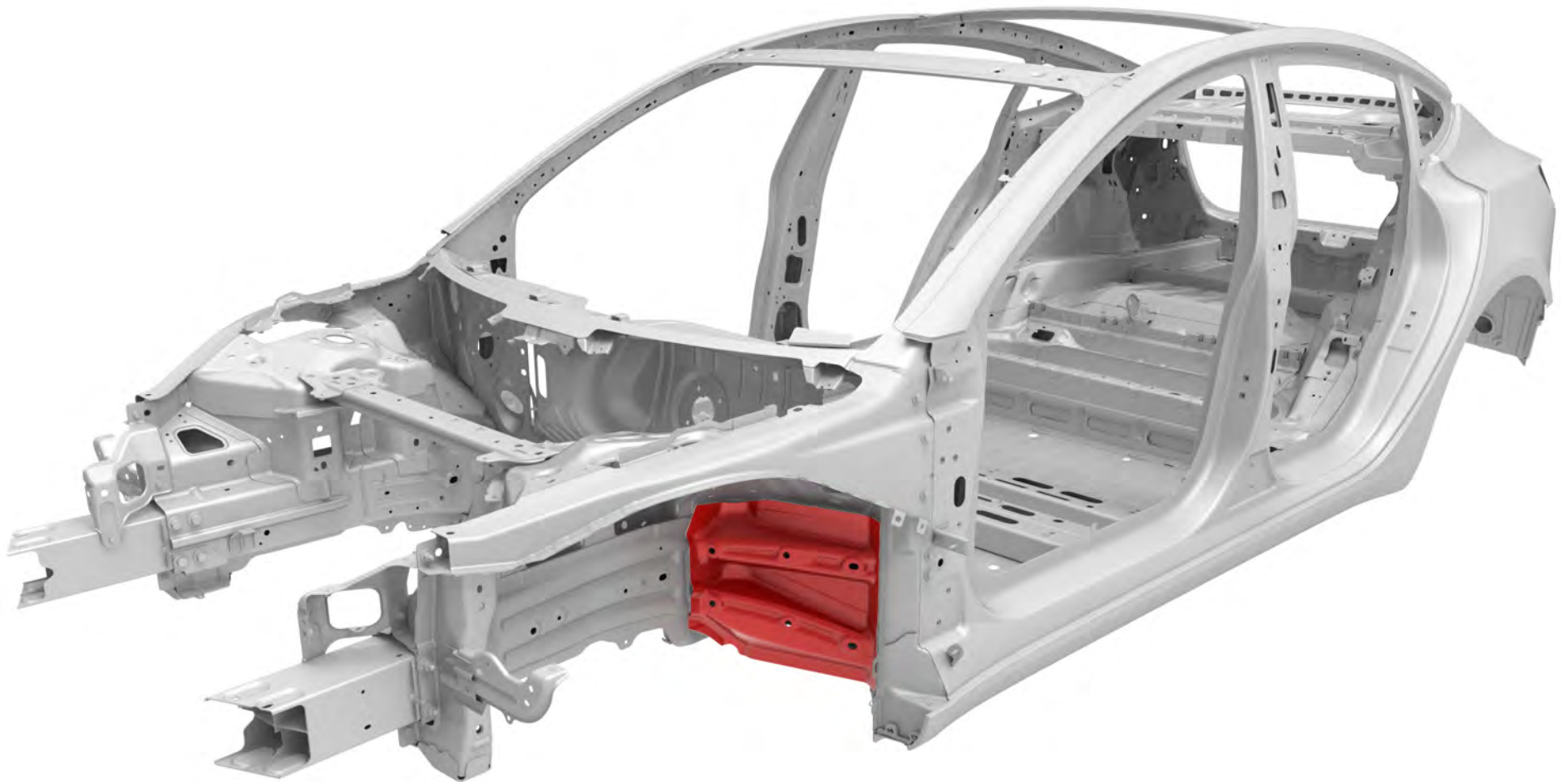




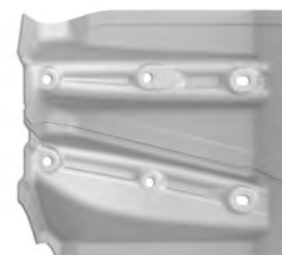
## Torque Box Cover Assembly



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## Parts List

| Quantity                             | Part Number                            | Description                                                                                                                 | Image / Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                    | 1075945-S0-A (LH)<br>1075946-S0-A (RH) | Torque Box Cover Assembly                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                     |
| 58 rivets needed;<br>order 60 rivets | 1454538-00-A                           |  High Strength Structural Rivet,<br>6.5 mm | All rivets come in packages of 10; order all rivets<br>in multiples of 10.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1                                    | —                                      | Structural Adhesive                                                                                                         |  <b>WARNING:</b> Use only Tesla-approved<br>structural adhesive; refer to <a href="#">BR-15-92-008</a> ,<br>"Approved Structural Adhesive and<br>Urethane Sealants" for a list of current<br>approved structural adhesives.<br><br>Refer to <a href="#">BR-17-92-002</a> , "Obtaining Adhesives,<br>Coolant, and Other Chemicals" for information on<br>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. | <p> <b>WARNING:</b> Wear the appropriate personal protective equipment (PPE) when performing this procedure.</p> <p> <b>CAUTION:</b> This procedure involves only steel components. Use the appropriate tools to avoid cross-contamination.</p> | No special tools are required to perform this procedure. |



## Removal

1 Remove the original component.

A Remove any seam sealer as necessary to identify the factory spot welds.



B 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.

▲ Factory Spot Weld (x52)

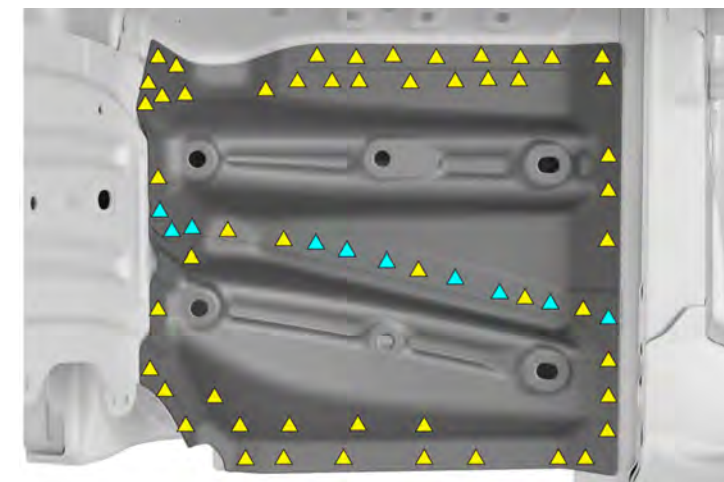
▲ Factory Spot Weld (2 layers) (x10)



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



**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.  
Use a belt sander to sand down any factory spot welds that cannot be reached with a drill (continued).



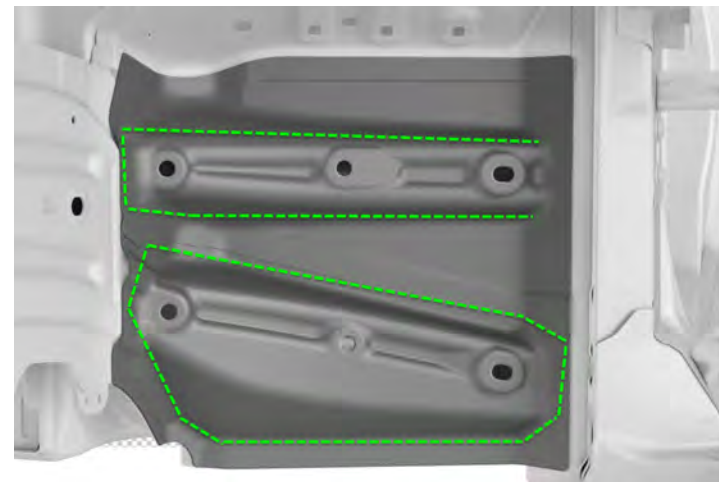


## Removal

1 Remove the original component (continued).

C Cut the component on the green dashed lines shown.

— — — — — Cut Line





## Removal

1 Remove the original component (continued).

D Use a hammer and chisel to remove the bulk of the original Front Torque Box Cover Assembly.





## Removal

- 1 Remove the original component (continued).
- E Use a hammer and chisel to remove the remaining pieces of the original Front Torque Box Cover Assembly.





## Removal

1 Remove the original component (continued).

F Use a wire wheel to remove the foam in the Front Torque Box Cover area.





## 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.



**CAUTION:** Within two hours of removing the e-coat or paint, cover the abraded aluminum areas in the mating surface with a thin primer layer of structural adhesive. If the abraded aluminum areas are not primed within two hours, they must be abraded again to remove any oxidation.



## Replacement

1

Prepare for installation.

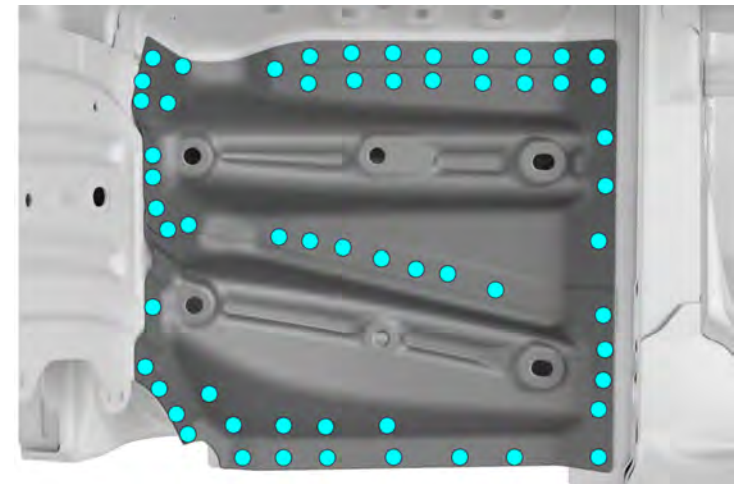
A

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

B

Mark the fastener locations on the new component.

● High Strength Structural Rivet, 6.5 mm (x58)





## Replacement

1 Prepare for installation (continued).

C Drill 6.7 mm holes for structural rivets.



**NOTE:** Install a grip screw after drilling each hole to keep the panel aligned while drilling the remaining holes.

D Mark the surface preparation boundary lines on the vehicle.





## Replacement

1 Prepare for installation (continued).

E Remove the new component.

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

 Steel-to-Steel Mating Surface





## 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 Clean all the mating surfaces 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

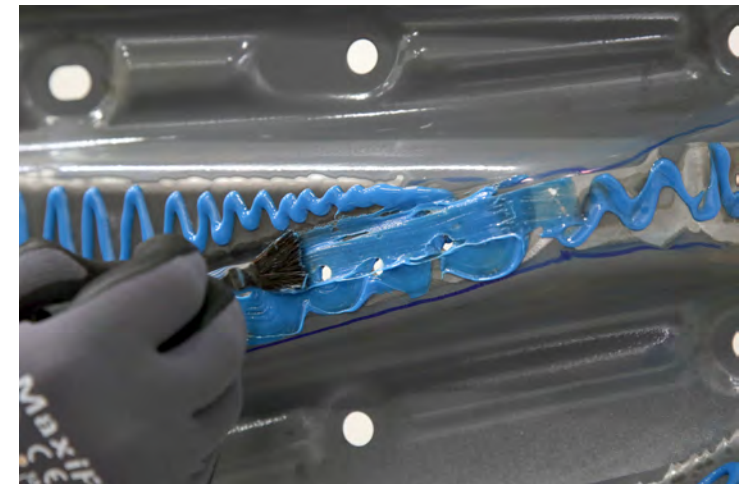
Spread a thin coating of structural adhesive as a primer layer on the mating surfaces of the vehicle and the new component.



**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).

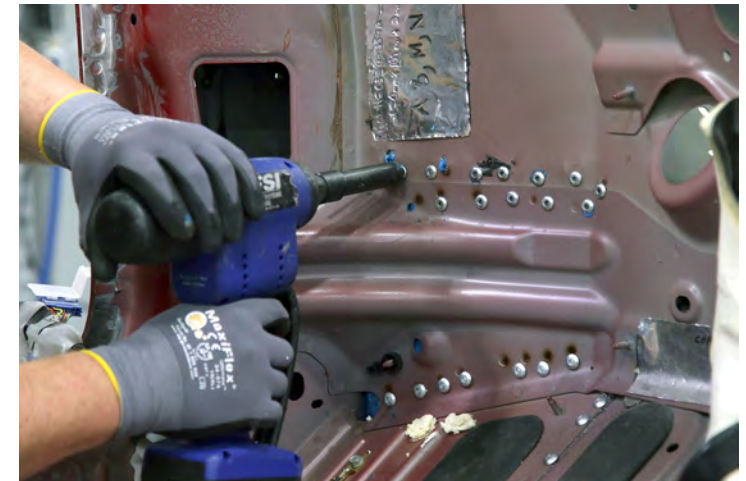
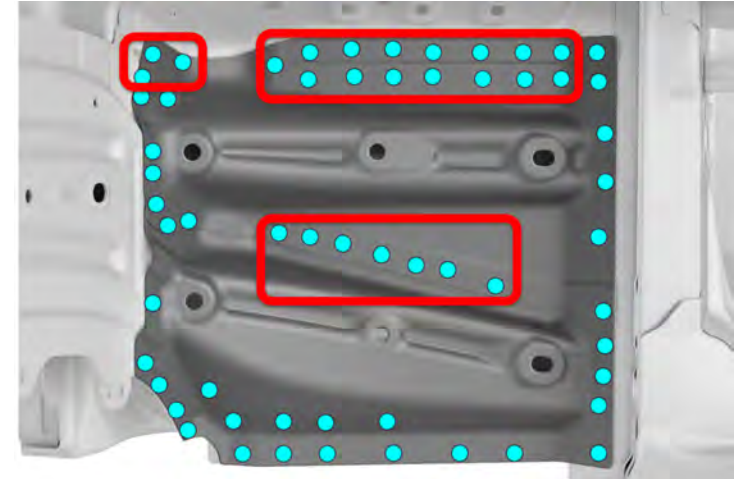
B Insert the structural rivets.

● High Strength Structural Rivet, 6.5 mm (x58)



**NOTE:** Install the rivets circled in red from inside of the vehicle.

C Install the structural rivets.





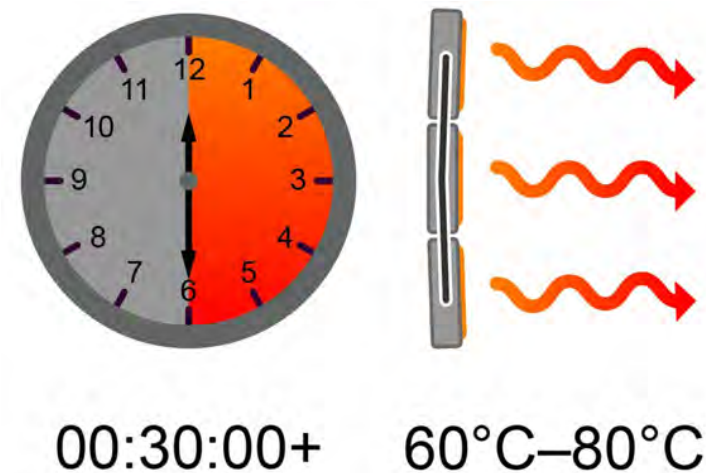
## Replacement

4 Install the new component (continued).

D Wipe off any excess adhesive.



E 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.





## Replacement

5

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



6

After refinishing, use a 360-degree spray wand of suitable length to apply corrosion-proofing material on the inside of the enclosed area to prevent corrosion.





## Replacement

7

Reinstall any expanding foam that was removed during the repair.