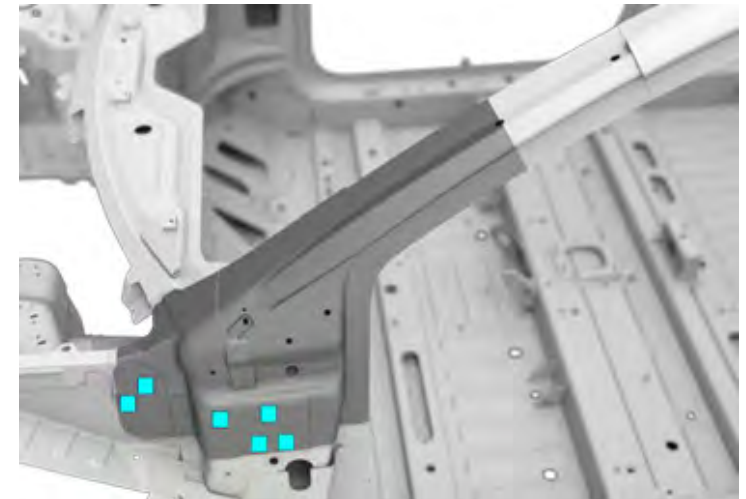
NOTE: Leave 2 - 3 mm (3/32 - 1/8 in) of extra material to be trimmed at a later step.





Replacement

- 1 Prepare the new A-Pillar Outer Reinforcement section (continued).
 - C Put the new A-Pillar Outer Reinforcement section into position and secure it to the frame bench jig points.
 - D Temporarily install the door hinge bolts, but do not torque them fully at this time.
 - Bolt, hex-head (x6)





Replacement

- 1 Prepare the new A-Pillar Outer Reinforcement section (continued).
 - E Clamp the new A-Pillar Outer Reinforcement section into position.
 - F Trim the new A-Pillar Outer Reinforcement section to achieve suitable gaps.



Replacement

1 Prepare the new A-Pillar Outer Reinforcement section (continued).

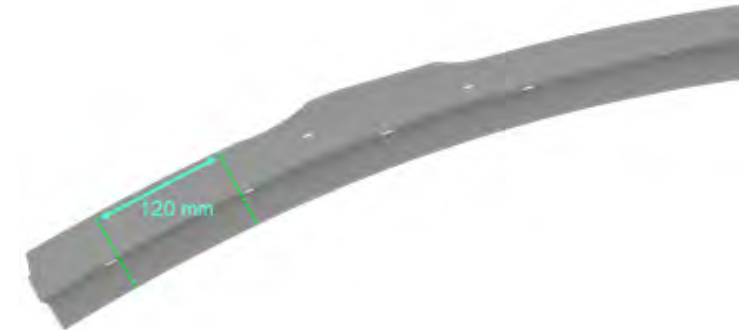
G Remove the new A-Pillar Outer Reinforcement section.

2 Create a backing plate for the new A-Pillar Outer Reinforcement section.

A Cut a 120 mm (4-3/4 in) section from between the 2 trim holes nearest the front of the remaining piece of the new A-Pillar Outer.



NOTE: This remaining piece was cut in an earlier step.





Replacement

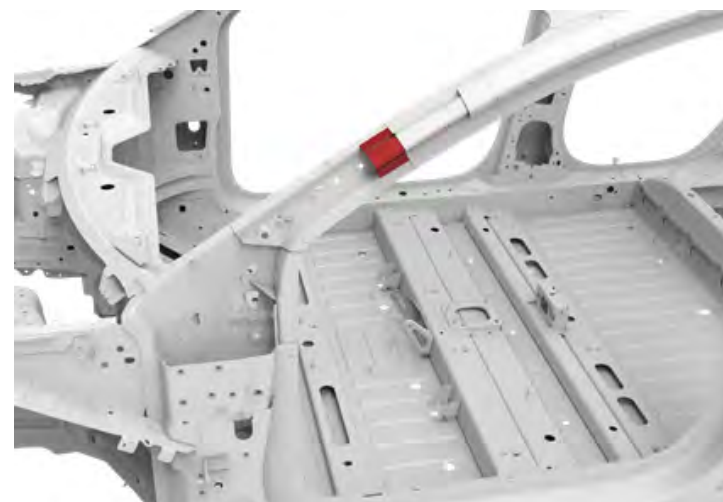
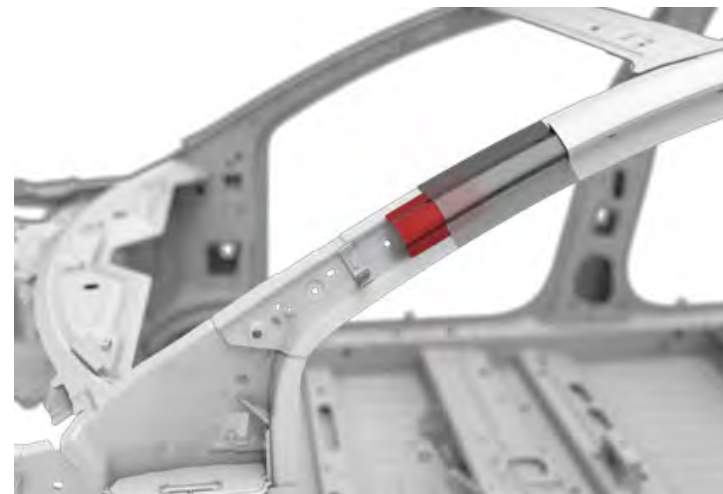
- 2 Create a backing plate for the new A-Pillar Outer Reinforcement section (continued).

B Trim the flanges so that the backing plate (shown in red) fits snugly inside the A-Pillar Outer Reinforcement.



NOTE: This allows the backing plate to fit inside the butt joint.

C Put the new backing plate into position and clamp it in place. If necessary, trim it to fit.





Replacement

2 Create a backing plate for the new A-Pillar Outer Reinforcement section (continued).

D Mark the fastener locations on the remaining portion of the original A-Pillar Outer Reinforcement.

 High Strength Structural Rivet, 6.5 mm (x6)

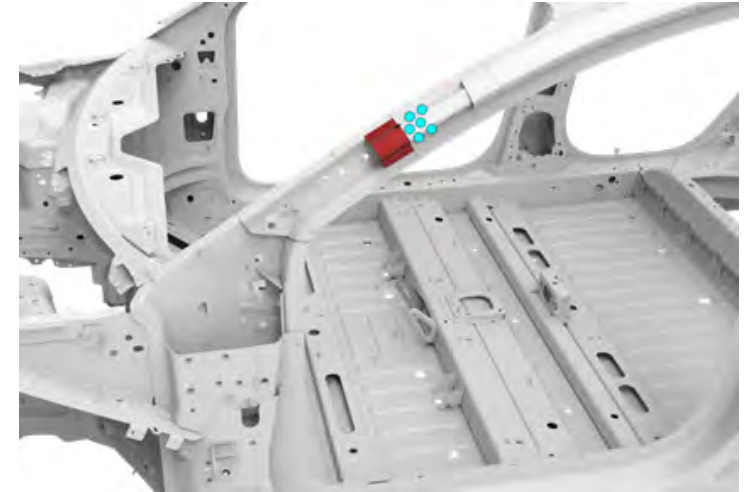


NOTE: Two rivets are installed on the top face of the panel and then two are installed on each side. Offset the top rivet locations from the side rivets to prevent interference with the side rivets during installation.

E Use a drill with a 6.7 mm (17/64 in) bit to drill holes for structural rivets.



NOTE: Install a grip screw after drilling each hole to keep the panel aligned while drilling the remaining holes.





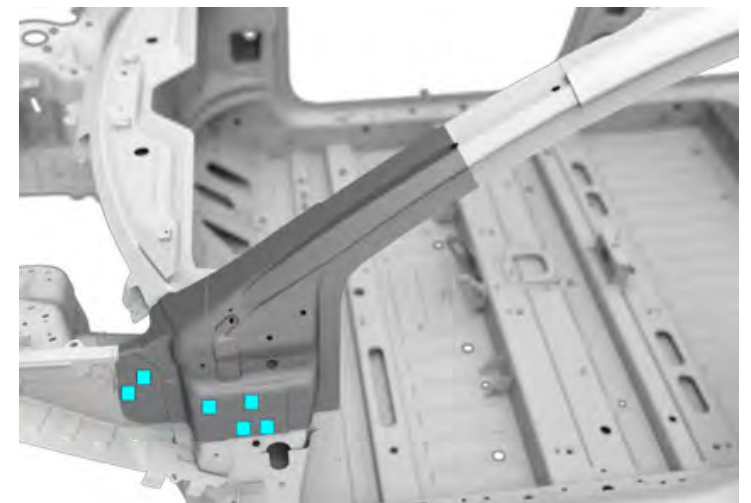
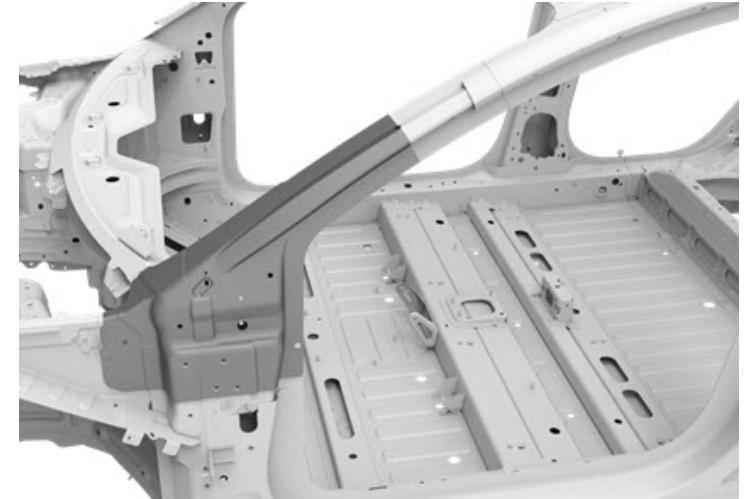
Replacement

3 Prepare for installation of the new A-Pillar Outer Reinforcement section.

A Put the new A-Pillar Outer Reinforcement section into position and secure it to the frame bench jig points.

B Temporarily install the door and hood hinge bolts, but do not torque them fully at this time.

 Bolt, hex-head (x6)





Replacement

3 Prepare for installation of the new A-Pillar Outer Reinforcement section (continued).

C Clamp the new A-Pillar Outer Reinforcement section.

D Mark the locations for spot welds and fasteners on the new component.

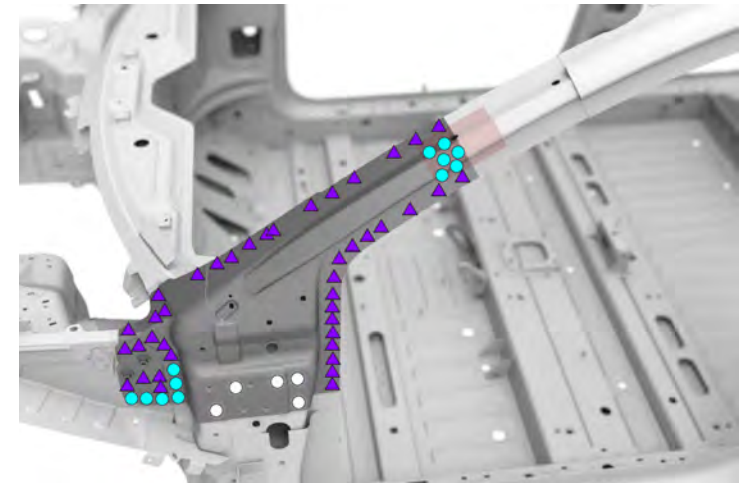
▲ Installation Spot Weld (x41)

● High Strength Structural Rivet, 6.5 mm (x12)

○ Structural Countersunk Rivet, 6.5 mm (x5)



NOTE: To secure the upper backing plate, two High Strength Structural Rivets are installed on the top face of the panel and then two more High Strength Structural Rivets are installed on each side. Offset the top rivet locations from the side rivets to prevent interference with the side rivets during installation.





Replacement

3 Prepare for installation of the new A-Pillar Outer Reinforcement section (continued).

E Use a drill with a 6.7 mm (17/64 in) bit to drill holes for the high strength structural rivets and structural countersunk rivets.

 High Strength Structural Rivet, 6.5 mm (x12)

 Structural Countersunk Rivet, 6.5 mm (x5)



NOTE: Install a grip screw after drilling each hole to keep the panel aligned while drilling the remaining holes.

F

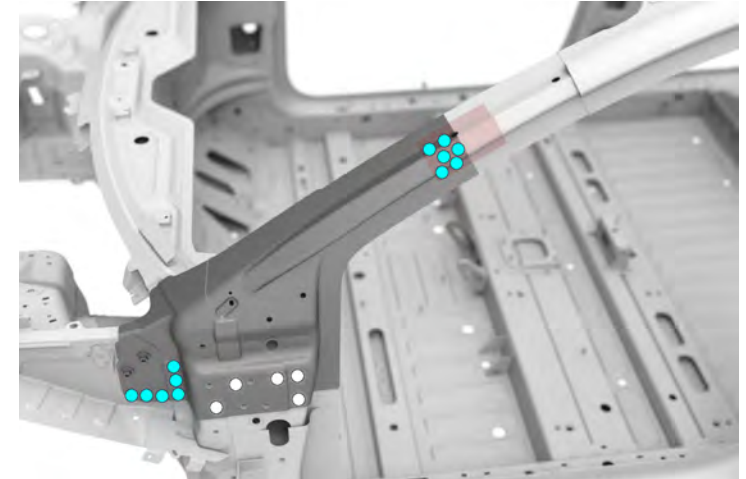
Use a drill with the Microstop countersink cage assembly and the appropriate-sized countersink bit to countersink the holes for countersunk rivets (Microstop Countersink Kit, Tesla p/n 1133101-00-A).



NOTE: If the depth adjustment for the Microstop countersink cage assembly has not already been set, do the procedure in the [Microstop Countersink Kit tool instructions](#) to adjust the tool.



CAUTION: Drill holes for countersunk rivets far enough away from the corners and any other obstructions to provide enough clearance (approximately 18 mm or 11/16 in) for the Microstop countersink cage assembly.





Replacement

- 3 Prepare for installation of the new A-Pillar Outer Reinforcement section (continued).
 - G Mark the boundary lines along all mating surfaces between the new components and the vehicle for bond path surface preparation.
 - H Remove the new A-Pillar Outer Reinforcement section and the backing plate.



Replacement

- 4 Prepare the surfaces to install the backing plate and the A-Pillar Outer Reinforcement section.

A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on all mating surfaces of the new A-Pillar Outer Reinforcement section, the backing plate, and the vehicle.

B Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat on the new component and on the vehicle in the weld areas. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander.



WARNING: Remove the e-coat in a well-ventilated area. Wear suitable personal protective equipment.



Replacement

4 Prepare the surfaces to install the backing plate and the A-Pillar Outer Reinforcement section (continued).

C Clean all the bond paths and weld areas on the new component or components and on the vehicle with isopropyl alcohol (IPA).



WARNING: Wipe off the remaining isopropyl alcohol with a clean, dry towel immediately after application. Do not let the remaining isopropyl alcohol air dry. Allowing the remaining isopropyl alcohol to air dry can compromise the adhesive bond.

5 Apply structural adhesive to install the backing plate and the new A-Pillar Outer Reinforcement section.

A Spread a thin coating of structural adhesive as a primer layer on the bond paths on the backing plate, the vehicle, and the new A-Pillar Outer Reinforcement section.



CAUTION: If any bare metal bond paths have been exposed for two hours or longer, abrade the bond paths again to remove oxidation, then clean the bond paths with isopropyl alcohol (IPA).



NOTE: Assembly must be performed while the primer layer is still wet. The drying time of the adhesive varies depending on temperature and humidity.



Replacement

5 Apply structural adhesive to install the backing plate and the new A-Pillar Outer Reinforcement section (continued).

B While the primer layer is still wet, apply a bead of structural adhesive on top of the primer layer on the backing plate and on the new A-Pillar Outer Reinforcement section.

6 Install the new A-Pillar Outer Reinforcement section.

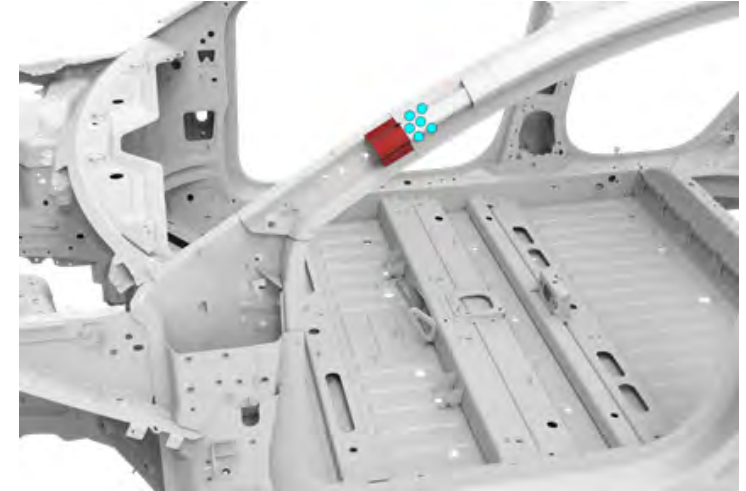
A Put the backing plate into position.



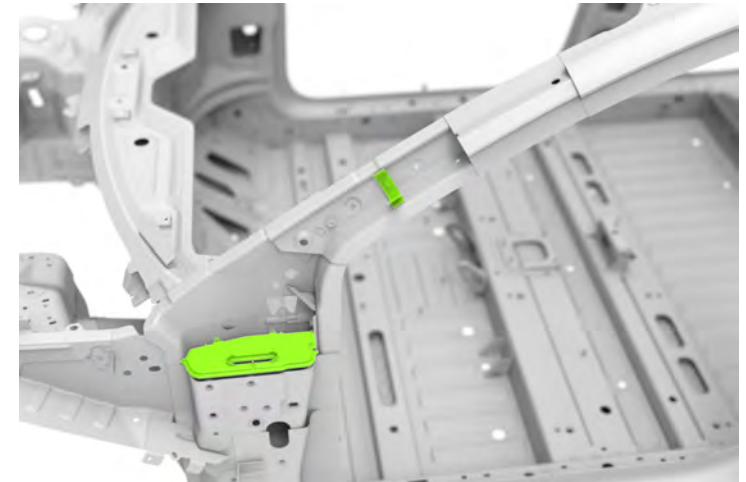


Replacement

- 6 Install the new A-Pillar Outer Reinforcement section (continued).
- B Insert the high strength structural rivets to align the backing plate.
- High Strength Structural Rivet, 6.5 mm (x6)



- C Apply a bead of urethane sealant to the foam dam edges.



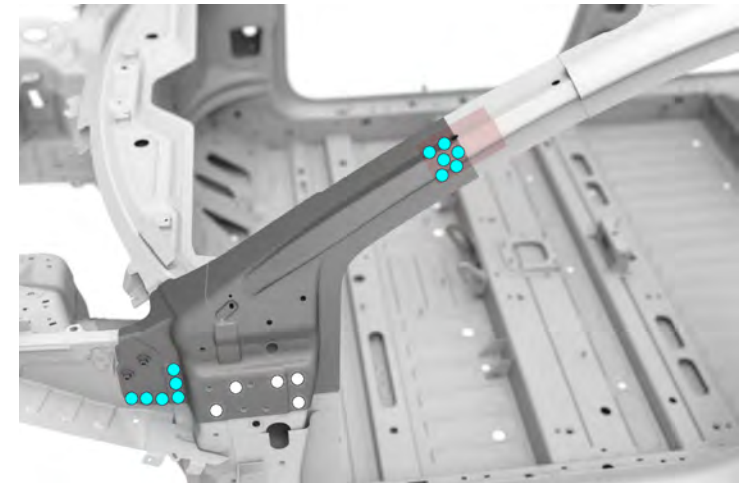


Replacement

- 6 Install the new A-Pillar Outer Reinforcement section (continued).
- D Put the new A-Pillar Outer section into position and secure it to the frame bench jig points.

- E Insert the high strength structural rivets and the structural countersunk rivets in the A-Pillar Outer Reinforcement section.

- ☒ High Strength Structural Rivet, 6.5 mm (x12)
- ☐ Structural Countersunk Rivet, 6.5 mm (x5)



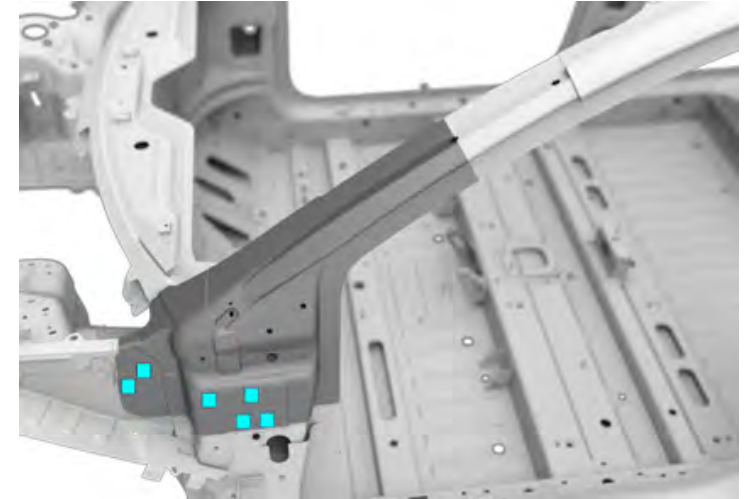


Replacement

6 Install the new A-Pillar Outer Reinforcement section (continued).

F Temporarily install the door and hood hinge bolts, but do not torque them fully at this time.

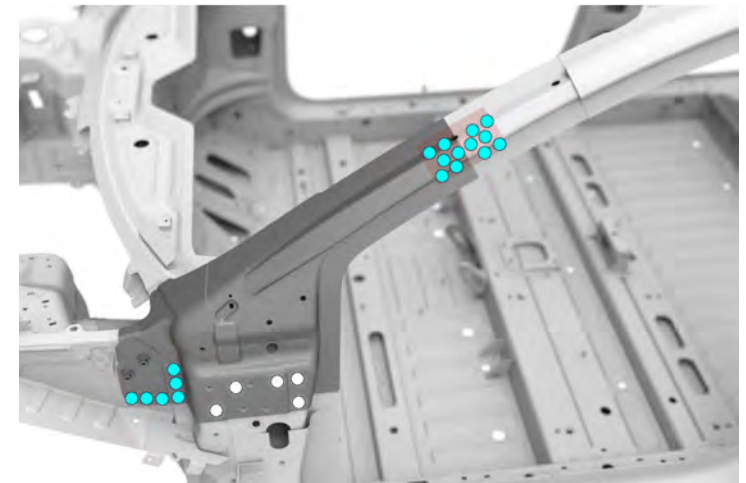
■ Bolt, hex-head (x6)



G Install the high strength structural rivets and the structural countersunk rivets.

● High Strength Structural Rivet, 6.5 mm (x18)

○ Structural Countersunk Rivet, 6.5 mm (x5)





Replacement

6 Install the new A-Pillar Outer Reinforcement section (continued).

H

Perform resistance spot welding.

▲ Installation Spot Weld (x41)



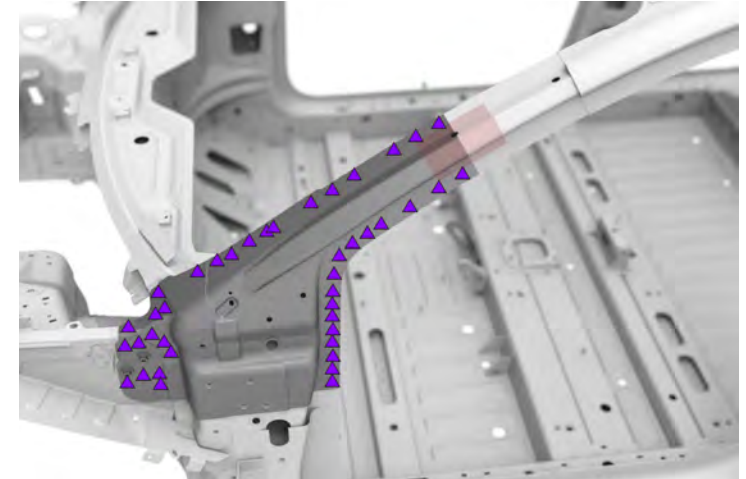
WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla vehicles.



CAUTION: Do not weld on a Tesla vehicle with an energized high voltage or 12V system. Welding on a Tesla vehicle with an energized high voltage or 12V system might damage vehicle components.

I

Clamp all bonded areas that are not secured with a fastener.





Replacement

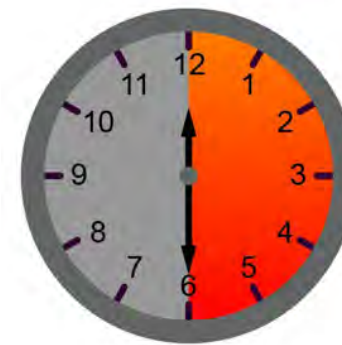
6 Install the new A-Pillar Outer Reinforcement section (continued).

J Wipe off any excess adhesive.

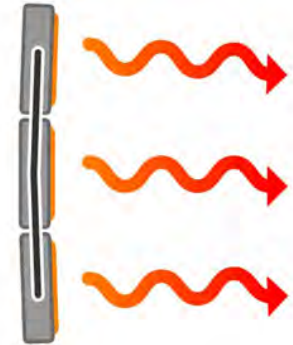
K Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



WARNING: Do not allow the High Voltage Battery to reach a temperature above 74°C (165°F). Heating the High Voltage Battery above 74°C (165°F) for an extended period could result in injury to personnel and/or damage to the battery.



00:30:00+



60°C–80°C

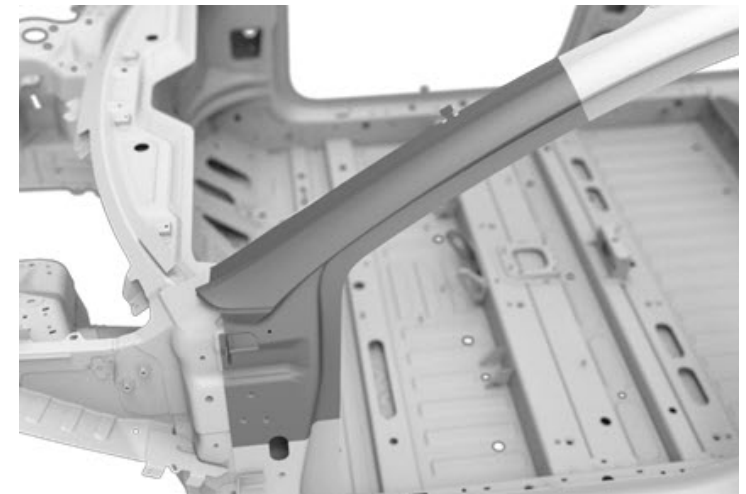


Replacement

7 Prepare the new A-Pillar Body Side Outer section.

A Use the remaining piece of the original Body Side Outer that was removed in an earlier step as a template to cut the new A-Pillar Body Side Outer.

B Put the new A-Pillar Body Side Outer section into position. If necessary, trim it to fit.



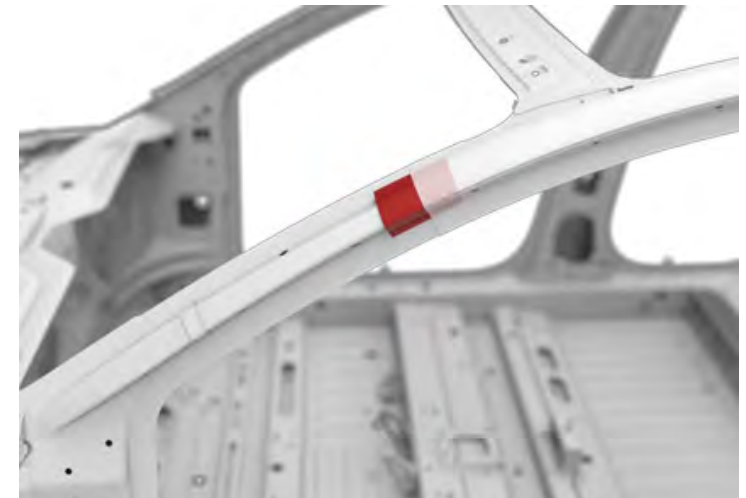


Replacement

- 7 Prepare the new A-Pillar Body Side Outer section (continued).
- C Remove the new A-Pillar Body Side Outer section.

- 8 Create backing plates for the butt joints.

- A For the upper butt joint, cut a 40 mm (1-9/16 in) section from the end of the upper portion of the Body Side Outer panel that was removed in an earlier step. Use this section to create a backing plate for the lower butt joint like the one shown here in red.

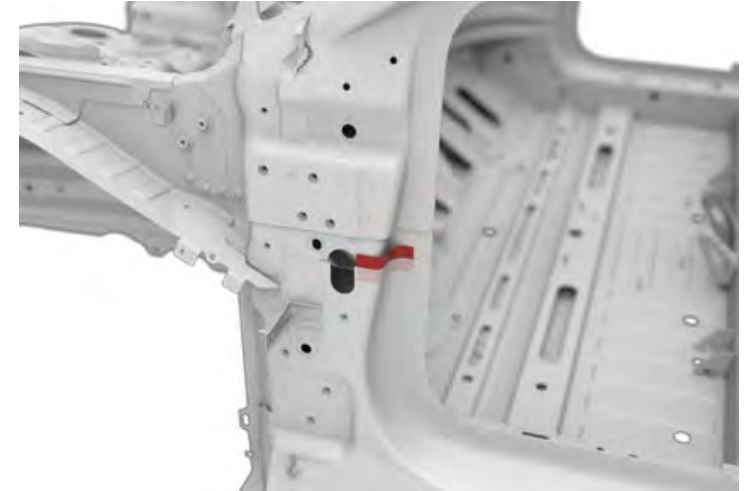




Replacement

8 Create backing plates for the butt joints (continued).

B For the lower butt joint, cut a 40 mm (1-9/16 in) section from the end of the lower portion of the Body Side Outer panel that was removed in an earlier step. Use this section to create a backing plate for the lower butt joint like the one shown here in red.



C Trim the flanges from the backing plates as necessary to allow them to fit inside the butt joints.



Replacement

8 Create backing plates for the butt joints (continued).

D Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat or paint from the outside surface of the backing plates.



WARNING: Remove the e-coat in a well-ventilated area. Wear suitable personal protective equipment.

E Use a belt sander with a medium-abrasive belt to remove the paint from the butt joint areas on the vehicle.



WARNING: Remove the paint in a well-ventilated area. Wear suitable personal protective equipment.



Replacement

8 Create backing plates for the butt joints (continued).

F

Use a drill with an 8 mm (5/16 in) bit to drill holes for plug welds.

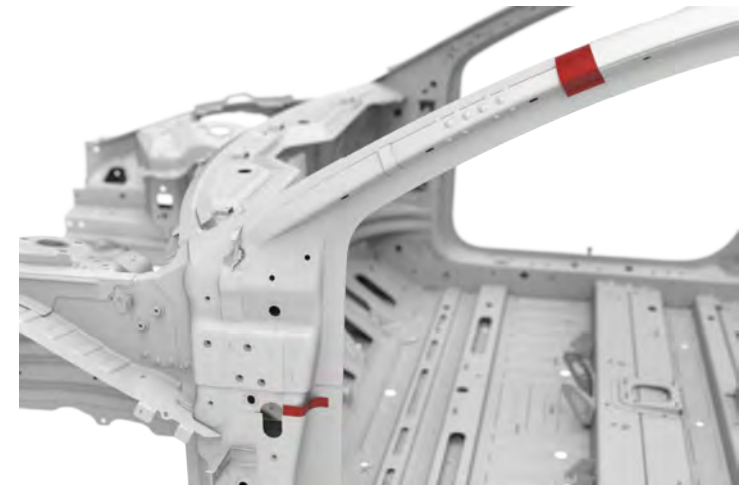


NOTE: The plug welds will secure the upper and lower backing plates.

9 Install the backing plates.

A

Put the backing plates into position and clamp them into place.





Replacement

9 Install the backing plates (continued).

B

Plug weld the backing plates.



WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla vehicles.



CAUTION: Do not weld on a Tesla vehicle with an energized high voltage or 12V system. Welding on a Tesla vehicle with an energized high voltage or 12V system might damage vehicle components.

C

Use a grinding tool to grind down the plug welds until they are flush with the panel.



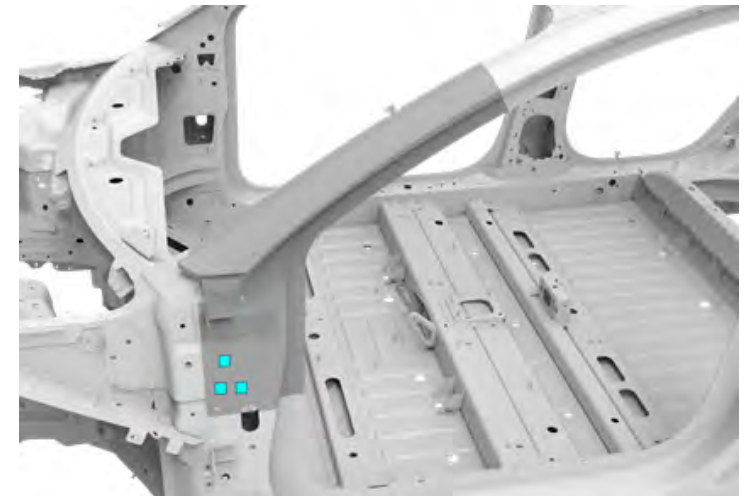
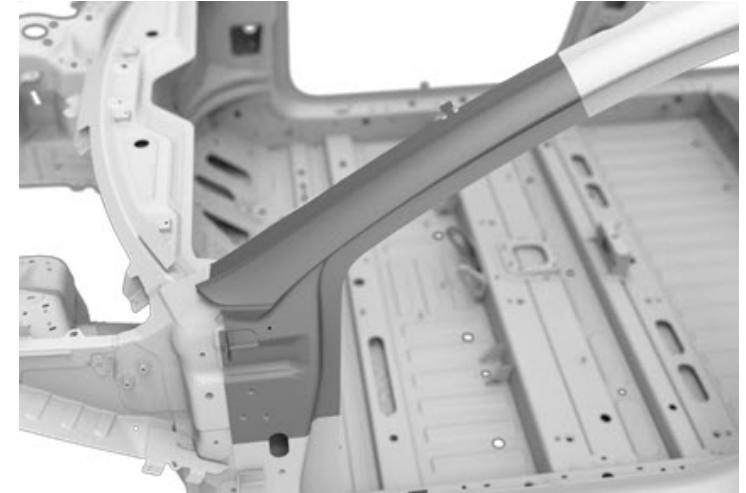
Replacement

10 Prepare for the installation of the new Body Side Outer section.

A Put the new Body Side Outer section into position and clamp it into place.

B Temporarily install the door hinge bolts, but do not torque them fully at this time.

■ Bolt, hex-head (x3)





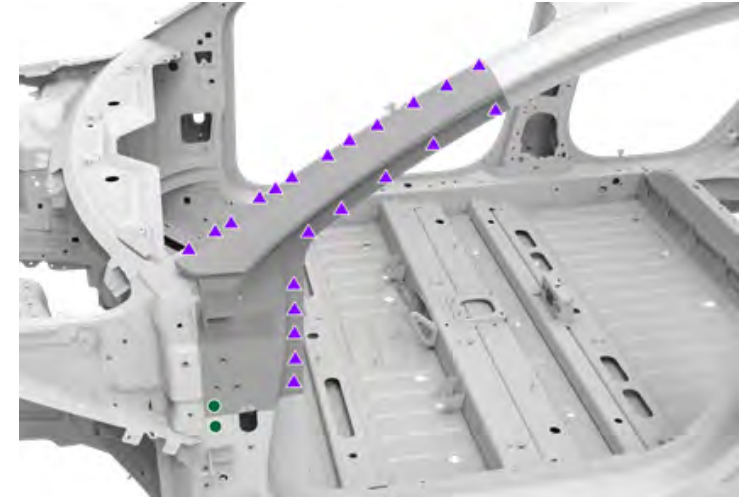
Replacement

10 Prepare for the installation of the new Body Side Outer section (continued).

C Mark the locations for the spot welds and fasteners on the new section.

▲ Installation Spot Weld (x22)

● Countersunk Rivet, 4.8 mm Short (x2)



D Use a drill with a 4.8 mm (3/16 in) bit to drill holes for countersunk rivets.



NOTE: Install a grip screw after drilling each hole to keep the panel aligned while drilling the remaining holes.



Replacement

10 Prepare for the installation of the new Body Side Outer section (continued).

E

Use a drill with the Microstop countersink cage assembly and the appropriate-sized countersink bit to countersink the holes for countersunk rivets (Microstop Countersink Kit, Tesla p/n 1133101-00-A).



NOTE: If the depth adjustment for the Microstop countersink cage assembly has not already been set, do the procedure in the [Microstop Countersink Kit tool instructions](#) to adjust the tool.



CAUTION: Drill holes for countersunk rivets far enough away from the corners and any other obstructions to provide enough clearance (approximately 18 mm or 11/16 in) for the Microstop countersink cage assembly.

F

Mark the boundary lines along all mating surfaces between the new components and the vehicle for bond path surface preparation.



Replacement

- 10 Prepare for the installation of the new Body Side Outer section (continued).
- G Remove the new A-Pillar Outer section.

- 11 Prepare the surfaces for the installation of the new A-Pillar Body Side Outer section.
- A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the new component along all mating surfaces.



Replacement

- 11 Prepare the surfaces for the installation of the new A-Pillar Body Side Outer section (continued).

B Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat on the new component and on the vehicle in the weld areas. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander.



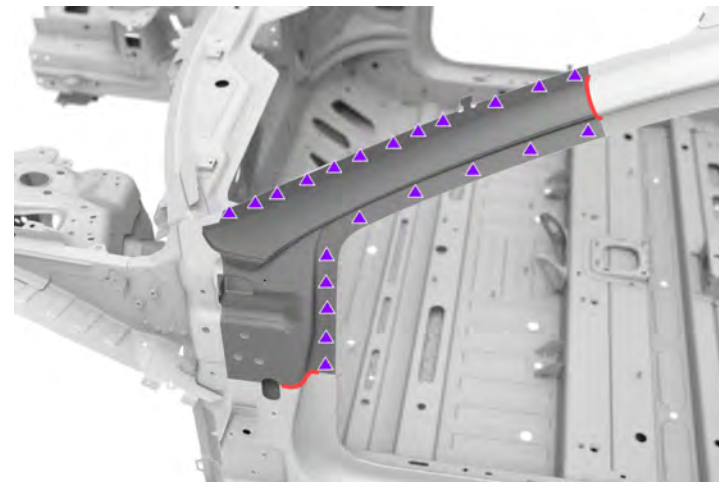
WARNING: Remove the e-coat in a well-ventilated area. Wear suitable personal protective equipment.

C

Clean all the bond paths and weld areas on the new component or components and on the vehicle with isopropyl alcohol (IPA).



WARNING: Wipe off the remaining isopropyl alcohol with a clean, dry towel immediately after application. Do not let the remaining isopropyl alcohol air dry. Allowing the remaining isopropyl alcohol to air dry can compromise the adhesive bond.





Replacement

12 Apply structural adhesive to install the new A-Pillar Body Side Outer section.

A

Spread a thin coating of structural adhesive as a primer layer on the bond paths on the vehicle and the new A-Pillar Body Side Outer section.



WARNING: Do not apply structural adhesive within 25 mm (1 in) of the GMA weld locations. Applying structural adhesive within 25 mm (1 in) of the GMA weld locations can cause weld failure.



CAUTION: If any bare metal bond paths have been exposed for two hours or longer, abrade the bond paths again to remove oxidation, then clean the bond paths with isopropyl alcohol (IPA).



NOTE: Assembly must be performed while the primer layer is still wet. The drying time of the adhesive varies depending on temperature and humidity.

B

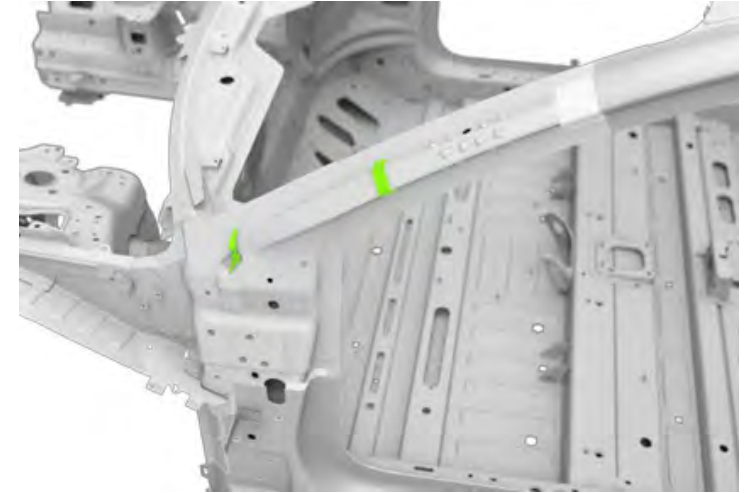
While the primer layer is still wet, apply a bead of structural adhesive on top of the primer layer on the vehicle.



Replacement

12 Apply structural adhesive to install the new A-Pillar Body Side Outer section (continued).

C Apply a bead of urethane sealant to the edges of the foam dams removed in an earlier step, and then reinstall them on the vehicle.



13 Install the new A-Pillar Body Side Outer section.

A Put the new A-Pillar Body Side Outer section into position and clamp it into place.

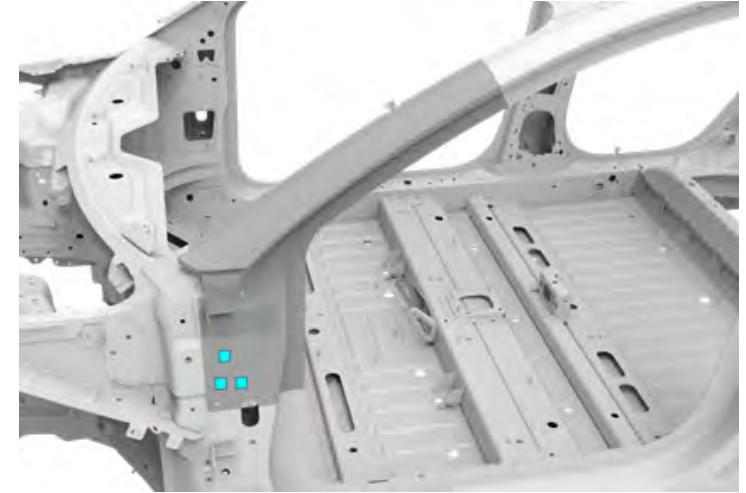


Replacement

13 Install the new A-Pillar Body Side Outer section (continued).

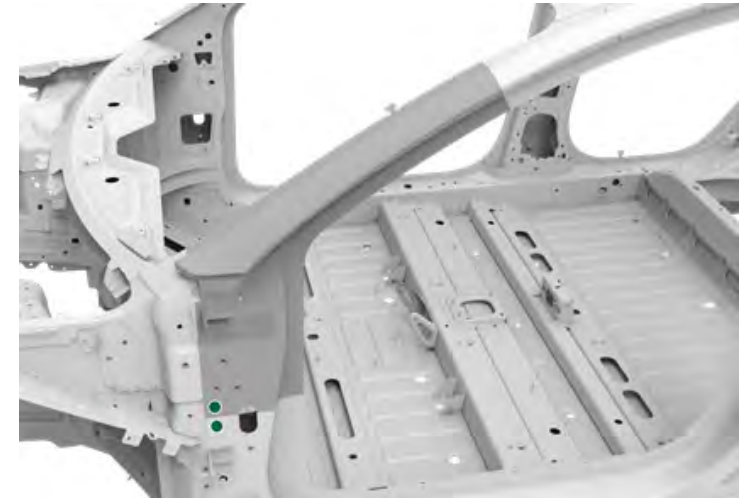
B Temporarily install the door hinge bolts, but do not torque them fully at this time.

 Bolt, hex-head (x3)



C Insert the countersunk rivets.

 Countersunk Rivet, 4.8 mm Short (x2)



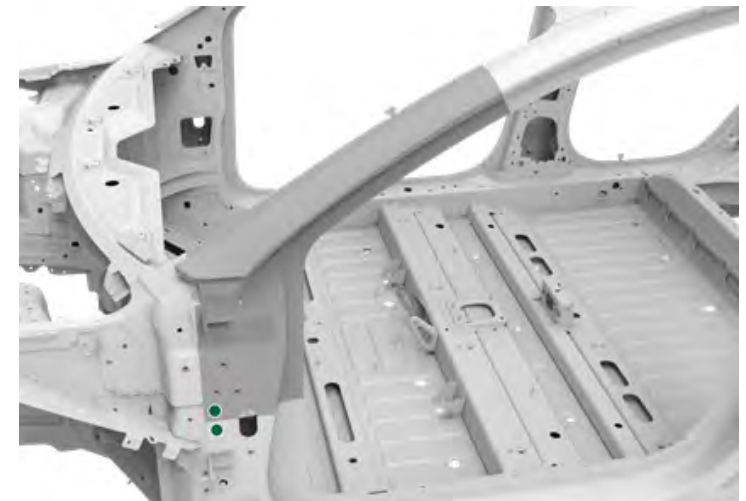


Replacement

13 Install the new A-Pillar Body Side Outer section (continued).

D Clamp all bonded areas that are not secured with a fastener.

E Install the countersunk rivets.
● Countersunk Rivet, 4.8 mm Short (x2)





Replacement

13 Install the new A-Pillar Body Side Outer section (continued).

F

Perform resistance spot welding.

▲ Installation Spot Weld (x22)



WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla vehicles.



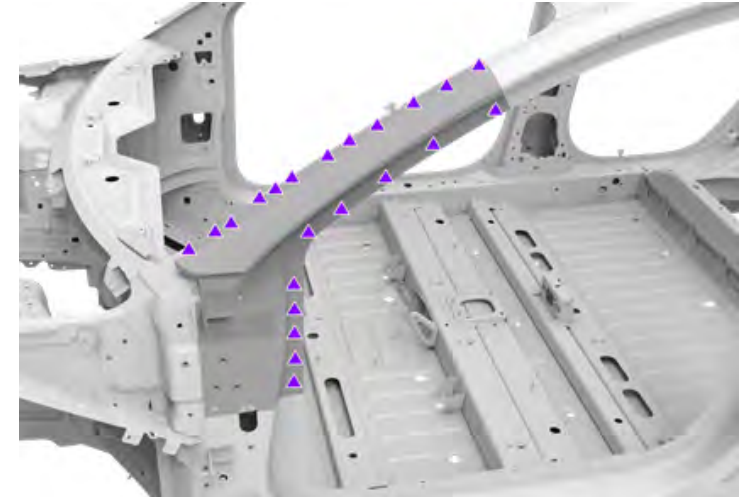
CAUTION: Do not weld on a Tesla vehicle with an energized high voltage or 12V system. Welding on a Tesla vehicle with an energized high voltage or 12V system might damage vehicle components.



CAUTION: Use only insulated clamps within 200 mm (8 in) of resistance spot weld locations. Do not perform resistance spot welding when there is an uninsulated clamp within 200 mm (8 in) of the spot weld location.

G

Wipe off any excess adhesive.





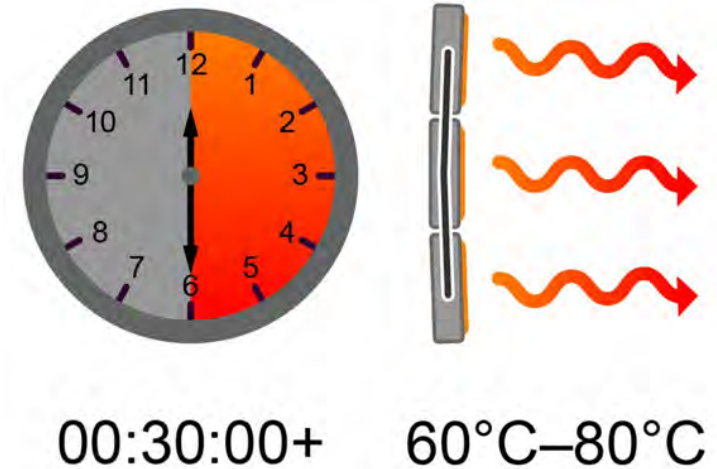
Replacement

13 Install the new A-Pillar Body Side Outer section (continued).

H Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



WARNING: Do not allow the High Voltage Battery to reach a temperature above 74°C (165°F). Heating the High Voltage Battery above 74°C (165°F) for an extended period could result in injury to personnel and/or damage to the battery.



14 GMA weld the upper and lower butt joints.

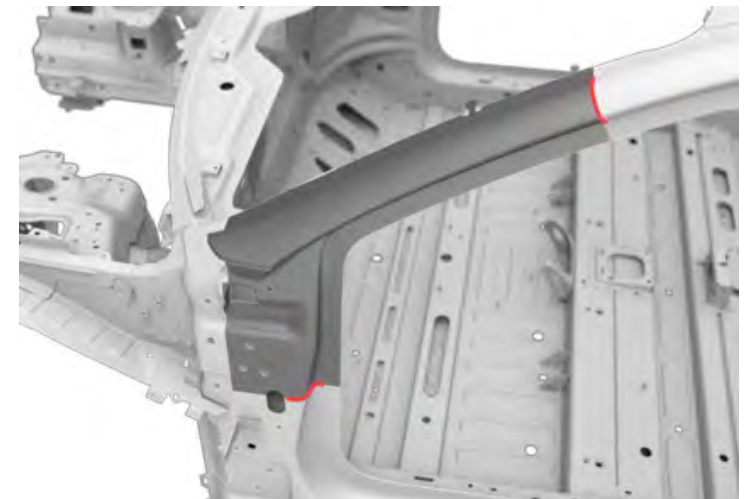
A Perform GMA welding.
 GMA Weld



WARNING: Do not weld the panel where it directly contacts the high strength panels underneath. The heat affect zone from welding can weaken the strength of the underlying high strength steel structure.



WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla vehicles.





Replacement

14 GMA weld the upper and lower butt joints (continued).

A

Perform GMA welding (continued).



WARNING: To maintain vehicle crash integrity, use only Bohler Union X96 welding wire and an approved GMA welder to perform steel GMA welding on high-strength steel and ultra high-strength steel components.



WARNING: Before GMA welding, make sure that the structural adhesive is dry to the touch. If the structural adhesive is not dry to the touch before GMA welding, the strength of the adhesive bond might be compromised.



CAUTION: Do not weld on a Tesla vehicle with an energized high voltage or 12V system. Welding on a Tesla vehicle with an energized high voltage or 12V system might damage vehicle components.



NOTE: Before GMA welding, a test weld using material of the same gauge and type should be performed to make sure that the welding equipment settings produce a satisfactory joint.



Replacement

14 GMA weld the upper and lower butt joints (continued).

B Use a grinding tool to grind down the welds until they are flush with the panels.

15 Seal the seams in the factory locations, and as necessary.



Replacement

16

Install the new [Shotgun Outer](#).

