



Sill Inner (Front Section)





Parts List

Quantity	Part Number	Description	Image / Notes
1	1073839-S0-A (LH) 1073840-S0-A (RH)	Side Sill, Inner	
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 tool listed below is 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.



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

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.



Prerequisites

3

Remove the [Sill Insert \(Front Section\)](#) or the [Sill Outer \(Complete\)](#).





Removal

1 Remove the original component.

A Mark a cut line 540 mm (21-1/4 in) from the forward edge of the B-Pillar Outer and then cut the component on the cut line.

 Cut Line

 Reference Line/Point



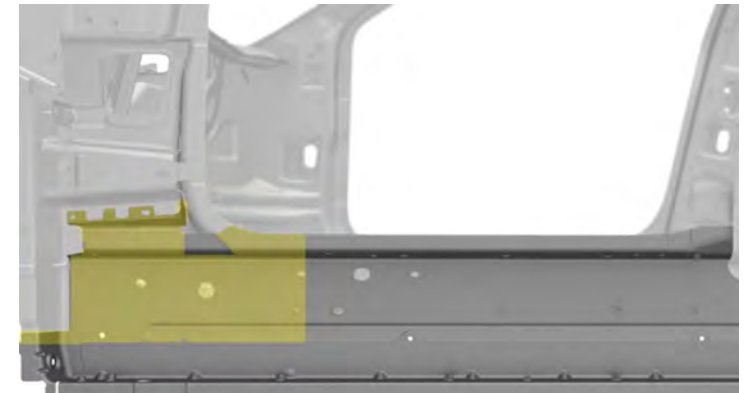
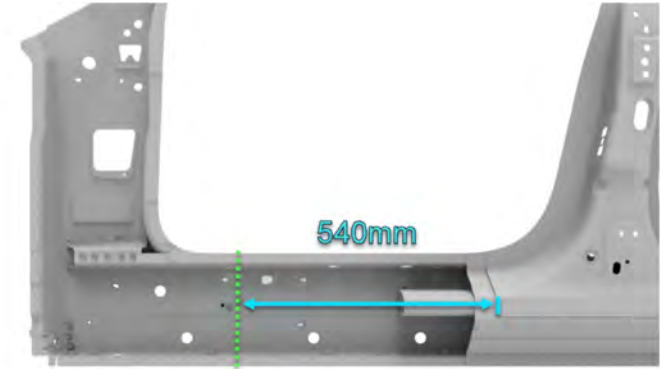
NOTE: The Body Side Outer panel has been removed from this image for clarity.



CAUTION: Do not damage the surrounding components.

B Use a drill with a spot weld bit to drill out the factory spot welds in the area shown. Use a belt sander for any factory spot welds that cannot be accessed with a drill.

 Factory Spot Weld Areas





Removal

1 Remove the original component (continued).

C Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the front section of the original Sill Inner.



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: Save the original front section to use as a template in a [later step](#).

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 Use the original front section of the Sill Inner as a template to cut the new Sill Inner.



NOTE: The original front section was removed in an [earlier step](#).



TIP: When cutting the new component, leave 2-3 mm of extra material for trimming during fitment.

B Put the new section into position and clamp it into place. Align and temporarily secure the new section to the frame bench jig points.



NOTE: If necessary, trim the new section to achieve suitable gaps.

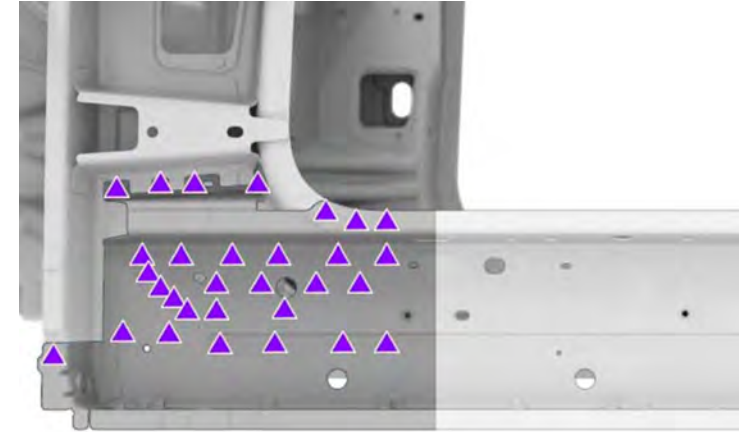


Replacement

1 Prepare for installation (continued).

C Mark the installation weld locations on the new section and the vehicle.

▲ Installation Spot Weld



D Mark boundary lines of all mating surfaces between the new components and the vehicle for surface preparation, then remove the new component from the vehicle.



Replacement

2 Prepare the surfaces.

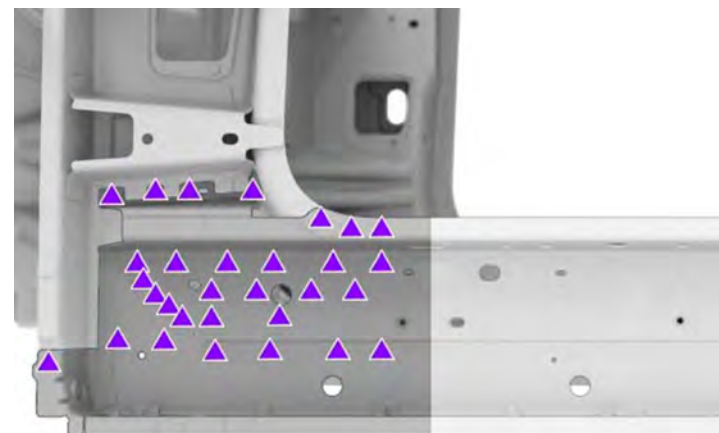
A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the mating surfaces of the new component and the vehicle.

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



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 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.

3 Apply structural adhesive.

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



CAUTION: If any bare metal mating surfaces have been exposed for two hours or longer, abrade the mating surfaces again to remove oxidation, then clean the mating surfaces 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

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 Sill Inner section

A

Put the new Sill Inner section into position and clamp it in place. Align and temporarily secure the new section to the frame bench jig points.



Replacement

4 Install the new Sill Inner section (continued).

B Wipe off any excess adhesive.

C Perform resistance spot welding.

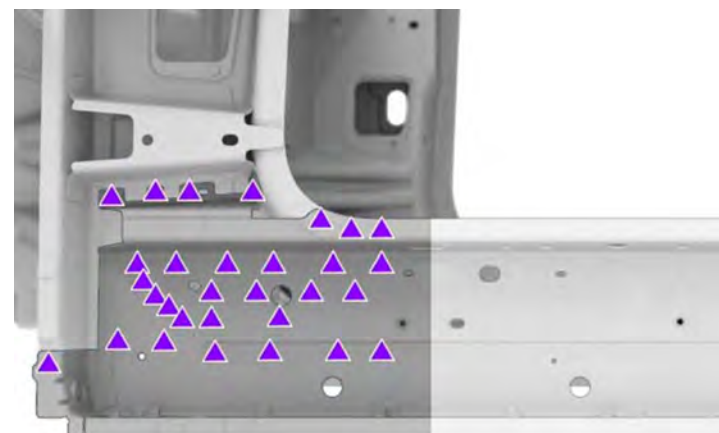
▲ Installation Spot Weld



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

5 Create reinforcement plates for the Sill Inner butt joint.

A

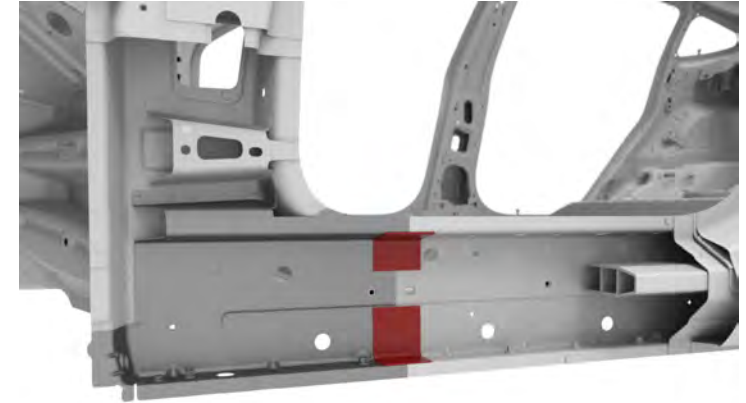
Cut an 80 mm (3-5/32 in) section from the remaining pieces of the new Sill Inner Assembly to create reinforcement plates like the ones shown in red.



CAUTION: Make sure that the reinforcement plates will not interfere with the Sill Insert installation.



NOTE: Use a section where the profile matches the profile at the Sill Inner butt joint.



B

Put the reinforcement plates into position centered on the butt joint, and clamp them in place.



NOTE: If necessary, trim the reinforcement plates so they do not interfere with the installation of the Sill Insert and Sill Outer assemblies.



Replacement

5

Create reinforcement plates for the Sill Inner butt joint (continued).

C

Mark boundary lines of all mating surfaces between the reinforcement plates and the vehicle for surface preparation, then remove the reinforcement plates from the vehicle.

D

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



Replacement

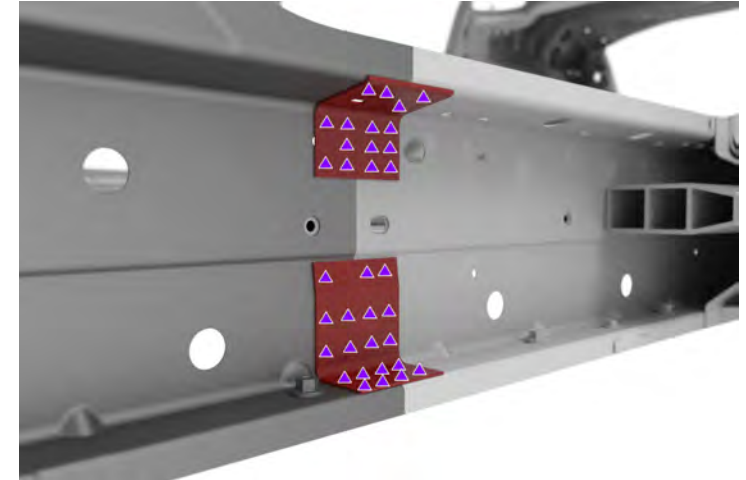
6 Prepare the surfaces to install the reinforcement plates.

A Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat from the reinforcement plates and from the vehicle in the spot weld areas.

▲ Installation Spot Weld (x34)



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



B Clean all the bond paths on the reinforcement plates and on the Sill Inner.



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

7 Apply structural adhesive to install the reinforcement plates.

A

Spread a thin coating of structural adhesive as a primer layer on the bond paths on the reinforcement plates and the vehicle.



CAUTION: If any bare metal mating surfaces have been exposed for two hours or longer, abrade the mating surfaces again to remove oxidation, then clean the mating surfaces 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.



NOTE: Make sure to apply adhesive into the Sill Inner butt joint.



Replacement

8

Install the reinforcement plates.

A

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

B

Wipe off any excess adhesive.



Replacement

8 Install the reinforcement plates (continued).

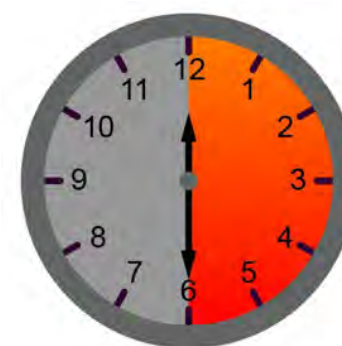
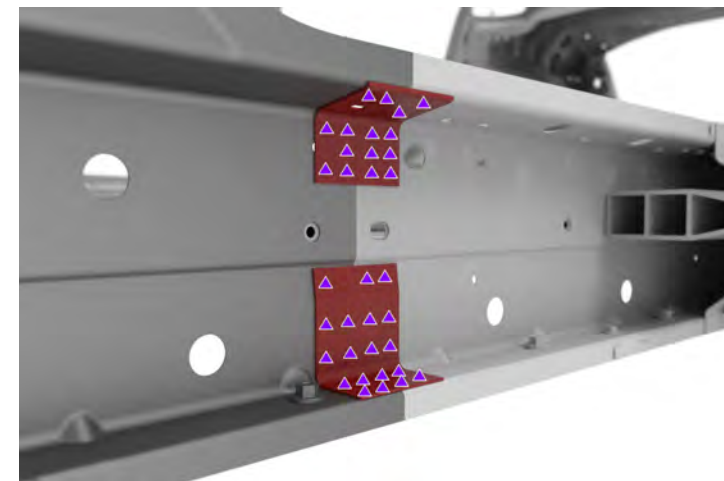
C Perform resistance spot welding.

▲ Installation Spot Weld (x34)

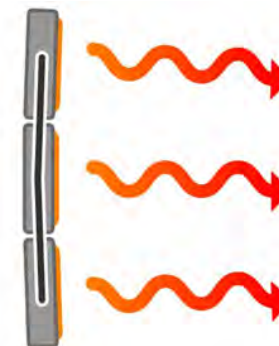


WARNING: Failure to follow all welding safety precautions, including the use of personal protective equipment, could result in serious injury or property damage. Only technicians who have successfully met Tesla's requirements for welding training are authorized to weld structural components on Tesla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

D 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



Replacement

9

Install the new [Sill Insert \(Front Section\)](#) or the [Sill Outer \(Complete\)](#).

