

## 82-0860 Front power seat adjustment

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Operation no. of operation texts and work units or standard texts and flat rates:

### A. Version without memory control up to 05/90

For wiring diagrams see Wiring Diagrams Passenger Cars Volume 3.1 and 4.

#### Function

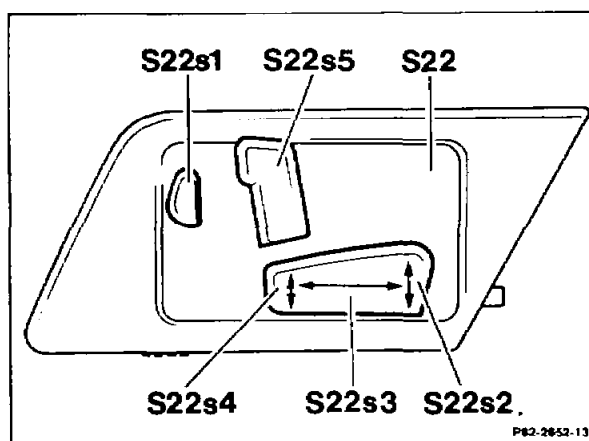
The seats can be adjusted by a switch combination which is installed in the door trim.

The wiring harness is connected to the switch by three plug connectors.

The switch can be removed without having to remove the door trim.

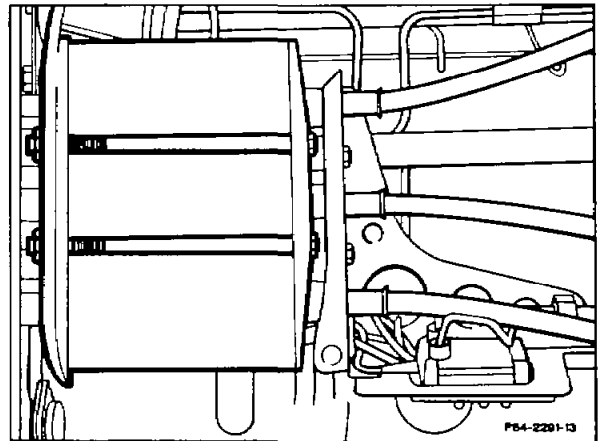
Switch for adjusting seat and head restraint

- S22 Front left seat adjustment switch
- S22s1 Head restraint high/low
- S22s2 Seat height front
- S22s3 Seat forward/back
- S22s4 Seat height rear
- S22s5 Backrest

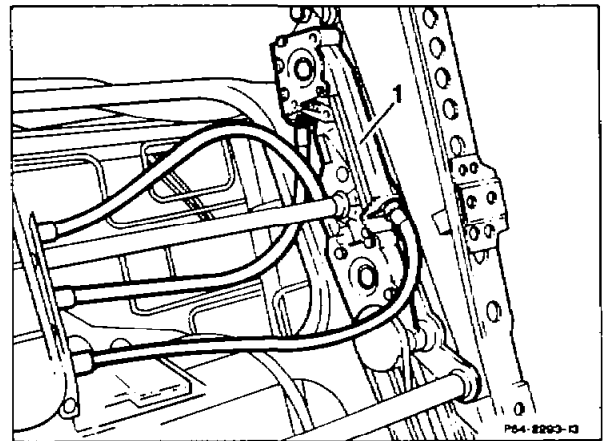


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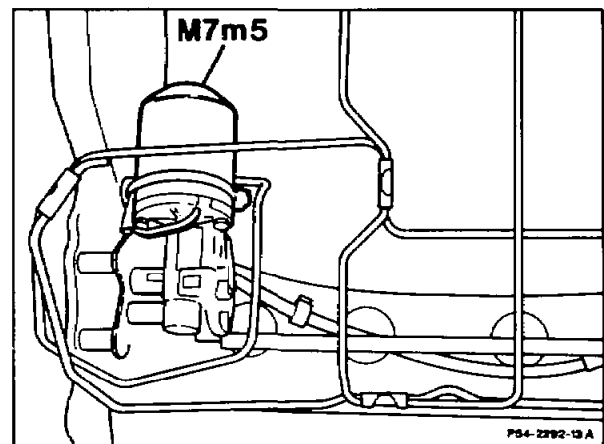
A group of three motors is fitted to the frame of the seat for forward/back and height adjustment.



The motors operate 3 shafts which in turn drive a gear (1) which performs the adjustment.



A further motor (M7m5) is fitted to the frame of the backrest for adjusting the backrest. This drives a gear directly to adjust the backrest forward and back.

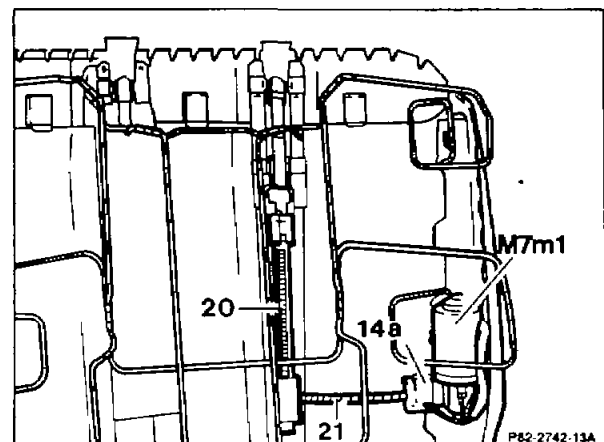


M7m5 Backrest

#### Head restraint adjustment motor

The motor (M7m1) for adjusting the head restraint is installed in the frame of the backrest.

The head restraint is adjusted by a rack (20) which is driven by a motor through a shaft (21).



M7m1 Head restraint high/low  
14a Potentiometer for version with memory control

## B. Version without memory control for adjusting seat, backrest and head restraint as of 06/90

For wiring diagrams see Wiring Diagrams Passenger Cars Volume 4.

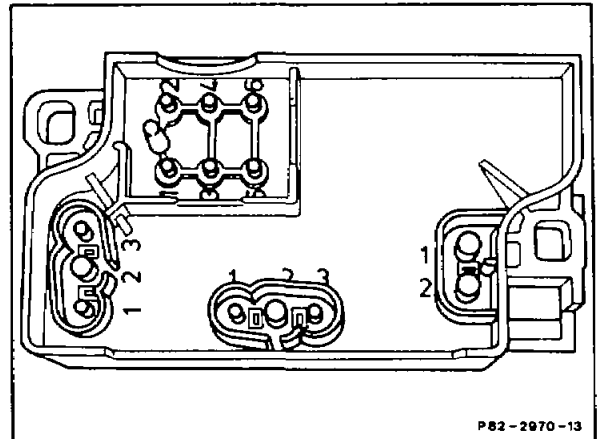
### Function

The seats can be adjusted by a switch combination which is installed in the door trim.

### Note

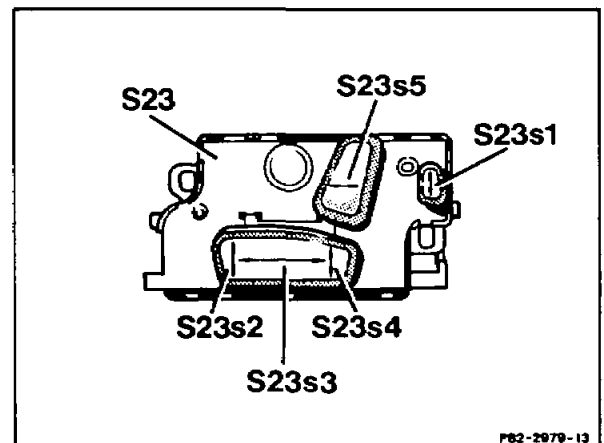
The wiring harness is connected to the switch by four plug connectors.

The switch can be removed without removing the door trim.

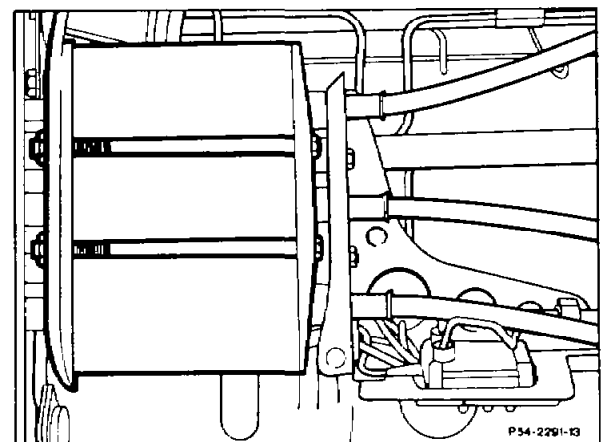


### Seat and head restraint adjustment switch

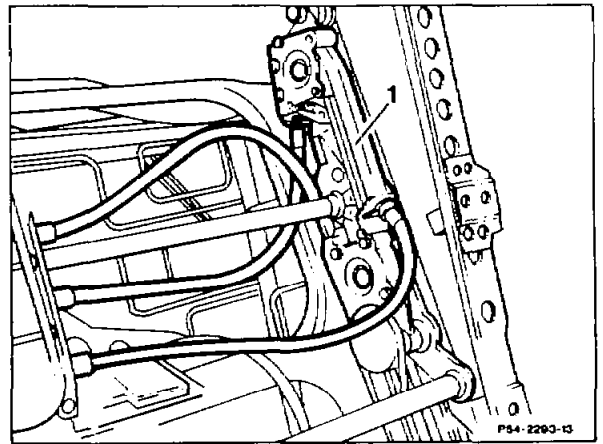
- S23 Front right seat adjustment switch
- S23s1 Head restraint high/low
- S23s2 Seat height front
- S23s3 Seat forward/back
- S23s4 Seat height rear
- S23s5 Backrest



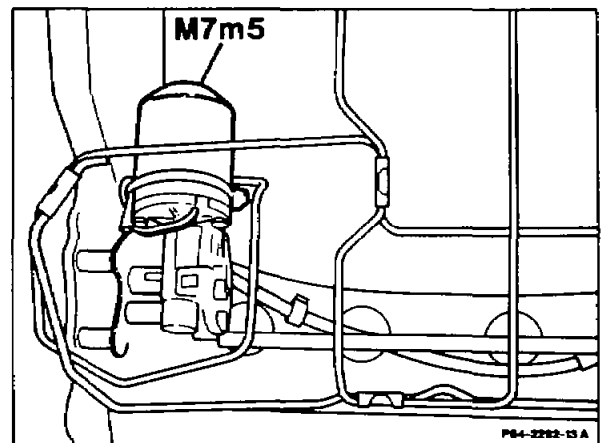
A group of three motors is fitted in the frame of the seat for forward/back and height adjustment.



The motors operate at 3 shafts which in turn drive a gear (1) which performs the adjustment.



A further motor (M7m5) is installed in the frame of the backrest for directly moving the backrest forward and back through a gear.

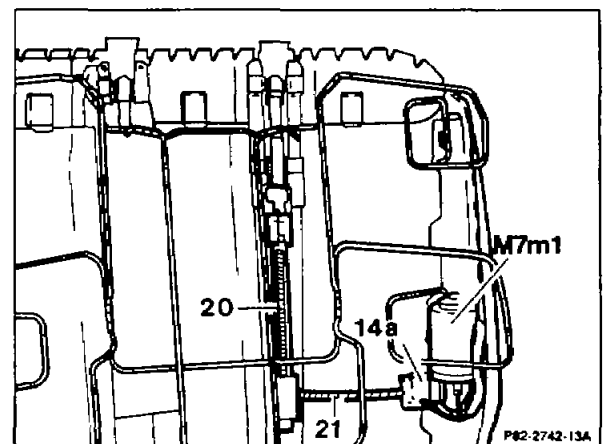


M7m5 Backrest

#### Head restraint adjustment motor

The motor (M7m1) for adjusting the head restraint is installed in the frame of the backrest.

The head restraint is adjusted by a rack (20) which is driven by the motor through a shaft (21).



M7m1 Head restraint high/low  
14a Potentiometer

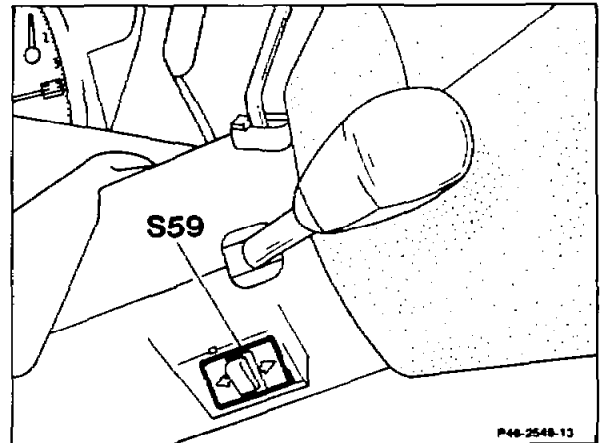
## C. Version with memory control and steering column adjustment 06/90

For wiring diagrams see Wiring Diagrams  
Passenger Cars Volume 3.1 and 4.

### Operation

The steering column is adjusted by the steering column adjustment switch (S59) on the column casing tube.

The seats and head restraints are adjusted by the switches S22 and S23 in the door linings.

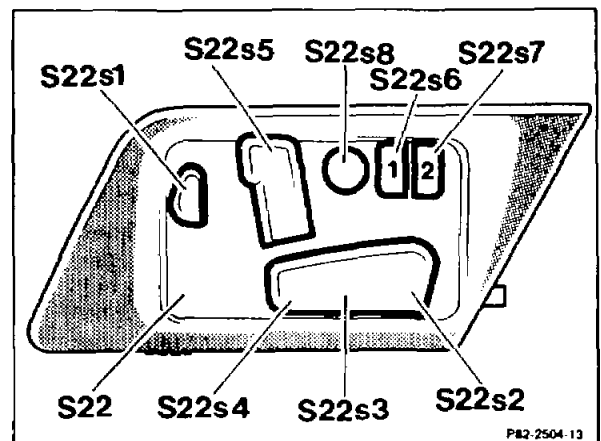


The adjustment can be made when the key is in position 1 and 2 or when it is withdrawn, and the driver's door is open.

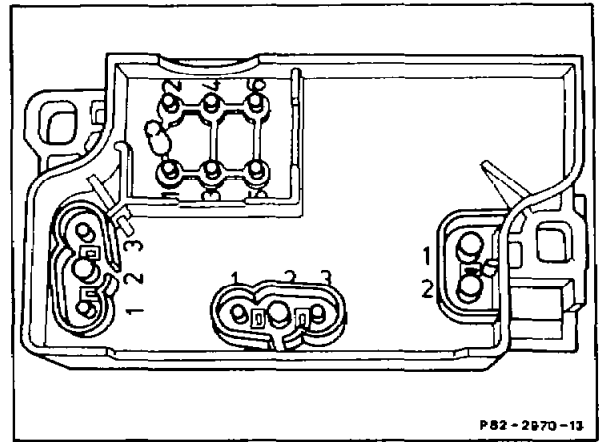
Two steering column, seat and the relevant head restraint positions can be stored and retrieved as required.

### Seat and head restraint adjustment switch

- S22 Front left seat adjustment switch
- S22s1 Head restraint high/low
- S22s2 Seat height front
- S22s3 Seat forward/back
- S22s4 Seat height rear
- S22s5 Backrest
- S22s6 Position button 1
- S22s7 Position button 2
- S22s8 Memory button



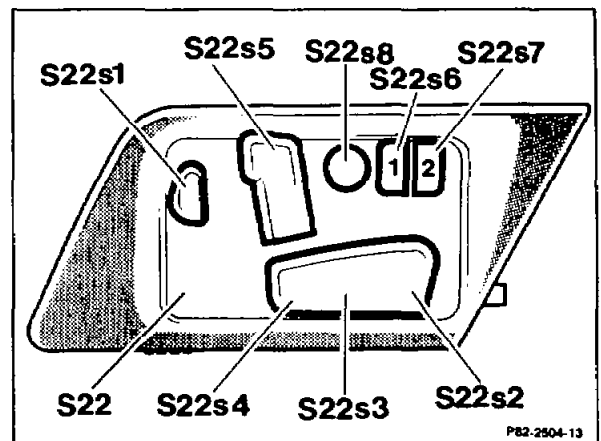
The wiring harness is connected to the switch by four plug connectors.



### Storing seat and head restraint position

- 1 Adjust position of the seat and head restraint.
- 2 Press memory button (S22s8).
- 3 Press position button (S22s6 or S22s7).

The position button must be pressed within 3 seconds after the memory button (S22s8) otherwise the position is not stored.



- S22 Front left seat adjustment switch
- S22s1 Head restraint high/low
- S22s2 Seat height front
- S22s3 Seat forward/back
- S22s4 Seat height rear
- S22s5 Backrest
- S22s6 Position button 1
- S22s7 Position button 2
- S22s8 Memory button

## Retrieving stored position (seat and head restraint)

Press position button (S22s6) or (S22s7).

For safety reasons, the position button must remain pressed until the end position is reached and all the motors have stopped operating.

If several buttons are pressed simultaneously, the adjustment operation is interrupted. A stored position can then only be reached after again pressing a position button.

## Electronic control unit

The front left power seat control unit with memory (N32/1) is positioned below the seat.

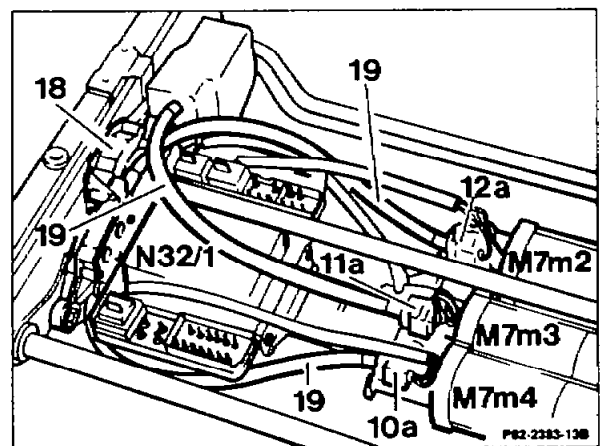
## Seat adjustment device

The seat is adjusted by a gear (18), which is driven by 3 motors (M7m2, M7m3, M7m4) through 3 shafts (19). These parts are located below the seat.

Each motor is assigned a potentiometer (10a, 11a, 12a) as a position sensor for storing the position. Depending on the seat position a certain resistance flows through the potentiometers to the front left electronic seat adjustment control unit with memory (N32/1) and is stored there.

If a potentiometer is faulty, e.g. at the forward/back seat adjustment motor, the forward/back adjustment is then no longer stored. This does not affect seat adjustment.

The motors, shafts, potentiometers and the gear of the power seat adjustment can be replaced individually.

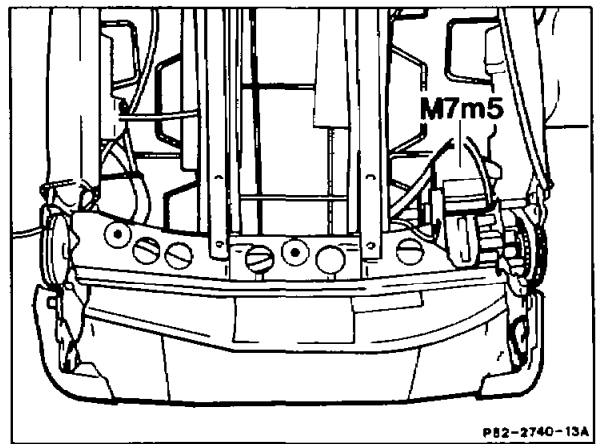


M7m2	Seat height front
M7m3	Seat forward/back
M7m4	Seat height rear
N32/1	Front left seat adjustment control unit with memory



The backrest is adjusted by an additional motor (M7m5) which is fitted to the frame of the backrest and which moves the backrest forward and back by driving a gear.

A potentiometer is integrated in the motor (M7m5) as a position sensor.

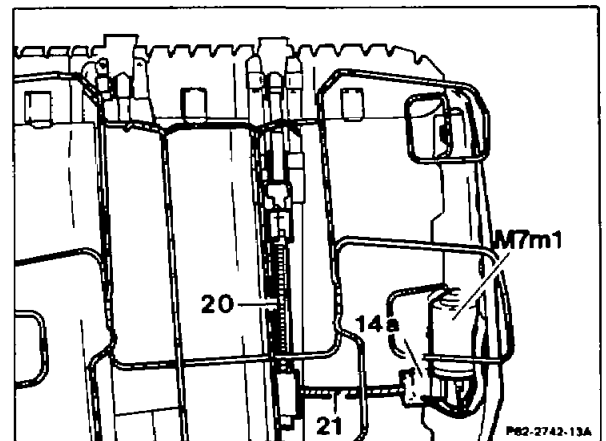


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M7m5 Backrest

The motor (M7m1) for adjusting the head restraint is installed in the frame of the backrest.

The head restraint is adjusted by a rack (20) which is driven by a motor through a shaft (21). A replaceable potentiometer (14a) is installed at the motor as a position sensor.

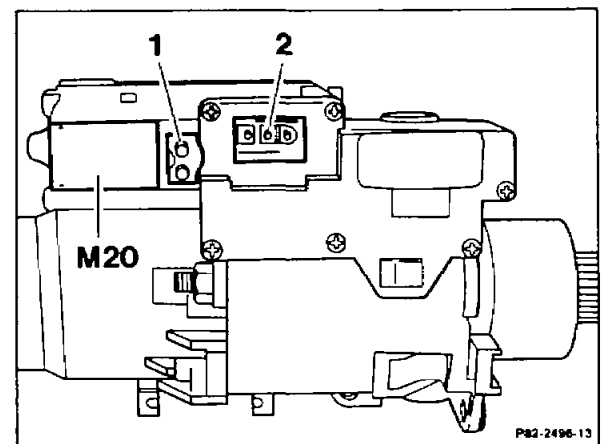


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M7m1 Head restraint high/low

### Steering column adjustment device

The steering column is adjusted by a gear which is driven by a motor. These parts are attached to the steering column.



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M20 Steering column adjustment motor group  
1 Feed  
2 Control connector/memory



## D. Version with voltage-coded memory control and steering column adjustment as of 07/90

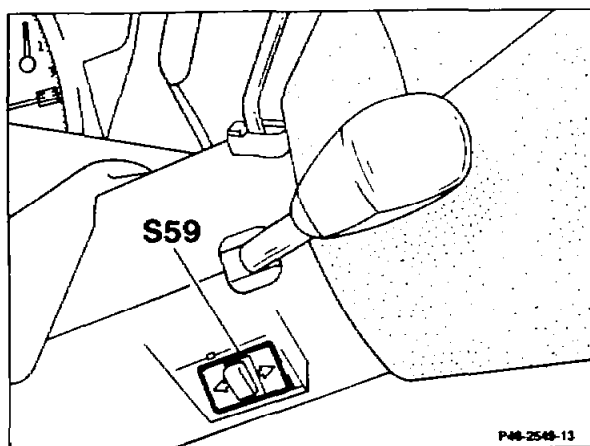
For wiring diagram see Wiring Diagrams  
Passenger Cars Volume 4.

### Operation

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The seats are adjusted with the switches S22 and S23 in the left door linings.

The steering column is adjusted with the steering column adjustment switch (S59) on the column casing tube.



The adjustment can be performed with the key in position 1 or 2 or with the key withdrawn and the driver's door open.

Two steering column, seat and the relevant head restraint positions can be stored and retrieved as required.

All the functions are transmitted voltage-coded along three signal and one ground wires.

### Note

The seat memory has a non-volatile memory.

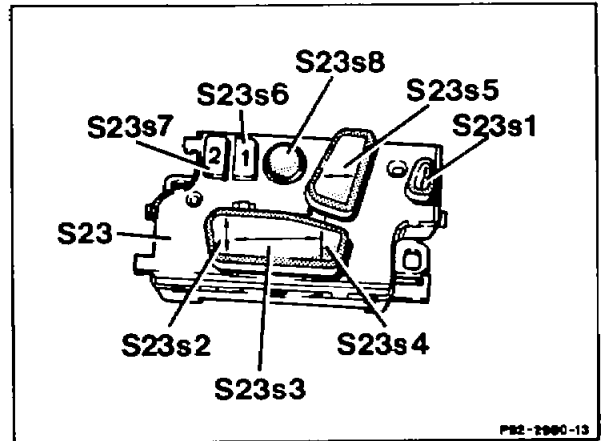
This ensures that the stored seat positions remain stored even when the battery is disconnected from the electrical system, and are not erased after 30 seconds as previously. In addition, the seat adjustment switches with memory are also illuminated.



### Storing seat and head restraint position

- 1 Adjust position of seat and head restraint.
- 2 Press memory button (S23s8).
- 3 Press position button (S23s6 or S23s7).

The position button must be pressed within 3 seconds after the memory button otherwise the position is not stored.



### Retrieving stored position (seat, head restraint and steering column)

Press position button (S23s6) or (S23s7).

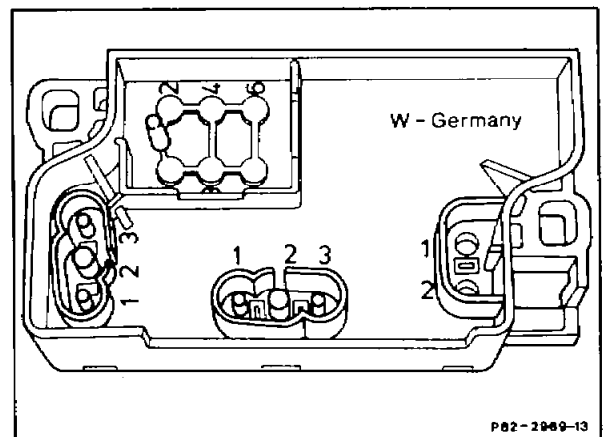
For safety reasons, the position button must remain pressed until the end position is reached and all the motors have stopped operating.

If several buttons are pressed simultaneously, the adjustment operation is interrupted. A stored position can then only be reached after again pressing a position button.

S23	Front right seat adjustment switch
S23s1	Head restraint high/low
S23s2	Seat height front
S23s3	Seat forward/back
S23s4	Seat height rear
S23s5	Backrest
S23s6	Position button 1
S23s7	Position button 2
S23s8	Memory button

### Note

The wiring harness is connected to the switch by only two connectors.



### Electronic control unit

The front left seat adjustment control unit with memory (N32/1) is positioned at the bottom of the seat.

### Seat adjustment device

The seat is adjusted by a gear (18) which is driven by 3 motors (M7m2, M7m3, M7m4) through 3 shafts (19). These parts are located below the seat.

Each motor is assigned a potentiometer (10a, 11a, 12a) as a position sensor for storing the position. Depending on the seat position, a certain resistance flows through the potentiometers to the front left seat adjustment control unit with memory (N32/1) and is stored there.

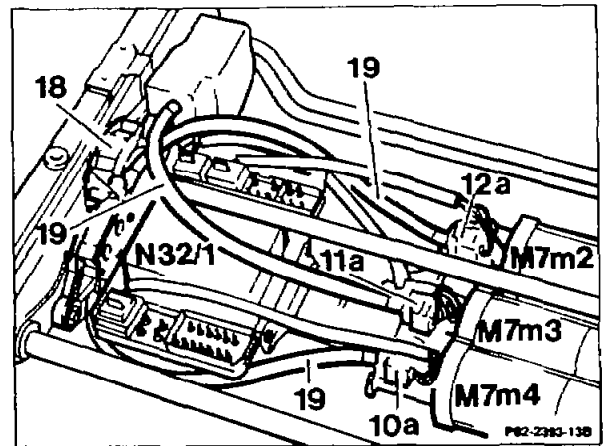
If a potentiometer is faulty, e.g. at the forward/back seat adjustment motor, the forward/back adjustment is then no longer stored. This does not affect seat adjustment.

The motors, shafts, potentiometers and the gear of the power seat adjustment can be replaced individually.

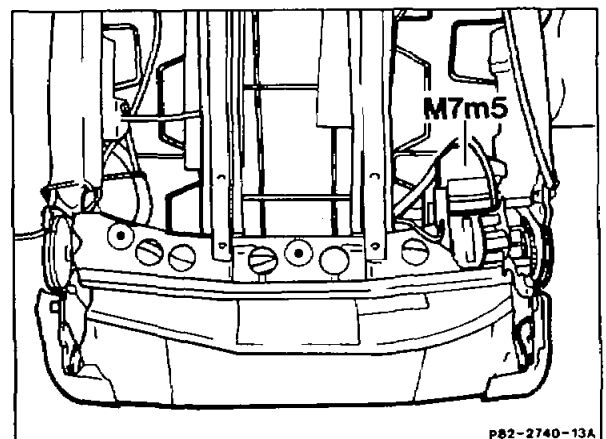
The backrest is adjusted by an additional motor (M7m5) which is attached to the frame of the backrest and adjusts the backrest forward and back directly by driving a gear.

A potentiometer is integrated in the motor (M7m5) as a position sensor.

M7m5 Backrest



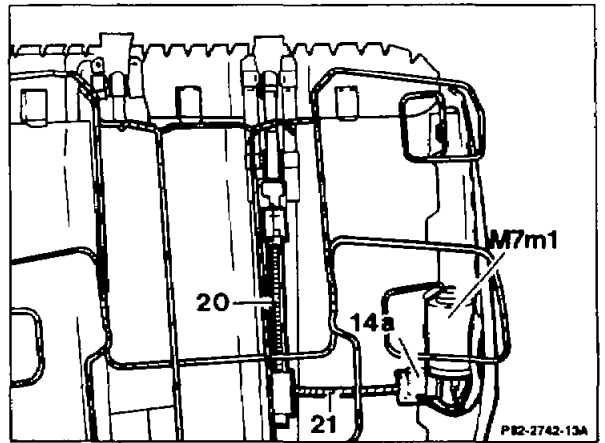
M7m2	Seat height front
M7m3	Seat forward/back
M7m4	Seat height rear
N32/1	Front left seat adjustment control unit with memory



The motor (M7m1) for adjusting the head restraint is installed in the frame of the backrest.

The head restraint is adjusted by a rack (20) which is driven by a motor through a shaft (21). A replaceable potentiometer (14a) is installed at the motor as a position sensor.

M7m1 Head restraint high/low



### Steering column adjustment device

The steering column is adjusted by a gear which is driven by a motor (M20). These parts are attached to the steering column.

M20 Steering column adjustment motor group  
1 Feed  
2 Control connection/memory

