

General

This repair group covers removal and installation of the front and rear seats.

Seat design and upholstery



- ✦ The front seats installed in E46 cars come in either manual or powered versions. They offer firm support and comfort. Their internal construction is engineered to work together with the vehicle suspension to absorb vibration. The internal ventilation system of the seats adds to the built-in comfort of these seats.

Convertible front seats are unique to those models in that they incorporate the seat belts. This is called the Seat Integrated Seatbelt (SGS) system.

Vinyl is the most common upholstery, and leather is an available option. The leather appears not only on the seats but on the door panels and other areas as well.

Front seatback nets are standard.

Seat adjustments

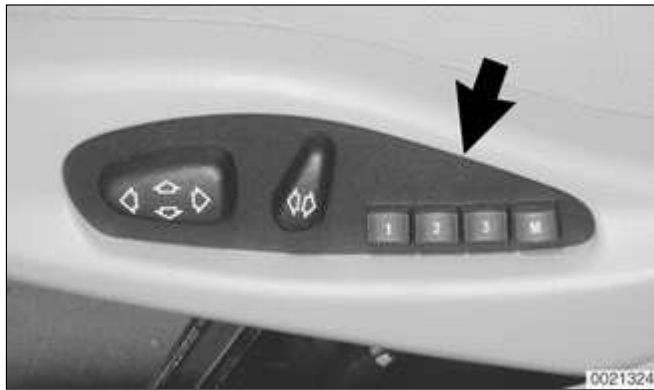


- ✦ Regardless of level of trim, E46 seats offer the following minimum adjustments, with manual (**photo**) or power controls (**below**):
 - ◆ Fore-aft position
 - ◆ Backrest angle



- ◆ Cushion height
- ◆ Head restraints.

Seat memory system



- ✦ In cars with seat memory, the driver's front seat incorporates two control modules: One in the seat adjusting switch (**arrow**) and the second under the seat cushion. The two modules process the following:

- ◆ Seat adjustments
- ◆ Comfort entry aid switch (2-door models)
- ◆ Seat backrest lock microswitch (2-door models)
- ◆ Seat belt fastened
- ◆ K-bus communication with the General Module (GM V) and instrument cluster

The driver seat module stores three seat positions for recall. The information is stored in non-volatile memory, preventing loss of memory in case of electrical power failure or battery disconnection.

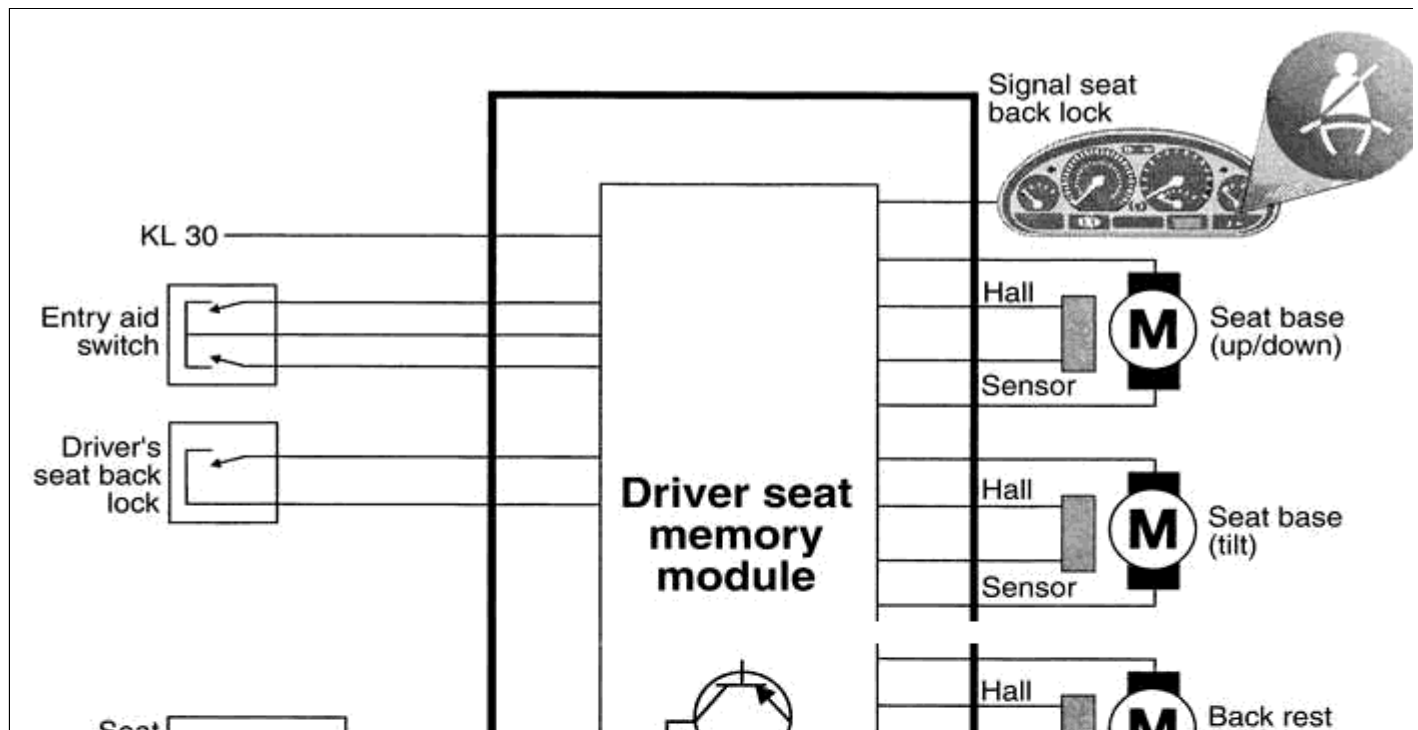
The seat adjusting switch block in the driver's seat communicates with the seat cushion control module over dedicated lines. The output stages for seat motor movement are in the seat cushion control module. Seat positions are recognized through the use of Hall sensors in the motors. All components

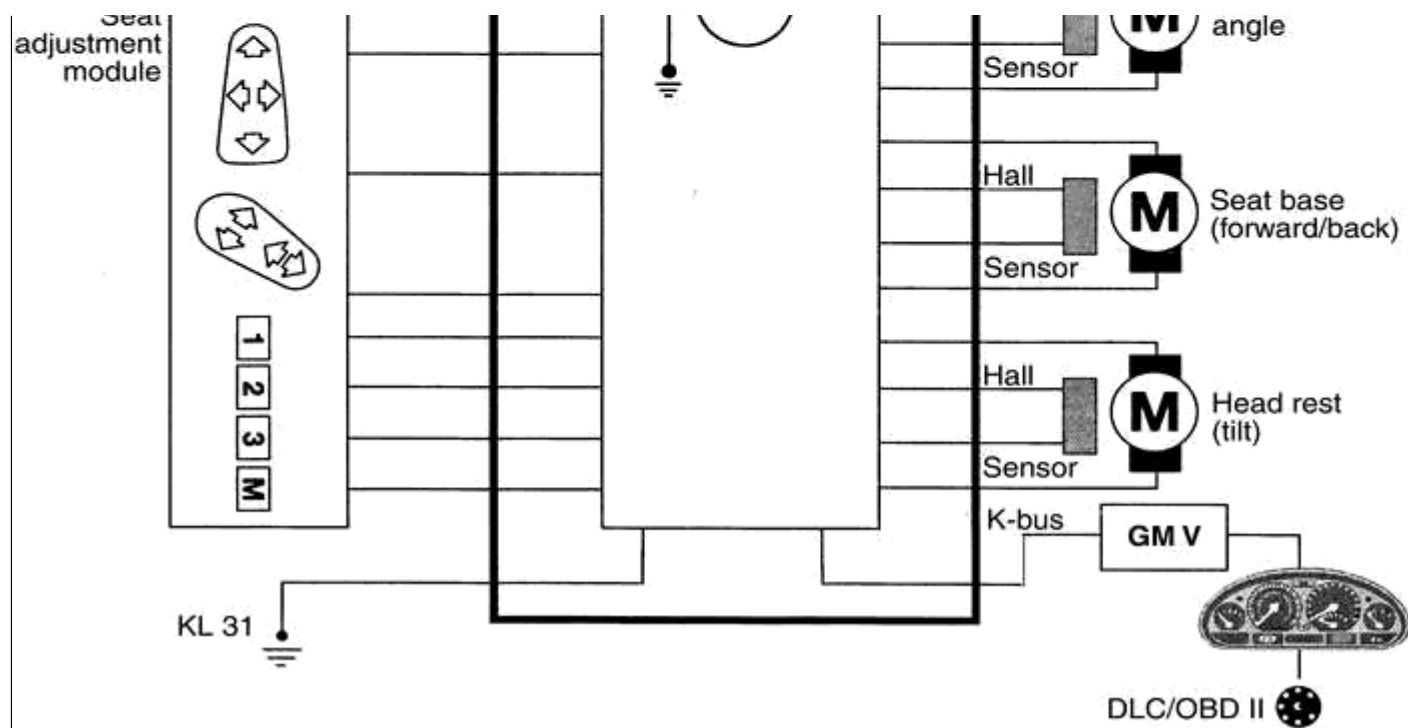
of the seat memory system are monitored for faults. Access the fault codes using BMW scan tool DIS or MoDiC.

In Coupe and Convertible models, the easy entry feature facilitates access to the rear seats. When a front backrest is folded over, the entire seat moves forward 90 mm (3.54 in.) to facilitate rear entry. In models with seat memory, the seat control module memorizes the position of the seat and headrest when the entry aid feature is activated. The seat will return to its previous set position when the entry aid button is pressed rearward or the seat backrest is locked.

The passenger's seat on four door models uses a simplified control system within the switch block and does not include a memory module. No on board diagnostics are incorporated into the passenger seat on these models.

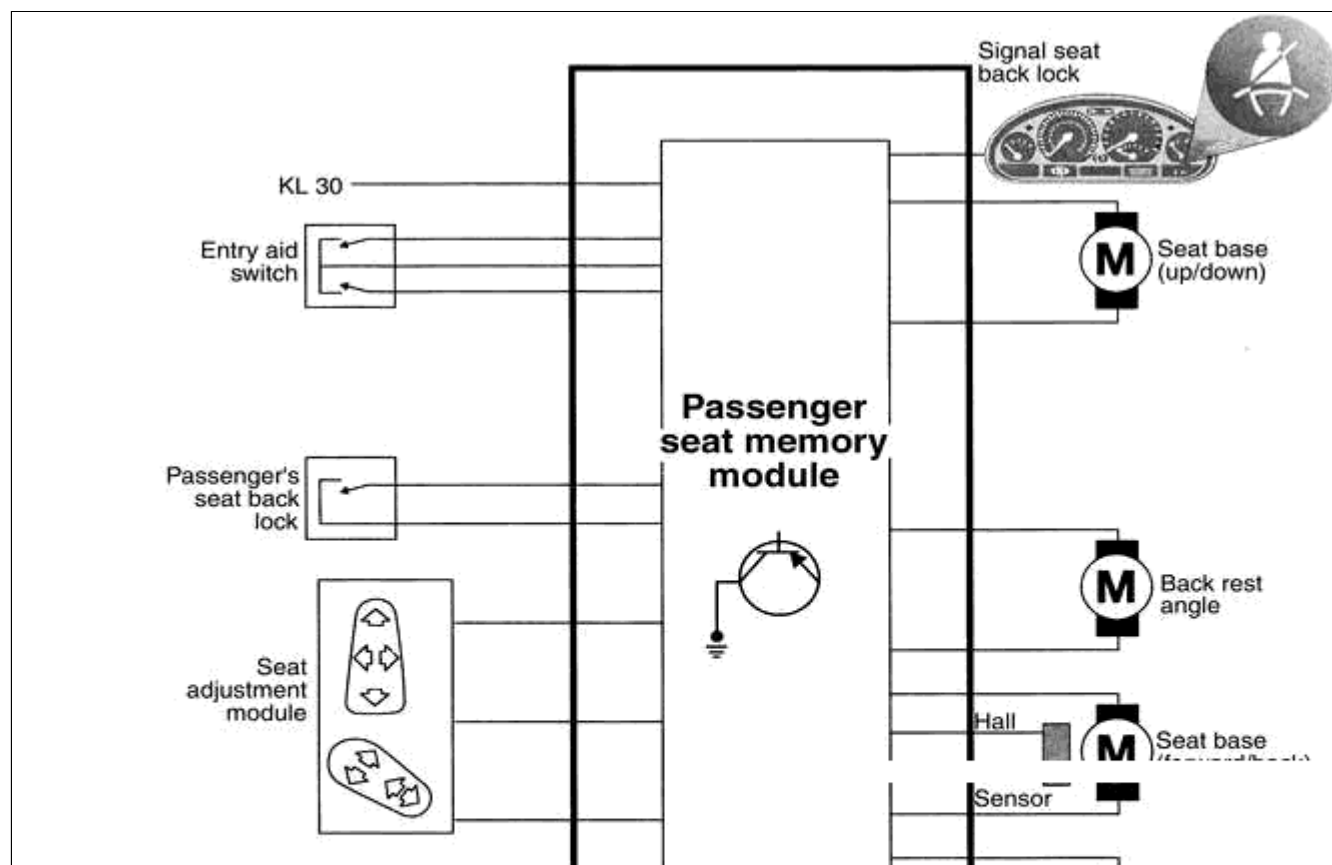
Driver seat memory module

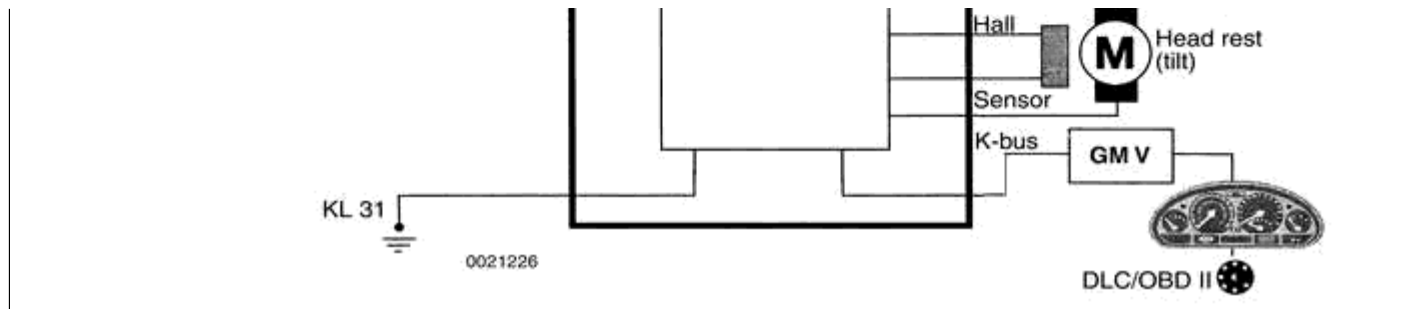




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Passenger seat memory module





Rear seat configuration



- Split rear folding seats are optional in the Sedan and standard in the Sport Wagon and Coupe. They are split 1/3 right to 2/3 left with a folding center armrest in the left portion. The armrest, when folded down, is equipped with a storage compartment and cupholders.

Front Seats

Seat removal and installation is similar for all versions. Seat disassembly differs in detail among the many models of seats.

Seat repair and component replacement is possible once the seat has been removed from the vehicle.

Front seat, removing and installing

WARNING!

- ♦ *The front seats are equipped with pyrotechnic seat belt tensioners. These tensioners are powerful devices and should be handled with extreme care. Incorrect handling can trigger off the tensioner and cause injury.*
- ♦ *BMW recommends that all repair or replacement work on pyrotechnic devices must be carried out by a qualified BMW technician.*
- ♦ *Be sure to disconnect the battery and wait 5 seconds before attempting to work on pyrotechnic devices.*
- ♦ *Pyrotechnic devices cannot be repaired. Always replace them.*
- ♦ *Never treat pyrotechnic components with cleaning agents or grease.*

- ♦ ***Do not expose pyrotechnic components to temperatures above 75°C (167°F).***
- ♦ ***Pyrotechnic components can only be tested electrically when installed, using BMW service tester DIS, MoDiC or equivalent scan tool.***
- ♦ ***Do not fire a pyrotechnic gas generator prior to disposal. It must be fired by a special disposal company or shipped back to BMW in the packaging of the new components.***
- ♦ ***During body straightening and welding with an electric arc welder, always disconnect the battery and the connection to the pyrotechnic gas generators.***

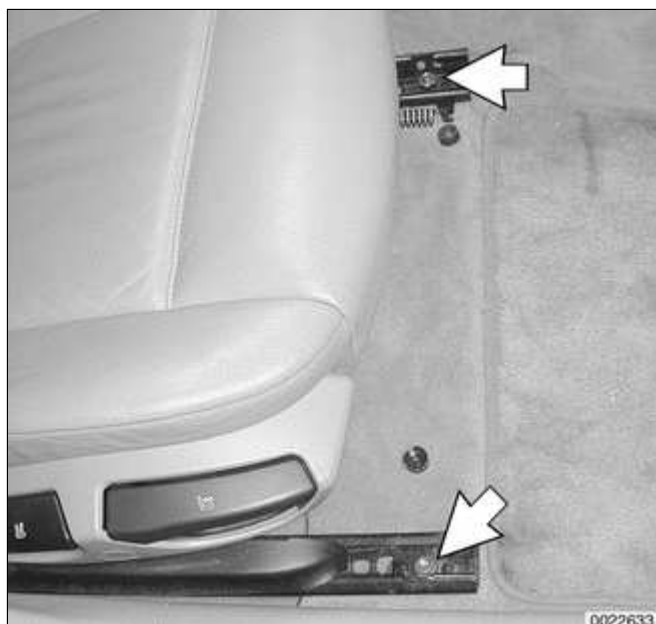


- ⚡ 4-door models: raise seat and move to its forward position. Working at base of seat near doors, remove seat belt mounting bolt (**arrow**).

- Remove headrests (not convertible).



- ⚡ Remove two mounting bolts (**arrows**) at rear of seat rails.
- Move seat to its rear most position, keeping it raised.



- ✦ Remove plastic caps over front seat mounting nuts, then remove mounting nuts (**arrows**).

- Disconnect negative (-) cable from battery.

CAUTION!

Prior to disconnecting the battery, read the battery disconnection cautions given at the front of this manual on page viii.



- ✦ Tilt seat back to access electrical harness connectors. Slide lock to release and disconnect. Cut or untwist wire ties as necessary.

- Remove seat from car. The headrests may be removed to provide additional clearance.

Note:

Use a blanket to protect door sill from scuffing by seat rail during seat removal.

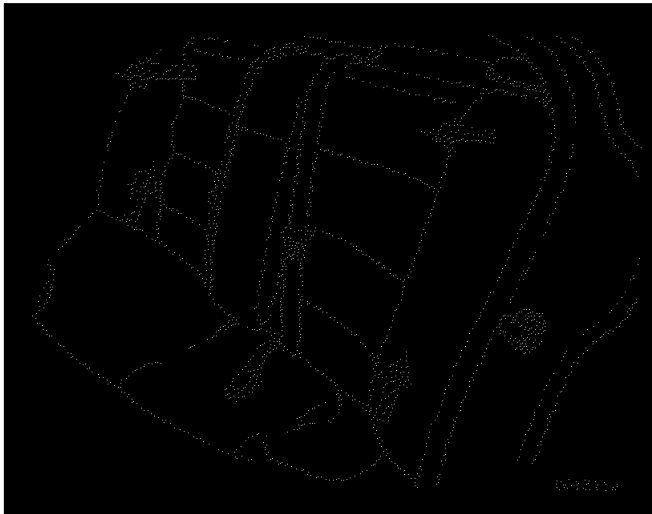
- Installation is reverse of removal. Use wire ties or equivalent means to keep seat harness wiring from fraying.

Tightening torque	
Front seat to floor	45 Nm (33 ft-lb)
Seat belt end to seat	48 Nm (35 ft-lb)

Rear Seats

Rear seat cushion and backrest, removing and installing (fixed seat back models)

- Pull front of rear seat cushion up to release clips. While holding front of cushion up, pull cushion forward to remove.



Remove rear seat backrest:

- ◆ Pull top outer corners of backrest forward (**A**) to detach from top retainers.
- ◆ Pull entire backrest up (**B**) to detach from bottom hooks.
- ◆ Slide backrest to side to clear seat belts.

Note:

If the car is equipped with heated rear seats, detach electrical harness connector(s) as you remove the seat components.

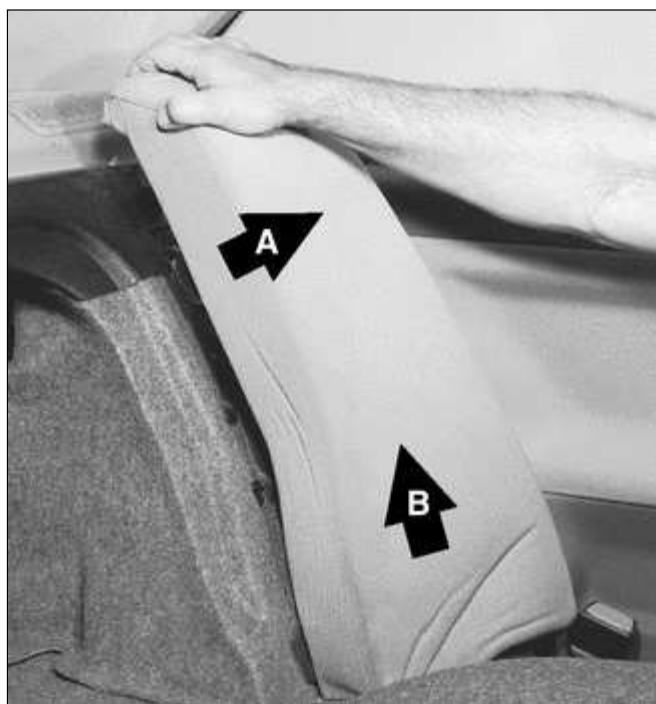
- When reinstalling, be sure to pull seat belts and buckles up through appropriate slots in seat cushion.

Rear seat cushion and backrest, removing and installing (fold-down seat back models)

- Pull front of rear seat cushion up and out of clips. While holding front of cushion up, pull cushion forward to remove.
- Tilt backrests forward.

Note:

Remove rear headrests, if equipped, by pulling straight up.



- ✦ Remove backrest side section by pulling out (A) and up (B).
 - Working between two sections of backrest, remove backrest center mount screws.
 - Remove outer backrest mounting screws.
 - Raise backrests in middle slightly and separate left and right backrest guide. Lift backrest(s) out through back door(s).