



Fender Attachment Brackets





Parts List

Quantity	Part Number	Description	Image / Notes
1	1090865-SO-E (LH) 1091432-SO-E (RH)	Fender Attachment Bracket Upper	
1	1103450-SO-C	Fender Attachment Bracket Middle	
1	1102252-SO-D (LH) 1103451-SO-D (RH)	Fender Attachment Bracket Lower	
2 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.
2 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.
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.

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. This procedure has the instructions for removing and replacing all three Fender Attachment Brackets (Upper, Middle, and Lower). When replacing only one or two of the brackets, use the instructions for the specific bracket(s) being replaced.  NOTE: Only certain vehicles are equipped with the middle fender attachment bracket. If the vehicle being repaired originally had the middle fender attachment bracket, replace it if necessary. Do not install a middle fender attachment bracket if the vehicle being repaired was not originally equipped with a middle fender attachment bracket.	 WARNING: Wear the appropriate personal protective equipment (PPE) when performing this procedure.	No special tools are required to perform this procedure.



Removal

Remove the original component.

A

Use a marker to trace the original bracket locations for correct alignment in a later step.

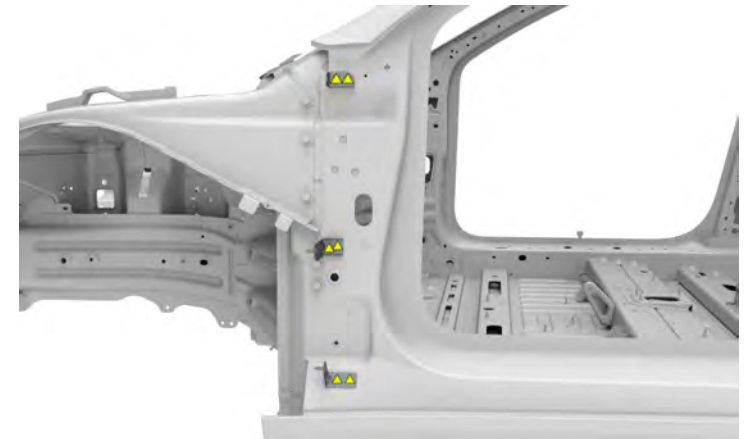
B

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

▲ Factory Spot Weld (X6)



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).

- C** 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.

D

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 brackets into position and secure them in place.



NOTE: Use the outlines marked earlier to make sure the brackets are properly aligned.

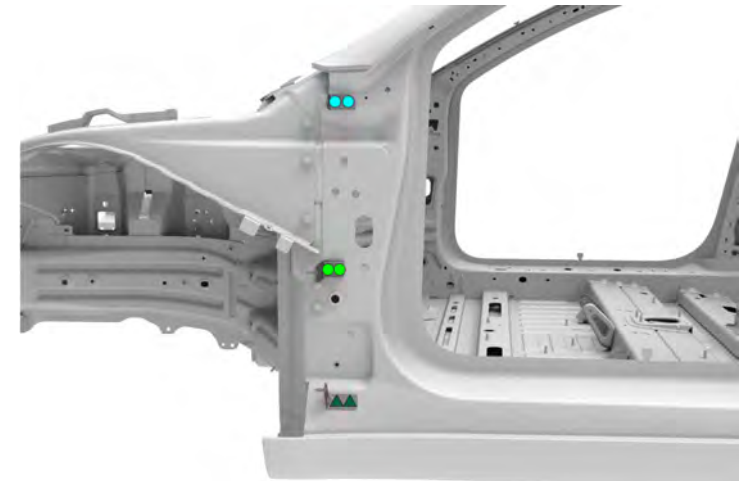
B

Mark the fastener locations on the new component.

● High Strength Structural Rivet, 6.5 mm (x2)

● Structural Rivet, 4.8 mm (x2)

▲ Steel Plug Weld (x2)





Replacement

1 Prepare for installation, (continued).

C

Drill 4.8 mm holes for structural rivets.



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

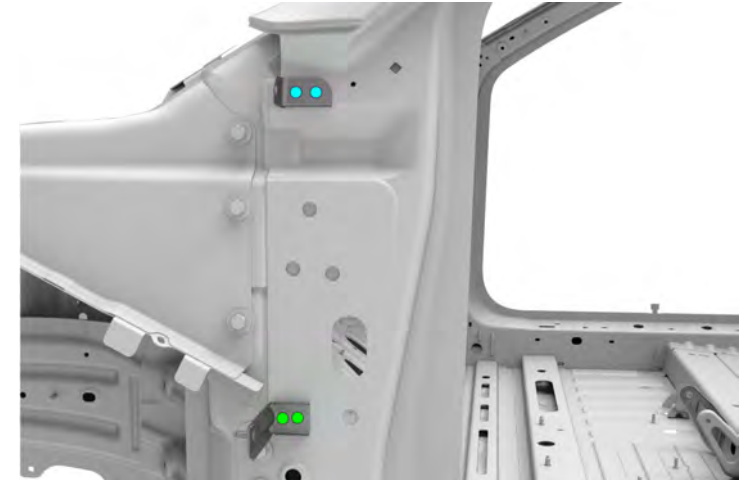
● High Strength Structural Rivet, 6.5 mm (x2)

● Structural Rivet, 4.8 mm (x2)

D

Drill 8 mm holes for plug welds.

▲ Steel Plug Weld (x2)





Replacement

- 1 Prepare for installation, (continued).
- E Remove the new component.

F Use a red Scotch-Brite pad or equivalent to scuff the e-coat on the mating surfaces of the fender attachment brackets and the vehicle.



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

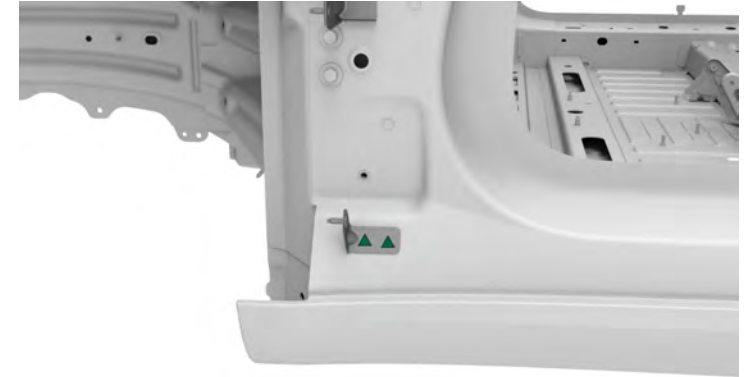


Replacement

1 Prepare for installation, (continued).

G

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.



H

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

2 Apply structural adhesive.

A

Spread a thin coating of structural adhesive as a primer layer on the mating surfaces of the upper and middle fender attachment brackets and the vehicle.



CAUTION: Do not apply structural adhesive to the lower fender attachment bracket. Applying structural adhesive to the lower fender attachment bracket can cause weld failure.



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

While the primer layer is still wet, apply a bead of structural adhesive on top of the primer layer on the new upper and middle brackets.



CAUTION: Do not apply structural adhesive to the lower fender attachment bracket. Applying structural adhesive to the lower fender attachment bracket can cause weld failure.



Replacement

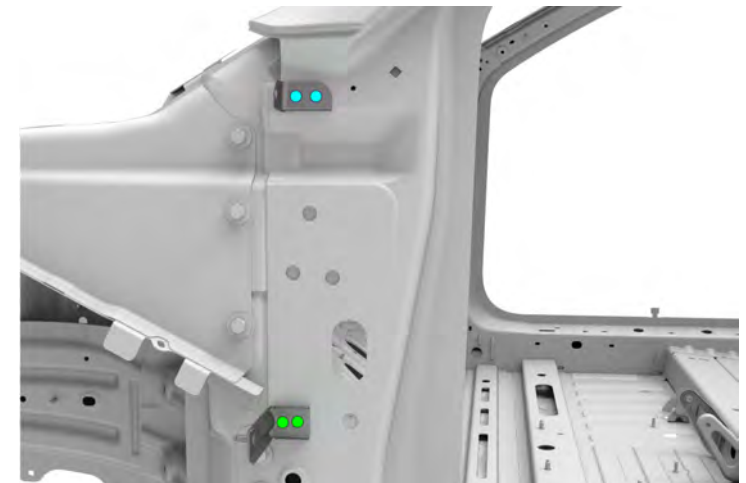
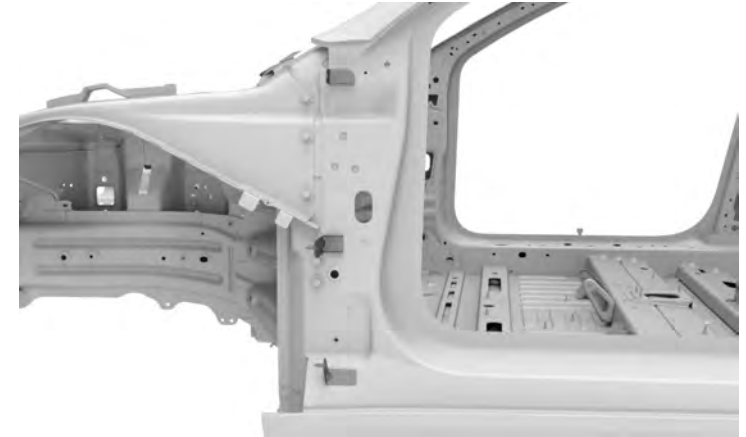
3 Install the new fender attachment brackets.

A Position the new brackets on the vehicle.

B Insert the structural rivets.

● High Strength Structural Rivet, 6.5 mm (x2)

● Structural Rivet, 4.8 mm (x2)





Replacement

3

Install the new fender attachment brackets (continued).

C

Install the structural rivets.

D

Wipe off any excess adhesive.



Replacement

3 Install the new fender attachment brackets (continued).

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.

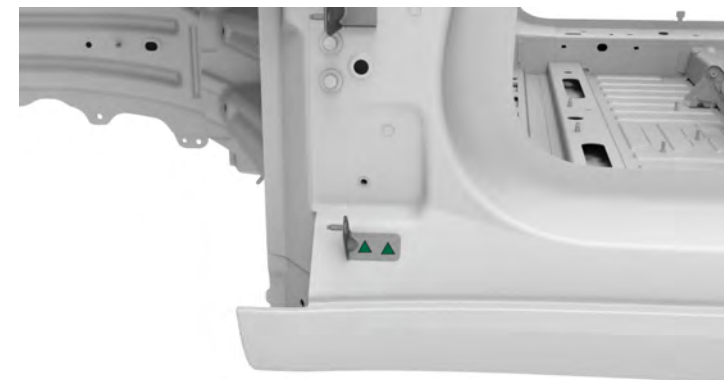
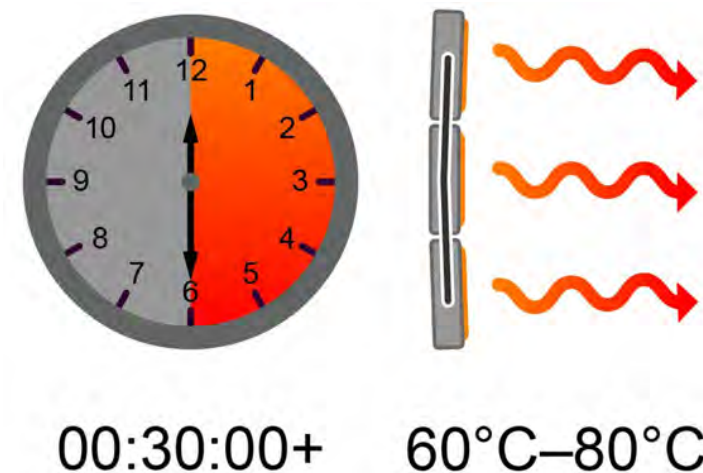


WARNING: Do not allow the High Voltage Battery to reach a temperature above 74°C (165°F). Heating the High Voltage Battery above 74°C (165°F) for an extended period could result in injury to personnel and/or damage to the battery.

F

Perform GMA welding.

▲ Steel Plug Weld (x2)





Replacement

3

Install the new fender attachment brackets (continued).

G

Grind down welds to restore all components to their original dimensions.