







Sill Inner (Complete)







Parts List

Quantity	Part Number	Description	Image / Notes
1	1073839-S0-A (LH) 1073840-S0-A (RH)	Side Sill, Inner	
11 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.
8 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.
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	—	Corrosion-Resistant Epoxy 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
<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 only steel components. Use the appropriate tools to avoid cross-contamination.</p>	<p>The special tools listed below are required to perform this procedure:</p> <ul style="list-style-type: none">• Microstop Countersink kit• 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> <ul style="list-style-type: none">• Frame bench <p>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.</p>



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

Before working on the vehicle, make sure that high voltage current is not present (refer to the appropriate section in [BR-17-17-004](#), "Disconnecting 12V and High Voltage Power on Model 3").



WARNING: Only technicians who have been trained in High Voltage Awareness are permitted to perform the Vehicle Electrical Isolation procedure. Proper personal protective equipment (PPE) and insulating high voltage gloves with a minimum rating of class 0 (1000V) must be worn any time a high voltage cable is handled. Refer to [TN-15-92-003](#), "High Voltage Awareness Care Points" for additional safety information.



3

Remove the High Voltage Battery (Service Manual procedure 16010101).





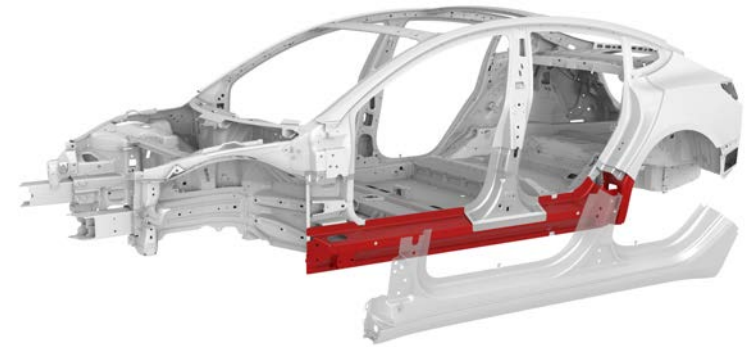
Sill Inner (Complete)

MODEL 3

Prerequisites

4

Remove the [Sill Outer \(Complete\)](#).









Removal

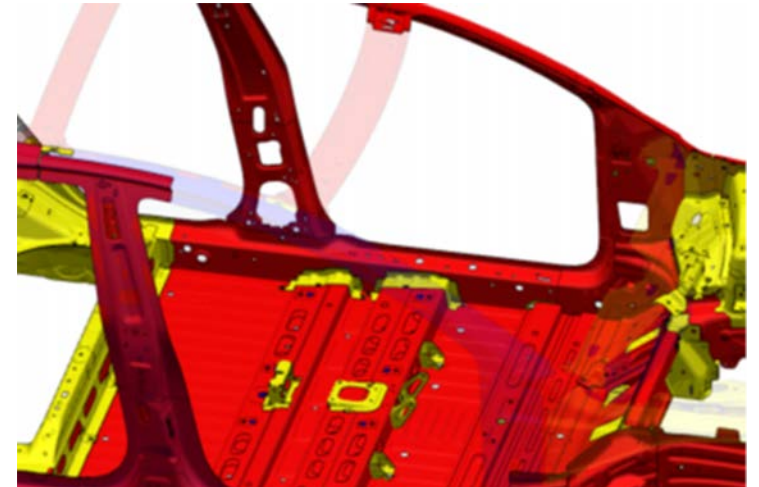
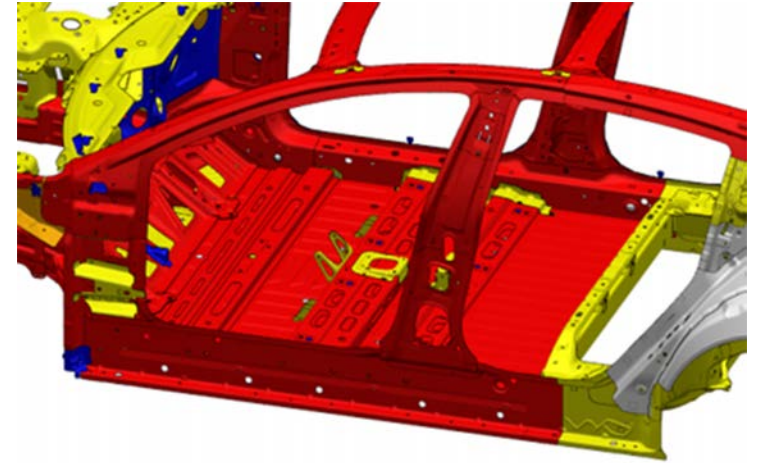
1

Identify the component materials in the repair area.

-  Aluminum
-  Mild Steel
-  High-Strength Steel
-  Ultra High-Strength Steel



NOTE: Refer to [BR-17-10-005](#), “Model 3 Body Structure Materials and Allowed Operations”, for information about the material each structural component is made from and the operations that are allowed on each type of material.





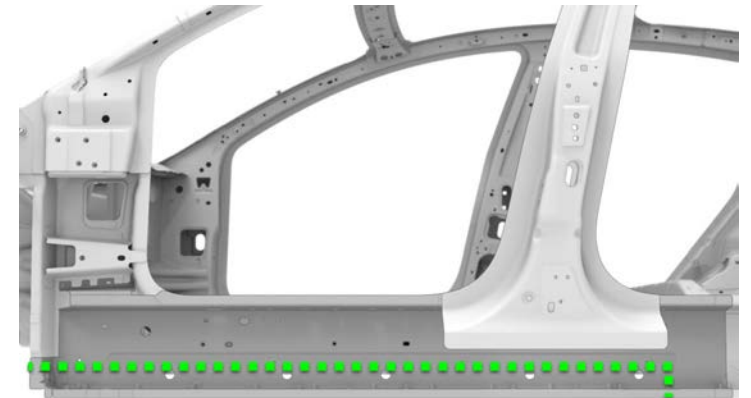
Removal

2 Remove the original component.

A Support the vehicle floor so that it does not move when the Sill Inner is removed.

B Mark cut lines to prepare to cut away the bulk of the original component.

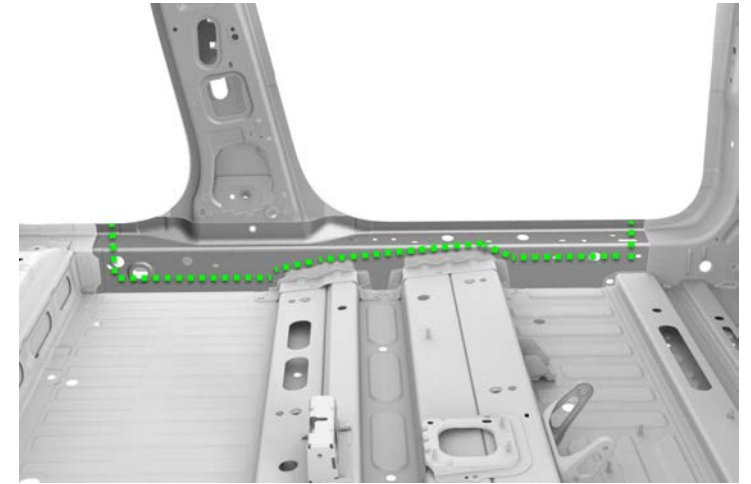
 Cut Line





Removal

- 2 Remove the original component (continued).
- B Mark cut lines to prepare to cut away the bulk of the original component (continued).





Removal

2 Remove the original component (continued).

C

Cut away the bulk of the original component.



CAUTION: Do not damage the surrounding components, including the B-Pillar Outer.





Removal

- 2 Remove the original component (continued).
- C Cut away the bulk of the original component (continued).





Removal

2 Remove the original component (continued).

D Mark the locations of the factory spot welds shown.

▲ Factory Spot Weld

■ Factory Spot Weld Areas



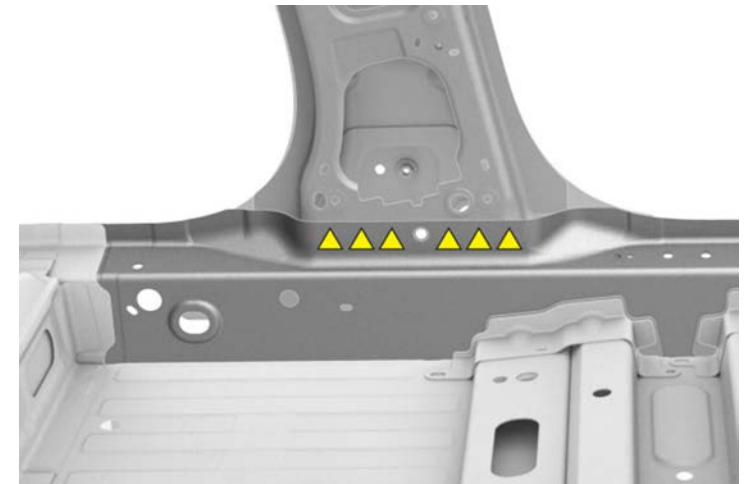
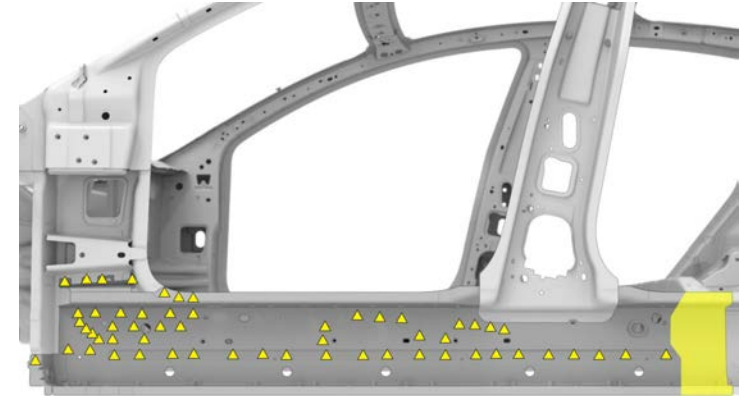
NOTE: The B-Pillar Outer has been removed from the first image for clarity.



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



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).

E

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



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



NOTE: The factory spot welds that attach the Sill Inner bash plates to the floor crossmembers will be drilled out in a [later step](#).

F

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.



NOTE: The Sill Inner bash plates that are attached to the floor crossmembers will be removed in a later step.





Removal

2 Remove the original component (continued).

F 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 Remove the bash plates.

A Use a drill with a spot weld bit to drill out the factory spot welds that attach the bash plates to the floor crossmembers.

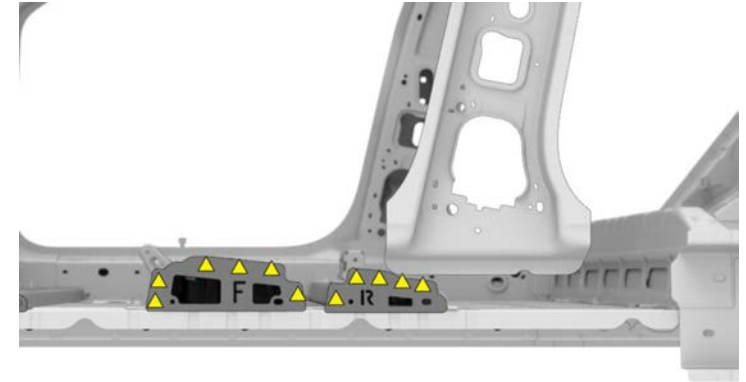
▲ Factory Spot Weld (x11)



NOTE: The B-Pillar Outer has been removed from the first image for clarity.



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





Removal

3 Remove the bash plates (continued).

B Use a hammer and chisel to remove the plates.





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.





Replacement

- 1 Prepare for installation.
 - A Put the new component into position and clamp it into place.





Replacement

- 1 Prepare for installation (continued).
 - B Align and temporarily secure the new component to the frame bench jig points.





Replacement

1 Prepare for installation (continued).

C

Mark the fastener locations.

● High Strength Structural Rivet, 6.5 mm (x10)

● Countersunk Rivet, 4.8 mm Short (x8)



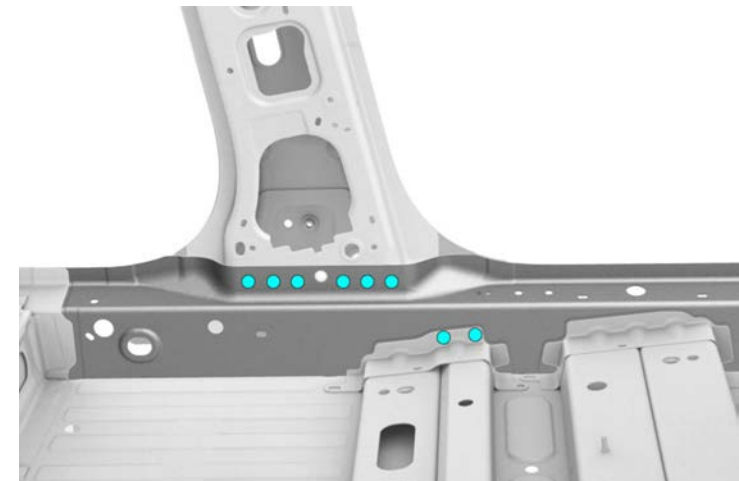
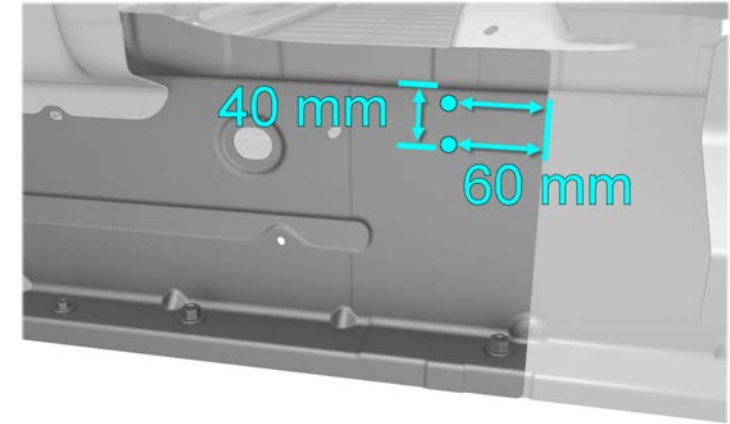
CAUTION: Mark the locations for the holes for the rivets shown in the first image 60 mm (2-3/8 in) in from the rear edge of the Sill Inner to avoid interference with the floor crossmember.



CAUTION: Mark the locations for the holes for the rivets shown in the first image no more than 40 mm (1-9/16 in) down from the upper inside edge of the Sill Inner to avoid interference with the Sill Insert during installation of that component.



NOTE: An additional rivet will be installed after the installation of the Sill Outer (Complete).





Replacement

- 1 Prepare for installation (continued).
- C Mark the fastener locations (continued).





Replacement

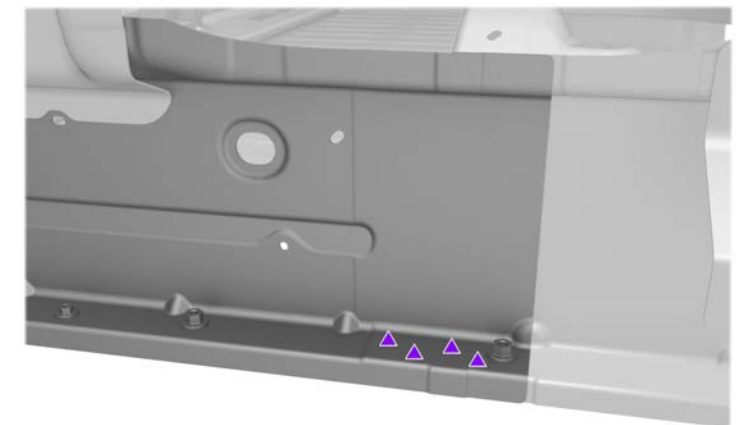
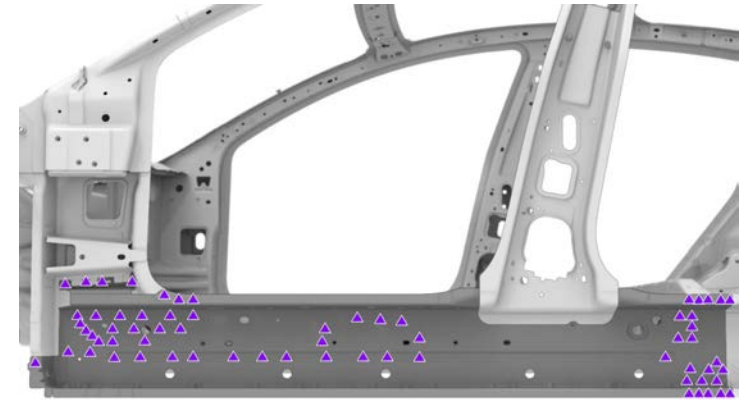
1 Prepare for installation (continued).

D Mark the installation spot weld locations.

▲ Installation Spot Weld



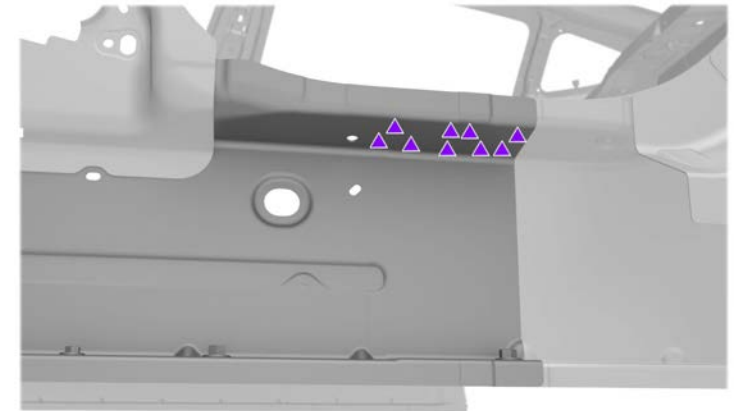
NOTE: The B-Pillar Outer has been removed from the first image for clarity.





Replacement

- 1 Prepare for installation (continued).
- D Mark the installation spot weld locations (continued).



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





Replacement

1 Prepare for installation (continued).

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



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.

G 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.



Replacement

1 Prepare for installation (continued).

H Mark the surface preparation boundary lines on the new component and on the vehicle.



I Remove the new component.






Replacement

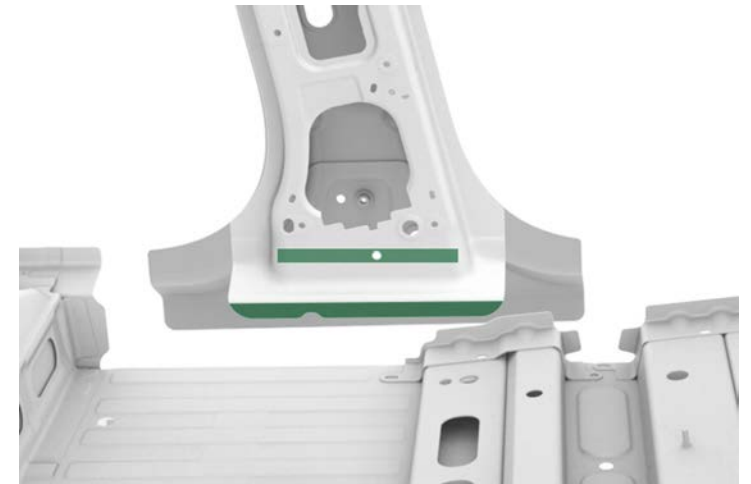
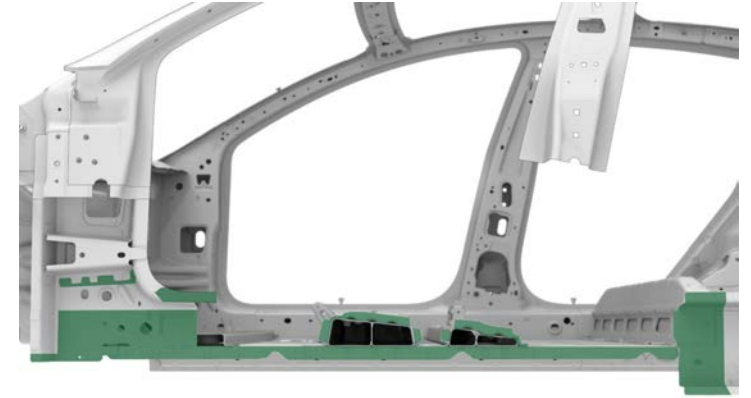
1 Prepare for installation (continued).

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

 Steel-to-Steel Bond Path



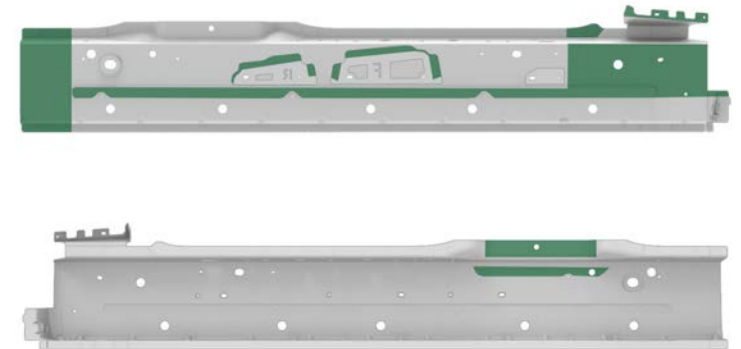
NOTE: The B-Pillar Inner and Outer have been removed from the first image for clarity.





Replacement

- 1 Prepare for installation (continued).
 - J Mark the bond path areas on the new component and the vehicle. These areas will be prepared for bonding in the next step (continued).





Replacement

2 Prepare the surfaces.

A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the new component and on the vehicle in the bond path areas.



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

2 Prepare the surfaces (continued).

C Clean all the bond paths 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.



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.



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 new component.



4 Install the new component.

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



NOTE: Use an assistant to help put the new component into position.





Replacement

4 Install the new component (continued).

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

B Align and temporarily secure the new component to the frame bench jig points.





Replacement

4 Install the new component (continued).

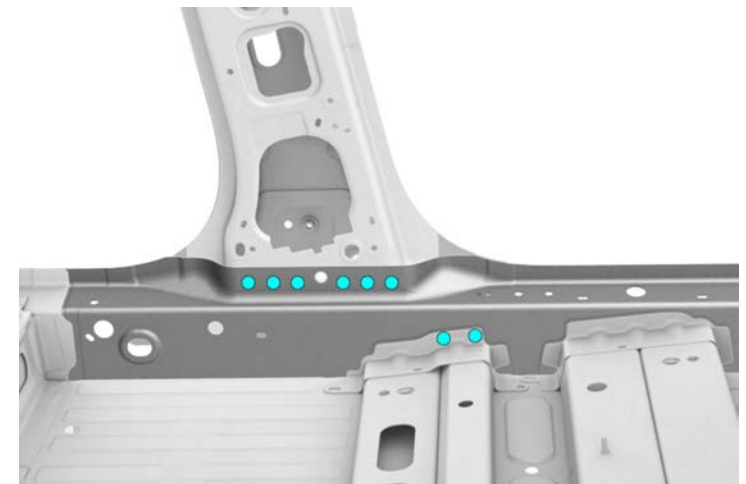
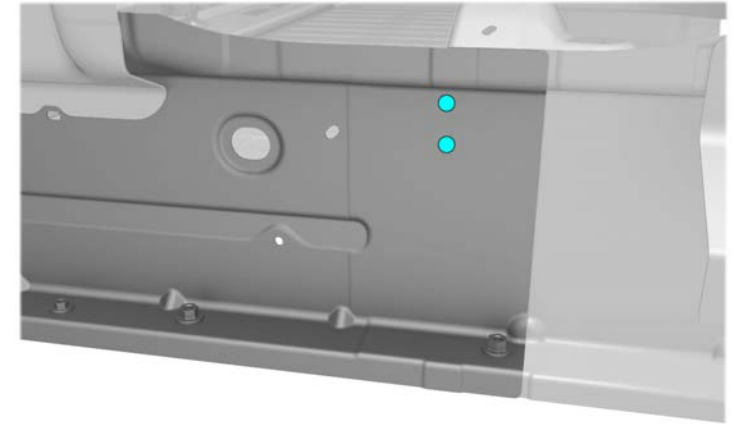
C Insert the structural rivets and the structural countersunk rivets.

● High Strength Structural Rivet, 6.5 mm (x10)

● Countersunk Rivet, 4.8 mm Short (x8)



NOTE: Insert the rivets shown in the second and third image from the inboard side of the vehicle.





Replacement

- 4 Install the new component (continued).
- C Insert the structural rivets and the structural countersunk rivets (continued).



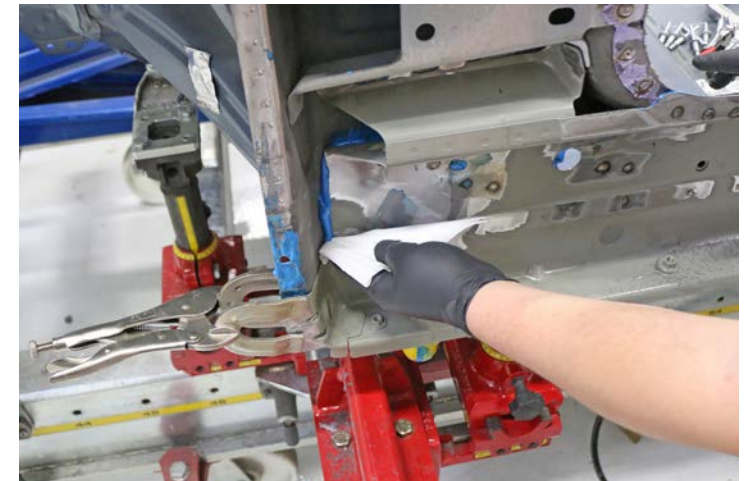


Replacement

- 4 Install the new component (continued).
- D Install the structural rivets and the structural countersunk rivets.



- E Wipe off any excess adhesive.





Replacement

4 Install the new component (continued).

F

Perform resistance spot welding.

▲ Installation Spot Weld



NOTE: The B-Pillar Outer has been removed from the first image for clarity.



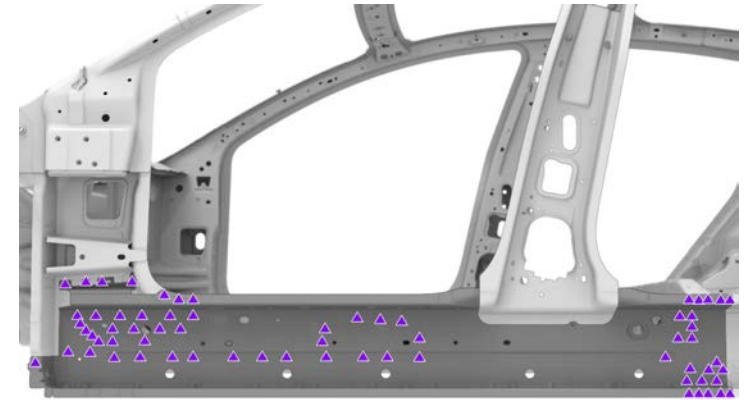
WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla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



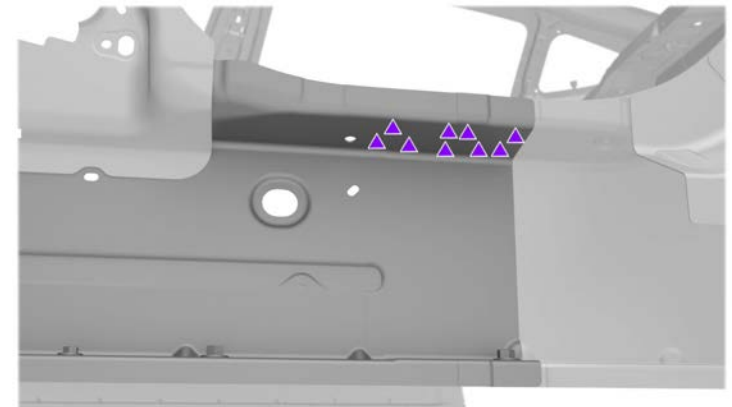
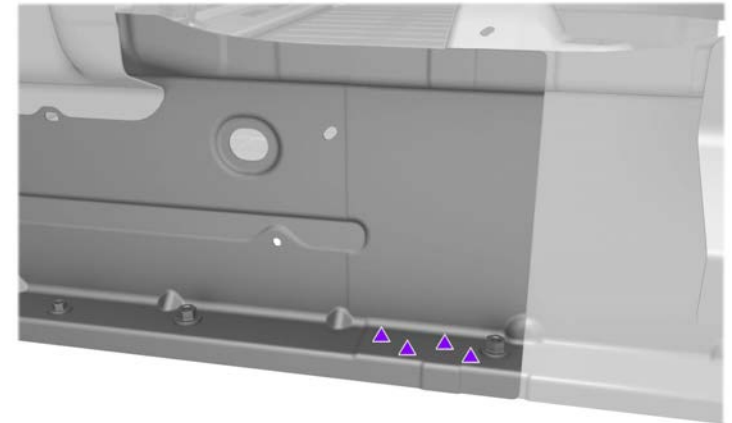
CAUTION: Use only insulated clamps within 200 mm (8 in) of resistance spot weld locations. Do not perform resistance spot welding when there is an uninsulated clamp within 200 mm (8 in) of the spot weld location.





Replacement

- 4 Install the new component (continued).
- F Perform resistance spot welding (continued).



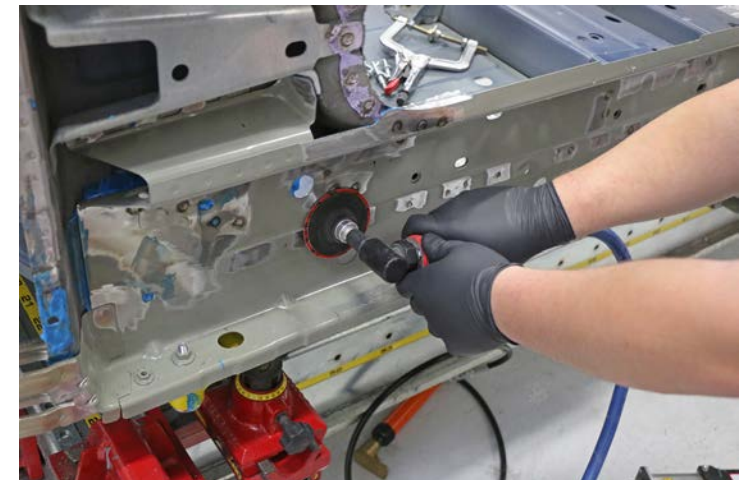


Replacement

- 4 Install the new component (continued).
- F Perform resistance spot welding (continued).



- G Remove any discoloration from the weld areas.

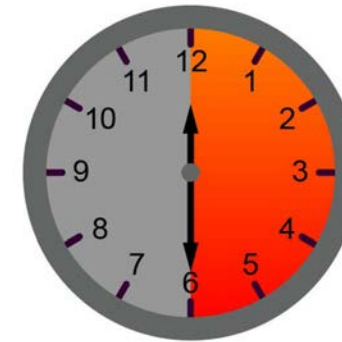




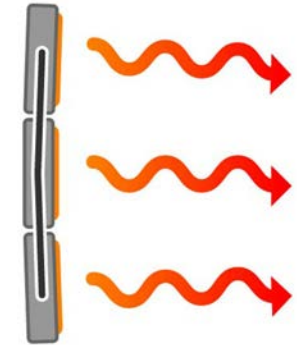
Replacement

4 Install the new component (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.



00:30:00+



60°C-80°C

5 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 epoxy primer.



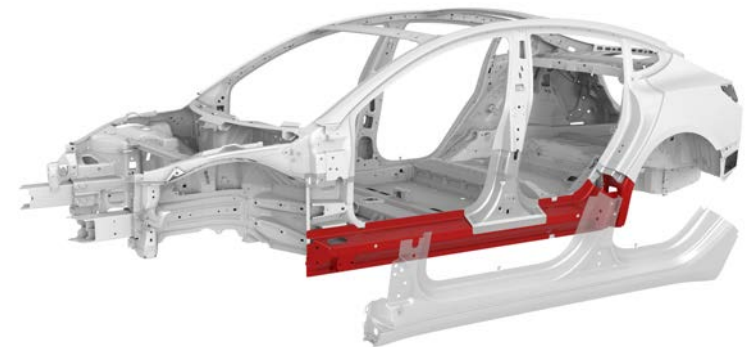
Replacement

6

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

7

Install the new [Sill Outer \(Complete\)](#).





Replacement

8 Install the remaining structural rivet.

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

● High Strength Structural Rivet, 6.5 mm (x1)

B Install the structural rivet.

