

60 Water entry into cabin from the sunroof area

60 23 69 2056944/10 October 12, 2023. Supersedes Technical Service Bulletin Group 60 number 23-67 dated August 23, 2023, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment	
Q3, and Q8	2019 – 2021			
e-tron quattro	2019 2021	All	Not Applicable	
e-tron Sportback quattro, SQ8, and RS Q8	2020 - 2021			

Condition

REVISION HISTORY			
Revision	Date	Purpose	
10	-	Revised Service (New statements on repair and claiming convention as well as statement added on glass panel replacement)	
		Revised <i>Warranty</i> (Removed labor operations and SRTs for general inspections)	
		Revised Required Parts and Tools (Removed all parts not directly related to modifications)	
		Revised Additional Information (Added reference to TSB 2063187)	
9	08/24/2023	Revised Service (Added QR Code for video)	
8	10/28/2021	Revised Warranty (Corrected invalid Labor Operations)	

Customer states:

• There is a water drip from the headliner area (figure 1).





Figure 1. Water intrusion near the headliner.

Technical Background

One, or a combination of the four possible scenarios may be present. All of the following areas of the sunroof system will need to be inspected as possible root causes, and if applicable, each may need to be modified or corrected.

Scan this QR Code (Figure 2) for a companion video for this bulletin, which provides visual guidance to the procedure below.

You may also watch the video at this link:

https://audiexternal.kzoplatform.com/player/med ium/2547227449163257185



Figure 2. This QR Code links to a video supplement for this bulletin.



1. <u>Sunroof drain hose our outlet</u> valve:

Using the VAS6620 Sunroof Drain Snake follow the cleaning procedure for the sunroof water drain hoses as described in ElsaPro. Any possible obstruction other than debris cleared by this procedure will be apparent after this check such as a kinked or pinched drain hose (Figure 3).



Figure 3. Sunroof drain hose pinched by the pillar trim.



2. Roof opening seal:

Inspect the entire perimeter of the roof opening seal for any possible detachment (Figure 4).

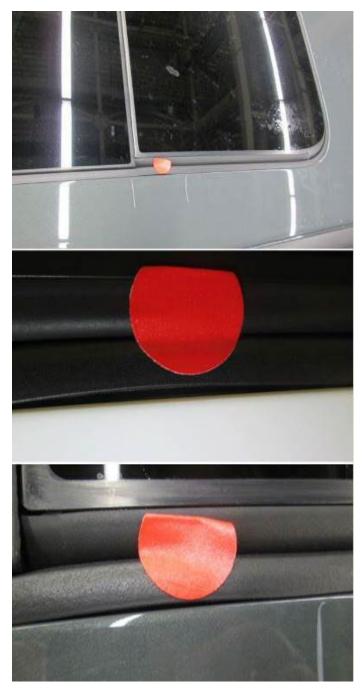


Figure 4. Detached and malformed roof opening seal.



3. Glass sunroof panels:

Check all adjustment axes of the sunroof glass panels for poor adjustment (Figure 5).

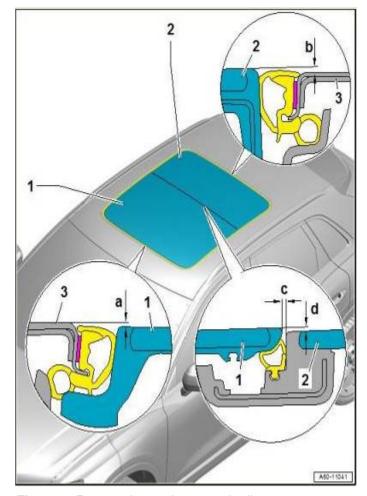


Figure 5. Front and rear glass panel adjustment.



4. <u>Unexplained or unduplicated</u> water entry:

When the vehicle is exposed to water (rain, car wash, or standing water on the roof panel) either with the vehicle stationary or driving it is possible for water to enter the sunroof frame, breach the normal water drainage channeling, and leak into the cabin area, particularly if the sunroof is opened or vented when the vehicle is wet.

Any possible water drip may not appear until after a driving period when the water travels to the underside of the headliner area during the normal course of driving (Figures 6-8). This may occur due to a slow migration of water along the wind deflector hinge arms and potential water entry into the stowage area for the wind deflector. This stowage area does not provide water drainage away from the vehicle.



Figure 6. Front sunroof opening with the drainage exposed.



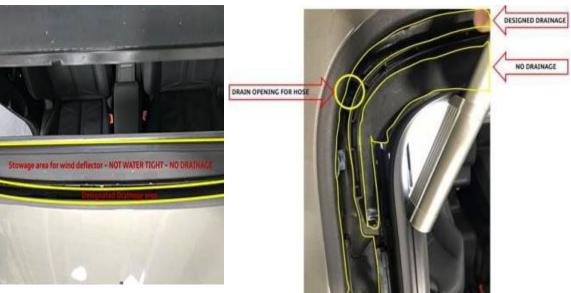


Figure 7. Areas of sunroof opening water elimination capabilities.

Figure 8. Sunroof water channeling diagram.

Production Solution

Solutions have been implemented in production.

Service

The instructions that follow are service solutions that, when performed accurately and completely, are effective in stopping water intrusion and help to avoid unnecessary parts replacements and repeat repairs. All of the possible root causes described here will need to be fully addressed and any necessary repairs completed prior to releasing the vehicle.

1. Sunroof drain hose or outlet valve:

Ensure that any water in the sunroof frame drainage areas flows freely after the cleaning procedure. If any obstruction is due to a pinched or kinked drain hose the damaged drain hose(s) or valve(s) must be replaced. Refer to ElsaPro for inspection and repair procedures as well as the claiming labor operations and SRTs.

2. Roof opening seal:

If after inspecting the roof opening seal any detachment, malformation or damage is discovered, replace the sunroof opening seal. Refer to ElsaPro for inspection and repair procedures as well as the claiming labor operations and SRTs. Refer to TSB 2063187 for specific inspection and repair guidance.



3. Glass sunroof panels:

If after all dimensional measurements are made on the sunroof glass panels an issue is found make the necessary adjustments to the sunroof glass panels.

4. Water entry for what appears to be through the sunroof frame:

It is not necessary to replace the sunroof frame unless there is damage found (e.g. crack in the drainage structure, hole in the drainage structure). If damage to the sunroof frame is found, *clearly mark* the area of damage. Sunroof frames replaced for damage will be requested for return to AoA for analysis.



NOTICE

In analysis a complete leak test of the sunroof frame will be conducted. If the results of this test reveal no water leak in the sunroof frame including the area marked as damaged the sunroof frame will be returned and the claim for the frame replacement debited. If no damage to the sunroof frame structure is found, then proceed as follows.

 Open the front sunroof panel completely and locate the mounting points for the sunroof wind deflector (Figure 9).

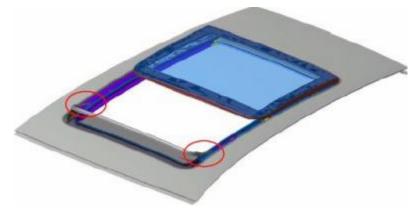


Figure 9. Locating points for the sunroof wind deflector.



- 6. There has been a design change to the wind deflector to enhance the water flow and drainage in the event the wind deflector gets wet. Inspect the area of the wind deflector shown (Figure 10). The redesigned wind deflector has small tabs cast into the deflector structure on both sides. If the wind deflector does not have these tabs replace the wind deflector. Make certain that the replacement wind deflector contains these tabs before installation. With the redesigned wind deflector installed, proceed as follows.
- 7. Using a primer applicator D 009 500 25 (or equivalent) and D 009 401 04 all-purpose cleaner (or equivalent) thoroughly clean the area shown (Figure 11). It should be free of any lubricant or contaminants and completely dry.
- Cut two 25mm strips of AKL 450 005 05 Butyl adhesive/sealing cord. Firmly press each strip into the groove shown (Figure 12). Both channels shown in the cut away <u>must</u> be completely filled with the butyl cord.



Figure 10. Tabs cast into the redesigned wind deflector.

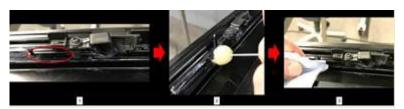


Figure 11. Area of sunroof frame to be cleaned.



Figure 12. Preparation and application of butyl cord.



 Next, a modification will be made to the sunroof glass panel (Figure 13) by bonding two small pads to the front corners just inside the rubber 'skirt'.

The purpose of this modification is to create a gap between the 'skirt' and the sunroof mechanism beside it, and as a result, prevent water from making contact with the sunroof mechanism and possibly breaching the water channels.

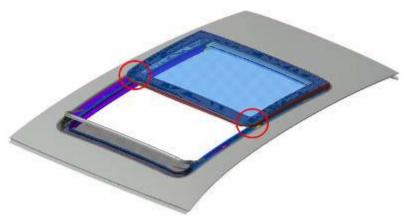


Figure 13. Area of sunroof glass panel to be modified.



NOTICE

Replacement of the sunroof glass panels is not necessary to accomplish the drainage improvement achieved with this modification.

 Clean the inside surface of the glass panel 'skirt' using D 009 401 04 all-purpose cleaner (or equivalent) and a clean dry cloth as shown (Figure 14).



Figure 14. Area of glass panel 'skirt' to be cleaned and dried.

 Apply D 355 205 A2 Bonding Agent using a primer applicator D 009 500 25 (or equivalent).
Allow bonding agent to thoroughly dry (Figure 15).



Figure 15. Area of glass panel 'skirt' where bonding agent is to be applied.

12. Using 251 201 525 packing cut 2 x 10mm x 10mm pads (Figure 16).



Figure 16. Preparing 2 – 10mm x 10mm pads of 251 201 525 packing.

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13. Bond each pad to the front areas of the sunroof glass panel 'skirt' as shown in figure 15. A cut away drawing is included to illustrate the precise positioning of each pad from the inside (Figure 17).

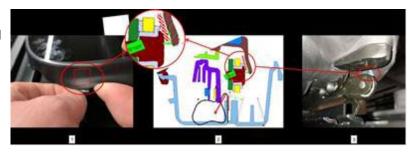


Figure 17. Positioning and application of the 10mm x 10mm pads.

 Using a 3356 roller tool (or equivalent), apply firm pressure (~50 Nm) to the newly adhered pads to enhance the strength of adhesion (Figure 18).



Figure 18. Applying pressure to bonded area with 3356 roller (or equivalent).

Warranty

Claim Type:	• 110 up to 48 Months/50,000 Miles.		
	G10 for CPO Covered Vehicles – Verify Owner.		
	If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	6039		
Damage Code:	0050		
	Check sunroof glass panel 6039 0199 10 TU		



Labor	Glass tilting roof panel adjust	6039 1500	See SRT with associated operations
Operations:	Replace the sunroof wind deflector	6033 5599	20 TU
	Modify glass sunroof panel	6039 5099	50 TU
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to the service procedure	No allowance	0 TU
	Road test after the service procedure	No allowance	0 TU
Claim Comment:	As per TSB 2056944/10		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

Required Parts and Tools

Part Number	Part Description	Quantity
D 00940104 or equivalent surface preparation solvent (e.g. isopropyl alcohol)	all-purpose cleaner	Consumable; accounting unde warranty/goodwill is not permitted.



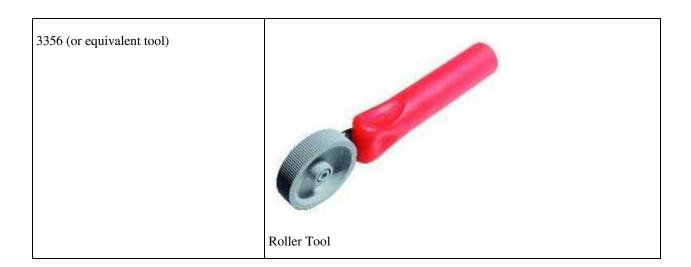
D 355205A2 or equivalent adhesion promoter (e.g. 3M TM 111 Adhesion Promoter or AC77 Adhesive Primer)	Bonding Agent	1
D 00950025 (or equivalent)	Primer Applicator	02
AKL45000505	Butyl Adhesive / Sealing Cord	0.02



251201525	Packing	0.5
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Tool Number	Tool Description
VAS6620	Sunroof drain snake





Additional Information

The following Technical Service Bulletin(s) will be necessary to complete this procedure:

TSB 2063187, 60 Panoramic sunroof opening outer perimeter seal is loose
All parts and service references provided in this TSB (2056944) are subject to change and/or removal.

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