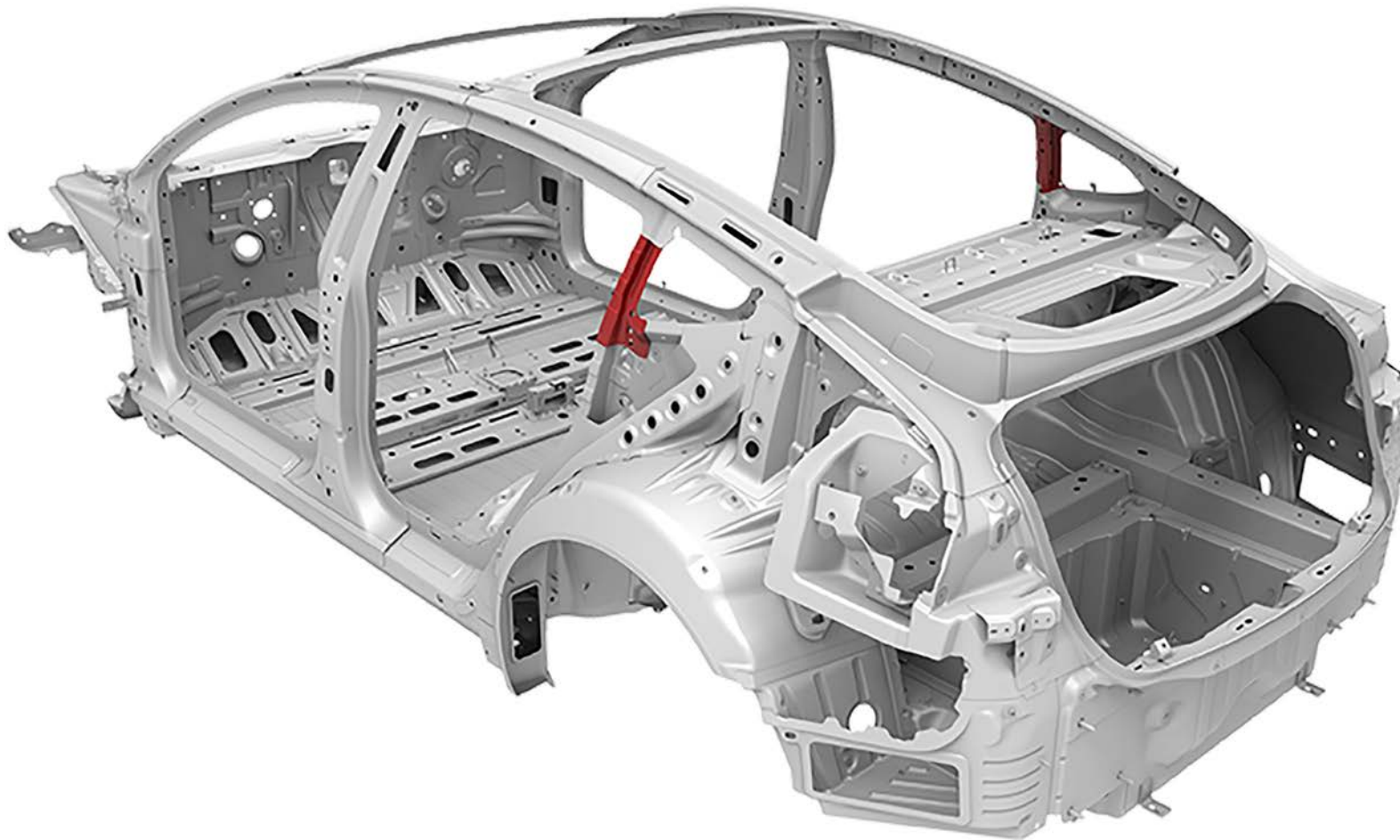


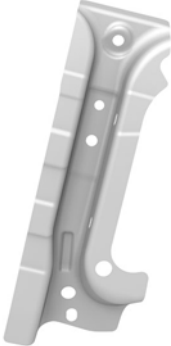





Divider Bar Reinforcement





Parts List

Quantity	Part Number	Description	Image / Notes
1	1082599-S0-A (LH) 1082600-S0-A (RH)	Divider Bar Reinforcement	
3 rivets needed; order 10 rivets	1063943-00-A	 Structural Bulb Rivet, 6.5 mm	All rivets come in packages of 10; order all rivets in multiples of 10.
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	—	Weld-Through Primer	 CAUTION: Only use zinc weld-through primers. Other primers might cause corrosion and compromise the integrity of the repair. Source locally; not available from Tesla.





Parts List

Quantity	Part Number	Description	Image / Notes
1	—	Urethane Sealant	Refer to BR-17-92-002 , "Obtaining Adhesives, Coolant, and Other Chemicals" for information on how to obtain approved urethane sealant.

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
<p>This procedure is for the left-hand component; the procedure is identical for the right-hand component.</p>	<p> WARNING: Wear the appropriate personal protective equipment (PPE) when performing this procedure.</p> <p> CAUTION: This procedure involves both steel and aluminum components. Use the appropriate tools at each step to avoid cross-contamination.</p>	<p>The special tool listed below is required to perform this procedure:</p> <ul style="list-style-type: none">Resistance Spot Welder <p>Use only an approved resistance spot welder. Refer to BR-16-92-007, "Approved Welders" for a list of current approved resistance spot welders.</p>



Prerequisites

Remove the [Quarter Outer Skin](#).





Removal

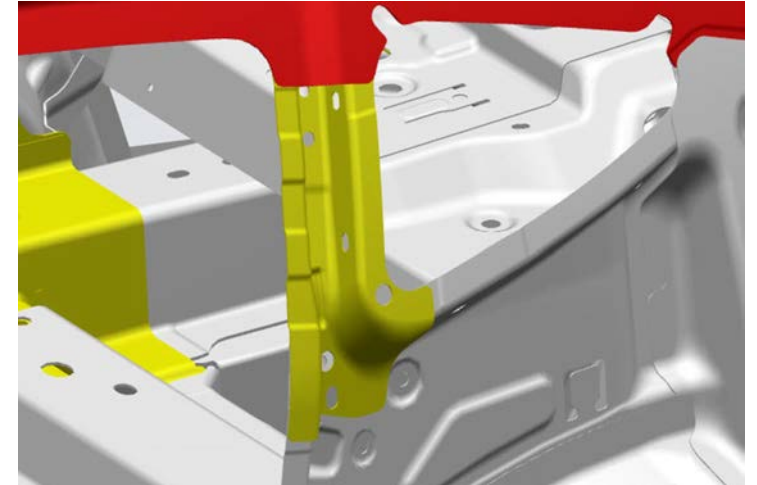
1 Remove the original component.

A Identify the component materials in the repair area.

■ Aluminum

■ High-Strength Steel

■ Ultra High-Strength Steel



B Remove the foam dam.



NOTE: Save the foam dam for installation in a [later step](#).





Removal

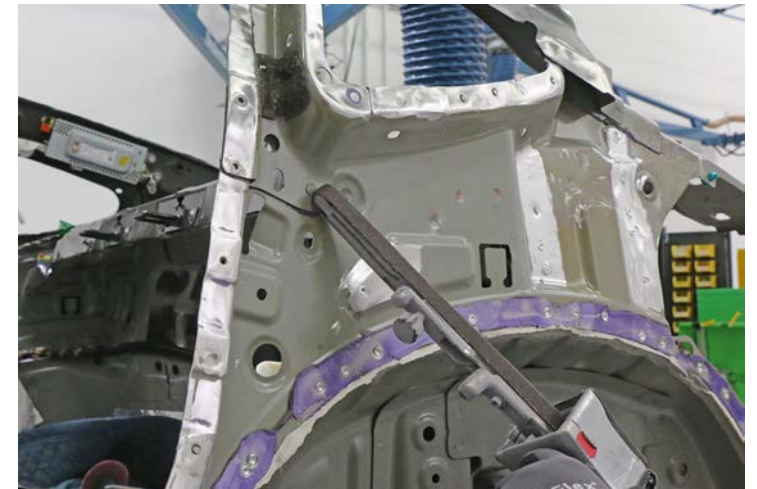
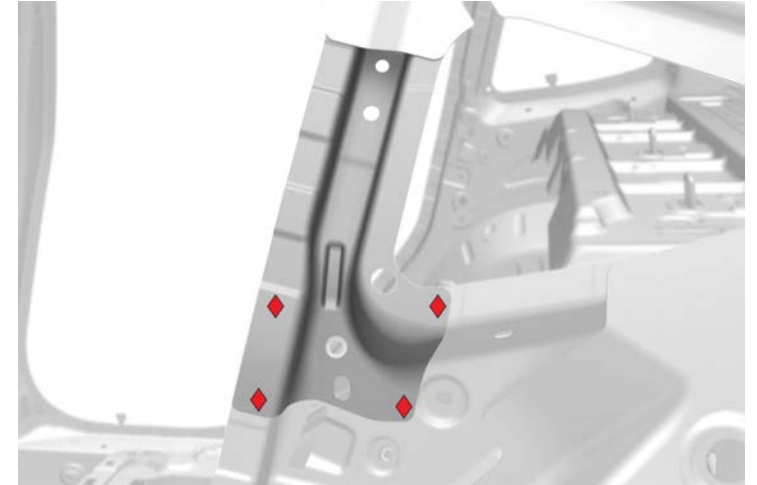
1 Remove the original component (continued).

C Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.

◆ Factory SPR (x4)



NOTE: The 2 factory SPRs toward the front of the vehicle might have been removed during the removal of the Quarter Outer Skin.





Removal

1 Remove the original component (continued).

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

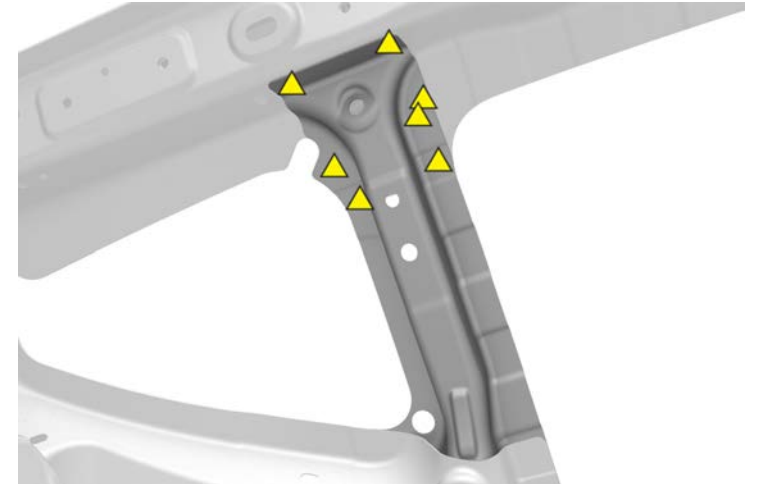
▲ Factory Spot Weld (x7)



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



NOTE: Remove the spot welds from inside of the vehicle.





Removal

1 Remove the original component (continued).

E Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the original component.



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

2

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 aluminum components. Using sanding wheels or belts that are coarser than 80 grit can cause fractures in the aluminum.





Replacement

1 Prepare for installation.

A If necessary, grind down any remaining pieces of the factory spot weld that would interfere with the placement of the new component.



B If necessary, use a hammer and dolly to straighten the portion of the original Rear Roof Rail that contacts the Divider Bar Reinforcement.





Replacement

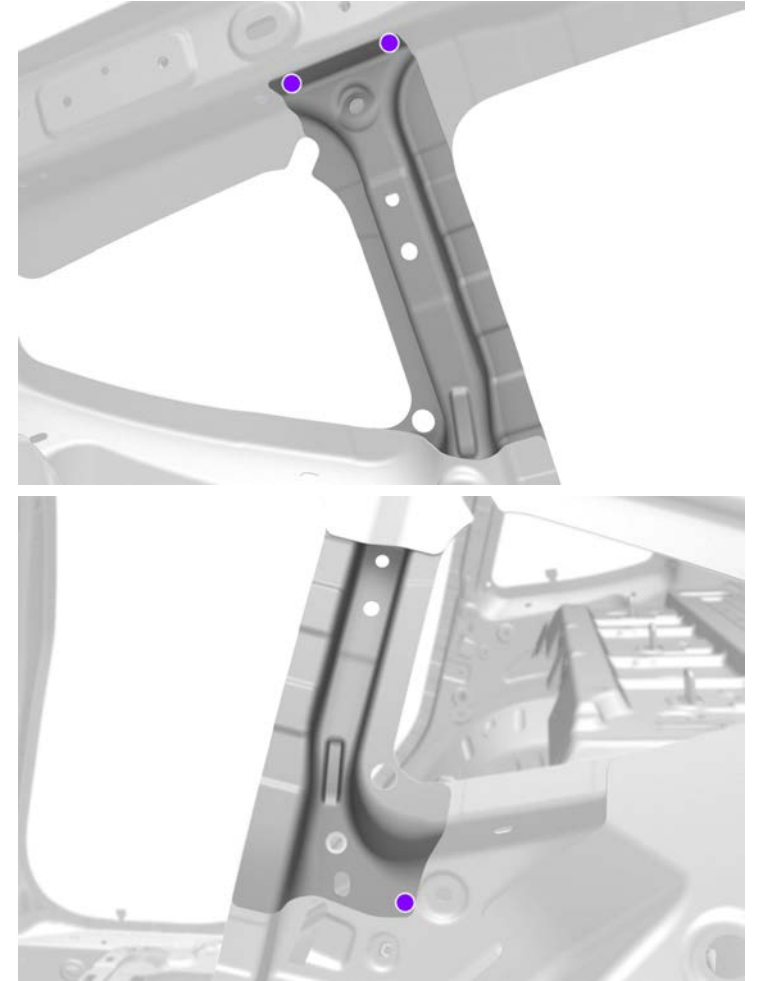
- 1 Prepare for installation (continued).
 - C Put the new component into position and clamp it into place.





Replacement

- 1 Prepare for installation (continued).
 - D Mark the fastener locations on the new component.
 - Structural Bulb Rivet, 6.5 mm (x3)





Replacement

- 1 Prepare for installation (continued).
 - D Mark the fastener locations on the new component (continued).





Replacement

1 Prepare for installation (continued).

E Use a drill with a 6.8 mm (17/64 in) bit to drill holes for structural bulb rivets.



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





Replacement

1 Prepare for installation (continued).

F Mark the bond path areas on the new component and on the vehicle. These areas will be prepared for bonding in a later step.

G Remove the new component.






Replacement

2 Prepare the surfaces.

A Use a red Scotch-Brite pad or equivalent to scuff the new component in the steel-to-aluminum bond path areas.

 Steel-to-Aluminum Bond Path








Replacement

2 Prepare the surfaces (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 both path areas and weld areas.

-  Steel-to-Steel Bond Path
-  Steel-to-Aluminum Bond Path
-  Installation Spot Weld Areas



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



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



CAUTION: Within two hours of removing the e-coat or paint, cover the abraded aluminum areas in the bond path with a thin primer layer of structural adhesive. If the abraded aluminum areas are not primed within two hours, they must be abraded again to remove any oxidation.



NOTE: Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander.

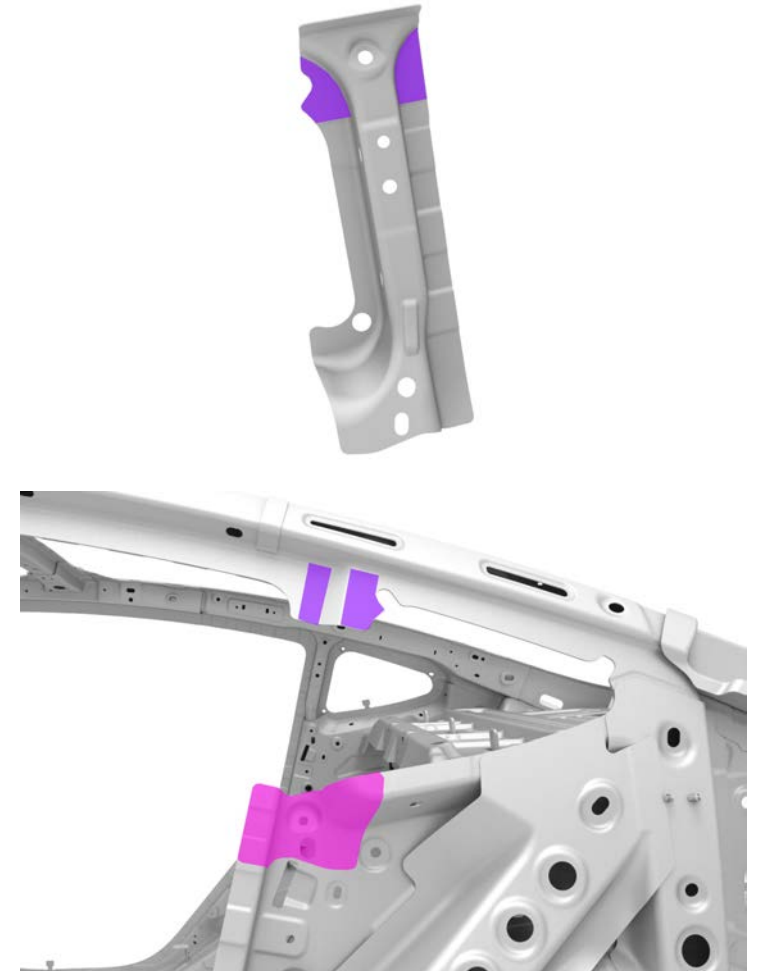




Replacement

2 Prepare the surfaces (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 both path areas and weld areas (continued).

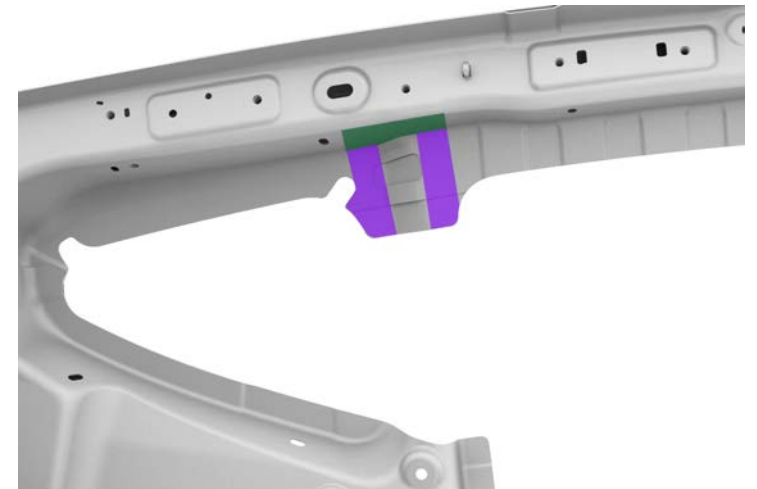




Replacement

2 Prepare the surfaces (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 both path areas and weld areas (continued).






Replacement

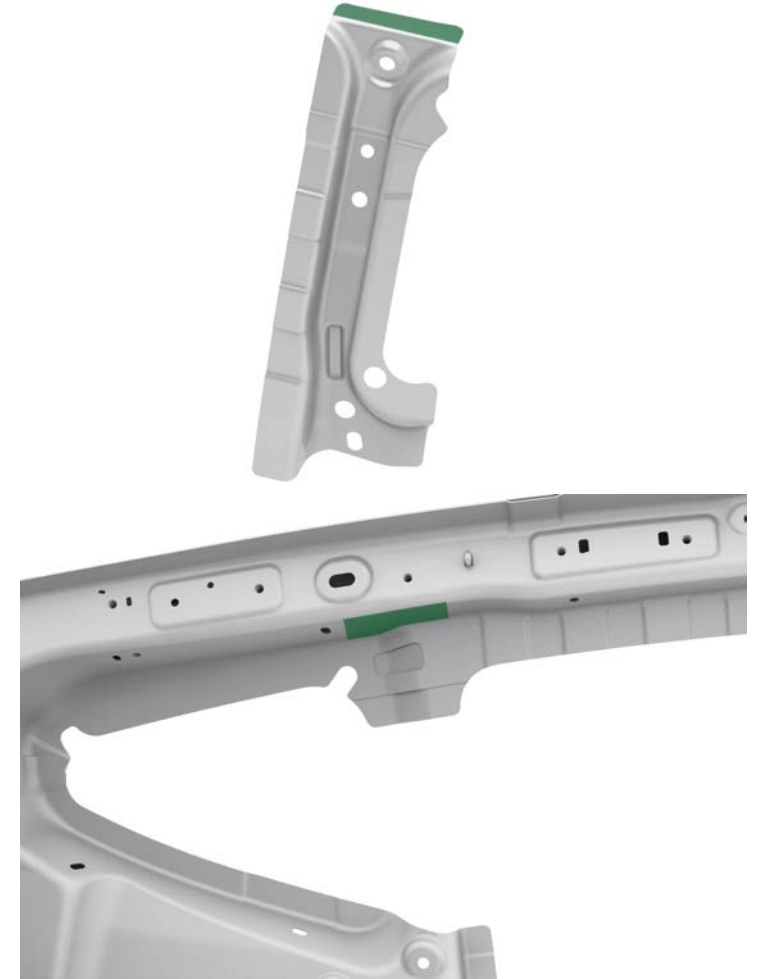
2 Prepare the surfaces (continued).

C Use tape to mask off the structural adhesive bond path areas on the new component and on the vehicle.

 Steel-to-Steel Bond Path



NOTE: This prevents these areas from being sprayed with weld-through primer in a later substep.





Replacement

2 Prepare the surfaces (continued).

C Use tape to mask off the structural adhesive bond path areas on the new component and on the vehicle (continued).



D Clean all the 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.



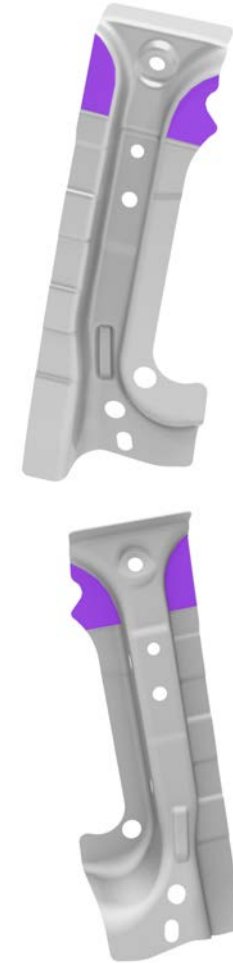


Replacement

2 Prepare the surfaces (continued).

E Apply weld-through primer to the installation spot weld areas on the new component and on the vehicle.

 Installation Spot Weld Areas

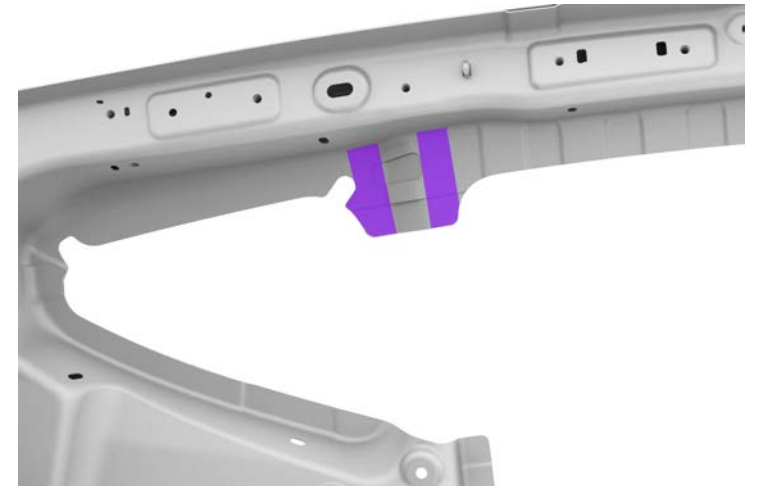
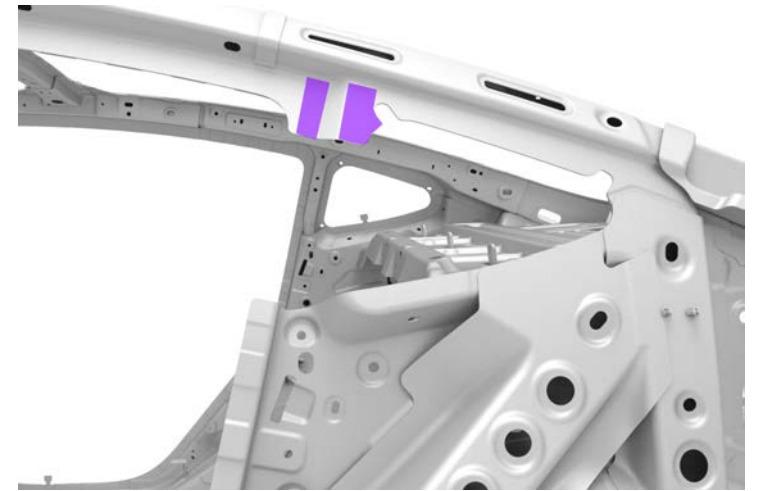




Replacement

2 Prepare the surfaces (continued).

E Apply weld-through primer to the installation spot weld areas on the new component and on the vehicle (continued).





Replacement

2 Prepare the surfaces (continued).

E Apply weld-through primer to the installation spot weld areas on the new component and on the vehicle (continued).



F Remove the tape.





Replacement

2 Prepare the surfaces (continued).

G Clean the areas that were taped in the previous substeps 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.



3 Apply structural adhesive.

A Spread a thin coating of structural adhesive as a primer layer on the bond paths on the vehicle and the new component.

 Steel-to-Steel Bond Path

 Steel-to-Aluminum Bond Path



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

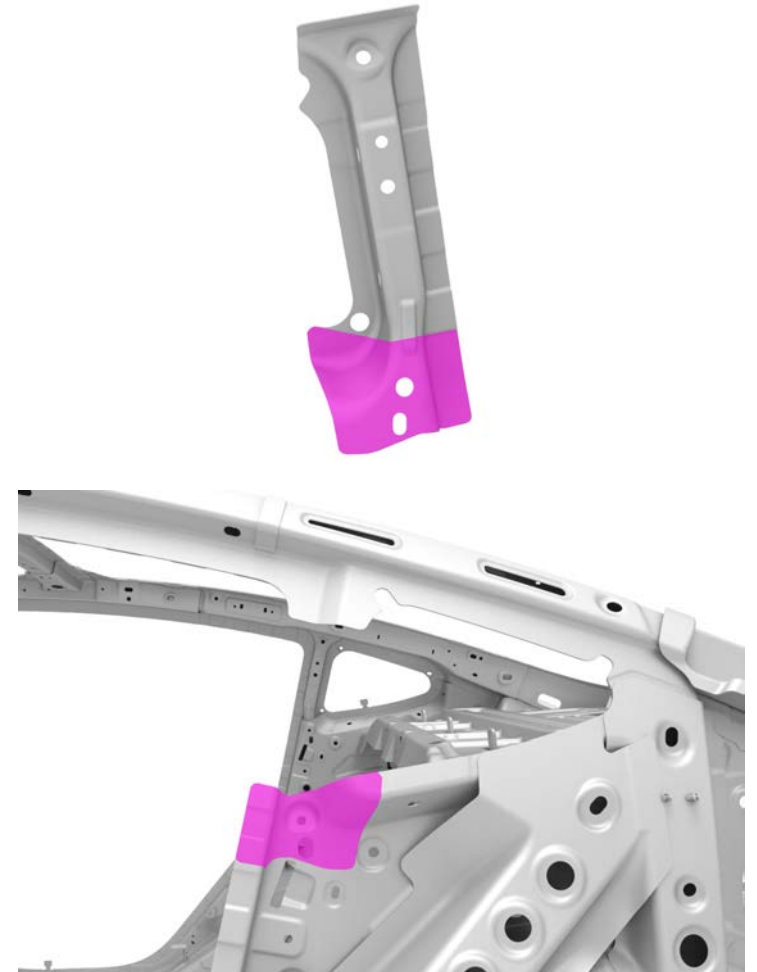




Replacement

3 Apply structural adhesive (continued).

A Spread a thin coating of structural adhesive as a primer layer on the bond paths on the vehicle and the new component (continued).





Replacement

3 Apply structural adhesive (continued).

A Spread a thin coating of structural adhesive as a primer layer on the bond paths on the vehicle and the new component (continued).





Replacement

3 Apply structural adhesive (continued).

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



4 Install the new component.

A Put the new component into position and clamp it into place.





Replacement

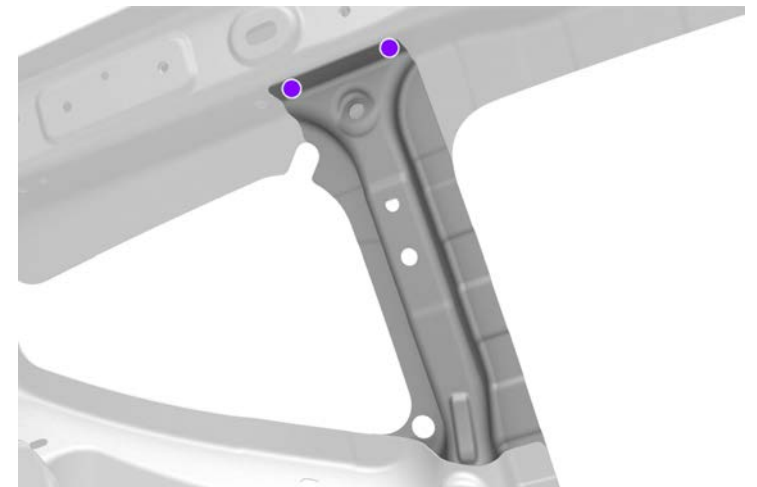
4 Install the new component (continued).

A Put the new component into position and clamp it into place (continued).



B Insert the structural bulb rivets.

● Structural Bulb Rivet, 6.5 mm (x3)

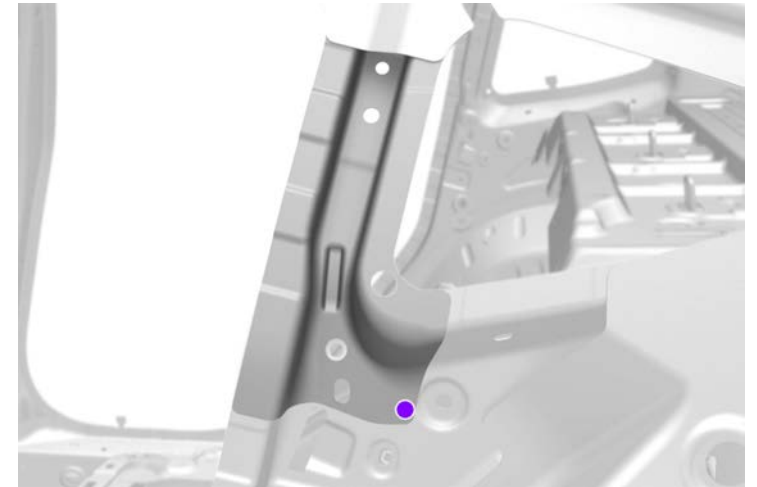




Replacement

- 4 Install the new component (continued).
- B Insert the structural bulb rivets (continued).

- C Install the structural bulb rivets.



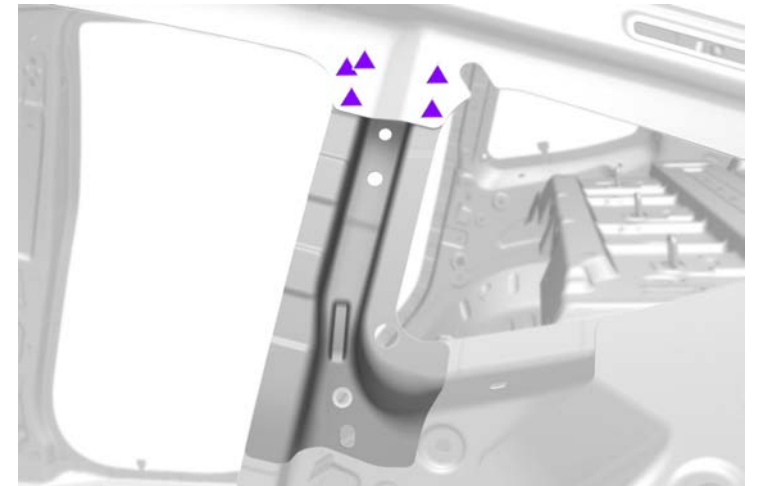


Replacement

4 Install the new component (continued).

D Wipe off any excess adhesive.

E Mark the spot weld locations.
▲ Installation Spot Weld (x5)





Replacement

- 4 Install the new component (continued).
- E Mark the spot weld locations (continued).



- F Perform resistance spot welding.



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.





Replacement

- 4 Install the new component (continued).
- G Apply urethane sealant to the edge of the foam dam that was removed in an [earlier step](#).

- H Install the foam dam.





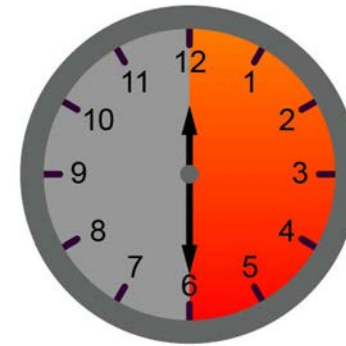
Replacement

4 Install the new component (continued).

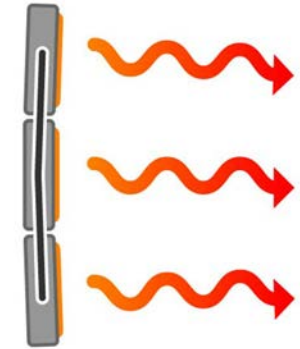
Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



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