



Technical Service Bulletin

60 Water entry into cabin from the sunroof area

60 20 45 2056944/5 November 3, 2020. Supersedes Technical Service Bulletin Group 60 number 20-44 dated October 7, 2020 for reasons listed below.

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

Condition

REVISION HISTORY		
Revision	Date	Purpose
5	-	Revised <i>Service</i> (Modified work procedure) Revised <i>Warranty</i> (Added Labor Operation)
4	10/07/2020	Revised header (Added Audi e-tron Sportback) Revised <i>Warranty</i> (Added Test Drive SRT allowance)
3	05/28/2020	Revised <i>Production Solution</i> (Production solutions implemented) Revised <i>Service</i> (Modified work procedure) Revised <i>Warranty</i> (Added Claim Types)



Technical Service Bulletin

Customer states:

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



Figure 1. Water intrusion near the headliner.



Technical Service Bulletin

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.



Technical Service Bulletin

2. Roof opening seal:

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

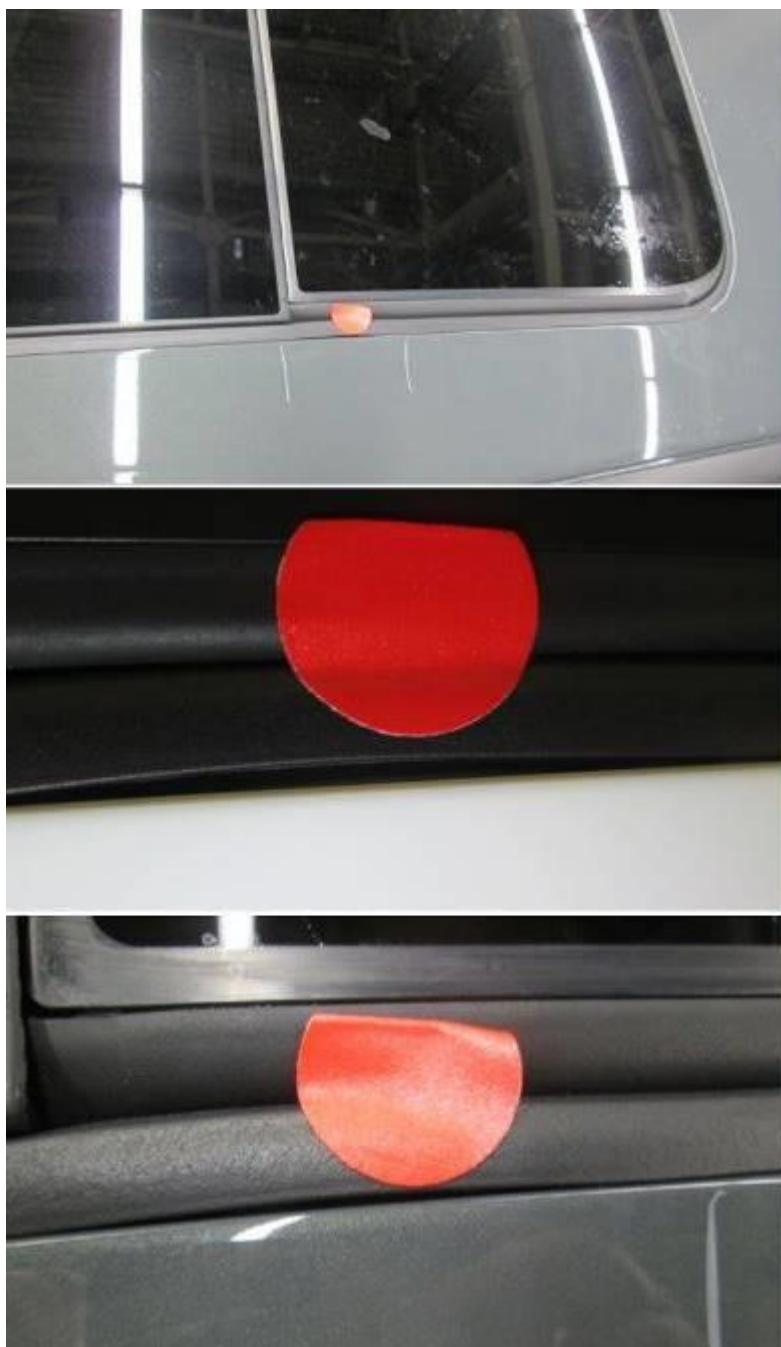


Figure 3. Detached and malformed roof opening seal.



Technical Service Bulletin

3. Glass sunroof panels:

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

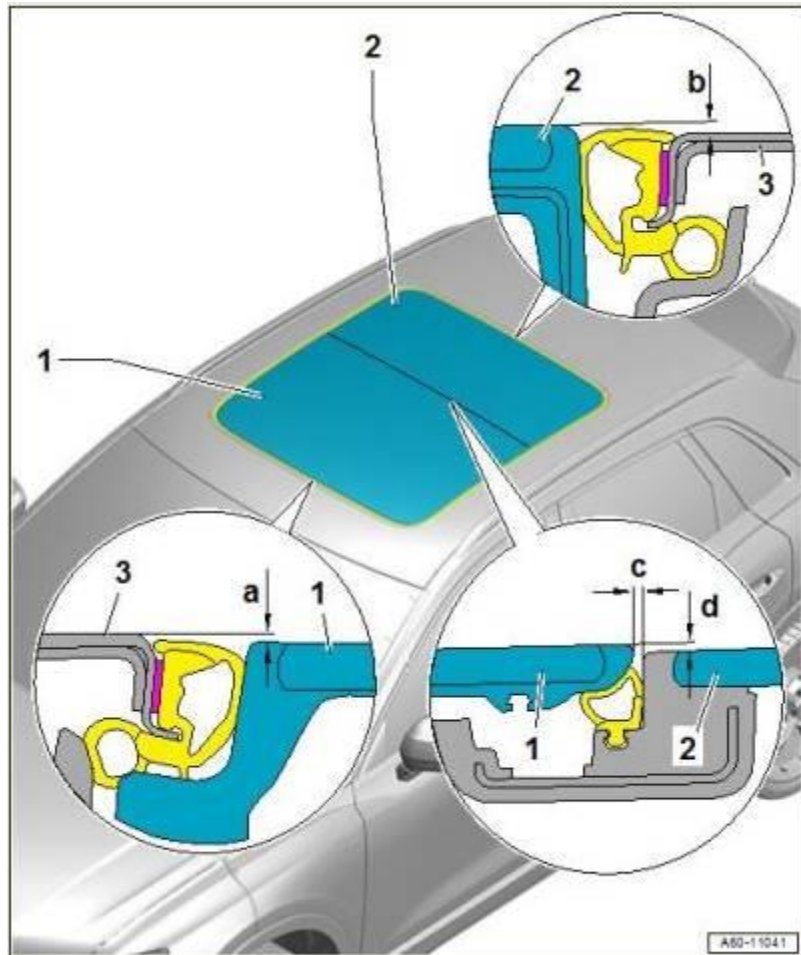


Figure 4. Front and rear glass panel adjustment.

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.



Technical Service Bulletin

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.



Technical Service Bulletin



Figure 6. Areas of sunroof opening water elimination capabilities.



Figure 7. Sunroof water channeling diagram.



Technical Service Bulletin

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.



Technical Service Bulletin

5. Open the front sunroof panel completely and locate the mounting points for the sunroof wind deflector (Figure 8).

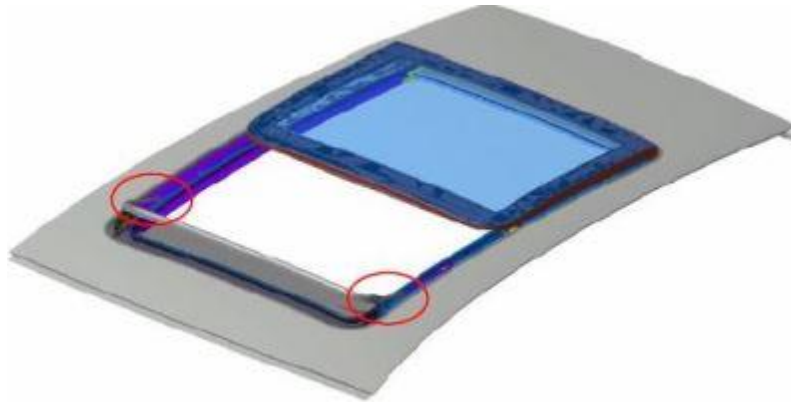


Figure 8. Locating points for the sunroof wind deflector.

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 9). 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.



Figure 9. Tabs cast into the redesigned wind deflector.



Technical Service Bulletin

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 10). It should be free of any lubricant or contaminants and completely dry.

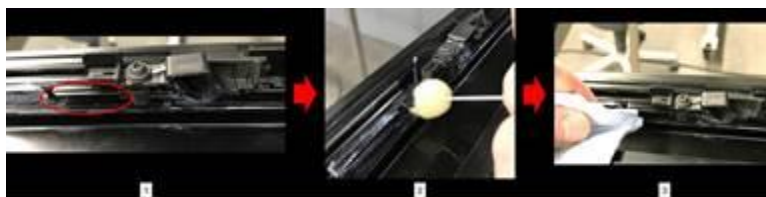


Figure 10. Area of sunroof frame to be cleaned.

8. Cut two 25mm strips of AKL 450 005 05 Butyl adhesive/sealing cord. Firmly press each strip into the groove shown (Figure 11). Both channels shown in the cut away must be completely filled with the butyl cord.



Figure 11. Preparation and application of butyl cord.

9. Next, a modification will be made to the sunroof glass panel (Figure 12) 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.

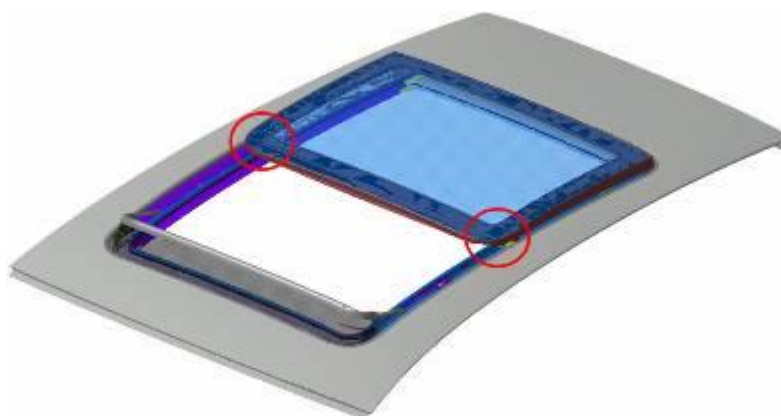


Figure 12. Area of sunroof glass panel to be modified.



Technical Service Bulletin

10. 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 13).



Figure 13. Area of glass panel 'skirt' to be cleaned and dried.

11. Apply D 355 205 A2 Bonding Agent using a primer applicator D 009 500 25 (or equivalent). Allow bonding agent to thoroughly dry (Figure 14).



Figure 14. 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 15).



Figure 15. Preparing 2 – 10mm x 10mm pads of 251 201 525 packing.

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 16).

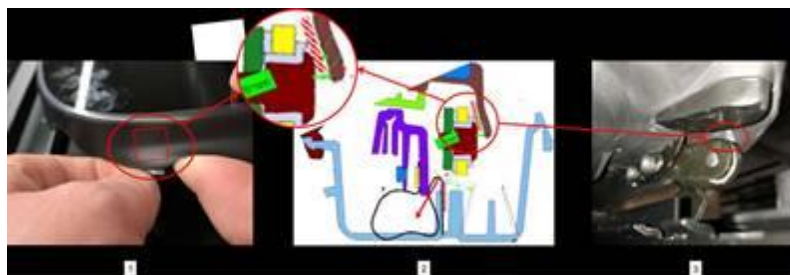


Figure 16. Positioning and application of the 10mm x 10mm pads.



Technical Service Bulletin

14. Using a 3356 roller tool (or equivalent), apply firm pressure (~50 Nm) to the newly adhered pads to enhance the strength of adhesion (Figure 17).



Figure 17. 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



Technical Service Bulletin

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 with associated operations
	Check and, if necessary, replace the roof opening seal.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT with associated operations
	Check and, if necessary, adjust the front sunroof glass panel.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT with associated operations
	Check and, if necessary, adjust the rear sunroof glass panel.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT with associated operations
	Check and, if necessary, replace the sunroof wind deflector.	Use the appropriate labor operation(s) consistent with the necessary repair	See SRT with associated operations



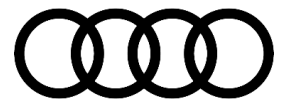
Technical Service Bulletin

	Perform sunroof frame modifications.	6039 9999	50 TU
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to the service procedure	0121 0002	10 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2056944/5		

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

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.		
Part Number	Part Description	Quantity
D 00940104 or equivalent surface preparation solvent (e.g. isopropyl alcohol or adhesion promoter).	 All Purpose Cleaner	0.2




Technical Service Bulletin

D 355205A2	 <p data-bbox="347 814 529 846">Bonding Agent</p>	0.2
D 00950025 (or equivalent)	 <p data-bbox="347 1171 561 1203">Primer Applicator</p>	0.2
AKL45000505	 <p data-bbox="347 1633 711 1665">Butyl Adhesive / Sealing Cord</p>	0.1



Technical Service Bulletin

251201525	 Packing	0.5
4M8877651	Wind Deflector	01
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA

Tool Number	Tool Description
3356 (or equivalent tool)	 Roller Tool

Additional Information

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

©2020 Audi of America, Inc. All rights reserved. The information contained in this document is based on the latest information available at the time of printing and is subject to the copyright and other intellectual property rights of Audi of America, Inc., its affiliated companies and its licensors. All rights are reserved to



Technical Service Bulletin

make changes at any time without notice. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, nor may these materials be modified or reposted to other sites without the prior expressed written permission of the publisher.