Wheelhouse Extension

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Parts List

Quantity	Part Number	Description	Image / Notes
1	1077156-S0-A (LH) 1077158-S0-A (RH)	Wheelhouse Extension	
16 rivets needed; order 20 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.
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.

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Repair Information

Repair Information	Warnings and Cautions	Special Tools
This procedure is for the right-hand component; the procedure is identical for the left-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.	No special tools are required to perform this procedure.

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Prerequisites

Remove enough of the Body Side Outer in the quarter panel area to access the Wheelhouse Extension, including all damaged areas.

CAUTION: Make sure to section the Body Side Outer away from underlying aluminum components. Refer to BR-17-10-005, “Model 3 Body Structure Materials and Allowed Operations” for more information on component materials.

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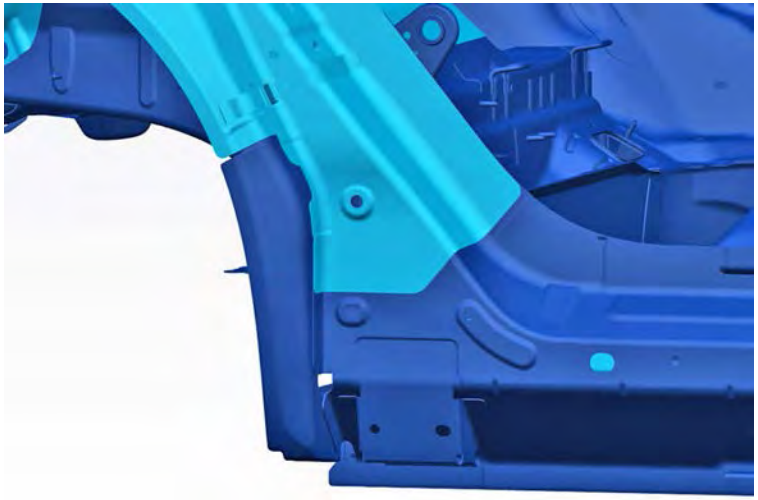
Removal

1 Identify the steel components and the aluminum components in the repair area.

Aluminum

Steel



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Removal

2 Remove the original component.

A Remove the foam dams in the area shown.

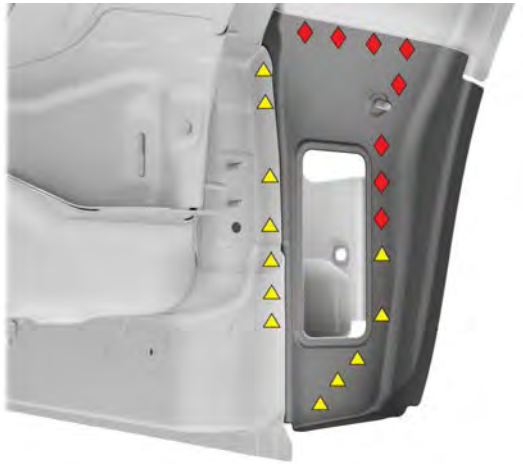
NOTE: Keep the foam dams for reinstallation in a later step.

B Identify the fasteners.

△ Factory Spot Weld (x12)

◆ Factory SPR (x8)

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



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Removal

2 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 (x8)

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Removal

2 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 (continued).

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Removal

2 Remove the original component (continued).

D Remove any seam sealer as necessary to identify the factory spot welds.

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

△ Factory Spot Weld (x5)

NOTE: The remaining spot welds are removed in a later substep.

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

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Removal

2 Remove the original component (continued).

E Use a drill with a spot weld bit to drill out the factory spot welds shown (continued).

F Cut away enough of the original component to access the remaining spot welds.

CAUTION: Do not damage the surrounding components, including the foam dam that is behind the lower portion of the panel.

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Removal

2 Remove the original component (continued).

G Use a belt sander to sand down the remaining factory spot welds.

△ Factory Spot Weld (x7)

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Removal

2 Remove the original component (continued).

H 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.

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Removal

3 Use a disc sander with a medium-abrasive surface conditioning disc to remove any remaining materials from the bond paths. 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.

CAUTION: Beware of cross-contamination. Do not use the same equipment to remove epoxy from aluminum and steel. Cross-contamination might result in galvanic corrosion.

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Replacement

1 Prepare for installation.

A Put the new component into position and clamp it into place.

B Use a drill with a 4.8 mm (3/16 in) bit to drill holes for structural rivets.

- Structural Rivet, 4.8 mm (x16)

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

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Replacement

1 Prepare for installation (continued).

B Use a drill with a 4.8 mm (3/16 in) bit to drill holes for structural rivets (continued).

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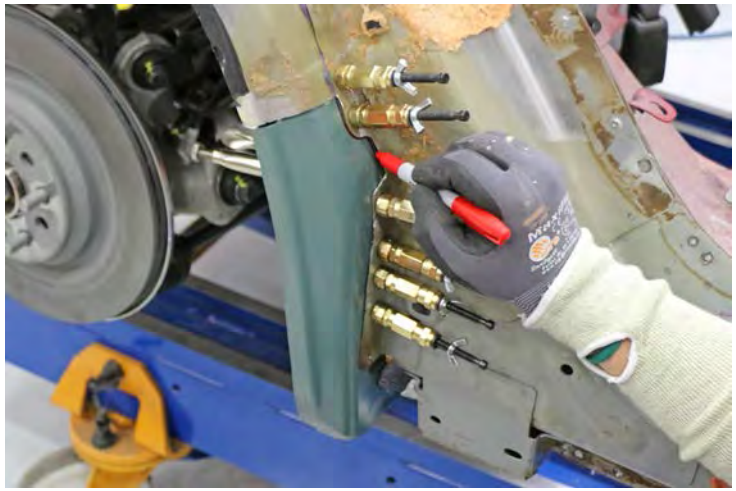
Replacement

1 Prepare for installation (continued).

C Mark the bond path areas on the new component. These areas will be prepared for bonding in a later step.



D Remove the new component.

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Replacement

1 Prepare for installation (continued).

E Mark the bond path areas on the new component. These areas will be prepared for bonding in a later step.

Steel-to-Aluminum Bond Path

Steel-to-Steel Bond Path

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Replacement

1 Prepare for installation (continued).

E Mark the bond path areas on the new component. These areas will be prepared for bonding in a later step (continued).

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Replacement

2 Prepare the surfaces of the vehicle and the new component for installation.

A Use a red Scotch-Brite pad or equivalent to scuff the new component in the steel-to-aluminum bond path areas.

Steel-to-Aluminum Bond Path

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Replacement

2 Prepare the surfaces of the vehicle and the new component for installation (continued).

B Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat on the new component in the steel-to-steel bond path areas. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander.

Steel-to-Steel Bond Path

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

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Replacement

2 Prepare the surfaces of the vehicle and the new component for installation (continued).

B Use a disc sander with a medium-abrasive surface conditioning disc to remove the e-coat on the new component in the steel-to-steel bond path areas. Use a belt sander with a medium-abrasive belt for any areas that cannot be reached with a disc sander (continued).

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Replacement

2 Prepare the surfaces of the vehicle and the new component for installation (continued).

C Clean all the bond paths on the new component or components and on 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 bond paths on the vehicle and the new component.

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.

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

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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 new component.

4 Install the new component.

A Put the new component into position and insert the structural rivets.

- Structural Rivet, 4.8 mm (x16)

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Replacement

4 Install the new component (continued).

A Put the new component into position and insert the structural rivets (continued).

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Replacement

4 Install the new component (continued).

B Install the structural rivets.

C Clamp the areas that do not have fasteners installed.

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Replacement

4 Install the new component (continued).

C Clamp the areas that do not have fasteners installed (continued).

D Wipe off any excess adhesive.

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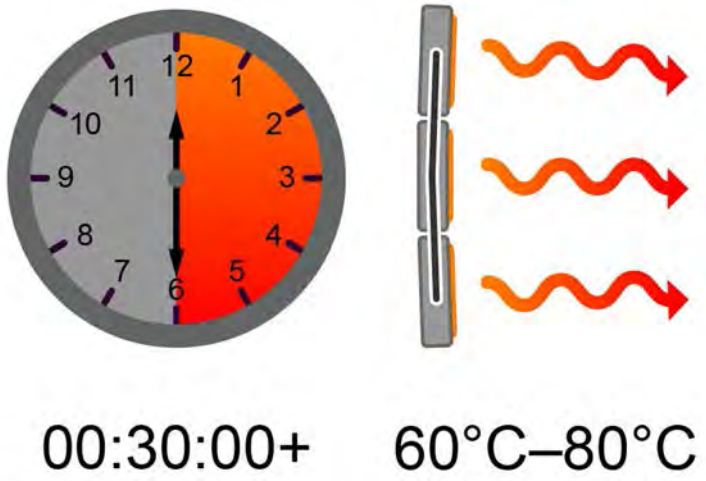
Replacement

4 Install the new component (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.



5 Reinstall the foam dams that were removed in an earlier step.

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Replacement

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

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