

Noises from the Targa Roof Area

Binder-Service Technical Bulletins  
This bulletin replaces bulletin Group 6, #9606, dated 9-26-96.

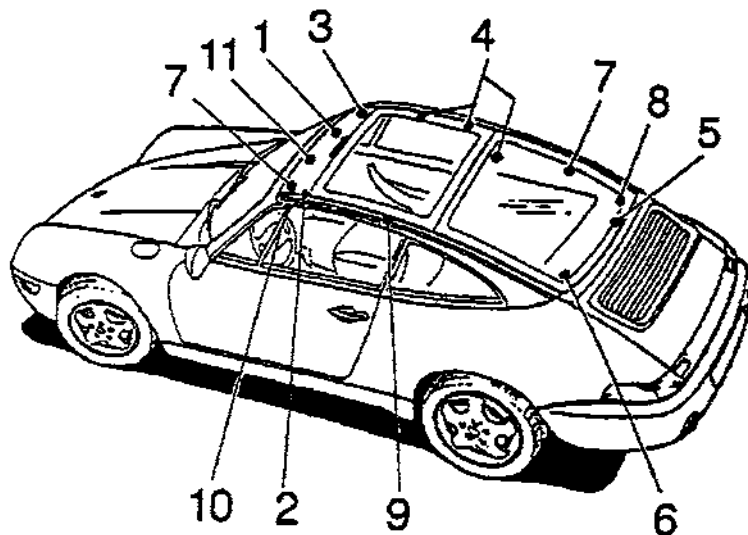
Vehicle Type: **911 Targa, Model Year 1996**

Model Year: **As of 1996 (T)**

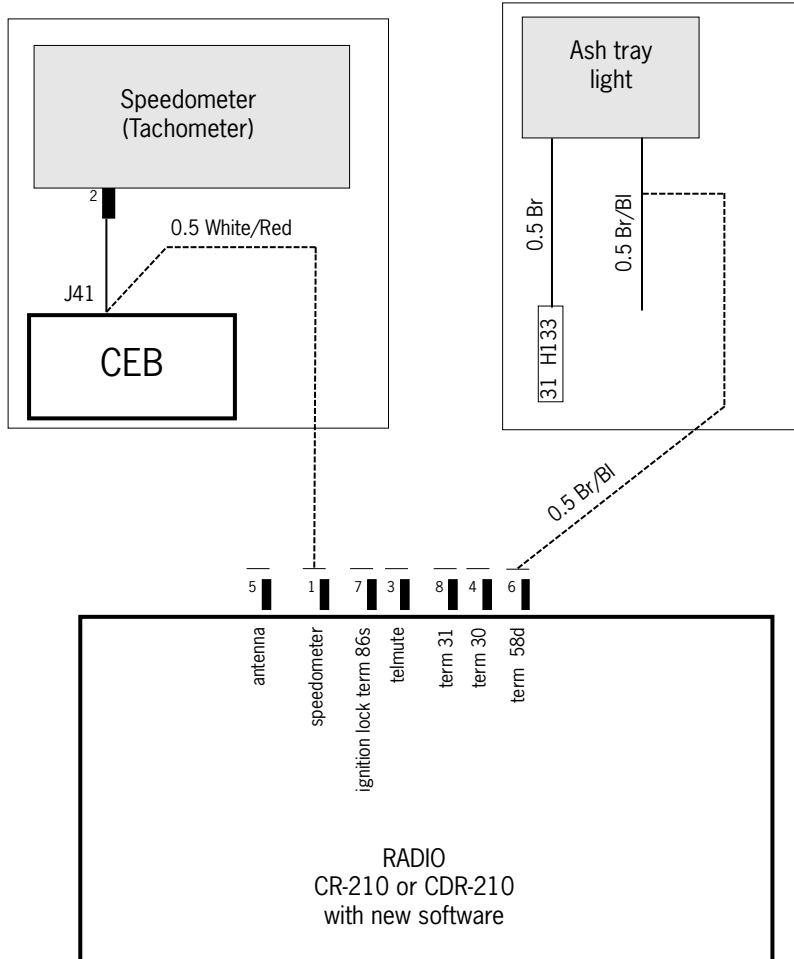
Concern: Noises from the Targa roof area.

Information: Since the start of production of the Targa model, the production line introduced several procedures to eliminate the possibility of noises from the Targa roof. In case of complaints of noises in 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 and roof module.
- 4 - Rattle or crackling noises in the area of the B-pillar, roof frame and glass sliding roof panel (left and right sides).
- 5 - Creaking noises in the area around the rear window.



Parts Information: **Becker radio with new version software.**

| Part Number    | Description                                |
|----------------|--|
| 993 645 117 01 | New radio CR-210 (not exchange)            |
| 993 645 120 01 | New radio CDR-210 (not exchange)           |
| 993 645 117 AX | Exchange radio CR-210 (without faceplate)  |
| 993 645 120 AX | Exchange radio CDR-210 (without faceplate) |

**Becker radio with former version software.**

| Part Number    | Description                                |
|----------------|--|
| 993 645 117 00 | New radio CR-210 (not exchange)            |
| 993 645 120 00 | New radio CDR-210 (not exchange)           |
| 993 645 117 X  | Exchange radio CR-210 (without faceplate)  |
| 993 645 120 X  | Exchange radio CDR-210 (without faceplate) |

Repair Procedures: **Area #1:**

- 1.1 Creaking noises from the wind deflector.
- 1.2 Wind noise on the wind deflector (deflector not completely closed).
- 1.3 Wind deflector opens slightly at higher speeds.

**Possible causes:**

- Loose bolts or threaded inserts for the wind deflector.
- Front hinge link binding.
- Play in the wind deflector drive cables.

**Repairs:**

**1.1 Loose bolts or threaded inserts (Figure 1, arrow 1).**

Replace loose bolts and torque to 5.5 + 0.5 Nm (4 ft/lb).

**Note:** As of January 20, '97 the bolts were replaced with torx bolts, part number, 993 562 577 01. Only this bolt is valid for repairs. If the threaded inserts come loose (Figure 1, arrow 1), the wind deflector, part number, 993 562 904 00 and the bolts should be replaced.

**1.2 Sliding elements in the hinge link binding.**

Replace sliding elements (Figure 2, arrow 2). With the wind deflector removed, replace both sliding shoes, part number, 993 562 563 00. Lubricate with silicone spray.

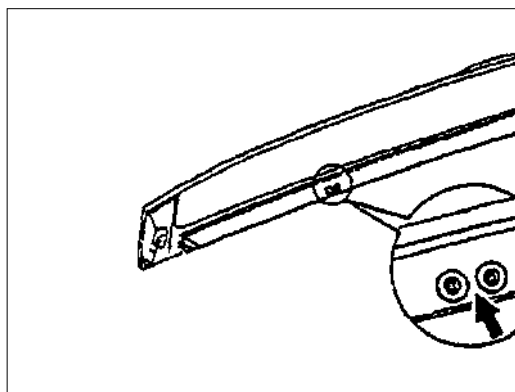


Figure 1

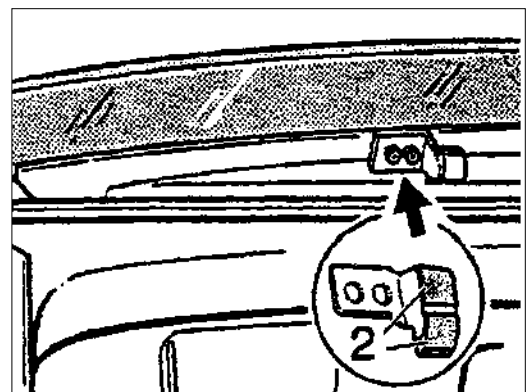


Figure 2

Repair: (cont'd)

**1.3 Eliminate the play of the wind deflector drive cables.**

- Remove rear wall trim panel
- Open wind deflector with switch
- Remove the left motor (Figure 3, pos. A) for the wind deflector and the glass sunroof panel from the rear panel (arrows).
- On the right motor (Figure 3, pos. B) lift the red plastic driver (Figure 3, arrow).
- Turn the shaft of the right motor (Figure 3, pos. B) with a 4mm allen wrench counter clockwise (Figure 4, arrow) until the left mechanism for the wind deflector starts to move. After this, turn the shaft 90 degrees clockwise.

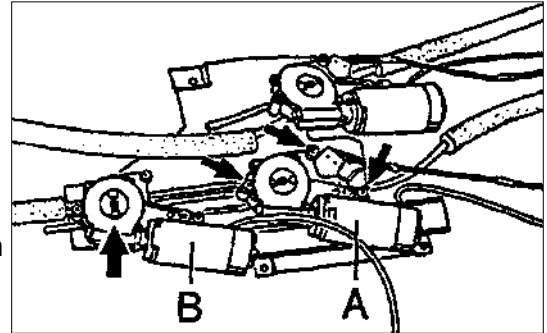


Figure 3

- Reinstall the red plastic driver, if necessary turn the shaft further clockwise, until the red plastic driver snaps into place.
- Reattach the left motor. Torque bolts to 3.0 Nm (2 ft/lb).
- Perform a function test of the wind deflector. If the motor makes a lot of noise when the wind deflector closes, an additional tooth clockwise must be turned on the motor (Figure 4, pos. B). For this, the red plastic driver must be removed and the left motor (Figure 3, pos. A) must be removed again. After the adjustment, perform an additional function test of the wind deflector. If necessary move one additional tooth clockwise.

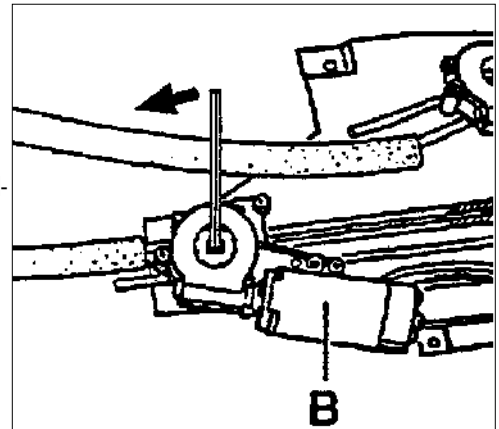


Figure 4

**Caution:** When working on the drive motors for the wind deflector or glass sliding roof panel, both motors (A and B) must not be loosened from the rear panel. One of the motors should always hold the drive cable in position, this avoids a misadjustment between the left and right side. If only one motor is connected to the rear panel it must not be electrically energized, this will damage the drive cable.

Basic cable adjustment is listed in the workshop manual 911 Carrera(993), Volume V, as of page 60-221

Repair: (cont'd)

**1.4 Adjustment of the wind deflector position.**

Open the wind deflector and loosen the left and right mounting nuts (Figure 5, pos. 2). Adjust the wind deflector in the slots so that in the closed position it has a slight preload on the seal.

To avoid wind noises with the wind deflector closed, the rear upper edge of the wind deflector should be approx. 0.5 to 1.0mm higher than the front upper edge of the glass sliding roof panel. The gap around the glass should be even. If necessary straighten panel. Torque nuts (Figure 5, pos.2) to 5.5 + 0.5 Nm (4 ft/lb).

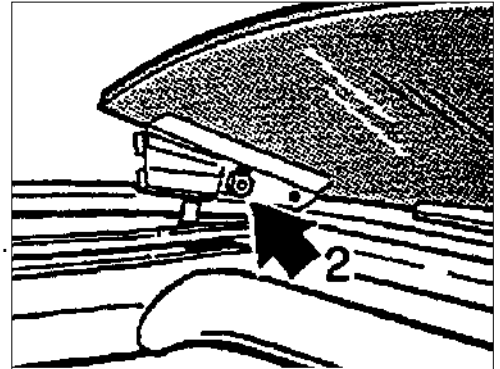


Figure 5

**Area #2:**

**2.1 Creaking at the left or right sides of the glass sliding roof panel**

**Possible cause:**

The side seals are sticking together.

**Repairs:**

**2.1** With the wind deflector and roof open, pull off the front edge of the side seal and locate the opening at the end of the seal (Figure 6, arrow). Use a suitable wire coated with vaseline to lubricate the inside of the seal along its entire length.

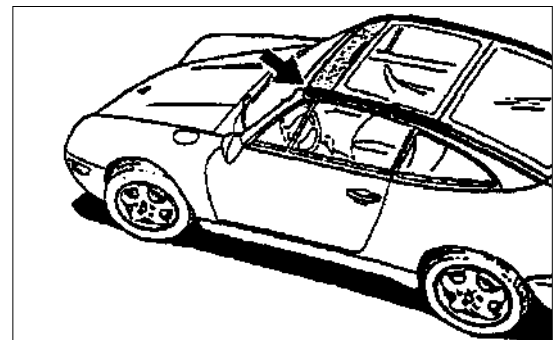


Figure 6

**Area #3:**

**3.1 Strong rattle noises in the area of the roof module and windshield frame (center, left or right).**

**Possible cause:**

Tension on the wind deflectors bearing block, located on the roof frame and the connection for the cross bracket.

**Repairs:**

**3.1** Shorten the corner plate bracket in the area of the bearing block holes. (Figure 7).

- Remove the allen head screws (Figure 7, arrow 2).

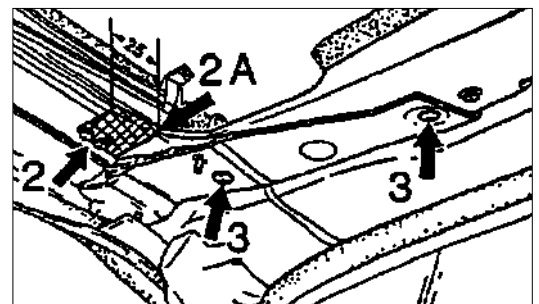


Figure 7

Repair: (cont'd)

- Remove the area indicated by crosshatch (Figure 7 arrow 2).
- Protect by inserting a screwdriver between the corner plate and the guide and bend the crosshatched area away from the guide 3 to 4mm.
- To prevent damaging the guide, insert a 40mm x 50mm, 2mm thick sheet metal plate, between the guide and carrier plate.
- Cut off the hatch-marked part at a length of 25mm (Figure 8, arrow 2A).

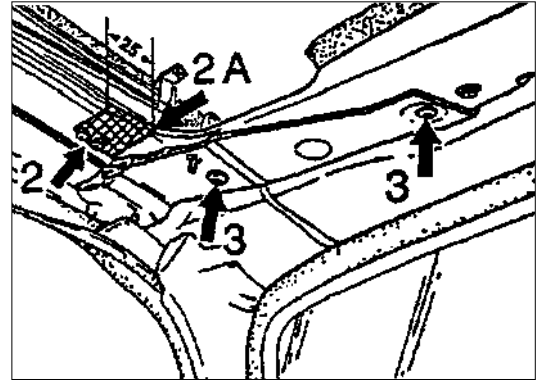


Figure 8

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

- Remove metal burrs from the cut off area of the bracket (Figure 8, arrow 2A) and cover the exposed metal with anti-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 (Figure 9, arrow 2), part number, 993 562 567 00 and torque to 5.5 Nm (4 ft/lb). (bolt with washer, same as on figure 9, arrow 3).

**Note:** As of June 17, '96 the modification to the corner plate bracket was performed in production.

As of January 22, '97 the bolts on the securing points (Figure 9, arrows 3) were changed from M5 x 9.5 to M6 x 10 (part number, 993 562 741 00) bolts. The longer bolts cannot be installed in earlier vehicles.

Torque values: Securing points "2" and "3" with bolts M5 x 9.5 = 5.5 Nm (4 ft/lb). Securing points "3" with bolts M6 x 10 = 9.5 + 5 Nm (7 ft/lb).

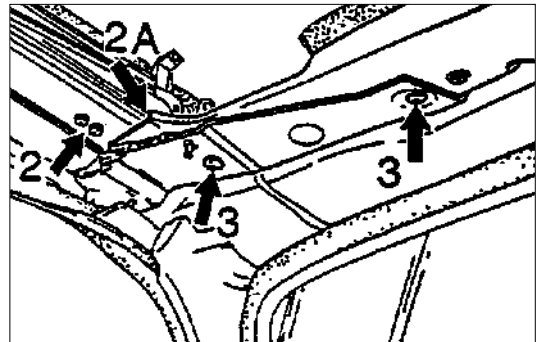


Figure 9

Repair: (cont'd)

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

**Note:** As of June 12, '96, new collar bolts are installed (Figure 10 arrows) on the windshield frame/roof module, part number, 900 378 163 09.

- Replace the securing bolts (Figure 10, arrows). On earlier vehicles remove the existing allen head bolts (Figure 10, arrows) one at a time and replace with the new collar bolt, part number, 900 378 163 09 (M6 x 16 micro encapsulated) without washers, and torque to specifications.
- If a felt or plastic strip has been installed between the windshield frame and bracket (Figure 10, arrows) mark the position of the bracket to the windshield frame using tape (Figure 11 pos. B) 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 + 0.4 ft/lb).

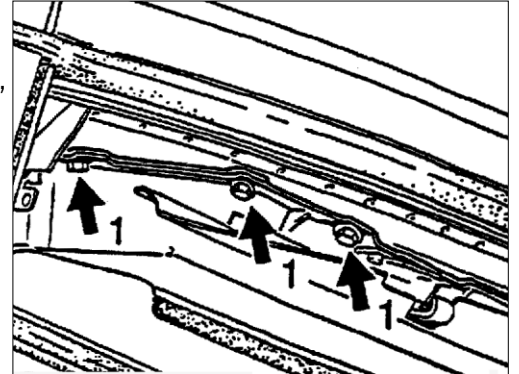


Figure 10

**Area #4:**

**4.1 - 4.4 Rattle or creaking noises in the area of the B pillar, roof frame and glass sliding roof panel (left or right sides).**

**Possible causes:**

- The distance spacer on the B pillar may be loose (left or right).
- The rubber stop for the guide pin of the glass roof latch may be missing (left or right).
- Lack of lubrication on the guide bushing on rear axle plates.
- Guide pin for the front axle plate of the glass roof is worn (left or right).

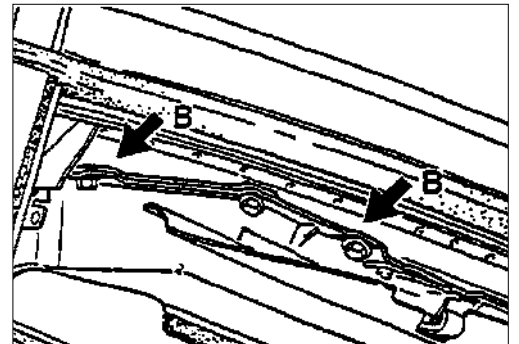


Figure 11

**Repairs:**

**4.1 Distance spacer on the B pillar (Figure 12, arrow A) loose (left or right)**

- Remove the cowl trim panel rear wall cover panel and the inside roof panels.
- Check distance bushing (Figure 12, pos. A) for tightness and correct seating.
- Retorque M6 nut (Figure 12, pos. B) to 9.7 Nm (7 ft/lb).

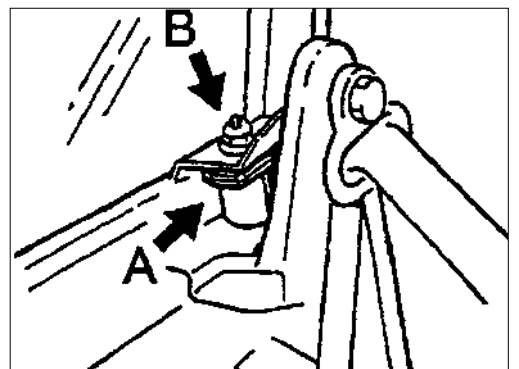


Figure 12

Repair: (cont'd)

**4.2 Missing rubber stop for the guide pin of the glass roof latch (left or right).**

- 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 (Figure 13, arrow). The rubber stop is approximately 50mm in front of the rear window on the guide tracks and is only accessible when the roof is fully open.
- 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 (Figure 14, arrow C). Cut off the excess rubber on top.

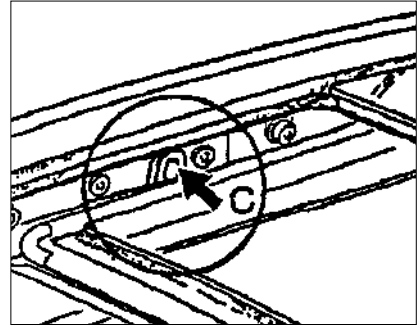


Figure 13

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

**4.3 Lack of lubrication for the guide bushing on the rear axle plates (left or right).**

- Remove left and right roof frame covers.
- With the glass roof closed remove the rear axle plate (Figure 15, arrow)
- Lubricate the guide bushing of the axle plate with thick grease, part number, 999 917 751 00.
- Remount axle plate and adjust the glass roof height according to the roof seal. Torque to 5.5 Nm (4 ft/lb).

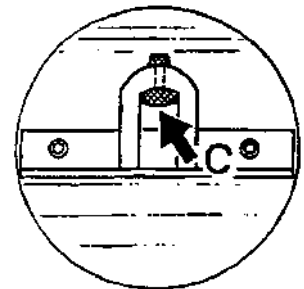


Figure 14

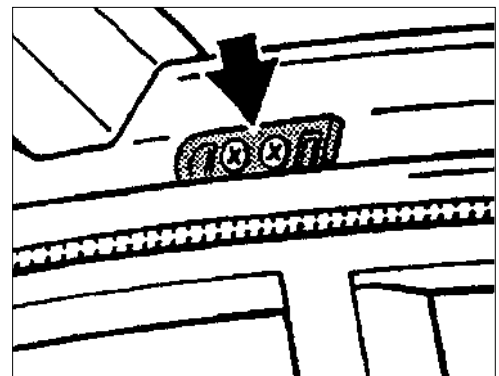


Figure 15



Repair: (cont'd) **4.4 Guide pin for the front axle plate of the glass roof is worn (left or right).**

Replacement of the left and right axle plates.

- Remove left and right inner roof covering.
- Open glass roof approx. 250mm. Remove front axle plate (Figure 16, arrow).
- Replace the old axle plate, which has a black surface, with the new version which is nickel plated (lighter colored).

Part number - 993 562 573 01, left axle plate  
 Part number - 993 562 574 01, right axle plate

- Bolt on the new axle plate on the left and right sides and adjust the glass roof panel height. To avoid air noises the upper edge of the glass roof panel should be 0.5 to 1.0mm lower than the rear edge of the wind deflector in the closed position. Torque screws to 8.3 + 0.5 Nm (6 ft/lb).
- Figure 17, additional view of glass roof panel with axle plate.

Arrow 4.3 = Rear  
 Arrow 4.4 = Front

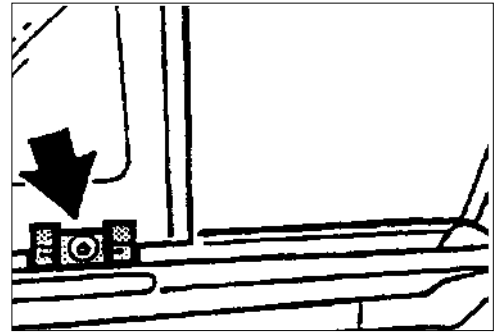


Figure 16

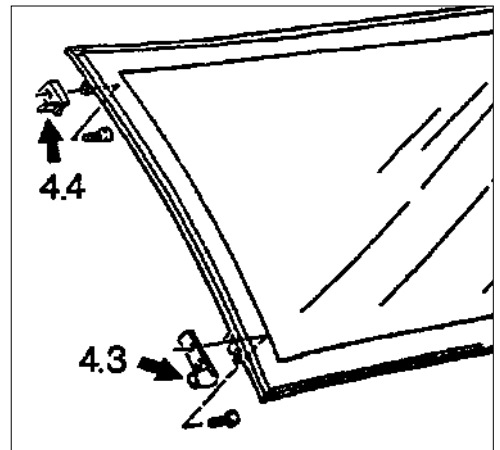


Figure 17

Repair: (cont'd)

**Area # 5:**

**5.1 Creaking noises from around the rear window.**

**Possible cause:**

- The rear window mounting frame (Figure 2, pos. 2) touches the rear glass.

**Repairs:**

**5.1 Creaking noises from around the rear window.**

- Remove the rear wall panel. Check for clearance using a 2.0mm feeler gauge (Figure 18, arrow).

1. Rear window
2. Rear window mounting frame
3. Rear center panel

- If necessary, provide clearance for the metal frame to the glass using a plastic wedge (Figure 19 arrow). **Be very careful** not to damage the rear window, primer border or sealing profile. A gap of 2.0 mm is required.

- Carefully press the plastic wedge between the inner window frame and the rear glass as shown in figure 19. 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.

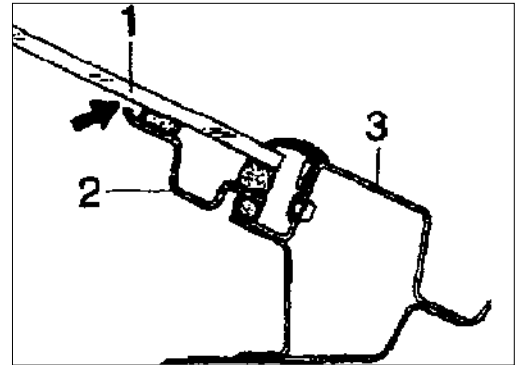


Figure 18

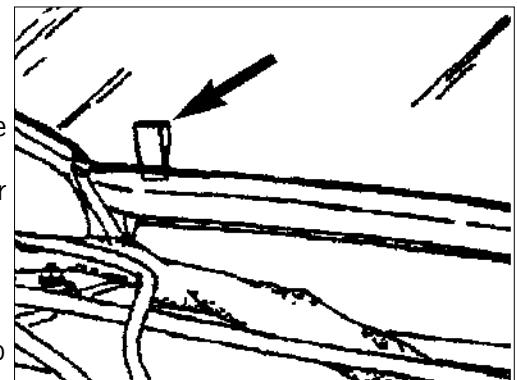


Figure 19

**Area #6:**

**6.1 Creaking noises in the are of the rear cover and window.**

**Possible cause:**

The edge of the rear wall trim panel touches the rear glass, C pillar covers or side covers.

**Repairs:**

**6.1 Creaking noises in the area of the rear cover and window.**

- Install a length of felt material, part number, 993 555 545 00 onto the edge of the rear wall trim panel (Figure 20). As of October 12, '95 vehicles with leather covered rear wall trim panels have the felt strip installed in production.

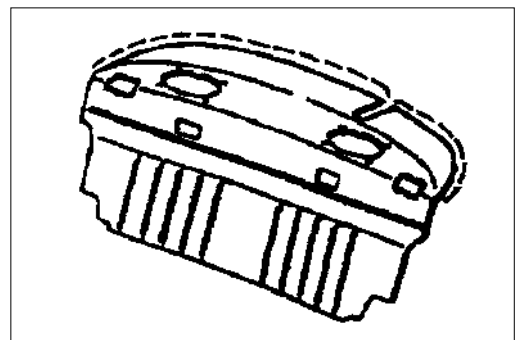


Figure 20

Repair: (cont'd) **Area #7**

**7.0 Creaking or rattle noises in the area of the left or right inner roof rail trim panels.**

**Possible causes:**

- 7.1 The roof trim panel touches the metal roof frame (left or right).
- 7.2 The center securing support for the roof trim panel is loose (left or right).
- 7.3 Play in the front or rear securing elements (left or right).
- 7.3 The windshield frame cover touches the screw heads.

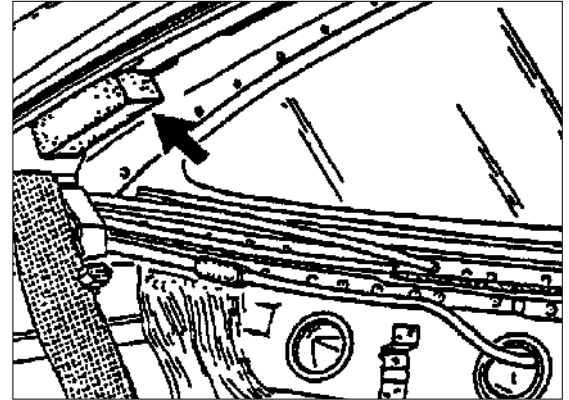


Figure 21

**Repairs:**

**7.1 The roof trim panel touches the metal roof frame (left or right).**

- Remove the rear wall trim panel, roof rail trim panels and the windshield frame cover.
- Glue foam pieces (approx.. 100mm long) to the inside of the roof rail trim panels at the location shown in figure 21.

**Locations of foam pieces:**

- a. Behind the rear securing element of the roof rail trim panels. (Figure 21, arrow).
- b. Between the rear securing element and the B pillar. Part number, 993 556 245 00, foam piece (left and right).

**7.2 The center securing supports for the roof trim panels on the left or right sides are loose.**

- On the removed roof trim panel, secure the loose rivets (Figure 22, arrow A) on the center securing point for the B pillar.
- Install an additional securing screw (Part number, 993 562 737 00) on the bracket (Figure 22, arrow B).

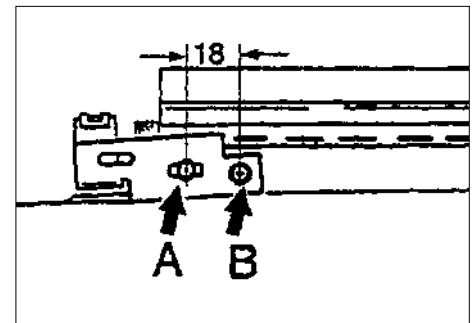


Figure 22

**Note:** when drilling assure that the cover of the roof trim panel is not damaged. It must not be drilled more than 6.0mm in depth. In order not to damage the outside cover, a 20 x 40mm metal strip should be inserted between the outside cover and the roof trim panel.

Repair: (cont'd)

**7.3 Play on the front or rear securing elements (left or right).**

- With roof trim panels removed, glue foam pieces, approx.. 12 X 10mm and 5mm thick in the indentations of the securing part (Figure 23, arrow C)

**Important:** The glued-in foam pieces (Figure 23, arrow C) must stand approx.. 1 to 2mm over.

- If securing element is loose install two additional screws. Drill two holes 2mm in diameter, by 7mm in depth, through the securing element into the roof trim panel (Figure 24, arrow D). Secure the elements with two sheet metal screws (Torx T20).

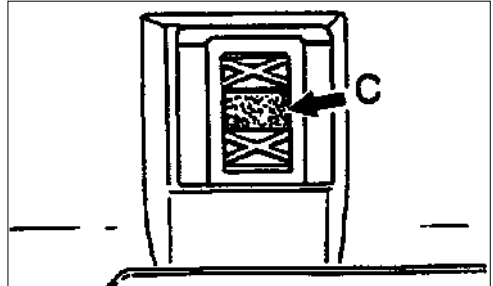


Figure 23

**Note:** The securing elements/sliding piece on the roof trim panel are available as spare parts (front and rear are the same).

Part Number - 993 562 733 00, securing element/sliding piece  
Part Number - 993 562 737 00, sheet metal screw (Torx T20)

**7.4 The windshield frame cover touches the screw heads.**

- Check the inside of the windshield frame cover for touching or rubbing signs (Figure 25, arrows).
- Carefully remove high spots from the inside of the cover, if necessary install a thin foam sheet.
- Remove the four sheet metal screws and reinstall without washers.

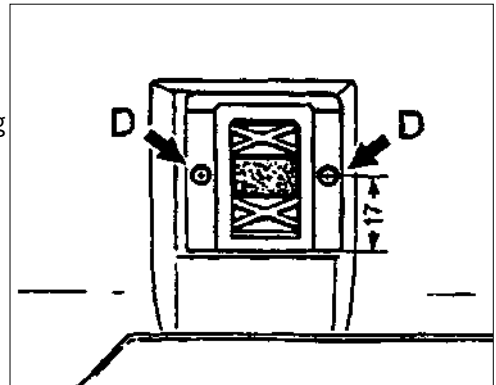


Figure 24

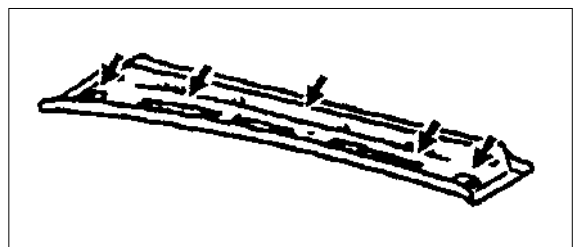


Figure 25

Repair: (cont'd)

**Area #8:**

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

**Possible causes:**

- 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.

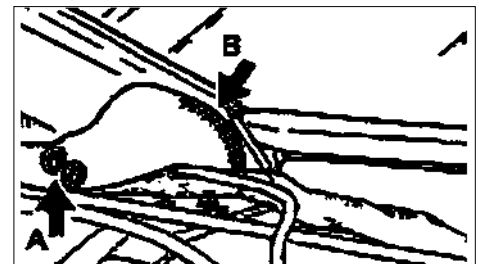


Figure 26

**Repairs:**

**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.

**8.2 Rear wall trim panel rattles on the roof rail trim panels (left or right sides).**

- After the rear wall trim panel is removed, remove the covers for the roof rail trim panels (Figure 26, arrow A).
- Install a foam or felt strip, approximately 50mm x 10mm, 2 to 3mm thick on the top edge of the cover for the roof rail trim panel pointing toward the guide rail (Figure 26, arrow B).

Repair: (cont'd)

**Area #9:**

**Creaking noises in the area of the outside roof rail trim strips (left or right sides).**

**Possible cause:**

- The roof rail cover strips are installed under tension.

**Repairs:**

- Remove the wind deflector and fully open sliding roof.
- Use the appropriate 9587 tool (left or right) for the side of the vehicle being repaired (Figure 27, pos. 1). 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.

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

- Pull out the rubber roof seal, starting at front (Figure 27, pos.2).
- Remove the roof trim strip, starting at the front (Figure 27, pos.3). If necessary use a piece of hardwood covered with leather and light hammer taps to dislodge the strip.
- Remove the roof trim strip in the rear. Use a piece of hardwood covered with leather and light hammer taps, starting at the rear (Figure 27, pos. 4).
- After the trim strip is completely removed, clean the body flange thoroughly and remove any foreign material or existing teflon strip (Figure 27, pos. 5).

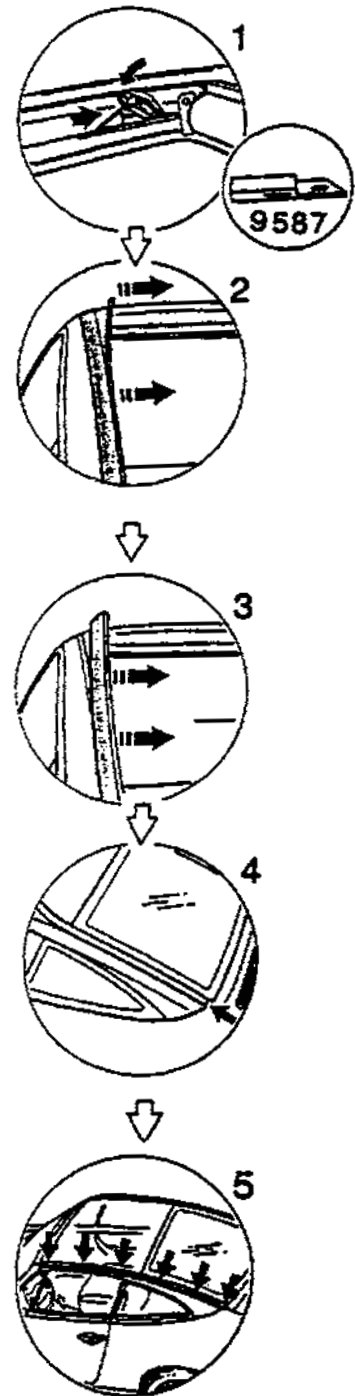
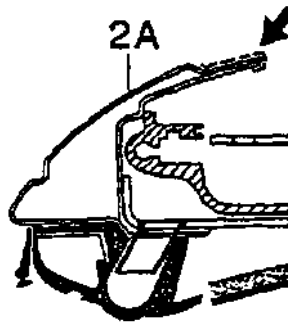


Figure 27

Repair: (cont'd)

**Notes on roof trim strip installation.**

- Install rubber roof seal, the seal must be approx.. 1mm longer in the front and rear (Figure 28, pos.1)
- Apply glue to the inside of the roof rail trim strip (Figure 28, pos. 2). Apply glue approx.. 1mm thick onto the body (Figure 28, pos. 2A - arrow).
- Apply glue approx.. 2mm thick on the back side of the roof trim strip (Figure 28, pos. 3)



- 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. (Figure 28, pos. 4)
- Remove excessive glue

**Caution:** The roof rail trim strip must only be cleaned with mild soap and water.

- Move the special tool 9587 (left and right) with a screw driver to the rear and remove out of the slot (Figure 28, pos. 5).

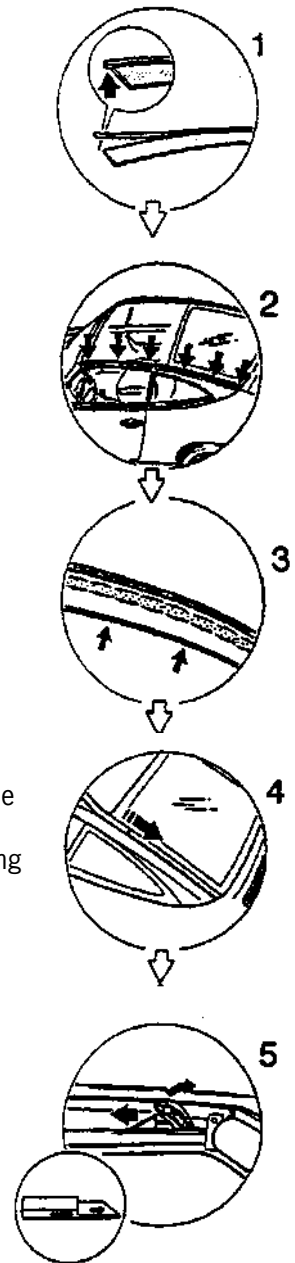


Figure 28

Repair: (cont'd)

**Important:** The seal of the roof trim strip must contact the window frame seal (Figure 29, pos. A). A gap in this area will create wind noises! If necessary, position the seal to the front and remove excess glue.

**Area #10:**

**Creaking noises on the left and right door windows in the area of the door seal.**

**Possible causes:**

- Incorrect door window adjustment.
- Window panes too tight to the door seal.
- Door window adjusted too high in the closed position.
- Door window at an angle.
- Door seal damaged.

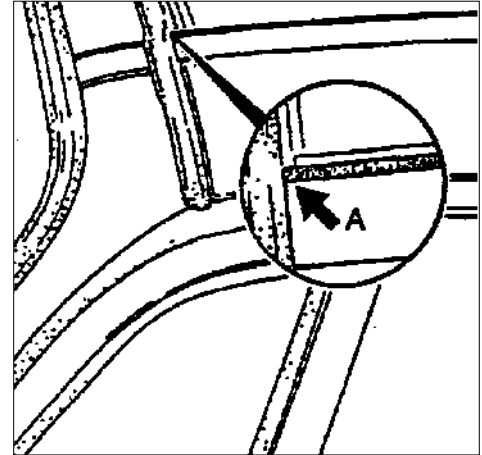


Figure 29

**Repairs:**

**10.1** Door window adjustment.

**10.2** Smooth the upper inner edge of the door window with fine emery cloth (#180 to 240).

**Note:** As of September, '96 a modified door seal is used in production.

Part Number - 993 562 305 01, left side  
Part Number - 993 562 306 01, right side

**Important:** The door seal must not kink in the installed position. The water drainage openings must be free. Also the seal **must not** be treated with vaseline, glycerine or other paraffin based materials.

**Maintenance:**

If necessary the seals should only be treated with talcum or equivalent materials. If the seals are not treated correctly, the seal surface will be damaged and this will create creaking noises. Dirty door seals should only be cleaned with soapy water.

**Area #11:**

**Sun screen.**

The following modifications to the sun screen are in production.

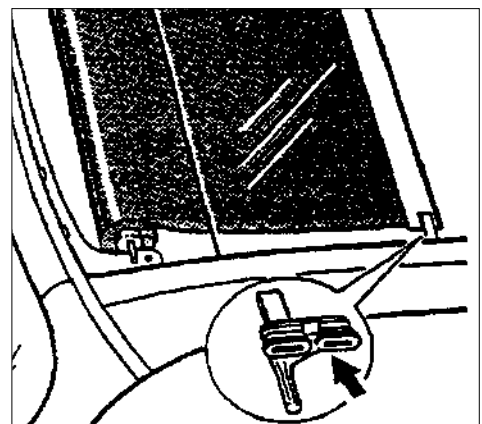


Figure 30

**11.1 Pulling bracket with a double slip bearing (left and right).**

- As of October 15, '96 a new double slip bearing has been installed in production to improve



Repair: (cont'd) the guide for the sun screen. Effective immediately only the new version slip bearings are being supplied as spare parts (Figure 30, arrow).

Part Number - 993 562 553 00, left slip bearing bracket  
 Part Number - 993 562 554 00, right slip bearing bracket  
 Part Number - 993 562 587 00, slip bearing (2)

**Note:** The new slip bearings can be installed on earlier vehicles.

**11.2 Tensioning and adjustment of the sun screen.**

- The tension of the sun screen in the closed position has been improved from 19 turns to 23 turns. This is valid for earlier vehicles also.

The base adjustment of the drive cable for the sun screen is outlined in the Workshop Manual 911 Carrera (993) Volume V, as of page 60-221.

**11.3 One sided loss of tension of the sun screen.**

- Remove rear wall trim panel.
- Fully extend the sun screen.
- Remove the drive motor for the sun screen (Figure 31, pos. C).
- Pull the respective drive cable with needle nose pliers until the loose side is tight.

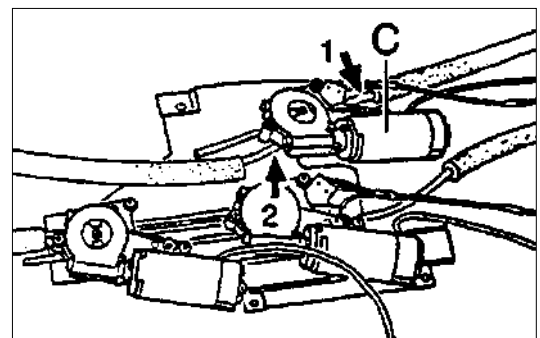


Figure 31

Figure 31 Arrow 1, left drive cable  
 Figure 31 Arrow 2, right drive cable

- Reinstall drive motor. Torque bolts to 3.0 Nm (2 ft/lb)

Check the function of the sun screen.

- Reinstall all removed parts.
- Road test vehicle.

Literature: Workshop manual 911 Carrera (993), Volume V, attachment 911 Targa (993).

Parts Information: **Overview of all parts mentioned in this Technical Information.**

| Part Number    | Description              | Application Area                 |
|----------------|--------------------------|----------------------------------|
| 993 562 904 00 | Wind Deflector           | Glass Roof                       |
| 993 562 577 01 | Bolt M5 X 12 (4)         | Wind Deflector                   |
| 993 562 563 00 | Slider (4)               | Wind Deflector Hinge             |
| 993 562 537 00 | Seal (4)                 | Wind Deflector Bearing           |
| 993 562 567 00 | Torx Bolt M 5 X 9.5 (8)  | Wind Deflector Bearing           |
| 993 562 741 00 | Bolt M6 X 10 (4)         | Roof Module                      |
| 900 378 163 09 | Collar Bolts M6 X 16 (6) | Roof / Windshield Frame          |
| 993 562 810 00 | Stop Bumper (2)          | Stop For Glass Roof Connector    |
| 993 562 573 01 | Axle Plate, Left         | Glass Roof                       |
| 993 562 574 01 | Axle Plate, Right        | Glass Roof                       |
| 993 555 545 00 | Felt Strip (2)           | Rear Wall Trim Panel             |
| 993 556 245 00 | Foam Piece               | Inner Roof Panel                 |
| 993 562 733 00 | Sliding Element          | Inner Roof Panel, Front and Rear |
| 993 562 737 00 | Sheet Metal Screw        | Bracket / Securing Element       |
| 000 721 958 70 | Special Tool 9587        | Wind Deflector Bracket           |
| 993 562 553 00 | Pulling Bracket, Left    | Sun Screen                       |
| 993 562 554 00 | Pulling Bracket, Right   | Sun Screen                       |
| 993 562 587 00 | Sliding Sleeves (8)      | Pulling Bracket for Sunscreen    |
| 993 562 305 01 | Door Seal, Left          | Left Door                        |
| 993 562 306 01 | Door Seal, Right         | Right Door                       |
| 993 562 513 00 | Roof Trim Strip, Left    | Roof Module, Left                |
| 993 562 514 00 | Roof Trim Strip, Right   | Roof Module, Right               |
| 999 917 751 00 | Grease                   | Guide Bushing on the Axle Plate  |

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