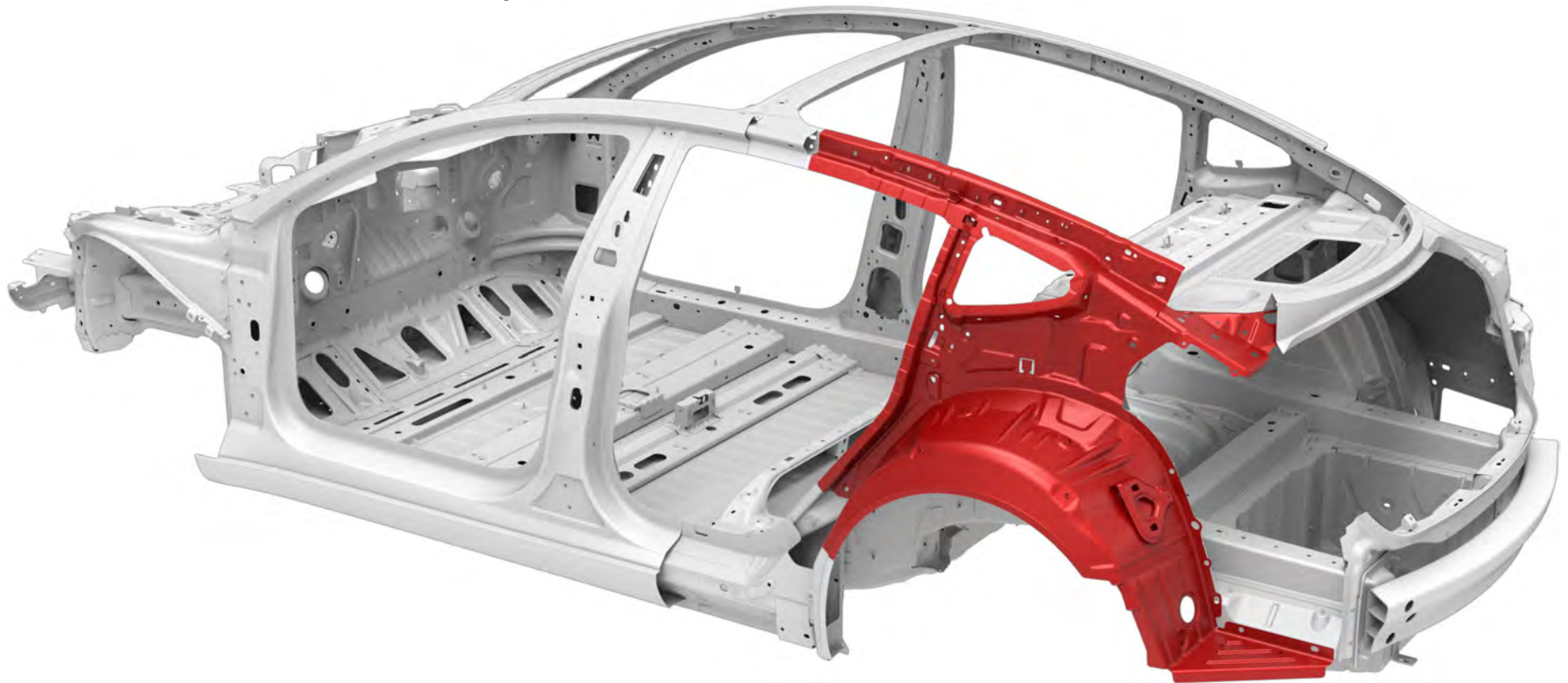


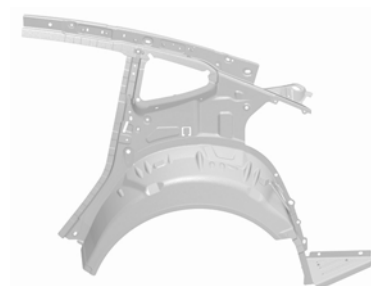


Rear Quarter Inner Assembly





Parts List

Quantity	Part Number	Description	Image / Notes
1	1082597-S0-A (LH) 1082598-S0-A (RH)	M3 Asy, Rear Quarter Inner Assembly	 The Rear Bodyside Inner Assembly does not come with a Rear Wheelhouse Reinforcement or Roof Rail Extension Panel. These components will be installed separately at the end of the procedure.
46 rivets needed; order 50 rivets	1063943-00-A	● Structural Bulb Rivet, 6.5 mm	All rivets come in packages of 10; order all rivets in multiples of 10.
3 rivets needed; order 10 rivets	1028719-00-A	● Structural Rivet, 4.8 mm	All rivets come in packages of 10; order all rivets in multiples of 10.
2 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.
3 rivets needed; order 10 rivets	1069329-00-A	★ Flow Form Rivet S18	All rivets come in packages of 10; order all rivets in multiples of 10.
2	1008842-00-A	■ Bolt, Panhead Flange M6 1.00x12 in Aluminum	
2	1016227-00-A	□ Nut, Hex, Flange, M6-1.0x14	



Parts List

Quantity	Part Number	Description	Image / Notes
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	—	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
This procedure is for the left-hand component; the procedure is identical for the right-hand component. Installation fasteners that replace factory spot welds in steel-to-steel panel interfaces are specified in this procedure where an approved squeeze-type resistance spot welder with the base welding accessories might not be able to reach. If your approved welder can access a factory spot weld location where this procedure specifies a fastener, an installation spot weld is recommended in place of the specified fastener.	⚠ WARNING: Wear the appropriate personal protective equipment (PPE) when performing this procedure. ⚠ CAUTION: This procedure involves both steel and aluminum components. Use the appropriate tools at each step to avoid cross-contamination. Refer to BR-17-10-005, "Model 3 Body Structure Materials and Allowed Operations", for more information.	The special tool listed below is required to perform this procedure: • Countersink Drill Tool • Flow form rivet installation tool • Use only approved fastener installation tools for structural repairs. Refer to BR-16-92-001, "Approved Fasteners and Fastener Installation Tools for Structural Repairs" for a list of current approved fastener installation tools. • 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. • Frame bench 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.



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

Left-hand component only: 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 [Rear Wheelhouse Reinforcement](#).



4

Remove the [Roof Rail Extension](#).





Removal

1 Remove the original component.

A Remove the foam dam and save it for re-installation at a later step.

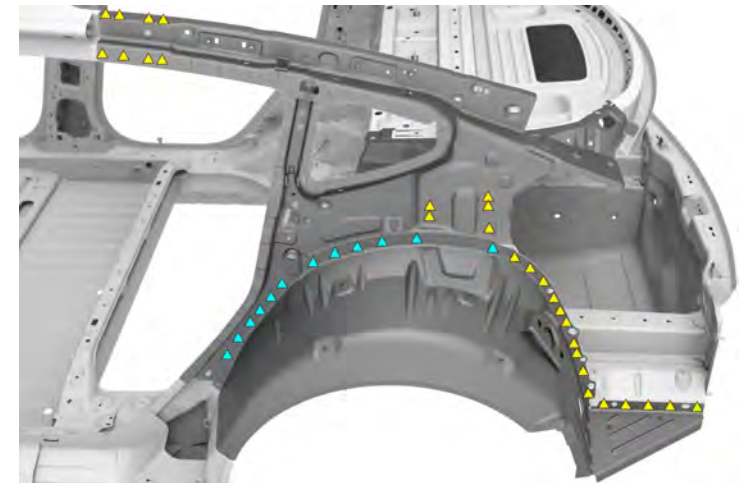
B Use a drill with a spot weld bit to drill out the factory spot welds. Use a belt sander to sand down any factory spot welds that cannot be reached with a drill.

▲ Factory Spot Weld (x30)

▲ Factory Spot Weld (2 layers) (x12)



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

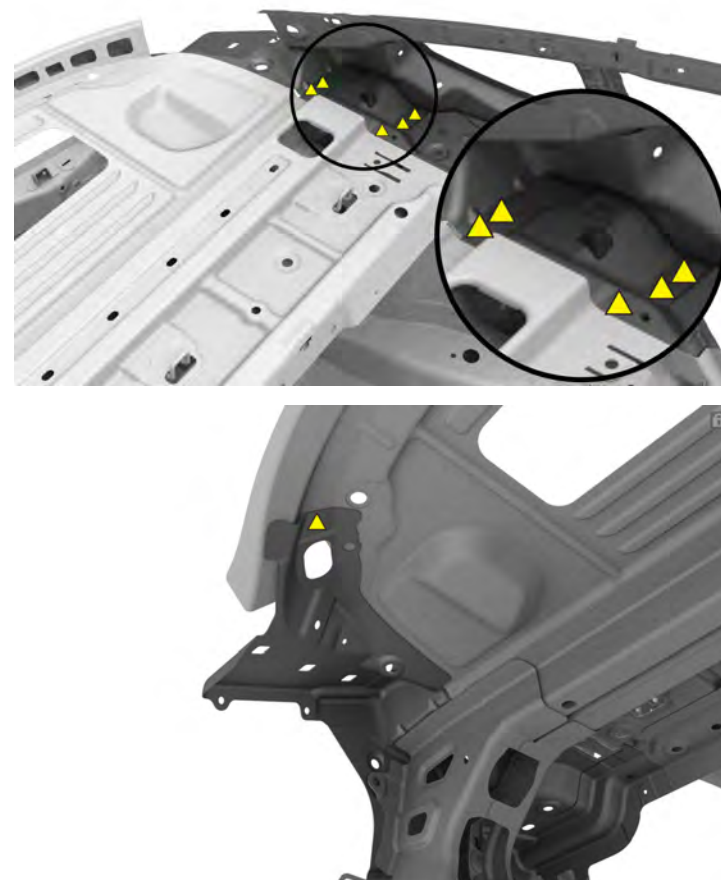




Removal

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 Use a drill with a 6.7 mm bit to drill completely through the spot welds shown.

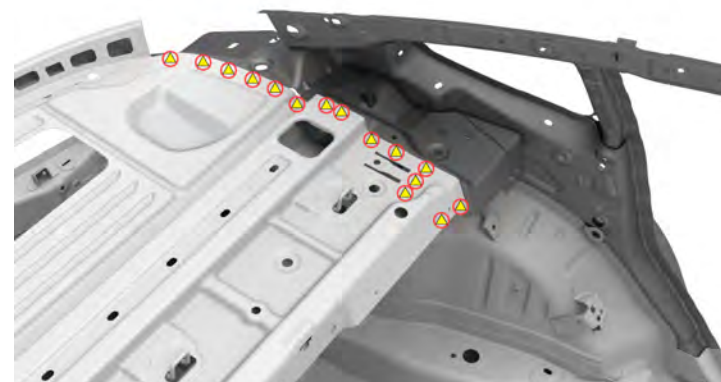
 Drill through factory spot welds (x15)



NOTE: 6.5mm structural bulb rivets and Flow Form Rivets will be installed in these locations in a later step.

D Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.

 Factory SPR(x4)

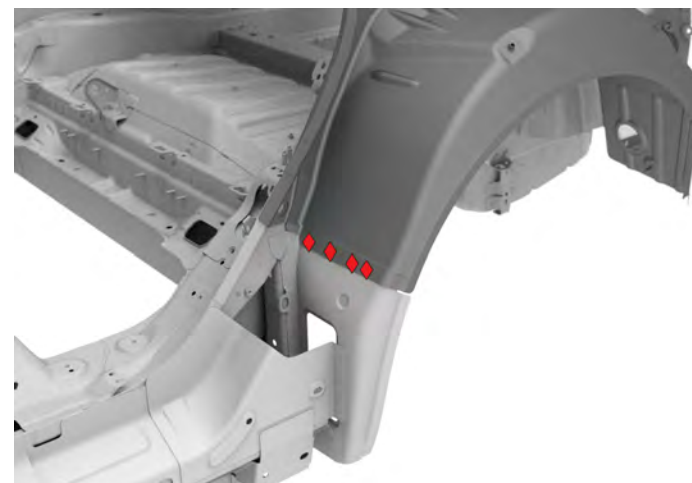




Removal

1 Remove the original component (continued).

D Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill (continued).



E 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 the adhesive joints above 100°C (212°F). Heating the adhesive joints above 100°C (212°F) can weaken the aluminum and compromise vehicle crash integrity.



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

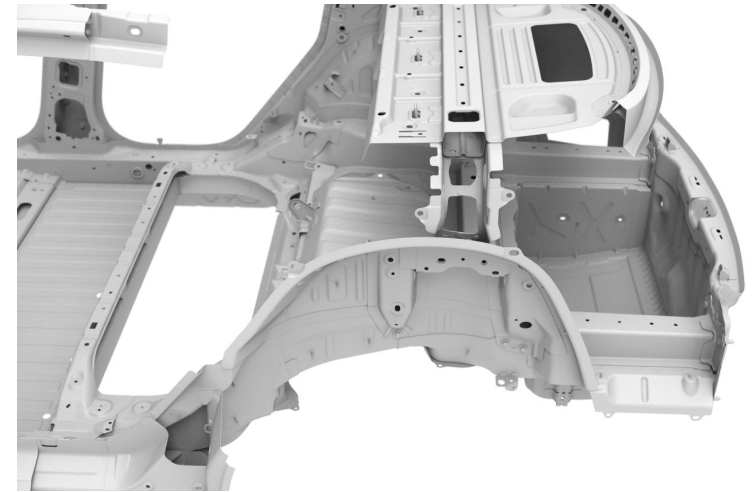
Use a disc sander with a medium-abrasive surface conditioning disc to remove any remaining materials from the mating surfaces. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander. Vacuum any adhesive dust.



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



WARNING: Use only sanding wheels and belts that are 80 grit or finer on aluminum components. Using sanding wheels or belts that are coarser than 80 grit can cause fractures in the aluminum.





Replacement

1 Prepare for installation.

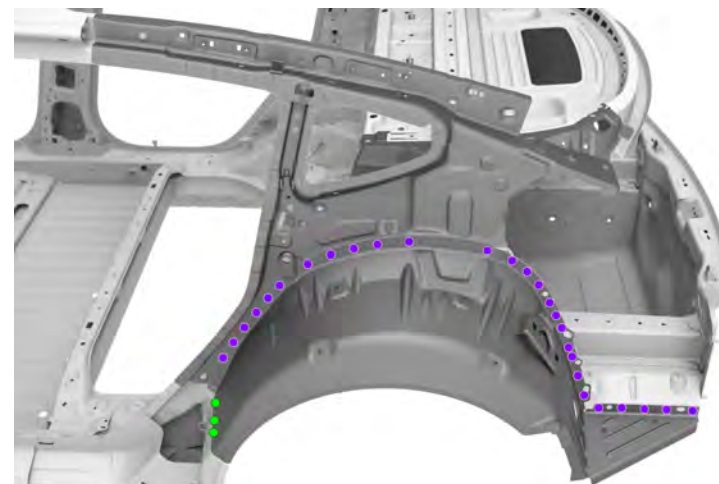
A Put the new component into position and clamp it into place.

B Mark the fastener locations on the new component.

- Structural Bulb Rivet, 6.5 mm (x46)
- Structural Rivet, 4.8 mm (x3)
- Countersunk Rivet, 4.8 mm Short (x2)
- ★ Flow Form Rivet S18 (x3)
- Bolt, Torx-head M6 and Nut (x2)



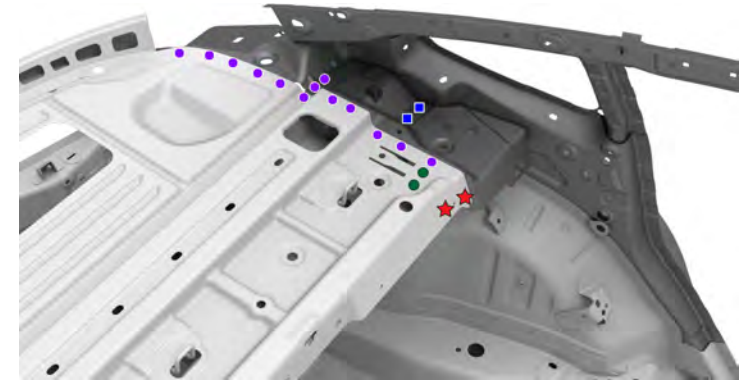
NOTE: Only 3 of the 4 factory SPR locations securing the Rear Wheel Arch and Wheelhouse Extension are being replaced with 4.8 mm rivets at this time. The fourth will be replaced when installing the C-Pillar Reinforcement.





Replacement

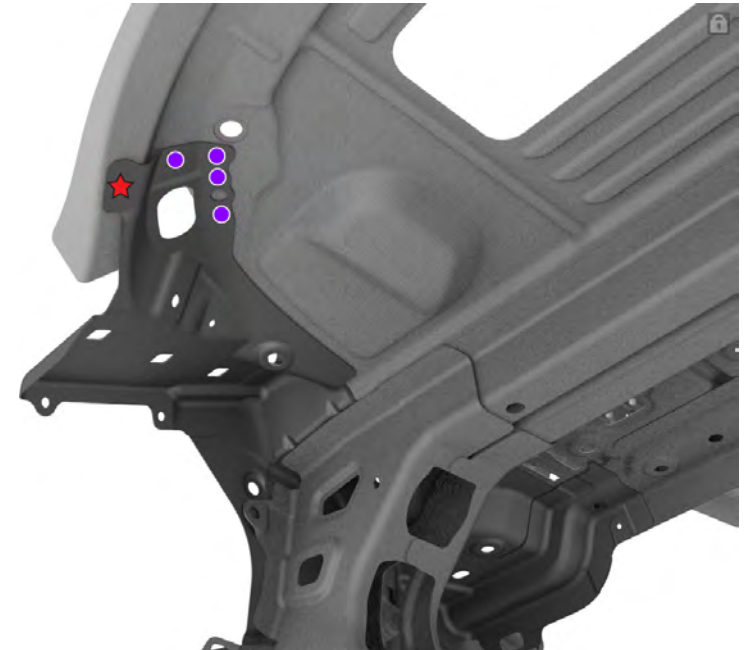
- 1 Prepare for installation (continued).
- B Mark the fastener locations on the new component (continued).





Replacement

- 1 Prepare for installation (continued).
- B Mark the fastener locations on the new component (continued).





Replacement

1 Prepare for installation (continued).

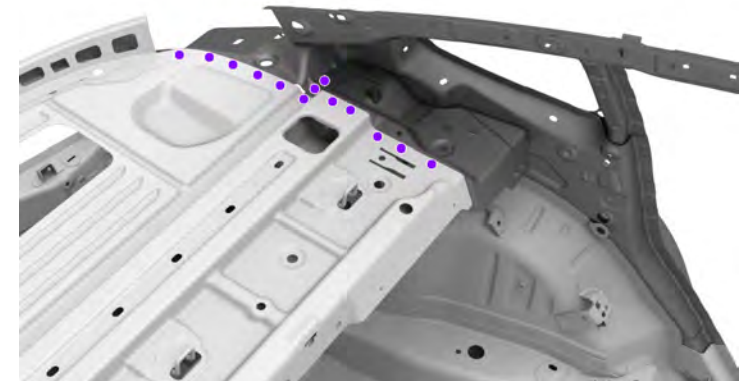
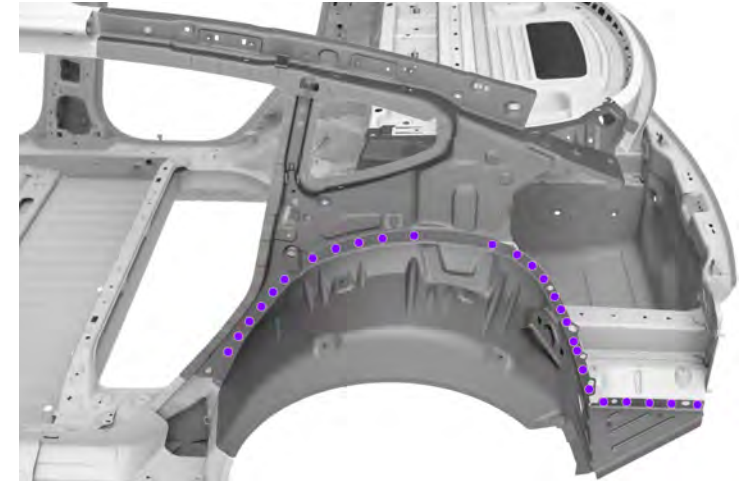
- C Drill 6.7 mm holes for structural bulb rivets.
- Structural Bulb Rivet, 6.5 mm (x44)



NOTE: Drill holes in the new component through any existing holes on the vehicle created during removal.



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).

C Drill 6.7 mm holes for structural bulb rivets (continued).



D Drill 4.8 mm holes for structural rivets.

● Structural Rivet, 4.8 mm (x3)



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





Replacement

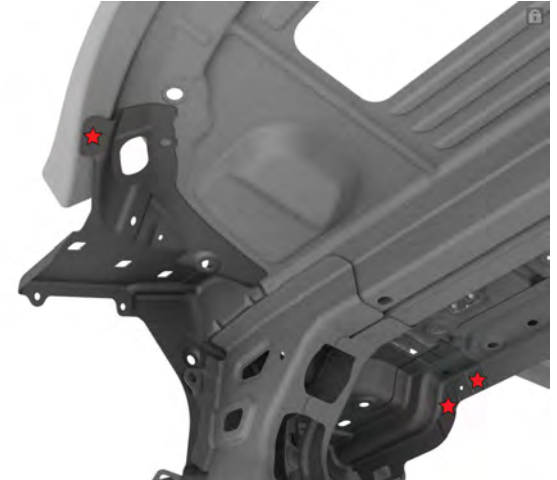
1 Prepare for installation (continued).

E Create 8 mm holes for flow form rivets.
★ Flow Form Rivet S18 (x3)



NOTE: Holes for the rivet locations at the front of the Parcel Shelf should be made in the new component through existing holes on the vehicle created during removal.

F Drill a 4.8 mm hole for a countersunk rivet.
● Countersunk Rivet, 4.8 mm Short (x3)





Replacement

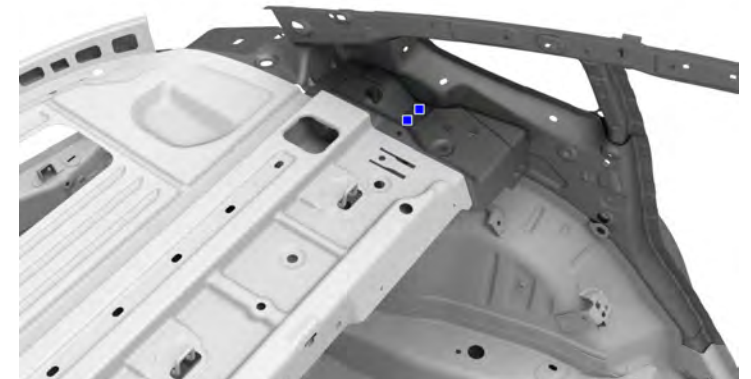
1 Prepare for installation (continued).

G Use a drill with the Microstop countersink cage assembly and the appropriate-sized countersink bit to countersink the hole (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.

H Drill 6 mm holes for M6 Torx head bolts.
■ Bolt, Torx-head M6 and Nut (x2)





Replacement

- 1 Prepare for installation (continued).
 - I Mark boundary lines along all mating surfaces between the new component and the vehicle for surface preparation.
 - J Remove the new component.



Replacement

2 Prepare the surfaces.

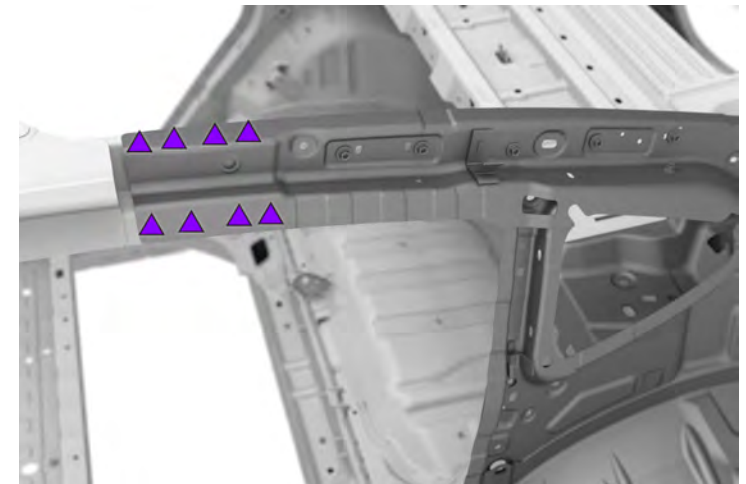
A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the mating surfaces of the new component.

B Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat or paint from the outside surface of the backing plates and the weld areas on the vehicle.

▲ Installation Spot Weld (x8)



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.



NOTE: Assembly must be performed while the primer layer is still wet. The drying time of the adhesive varies depending on temperature and humidity.



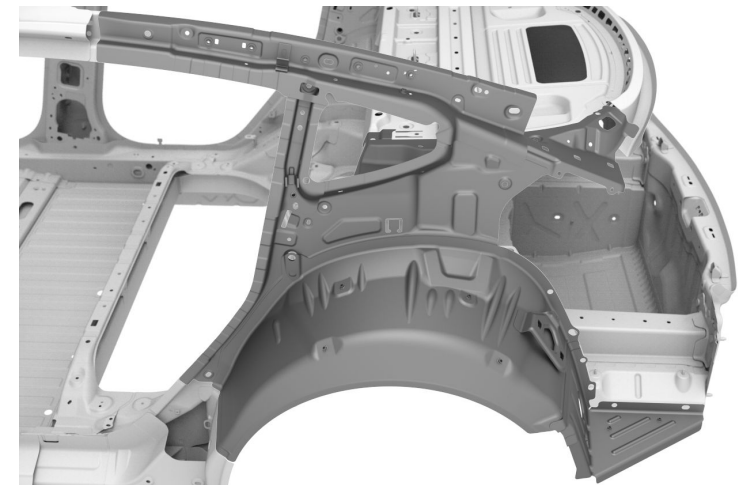
CAUTION: If any bare metal mating surfaces have been exposed for two hours or longer, abrade the mating surfaces again to remove oxidation, then clean the mating surfaces with isopropyl alcohol (IPA).



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 secure it in place.



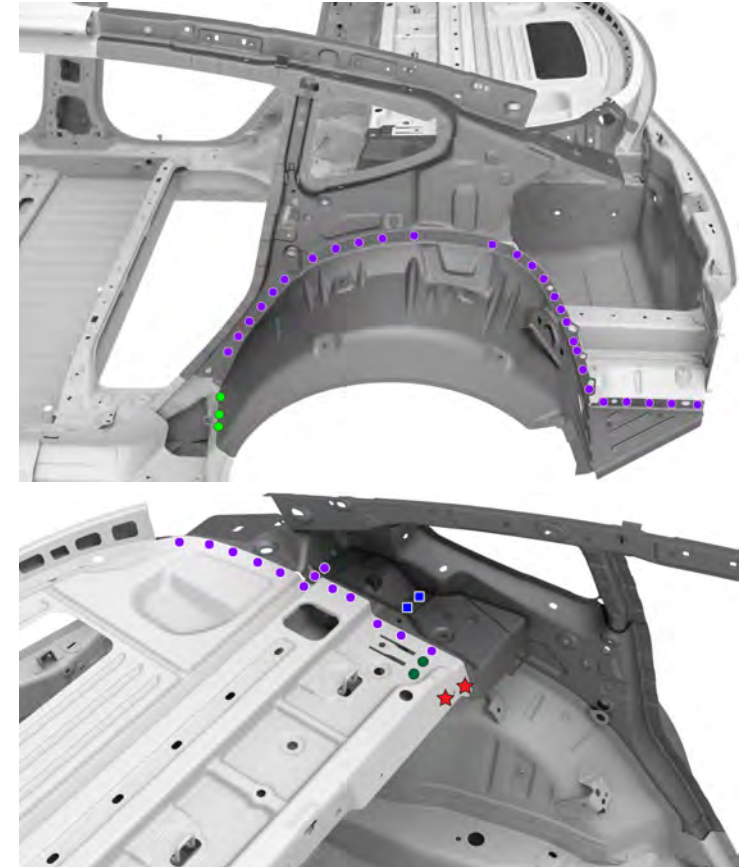


Replacement

4 Install the new component (continued).

B Insert all structural rivets, countersunk rivets, Flow Form rivets, and Torx head bolts and nuts.

- Structural Bulb Rivet, 6.5 mm (x46)
- Structural Rivet, 4.8 mm (x3)
- ★ Flow Form Rivet S18 (x3)
- Countersunk Rivet, 4.8 mm Short (x2)
- Bolt, Torx-head M6 and Nut (x2)

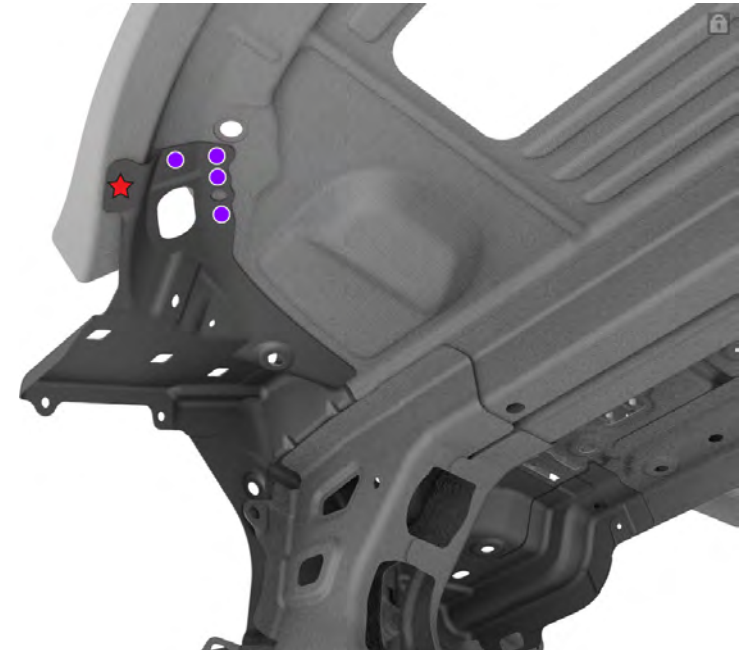




Replacement

4 Install the new component (continued).

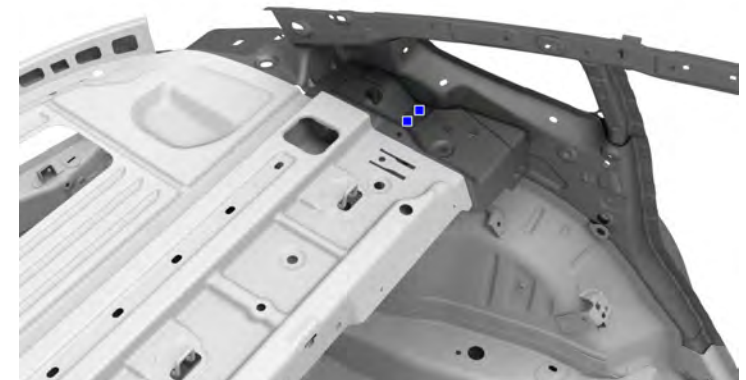
B Insert all structural rivets, countersunk rivets, Flow Form rivets, and Torx head bolts and nuts (continued).





Replacement

- 4 Install the new component (continued).
- C Install all structural rivets and Flow Form rivets.
- D Torque the M6 Torx head fasteners to 16 Nm.
■ Bolt, Torx-head M6 and Nut (x2)





Replacement

- 4 Install the new component (continued).
- E Clamp all bonded areas that are not secured with a fastener.
- F Wipe off any excess adhesive.



Replacement

4 Install the new component (continued).

G Perform resistance spot welding.
▲ Installation Spot Weld (x8)



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.



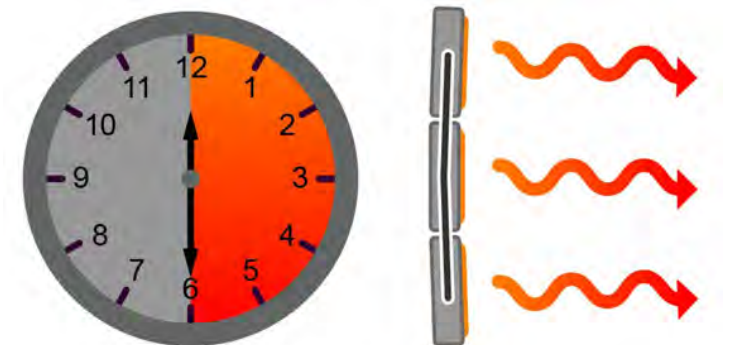
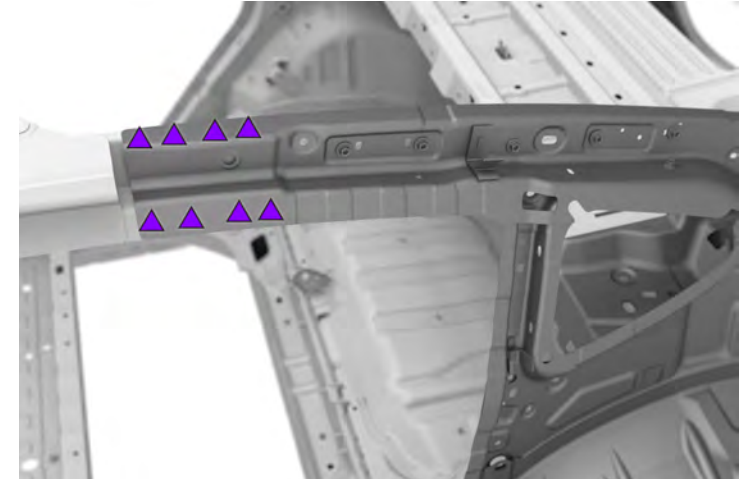
CAUTION: Do not weld on a Tesla vehicle with an energized high voltage or 12V system. Welding on a Tesla vehicle with an energized high voltage or 12V system might damage vehicle components.

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.



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



Replacement

5

Apply urethane to the edge of the original foam dam removed in an earlier step and reinstall it on the vehicle.



6

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



Replacement

7

Install the [Roof Rail Extension](#).



8

Install the new [Rear Wheelhouse Reinforcement](#).

