 Tesla, Inc. Service Bulletin		<h2>Seal Roof Rail To Upper Header Gap To Prevent Water Ingress</h2>	
SB-21-10-004 July 30, 2021			
Classification		Section/Group	Mobile Service
Repair Bulletin		10 - Body	Can Perform (where permitted)
Model Year	Model	Country/Region	Version
2021	Model 3	Europe, Middle East	All
<small>The model(s) and model year(s) listed are a general approximation of the affected VIN list. Refer to the VIN/Bulletin Tracker or Customer/Vehicle profile to determine applicability of this bulletin for a particular vehicle.</small>			


Repair Bulletin: This repair bulletin provides instructions on addressing a noted condition or possible customer concern regarding the operation of Tesla vehicles. These instructions should only be performed by trained professionals.

Condition

On some Model 3 vehicles, there might be a gap between the roof rail and upper header, which might permit water ingress into the cabin.

Correction

Upon customer complaint, inspect and test the vehicle for the symptom related to the condition. If the symptom is present, seal the roof rail to upper header gap.

 **NOTE:** If the spacing between the roof and backlight is too restrictive to perform this repair, it might be necessary to remove the roof panel. Refer to Service Manual procedure [10205002](#).

If that does not provide enough access, then remove the backlight glass. Refer to Service Manual procedure [10204102](#).

If roof panel and backlight glass removal is necessary, add those remove and install procedures as separate activities to the Service Visit.

Correction Description	Correction	Time
SB-21-10-004 No Water Leaks Found	S012110004	0.05
Seal Roof Rail Panel Gaps (One Side)	S022110004	0.15
Seal Roof Rail Panel Gaps (Both Sides)	S032110004	0.20

	Part Number	Description	Quantity
Parts Required	1102346-00-A	REMA TIP TOP INNERLINER SEALER BOTTLE 210 ML "DG"	1
	1683136-00-A	KIT, SYRINGE AND NOZZLES, EMEA	1
<small>These part numbers were current at the time of publication. Use the revision listed or later, unless otherwise specified in the Parts Catalog.</small>			
Shop supplies	Pick Tool Ruler/Tape Measure IPA Wipes		

Nozzle Selection

In the situation that the recommended syringe kit is unavailable, source a substitute part locally. Use these constraints to properly select a substitute part:

- **Nozzle Dimensions**

The nozzle must fit into a gap of approximately 2 mm, for a depth of at least 5 mm. For proper flow, the minimum inner diameter at the nozzle tip must be greater than 1 mm. Cut the nozzle to length if necessary.

- **Nozzle Attachment**

The nozzle must twist onto the syringe. Press-on nozzles will pop off the syringe under pressure.

- **Nozzle Sizing**

1. Use a pick tool to open the seal where the roof and backlight glass meet.
2. Insert the nozzle and syringe as deep as they will go into the gap (until the nozzle is stopped by the glass panel edges or until the nozzle bottoms out).
3. Use a thin marker to mark the level of the glass on the nozzle with a clear level line.
4. Remove the nozzle and syringe, and measure 5 mm from the level line towards the tip of the nozzle. Cut the nozzle at that distance (Figure 1).

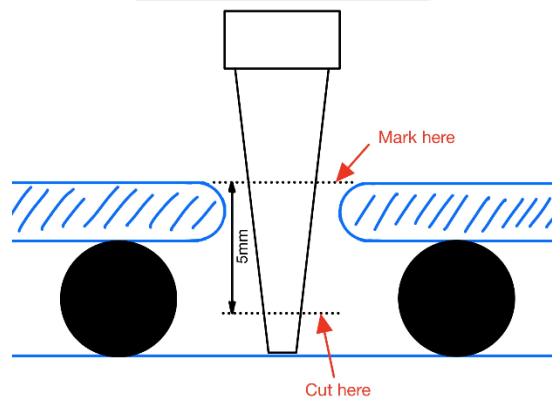


Figure 1

If the cut would happen past the nozzle tip, the nozzle is too short or too thick for this application. Find a different nozzle.

Condition Description

Water ingress can occur at the roof rail and upper header joint (Figure 2) and then can flow down into the cabin.

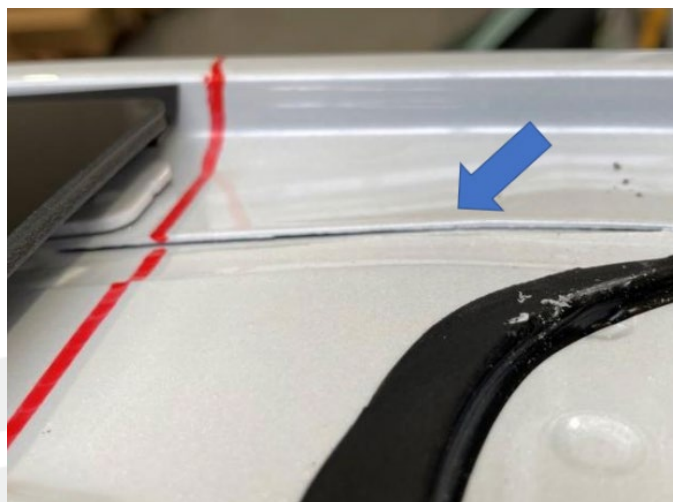


Figure 2 – Roof glass removed for clarity

Water ingress may be identified by the presence of wet or damp patches at the interior roof trims and/or C-pillar trims (Figure 3). Follow the Inspection and Repair Procedure in this bulletin procedure to verify water ingress.

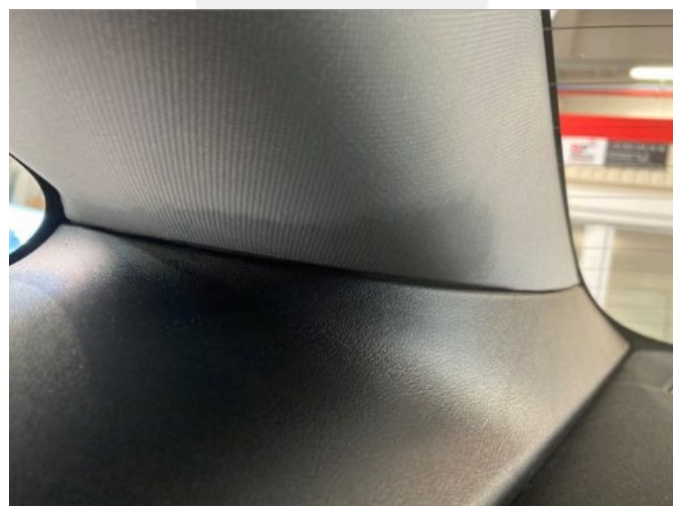



Figure 3

Inspection and Repair Procedure

 **NOTE:** Perform this procedure only when the vehicle/repair area has a normal working temperature of at least 16°C (61°F).

1. If available, use the [Omisonic Ultrasound diagnostic tool](#) to pinpoint the gap in the sealant, and then continue to step 3.
2. If the Omisonic Ultrasound diagnostic tool is not available, follow the steps below:
 - a. Make sure the vehicle is parked on level ground.
 - b. Partially remove the LH and RH Side Rail Trim (Figure 4). Refer to Service Manual procedure [15186601](#).



Figure 4

- c. Use a pick tool to open the seal between the roof and backlight glass
- d. Pour water into the opening at one side of the vehicle (Figure 5). With the aid of an assistant, check for any water ingress into the vehicle.


 **NOTE:** You should need no more than 250 ml of water. If water ingress appears in the interior, stop adding water immediately.



Figure 5

- e. Repeat steps c and d for the other side of the vehicle.

- f. If no signs of water ingress are found on either side of the vehicle, discontinue this procedure as this bulletin does not apply.

If water ingress is found, continue to the next step.

3. Put on personal protective equipment (gloves and glasses).
4. Mark a line or apply tape at 50 mm from the edge of the roofline using a chalk marker or tape (Figure 6) to indicate where the roof rail joins the upper header.

Repeat on the other side of the vehicle if a leak was found there as well.



Figure 6

5. Use compressed air to thoroughly clean and dry the surrounding areas where the sealant will be injected (Figure 7).

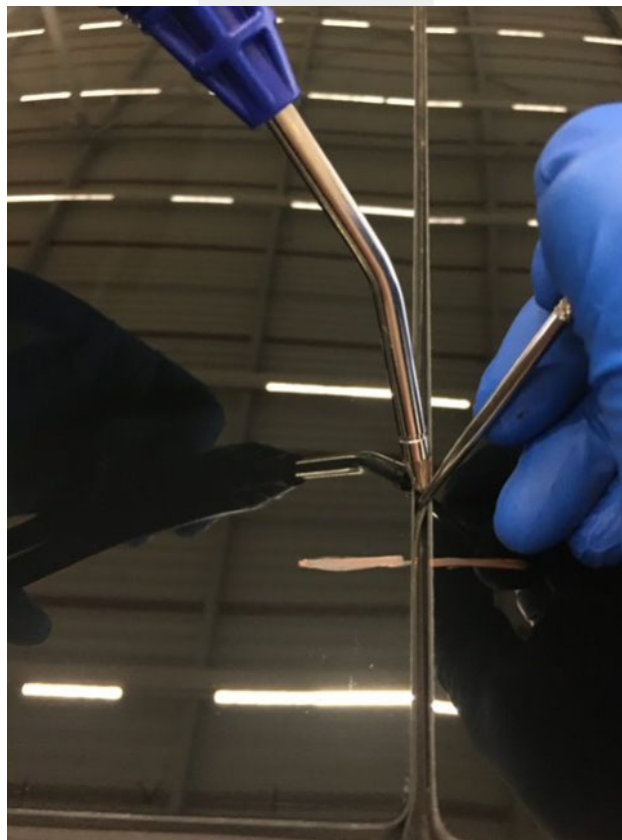


Figure 7

6. Install the sized nozzle onto the syringe.
7. Fill the syringe with slightly more than 4 cc (for one side repair) or more than 8 cc (for both sides repair) of Tip Top Innerliner Sealer (Figure 8).



Figure 8

8. Insert the plunger into the syringe, turn the syringe nozzle up, and then slowly press the plunger to remove all air in the syringe (Figure 9).


 **NOTE:** Stop before any sealant is released from the nozzle tip; if necessary, wipe off any excess sealant from the nozzle tip using an IPA wipe.



Figure 9

- Use a pick tool to open the seal between the roof panel and the backlight glass to expose the roof panel (Figure 10).

! **CAUTION:** Be careful not to damage the rubber seal or the body paint beneath the seal.

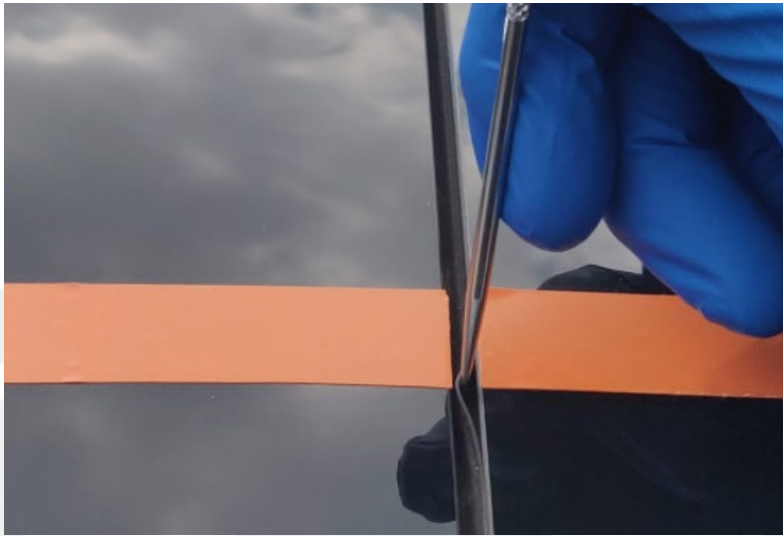


Figure 10

- Insert the syringe at the marked line, angling it to inject sealant towards the outside edge of the vehicle (Figure 11).



Figure 11

11. Inject 4 cc of sealant, pointing the nozzle slightly forward and backward (Figure 12) to ensure an even spread of the sealant.

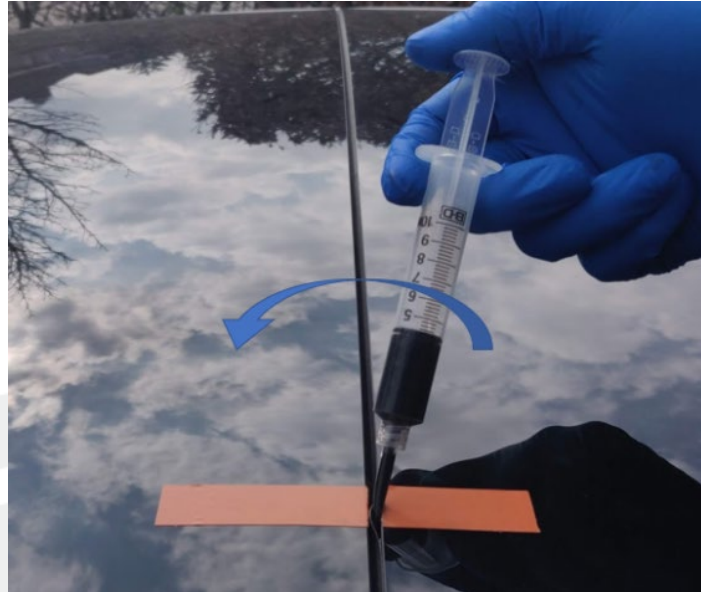


Figure 12

12. Repeat steps 9, 10 and 11 on the other side of the vehicle when leakage was identified there.
13. Remove tape/chalk pen marking, and then wipe off the roof glass surface with IPA wipes to remove any excess sealant.
14. Make sure the rubber seal is back in place.
15. Allow approximately 15 minutes tack time for the sealant before the car is moved. This is to ensure that the sealant runs into the upper header gap as intended.

! **CAUTION:** Do not force the sealant to dry using a heat gun or any other source of heat.

☰ **NOTE:** Drying time is 15 minutes at an ambient temperature of approximately 19°C.

16. Verify that the sealant is tack dry by inspecting it at the location shown (Figure 13).



Figure 13

17. After two hours, repeat the water leak test as outlined in step 2 of this procedure and make sure the water leak issue is resolved. Only use low pressure water for the test.

! **CAUTION:** Allow the vehicle to dry for at least 12 hours before doing a car wash with chemicals and/or pressure washing.

18. Inspect interior trim and electronic devices for any water damage. Replace any permanently damaged component(s).
19. Reinstall the LH and RH side rail trim. Refer to Service Manual procedure [15186601](#).