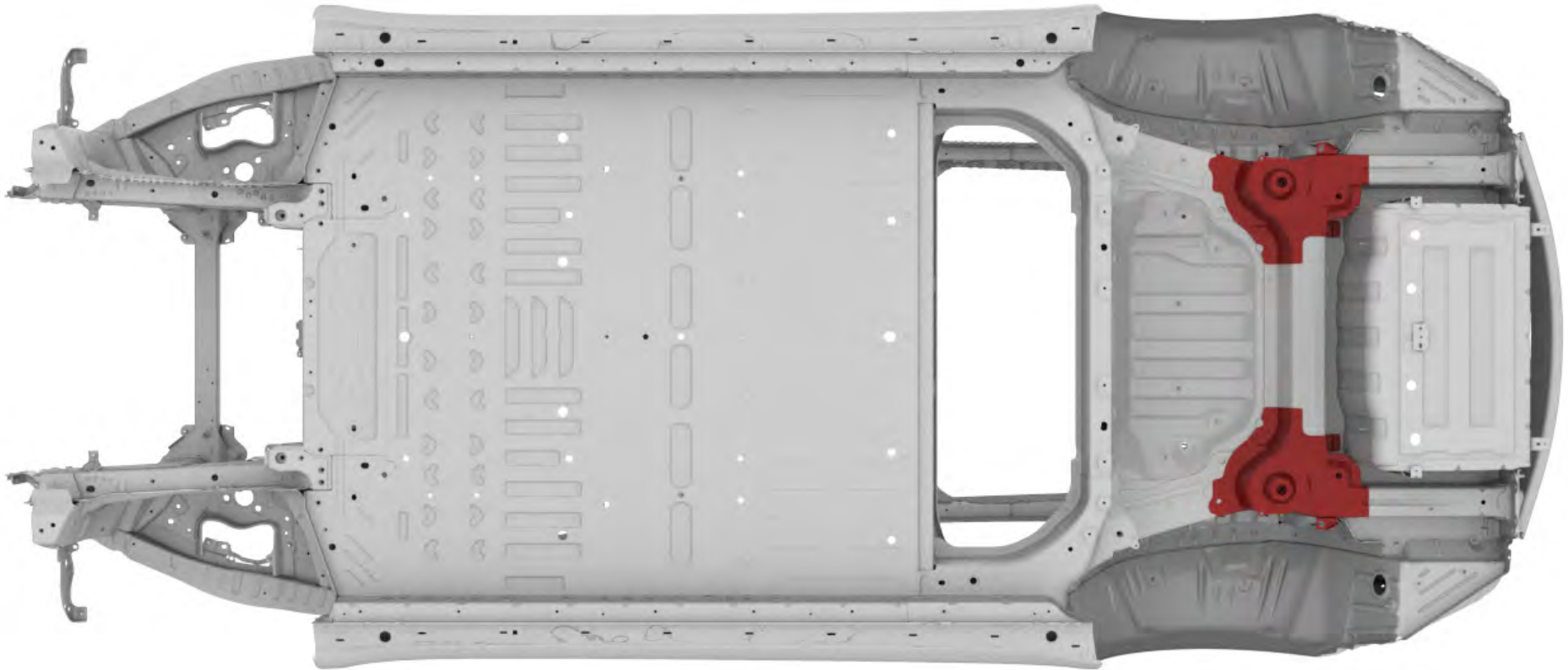




Rear Spring and Subframe Mount





Parts List

Quantity	Part Number	Description	Image / Notes
1	1101001-S0-A (LH) 1101002-S0-A (RH)	Rear Spring and Subframe Mount	
57 rivets needed; order 60 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	1063260-00-C	 Bolt, hex-head, M8x23.5	
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 tool listed below is required to perform this procedure: • 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

Remove the Trunk Floor Assembly (Complete).



2

Remove the Rear Wheel House Rear Stiffener.





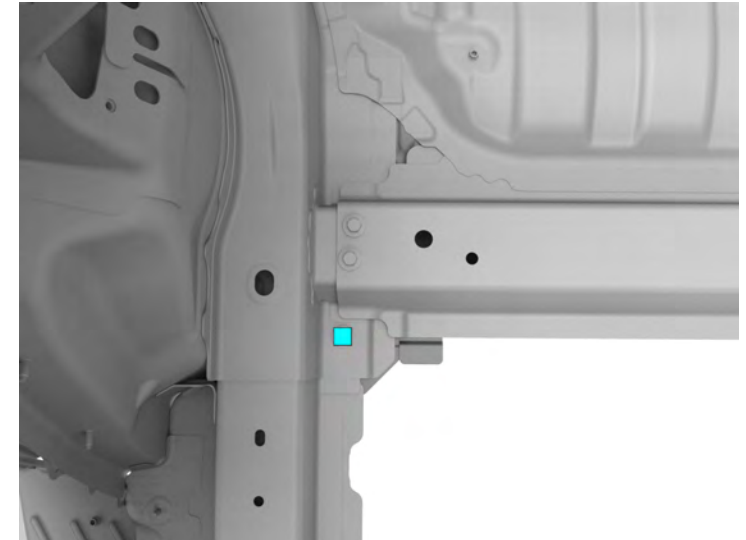
Removal

Remove the original component.

A

Remove and discard the original bolt.

 Bolt, hex-head (x1)



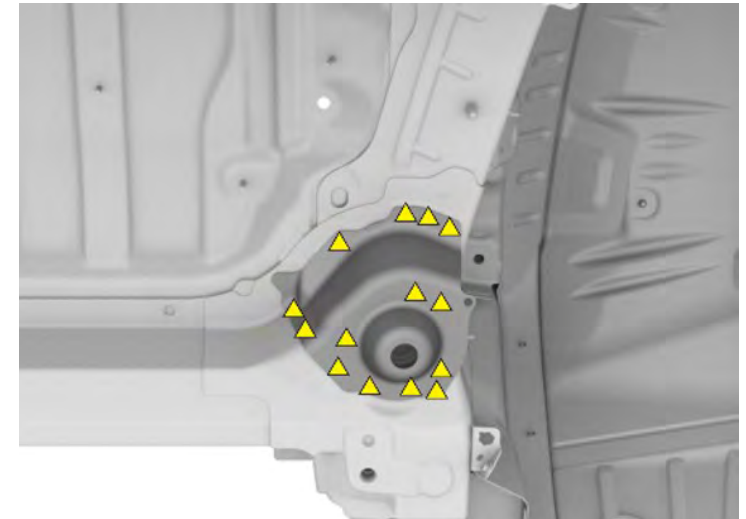
B

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



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 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



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.

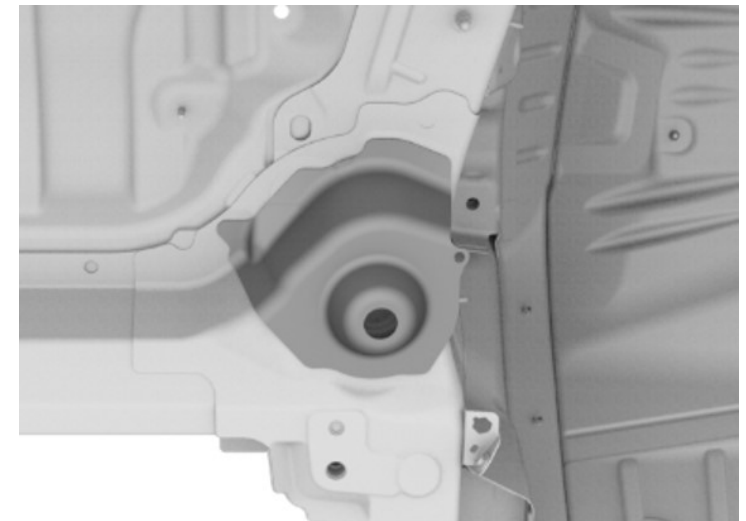
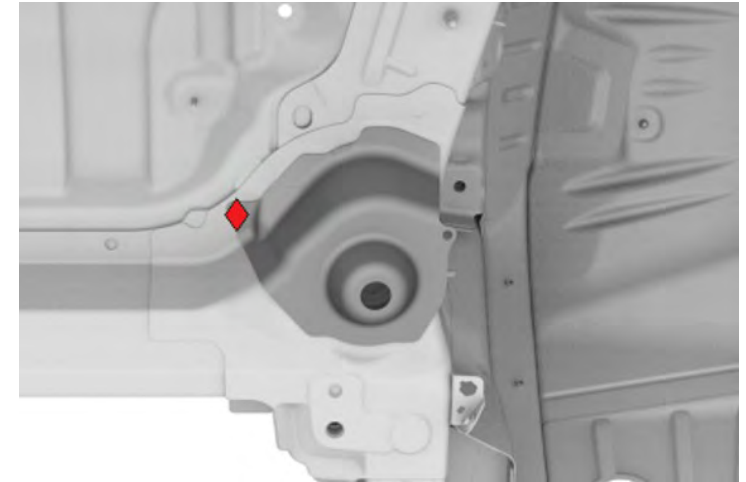
D Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the original component.



WARNING: Do not heat 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.





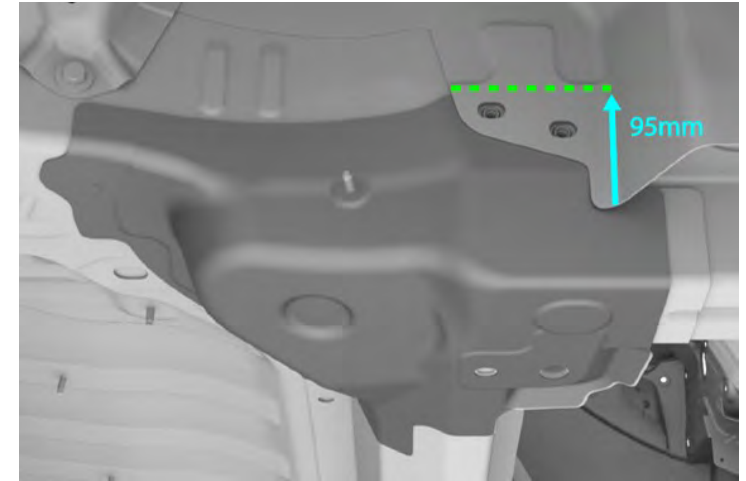
Removal

Remove the original component (continued).

E

Mark a cut line on the Wheelhouse Inner as shown.

 Cut Line



F

Cut the component on the cut line marked in the previous substep.



CAUTION: Cut only the outer panel.



CAUTION: Do not damage the surrounding components.



Removal

Remove the original component (continued).

G Fold back the part of the Wheelhouse Inner directly below the cut to expose the spot welds underneath.

H 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.

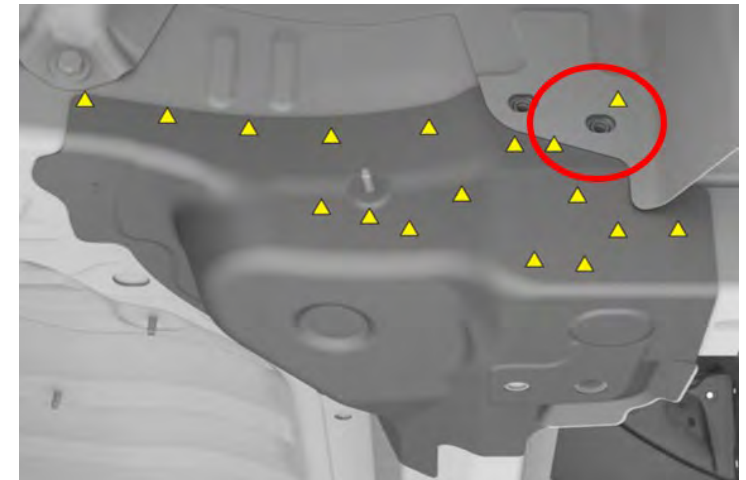
▲ Factory Spot Weld



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



NOTE: Welds circled in red must be drilled out while the Wheelhouse Inner section is folded back.





Removal

Remove the original component (continued).

H

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).



I

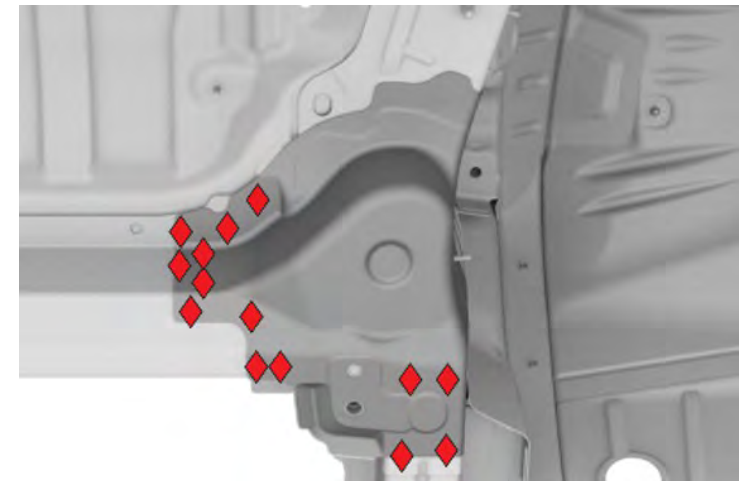
Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.



Factory SPR



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.

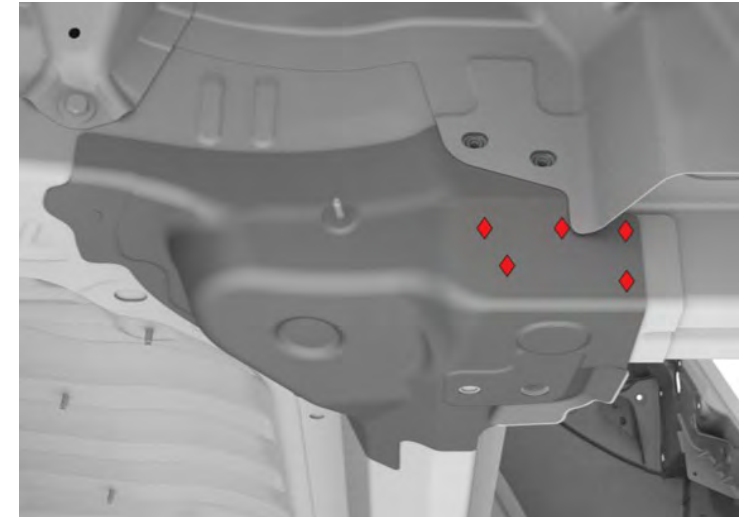




Removal

Remove the original component (continued).

I 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).



J 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 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.



Removal

Remove the original component (continued).

K 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.



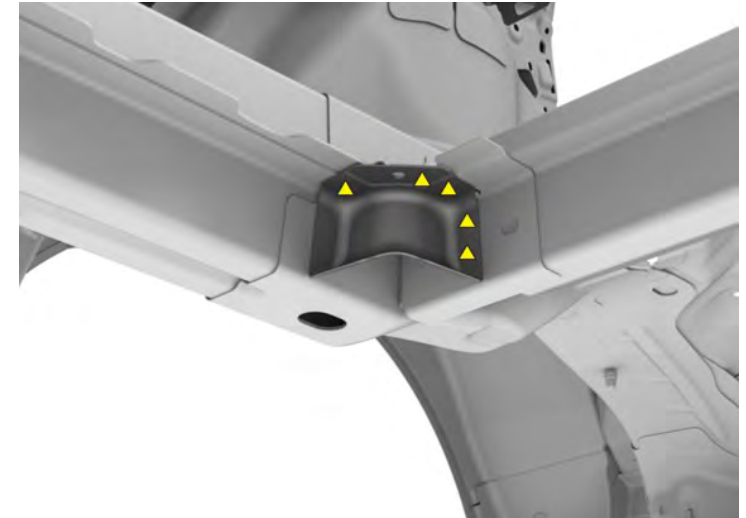
NOTE: Welds circled in red must be drilled out while the Wheelhouse Inner section is folded back.

L 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



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.





Removal

Remove the original component (continued).

M

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 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.

N

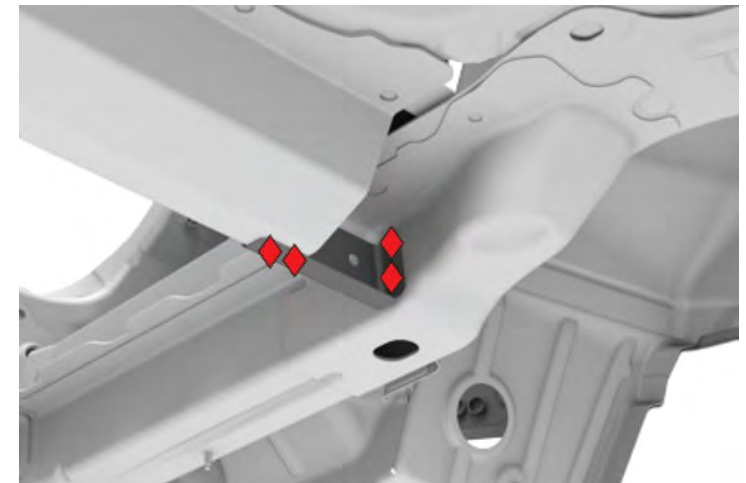
Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.



Factory SPR



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.

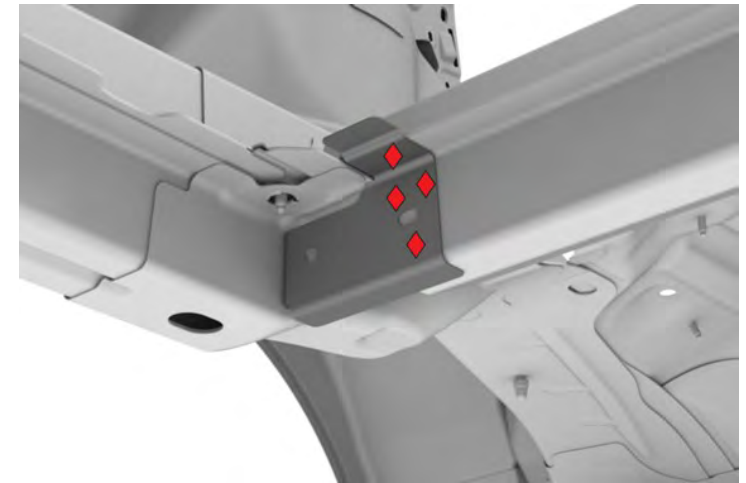




Removal

Remove the original component (continued).

N 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).



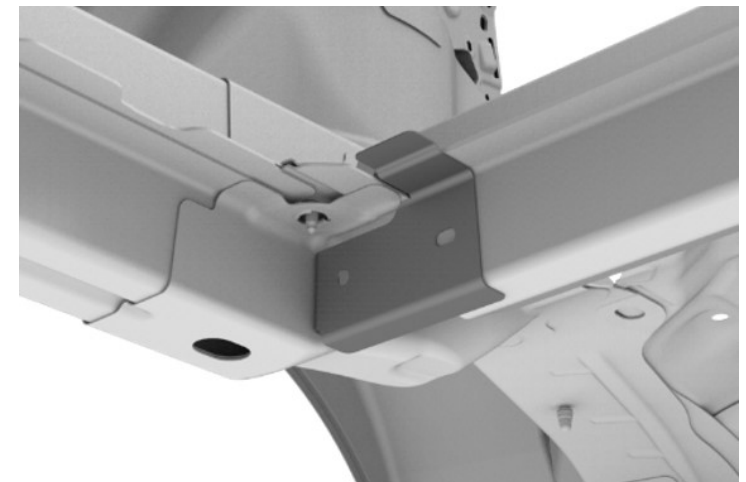
O Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the original component.



WARNING: Do not heat 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.





Removal

Remove the original component (continued).

P

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.



NOTE: Welds circled in red must be drilled out while the Wheelhouse Inner section is folded back.

Q

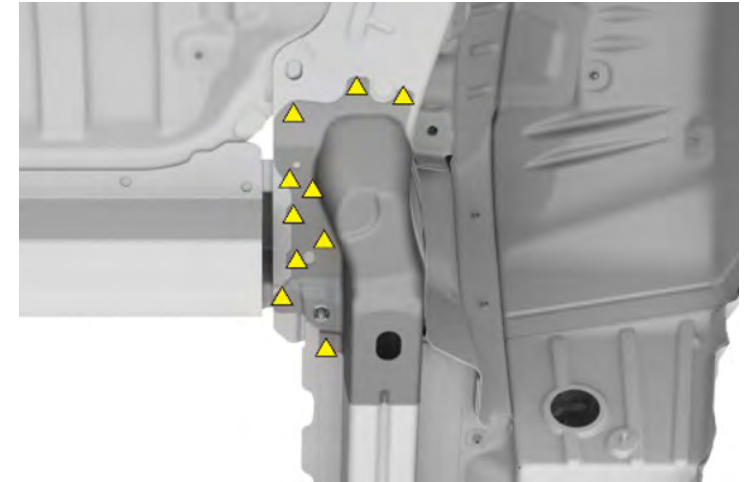
Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.



Factory SPR



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.

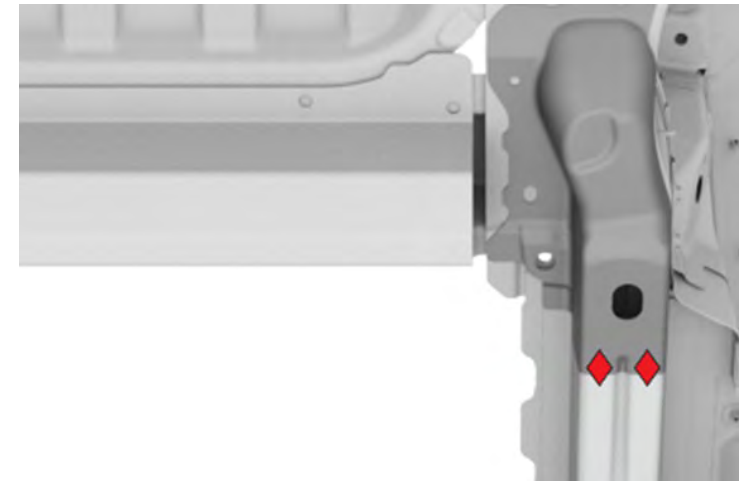




Removal

Remove the original component (continued).

- Q** 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).





Removal

Remove the original component (continued).

R

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 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.

S

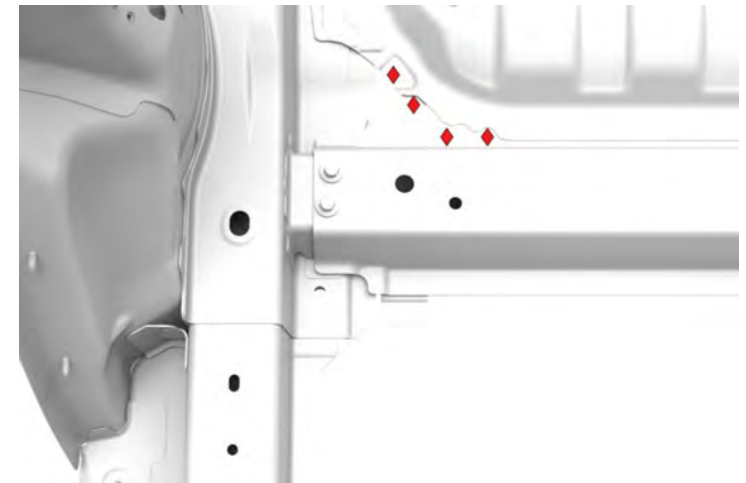
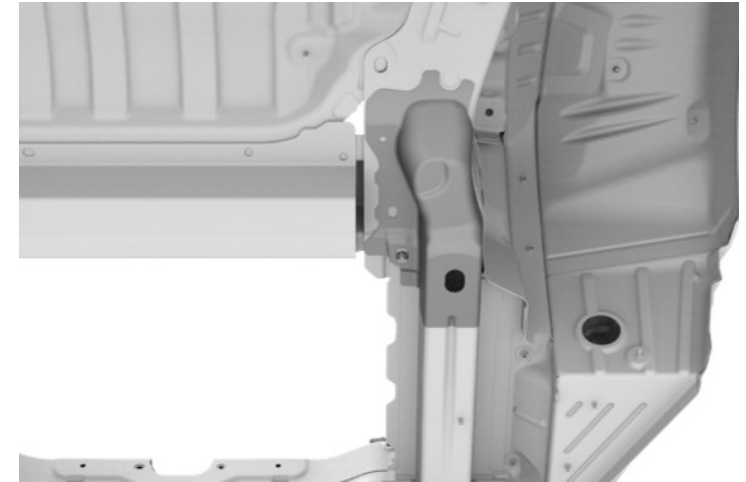
Use a drill with a 6.7 mm bit to drill out the factory self-piercing rivets.



Factory SPR



NOTE: Factory SPR locations shown are approximate. Exact rivet locations and number may vary from vehicle to vehicle.





Removal

Remove the original component (continued).

T

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.

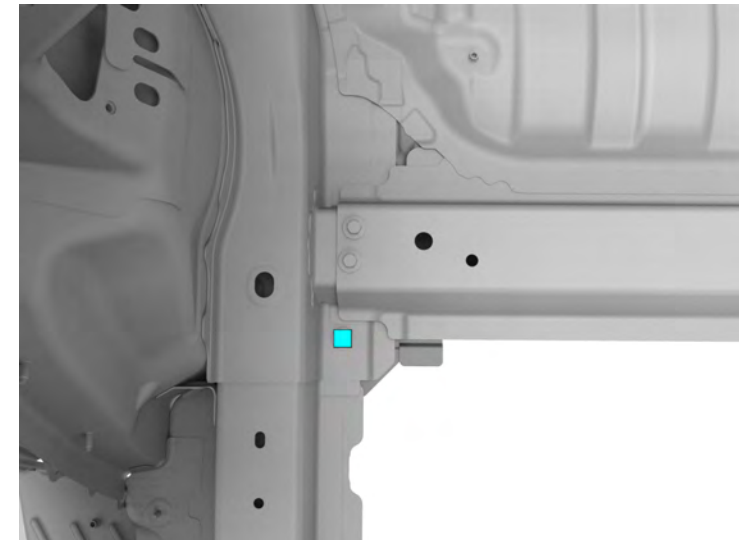
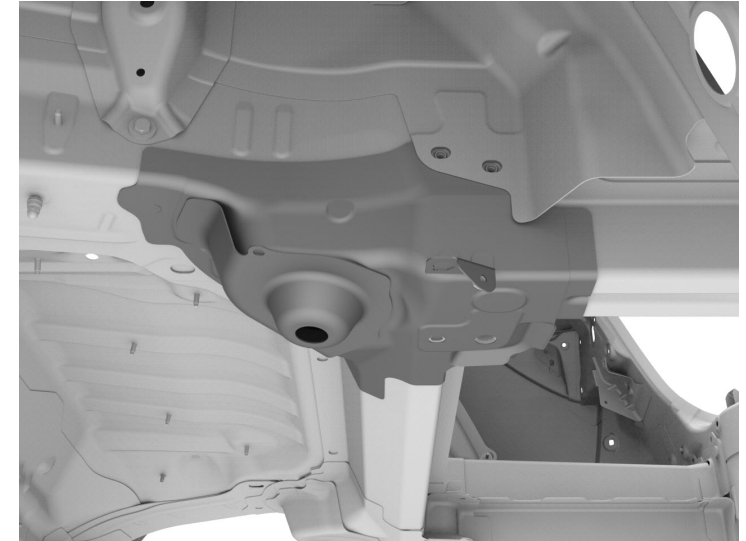


Replacement

1 Prepare for installation.

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

B Temporarily install the original bolt, but do not torque it at this time.
■ Bolt, hex-head (x1)





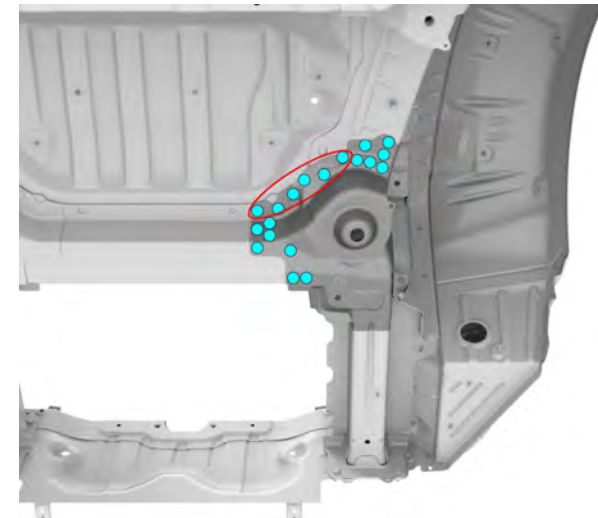
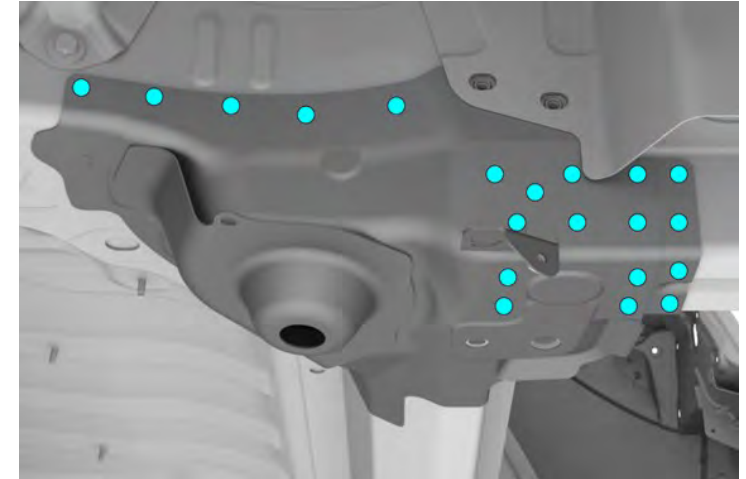
Replacement

1 Prepare for installation (continued).

C Mark the fastener locations on the new component.
● High Strength Structural Rivet, 6.5 mm (x57)



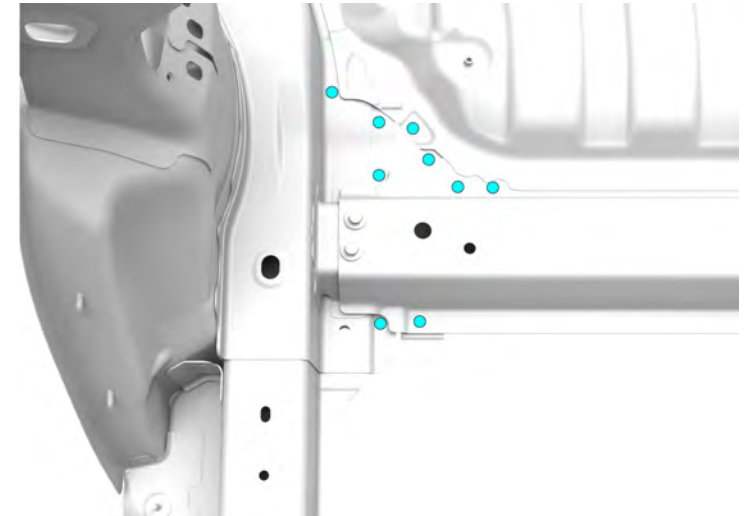
NOTE: Rivets circled in red will be installed from inside the vehicle.





Replacement

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





Replacement

1 Prepare for installation (continued).

D

Drill 6.7 mm holes for structural rivets.

● High Strength Structural Rivet, 6.5 mm (x57)



NOTE: Drill 6.7 mm holes for structural rivets in the new component through the existing holes that were used for the factory self piercing rivets in the original component.



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

E

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



Replacement

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

- 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.



Replacement

2 Prepare the surfaces (continued).

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.

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).



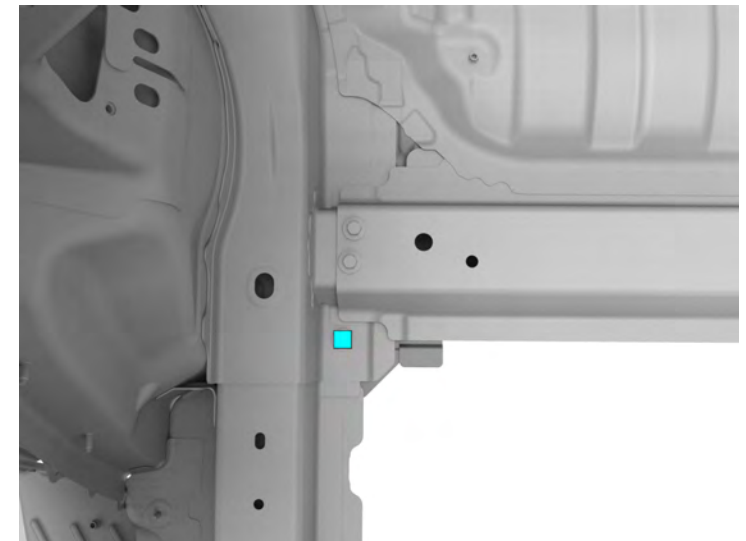
NOTE: Assembly must be performed while the primer layer is still wet. The drying time of the adhesive varies depending on temperature and humidity.



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 From above, install the bolt but do not torque it at this time.
 -  Bolt, hex-head (x1)





Replacement

4 Install the new component (continued).

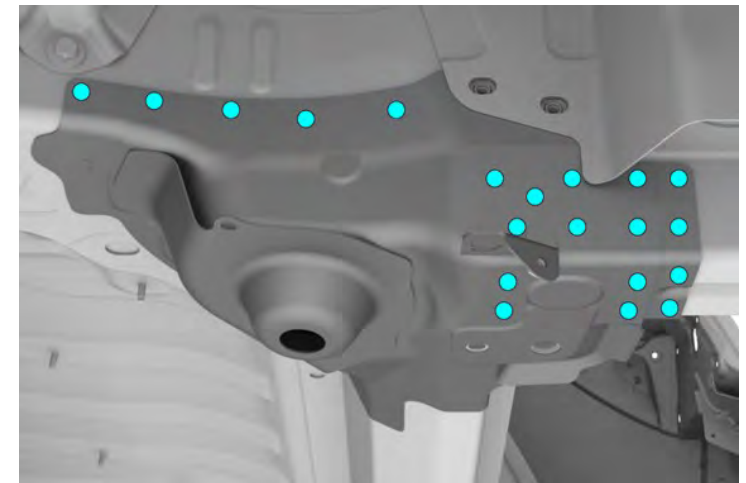
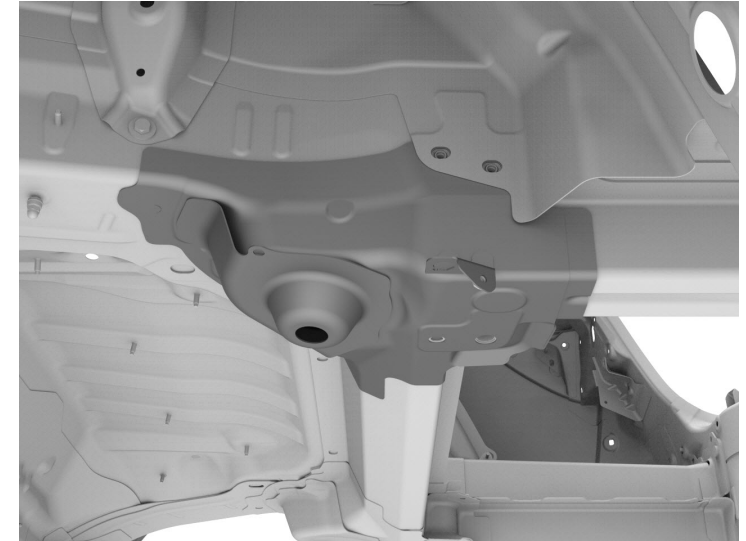
B Put the new component into position and align it to the frame bench jig points.

C Insert the structural rivets.

● High Strength Structural Rivet, 6.5 mm (x57)



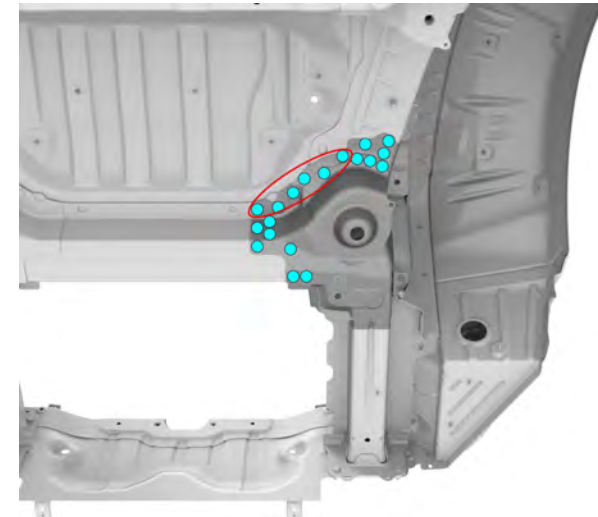
NOTE: Rivets circled in red are installed from inside the vehicle.





Replacement

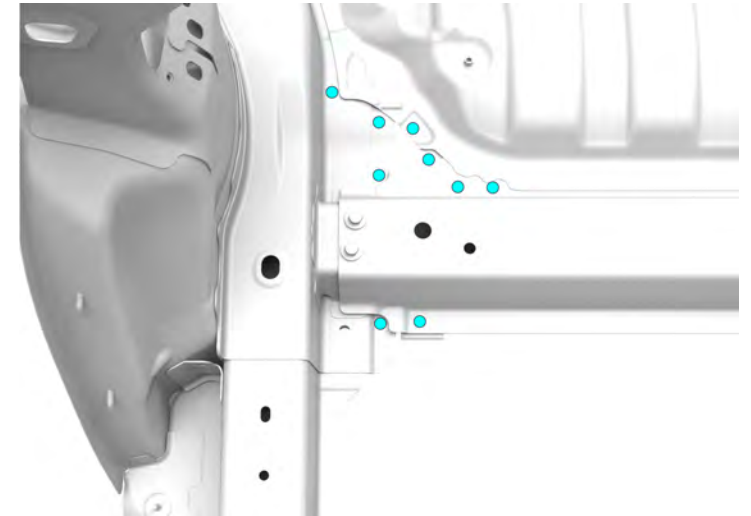
- 4 Install the new component (continued).
- C Insert the structural rivets (continued).





Replacement

- 4 Install the new component (continued).
- C Insert the structural rivets (continued).



- D Clamp all bonded areas not secured with a fastener.



Replacement

4 Install the new component (continued).

E Install the structural rivets.

F Reposition the part of the Wheelhouse Inner that was folded back in an earlier step.



NOTE: Make sure that the bolts can be inserted into the bolt holes.



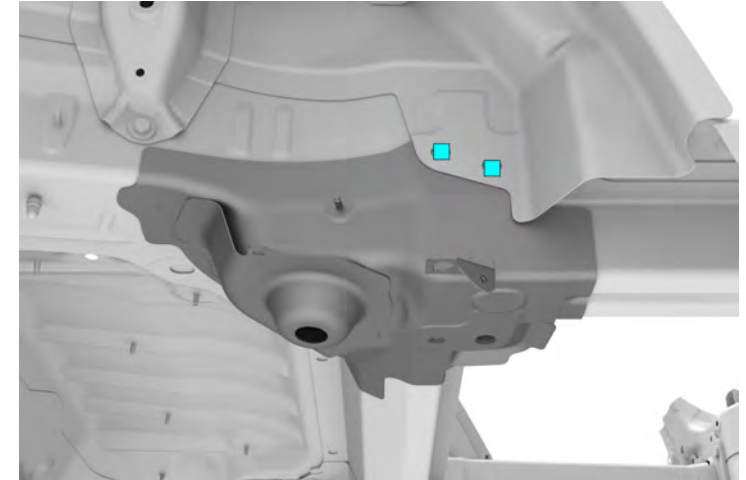
Replacement

4 Install the new component (continued).

G Temporarily install the bolts for the Rear Stiffener to keep the repositioned section of the Wheelhouse Inner in place until the adhesive has cured.

■ Bolt, hex-head (x2)

H Wipe off any excess adhesive.



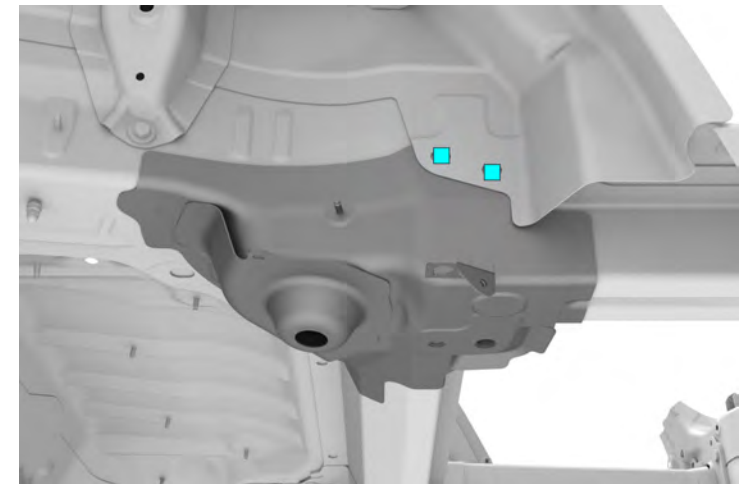
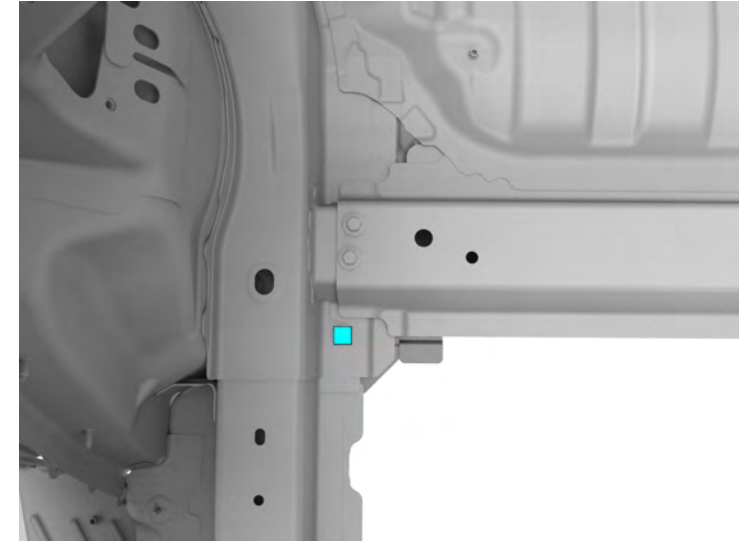


Replacement

4 Install the new component (continued).

- 1 Torque the bolts to 24 Nm.

■ Bolt, hex-head (x3)





Replacement

4 Install the new component (continued).

J

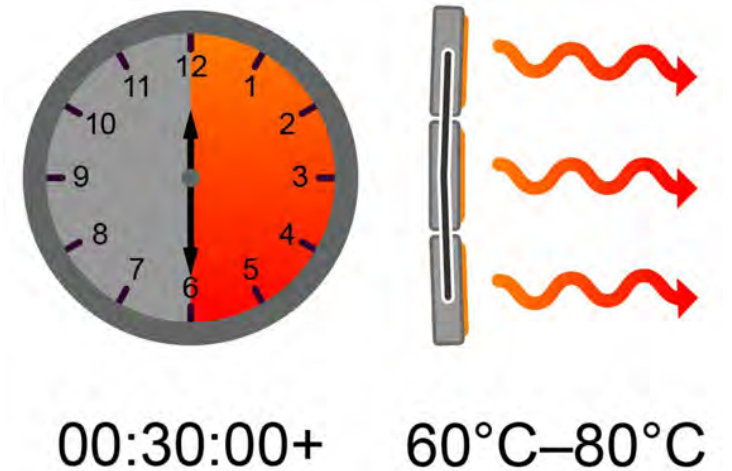
Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



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.

K

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





Replacement

5

Install the Rear Wheel House Rear Stiffener.



6

Install the Trunk Floor Assembly (Complete).

