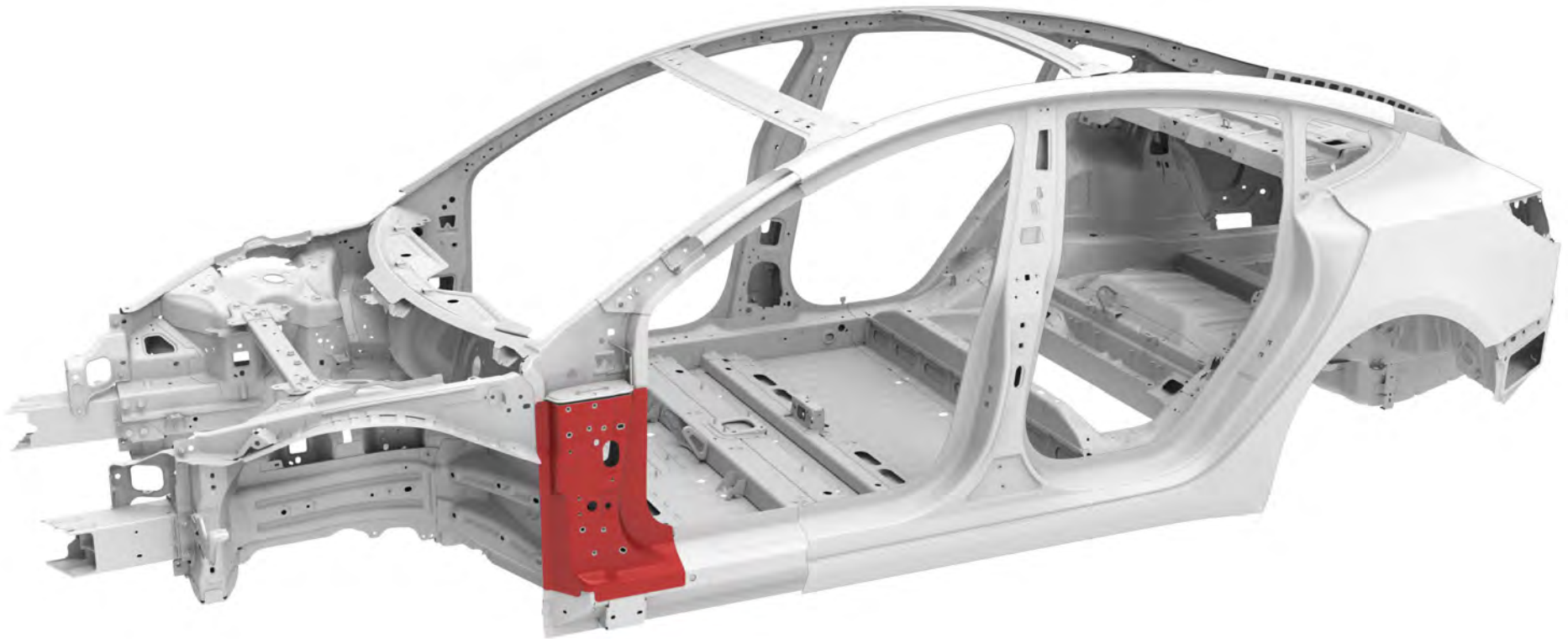




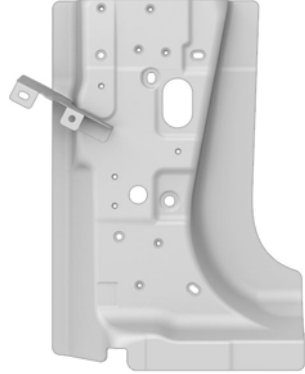
Hinge Pillar (Complete)



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Parts List

Quantity	Part Number	Description	Image / Notes
1	1080021-S0-A (LH) 1080022-S0-A (RH)	Hinge Pillar Assembly	
15 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.
3 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.
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.

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.	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.



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.

2

Remove the A-Pillar Bodyside Outer.

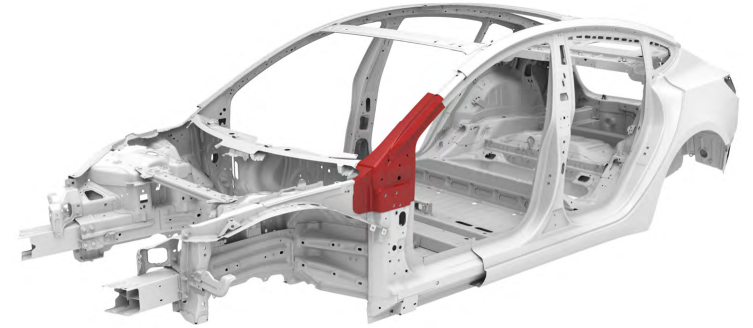




Prerequisites

3

Remove the A-Pillar Outer Reinforcement (Section).





Removal

1 Remove the original component.

A Use a drill with a spot weld bit to drill out the factory spot welds. Use a hammer and chisel to remove the remaining pieces of the component.

▲ Factory Spot Weld (x8)



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





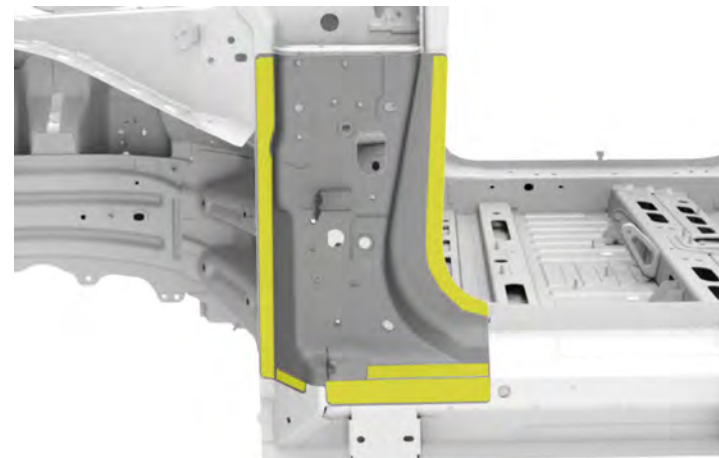
Removal

1 Remove the original component (continued).

B

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

 Factory Spot Weld Areas



C

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 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 mating surfaces. 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.



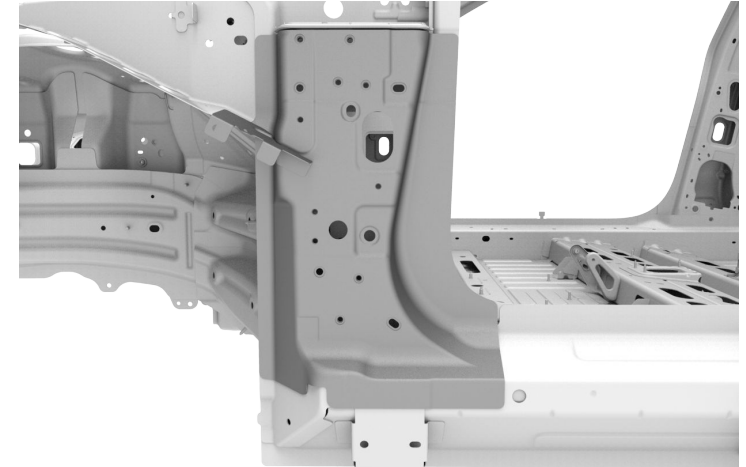
Replacement

1 Prepare for installation.

A Put the new Hinge Pillar Assembly into position and align it to the frame bench jig points.



NOTE: If necessary, use a 1 mm (1/16 in) shim to account for the thickness of the Body Side Outer.



B Mark the fastener locations on the new component.

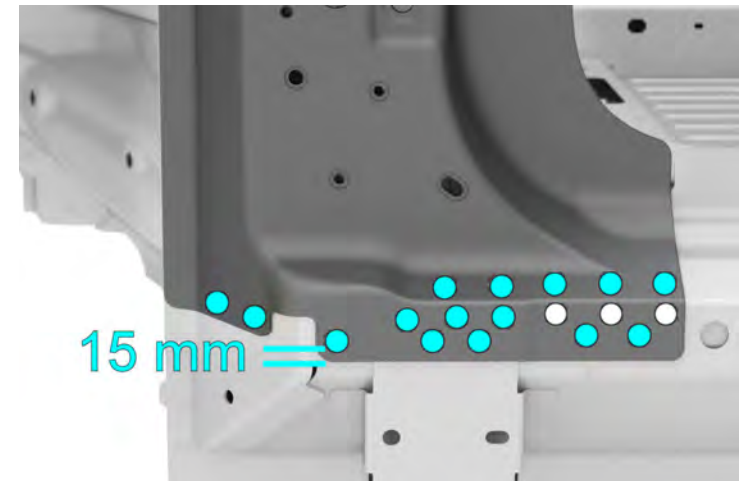
● High Strength Structural Rivet, 6.5 mm (x15)

○ Structural Countersunk Rivet, 6.5 mm (x3)

▲ Installation Spot Weld (x33)



NOTE: Mark and drill the holes for the bottom row of structural rivets at least 15 mm (9/16 in) up from the bottom edge of the Hinge Pillar. This ensures that the rivets go through the flat face of the aluminum Sill Reinforcement.





Replacement

1 Prepare for installation (continued).

B Mark the fastener locations on the new component (continued).

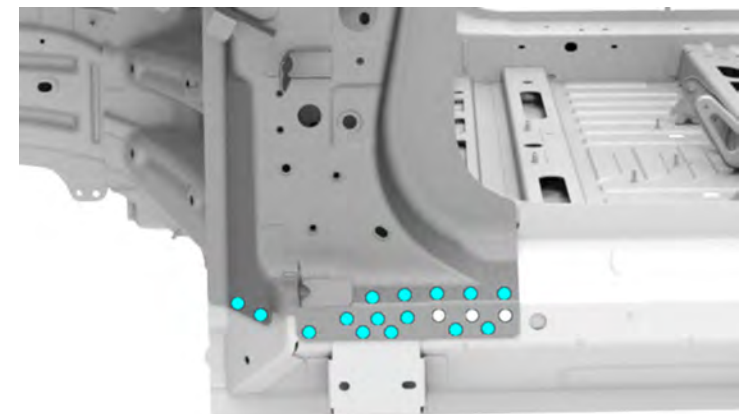
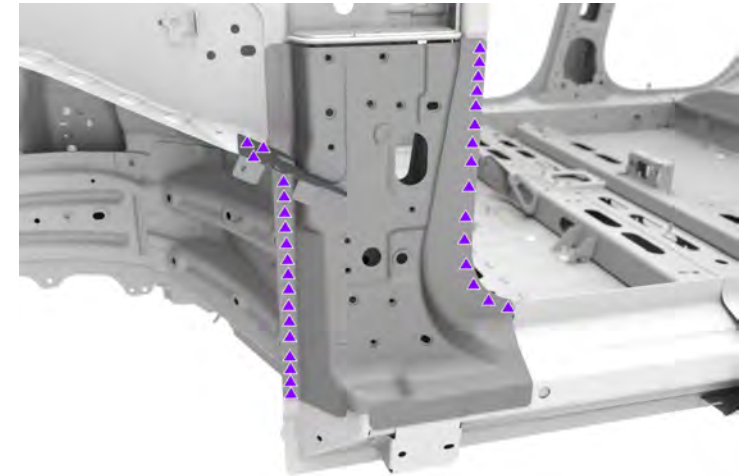
C Use a drill with a 6.7 mm (17/64 in) bit to drill holes for High Strength Structural Rivets and Countersunk Structural Rivets.

● High Strength Structural Rivet, 6.5 mm (x15)

○ Structural Countersunk Rivet, 6.5 mm (x3)



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).

D 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.

E Mark boundary lines along all mating surfaces between the new component and the vehicle for surface preparation.



Replacement

1

Prepare for installation (continued).

F

Remove the new Hinge Pillar Assembly.

2

Prepare the surfaces.

A

Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the mating surfaces of the new component and the vehicle.



Replacement

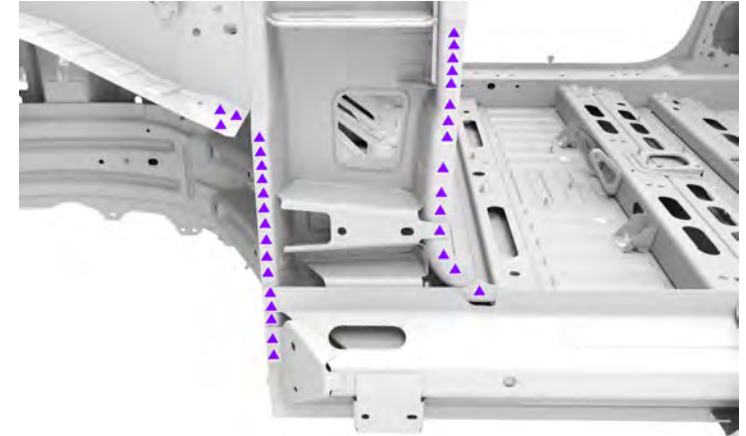
2 Prepare the surfaces (continued).

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

▲ Installation Spot Weld (x33)



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



C Clean all the mating surfaces and weld areas of the new component or components and 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

3 Apply structural adhesive.

A Spread a thin coating of structural adhesive as a primer layer on the mating surfaces of the vehicle, the backing plate, and the new component.



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 new component.



Replacement

4 Install the new component.

A Put the new Hinge Pillar Assembly into position and align it to the frame bench jig points.

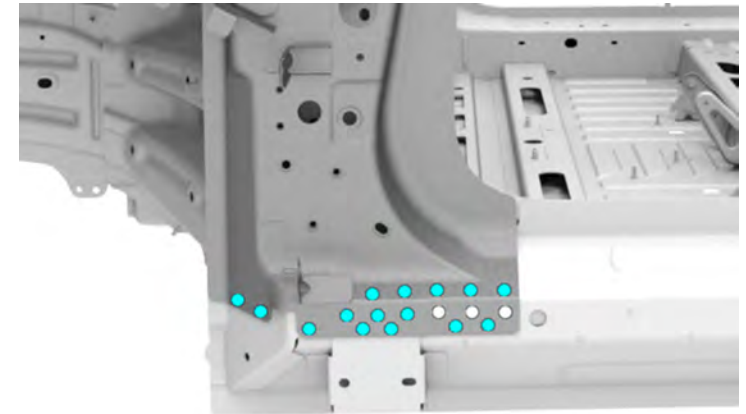


NOTE: If necessary, use a 1 mm (1/16 in) shim to account for the thickness of the Body Side Outer.

B Insert the structural rivets and structural countersunk rivets.

● High Strength Structural Rivet, 6.5 mm (x15)

○ Structural Countersunk Rivet, 6.5 mm (x3)





Replacement

4 Install the new component (continued).

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

D Install the structural rivets and structural countersunk rivets.



Replacement

4 Install the new component (continued).

E Perform resistance spot welding.

▲ Installation Spot Weld (x33)

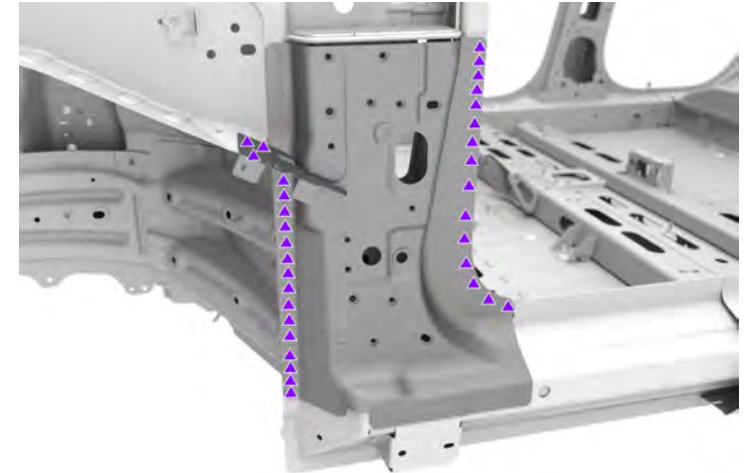


WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla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

F Wipe off any excess adhesive.





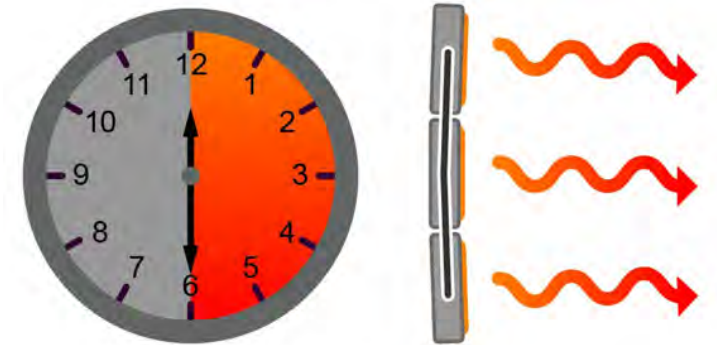
Replacement

4 Install the new component (continued).

G 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.



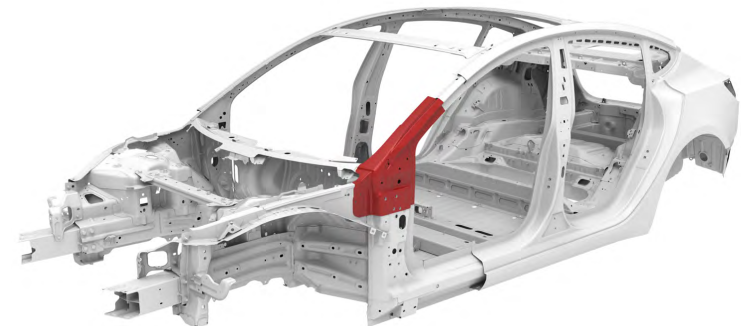
WARNING: Do not allow the High Voltage Battery to reach a temperature above 74°C (165°F). Heating the High Voltage Battery above 74°C (165°F) for an extended period could result in injury to personnel and/or damage to the battery.



00:30:00+

60°C–80°C

5 Install the new [A-Pillar Outer Reinforcement \(Section\)](#).





Replacement

6

Install the A-Pillar Body Side Outer.

