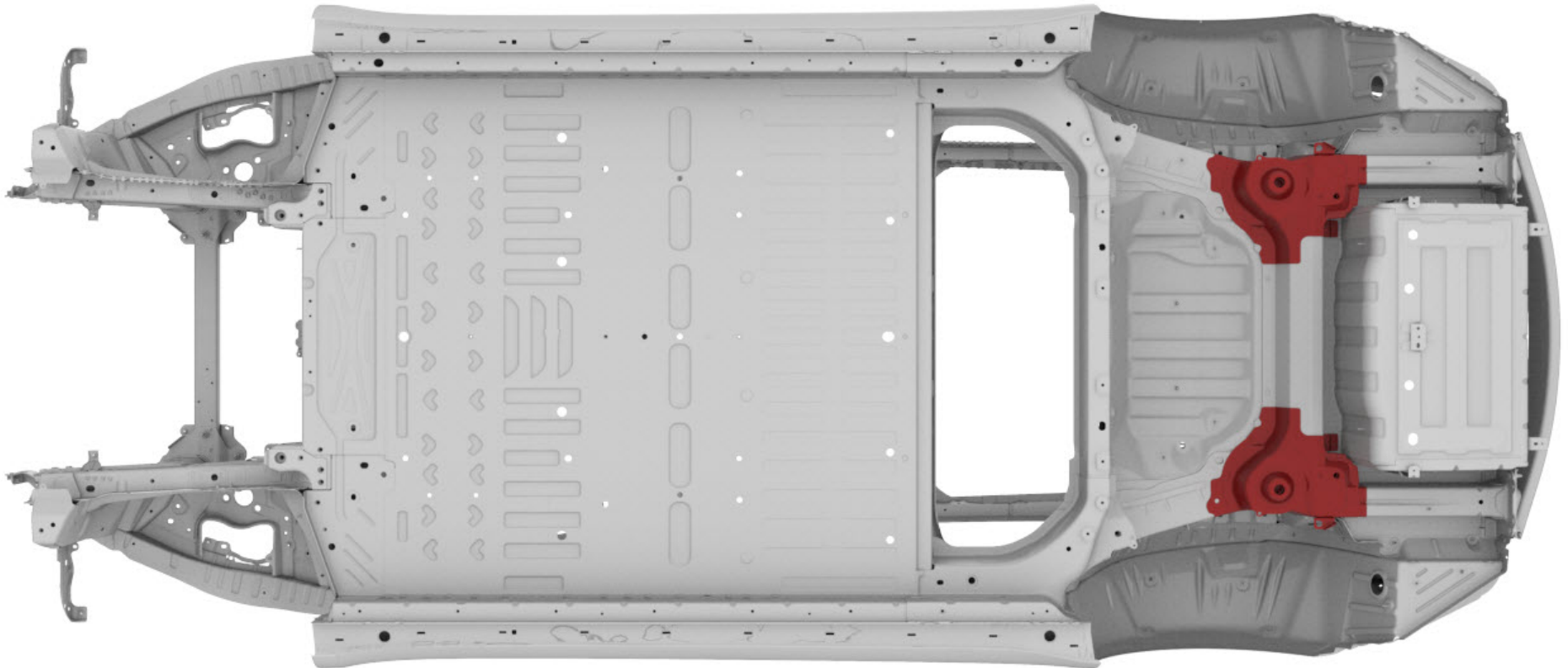








## Rear Spring and Subframe Mount







## 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	 <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.  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](#).



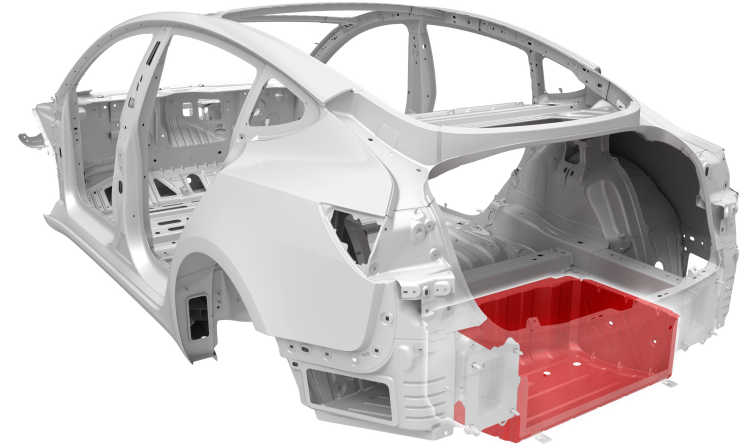
## Repair Information

Repair Information	Warnings and Cautions	Special Tools
<p>This procedure is for the left-hand component; the procedure is identical for the right-hand component.</p>	<p> <b>WARNING:</b> Wear the appropriate personal protective equipment (PPE) when performing this procedure.</p> <p> <b>CAUTION:</b> This procedure involves both steel and aluminum components. Use the appropriate tools at each step to avoid cross-contamination. Refer to <a href="#">BR-17-10-005</a>, "Model 3 Body Structure Materials and Allowed Operations," for more information.</p>	<p>The special tool listed below is required to perform this procedure:</p> <ul style="list-style-type: none"><li>• Frame bench</li></ul> <p>The vehicle must be properly mounted on an approved frame bench to replace this component. Refer to <a href="#">BR-16-92-006</a>, "Approved Frame Bench Systems" for a list of current approved bench repair systems.</p>

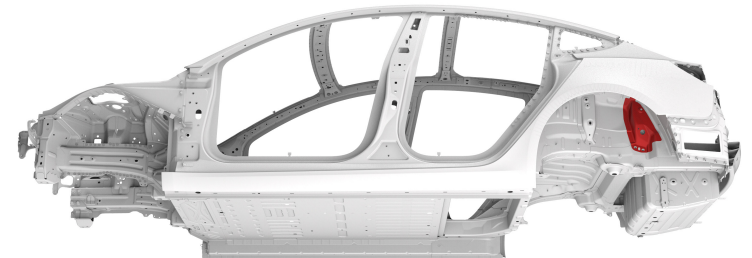


## Prerequisites

1 Remove the Trunk Floor Assembly (Complete).



2 Remove the Rear Wheel House Rear Stiffener.





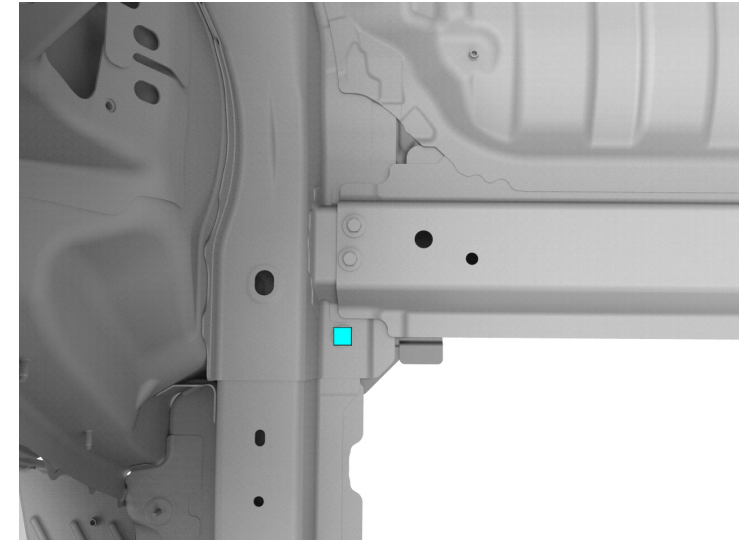
## Removal

Remove the original component.

A

Remove and discard the original bolt.

■ Bolt, hex-head (x1)



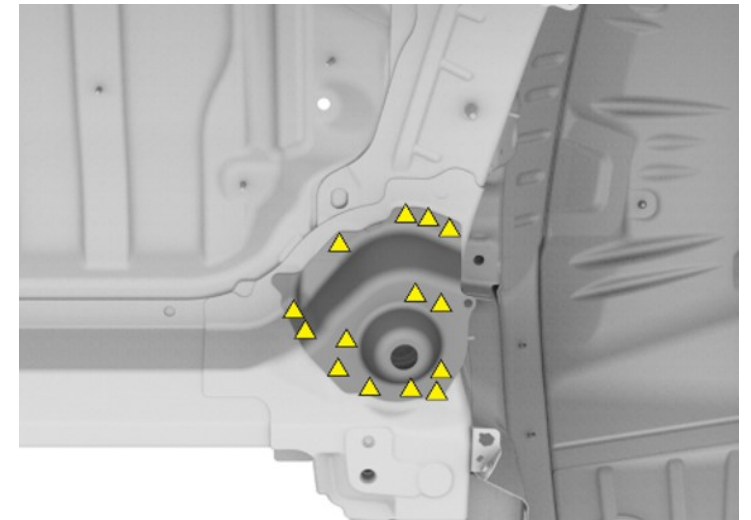
B

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.

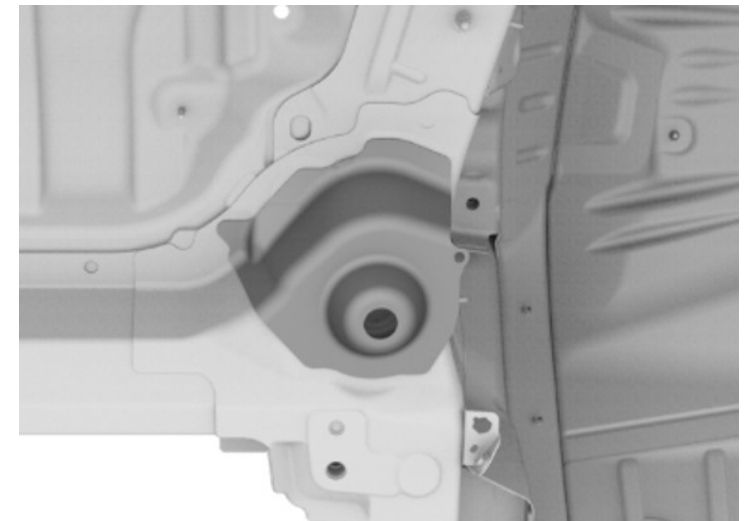
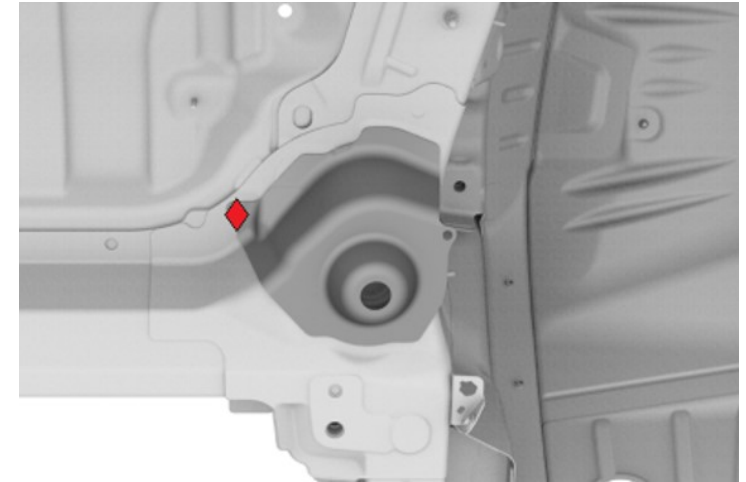
**D** Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the original component.



**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.

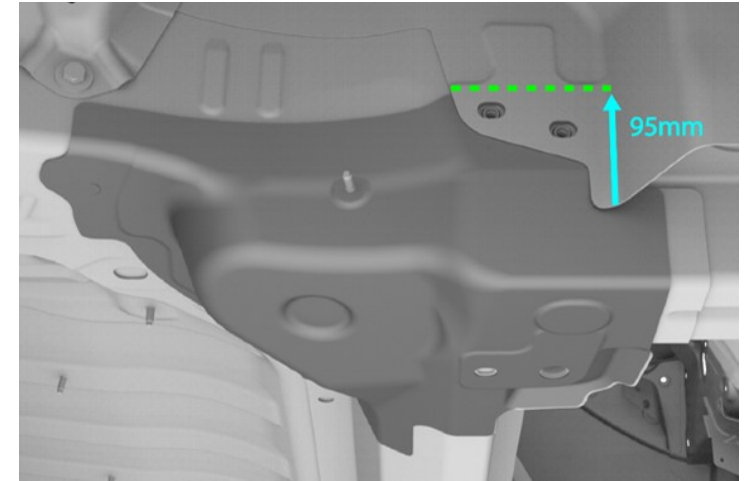




## Removal

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.

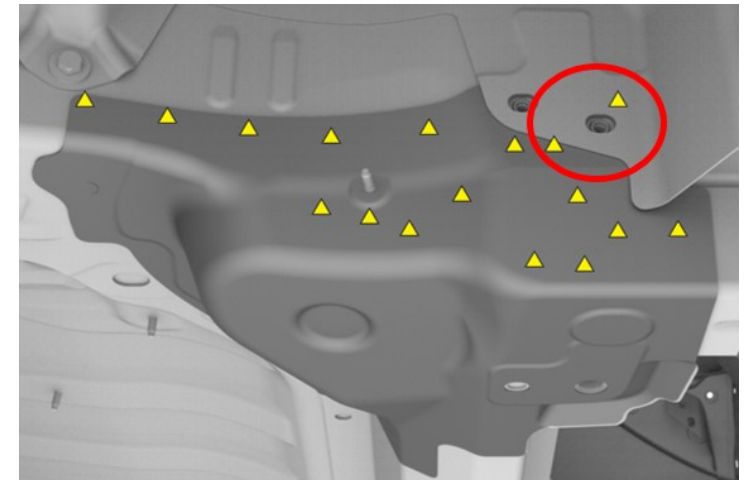
▲ Factory Spot Weld



**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.



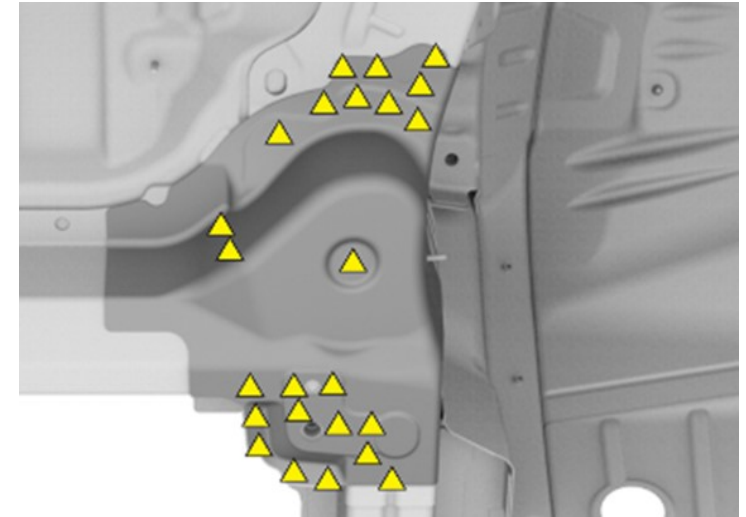




## Removal

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).

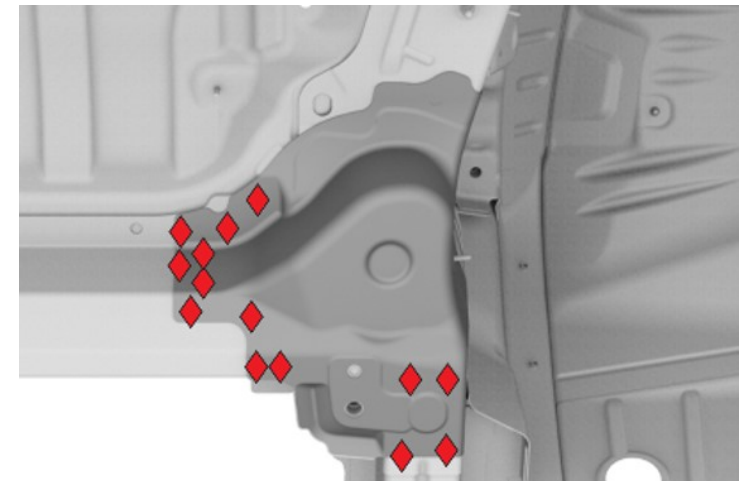


**I** Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.

 Factory SPR



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

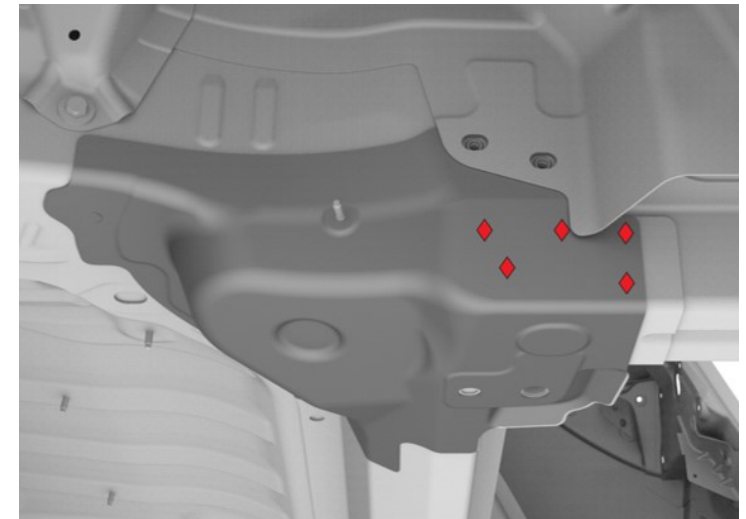




## Removal

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.



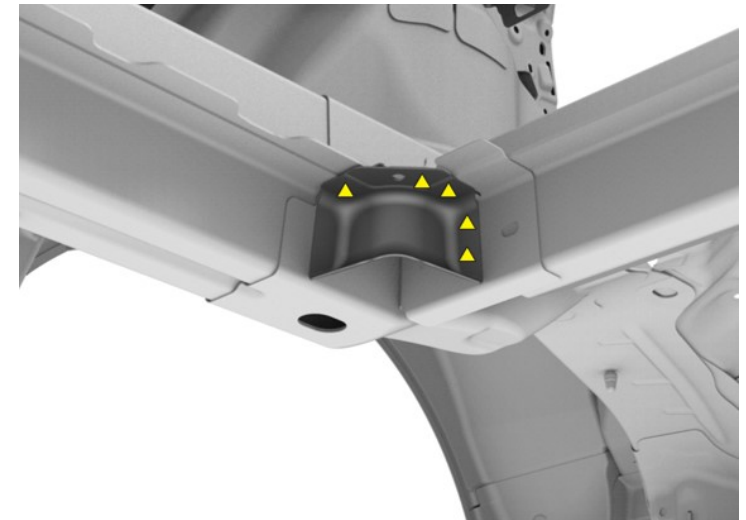
**NOTE:** Welds circled in red must be drilled out while the Wheelhouse Inner section is folded back.

**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

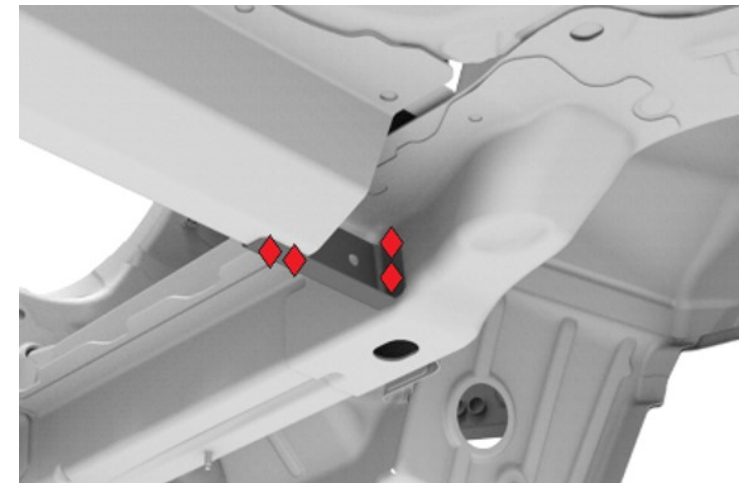
Use an SPR removal tool or a drill with a high-strength steel bit to remove the factory self-piercing rivets. Use a belt sander for any factory self-piercing rivets that cannot be removed with an SPR removal tool or a drill.



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).

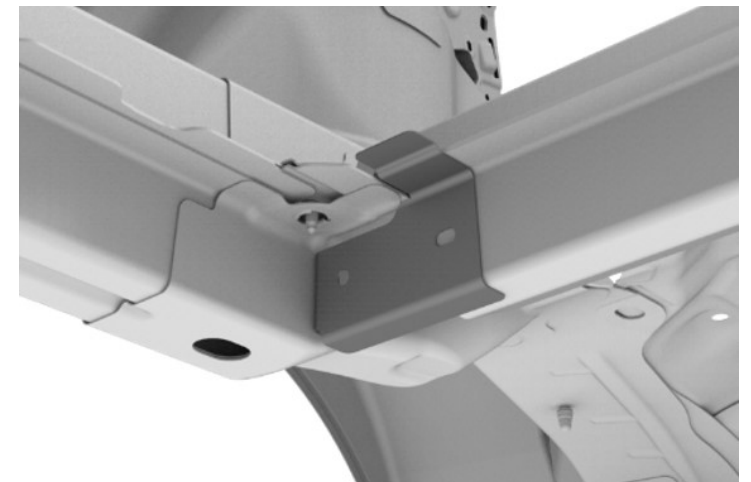
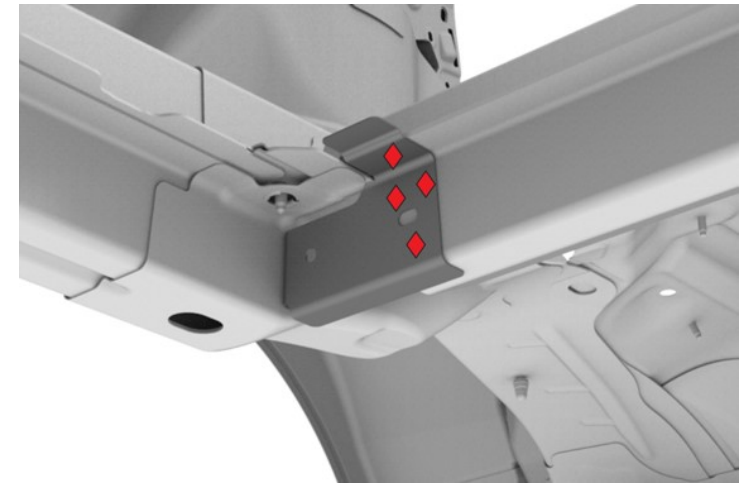
**O** Use a heat gun to heat the adhesive joints, and then use a hammer and chisel to remove the original component.



**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.

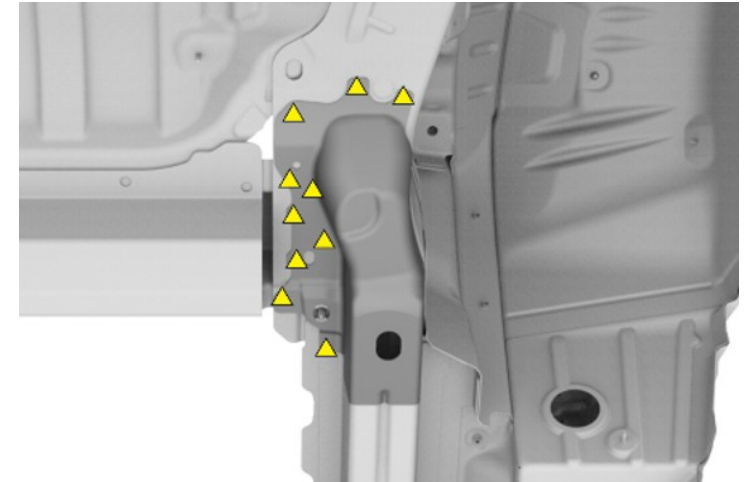
Q

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.



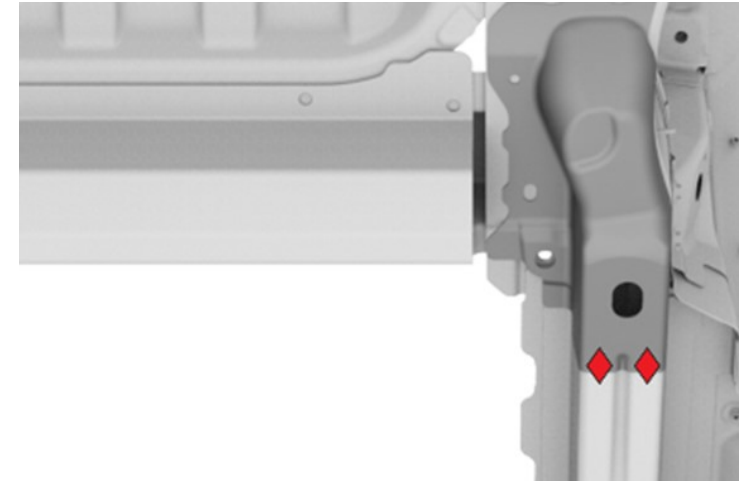


## Removal

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.

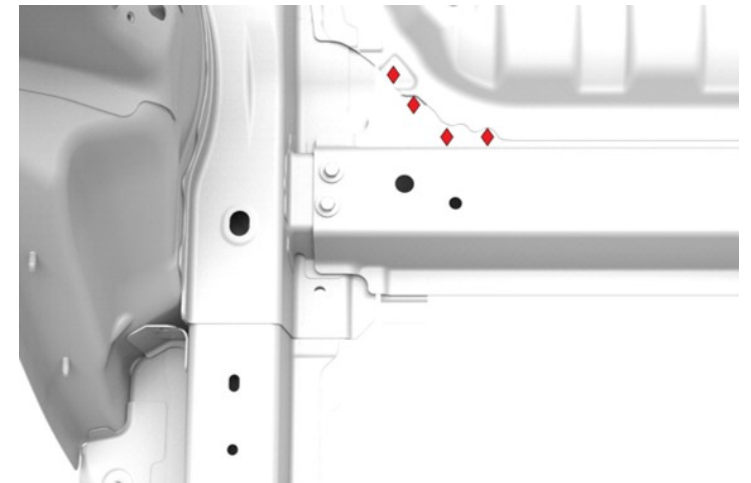
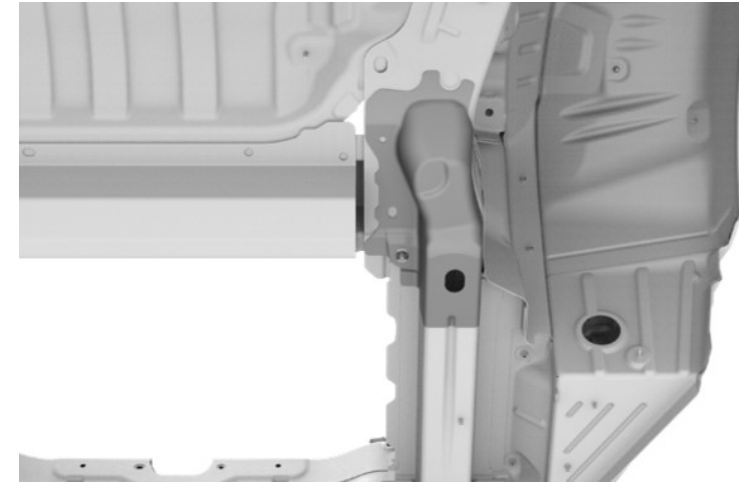
S

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.

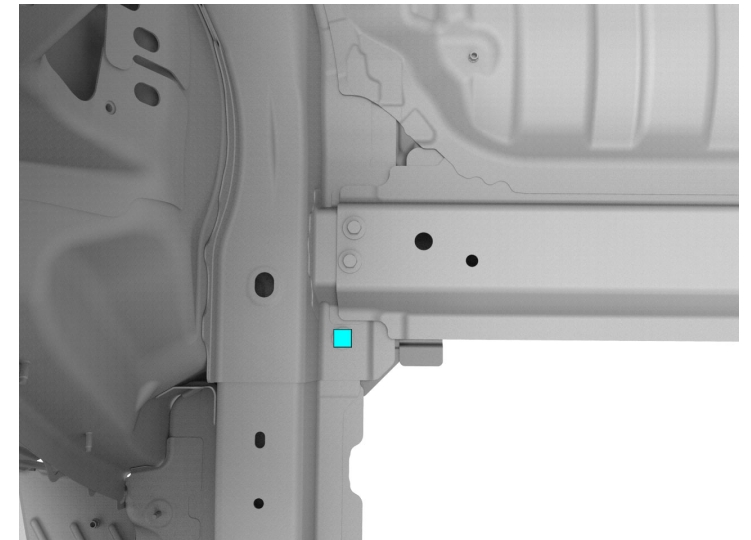
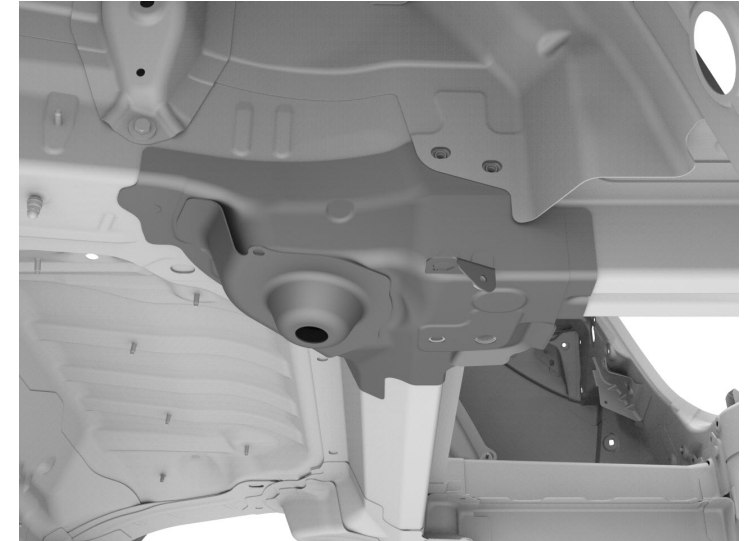


## Replacement

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)





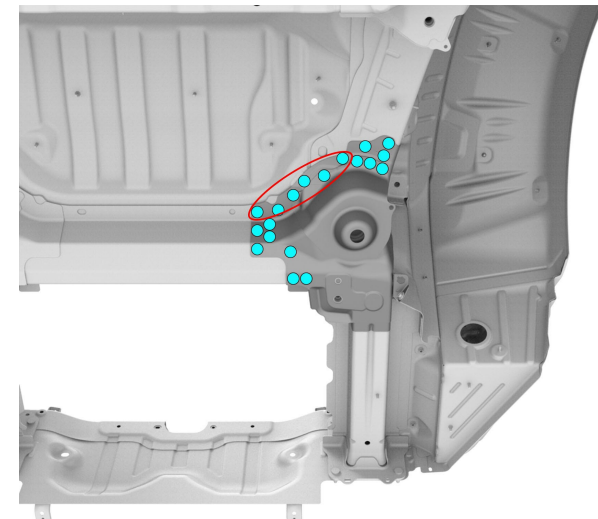
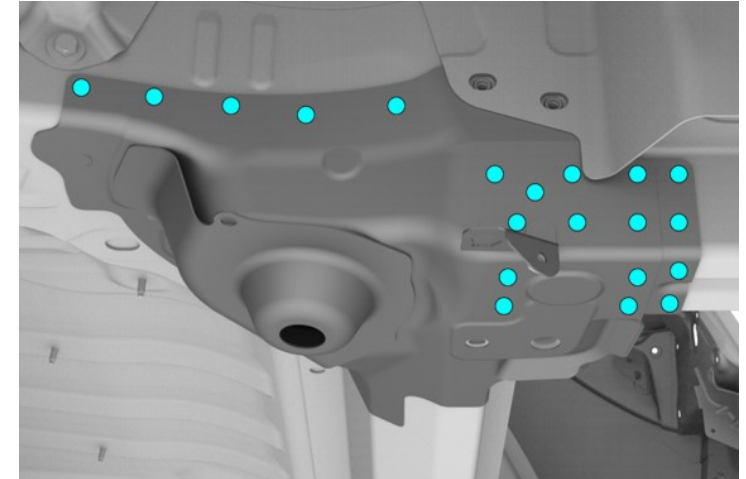
## Replacement

1 Prepare for installation (continued).

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



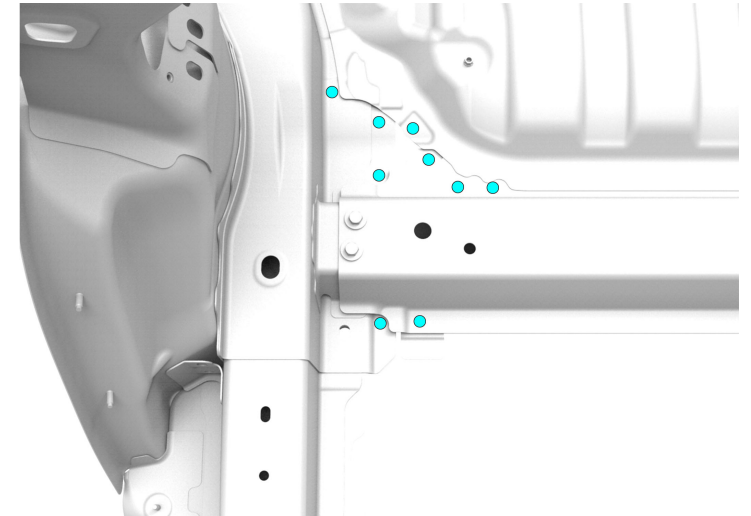
**NOTE:** Rivets circled in red will be installed from inside the vehicle.





## 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).



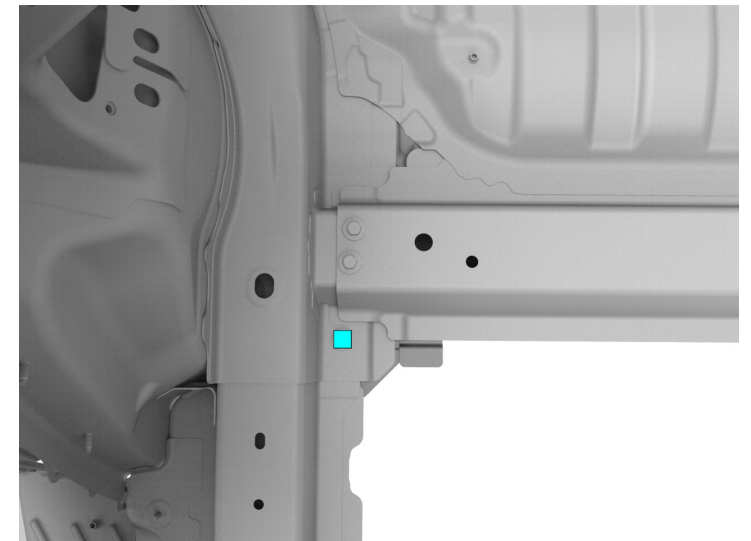
**NOTE:** Assembly must be performed while the primer layer is still wet. The drying time of the adhesive varies depending on temperature and humidity.



## 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

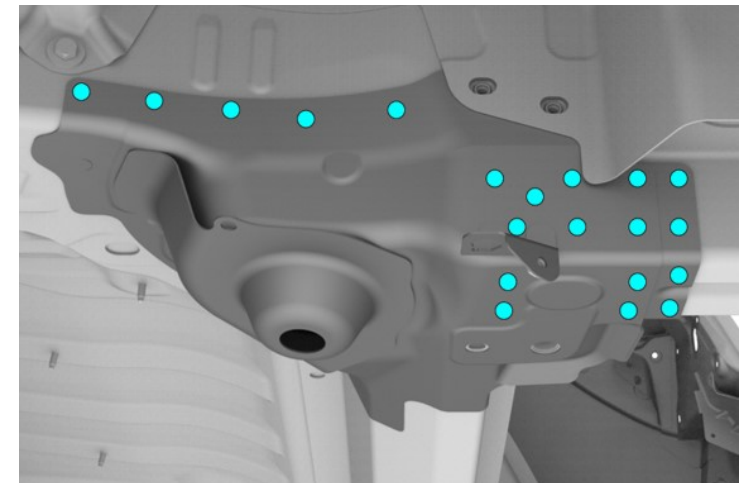
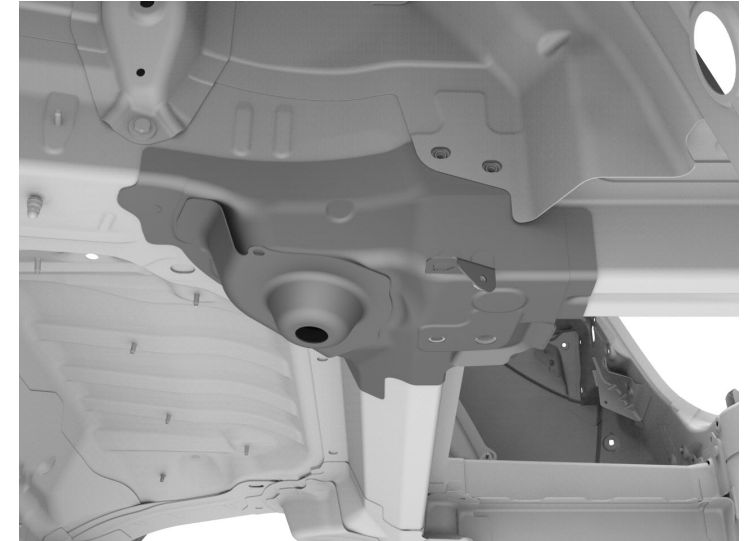
4 Install the new component (continued).

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)



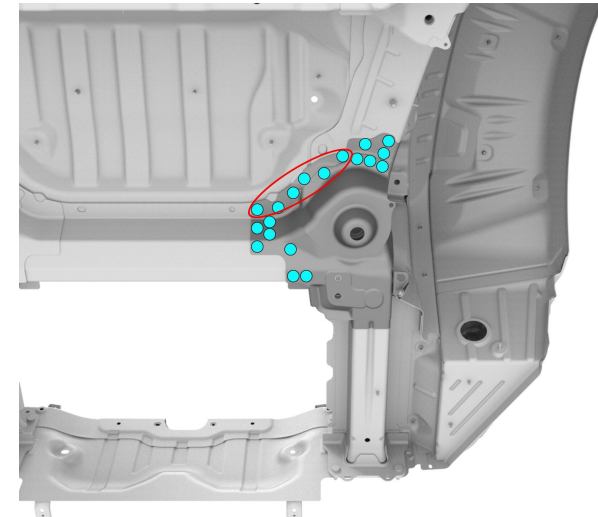
**NOTE:** Rivets circled in red are installed from inside the vehicle.





## Replacement

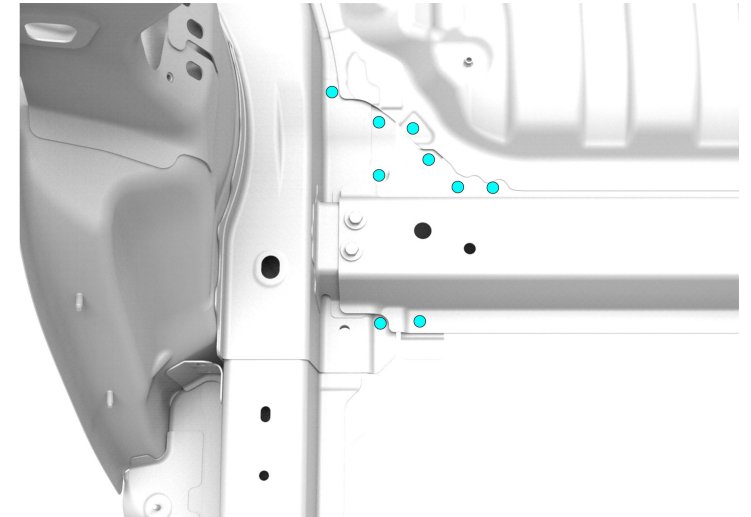
- 4 Install the new component (continued).
- C Insert the structural rivets (continued).





## 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.



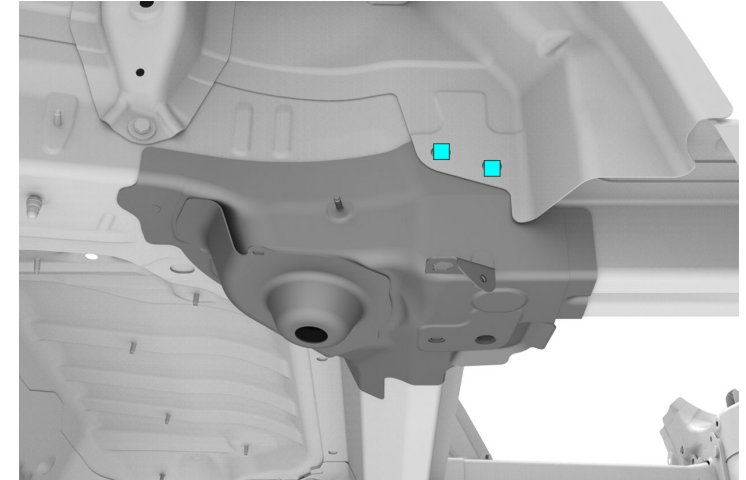
## Replacement

**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.



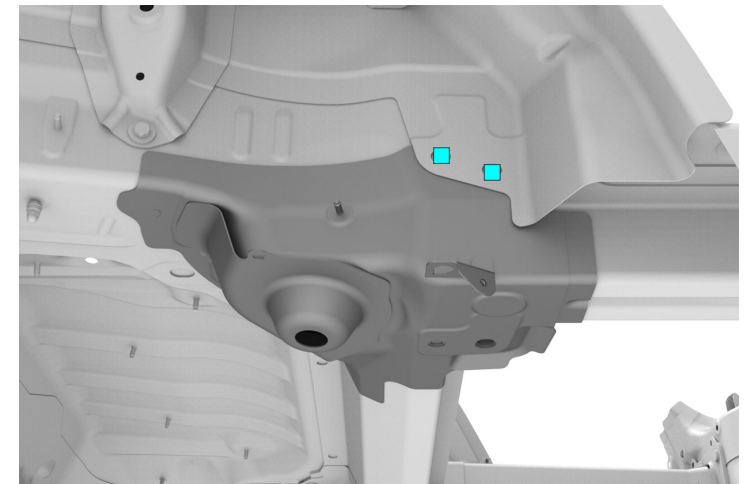
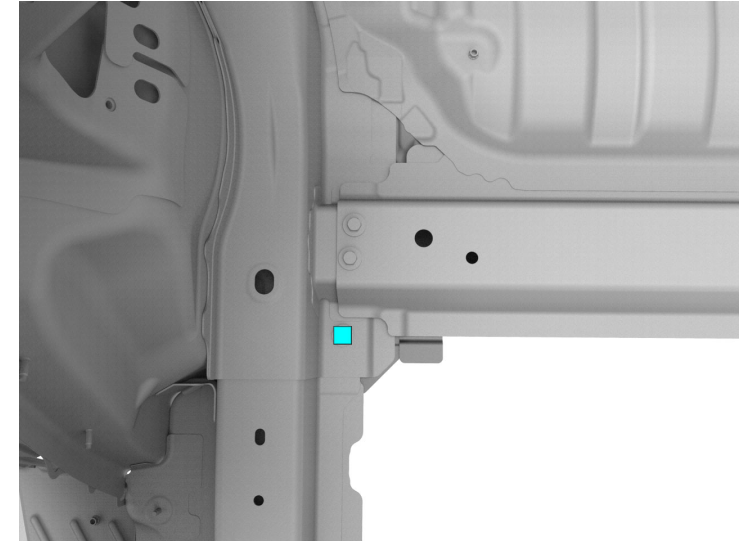


## Replacement

4 Install the new component (continued).

1 Torque the bolts to 24 Nm.

■ Bolt, hex-head (x3)





## Replacement

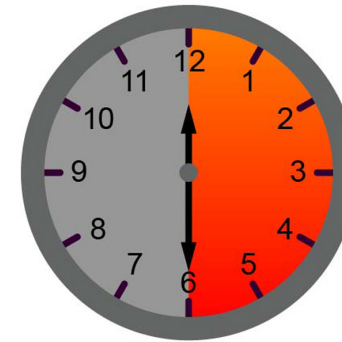
4 Install the new component (continued).

J

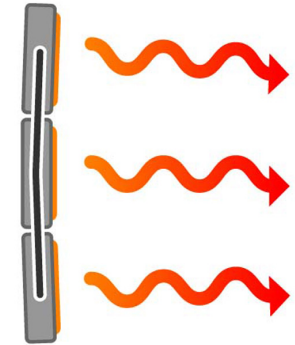
Bake the structural adhesive so that the bonded panels reach a temperature of 60°C–80°C (140°F–176°F) for at least 30 minutes to achieve full strength.



**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.



00:30:00+



60°C–80°C

K

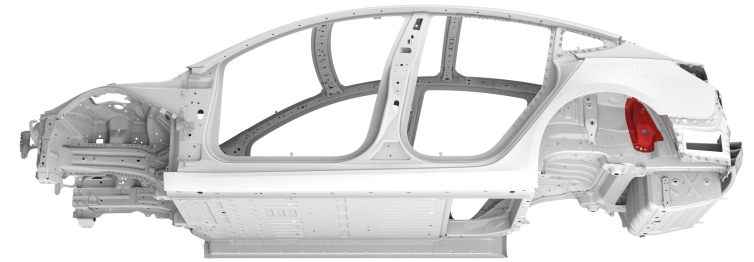
Seal the seams in the factory locations, and as necessary.



## Replacement

5

Install the Rear Wheel House Rear Stiffener.



6

Install the Trunk Floor Assembly (Complete).

