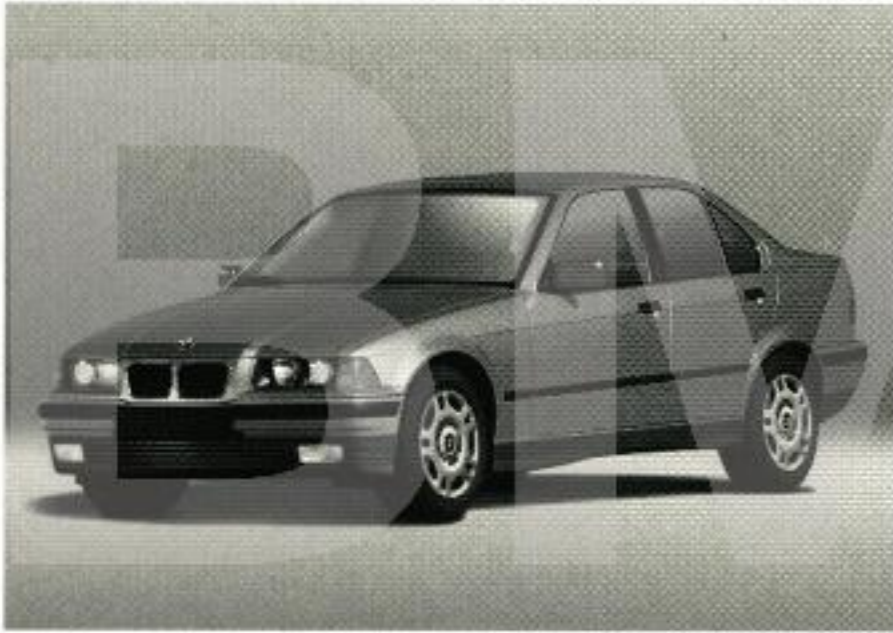


3 Series



BMW AG

Owner's Handbook



**Saloon
Coupé
Convertible
touring**

**316i
318i
318is
320i
323i
328i
318tds
325td
325tds**

Congratulations on your choice of a BMW.

The better you are acquainted with your car, the easier you will discover driving it to be. We would therefore like to offer you the following advice.

This Owner's Handbook contains important information on operating and looking after your BMW. Please read it carefully before setting out in your new car, so that you are fully familiar with the technical advantages of your BMW. It also contains useful information on care and maintenance, to uphold both the car's operating safety and its full resale value.

We wish you an enjoyable driving experience.

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Notes on this Owner's Handbook

We have tried to make all the information in this Owner's Handbook easy to find. The quickest access to a particular topic or item is by consulting the detailed alphabetical index at the end. For initial information on your car, however, refer to the first section of the handbook. The detailed list of contents immediately following the list of main headings is intended to arouse your curiosity about your new BMW and encourage you to read this information carefully.

In due course, when you sell your BMW, please remember to pass the Owner's Handbook on to the purchaser; in legal terms, it is part of the car's equipment.

If you have any queries, BMW Service will be glad to advise you.

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Symbols used



identifies information which you should definitely read – for your own safety, that of others and to avoid damage to the vehicle. ◀



indicates information and instructions concerning special features of the car. ◀



is a reference to subsequent recycling. ◀

◀ marks the end of each individual item of information.

* identifies optional extras or specific national-market items of equipment, and also accessories.



is a recommendation to study the relevant section of this Owner's Handbook in connection with a particular part or assembly. ◀

Your own car

When you ordered your BMW, you chose various items of equipment. This handbook describes all models and equipment specifications which BMW offers within this particular model line.

This explains why the handbook may also contain details of items which you have not ordered. You can easily identify references to optional extras, which are marked with an asterisk*.

If your BMW was supplied with equipment not described in this Owner's Handbook (e.g. radio, car phone), you will receive additional operating manuals which you are also requested to read carefully.

Status at time of printing

Fuel consumption data are as determined at the time of closing for print. All dimensions, weights or performance data quoted in this Owner's Handbook are in accordance with the values laid down by the German Standards Institute (DIN) and include its permitted tolerances. Deviations may occur in respect of certain national-market versions of the cars. In cars with right-hand drive, some controls will be located differently from those illustrated in this handbook.

The high safety and quality standards of BMW vehicles are maintained by unceasing development work on designs, equipment and accessories. Because of this, your car may differ from the information supplied in the Owner's Handbook. Nor can errors and omissions be entirely ruled out. You are therefore asked to appreciate that no legal claims can be entertained on the basis of the data, illustrations or descriptions in this handbook.

For your own safety



Use only parts and accessories that have been approved by BMW. Parts and products approved by BMW have been tested for their safety, correct operation and suitability for BMW vehicles. BMW accepts product liability for them.

BMW cannot accept liability for parts or accessory products of any kind which it has not approved.

BMW is unable to assess each individual product of outside origin as to its suitability for use on BMW vehicles without safety risk. Nor is any such guarantee available even if a Technical Inspection Authority (for instance the German TÜV) has approved the product or if it has been granted a General Operating Permit. These tests cannot always take into account the full range of operating conditions applicable to BMW vehicles and may therefore be inadequate.

In other words, the road safety standards and also the long-term value of your car could be placed at risk if you undertake or commission modifications using parts that BMW has not approved. Original BMW parts and accessories, other BMW-approved products and competent advice on all related matters are obtainable from BMW Service. ◀

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**Operation, maintenance
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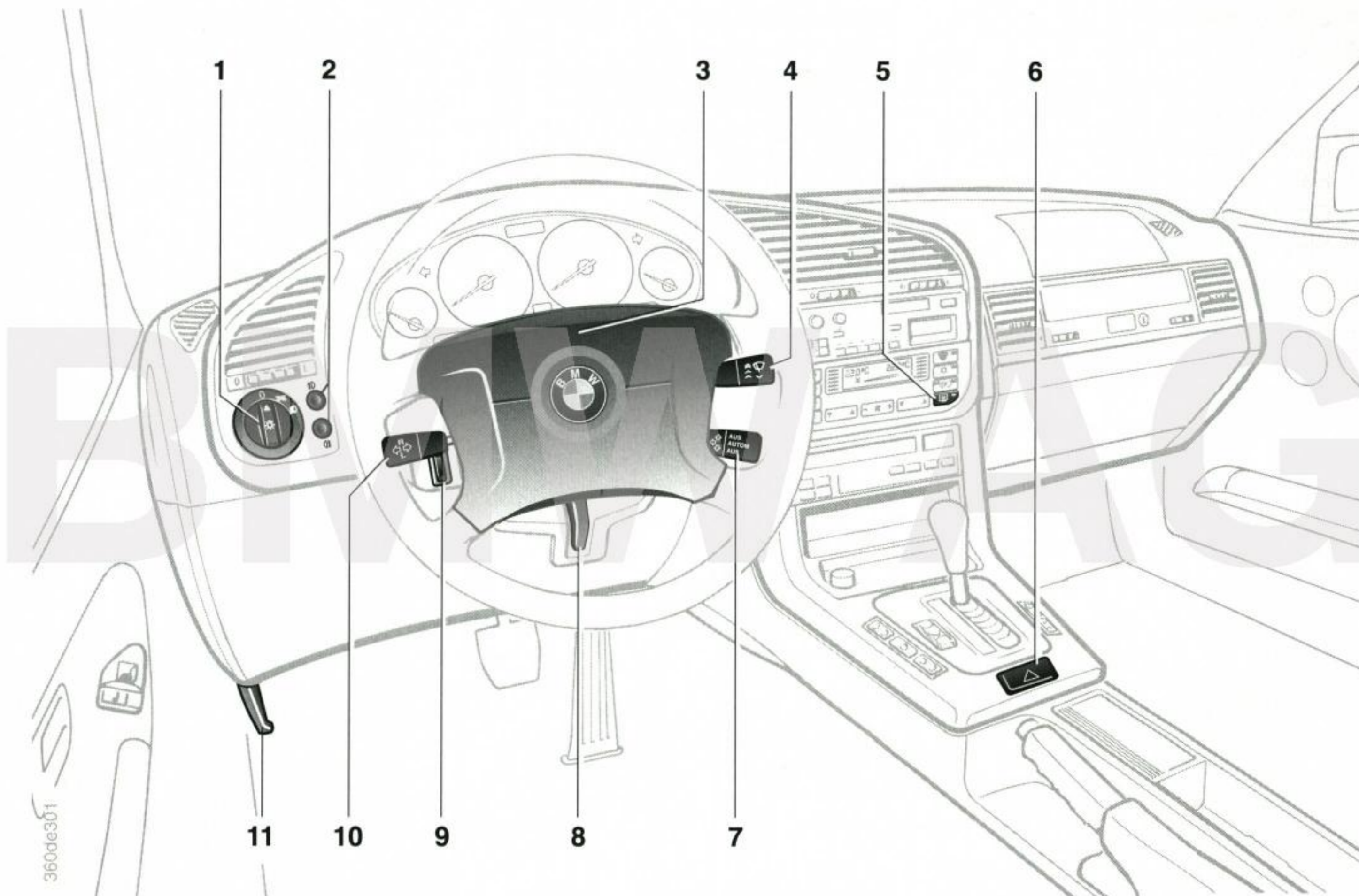
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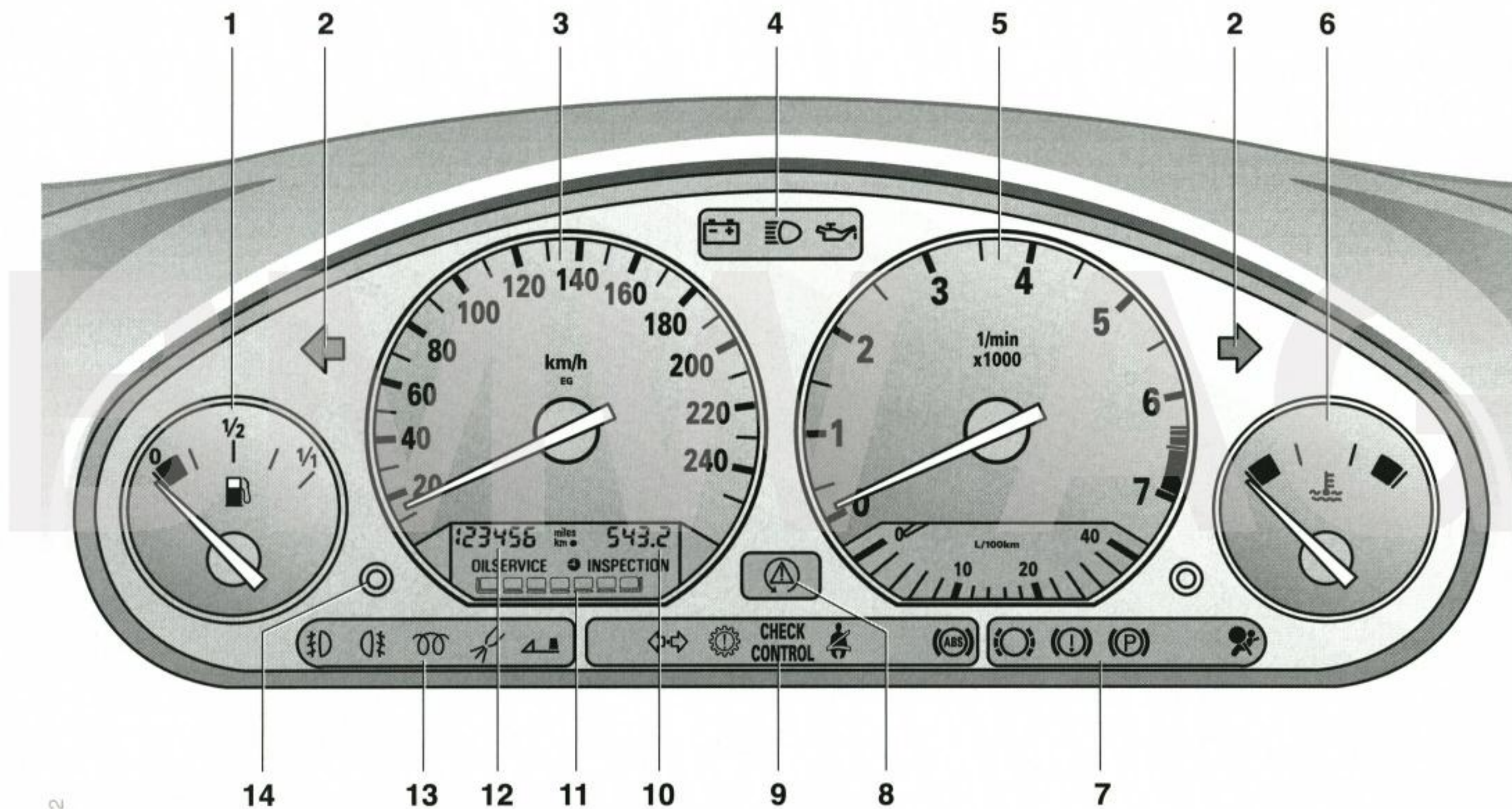
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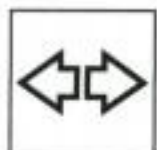
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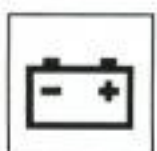
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Flashers, left/right, green



Comes on rhythmically when the flashing turn indicators are in use.

Battery charge telltale, red



Goes out after the engine has started.

If it comes on during the journey: The battery is not being charged. The alternator V-belt is defective or there is a fault in the alternator charging circuit.



If the V-belt is defective, the coolant pump will not be driven either, and the engine may then overheat or be damaged.

Consult BMW Service. ◀

High-beam headlights, blue



Comes on when the high (main) headlight beams are selected or the headlight flasher is operated.

Engine oil pressure, red

Engine oil level (diesel-engined cars)



Goes out after the engine has started. May come on at idle speed when the engine is hot, but must go out at higher engine speeds.

If it comes on during the journey: stop the car immediately and switch off the engine. Check engine oil level and top up if necessary. If the oil level is correct: consult BMW Service.

Fog lights*, green



Comes on when fog lights are in use.

Rear fog light, yellow



Comes on when rear fog light is in use.

Trailer flashers*, green



Lights up in the same rhythm as the main flashing turn indicators when a trailer is being towed.

Further details: Page 129

Airbags, red



Functional check from ignition key position 1 on. If the light does not come on during the functional check, or comes on again during the journey, have the system examined by BMW Service. Further details: Page 54

Automatic transmission*, yellow



Goes out after the engine has started.

Further details: Page 62

ASC+T (Automatic Stability Control plus Traction)*, yellow



If it goes out shortly after switching on the ignition: the system is operational.

Further details: Page 90

ABS (anti-lock brake system)*, yellow



Goes out after the engine has started.

If it comes on during the journey: ABS has developed a fault and is switched off. The car's regular braking action is still available in full.

Further details: Page 124

Brake pad wear, yellow



Comes on when the starter is operated, goes out after the engine has started.

If it comes on during the journey: have brake pads renewed without delay.



Use only BMW-approved brake pads, or else the car's General Operating Permit will be invalidated. ◀

Brake hydraulics, red



Goes out after the engine has started.

If it comes on during the journey: brake fluid level is too low. Further details: Page 159

Handbrake, red



Goes out after the engine has started. Comes on when the handbrake is applied. Further

details: Page 60

Fasten seat belts*, red



(may be combined with an audible warning signal*).

Comes on briefly when the ignition is switched on and then goes out (depending on version, only when seat belts have been fastened).

BMW Convertible

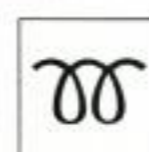
Roll-over protection system*, yellow



If it goes out shortly after switching on the ignition: the system is operational.

BMW 318tds, 325td/tds

Pre-heat time, yellow



Do not start the engine until the light goes out. Further details: Page 58

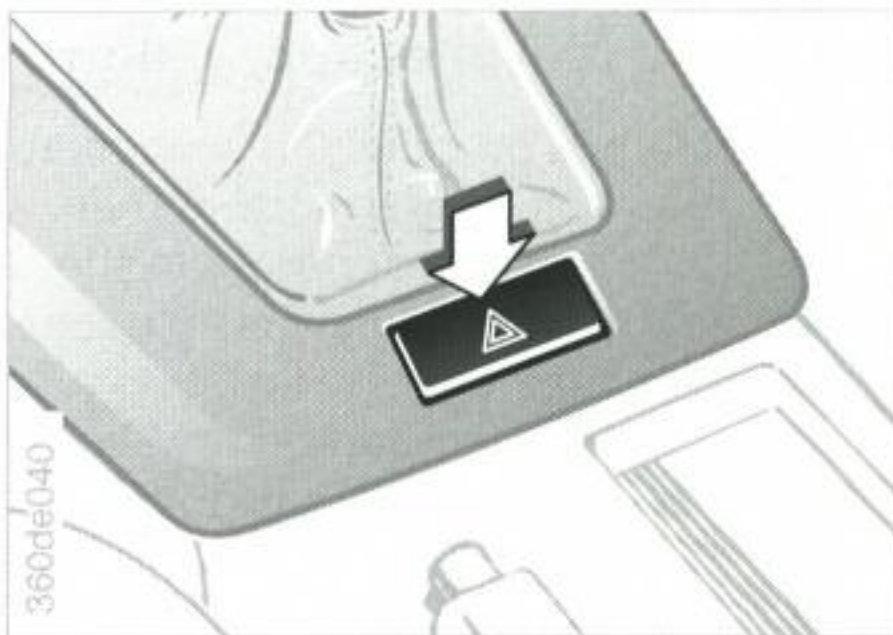
Electronic fuel injection, yellow



Comes on briefly in ignition key position 2 (pre-heat). A malfunction has occurred in the

electronic fuel injection system. Except in extreme cases when the engine will not run at all, the car can be driven with a memorized emergency program in operation (possibly with less power than usual being developed by the engine), but should be examined and repaired by BMW Service as soon as possible.

20 Hazard warning flashers



The pushbutton lights up in a regular rhythm when the hazard warning flashers are operating.

The pushbutton is illuminated when the car's outside lights are on.

Warning triangle*

A space is provided in the luggage compartment on the right to accommodate the warning triangle in an accessible position.

BMW touring: the warning triangle is behind the right-hand flap in the load area.



Comply with legal requirements concerning the need to carry a warning triangle in the car. ◀

First-aid kit*

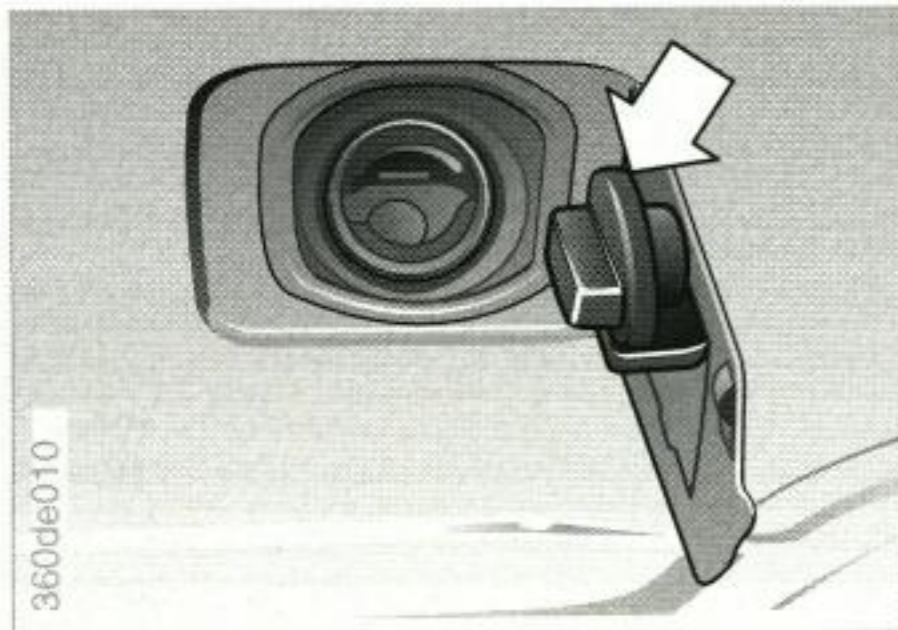
In the luggage compartment on the right, in a recess.

BMW touring: the first aid box is behind the right-hand flap in the load area.



Certain articles in the first aid box have a limited useful life. Please check the contents regularly and replace any articles that have reached the end of their useful life. Replacements can be obtained from any pharmacy.

Comply with legal requirements concerning the need to carry a first-aid kit in the car. ◀



Releasing the fuel filler flap if the central locking has failed: see page 187.



When handling fuel or filling the car's tank, comply with the safety regulations displayed by garages and filling stations. ◀

Fuel grade

Spark-ignition engine with catalytic converter

The engine should be run exclusively on unleaded fuel. Since the engines have a knock control function, they can run on different grades of fuel.

Minimum fuel grade:

- ▷ Regular-grade unleaded fuel (octane number 91, Research Method).

The rated performance and fuel consumption values are achieved with:

- ▷ Premium-grade unleaded fuel (octane number 95, Research Method).

This fuel is also known as:
DIN EN 228 or Euro-Super.

For higher performance and lower fuel consumption, it is also possible to use:

- ▷ Super Plus/premium plus fuel (octane number 98, Research Method).



Never add fuel containing lead to a car with a catalytic converter, or this device and the oxygen sensor will be permanently damaged. ◀

Spark-ignition models without catalytic converter

(the catalytic converter can be retrofitted)

The engine is designed to run on both unleaded and leaded fuel. Since the engines have a knock control function, they can run on different grades of fuel.

Minimum fuel grade:

- ▷ Regular-grade unleaded or leaded fuel (octane number 91, Research Method).

The rated performance and fuel consumption values are achieved with:

- ▷ Premium-grade unleaded fuel (octane number 95, Research Method).

This fuel is also known as:

DIN EN 228 or Euro-Super.

For higher performance and lower fuel consumption, it is also possible to use:

- ▷ Super Plus/premium plus unleaded fuel (octane number 98, Research Method) or
- ▷ Super Plus/premium plus leaded fuel (octane number 98, Research Method).

Super (premium) grade petrol (gasoline) can be identified by its conformity with German Industrial Standard DIN 51 600.

22 Fuel grade

Diesel engine, with or without catalytic converter

▷ Diesel oil to DIN EN 590 standard.

For winter-grade diesel oil, see page 127.



Do not add rapeseed oil methyl ester (RME) or biodiesel fuel to the tank, or the engine may be damaged. ◀

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Tyre pressures are also shown on the driver's door post (visible when the door is open). All pressures are shown in bar (gauge pressure) and pounds per square inch (psi) with the tyres cold (cold = ambient temperature).



These tyre pressures apply to makes of tyre approved by BMW and known to BMW Service. If other makes of tyre are fitted to the car, higher tyre pressures may be needed.

When towing a trailer, always use the values for the higher load.





Check tyre pressures – including the spare wheel – regularly, at least once every two weeks and before any lengthy journeys are undertaken.

Incorrect tyre pressures can adversely affect the car's roadholding and cause tyre damage, which could result in an accident. ◀

Saloon/Coupé models					
BMW model	Tyre size All pressures are shown in bar (gauge pressure) and pounds per square inch (psi)				
316i 318i	205/60 R 15 91 H 225/55 R 15 92 H, V 225/50 ZR 16	1.8 (25.6)	2.0 (28.5)	2.0 (28.5)	2.5 (35.6)
	185/65 R 15 88 H 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.0 (28.5)	2.3 (32.7)	2.3 (32.7)	2.8 (39.8)
	185/65 R 15 88 Q, T, H M+S	2.2 (31.5)	2.5 (35.6)	2.5 (35.6)	3.0 (42.7)
318tds	205/60 R 15 91 T, H 225/55 R 15 92 T, V 225/50 ZR 16	1.8 (25.6)	2.0 (28.5)	2.0 (28.5)	2.5 (35.6)
	185/65 R 15 88 T 205/60 R 15 91 Q, T M+S 225/50 R 16 92 Q, T M+S	2.0 (28.5)	2.3 (32.7)	2.3 (32.7)	2.8 (39.8)
	185/65 R 15 88 Q, T M+S	2.2 (31.5)	2.5 (35.6)	2.5 (35.6)	3.0 (42.7)
318is 320i 325tds	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16	2.0 (28.5)	2.3 (32.7)	2.2 (31.5)	2.7 (38.4)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.6 (37.0)	3.1 (44.1)





Values in brackets in pounds per square inch; for further models, see next page

Tyre pressures (continued)

Saloon/Coupé models					
BMW model	Tyre size All pressures are shown in bar (gauge pressure) and pounds per square inch (psi)				
325td	205/60 R 15 91 H 225/55 R 15 92 H, V 225/50 ZR 16	1.8 (25.6)	2.1 (29.9)	2.1 (29.9)	2.6 (37.0)
	185/65 R 15 88 H 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.0 (28.5)	2.4 (34.1)	2.5 (35.6)	3.0 (42.7)
	185/65 R 15 88 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.7 (38.4)	3.2 (45.5)
323i	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16	2.0 (28.5)	2.4 (34.1)	2.4 (34.1)	2.9 (41.2)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.6 (37.0)	3.1 (44.1)
328i	205/60 R 15 91 W 225/50 ZR 16	2.0 (28.5)	2.4 (34.1)	2.4 (34.1)	2.9 (41.2)
	205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.6 (37.0)	3.1 (44.1)



Values in brackets in pounds per square inch; for further models, see next page

Tyre pressures (continued)

Convertible models		max. 			
BMW model	Tyre size All pressures are shown in bar (gauge pressure) and pounds per square inch (psi)				
318i	205/60 R 15 91 H 225/55 R 15 92 H, V 225/50 ZR 16	2.0 (28.5)	2.2 (31.5)	2.4 (34.1)	2.9 (41.2)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.4 (34.1)	2.6 (37.0)	3.1 (44.1)
320i	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16	2.0 (28.5)	2.2 (31.5)	2.4 (34.1)	2.9 (41.2)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.4 (34.1)	2.6 (37.0)	3.1 (44.1)
323i	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16	2.0 (28.5)	2.2 (31.5)	2.4 (34.1)	2.9 (41.2)
	205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.4 (34.1)	2.6 (37.0)	3.1 (44.1)
328i	205/60 R 15 91 W 225/50 ZR 16	2.0 (28.5)	2.2 (31.5)	2.4 (34.1)	2.9 (41.2)
	205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.4 (34.1)	2.6 (37.0)	3.1 (44.1)

Values in brackets in pounds per square inch; for further models, see next page

Tyre pressures (continued)

touring models					
BMW model	Tyre size All pressures are shown in bar (gauge pressure) and pounds per square inch (psi)				
318tds	185/65 R 15 88 T 205/60 R 15 91 T, H 225/55 R 15 92 T, V 225/50 ZR 16	2.0 (28.5)	2.4 (34.1)	2.5 (35.6)	3.0 (42.7)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.7 (38.4)	3.2 (45.5)
316i 318i	185/65 R 15 88 H 205/60 R 15 91 H 225/55 R 15 92 H, V 225/50 ZR 16	2.0 (28.5)	2.4 (34.1)	2.5 (35.6)	3.0 (42.7)
	185/65 R 15 88 Q, T, H M+S 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.7 (38.4)	3.2 (45.5)
320i 325tds	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16	2.0 (28.5)	2.4 (34.1)	2.5 (35.6)	3.0 (42.7)
	205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.2 (31.5)	2.6 (37.0)	2.7 (38.4)	3.2 (45.5)
323i	205/60 R 15 91 V 225/55 R 15 92 V 225/50 ZR 16 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.0 (28.5)	2.6 (37.0)	2.5 (35.6)	3.2 (45.5)
328i	205/60 R 15 91 W 225/50 ZR 16 205/60 R 15 91 Q, T, H M+S 225/50 R 16 92 Q, T, H M+S	2.0 (28.5)	2.6 (37.0)	2.5 (35.6)	3.2 (45.5)

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Initial overview

Controls in detail

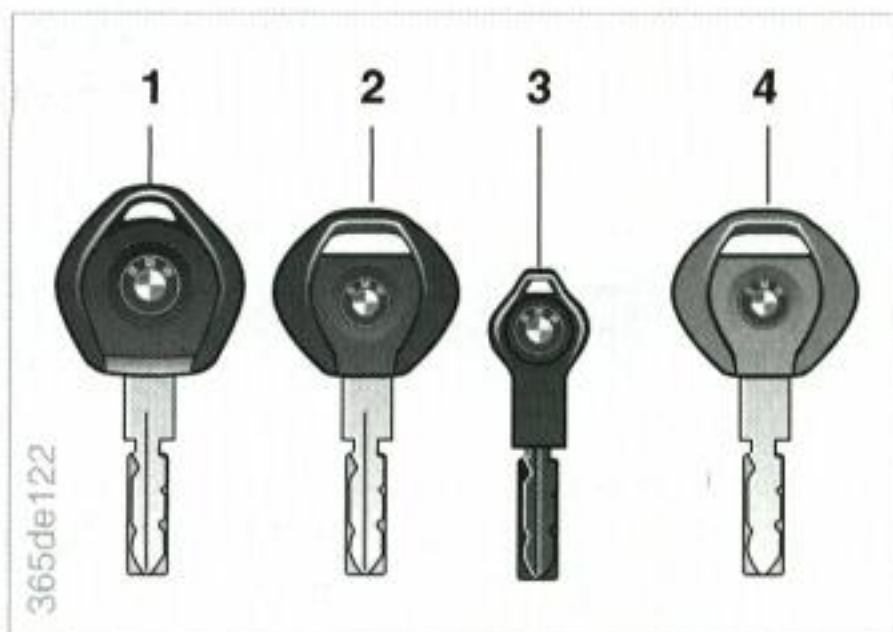
Operation, maintenance and general care

Minor repairs

Technical items of interest

Technical data

Index



- 1 Master key with battery-powered light (operated by pressing the BMW symbol).
- 2 Master key without light.
- 3 Spare key to be kept in a safe place, e.g. in a wallet or purse. This is a master key, but is not intended for regular use.
- 4 Key for doors and ignition. This key does not operate the luggage compartment/hatchback or glove box locks. This is useful, for example, at a hotel.

Electronic immobilizer

The electronic immobilizer is an additional means of protecting your BMW against theft, and operates without you having to perform any selection or adjusting processes yourself. It ensures that the engine will only start if an ignition key which the immobiliser recognises as belonging to the car is used.

In addition to the mechanical locks, this is achieved by an electronic device integrated into the key.

The vehicle's electronics exchange constantly updated signals, which are individualized for every vehicle, between the ignition switch and the electronic components in the key. The ignition, fuel supply and starter motor cannot operate until the key has been identified as "valid".

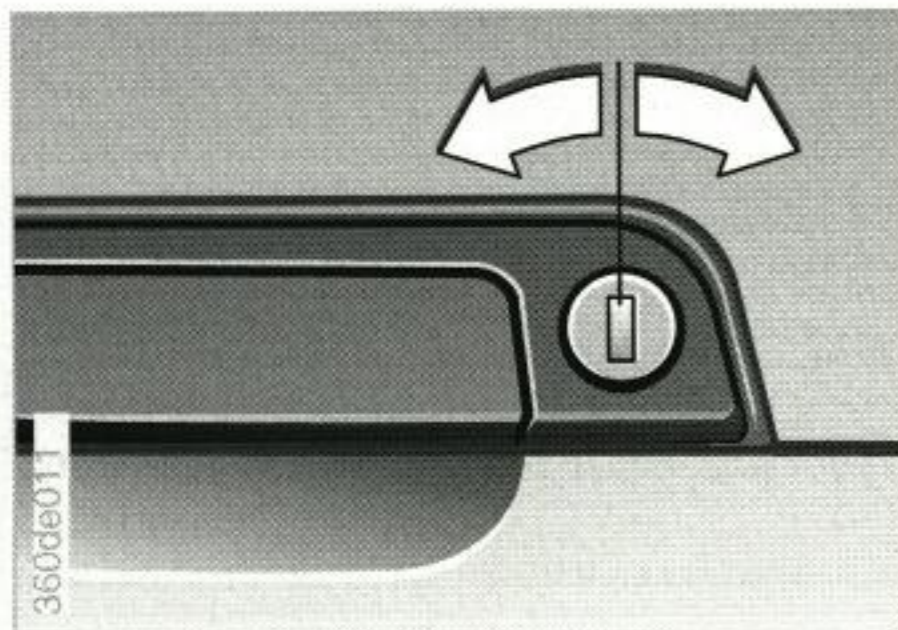


The electronics in the key could be damaged by rough treatment. This could prevent you from starting the engine. ◀

Obtaining a new key

Replacement keys are only available from BMW Service, which is obliged to check that the person concerned is authorised to order the key.

BMW Service can also invalidate specific keys for you electronically (for instance if a key is lost), or revalidate them. The engine cannot be started with an invalidated key.



Central locking from outside car

When the front doors are locked, the key can be used to unlock or lock the following items at the door lock or luggage compartment lock:

- ▷ doors
- ▷ luggage compartment lid/hatch-back
- ▷ fuel filler flap
- ▷ BMW Convertible: glove box.

The anti-theft system will also be activated or de-activated. It prevents the doors from being unlocked either at the safety lock buttons or door handles.



Do not lock the car with the key or the remote control* if there is anyone inside it, as it cannot then be unlocked from the inside. ◀

If your car has an alarm system*, it will also be activated or de-activated when the key is turned in the door lock.

For further details of the alarm system, see page 38.

Convenient closure* for electric windows and sunroof: after locking the doors, hold the key in the locking position until the windows and sunroof close. Release the key to halt the movement. As a safety precaution, to ensure that the closing movement is kept under control, it can only be carried out with the key in the driver's door lock even on cars with remote control.

Emergency operation

(in the event of an electrical malfunction)

By turning the key to the limit of movement in the door lock, you can lock or unlock the door concerned.

Central locking from inside car

If a safety button on one of the front doors inside the car is operated, the doors and luggage compartment will be unlocked or locked, but not dead-locked.



If the car is locked from the inside with one of the safety lock buttons, the fuel filler flap remains unlocked so that the car can be refuelled. On the BMW Convertible, the glove box also remains unlocked so that its contents can be reached. The car can also be unlocked from the inside by pulling an inside front door handle. ◀

To avoid being locked out of the car accidentally:

- ▷ the car cannot be locked with the safety lock button when the driver's door is open.
- ▷ the safety button on the front passenger's door only operates the central locking when both front doors are closed.



Children left in the car could lock the doors from the inside. You should therefore remove the ignition key and take it with you, so that the car can always be unlocked from the outside. ◀

If an accident occurs, the central locking is automatically released and the interior lighting switched on. Depending on the car's delivered specification, the hazard warning flashers also begin to operate.



Locking the rear doors from the inside with the safety lock buttons during the journey is not recommended, since these door locks are not automatically released in the event of an accident. ◀

Opening locked doors from the inside

Pull a front door handle out twice (the first time releases the locks, the second time opens the door).

Opening doors from the outside

Lift up the flap handle.

Automatic window lowering

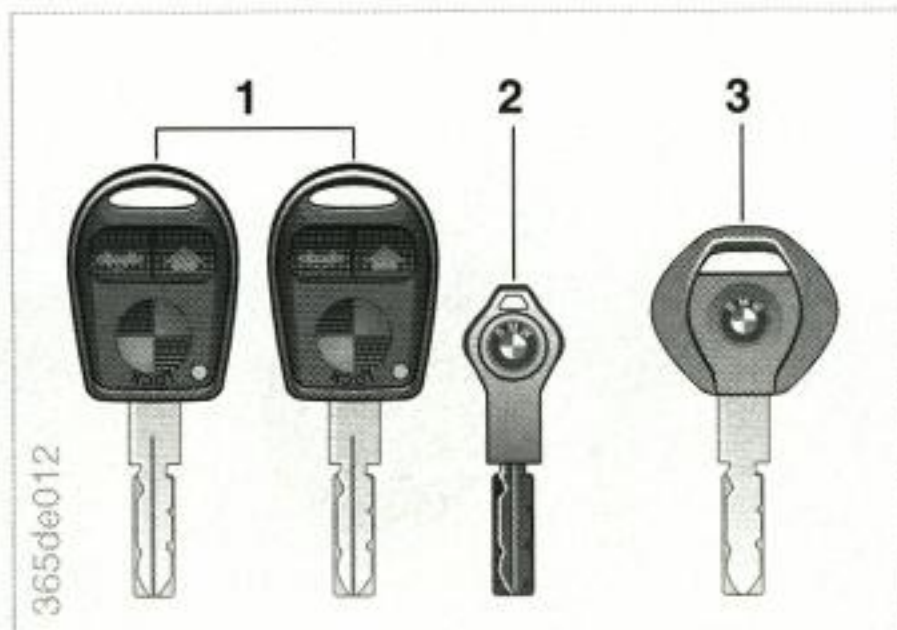
(BMW Coupé, Convertible)



When the doors are opened, the door windows move down slightly; as soon as the doors are closed, they move back up. This is to make door opening easier, avoid damage to the rubber door seals and ensure that when closed, the window is correctly located in the rubber door seal. ◀

Heated driver's door lock*

Lift the driver's door handle up for about 3 seconds: this will switch the heating on. The heating period is controlled automatically, to avoid draining the car's battery.



- 1 Master key with remote control transmitter
- 2 Spare key, to be kept in a safe place, for instance in a purse or wallet. This is a master key, but is not intended for regular use.
- 3 Key for doors and ignition.
This key does not operate the luggage compartment or glove box locks. It is practical when a key has to be handed over, for instance at a hotel.

There is no lock on the front passenger's door, for added anti-theft protection. The safety lock button on the front passenger's door does not operate the central locking system.

Obtaining a new key

Replacement keys are only available from BMW Service, which is obliged to check that the person concerned is authorised to order the key.

BMW Service can also invalidate individual keys (for instance if a key is lost) and revalidate them. The engine cannot be started with an invalidated key.



Unlocking

Press button 1

- ▷ The central locking system is released.
- ▷ The alarm system* is de-activated.
- ▷ The interior light is switched on.

Locking and thiefproofing

Press button 2

- ▷ The central locking system is engaged.
- ▷ The system is thiefproofed.
- ▷ The alarm system* is activated.

The thiefproofing system prevents the doors from being unlocked at the safety lock buttons or the door handles.



Do not lock the car with a key or the remote control if anyone is to remain in it, since it cannot then be unlocked from the inside.

The radio remote control may be susceptible to local interference from other systems or equipment operating on the same frequency. ◀

Switching off the tilt detector function of the alarm system* (see also Page 39):

Briefly press button 2 again after locking the car.

Switching on the interior lighting

With the car closed, press button 4. This function enables you – within the remote control's operating range – to locate your car on a parking lot.



The LED (light-emitting diode) (3) comes on briefly each time one of the buttons is pressed. Certain symbols on the radio remote control may differ from those illustrated here. ◀

Master keys

The keys with remote-control transmitter are master keys.

Apart from the "switch on interior light" function, all remote-control functions can also be performed manually with the conventional keys in the locks.



On certain national-market versions of the car, the alarm system* can only be activated with the radio remote control. If the master key is used to unlock the car, the alarm will be triggered off on these cars.

To switch off the alarm: press button 1 (unlocking) or start the engine. ◀

For further details of the alarm system, see page 38.



Children left in the car could lock the doors from the inside. You should therefore remove the ignition key and take it with you, so that the car can always be unlocked from the outside. ◀



Initializing the remote control

This is necessary, for example, after purchasing a new key. The new transmitter must be initialised before it can be used.

1 The car must have been opened with the remote control.



If the car was not opened with the remote control, an interlock takes effect and initialising is not possible for a 15-minute period. ◀

- 2 Enter the car and close the driver's door.
- 3 Turn the ignition key to position 1 (max. 5 seconds) and return to position 0.
- 4 Press button 1 (see illustration) on transmitter and hold. Keeping button 1 pressed, briefly press button 2 three times in succession within a period of 10 seconds.
- 5 Release button 1. The LED will flash slowly for max. 10 seconds.
- 6 The central locking system indicates that initialisation has been performed successfully by closing and releasing the locks in rapid succession.

If the LED does not flash and the central locking system does not operate, the initialising procedure must be repeated.

If you use additional remote-control transmitters for the same car, each of them (up to four) must be initialised within a further 30 seconds (repeat steps 4 to 6), otherwise they will be de-activated.

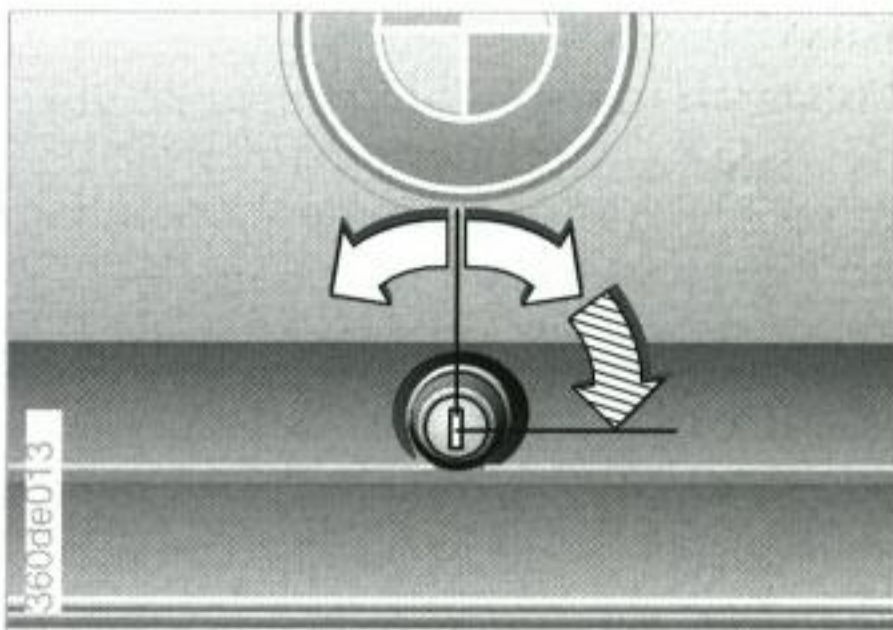
In the event of faults, contact BMW Service, which can also supply replacement transmitters.



Prevent unauthorised use of the radio remote control transmitter, for instance at a hotel, by only handing over the door and ignition key or the spare key (see page 33). ◀

Interference

The radio remote control may be susceptible to local interference from other systems or equipment operating on the same frequency.



The lock can only be opened and closed with a master key.

Central locking system

Locking



Turned to right: the luggage compartment lid/hatchback and, if the front doors are closed, the doors are locked and deadlocked.

Locking separately



Turn the master key clockwise and remove it in the horizontal position. The luggage compartment lid will be locked and

uncoupled from the central locking system. If the central locking system is then released at a door lock or by means of a safety button, the luggage compartment remains locked.

This prevents unauthorised access to the luggage compartment if the door and ignition key has to be handed over (see page 30), for instance at a hotel.

Unlocking



Turned to left: luggage compartment and doors unlocked.

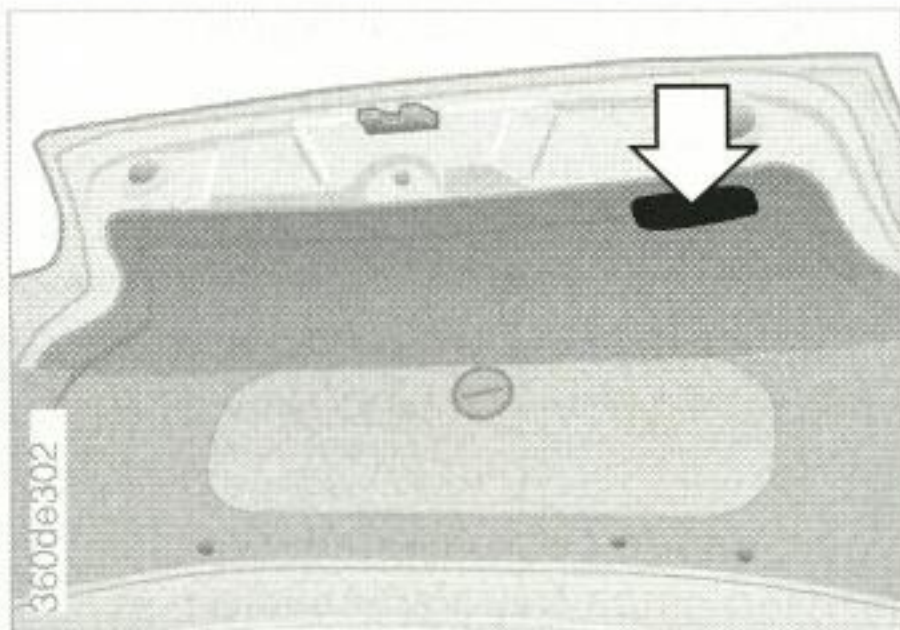
Emergency operation

(in the event of an electrical malfunction)

Turn the master key fully to the left: the luggage compartment is unlocked. After closing, the luggage compartment must always be locked separately.

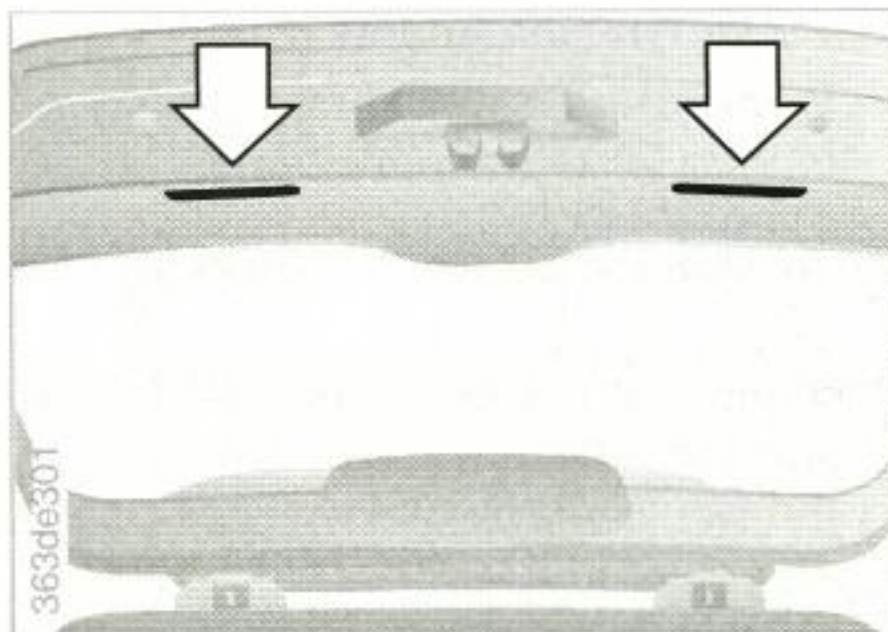
Luggage compartment light

Comes on when the luggage compartment lid is raised.



Closing – saloon, Coupé, Convertible

A recessed handle (arrow) makes it easier to pull the the luggage compartment lid down.



Closing – touring

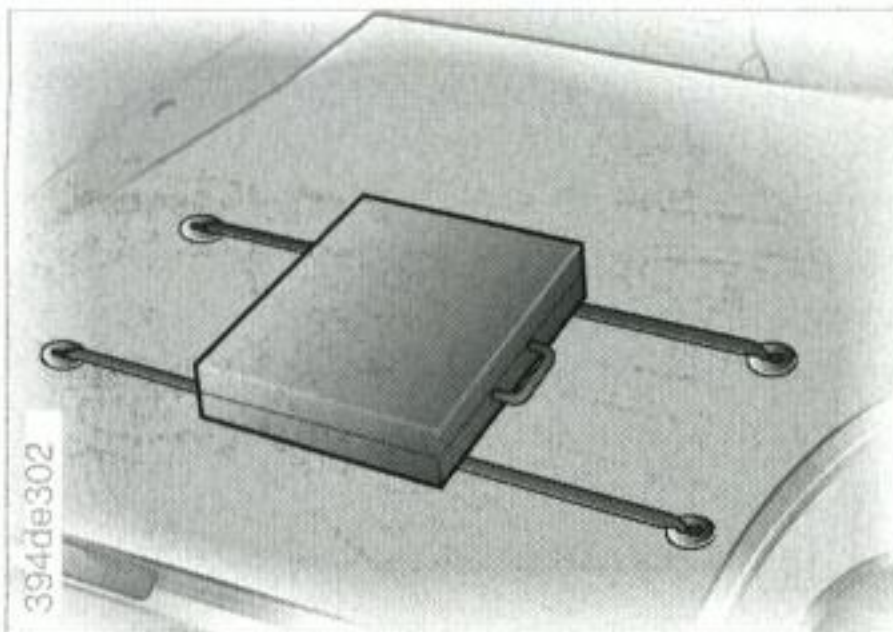
A recessed handles (arrows) make it easier to pull the hatchback down.



Keep the luggage compartment lid/hatchback closed while the vehicle is being driven, so that no exhaust fumes are drawn into the passenger compartment. If it is nevertheless necessary to travel with the luggage compartment lid open, observe the following precautions:

- ▷ close all other windows and the sunroof
- ▷ greatly increase the output from the heater and ventilation system or the automatic air conditioning*, see pages 96 and 102. ◀

38 Luggage compartment



Tensioning straps

Use the tensioning straps on the floor of the luggage compartment to prevent fairly small objects from slipping. If articles are set down on top of the retaining straps, this will also help to prevent them from slipping.

There are lashing points at the corners of the luggage compartment to which a luggage compartment net* or retaining straps can be attached when loads have to be secured.

See also under "Loading", page 120.

Alarm system*

The alarm system reacts if:

- ▷ a door, the engine compartment or the luggage compartment is opened
- ▷ attempts are made to start the engine*
- ▷ the radio* or glove box (BMW Convertible only) are tampered with
- ▷ the rear window or a side window is broken (not BMW Convertible)
- ▷ the car's position or attitude change, for instance if it is jacked up to remove a wheel or an attempt is made to tow it away.

It has three ways of indicating that the car has been tampered with:

- ▷ by sounding an alarm for 30 seconds
- ▷ by switching on the hazard warning flashers for five minutes*
- ▷ by switching the low-beam headlights on and off in the same rhythm as the hazard warning flashers*.

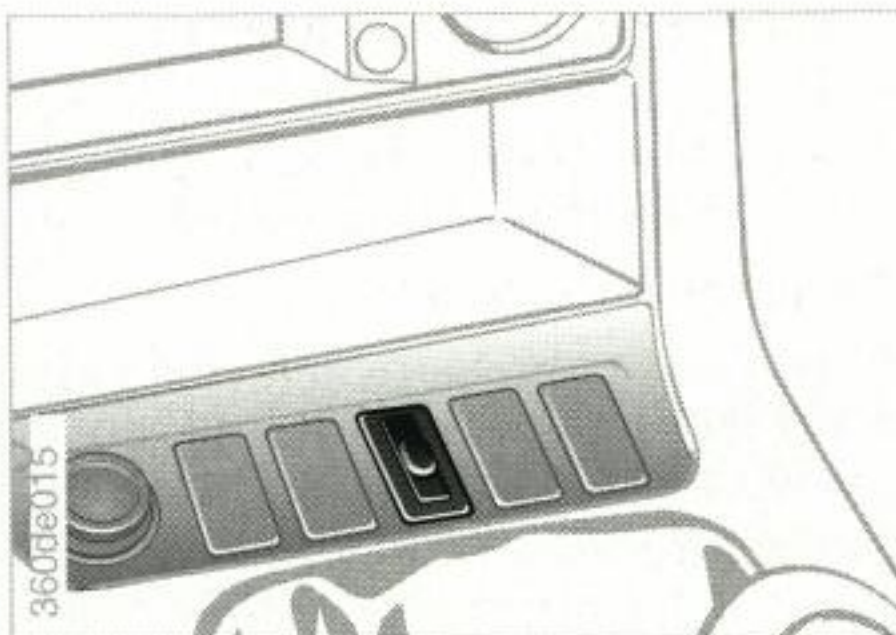
Activating and de-activating

The alarm system is activated and de-activated whenever the car is locked and unlocked at the locks or with the radio remote control*.

If the alarm system has been activated correctly, the hazard warning flashers come on once*.

The luggage compartment can still be opened when the alarm system is activated (not on the version with radio remote control). The telltale light flashes more rapidly (10-second intervals) as a sign that the luggage compartment is closed but not locked (turn key to right and remove it).

▶ On certain national-market versions of the car, the alarm system can only be activated with the radio remote control*. If the master key is used to unlock the car, the alarm will be triggered off on these cars. To switch off the alarm: press button 1 (unlocking) or start the engine.◀



- ▷ If the telltale goes out when the system is de-activated, no attempt was made to tamper with the car during your absence.
- ▷ If the telltale flashes for 10 seconds when the system is de-activated, an attempt was made to tamper with the car.

After the alarm has stopped, the telltale once again flashes intermittently.

Alarm system telltale

- ▷ If the telltale light on the centre console emits continuous rapid flashes: the system is activated.
- ▷ If the telltale flashes when the system is being activated: doors, engine or luggage compartment or glove box (BMW Convertible only) have not been properly closed or (not on BMW Convertible) a side window is too far open (a gap of approx. 10 mm is permissible). Even if one such door or lid is not closed, the remainder are protected by the system and the telltale light will flash rapidly after 10 seconds.

Switching off tilt alarm sensor

The tilt alarm sensor can be switched off. This prevents the alarm from being triggered off unnecessarily, for instance in dual-level garages or when the car is carried on a train or ferry.

Perform the locking movement (activate) twice, by pressing button 2 on the radio remote control twice in succession, or repeating the locking movement with the key.

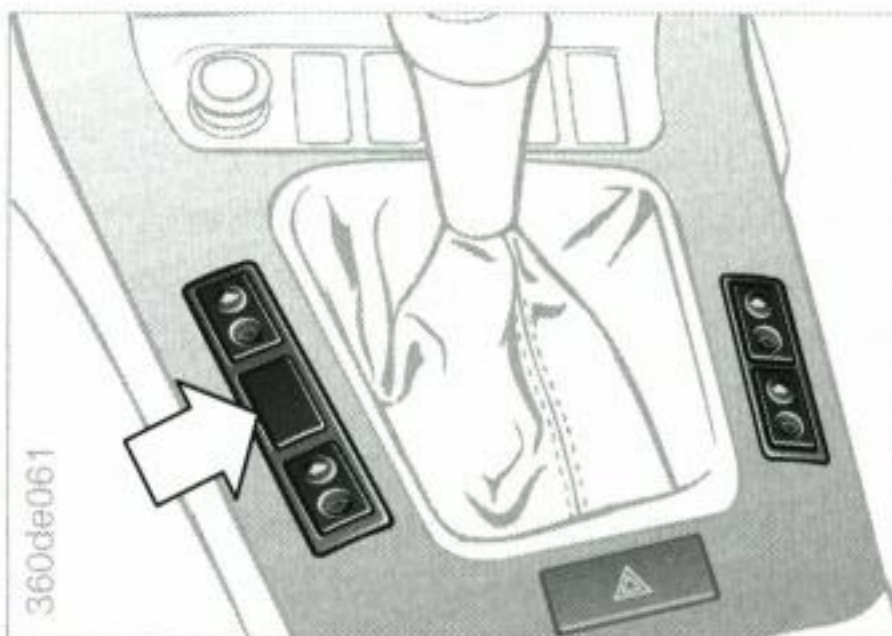
The telltale comes on briefly, then flashes continuously. The tilt alarm sensor is then switched off until the system is next de-activated.

Emergency de-activating*

If normal de-activation is not possible, adopt the following procedure:

- 1 Open the door with a key. After the door has been opened, the alarm will sound for 30 seconds.
- 2 Turn the ignition key to position 1. The central locking will release the remaining doors.

The system is now de-activated, but should be examined by BMW Service.



To operate from ignition key position 1 onwards:

- ▷ Press the rocker switch in until the pressure point is felt. The window continues moving until the rocker switch is released.
- ▷ Press the rocker switch briefly beyond its normal pressure point (one-touch function): The window then continues to move automatically. To halt the movement, press the switch again briefly.

The one-touch function either opens or closes the front door windows, but can only be used to open the rear side windows*.

If the car is equipped with electric windows at front and rear*: there are separate rear window switches below the windows (not on BMW Convertible).

Electric front-hinged rear side windows*

These are operated by the electric rear-window rocker switches.



To close them, keep the switch pressed until the pivot lever is seen and heard to engage. ◀

Safety switch* (arrow)

This prevents the rear windows from being operated by the switches in the rear-seat area, e.g. by children.



If children are being carried on the rear seat, this safety switch (arrow) should always be pressed. Always take the ignition key with you when leaving the car. ◀

Note that the windows can still be operated after switching off the engine.

- ▷ in ignition key positions 1 or 0 or with the ignition key removed and

- ▷ the front doors open (for max. 15 minutes) or until the front doors are first opened (depending on national-market specification).

Convenient closure

After locking the doors, hold the key in the locking position: any windows which are still open will then be closed.

To ensure that this closing movement can be carefully observed, convenient closure is only possible at the driver's door lock for safety reasons even if the car has remote control*.

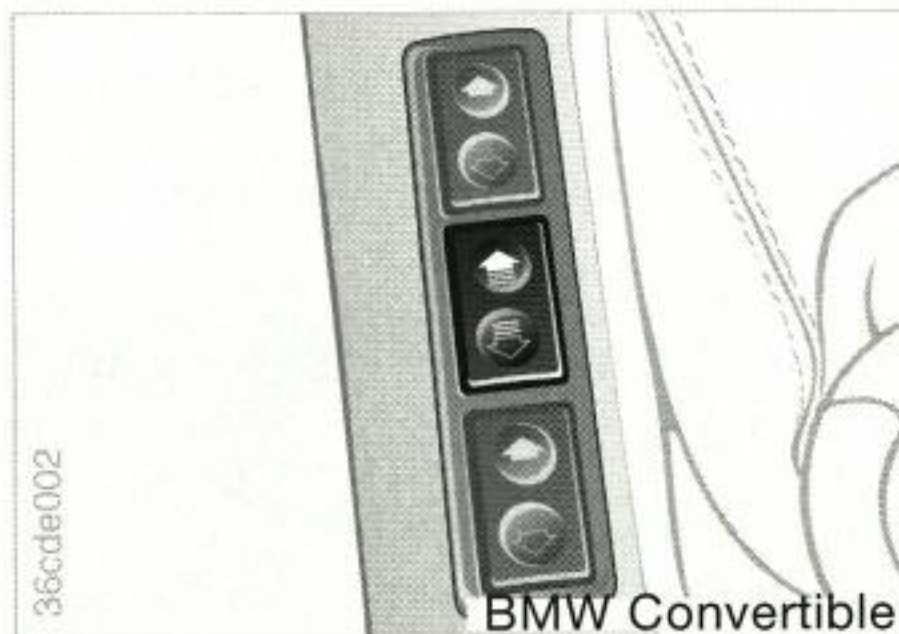


Uncontrolled or careless closure of the windows could cause bodily injury. ◀

Protective function

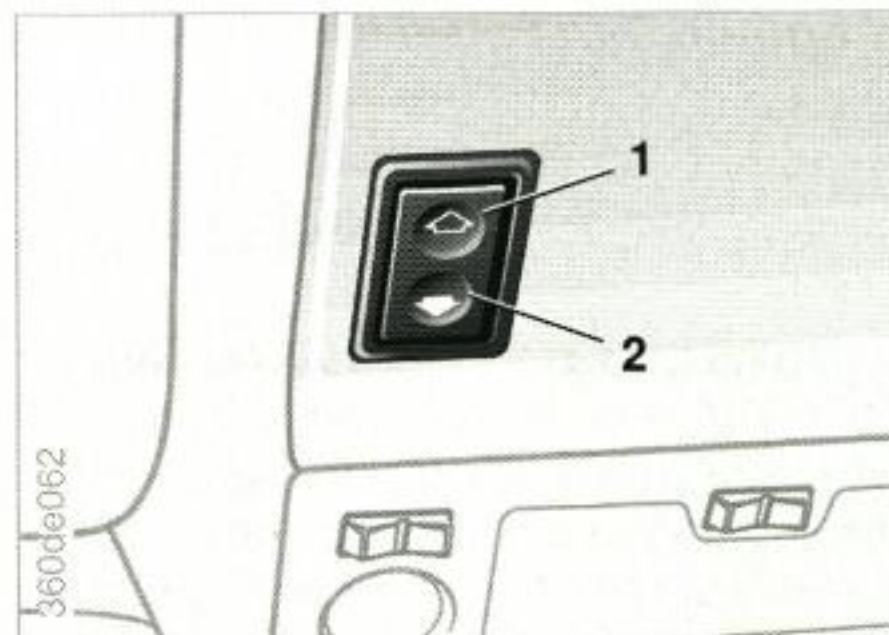
If one of the front windows encounters an obstruction when closing, it comes to a halt and then re-opens slightly.

You can put this protective function out of action, for instance to avoid unauthorised access from outside, by pressing the switch beyond its normal detent point and holding it in.



If the centre button is held down, all four side windows will be lowered or raised at the same time.

To lower, press the rocker switch briefly beyond its normal pressure point (one-touch function). The side windows will move automatically. To halt the movement, press the switch again briefly.



Operation in ignition key position 2:

Opening and lowering

Press the button with the recessed surface (1) in as far as the pressure point.

Closing and tilting

Press the button with the raised surface (2) in as far as the normal pressure point.

To change over from closing to tilting or from tilting to closing: press the switch again.

One-touch function

(opening and tilting only)

Press the appropriate button briefly beyond its normal pressure point.

The sliding/tilt sunroof will move automatically. To halt the movement, press the button again briefly.

▶ To open (BMW touring only): to prevent noise, the sliding/tilt sunroof does not open fully the first time that button 1 is pressed. If you wish to open it fully, press button 1 again. ◀

▶ When the roof panel is tilted, the roof lining moves back a short distance. ◀

If an electrical fault develops, the sliding/tilt sunroof can be operated manually; see page 187.

Note that the windows can still be operated after switching off the engine.

- ▷ in ignition key positions 1 or 0 or with the ignition key removed and
- ▷ the front doors open (for max. 15 minutes) or until the front doors are first opened (depending on national-market specification).

Convenient closure*

After locking the doors, hold the key in the locking position: the sunroof will then close if it was still open.

To ensure that this closing movement can be carefully observed, convenient closure is only possible at the driver's door lock for safety reasons even if the car has remote control*.



Uncontrolled or careless closure of the sunroof could lead to bodily injury.

Always take the ignition key with you when leaving the car. ◀

To prevent a partial vacuum or draughts, keep the ventilation outlets open and if necessary increase the airflow through them when the sunroof is open, and particularly when it is tilted.

Soft top operation – Convertible**Manually operated soft top**

The fabric soft top provides perfect weather protection and can be opened and closed easily by one person.

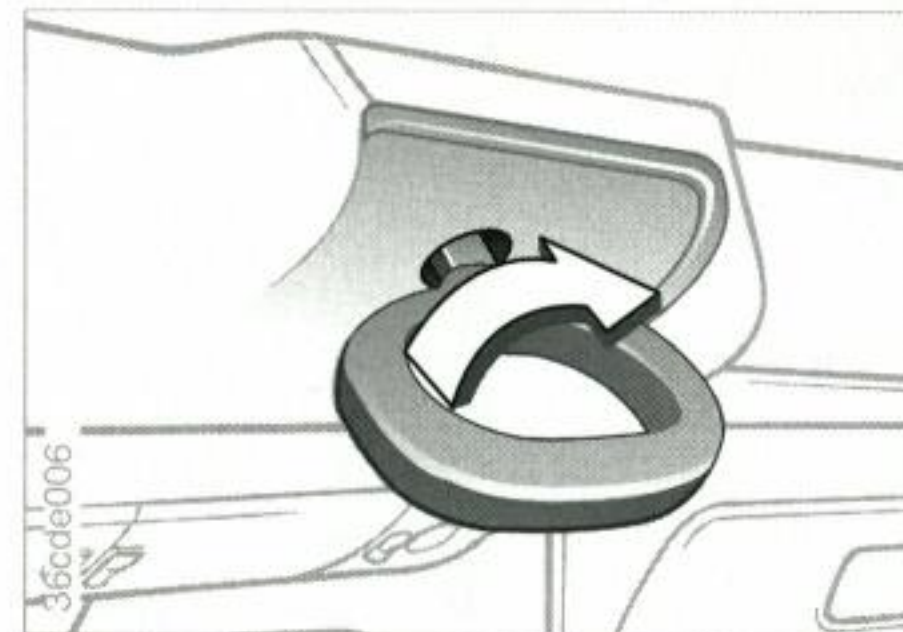
To ensure maximum pleasure from your Convertible, here are a few useful hints: when leaving the car unattended, make sure that it is protected against unauthorised access. When closed, the soft top not only protects the interior of the car against the sudden onset of wet weather, but also provides a degree of theft protection. Even when the soft top is closed, however, it is better to keep valuables only in the locked luggage compartment.

Do not attach roof rack systems to the soft top.

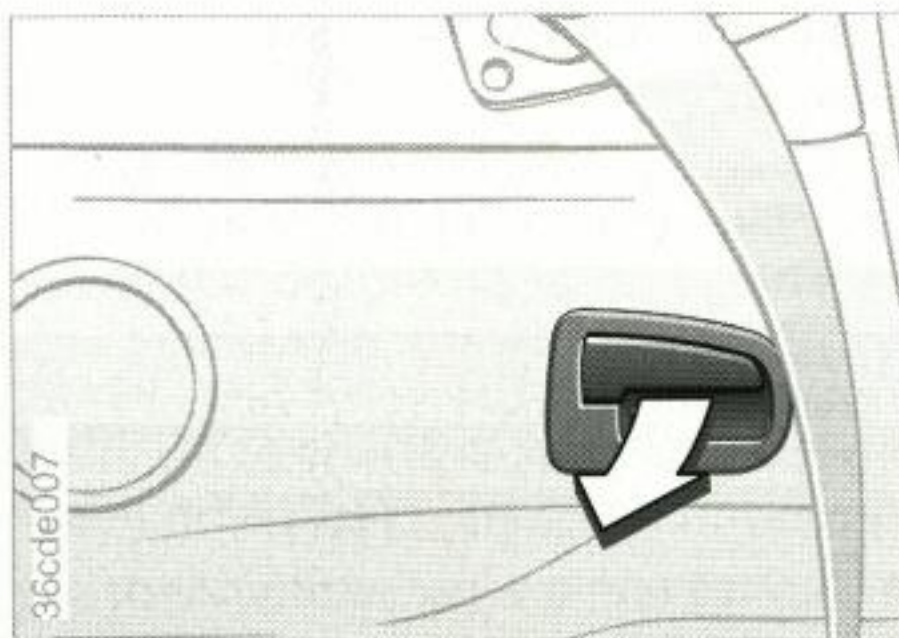
Consult BMW Service with regard to suitable racks, holders and other accessories.



To close the electric side windows during the journey: always close the rear windows first or all four windows at the same time, or else the windows may not make a satisfactory seal at high speeds. ◀

**Opening the soft top**

Unfold the locking handle and turn it as far as it will go. Raise the soft top by approx. 20 cm (8 in) to relieve tension in the fabric.



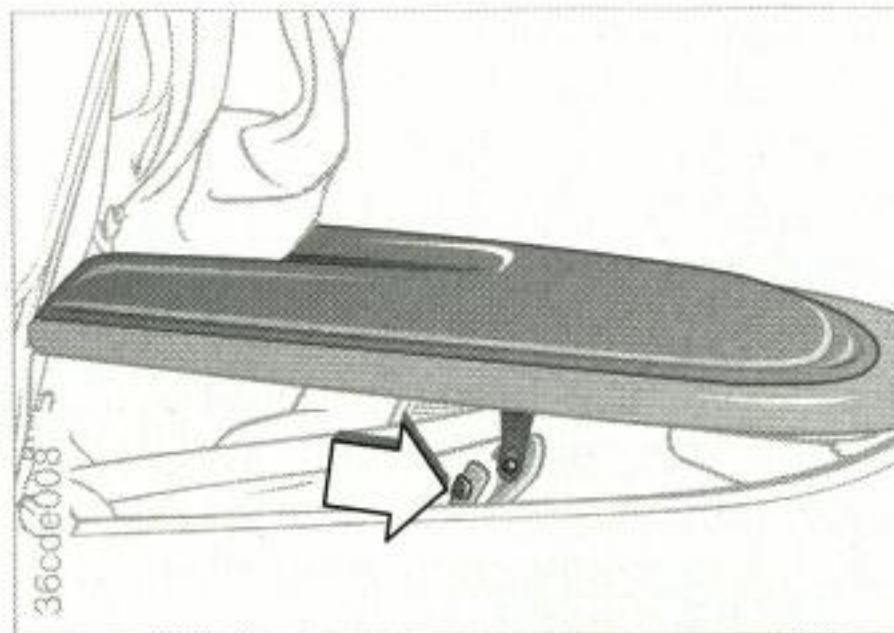
Unlock the soft-top compartment cover with the handle in the left rear side panel.



From ignition key position 1 onwards or with a door open: if the side windows are closed, they will be lowered slightly when the handle is operated to unlock the soft-top compartment cover. ◀



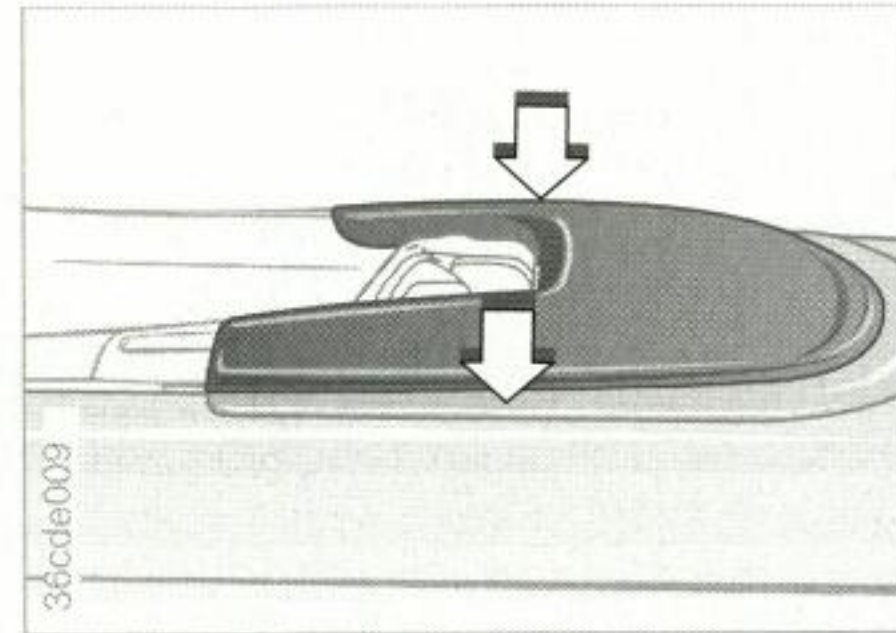
To avoid damage, the soft-top compartment cover cannot be unlocked when the luggage compartment lid is open. ◀



Move the rear soft-top hoop to a vertical position and hold it there. Raise the soft-top compartment cover slightly and push the safety catch to the right to release it. Open the soft-top compartment cover fully.

Place the rear soft-top hoop in the soft-top compartment. Raise the soft top at the front and fold it back as well.

Make sure that the rear window is folded back uniformly and is not creased. To avoid scratching the rear window, place a soft cloth between its folds.



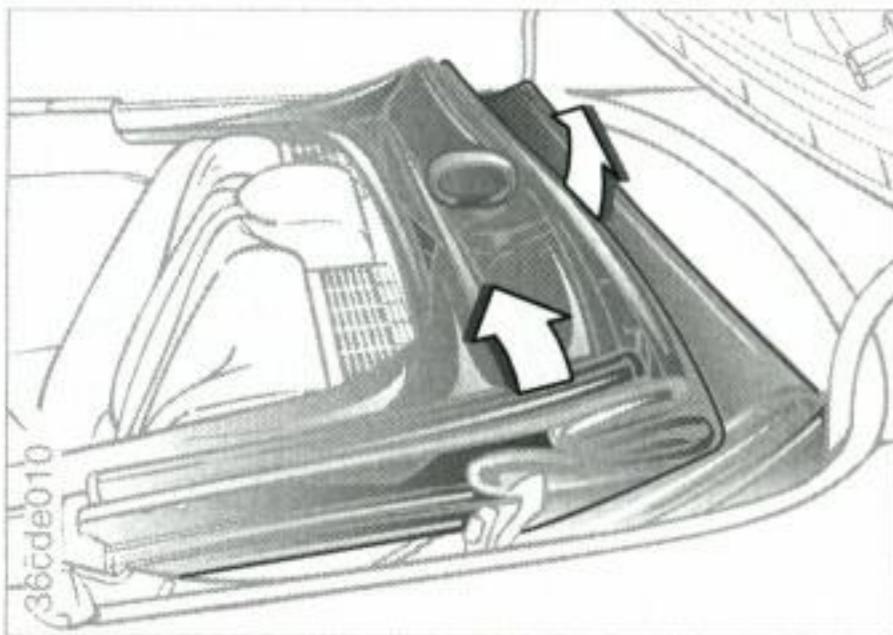
Close the soft-top compartment cover securely by pushing it down at both sides until it is heard to lock into place.

The central locking system is released automatically when the soft-top compartment cover is closed, in other words the luggage compartment is no longer locked and can be opened again.



To avoid damage, the luggage compartment lid cannot be opened if the soft-top compartment cover is not properly closed.

To prevent mildew or similar damage, do not fold the soft top while it is wet (see also the chapter on "Care" from page 167 on). ◀



Closing the soft top

Turn the ignition key to position 1.

Release and open the soft-top compartment cover. Lift out the soft top at the lateral guide section and at the front soft-top frame.

▶ From ignition key position 1 onwards or with a door open: if the side windows are closed, they will be lowered slightly when the handle is operated to unlock the soft-top compartment cover. After closing the soft top, close the side windows or position them as required. ◀

Set the rear hoop of the soft top to a vertical position. Close the soft-top compartment cover securely by pushing it down at both sides until it is heard to lock into place. Fold the soft-top hoop down.

As the soft top compartment cover is closed, the central locking system is automatically re-activated, that is to say the luggage compartment lid is not locked shut and can be re-opened.

Use the locking handle to pull the soft-top frame up to the windscreen surround, then turn the handle until the soft top is heard to lock into place. The rear soft-top hoop is automatically pressed on to the soft-top compartment cover and creates a tight seal when tensioned.

▶ If the soft top or the rear window begin to flap at high speeds, increase the air supply to the car's interior at the ventilation controls in order to avoid low pressure in the passenger compartment. ◀

Fully-automatic soft top operation*

The fully-automatic version of the power-operated soft top combines reliable weather protection with even more straightforward, convenient operation. Here are some hints to ensure that your Convertible always gives you maximum pleasure in use:

When leaving the car unattended, make sure that it is protected against unauthorised access. When closed, the soft top not only protects the interior in bad weather, but also guards against theft. Even when the soft top is closed, however, it is better to keep valuables only in the locked luggage compartment.

Do not attach roof rack systems to the soft top. Consult BMW Service with regard to suitable racks, holders and other accessories.

Do not operate the soft top at temperatures below 0°C, or else damage may be caused.

To reduce the load on the battery, it is preferable to run the engine when operating the soft top.



The soft top operates fully automatically. Manual assistance is only necessary in exceptional situations (see note in next column).

Operate the soft top only when the car is standing still, and do not drive away while the mechanism is in action, or the opening or closing movement will be interrupted. A half-open soft top could cause damage or injury.

Before closing the soft top, remove any objects from the windscreen surround, in case they prevent the soft top from closing properly.

Never place any objects on the soft top, as they would fall off when operating it and could cause damage or injury.

If the electric windows are closed during the journey, always operate the rear side windows first or all four windows at the same time; if this precaution is not taken, the windows will not make a tight seal at high speeds. ◀

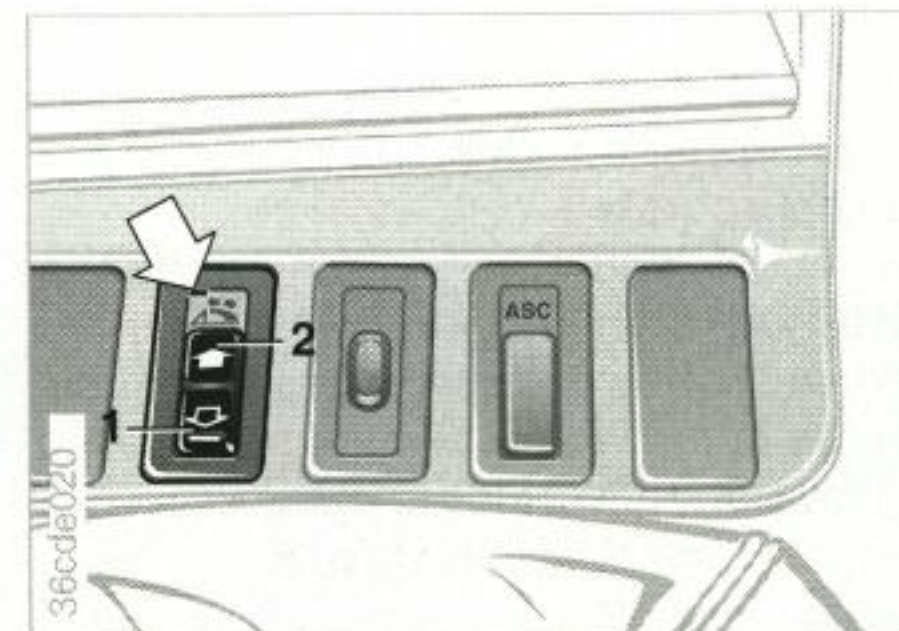


Keep clear of the soft-top mechanism during the opening and closing procedure. Children must be kept away from the soft top movement area. The automatic movement sequence is interrupted immediately if the soft-top operating button is released. Movement in the same or the opposite direction can be resumed by pressing the appropriate section of the button again. ◀



If the soft top has remained stowed in its compartment for a lengthy period, for instance in the winter months when the hardtop was in use, it may be necessary to assist the power operating mechanism by hand the first time the soft top is raised:

If the soft top comes to a halt shortly before the end of the raising movement (still about 20 cm/8 inches open), take hold of the recessed handle in the centre of the front soft top frame and, keeping the pushbutton pressed in, assist the closing movement until the power mechanism takes over again. ◀



Opening and closing

1 To open:

2 To close:

Keep the soft-top operating button pressed in until the opening or closing sequence has been completed.

The telltale light (arrow) remains on while the soft-top is being operated. It flashes when the button is released if the opening or closing movement has not been properly completed.



The luggage compartment cannot be opened while the soft top is being operated.

When the soft top operating button is pressed, the side windows move down slightly, but move back up again at the end of the movement sequence if the button is held down after the telltale light has gone out. ◀



The side windows must be lowered slightly when the soft top is operated. If soft top operation is interrupted, do not use the electric window switches to close the side windows.

If the soft top opening or closing sequence is interrupted, it may not be possible to open the luggage compartment.

To prevent moisture from damaging the soft top permanently, never stow it away while it is still damp. ◀

Convenient closure at the driver's door lock

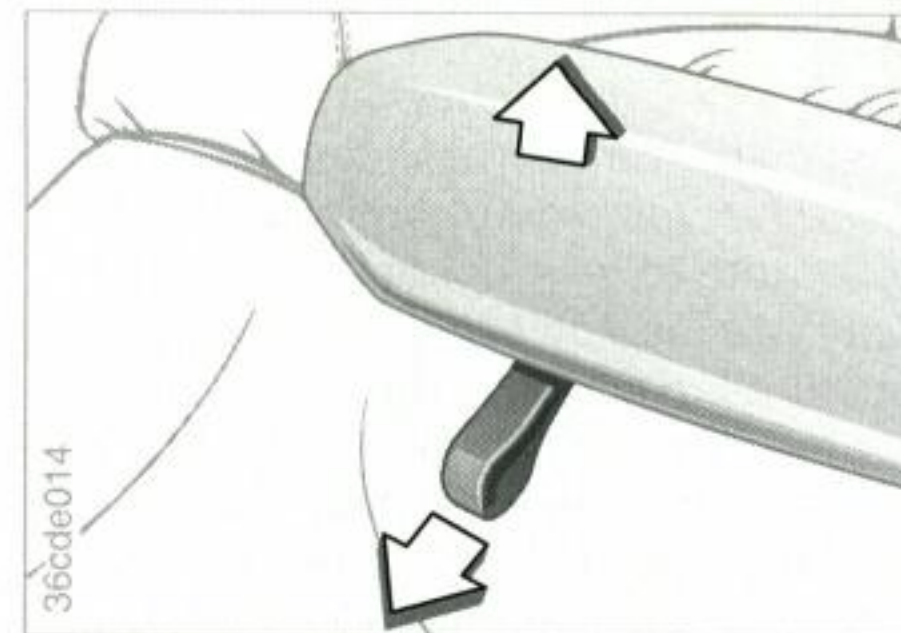
When the door has been locked, hold the key in the locking position.

Release the key to halt the movement.

In order to ensure that the closing movement is observed carefully, convenient closure is only possible at the driver's door lock even if the car is equipped with remote control*.



The partial vacuum which develops in the passenger compartment at fairly high speeds can cause the soft top or its rear window to flap. Increase the air supply to the interior at the ventilation controls, so that the normal air pressure is maintained. ◀

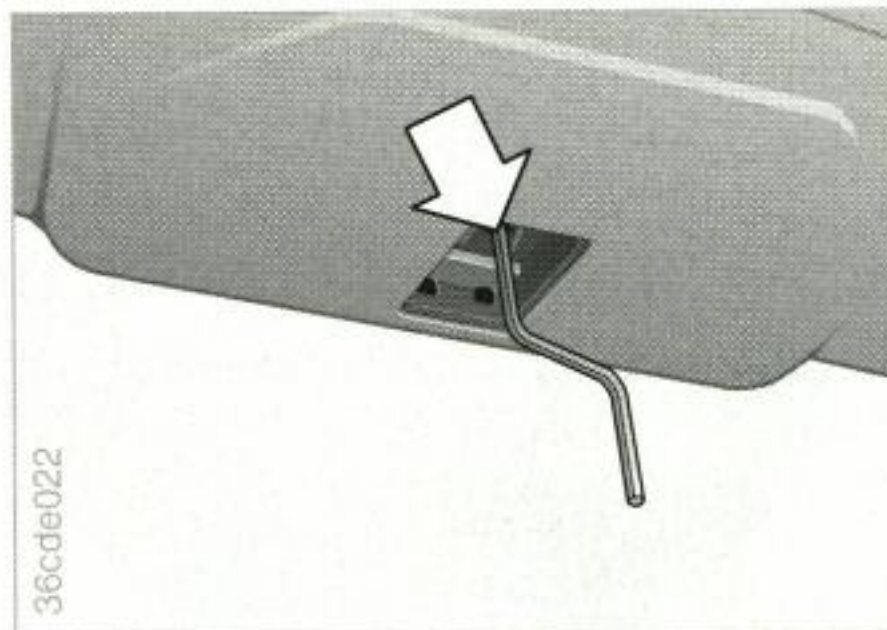
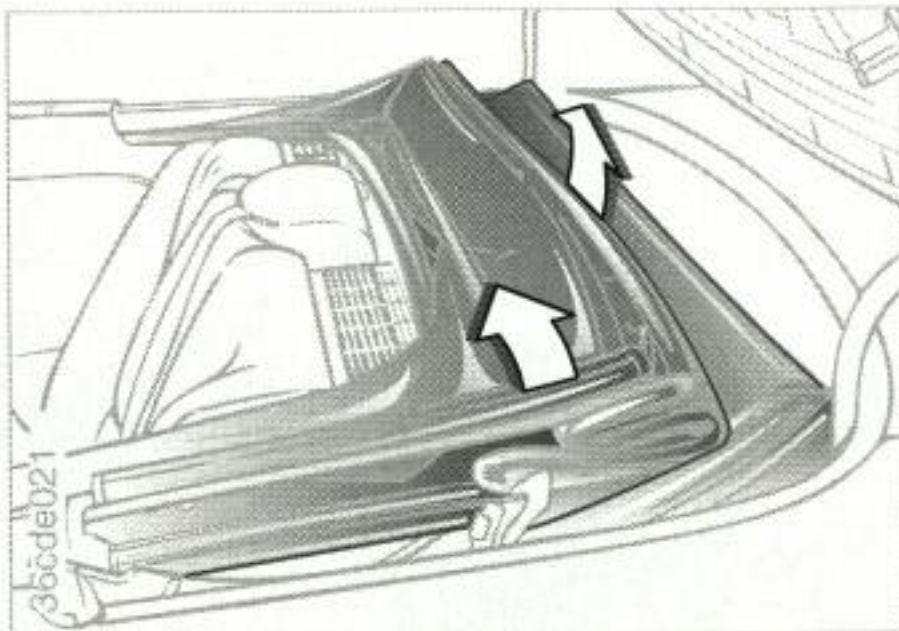


Manual closure if an electrical fault develops



It is best to open the driver's door, fold the driver's seat forwards and perform the work from outside the car. There should be nobody sitting on the rear seat. ◀

- 1 Raise the rear seat at the left. Pull out the loop until resistance is encountered. Give the loop a further firm pull to uncouple the drives for the soft top and its compartment cover (two audible clicks).



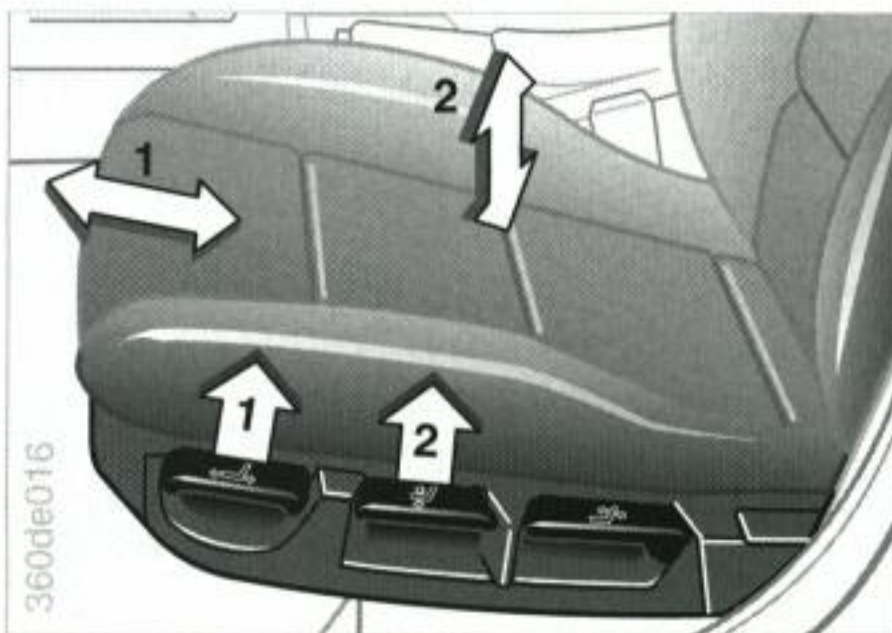
- 2 With the luggage compartment lid closed, open the soft-top compartment cover fully.
- 3 Take hold of the soft top at the lateral guide and the front frame, and lift it out (arrows). Move the rear soft-top hoop to a vertical position and close the soft-top compartment cover. Fold down the rear soft-top cover.

- 4 Lever out the cover in the centre of the front soft-top frame by inserting a screwdriver blade into the cutout.
- 5 Insert the double-cranked allen key from the car's toolkit into the internal hexagon (arrow).
- 6 Turn to the left to continue the closing movement; keep turning until the front soft-top frame is locked to the windscreen surround. The rear soft-top frame is automatically pressed down on to the soft-top compartment cover and makes a tight seal when tension builds up.

Take the car to BMW Service to have the defect traced and rectified and the drives reconnected.



If an electrical fault occurs, never open the soft top by hand. The soft-top compartment cover cannot then be locked and could fly open when the car is moving. ◀



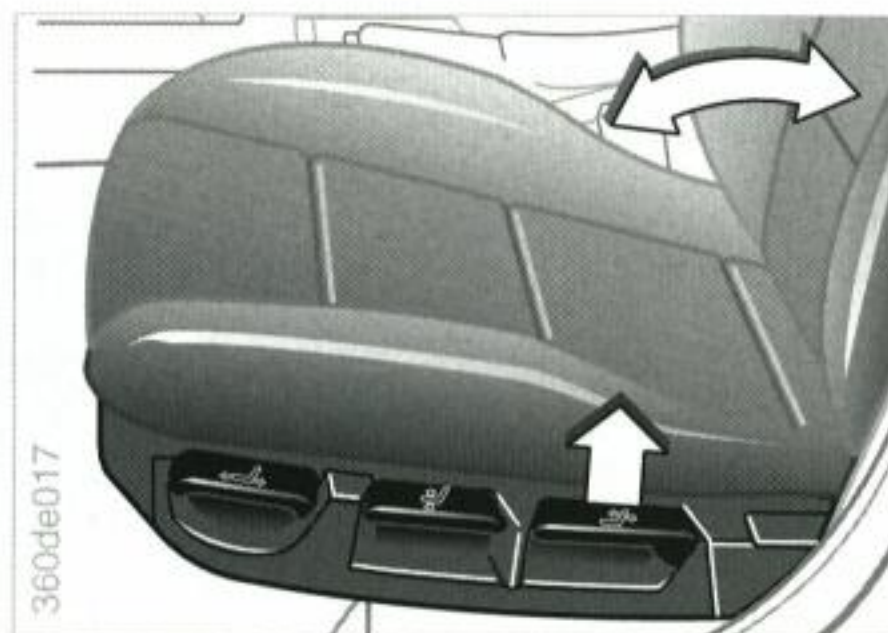
Forward/back movement

Pull up lever 1 and push the seat to the desired position.

After releasing the lever, make sure that the seat engages in its catches.

Seat height adjustment

Pull up lever 2 and apply weight to seat or allow it to come up as required.



Seat back adjustment

Pull up lever and apply weight against the seat back or allow it to come forward.



To relieve the load on the vertebral discs, the occupant of the seat should sit well back so that his or her back is in full contact with the seat back.

The ideal position is when the head is a straight-line extension of the spinal column.

During long journeys, the seat back can be inclined to a slightly greater angle, to reduce muscular strain. You should still be able to reach the highest point on the steering wheel with the arms slightly bent. ◀



Front head restraints

To alter the height, pull up or push down as required.

Pivot forward or back to adjust the angle.

Removing and installing front head restraints

Pull the headrest fully up.

Pull the head restraint sharply to remove it from the two mounts on the seat back.

Rear head restraints

To alter the height, pull up or push down as required.

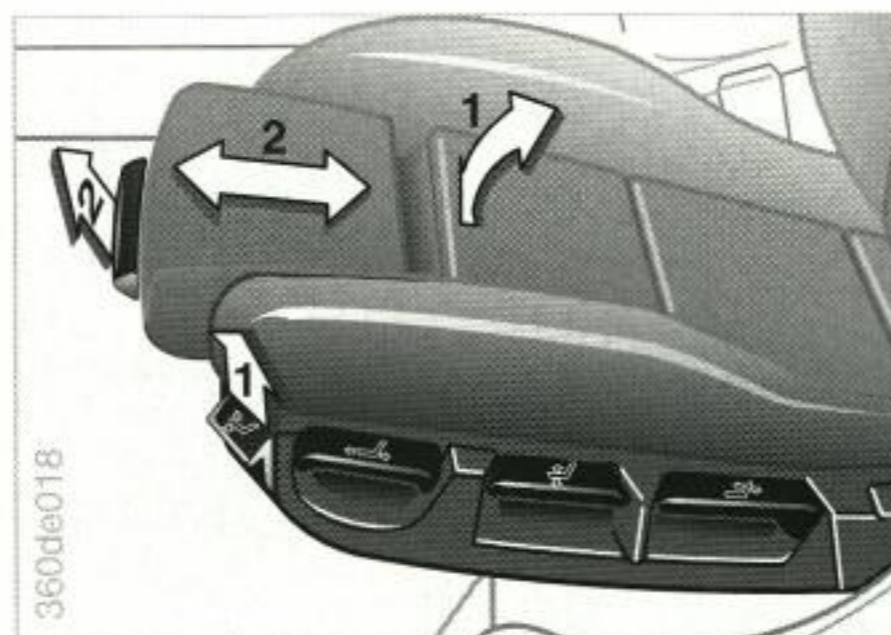


Head restraints help to reduce neck and spinal injuries in the event of an accident. The centre of the head restraint should therefore be positioned approximately at ear level.

Do not reposition the driver's seat while the car is in motion. A sudden seat movement could cause you to lose control of the car and result in an accident. When the car is being driven, the front passenger should not move his or her seat to a fully-reclined position.

During the journey, neither the driver nor the front passenger should recline the seat back to too great an angle.

There is otherwise a risk in the event of an accident of sliding under the seat belt "submarining" so that the belt cannot exert its full protective effect (see also safety instructions concerning "Seat belts", page 52). ◀



BMW Sport seat*

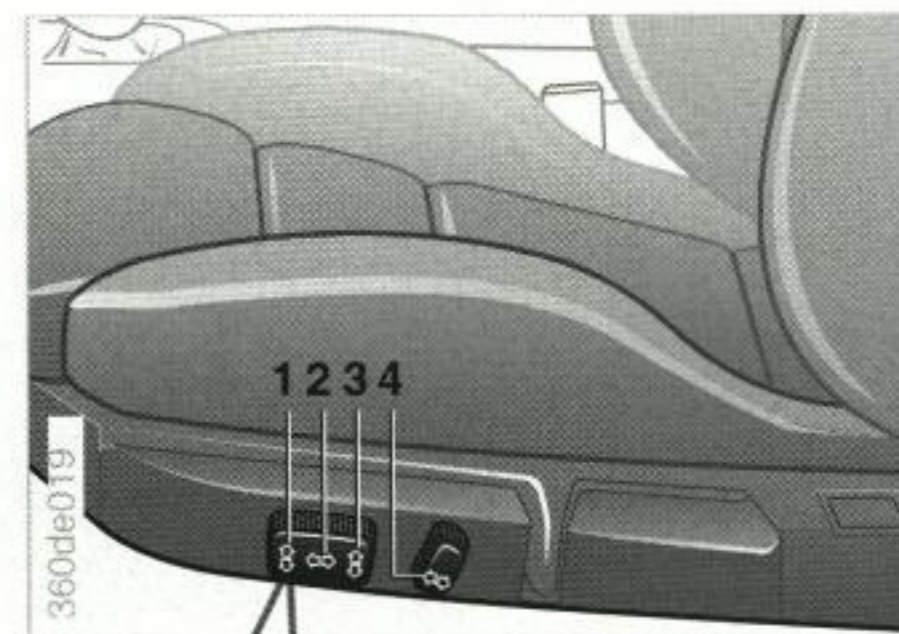
Additional adjustment facilities for seat base angle and thigh support.

Seat base angle adjustment

Pull up lever 1 and move the seat as required.

Thigh support adjustment

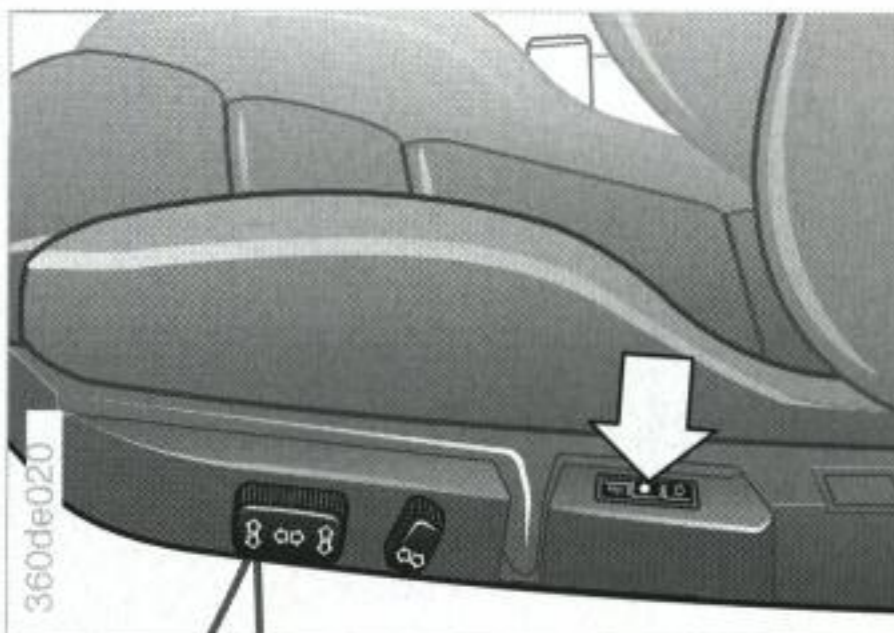
Pull up lever 2 and slide the front section of the seat cushion to the preferred position.



Electric seat adjustment*

- 1 Seat base angle adjustment
- 2 Forward/back movement
- 3 Seat height adjustment
- 4 Seat back adjustment

The head restraint is adjusted manually, as is the thigh support on the BMW Sport seat.

**Lumbar support***

Use the rocker switch to vary the curvature as desired.

The contour of the seat back can be varied to match the natural curvature of the occupant's spine.

The upper edge of the pelvis and the spinal column are supported, to encourage an upright but relaxed seated position.

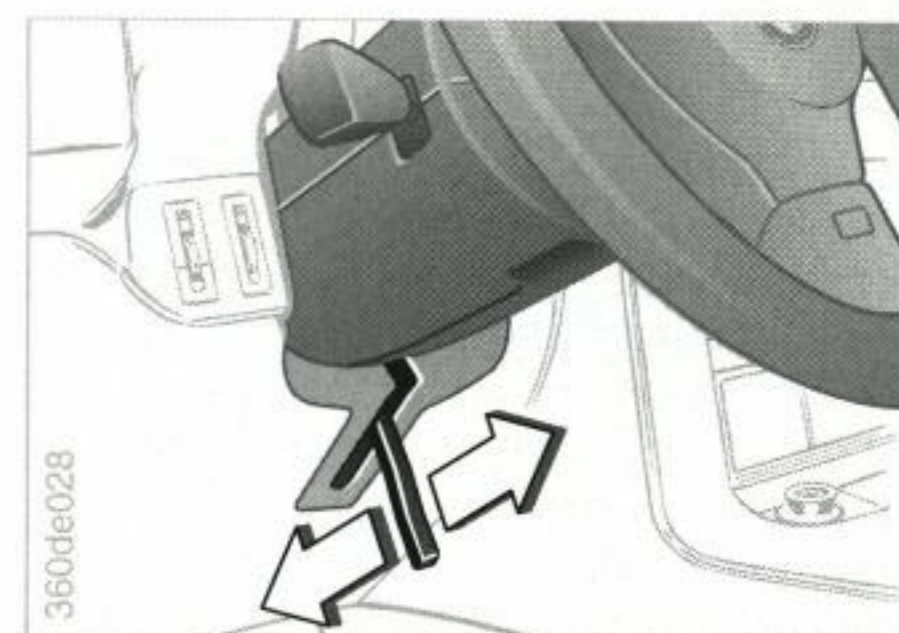
**Seat back release***

Pull the lever up: the seat back can then be folded forwards.

The outer levers also locate the seat belt when not in use (not on BMW Convertible).



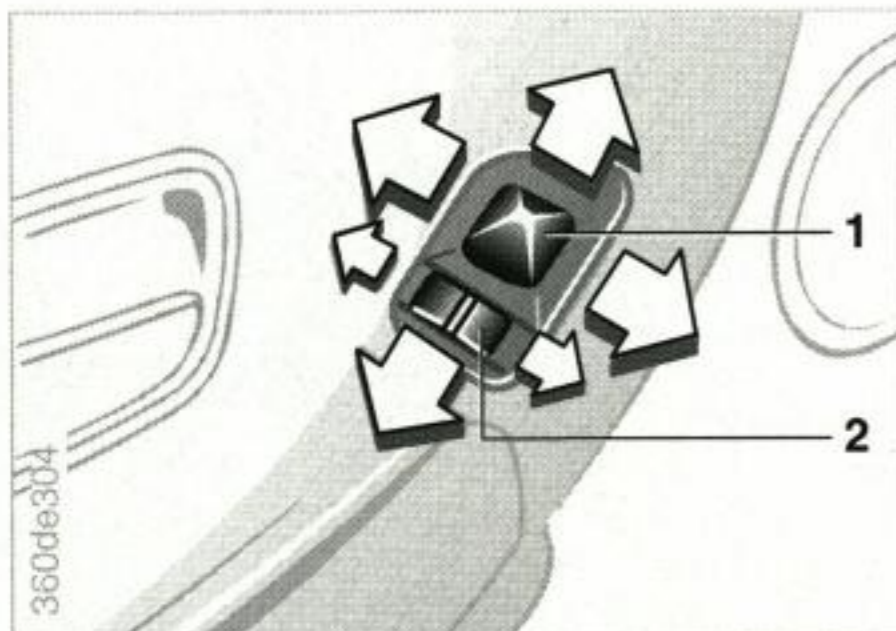
The front seat backs must always be locked when the car is being driven. ◀

Steering wheel adjustment*

- ▷ Fold out the clamp lever.
- ▷ Alter the steering wheel angle to suit the seat position.
- ▷ Fold the lever back in to clamp the steering column in the new position.



Do not alter steering wheel angle while the car is being driven – risk of accident. ◀



Outside mirrors

- 1 Switch for adjustment in all four directions.
- 2 Switch for changeover to other outside mirror:
 - ▷ changeover switch to left – driver's mirror.
 - ▷ changeover switch to right – mirror on passenger's side (LHD car).

The mirrors can also be adjusted manually by pressing the edge of the glass.

The spherical outer section of the mirror supplies a larger field of view than the inner convex section, but one that is slightly distorted.

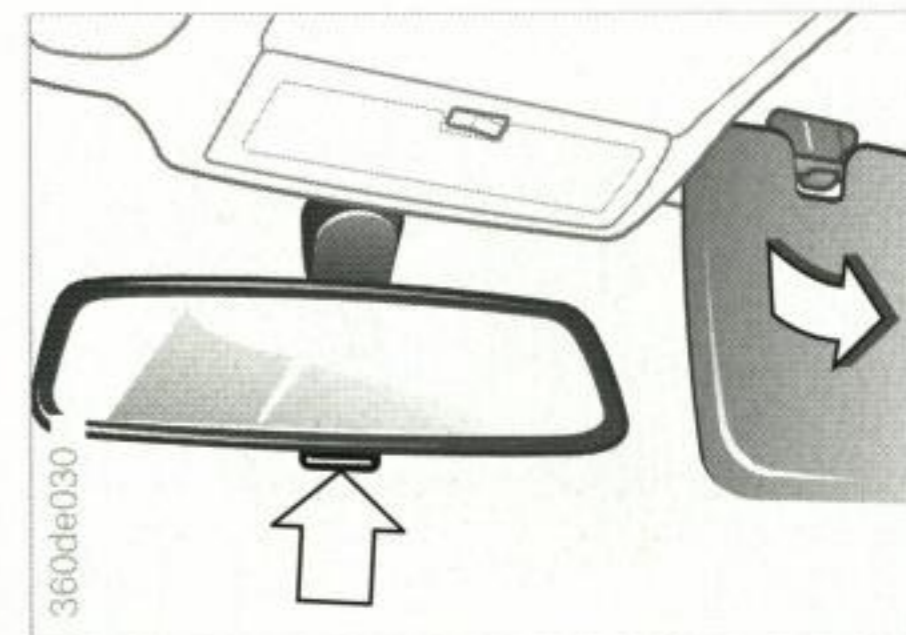
It extends the driver's rearward field of view and eliminates the blind spot.



The passenger's-side mirror is more strongly convex than the driver's-side mirror, and therefore reflected objects are closer than they appear. It can be difficult to estimate the precise distance at which another vehicle is following your car. This also applies to the aspherical outer section of the mirror. ◀

Electric mirror heating

Both mirrors are heated automatically in ignition key position 2, depending on outside temperature.



Inside mirror

To reduce glare from the headlights of following vehicles after dark, move the small lever to tilt the mirror.

Make-up mirrors

Swing the sun visor down and slide the mirror cover to one side.

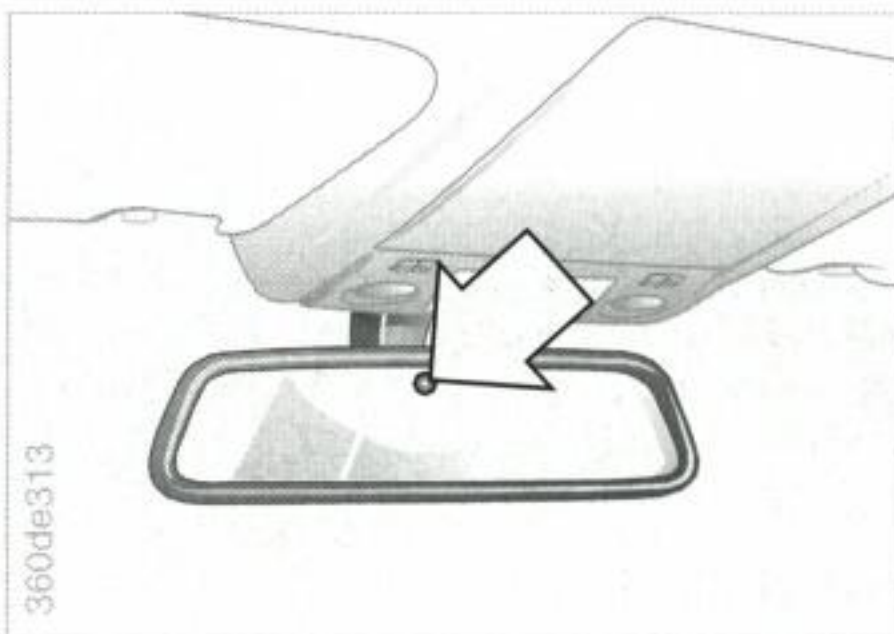
The mirrors are illuminated from ignition key position 1 on.

Sun visors

The sun visors can also be pivoted to the side, against the door windows.

Rear-window roller blind*

Pull the roller blind out by means of the loop, and attach it to the holders.



Automatic-dip (anti-glare) interior mirror* (electrochromic)

This mirror dims automatically and steplessly in accordance with the intensity of the light received (ambient light and the effect of glare from headlights).

The mirror switches automatically to the clear, non-dimmed position when the driver engages reverse gear or selects R.

To ensure that the mirror always functions correctly, keep the two photo-cells clean and unobstructed. One photo-cell (arrow) is in the mirror glass, the other is slightly offset on the back of the mirror.

For details of the mirror's electrochromic operating principle, see page 196.

Seat belts



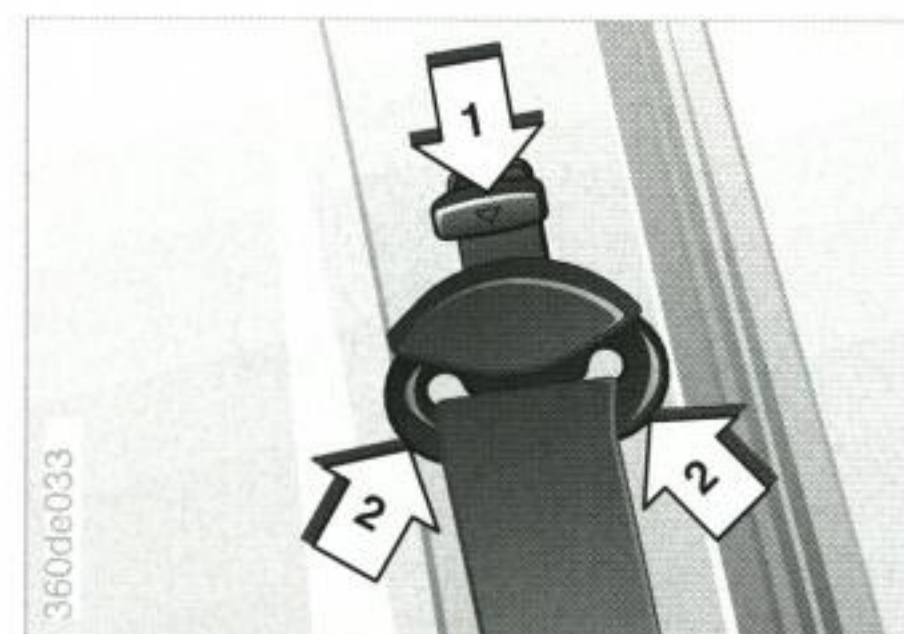
Wear the seat belts whenever the car is driven.

To fasten: the seat belt buckle must be heard to engage.

To open: press the red button on the buckle and feed the belt back towards the automatic reel to ensure that it retracts correctly.

The seat belt reel will lock:

- ▷ if pulled out rapidly
- ▷ if the car is braked or accelerated abruptly
- ▷ if the car is cornered sharply
- ▷ if the car is tilted at a considerable angle.



The seat belt height adjusters enable the belt run to be matched to the wearer's stature:

To move down (1):

Press the catch downwards.

To move up (2):

Hold the upper belt loop at the ribbed side areas and slide it up.



For your own safety, please note the following precautions when using the seat belts, in order to ensure their full protective function. Make sure that passengers also observe these precautions.

Never restrain more than one person with each seat belt. Babies or small children must not travel on the lap of another occupant.

The belts should not be twisted and must run firmly across the pelvis and shoulder. They should not pass over hard or fragile objects in your pockets. The seat belt must not pass across the neck, become trapped at any point or chafe against any sharp edges.

The seat belt should run as close to the wearer's body as possible, so that bulky clothing should not be worn if possible, and the shoulder section of the belt should be pulled tight at frequent intervals. In the event of a head-on collision, the lap belt could otherwise slide over the hips and injure the lower part of the body. Furthermore, excessive belt slack delays the restraining action.

Pregnant women should also wear the seat belt, making sure that the lap strap is well down on the hips and does not press on the abdominal region of the body.

Do not modify the belt system in any way. ◀

For care of seat belts, see page 165.

Child restraint systems*

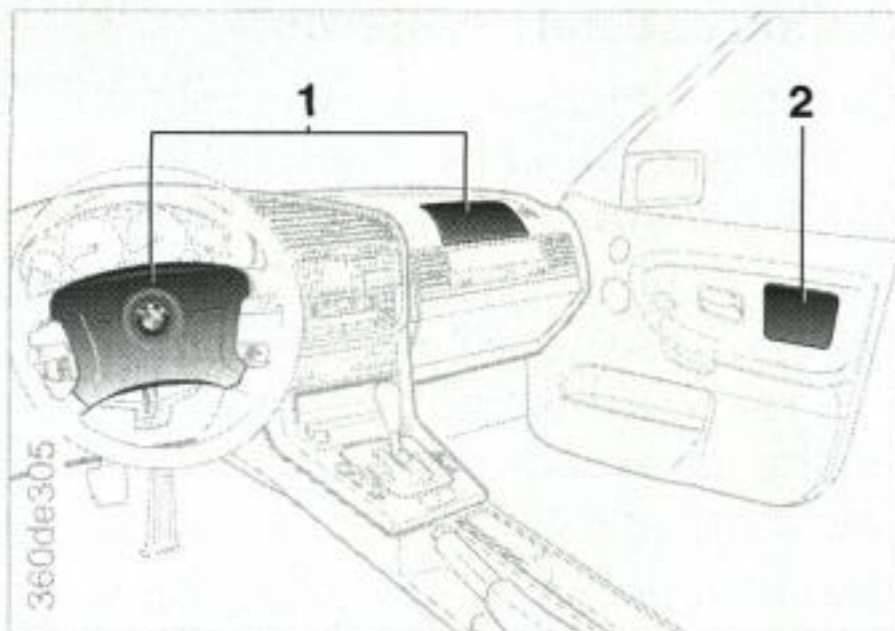
Suitable, officially approved restraint systems must be provided for the use of children up to 12 years old and less than 150 cm (4 ft 11 in) in height.

Babies up to 18 months old can travel in a rearward-facing restraint system on the car's back seat, secured by the standard seat belts.

BMW Service can supply suitable child restraint systems for every age group.



Child restraint systems are not to be installed on the front passenger's seat. ◀

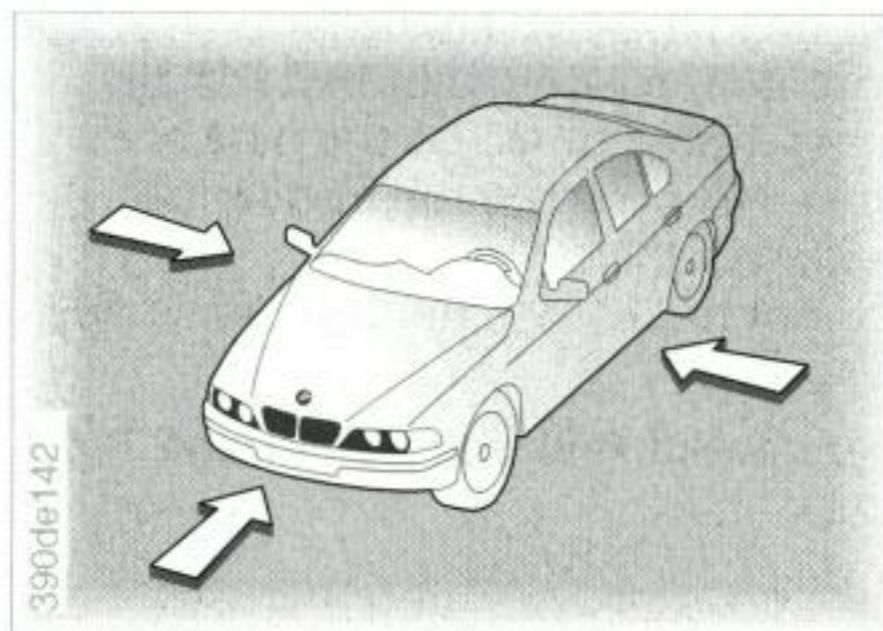


1 Front airbags, comprising driver's and front passenger's airbags

2 Side airbags*

Protective effect

The front airbags protect the occupants of the front seats in the event of a head-on collision, where the restraining effect of the seat belts alone would no longer be adequate. The side airbags provide protection in the event of a side-on collision.



The picture shows the directions of impact to which the airbags respond in the event of a collision. Side protection is only available if the car is equipped with side airbags.

Telltale light on instrument panel



The telltale light indicates that the system is in working order from ignition key position 1 onwards.

System operational:

- ▷ The telltale light comes on briefly and then goes out.

System defective:

- ▷ The telltale light does not come on.
- ▷ The telltale light comes on for about 4 seconds, goes out briefly and then comes on again.

If there is a system fault, there is a risk that it will not be triggered off even if a sufficiently severe accident occurs within the airbag range.

Have the system checked without delay by BMW Service.



For your own safety, please note the following precautions concerning airbags, in order to ensure that their full protective function is not lost. Make sure that other persons travelling with you also observe these points:

Always wear your seat belt on every journey. The airbags are additional safety devices, and must not be regarded as an alternative to wearing the seat belt. They are not inflated in less severe collisions, roll-over accidents or rear-end collisions, in which event protection is afforded by the seat belts only.

Your seated position should be as far as convenient from the steering wheel, fascia and door.

Always hold the steering wheel by its rim, or else injuries could be caused to the hands and arms if the airbag inflates.

No objects should be held or allowed to rest between the airbag and the seat occupant's body.

The cover of the front passenger's airbag should not be used as a storage tray.

The padded covers in the centre of the steering wheel, on the fascia and in the side panels of the front doors must never be covered with adhesive or any other material, or otherwise modified in any way.

Never install child restraint systems on the front passenger's seat. Children under 12 years of age must only travel on the rear seats. ◀

Even if all these instructions are complied with, injury to the face, arms or hands as a result of the airbag inflating cannot be entirely ruled out, depending on the circumstances in which an accident occurs. If the car's occupants are unduly sensitive to the ignition and inflation noise generated by the airbag systems, their hearing may be temporarily affected.

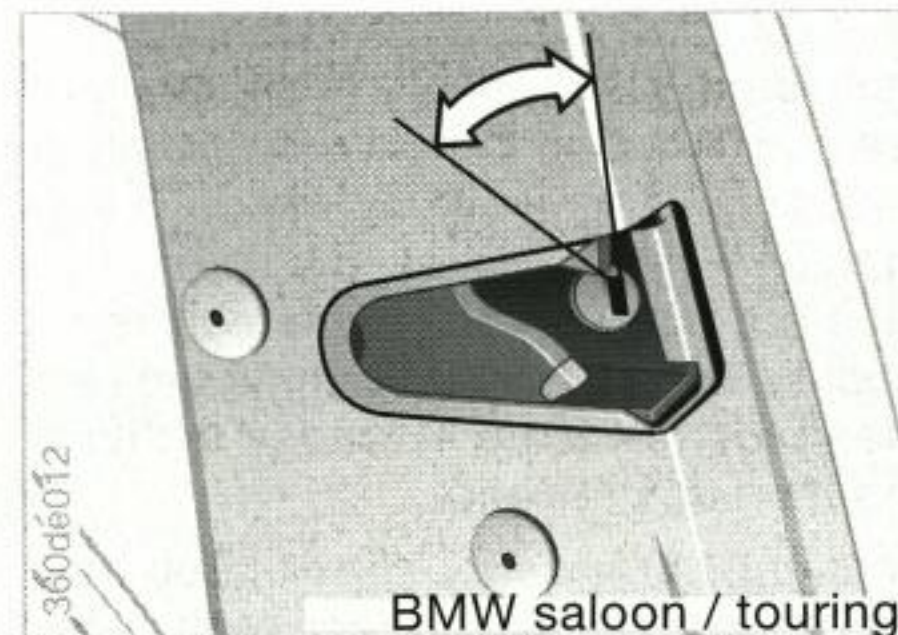
Airbag safety instructions

The airbag restraint system's gas generator must not be removed from the car. Any testing and assembly work on it may only be carried out by specially trained personnel. In the event of malfunctions of the airbag system, if the car is laid up out of use or if the airbag system was triggered off in an accident, BMW Service must be entrusted with the necessary repair or removal work.

No modifications to individual components or to the wiring should be attempted. This includes the padded steering wheel cover, the fascia or the front door trims. These must not be covered with adhesive or any other material or modified in any way. The steering wheel itself must not be taken off.

In order to comply with valid safety regulations, the airbag generator must only be scrapped by BMW Service.

Any careless or unskilled interference with the system could lead to its failure or to accidental triggering off with the risk of injury.



Insert the key into the slot on the rear door and turn it outwards:
This door can now only be opened from the outside.

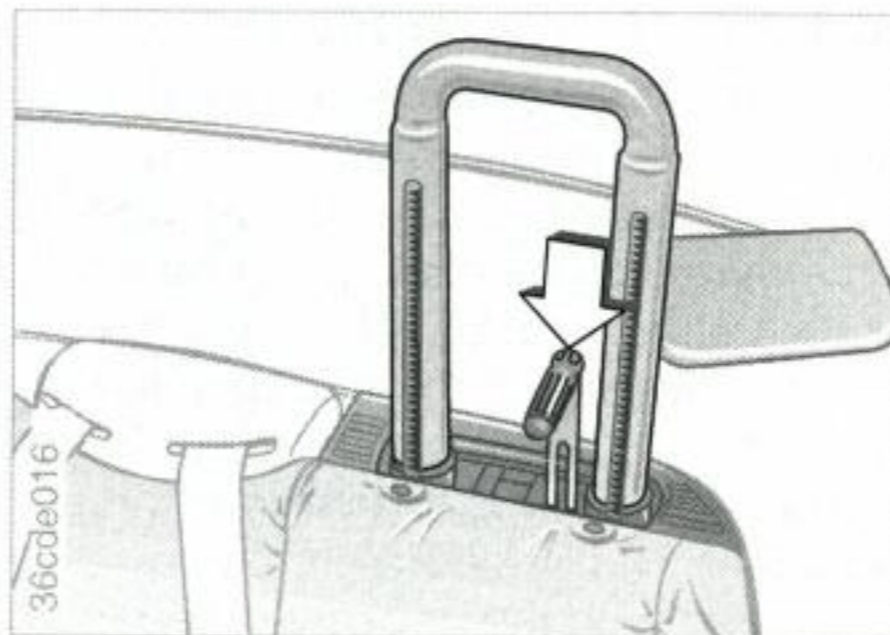
56 Roll-over protection system* – Convertible

The roll-over protection system is activated automatically in the event of an accident or a critical road situation (extreme tilt angle along the car's longitudinal or transverse axis, loss of contact with the road surface). Protective hoops situated behind the rear head restraints are extended within a fraction of a second.

In combination with the roll hoop integrated into the windscreen frame, this roll-over protection system ensures that all occupants, particularly rear-seat passengers, retain the necessary headroom.

▶ If the hardtop* is fitted, you are recommended to fit "soft" protective caps to avoid damaging the rear window if the protection system is extended. Consult BMW Service if necessary. ◀

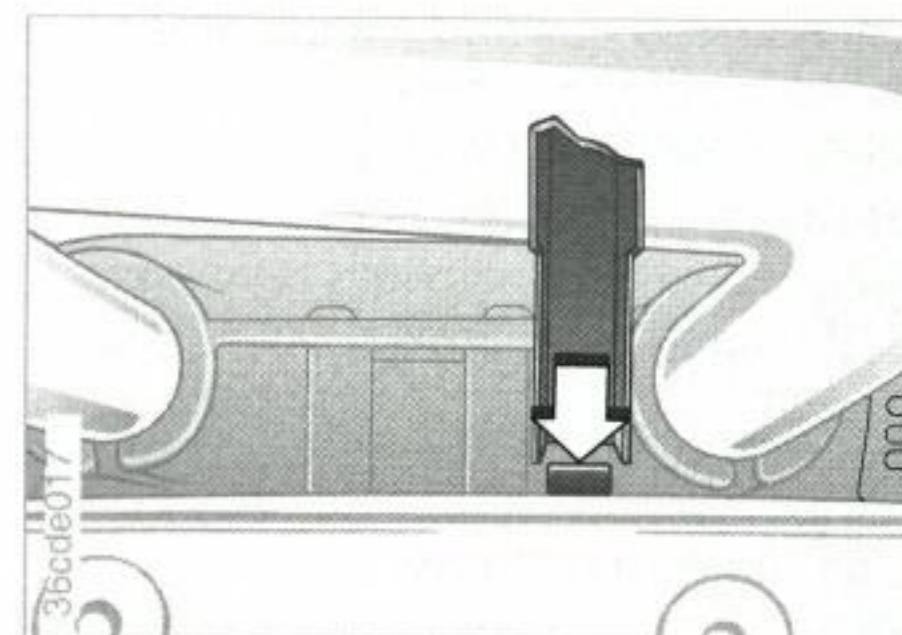
⚠ Make sure that the space which the roll-over protection system needs to extend correctly is not obstructed. In minor accidents the occupants are only protected by the fastened seat belt including belt catch tensioner and, depending on the severity of the accident, by the airbag restraint system. ◀



It is possible to retract the automatic roll-over protection system if it has extended unexpectedly.

Assemble the screwdriver handle and the special tool (stored on top of the socket wrench) from the car's toolkit.

- ▶ Pull the head restraint up and remove it.
- ▶ Remove the protective cap from the roll hoop.



- ▶ Insert the special tool as far as possible into the guide of the ratchet mechanism (handle resting against seat back) and hold it firmly.
- ▶ Press the roll hoop down gently until the special tool becomes loose.
- ▶ Remove the special tool and press the roll hoop fully down until it is heard to engage.
- ▶ Replace the protective cap on the roll hoop and push it securely into place.
- ▶ Insert the head restraint again.

Follow the same procedure for the second protective hoop.

Have the roll-over protection system checked by BMW Service.



If the soft top is open when the roll-over protection system operates, it cannot then be closed. ◀

Safety instructions

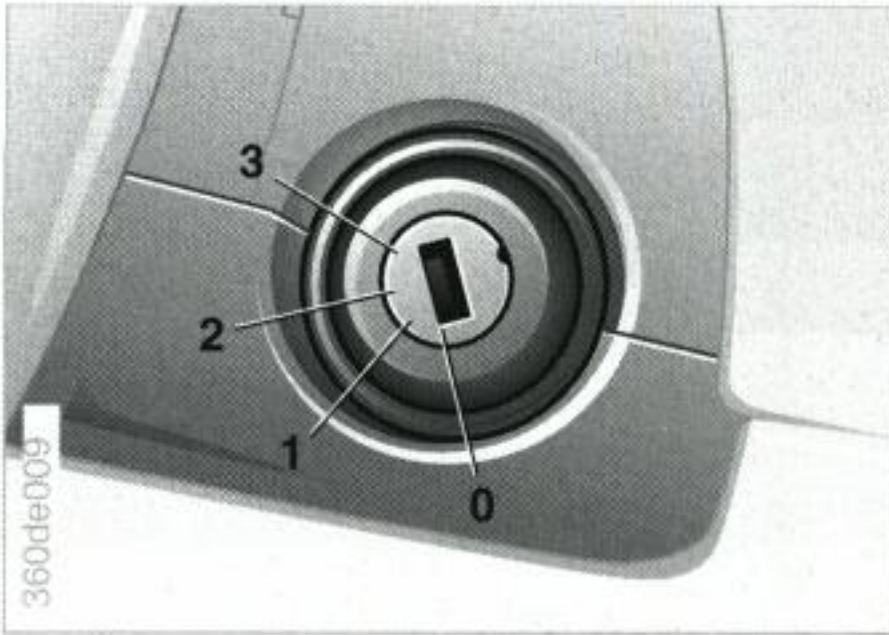
No modifications are to be made to individual components of the roll-over protection system or its wiring.

All work on the roll-over protection system must be carried out by BMW Service.

If work is not undertaken correctly, faults may occur or the system may be triggered off accidentally.

It is essential for the maintenance intervals stipulated by the Service Interval indicator to be observed. The roll-over system must be checked by BMW Service at least every 2 years.

58 Ignition switch



0 Steering locked

The key can only be inserted or removed in this position.

After removing the key, turn the steering wheel slightly if necessary until the steering lock engages.

Automatic-transmission cars:

Do not move the selector lever away from position P until the engine is running (ignition key position 2).

To turn the key back to position 0 or remove it, first move the selector lever to P.

1 Steering unlocked

Turn the key from 0 to 1 (move the steering wheel slightly if necessary)

2 Ignition switched on/ BMW 318tds, 325td/tds: pre-heat position

All electrical consumers are ready to operate.

3 Starter motor runs

Starting the engine

Before starting

- ▷ Apply the handbrake.
- ▷ The manual-shift gear lever should be in neutral; the automatic transmission selector lever should be in P or N.
- ▷ At very low outside temperatures, keep the clutch pedal pressed down.

Cars with spark-ignition engine

- ▷ Start the engine without pressing the accelerator pedal down.
- ▷ Run the starter if necessary for a fairly long period, but not exceeding about 20 seconds. As soon as the engine fires, release the ignition key. Do not allow the engine to warm up at a standstill, but drive off as soon as possible, using moderate engine speeds. ◀

If the engine does not start first time, for instance if it is very cold or very hot:

- ▷ Observe a slight pause before operating the starter motor again, to prevent the spark plugs from becoming wet with excess fuel.
- ▷ Depress the accelerator pedal halfway while starting the engine.

Starting the engine

Starting a cold engine at very low temperatures (below about -15°C) at high altitudes (over 1000 metres above sea level):

- ▷ Run the starter for slightly longer if necessary during the first attempt to start (for about 10 seconds).
- ▷ Depress the accelerator pedal half-way while starting the engine.

If you use the car for lengthy periods at high altitudes and very low temperatures, change to an engine oil of viscosity 5W-X (see page 156). Consult BMW Service if necessary.

Cars with diesel engine

When the engine is cold:

- ▷ Hold the ignition key in position 2 until the orange "Pre-heat time" telltale light goes out.
- ▷ Start the engine.
At extremely low temperatures, it may be necessary to operate the starter motor for up to 40 seconds.

When the engine is warm:

- ▷ The orange "Pre-heat time" telltale light does not come on: the engine can be started immediately.

Movement of the accelerator pedal has no influence on the starting process.

Do not allow the engine to warm up at a standstill, but drive off as soon as possible, using moderate engine speeds.

Bleeding the diesel fuel system:

Even if the fuel tank has been run dry, the fuel system does not normally need to be bled.

If starting problems none the less occur:

- ▷ Operate the starter motor for approx. 20 seconds.



Never run the engine in an enclosed space. The exhaust gas contains carbon monoxide, which is colourless and odourless, but highly toxic. Inhaling exhaust gas constitutes a severe health risk and can lead to loss of consciousness with fatal consequences.

Do not leave the car unattended with the engine running, as it then constitutes a considerable potential hazard. ◀

Stopping the engine

59

Turn the ignition key back to position 1 or 0.



Never take the ignition key out when the car is still in motion. This would cause the steering lock to engage as soon as the steering wheel was turned.

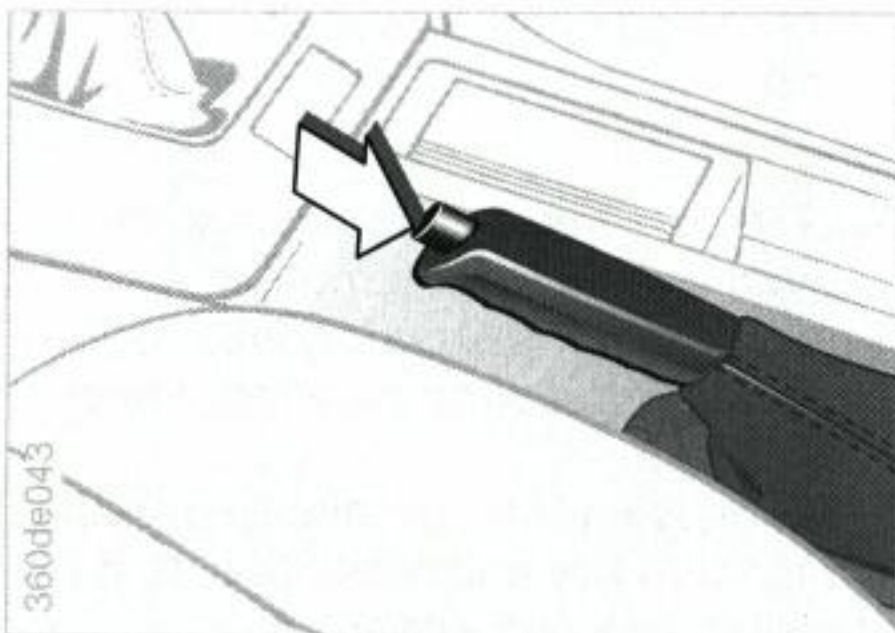
When leaving the car, always remove the ignition key and make sure that the steering lock has engaged.

Manual-gearbox cars:

When parking on a slope, apply the handbrake, because merely engaging first or reverse gear may not prevent the car reliably from rolling away.

Automatic-transmission cars:

Select position P. ◀

**Applying**

The lever has a ratchet which engages automatically; telltale light "P" on the instrument panel comes on in ignition key position 2, see page 19.

Releasing

Pull the lever up slightly, press the knob in and lower the lever.

The handbrake is primarily intended for preventing a stationary vehicle from rolling away, and acts on the rear wheels.



If it has to be used in an emergency when the car is being driven, do not apply it too hard. Keep the knob on the lever held in all the time.

Too violent an application of the handbrake could over-brake the rear wheels and cause the rear of the car to skid.

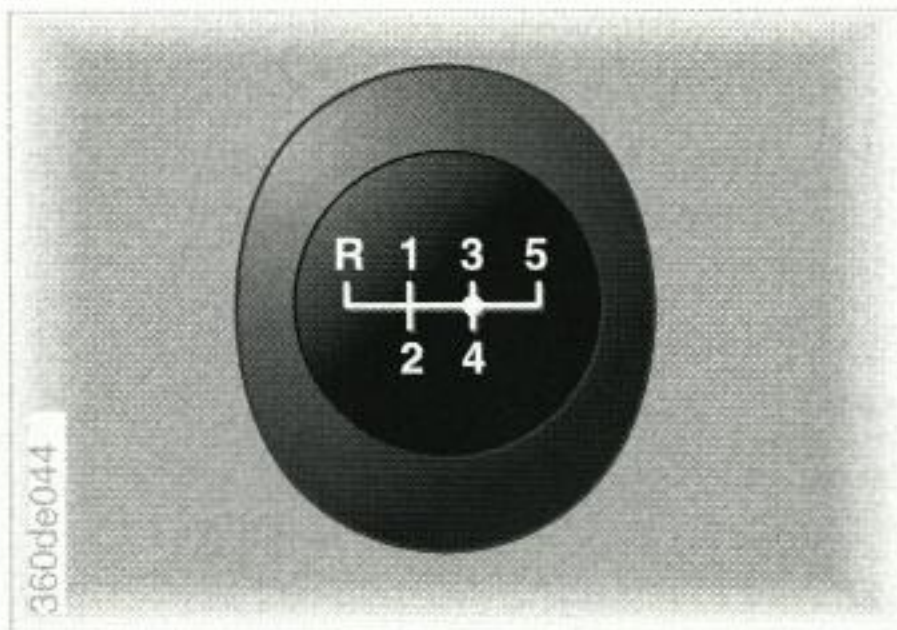
The brake lights do not come on when the handbrake is applied.

Manual-gearbox cars:

when parking on a slope, apply the handbrake, because merely engaging first or reverse gear may not prevent the car reliably from rolling away.

Automatic-transmission cars: select position P. ◀

To avoid corrosion, apply the handbrake lightly from time to time when coasting to a standstill, for instance at a traffic signal, provided that it is safe to do so.



The normal rest position for the gear lever (marked by a dot) is in the 3rd/4th gear plane of the gate.

When the lever is moved from any gear to neutral, it returns automatically under spring loading to this plane of the lever gate.

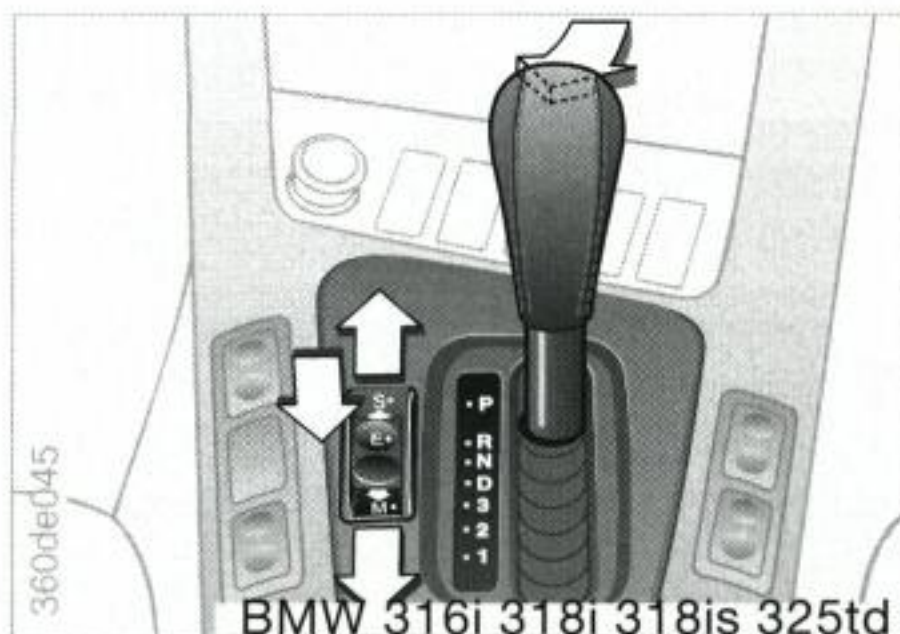
Reverse

Engage this gear only when the car is standing still. Press the gear lever to the left until slight resistance is overcome.

The reversing lights then come on automatically in ignition key position 2.



Never prevent the vehicle from running back on a hill by slipping the clutch, but always apply the hand-brake. A clutch that is allowed to slip will wear rapidly. ◀

**Selector lever positions**

BMW 316i, 318i, 318is, 325td

P R N D 3 2 1

BMW 320i, 323i, 328i, 325tds

P R N D 4 3 2

There are also three driving programs, selected at the program switch:

E (Economy) Press the switch

S (Sport)

M (Manual) Slide the switch in the
or desired direction.
Winter

The programs are explained on the next page.

**Moving the selector lever**

A locking mechanism is provided to prevent accidental movement of the selector lever to certain positions. To release the lock, press the button on the front of the selector lever knob (arrow).

The engine can only be started in positions P or N.



The selector lever cannot be moved out of the P or N position when the car is stopped unless you depress the brake pedal.

This interlock also takes effect above an engine speed of 2500/min.

It is also necessary to depress the brake pedal before selecting a drive position, since the car will otherwise

tend to "creep" even at idle speed when the gear is engaged. ◀

However, the car can still be rocked free, for example in deep snow or sand, by moving the selector lever rapidly between D and R.



Before leaving the car with its engine running, move the selector lever to P or N and apply the handbrake to avoid any risk of the car beginning to move. Do not leave the car unattended with the engine running, as it then constitutes a considerable potential hazard.

If you select N accidentally at a fairly high engine speed, release the accelerator immediately. Wait for engine speed to drop to an idle before selecting the correct gear, or else the transmission could be damaged. ◀

P - Park

Engage this gear only when the car is standing still. The driven wheels are locked.

R - Reverse

Engage this gear only when the car is standing still.

N - Neutral

Select only if the journey is interrupted for a fairly long time. When the car is being driven at speed, only select neutral if a skid occurs.

D - Drive (forward travel with automatic transmission)

Use this position for all normal driving. All 4 (or 5) forward gears are engaged automatically as required.

3 - Direct

(BMW 316i, 318i, 318is, 325td)

4 - Direct

(BMW 320i, 323i, 328i, 325tds)

Select when the D position causes frequent shifts up and down between 4th and 3rd gears (BMW 316i, 318i, 318is, 325td) or 5th and 4th gears (BMW 320i, 323i, 328i, 325tds).

4th (5th) gear is then no longer selected.

2 and 1 – for hill-climbing and braking

(BMW 316i, 318i, 318is, 325td)

3 and 2 – for hill-climbing and braking

(BMW 320i, 323i, 328i, 325tds)

Select when you wish to avoid the selection of too high a gear, for example on steep uphill or downhill gradients in hilly regions. This enhances the engine braking effect and prevents upshifts beyond the selected position.

On the BMW 316i, 318i, 318is and 325td, these positions are not to be selected above a road speed of 170 km/h (106 mile/h).

On the BMW 320i, 323i, 328i and 325tds, these positions can be selected at any road speed. However, the transmission will not shift down until a suitable lower speed has been reached. In position 2, 1st gear is selected automatically. These transmission settings are particularly suitable for towing a trailer.

"Kick-down"

In the "kick-down" position of the accelerator pedal you can obtain maximum acceleration and the highest available speed in position D, if you depress the accelerator fully, beyond the usual full-throttle position. A detent has to be overcome.

Transmission shift programs

E - Economy

To minimize fuel consumption. Selected automatically whenever the engine is started.

S - Sport

For enthusiastic driving. Upshifts take place later and the car's full performance reserves are utilised.

M - Manual

(BMW 316i, 318i, 318is, 325td)

For unusual driving conditions in which it is desirable to remain in a specific gear. The car moves away in this gear and does not shift down when the driver accelerates. In position D, only 4th gear is used in this program.

It is sensible, for instance on gradients or when towing a trailer, to drive in selector lever position 1 or 2 (or 3 in winter when road surfaces are slippery), to ensure smooth movement away from a standstill and avoid unnecessary transmission shifts.

* - Winter program

(BMW 320i, 323i, 328i, 325tds)

For use in winter driving conditions. In position D, gears 2 to 5 are selected

in a way that permits better progress in winter driving conditions.

In positions 4, 3 and 2 the selected gear is retained. In other words, it is used for moving away as well, and no downshifts take place when the driver accelerates.

It is sensible, for instance on gradients or when towing a trailer, to drive in selector lever position 2 (or 4 in winter when road surfaces are slippery), to ensure smooth movement away from a standstill and avoid unnecessary transmission shifts.

Shift electronics warning light



Goes out after the engine has started.

- ▷ If the light does not go out, or
- ▷ if it comes on again during the journey, there is a malfunction in the shift electronics or in the transmission.

All selector lever positions remain available, but in positions D, 3, 2 and 1 or D, 4, 3 and 2 the car remains in the following gears:

BMW 316i, 318i, 318is, 325td: In position D and 3 in 4th gear, in position 2 and 1 in 3rd gear.

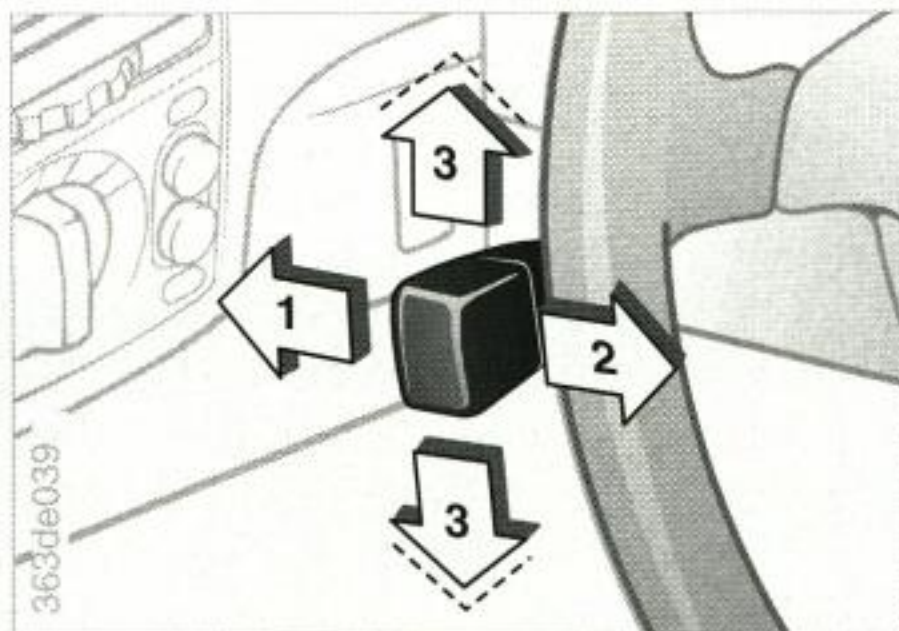
BMW 320i, 323i, 328i, 325tds: In forward-gear positions, the car will have at least 4th gear available.

Avoid excessive loads and take the car to the nearest BMW Service.



Never work in the engine compartment with an automatic transmission drive position selected, but always move the lever to P or N and apply the handbrake. Never leave children unattended inside the car. Do not leave the car unattended with the engine running, as it then constitutes a considerable potential hazard. ◀

For tow-starting, towing away and jump starting if the battery is flat, see pages 188 and 189.



- 1 High-beam headlights (blue telltale light)
- 2 Headlight flasher
- 3 Turn indicator repeater (green telltale light, flasher relay ticks rhythmically).

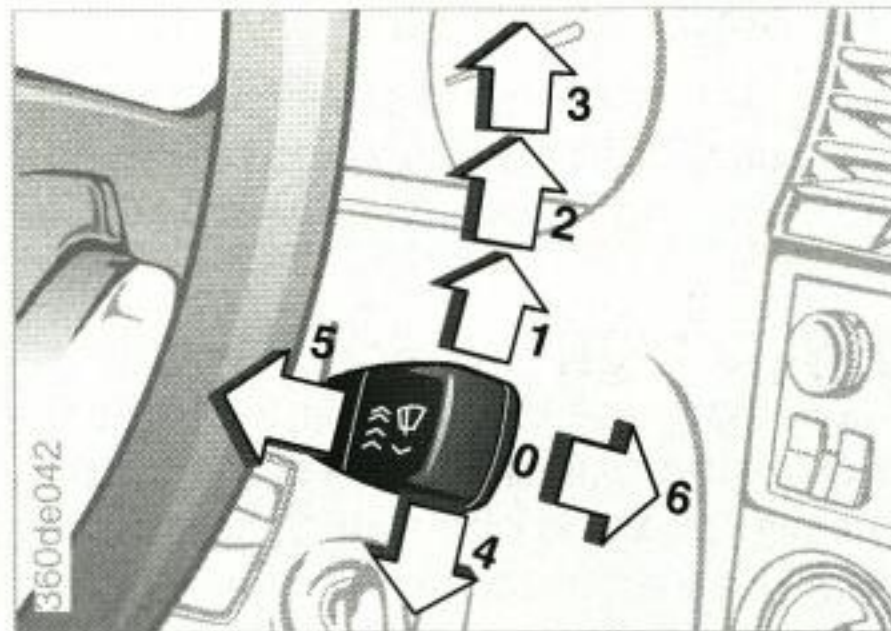
If the repeater flashes and the relay ticks more rapidly than usual, one of the flashing turn indicators has failed.

To indicate a turn briefly

Move the lever lightly, only as far as the first detent.

Right or left parking lights

When the steering is locked, move the lever beyond the normal turn indicating position.



- 0 Parked position of wipers
- 1 Intermittent-wipe setting
- 2 Normal wiper speed
- 3 Fast wiper speed
- 4 Flick wipe
- 5 Automatic windscreen wash

BMW touring: rear window wiper

- 6 Intermittent wipe/
automatic windscreen wash

1 Intermittent-wipe setting

The wipe interval is controlled automatically according to the car's road speed.

If the car is equipped with a headlight cleaning system* you can also influence the intermittent-wipe interval.

- ▷ Move the lever briefly from 0 to 1 and back to 0.
- ▷ The time which elapses before switching on again (from 0 to 1) is the desired wipe interval (up to 25 seconds).

The programmed wipe interval is cancelled:

- ▷ app. 10 seconds after the lever has been moved to position 0, or
- ▷ when the engine is switched off.

2 Normal wiper speed

The wipers switch automatically to intermittent wipe as the car comes to a halt.

5 Automatic windscreen wash/wipe

Fluid from the washer tank is sprayed on to the windscreen and the wipers are operated for a short time.

(Exception: when the lever is pulled briefly, washer fluid is sprayed on to the windscreen without the wipers being operated.)

**6 Intermittent wipe
Automatic wash**

Press the lever briefly:

This switches the intermittent-action rear-window wiper on and off.

Press the lever and hold it down:

Washer fluid is sprayed on to the rear window and the wiper switched on.

When the lever is released, spraying stops but the wiper continues to operate for several seconds.

At the end of the wash cycle the wiper reverts to "Off" or "Intermittent" as previously selected.

Changing the wiper blades: see page 172.

Headlight cleaning*

When the car's lights are switched on, the headlights are also cleaned each fifth time the windscreen washer (5) is operated.

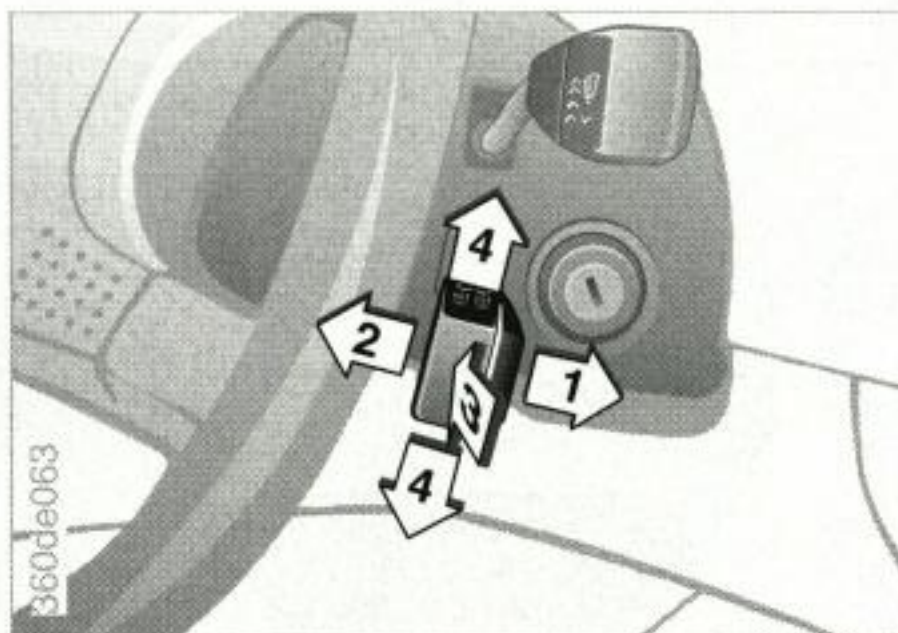


Only use the washer systems if there is no risk of fluid freezing on the windscreen and obscuring the driver's view. Use an antifreeze in the washer, see page 154.

Do not run the washer systems if the fluid reservoirs are empty, or else the washer pump will be damaged. ◀

Windscreen washer jets*

The windscreen washer jets are automatically heated when the ignition key is in position 2.



Any desired road speed above approx. 40 km/h (approx. 25 mile/h) can be memorised and maintained automatically.

When the engine is switched off, the memorised speed is erased.

1 Accelerating

Moving the lever briefly:

The car's actual speed is maintained and memorised. Each time the lever is moved again, the car's speed increases by approx. 1 km/h (0.6 mile/h).

Holding the lever in this position: the car accelerates without the accelerator pedal being touched. When the lever is released, the speed then reached is maintained and memorised.

2 Decelerating

Holding the lever in this position: the car decelerates by automatic restriction of the throttle, provided it was previously travelling at a controlled speed. When the lever is released, the speed then reached is maintained and memorised.

Moving the lever briefly:

each time the lever is moved, the car's speed is reduced by approx. 1 km/h (0.6 mile/h), provided that it was previously travelling at a controlled speed.

3 Activate

Moving the lever briefly:

the speed last memorised is recalled and maintained once it has been reached again.

4 Off

Moving the lever briefly:

the cruise control facility is switched off immediately.

The cruise control is also switched off automatically:

- ▷ if the brake or clutch pedal is depressed, or the automatic transmission selector lever moved from D to N, and

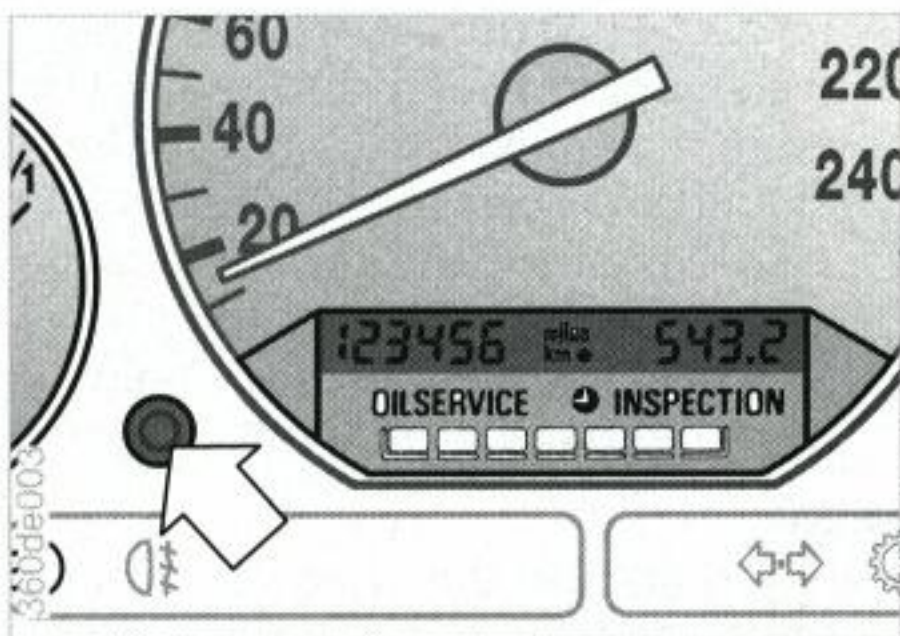
- ▷ on cars with spark-ignition engine: if the selected speed is exceeded by more than 16 km/h (10 mile/h) for longer than 30 seconds; on cars with diesel engine: if the car exceeds the selected speed by more than 16 km/h (10 mile/h) or drops below it by more than 20 km/h (12.5 mile/h).



Do not use the cruise control on twisting roads, in heavy traffic which does not permit steady speeds to be maintained or if the road is slippery (snow, rain, ice) or its surface is loose (stone chippings, sand). In such situations, the car's behaviour will not be sufficiently flexible to take road and traffic conditions into account. ◀



If engine braking alone is insufficient on a downhill gradient, the controlled speed may be exceeded. It may also prove impossible to maintain with the available engine power on uphill gradients. ◀



Records the total distance covered by the car.

Trip distance recorder

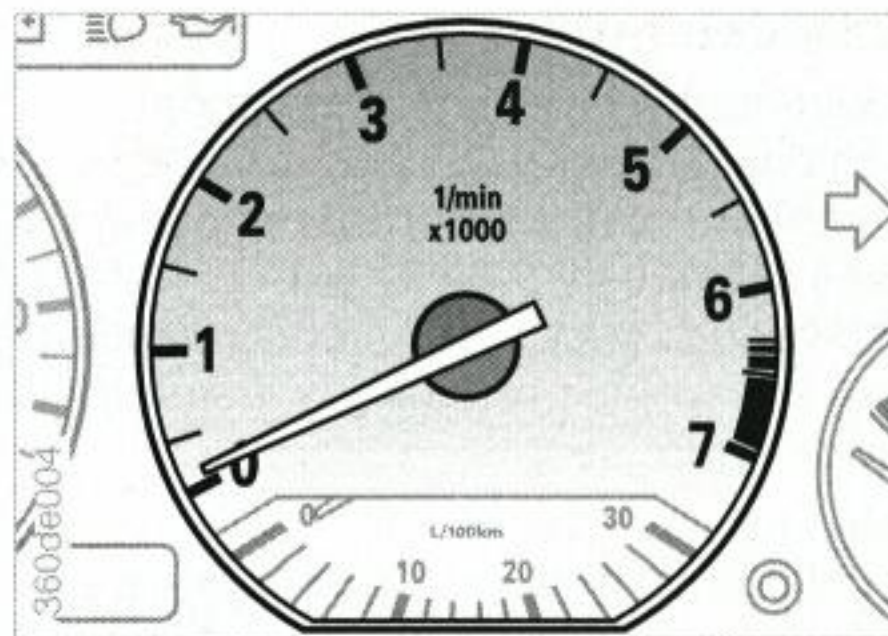
Registers distances up to 999.9 km/miles.

Resetting to zero

Press the knob.

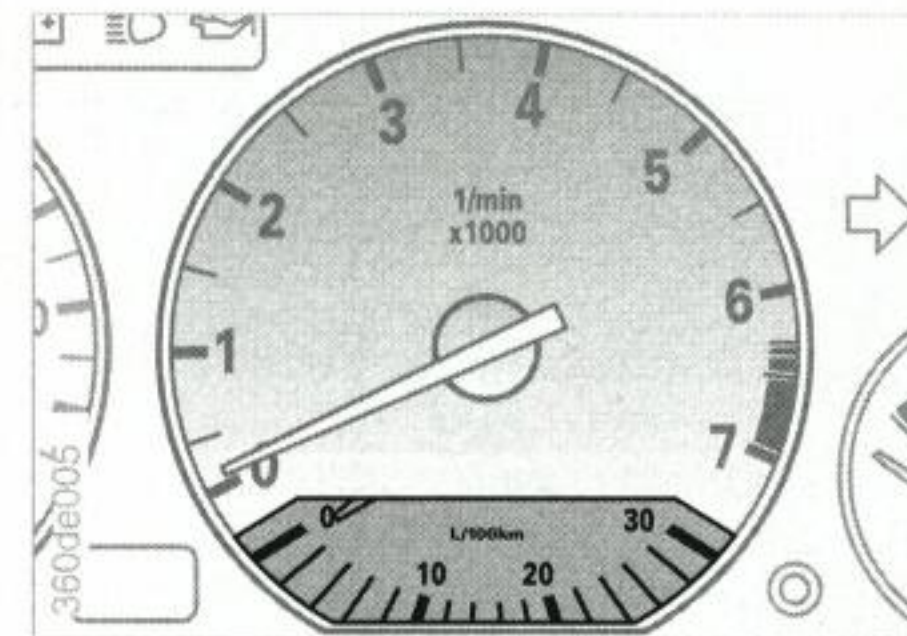
The displays can be seen from ignition key position 1 onwards.

For a display with the ignition switched off: press the reset knob (arrow).



Never allow the engine to run in the red zone of the revolution counter.

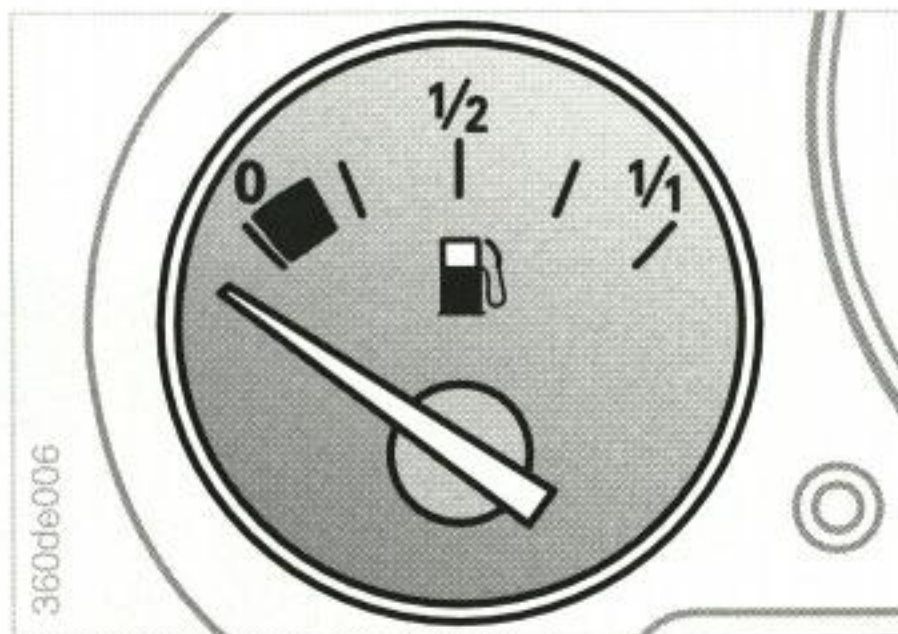
To protect the engine, the fuel supply is interrupted in this zone, and causes the engine to run irregularly.



Shows momentary fuel consumption. It enables you to check that you are currently driving in an economical, pro-environmental manner.

As the car comes to a halt, the needle moves over to the maximum-consumption end of the scale.

Fuel gauge



As a functional check, the telltale light remains on for a short time when the ignition is switched on.

If the telltale light remains on for longer periods or continuously, there are only about 8 litres of fuel left in the tank.

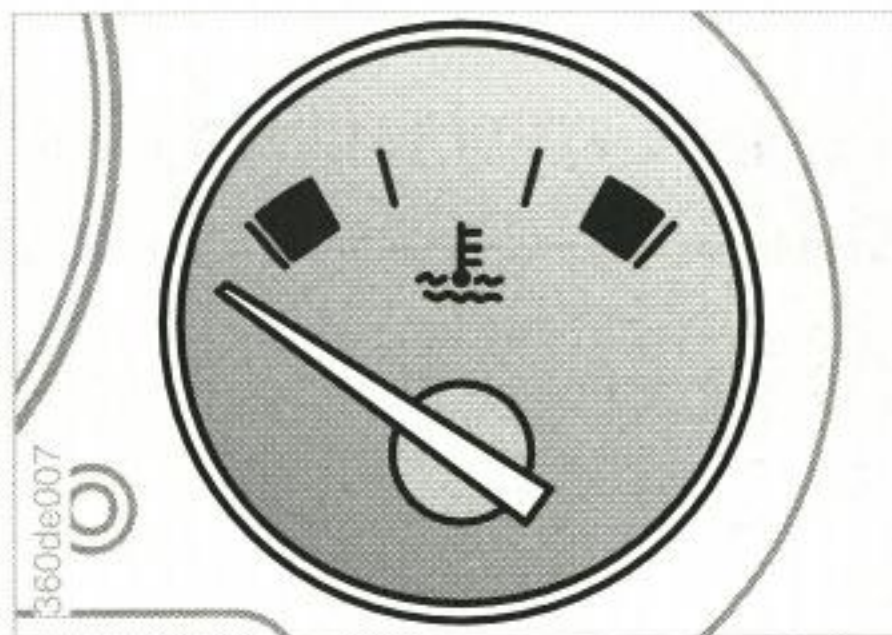
Fuel tank capacity: Page 220

Certain vehicle positions, e.g. driving uphill for prolonged periods, may cause slight fluctuations in the fuel gauge reading.



Add fuel in good time, or else there is a risk of running the tank dry and causing damage to the engine or the catalytic converter. ◀

Coolant thermometer



Blue

The engine is still cold. Drive at moderate engine and road speeds.

Red

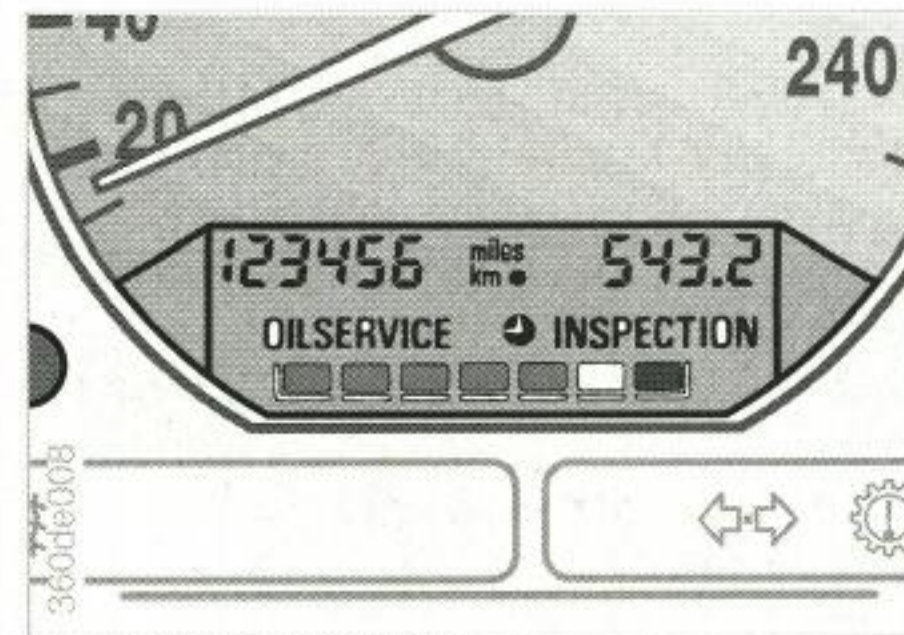
The warning light comes on and the CHECK COOLANT LEVEL display appears in the Check Control*: the engine is overheating. Switch it off at once and allow to cool down.

Between the coloured zones

Normal operating temperature. At high outside temperatures or when loads on the car are severe, the needle may move up as far as the beginning of the red zone.

Checking coolant level: Page 158

Service Interval indicator 69



Green zones

The fewer there are on, the sooner the next service will be due.

Yellow zone

This lights up in conjunction with OILSERVICE or INSPECTION.

A service routine is due. Make arrangements with BMW Service.

Red zone

The service routine is overdue.

Clock symbol

In conjunction with INSPECTION.

Shows that brake fluid renewal is due.



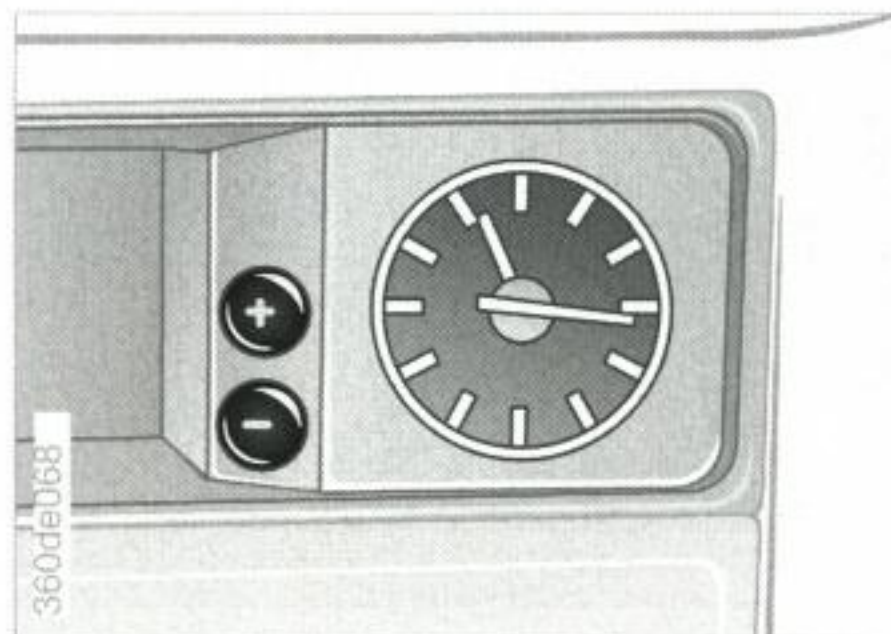
Periods of time in which the car's battery is disconnected are not counted by the Service Interval indicator when the brake fluid renewal warning is given.

In such cases you must ensure that the brake fluid is renewed every two years regardless of the display. Further details: Page 159. ◀



Have maintenance and repair work carried out by BMW Service. BMW Service is in possession of the latest information on maintenance and repair procedures and equipped with the special tools needed for your car. A check on parts subject to wear is included in the maintenance schedules. ◀

Analogue clock*



Key "+": reset clockwise.

Key "-": reset counter-clockwise.

Pressing the key briefly: minute hand moves by one minute.

Holding the key in: the longer it is held in, the faster the hand moves.

Multi-Information Display (MID)*

71

Depending on the version fitted to your car, you can call up not only the actual time and date but also other information, for instance on economical driving and notes and warnings concerning faulty systems.

The following information refers to all versions.

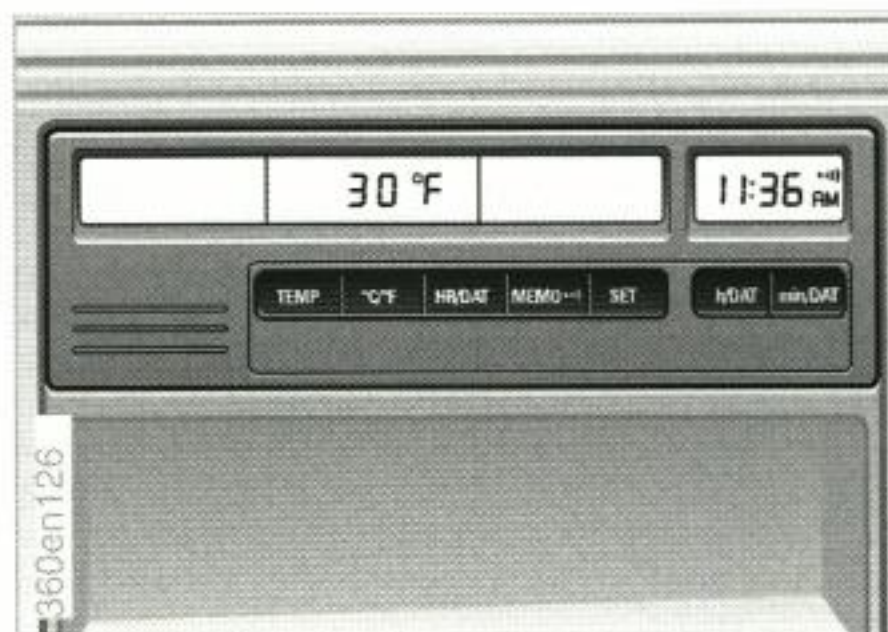
Unrealistic numerical inputs are not accepted by the computer.

During the input of numerical values, the figure increases by one each time the key is pressed, or every half-second if the key is held in.

The various digits of a numeral can be input in any desired order.

To memorise the input, press the SET/RES or SET key.

An interruption to the power supply, for example if the battery is disconnected, erases all memorised data. After the power supply has been restored, the time, date and possibly equipment switching-on times, distance and speed limit must be input again.



Outside temperature display and digital clock

For explanations and operating instructions, see page 73 onwards.



Check Control

For explanations and operating instructions, see page 76 onwards.

72 Multi-Information Display (MID)*



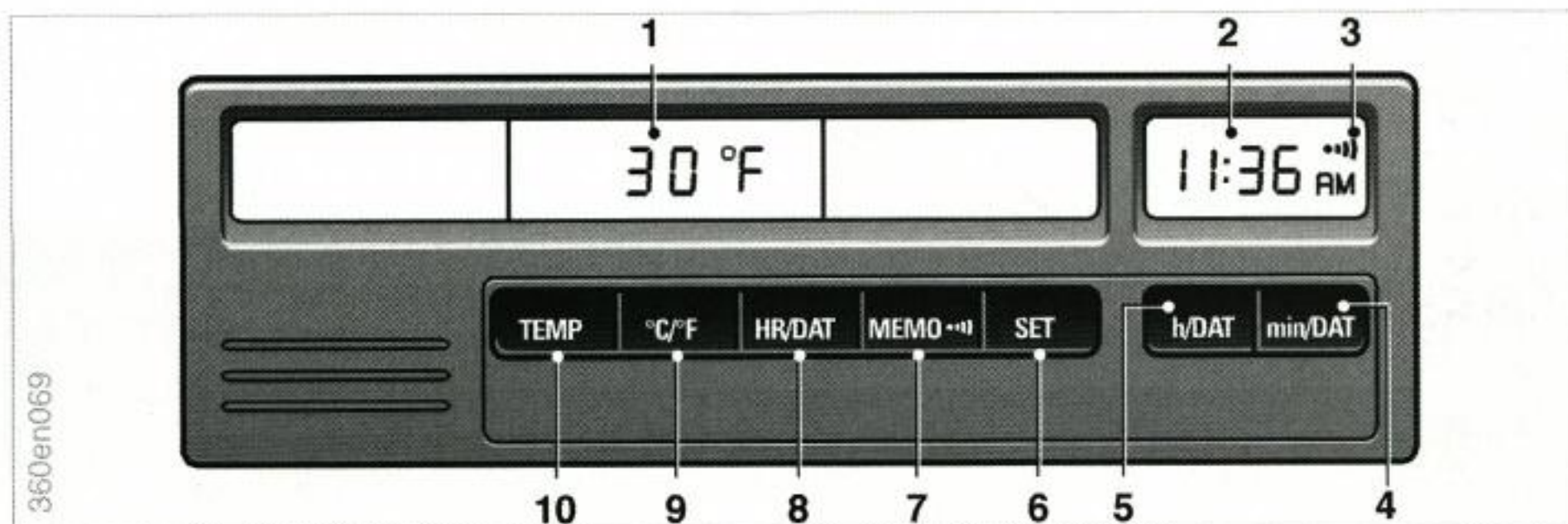
Check Control with outside temperature display and digital clock

For explanations and operating instructions, see page 79 onwards.



On-board computer

For explanations and operating instructions, see page 82 onwards.



On this display, you can

- ▷ call up the time and date
- ▷ program an hourly reminder signal (Memo), for example just before a radio news bulletin is due
- ▷ call up the outside temperature display

- 1 Outside temperature display
- 2 Time and date display
- 3 Sound-wave symbol for active Memo function
- 4 Minutes/date input key
- 5 Hours/date input key
- 6 SET key to accept input
- 7 Function key - Memo
- 8 Function key - time/date
- 9 Changeover key for units of measurement
- 10 Function key - outside temperature

To call up time or date

- ▷ Press function key (8).

In ignition key position 0 or with the key removed, the displays appear for several seconds; in ignition key setting 1 and beyond the display remains visible for as long as required.

You can have the time displayed as a 12- or 24-hour clock and the date in European or American order. Change-over:

- ▷ Press the time/date function key for approx. 3 seconds until the dots flash in the display.
- ▷ Press changeover key for units of measurement.

If the 12-hour clock is in use, AM or PM appears at the right of the time display.

74 Outside temperature display and digital clock*

Memo function

Switch on and off at the MEMO key. Each time the MEMO key is pressed, the signal is either activated or deactivated. When it is activated, a sound-wave symbol appears at the right of the display. The signal is heard every hour at the programmed time, or 15 seconds before the hour if no time has been programmed.

Outside temperature

To display: Press the TEMP key.

If outside temperature drops below $+3^{\circ}\text{C}$, a warning signal is heard, the temperature is automatically displayed and the unit of measurement flashes for 8 seconds.

The warning is given again if the temperature has risen to at least $+6^{\circ}\text{C}$ since the last warning and then fallen again to $+3^{\circ}\text{C}$.



The absence of a temperature warning does not rule out the possibility of ice forming on the road at outside temperatures higher than $+3^{\circ}\text{C}$, for instance on bridges or in shadow. ◀



Inputs

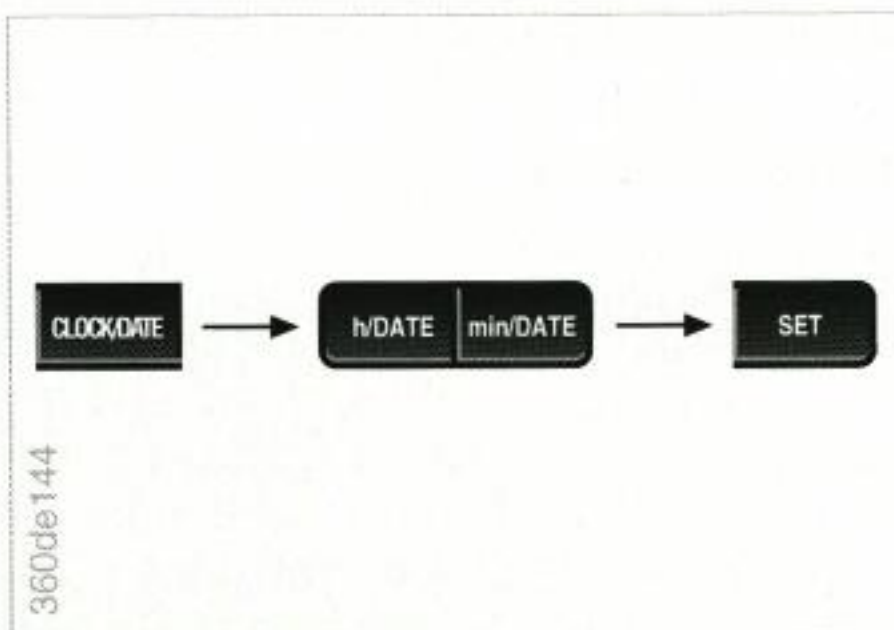
All time and date inputs have to be made at the input keys, working as follows: the keys can be pressed in any order. Each time a key is pressed, or whenever it is held in for more than half a second, the value goes up by one digit.

The rate of increase speeds up if the key is held in for a longer period.

After an interruption in the power supply

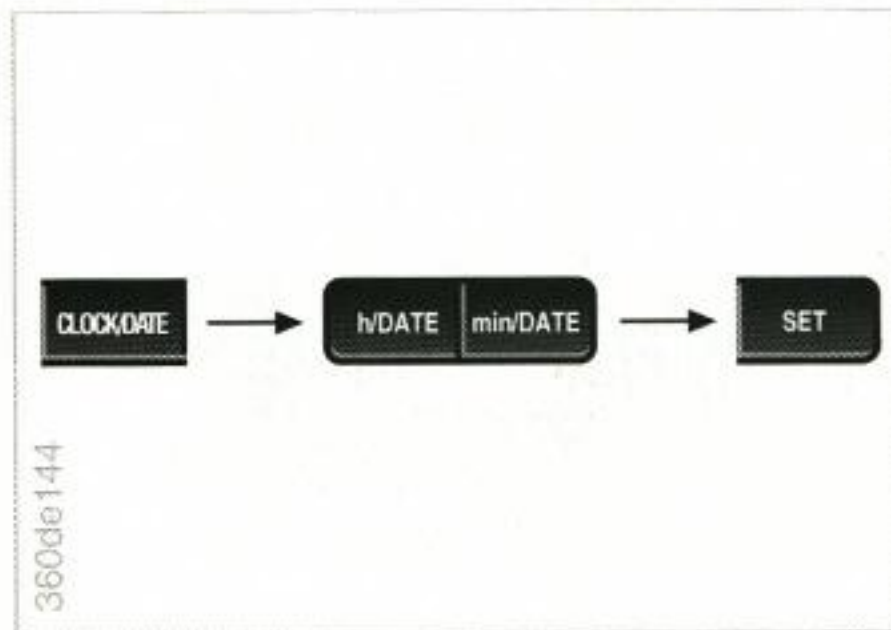
The dots flash in the display.

- ▷ If necessary, press the changeover key for the units of measurement.
- ▷ Input the correct time at the h/DATE and min/DATE keys.
- ▷ Press the SET key. The clock will start.
- ▷ Press the CLOCK/DATE key.
- ▷ Input the date at the input keys.
- ▷ Press the SET key.
- ▷ Confirm the year by pressing the SET key, or correct it at the input key and press SET again to complete the numerical input.



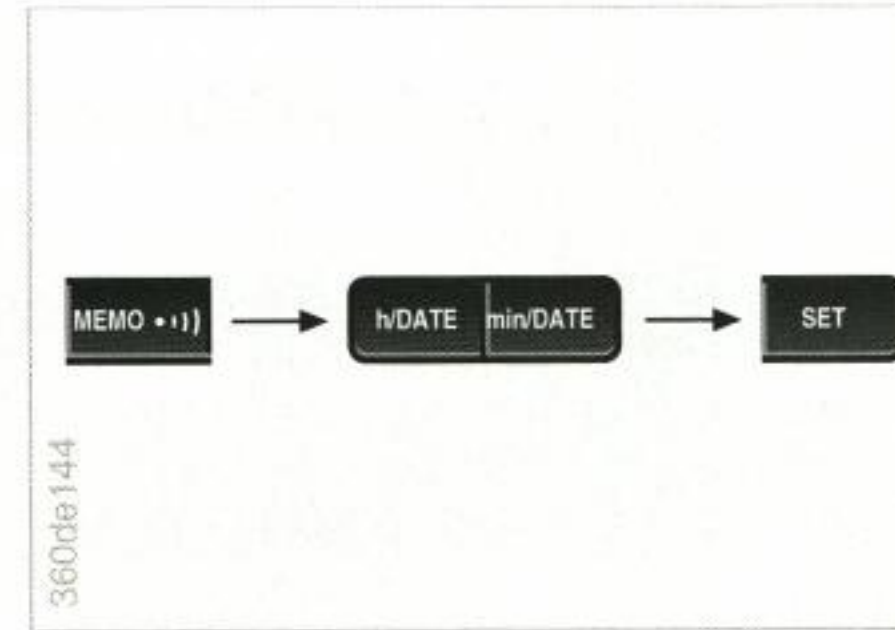
Altering the time display

In the clock function, press the CLOCK/DATE key for approx. 3 seconds until the dots flash in the display. Conclude the numerical input by pressing SET.



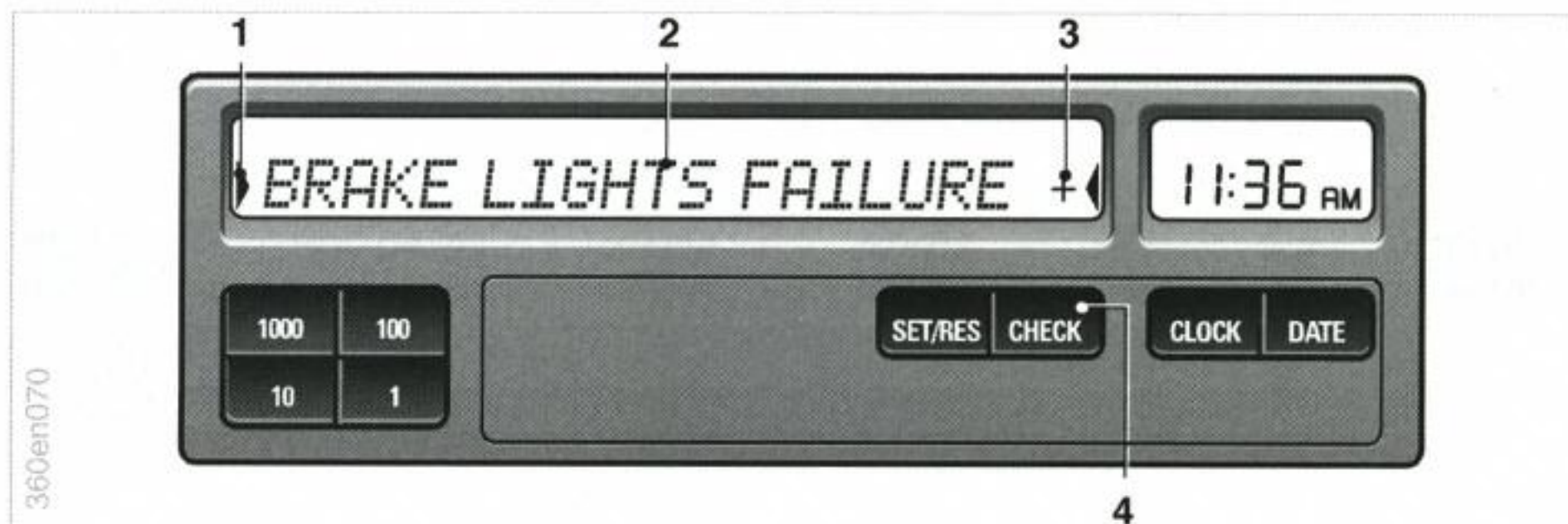
Altering the date display

In the date function, press the CLOCK/DATE key for approx. 3 seconds until the dots flash in the display. Input the date and year digits and conclude the input by pressing SET.



Programming the reminder signal

Press the MEMO key for approx. 3 seconds until two zeroes appear in the minutes display. Conclude the numerical input (min/DATE upwards, h/DATE downwards) by pressing the SET key.



Faulty systems are shown by clear-text information or warnings. In addition, there is a warning light on the instrument panel.

You can call up time and date displays on the digital clock.

- 1 Symbol that a warning is present
- 2 Display
- 3 Plus sign that further information or warning displays are present
- 4 CHECK key

A system of three priority categories has been adopted for the warning signals:

Priority 1

These defects are shown immediately by the warning light and symbol (1) flashing. If several faults develop simultaneously, they are displayed in succession. After 20 seconds, or if the CHECK key is pressed, the warning light in the instrument panel ceases to flash.

These displays remain active until the fault is rectified, and cannot be cleared with the CHECK key (4).

Brake light electrical circuit

A brake light has failed. The fuse has blown or the electrical circuit has a fault. See page 186 or take the car to BMW Service.

BRAKE LIGHTS FAILURE

Brake lights have failed or bulbs blown. Renew bulbs. See page 175.

Priority 2

These defects are shown in ignition key position 2. After the text displays have gone out, symbols remain visible to indicate that there are fault messages in the Check Control. If the plus sign (3) appears: further messages are present - press the CHECK key to call them up.

1 BRAKE LIGHTS FAILURE

One bulb has blown. See page 175.

LOWBEAM LIGHTS FAILURE

TAIL LIGHTS FAILURE

CHECK NUMPLATE LIGHT

A bulb or the fuse has blown or the electrical circuit has a fault. See pages 173, 175 and 177 or consult BMW Service.

WASHER FLUID LOW

Top up at the next opportunity. See page 154.

Check Control inactive

Warnings and information are not being displayed. Consult BMW Service.

Priority 3

These warnings are primarily displayed at the end of the journey, in ignition key position 0 (if several warnings are present, the priority 3 warnings follow those in the priority 2 and 1 categories).

After the ignition key has been removed and the display has gone out, warnings can be seen by pressing the CHECK key for about two minutes after the end of the journey.

Before a journey starts, you can also call up warnings in ignition key position 2. These displays go out after a short time or when the journey starts, and no reminder symbols are then displayed.

A further display does not appear until the ignition key is returned to 0.

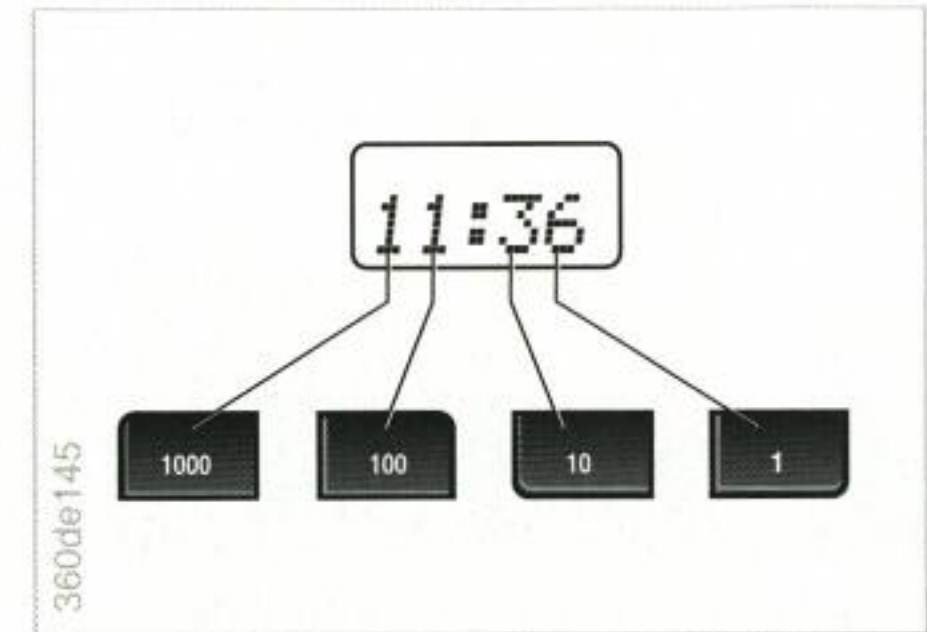
If a plus sign is displayed: you can call up further warnings by pressing the CHECK key.

CHECK COOLANT LEVEL

The level is close to the minimum mark. Top up at the next opportunity. See page 158.

Confirming that the Check Control display is in working order (if no messages are displayed):

In ignition key position 2, press the CHECK button: the display should read CHECK CONTROL OK.



Inputs

All time and date inputs have to be made at the input keys, working as follows:

the keys can be pressed in any order. Each time a key is pressed, or whenever it is held in for more than half a second, the value goes up by one digit.

To call up time or date

- ▷ Press the appropriate function key (CLOCK/DATE).

In ignition key position 0 or with the key removed, the displays appear for several seconds; in ignition key setting 1 and beyond the display remains visible for as long as required.

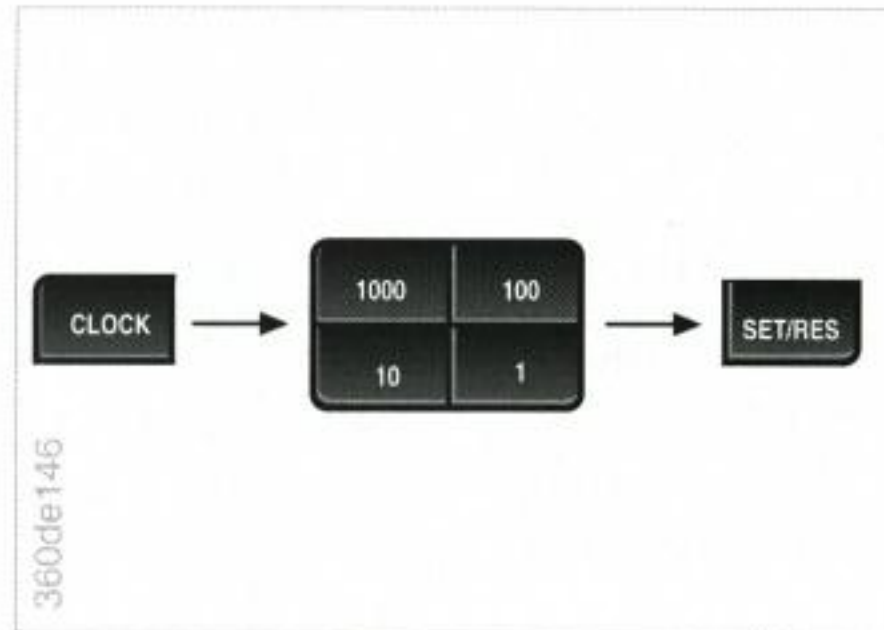
After an interruption in the power supply

The time display flashes and the left display reads: INPUT TIME.

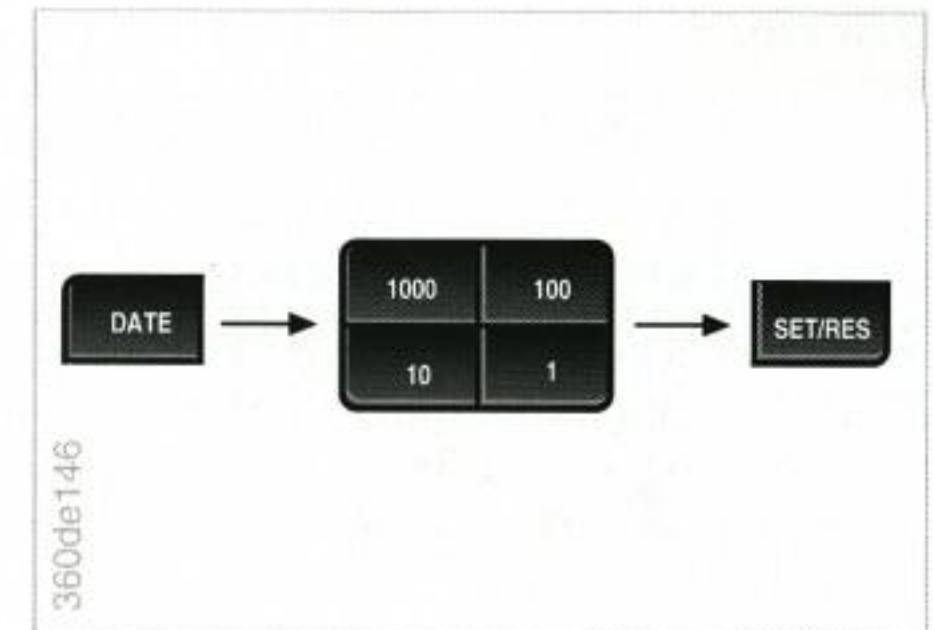
- ▷ Enter the correct time at the input keys.
- ▷ Press the SET/RES key. The clock will start.

The left display reads: INPUT DATE.

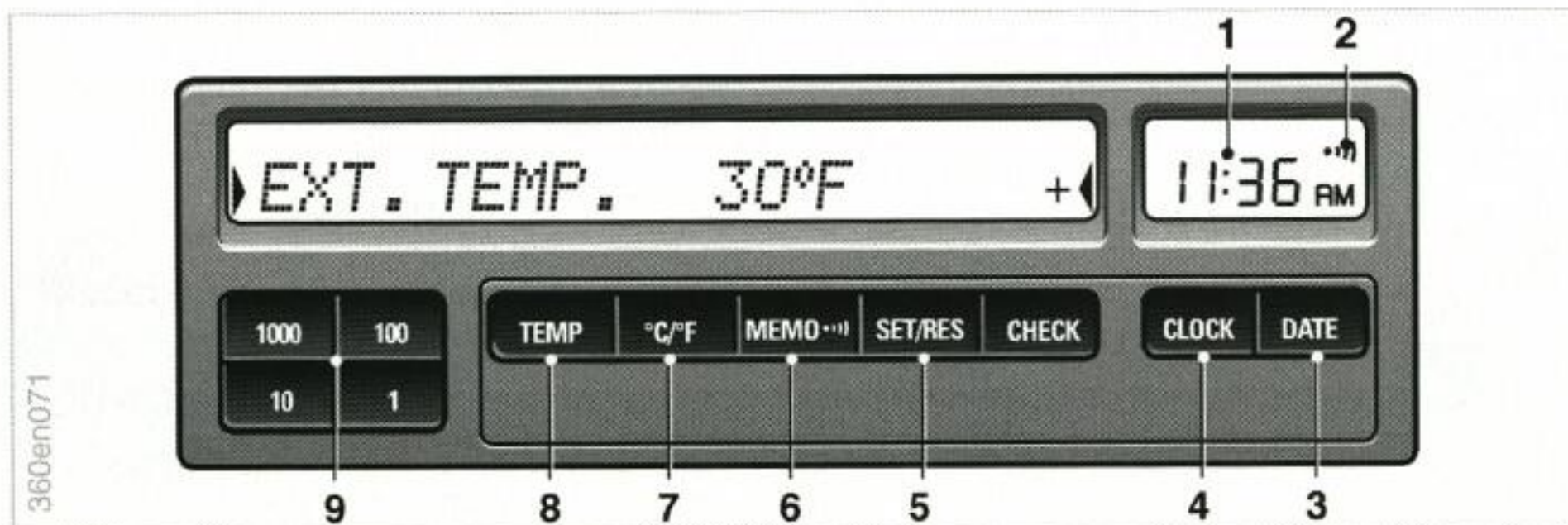
- ▷ Input the date at the input keys.
- ▷ Press the SET/RES key.
- ▷ Confirm the year by pressing the SET/RES key, or correct it with an input key and conclude the numerical inputs by pressing the SET/RES key.

**Altering the time display**

Press the CLOCK key until the left display shows INPUT TIME. The dots in the display flash.
Conclude the numerical inputs by pressing the SET/RES key.

**Altering the date display**

Press the DATE key until the left display shows INPUT DATE. The dots in the display flash.
Conclude the date and year inputs by pressing the SET/RES key.
If necessary, input the year before pressing SET/RES, if the display calls for this input. (The system takes leap years into account, so that no special manual adjustment is necessary.)



System malfunctions are shown in clear text by means of Check Control messages and warnings. There is also a general warning light on the instrument panel. For further details and operating instructions, see pages 76, 77.

An outside temperature display can also be called up.

By means of the digital clock, you can

- ▷ call up the time and date
- ▷ program an hourly reminder signal (Memo), for instance just before radio news bulletins are due.

- 1 Digital clock display
- 2 Sound-wave symbol for reminder function
- 3 Date function key
- 4 Clock function key
- 5 SET/RES key
- 6 Function key - Memo
- 7 Changeover key for units of measurement
- 8 Function key - outside temperature
- 9 Numerical input keys

To call up time or date

- ▷ Press the appropriate function key (4/3).

In ignition key position 0 or with the key removed, the displays appear for several seconds; in ignition key setting 1 and beyond, the display remains visible for as long as required.

You can have the time displayed as a 12- or 24-hour clock and the date in European or American order. Change-over:

- ▷ Press the time or date function key (4/3) until the dots in the display flash.
- ▷ Press the changeover key (7) for units of measurement.

If the 12-hour clock is in use, AM or PM appears at the right of the time display.

Memo function

Switch on and off at the MEMO key.

Each time the MEMO key is pressed, the signal is either activated or deactivated. When it is activated, a sound-wave symbol appears at the right of the display. The signal is heard every hour at the programmed time, or 15 seconds before the hour if no time has been programmed.

80 Check-Control with outside temperature display and digital clock*

Outside temperature display

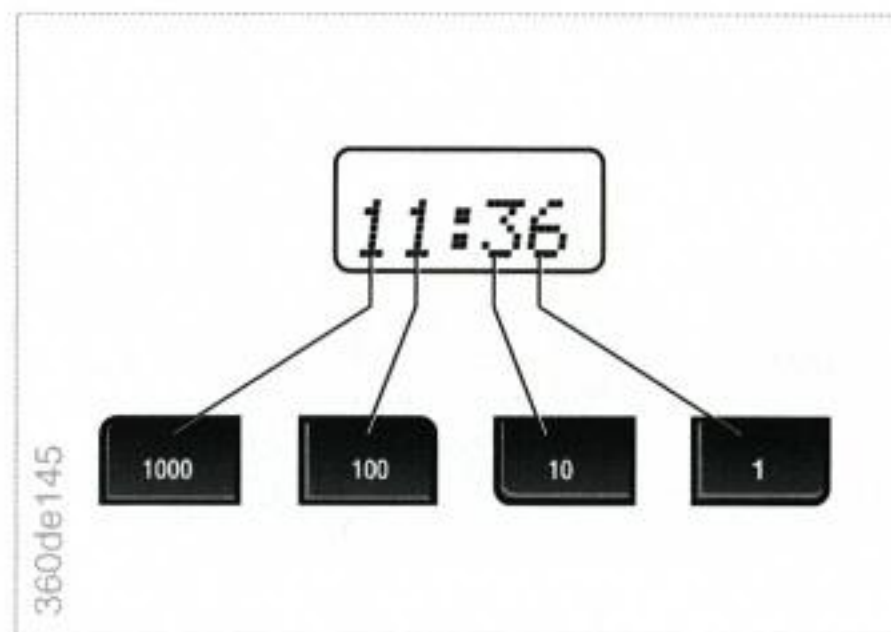
Press the TEMP key.

If the outside temperature drops below $+3^{\circ}\text{C}$, an audible warning signal is heard and the temperature is displayed automatically and flashes for 8 seconds.

The warning is given again if the temperature has risen to at least $+6^{\circ}\text{C}$ since the last warning and then fallen again to $+3^{\circ}\text{C}$.



The absence of a temperature warning does not rule out the possibility of ice forming on the road at temperatures above $+3^{\circ}\text{C}$, for instance on bridges or in shadow. ◀



Inputs

All time and date inputs have to be made at the input keys, working as follows:
the keys can be pressed in any order. Each time a key is pressed, or whenever it is held in for more than half a second, the value goes up by one digit.

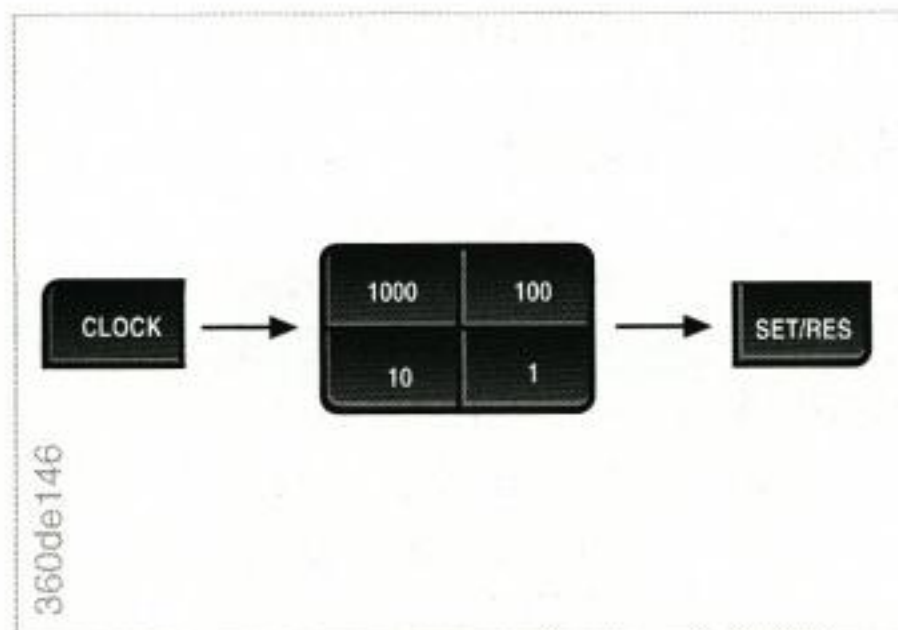
After a power interruption:

The time display flashes and the left display reads: INPUT TIME.

- ▷ Enter the correct time at the numerical keys.
- ▷ Press the SET/RES key. The clock will start.

The left display reads: INPUT DATE.

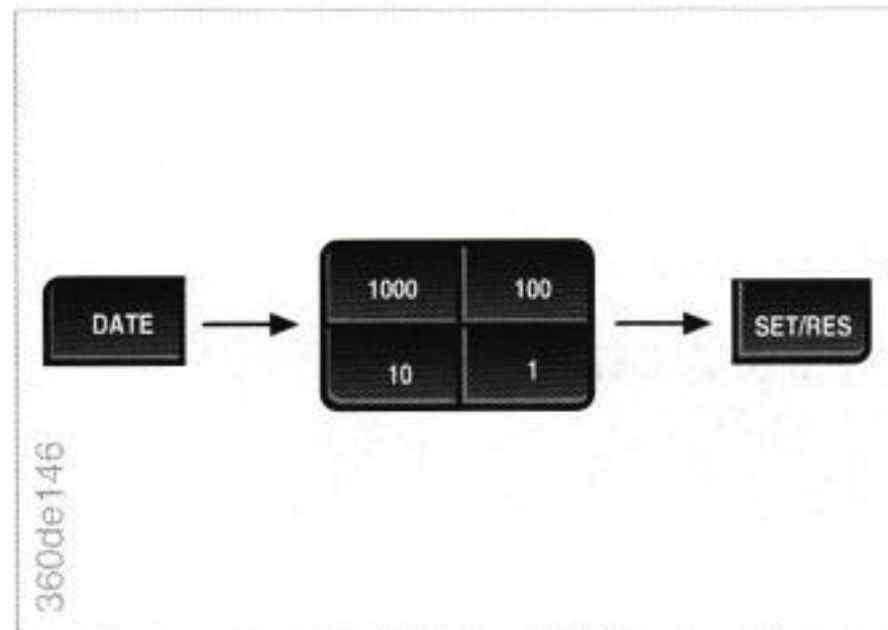
- ▷ Input the date at the input keys.
- ▷ Press the SET/RES key.
- ▷ Confirm the year by pressing the SET/RES key, or correct it at the numerical input keys, then conclude the numerical inputs by pressing the SET/RES key.



Altering the time display

Press the CLOCK key until the left display shows INPUT TIME. The dots in the display flash.

Conclude the numerical inputs by pressing the SET/RES key.

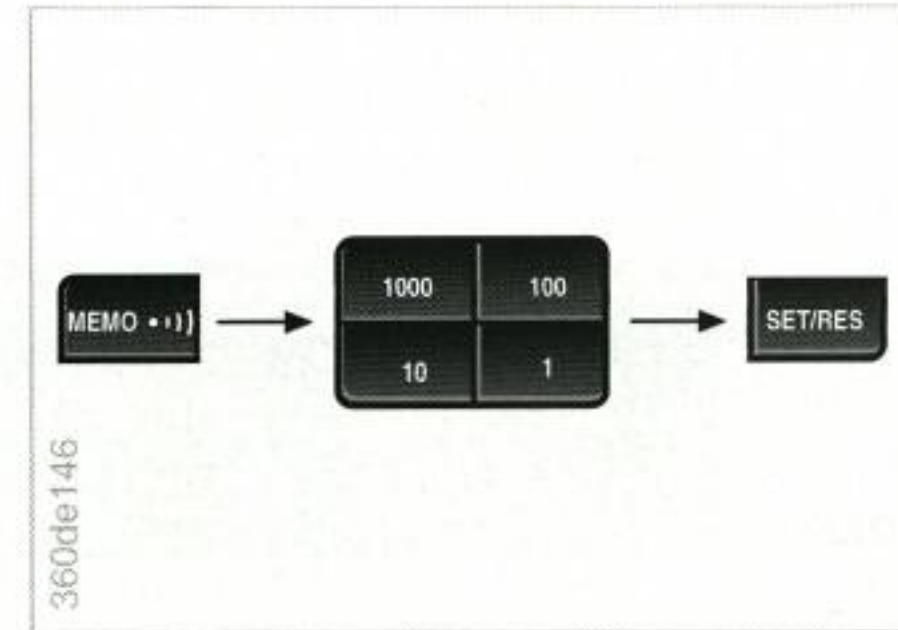


Altering the date display

Press the DATE key until the left display shows INPUT DATE. The dots in the display flash.

Conclude the date and year inputs by pressing the SET/RES key.

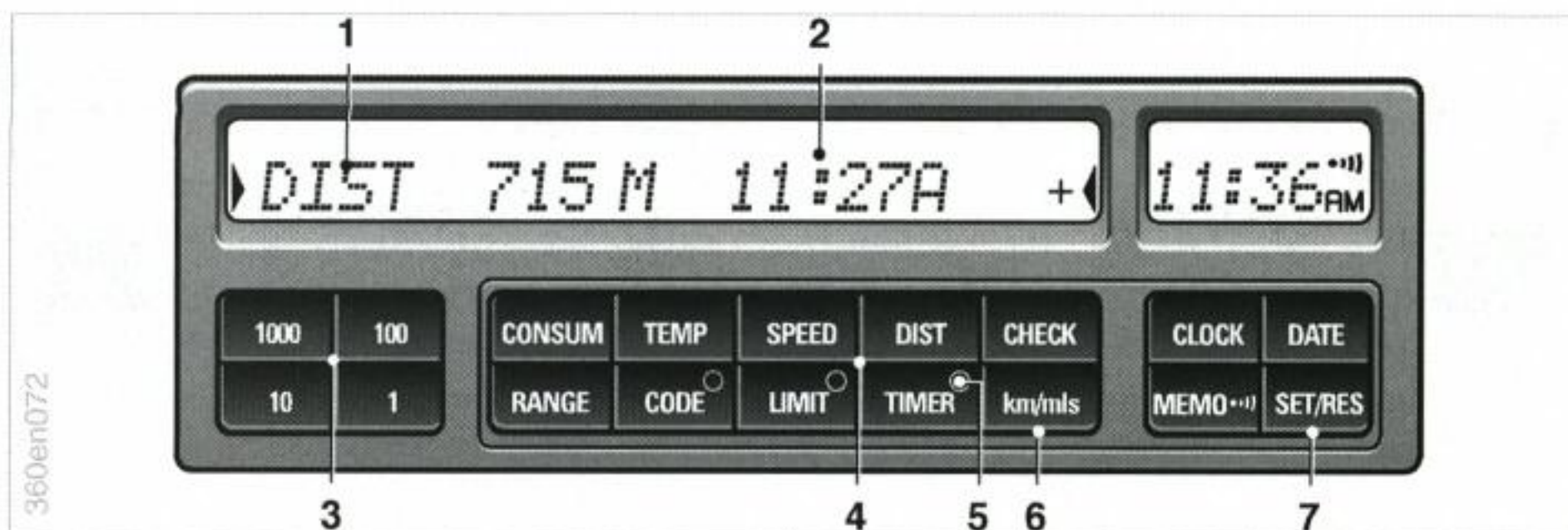
If necessary, input the year before pressing SET/RES, if the display calls for this input. (The system takes leap years into account, so that no special manual adjustment is necessary.)



Programming a reminder signal

Press the MEMO key for approx. 3 seconds until the left display reads INPUT MEMO.

Conclude the numerical inputs by pressing the SET/RES key.



Information relevant to safe, economical driving can be called up and displayed.

If Check Control is installed, system faults are shown by messages and warnings in clear text. There is also a general warning light on the instrument panel. For further details and operating instructions, see pages 76, 77.

By means of the digital clock, you can

- ▷ call up the time and date
- ▷ program a reminder signal (Memo) in advance, e.g. just before radio news bulletins are due.

For further details and notes on operation of the digital clock, see page 79.

- 1 Display
- 2 Arrival time
- 3 Numerical input keys
- 4 Information keys
On the version of the on-board computer without Check Control, pressing the CHECK key merely activates all the display elements
- 5 Light-emitting diodes (LED)
- 6 Changeover key for units of measurement
- 7 SET/RES key (start/stop)

Displays without previous inputs

		page
TEMP	Outside temperature	83
RANGE	Probable range before refuelling	84
SPEED	Average speed	83
CONSUM	2 average fuel consumptions	84

Displays with previous inputs

DIST	Distance remaining to previously input destination, with arrival time	84
LIMIT	Speed limit	85
The following systems are controlled through the on-board computer: page		
TIMER	– 2 switch-on times for independent ventilation control	86
	– direct operation of independent ventilation or	87
	– stopwatch	85
CODE	Engine immobilizer/ protection against tampering	87

The on-board computer can be operated from ignition key position 1 onwards.

On-board computer*

For reasons of driving safety, always input data to the computer before starting your journey or when the car is at a standstill. The computer calculates and memorizes data from the start of the journey onwards.

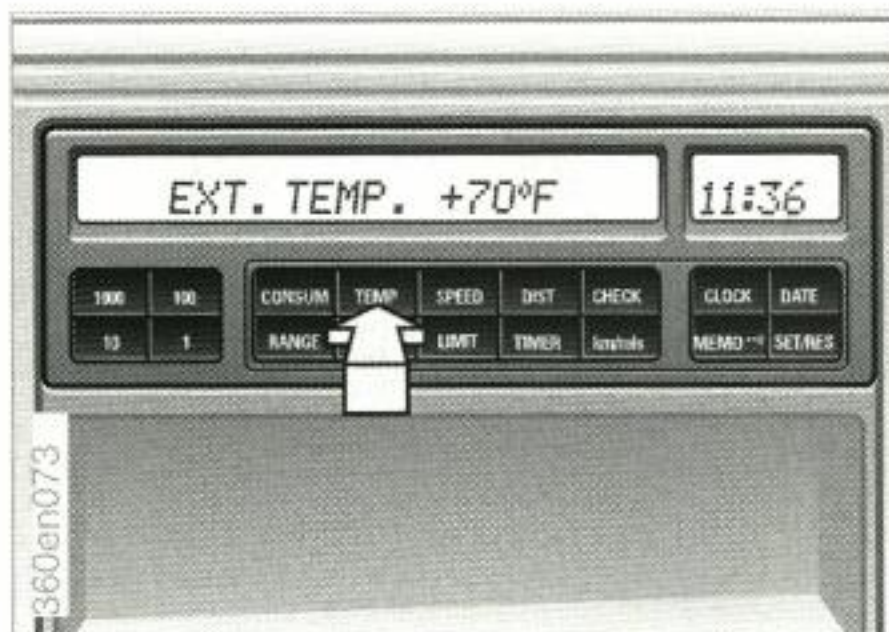
Information can also be displayed by operating a remote control, see page 88.

By means of the changeover key (6) for units of measurement, the information display can be shown in either metric or Imperial units.



Check Control messages are superimposed over the on-board computer displays. Apart from priority 1 warnings, you can clear the displays by pressing the CHECK key. ◀

If the fault display "PPPP" appears, please consult BMW Service.



Outside temperature

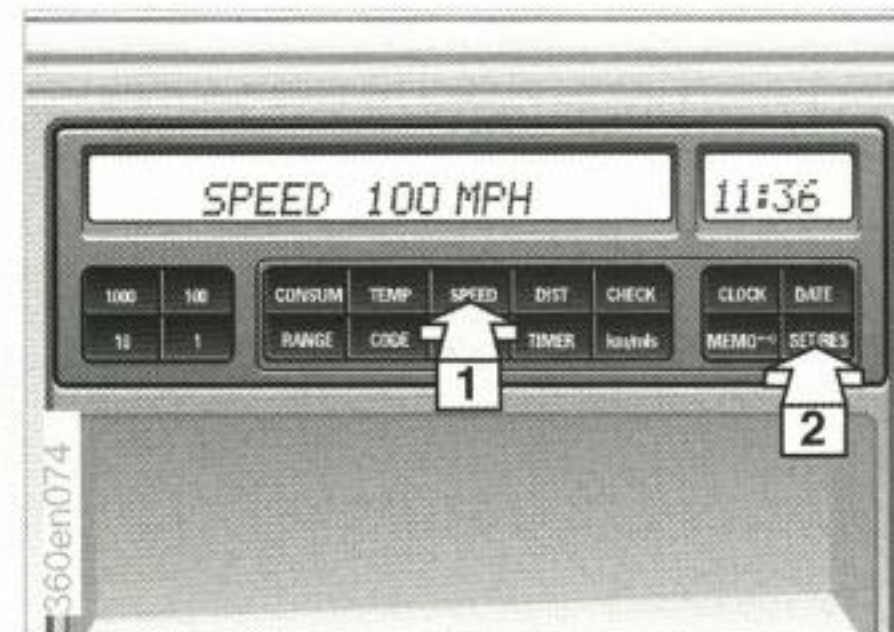
To display: Press the TEMP key.

If the outside temperature drops below $+3^{\circ}\text{C}$, an audible warning signal is heard and the temperature is displayed automatically and flashes for 8 seconds.

The warning is given again if the temperature has risen to at least $+6^{\circ}\text{C}$ since the last warning and then fallen again to $+3^{\circ}\text{C}$.



The absence of a temperature warning does not rule out the possibility of ice forming on the road at temperatures above $+3^{\circ}\text{C}$, for instance on bridges or in shadow. ◀

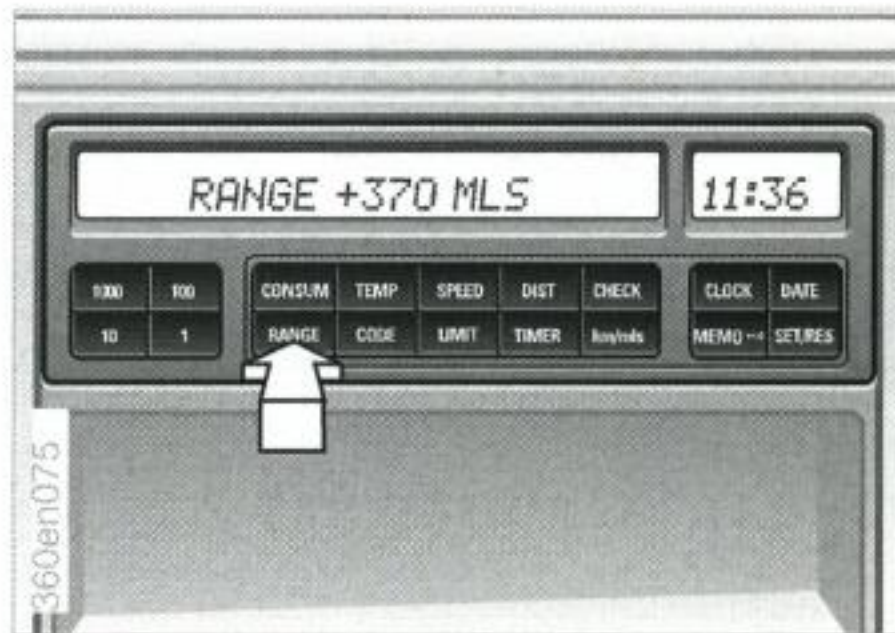


Average speed

To start computing:

Press the keys in the order illustrated.

To display: press the SPEED key.



Probable range before refuelling

This display indicates how far the car can probably be driven on the fuel remaining in the tank. The fuel level is measured and the range calculated on the basis of the way in which the car has so far been driven.

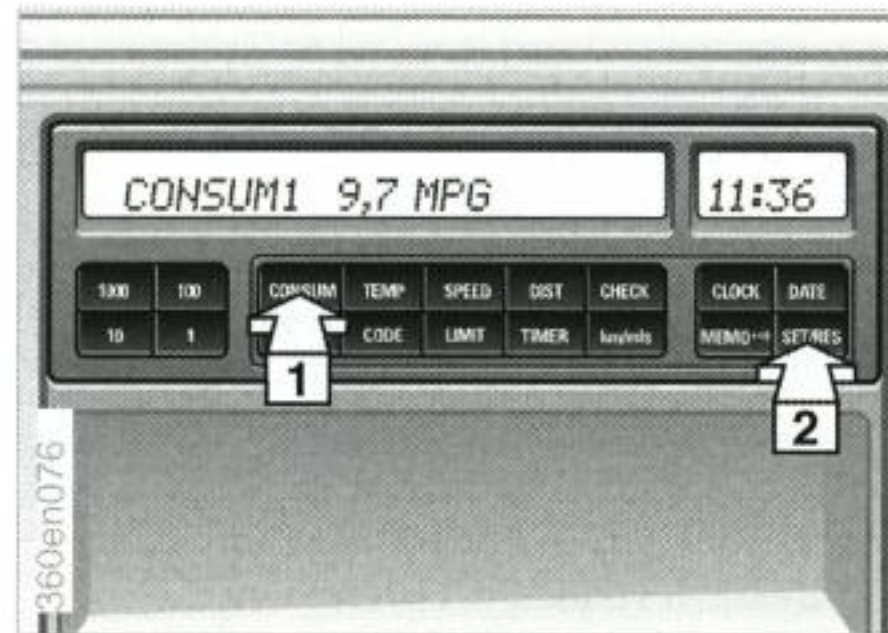
To display: press the RANGE key.

A plus sign before the value indicates that the range has still to be corrected (measuring tolerance).

If three sectors of the display flash, the range is below 15 km (approx. 9 miles). Refuelling is then urgently necessary.

The on-board computer registers fuel added to the tank only if

- ▷ the amount exceeds 4 litres (approx. 1 gallon).
- ▷ the engine has been stopped.



Average fuel consumption

The average fuel consumption can be calculated for two distances at the same time, e.g. for a complete journey and for a section of the journey.

To start computing for distance 1:

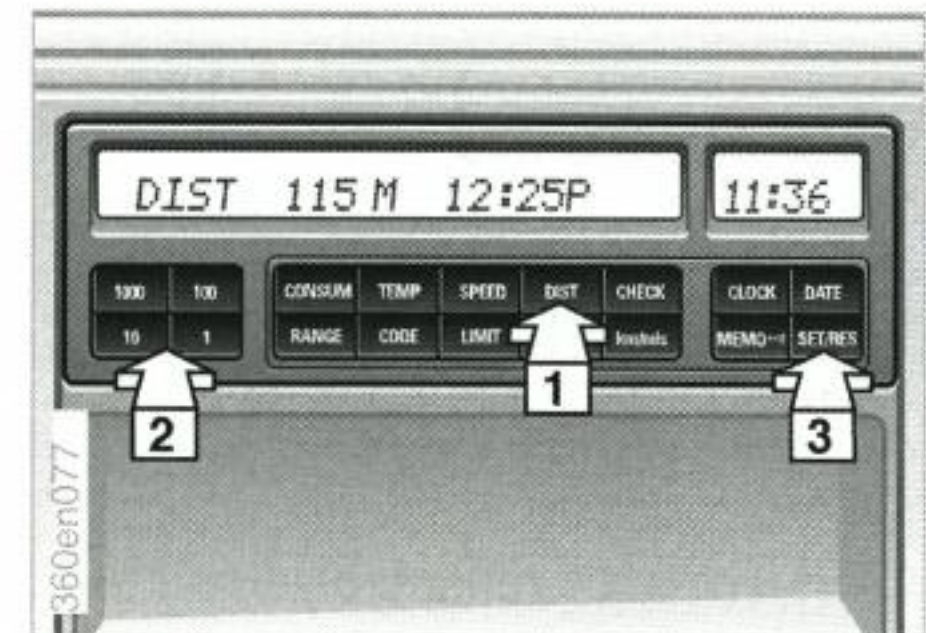
Press the keys in the order illustrated.

To start computing for distance 2:

Press the keys again in the order illustrated.

To display: press the CONSUM key.

Each time the key is pressed, either average consumption 1 or 2 will appear. The display indicates which of the values is being shown (CONSUM1 or 2).



Distance from destination

This shows how far the car is from the destination, provided that the total distance was input before the journey started.

Distance input: press the keys in the order illustrated.

To display: press the DIST key.

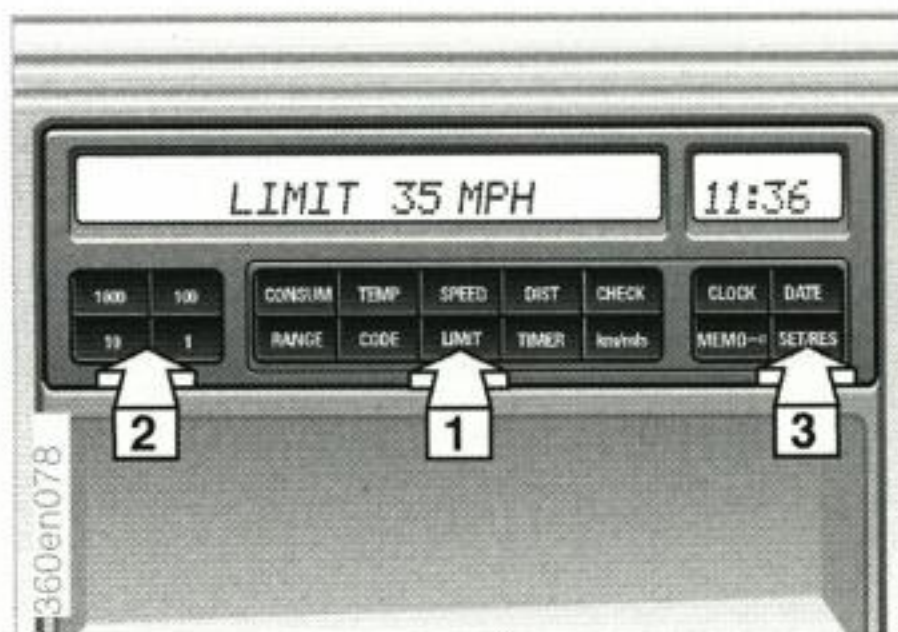
The probable time of arrival is also displayed, and is recomputed continuously according to changes in the car's speed.

If the car has already completed the full distance which was input at the start of the journey, the distance value is preceded by a minus sign.

Display units changeover:

Press the km/mls key once

- ▷ to alter the distance display or twice
- ▷ to alter the time of arrival as well.



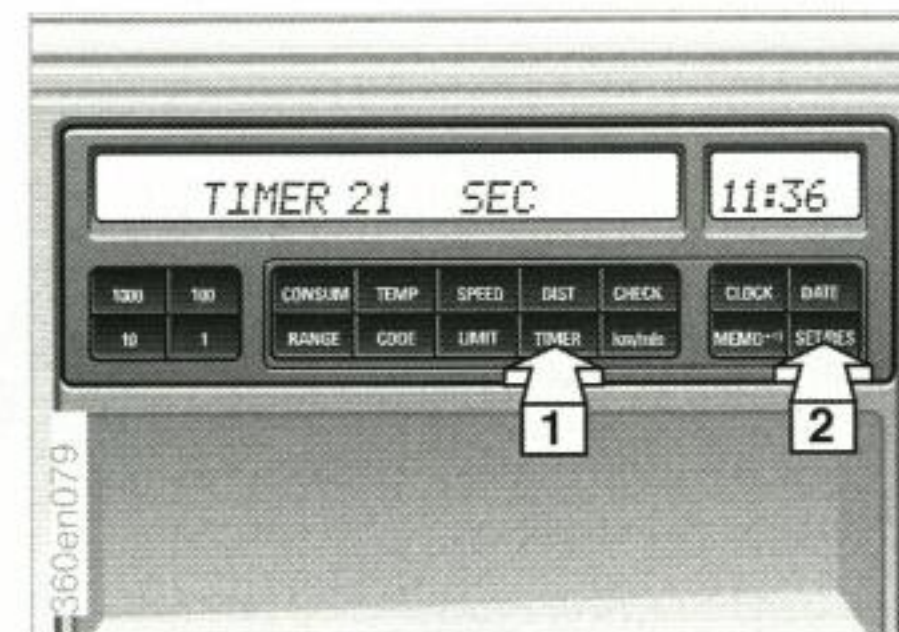
Switching off the speed limit warning:

- ▷ Press the LIMIT key again.

The LED goes out, but the memorised value is retained and can be switched on again by pressing the LIMIT key.

Adopting the car's actual speed as the limit value:

- ▷ Press the LIMIT and SET/RES keys.



Speed limit

If the driver exceeds the previously input speed (for instance as a reminder not to exceed a statutory speed limit), a warning is given. A signal is heard, the appropriate LED flashes and the display shows the memorised limit for a short period.

For a warning to be repeated, the car's speed must first drop by at least 5 km/h below the speed limit.

Speed limit input:

Press the keys in the order illustrated.
The LED comes on.

Stopwatch*

The stopwatch function is available on cars without independent ventilation control. It can record times up to 99 hours and 59 minutes. The time appears on the display as follows: first of all in seconds and tenths of a second, after one minute in minutes and seconds and after one hour in hours and minutes.

To start:

Press the keys in the order illustrated.
The LED comes on and the time begins to run on the display.

To stop:

If the time is being displayed:

- ▷ Press the SET/RES key.

If other information is being displayed:

- ▷ Press the keys in the order illustrated.


Taking an intermediate time reading:

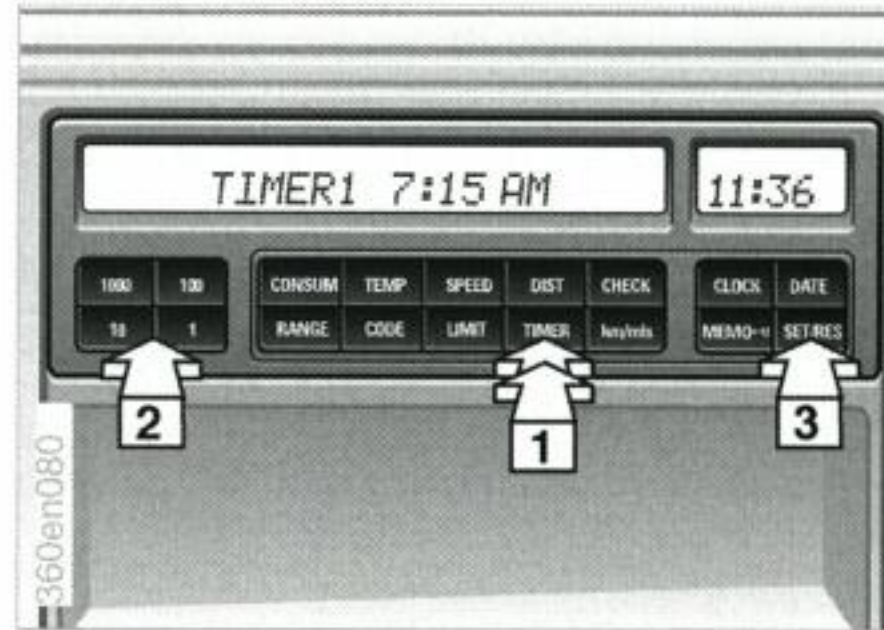
- ▷ Press the TIMER key.

The LED flashes and the intermediate time is displayed, but the stopwatch continues to run.

To display the cumulative time again:

- ▷ Press the TIMER key again.

 The stopwatch is halted in ignition key position 0 and starts to run again in ignition key position 1. ◀



Independent ventilation control*

Input of switch-on times

Two independent ventilation switch-on times can be preselected. The ventilation is switched off again automatically after 30 minutes.

For important information on operating the independent ventilation control, see page 101.

When the TIMER key is pressed, the display shows what ventilation settings have been preselected.

Input of first switch-on time:

Input is possible only if the digital clock is running and the ignition key is in position 1.

Press the keys in the order shown (press the TIMER key twice).

Input of second switch-on time:

Press the keys again in the order illustrated.

Correcting the time input:

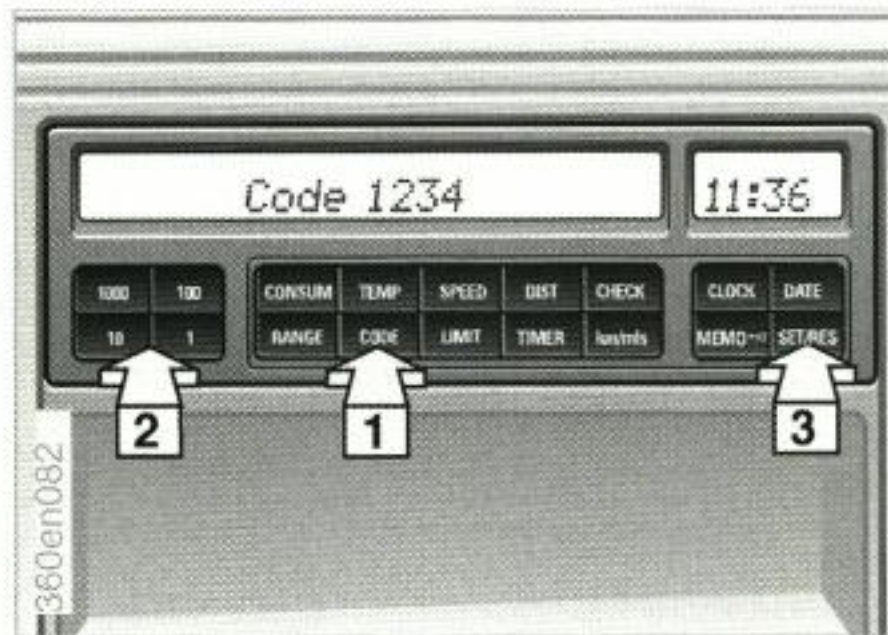
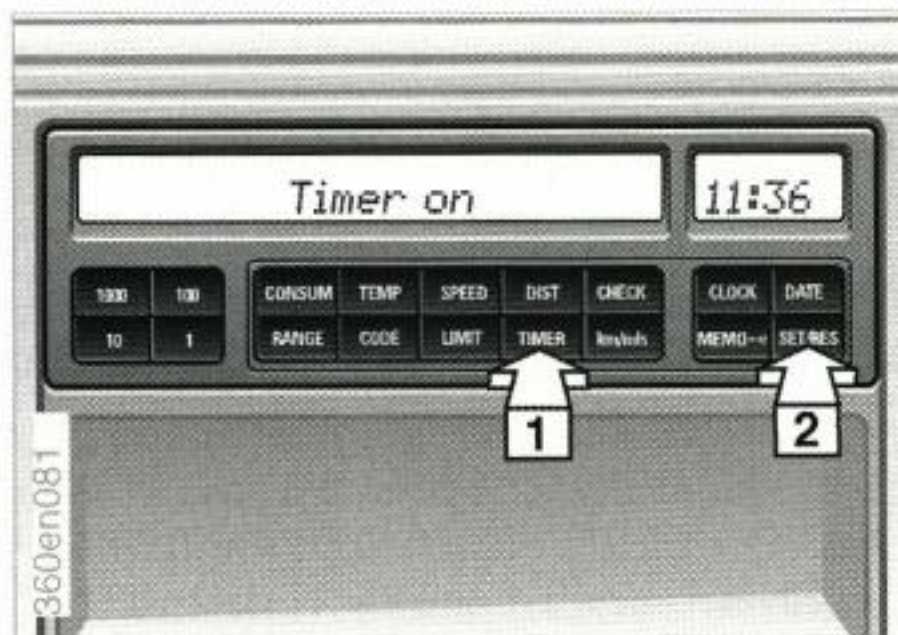
Press the keys as shown, but enter a different time.

After the input * appears in the display and the LED comes on as a reminder that a switch-on time has been preselected.

The LED flashes when ventilation is in progress. It goes out when ventilation is switched off.

Checking a preselected time (LED is on):

- ▷ Press TIMER twice for the first preselected time input.
- ▷ Press TIMER three times for the second preselected time input.



Direct switch-on

This is only possible in ignition key position 1. Press the keys in the order illustrated.

Direct switch-off

In ignition key position 1, press the keys in the order illustrated.

In ignition key position 0, press the SET/RES key only.

Code input

In addition to the car's electronic immobilizer (see page 30), a code can be input to the on-board computer as a further means of preventing unauthorised persons from starting the engine or tampering with other items of equipment.

The code monitors the engine compartment, the radio and any attempts to start the engine.

The device is activated by means of a code number input. Starting the engine is then impossible unless the same code number is subsequently input correctly. For this reason: always remember the code number.

Activating in ignition key position 1:

Press the keys in the order illustrated, then turn the ignition key to position 0 and remove it.

Any code between "0000" and "9999" can be input. (The same or a different code number must be input each time the device is activated.)

In ignition key position 0 or with the key removed, the LED will remain on for up to 36 hours. If the LED flashes for about 10 seconds, the engine compartment has not been properly closed (or the radio has been removed).

De-activating in ignition key positions 1 or 2:

The gong signal and the "---- CODE" display call for the driver to input the code he or she has chosen:

- ▷ enter the code at the numerical input keys
- ▷ press the SET/RES key
- ▷ start the engine.

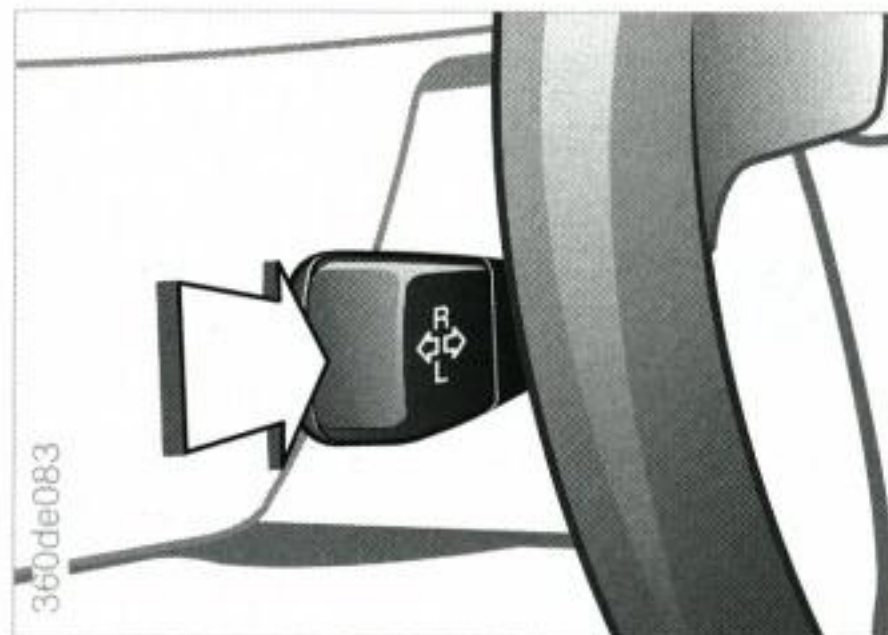
If attempts are made to start the engine without a code input or with an incorrect code, the gong will sound and the engine will not start.

88 On-board computer*

If the code number has been forgotten, proceed as follows:

- ▷ disconnect the battery, then reconnect it after about 2 minutes; the alarm will sound.
- ▷ turn the ignition key to position 1.
- ▷ a time display will appear and run down for 15 minutes.
- ▷ after 15 minutes, the engine can be started.

If the code number becomes available, it can be input during the 15-minute waiting period: press the keys in the order illustrated.



Remote control

The turn indicator lever can be used to call up a selection of pre-programmed information from the on-board computer on to the instrument-panel display.

Input:

- ▷ Press the flashing turn indicator lever in and hold it in until the display shows "Prog 1".
- ▷ Press the computer buttons in the order you wish to have the information displayed.
The number of programmed functions is displayed after each input.
- ▷ Press the SET/RES key.

If you wish all the information to be accessible:

- ▷ Press the flashing turn indicator lever in and hold it in until the display shows "Prog 1".
- ▷ Press the SET/RES key.

▶ For average fuel consumptions 1 and 2 and for independent ventilation switch-on times 1 and 2, note the following: if both fuel consumption values are to be shown, the CONSUM button must be pressed twice. If for example only CONSUM 2 is to be shown but not CONSUM 1, press the CONSUM button once and then press the km/mls button (this can be used to switch between values 1 and 2 as often as required). Follow the same procedure for independent ventilation switch-on times 1 and 2. ◀

To display:

Press the turn indicator lever in briefly.

PDC assists you when reversing the car into a parking space. An audible warning signal tells you how far you are from obstructions behind the car. Four ultrasonic sensors in the rear bumper measure the distance from any object they detect. The two corner sensors detect objects up to approx. 60 cm (approx. 2 ft) from the bumper. The two centre sensors have a range of app 1.50 m (approx. 5 ft).

In ignition key position 2, the system is activated automatically after approx. 1 second when reverse gear is selected or the automatic transmission selector lever moved to R. It is switched off when the lever is moved out of reverse gear or away from position R. If you are towing a trailer, of course, the system cannot make the appropriate measurements and is therefore out of action.

If a trailer tow hitch is retrofitted to a car with PDC, the distance warning will be heard when reverse gear (or selector lever position R) is engaged. The system cannot be switched off.

Audible warning signals

The distance from an obstruction is indicated by an intermittent audible signal. The closer the car approaches the obstruction, the more rapid the sequence of signals. When the distance is less than 30 cm (approx. 12 in), the signal becomes continuous.

The audible warning signal is interrupted after about 3 seconds if the distance to the obstruction remains the same during this time, for instance if the car is moving parallel to a wall.

If a continuous signal at a pitch higher than usual is heard when the system is first activated, it is malfunctioning. Have the cause traced and rectified by BMW Service.



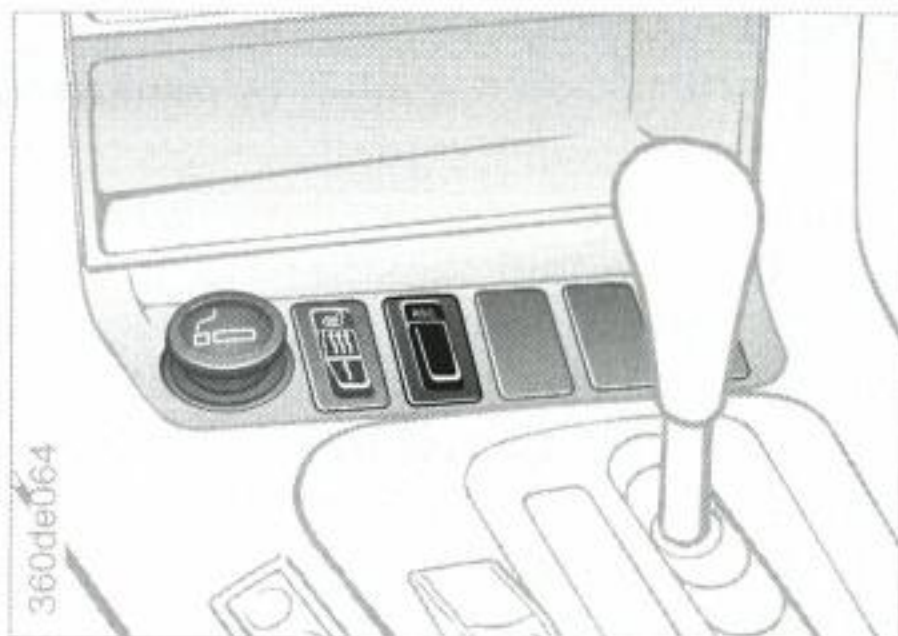
PDC is not intended to replace the driver's own judgement regarding clearance from obstructions. The sensors have certain "dead areas" in which objects cannot always be detected. Furthermore, the identification of obstructions may exceed the limits possible with the ultrasonic distance measurement principle, for example in the case of thin objects such as trailer tow hitches or certain painted objects.

Remember too that a high noise level, for example if the radio is operating at high volume, may prevent the PDC signals from being heard. ◀



Keep the sensors clean and free from ice, so that they always operate reliably.

Do not spray the sensors with steam jets for any length of time. Keep such jets at least 10 cm (approx. 4 in) away from the sensors. ◀



Automatic Stability Control plus Traction (ASC+T)*

This system enhances dynamic stability, particularly when accelerating and cornering.

The system is in operation whenever the engine has been started.

The telltale light in the instrument panel goes out shortly after the engine has been started.

Switching off

Press the button; the telltale light will come on.

Switching on again

Press the button again; the telltale light will go out.

If the telltale light flashes

The system is active, that is to say it is compensating for fluctuations in traction caused by the road surface.

If the telltale light does not go out after starting the engine, or comes on again during the journey

The system has a fault. However, the car remains entirely operational without ASC+T. Have the system examined and repaired by BMW Service.

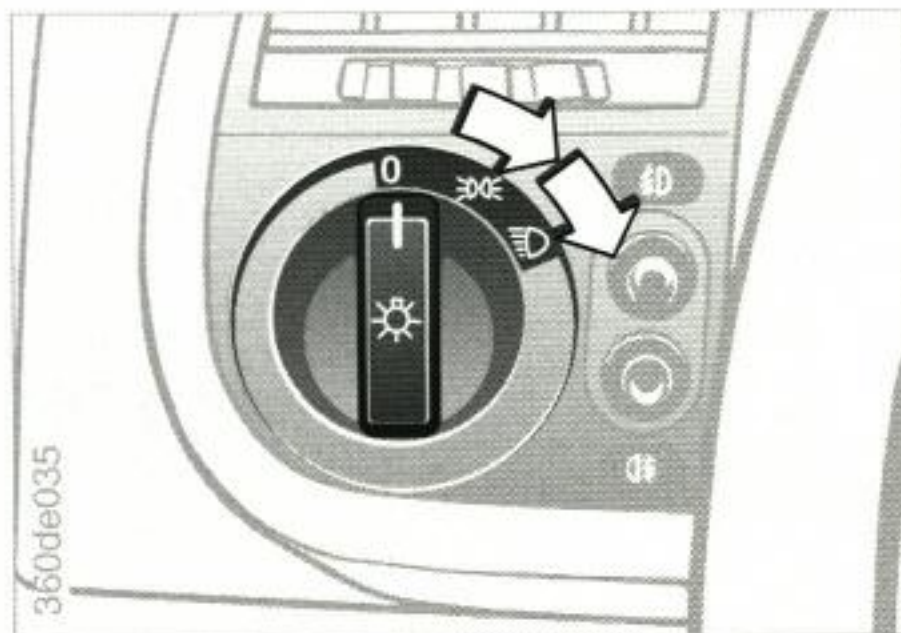
Further information on ASC+T is given in the section "Technical features of interest"; see page 194.

When ASC+T is switched off, the car's driveline operates in the conventional manner. It may be desirable, for instance, to switch off the system to ensure maximum potential traction

- ▷ when rocking the car free or starting in deep snow or on a loose surface (see "Moving away from a standstill", page 127)
- ▷ if snow chains are fitted.



Please note that like any moving body the car remains subject to the laws of physics even when ASC+T is in use. If the maximum possible speed in any given situation is exceeded, traction and lateral wheel location may be lacking. The driver alone is responsible for avoiding this situation. The extra safety potential offered by this system must never be understood as an invitation to take additional risks. ◀



LIGHTS ON warning

When the ignition is turned back to position 0 and the driver's door opened, a buzzer sounds for several seconds as a reminder that the lights have not been turned off.

On cars with alphanumerical Check Control*: the reminder appears on the Check Control; see page 76.

Daytime (dim-dip) circuit*

If desired, the light switch can remain in the second position: when the ignition is turned off, the car's lights go out.

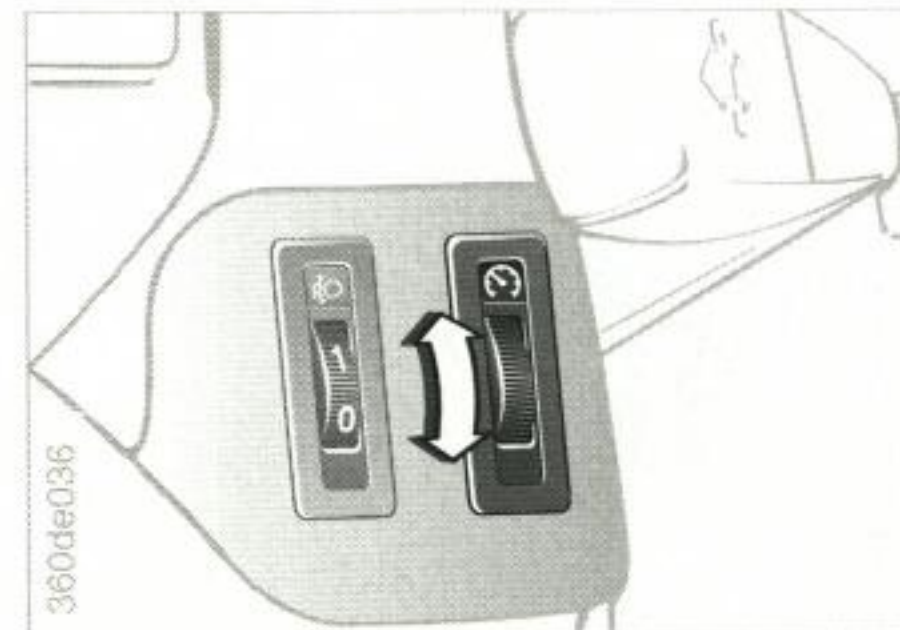
Parking lights



Low beam headlights

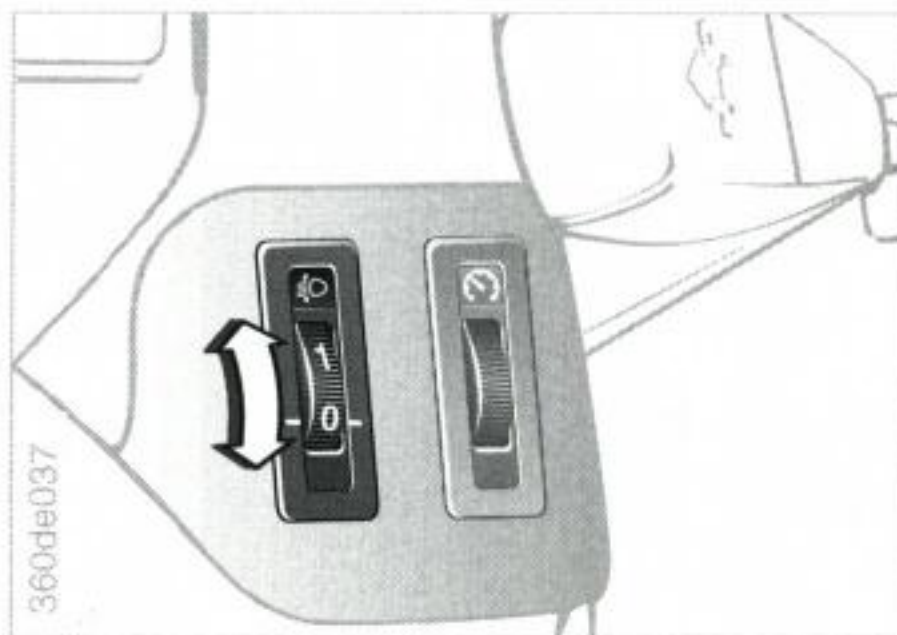


If the ignition is switched off while the low beam headlights are in use, only the side lights remain on. When the ignition key is turned back to 0, a buzzer sounds for several seconds as a reminder that the lights have not been turned off.



Turn the knurled wheel to vary the intensity of the lighting.

92 Headlight range control



To avoid dazzling the drivers of oncoming vehicles, you must adjust the dipped headlight beam angle to suit the load being carried in the car. Position 0 is used with 1 to 2 persons in the car, but no luggage or trailer (with trailer: position 1).

For other settings, see the adjacent table.

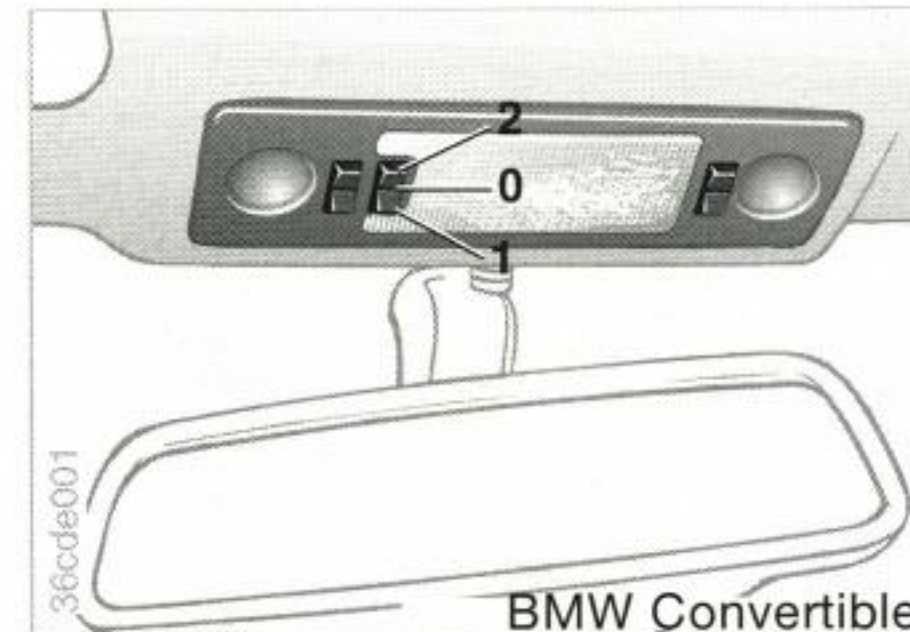
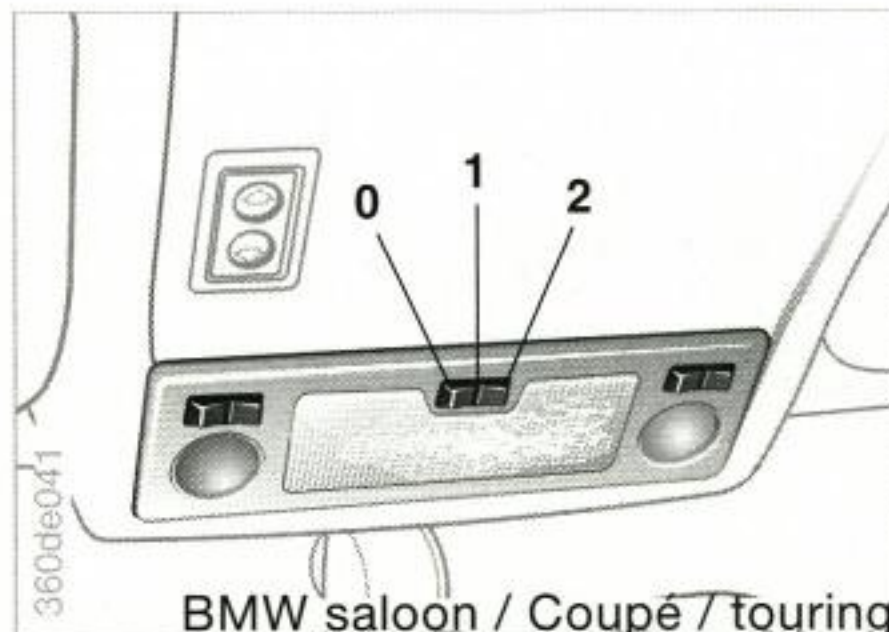
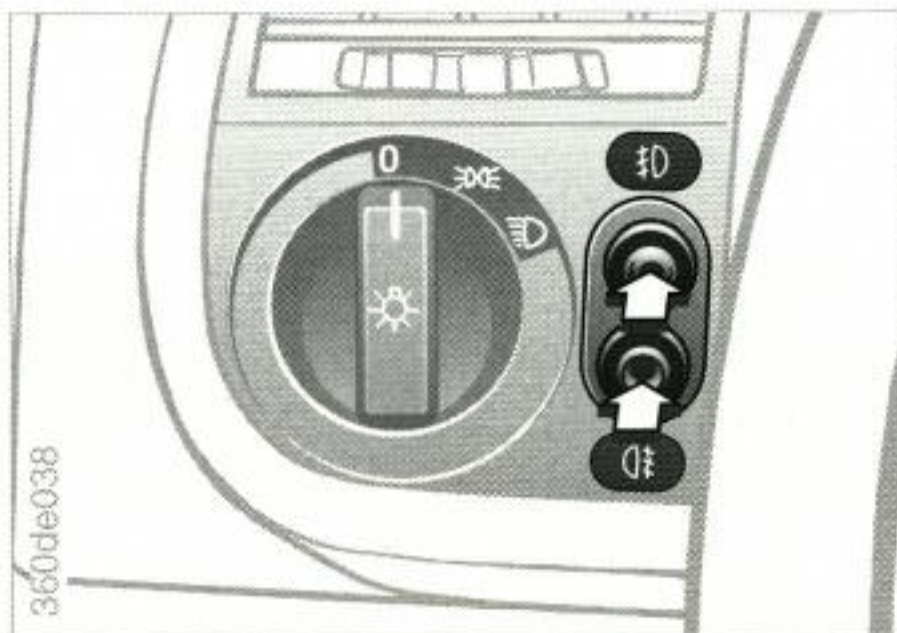
Model	Load	Position
Saloon/ Coupé	3-5 pers., no luggage 3-5 pers., max. luggage	1 (2)
	Driver only, max. luggage	2 (2)
Con- vertible	3-4 pers., no luggage 3-4 pers., max. luggage	0 (1)
	Driver only, max. luggage	1 (2)
touring	3-5 pers., no luggage	0 (1)
	3-5 pers., max. luggage	1 (1)
	Driver only, max. luggage	2 (2)

Values in () apply when towing a trailer.

Comply with the permitted rear-axle load limit.



Please use the correct settings to avoid dazzling oncoming drivers.◀

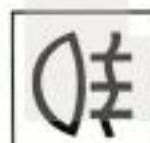


Fog lights*



The green telltale light on the instrument panel comes on when the fog lights are in use.

Rear fog light*



The yellow telltale light on the instrument panel comes on when the rear fog light is in use.

Please comply with local legislation concerning the use of front and rear fog lights.

- 0 Switched off permanently.
- 1 The lights come on:
 - ▷ when a door is opened (operated by contact switches at the doors).
 - ▷ for a few seconds after the doors have been closed; they go out as soon as the ignition is turned on.
 - ▷ for a few seconds after the ignition has been switched off, if the car's lights were on.
 - ▷ if the car had a heated driver's door lock, when the driver's door handle of the locked car is raised for a few seconds (only up to three times in succession).
 - ▷ after an accident.
- 2 Switched on permanently

- 2 Switched on permanently

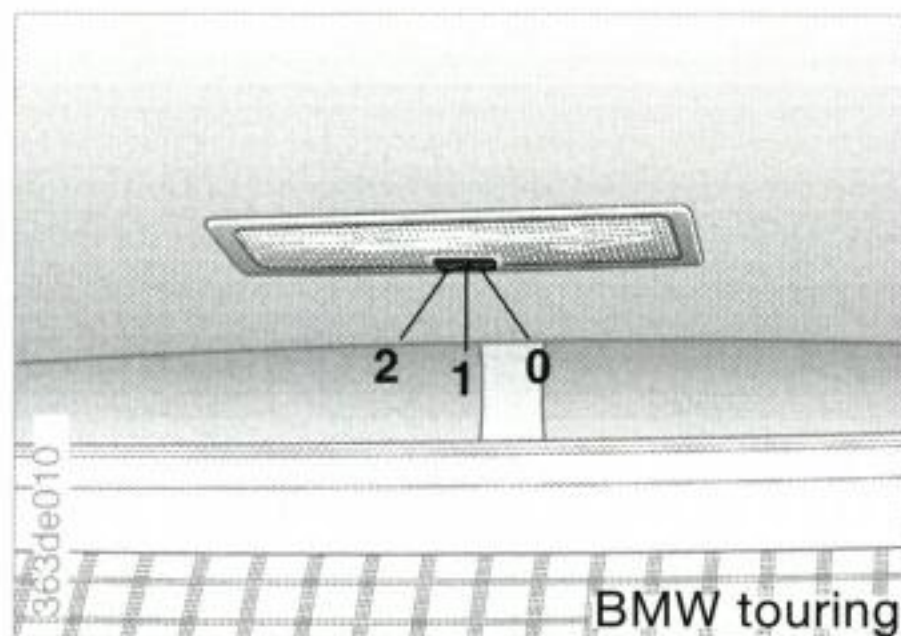
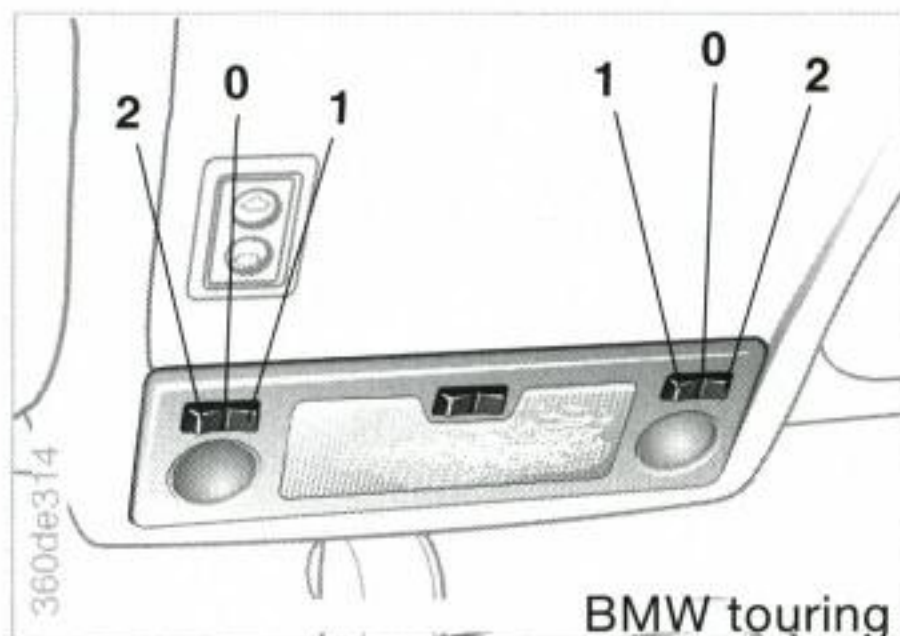
BMW Convertible: a safety circuit ensures that in light switch position 1 any lights still remaining on are extinguished about 15 minutes after leaving the car.

Footwell lights*

The footwell lights operate in the same way as the interior light.

Reading lights*

Reading lights are installed at the front, next to the interior light, and in the rear-seat area*. They can be turned on and off at the adjacent switch.



Rear interior light

BMW touring: additional interior lights at the rear, left and right.

These lights are controlled by way of the front interior light:

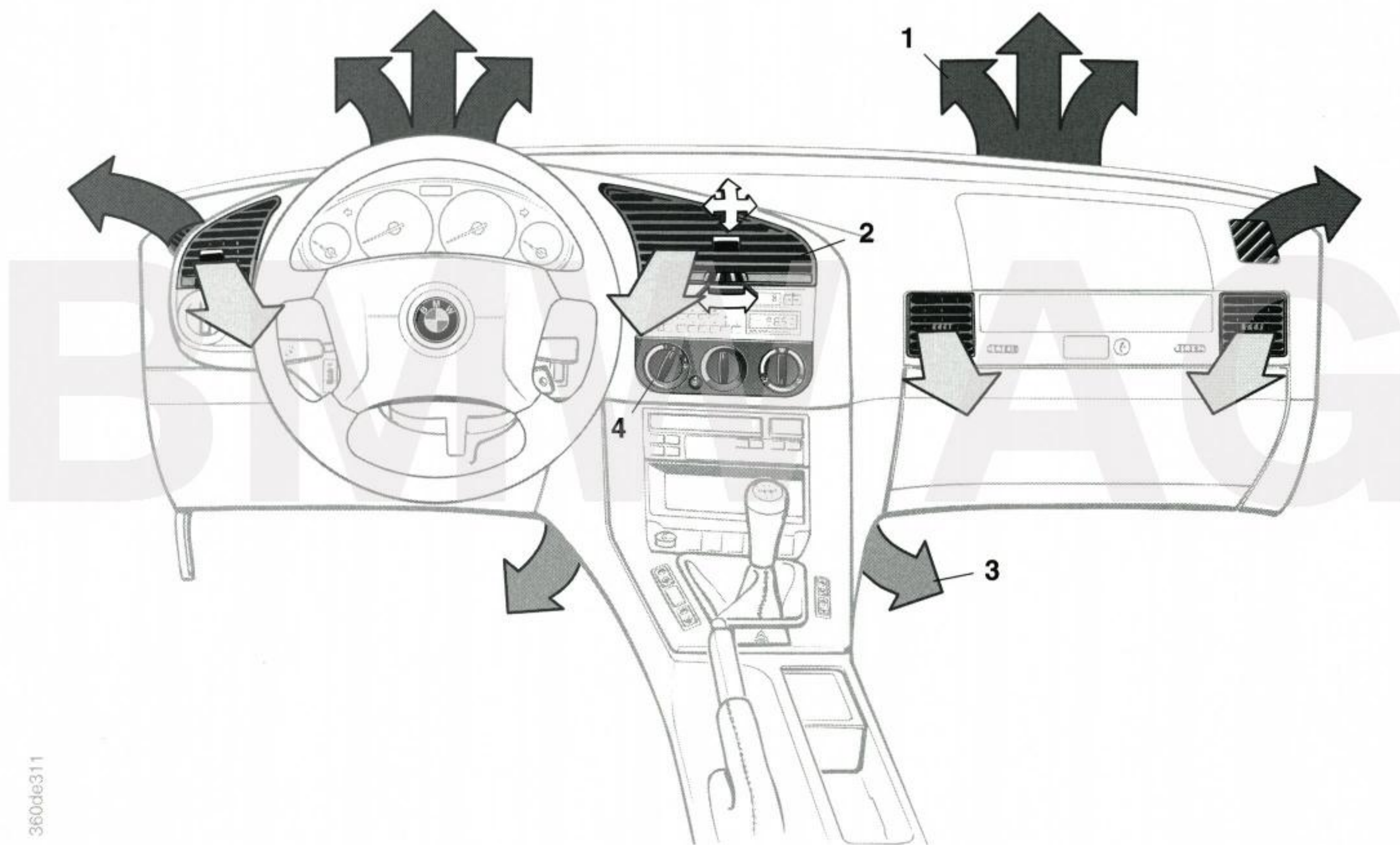
- 0 Button not pressed:
front reading light off
- 1 Inner end of button pressed:
front reading light switched on
- 2 Outer end of button pressed:
rear reading light permanently on.

Load-area light

The switch has the same positions as the interior light switch:

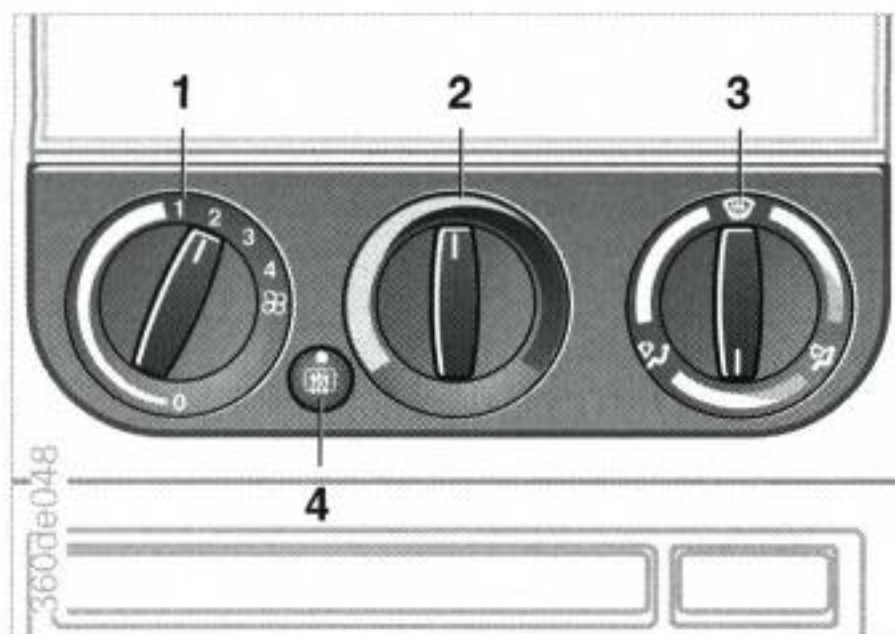
- 0 Switch off permanently
- 1 Light comes on when luggage compartment lid/tailgate is opened
- 2 Switch on permanently.

BMW AG



- 1 Air supply to windscreen and front side windows
- 2 Air supply to occupants' upper body zone
The knurled wheel opens and closes the air supply continuously; the lever varies the direction of flow.
- 3 Air supply to front footwell
There are corresponding air outlets in the rear footwell.
- 4 Controls

BMW AG



Controls

- 1 Air supply
Heating and ventilation take effect from position 1 onwards.
- 2 Temperature
- 3 Air distribution
Directions: windows, upper body zone, footwells.
Any intermediate setting is possible.
- 4 Heated rear window
BMW Convertible: warm-air flow to rear window.

Air supply



Positions 1 to 4 are for the increasing blower speeds. Heating and ventilation take effect from position 1 onwards. You can reduce the incoming airflow continuously at higher road speeds by turning the control back from 1 towards 0. The blower is switched off at positions between 1 and 0.




Temperature



To raise the temperature inside the car, turn to the right (red).

Air distribution



You can direct the airflow to the windows , to the upper body zone  and to the footwells. Any intermediate setting is possible. In the footwell setting  a small amount of air continues to flow to the windows, to ensure that they are kept clear. In the blue zone, the air emerging from the upper body zone outlets is not heated.

Heated rear window

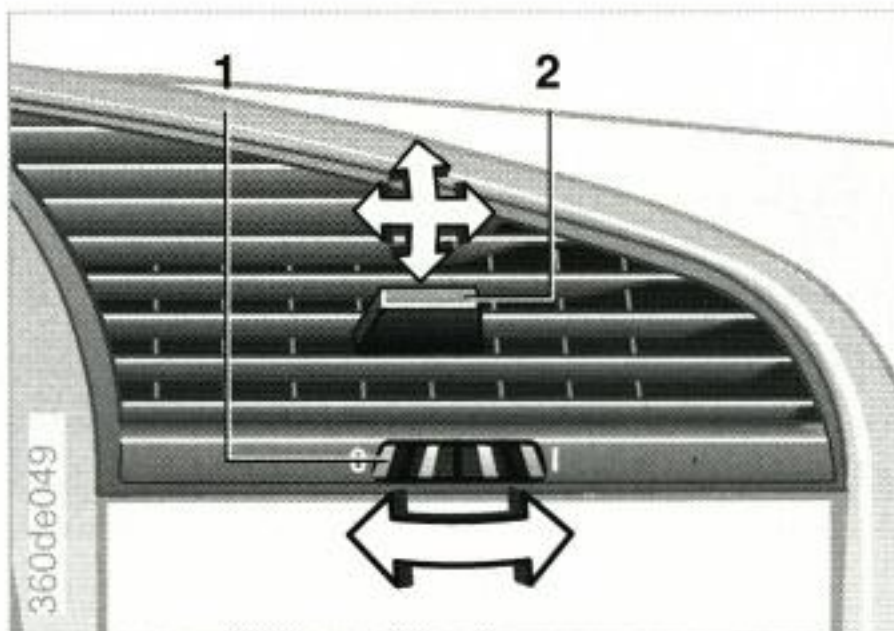


The telltale light comes on when the heated rear window is in use.

BMW Convertible: warm-air flow to rear window.

The heated air flow cannot be switched on when the soft top is open.

When the hardtop* is installed, the same control operates the heated rear window.



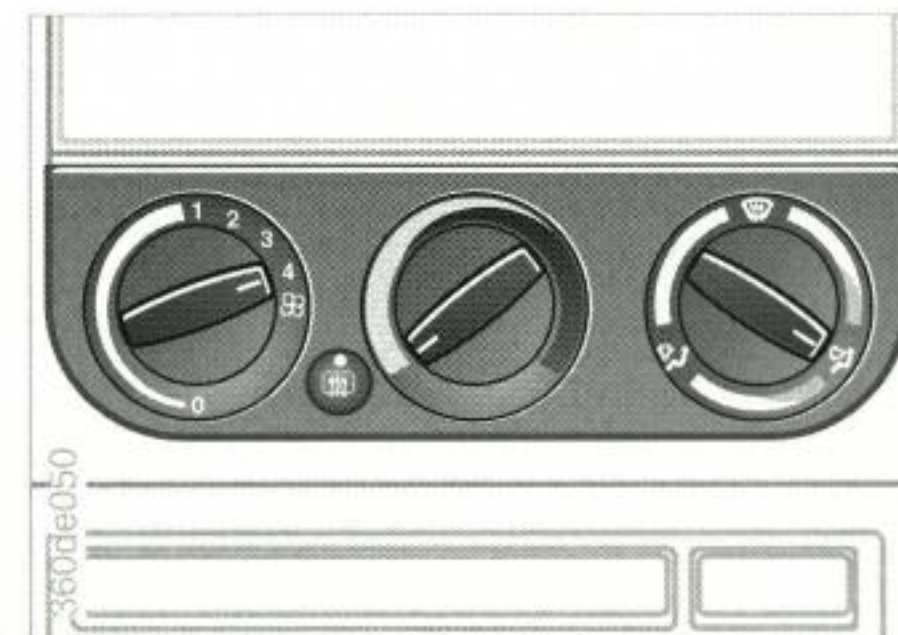
Micro-filter*

The micro-filter traps dust and pollen in the incoming airflow. BMW Service will renew the filter element during maintenance work. If airflow is noticeably less than usual, this may indicate that the filter should be renewed earlier.


Draught-free ventilation

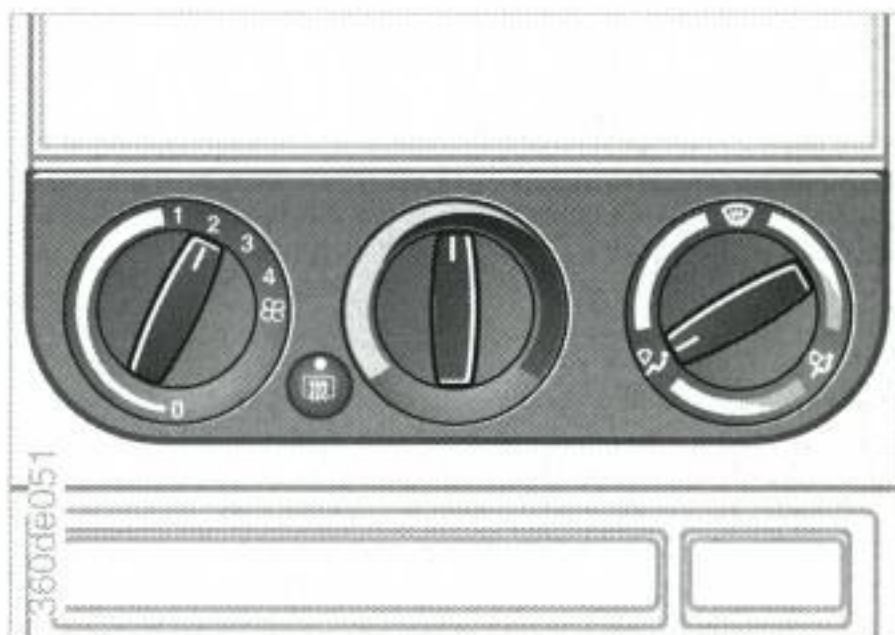
The outlets for the occupants' upper body zone can be adjusted to suit your personal preferences:

Turn knurled wheels 1 to open or close the outlets steplessly. Alter the direction of the airflow by moving levers 2.



Rapid ventilation in summer

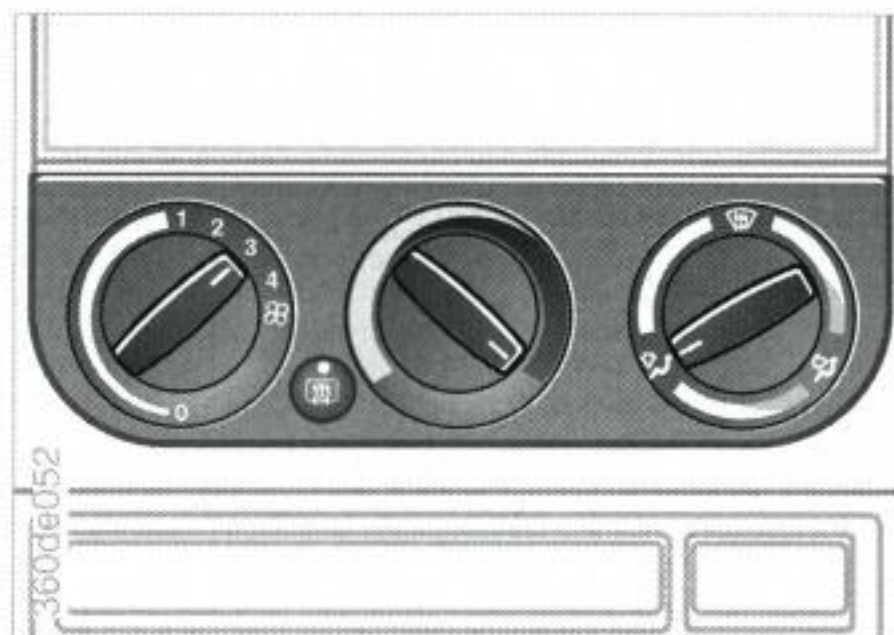
- ▷ Turn blower switch to speed stage 4.
- ▷ Turn temperature control fully to the left (blue).
- ▷ Turn air distribution control to position .
- ▷ Open the outlets for the upper body zone.



Heating in winter

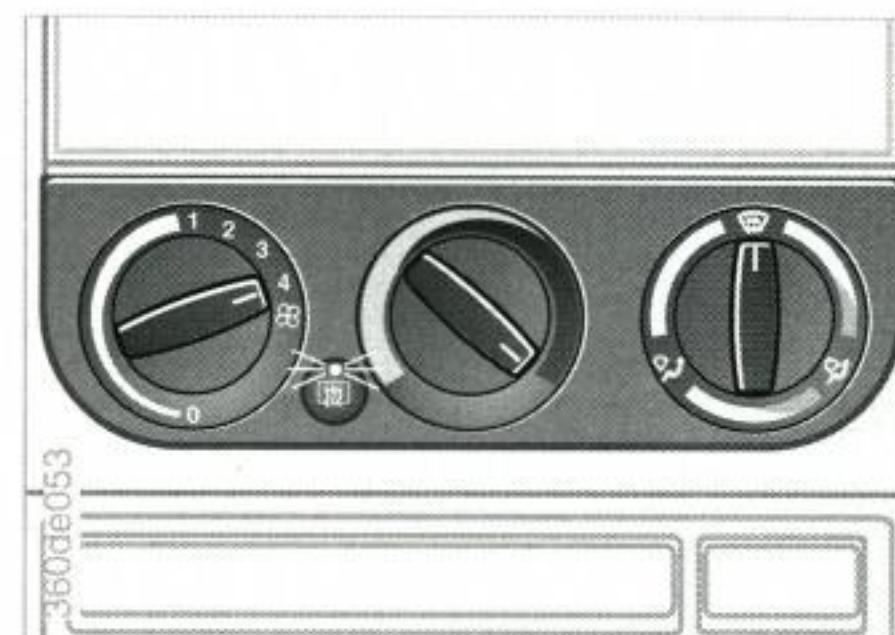
If the windows are free from ice and condensation, the following settings are recommended:

- ▷ Turn the air supply control to setting 2.
- ▷ Select a pleasant interior temperature at the rotary temperature control.
- ▷ Turn the air distribution control to position 1.



Heating the car rapidly in winter

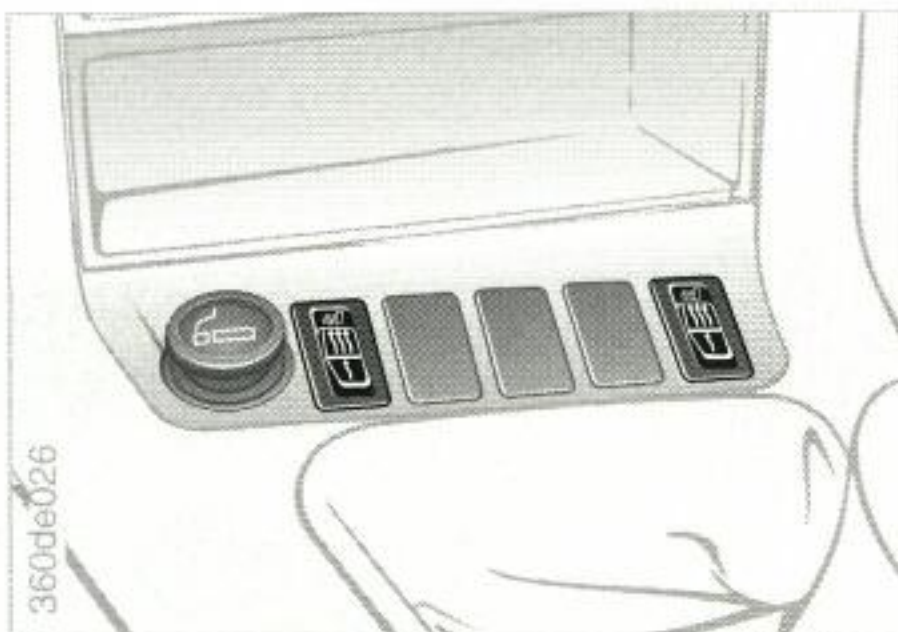
- ▷ Set the rotary blower switch for the air supply to speed stage 3.
- ▷ Turn the temperature control fully to the right (red).
- ▷ Turn the air distribution control to position 2.
If you need a greater flow of air to the upper body zone, choose a setting between 2 and 3 or as far as the start of the blue mark, and open the upper body zone outlets.



Defrosting and demisting windows

- ▷ Turn blower switch to speed stage 4.
- ▷ Turn the temperature control fully to the right (red).
- ▷ Set the rotary air distribution control to position 3.
- ▷ To remove ice from the rear window, switch on the rear window heating.

Heated seats*



The seat cushion and seat back can be heated when the ignition key is in position 2.

Press the switch with the heating symbols:



Rapid heating for as long as the switch is brightly illuminated. Automatic changeover to regular heating.



Regular heating for as long as the switch is brightly illuminated. The seat heating is switched off automatically.

To change over during seat heating: press the switch that is not so brightly illuminated.

To switch off prematurely: press the brightly illuminated switch.

Independent ventilation control

This ventilates the car's interior and lowers its temperature by means of the heater or air conditioning blower.

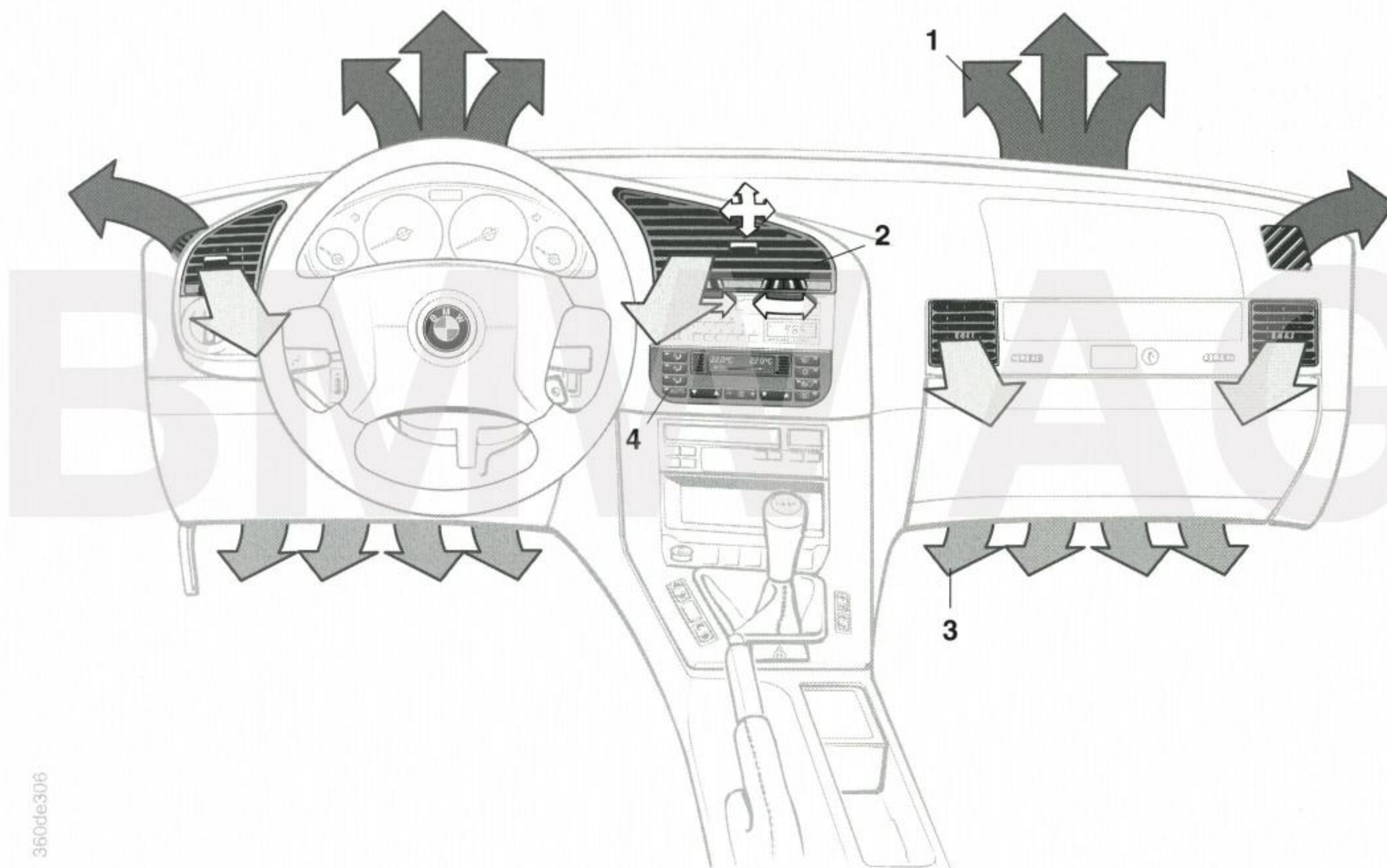
Operation is by way of the on-board computer; see page 86.

The switch-on time can be preselected; the independent ventilation then runs for 30 minutes. It can also be switched on and off directly.

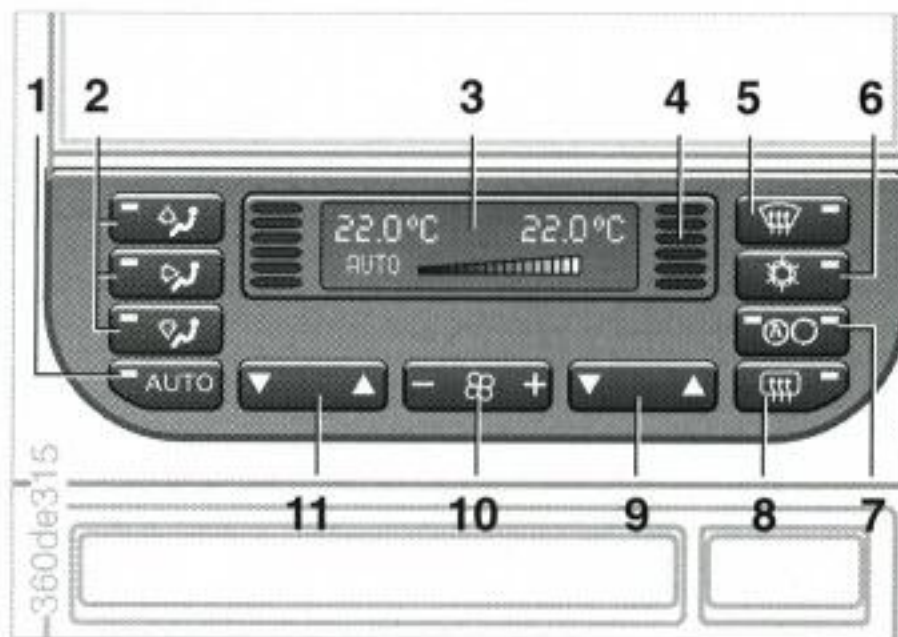
Since its current consumption is high, it should not be run twice in succession unless there has in the meantime been an opportunity to recharge the car's battery by driving the car.

The independent ventilation system can be used at outside temperatures above 16°C, but not when the car is being driven.

Air emerges through the outlets for the occupants' upper body area. These outlets must therefore remain open if the independent ventilation system is to be used.



- 1 Air supply to windscreen and side windows
- 2 Air supply to occupants' upper body zone
The knurled wheel at the right opens and closes the air supply continuously; the lever varies the direction of flow. The left knurled wheel varies the temperature of the air output (page 106).
- 3 Air supply to front footwell
There are corresponding air outlets in the rear footwell.
- 4 Controls



Controls

- 1 Automatic air distribution
- 2 Individual air distribution
- 3 Temperature display, air supply
- 4 Air inlet grille for interior temperature sensor - keep unobstructed
- 5 Defrosting and demisting windows
- 6 Air conditioning
- 7 Recirculated air mode
- 8 Heated rear window
- 9 Temperature – right side
- 10 Air supply
- 11 Temperature – left side

A pleasant interior temperature

Press AUTO key 1 to switch on the automatic mode. Choose the interior temperature you prefer, e.g. 22°C. Above an outside temperature of 5°C you can also select the air conditioning at button 6. This dries the air and prevents the windows from fogging over, for instance if the car's occupants are wearing damp clothing. Turn outlets 2 so that the airflow passes the occupants without striking their bodies directly. Set the left knurled wheel below outlets 2 for the upper body zone to a central position, so that the airflow is slightly cooler and the risk of fatigue is avoided.

The description below tells you how to obtain various settings which may be individually preferred.




Automatic air distribution



The AUTO program controls air distribution for you by varying the air distribution and air supply settings, and also modifies your chosen settings according to outside influences (winter or summer season). It ensures a pleasant interior climate at every time of year. First choose the interior temperature you would prefer, e.g. 22°C. The selected temperature values and the AUTO indication for the airflow appear in display 3. Open the outlets for the upper body zone. Switch the air conditioning on in the warm season of the year. Maximum cooling effect is obtained when knurled wheel 3 (see page 106) is in the cold setting.

Individual air distribution



You can choose your own preferred air distribution pattern and switch off the AUTO program. Air can be directed to the windows , to the upper body zone  and/or to the footwells .

Defrosting and demisting windows



This program is used to eliminate ice and moisture condensate rapidly from the windscreen and side windows.

Air conditioning



When the air conditioning is switched on, the air is cooled, dried and (depending on the temperature selected) re-heated. Depending on weather conditions, the windscreen may fog over momentarily when the engine is started. You can keep the windows clear at outside temperatures below about 5°C by switching off the air conditioning. The windows may also mist over if the system is switched on and off too frequently.



Moisture condensate forms in the air conditioning and is discharged underneath the car. Traces of water on the ground are therefore quite normal. ◀

Recirculated air mode/Auto-matic recirculated-air Control (AUC)*



If the outside air contains unpleasant odours, the incoming air from outside the car can be shut off temporarily. The air inside the car is then recirculated.

Three operating modes can be obtained in succession by pressing this button repeatedly:

- ▷ Telltale lights off: fresh air enters car from the outside.
- ▷ Left telltale light on – AUC operation: the system identifies pollutants in the outside air and shuts off the supply if necessary. The air inside the car is then recirculated.
- ▷ Right telltale light on: the outside air supply is permanently shut off. The air inside the car is recirculated.



If the windows fog over in the recirculated-air operating mode, switch this (or AUC) off and increase the incoming airflow if necessary. ◀

Heated rear window



When the heated rear window is in use, the telltale light comes on.

The heated rear window is switched off automatically after about 15 minutes.

BMW Convertible: warm-air flow to rear window.

The heated air flow cannot be switched on when the soft top is open.


When the hardtop* is installed, the same control operates the heated rear window.

Temperature

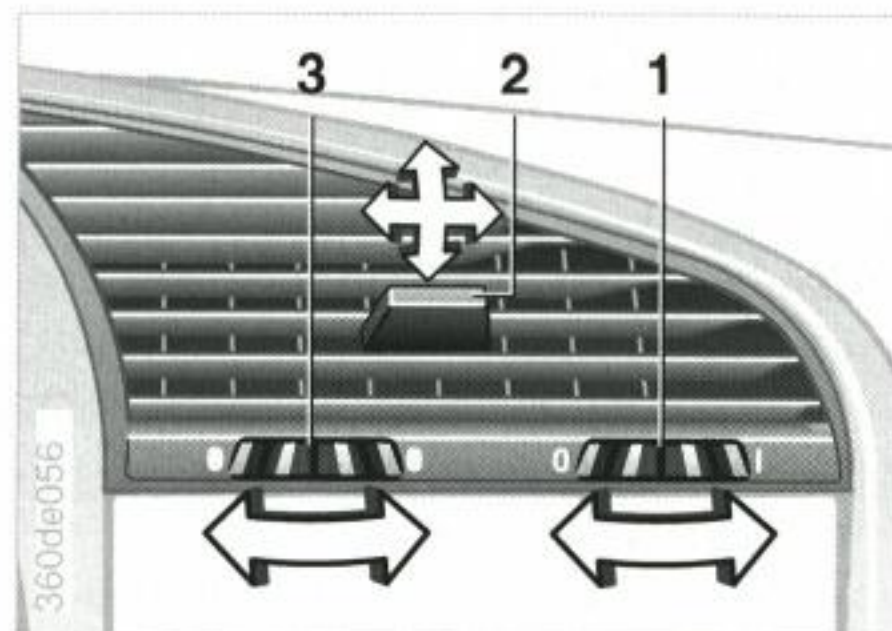


You can select a different interior temperature setting on the driver's and front passenger's sides of the car. The displayed values are a guide to the actual interior temperature. 22°C is recommended as a pleasant setting, whether or not the air conditioning is in operation. During the journey, the chosen temperature is reached as quickly as possible – in summer and in winter – and maintained at a constant value.

Air supply

 In the AUTO program the incoming air supply is controlled automatically, and display 3 reads AUTO; see heading on page 104. You can vary the air supply at "+" and "-". Your selection is shown by bars on the display and the automatic operating mode is switched off. It can be switched on again by pressing the AUTO button.

If you press "-" at the lowest blower speed setting, all the displays go out: blower, heating and air conditioning are switched off and the air supply shut off. The automatic air conditioning can be switched on again by pressing any key. Effective heating and cooling are assured at a moderate blower speed.

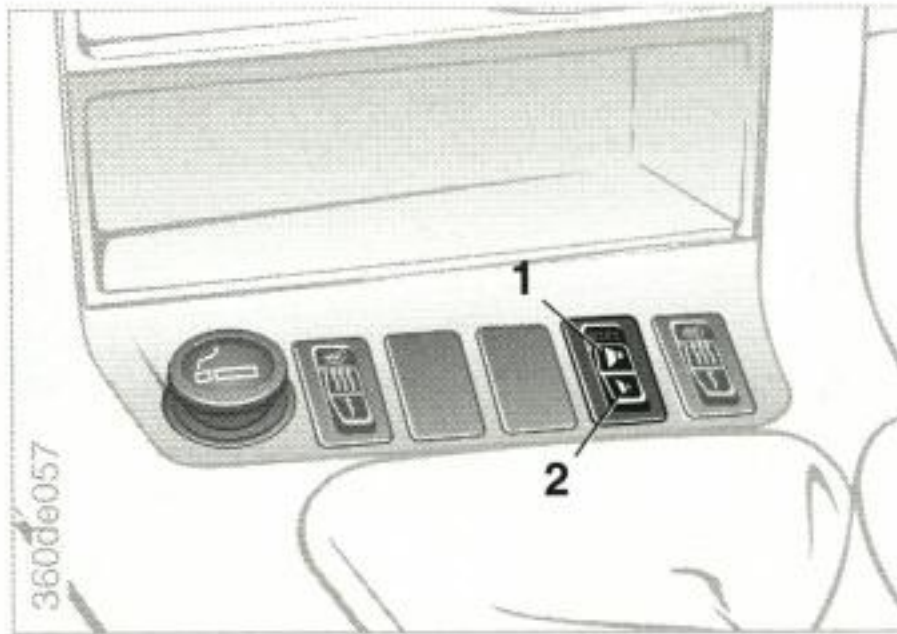
**Draught-free ventilation**

The outlets for the occupants' upper body zone can be adjusted to suit your personal preferences: use knurled wheels **1** to open and close the outlets steplessly. Use levers **2** to alter the airflow direction. Knurled wheel **3** blends air from the upper body zone outlets with a varying proportion of cool air:

Turn towards blue zone – cooler
Turn towards red zone – warmer

Micro-filter

The micro-filter traps dust and pollen in the incoming airflow. BMW Service will renew the filter element during routine maintenance. If airflow is noticeably less than usual, this may indicate that the filter should be renewed earlier.



BMW harman/kardon hifi system

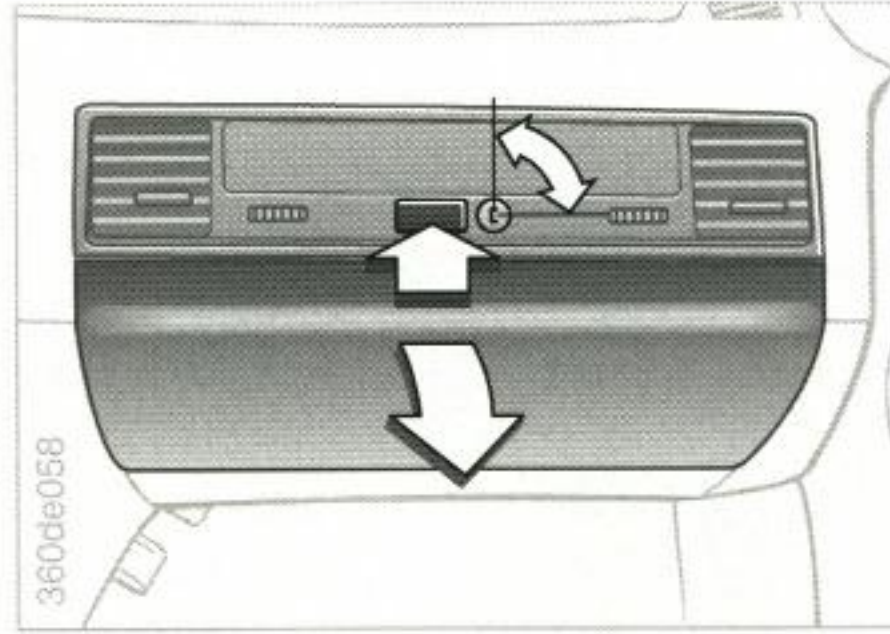
- 1 On
- 2 Off

In the "On" position the acoustical impression of a much larger interior is created, with an improved stereo listening effect at all seats.

This function should remain switched off if the radio signal reception level is poor, because of the repeated changes between stereo and mono which then occur.

BMW Convertible:

No operation is required. The system senses when the soft-top is open or closed and adjusts the acoustic system as required.



To open

Press the catch button and swing the lid down.

The light in the glove box comes on automatically from ignition key position 1 onwards.

To close

Swing the lid back up.

Locking

Only possible with a master key.



To avoid the risk of injury, always close the glove box immediately when not in use. ◀

Rechargeable hand lamp*

The plug* for the rechargeable hand lamp is in the glove box, at the left.

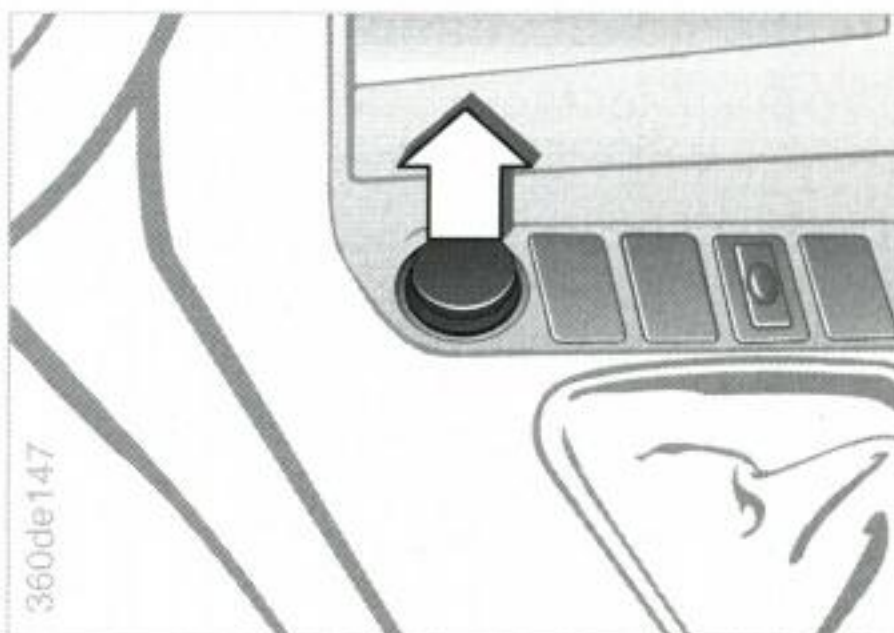
The hand lamp is protected against excessive charging, and can therefore remain plugged in all the time.

However, it must be removed if the car's battery is disconnected or recharged.



Switch the hand lamp off before reconnecting it to its plug. ◀

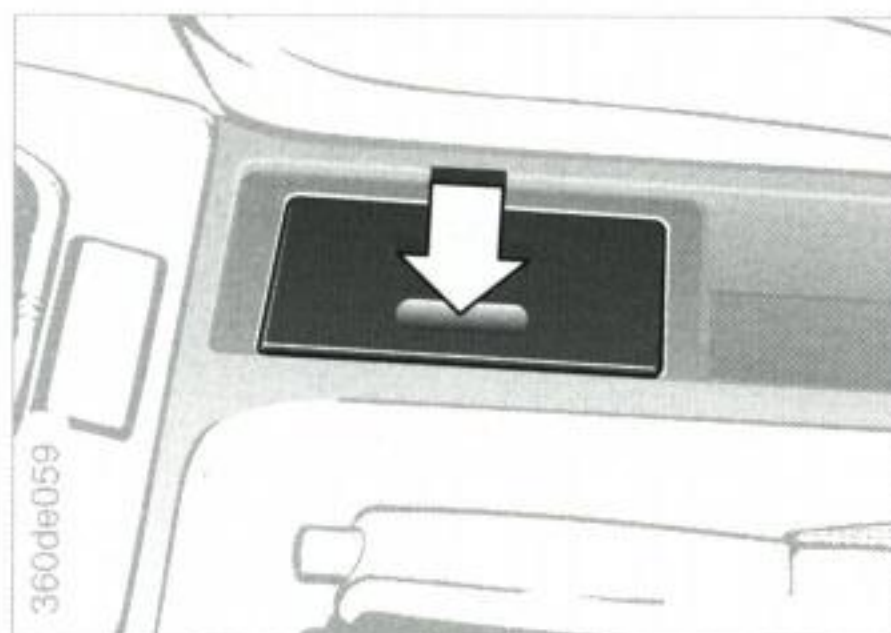
108 Power socket*



Remove the protective cap. The socket can be used for a 12 Volt hand lamp, car vacuum cleaner or similar appliance rated at up to approx. 200 Watts.

Make sure that the socket is not damaged by attempting to insert plugs of the wrong pattern.

Ashtrays*



To open

Press the recessed area (arrow).

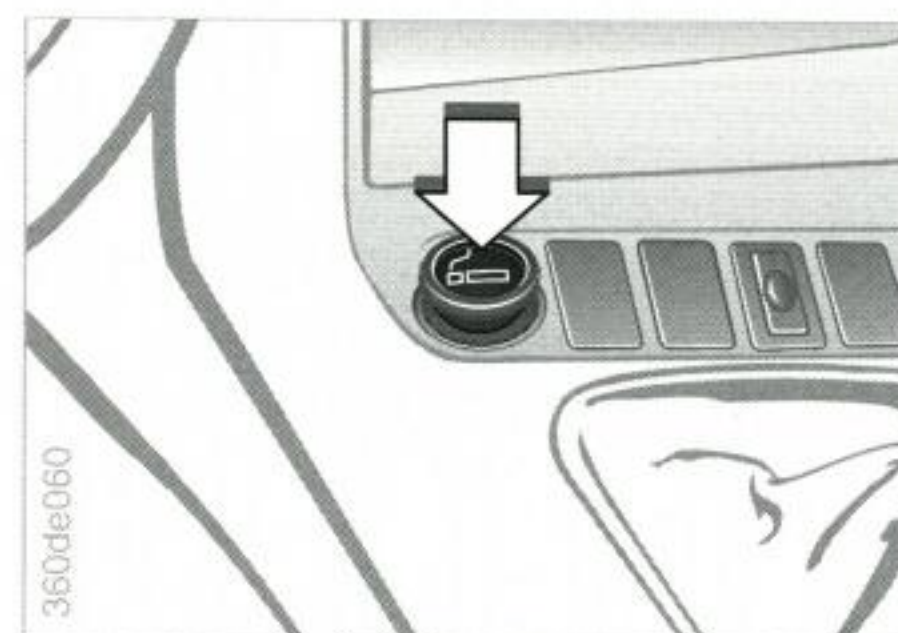
To extinguish a cigarette, knock off the ash and insert a short distance only into the funnel-shaped hole.

To empty

With the ashtray open, press the edge of the lid: the ashtray insert will rise and can then be taken out.

The rear ashtray is of similar design.

Cigarette lighter*



Press in: the cigarette lighter can be removed when it pops back out.



Hold the hot cigarette lighter only by its knob, or else you may suffer burns.

The cigarette lighter remains operational when the ignition key has been removed. For this reason, do not leave children in the car unattended. ◀

Cigarette lighter socket

This can also be used for a 12 Volt hand lamp, car vacuum cleaner or similar appliance rated at up to approx. 200 Watts.

Make sure that the socket is not damaged by attempting to insert plugs of the wrong pattern.

Integral child's seat*

The integral child's seat system is suitable for children from approx. 18 months to 12 years of age. Adjust it according to the child's size and weight (see table on next page).

For babies aged up to 18 months you are recommended to use a suitable restraint system (see page 53).



The integral child's seat system is only intended for use in your BMW, which is equipped for its installation.

No modifications are to be made to the child's seat system, or any items added to it.

Never leave children unattended in the car when they are occupying the child's seat.

Keep the safety table for the child's seat away from direct sunlight, so that the child cannot burn itself on the hot surface.

Do not compress the safety table between unyielding parts of the car (door, seat rail etc.).

If damaged or overloaded in an accident, the child's seat and if necessary the safety table should be renewed by BMW Service. ◀

Please note the additional safety and care instructions in the Owner's Handbook under "Child's restraint systems" (page 53) and "Seat belts" (page 52).



If the integral child's seat system is retrofitted to your car, always study the information in the installation instructions accompanying it. If you have any queries, please consult BMW Service. ◀

110 Integral child's seat*

Adjusting the child's seat

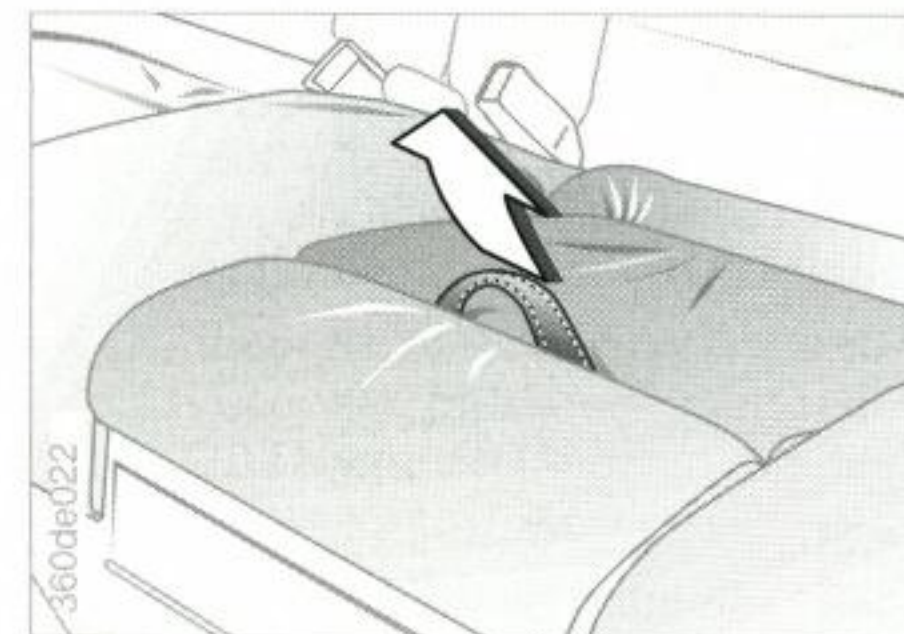
Class	Weight kg (lb)	Seat position	Other accessories needed
1	9 – 18 (20 – 40)	High (stage 2)	Safety table and extra-comfort seat back
2	15 – 25 (33 – 55)	High (stage 2) ¹⁾ or Low (stage 1) ¹⁾	2)
3	22 – 36 (48 – 80)	Low (stage 1) ¹⁾	–

- ¹⁾ Seat position depends on seated height.
Below 65 cm (2 ft 2 in): high (stage 2)
Over 65 cm (2 ft 2 in): low (stage 1)

Position of upper seat belt (if safety table
and extra-comfort seat back are not used):
between neck and upper arm joint.
Keep the lap belt taut.

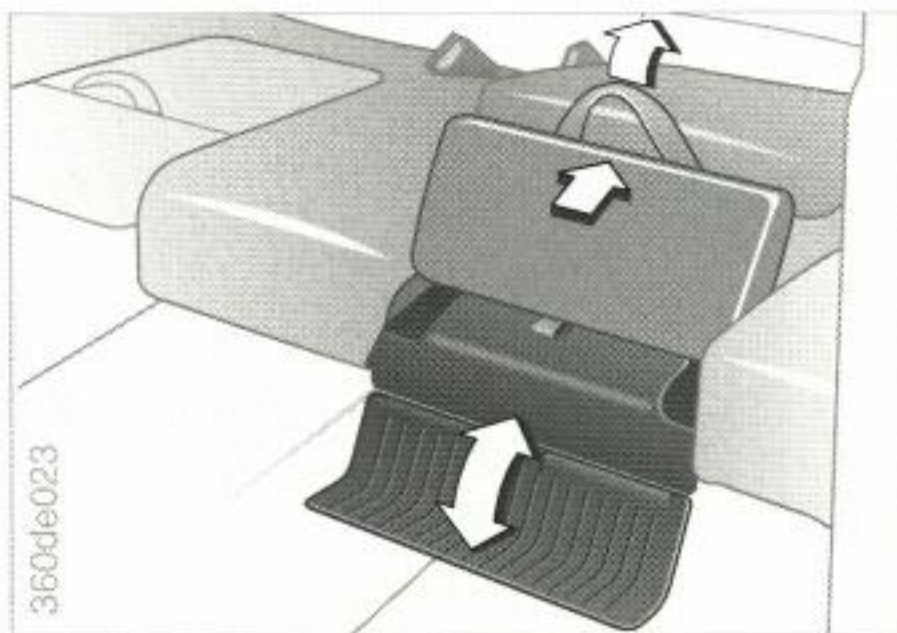


- ²⁾ For children up to 3½ years of age, you are recommended to use the
additional safety table and extra-comfort seat back.
The extra-comfort seat back can be used for children up to the age of 8.



Raising the child's seat

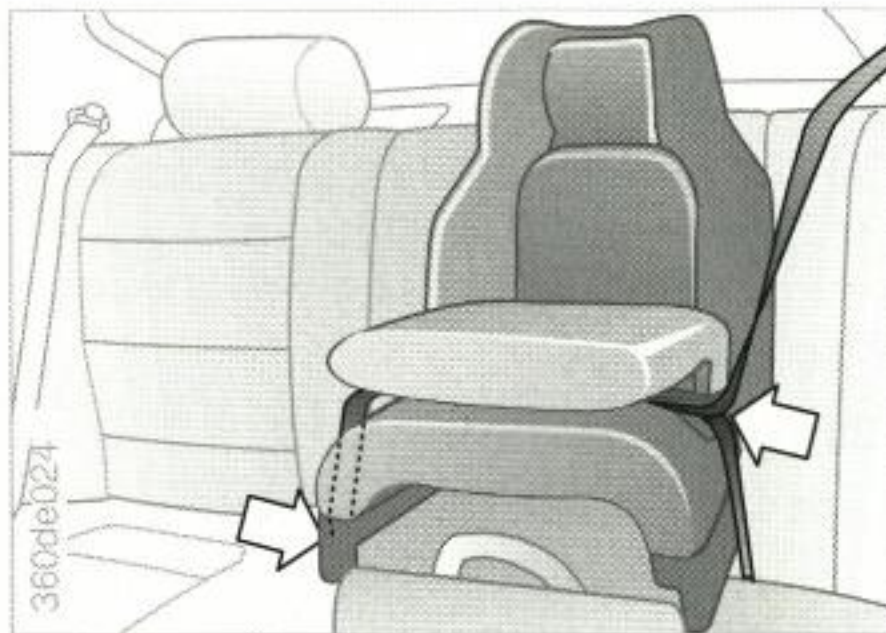
Pull the loop strap up.



To obtain the desired "low" (stage 1) or "high" (stage 2) child's seat position, pull the loop strap and press the lower part of the child's seat down to the rear as necessary. After this, push the child's seat lightly forwards in the opposite direction so that it engages in the required position. Swing the footrest down.



When sliding the car's front seats back, make quite sure that the feet of a child occupying the child's seat are not trapped. ◀



To install the extra-comfort seat back*, place the head section over the head restraint.

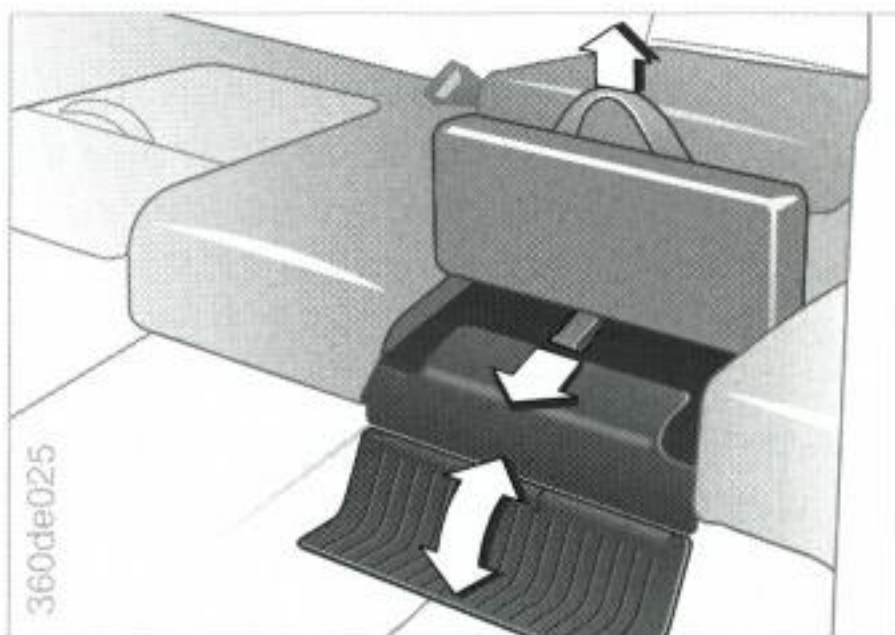
With the child already occupying the seat, place the safety table* on the seat.

Run the standard lap-and-diagonal seat belt through the safety table as shown (without twisting the belt) and engage it in the seat belt buckle (it must be heard to engage). Eliminate slack from the seat belt.



Children who do not need the safety table on account of their age or weight (see table on previous page): pass the seat belt over the child's body so that it is taut and not twisted; it must not pass under the child's arm. Run the lap belt as low down as possible over the child's body, and eliminate belt slack. ◀

112 Integral child's seat*



Folding away the child's seat

Fold up the footrest. To retract the child's seat into the car's rear seat, pull the upper loop to release the catch, at the same time pulling forwards at the front loop.

Rear centre arm rest*

Pull out at the loop when required.

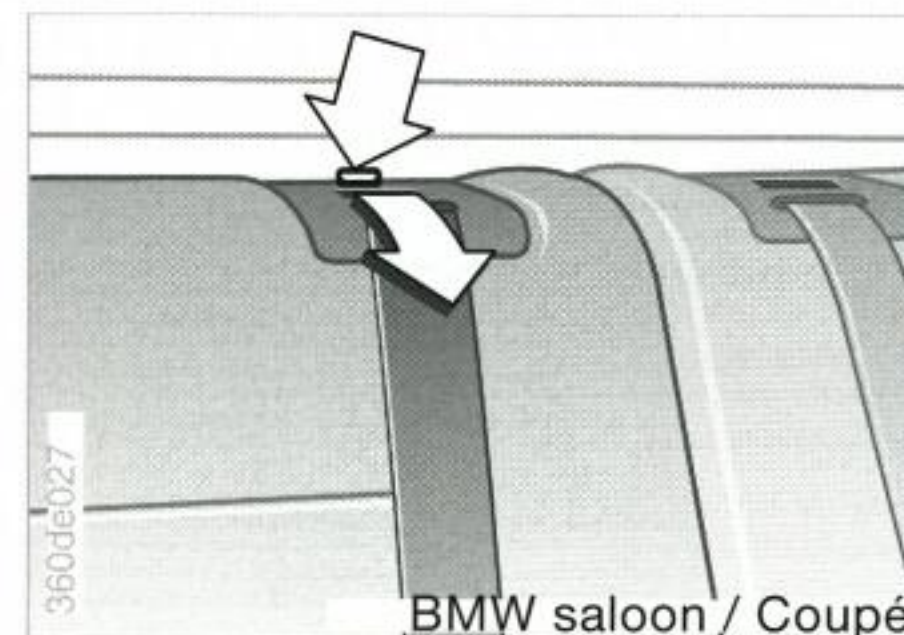
Opening drawer*:

Pull the handle to release it, and pull the drawer out. It will lock in any position. The cup holder can be repositioned as required.

BMW Convertible

Cars without the ski bag* option: the storage compartment is accessible after removing the filler element and detaching the trim (see page 114).

Through-loading system*



The rear seat back is split centrally. Either side can be folded down separately to accommodate lengthy objects.

Releasing:

Reach into the recess, press down and pull forwards.

When folding the seat back up again, make sure that the catch engages correctly, to ensure that seat belt operation is not affected. The red slide must move down.

If a rear seat back is not correctly secured, the seat belt cannot be pulled out.

Can accommodate 3 or a maximum of 4 pairs of skis safely and conveniently (BMW Convertible: not more than 2 pairs of skis).

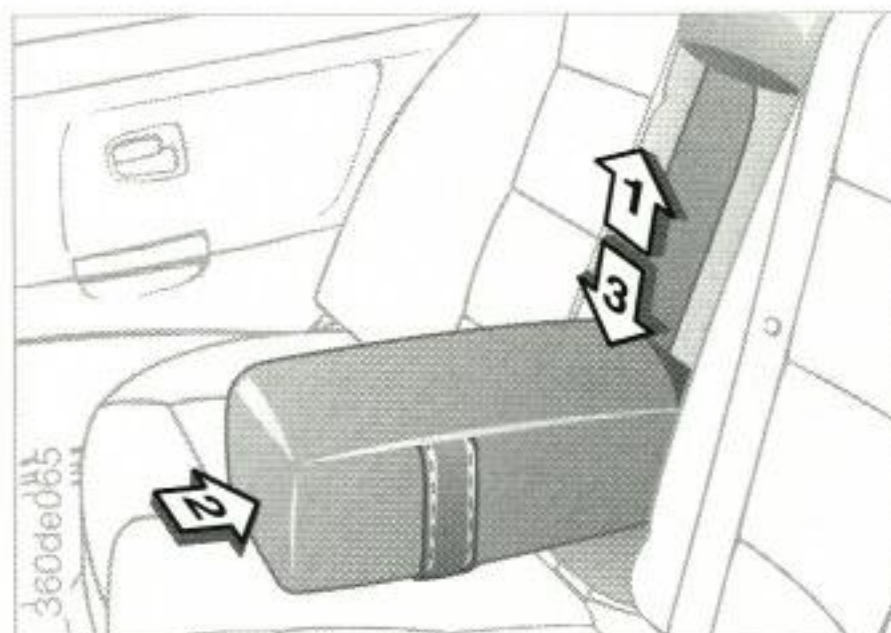
Together with the available length inside the car's luggage compartment, skis up to 2.10 m (7 ft 10 in) long can be carried in the ski bag. If several pairs of skis are inserted into the bag, its effective capacity will be reduced at the point where it narrows, so that only 2 pairs of full-length, 2.10 m long skis can be carried.

If the ski bag is not used for some time, it should be stored in a dry place.

Since the ski bag is waterproof, it is best to remove thawed water or moisture condensate from it after use.



When extended, the ski bag must not obstruct the driver during the journey. ◀



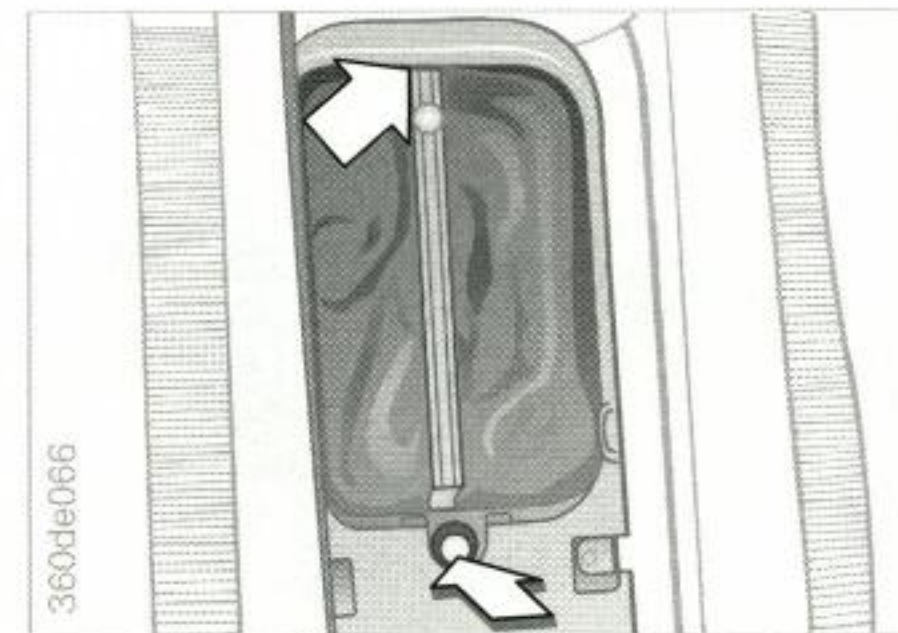
BMW saloons - loading the ski bag

Fold the rear-seat centre armrest down fully. Detach it from its mountings with one hand (1), press it slightly to the rear with the other hand (2) and lift it out.

Detach the trim over the cutout at the top (burr fastener) and lower it on to the seat.



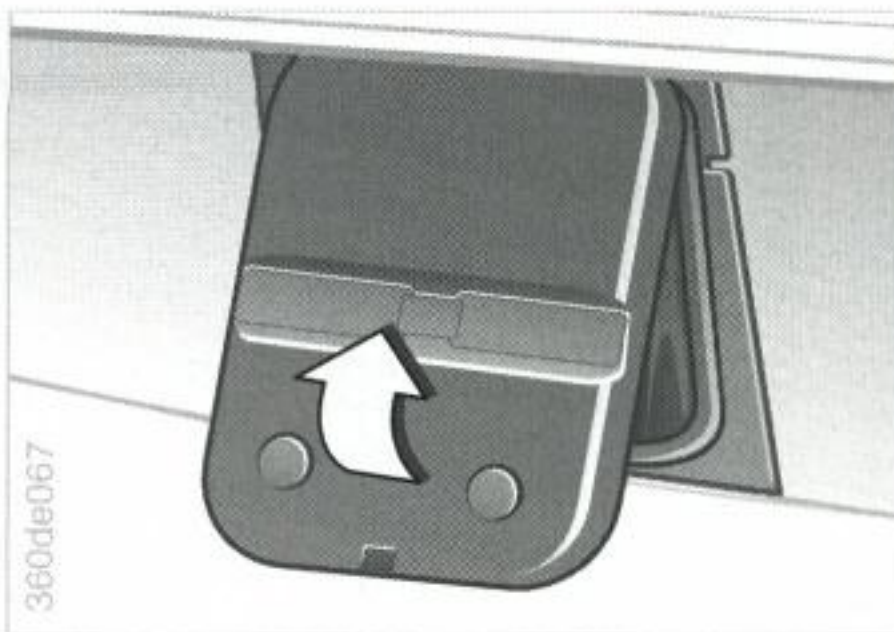
When installing the centre armrest again, insert it slightly higher than its final position and move it down until it is heard to engage in its mountings (3). ◀



Press the circular button: this will release the loading flap in the luggage compartment.

Next, detach the retaining bar at the top and lower it.

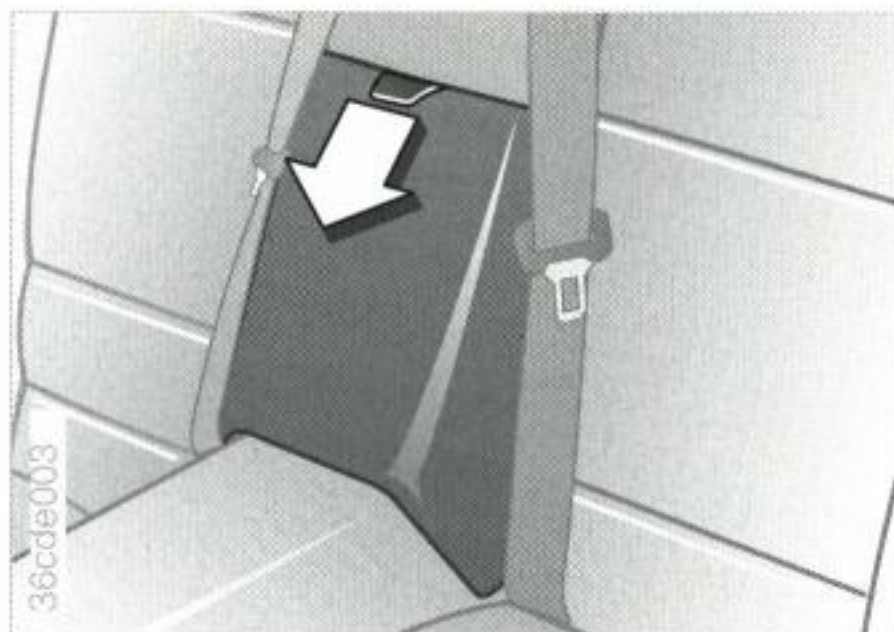
Lay out the ski bag between the front seats. It has a zip fastener for better access to the items inside, and for use when the bag needs to be dried out.



Working from inside the car's luggage compartment, attach the loading flap to the underside of the the rear-window shelf with the magnetic retainer.

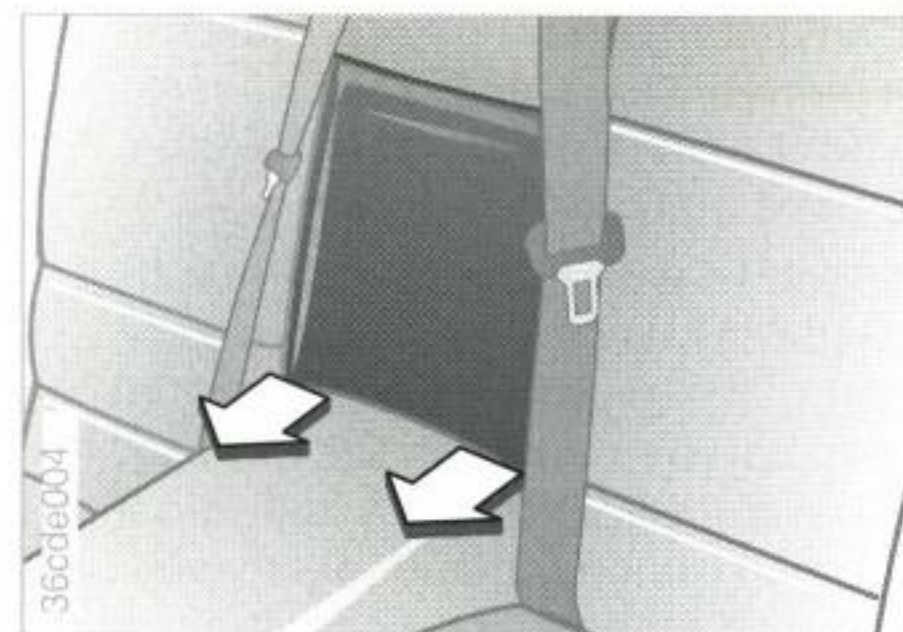
Make sure that the skis are clean before placing them in the ski bag, and that no damage is caused by sharp edges.

For general information on the ski bag, see page 113.



BMW Convertible – loading the ski bag

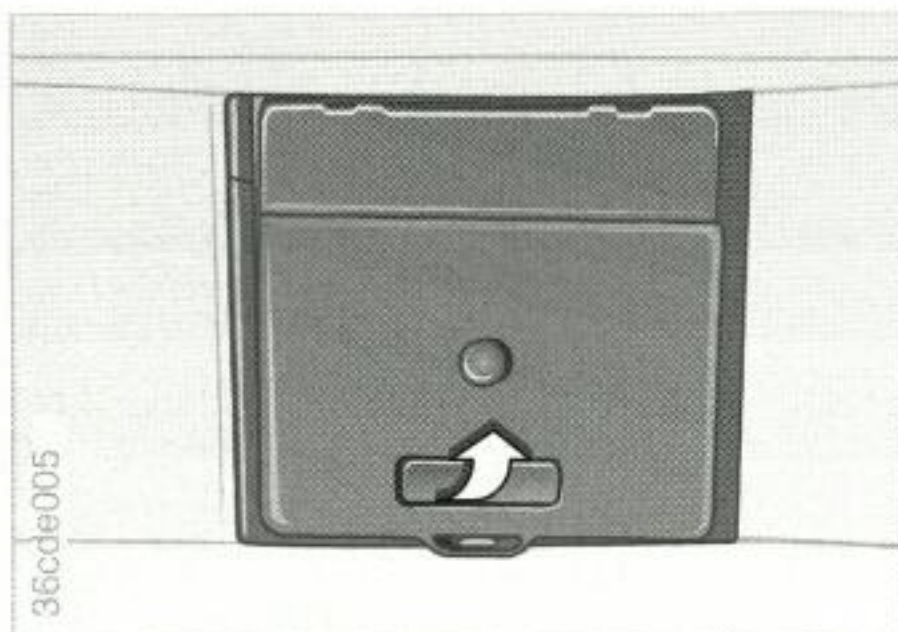
Take out the filler element.



Detach the cutout trim at the bottom. Lay out the ski bag between the front seats. It has a zip fastener for better access to the items inside, and for use when the bag needs to be dried out.



When re-attaching the trim, press it firmly against the guide rod at the bottom. ◀

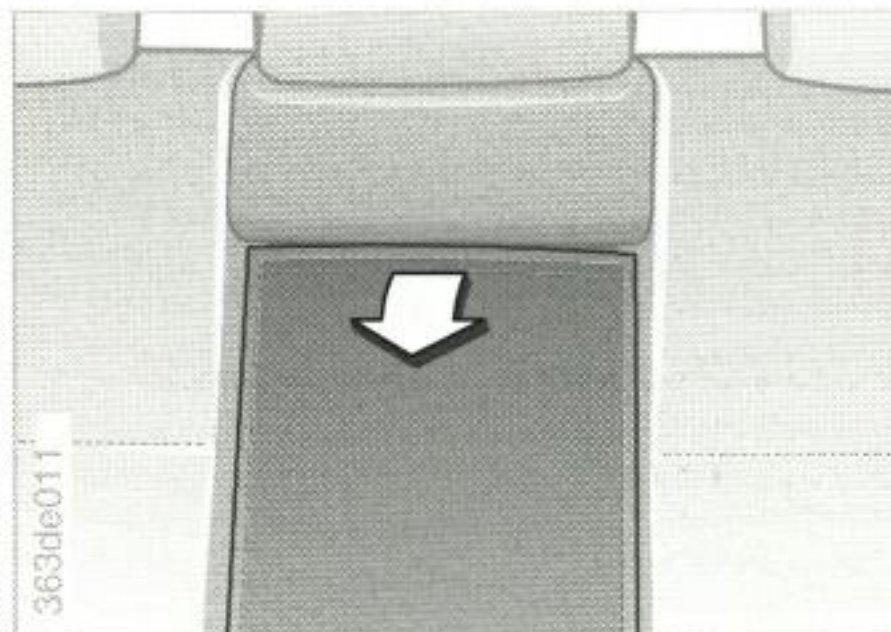


Open the loading flap from the luggage compartment side and attach it to the underside of the soft-top compartment with the magnetic retainer.



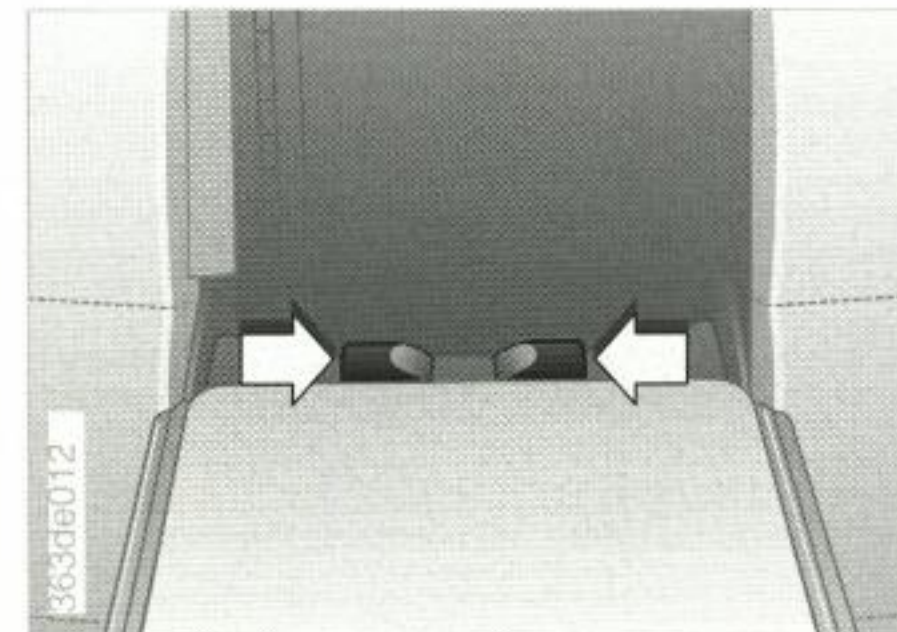
Secure the skis or other items carried in the ski bag additionally by tightening the buckle on the retaining strap. ◀

For general information on the ski bag, see page 113.



BMW touring – loading the ski bag

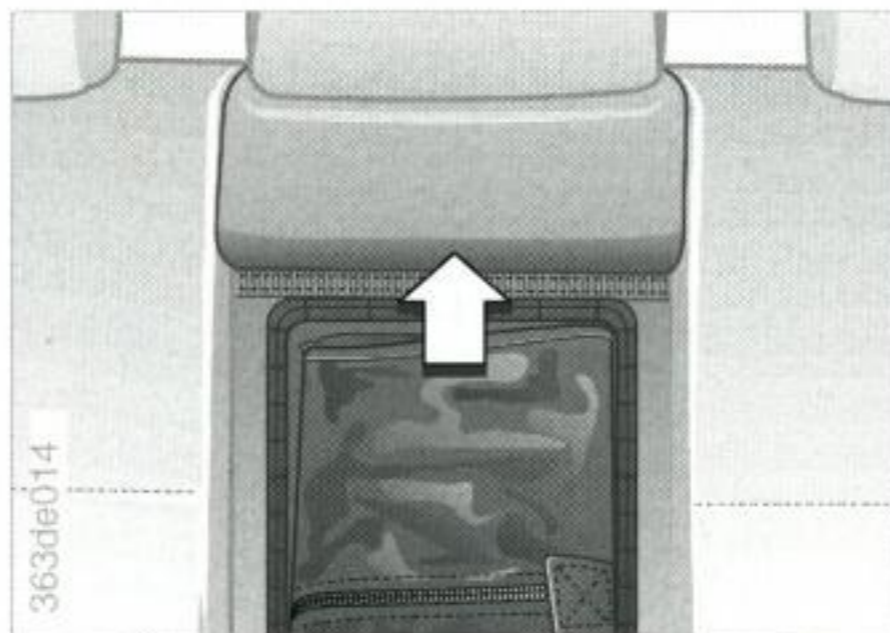
Fold down the centre armrest, detach the trim at the upper burr fastener and place it on the armrest.



Remove the centre armrest. To do this, press the two levers together (arrows) and take the armrest out forwards.



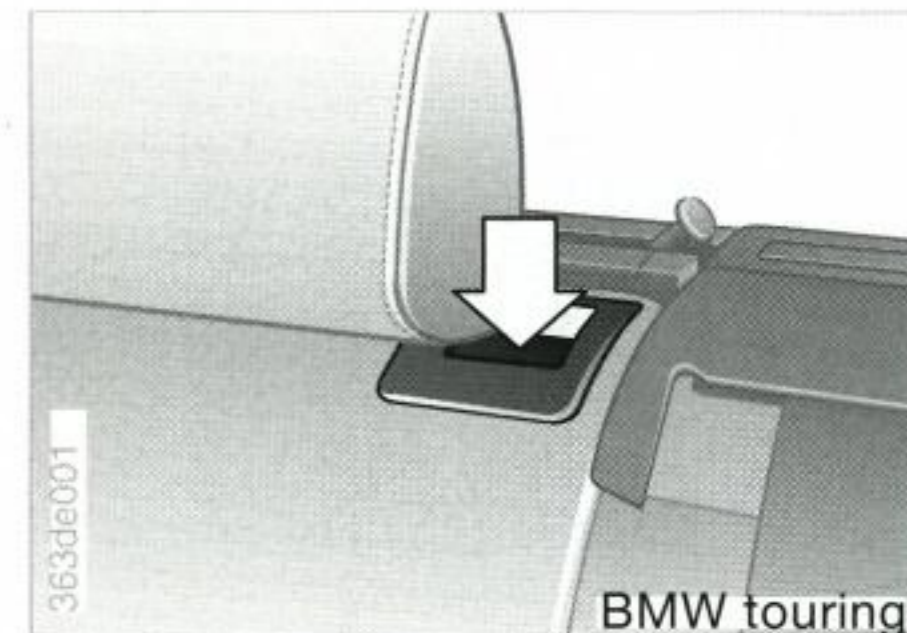
Open the flap and lower it on to the seat.



Press the knob (arrow) under the seat back fabric: this will release the flap in the load area, which will drop to the floor.

For general information on the ski bag, see page 113.

Folding rear seat back



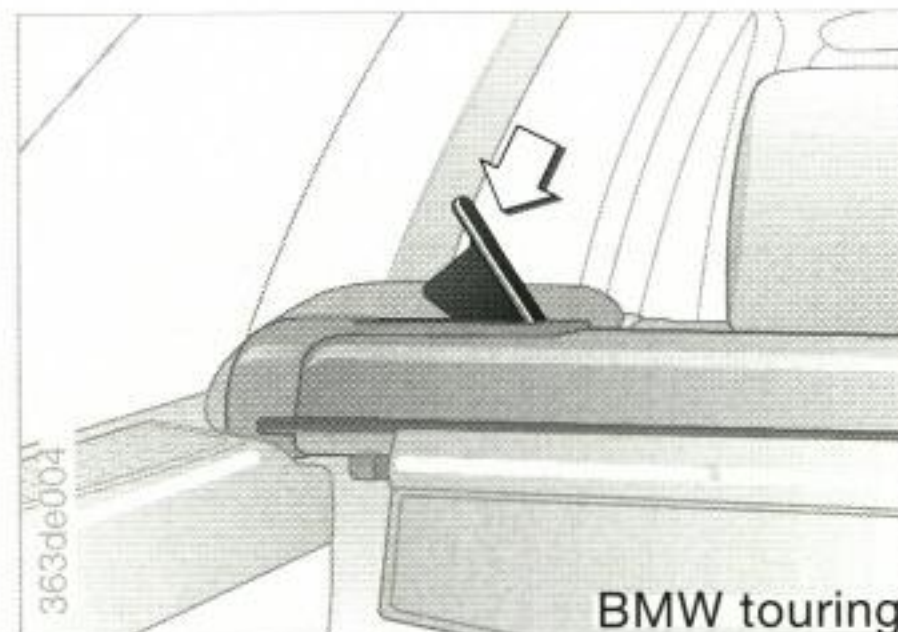
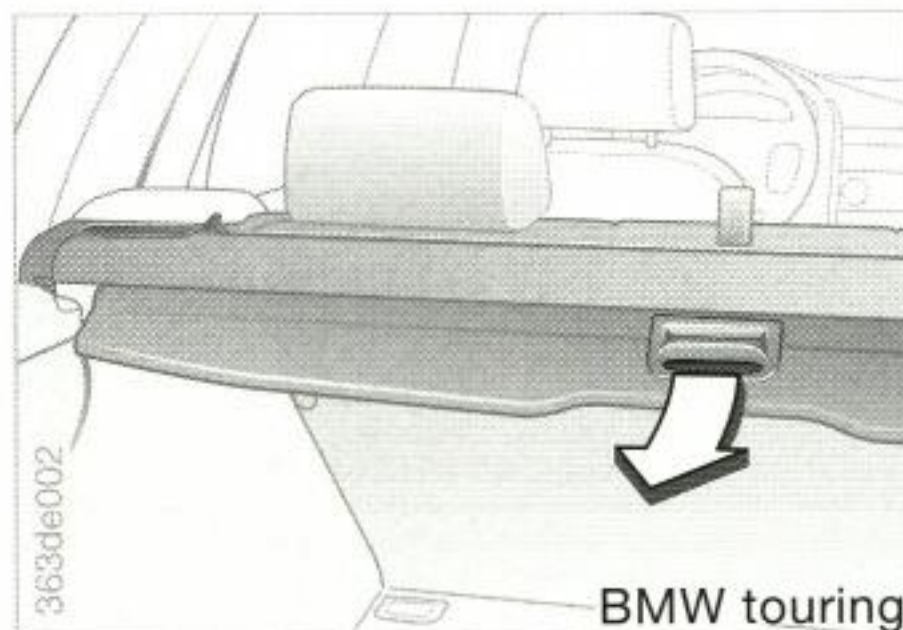
The rear seat back is divided into sections of one-third and two-thirds of the total width.

To fold, reach into the recess (arrow), pull forwards and fold the seat back fully.

To raise, reach into the recess, pull up and make sure that the seat back catch engages.



The seat back is correctly engaged when the red warning zone in the recess cannot be seen. ◀



Roller-blind cover for load area

Pull the roller blind out at its handle, and attach it at the rear.

The roller blind can support the weight of fairly light articles, for instance clothing.



Do not allow the roller blind to retract too fast. This could damage the handle, the blind, its casing and the retracting mechanism. ◀



Never place hard or heavy objects on the roller-blind cover. In an accident or a sudden braking action or swerve, they could be thrown forwards and injure the car's occupants. ◀

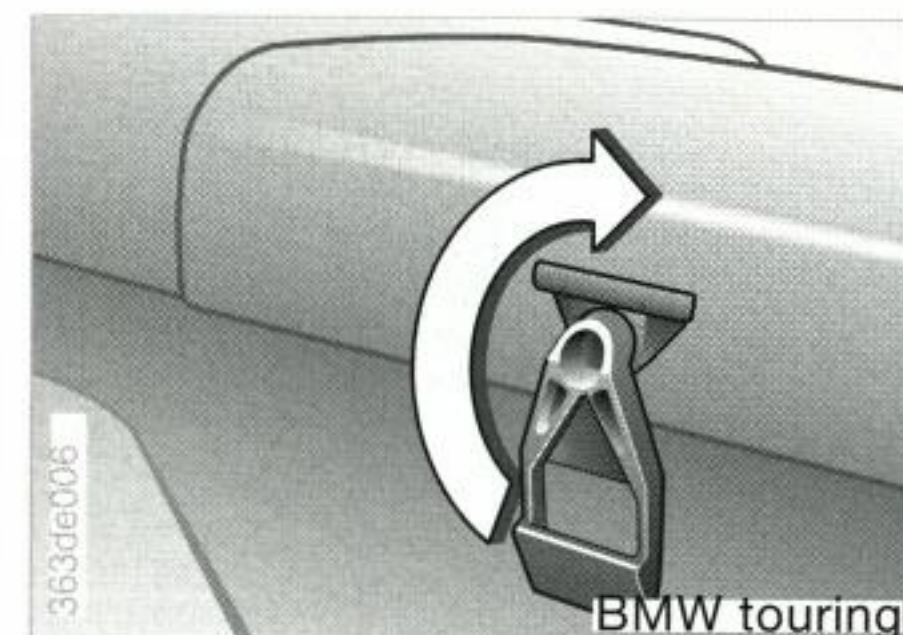
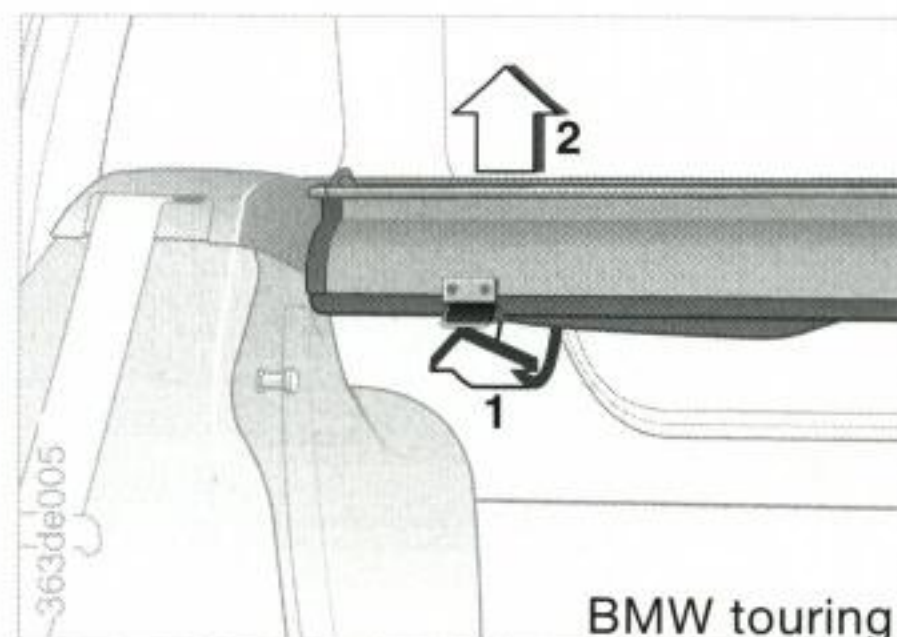
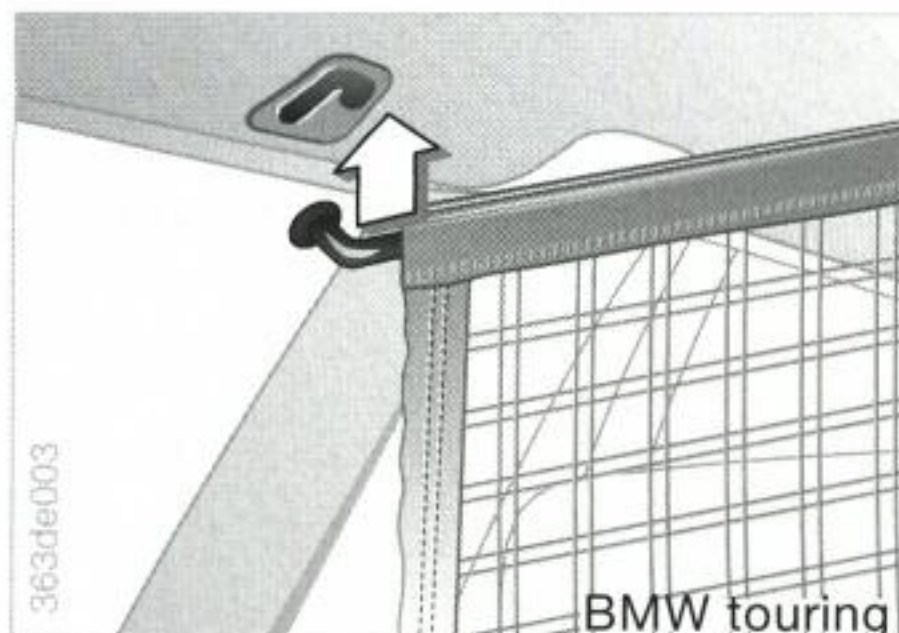
Removing the roller-blind cover casing

- ▷ Fold the rear seat back forwards.
- ▷ Press the button on each side: it will move up. The locking mechanism is released. The casing can be lifted out.

To install the roller-blind cover again, open both catches fully, insert into the holders and lock in place by pressing the buttons down.




When the roller-blind cover is installed, make sure that both its catches are locked. ◀



Net in front of load area

To pull the net out: hold the rod at both ends and secure it in the holders.

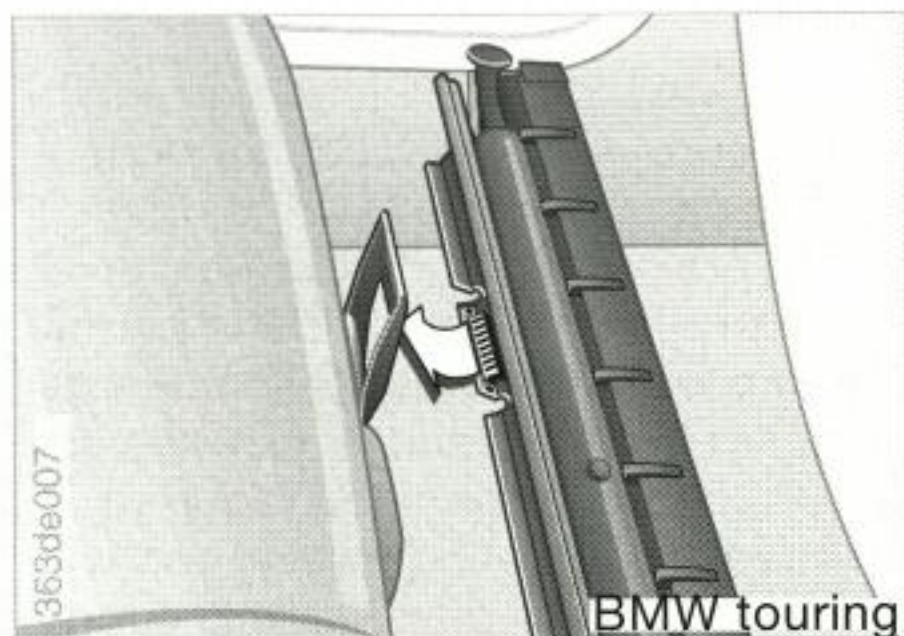
 Do not allow the net to retract too fast. This could damage the net's roller mechanism or cause injury. ◀

Removing the load-area net casing only and attaching it in front of the rear seat

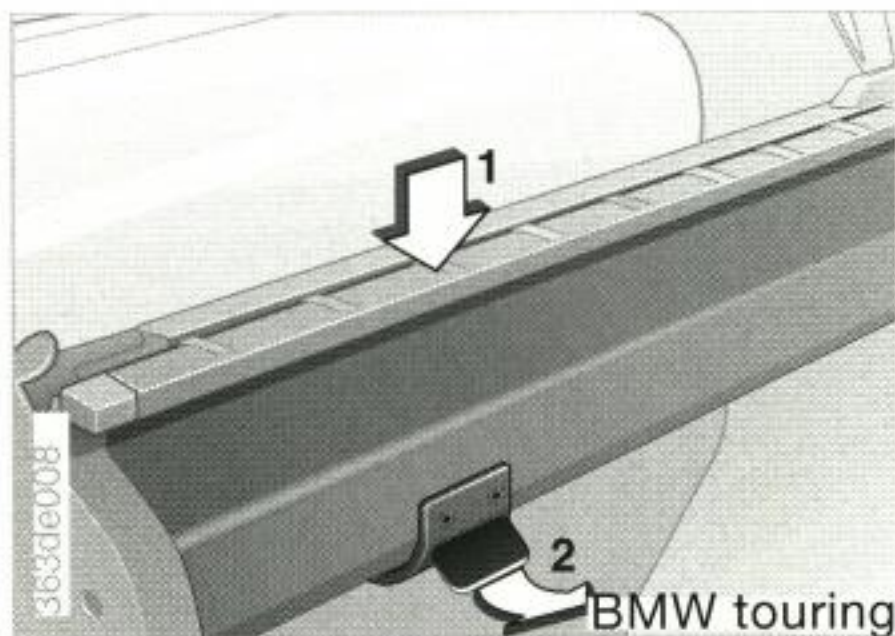
- ▷ Fold the rear seat back forwards.
- ▷ Raise the catches at the left and right (1) to release them, at the same time turning the casing slightly and lifting it out (2).

Install in the opposite order of work, first inserting the moulded section of the net casing horizontally into the slot on the load-area roller blind casing, without operating the catches (1).

- ▷ Raise the rear seat back again.
- ▷ At the left and right of the rear-seat footwell, turn the mountings upwards and make sure that they engage (arrow).



BMW touring



BMW touring

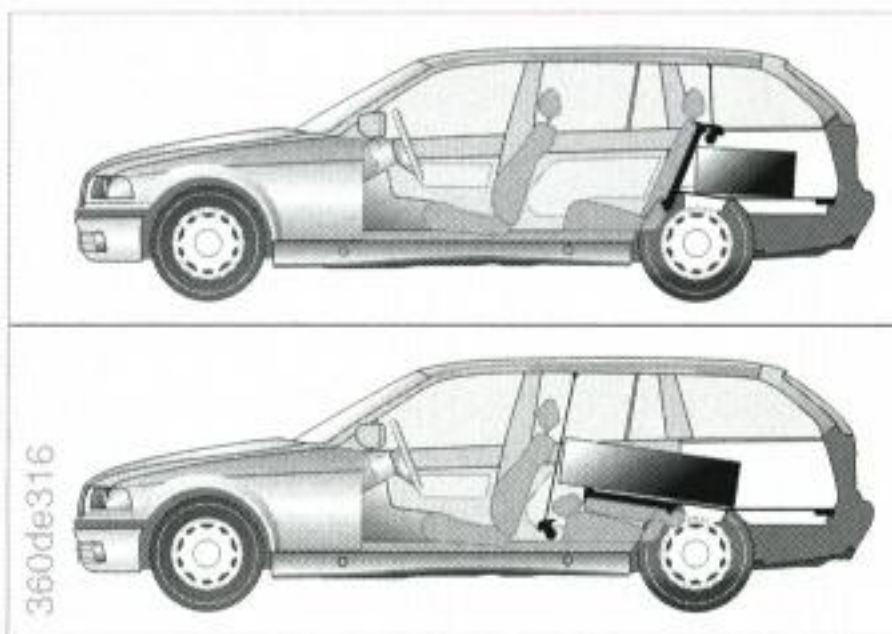
Before attaching the load-area net casing, make sure that the mountings in the rear-seat footwell and the catches on the casing are aligned.

- ▷ Place the moulded section of the load-area net casing vertically on the mountings (1), sliding it to the side and turning slightly if necessary until the casing is heard to engage; press down slightly to assist the process.
- ▷ Pull out the net in front of the load area and secure it to the holders provided in the roof lining.
- ▷ Fold the rear seat back forwards if required. Do not take the head restraints off, as they provide an additional means of locating the net.

Before retracting the net again, raise the rear seat back to a vertical position.

Before the load-area net casing can be detached again, the catches at the left and right (2) must be released by raising them.

! In view of the limited space available and the risk of injury, the load-area net casing should be removed before the rear seats are used again. Please ensure that no sharp objects or loose articles can rub against the rear window. This could damage the heating elements and cause the rear-window heating to fail. ◀



Loading

If you carry heavy or bulky loads in your BMW:

- ▷ Heavy items should be placed as far forward as possible in the load area - directly behind the seat backs or the luggage compartment bulkhead - and also as low down as possible (picture shows preferable positions in the touring).
- ▷ Wrap protective material round sharp corners and edges.
- ▷ Do not stack loads higher than the seat backs.
- ▷ Pull out the net* (see page 118), making sure that no objects are able to penetrate the net.
- ▷ If the load is heavy and the rear seat is unoccupied, insert the outer seat belts in the buckles on the opposite side.

Securing the load

- ▷ Small and light items can be retained with the tensioning straps, a load-area net* or other suitable straps (see page 118).
- ▷ BMW Service can supply suitable means of lashing and securing larger or heavier loads*. Lashing points are provided in the corners of the luggage compartment or load area (picture shows touring).
- ▷ Please note the information supplied with load securing equipment.



Always stow the load correctly and secure it so that it cannot endanger the car's occupants if the driver has to brake heavily or swerve.

The gross weight limit and the permitted axle loads (see page 208 onwards) must not be exceeded or else the car will no longer achieve the required standard of operating safety, and will infringe the law if driven in this condition.

Do not place heavy or hard objects in the passenger area, or they may be flung forward during heavy braking or if the driver swerves to avoid an obstacle, and endanger the occupants. ◀

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Initial overview**Controls in detail****Operation, maintenance and general care****Minor repairs****Technical items of interest****Technical data****Index**

Please comply with the following instructions, which are intended to ensure that your car achieves its optimum operating life and economy.

Engine and final drive

Up to 2000 km (approx. 1300 miles):

Drive at varying road and engine speeds, but do not exceed the following values:

Cars with spark-ignition engine:

4500/min

Cars with diesel engine:

3500/min

BMW 316i, 318i, 318is,
318tds, 325td, 325tds:

150 km/h
(92 mile/h)

BMW 320i, 323i, 328i:

160 km/h
(99 mile/h)

Avoid full throttle and do not use the automatic transmission kick-down.

From a distance reading of 2000 km (approx. 1300 miles) on, engine and road speeds can be gradually increased.

Comply with these running-in instructions again if an exchange engine or final drive is fitted later in the car's life.

Tyres

New tyres do not achieve their full road grip immediately, for production reasons. During the first 300 km (approx. 200 miles), drive cautiously.

Brakes

Brake pads and discs do not achieve a favourable wear and contact pattern until the car has covered about 500 km (approx. 300 miles).

Driving hints



Brakes:

Do not rest your foot on the brake pedal while the car is in motion. Even slight continuous pressure on the brake pedal could cause overheating, brake pad wear or even brake system failure.

Aquaplaning:

Reduce speed when driving on wet or slushy roads, since a wedge of water could otherwise build up between the tyres and road. This situation, known as aquaplaning, means that the tyre can actually lose contact completely with the road surface, so that the car can neither be steered nor can the brake be properly applied.

Water on road:

Drive through water only to a depth of 30 cm (12 in); at this depth, drive the car at walking pace to avoid possible damage to the engine, electrical system or transmission.

Rear-window shelf:

Never place hard or heavy objects on the rear window shelf; they could be dislodged when the car brake's are applied heavily and endanger the occupants.

Coat hooks:

If clothing is hung from the hooks, make sure that it cannot obstruct the driver's view. Do not hang heavy objects from them, to avoid the risk of personal injury if the car's brakes are applied suddenly. ◀

Catalytic converter

The catalytic converter reduces the volume of pollutant emissions in the exhaust gas.

Always use unleaded fuel.

Even a very small amount of lead will permanently damage the oxygen sensor and catalytic converter.

To ensure that the engine always operates correctly and reliably, and to avoid damaging it, the following instructions should be complied with:

- ▷ always have the specified maintenance work carried out at the stated intervals
- ▷ do not run the fuel tank dry
- ▷ switch off the engine at once if misfiring occurs
- ▷ never tow-start the car unless the engine is cold, or else unburned fuel may reach the catalytic converter. It is always preferable to use jumper leads from another car or a separate battery to start the car

- ▷ Try to avoid all situations in which incomplete combustion of the fuel could occur, e.g. frequent or lengthy operation of the starter motor at brief intervals, or repeated attempts to start if the engine does not respond. (However, switching off an engine which is operating normally and restarting it shortly afterwards is perfectly acceptable.) Running the engine with a spark plug lead detached.



Always observe the above precautions to ensure that unburned fuel cannot reach the catalytic converter. Otherwise the catalytic converter may overheat and be damaged. High temperatures occur on all vehicles equipped with a catalytic converter. Never remove the heat shields protecting the exhaust system, nor apply underseal to them. Make sure that the car is not driven, allowed to stand or parked over easily flammable materials, e.g. hay, leaves, grass etc. which could be ignited by the hot exhaust system and cause a fire with the risk of severe damage and injury. ◀

ABS prevents the wheels from locking when the brakes are applied, and thus increases active safety. Locked wheels are dangerous, because the front wheels cannot then be steered and the rear wheels may slide sideways and cause the car to spin or slide off the road.

With ABS in action, the car achieves the shortest possible braking distances for the prevailing conditions (straight-line braking or cornering, on asphalt, ice, wet roads etc.).

ABS is capable of satisfying two fundamental requirements whenever the brakes are applied:

- ▷ maintaining dynamic stability on varying road surfaces and conditions (asphalt, concrete, mud, rain, snow, ice).
- ▷ assuring steerability and manoeuvrability in these conditions.

However, certain important considerations must be borne in mind in connection with these requirements: Even ABS is unable to overcome the laws of physics. It cannot absolve the driver from the consequences of braking too late, maintaining insufficient space from vehicles ahead, exceeding the limits of adhesion when cor-

nering at speed or encountering a poor stretch of road where aquaplaning occurs. Avoiding such situations remains the driver's responsibility. Although ABS enhances active driving safety, this should not be regarded as an invitation to take correspondingly greater risks.

Driving with ABS

After the engine has been started, the ABS warning light on the instrument panel goes out.

The ABS system itself becomes operational above a road speed of approx. 8 km/h (5 mile/h). If the car's speed drops below approx. 3 km/h (1.9 mile/h), ABS ceases to operate, which in theory could mean that the wheels lock in this final braking phase, but in practice this is not critical.

The ABS regulation cycle takes place within fractions of a second. The brake pedal pulsates to warn the driver that the ABS is active and therefore that the car is reaching the adhesion limit. A chattering sound is also heard during ABS regulation as a sign that adhesion between tyre and road is diminishing and that the car's speed should be modified accordingly.

On roads with loose material lying on a firm surface, e.g. loose stones or snow, the braking distance may actually be longer than if the wheels were to lock. The same applies if snow chains are fitted. However, the advantages of greater stability and the ability to steer while braking are still available to the driver.



To ensure that the ABS always remains fully operational, it must never be modified in any way. All work on the ABS should be entrusted only to skilled, authorized personnel. ◀

Full operating efficiency may be lost if tyres of different sizes are installed on the vehicle, (e.g. winter tyres/spare wheel. Fit matching tyres at all wheels as soon as possible).

In the event of a malfunction, the ABS warning light on the instrument panel comes on (see page 16). However, the brake system remains fully operational, as on a vehicle not equipped with ABS. None the less, you should have the brake system checked by BMW Service as soon as possible. Additional faults to the brake system could otherwise occur without being readily apparent.

Disc brakes offer maximum braking efficiency, responsive control of braking force and the ability to resist severe loads.

If the car is not driven very far, is parked out of use for lengthy periods or is mostly driven very gently, corrosion of the brake discs and contamination of the pads may unfortunately be encouraged, since the minimum pressures between pad and disc which are needed to obtain an automatic cleaning action are seldom reached.

When the brakes are applied, corroded discs tend to scratch against each other, and even lengthy brake applications usually fail to eliminate this effect entirely.



Use only BMW-approved brake pads, or else the car's General Operating Permit will be invalidated. ◀

Driving hints

In damp weather or heavy rain it is advisable to apply the brakes with light pedal pressure every few kilometres. Make sure when doing so that other road users are not endangered. This will generate sufficient heat to dry out the discs and pads.

It is a well-known fact that the most effective braking is obtained not with locked wheels but when they are still just rotating. ABS maintains this state of affairs automatically. Should the ABS malfunction, the driver should adopt the cadence braking principle if possible (see page 128).

To avoid any risk of brake fade when descending long or steep hills, select the gear which calls for a minimum amount of braking (or shift the automatic transmission down to an equivalent speed stage).

Engine braking effect can be further enhanced by shifting down to a lower gear, if necessary as far as 1st gear or selector lever position 1 (2).

If engine braking alone is insufficient, do not apply the brakes for too long with only slight or moderate force. Instead, it is better to brake the car quite hard (providing that the road behind you is clear) so that your speed is reduced noticeably, and to repeat this process at brief intervals as necessary. The cooling-down phases between these brake applications should avoid overheating and maintain full braking efficiency.



Never drive with the clutch pedal held down, the gear or selector lever in neutral or with the engine switched off, or else engine braking will be lacking in the former and brake servo assistance in the latter case.

Make sure that full travel of the brake, clutch and accelerator pedals is not obstructed by floor mats, carpets or any other objects. ◀

In poor road conditions, it may not be possible to transmit all the engine's torque to the road through a conventional differential, so that one driven wheel may spin. This tendency to spin is largely eliminated by the limited-slip differential with 25% locking action.

In practice, this means improved traction when pulling away and accelerating (in the road conditions mentioned) and when cornering enthusiastically.

When a vehicle is being driven hard on a road surface which offers varying levels of traction, and if violent load reversals occur, it may tend to spin round its vertical axis (which passes through its centre of gravity). Considerable driving skills are needed to counteract this tendency to spin, and considerable concentration is called for if the car is driven hard and enthusiastically.

The limited-slip differential, however, takes effect without the need for intervention on the driver's part.

Brakes

Failure of one brake circuit

Brake pedal travel increases and higher pedal pressure is needed.

The car can still be braked effectively with the intact brake circuit.



If any malfunction of the brake system occurs, always have the car examined by BMW Service as soon as possible. ◀

Winter operation

Changeable weather in the winter months not only calls for a suitably cautious style of driving but also for certain measures to be taken on the car, to ensure that it can be driven safely and without problems throughout the winter.

Coolant

Make sure that the 50:50 mix ratio (water to long-life antifreeze with corrosion inhibitor) is present. This will provide protection down to a temperature of approx. -37 °C. Renew the coolant every 3 years.

Locks

BMW door lock de-icer can be used to free them if frozen. This de-icer also contains lubricant.

After its use, treatment with BMW lock barrel grease is recommended.

Rubber parts

To prevent them from freezing together, treat rubber surfaces on doors, in the engine compartment and on the engine compartment lid with a rubber care product or silicone spray.



Care products are available from BMW Service. ◀

Diesel fuel

To maintain the operating reliability of the diesel engine throughout the cold season of the year, the winter-grade fuel generally available at filling stations must be used. Fuel filter heating is a standard feature, and prevents the fuel from gelling while the car is being driven.

The use of flow improvers is not permitted, as these can lead to problems in the fuel system.

The diesel oil's pour point can be lowered by adding petroleum spirit:

Petroleum spirit:

	Winter diesel:	Summer diesel:
	Pour point:	
10%	approx. -20 °C	approx. - 9 °C
30%	approx. -26 °C	approx. -15 °C
50%	approx. -31 °C	approx. -25 °C

Snow chains

BMW snow chains* can be fitted to either summer or winter tyres, and should always be used on both rear wheels, in accordance with the manufacturer's safety instructions. Do not exceed 50 km/h (approx. 30 mile/h) with snow chains fitted. To ensure maximum traction, it is best to switch off ASC+T* when snow chains are in use; see page 90.

Moving away from a standstill

To move away from a standstill in deep snow or to rock the car free, it is best to switch off ASC+T*; see page 90.

Driving on slippery roads

Operate the accelerator pedal sensitively, avoid high engine speeds and shift up to the next higher gear early. On uphill or downhill gradients, select the next lower gear in good time. Maintain a generous distance from the vehicle in front as a safety precaution.

Brakes

Winter road conditions greatly reduce the amount of tyre grip that is available; the driver must expect braking distances to be considerably longer than usual in every situation.

ABS prevents the wheels from locking, so that the car remains stable and can always be steered.

Should the ABS fail and the road wheels lock, reduce pressure on the brake pedal immediately so that the wheels can still turn although they are being braked. Then increase pedal pressure again, reduce it as soon as wheel lock occurs, increase it when the wheels are turning etc.

This cadence braking principle cuts overall braking distances and enables the vehicle to be steered.

You then have a better chance of driving round obstructions at reduced braking pressure.



On a slippery surface, do not shift to a lower gear as a means of braking the car, or the rear wheels may lock and cause the car to skid or the driver to lose control. ABS and ASC+T* cannot counteract this form of wheel locking. ◀



When applying the brakes hard on slippery roads or if the amount of surface grip varies widely, always declutch as well. ◀

If the car skids

Depress the clutch pedal, release the accelerator pedal or set the automatic transmission selector lever to N. Try to steer into the skid and bring the car under control in this way.

Parking

Select 1st gear or reverse, or move the automatic transmission selector lever to P. If the car is parked on a slope, apply the handbrake as well. To prevent the handbrake linings from sticking to the drums as a result of frost or corrosion, dry the drums by applying the handbrake lightly as the car comes to a halt. Make sure that following vehicles are not endangered.



The brake lights do not come on when the handbrake is applied. ◀

Towing a trailer

Towing a trailer

When a trailer is towed, the demands on both car and driver are more severe.

A trailer reduces manoeuvrability, the ability to climb hills, acceleration and braking capacity and makes the car handle and corner differently.

For the trailer weight limit and towbar downthrust (nose weight), please refer to the "Technical Data", starting on page 208. The trailer weight limit is also shown in the car's registration papers (depending on national regulations). Consult BMW Service regarding increased trailer weights.

Trailer tow hitch*

If a trailer tow hitch is attached at the factory, the car is supplied as standard with uprated rear suspension*. This compensates for the weight of the tow hitch and also ensures optimum road behaviour when the trailer is not being towed.

The suspension settings of your BMW afford optimum safety, ride comfort and sports performance. They are also suitable for towing a trailer at up to the permissible load limit, provided that this is limited to the occasional journey, for example a holiday trip, and the driving style is matched to the more arduous operating conditions.

If a trailer tow hitch is retrofitted*, only install one with a detachable ball head, of a type approved by BMW, and have it fitted expertly by BMW Service.

Keep the detachable ball rod greased to make fitting and removal easier.

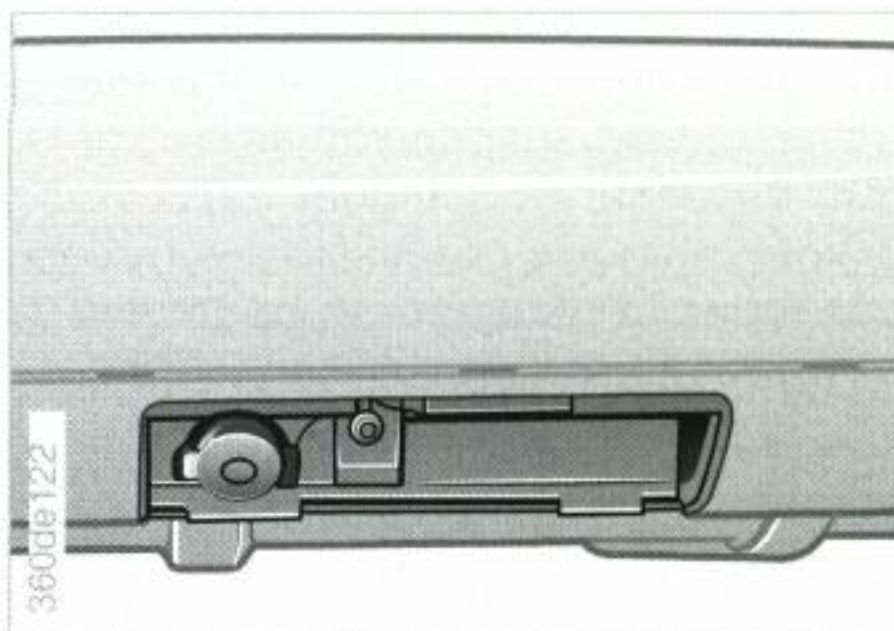
If the trailer tow hitch is retrofitted, you are recommended to install the trailer-towing suspension as well. It is also essential if the higher trailer weights that are permissible with certain types of trailer are to be towed.

BMW does not approve of any other suspension systems offered by the automotive trade for trailer towing purposes.



If a trailer tow hitch is fitted, the effect of the self-regenerating rear bumper system will be reduced. ◀

The use of a stabilizing device can be recommended, particularly if the trailer is a heavy one. Information can be obtained from BMW Service.

**Cover flap**

Hold the bottom of the trailer tow hitch cover flap and take it off upwards.

For attaching and removing the ball head, please refer to the separate instructions.

To re-attach the cover flap, insert it at the top and press into position firmly at the bottom.

Nose weight

This is the weight which the trailer towbar imposes on the ball head of the trailer tow hitch on the towing vehicle (it can for instance be measured with bathroom scales).

In Germany: a minimum nose weight of 25 kg (55 lb) is laid down by law.

The nose weight limit should if possible be fully utilized but not exceeded.

The nose weight has to be added to the car's gross weight, and care must be taken that neither this nor the rear axle load limit are exceeded. The car's payload is reduced by the weight of the trailer tow hitch. The gross weight limit for the combined car and trailer must not be exceeded.

Load

When loading the trailer, make sure that the weight is kept as low as possible and stowed if possible close to the axle.

A low centre of trailer gravity makes the car-trailer combination much more stable and safe to drive.

Do not exceed either the trailer's gross weight or the specified trailer load limit for the car. The smaller value is the limit which should be adhered to.

Before purchasing a trailer it is advisable to obtain a declaration from the trailer manufacturer concerning the effective trailer weight and trailer payload limit.

Gradients

In the interests of unobstructed traffic flow and maximum road safety, the maximum gradient, measured at sea level, has been restricted to 12% - or if higher trailer weights are authorised, to 8%.

Engine performance gradually declines at increasing altitudes above sea level. When driving in very hilly areas, remember that the car's ability to pull away on steep inclines is adversely affected; in such conditions, the car and trailer should not be operated at their maximum payload limit.

Downhill gradients

Special care must be taken when descending gradients: always shift down to the next-lower gear (if necessary, right down to 1st gear or by selecting automatic transmission position 1 (2) manually) and descend the hill slowly.

Speed limit

The maximum speed limit when towing a trailer is 80 km/h (50 miles/h) in Germany, and similar speed limits apply in other countries also. The trailer load limits have been chosen to ensure ample driving stability up to this speed. If higher speed limits apply in certain countries, you are nonetheless recommended not to drive faster for safety reasons.

If the trailer begins to swing from side to side, the car-trailer combination can only be stabilized by braking immediately.

Tyre pressures

Check the car's and the trailer's tyre pressures most carefully. Comply with the trailer manufacturer's tyre pressure instructions.

Outside mirrors

The standard outside mirrors may prove inadequate for trailer towing work; the law requires the car to be equipped with two outside mirrors with which the driver can see the rear corners of the trailer. Mirrors of this kind, including versions with adjustable arms, can be obtained from BMW Service.

Electrical system



If a caravan is towed, higher current consumption must be anticipated. Electrical consumers should therefore be operated sparingly, to ensure that the battery is not run down beyond the limit of its capacity. ◀



Before starting the journey, always check that the trailer's rear lights are working. ◀

Roof rack*

A special roof rack system is available as an accessory for your BMW. If it is used, please comply with the installation instructions supplied.

A loaded roof rack alters the car's road behaviour and steering response quite considerably, by moving its centre of gravity.

When loading the roof rack, ensure that the specified roof load limit, the car's gross weight limit and the axle loads are not exceeded. The values are stated in the "Technical Data", starting on page 208.

The roof load must be uniformly distributed and should not be too large in area. Heavy items of luggage should always be placed at the bottom.

Make sure that sufficient space is available for the sunroof to be raised.

On the BMW touring, make sure that the rear window is not damaged by items on the roof rack when the hatchback is opened. Bulky roof loads, e.g. skis, ski boxes, surfboards etc., should therefore be attached as far forward as practicable.

Correct secure loading of the roof rack will prevent items from shifting or falling off during the journey and endangering following traffic.

Drive smoothly when there is a load on the roof: avoid violent acceleration, braking and cornering.

The load on the roof increases the surface area exposed to the wind. As a result, fuel consumption will be higher and the loads on the roof structure of the car more severe.

Roof rails*

Optional extra for BMW touring. Please consult BMW Service regarding suitable attachments for carrying skis, surfboards, bicycles, luggage and other items.

Radio reception

The reception and reproduction quality of any mobile radio set depends on distance from the transmitter and aerial alignment.

Interference from high-tension overhead wires, but also buildings and natural obstructions, may cause noise and signal deterioration which cannot always be avoided even if the vehicle's own interference suppression systems are in good working order.

Climatic influences such as sun spots, fog, rain or falling snow also influence radio reception.

Car or portable telephones not recommended by BMW may cause car radio interference. This will be noticeable as low-frequency hum or similar in the loudspeaker system.

For adjustment and operation of your car radio, please refer to the accompanying (supplementary) operating instructions.

Car phone*

Mobile communication systems (car telephones, two-way radio etc.) can cause interference if they are not approved for use in your car. Since BMW cannot examine and test each product, it is unable to accept any responsibility for the installation of items it has not approved. Before purchasing any such system you are recommended to obtain advice from BMW Service.

To ensure that your car can be operated safely, never use a mobile telephone or any other mobile radio equipment with an aerial inside the car or one that is not firmly attached to the outside of the car.



Detach the telephone aerial before driving the car on to a car train or into a car wash. ◀

Rule of the road

When entering a country in which the traffic drives on the other side of the road:

To avoid dazzling other road users, have the headlights reset by BMW Service.

Registration abroad

Cars are always supplied to conform with the registration laws of the country in which they are intended for use.

If the owner moves to another country, it is important to check beforehand that import regulations and vehicle licensing laws do not make it too difficult to import the car.

In Germany you can obtain this information by calling (++) 89-382-0 and stating the model, vehicle identification number and date first registered.

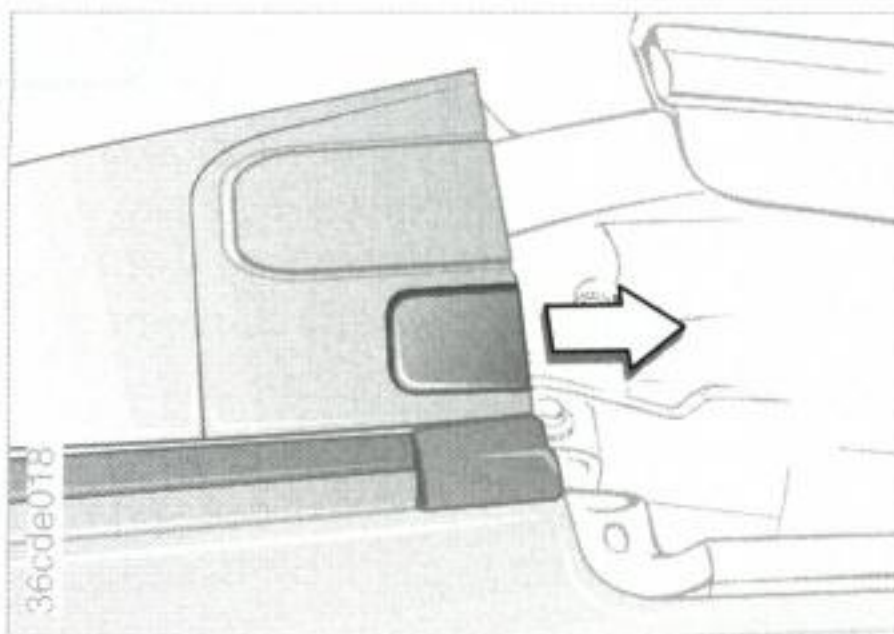
In other countries, please contact BMW Service or the importer.

Hardtop* – Convertible 133

Even in winter, when the hardtop is likely to be fitted all the time, it is not necessary to remove the fabric soft top. However, before the soft top is stowed in its compartment it must be absolutely dry, to prevent water stains or mildew.

Two people are needed to fit and remove the hardtop. Take great care not to damage the car's paintwork, the body or the hardtop.

A specially developed hardtop hoist* is available from your BMW dealer to make it easier to fit and remove the hardtop.

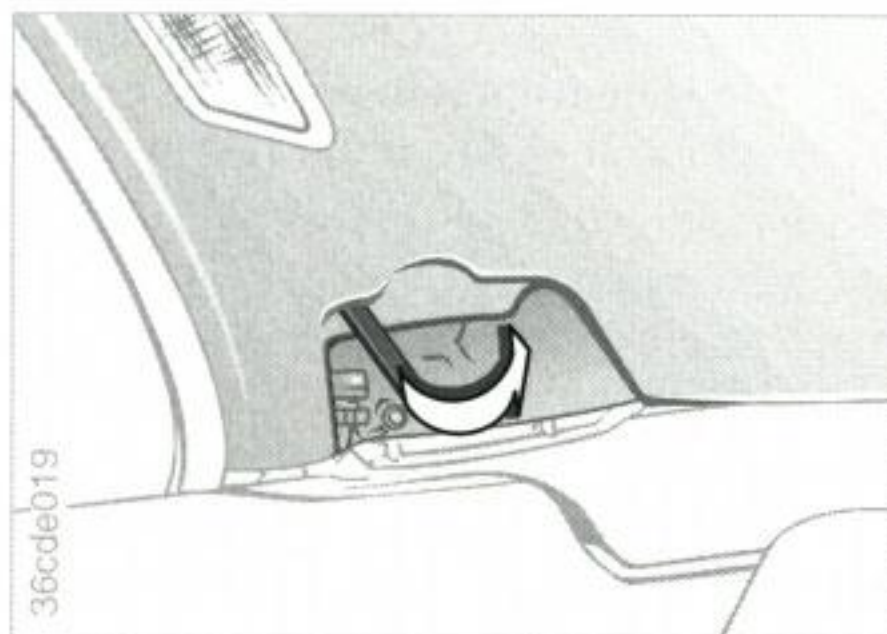


Fitting

Lower the side windows and, if fitted, remove the rod-type radio aerial to avoid damage.

On cars with manually operated soft top, release the soft top compartment cover; if the car has a fully-automatic power soft top, first press the soft top operating button to open the cover slightly.

Remove the trims at both sides and close the soft-top compartment cover again.



Before fitting the hardtop, fold down the covers situated below the left and right interior lights and open the locking catches.

Two people are needed to place the hardtop on its mountings.

Close the locking levers at the rear by folding them inwards (arrow) until they lock into place behind the trim.

As on the fabric soft top, fold out the locking handle inside and turn it until the hardtop is heard to lock in place at the front.



Do not pick the hardtop up at its seals. Leaks will occur if seals are inadvertently displaced or pulled out. ◀

Removing the hardtop

Follow the same procedure as for fitting the hardtop, but in the reverse sequence.

Any BMW Service point will gladly provide information on the value of technical modifications to the car, the legal position and the manufacturer's recommendations. Enquiries should be accompanied by the vehicle identification number and, if relevant, the engine number.

Light-emitting diodes (LED)

Various controls, displays and other interior equipment in your car have light-emitting diodes behind suitable covers as a light source. These LEDs resemble conventional lasers and are classified by law as "Class 1 light-emitting diodes".



Do not remove the cover or expose the eyes directly to the unfiltered light source for several hours at a time, as this could cause irritation to the iris. ◀

Information for your safety

The factory-approved radial-ply (braced tread) tyres have been chosen to match your car's performance and to ensure driving safety and the desired standard of ride comfort.

The condition of the tyres and maintenance of the specified tyre pressures not only influence tyre life but also road safety to a very considerable extent.

Incorrect pressures are often a cause of tyre problems. They also have a considerable effect on the roadholding of your BMW.



Check tyre pressures – including the spare wheel – regularly, at least every two weeks and before each lengthy journey. Incorrect tyre pressures can adversely affect the car's roadholding and cause tyre damage, which could result in an accident. ◀

Tyre tread**Tyre tread - tyre damage**

Inspect the tyres frequently for damage, the presence of foreign bodies, unusual wear and sufficient tread depth.

Tread depth should not be allowed to fall below 3 mm, even if the law permits a minimum depth of only 1.6 mm. You are recommended to replace tyres when the tread depth is down to 3 mm, or else the risk of aquaplaning on even shallow water will be increased.

We recommend fitting new tyres when the treads are 3 mm deep. If the tyres remain in use, built-in wear indicators in the base of the tread appear when only 1.6 mm tread depth remains, this being the absolute legal wear limit applicable in Europe since January 1, 1992.



Never continue to drive on a flat tyre. If air pressure is lost from a tyre, this seriously affects the car's handling and braking, and could cause the driver to lose control.

Avoid overloading the car, as this could cause the tyres' load capacity limit to be exceeded. They will then overheat and in due course internal

damage to the tyre could occur. This could lead to sudden pressure loss. Unusual vibration while the car is being driven could indicate a tyre fault or some other defect on your car. The same applies to any other abnormal road behaviour, such as pulling severely to the right or left. In such cases, reduce speed immediately.

Proceed carefully to the nearest BMW Service or tyre dealer, or have the car towed there so that it can be checked or its tyres inspected.

All forms of tyre damage (which could in the worst case lead to sudden and total loss of pressure) represent a risk of serious or even fatal injury to the car's occupants and to all other road users. ◀

To maintain the car's good road behaviour, always fit tyres of the same make and tread pattern to all wheels.



Do not fit retreaded tyres, or the car's safety may be affected. Their carcasses may differ in internal construction or have aged sufficiently to cast doubt on their durability. ◀

Tread wear patterns at the front and rear wheels gradually differ in view of the tasks which the tyres have to perform. In the interests of safety and the best possible vehicle behaviour, you are recommended not to adopt the practice of interchanging the wheels. If you wish to interchange the wheels for reasons of operating cost, remember that the expense incurred in interchanging the wheels also has to be taken into account when assessing whether it is worth trying to extend the tyres' operating life in this way. Consult BMW Service.

If the wheels are interchanged, always note:

Interchange the wheels on the same side of the car only (though the spare wheel can be included if desired).

Remember that braking efficiency and tyre grip may be adversely affected.

If tyres are interchanged in this way, the procedure should be carried out at frequent intervals (max. 5000 km/3000 miles).

Always check tyre pressures after fitting, and adjust as necessary.

Do not continue to use tyres that are more than 10 years old.

Spare tyres more than 6 years old should be reserved for genuine emergencies, e.g. if a regular tyre has become punctured. They should be replaced by a new tyre without delay, and no longer used on the car when new tyres are purchased.

A tyre's date of manufacture is shown as part of the inscription on the tyre wall: DOT ... 327 means that the tyre was manufactured in week 32/1997.

Wheels and tyres

Use *only* tyres which have been approved by BMW.

In view of the car's maximum speed, certain makes and sizes are compulsory. Details can be obtained from BMW Service.

Comply in addition with any relevant national regulations.

The correct choice is made easier if the meaning of the tyre markings is understood. The following markings are used on radial-ply tyres:

e.g. 185/65 R 15 88 H

Nominal width in millimetres	185
Aspect ratio in %	65
Code letter for radial ply	R
Rim diameter in inches	15
Load capacity figure (not on ZR tyres)	88
Speed code letter (ahead of the R on ZR tyres)	H

The speed code letter indicates the maximum permissible speed at which the tyre is to be operated.

On summer tyres:

S	=	up to 180 km/h (112 mile/h)
T	=	up to 190 km/h (118 mile/h)
H	=	up to 210 km/h (131 mile/h)
V	=	up to 240 km/h (149 mile/h)
W	=	up to 270 km/h (168 mile/h)
ZR	=	over 240 km/h (149 mile/h)

On winter tyres:

Q M+S	=	up to 160 km/h (100 mile/h)
T M+S	=	up to 190 km/h (118 mile/h)
H M+S	=	up to 210 km/h (131 mile/h)

Markings on pressed-steel/alloy wheel:

6 J x 15 H2

Rim width in inches	6
Shoulder pattern code letter	J
Symbol for well-base rim	x
Rim diameter in inches	15
Hump on 2 rim flanges	H2

Prevent dirt from entering the tyre valves by attaching screw-on dust caps. Dirt in the tyre valve can often lead to a gradual loss of air pressure.

We recommend the use of winter tyres (M&S radial-ply) for driving in wintry conditions. Although all-season tyres bearing the M&S designation exhibit better properties for driving on snow and ice than summer tyres with the speed code letters H, V, W and ZR, they are generally not quite as effective as winter tyres in such conditions.

If winter tyres are fitted, the same make and tread pattern should be used on all four wheels (and preferably on the spare wheel as well) in the interests of good directional stability and steering response.

Fit only winter tyres approved by BMW. BMW Service will gladly advise you on the correct winter tyres for the conditions in which your car has to operate.

In Germany: the law requires a reminder label to be attached in the driver's field of view if the vehicle's top speed is higher than the permitted speed for the tyres.

Such labels can be obtained from tyre suppliers or from BMW Service.

Below a tread depth of 4 mm, winter tyres become noticeably less suitable for winter driving conditions and should therefore be replaced for safety reasons.

Keep to the specified tyre pressures and have the wheels and tyres rebalanced each time the wheels are changed or new tyres fitted.



The maximum speed limits for the various winter tyres must always be complied with. Lack of expert knowledge or incorrect handling of tyres can cause damage and lead to accidents. All work on tyres should therefore be carried out only by experts. BMW Service will gladly assist you. ◀

Store wheels and tyres in a cool, dry and preferably dark place when not in use. Keep oil, grease and fuel away from tyres.

Saloon, Coupé, Convertible

Tyre sizes	Pressed- steel wheel (rim)	Alloy wheel	Offset, mm (in)
BMW 316i, 318i, 318tds, 325td			
185/65 R 15 88 H ¹⁾	6 J x 15 H2	–	42 (1.65)
185/65 R 15 88 Q, T, H M+S			
205/60 R 15 91 H ¹⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S			
225/55 R 15 92 H, V ¹⁾²⁾	6.5 J x 15 H2	7 J x 16 H2	47 (1.85)
225/55 R 15 92 Q, T, H M+S ²⁾			
225/50 ZR 16 ²⁾⁴⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S ²⁾			
BMW 318is, 320i, 325tds, 318i Convertible, 320i Convertible			
185/65 R 15 88 Q,T,H M+S	6 J x 15 H2	–	42 (1.65)
205/60 R 15 91 V ³⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S			
225/55 R 15 92 V ²⁾³⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
225/55 R 15 92 Q, T, H M+S ²⁾			
225/55 ZR 16 ²⁾⁴⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S ²⁾			

1) BMW 318tds: speed rating T.

2) Snow chains cannot be fitted. If these tyres are fitted subsequently, conversion work will be required. Consult BMW Service if necessary.

3) BMW 318i Convertible: speed rating H.

4) Refer to car's official documents to establish which make of tyre is permitted.

Note the wheel/tyre specifications in the car's documents. If sizes not approved by the manufacturer are fitted, an entry in the car's documents may be necessary. Comply with local legislation.

BMW fine-link snow chains* can be used with either summer or winter tyres, and must then be fitted to both rear wheels. Always observe the manufacturer's safety recommendations when fitting.

Saloon, Coupé, Convertible

Tyre sizes	Pressed-steel wheel (rim)	Alloy wheel	Offset, mm (in)
BMW 323i, 323i Convertible			
185/65 R 15 88 Q, T, H M+S	6 J x 15 H2 ¹⁾	–	42 (1.65)
205/60 R 15 91 V	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
205/60 R 15 91Q, T, H M+S ²⁾			
225/55 R 15 92 V ²⁾	6.5 J x 15 H2	7 J x 16 H2	47 (1.85)
225/55 R 15 92 Q, T, H M+S ²⁾			
225/50 ZR 16 ²⁾³⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S²⁾			
BMW 328i, 328i Convertible			
205/60 R 15 91 W	–	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
225/50 ZR 16 ²⁾³⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S²⁾			

- 1) BMW 323i Convertible: 6 J x 15 H2 pressed-steel wheels cannot be fitted.
- 2) Snow chains cannot be fitted. If fitted subsequently, conversion work will be required. Consult BMW Service if necessary.
- 3) Refer to car's official documents to establish which make of tyre is permitted.

Note the wheel/tyre specifications in the car's documents. If sizes not approved by the manufacturer are fitted, an entry in the car's documents may be necessary. Comply with local legislation.

BMW fine-link snow chains* may be used with either summer or winter tyres, and must then be fitted to both back wheels. Always observe the manufacturer's safety recommendations when fitting.

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touring

Tyre sizes	Pressed-steel wheel (rim)	Alloy wheel	Offset, mm (in)
BMW 316i, 318i, 318tds			
185/65 R 15 88 H ¹⁾	6 J x 15 H2	–	42 (1.65)
185/65 R 15 88 Q, T, H M+S			
205/60 R 15 91 H ¹⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S			
225/55 R 15 92 H, V ¹⁾²⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
225/55 R 15 92 Q, T, H M+S ²⁾			
225/50 ZR 16 ²⁾³⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S ²⁾			
BMW 320i, 323i, 325tds			
205/60 R 15 91 V	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S			
225/55 R 15 92 V ²⁾	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
225/55 R 15 92 Q, T, H M+S ²⁾			
225/50 ZR 16 ²⁾³⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S ²⁾			
BMW 328i			
205/60 R 15 91 W	–	7 J x 15 H2	47 (1.85)
205/60 R 15 91 Q, T, H M+S	6.5 J x 15 H2	7 J x 15 H2	47 (1.85)
225/50 ZR 16 ²⁾³⁾	–	7 J x 16 H2	45/46 (1.77/1.81)
225/50 R 16 92 Q, T, H M+S ²⁾			

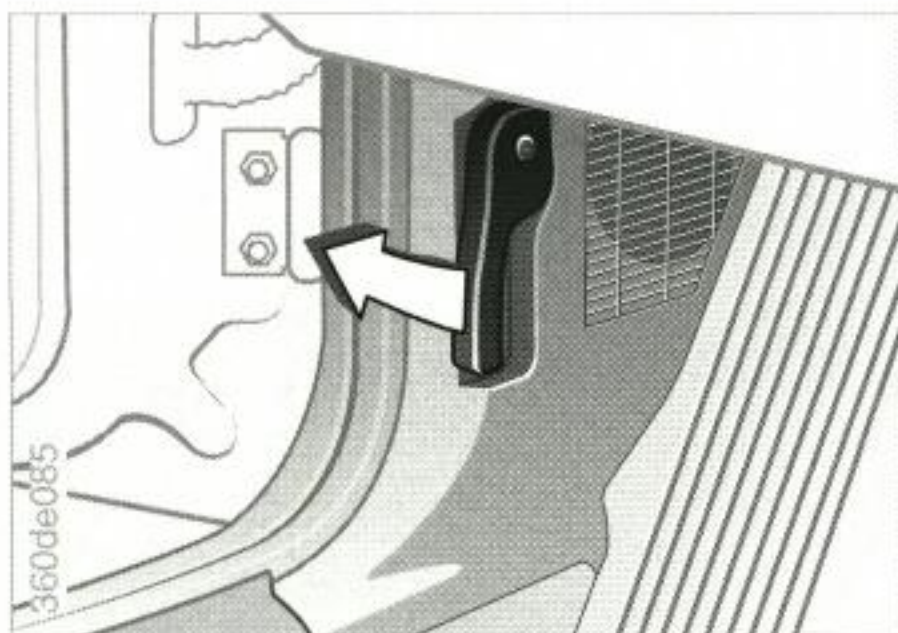
1) BMW 318tds: speed rating T.

2) Snow chains cannot be fitted. If fitted subsequently, conversion work will be required. Consult BMW Service if necessary.

3) Refer to car's official documents to establish which make of tyre is permitted.

Note the wheel/tyre specifications in the car's documents. If sizes not approved by the manufacturer are fitted, an entry in the car's documents may be necessary. Comply with local legislation.

BMW fine-link snow chains* may be used with either summer or winter tyres, and must then be fitted to both back wheels. Always observe the manufacturer's safety recommendations when fitting.



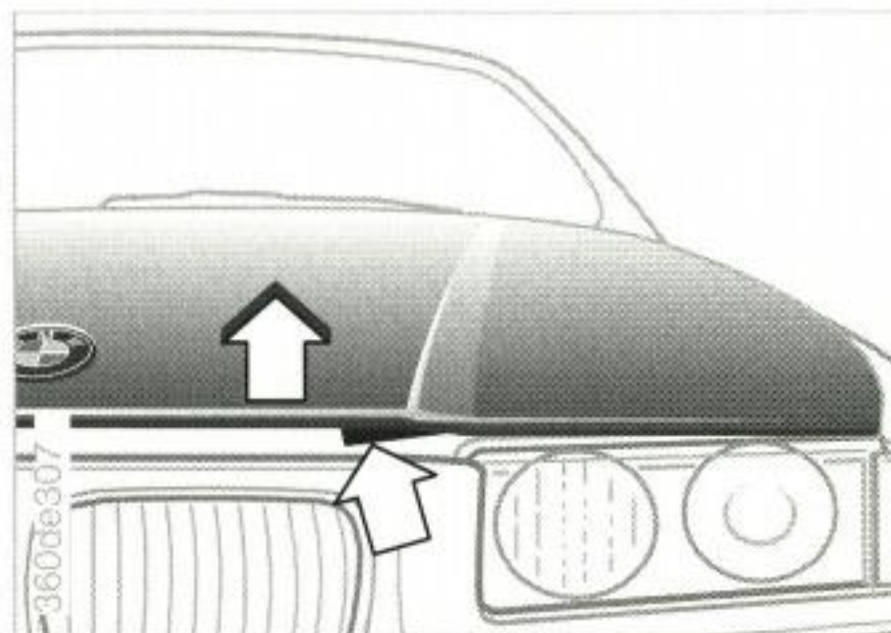
Unlocking

Pull the lever at the left under the dashboard.



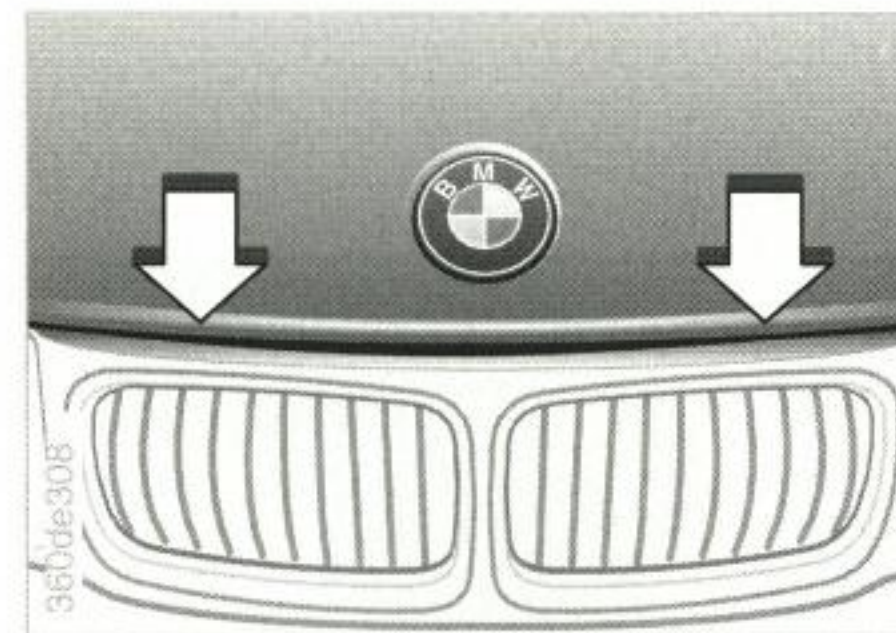
Do not work on the car unless you possess the appropriate specialised knowledge. Before working in the engine compartment, switch off the engine and allow it to cool down.

Disconnect the battery before working on the electrical system. Whenever work on the car is carried out, comply with the relevant precautions and instructions. If you are not certain of the precautions or regulations to be observed, have the work performed by BMW Service, as incorrect or inexperienced handling of parts and materials could constitute a safety hazard for you and other road users. ◀



To open

Press up the retaining hook – at the front left, under the engine hood – and raise the hood panel.

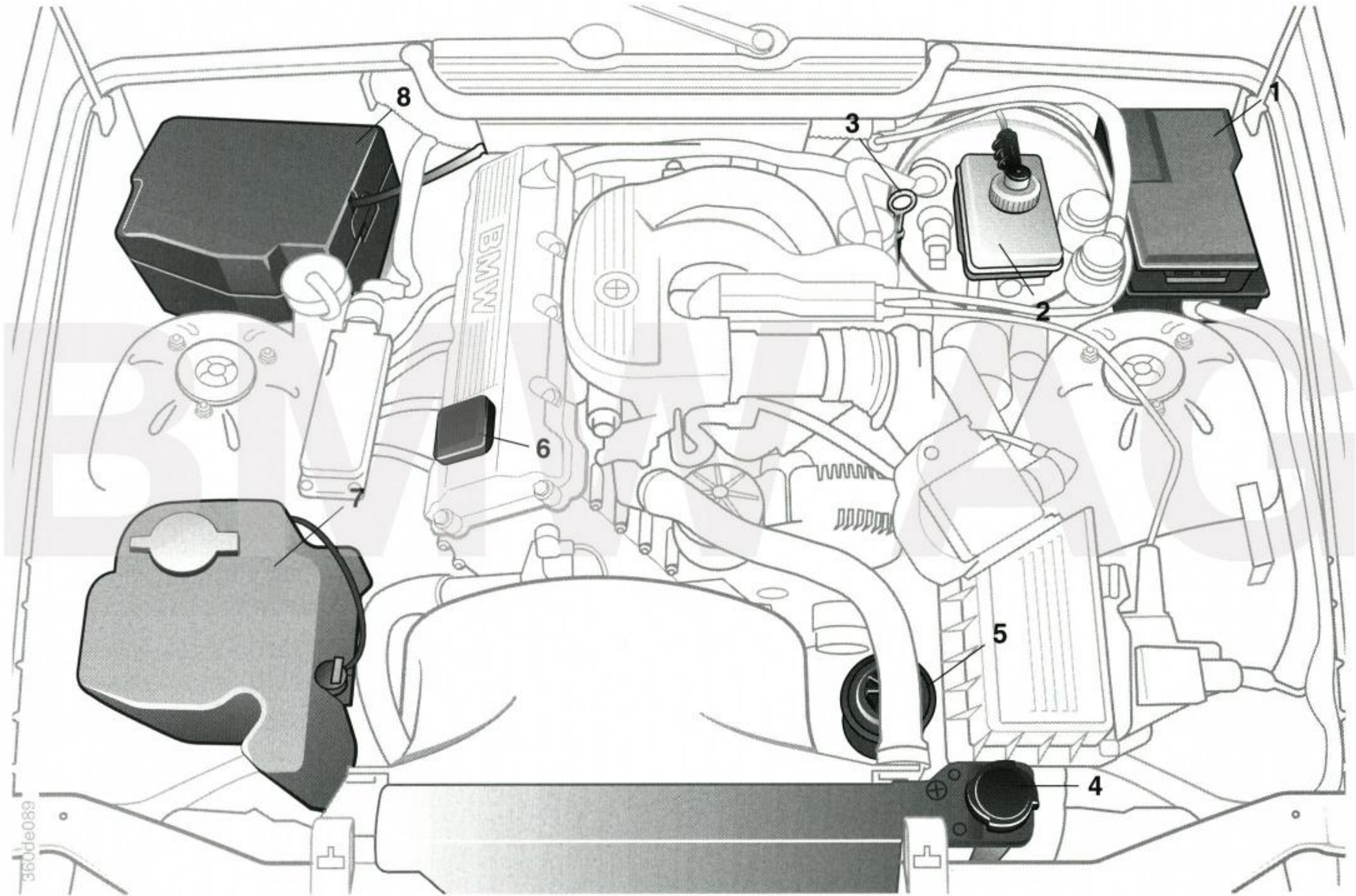


To close

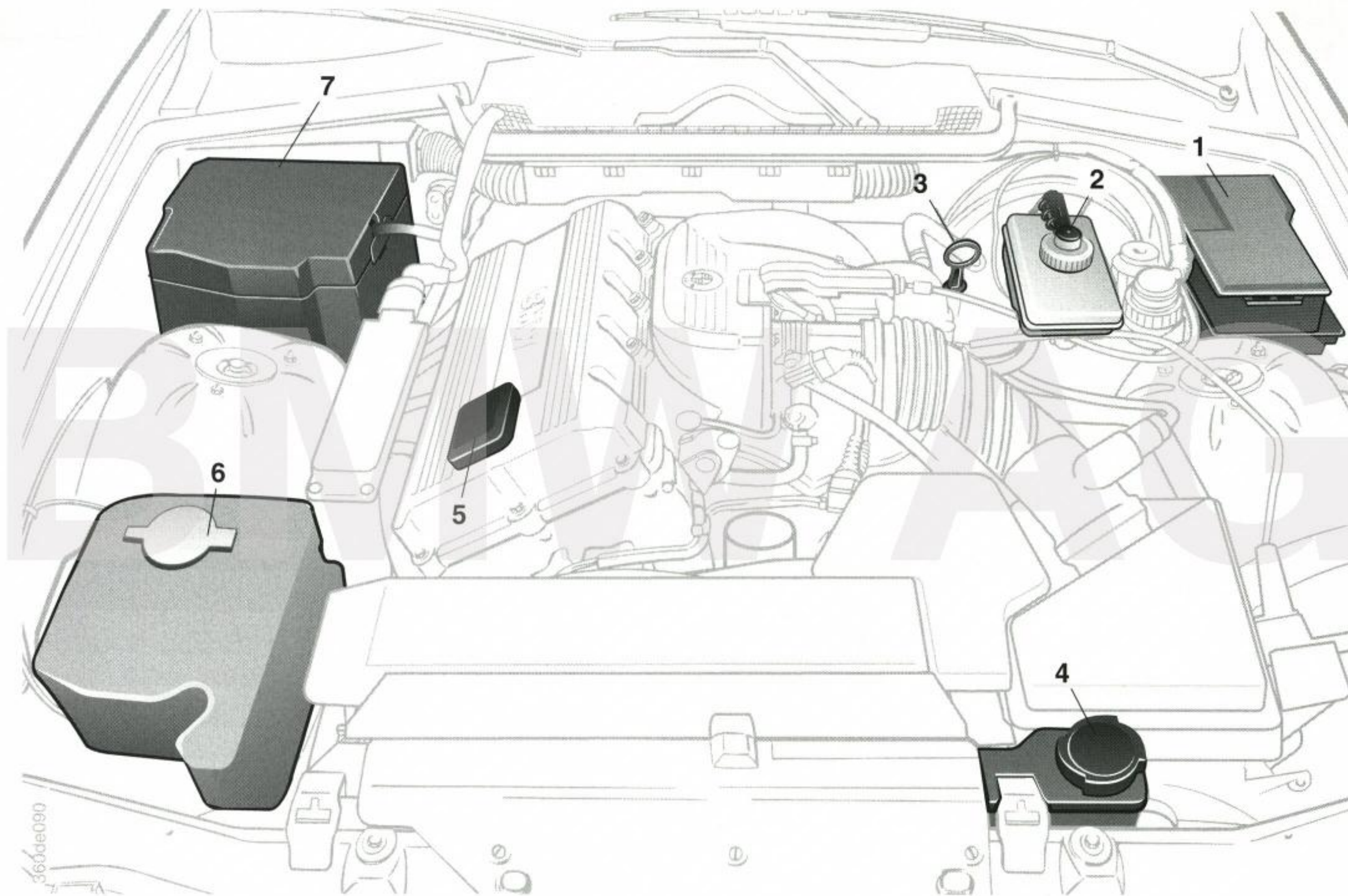
Press both sides of the hood panel down at the same time until it is heard to engage.



If you notice during the journey that the engine compartment has not been properly closed, stop the car at the earliest possible moment and close it correctly. ◀

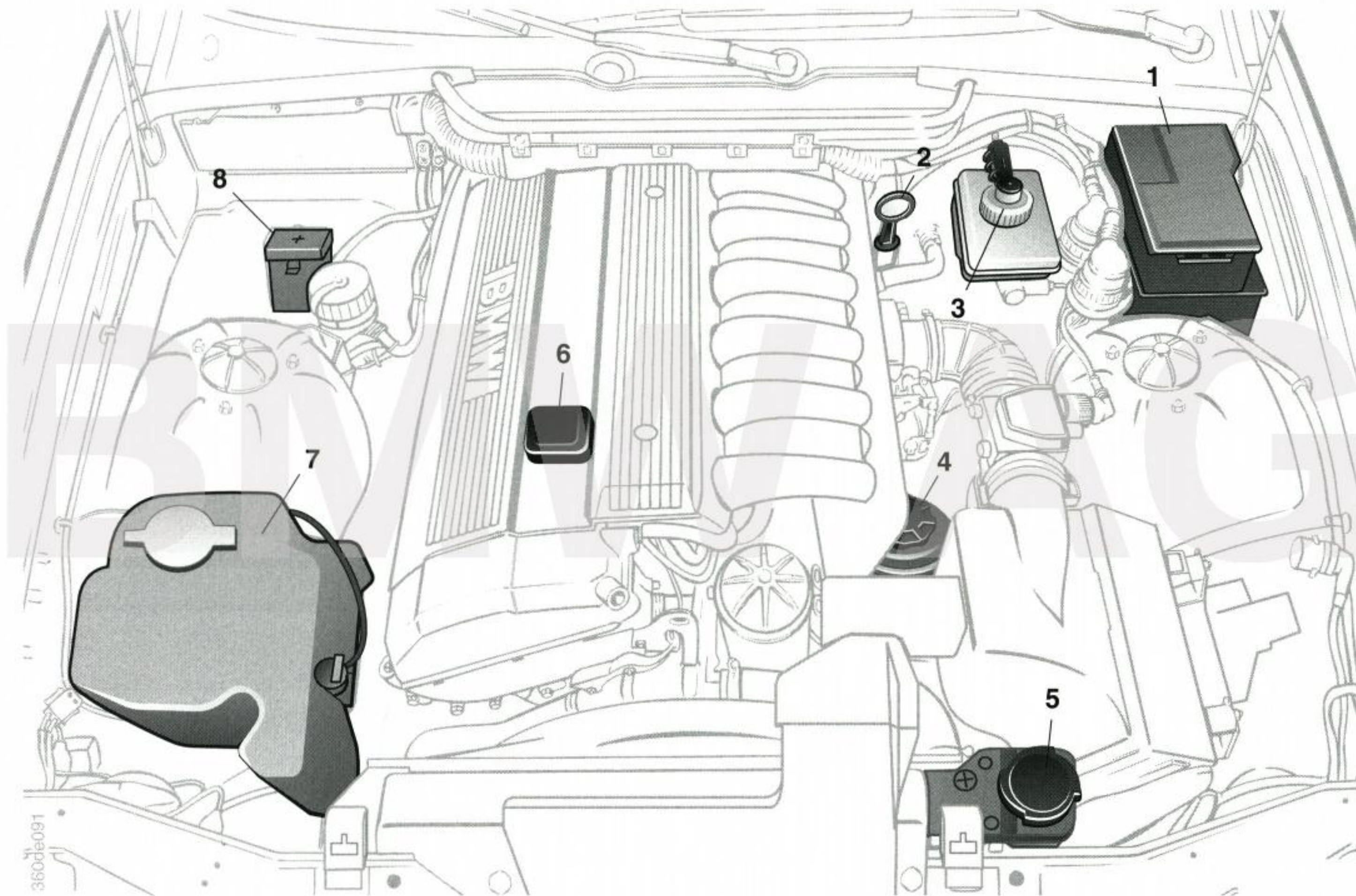


- 1 Fuse box
- 2 Brake fluid reservoir
- 3 Engine oil dipstick
- 4 Coolant level-equalizing tank
- 5 Power steering oil reservoir
- 6 Engine oil filler cap
- 7 Fluid reservoir for headlight cleaning system* and wind-screen washer
- 8 Battery (on the BMW 318i Convertible, 316i/318i touring and certain national-market versions, the battery is in the luggage compartment)



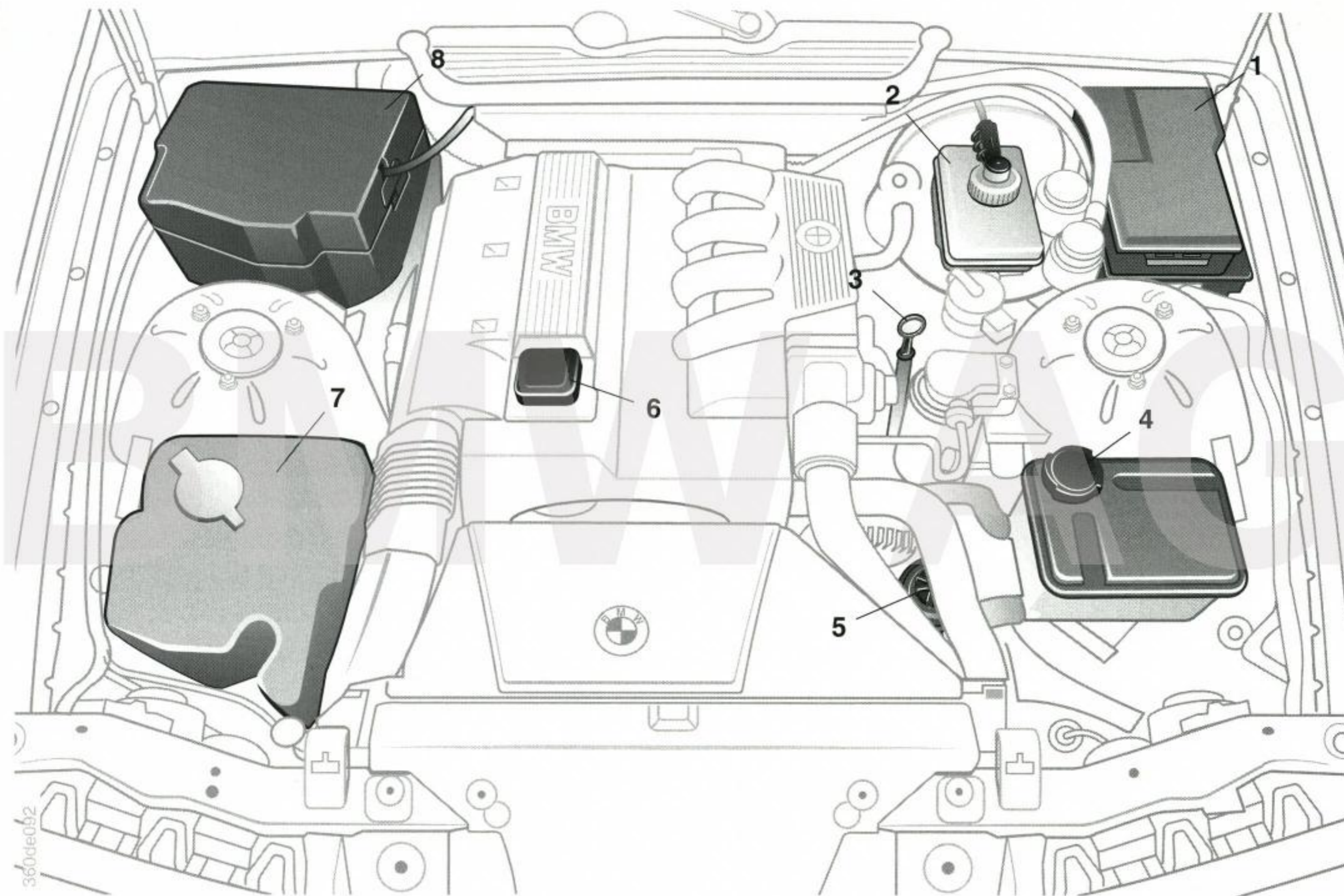
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BMW AG

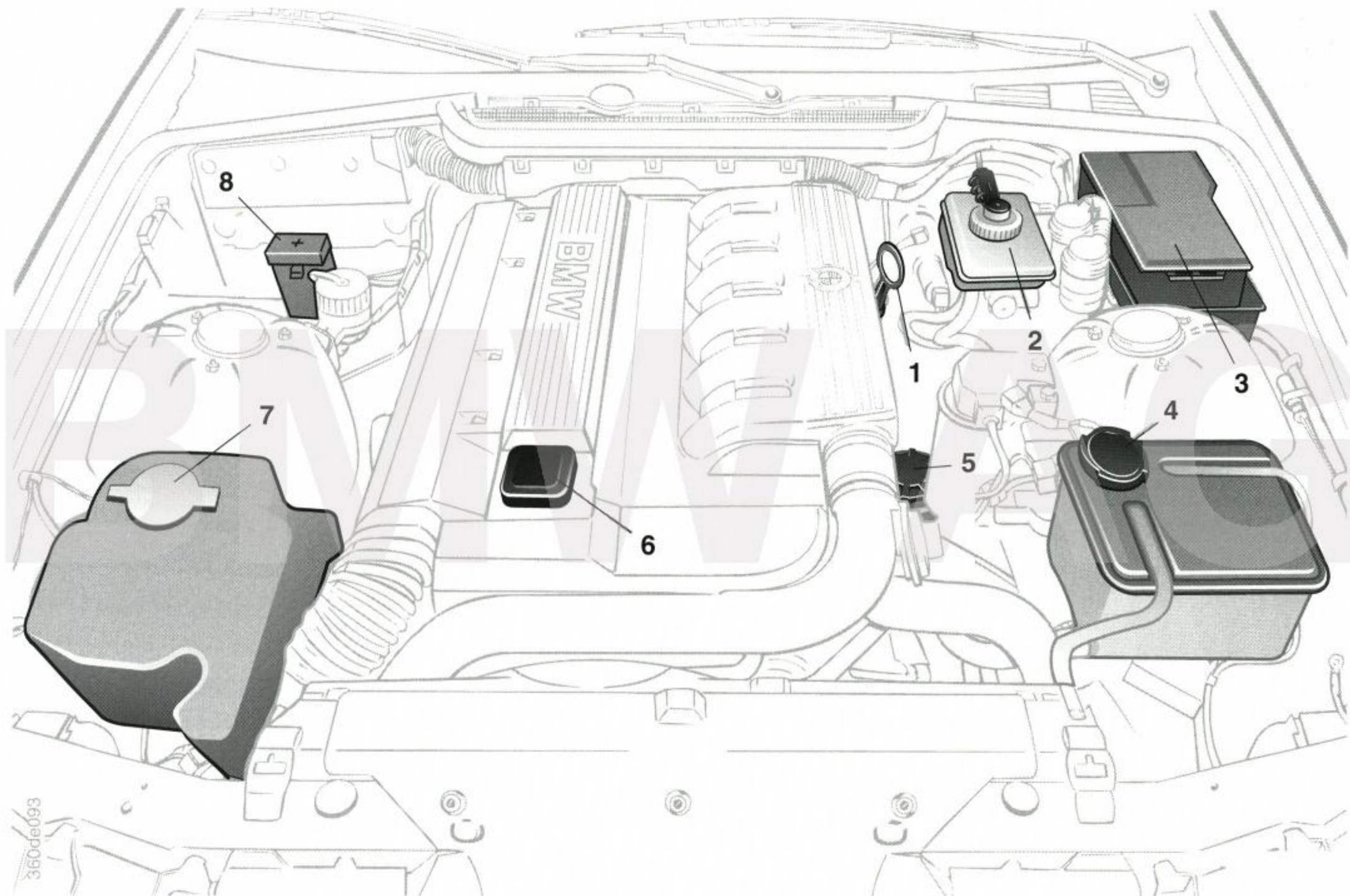


- 1 Fuse box
- 2 Engine oil dipstick
- 3 Brake fluid reservoir
- 4 Power steering oil reservoir
- 5 Coolant level-equalizing tank
- 6 Engine oil filler cap
- 7 Fluid reservoir for headlight cleaning system* and wind-screen washer
- 8 Jump-start connection point

BMW AG

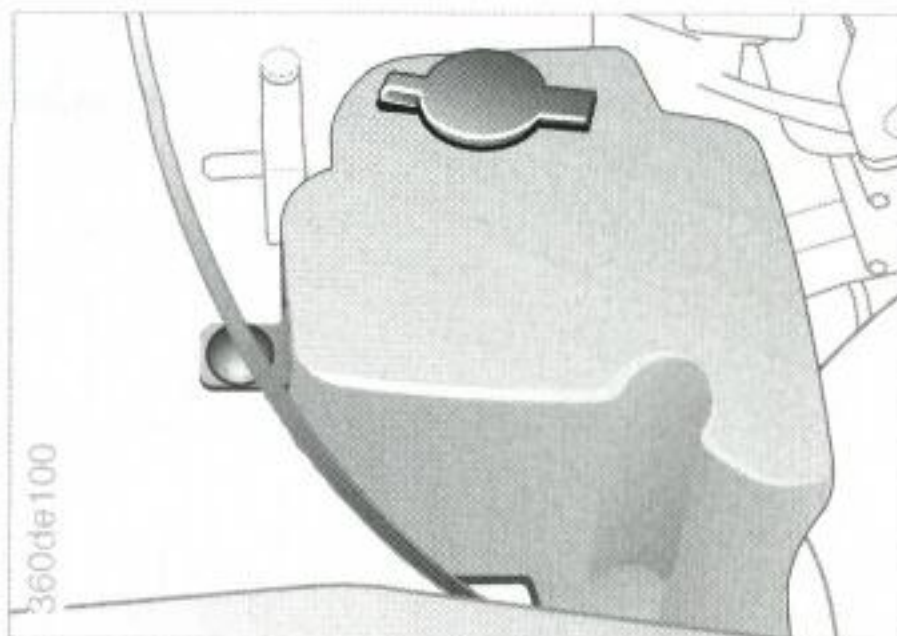


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BMW AG



Headlight cleaning system* and windshield washer

Fluid capacity approx. 2.5 l (4.4 Imp. pints) for the windshield washer (BMW touring: including rear window) or 5.0 l (8.8 Imp. pints) with the headlight cleaning system.

Fill with water and add antifreeze if necessary (comply with manufacturer's instructions).



It is best to mix the constituents of the washer fluid before adding it to the system. ◀

Windscreen washer jets

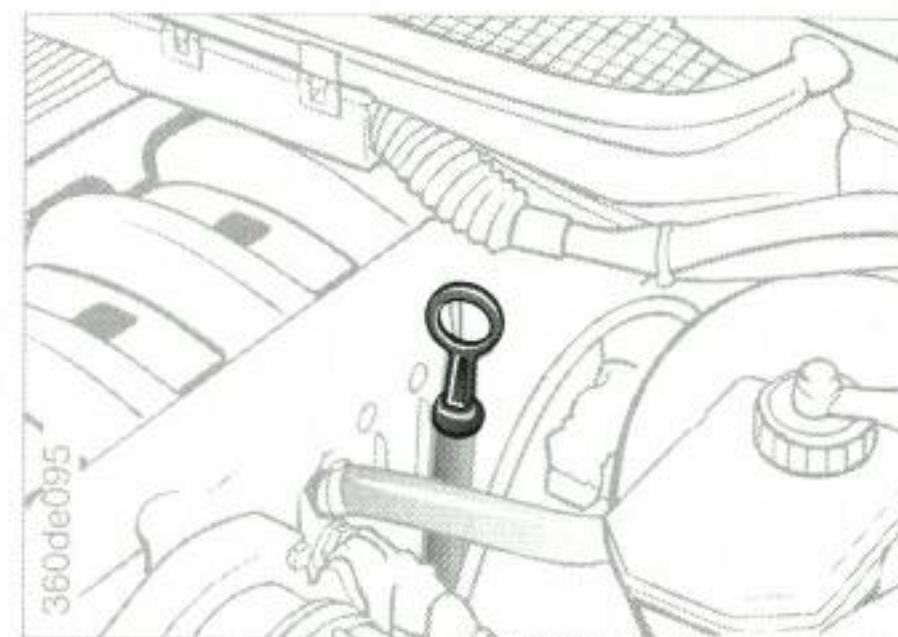
The jets of liquid should strike the windscreen (and the rear window on the BMW touring) in such a way that reliable cleaning is assured even at high speeds.

Correct jet positions if necessary with a needle, or ask BMW Service to perform this task.

Headlight cleaning system jets

Have these jets adjusted by BMW Service if necessary.

Engine oil



Checking engine oil level

Like fuel consumption, engine oil consumption depends on driving style and operating conditions.

The oil level should therefore be checked regularly, about every 1000 kilometres (approx. 600 miles), with the car standing on a flat, level surface.

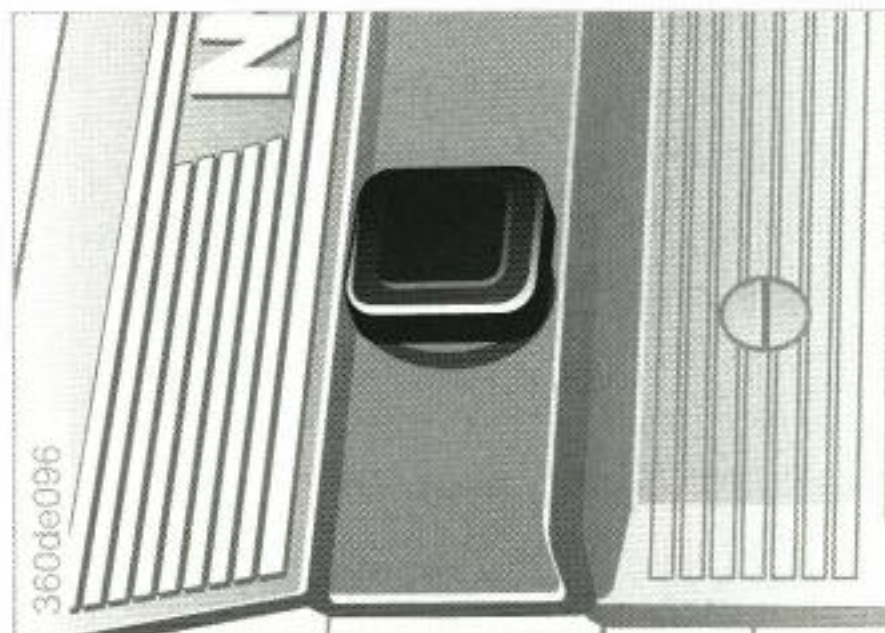
Maximum measuring accuracy:

- ▷ Before a cold engine is started.
- ▷ If the engine is already at its normal operating temperature, wait a short time so that the oil can drain back in the sump (for instance while refueling).

Checking oil level:

- 1 Pull the dipstick out and wipe it with a non-fluffy cloth, paper tissue or similar.

- 2 Push the dipstick fully into the tube, then pull it out again.
- 3 The oil level must be between the two marks on the dipstick.



Adding engine oil

Do not add more oil until the level has fallen almost to the lower mark on the dipstick. However, do not allow engine oil level to drop below the minimum level mark.

The space between the two marks on the dipstick is equivalent to approx. 1 litre (1.8 Imp. pints) of engine oil. Do not fill beyond the upper mark on the dipstick. Adding too much oil will harm the engine because it will be burned off more rapidly, thereby creating the false impression that the engine's oil consumption was too high.



BMW engines are designed not to need separate additives in the engine oil, and indeed adding these substances could even be harmful in certain circumstances. The same applies to the manual gearbox or automatic transmission, the final drive and the power steering. ◀

Engine oil specifications

When determining oil quality, always refer to the ACEA specification. If oil to this specification cannot be obtained, refer to the CCMC or API specification.

Required quality stages:

Preferred:	Also permitted
Spark ignition engines	
ACEA: A2-96	CCMC-G4
ACEA: A3-96	CCMC-G5
ACEA: A2-96/B2-96	CCMC-G4/PD2
ACEA: A3-96/B2-96	CCMC-G5/PD2
ACEA: A2-96/B3-96	API SH
ACEA: A3-96/B3-96	API-SH/CD
	API-SH/CE
Diesel engines	
ACEA: A3-96/B3-96	CCMC-G5/PD2



Diesel engines:
Engine oil must always comply with both specifications: ACEA A3-96 and ACEA: B3-96 or CCMC-G5 and CCMC-PD2.
For the BMW 325td/tds, use only the oil grades stated in the accompanying supplementary owner's handbook. ◀



When disposing of old oil, always comply with the relevant environmental protection laws. ◀

Recommendation: have oil changes performed by BMW Service.



In laboratory tests, prolonged contact with old oil has been found to cause cancer.

For this reason, always wash the affected skin areas thoroughly with soap and water after work. Keep oils, greases etc. out of children's reach and in vessels marked with a suitable warning. ◀

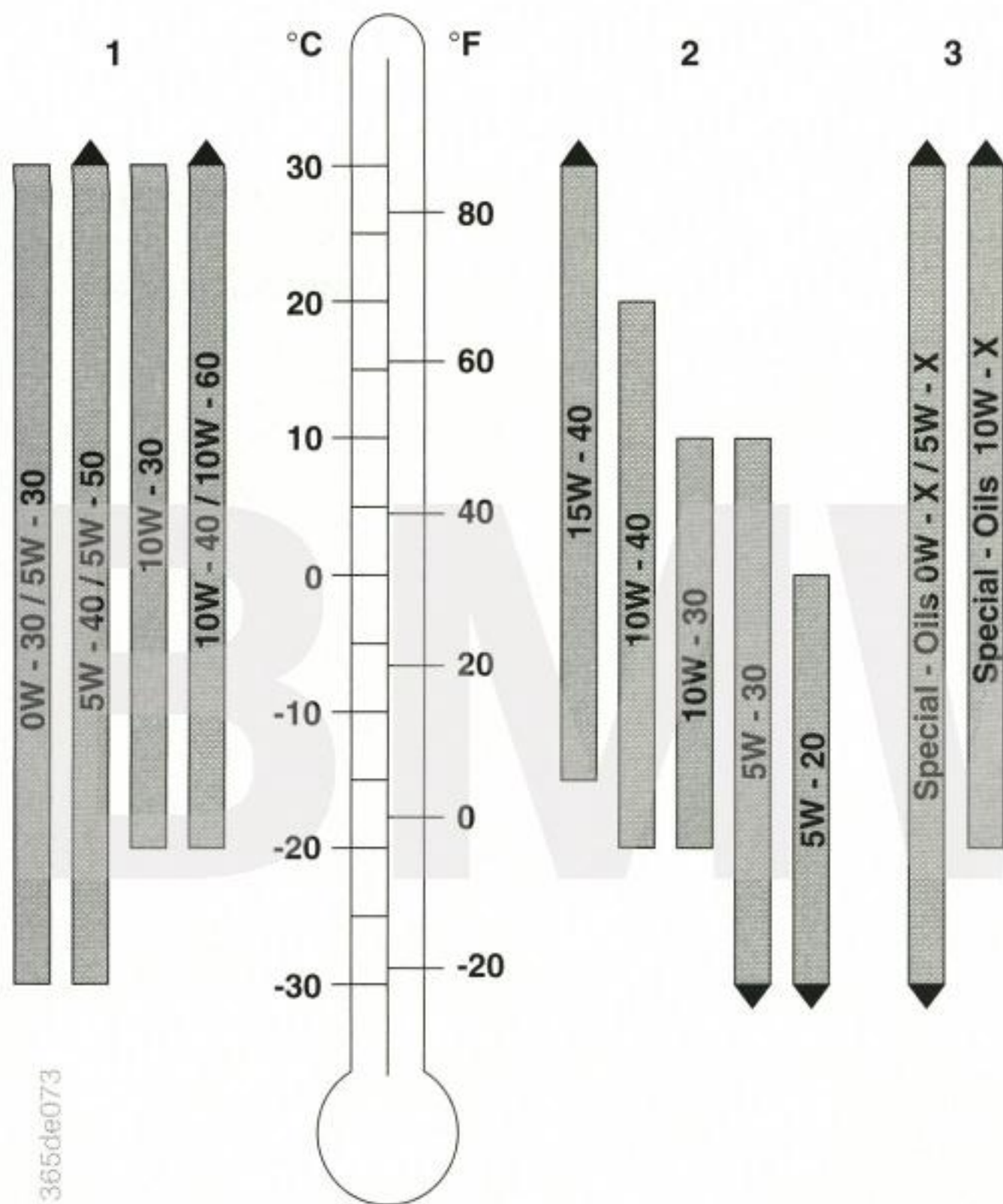
Viscosities

Viscosity = the oil's liquid density, as shown by the SAE classification.

The choice of SAE grade depends on the average air temperature at the time of year.

The chart on the next page indicates the correct SAE classification.

Note that the temperature limits indicated for the various SAE grades can be departed from for brief operating periods.



1 Diesel-engined cars:
BMW 318tds



BMW 325td/tds:

Use only the engine oil grades stated in the accompanying Supplementary Owner's Handbook. ◀

2 Petrol-engined cars:
BMW 316i, 318i, 318is,
320i, 323i, 328i

3 Cars with diesel or petrol engine:
BMW Service can inform you of
special grades of oil approved
individually by BMW.

365de073



The picture shows (as an example) the coolant level equalising reservoir on cars with a spark-ignition engine. For the coolant level equalising reservoir on diesel-engined cars, see illustrations of engine compartment, starting on page 150.

Coolant level when engine is cold: up to the KALT/COLD mark on the translucent reservoir.

The coolant consists of water to which a long-life antifreeze and corrosion inhibitor has been added. The 50:50 mixing ratio must be maintained all the year round to ensure protection against corrosion. No other additives are needed.

Renew the coolant every 3 years.

Refilling

Open the cap on the equalizing tank only when the engine has cooled down. The needle of the coolant thermometer must be in the lower third of its scale, or else there is a risk of scalding.

- ▷ Turn the filler cap counter-clockwise slightly until the excess pressure has escaped, then remove it.
- ▷ Fill as far as the KALT/COLD mark. If too much coolant is added, it will be lost through the overflow pipe.



Never add coolant while the engine is still hot.

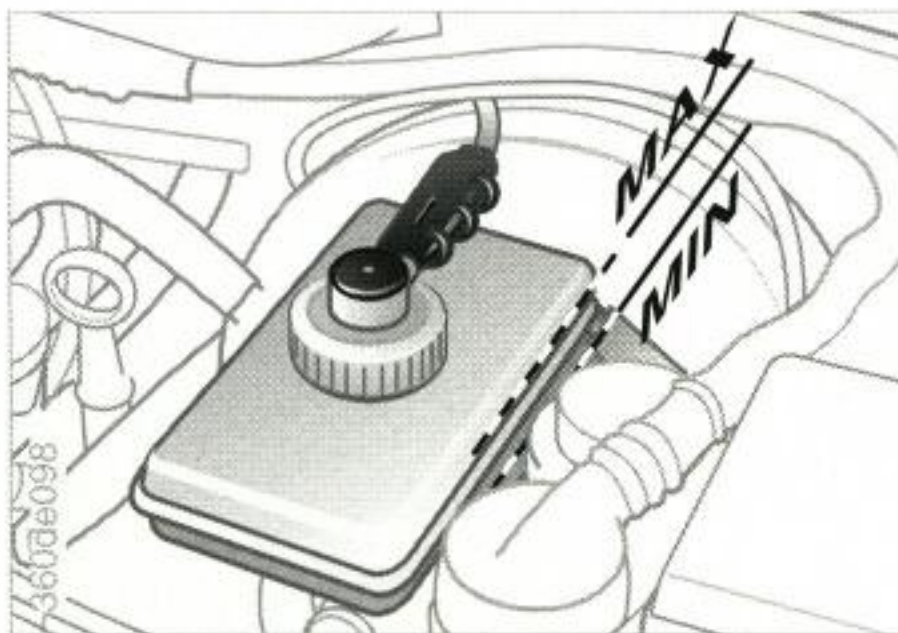
To avoid the risk of possible subsequent damage, use only factory-approved long-life antifreezes and corrosion inhibitors containing no nitrites or amino compounds. BMW Service points are familiar with these products.

Antifreezes and corrosion inhibitors are toxic. Store them only in the original packs, out of reach of children. When disposing of brake fluid, comply with environmental protection laws. Long-life antifreeze and corrosion inhibitor contains ethylene glycol, which is flammable. Take care not to

spill it over hot parts of the engine, otherwise it may ignite and cause serious burns. ◀



Comply with environmental protection laws when disposing of long-life antifreeze and corrosion inhibitor. ◀



If the brake system hydraulics warning light comes on:

Brake fluid has been lost from the system, causing pedal travel to increase.

Fill to the upper (MAX) mark (the level can be checked from the outside).

BMW Service is familiar with the grades of brake fluid (DOT 4) approved by the manufacturer.

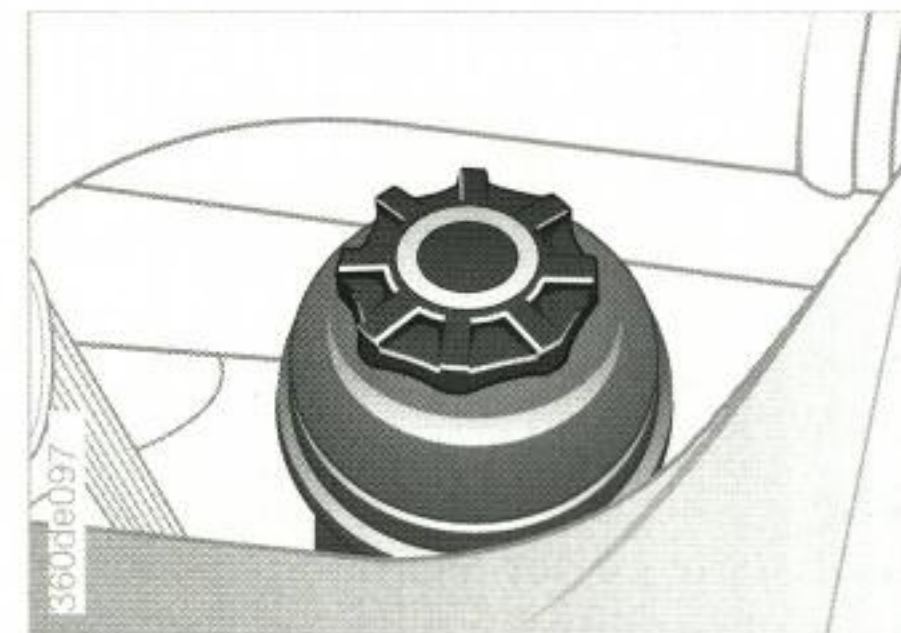


Brake fluid is hygroscopic, that is to say it absorbs moisture gradually from the atmosphere. To ensure that the brake system remains fully operational, the brake fluid must be renewed by BMW Service every two years; see also Pages 69, 126, 169 and the Service Booklet. Brake fluid is toxic and at-

tacks the car's paintwork. Keep it in sealed original packs, out of reach of children. When disposing of brake fluid, comply with environmental protection laws. Try to avoid spilling brake fluid, and do not add it beyond the MAX mark on the reservoir. If brake fluid comes into contact with hot parts of the engine, it can ignite and cause serious burns. ◀



When disposing of brake fluid or packs which contained it, comply with environmental protection laws. ◀



With the engine stopped, unscrew the reservoir cap and then insert it again.

The oil level must be between the marks on the dipstick.

Top up with ATF if necessary. BMW Service can notify you of the approved grades.

Run the engine. Top up the oil if necessary until the level is between the two marks.

Stop the engine. The oil level may rise approx. 5 mm (0.2 in) above the upper mark.

Screw the cover back on.



BMW 318is: BMW Service should be approached when this work is needed. ◀

If the steering is stiff to turn:

Check hydraulic fluid level (see previous page).

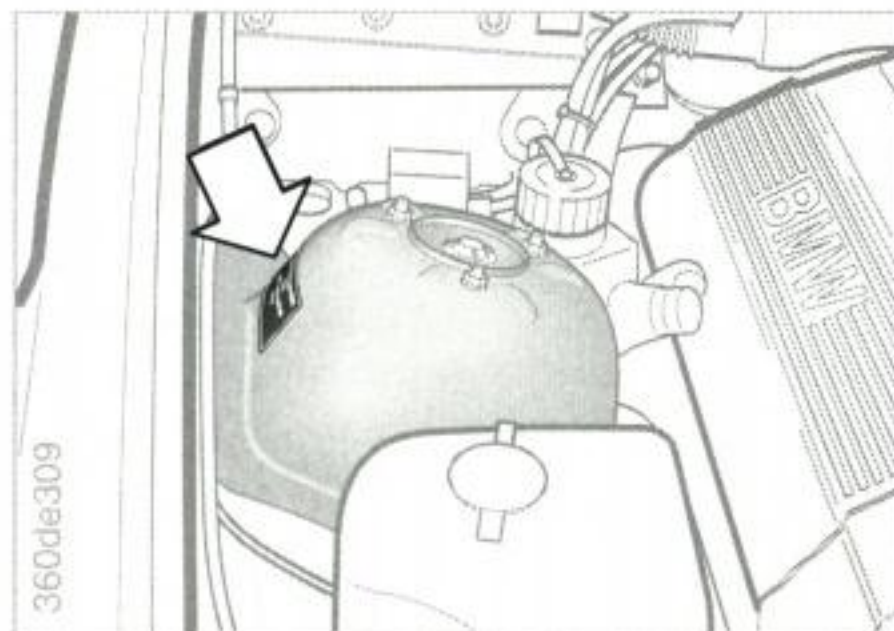
If steering is stiff when the steering wheel is moved rapidly:

Always have the system checked by BMW Service.



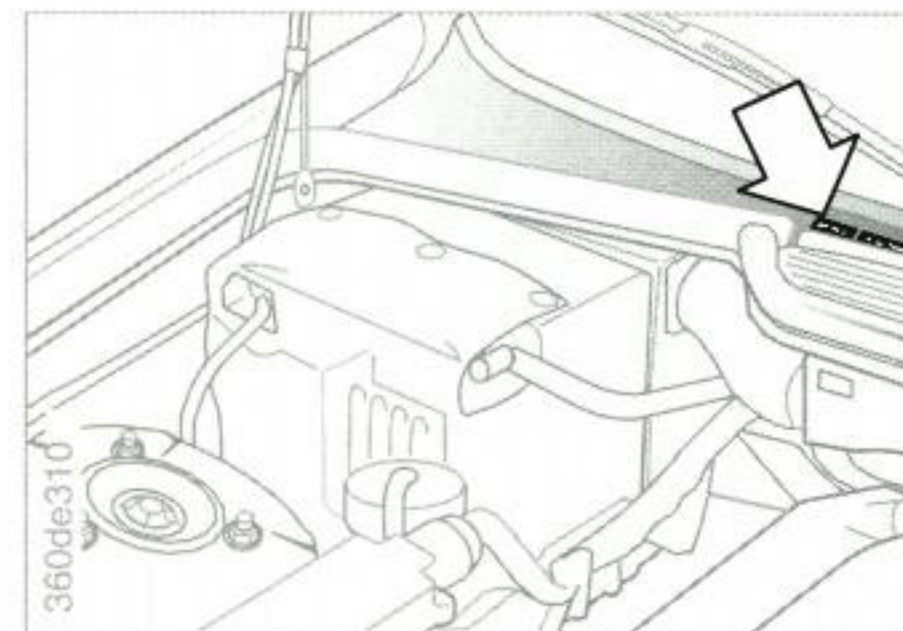
If the power assistance should fail, greater effort will be required at the steering wheel. ◀

Type plate



In the engine compartment, at the side on the upper suspension strut mount (arrow).

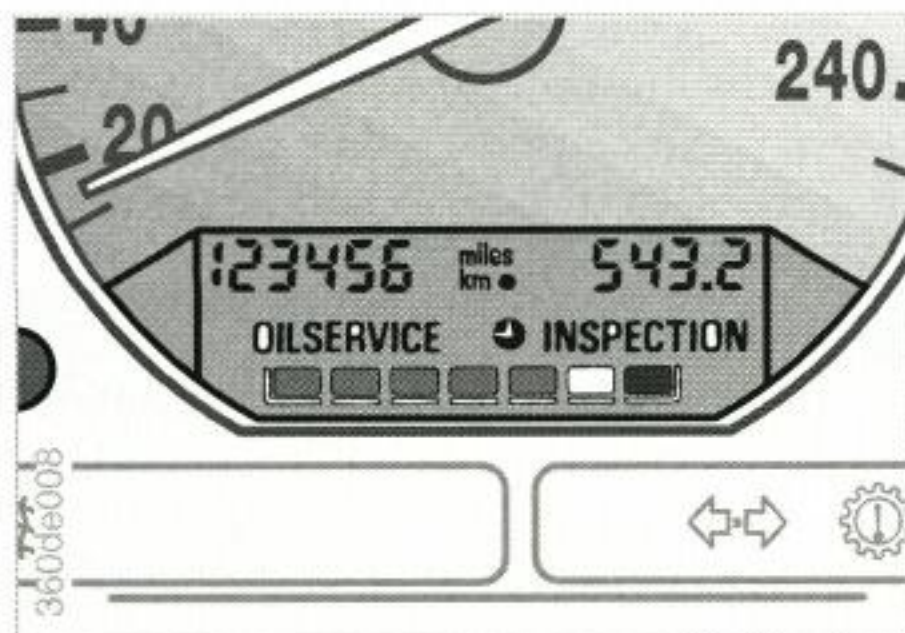
Identification number



In the engine compartment, at the right on the heater bulkhead (arrow).

The data on the type plate and the vehicle identification number must agree with those in the car's documents.

The car's data are needed as a reference for all queries, checks and spare part orders.



The BMW maintenance system has been planned to ensure that the car always remains safe for the road and reliable without the customer incurring any unnecessary expense.

Please remember that regular maintenance is not only essential for your car's safety, but also enhances its resale value.

Service Interval indicator

Advanced technologies have been adopted as a means of computing maintenance requirements, which are then shown on the Service Interval indicator. Whereas conventional maintenance schedules are based entirely on fixed distance intervals, the BMW maintenance system takes the car's operating conditions into account, bearing in mind that one kilometre is not the same as another: 100,000 kilometres (approx. 60,000 miles) completed exclusively in the form of short journeys cannot be equated with 100,000 kilometres (approx. 60,000 miles) made up of long main-road journeys only.

The maintenance routines based on actual use of the car consist of the Oil Service and Inspections I and II.

The principle of determining maintenance intervals according to load effectively covers all the operating conditions to which the car is likely to be exposed. Owners who use their cars very little - well under 10,000 km (approx. 6,000 miles) per year - should nevertheless have the engine oil changed at least once a year, as it ages regardless of the amount of use to which the vehicle is put.

Service Booklet

For further information on maintenance points and the scope of maintenance work, please refer to the car's Service Booklet.

Depending on the circumstances in which the car is used, it may be worthwhile to inspect it for damage caused by stones flung up from the road, in order to guard against subsequent corrosion.

Please make sure that the maintenance work is confirmed in the car's Service Booklet. These entries are evidence that your car has been serviced regularly and correctly, and are also the basis of any warranty claims.



Have maintenance and repair work carried out by BMW Service. BMW Service is in possession of the latest information on maintenance work and repair procedures, and equipped with the special tools needed for your car. In addition, a check on parts subject to wear forms part of the maintenance procedure. ◀

Car wash

Your new BMW can be put through an automatic car wash, or be washed by hand, immediately.

BMW Convertible: for cleaning and care of the soft top, see page 167 onwards.

To prevent patches from forming, do not wash the car when the engine hood is still hot, directly after it has been exposed to strong sunlight or if it is parked in the sun.

If an automatic car wash is used, make sure that

- ▷ no damage can occur to projecting body parts (e.g. spoilers, telephone aerial). If necessary, consult the operator of the car wash first
- ▷ the brush pressure is as low as possible, and the car wash operates with ample rinsing water.

Before washing the car, soak dead insects and heavy dirt deposits and wash them off separately.



When using a steam jet or high-pressure cleaning equipment, keep the specified distance away from the car's body. High pressure jets striking it from only a short distance away could cause damage, or surface deterioration leading to damage at a later date. In addition, water could penetrate various components on the car and cause long-term damage or failure. ◀

Clean the areas not reached in the automatic wash by hand, for example door sills, folds in door and lid panels etc.



When cleaning the headlight covers, please note:

- ▷ do not rub them when dry or use caustic or abrasive cleaning agents
- ▷ soak dirt or other deposits (e.g. dead insects) with BMW Shampoo and wash down with plenty of water
- ▷ use a de-icer spray to remove ice deposits – not a scraper or other hard tool. ◀

During the winter months in particular, wash the car more frequently. Severe dirt deposits and road salt are difficult to remove and can also cause damage to the vehicle.



After washing the car, the brakes may not operate at full efficiency if they are still damp. Dry the brake discs by applying them briefly as soon as the car is driven. ◀

Paintwork

The car's paintwork is built up in several layers, to ensure effective protection against corrosion. In addition to cathaphoretic dip coating with primer, the body cavities are specially protected with materials that have been subjected to stringent and successful testing for a number of years.

The entire underbody is sprayed with a resilient PVC-based material and then protected by a wax-based underseal.

Always remember that regular care of your car will go a long way towards maintaining not only its safe condition but also its resale value.

Increasing awareness of the damage which unfavourable environmental conditions can cause to paintwork have led to paint suppliers and automobile manufacturers steadily increasing the durability of the paint finishes. Nonetheless, environmental influences occurring in specific regions may affect the car's paintwork. Please wash and clean the car as frequently as needed.

In the case of mechanical loads caused by sand, road salt, stone chip-pings or similar, the paint surface may

be broken and corrosion may then be able to develop under the paint, and spread out from the damaged areas.

Road dirt, tar stains, dead insects, bird droppings (with a strongly alkaline effect), and also sap, resin or pollen from trees, all contain constituents which could cause paint damage if not removed promptly (patches, swelling, caustic damage, peeling and flaking of the top coat).

In industrial areas, deposits of fly ash, lime and scale, soot containing oil and sulphur dioxide (as in acid rain), together with other airborne impurities, are bound to damage the paint (usually the predominantly horizontal surfaces) unless sufficient care is taken to remove them.

In coastal regions the high salt content and humidity of the air encourages more rapid corrosion.

In tropical zones, strong ultra-violet radiation and high atmospheric humidity are often accompanied by temperatures above 40 °C in the shade. Light-coloured paint finishes can reach up to 80 °C and dark ones up to 120 °C.

Care of paintwork

Washing the car once a week will prevent harmful substances from causing long-term damage to the paint finish, particularly if the car is parked or driven in regions where atmospheric pollution levels are high or natural impurities occur in the air (sap from trees, pollen).

Always remove particularly aggressive substances from the paintwork immediately, or else the composition of the paint may be affected and discoloration may occur. These may include spilled fuel, oil, grease, brake fluid or bird droppings.

Contamination of the paint surface is particularly easy to identify after the car has been washed. Remove such residues without delay, using cleaning-grade petroleum spirit or alcohol on a clean cloth or wadding. Tar stains should be cleaned off with a suitable tar remover, but this should not be used on the headlight covers or other light glasses. Finally, apply a paint protection product to the treated areas.



Cleaning and care products are available from BMW Service. ◀

Protecting the paintwork

Polish the paintwork only with products containing Carnauba or synthetic waxes.

A sure sign that the paintwork needs protective treatment is when water no longer forms large droplets and rolls off the surface.

Remove care product residues and silicone from the windscreen with glass cleaner.



Cleaning and care products are available from BMW Service. ◀

Touching in paint damage

Minor paintwork flaws can be rectified with a BMW paint spray can or stick, or with BMW paint film.

Your car's paint finish is stated on a label close to its type plate, and also on the first page of the Service Booklet.

Scratches and damage caused by flying stones must be repaired immediately, to prevent rust from forming.

If any areas of the body have already started to rust as a result of paint damage, remove the rust and clean them. Apply primer coating with a BMW primer stick, allow to dry thoroughly, then apply the top coat. After a few days, polish the touched-in areas and apply a paint protection product.

You can have more widespread paint damage expertly repaired by BMW Service in accordance with the manufacturer's directives, using original BMW paint materials.

Care of special components

Alloy wheels* should be treated with a wheel cleaning agent, particularly during the winter months, but do not use any aggressive cleansers containing acids or strong alkalis, or with an abrasive effect, nor a steam jet at a temperature higher than 60 °C (comply with the product or equipment manufacturer's instructions).

Keep the inside surfaces of windows, and the mirrors, clean and free from smears with a glass cleaner. Never use cleaning agents or polishing pastes containing quartz powder on the mirrors.

Use water or possibly a plastic care product on plastic (synthetic) parts, imitation leather surfaces, the roof lining, light glasses, the glass covering the instrument panel and any parts sprayed matt black. Do not allow the roof lining to become wet right through. Never use solvents such as nitro thinners, cold cleanser, fuel or similar.

Apart from water, treat rubber parts only with rubber care products or silicone spray. Clean the wiper blades with soapy water. Replace the windscreen wipers twice a year, before and after the cold season.

Seat belts should only be cleaned with mild soap suds (without removing them from the car). Do not dry-clean or use chemical products, or the fabric may be weakened.

Never allow automatic seat belts to retract unless they are dry. Dirt on the seat belts can interfere with the action of the reel and represent a safety hazard.

Floor carpets and mats* can be treated with a car interior cleaner if very dirty. The floor mats can be taken out of the car to enable the interior to be cleaned more thoroughly.

Real wood trims and wooden parts should only be cleaned using a damp cloth. Then rub dry with a second soft cloth.



Cleaning and care products can be obtained from BMW Service. ◀

Care of upholstery materials

The pressure areas which occur when cloth seats are in daily use can be restored by brushing against the pile direction with a slightly moistened brush.

The tendency of the pile to lie in a particular direction on velour upholstery is not a quality defect and, just as on home textiles or clothing, cannot be avoided.

Remove fluff from cloth upholstery and rubbed-in threads or scraps of cloth or suede with a suitable fluff roller or burr brush. A cleaning glove is available for particularly obstinate fluff. Stains and fairly large areas of dirt should be cleaned off without delay, using lukewarm water and an interior cleaner, stain remover or cleaning-grade benzene. Brush the fabric afterwards to restore its appearance.

Cover the seats if exposed to hot summer sun for lengthy periods, so that the upholstery does not fade.



Cleaning and care products are available from BMW Service. ◀

The build-up of a static electrical charge on the seats, particularly if atmospheric humidity is low, can give the occupants an unpleasant electric shock if they touch metal parts of the car after leaving it. Although this is not dangerous in any way, it can be avoided by holding on to a bare or polished metal part of the car while getting out.

Antistatic agents can be used to eliminate this effect to a large extent.

Care of leather

The leather* used by BMW is a natural product of the highest quality, processed by the very latest methods, and will remain in good condition for many years if correctly treated.

Since this is an authentic natural product, its special characteristics and how it is used and looked after must be given due consideration.

Regular cleaning and care are needed, since dust and dirt, for instance from the roads, collect in pores and creases, cause severe abrasion and can lead to the leather surface becoming prematurely brittle. You are therefore recommended to remove dust from the leather at regular intervals with a cloth or vacuum cleaner.

For cleaning, please use BMW leather cleaning foam.

Since dirt and grease may gradually destroy the leather's protective surface, a BMW leather care product should be applied after cleaning. It also has an antistatic effect.

To protect it against moisture and damp, the leather can be treated with BMW impregnating agent.

This treatment is recommended every six months, assuming normal use of the car.

If any liquids are spilled, wipe them off immediately. Dab grease or oil stains carefully with stain remover.

If exposed to strong sunlight when the car is parked for a lengthy period, leather seats should be covered or the windows blanked off to prevent fading.



Cleaning agents can contain hazardous substances or constitute a health risk. Always comply with the warning and hazard avoidance instructions on the pack.

When cleaning the interior of the car, leave the doors or windows open. Never use any solvents or other substances not specifically intended for cleaning the car. ◀

Care

The appearance and useful life of the soft top largely depend on proper operation and care. The following recommendations are particularly important for light-coloured soft tops.

Always try to park the car in shade, in order to protect the soft top against strong sunlight and so that the colour, the rubberising and the woven cloth are not affected.

Do not fold the soft top and place it in its compartment if it is wet, dirty or frozen, or else patches of mildew and abrasion marks may occur.

Do not leave the soft top folded away in the compartment for too lengthy a period, in order to prevent creases in the rear window and the onset of mildew.

If stored for any length of time in an enclosed space, ensure that the soft top remains dry and that the room is adequately ventilated.

Always remove bird droppings immediately, or else their caustic effect will damage the soft top and cause the rubber seals to swell.

Clean and treat rubber seals with water only or, if they feel dry and tend

to stick, apply talc, a rubber care product or a silicone spray.

Use an anti-slip spray to eliminate noise such as squeaking.

Do not use sharp-edged tools to remove snow and ice from the rear window. De-icing sprays are not permitted. In view of the risk of damage and discoloration, no adhesive tape, labels etc. are to be attached to the rear window, nor is it to be covered with plastic film.

Careless treatment or cleaning and lengthy periods of heavy use could cause pressure points and areas of dirt to form on the soft top. In the same way, the soft top or its seams could cease to be waterproof. No warranty claims can be considered in such circumstances. Please contact BMW Service for repairs.

Car wash

Your BMW Convertible can be passed through an automatic car wash. Preference should be given to the brushless type.

If a car wash with brushes has to be used, try to choose a modern one with soft brushes. Do not select a program which applies protective wax to the car. However, the wax which is usually added to the water to reduce its surface tension is harmless.

If the soft top is very dirty (this will be particularly noticeable on a light-coloured soft top), clean it with the BMW Convertible Cleaning Set. Proceed as follows:

Spray the soft top with the cleaning agent. Create foam on the surface with circular movements of a well-soaked sponge. The car can then be passed through an automatic car wash. After the car has been washed on three to five occasions, a special impregnating spray should be applied to the soft top. Please note the instructions on the spray can.

Never remove patches or stains from the soft top with stain remover, paint thinners or other solvents, fuel or similar substances, as these will destroy the rubberising and cause the soft top to let in water. Use only the cleaning agents approved by BMW.

The rear window has the advantage of being highly flexible, but also has a relatively soft surface. For this reason it must only be cleaned with a soft antistatic cloth or with BMW Convertible rear window cleaner.

Slight scratching of the rear window will be unavoidable if the car is washed frequently in a car wash with brushes, particularly if the brushes are fairly stiff. The rear window is designed for easy replacement at only moderate expense if it becomes badly scratched. Consult BMW Service if necessary.



Cleaning and care products are available from BMW Service. ◀



Cleaning agents may contain hazardous substances or constitute a health risk. Always comply with the warnings and risk-avoidance instructions on the pack.

When cleaning the interior of the car, leave the doors or windows open. Never use solvents or other substances not intended for cleaning the car. ◀

Hardtop:

Please note the care instructions on page 162 onwards.

Laying up out of use

If the car is to be laid up out of use for more than three months, have the following maintenance work performed by BMW Service:

- 1 Cleaning and protective treatment or reconditioning of the engine, engine compartment, underbody, axles and mechanical assemblies in accordance with the manufacturer's directives. Body wash and interior cleaning, followed by protective treatment of the paintwork and chrome. Cleaning rubber seals on lids and doors, and applying talc or glycerine oil to them.
- 2 Changing the engine oil and the filter element while at the regular operating temperature. As an additional corrosion protection measure for the engine, a corrosion inhibitor can be added to the fuel in accordance with the manufacturer's instructions.
- 3 Check coolant level and concentration, and correct if necessary.
- 4 Check battery acid level and top up with distilled water if necessary.
- 5 Increase tyre pressures to 3.5 bar (50 psi).

Immediately before the car is laid up out of use, perform the following work:

- 1 Drive the car and apply the foot brake and handbrake until the discs and drums are dry and cannot corrode.
- 2 Lay the car up in a dry, well-ventilated building with reverse gear or automatic transmission position P selected and a wheel chocked if necessary to prevent it from rolling away. Do not apply the handbrake.
- 3 Remove the battery, recharge it and store it in a cool place but one in which it cannot freeze.

During the laying-up period, recharge the battery every three months, to prevent it from becoming unusable. Every time a battery is allowed to run flat, particularly if left in this state for some time, its operating life is reduced.

De-registration

If the authorities have been notified that the car has been withdrawn from the road, note the legal time limit for re-registration, in order to avoid invalidating the car's general operating permit. Comply with national regulations in this respect.

Restoring the car to use

Recharge the battery or replace it if necessary.

Have Inspection I performed by BMW Service.



Periods of time in which the car's battery is disconnected are not counted by the Service Interval indicator when the brake fluid renewal warning is given.

In such cases you must ensure that the brake fluid is renewed every two years regardless of the display. Further details: page 159. ◀

The environmental compatibility of an automobile is just as important as its function, costs and quality. This refers not only to the period of time it spends on the road, but also to the car's entire life-cycle – from development and production, through the period of active use to the time when the materials from which it was made have to be disposed of or re-used.

Recycling in Service area

In various countries, BMW Service offers a scheme for collecting residual materials and waste products from maintenance and repair work in suitable containers, e.g.:

- ▷ old oil
- ▷ oil filters
- ▷ antifreeze
- ▷ brake fluid
- ▷ batteries
- ▷ tyres
- ▷ air cleaner elements
- ▷ airbags
- ▷ windscreens and rear windows

BMW organises, pays for and supervises the removal and disposal of these substances and has drawn up handling principles far in excess of anything currently called for by law.

Returning the car

When your car eventually reaches the end of its useful life, you can be sure that it has been designed throughout for efficient recycling, with no disadvantages for either its owner or the environment in general. Easy dismantling of components and structural elements, and the use of materials suitable for recycling, have the effect of increasing the value of a scrapped vehicle.

BMW cooperates with selected, authorised scrap and recycling companies in various countries; these will accept your vehicle for disposal and ensure that BMW directives and environmental protection laws are complied with.



Your BMW Service station will gladly advise you on returning the car for disposal as and when it has to be withdrawn from use. ◀

Replacing parts:

Toolkit 172
 Wiper blades 172
 Bulbs 173
 Master key with battery light 179
 Radio remote control 179
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 Wheel studs, lockable 183
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If an electrical fault occurs:

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Mutual aid:

BMW Emergency Service 188
 Starting with a flat battery 188
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Initial overview

Controls in detail

 Operation, maintenance
 and general care

Minor repairs

Technical items of interest

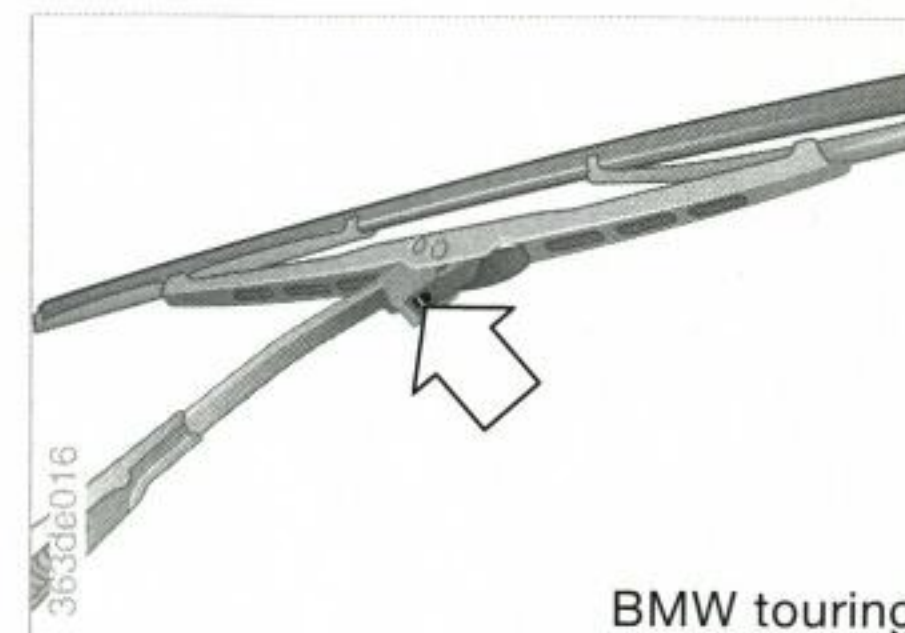
Technical data

Index

Under the luggage compartment lid.
The toolkit is accessible after slackening off the wing bolt.

BMW touring: the tool wallet is behind the right-hand flap in the load area.

Wiper blades, renewing



BMW touring

Windscreen

Raise the wiper arm, press the retaining spring and pull the wiper blade towards the arm to remove it.

Rear window wiper

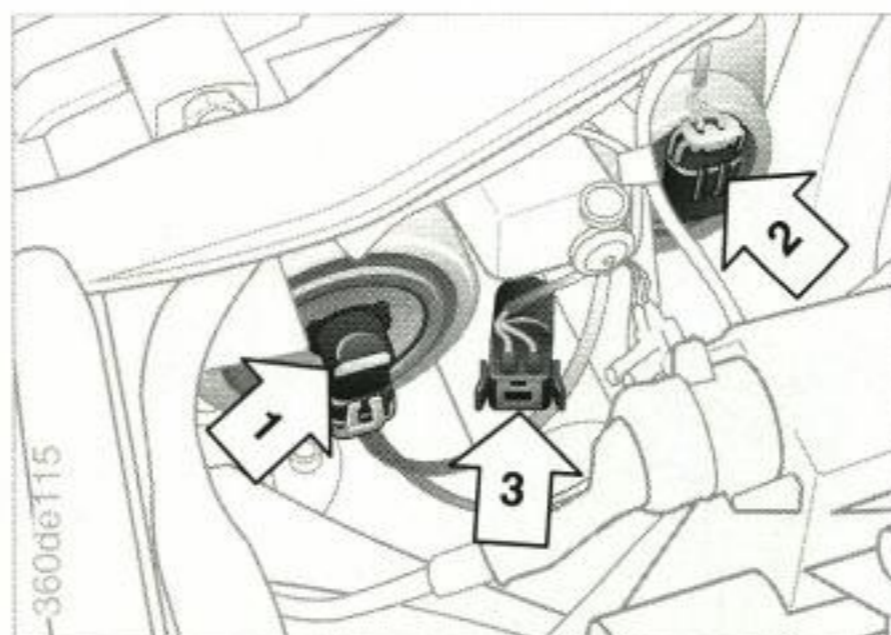
Raise the wiper arm, press the retaining spring (arrow) to one side and unclip the wiper blade from its holder.

Bulbs and lights are crucial safety features of your car. Appropriate care and attention should therefore be taken when handling these components. If you are unfamiliar with such tasks, it is better to entrust them to BMW Service.

▶ Never touch the glass of new bulbs with the bare fingers. Use a clean tissue, cloth or similar, or hold the bulb by its base. ◀

A box containing spare bulbs is available from BMW Service.

⚠ Whenever working on the electrical system, switch off the affected consumers or disconnect the negative terminal from the battery in order to avoid the risk of short-circuits. Observe any instructions supplied by the bulb manufacturer, to avoid causing injury or damage when changing bulbs. ◀



Dipped (1) and high-beam (2) headlights

H7 bulb, 55 Watt:

⚠ Bulbs are pressurised internally, and the eyes and hands should therefore be suitably protected. There is otherwise a risk of physical injury if the bulb should be damaged. ◀

- ▶ Release the bulb cover by pressing the tab at the top, and take the cover off
- ▶ Pull off the plug
- ▶ Disengage the wire clip
- ▶ Change the bulb

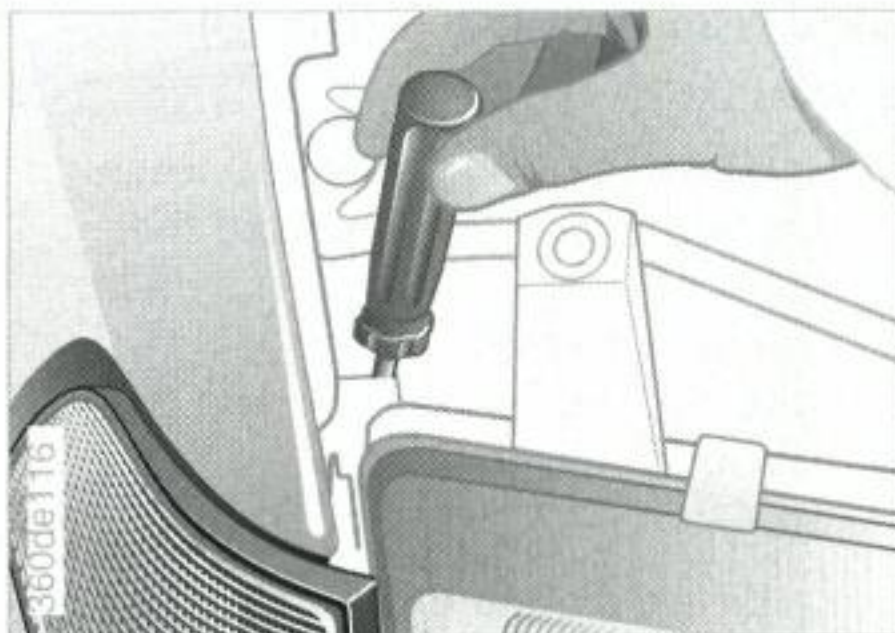
Side and parking lights (3)

5 Watt bulb

- ▶ Release the bulb cover by pressing the tab at the top, and take the cover off
- ▶ Pull out the bulb holder
- ▶ Take out the bulb and insert the new one

▶ When cleaning the headlight covers, please note:

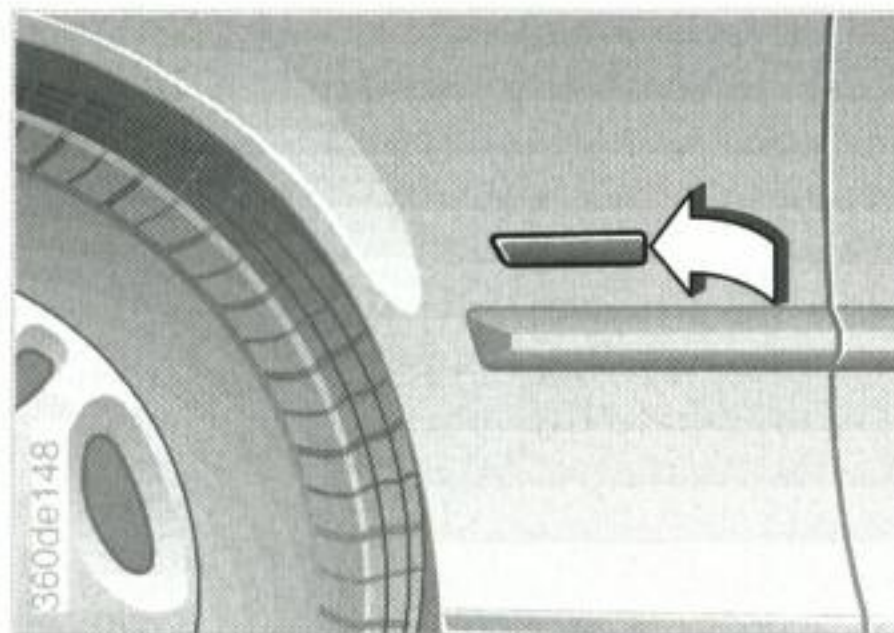
- ▶ Do not rub dry or use any abrasive or caustic cleaning agents.
- ▶ Soak dirt or other deposits (e.g. dead insects) with BMW Shampoo and wash down with plenty of water.
- ▶ Use a de-icer spray to remove ice deposits – not a scraper or other hard tool. ◀



Front flashing turn indicator

21 Watt bulb

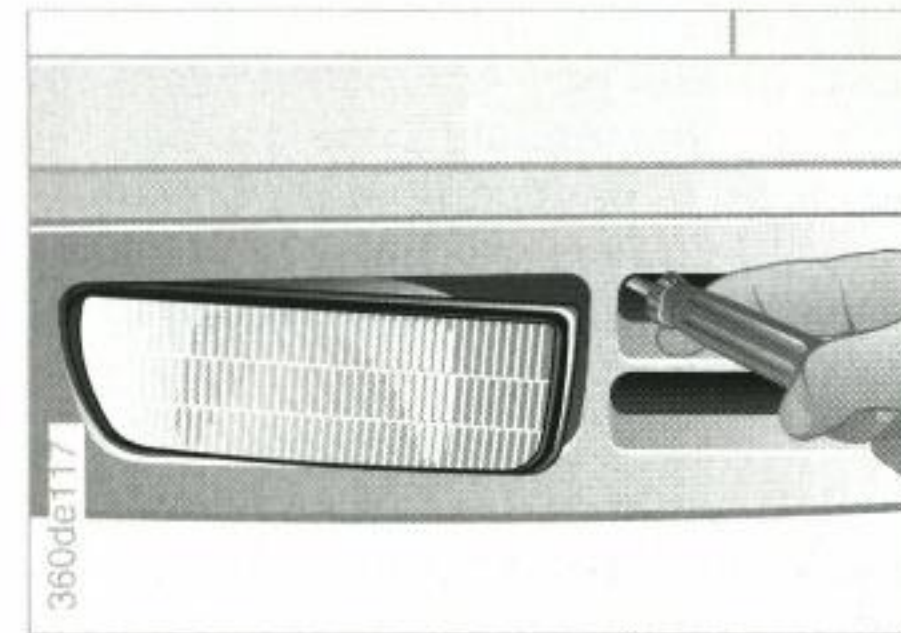
- ▷ Release the hook with a screwdriver.
- ▷ Pull the light out forwards.
- ▷ Release the bulb holder and take it off.
- ▷ Turn the bulb to the left, pressing it in lightly at the same time, until it can be removed.
- ▷ After changing the bulb, push the light back in until it is heard to click into place twice.



Side turn indicator repeater*

5 Watt bulb

- ▷ Press the light forwards with a fingertip at the rear edge (arrow), and take it out.
- ▷ Press the bulb in slightly, turn to the left and remove.



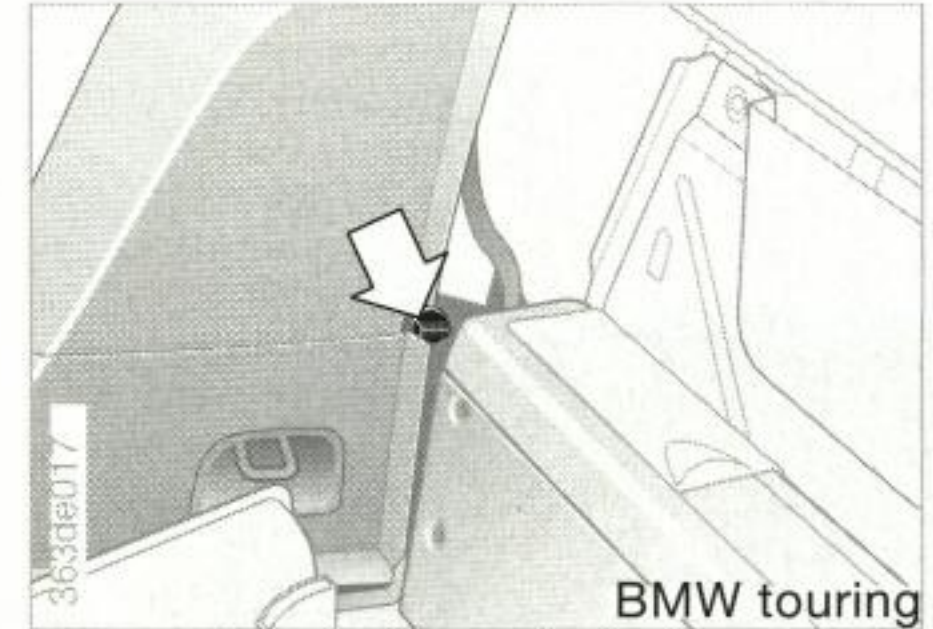
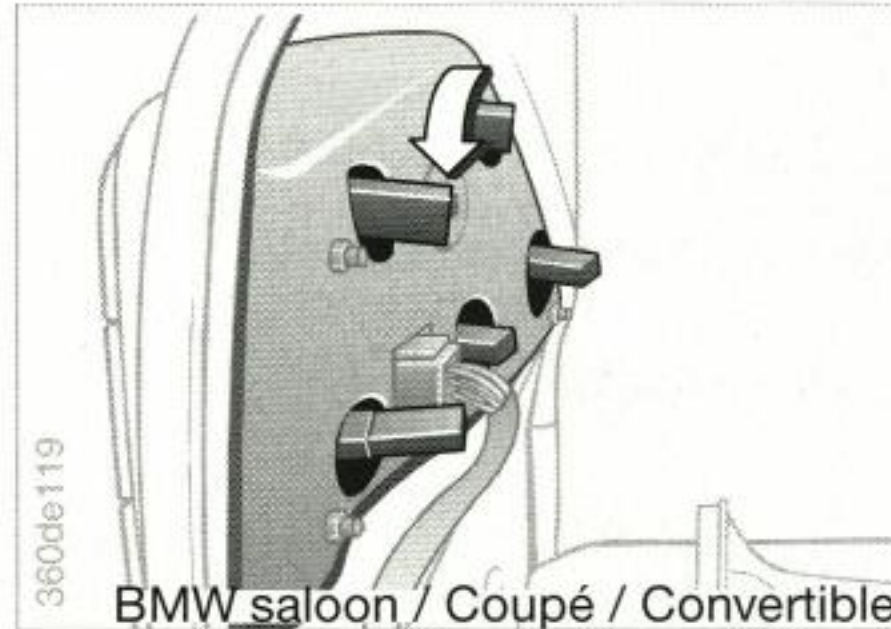
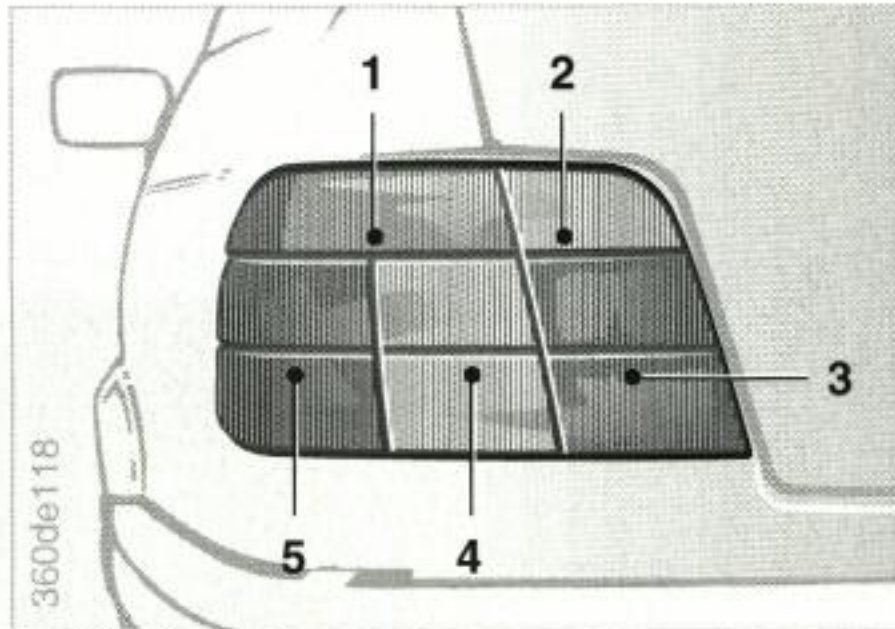
Fog lights*

H1, 55 Watt bulb

- ▷ Release the fog light mounting with a screwdriver.
- ▷ Lift the fog light out forwards.
- ▷ Turn the plastic cap on the back of the light counter-clockwise and take it off.
- ▷ Pull off the plug.
- ▷ Disconnect the spring wire retainer.
- ▷ Change the bulb.
- ▷ After inserting and securing the new bulb, insert the fog light again and press firmly inwards until it is heard to engage.



The catch must be in the "open" position, or else it will not be possible to insert the fog light. ◀

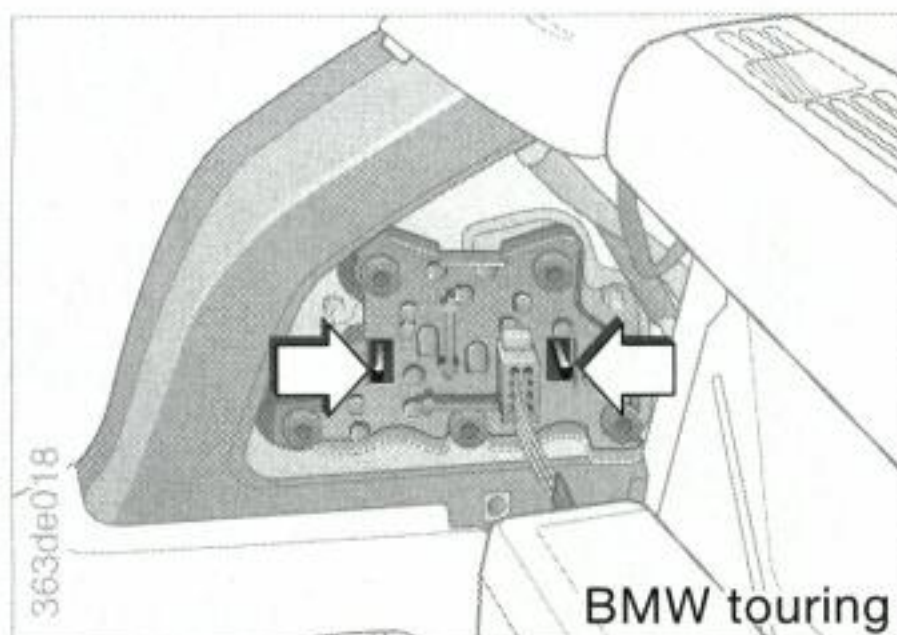


Rear lights

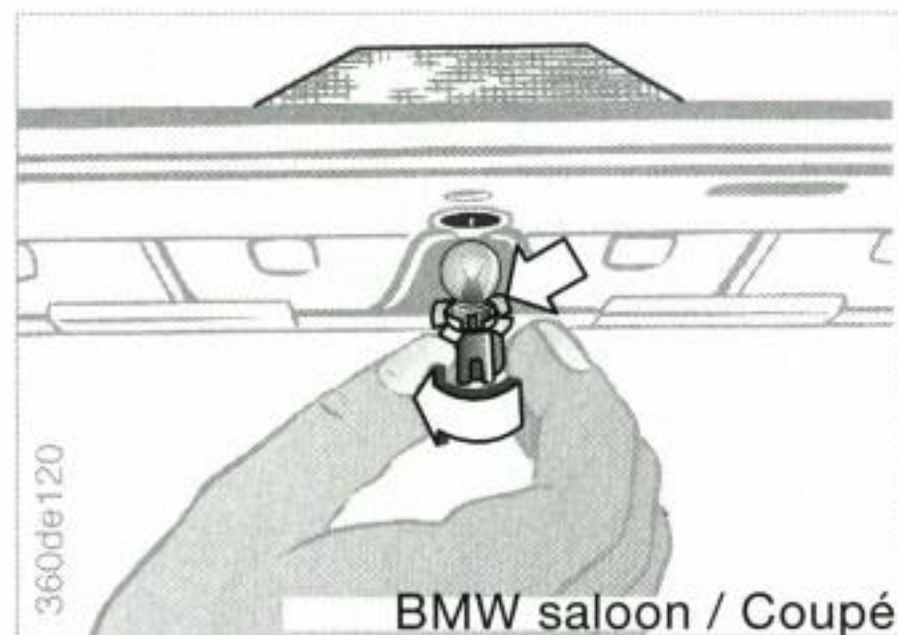
- | | |
|---------------------------------|--------|
| 1 Flashing turn indicators | yellow |
| 21 Watt bulb | |
| 2 Reversing lights | white |
| 21 Watt bulb | |
| 3 Brake lights | red |
| 21 Watt bulb | |
| 4 Rear light, reflector | red |
| 5 Watt bulb | |
| 5 Rear light, fog light | red |
| Double-filament bulb, 21/4 Watt | |

- ▷ Release the catch and take off the bulb cover.
- ▷ Press the appropriate bulb holder in slightly, turn to the left and remove.
- ▷ Remove the bulb in the same way.

- ▷ Open the side-trim flap in the load area on the appropriate side.
- ▷ Release the rotary catch (arrow) and take off the bulb cover.



- ▷ Press the hooks together slightly (arrows) and take out the bulb holder.
- ▷ Turn the blown bulb to the left and press in slightly; take it out and insert the new bulb.



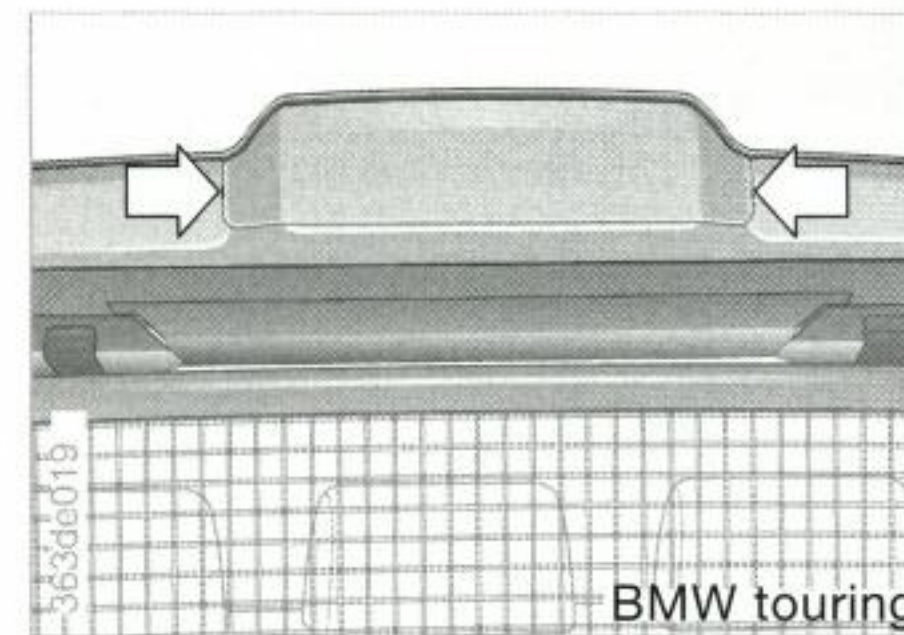
Central brake light*

21 Watt bulb

- ▷ Open the luggage compartment.
- ▷ Turn the bulb holder to the left, pressing it in slightly, and take it out.
- ▷ Remove the bulb in the same way.

BMW Convertible:

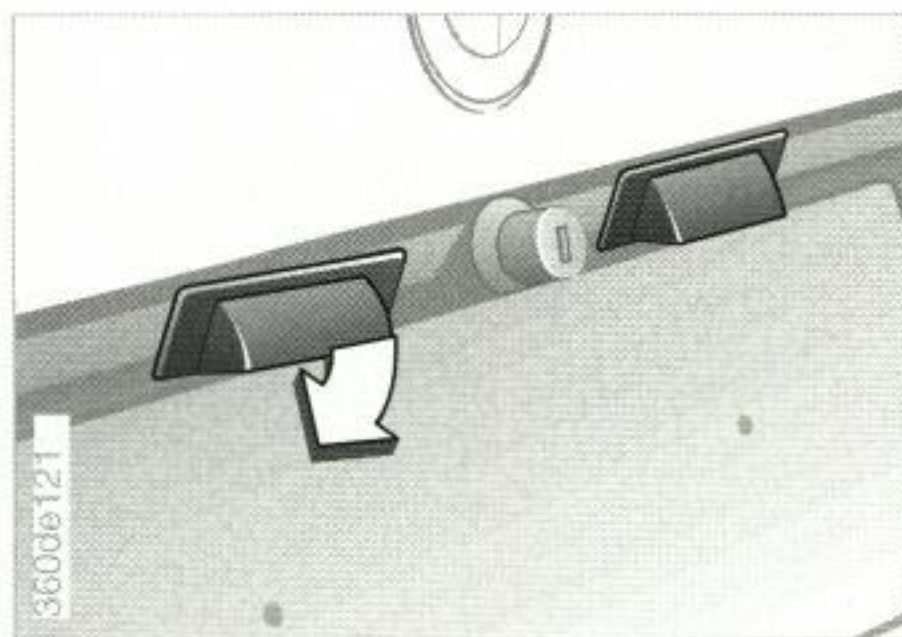
LED strip in luggage compartment lid: please consult BMW Service if a fault occurs.



7 bulbs, 3 Watts each

- ▷ Open the hatchback.
- ▷ Take off the light housing, using a screwdriver at the cutouts (arrows) if necessary to lever it off.
- ▷ Pull the blown bulb out of the reflector (use a screwdriver blade gently against the bulb base if necessary to make this easier) and insert the new bulb.
- ▷ Install in the opposite sequence.

▷ Cars with solar-protection glass: individual bulbs cannot be replaced. Please consult BMW Service if a fault occurs. ◀



Licence plate lights

5 Watt bulb

- ▷ Loosen the screws and take off the strip handle.
- ▷ Press the bulb holder out to the left and remove it.
- ▷ Pull the bulb out of the contact tongues.

Interior lights, front

Interior light with reading lights
(10 Watt bulbs):

- ▷ Interior light: press the glass out with a screwdriver at the recess. Pull the bulb out of the contact tongues.
- ▷ Reading light: remove the complete light from the trim, detach the printed circuit board and turn the bulb to the left, pressing it in slightly at the same time, to remove.



When assembling, snap the housing into position first, followed by the glass. ◀

Rear interior lights

BMW saloon, Coupé

Without reading light

5 Watt bulb

- ▷ Pull the light out of the trim.
- ▷ Swing the reflector out and take out the bulb.

With reading light*

6 Watt bulb

- ▷ Pull the light out of the trim.
- ▷ Swing up the printed circuit board and take out the bulb.

BMW touring

10 Watt bulb

- ▷ Take off the light housing (use a screwdriver if necessary).
- ▷ Change the bulb.

Illuminated make-up mirror*

10 Watt bulb

- ▷ Take off the light housing (use a screwdriver if necessary).
- ▷ Change the bulb.

Luggage compartment light

BMW saloon, Coupé

10 Watt bulb

Light on underside of rear window shelf:

- ▷ Insert a screwdriver into the recess and lever out the light.
- ▷ Change the bulb.

BMW Convertible:

5 Watt bulbs

One light in each rear light bulb cover.

- ▷ Insert a screwdriver into the recess and lever out the light.
- ▷ Change the bulb.

Load-area light

BMW touring

10 Watt bulb

- ▷ Press the glass out with a screwdriver at the recess.
- ▷ Pull the bulb out of the contact tongues.

Glove box light

5 Watt bulb

- ▷ Using a screwdriver, press the light out forwards.
- ▷ Change the bulb.

Footwell light*

5 Watt bulb

- ▷ Using a screwdriver, press the light out of the lower dashboard trim.
- ▷ Change the bulb.



Changing the battery

If light intensity drops, renew the battery to safeguard against acid escaping.

To renew the battery, use a screwdriver to remove the cover on the back of the key.

Insert a new battery of the same type (CR 2025) in the position shown, so that it makes proper contact inside the key.

Insert the cover and snap it into position.



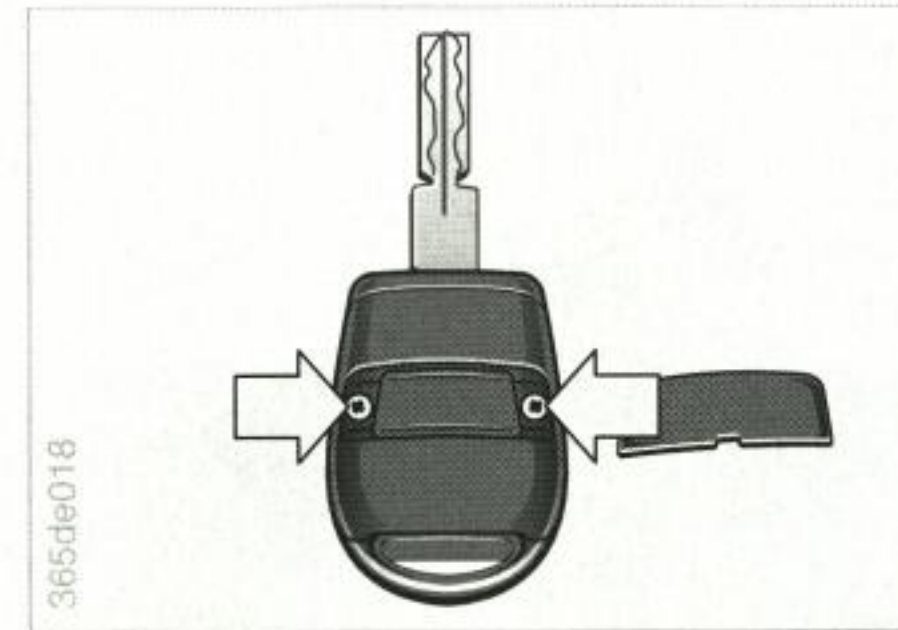
Dispose of old batteries at an official collecting point or hand them back to BMW Service. ◀



Changing the battery

Renew the battery if the LED no longer lights up when a button is pressed, and the doors cannot be locked with the remote control:

- 1 Open the car with the remote control.
- 2 Lever off the cover by inserting a screwdriver blade at the cutout (arrow).



- 3 Remove the two screws (arrows) and take off the cover.

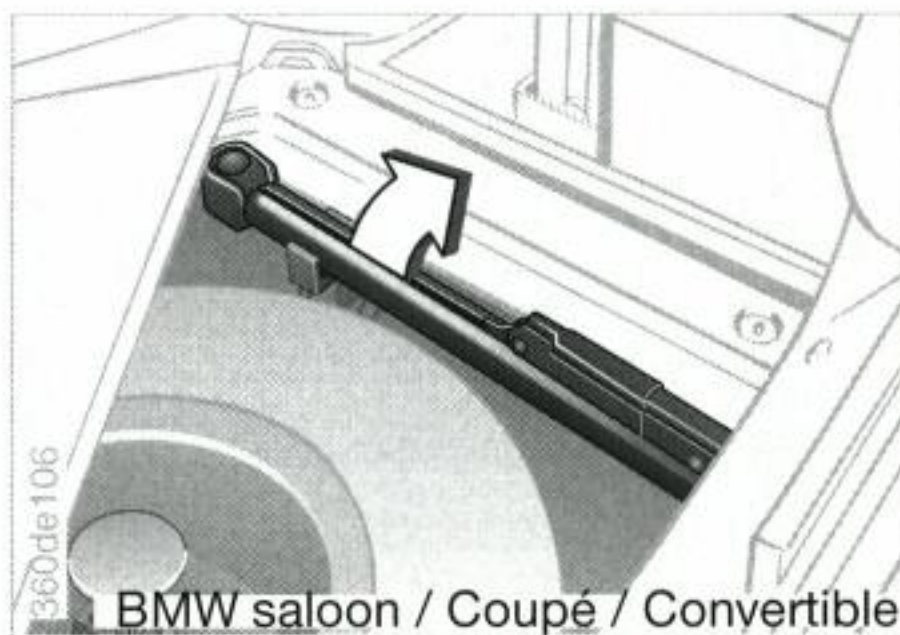
The battery type and correct installed position are marked on the base of the battery compartment.



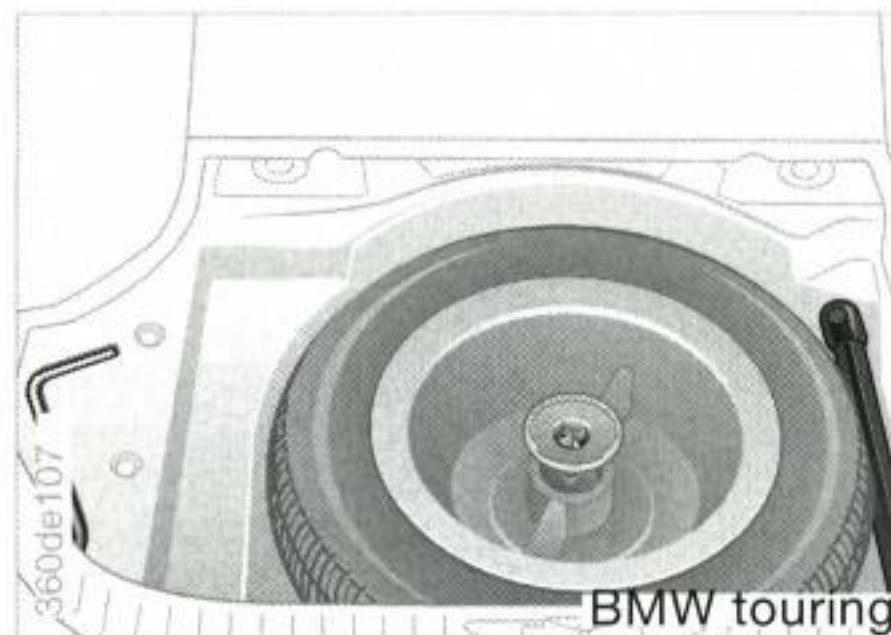
Use only a battery of the stated type (CR 2016). Check that the batteries are installed in the correct position. ◀



Dispose of old batteries at an official collecting point or hand them back to BMW Service. ◀



BMW saloon / Coupé / Convertible



BMW touring



To avoid rattling noises later, make a note of how the various tools are attached to the car and replace them in precisely the same positions afterwards. ◀

To change a wheel, you need:

Jack

In the luggage compartment, under the floor mat on the right, next to the spare wheel.

After use, lower the jack fully and insert in its holder.

Spare wheel and hexagon adapter*

These are both under the mat in the luggage compartment. Take out the mat. Take off the black hexagon adapter (only with alloy wheels which have a wheel stud cover in the form of a large hexagon nut), slacken off the wing nut by hand and take out the wheel.

Wheel stud wrench

In the luggage compartment, on the right next to the box.
BMW touring: in a mounting at the left of the spare wheel.

Screwdriver

In the toolkit underneath the luggage compartment lid.
BMW touring: in the tool wallet behind the flap at the right of the load area.

Thiefproof wheel stud adapter*

In the toolkit underneath the luggage compartment lid.
BMW touring: in a mounting at the left of the spare wheel.



The recess in the spare wheel can be used for storing small items. To prevent rattling, place small pieces of cloth or similar material between the items. Cars with trailer tow hitch*: place the detachable ball head into the cutout provided, and secure it with the burr-fastener tape. ◀



Change a wheel only on a flat, level and high-grip surface. On a soft or slippery surface (snow, ice, tiled floor or similar) the car or the jack could slip sideways.

The car jack should likewise be resting on a firm surface.

Do not place wooden blocks or similar under the jack, or the maximum lifting capacity may be exceeded.

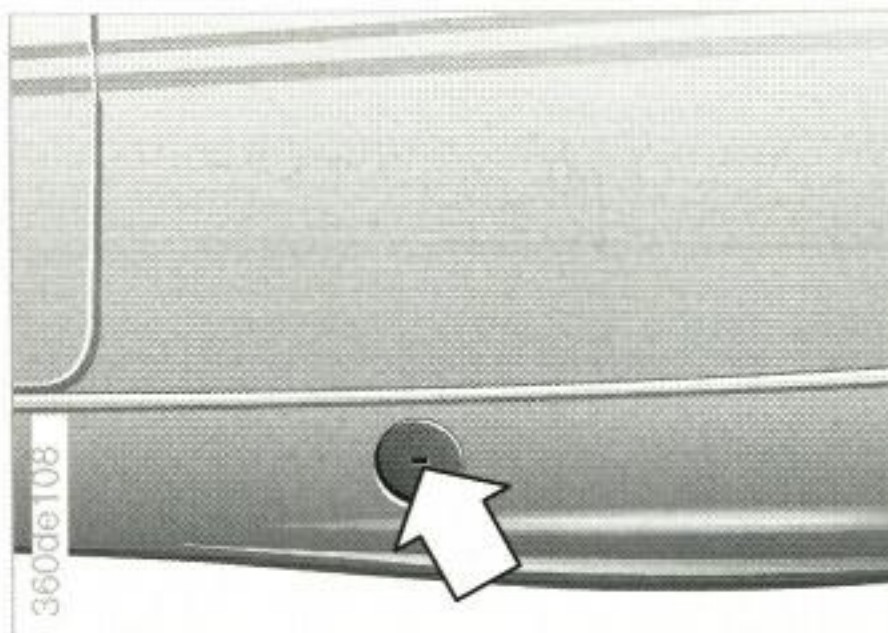
Never lie under the car or start the engine when it is jacked up; a very severe or fatal injury could result.

Additional safety precautions in the event of a flat tyre:

Where possible, take the car off busy roads and away from moving traffic.

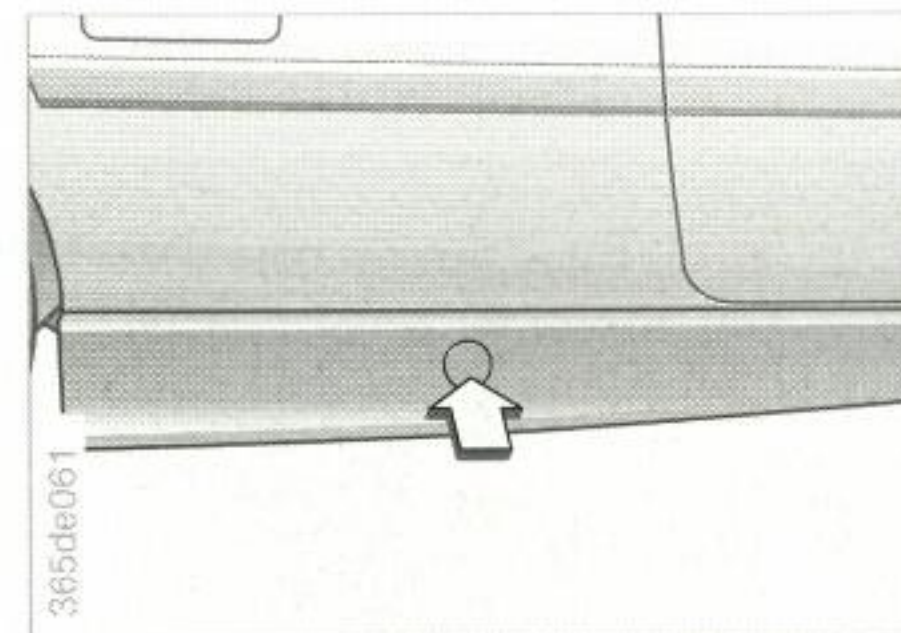
Engage the steering lock in the straight-ahead position, apply the handbrake and select first or reverse gear or selector lever position P. Switch on the hazard warning flashers.

All occupants must leave the car and go to a point where they are not exposed to risk, for example behind a crash barrier at the side of the road. If necessary, set up the warning triangle or a flashing warning light at a sufficient distance to the rear. Comply with national legislation. ◀

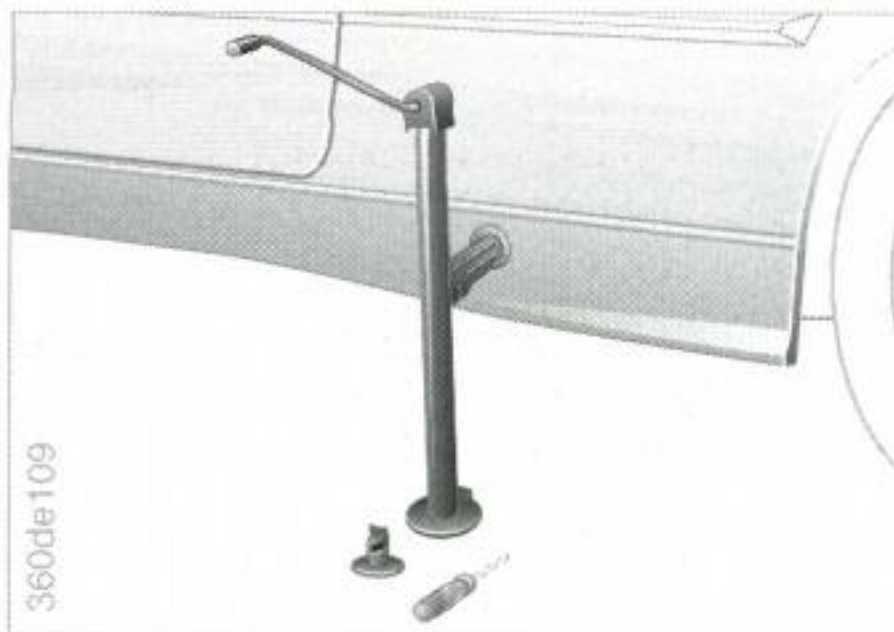


Procedure

- 1 Take off the wheel stud cover*. Pressed-steel wheel: take the full-width wheel cover off by hand. Alloy wheel with wheel stud cover in the form of a large hexagon nut: place the hexagon adapter on the wheel stud cover and turn it counter-clockwise with the wheel stud wrench. For thiefproof wheel studs, see page 183.

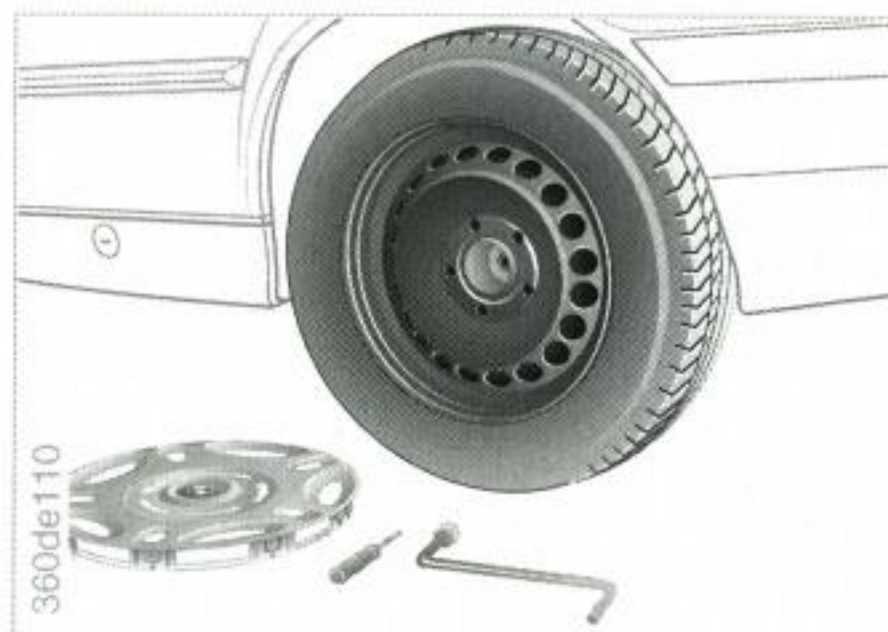


- 2 Slacken the wheel studs by half a turn.
- 3 Take off the appropriate jacking point cover. Depending on type, this is done either by turning it counter-clockwise with a screwdriver (arrow, left picture) or by pressing in the cover at the bottom (arrow, picture above).

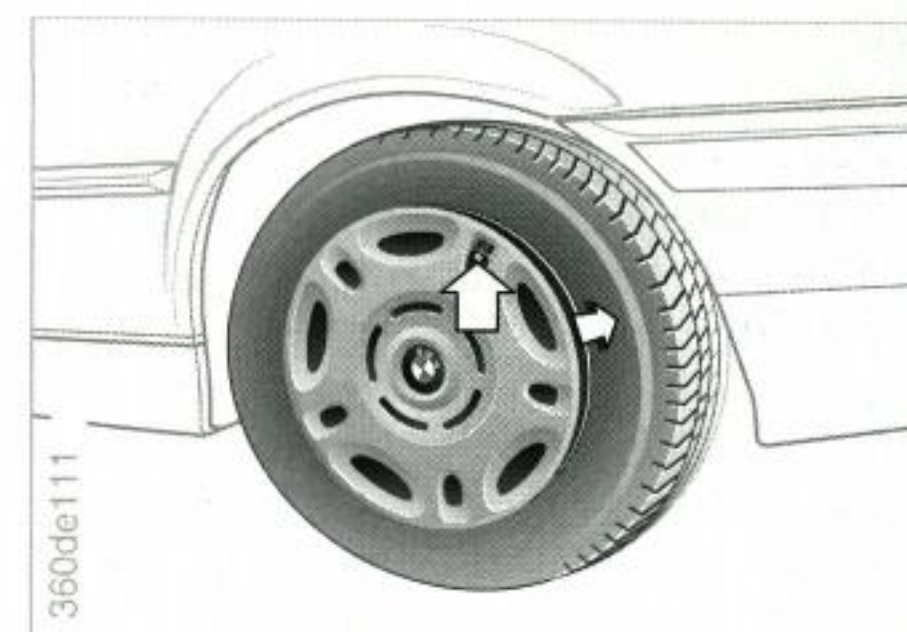


- 4 Insert the jack fully into the socket and position it so that the base is resting firmly on the road. Make sure that the car is prevented from rolling away.
- 5 Raise the car's body with the jack until the wheel to be changed is clear of the road.

! Use the car's jack only for wheel-changing. Do not attempt to raise a different type of vehicle or any other load or heavy weight with the jack, as this could lead to an accident and personal injury. Do not lie under the jacked-up car – risk of fatal accident. ◀



- 6 Take out the wheel studs and remove the wheel.
- 7 Fit the new wheel (or the spare wheel), screw in at least two wheel studs at opposite sides of the hub and remove the centering pin.
- 8 Screw in the remaining wheel studs and tighten them all in a crosswise pattern.
- 9 Lower the car, remove the jack and insert the jacking-point cover with the screwdriver.
- 10 Tighten the wheel studs fully, working in a crosswise pattern.



- !** For safety reasons, have the wheel studs checked as soon as possible with a calibrated torque wrench to ensure that they are firmly tightened (tightening torque 100 Nm). When a new wheel (e.g. the spare wheel) is fitted for the first time, check the tightening torque again after about 1000 km (600 miles). ◀
- 11 Attach the full-width wheel cover again. Place its valve hole over the tyre valve and press the cover into position by hand, working away from the valve in either direction.

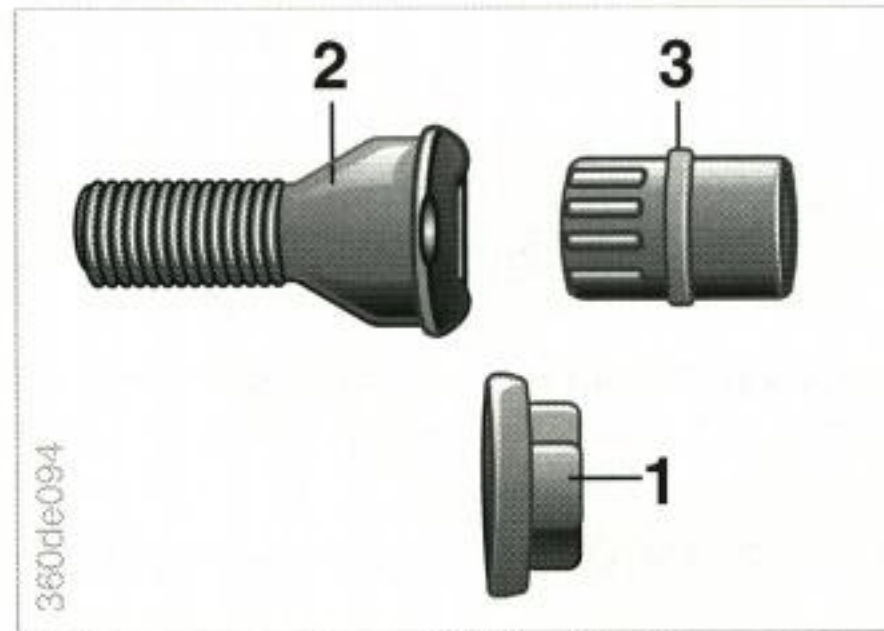
Wheel-changing

When replacing a wheel in the spare wheel well, make sure that the central threaded rod in the well is not bent or damaged.

If your car is equipped with wheels other than Original BMW alloy wheels, make sure that the correct wheel studs are used.

Have the flat or defective tyre repaired or replaced as soon as possible, and the new tyre balanced on the wheel.

Wheel studs*



- 1 Stud cap (not for wheels with wheel stud cover)
- 2 Wheel stud for adapter
- 3 Adapter (supplied in toolkit)

Removing the hardtop

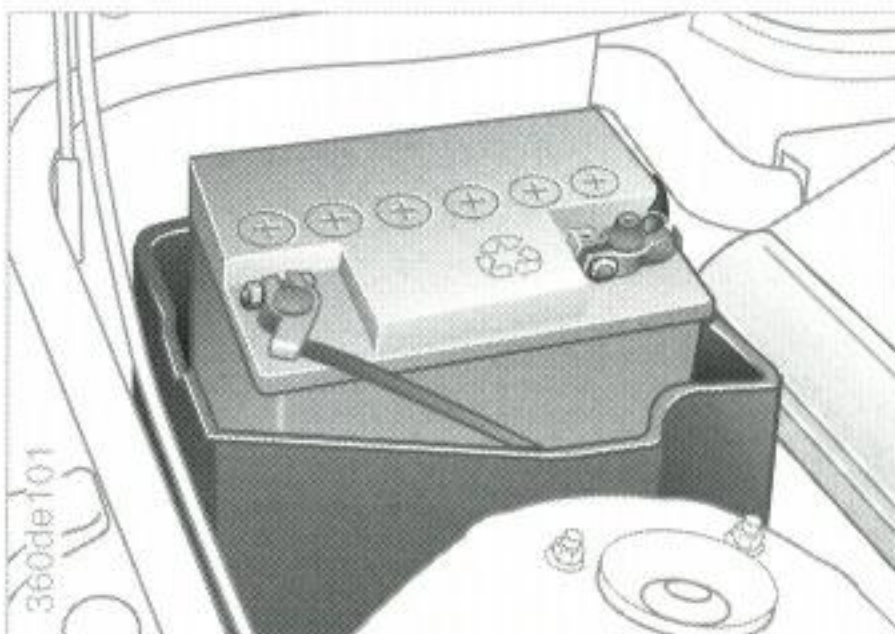
- ▷ Using the wheel stud wrench, turn the cap (1) slightly counter-clockwise and take it off.
- ▷ Insert the adapter (3) from the car's toolkit into the wheel stud.
- ▷ Unscrew the wheel stud (2).

After inserting and tightening the wheel stud again, remove the adapter and press on the stud cap.



The cap is correctly installed if the M of the BMW logo is located over a raised section of the stud when pressed on. ◀

The code number is embossed on the front of the adapter. Please make a careful note of this number and keep it in a safe place, in case the adapter is lost.



BMW 316i, 318tds, 318i, 318is:

The battery is at the back of the engine compartment on the right (BMW 318i Convertible, 316i/318i touring and certain national-market versions: the battery is in the luggage compartment).

BMW 320i, 323i, 328i, 325td/tds:

The battery is in the luggage compartment, behind the right side trim. There is a positive terminal in the engine compartment to which a jumper lead can be connected if necessary (see also page 188). On the BMW Convertible, only certain types of battery may be used. Details are available from BMW Service.

The battery is maintenance-free to German DIN 43539/2 standard, that is to say

its acid content normally lasts for the lifetime of the battery. If the acid level is too low, for instance if the car was used for lengthy periods in hot regions, add distilled water (not acid).

Acid level: in each cell, up to the "MAX" mark on the outside of the battery (approx. 5 mm (0.2 in) above the tops of the plates in the cells).

Keep the top of the battery clean and dry.

Symbols

Your car's battery is marked with the following symbols. For your own safety, check the meaning of these symbols before handling or working on the battery.



Before working on the battery, please note the following instructions.



Always wear eye protection. No splashes of acid or particles containing lead should be allowed to reach the eyes, the skin or the clothing.



Battery acid is highly caustic. Always wear protective gloves and goggles. Do not tilt the battery, or acid may escape from the vent holes.



Keep the acid and the battery out of the reach of children.



Never bring a naked flame near the battery or cause sparks in its vicinity. Do not smoke when handling the battery. Avoid sparks when working on electrical wiring and equipment. Never short-circuit the battery posts or terminals. The resulting arc could cause severe injury.



A highly explosive detonating gas is generated when the battery is charged.



If acid comes into contact with the eyes, rinse immediately with clean water for several minutes. After this, the victim should be seen by a physician without delay. Neutralize acid spillage on the skin or clothes immediately with soap and rinse off with plenty of water. If acid has been swallowed, consult a physician immediately.



To prevent ultra-violet rays from damaging the battery case, do not expose it to direct daylight. As batteries which have run flat could freeze, store in a place where there is no risk of frost damage.

Removing and installing



Do not detach battery leads while the engine is running, as this will cause a voltage peak and damage the car's electronic equipment. ◀

Always detach the negative terminal first, then the positive terminal. Slacken off the threaded connection which retains the battery.

When installing the battery, connect the positive terminal first, then the negative terminal.



When installing, make sure that the battery is retained securely, so that it cannot move if the car is involved in an accident. ◀

Recharging the battery

Only recharge the battery with the engine stopped.



Before attempting any work on the car's electrical system, disconnect the negative lead from the battery to avoid the risk of short-circuits. ◀

If the car has connecting points in the engine compartment (positive terminal and earth), they can be conveniently used for recharging the battery (see also "Starting with a flat battery", page 188).

If the car is parked out of use for more than 4 weeks, disconnect the battery from the electrical system by detaching the negative terminal.

If the car is not to be used for more than six weeks, remove the battery, recharge it and store it in a cool place where is no risk of frost damage.

Recharge the battery after 3 months at the latest, as it will otherwise be rendered useless. Every time a battery is allowed to run flat, particularly if left in this state for some time, its operating life is reduced.

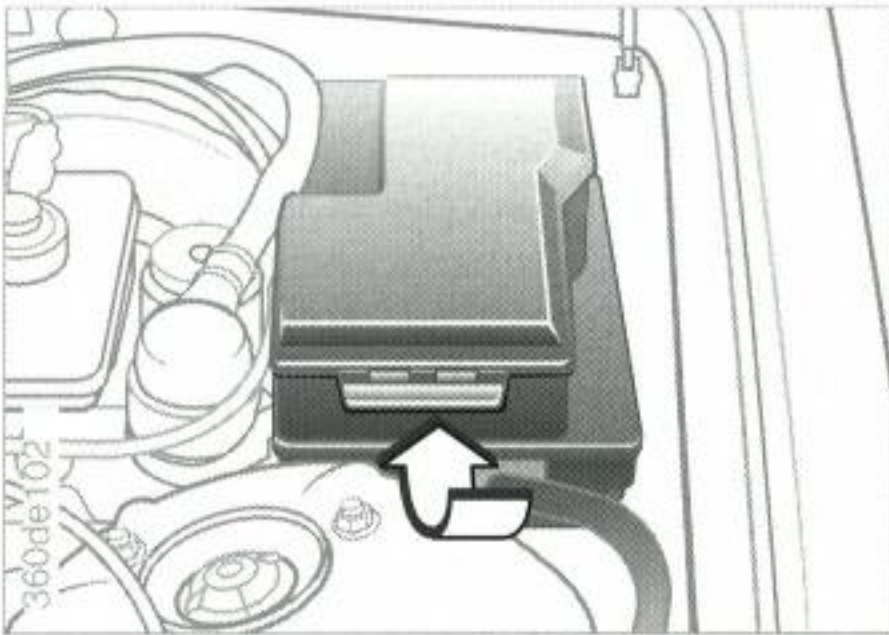


Dispose of old batteries at an official collecting point or hand them back to BMW Service. Batteries filled with acid should be transported and stored upright. Protect batteries against falling over when in transit. ◀



When calling for the next change of brake fluid, the Service Interval indicator does not take into account periods during which the battery was disconnected.

In such cases you must ensure that the brake fluid is renewed every two years regardless of the display. Further details: page 159. ◀



If an electrical consumer fails, switch it off and check its fuse.

The fuse box (electrical distribution box) with spare fuses, relays and plastic tweezers for replacing items is inside the engine compartment on the left.

- ▷ Press the retaining flap in and lift off the cover.
- ▷ Using the plastic tweezers, remove the blown fuse from its holder.
- ▷ A blown fuse can be recognised by its melted metal wire, and should be replaced by a new fuse with the same rating in Amperes.

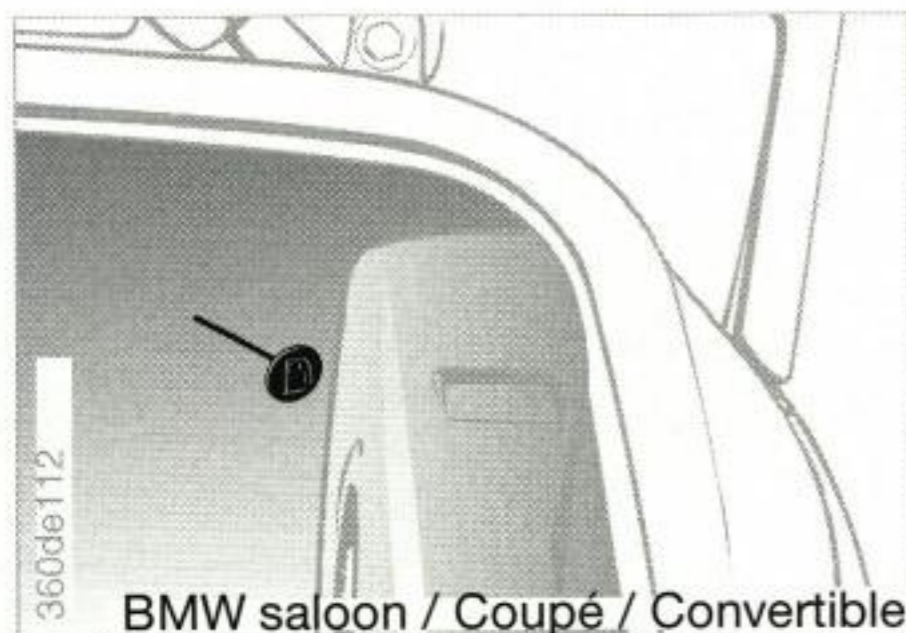
A list of fuses with their ratings in Amps and details of the electrical consumers they supply is provided on the fuse box cover.

On cars retrofitted with a trailer tow hitch, the fuse for the permanent positive line is located in the cable connector for the permanent positive line at the battery.



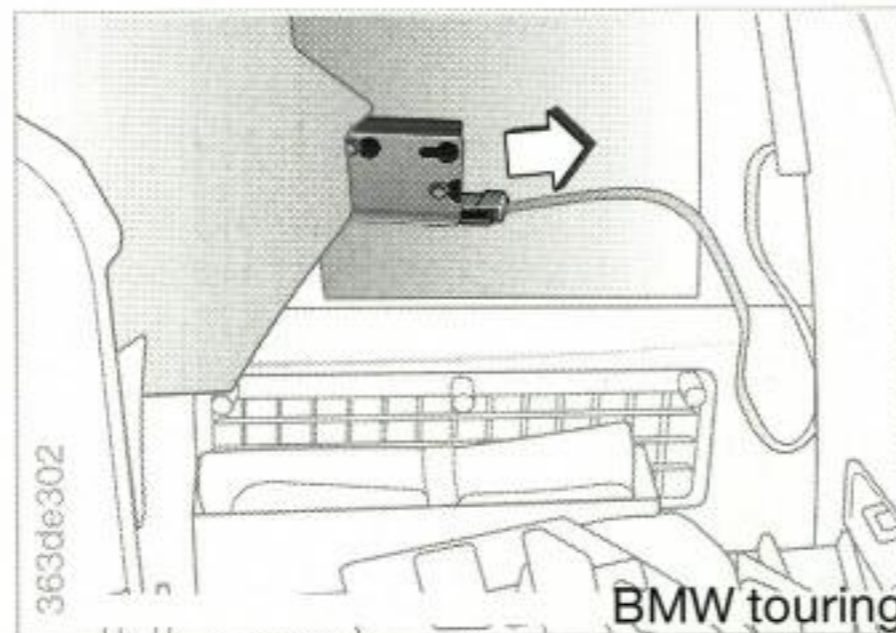
Never make temporary repairs with unsuitable materials to blown fuses, or replace them with fuses of another colour or Ampere rating, or else the electrical wiring may be overloaded and cause a fire in the car. ◀

If the same fuse blows repeatedly, have the cause traced and rectified by BMW Service.

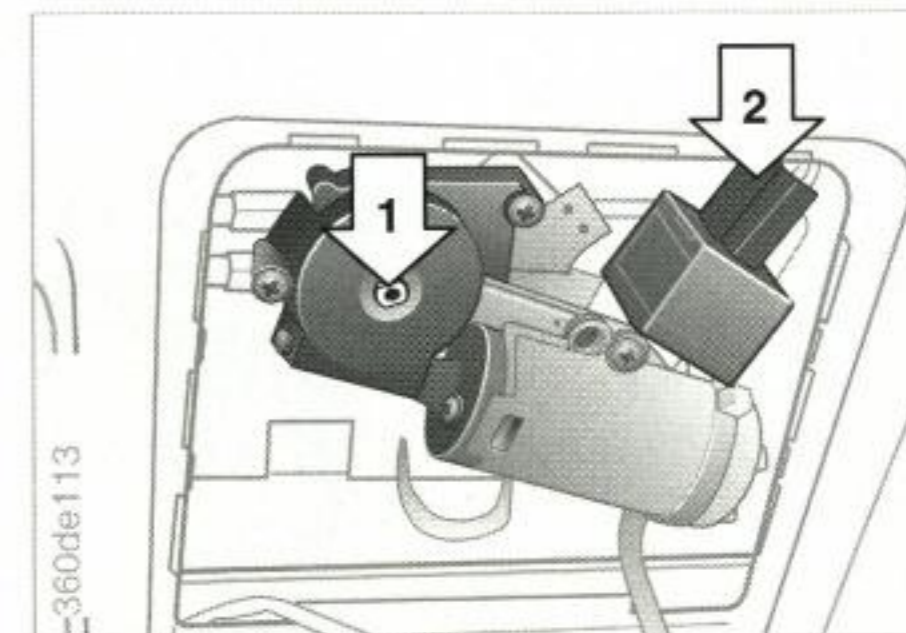


Releasing the fuel filler flap

Pull the knob with the fuel pump symbol on the right-hand side trim of the luggage compartment.



- ▷ Open the flap in the right-hand side trim of the load area.
- ▷ Pull the slide (arrow).



Sliding/tilt sunroof

- ▷ Press out the interior light by inserting a screwdriver into the cutout at the left.
- ▷ Take off the cover.
- ▷ Insert the Allen key from the car's toolkit into the Allen screw (arrow 1) and turn it to move the sunroof in the desired direction.

▷ Movement will be easier if the plug (arrow 2) is first removed. ◀

Have the fault rectified by BMW Service without delay.

The BMW Emergency Service is there to assist you, even in the evenings, at weekends and on public holidays.

If you have a breakdown, just call the BMW Emergency Service control centre for the country in which you are situated. Telephone numbers are shown at the end of the list of BMW European Service points.

If you cannot obtain assistance locally (e.g. because of poor telephone connections or language difficulties), call the Emergency Service in Munich:

National dialling code for Germany (usually 0049) 89 - 260 99 09.

There is a list of national dialling codes at the end of the list of BMW European Service points.

Starting with a flat battery

Do not use the spray products sold as starting aids.

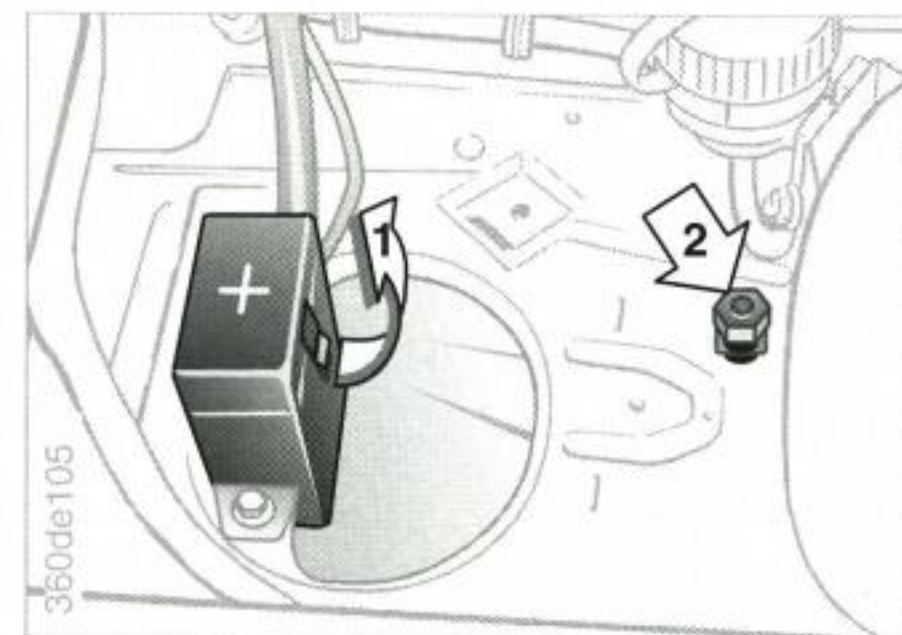
If the car's own battery is flat, the engine can be started by using two jumper cables from another vehicle's battery. Use only cables with fully insulated battery post clips, e.g. to German DIN 72551 standard or equivalent.



Touching any live components when the engine is running could result in a fatal electric shock. ◀

Do not depart from the procedure described below, or else personal injury could result or one or both vehicles be damaged.

- 1 Check that the other vehicle has a 12 Volt battery of approximately the same capacity in Amp/h (this may be marked on the battery).
- 2 Do not disconnect the flat battery from the car's electrical system.
- 3 The bodies of the two vehicles must not touch, or a short-circuit could result.



- 4 Connect the positive terminals of the two batteries together with a jumper lead. If the BMW's battery is not in the engine compartment, a special connection is provided for this purpose with a cap marked "+", and is accessible after pulling off the flap (see picture, arrow 1). Make the first connection to the negative terminal of the donor battery or to earth (ground) on the engine or body of the donor vehicle, and then to earth (ground) on the vehicle which you wish to start. Your BMW has a special nut (see arrow 2) for this purpose, or a nut located farther forwards, on the suspension strut mounting.

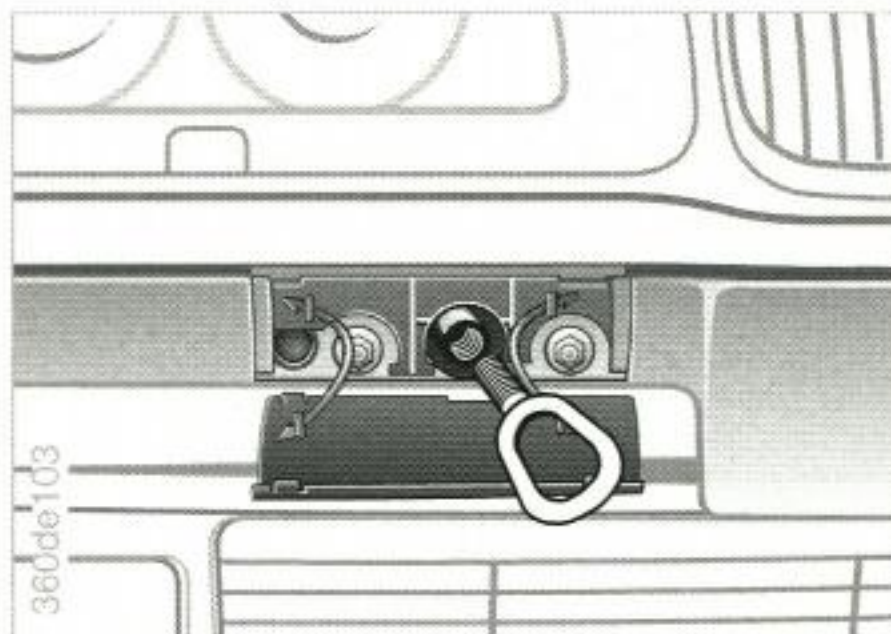
! Observe the correct order as described above when using your car to jump-start other vehicles, to avoid generating sparks at the battery. ◀

5 If the second vehicle's battery is not well charged, run that vehicle's engine.

Start the engine of the affected vehicle in the usual way, and allow it to run as well as the other vehicle's engine. If a second starting attempt is needed, wait a few minutes so that the flat battery can be recharged slightly.

Before disconnecting the jumper leads from your BMW, switch on its lights, heated rear window and heater blower (at maximum speed) to ensure that the voltage reaching the electrical consumers from the regulator is not too high. Then disconnect the jumper leads in the opposite order from that in which they were connected.

Have the battery recharged (depending on the cause of the fault).



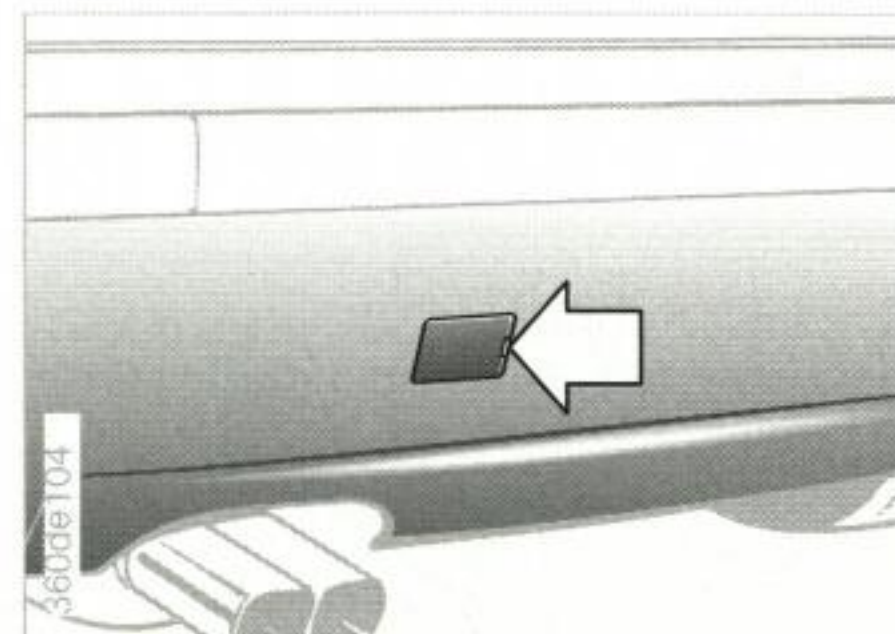
Towing eyes

The screw-in towing eye is in the car's toolkit and should always be carried on the car. It can be screwed in at the front or the rear of the car, and is only to be used for towing on a firm road surface.

Access to threaded hole

Front:

Press out the cover with a screwdriver.



Rear:

Press out the cover with a screwdriver.

! Screw the towing eye fully in until it is tight. ◀

For towing, either use a towbar or a nylon rope or tape to help avoid sudden tensile loads.

Using a towbar

The towing eyes of both vehicles should be on the same side.

If the towbar has to be run at an angle, note the following:

- ▷ clearance may be restricted when turning corners
- ▷ if the towbar runs at an angle, lateral forces will be generated (these may be critical on a slippery surface)
- ▷ to compensate for towbar angularity, the two vehicles cannot always be driven one directly behind the other
- ▷ there is a risk of skidding to one side when the towing vehicle's brakes are applied.



The towed vehicle must not be heavier than the towing vehicle. ◀

Tow-starting

Cars with catalytic converter should only be tow-started if the engine is cold. It is always preferable to use jumper leads.

- ▷ Switch on the hazard warning flashers (comply with national regulations).
- ▷ Turn the ignition key to position 2
- ▷ Select 3rd gear
- ▷ Keep the clutch pedal down. When the car is moving, gradually release the clutch pedal. When the engine has started, depress the clutch pedal again
- ▷ Switch off the hazard warning flashers

Have the cause of starting problems traced and rectified by BMW Service.

Automatic-transmission cars:

These cars cannot be tow-started.

For starting with a flat battery, see page 188.

Towing away

- ▷ Turn the ignition key to position 1, so that the brake lights, horn and wipers can be operated
- ▷ Switch on the hazard warning flashers (comply with national regulations).

If the car's electrical system has failed, it must be identifiable by following vehicles, for instance by placing a notice or the warning triangle in the rear window.



Make sure that the ignition key is in position 1 even if the electrical system has failed, to prevent the steering lock from engaging. ◀

Tow-starting, towing away

Automatic-transmission cars:

BMW 316i, 318i, 318is, 325td:

▷ Move the selector lever to N.

Maximum towing speed:

50 km/h (approx. 31 mile/h).

Maximum towing distance: 50 km (approx. 31 miles).

BMW 320i, 323i, 328i, 325tds:

▷ Move the selector lever to N.

Maximum towing speed:

70 km/h (approx. 43 mile/h).

Maximum towing distance:

150 km (approx. 92 miles).



When the engine is not running, there is no power assistance. The steering and brakes will require extra effort to operate. ◀

Fire extinguisher*

There is a mounting on the driver's seat.

To ensure that the fire extinguisher remains operational, have it checked every two years by its manufacturer's authorised after-sales service organisation.

If these service points are not listed on the extinguisher or in any documentation available to you, please consult a local trade directory or the "Yellow Pages" of the telephone service to obtain the address.

BMW AG

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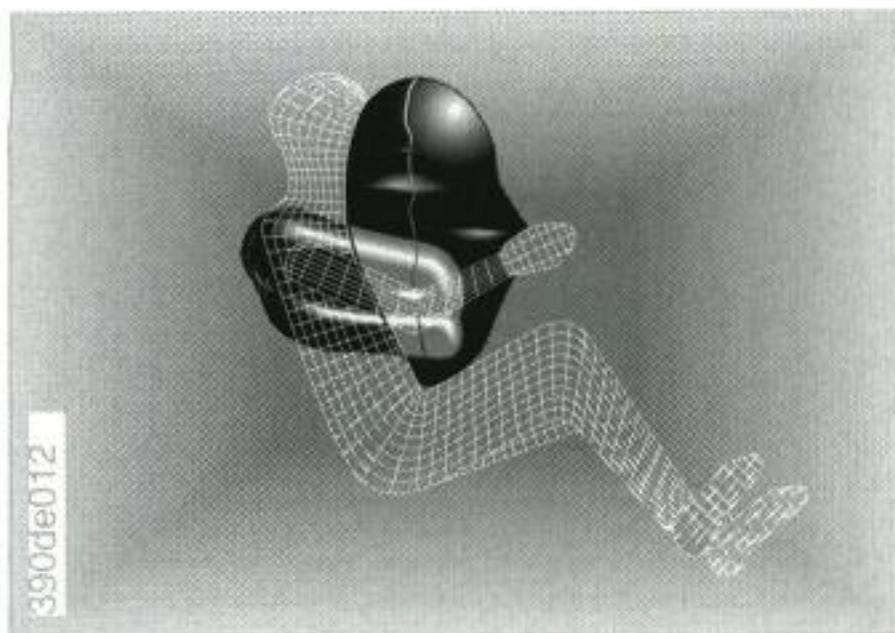
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Retardation sensors continuously monitor the acceleration forces acting on the car. If a frontal impact causes the rate of retardation to reach a level at which the seat belts alone would not provide sufficient occupant protection, the gas generators for the driver's and front passenger's airbags are also ignited. However, the passenger's side airbag is not inflated unless a further sensor detects that the front passenger seat is occupied.

In the event of a side impact, the side airbag* will be inflated if necessary on the side where the impact has occurred.

The airbags, which are concealed under covers in the steering wheel, the fascia and the front door trims, are inflated by the propellant gas within a

few thousandths of a second, and emerge from their housings. They break through the preformed dividing lines in the padded covers or press these outwards.

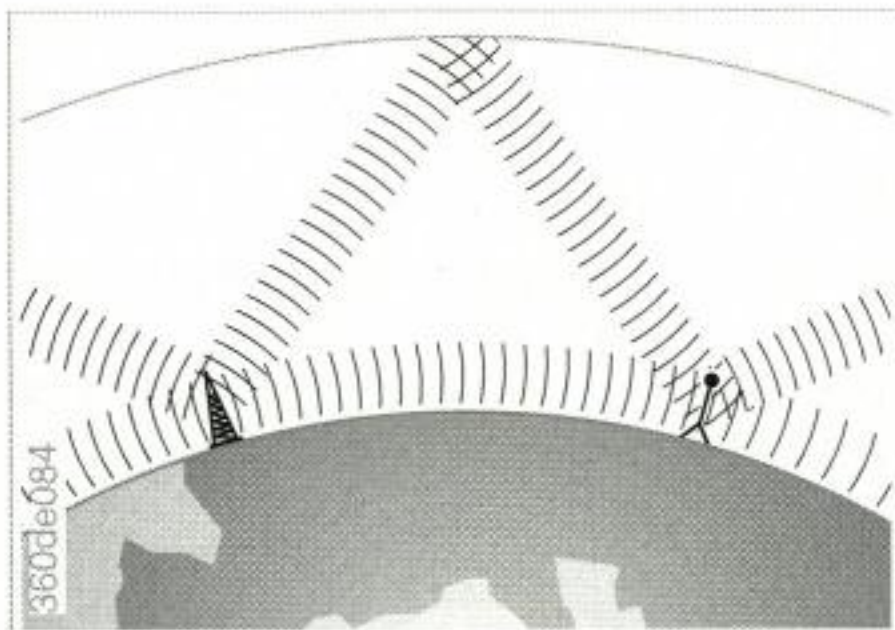
In view of the very brief system response time, the noise of propellant ignition and inflation is lost in the general accident situation. The gas which is required for inflating the airbags and the visible smoke which is generated in the process do not represent a health hazard and are rapidly dissipated.

The entire process takes place within only one-twentieth of a second.

ASC+T*

Automatic Stability Control plus Traction (ASC+T) prevents the driven road wheels from spinning and ensures maximum dynamic stability.

Wheel sensors determine the speed at which the road wheels are rotating. From this information, the control unit can detect if a wheel is spinning through lack of tyre grip. Depending on the driving situation, two forms of remedial action can then be taken by the system: if too much power is reaching the wheels from the engine and causing wheelspin, engine torque is reduced. In addition, a driven wheel which tends to spin has its brake applied automatically, without any action on the driver's part. This achieves a locking action comparable with a controlled limited-slip differential. This form of brake application can take place up to a road speed of 40 km/h (approx. 25 mile/h). Above 40 km/h (approx. 25 mile/h), the brake is applied in a milder form to improve traction up to 100 km/h (approx. 62 mile/h).



The longest reception range is obtained in the MW, LW and SW bands, since the signals are transmitted both as ground waves round the earth's surfaces and also reflected back to earth from the ionosphere layer in space.

VHF (FM) reception provides far higher listening quality than any of the AM wavebands. The range of each transmitter, however, is low, since the signals are transmitted by line of sight.

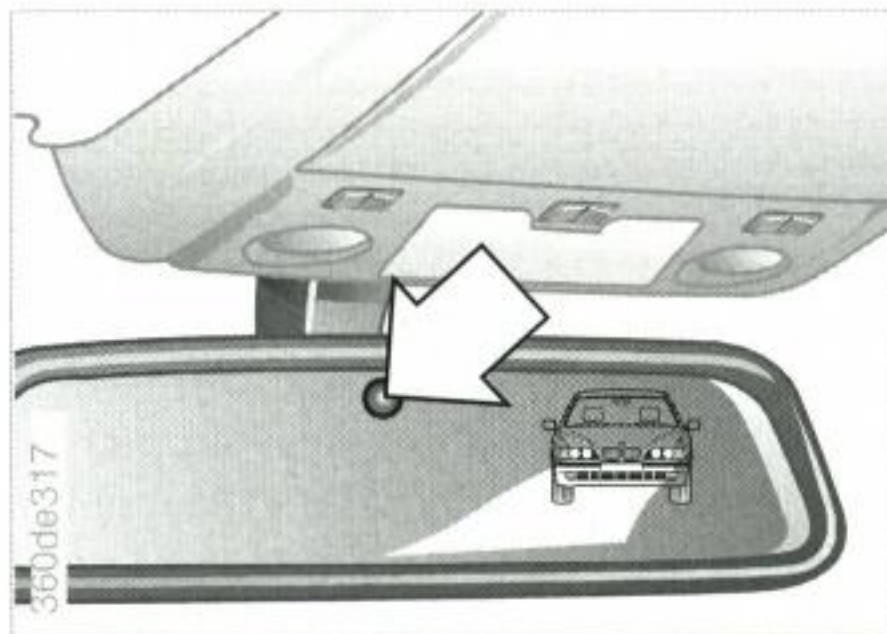
The limitations from which all non-stationary radio receivers suffer are compensated for by a variety of ingenious systems:

The Radio Data System (RDS) ensures that when a radio station is being broadcast on several frequencies, the set automatically switches to whichever frequency offers the best reception.

In the case of aerial diversity, several VHF aerials are needed. Three independent aerials are therefore integrated into the rear window (and also into the touring's rear left side window). An integrated micro-processor automatically selects the aerial which provides the best reception of the incoming VHF signal. Changeover to the best section of aerial takes only a few thousandths of a second and will not normally be noticed by the listener.



The seat belt catch tensioner ensures that in the event of a collision the seat belt is tautened across the wearer's body and holds it firmly in the seat. Within a fraction of a second, the belt catch is retracted by gas pressure, so that the lap and shoulder straps of the seat belt are both tautened at the same time. This counteracts any tendency for the wearer's body to slide forwards under the lap strap of the seat belt.



The automatic-dip interior mirror counteracts the glare caused by following vehicles according to its intensity, and restores the original reflecting capacity of the mirror as soon as the offending light source is no longer present. A light sensor facing forwards in the mirror casing measures light intensity in front of the car. There is a second light sensor in the mirror glass. An electronic regulating system compares the light intensities at the front and rear. The difference between them generates an electrical voltage which is applied to a gel coating on the mirror glass.

The gel reacts chemically to the electrical voltage and gradually darkens the mirror (electrochromic principle).

The mirror no longer has to be reset manually to avoid being dazzled by following vehicles, so that the driver can concentrate fully on the general traffic situation.

AG

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		BMW 316i	BMW 318i	BMW 318is
Displacement	cc	1596	1796	1895
Number of cylinders		4	4	4
Max. power output	kW	75	85	103
	bhp	102	115	140
- at engine speed	rpm	5500	5500	6000
Max. torque	Nm	150	168	180
- at engine speed	rpm	3900	3900	4300
Compression ratio	ϵ	9.7	9.7	10.0
Stroke	mm	72	81	83.5
Bore	mm	84	84	85
Mixture preparation	Digital Motor Electronics			

		BMW 320i	BMW 323i	BMW 328i
Displacement	cc	1991	2494	2793
Number of cylinders		6	6	6
Max. power output	kW	110	125	142
	bhp	150	170	193
- at engine speed	rpm	5900	5500	5300
Max. torque	Nm	190	245	280
- at engine speed	rpm	4200	3950	3950
Compression ratio	ϵ	11.0	10.5	10.2
Stroke	mm	66	75	84
Bore	mm	80	84	84
Mixture preparation		Digital Motor Electronics		

200 Engine data

		BMW 318tds	BMW 325td	BMW 325tds
Displacement	cc	1665	2497	2497
Number of cylinders		4	6	6
Max. power output	kW	66	85	105
	bhp	90	115	143
- at engine speed	rpm	4400	4800	4800
Max. torque	Nm	190	222	260
- at engine speed	rpm	2000	1900	2200
Compression ratio	ϵ	22.0	22.0	22.0
Stroke	mm	82.8	82.8	82.8
Bore	mm	80	80	80
Mixture preparation	Digital Diesel Electronics (DDE)			

		BMW 316i		BMW 318i		BMW 318is	
		5-speed gearbox	Automatic transmission	5-speed gearbox	Automatic transmission	5-speed gearbox	Automatic transmission
Saloon, Coupé							
Town	litres/100 km (Imp. mile/gal)	10.6 (26.6)	11.8 (23.9)	10.8 (26.2)	12.0 (23.5)	11.4 (24.8)	12.8 (22.1)
Country	litres/100 km (Imp. mile/gal)	5.9 (47.9)	6.4 (44.1)	6.2 (45.6)	6.6 (42.8)	6.1 (46.3)	6.5 (43.5)
Total	litres/100 km (Imp. mile/gal)	7.7 (36.7)	8.4 (33.6)	7.9 (35.8)	8.6 (32.8)	8.0 (35.3)	8.8 (32.1)
CO ₂ emissions	grammes/km	182	199	187	204	190	209
Convertible							
Town	litres/100 km (Imp. mile/gal)	-	-	10.8 (26.2)	12.2 (23.2)	-	-
Country	litres/100 km (Imp. mile/gal)	-	-	6.3 (44.8)	6.9 (40.9)	-	-
Total	litres/100 km (Imp. mile/gal)	-	-	8.0 (35.3)	8.8 (32.1)	-	-
CO ₂ emissions	grammes/km	-	-	189	209	-	-
touring							
Town	litres/100 km (Imp. mile/gal)	11.2 (25.2)	12.6 (22.4)	10.9 (25.9)	12.0 (23.5)	-	-
Country	litres/100 km (Imp. mile/gal)	6.2 (45.6)	6.9 (40.9)	6.3 (44.8)	6.6 (42.8)	-	-
Total	litres/100 km (Imp. mile/gal)	8.1 (34.9)	9.0 (31.4)	8.0 (35.3)	8.8 (32.1)	-	-
CO ₂ emissions	grammes/km	191	214	189	204	-	-

202 **Fuel consumption, carbon dioxide (CO₂) emissions**

		BMW 320i		BMW 323i		BMW 328i	
		5-speed gearbox	Automatic transmission	5-speed gearbox	Automatic transmission	5-speed gearbox	Automatic transmission
Saloon, Coupé							
Town	litres/100 km	12.9	14.6	12.9	15.0	13.5	15.3
	(Imp. mile/gal)	(21.9)	(19.3)	(21.9)	(18.8)	(20.5)	(18.5)
Country	litres/100 km	6.7	7.5	6.7	7.3	6.7	7.3
	(Imp. mile/gal)	(42.2)	(37.7)	(42.2)	(38.7)	(42.2)	(38.7)
Total	litres/100 km	9.0	10.1	9.0	10.1	9.2	10.2
	(Imp. mile/gal)	(31.4)	(28.0)	(31.4)	(28.0)	(30.7)	(27.7)
CO ₂ emissions	grammes/km	213	240	213	240	218	243
Convertible							
Town	litres/100 km	12.9	14.9	12.9	15.2	13.5	15.5
	(Imp. mile/gal)	(21.9)	(19.0)	(21.9)	(18.6)	(20.9)	(18.2)
Country	litres/100 km	6.8	7.6	6.8	7.5	6.8	7.5
	(Imp. mile/gal)	(44.2)	(39.6)	(44.2)	(40.1)	(44.2)	(40.1)
Total	litres/100 km	9.1	9.1	9.1	10.3	9.3	10.4
	(Imp. mile/gal)	(33.0)	(33.0)	(33.0)	(29.2)	(32.3)	(28.9)
CO ₂ emissions	grammes/km	215	215	215	245	221	248
touring							
Town	litres/100 km	12.9	14.6	12.9	15.0	13.5	15.3
	(Imp. mile/gal)	(21.9)	(19.3)	(21.9)	(20.0)	(20.9)	(19.7)
Country	litres/100 km	6.8	7.5	6.8	7.3	6.8	7.3
	(Imp. mile/gal)	(44.2)	(37.7)	(44.2)	(38.7)	(44.2)	(38.7)
Total	litres/100 km	9.1	10.1	9.1	10.1	9.3	10.2
	(Imp. mile/gal)	(33.0)	(28.0)	(33.0)	(28.0)	(32.3)	(27.7)
CO ₂ emissions	grammes/km	215	240	215	240	221	243

		BMW 318tds		BMW 325td		BMW 325tds	
		5-speed gearbox		5-speed gearbox	Automatic transmission	5-speed gearbox	Automatic transmission
Saloon							
Town	litres/100 km	8.8		10.3	11.9	10.2	11.3
	(Imp. mile/gal)	(34.2)		(29.2)	(25.3)	(29.5)	(26.6)
Country	litres/100 km	5.2		5.7	6.3	5.6	6.5
	(Imp. mile/gal)	(57.8)		(49.6)	(44.8)	(50.4)	(43.5)
Total	litres/100 km	6.5		7.4	8.4	7.3	8.3
	(Imp. mile/gal)	(46.3)		(38.2)	(33.6)	(38.7)	(34.0)
CO ₂ emissions	grammes/km	173		195	221	193	219
touring							
Town	litres/100 km	8.8	-	-	-	10.2	11.9
	(Imp. mile/gal)	(34.2)				(29.5)	(23.7)
Country	litres/100 km	5.2	-	-	-	5.6	6.7
	(Imp. mile/gal)	(57.8)				(50.4)	(42.2)
Total	litres/100 km	6.5	-	-	-	7.3	8.6
	(Imp. mile/gal)	(46.3)				(38.7)	(32.8)
CO ₂ emissions	grammes/km	173	-	-	-	193	227

Fuel consumption is determined according to standardised test procedures (93/116/EG). It is not the same as the average fuel consumption in practice, which depends on a great many different factors such as driving style, load, road condition, traffic density and flow, weather, tyre pressures etc. Engine power output and road performance data are measured in the conditions laid down by 80/1269 EU and DIN 70020 (with the car to standard specification). This standard specifies the permitted tolerances. Additional equipment can have a considerable influence on performance and fuel consumption, since it normally increases the car's weight and may worsen its aerodynamic drag coefficient (roof rack, wider tyres, additional mirrors etc.).

Saloon		BMW 316i	BMW 318i	BMW 318is¹⁾
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1698 (66.9)	1698 (66.9)	1698 (66.9)
Height (unladen)	mm (in)	1393 (54.8)	1393 (54.8)	1393 (54.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1418 (55.8)	1418 (55.8)	1408 (55.8)
Rear track	mm (in)	1431 (56.3)	1431 (56.3)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)
¹⁾ Not available in all countries				
Saloon		BMW 320i	BMW 323i	BMW 328i
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1698 (66.9)	1698 (66.9)	1698 (66.9)
Height (unladen)	mm (in)	1393 (54.8)	1393 (54.8)	1393 (54.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1408 (55.4)	1408 (55.4)	1408 (55.4)
Rear track	mm (in)	1421 (55.9)	1421 (55.9)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)

Saloon		BMW 318tds	BMW 325td	BMW 325tds
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1698 (66.9)	1698 (66.9)	1698 (66.9)
Height (unladen)	mm (in)	1393 (54.8)	1393 (54.8)	1393 (54.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1418 (55.8)	1418 (55.8)	1408 (55.4)
Rear track	mm (in)	1431 (56.3)	1431 (56.3)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)
Coupé		BMW 316i	BMW 318is	BMW 320i
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1710 (67.3)	1710 (67.3)	1710 (67.3)
Height (unladen)	mm (in)	1366 (53.8)	1366 (53.8)	1366 (53.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1408 (55.4)	1408 (55.4)	1408 (55.4)
Rear track	mm (in)	1421 (55.9)	1421 (55.9)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)

Coupé				BMW 323i	BMW 328i
Length	mm (in)			4433 (174.5)	4433 (174.5)
Width	mm (in)			1710 (67.3)	1710 (67.3)
Height (unladen)	mm (in)			1366 (53.8)	1366 (53.8)
Wheelbase	mm (in)			2700 (106.3)	2700 (106.3)
Front track	mm (in)			1408 (55.4)	1408 (55.4)
Rear track	mm (in)			1421 (55.9)	1421 (55.9)
Min. turning circle dia.	m (ft)			10.4 (34 ft 1 in)	10.4 (34 ft 1 in)
Convertible		BMW 318i	BMW 320i	BMW 323i	BMW 328i
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1710 (67.3)	1710 (67.3)	1710 (67.3)	1710 (67.3)
Height (unladen)	mm (in)	1348 (53.1)	1348 (53.1)	1348 (53.1)	1348 (53.1)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1408 (55.4)	1408 (55.4)	1408 (55.4)	1408 (55.4)
Rear track	mm (in)	1421 (55.9)	1421 (55.9)	1421 (55.9)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)

touring		BMW 316i, 318i	BMW 320i	BMW 323i	BMW 328i
Length	mm (in)	4433 (174.5)	4433 (174.5)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1698 (66.9)	1698 (66.9)	1698 (66.9)	1698 (66.9)
Height (unladen)	mm (in)	1391 (54.8)	1391 (54.8)	1391 (54.8)	1391 (54.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1418 (55.8)	1408 (55.4)	1408 (55.4)	1408 (55.4)
Rear track	mm (in)	1431 (56.3)	1421 (55.9)	1421 (55.9)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)

touring		BMW 318tds	BMW 325tds
Length	mm (in)	4433 (174.5)	4433 (174.5)
Width	mm (in)	1698 (66.9)	1698 (66.9)
Height (unladen)	mm (in)	1391 (54.8)	1391 (54.8)
Wheelbase	mm (in)	2700 (106.3)	2700 (106.3)
Front track	mm (in)	1418 (55.8)	1408 (55.4)
Rear track	mm (in)	1431 (56.3)	1421 (55.9)
Min. turning circle dia.	m (ft)	10.4 (34 ft 1 in)	10.4 (34 ft 1 in)

Saloon/Coupé

		BMW 316i	BMW 318i	BMW 318is ¹⁾
Unladen weight (incl. driver, ready for road, full tank, without optional extras)				
with manual gearbox	kg (lb)	1310 (2888)	1310 (2888)	1335 (2943)
with automatic transmission	kg (lb)	1350 (2976)	1350 (2976)	1375 (3031)
Gross weight limit				
with manual gearbox	kg (lb)	1695 (3737)	1665 (3671)	1720 (3792)
with automatic transmission	kg (lb)	1735 (3825)	1705 (3759)	1760 (3880)
Front axle load limit	kg (lb)	810 (1786)	810 (1786)	825 (1819)
Rear axle load limit	kg (lb)	995 (2194)	975 (2149)	1005 (2216)
when towing a trailer	kg (lb)	1055 (2326)	1055 (2326)	1075 (2326)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.				
unbraked	kg (lb)	630 (1389)	640 (1411)	650 (1433)
braked, gradients up to 12%	kg (lb)	1250 (2756)	1400 (3086)	1400 (3086)
with automatic transmission	kg (lb)	1400 (3086)	1500 (3307)	1500 (3307)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1500 (3307)	1500 (3307)	1500 (3307)
Trailer nose weight	kg (lb)	75 (165)	75 (165)	75 (165)
Roof load	kg (lb)	75 (165)	75 (165)	75 (165)
Luggage capacity acc. to VDA test (saloon/Coupé)	litres (cu.ft)	435/405 (15.4/14.3)	435 (15.4)	435/405 (15.4/14.3)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

¹⁾ Saloon not available in all countries.

Saloon/Coupé

		BMW 320i	BMW 323i ^e	BMW 328i
Unladen weight (incl. driver, ready for road, full tank, without optional extras)				
with manual gearbox	kg (lb)	1375 (3031)	1385 (3053)	1395 (3075)
with automatic transmission	kg (lb)	1410 (3108)	1420 (3131)	1430 (3153)
Gross weight limit				
with manual gearbox	kg (lb)	1760 (3880)	1770 (3902)	1780 (3926)
with automatic transmission	kg (lb)	1795 (3957)	1805 (3979)	1815 (4001)
Front axle load limit	kg (lb)	840 (1852)	845 (1863)	855 (1885)
Rear axle load limit	kg (lb)	1030 (2271)	1040 (2293)	1040 (2293)
when towing a trailer	kg (lb)	1090 (2403)	1100 (2425)	1100 (2425)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.				
unbraked	kg (lb)	670 (1477)	670 (1477)	670 (1477)
braked, gradients up to 12%	kg (lb)	1600 (3527)	1600 (3527)	1600 (3527)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1600 (3527)	1600 (3527)	1600 (3527)
Trailer nose weight	kg (lb)	75 (165)	75 (165)	75 (165)
Roof load	kg (lb)	75 (165)	75 (165)	75 (165)
Luggage capacity acc. to VDA test (saloon/Coupé)	litres (cu.ft)	435/405 (15.4/14.3)	435/405 (15.4/14.3)	435/405 (15.4/14.3)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

Saloon

		BMW 318tds	BMW 325td	BMW 325tds
Unladen weight (incl. driver, ready for road, full tank, without optional extras)				
with manual gearbox	kg (lb)	1355 (2987)	1430 (3153)	1440 (3175)
with automatic transmission	kg (lb)	-	1465 (3230)	1475 (3252)
Gross weight limit				
with manual gearbox	kg (lb)	1740 (3836)	1815 (4001)	1825 (4023)
with automatic transmission	kg (lb)	-	1850 (4079)	1860 (4100)
Front axle load limit	kg (lb)	855 (1885)	880 (1940)	890 (1962)
Rear axle load limit	kg (lb)	985 (2172)	1040 (2293)	1045 (2304)
when towing a trailer	kg (lb)	1055 (2326)	1100 (2425)	1105 (2436)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.				
unbraked	kg (lb)	650 (1413)	670 (1477)	670 (1477)
braked, gradients up to 12%	kg (lb)	1300 (2866)	1600 (3527)	1600 (3527)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1500 (3307)	1600 (3527)	1600 (3527)
Trailer nose weight	kg (lb)	75 (165)	75 (165)	75 (165)
Roof load	kg (lb)	75 (165)	75 (165)	75 (165)
Load-area capacity acc. to VDA test	litres (cu.ft)	435 (15.4)	435 (15.4)	435 (15.4)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

Convertible

		BMW 318i	BMW 320i	BMW 323i	BMW 328i
Unladen weight (incl. driver, ready for road, full tank, without optional extras)					
with manual gearbox	kg (lb)	1445 (3186)	1485 (3274)	1495 (3296)	1505 (3318)
with automatic transmission	kg (lb)	1485 (3274)	1520 (3351)	1530 (3373)	1540 (3395)
Gross weight limit					
with manual gearbox	kg (lb)	1770 (3902)	1810 (3990)	1820 (4012)	1830 (4034)
with automatic transmission	kg (lb)	1810 (3990)	1845 (4067)	1855 (4089)	1865 (4112)
Front axle load limit	kg (lb)	830 (1830)	855 (1885)	865 (1896)	870 (1918)
Rear axle load limit	kg (lb)	1050 (2315)	1050 (2315)	1060 (2337)	1070 (2359)
when towing a trailer	kg (lb)	1100 (2425)	1100 (2425)	1105 (2436)	1115 (2458)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.					
unbraked	kg (lb)	640 (1411)	670 (1477)	670 (1477)	670 (1477)
braked, gradients up to 12%	kg (lb)	1400 (3086)	1500 (3307)	1500 (3307)	1500 (3307)
with automatic transmission	kg (lb)	1500 (3307)	1500 (3307)	1500 (3307)	1500 (3307)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1500 (3307)	1500 (3307)	1500 (3307)	1500 (3307)
Trailer nose weight	kg (lb)	75 (165)	75 (165)	75 (165)	75 (165)
Roof load limit (special roof rack system, available from BMW Service)	kg (lb)	40 (88)	40 (88)	40 (88)	40 (88)
Load-area capacity acc. to VDA test	litres (cu.ft)	230 (8.1)	230 (8.1)	230 (8.1)	230 (8.1)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

touring

		BMW 316i	BMW 318i	BMW 320i	BMW 323i	BMW 328i
Unladen weight (incl. driver, ready for road, full tank, without optional extras)						
with manual gearbox	kg (lb)	1355 (2987)	1355 (2987)	1420 (3131)	1440 (3175)	1440 (3175)
with automatic transmission	kg (lb)	1395 (3075)	1395 (3075)	1445 (3252)	1475 (3252)	1475 (3252)
Gross weight limit						
with manual gearbox	kg (lb)	1780 (3924)	1780 (3924)	1845 (4067)	1865 (4112)	1865 (4112)
with automatic transmission	kg (lb)	1820 (4012)	1820 (4012)	1880 (4145)	1900 (4189)	1900 (4189)
Front axle load limit	kg (lb)	825 (1819)	825 (1819)	845 (1863)	855 (1885)	855 (1885)
Rear axle load limit	kg (lb)	1070 (2359)	1070 (2359)	1100 (2425)	1115 (2458)	1115 (2458)
when towing a trailer	kg (lb)	1125 (2480)	1125 (2480)	1140 (2513)	1150 (2535)	1150 (2535)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.						
unbraked	kg (lb)	630 (1389)	640 (1411)	670 (1477)	670 (1477)	670 (1477)
braked, gradients up to 12%	kg (lb)	1250 (2756)	1400 (3086)	1600 (3527)	1600 (3527)	1600 (3527)
with automatic transmission	kg (lb)	1400 (3086)	1500 (3307)	1600 (3527)	1600 (3527)	1600 (3527)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1500 (3307)	1500 (3307)	1600 (3527)	1600 (3527)	1600 (3527)
Trailer nose weight	kg (lb)	75 (165)	75 (165)	75 (165)	75 (165)	75 (165)
Roof load	kg (lb)	75 (165)	75 (165)	75 (165)	75 (165)	75 (165)
Load-area capacity acc. to VDA test	litres (cu.ft)	370-1320 (13.1-46.6)	370-1320 (13.1-46.6)	370-1320 (13.1-46.6)	370-1320 (13.1-46.6)	370-1320 (13.1-46.6)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

touring

		BMW 318tds	BMW 325tds
Unladen weight (incl. driver, ready for road, full tank, without optional extras)			
with manual gearbox	kg (lb)	1400 (3086)	1485 (3275)
with automatic transmission	kg (lb)	-	1520 (3351)
Gross weight limit			
with manual gearbox	kg (lb)	1825 (4023)	1910 (4211)
with automatic transmission	kg (lb)	-	1945 (4288)
Front axle load limit	kg (lb)	850 (1874)	900 (1984)
Rear axle load limit	kg (lb)	1060 (2337)	1115 (2458)
when towing a trailer	kg (lb)	1095 (2414)	1150 (2535)
Trailer loads in accordance with EU operating permit, incl. nose weight (according to manufacturer's directive and legal limit in Germany). BMW Service can supply information on permissible increases. Note and comply with different values in certain countries.			
unbraked	kg (lb)	650 (1413)	670 (1477)
braked, gradients up to 12%	kg (lb)	1300 (2866)	1600 (3527)
braked, gradients up to 8% (supplementary permit)	kg (lb)	1500 (3307)	1600 (3527)
Trailer nose weight	kg (lb)	75 (165)	75 (165)
Roof load	kg (lb)	75 (165)	75 (165)
Load-area capacity acc. to VDA test	litres (cu.ft)	370-1320 (13.1-46.6)	370-1320 (13.1-46.6)

Do not exceed either the axle load limits or the car's gross weight limit.

If you make full use of the quoted trailer load limit on gradients up to 12% and also wish to load the car itself up to its permissible gross weight limit, you are recommended not to drive up gradients steeper than 10%.

Saloon/Coupé

		BMW 316i	BMW 318i	BMW 318is
Top speed	km/h	195	201	213
	mile/h	121	125	132
With automatic transmission	km/h	192	200	207
	mile/h	119	124	124
Acceleration				
from 0 - 50 km/h (31 mile/h)	s	4.2 (5.1)	3.7 (4.4)	3.1 (3.9)
0 - 80 km/h (50 mile/h)	s	8.3 (9.9)	7.4 (8.6)	6.8 (7.9)
0 - 100 km/h (62 mile/h)	s	12.7 (14.2)	11.3 (12.3)	10.2 (11.2)
0 - 120 km/h (75 mile/h)	s	17.7 (20.3)	15.6 (17.5)	13.9 (16.1)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	12.2	10.5	10.7
Standing-start kilometre	s	33.8 (35.3)	32.4 (33.6)	31.1 (32.7)
Values in (): - with automatic transmission				

Saloon/Coupé

		BMW 320i	BMW 323i	BMW 328i
Top speed	km/h (mile/h)	214 133	227 141	236 147
With automatic transmission	km/h (mile/h)	214 133	224 139	232 144
Acceleration				
from 0 - 50 km/h (31 mile/h)	s	3.0 (3.7)	2.6 (3.3)	2.5 (2.8)
0 - 80 km/h (50 mile/h)	s	6.5 (7.6)	5.6 (6.4)	5.2 (5.6)
0 - 100 km/h (62 mile/h)	s	9.9 (10.6)	8.0 (9.0)	7.3 (7.8)
0 - 120 km/h (75 mile/h)	s	13.3 (14.9)	11.4 (12.3)	10.3 (10.7)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	9.7	9.1	7.6
Standing-start kilometre	s	30.7 (31.9)	28.9 (29.9)	28.0 (28.5)
Values in (): - with automatic transmission				

Saloon

		BMW 318tds	BMW 325td	BMW 325tds
Top speed	km/h	182	198	214
	mile/h	113	123	133
With automatic transmission	km/h	-	194	211
	mile/h		121	131
Acceleration				
from 0 - 50 km/h (31 mile/h)	s	4.4	3.9 (4.0)	3.4 (3.4)
0 - 80 km/h (50 mile/h)	s	9.6	8.2 (8.7)	6.7 (7.4)
0 - 100 km/h (62 mile/h)	s	14.2	12.0 (12.8)	10.4 (10.8)
0 - 120 km/h (75 mile/h)	s	21.2	16.8 (19.5)	14.2 (15.7)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	12.6	11.0	9.4
Standing-start kilometre	s	35.5	33.3 (34.3)	31.4 (32.3)
Values in (): - with automatic transmission				

Convertible

		BMW 318i	BMW 320i	BMW 323i	BMW 328i
Top speed	km/h	194	211	218	230
	mile/h	121	131	135	143
With automatic transmission	km/h	189	207	215	226
	mile/h	117	129	134	140
Acceleration					
from 0 - 50 km/h (31 mile/h)	s	4.1 (4.8)	3.3 (4.0)	2.9 (3.5)	2.5 (3.0)
0 - 80 km/h (50 mile/h)	s	8.2 (9.5)	7.0 (8.2)	6.1 (6.9)	5.4 (6.0)
0 - 100 km/h (62 mile/h)	s	12.5 (13.7)	10.6 (11.4)	8.6 (9.7)	7.7 (8.4)
0 - 120 km/h (75 mile/h)	s	17.4 (19.7)	14.4 (16.2)	12.3 (13.3)	11.0 (11.6)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	12.1	10.7	10.0	8.4
Standing-start kilometre	s	33.7 (34.9)	31.6 (32.8)	29.8 (30.8)	28.6 (29.3)

Values in (): - with automatic transmission

touring

		BMW 316i	BMW 318i	BMW 320i	BMW 323i	BMW 328i
Top speed	km/h	191	197	212	223	230
	mile/h	119	122	123	139	143
With automatic transmission	km/h	185	194	208	219	225
	mile/h	115	129	129	136	140
Acceleration						
from 0 - 50 km/h (31 mile/h)	s	4.3 (5.7)	3.9 (4.5)	3.1 (3.9)	2.8 (3.4)	2.5 (2.9)
0 - 80 km/h (50 mile/h)	s	8.6 (11.0)	7.7 (8.9)	6.7 (7.9)	5.9 (6.6)	5.3 (5.7)
0 - 100 km/h (62 mile/h)	s	13.2 (15.7)	11.7 (12.8)	10.2 (11.0)	8.3 (9.3)	7.4 (8.0)
0 - 120 km/h (75 mile/h)	s	18.6 (22.5)	16.3 (18.4)	13.8 (15.9)	11.9 (12.8)	10.6 (11.1)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	13.0	10.8	10.1	9.5	7.9
Standing-start kilometre	s	34.4 (36.7)	32.9 (34.1)	31.1 (32.2)	29.4 (30.3)	28.2 (28.8)

Values in (): - with automatic transmission

touring

		BMW 318tds	BMW 325tds
Top speed	km/h	179	206
	mile/h	111	128
With automatic transmission	km/h	-	204
	mile/h		127
Acceleration			
from 0 - 50 km/h (31 mile/h)	s	4.4	3.4 (3.5)
0 - 80 km/h (50 mile/h)	s	9.8	6.8 (7.6)
0 - 100 km/h (62 mile/h)	s	14.5	10.5 (11.0)
0 - 120 km/h (75 mile/h)	s	21.7	14.5 (16.1)
80 - 120 km/h (50 - 75 mile/h) in 4th gear	s	13.3	9.8
Standing-start kilometre	s	35.7	31.7 (32.6)
Values in (): - with automatic transmission			

220 Filling capacities

	Litres (Imp. units)				Note
Fuel tank - incl. reserve of	approx. 62 (13.6 gal) approx. 8 (1.8 gal)				Fuel grade: see page 21
Windscreen washer Including headlight cleaning system	approx. 2.5 (4.4 pints) approx. 5.0 (8.8 pints)				For further details, see page 154
Cooling system, incl. heater circuit	6.5	(11.4 pints)	–	BMW 316i, 318i, 318is	For further details, see page 158
	7.5	(13.2 pints)	–	BMW 318tds	
	8.8	(15.5 pints)	–	BMW 325td/tds	
	10.5	(18.5 pints)	–	BMW 320i, 323i, 328i	
Engine oil with filter renewal	4.0	(7.0 pints)	–	BMW 316i, 318i	Brand-name HD oil for spark-ignition and diesel engines. Oil grades: see page 155
	5.0	(8.8 pints)	–	BMW 318is	
	5.5	(9.7 pints)	–	BMW 318tds	
	6.5	(11.4 pints)	–	BMW 320i, 323i, 328i	
	7.0	(12.3 pints)	–	BMW 325td/tds	
Manual gearbox, automatic transmission and final drive					Permanently filled, no oil changes

Electrical system

Battery

Saloon/Coupé/touring:

BMW 316i, 318i, 318is 12 V, 50 Amp/h

BMW 320i, 323i, 328i,
318tds 12 V, 65 Amp/h

BMW 325td/tds 12 V, 85 Amp/h

Convertible:

BMW 318i, 320i, 323i,
328i 12 V, 70 Amp/h

Spark plugs

Double-earth electrode:
Bosch F7 LDCR or
NGK BKR 6 EK

V-belts

Alternator - coolant pump - power steering

BMW 316i, 318i, 318is

Ribbed, 6 PK x 1733

BMW 320i, 323i, 328i

Ribbed, 6 PK x 1555

BMW 318tds

Ribbed, 5 PK x 1885

BMW 325td/tds

Ribbed, 5 PK x 1815

Air conditioning compressor

BMW 316i, 318i, 318is

Ribbed, 4 PK x 889

BMW 320i, 323i, 328i

Ribbed, 5 PK x 906

BMW 318tds

Ribbed, 4 PK x 836

BMW 325td/tds

Ribbed, 4 PK x 778

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