PORSCHE

SERVICE BULLETIN - to all Service Shops

No. F 1/66 abroad

Subject: Repair Instructions for the Golde Sliding Roof, model 56

Vehicle Type:

Effective:

911 and 912

immediately

Enclosed please find repair instructions for the Golde sliding roof, model 56 (with electric command at the rear).

The instructions will be added to the workshop manual.

Dr.-Ing.h.c.F. Porsche KG.

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Raubald

Kirchmann

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Dismantling Sliding Roof Cover and Slide Frame.

- 1. Half open sliding roof.
- 2. Disengage slide frame from cover reinforcement at the front by pushing out clips and push back on to stop. (The slide frame may only be pushed back after closing the cover).



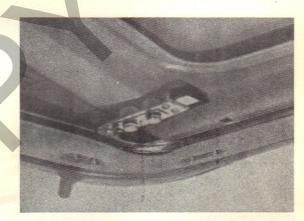
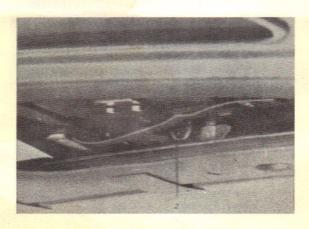


Fig. 1 Disengage side frame from cover reinforcement.

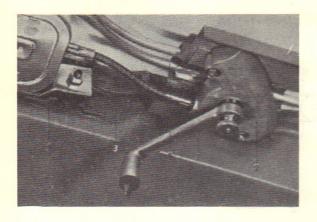
- 1. Sliding roof cover
- 2. Slide frame
- 3. Clips
- 4. Sliding roof frame.

Fig. 2 Illustration of guide at the front-

- 3. Close sliding roof until only 5 cm is left open.
- Remove guides left and right at the front after loosening screws.
- 5. Swivel leaf springs at the left and right front of cover assembly inwards. After loosening the screws, the guide reinforcements should be pulled to the left and right at the rear.



and of the guide at the rear.



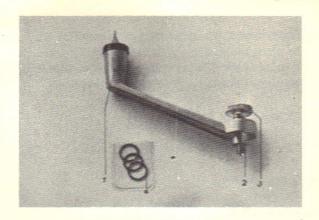


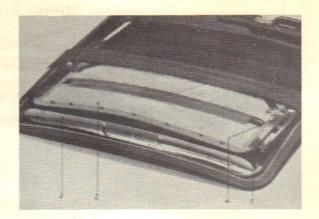
Fig. 18 Operation with the special tool.

- 1. Special tool
- 2. Drive mechanism
- 3. Flexible shaft
- 4. Flat motor
- 5. Tubular support

Fig. 19

- 1. Screwdriver
- 2. Fork
- 3. Knurled screw
- 4. Replacement shims for slip clutch

- Lift sliding roof cover at the front and take out upwards at the front.
- 7. The fixing screws of the guide rail spacers should be loosened and the slide frame pulled out forwards while lifting the guide rails.
- Fig. 3 The slide frame coming out forwards.
 - 1. Guide rails lifted at the front.
 - 2. Slide frame.
 - 3. Draught excluder.
 - 4. Rear of guide



Assembling Sliding Roof. Cover and Slide Frame.

- Lift guide rails at the front and push the slide frame into the guide rails from the front,
- 2. Screw down the guide rails with spacers.
- 3. Insert sliding roof cover.
- 4. Secure guides at the front so that the cover has no more than 1 mm side play.

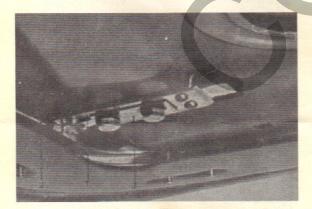


Fig. 4 Front of guide.

- 1. Front of guide
- 2. Guide rails
- 3. Safety plate

CAUTION!

Do not forget the safety plates,

5. The guides should be located at the rear in such a way that the reinforcements can be pushed in and can be screwed on the cover with the guides. The leaf springs should be swung outwards under the guide pins at the rear.

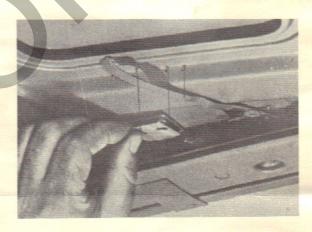


Fig. 5 Rear of guide

- 1. Reinforcement
- 2. Locating angle for rear of guide
- 3. Leaf spring swung inwards
- 6. The sliding roof cover should be opened about halfway, the slide frame pulled forwards and secured at the front by pressing the clips into the holes in the cover assembly.

Replacing Operating Cables at Rear of Guides.

Dismantling:

- Remove sliding roof cover as described under dismantling of sliding roof and slide frame.
- Open the slide fastener in the car roof over the rear plate and unscrew the drive mechanism.

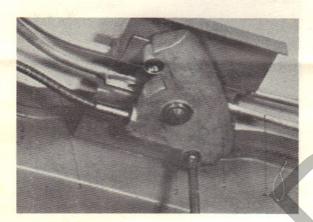


Fig. 6 Layout of drive mechanism

- 1. Drive mechanism
- 2. Fixing screws (2)
- 3. Flexible shaft
- 4. Tubular supports
- The guide rail spacers should be unscrewed, the guide rails lifted from the front and the guides complete with operating cables extraced at the rear.

Assembly:

Note

Before assembly of the operating cables these should be checked for wear, distortion and damage. In the case where only one operating cable is defective, we recommend the renewal of both rear guides complete with operating cables. This will ensure precise parallel sliding roof movement. In the same way the driving pinion should be examined for damage and renewed if necessary. We recommend Golde sliding roof grease for lubrication of the operating cables.

Important:

The operating cables should only be lightly greased.

- The guides should be inserted at the rear with the end of the operating cable pointing forwards into the guide rails which have been raised at the front.
- 2. Screw up guide rails with spacers.
- Assemble sliding roof cover as described under assembly of sliding roof cover and slide frame 2 to 5.
- Push the sliding roof cover forwards by hand up to the stop (velvet border on roof cutout at the front)
- 5. Swing guide release to the rear by 90° so that the sliding roof cover is in the closed position.

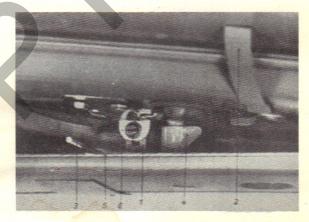


Fig. 7 Position of guide release at the rear with sliding roof cover closed.

- Release in closed position of sliding roof cover, position 90^o to guide rail.
- 2. Leaf spring turned inwards.
- 3. Guide pin rear
- 4. Lifting device with slide piece
- 5. Guide rail
- 6. Guide locating angle rear
- Screw up drive. Take care that the flexible shaft has first been pushed on to the motor and drive shaft.
- Carry out test run and ensure that sliding roof cover runs parallel.

- 8. With the sliding roof cover about half open, secure the slide frame on the cover at the front by pressing the clips into the holes at the front of the cover assembly.
- 9. If after assembly has been completed, the slip clutch built into the drive mechanism has been set too loose, the clutch drive can be made more positive by addition of shims in the clutch mechanism. For this purpose the plastic cover of the drive mechanism should be removed and the screw underneath screwed out with the special tool. (Be careful with the clutch plates in the drive mechanism). Not more than two shims should be inserted if possible. In any case the slip clutch should operate on overload. After screwing in the clutch screw with special tool the plastic cover should be refitted. Replacement clutch discs are included in a plastic bag.

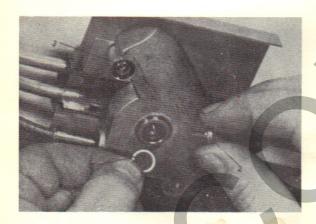


Fig. 8 Adjust slip clutch of the drive mechanism

- 1. Spacer washers for slip clutch.
- 2. Clamp bolt.
- 3. Fastening screw for drive mechanism.
- After work has been finished on the drive, the sliding closure of the car roof should be closed.

Adjusting the Sliding Roof for Height.

Front:

 Open the sliding roof cover about half-way and dismantle the slide frame as described under sliding roof and slide frame, disengage from cover and push back,

- Loosen the guide securing screws at the front and by adjustment of the knurled nuts over the guides set to the required height.
- 3. Tighten the securing screws again. Make sure that the cover has no more than 1 mm side play and that the safety plates have been fitted.

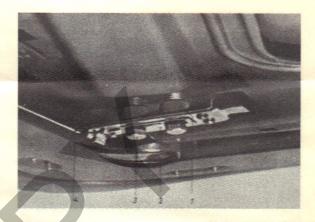


Fig. 9 Height adjustment - front.

- 1. Knurled nuts for height adjustment
- 2. Safety plate
- 3. Fixing screws
- 4. Guide rail

Rear:

- Open sliding roof cover about halfway and dismantle slide frame as described under sliding roof cover and slide frame, disengage from cover and push back.
- Close the sliding roof cover until the guide releases at the rear have not been lifted up.
- Loosen the hexagon bolt with slit about one turn and adjust the release as far as necessary. Retighten the hexagon screw.

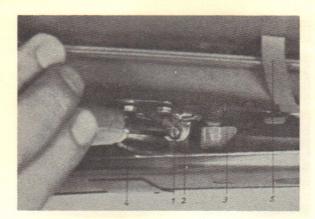


Fig. 10 Height adjustment - rear

- Hexagon screw with slit for height adjustment
- 2. Release
- 3. Lifting device with shoe
- 4. Rear guide pin
- 5. Leaf spring swung inwards

Sliding Roof Cover Lifts on one Side

only.

Causes:

- a. Lifting device (with plastic wedge on rear cover of assembly) is not running on the ramp.
- b. Guides at rear, operating cable or drive pinion damaged.
- c. Release set too low.

Remedy:

- a. The lifting devices must be readjusted so that they run on the hat shaped ramps, which protrude through copings of the guide rails, in such a way that at the moment that the front edge of the cover runs on the front edge of the roof cutout (velvet border at the front), the releases attain an angle of 45°.
- b. If damage is found on the rear of the guides, the operating cable or the drive pinion, proceed as under replacement of operating cables on rear of guides.
- c. Proceed with height adjustment of sliding roof cover as already described.

Sliding Roof Does Not Run Parallel.

Causes:

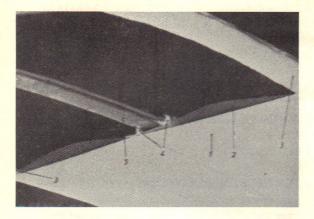
- a. Incorrect adjustment.
- b. Operating cable or drive pinion damaged.

Remedy:

- a. Loosen sliding roof slide and push right back as described under dismantling of sliding roof cover and slide frame. Open closure in car roof over rear plate and unscrew drive. Carry out other work, as described under assembly, for replacing operating cables on rear guides.
- Replace operating cables on rear guides as already described.

Recovering Slide Frame

- Remove and fit slide frame as described under removal and fitment of sliding roof cover and slide frame.
- Remove the damaged or dirty slide frame covering from the slide frame and also remove the remains of the adhesive.
- If necessary renew the moltoprene strips glued on the underside of the front and rear cross pieces of the slide frame.
- Check whether the clips in the slide frame cross piece still have enough tension, and if necessary renew.
- 5. The slide frame covering, if it consists of unperforated artificial leather, is only secured
 with one retaining strip with the stitching running across the centre. In the case of a slide
 frame covering consisting of perforated artificial leather, cotton material or woollen material, a plastic sheet the size of the slide frame
 should be sewed on with the retaining strip, which
 will prevent the ingress of dust.



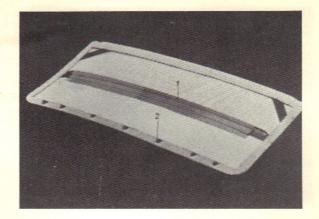


Fig. 11 Sectional view of the slide frame covering.

- Slide frame covering (perforated or artificial leather)
- 2. Plastic sheet
- 3. Moltoprene strip
- 4. Retaining strip
- 5. Centre slide frame cross piece
- 6. The slide frame should be placed on the already sewn covering so that the sewing of the covering lies on the front edge of the centre slide frame cross piece.

Stick the retaining strip from the front over the centre slide frame cross piece on the upper and lower slide.

If plastic sheet is available this should be stuck round the underside of the slide frame. Then the slide frame covering should be stretched equally toward all four sides and only stuck fast on the upper side of the slide frame, no overlapping of the slide frame covering being allowed to occur at the corners, so that the slide frame

runs without difficulty in the guide rails.

Fig. 12 Slide frame covered.

- Retaining strip stuck onto centre slide frame cross piece.
- 2. Clips

Entry of Water

Causes:

- a. Water drainage pipes are blocked.
- b. Velvet edging and sealing rubber at the rear of the cover are not sealing sufficiently.

Remedy:

- a. If the water drainage pipes are blocked, these can be cleaned with compressed air or with a flexible steel cable. When cleaning with compressed air, always do this from the side of the roof, so that the interior of the car is not dirtied.
- b. Check whether with the sliding roof closed the sliding roof cover is also closed and is flush all round as regards height with the roof cutout. If this is not the case, the sliding roof cover should be adjusted on height as already described.

Note:

Greasing of the slide frame to obtain improved travel on the guide rails is not permissible.

The surfaces in question can if necessary be rubbed with talcum powder.

If the velvet borders or the sealing rubber are damaged at the rear, these should be renewed, as described under replacement of velvet border on roof cutout and replacement of velvet border and sealing rubber on sliding roof cover. Replacement of Velvet Border on Roof Cutout and of Velvet Border and Sealing Rubber on Sliding Roof Cover.

Replacing Velvet Border on Roof Cutout:

- 1. Fully open sliding roof cover.
- 2. Remove old velvet border from roof cutout edge.
- Remove traces of adhesive on roof cutout with a benzine soaked rag.
- 4. Apply adhesive to roof cutout edge and new velvet border and press lightly together.
- 5. Beginning on one side stick the velvet border so that the upper edge of the velvet border is in line with the upper edge of the roof cutout.
- The two ends of the velvet border should finish
 up in the region of the rear radii of the roof
 cutout under the sides of the roof cutout edge.

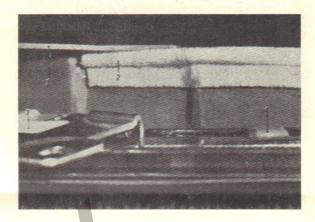


Fig. 13 Velvet border on the lefthand side of the car glued onto the roof cutout.

- 1. Car roof.
- 2. Velvet border,
- 3. Rear of guide,
- 4. Ramp -

Replacing the Velvet Border and Sealing Rubber on the Sliding Roof Cover:

- For replacement of the velvet border and the sealing rubber it is necessary to dismantle the sliding roof cover, as described under dismantling and assembly of sliding roof cover and slide frame.
- Remove old velvet border and old sealing rubber from the sliding roof cover.
- Remove traces of adhesive from rear edge of cover with a benzine soaked rag.
- Apply adhesive to sliding roof cover on rear edge both on the vertical and also on about 12 mm of the horizontal surface.

- 5. Apply adhesive to new velvet border and new sealing rubber and press lightly together.
- 6. First glue the velvet border onto the rear edge of the cover so that the two ends reach to the ends of the radii of the cover and the upper edge is flush with the cover.
- 7. Stick the V shaped sealing rubbers with the short side piece behind the velvet border onto the horizontal face so that the long side lies on the beading of the velvet border.

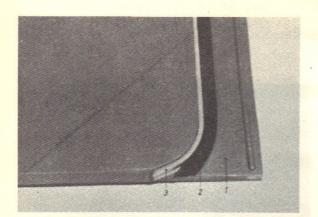


Fig. 14 Velvet border and sealing rubber stuck on the rear of the cover.

- 1. Sliding roof cover
- 2. Sealing rubber at rear
- Velvet border stuck on up to the end of the radius on the cover.

Note!

With the sliding roof cover closed there should be no air space or difference in height between the two velvet borders.

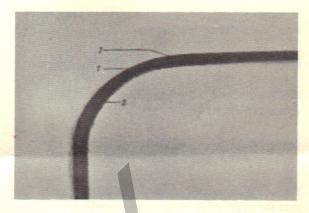


Fig. 16 Position of velvet borders with sliding roof cover closed.

- 1. Point of contact of velvet borders
- 2. Velvet border on cover
- 3. Velvet border on roof cutout

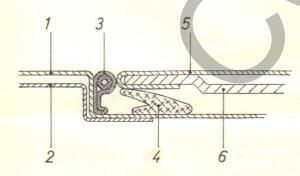


Fig. 15 Layout of the velvet border and the sealing rubber on the rear of the cover.

- 1. Cover
- 2. Cover assembly
- 3. Velvet border
- 4. Rear of sealing rubber
- 5. Car roof
- 6. Reinforcement rail

Repair Instructions for Motor and Drive

Motor:

Faults

a. Motor not running.

Causes

- 1. Motor defective (check brushes and connections).
- 2. Battery voltage too low .
- 3. Fuse burnt out,
- 4. Bad contact at cable connections, at body earth, at fuse,
- 5. Switch defective .

Remedy

- Renew motor. When inserting the motor it should be along in the fixing slots until vibration free running of the flexible shaft is obtained. The fixing screws should be tightened in this position.
- 2. Charge battery or renew
- 3. Renew fuses (12 volts, 25 amp.)
- 4. Clean contacts
- 5. Renew switch

Drive: to limit drive noise to a minimum care should be taken to see that the flexible shaft is pressed firmly onto motor and drive.

a. Motor runs, sliding roof cover does not move.

Cause

1. Slip clutch set too loose.

Remedy

 Remove plastic cover on drive mechanism, unscrew the screw underneath with screw driver on special tool.

Note!

Take care that the shims already inserted do not get lost. Insert a shim and retighten the screw with screwdriver on special tool.

If possible not more than 2 shims should be inserted. The slip clutch is set to 35 cm/kp at the works. In any event the slip clutch must come into operation on overload. The slip clutch is correctly set when the sliding roof cover comes against the stops in the end positions and the motor continues to run slowly with continuous switch application.

Note!

The replacement shims are packed in a plastic bag.

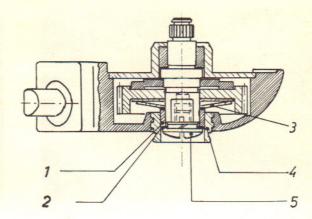


Fig. 17 Section of drive mechanism/layout of slip clutch.

- 1. Distance bush
- 2. Shims
- 3. Cup spring
- 4. Brass bearing
- 5. Tension screw

In the case of electrical equipment failing and replacement not being possible at the time.

 Remove plastic cover on drive mechanism and unscrew the screw with screwdriver on special tool.

Note!

Take care that the shims do not get lost.

 Insert the special tool with forked side into the drive mechanism and after engagement in the recess provided secure with knurled screw. By turning to the right or left the sliding roof can now be operated manually by means of the special tool.