

## Removal

1 Loosen sliding roof headlining (2) with sliding roof opened to 3/4 and remove in forward direction (Fig. 1).

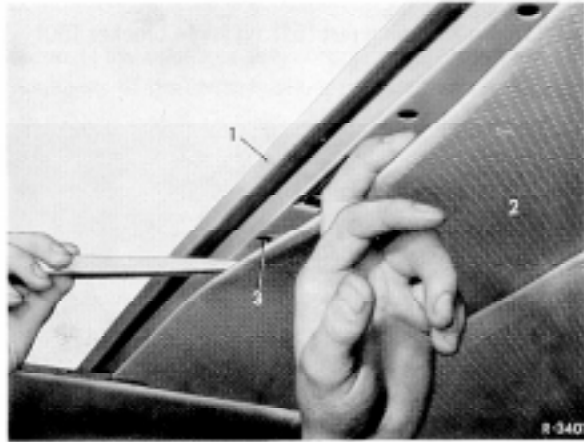


Fig. 1

- 1 Sliding roof cover
- 2 Sliding roof headlining
- 3 Holding clips for sliding roof headlining

2 Open sliding roof completely and remove sliding rail (12) at left and right (Fig. 2).

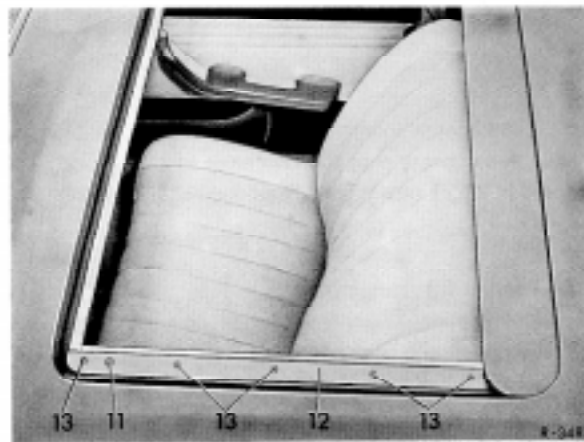


Fig. 2 (shown on Model 114/115)

- 11 Height adjustment front
- 12 Sliding rail
- 13 Fastening screws of sliding rail

3 Close sliding roof and unscrew locking screw (16) left and right (Fig. 3).

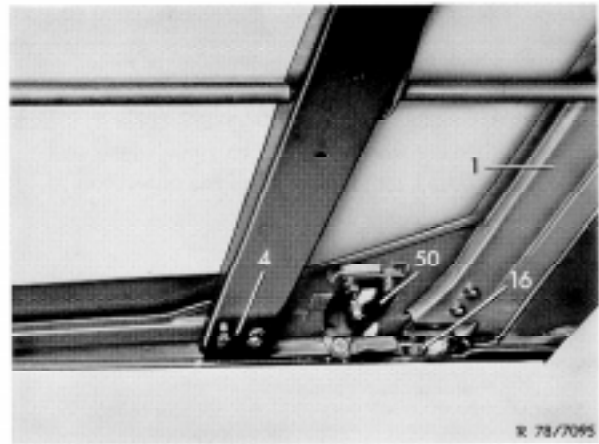


Fig. 3

- 1 Sliding roof cover
- 4 Transporting bridge
- 16 Locking screw
- 50 Angle bracket

4 Remove connecting clip (7) with sliding roof opened 1/4 (Fig. 4).

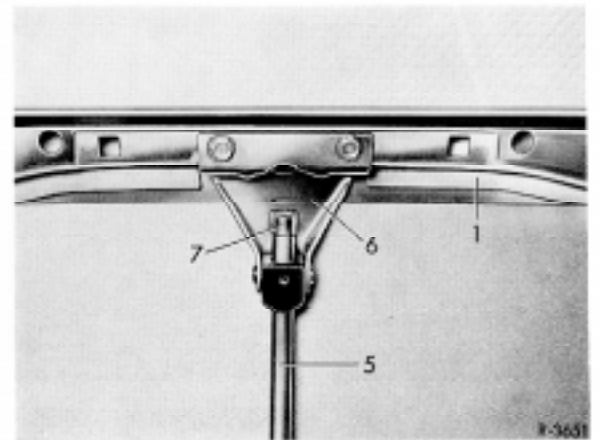


Fig. 4

- 1 Sliding roof cover
- 5 Telescoping tube
- 6 Guide plate
- 7 Connecting clip

5 Permit teleflex cable control to return and remove sliding roof cover (1) in upward direction.

## Installation

6 For installation proceed vice versa.

7 Adjust sliding jaws and sliding roof cover (refer to 77.0-150).



# 77.0 Adjustment of Sliding Roof Cover

## Note

Leaks and wind noises on sliding roofs can be prevented by adjusting the sliding roof cover in such a manner that the front edge is 0 to 1 mm lower and the rear is 0 to 1 mm higher, than the outer skin of the roof.

## Adjustments Front

- 1 Slightly loosen screws (13) for sliding rails.
- 2 Adjust both height adjusting screws (11) on sliding rails (12) in such a manner that the front edge of the closed sliding roof is 0 to 1 mm **lower** than the outer skin of the roof (Fig. 1).

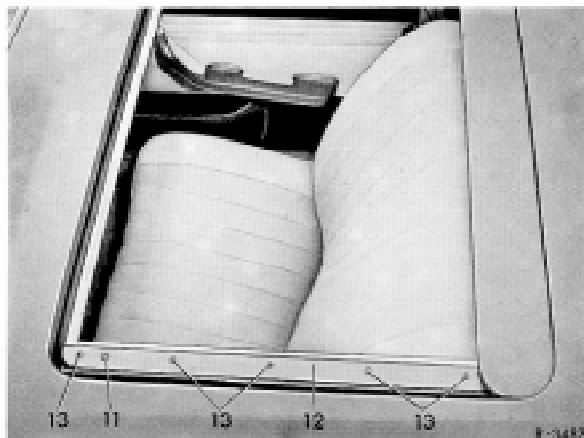


Fig. 1

- |                                 |                                      |
|---------------------------------|--------------------------------------|
| 11 Height adjusting screw front | 13 Fastening screws for sliding rail |
| 12 Sliding rail                 |                                      |

## Adjustments Rear

- 3 Remove sliding roof headlining (refer to 77.0-100, item 1).
- 4 Close sliding roof.
- 5 Loosen fastening nut (51) on angle bracket (50) (Fig. 2).

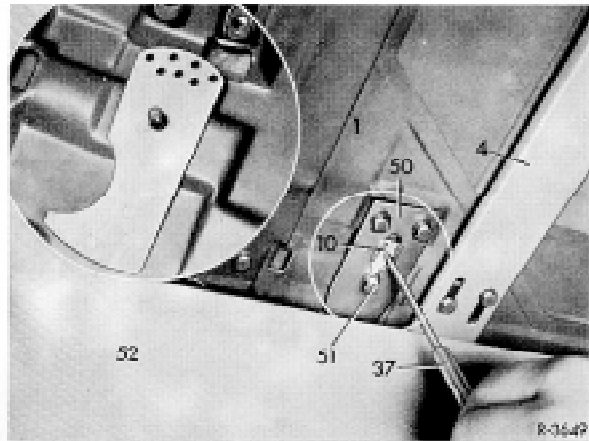


Fig. 2

- |                               |                                   |
|-------------------------------|-----------------------------------|
| 1 Sliding roof cover          | 50 Angle bracket                  |
| 4 Transporting bridge         | 51 Fastening nut on angle bracket |
| 10 Shim for height adjustment | 37 Mandrel                        |
| 32 Headlining                 |                                   |

- 6 Use mandrel to turn shim (10) under angle bracket in such a manner that the rear edge of the sliding roof cover is 0 to 1 mm higher than the outer skin of the roof.

- 7 Tighten fastening nut (51).

- 8 Install sliding roof headlining.

## Removal

- 1 Remove sliding roof cover (77.0-100).
- 2 Actuate sliding roof switch in direction of "closing", permit teleflex cable control (27) to run completely forward and pull out (Fig. 1).

**Note:** If the teleflex cable control cannot be moved by means of the electric drive, use hand crank.

If the teleflex cable control cannot be activated in this manner, insert a mandrel into bore for connecting clip and remove cable control by turning clockwise.

Do not continue turning, if too much force is required, since this would cause the cable control to untwist and become stuck in teleflex tube.

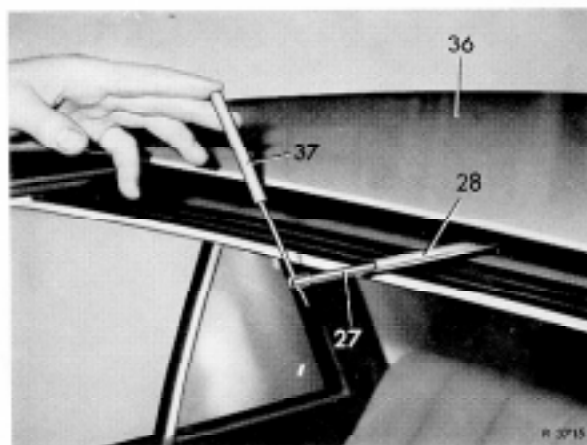


Fig. 1 (shown on Model 114/115)

- |                           |                   |
|---------------------------|-------------------|
| 27 Teleflex cable control | 36 Roof panelling |
| 28 Teleflex tube          | 37 Mandrel        |

In such a case, the gear unit of the electric drive must be disassembled (77.0-300).

If upon disassembly of the gear unit the teleflex control can still not be removed, it is stuck in teleflex tube (28), which should then also be removed (77.0-250).

## Installation

- 3 Grease coil at end of new teleflex control (27) well with acid free grease and introduce carefully into teleflex tube (28) (Fig. 2).



Fig. 2 (shown on Model W 100)

- |                           |
|---------------------------|
| 21 Sliding roof frame     |
| 27 Teleflex cable control |

**Note:** The teleflex cable control should slide in teleflex tube under a force of max. 3 kp. Check by means of spring scale (38) (Fig. 3).

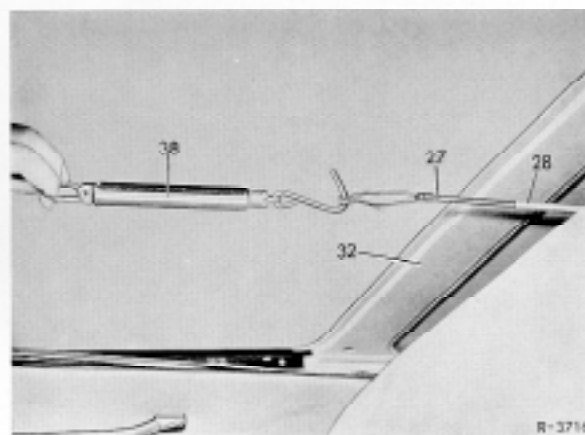


Fig. 3

- |                           |                 |
|---------------------------|-----------------|
| 27 Teleflex cable control | 32 Roof frame   |
| 28 Teleflex tube          | 38 Spring scale |

- 4 Slide teleflex cable control completely into teleflex tube and permit to run into gear unit of electric drive by actuating the sliding roof switch.
- 5 For further installation proceed vice versa.



## Removal

- 1 Remove teleflex cable control (77.0-200).
- 2 Remove holder with motor and gear unit (77.0-300).
- 3 Remove rear window.
- 4 Remove rear seat and backrest.
- 5 Loosen headlining from the rear up to center of vehicle.
- 6 Remove soundproofing (23) along rear edge of sliding roof frame (21) (Fig. 1).

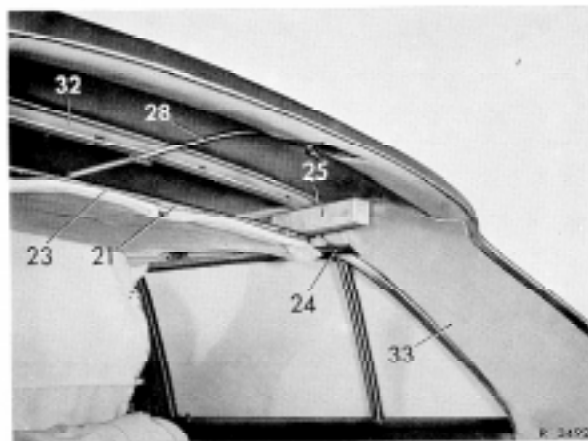


Fig. 1 (shown on Model 114/115)

- |                       |                  |
|-----------------------|------------------|
| 21 Sliding roof frame | 28 Teleflex tube |
| 23 Soundproofing      | 32 Roof frame    |
| 24 Water drain hose   | 33 Rear pillar   |
| 25 Wooden block, 5 cm |                  |

7 Loosen sliding roof frame (21) up to roof cutout, pull slightly downwards at the rear and insert a wooden block (25) 5 cm high at corners.

8 Insert wooden block (26) 6.5 cm high in roof cutout between sliding roof frame (21) and roof panelling (36) (Fig. 2).

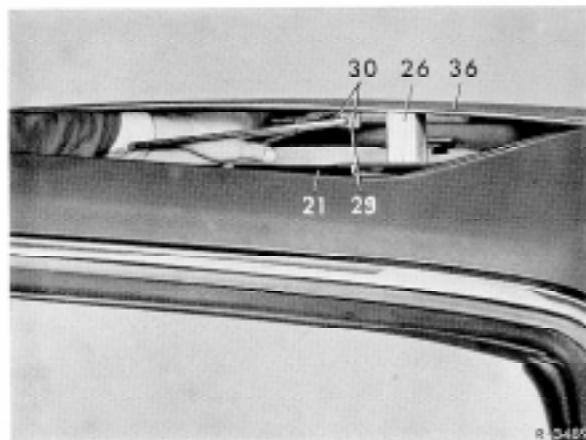


Fig. 2

- |  |
|--|
| 21 Sliding roof frame                                  |
| 26 Wooden block, 6.5 cm high                           |
| 29 Holding plate for teleflex tube                     |
| 30 Fastening screws of holding plate for teleflex tube |
| 36 Roof panelling                                      |

9 Unscrew fastening screws (30) of holding plate (29) for teleflex tube.

10 Unscrew pipe clips (34) on rear pillar and on roof frame (Fig. 3).

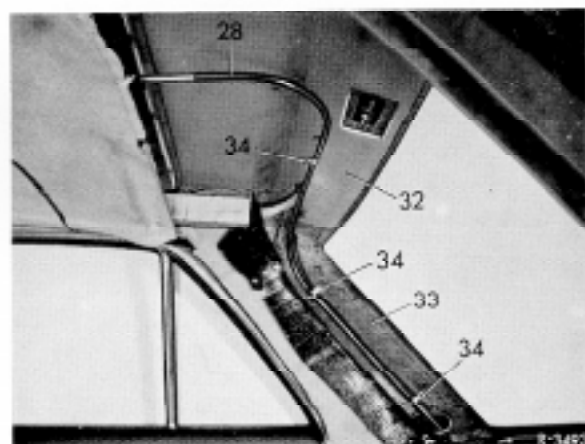


Fig. 3 (shown on Model 114/115)

- |                  |                |
|------------------|----------------|
| 28 Teleflex tube | 33 Rear pillar |
| 32 Roof frame    | 34 Pipe clip   |

11 Move teleflex tube (28) forward and simultaneously toward the left, so that the teleflex tube can be pulled out of rear pillar (Fig. 4).

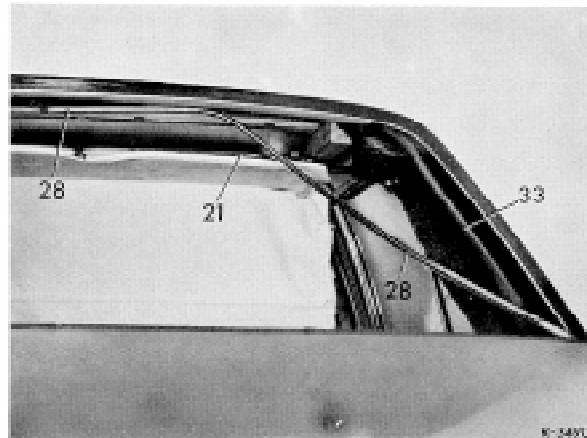


Fig. 4

- 21 Sliding roof frame
- 28 Teleflex tube
- 33 Rear pillar

**12** Remove teleflex tube through cutout for rear window.

### Installation

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**13** Carefully introduce new teleflex tube between roof frame and sliding roof frame (21), and move sufficiently toward the front and left until the teleflex tube can be introduced into the rear pillar (33).

**Caution!** Do **not bend** teleflex tube during installation, since this would make teleflex cable control hard to move.

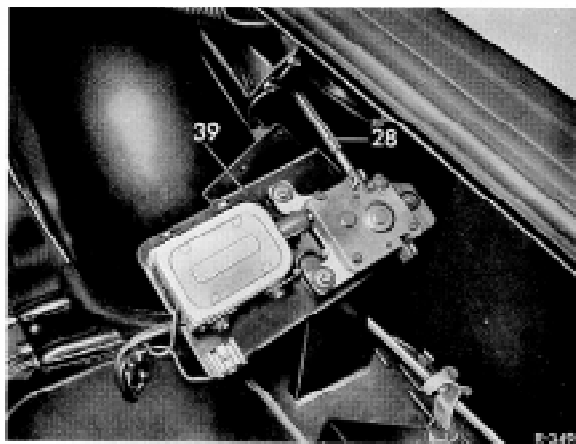


Fig. 5 (shown on Model 114/115)

- 28 Teleflex tube
- 39 Holder with gear unit

**14** Introduce teleflex tube into trunk compartment until the holder (39) can be flanged to the teleflex tube together with the gear unit (Fig. 5).

**15** Move holder (39) into correct position and screw on.

**16** Attach teleflex tube to rear pillar and to roof frame (Fig. 3).

**17** For further installation proceed vice versa.

### If the Teleflex Cable Control Can be Removed

#### Removal

- 1 Remove teleflex cable control (77.0-200).
- 2 Separate outlet pipe (35) from gear unit.
- 3 Loosen fastening screws (40) of holder (39) (Fig. 1).
- 4 Disconnect electric connection.
- 5 Separate holder with motor and gear unit from teleflex tube and remove.

#### Installation

- 6 For installation proceed vice versa.

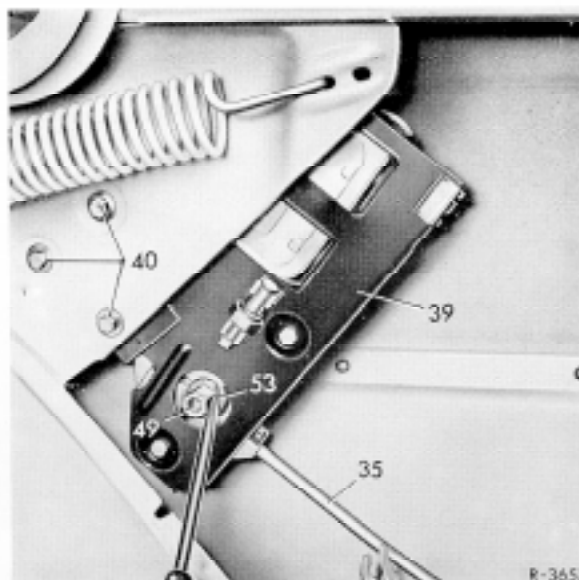


Fig. 1 (shown on Model 114/115)

- |                     |                |
|---------------------|----------------|
| 35 Outlet pipe      | 49 Counter nut |
| 39 Holder           | 53 Lock washer |
| 40 Fastening screws |                |

### If the Teleflex Cable Control Cannot be Removed

#### Removal

**Note:** First try to remove teleflex cable control as described in Job No. 77.0-200. If this is impossible, disassemble drive gear.

- 1 Loosen lock (53) of counter nut (49) on gear unit and unscrew counter nut.
- 2 Remove holder (39) (Fig. 1).
- 3 Screw fastening screws (43) out of gear unit cover (42) (Fig. 2).
- 4 Remove gear unit cover (42) and take off large gear wheel (44) including drive shaft (45) (Fig. 2 and 3).

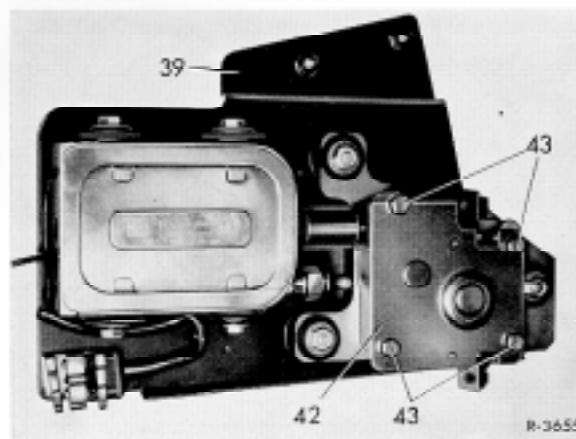


Fig. 2

- |  |
|--|
| 39 Holder for motor and gear unit      |
| 42 Gear unit cover                     |
| 43 Fastening screws on gear unit cover |

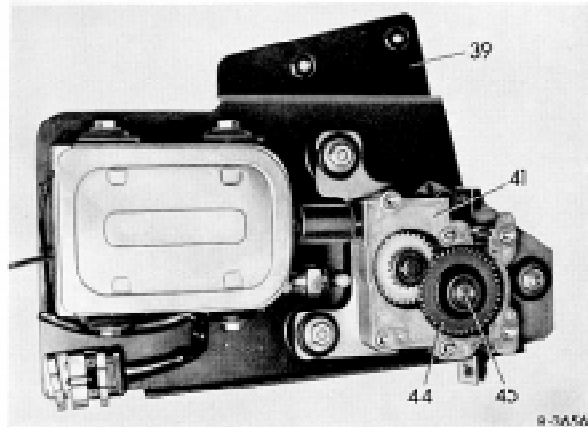


Fig. 3

- |              |                     |
|--------------|---------------------|
| 39 Holder    | 44 Large gear wheel |
| 41 Gear unit | 45 Drive shaft      |

5 Disconnect teleflex tube and outlet pipe (35) from gear unit (Fig. 4).

6 Remove teleflex cable control (27) (77.0-200).

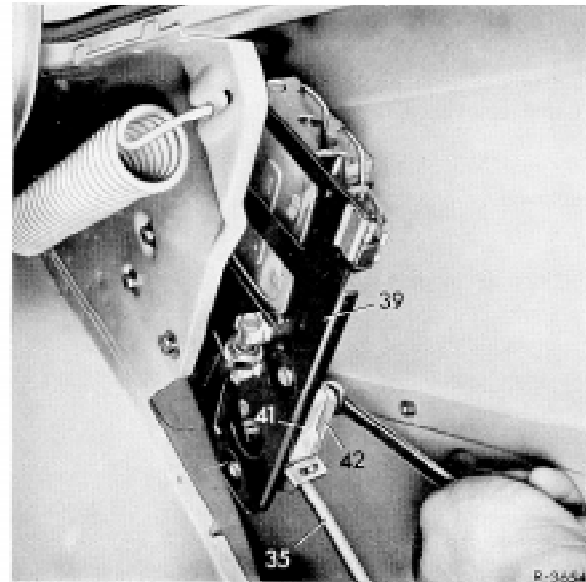


Fig. 4

- |                |                    |
|----------------|--------------------|
| 35 Outlet pipe | 41 Gear unit       |
| 39 Holder      | 42 Gear unit cover |

#### Installation

7 Assemble gear unit.

8 Install holder with motor and gear unit.

9 Install teleflex cable control.

**Caution!** At end of assembly jobs, the slip coupling on gear unit must be readjusted (77.0-350).

If the electrical slide roof is developing trouble and the causes cannot be immediately discovered, check electrical section first, then the slip clutch of the

gear unit and finally the sliding roof cover and its power transmission elements for function.

## Electrical Section

For checking the electrical section of the sliding roof system, actuate sliding roof switch in both directions. Touching the rubber clutch between the drive motor and the gear unit manually will show whether the drive motor is turning counterclockwise or clockwise. If a rotation or twist is felt, the electrical system is in order and the fault is in the

mechanical section. Check with the vehicle engine running to make sure that the full operating voltage is available.

**Note:** The drive motor is provided with a thermo switch as an overload protection, which will interrupt the power supply under excessive loads. It is therefore recommended to permit the drive motor to cool down after actuating the sliding roof several times.

Cause	Remedy
<b>Rubber coupling not moving during checkup</b>	
Fuse blown	The drive of the electric sliding roof is fused with 25 Amps. Replace fuse.
Sliding roof switch defective	Carefully loosen sliding roof switch with a flat wedge. Disconnect electrical plug connection. Install new sliding roof switch.
Cable assembly for sliding roof drive damaged	Check cable assembly and install new cables, if required.
Drive motor defective	Remove holder with motor and gear unit (77.0-300) and install new drive motor.

## Slip Clutch of Gear Unit

Trouble on slip clutch of gear unit will be evident, if the slip clutch between the motor and the gear unit is turning too fast and the sliding roof is not opening or closing. In such a case, the slip clutch of the gear unit must be newly adjusted.

For this purpose, loosen lock of counter nut on gear unit (guide nut for emergency crank actuation). Hold

shaft in place with a screw driver and keep tightening counter nut.

Slip clutch should slip slowly when the sliding roof is either closed or completely opened; no blocking should occur. Check by feeling rubber clutch between drive motor and gear unit. If slip clutch is correctly adjusted, the drive motor should not take up more than 17 Amps.

Lock counter nut again.





**Slide Roof Cover and Power Transmission Elements**

If the slide roof does not open and close, even though the electrical section and the slip clutch are

in order, check sliding roof cover and power transmission elements.

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Cause

Remedy

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**Sliding roof not opening and closing**

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Sliding roof cover hard to move or stuck

1. Remove sliding roof cover (77.0–100).
  2. Clean sliding rails, sliding strips and sliding jaws and coat with acid-free grease.
  3. Readjust sliding jaws.  
The lateral clearance of the sliding roof cover should be as low as possible. Make particularly sure that the sliding jaws are installed parallel to each other, since otherwise the sliding roof cover will cant.
  4. Adjust height of sliding roof cover (77.0–150).
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Teleflex cable control hard to move

Remove teleflex cable control (77.0–200), check for damage and replace, if required.

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Teleflex cable control in teleflex tubing distorted

Replace teleflex tube (77.0–250).

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Gear unit of sliding roof drive defective

Remove gear unit (77.0–300).

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