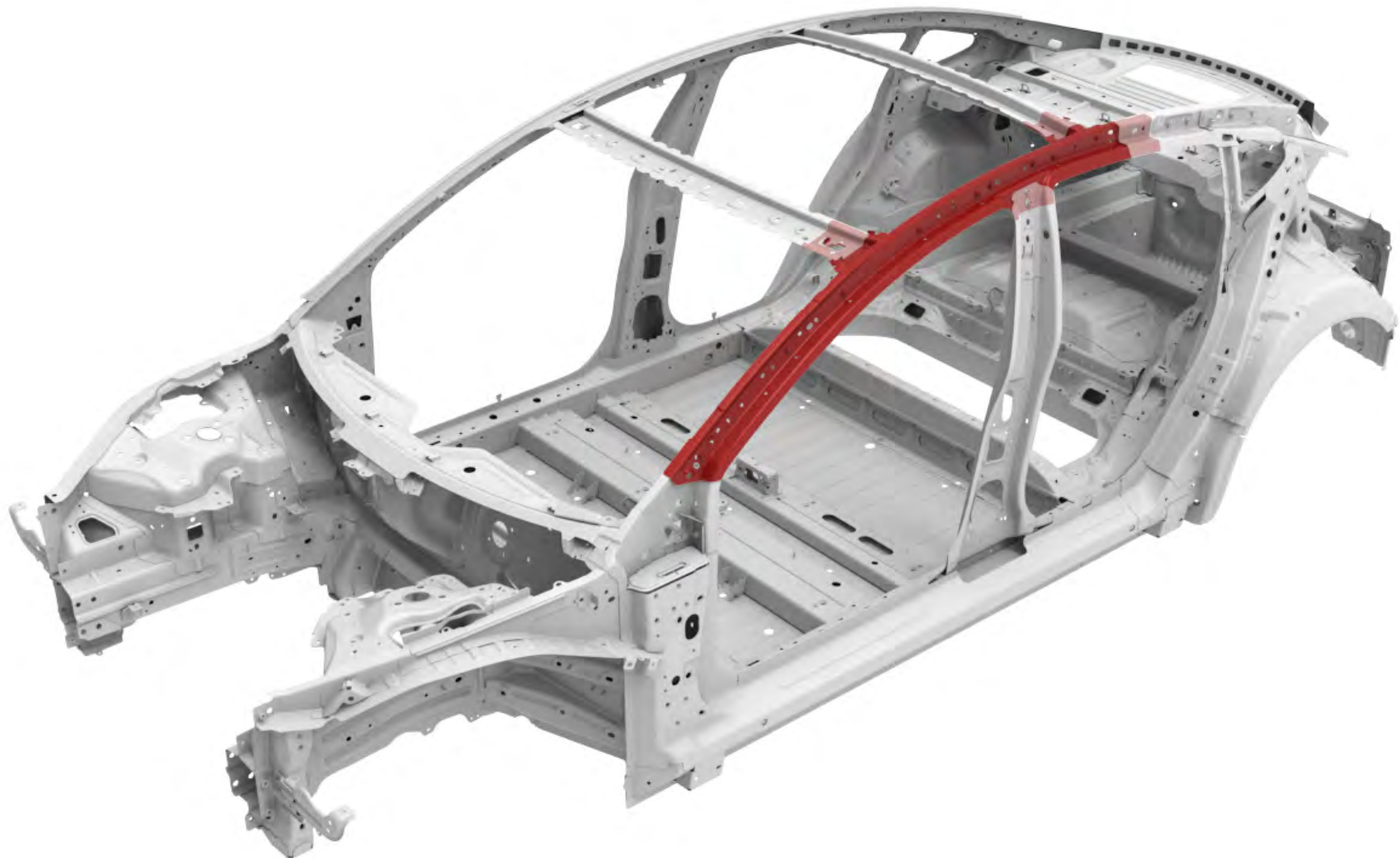




Cantrail Inner Assembly





Parts List

Quantity	Part Number	Description	Image / Notes
1	1073727-SO-A (LH) 1073728-SO-A (RH)	M3 ASY CANTRAIL (Cantrail Assembly)	
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. Source locally; not available from Tesla.
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.	 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 tools listed below are 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

Remove the A-Pillar Outer Reinforcement complete.





Removal

Remove the original component.

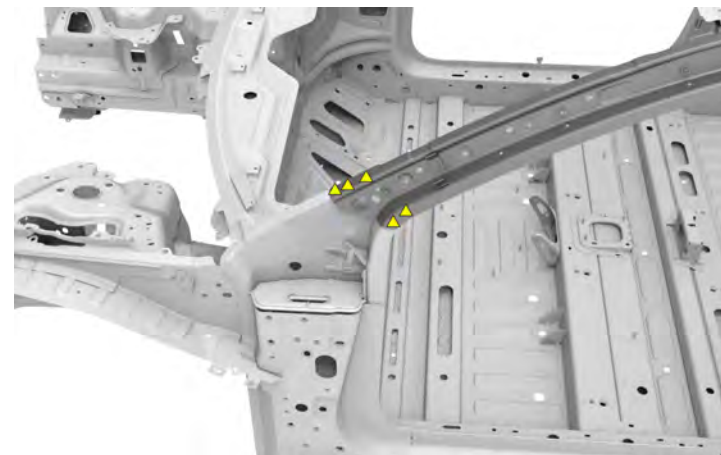
A

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 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 component (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.



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.

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

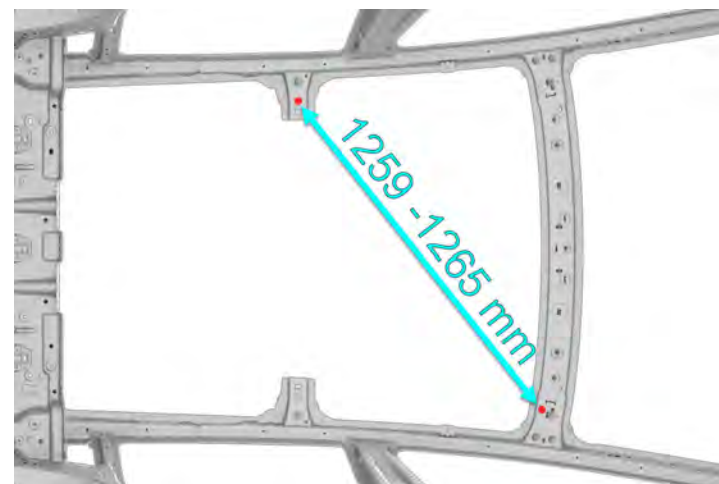
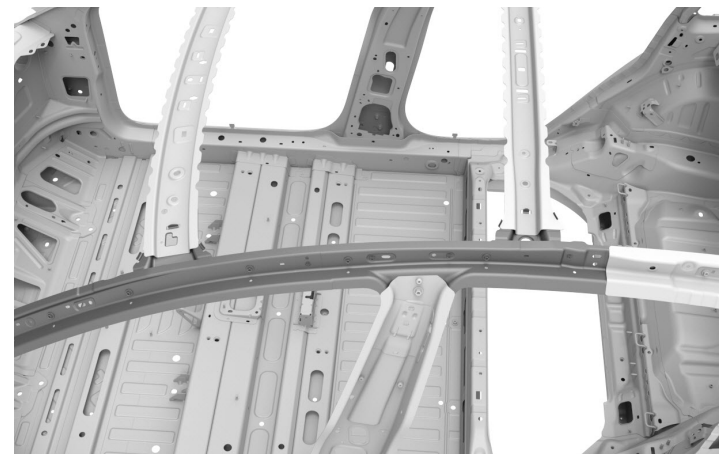
1 Prepare for installation.

A



Put the new component into position and secure it in place.

NOTE: Position the new component by using a tram gauge to measure the distance between the center of the trim hole on the underside of each Rear Header Connector and the center of the trim hole on the underside of the opposite Front Header Connector (trim holes highlighted in red).





Replacement

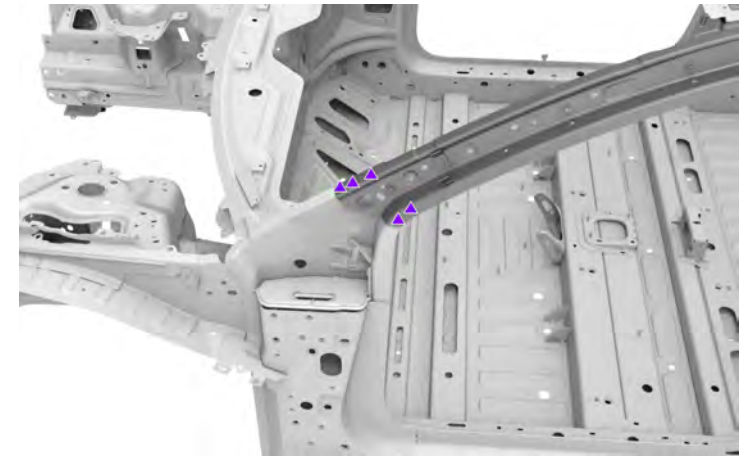
1 Prepare for installation (continued).

B Evaluate and compare the two measurements.

- If either measurement is less than 1259 mm or greater than 1265 mm, discontinue this procedure and check the vehicle for additional damage.
- If the measurements vary from each other by more than 3 mm, discontinue this procedure and check the vehicle for additional damage.

C Mark the fastener locations on the new component.

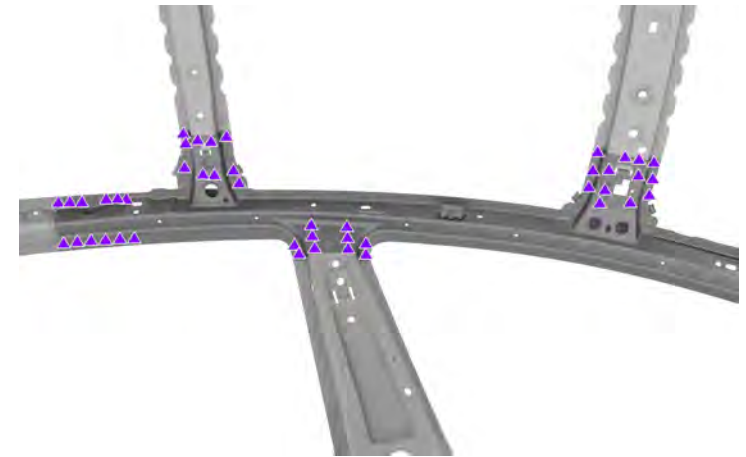
▲ Installation Spot Weld (x50)





Replacement

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



- D Remove the new component.



Replacement

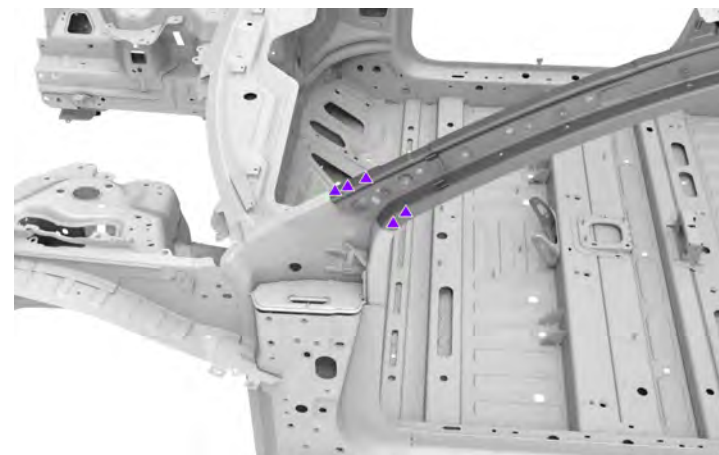
2 Prepare the surfaces.

A Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the mating surfaces of the new component 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 component and the vehicle. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander.



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

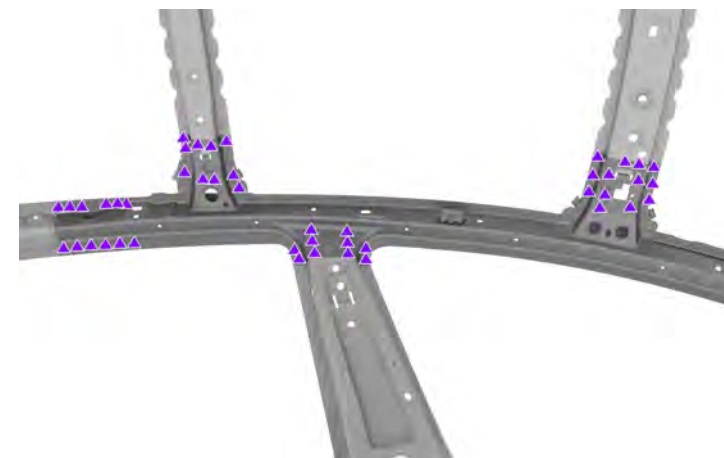




Replacement

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 component 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 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).



WARNING: Do not apply structural adhesive within 25 mm of the GMA weld locations. Applying structural adhesive within 25 mm of the GMA weld locations can cause weld failure.



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 new component.



Replacement

4 Install the new component.

A Put the new component into position and secure it in place.

B Clamp all bonded areas not secured with a fastener.





Replacement

4 Install the new component (continued).

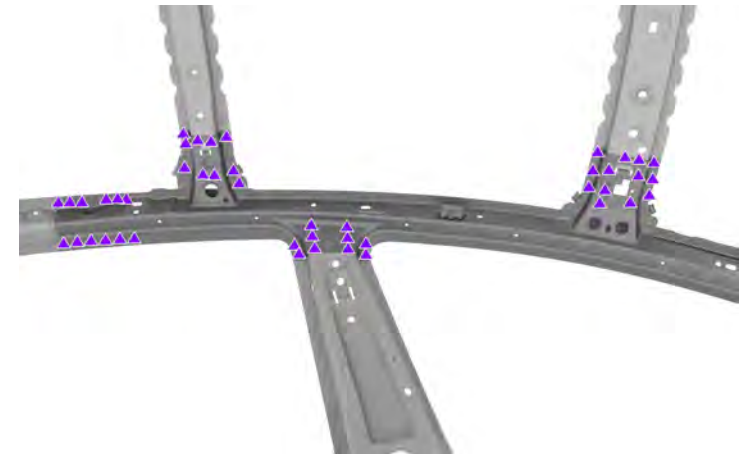
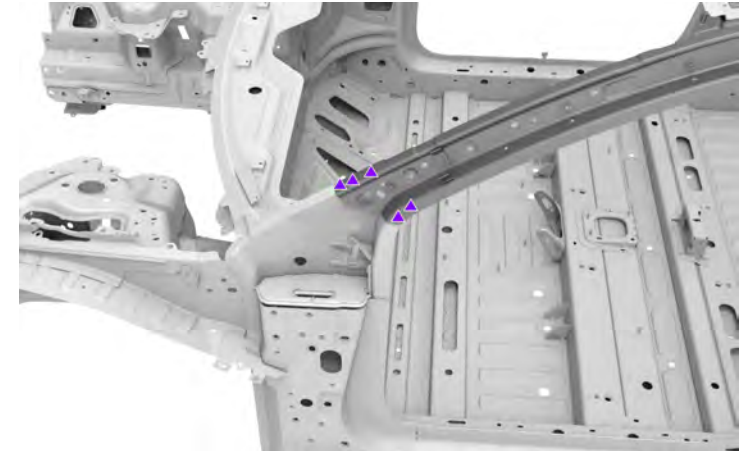
C Perform resistance spot welding.
▲ Installation Spot Weld (x50)



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

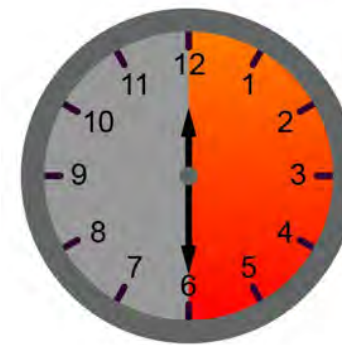
4 Install the new component (continued).

D Wipe off any excess adhesive.

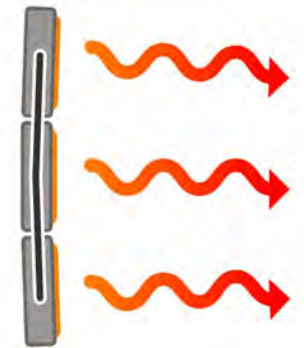
E Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



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).
- F Seal the seams in the factory locations, and as necessary.

- 5 Install the A-Pillar Outer Reinforcement complete.

