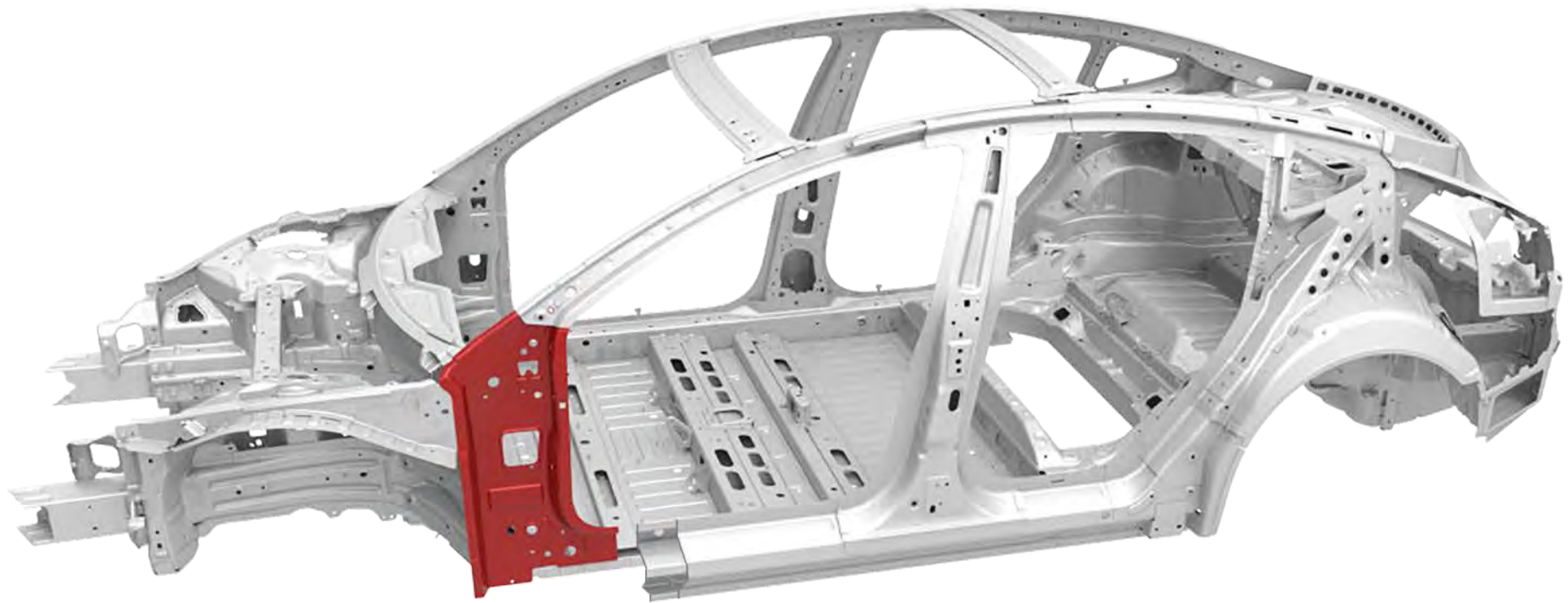




Cowl Side Assembly





Parts List

Quantity	Part Number	Description	Image / Notes
1	1080023-SO-A(LH) 1080024-SO-A (RH)	Cowl Side	
1 rivet 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	—	Urethane Sealant	Refer to BR-17-92-002 , "Obtaining Adhesives, Coolant, and Other Chemicals" for information on how to obtain approved urethane sealant.
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	—	Corrosion-Resistant Primer	Source locally; not available from Tesla.
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.	 WARNING: Wear the appropriate personal protective equipment (PPE) when performing this procedure.  CAUTION: This procedure involves only steel components. Use the appropriate tools to avoid cross-contamination.	The special tools listed below are required to perform this procedure: - 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: If the 12V power supply is disconnected, do not attempt to open any doors with the door glass in a closed position. Attempting to open a door 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 [Hinge Pillar \(Complete\)](#).



3

Remove the [Sill Inner \(Front Section\)](#).



Removal

- 1 Install a brace between the Roof Rail and the Sill.



- 2 Remove the original component.

A Remove the foam dam from the original Cowl Side Assembly and save it for installation in a [later step](#).





Removal

2 Remove the original component (continued).

B

Mark the locations of the spot welds.

▲ Factory Spot Weld

▲ Factory Spot Weld (2 layers)



CAUTION: The Toeboard Outer is 1.2 mm thick and the Cowl Top is .8 mm thick. When removing the spot welds that attach the Cowl Side Assembly to the Toeboard Outer and the Cowl Top (circled in red), be careful to avoid drilling through the underlying panels.



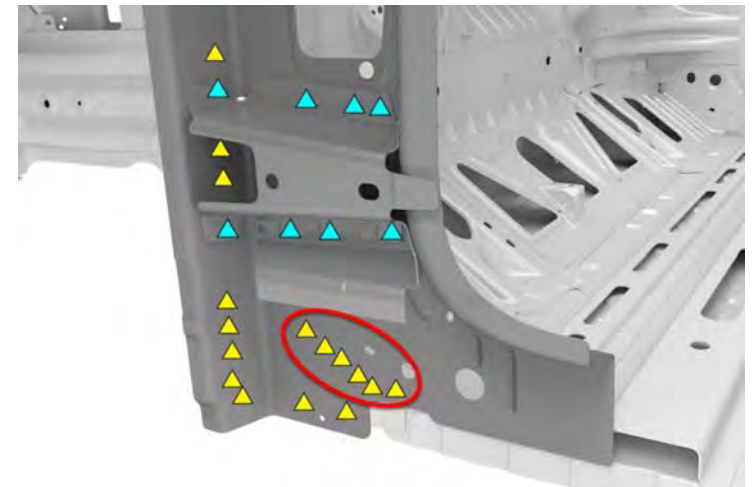
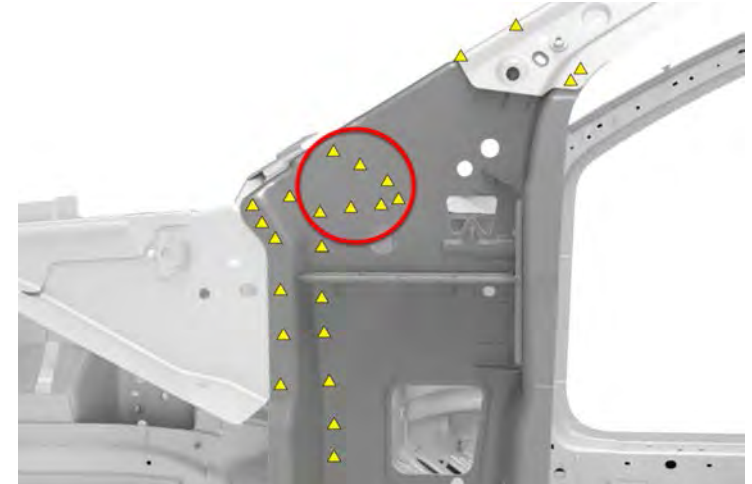
NOTE: Factory spot welds indicated by a light blue triangle need to be drilled out through 2 layers of material.



NOTE: Unless specifically instructed otherwise, spot welds should be drilled out or ground down on the component being removed to avoid damaging surrounding components.



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





Removal

- 2 Remove the original component (continued).
- B Mark the locations of the spot welds (continued).





Removal

2 Remove the original component (continued).

C 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.

D Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the remaining pieces of the original component.



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.

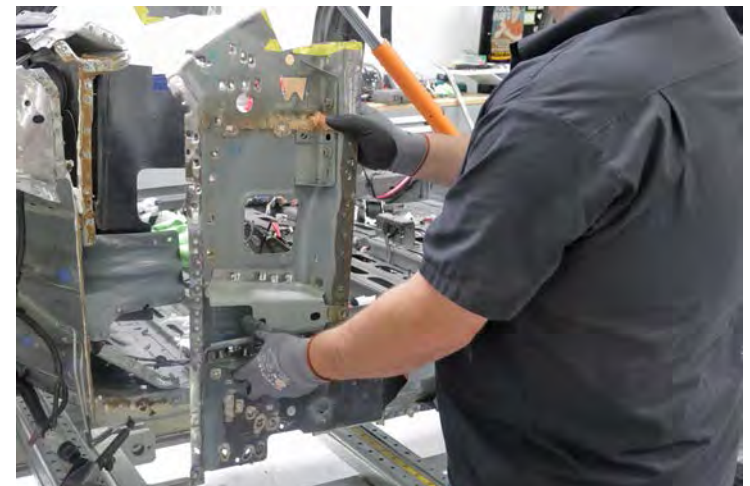




Removal

2 Remove the original component (continued).

D Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the remaining pieces of the original component (continued).





Removal

2 Remove the original component (continued).

D Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the remaining pieces of the original component (continued).





Removal

3

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.



CAUTION: Beware of cross-contamination. Do not use the same equipment to remove epoxy from aluminum and steel. Cross-contamination might result in galvanic corrosion.





Replacement

1 Prepare for installation.

A Use a hammer and dolly to straighten any flanges that were damaged during the removal process.



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





Replacement

- 1 Prepare for installation (continued).
 - C Align and temporarily secure the new component to the frame bench jig points.
 - D Temporarily insert an M6 bolt into the mounting hole for the side curtain airbag, but do not torque it fully at this time.
 -  Bolt, hex-head (x1)



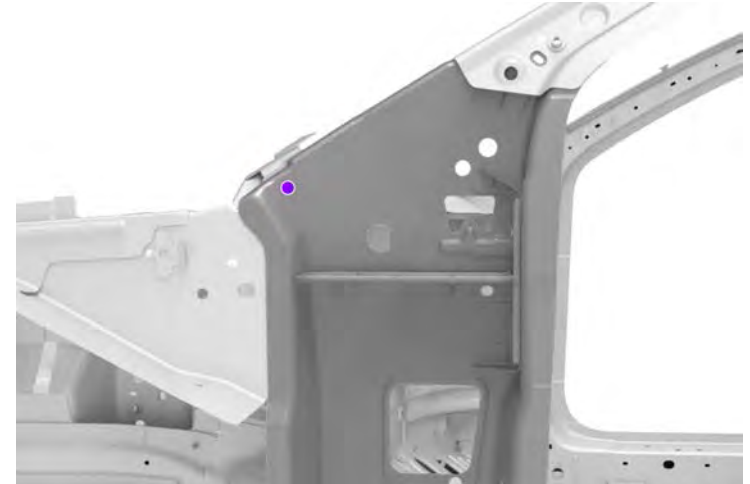


Replacement

1 Prepare for installation (continued).

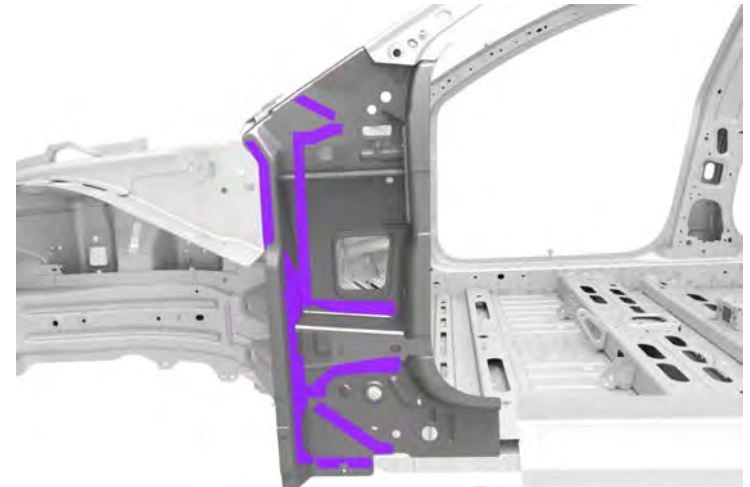
E Use a drill with a 6.7 mm (17/64 in) bit to drill a hole for a structural bulb rivet.

● Structural Bulb Rivet, 6.5 mm (x1)



F Mark the weld areas on the new component.

■ Installation Spot Weld Areas





Replacement

- 1 Prepare for installation (continued).
- F Mark the weld areas on the new component (continued).



- G Remove the new component.





Replacement

1 Prepare for installation (continued).

H Mark the bond path and weld areas on the new component and the vehicle. These areas will be prepared for bonding and welding in the next step.

 Steel-to-Steel Bond Path

 Installation Spot Weld Areas

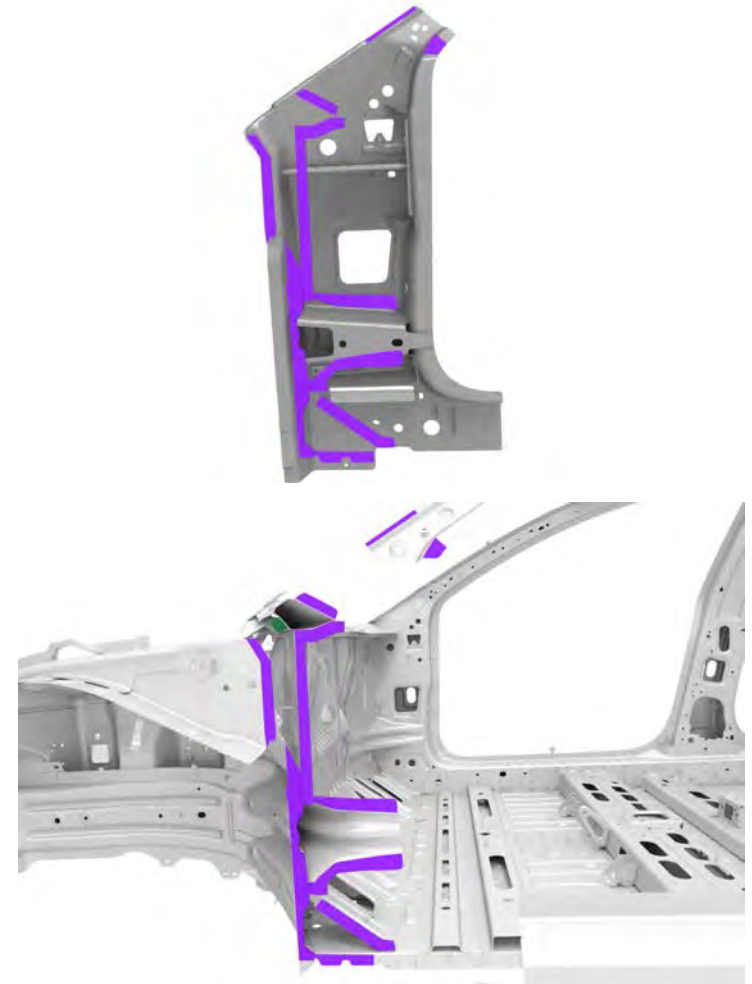




Replacement

1 Prepare for installation (continued).

H Mark the bond path and weld areas on the new component and the vehicle. These areas will be prepared for bonding and welding in the next step (continued).





Replacement

2 Prepare the surfaces.

A 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 bond path areas and 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.

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

 Steel-to-Steel Bond Path





Replacement

2 Prepare the surfaces (continued).

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

C Clean all the installation spot 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).

D Apply weld-through primer to the appropriate installation spot weld areas of the new component and the vehicle.



CAUTION: Only use zinc weld-through primers. Other primers might cause corrosion and compromise the integrity of the repair.

E Remove the tape.





Replacement

2 Prepare the surfaces (continued).

F 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.



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.



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).

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

4 Install the new component.

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





Replacement

- 4 Install the new component (continued).
- B Align and temporarily secure the new component to the frame bench jig points.
- C Temporarily insert an M6 bolt into the mounting hole for the side curtain airbag, but do not torque it fully at this time.
 -  Bolt, hex-head (x1)



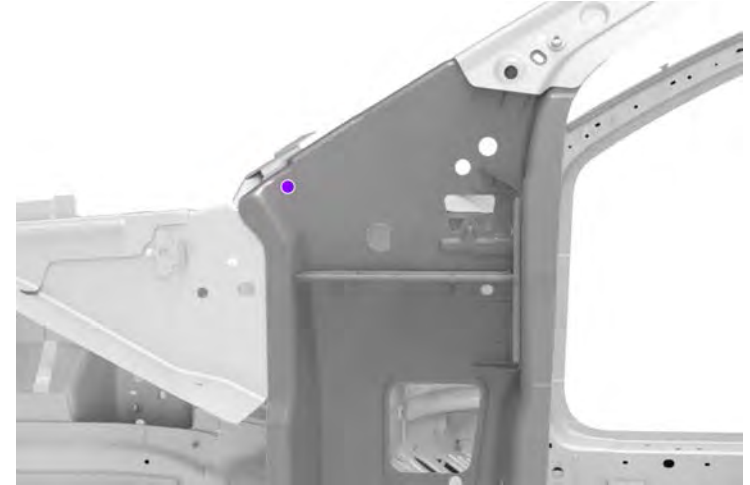


Replacement

4 Install the new component (continued).

D Install the structural bulb rivet.
● Structural Bulb Rivet, 6.5 mm (x1)

E Wipe off any excess adhesive.



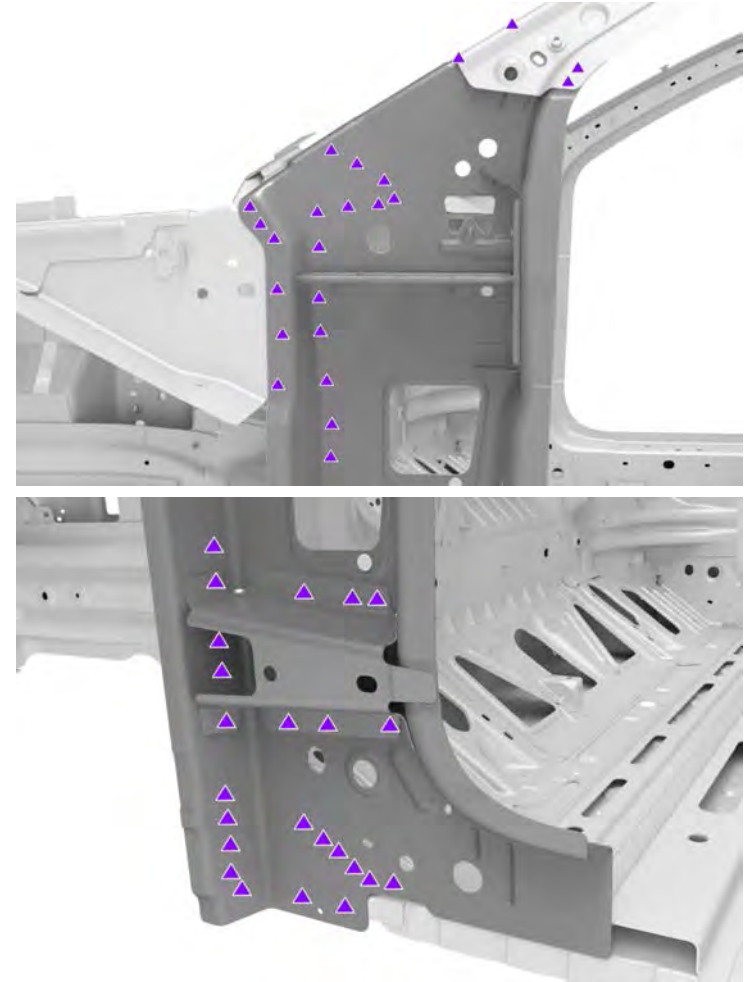


Replacement

4 Install the new component (continued).

F Mark the locations of the installation spot welds.

▲ Installation Spot Weld





Replacement

- 4 Install the new component (continued).
- F Mark the locations of the installation spot welds (continued).





Replacement

4 Install the new component (continued).

G

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.



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.

H

Prime any bare metal that will not be covered with weld-through primer or structural adhesive in a subsequent repair with a suitable corrosion-resistant primer.





Replacement

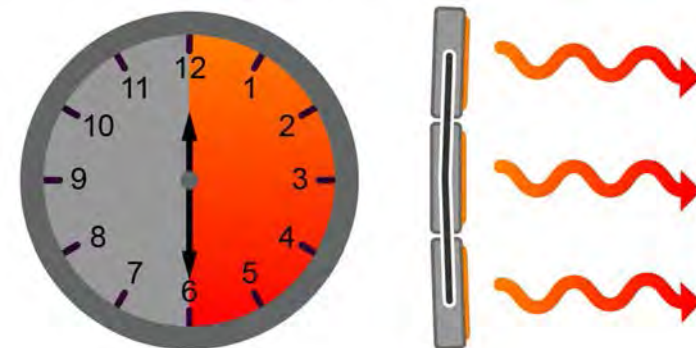
4 Install the new component (continued).

I

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

5 Install the foam dam.

A

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



NOTE: The foam dam was removed in an [earlier step](#).





Replacement

5 Install the foam dam (continued).

B Install the foam dam.

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





Replacement

7

Install the new [Sill Inner \(Front Section\)](#).

8

Install the new [Hinge Pillar \(Complete\)](#).

