



Technical Service Bulletin

60 Water entry into cabin from the sunroof area

60 20 43 2056944/3 May 28, 2020. Supersedes Technical Service Bulletin Group 60 number 20-39 dated February 5, 2020 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q3, Q8, and Audi e-tron quattro	2019 - 2021	All	Not Applicable

Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised <i>Production Solution</i> (Production solutions implemented) Revised <i>Service</i> (Modified work procedure) Revised <i>Warranty</i> (Added Claim Types)
2	02/05/2020	Revised <i>Technical Background</i> (Additional root causes) Revised <i>Production Solution</i> (Solution pending) Revised <i>Service</i> (Added work procedure) Revised <i>Warranty</i> (Added labor operations and SRTs)
1	10/25/2019	Initial publication

Customer states:

- They see a water drip from the headliner area (Figure 1).



Figure 1. Water intrusion near the headliner.



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Technical Background

One or a combination of the following four possible scenarios may be present. These areas of the sunroof system will need to be inspected as possible root causes.

1. Sunroof drain hose or outlet valve:
Visually inspect all 4 sunroof drain hoses and valves for any damage or obstruction (Figure 2).



Figure 2. Sunroof drain hose pinched by pillar trim.



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2. Roof opening seal:

Inspect the entire perimeter of the roof opening seal for any detachment or malformation (Figure 3).

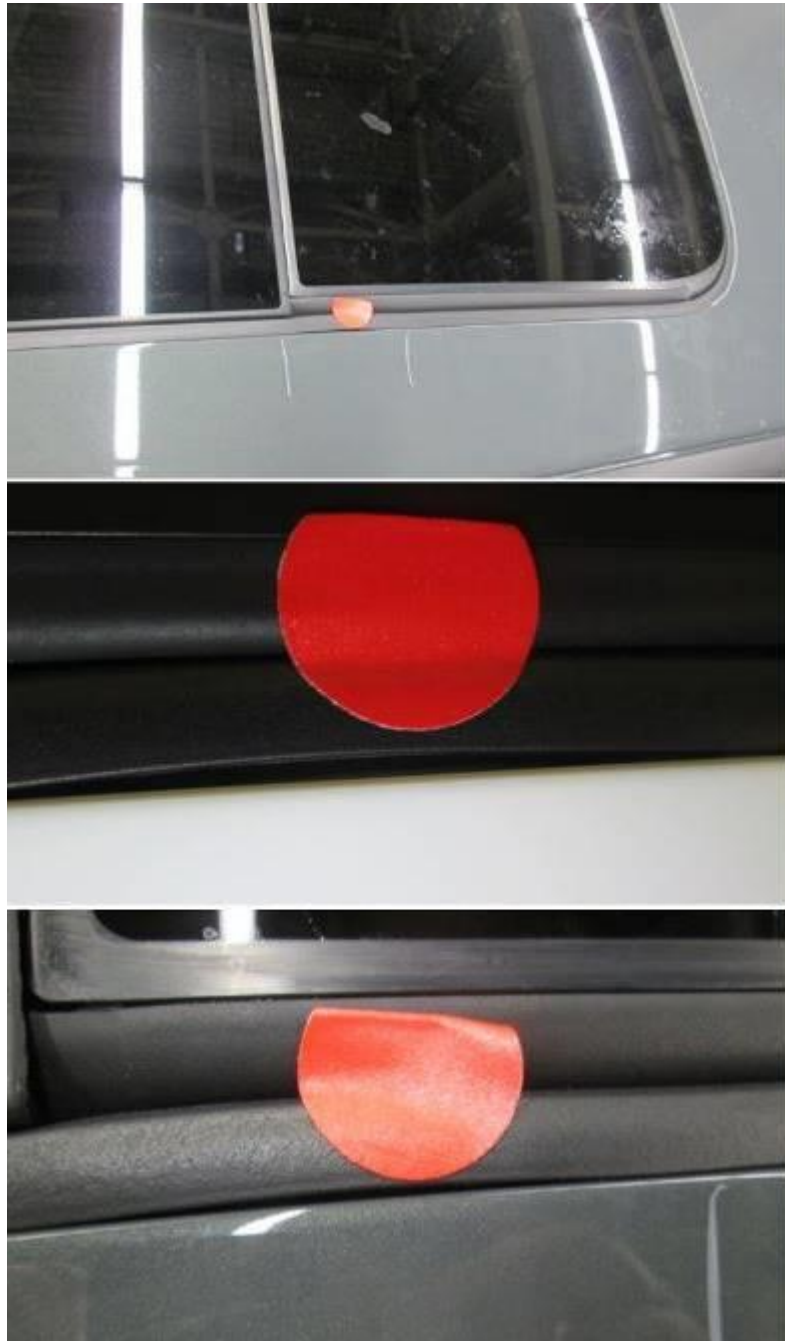


Figure 3. Detached and malformed roof opening seal.



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3. Glass sunroof panels:

Check all adjustment axes of the sunroof glass panels for poor adjustment (Figure 4).

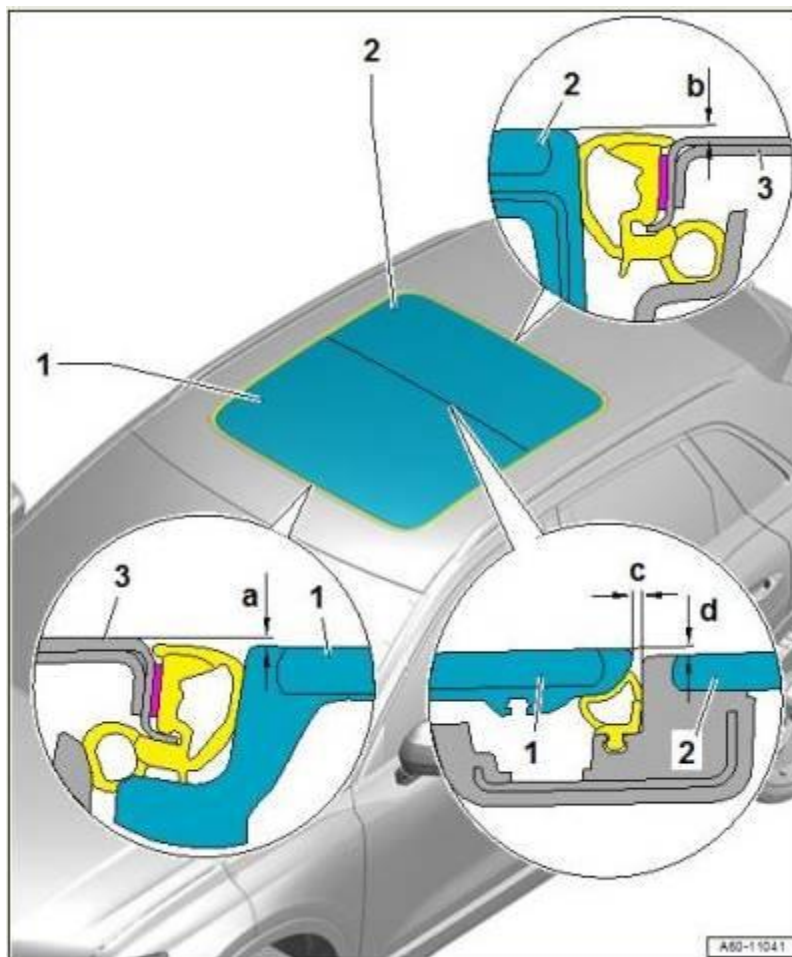


Figure 4. Front and rear glass panel adjustment.

4. Unexplained or unduplicated 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. This is heightened if the sunroof is opened or vented when the vehicle is wet.



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This 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 5-7). This occurs due to a slow migration of water along the wind deflector hinge arms and water entry into the stowage area for the wind deflector. This stowage area does not provide water drainage away from the vehicle.



Figure 5. Front sunroof opening with drainage exposed.



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Figure 6. Areas of sunroof opening water elimination capabilities.



Figure 7. Sunroof water channeling diagram.



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Production Solution

Production solutions have been implemented in production. The instructions that follow are service solutions that, when performed accurately and completely, are effective in stopping water intrusion and helps to avoid unnecessary parts replacements.

Service

1. Sunroof drain hose or outlet valve:
Ensure that any water in the sunroof frame drainage areas flows freely. Replace any pinched or otherwise obstructed drain hose(s) or valve(s).
2. Roof opening seal:
If after inspecting the roof opening seal any detachment, malformation or damage is discovered, replace the sunroof opening seal.
3. Glass sunroof panels:
If after all dimensional measurements are made on the sunroof glass panels a problem 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. If no damage to the sunroof frame structure is found, proceed as follows.
5. Open the front sunroof panel completely and locate the mounting points for the sunroof wind deflector (Figure 8).

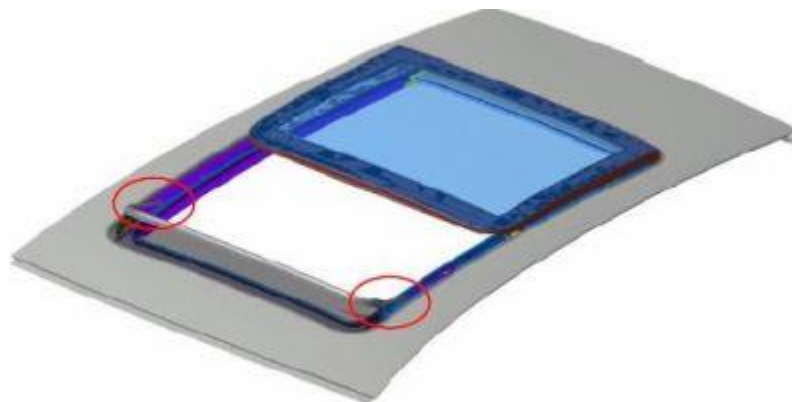


Figure 8. Locating points for the sunroof wind deflector.



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- Using a primer applicator D 009 500 25 (or equivalent) and D 009 401 04 all purpose cleaner thoroughly clean the area shown in Figure 9. It should be free of any lubricant or contaminants and completely dry.

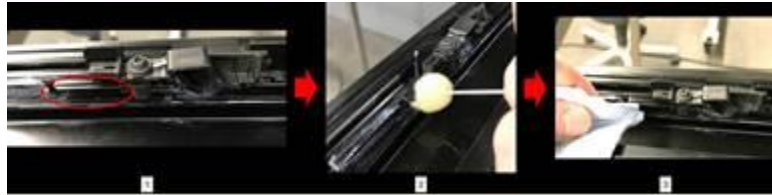


Figure 9. Area of sunroof frame to be cleaned.

- Cut two 25mm strips of AKL 450 005 05 Butyl adhesive/sealing cord. Firmly press each strip into the groove shown in Figure 10. Both channels shown in the cut away must be completely filled with the butyl cord.

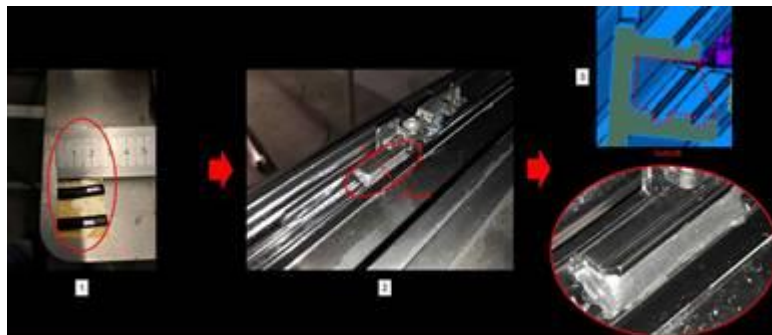


Figure 10. Preparation and application of butyl cord.

- Next, a small modification will be made to the sunroof glass panel shown in Figure 11.

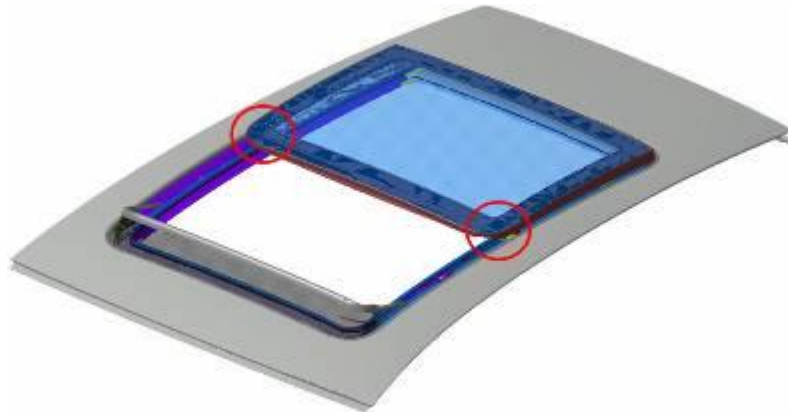


Figure 11. Area of sunroof glass panel to be modified.

- Clean the inside surface of the glass panel 'skirt' using D 009 401 04 all purpose cleaner and a clean dry cloth as shown in Figure 12.



Figure 12. Area of glass panel 'skirt' to be cleaned and dried.



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



Figure 13. Area of glass panel 'skirt' where bonding agent is to be applied.

11. Using 251 201 525 packing cut 2 x 10mm x 10mm pads.



Figure 14. Preparing 2 – 10mm x 10mm pads of 251 201 525 packing.

12. 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.

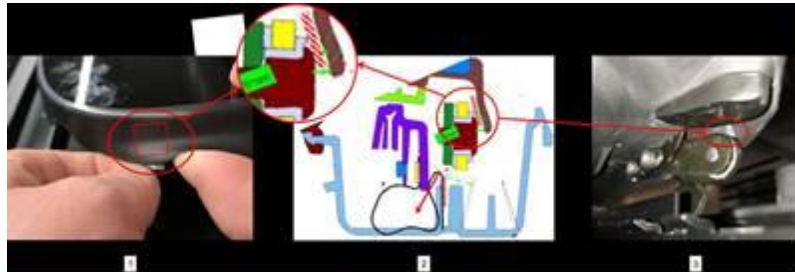


Figure 15. Positioning and application of the 10mm x 10mm pads.



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13. Using a 3356 roller tool (or equivalent), apply firm pressure to the newly adhered pads to enhance the strength of adhesion.



Figure 16. Applying pressure to bonded area with 3356 roller (or equivalent).

Warranty

Claim Type:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• Check and/or repair or replace sunroof drain hose(s): 6048.• Check and/or replace the roof opening seal: 6042.• Check and/or adjust the front and / or rear sunroof glass panel: 6039.• Perform sunroof frame modifications: 6039.		
Damage Code:	0050		
Labor Operations:	Check and, if necessary, repair or replace sunroof drain hoses.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT



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	Check and, if necessary, replace the roof opening seal.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT
	Check and, if necessary, adjust the front sunroof glass panel.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT
	Check and, if necessary, adjust the rear sunroof glass panel.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT
	Perform sunroof frame modifications.	6039 9999	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 #2056944/3		

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.





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Required Parts and Tools

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
D 00940104	 All Purpose Cleaner	0.2
D 355205A2	 Bonding Agent	0.2
D 00950025 (or equivalent)		2



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	Primer Applicator	
AKL45000505	 Butyl Adhesive / Sealing Cord	0.1
251201525	 Packing	0.5
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Tool Number	Tool Description
3356 (or equivalent tool)	



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	Roller Tool
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Additional Information

All parts and service references provided in this TSB (2056944) are subject to change and/or removal.

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