



This Service Information bulletin supersedes SI B54 06 06 **dated November 2006**.

NEW designates changes to this revision

SUBJECT

Water Leak from Panoramic Sunroof

MODEL

NEW E53, E70 (X5)

NEW E61 (5 Series Sports Wagon)

NEW E83 (X3)

NEW E91 (3 Series Sports Wagon)

SITUATION

The customer may complain of a water leak from the overhead console area during heavy rain or when driving and/or parking on a steep slope facing downhill.

CAUSE

Possible causes:

- A. Obstructed or damaged drains or drain tubes.
- B. Void in the windshield urethane bead.
- C. Excessive water entering the cassette.
- D. Inadequate water management system in the sunroof cassette.

CORRECTION

In the case of a customer complaint, inspect various components of the sunroof system. Perform a leak test and then perform the recommended repair, based on the outcome of these inspections.

An improved sunroof cassette with an optimized water management system has been implemented in production since 10/05.

The current improved part is available as a complete color-keyed cassette, as opposed to the bare frame previously available.

PROCEDURE

Inspect for the following causes and perform the applicable repair.

Cause A (Obstructed drains):

- Inspect the cassette drains and drain tubes for any obstructions or kinks in the tubes.
- If any concerns are found with these items, they should be cleaned and/or repaired and/or replaced as

necessary.

Cause B: (Windshield sealant)

- Inspect the top edge of the windshield glass for any possible voids in the urethane bead.
- Using water or compressed air may help in locating a leak.
- If any voids are found, the windshield must be replaced.

NEW Cause C: (Excessive water entering the cassette)

- Inspect the condition of the perimeter seal and the gap clearance between:
 1. The sunroof glass and the roof panel.
 2. The two glass panels.
 3. **Note:** A 5.8 plusmn; 0.3mm gap all around (without seal) is required and can be measured with the special gap tool, P/N 00 9 341, or similar.
- If any excessive gaps are found, adjust the glass panels as per RA 54 13 003.
- **NEW** If the perimeter seal appears to have deteriorated or be permanently compressed in any way, it must be replaced per RA 54 13 055.
- **NEW** After adjusting the glass and replacing the perimeter seal, the sunroof should be water tested. If the sunroof still leaks, proceed to **cause D**.

Cause D: (Inadequate water management)

- If no fault could be found with causes A-C, perform the following actions:
 1. If the vehicle was produced before 10/2005, replace the sunroof cassette per RA 54 13 080.

If the vehicle was produced after 10/2005, do not replace the cassette, but still perform the following countermeasures.

Note: The cassette available is the color-keyed updated cassette, complete with headliner and glass panels.

2. Apply light electrical contact grease to all the electrical connectors and the emergency call (SOS) switch in the front interior light console. The surface area must be cleaned as necessary.
3. Replace the perimeter seal as per RA 54 13 055.
4. Install the absorbent pad kit as per the instructions provided in the appropriate **Absorbent pad kit** attachment.

Note: This kit must be installed exactly as shown in the attachment for maximum effectiveness.

5. Perform the additional sealing operation as described in the **Cassette sealing** attachment.
6. Initialize the sunroof per Repair Instruction 54 0 ...

7. Water test to ensure proper water management.

PARTS INFORMATION

Part Number	Description	Quantity
54 13 7 184 903	E53 Panoramic Sunroof Cassette – Light Grey	1
54 13 7 184 904	E53 Panoramic Sunroof Cassette – Light Beige	1
54 13 7 185 572	E53 Panoramic Sunroof Cassette – Anthracite	1
54 10 7 185 573	E53 Panoramic Sunroof Cassette – Pastel Green	
54 10 3 436 363	E83 Panoramic Sunroof Cassette – Anthracite	1
54 10 3 435 213	E83 Panoramic Sunroof Cassette – Basalt Grey	1
54 10 3 435 217	E83 Panoramic Sunroof Cassette – Light Beige	1
54 10 3 436 311	E83 Panoramic Sunroof Cassette – Grey	1
54 13 7 184 899	E61 Panoramic Sunroof Cassette – Grey	1
54 13 7 184 900	E61 Panoramic Sunroof Cassette – Beige	1
83 23 0 149 149	Electrical contact grease (NyoGel 760G)	1
52 20 3 421 311	E53 Felt Pad	5
51 48 8 211 922	E53 Roof Insulation Material	1
52 20 3 421 311	E61/E83 Felt Pad	2
54 13 7 180 747	E61/E83 Foam Pad	1
54 13 7 072 786	Perimeter Seal – E53, E61, E83	1

WARRANTY INFORMATION

Refer to KSD for appropriate defect codes and labor operations.

NEW A TeileClearing part replacement authorization must still be obtained for a sunroof cassette. Exceptions are Service Actions, Recalls and specified excluded Service Information bulletins. For a complete list of items that are currently included in TeileClearing, refer to the latest DCS Message entitled "PuMA Submission for Authorized Part Replacement", or refer to the "TeileClearing Actions" in PuMA.

ATTACHMENTS

view PDF attachment [B540606E53 Absorbent Pad Kit.](#)

view PDF attachment [B540606E83 Absorbent Pad Kit.](#)

view PDF attachment [B540606E61 Absorbent Pad Kit.](#)

view PDF attachment [B540606Cassette Sealing.](#)

E61 (5 Series Sports Wagon) Absorbent Pad Kit Installation

Reference: SI B54 06 06

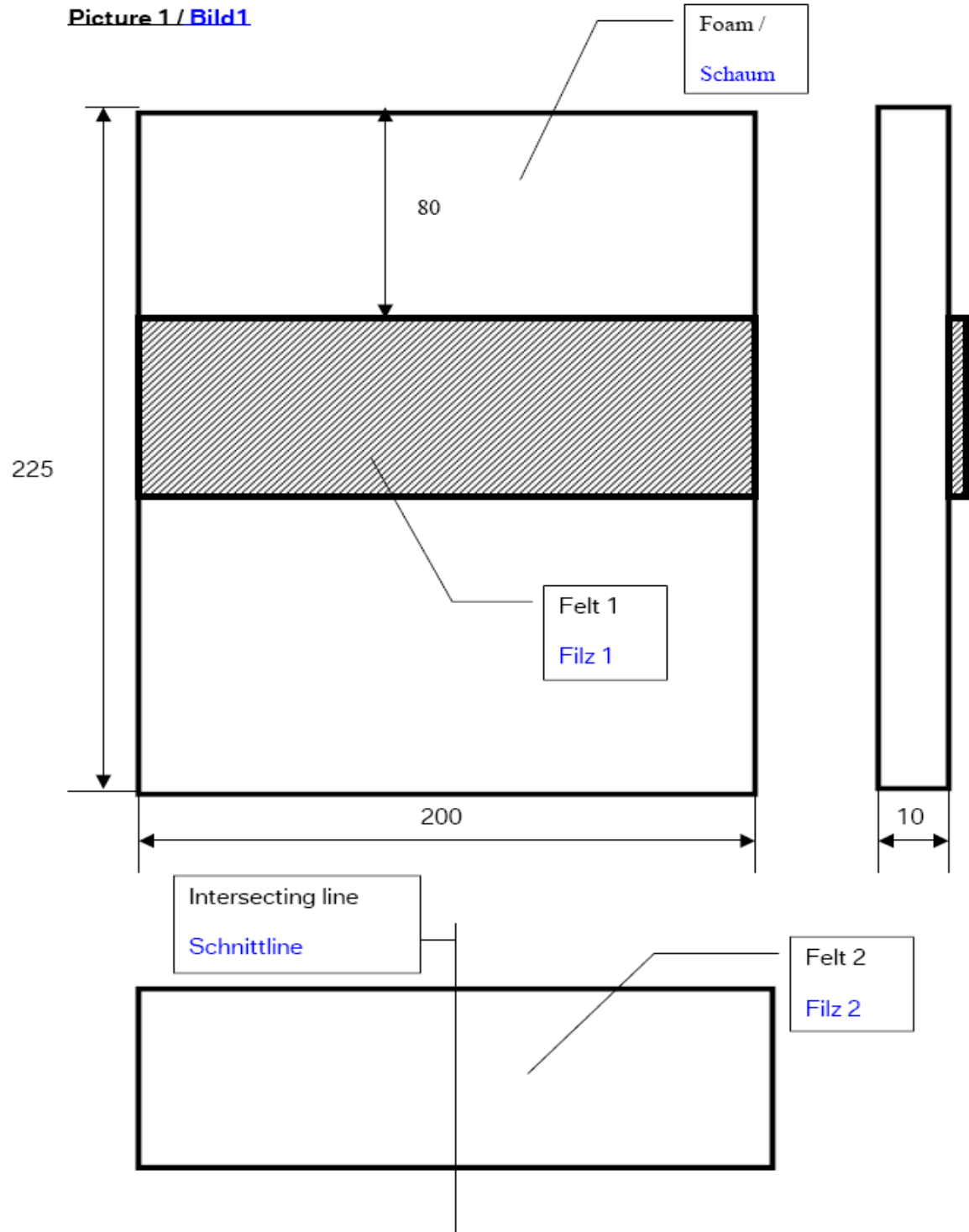
A) Material

1. Felt Pad, part number: 52 20 3 421 311 (quantity: 2 pieces)
2. Foam Pad, part number: 54 13 7 180 747 (quantity: 1 piece)

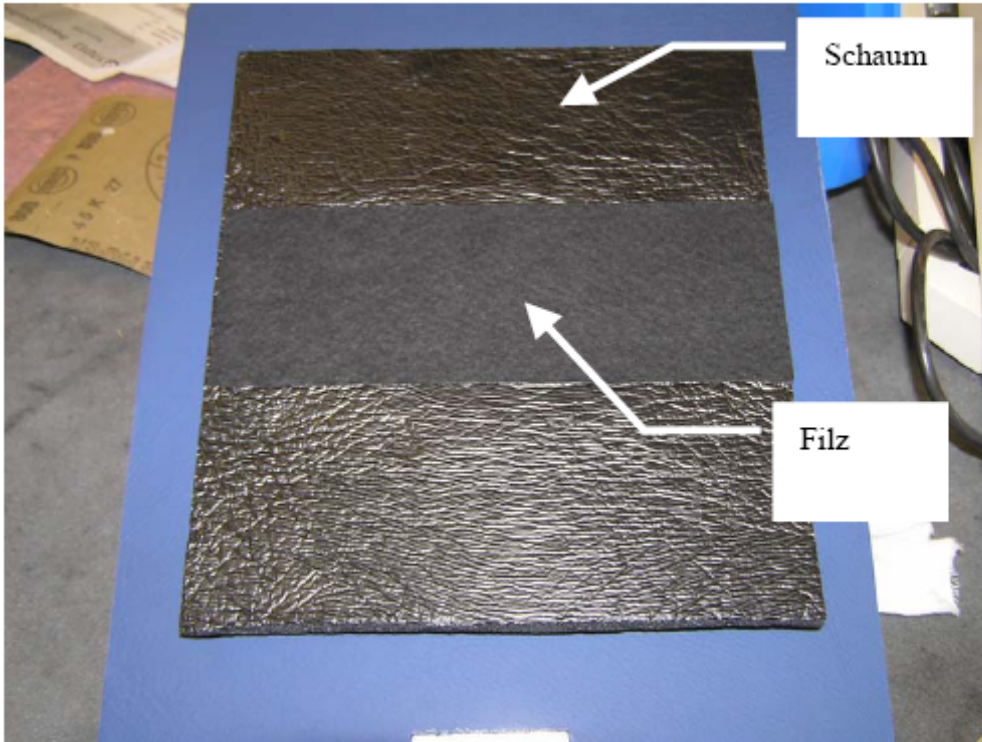
B) Installation Instructions

1. Cut foam as seen in Picture 1 to the dimension 225mm X 200mm.
2. Glue Felt 1 on foam as seen in Picture 1 and Picture 2.
3. Cut Felt 2 in the middle as seen in Picture 1.
4. Remove switch console from Headliner (Picture 3).
5. Glue one part of divided Felt 2 to the headliner on the right side as seen in Picture 4.
6. Glue the other part of divided Felt 2 to the headliner on the left side as seen in Picture 5.
7. Fit prepared foam assembly as shown in Picture 6 and Picture 7.
8. Install switch console.

Picture 1 / Bild1



Picture 2 / Bild 2



Picture 3 / Bild 3



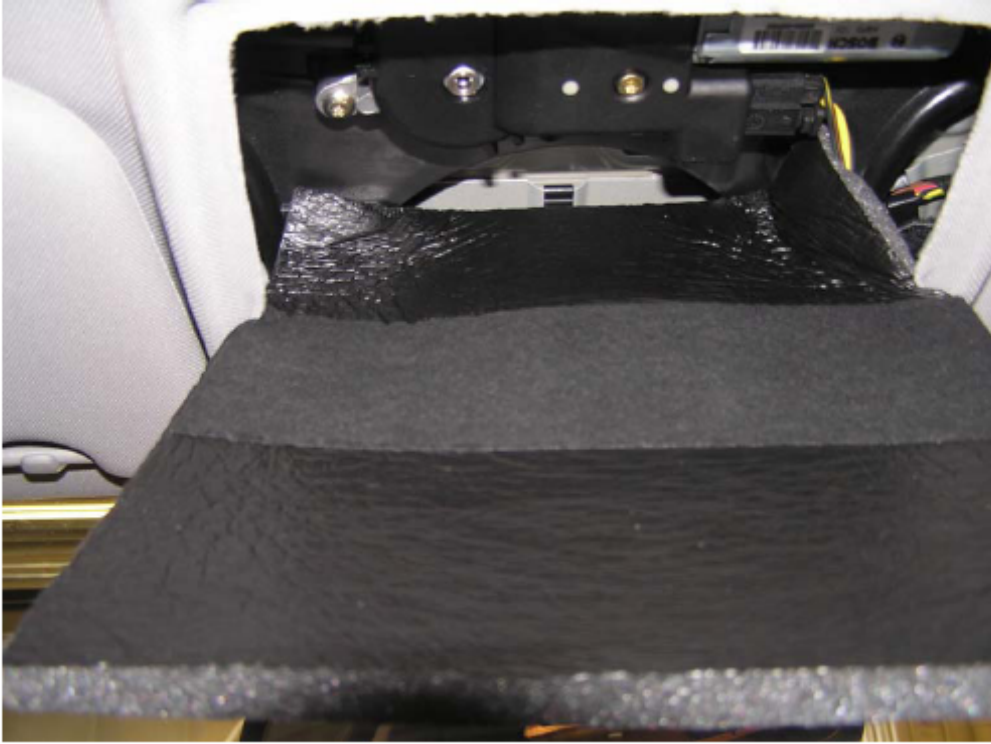
Picture 4 / Bild 4



Picture 5 / Bild 5



Picture 6 / Bild 6



Picture 7 / Bild 7



E53, E83, E61 Panoramic Sunroof Additional Sealing Procedure

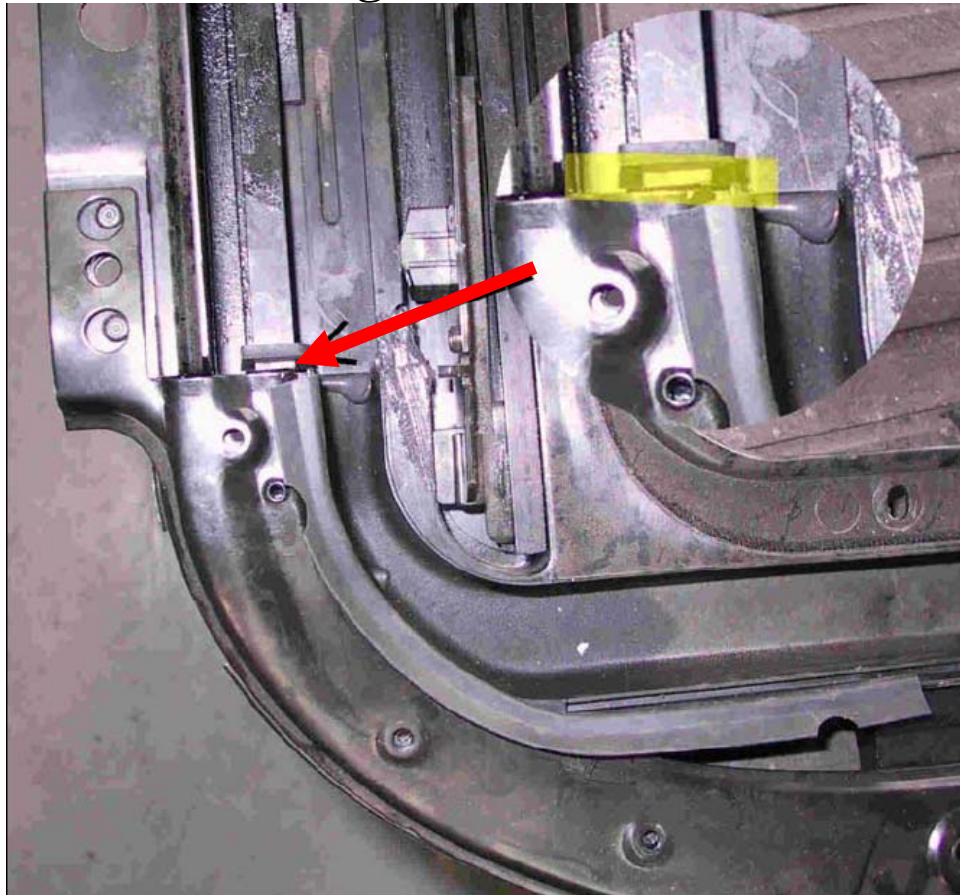
Reference: SI B54 06 06

Sealing Side Seams



- Water may leak from the seam shown; where the side rail of the cassette meets the front section.
- Apply a bead of sealant, such as Sika-flex, along the complete length of the joint.
- This procedure should be performed for both the right and left side of the cassette.

Sealing Cable Channels



- Water may enter the cable channel through the area shown.
- With the cassette removed from the vehicle, seal the gap shown to prevent water from entering the cable channel.
- Apply a small amount of sealer, such as Permatex “Right Stuff”, or equivalent silicone sealer, to the gap.
- **Note:** Apply the sealer carefully as not to contaminate the cable itself with sealer, or obstruct the water’s path as it flows past this area.
- This procedure should be performed for both the right and left side of the cassette.