



Shotgun Shear Wall





Parts List

Quantity	Part Number	Description	Image / Notes
1	1103456-SO-A (LH) 1103457-SO-A (RH)	Shotgun Shear Wall	
16 rivets needed; order 20 rivets	1062559-00-A	● Structural Rivet, 6.5 mm Medium	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.

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. The photos show a repair where the Shotgun Inner has been removed, but this procedure can be performed with the Shotgun Inner in place.	 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 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.





Prerequisites

2

Remove the [Shotgun Tower](#).



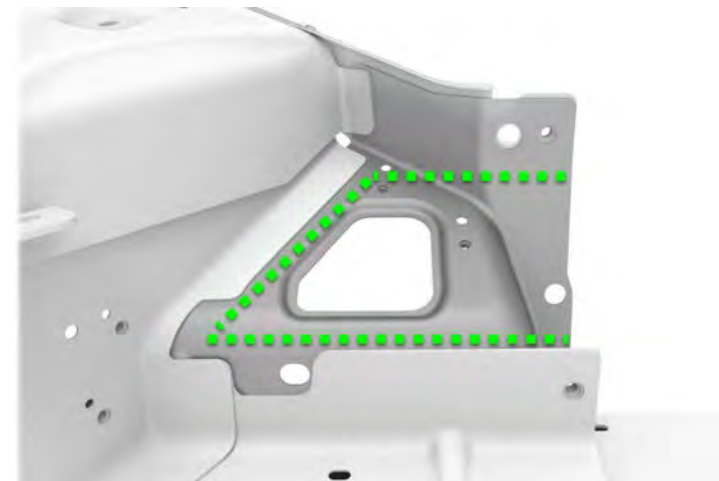


Removal

1 Remove the original component.

A Cut away the bulk of the original component.

■ ■ ■ ■ Cut Line



B Use a drill with a 6.7 mm (17/64 in) bit to drill completely through the factory spot welds shown.

▲ Factory Spot Weld (x2)



NOTE: Structural bulb rivets will be installed in these locations in a later step.



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





Removal

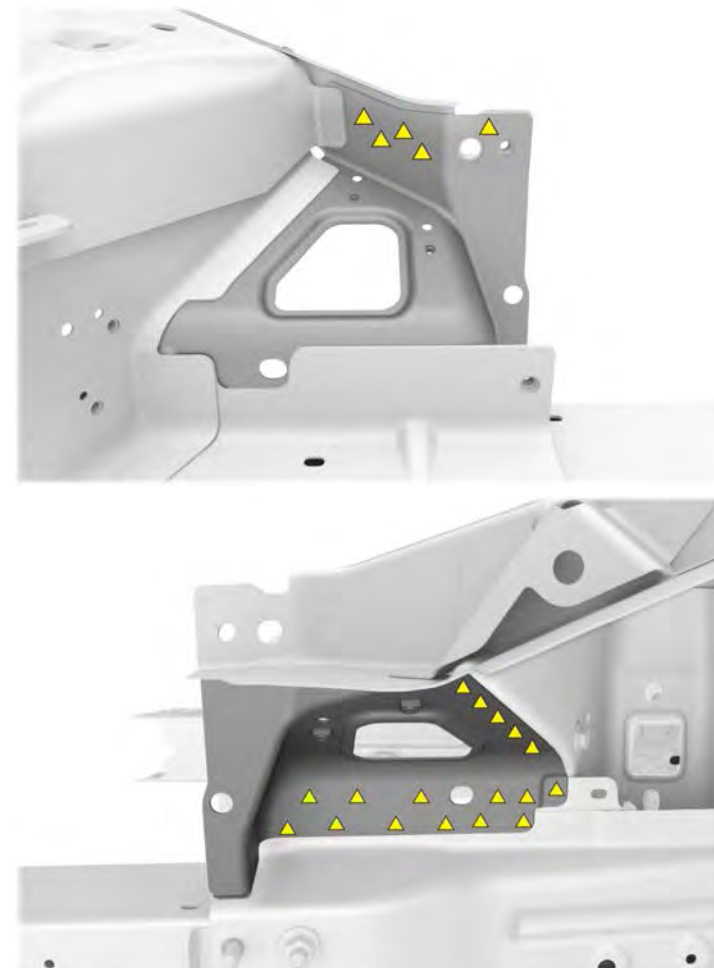
1 Remove the original component (continued).

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

▲ Factory Spot Weld



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).
- C Use a drill with a spot weld bit to drill out the remaining factory spot welds (continued).





Removal

1 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.



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.





Replacement

1 Prepare for installation.

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

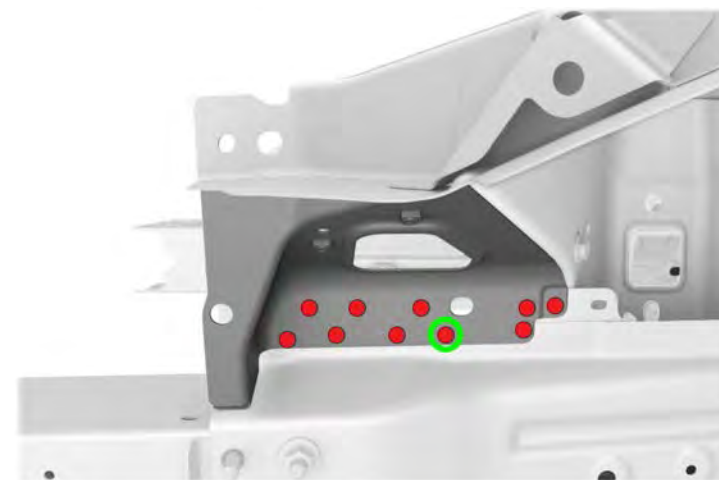


B Mark the locations for structural rivets.

● Structural Rivet, 6.5 mm Medium (x16)



NOTE: Make sure to mark the rivet location circled in green so that it does not interfere with the installation of the Shotgun Tower.

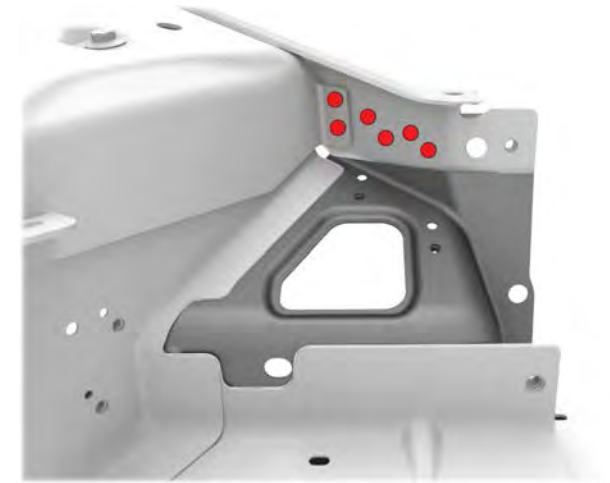




Replacement

1 Prepare for installation (continued).

B Mark the locations for structural rivets (continued).



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



Replacement

1 Prepare for installation (continued).

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

E Remove the new component.





Replacement

1 Prepare for installation (continued).

F 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

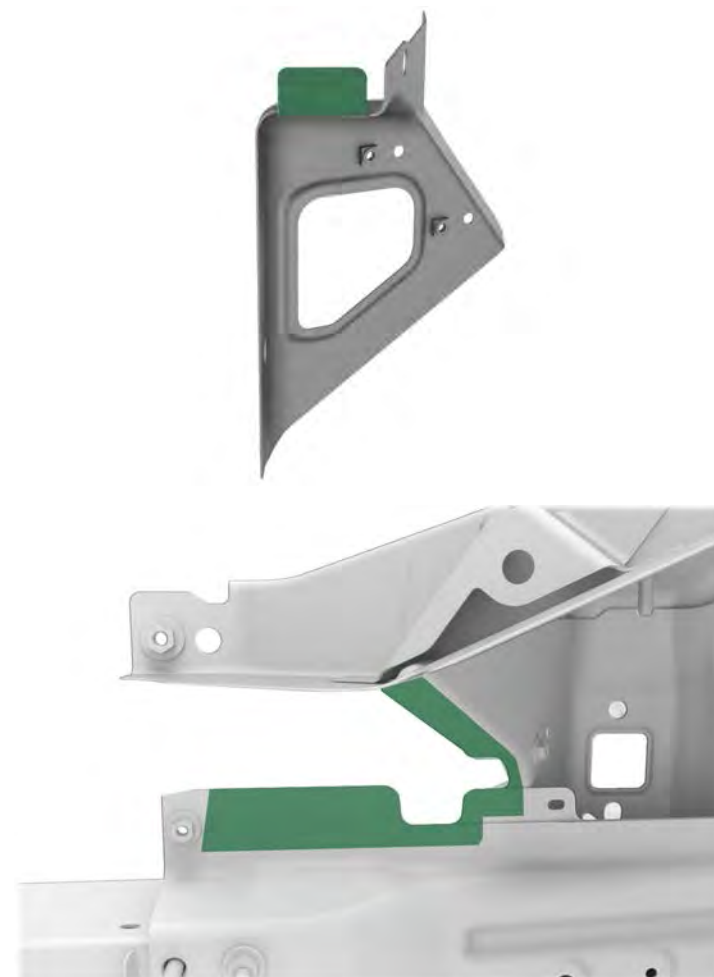




Replacement

1 Prepare for installation (continued).

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

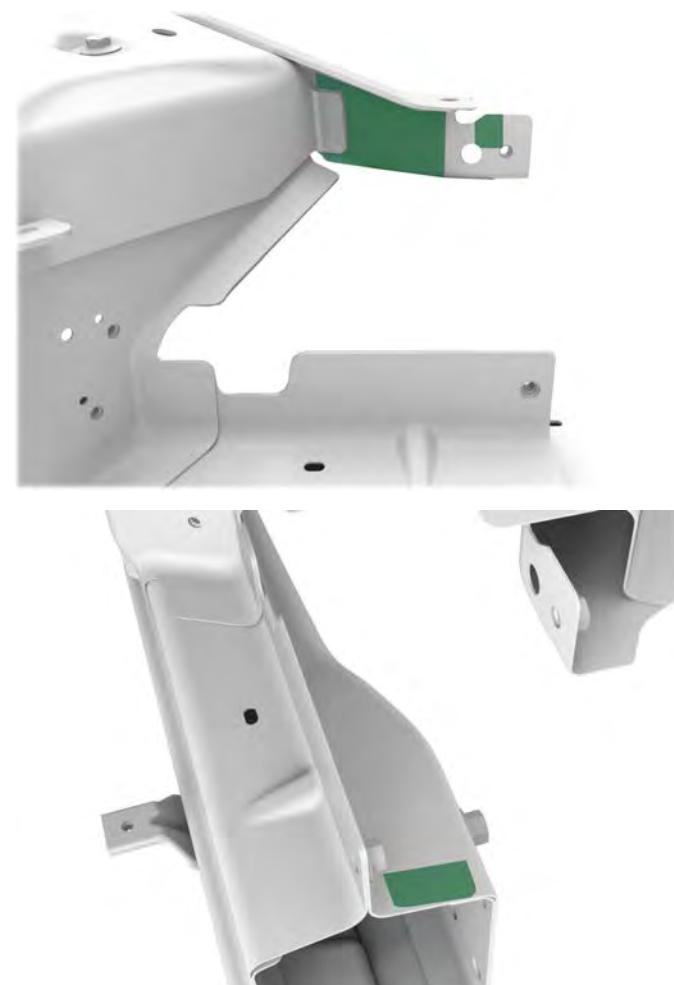




Replacement

1 Prepare for installation (continued).

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





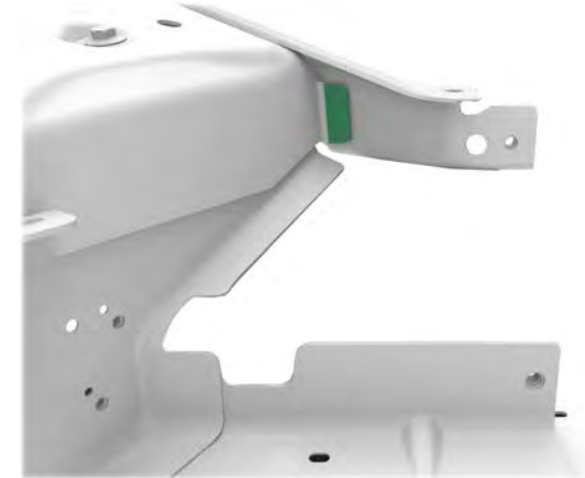
Replacement

2 Prepare the surfaces.

A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the inside surfaces of the Shotgun Inner and the Front Shock Tower in the bond path area.

 Steel-to-Steel Bond Path

B 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.

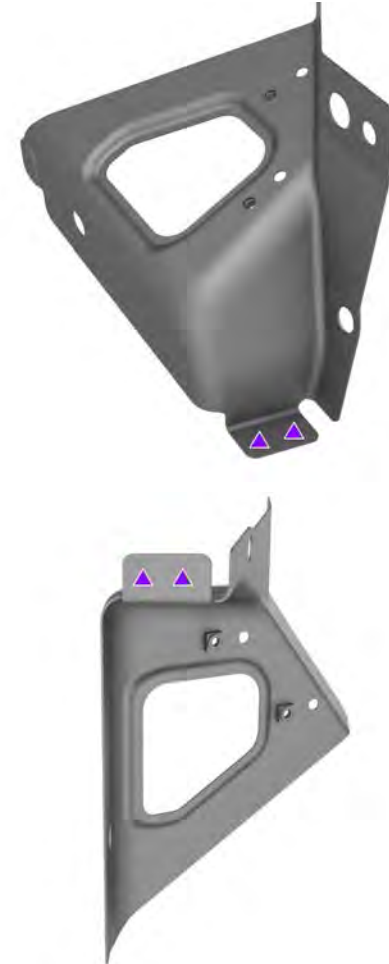




Replacement

2 Prepare the surfaces (continued).

C Mark the locations for resistance spot welds.
▲ Installation Spot Weld (x2)





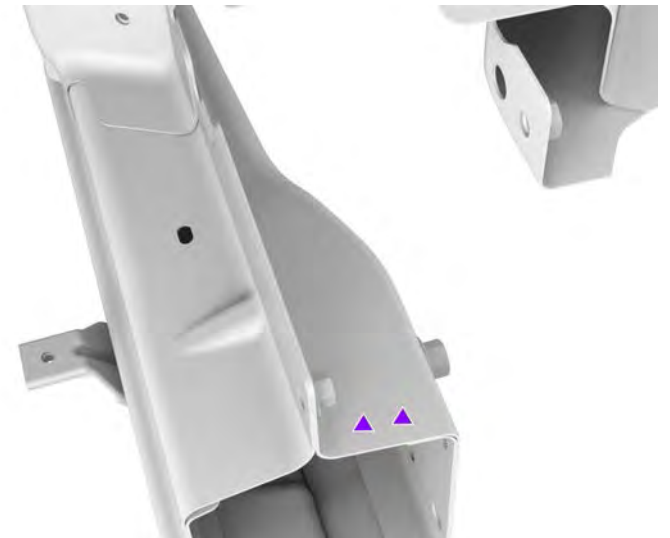
Replacement

2

Prepare the surfaces (continued).

C

Mark the locations for resistance spot welds (continued).



D

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.



Replacement

2 Prepare the surfaces (continued).

E Clean all the bond paths and 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.

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

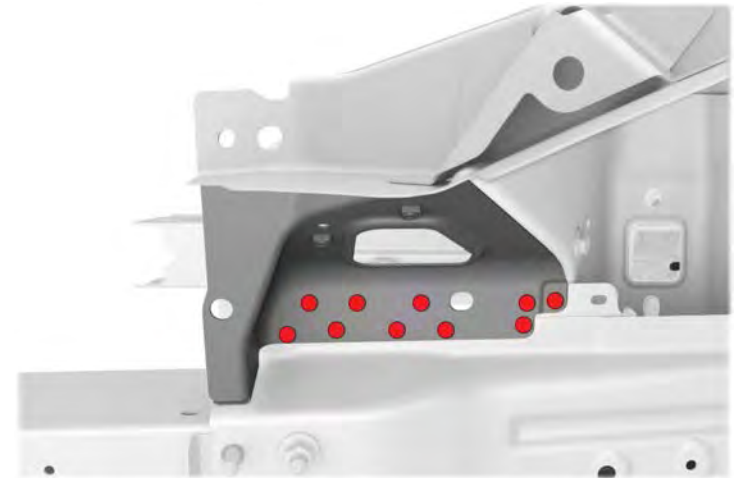
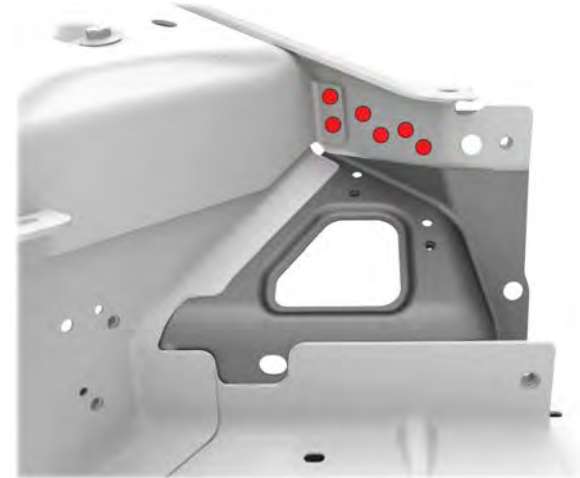
- 3 Apply structural adhesive (continued).
 - B While the primer layer is still wet, apply a bead of structural adhesive on top of the primer layer on the new component.
- 4 Install the new component.
 - A Put the new component into position and clamp it into place.





Replacement

- 4 Install the new component (continued).
- B Insert the structural rivets, and then install them.
 - Structural Rivet, 6.5 mm Medium (x16)





Replacement

4 Install the new component (continued).

C Perform resistance spot welding.
▲ Installation Spot Weld (x2)



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.

D Prime any bare metal with a suitable corrosion-resistant epoxy primer.





Replacement

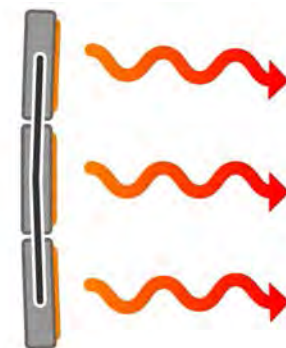
4 Install the new component (continued).

E Clamp the areas that are not secured with fasteners.

F 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

5

Remove the clamps.

6

Install the new [Shotgun Tower](#).

