

Technical Bulletin

Model
6 Cyl.

Group
6

Subject:

Noises from the Targa Roof Area

Part Identifier
6006

Number
9606

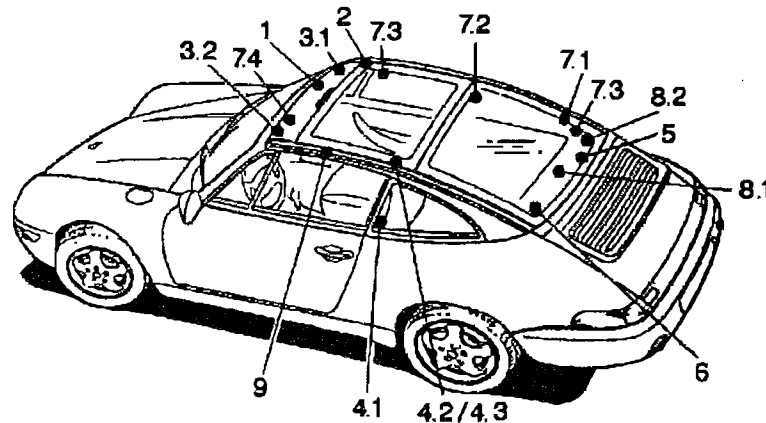
ATTENTION: Service Manager / Service Technician

This bulletin replaces Technical Bulletin Group 6, number 9606, dated 6-11-96.

Models Affected: **911 Targa, Model Year 1996**

General Information: Since the start of production of the Targa model, the production line conducts several procedures to eliminate the possibility of noises from the Targa roof. In case of complaints of noises on the Targa roof, these procedures can be used for repairs.

Possible areas where noises can occur include:



- 1 - Creaking in the area of the wind deflector.
- 2 - Creaking at the left and right sides of the sliding glass roof panel.
- 3 - Strong rattle noises in the area of the windshield frame (3.1 - 3.2).
- 4 - Rattle or creaking noises in the area of the "B" pillar, left and/or right sides (4.1, 4.2, 4.3).
- 5 - Creaking noises in the area around the rear window.
- 6 - Creaking noises in the area where the inside rear cover panel and rear window meet.
- 7 - Crackling or rattle noises from the area of the inner roof trim panels, left and right and the windshield frame cover (7.1, 7.2, 7.3, 7.4).
- 8 - Crackling or rattling noises from the rear inside wall trim panel (8.1, 8.2).
- 9 - Creaking noises in the area of the roof rail trim strips, left and right sides.



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Testing Procedures:

Contained within the following information are repair procedures to be used when customer complaints of noises in the roof of Targa models are received. It is possible that noises in the Targa roof may have other causes than those mentioned in this information. Therefore, it is essential to correctly identify the type of noise and the area from which the noise originates. If possible, before repairs begin, take a test drive with the customer so that an accurate description of the noise and its location can be made. In any case, a test drive will be necessary. To aid in diagnosis of noise location, remove interior trim panels in the suspect areas before the test drive.

Procedure for removing interior trim panels:

- Removal of the Cowl panel trim: Remove the dome light assembly and disconnect the wires. Remove the sun visors and pull the cowl panel trim to the rear.
- Removal of the rear wall trim panel:
Remove the four screws and pull the panel out toward the front.
- Removal of the lower rear side wall trim panel:
Remove the panel mounting screws and pull the panel off.
- Removal of the upper rear side wall trim panels:
Remove the plastic cap from the screw on the "B" pillar. Remove this screw and the screw on the wheel well. Pull off panel.
- Removal of left and right "B" pillar trim panel:
Remove the plastic cap on the screw on the lower "B" pillar and the coat hook cover. Remove both screws on the "B" pillar and remove panel.
- Removal of the left and right roof rail trim panels:
Remove the front nut and the rear plastic cover. Slide the panel approximately 40 mm to the rear and remove.

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Repair Procedures:

Area #1 Creaking noises from the wind deflector.

Possible Causes:

- Loose threaded inserts in the wind deflector hinge.

Repair:

- If the threaded inserts (arrow in Figure 1) in the wind deflector hinge are loose, the wind deflector, part number 993 562 904 00, and the attaching bolts, part number 993 562 577 00, will need to be replaced. Tighten the attaching bolts to 5.5 Nm (4 ftlbs).

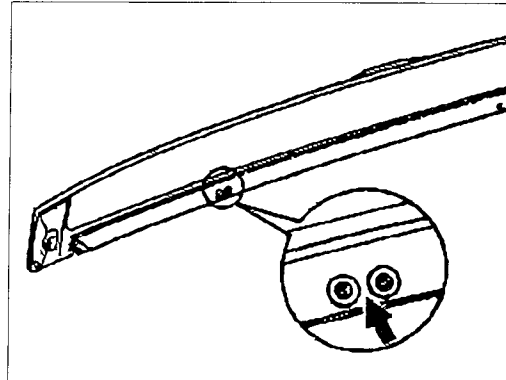


Figure 1

Note: Prior to removing the bolts, heat the bolt heads with a soldering gun to soften the Loctite.

Adjusting Wind Deflector:

- Open the wind deflector and loosen the left and right side mounting nuts (Figure 2). Adjust the wind deflector in the slots so that in the closed position it has a slight preload on the seal. Furthermore, the wind deflector should be flush with closed glass sliding roof and side cover strips. The gap around the glass should be even. Tighten the fastening nuts to 5.5 Nm (4 ftlbs).

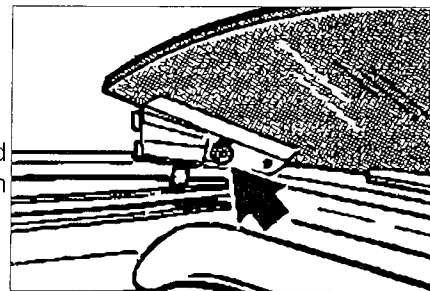


Figure 2

Area #2 Creaking or rattle noise from the sides of the glass sliding roof.

Possible Cause:

The side seals are sticking together (Figure 3).

Repair:

- The side seal profile is "U" shaped and the upper and lower part of the seal are touching and sticking together. Pull off the front edge of the side seal and locate the opening at the end of the seal. Use a suitable wire coated with Vaseline to lubricate the inside of the seal along its entire length.

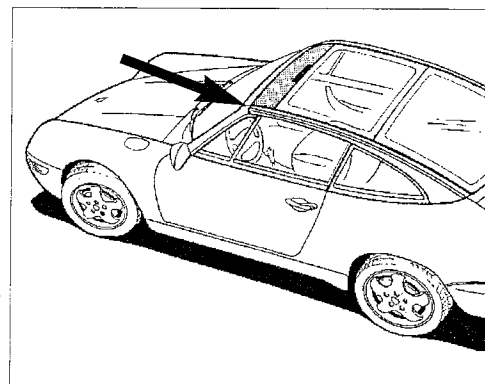


Figure 3



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Area #3 Strong crackling noise from the front windshield frame area.

Possible cause:

- The windshield frame / Targa top mounting bolts are loose and or the Targa roof assembly is installed under tension.

Preparation:

- Remove the windshield and roof frame inside covers, the wind deflector, sunvisors, sunscreen and bracket.

Repair: 3.1 - Shorten the corner plate bracket in the area of the bearing block holes (arrow 2, Figure 4).

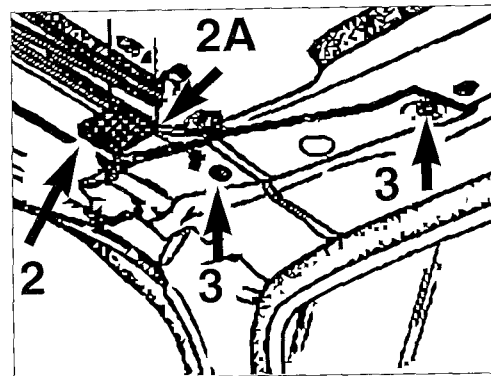


Figure 4

- Remove the allen head screws (arrow 2, Figure 4).
- Remove the area indicated by crosshatch at area 2 in Figure 4.
- Proceed by inserting a screwdriver between the corner plate and the guide and bend the crosshatched area away from the guide 3 to 4 mm.
- To prevent damaging the guide, insert a 40 mm x 50 mm, 2 mm thick sheet metal plate between the guide and corner plate.
- Cut off the hatch-marked part at a length of 25 mm (arrow 2A, Figure 4).

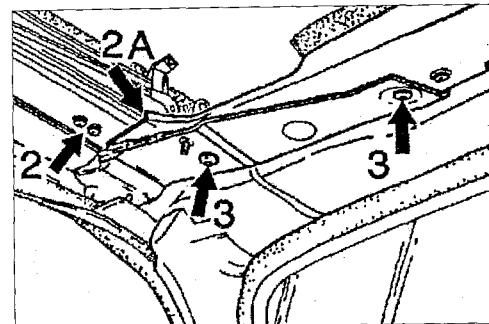


Figure 5

Caution: The guide must not be cut or damaged as leaks will result!!

- Remove metal burrs from the cut-off area of the bracket (arrow 2A, Figure 5) and cover the exposed metal with corrosion paint
- Check the o-rings under the wind deflector bearing block (2 each) and if necessary replace with part number 993 562 537 00.
- Install new Torx bolts (arrow 2 and 3, Figure 5) part number 993 562 567 00 and torque to 5.5 Nm (4 ft lbs).

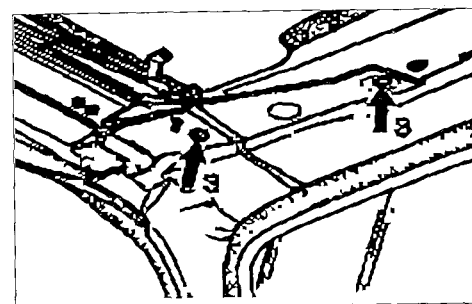


Figure 6

Note: In the future, the fastening screws (arrow 3, Figure 6) will be changed from M5 to M6 threads.

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Repair 3.2 Replace the left and right side bolts for the roof module on the windshield frame.

- Remove the existing allen head bolts (arrow 1, Figure 6.1) one at a time and replace them with new bolts, part number 900 378 163 09 (microencapsulated) and torque to 12.5 ± 0.5 Nm ($9 \pm .36$ Ftlbs).

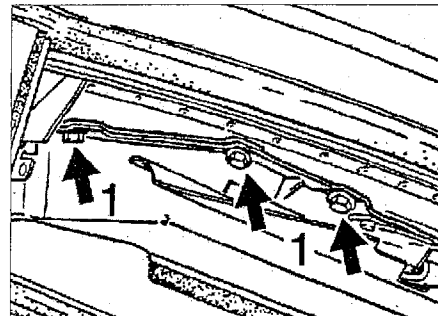


Figure 6.1

- If a felt or plastic strip has been installed between the windshield frame and bracket (arrow 1, Figure 6.1) mark the position of the bracket to the windshield frame using tape (arrow B, Figure 6.2) and remove all bolts at the same time. Before tightening the new bolts, adjust the bracket to its original position and torque the bolts to 12.5 ± 0.5 Nm ($9 \pm .36$ Ftlbs).

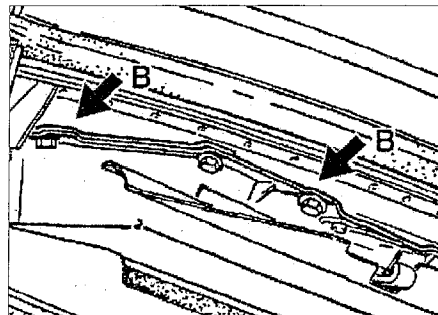


Figure 6.2

Area #4 Rattles or creaks in the area of the lower "B" pillar / roof, left and right.

Possible Cause:

- The distance spacer (A in Figure 7) may be loose or incorrectly positioned.
- The rubber stop for the guide pin of the glass roof latch may be missing.
- Lack of lubrication for the guide bushing on the rear axle plates.

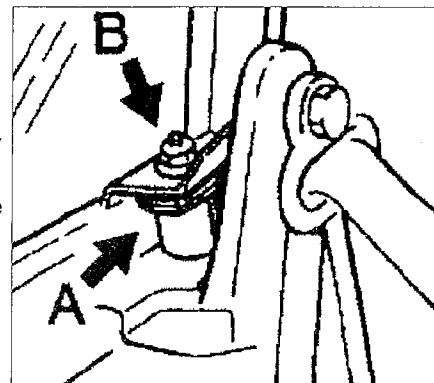


Figure 7

Preparation:

- Remove the cowl trim panel, rear wall cover panel and the inside roof panels.

Repair 4.1 Loose or incorrectly positioned distance spacer.

- Loosen the M6 nut (B in Figure 7) and check the position of the distance spacer. Afterward, re-torque the M6 nut to 9.7 Nm (7 Ftlbs).

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Repair 4.2: Missing rubber stop for the guide pin of the glass roof latch, left and right sides.

- Open the glass roof completely and check if the rubber stop, part number 993 562 810 00 for the guide pin of the glass roof is installed (arrow, Figure 8). The rubber stop is approximately 50 mm in front of the rear window on the guide tracks and is only accessible when the roof is fully open.

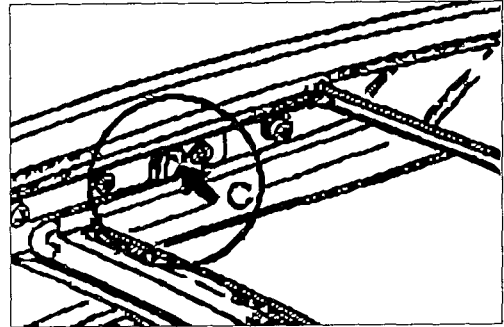


Figure 8

- If missing, install a new rubber stop using soapy water or Vaseline. Slide the thin side of the stop from the bottom into the hole using a screwdriver (arrow C, Figure 9).

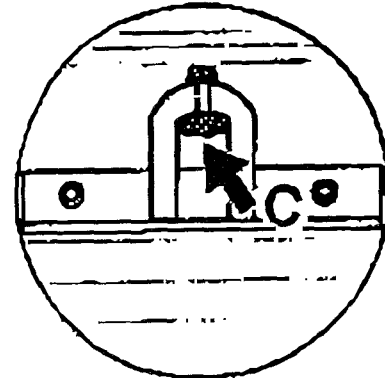


Figure 9

Caution: Before installing the rubber stop, use tape on the glass roof to avoid scratches.

Repair 4.3: Lack of lubrication for the guide bushing on the rear axle plates.

- Remove the rear axle plate (arrow, Figure 10) with the glass roof closed.
- Lubricate the guide bushing of the axle plate with a stiff grease, part number 999 917 751 00.
- Reinstall the axle plates and adjust the height of the glass roof to the roof trim pieces. Torque the axle plate screws to 5.5 + 0.5 Nm (4 Ft lbs).

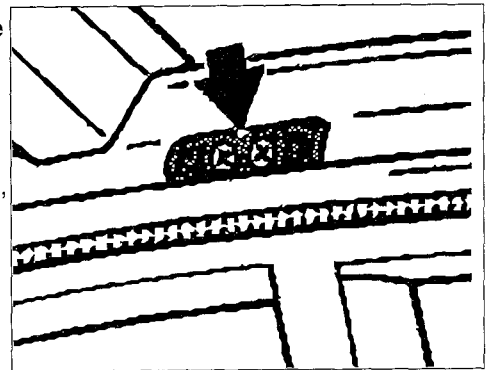


Figure 10

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Area #5: Creaking noises from around the rear window.

Possible Cause:

- The rear window mounting frame (2 in Figure 11) touches the rear glass.

Preparation:

- Remove the rear wall panel.

Repair:

- Check for clearance using a 2.0mm feeler gauge (arrow in Figure 11).

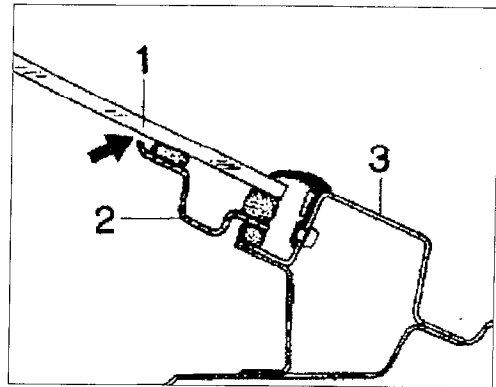


Figure 11

- **If necessary**, provide clearance for the metal frame to the glass using a plastic wedge (Arrow in Figure 12). **Be very careful** not to damage the rear window, primer border or sealing profile. A gap of 2.0mm is required.

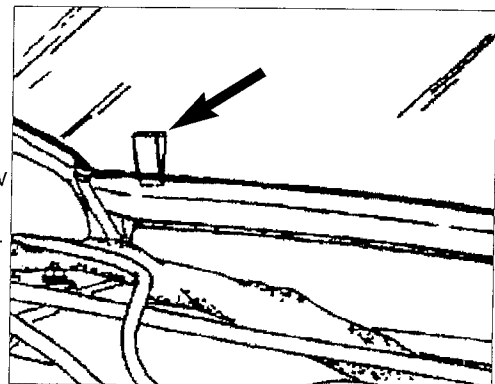


Figure 12

- Carefully press the plastic wedge between the inner window frame and the rear glass as shown in figure 12. Check the entire window frame for adequate clearance to the rear window. If it is not possible to gain clearance using the plastic wedge (inside metal frame keeps returning to original position) use cable ties cut into small lengths to act as spacers between the rear glass and frame.

Area #6 Noise in the area of the rear wall trim panel near the rear glass, C pillar covers and side covers.

Possible Cause:

- The edge of the rear wall trim panel touches the rear glass.

Preparation:

- Remove the rear wall trim panel.

Repair:

- Install a length of felt material, part number 993 555 545 00 onto the edge of the rear wall trim panel (Figure 13). As of Oct. 12, 1995, vehicles with leather covered rear wall trim panels have the felt strip installed in production form VIN: 99 5 TS 38 5091.

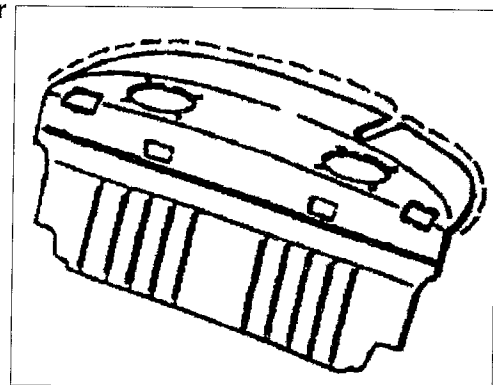


Figure 13

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Area #7 Crackling or rattle noises in the area of the left or right inner roof rail trim panels.

Possible Cause:

- The roof frame panel touches the metal roof frame.
- The center securing support for the roof trim panel is loose.
- Play on the front and or rear securing parts.
- The windshield frame cover touches the screw heads.

Preparation:

- Remove the roof rail trim panels.

Repair 7.1: The roof trim panel touches the metal roof frame.

- Glue foam pieces (arrow in Figure 14) part number 993 556 245 00 to the inside of the roof rail trim panels at the location shown in figure 12.

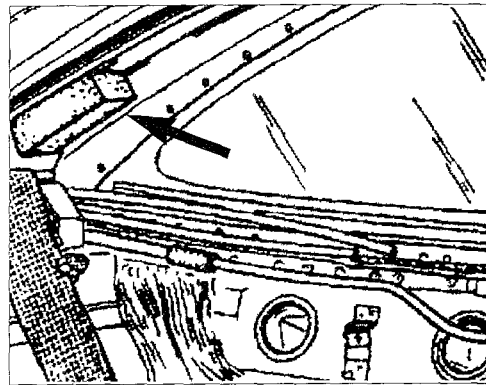


Figure 14

Repair 7.2: The center securing supports for the roof trim panels left and right sides are loose.

- Secure loose rivets (arrow in Figure 15) by using pliers to squeeze the rivet heads. Make certain not to damage the roof trim panel.

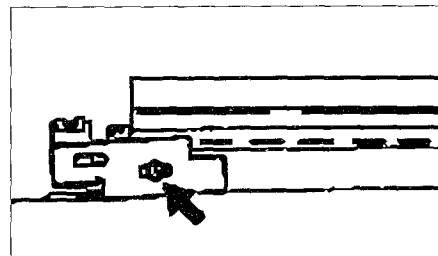


Figure 15

Repair 7.3: Play on the front and/or rear securing parts, left and right sides.

- With the roof rail trim panels removed, glue felt or foam pieces, approximately 12mm X 10mm and 5mm thick in the indentations of the securing part (arrow, Figure 16). The glued in part must be approximately 1mm taller than the securing part indentation.

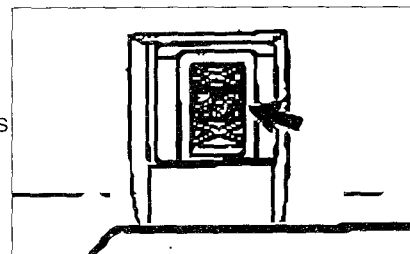


Figure 16

Repair 7.4: The windshield frame cover touches the screw heads.

- Check the inside of the windshield frame cover for tell-tale signs of screw heads touching.
- Remove the washers from the concerned screws.
- Carefully remove high spots from the inside of the cover.

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Area #8 Rattles or crackling noises from the rear inside wall trim panel area, left or right side.

Possible Cause:

- The electrical wiring and/or the guide pipes located behind the rear wall trim panel are rattling.
- The rear wall trim panel rattles on the roof rail trim panels, left and right sides.

Preparation:

- Remove the rear wall trim panel.

Repair 8.1: Loose electrical wiring and/or guide pipes under the rear wall trim panel.

- Insulate the guide pipes with foam pieces and tie loose electrical wiring securely using cable ties.

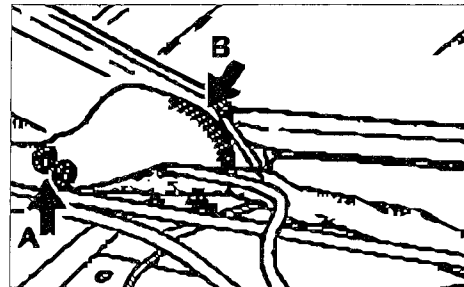
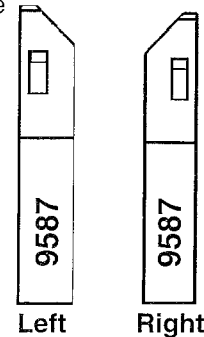


Figure 17

Repair 8.2: Rear wall trim panel rattles on the roof rail trim panels, left and right sides.

- When the rear wall trim panel is removed, remove the covers for the roof rail trim panels (arrow A, Figure 17).
- Install a foam or felt strip, approximately 50mm X 10mm, 2 to 3 mm thick on the top edge of the cover for the roof rail trim panel pointing toward the guide rail (arrow B, Figure 17).

Figure 18



Repair #9: Crackling noises in area of the roof rail trim strips.

Possible cause:

- The roof rail cover strips are installed under tension. The roof rail trim strip will require replacement.

Preparation:

- Remove the wind deflector.

Repair:

- Open the sliding roof completely.
- Position the fold-up lever for the wind deflector to the rear using special tool 9587 (See Figure 18).
- Use the appropriate 9587 tool (left or right) for the side of the vehicle being repaired (Figure 19). Insert the tool into the guide rail channel behind the cable driver. Use a screwdriver to push the tool 9587 into the cable driver which will allow the cable driver to move forward. This will cause the fold-up lever to move down toward the rear. Leave the tool in place while repairs are being made.

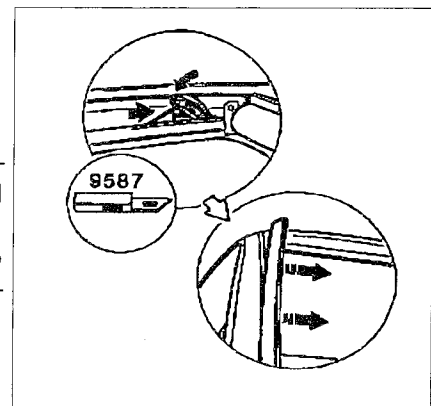


Figure 19

Caution: Do not close the glass roof while the tool 9587 is installed.



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- Pull out the rubber side seal.
- Begin to remove the trim strip starting at the front and working toward the rear (Figure 19). If necessary, use a piece of hardwood covered with leather and light hammer taps to dislodge the strip.

- After the trim strip is completely removed, clean the body flange thoroughly and remove any foreign material or existing teflon strips.

- Apply glue to the mounting flange for the roof rail strip (arrow in Figure 20).

- Install the side rubber seal into the roof rail trim strip. Leave approximately 1mm of overhang at the front edge of the roof rail strip.

- Apply glue to the inside of the roof rail trim strip.
- Start the installation of the roof rail strip at the lower corner of the rear window. Light taps with a hammer and leather covered hardwood block may be necessary to fully seat the trim strip along its entire length.

Important: The seal of the roof trim strip must contact the window frame seal (arrow A in Figure 21). A gap in this area will create wind noises!!! Position the seal to the front and remove any excess glue.

- The roof rail trim strip must only be cleaned with mild soap and water.
- Place the wind deflector lever into the forward position and remove the special tool 9587.
- Reinstall the wind deflector and adjust.
- Road test the vehicle.

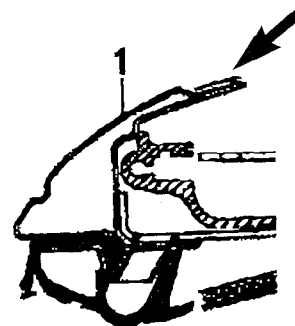


Figure 20

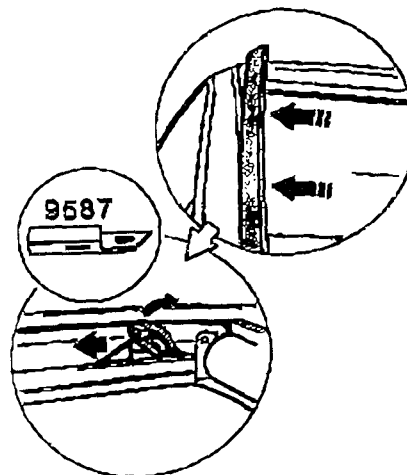


Figure 21

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Parts Information:

Part Number

Description

Repair Area

993 562 569 00

M5 X12 Bolt (4)

Securing wind deflector.

993 562 537 00

O-Ring (4)

For wind deflector bearing block.

993 562 567 00

Torx-bolt, M5 X 9.5(8)

For wind deflector bearing block and roof module frame.

900 378 163 09

Bolt M6 X 16 (6)

Roof bracket to windshield frame.

993 562 810 00

Rubber stop (2)

For glass roof latch.

993 555 545 00

Felt strip (2)

For roof rail trim strip cover.

993 556 245 00

Foam piece (2)

For roof rail trim strip.

Literature:

911 Carrera (1993) workshop manual, Volume 5.

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