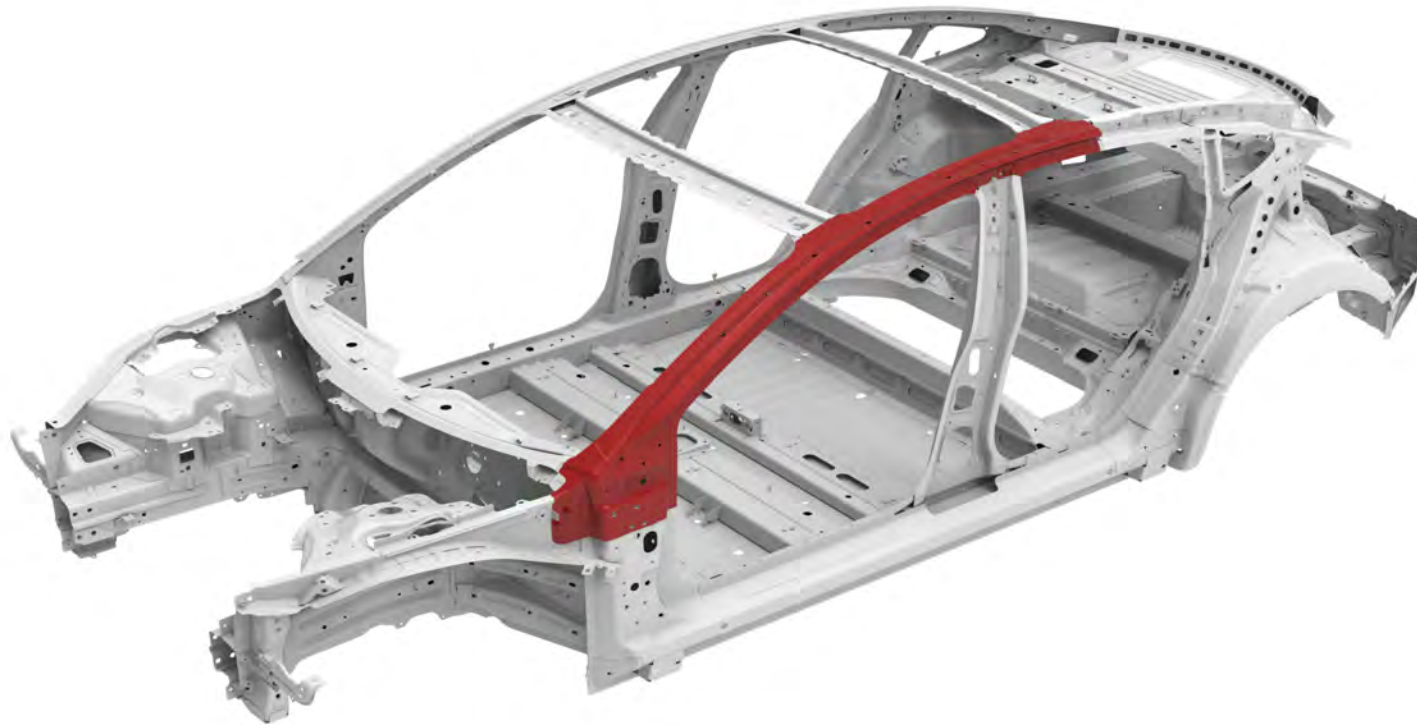




## A-Pillar Outer Reinforcement (Complete)





## Parts List

| Quantity                         | Part Number                            | Description                              | Image / Notes                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------|----------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                                | 1073707-SO-A (LH)<br>1073708-SO-A (RH) | A-Pillar Outer Reinforcement             |                                                                                                                                                                                                                                                                                                 |
| 5 rivets needed; order 10 rivets | 1069327-00-A                           | ○ Structural Countersunk Rivet, 6.5 mm   | All rivets come in packages of 10; order all rivets in multiples of 10.                                                                                                                                                                                                                                                                                                            |
| 6 rivets needed; order 10 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.                                                                                                                                                                                                                                                                                                            |
| 1                                | —                                      | Structural Adhesive                      | <b>⚠ WARNING:</b> Use only Tesla-approved structural adhesive; refer to <a href="#">BR-15-92-008</a> , "Approved Structural Adhesive and Urethane Sealants" for a list of current approved structural adhesives.<br><br>Refer to <a href="#">BR-17-92-002</a> , "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                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>This procedure is for the left-hand component; the procedure is identical for the right-hand component.</p> <p>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.</p> | <p><b>⚠ WARNING:</b> Wear the appropriate personal protective equipment (PPE) when performing this procedure.</p> | <p>The special tool listed below is required to perform this procedure:</p> <ul style="list-style-type: none"><li>Resistance Spot Welder</li></ul> <p>Use only an approved resistance spot welder. Refer to <a href="#">BR-16-92-007</a>, "Approved Welders" for a list of current approved resistance spot welders.</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.

2

Remove the Shotgun Outer.





## Prerequisites

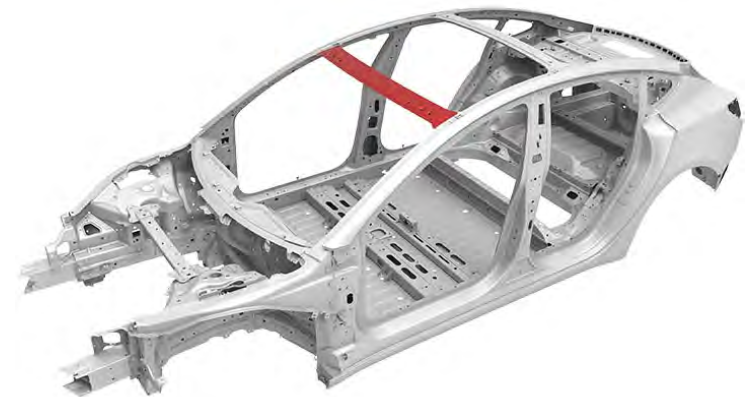
3

Remove the Body Side Outer Assembly.



4

Remove the Front Header Assembly.

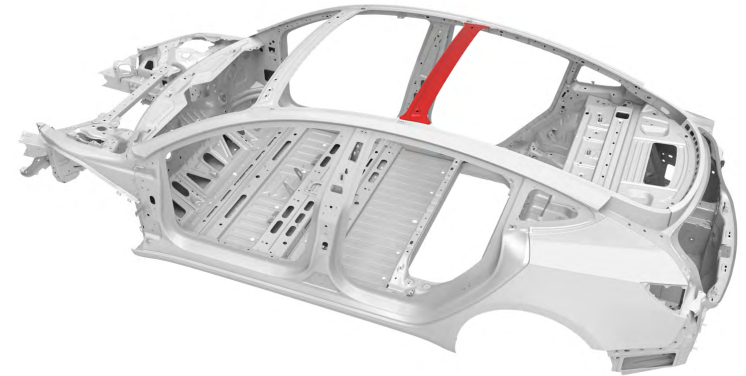




## Prerequisites

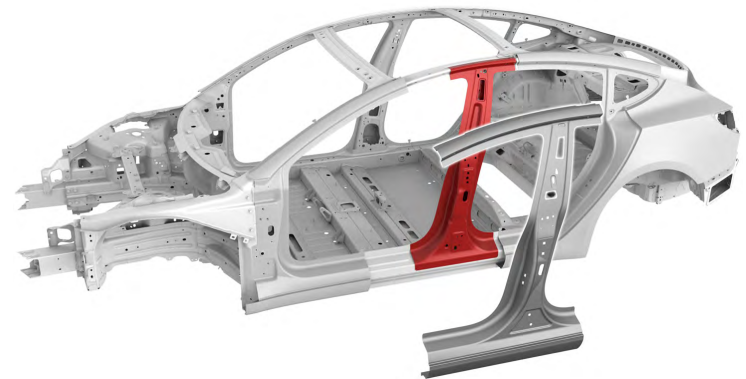
5

Remove the Rear Header Assembly.



6

Remove the B-pillar Outer.

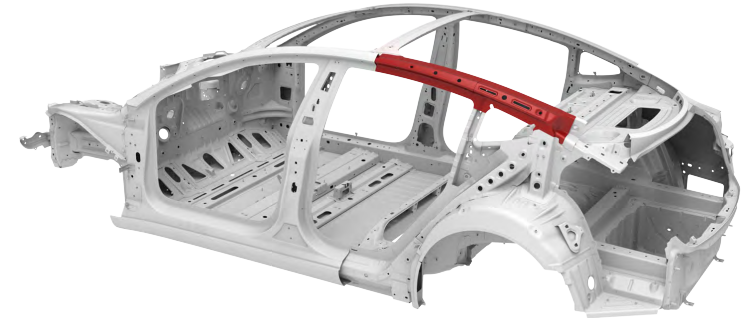




## Prerequisites

7

Remove the Roof Rail Extension.





## Removal

Remove the original A-Pillar Outer Reinforcement Complete.

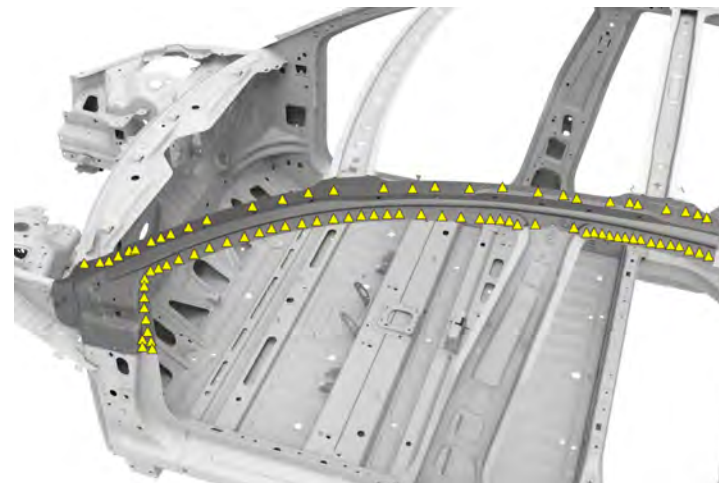
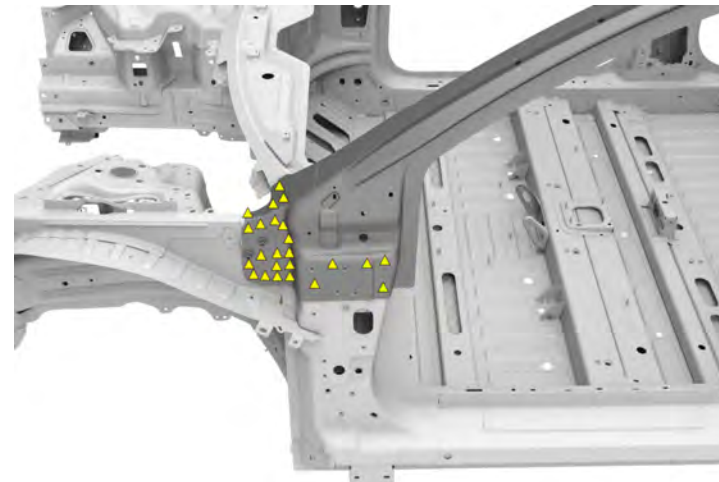
A

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



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





## Removal

Remove the original A-Pillar Outer Reinforcement Complete (continued).

**B**

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.

**C**

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.



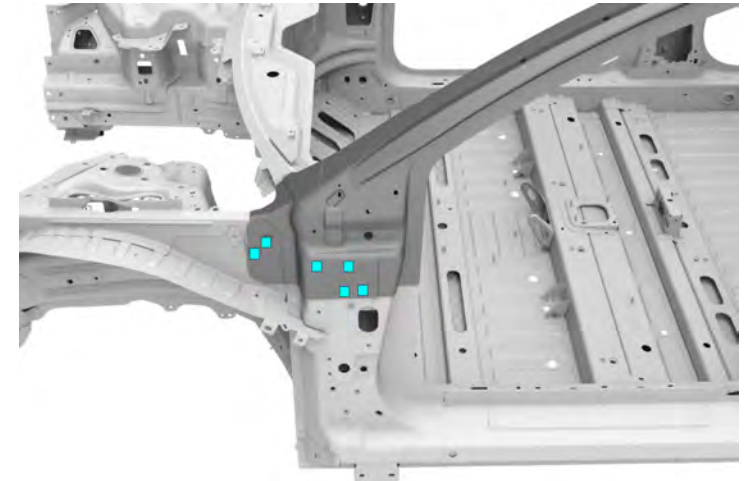
## Replacement

1 Prepare the new component.

A Put the new component into position and align it to the frame bench jig points.

B Temporarily install the door and hood hinge bolts, but do not torque them fully at this time.

■ Bolt, hex-head (x6)





## Replacement

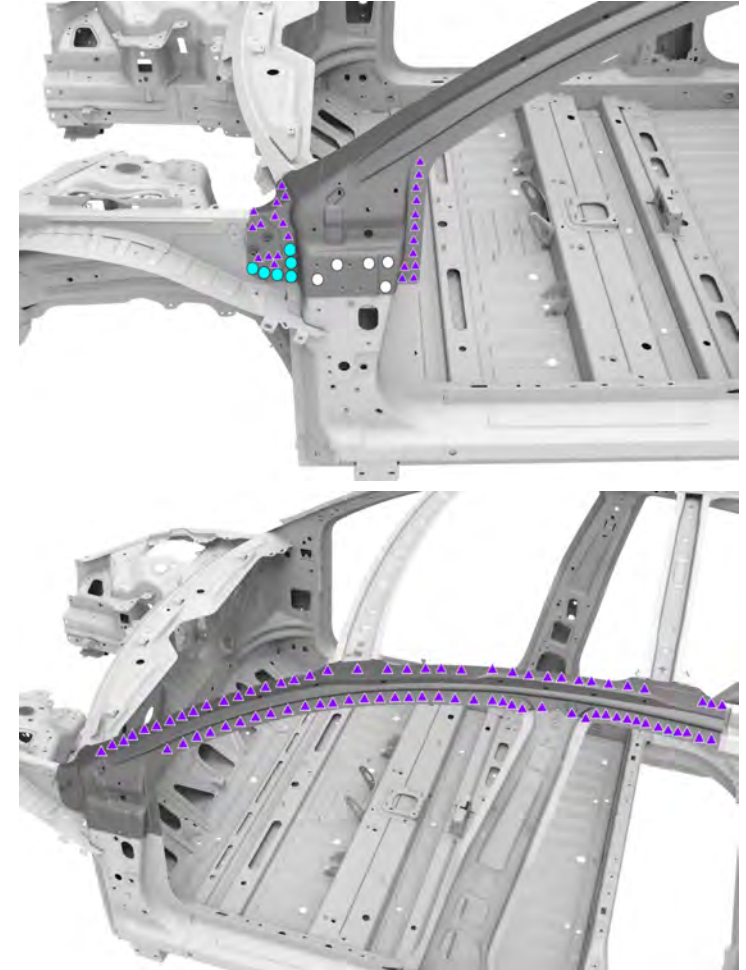
1 Prepare the new component (continued).

C Mark the fastener locations on the new component.

▲ Installation Spot Weld

● High Strength Structural Rivet, 6.5 mm (x6)

○ Structural Countersunk Rivet, 6.5 mm (x5)





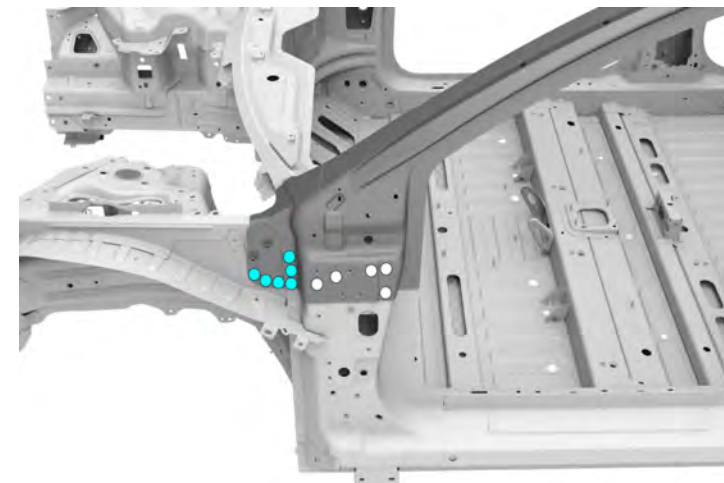
## Replacement

1 Prepare the new component (continued).

**D** Use a drill with a 6.7 mm bit to drill holes for the high strength structural rivets and structural countersunk rivets.



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



**E** 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).



**CAUTION:** Drill holes for countersunk rivets far enough away from the corners and any other obstructions to provide enough clearance (approximately 18 mm) for the Microstop countersink cage assembly.



**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 the new component (continued).
  - F Mark boundary lines along all mating surfaces between the new component and the vehicle for surface preparation.
  - G Remove the new components from the vehicle.

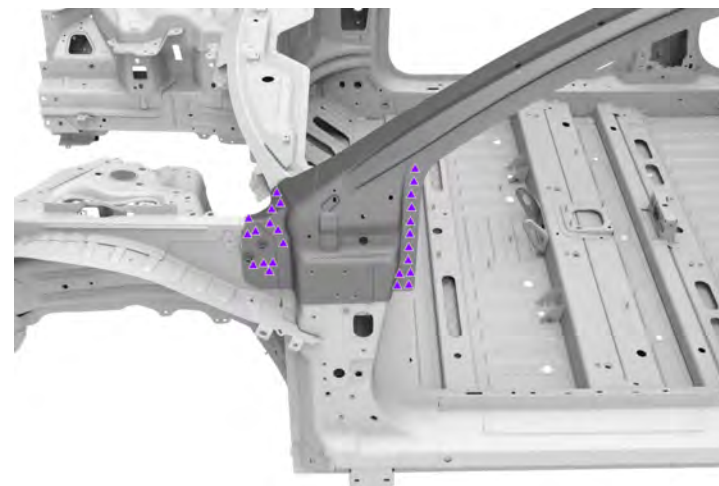


## Replacement

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.

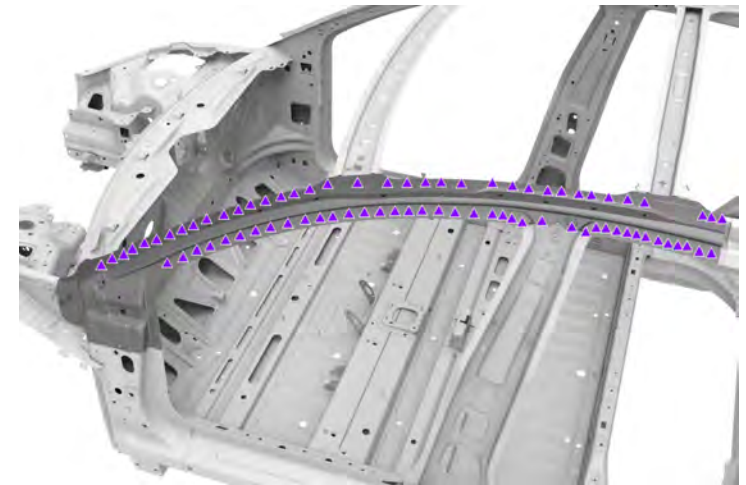




## Replacement

### 2 Prepare the surfaces (continued).

**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 (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.



## 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.



**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

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



## Replacement

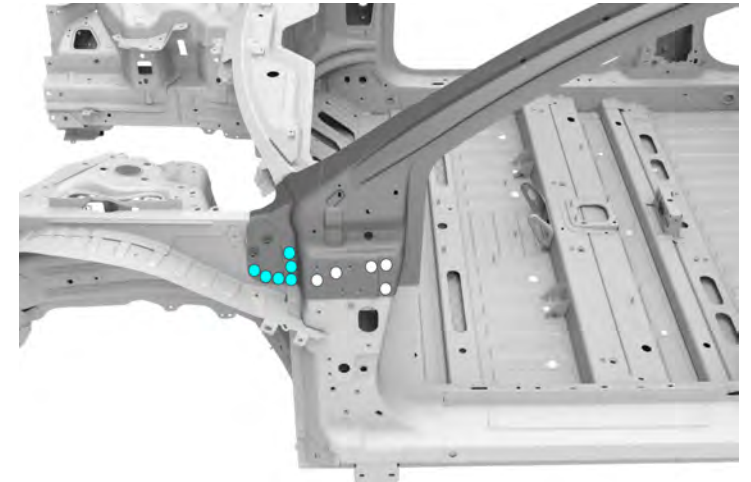
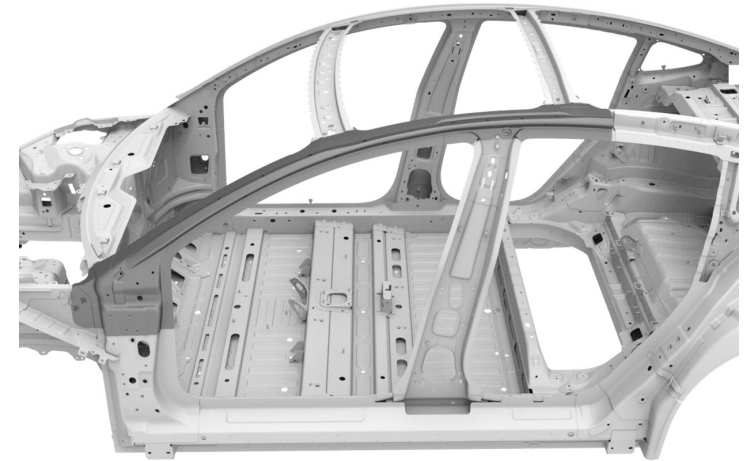
4 Install the new component.

A Put the new component into position and align it to the frame bench jig points.

B Insert the high strength structural rivets and the structural countersunk rivets in the A-Pillar Outer Reinforcement section.

● High Strength Structural Rivet, 6.5 mm (x6)

○ Structural Countersunk Rivet, 6.5 mm (x5)





## Replacement

4 Install the new component (continued).

C Temporarily install the door and hood hinge bolts, but do not torque them fully at this time.

 Bolt, hex-head (x6)

D Install the high strength structural rivets and the structural countersunk rivets.



## Replacement

4 Install the new component (continued).

E

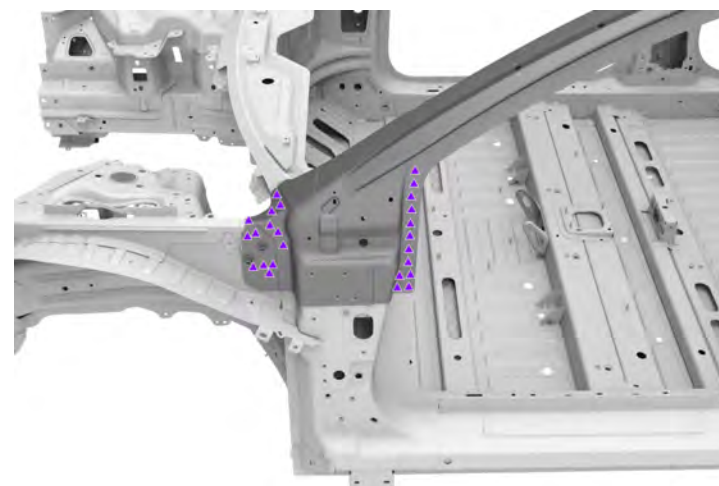
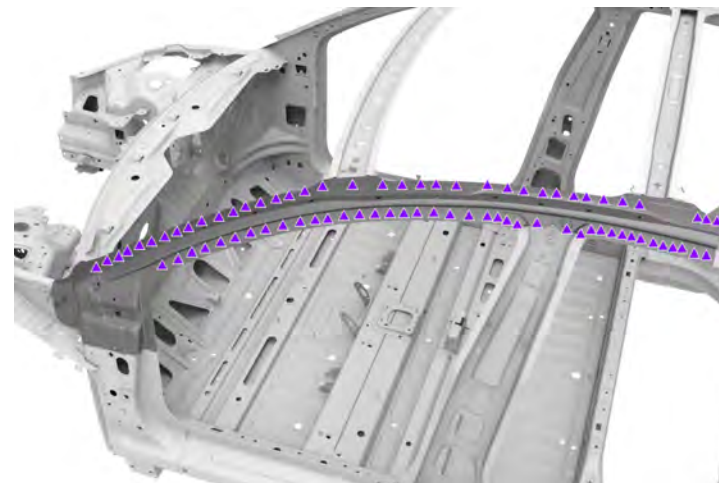
Perform resistance spot welding.



**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.





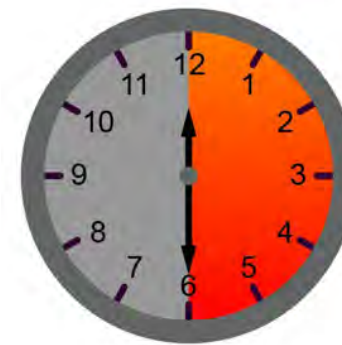
## Replacement

- 4 Install the new component (continued).
- F Wipe off any excess adhesive.

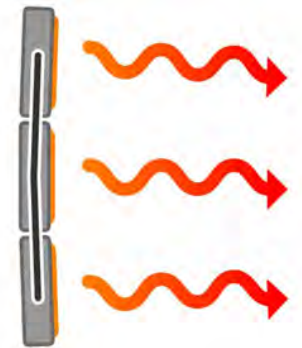
- G Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



**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

4 Install the new component (continued).

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

I Replace the Roof Rail Extension.



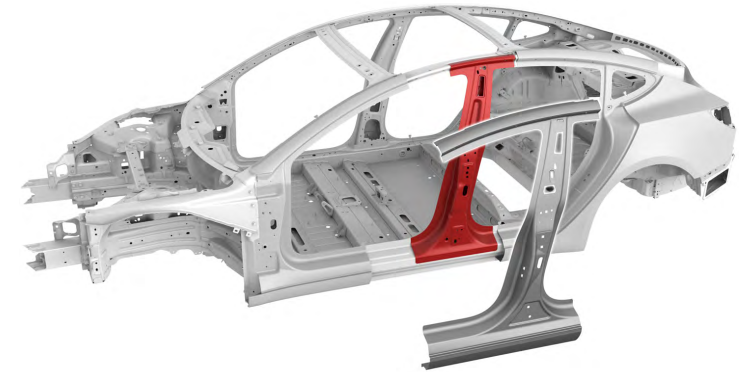


## Replacement

4 Install the new component (continued).

J Replace the B-Pillar Outer.

K Replace the Body Side Outer Assembly.



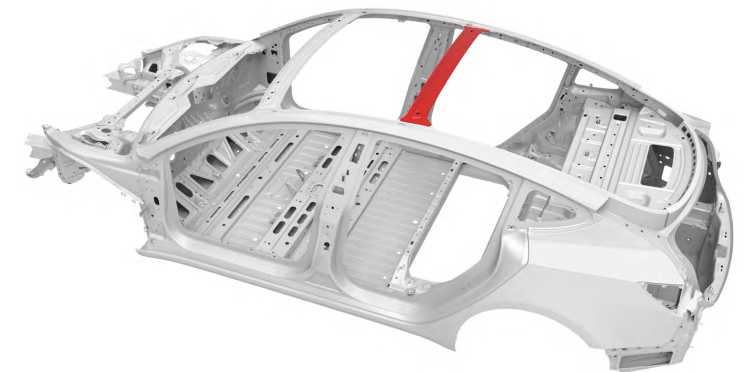
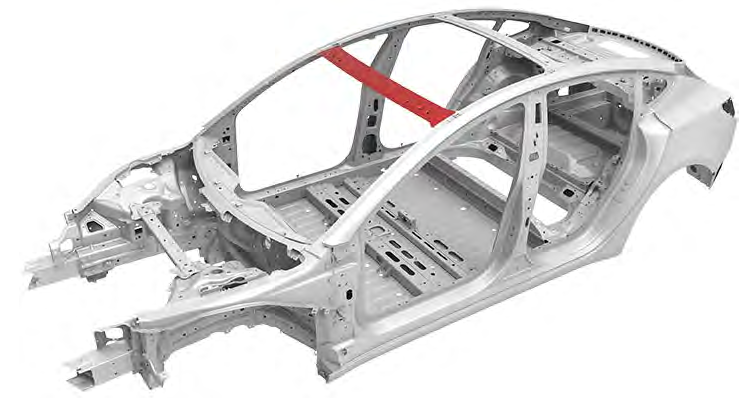


## Replacement

4 Install the new component (continued).

L Replace the Front Header Assembly.

M Replace the Rear Header Assembly.





## Replacement

- 4 Install the new component (continued).
- N Replace the Shotgun Outer.

