



Owner's Manual for the Vehicle.
With a quick reference guide
for your convenience.





323Ci
328Ci

Congratulations, and thank you for choosing a BMW.

Thorough familiarity with your vehicle will provide you with enhanced control and security when you drive it. We therefore have this request:

Please take the time to read this Owner's Manual and familiarize yourself with the information that we have compiled for you before starting off in your new car. It contains important data and instructions intended to assist you in gaining maximum use and satisfaction from the unique range of technical features on your BMW. The manual also contains information on care and maintenance designed to enhance operating safety and contribute to maintaining the value of your BMW throughout an extended service life.

This Owner's Manual should be considered a permanent part of this vehicle. It should stay with the vehicle when sold to provide the next owner with important operating, safety and maintenance information.

This manual is supplemented by a Service and Warranty Information Booklet (US models) or a Warranty and Service Guide Booklet (Canada models). We recommend that you read these publications thoroughly.

Your BMW is covered by the following warranties:

- New Vehicle Limited Warranty
- Limited Warranty Rust Perforation
- Emissions System Defect Warranty
- Emissions Performance Warranty
- California Emissions Control System Limited Warranty

Detailed information about these warranties is listed in the Service and Warranty Information Booklet (US models) and the Warranty and Service Guide Booklet (Canada models).

We wish you an enjoyable driving experience.

BMW AG

Notes on the Owner's Manual

We have made every effort to ensure that you are able to find what you need in this Owner's Manual as quickly as possible. The fastest way to find certain topics is by using the detailed index at the end. If you wish to gain only an initial overview of your vehicle, you will find this in the first chapter.

The detailed table of contents immediately following the index is intended to arouse your curiosity about your BMW and stimulate you to read about it.

Should you wish to sell your BMW at some time in the future, please remember to hand over the Owner's Manual to the new owner; it is part of the vehicle.

Should you have any further questions, your BMW center will be glad to assist at any time.

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Symbols used



These sections contain vital information – please read the accompanying text passages carefully, for your safety, the safety of others and to prevent damage to your BMW. ◀



These passages contain information on special and unique features of your vehicle. ◀



Special information on recycling. ◀

◀ Indicates the end of a note.

* Indicates special equipment, country-specific equipment and optional extras.



Denotes vehicle parts for which you should consult this Owner's Manual.



Alerts you to functions that can be adjusted for individual drivers by your authorized BMW center ("Car Memory" or "Key Memory"). Refer to page 54. ◀

The individual vehicle

On buying your BMW, you have decided in favor of a model with individualized equipment and features. This Owner's Manual describes all models and equipment that BMW offers within the same range.

We hope you will understand that equipment and features are included which you might not have chosen for your vehicle. Any differences can easily be identified, as all optional accessories and special equipment are marked with an asterisk *.

If your BMW features equipment which is not described in this Owner's Manual (e.g., car radio or telephone), (Supplementary) Owner's Manuals are enclosed. We ask you to read these manuals as well.

Status at time of printing

BMW pursues a policy of continuous, ongoing development that is conceived to ensure that our vehicles continue to embody the highest quality and safety standards combined with advanced, state-of-the-art technology. For this reason, it is possible that the features described in this Owner's Manual could differ from those on your vehicle. 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 manual.

For your own safety



Use unleaded gasoline only. Fuels containing up to 10% ethanol or other oxygenates with up to 2.8% oxygen by weight (i.e. 15% MTBE or 3% methanol plus an equivalent amount of co-solvent) will not void the applicable warranties with respect to defects in materials or workmanship. Field experience has indicated significant differences in fuel quality (i.e. volatility, composition, additives, etc.) among gasolines offered for sale in the United States and Canada. The use of poor-quality fuels may result in driveability, starting and stalling problems especially under certain environmental conditions, such as high ambient temperature and high altitude. Should you encounter driveability problems that you suspect could be related to the fuel you are using, we recommend that you respond by switching to a recognized high-quality brand. Failure to comply with these recommendations may result in unscheduled maintenance. Follow the relevant safety rules when you are handling gasoline. ◀



Important safety information!

For your own safety, use genuine parts and accessories approved by BMW. When you purchase accessories tested and approved by BMW and Original BMW Parts, you simultaneously acquire the assurance that they have been thoroughly tested by BMW to ensure optimum performance when installed on your vehicle. BMW warrants these parts to be free from defects in material and workmanship. BMW will not accept any liability for damage resulting from installation of parts and accessories not approved by BMW. BMW cannot test every product from other manufacturers to verify if it can be used on a BMW safely and without risk to either the vehicle, its operation, or its occupants. Original BMW Parts, BMW Accessories and other products approved by BMW, together with professional advice on using these items, are available from all BMW centers.

Installation and operation of non-BMW approved accessories such as alarms, radios, amplifiers, radar detectors, wheels, suspension components, brake dust shields, telephones (including operation of any portable cellular phone from within the vehicle without using an externally mounted antenna) or transceiver equipment (such as C.B., walkie-talkie, ham radio or similar) may cause extensive damage to the vehicle, compromise its safety, interfere with the vehicle's electrical system or affect the validity of the BMW Limited Warranty. See your authorized BMW center for additional information. Do not use key or remote to lock doors or luggage compartment lid with anyone inside the car. See page 34 for more details. "Maintenance, replacement, or repair of the emission control devices and systems may be performed by any automotive repair establishment or individual using any certified automotive part". ◀

The following only applies to vehicles owned and operated in the US.

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect that could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying BMW of North America, Inc., P.O. Box 1227, Westwood, New Jersey 07675-1227, Telephone (201) 307-4000.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or BMW of North America, Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 202-366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, DC 20590. You can also obtain other information about motor vehicle safety from the Hotline.



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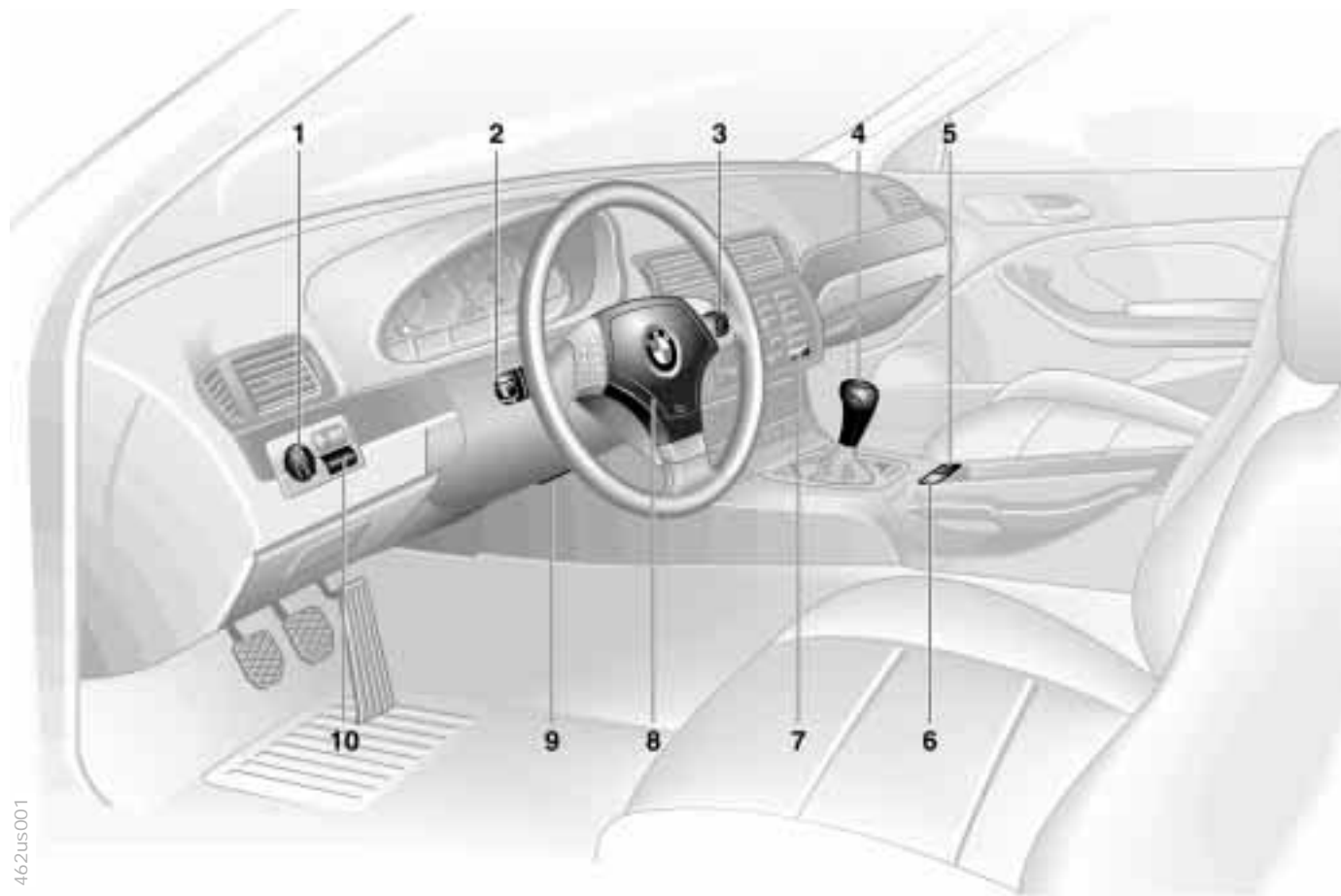
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Instrument cluster

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You can display the outside temperature and distance driven in different units of measurement. ◀

20 Indicator and warning lamps

Technology that monitors itself

Many of the systems of your BMW monitor themselves automatically, both during engine starts and while you are driving. Indicator and warning lamps that are identified by "●" are tested for proper functioning whenever the ignition key is turned. They each light up once for different periods of time.

If a fault should occur in one of these systems, the corresponding lamp does not go out after the engine is started or it lights up while the vehicle is moving. You will see how to react to this below.

Red: Stop immediately



Battery charge current ●
The battery is no longer being charged. There is a malfunction of the alternator ribbed V-belt or in the charging circuit of the alternator. Please contact the nearest BMW center.



If the ribbed V-belt is defective, do not continue driving. The engine could be damaged due to overheating. If the ribbed V-belt is defective, increased steering effort is also required. ◀



Engine oil pressure ●
Stop vehicle and switch off engine immediately. Check level of oil in engine, top up as required. If oil level is correct: Please contact the nearest BMW center.



Do not continue driving. The engine could be damaged because of inadequate lubrication. ◀



Tire Pressure Control (RDC)* ●
In addition, there is an acoustical warning signal: A tire failure has occurred. Reduce vehicle speed immediately and stop the vehicle. Avoid hard brake applications. Do not oversteer.

For additional information: Refer to page [82](#).



Brake hydraulic system ●
If the lamp comes on when the parking brake is not engaged: Check the brake fluid level. Before driving further, be sure to read the notes on pages [109](#) and [127](#).



Brake-warning lamp for Canadian models.

Indicator and warning lamps

Yellow: Stop immediately



Engine oil level

Comes on while driving: Stop vehicle and switch off engine immediately. The oil level is at the absolute minimum.



Do not continue driving. The engine could be damaged because of inadequate lubrication. ◀

Red and yellow: Continue driving cautiously



Cornering Brake Control (CBC) ● Comes on together with the yellow indicator lamps for ABS and DSC:

The entire ABS, CBC and DSC system has been deactivated. Continue driving cautiously and defensively. Avoid hard brake applications. Please have the system checked by your authorized BMW center as soon as possible.

For additional information: Refer to page [81](#), [107](#).



Warning lamps CBC, ABS and DSC for Canadian models.

Red: An important reminder



Parking brake

Comes on when the parking brake is applied – an additional acoustical signal sounds when starting off.

For additional information: Refer to page [64](#).



Parking brake lamp for Canadian models.



Please fasten safety belts ● An acoustical warning signal sounds simultaneously. Lights up for a few seconds or until the safety belt is fastened.

For additional information on safety belts: Refer to page [55](#).



Airbags ● Please have the system inspected by your authorized BMW center.

For additional information: Refer to page [57](#), [161](#).

22 Indicator and warning lamps

Orange: For the nearest BMW center



Automatic transmission*
Because of a malfunction, the automatic transmission shifts only in the emergency program. Please consult the nearest authorized BMW center.
For additional information: Refer to page [68](#).

Yellow: Check as soon as possible



Antilock Brake System (ABS) ●
ABS has been deactivated in response to system malfunction. Conventional braking efficiency is available without limitations. Please have the system inspected by your authorized BMW center.
For additional information: Refer to page [107](#).



ABS warning lamp for Canadian models.



Engine oil level
Comes on after the engine has been turned off: Check the engine oil level.
For additional information: Refer to page [123](#).



Brake pads ●
Have the brake pads checked.
For additional information: Refer to page [109](#).



Tire Pressure Control (RDC)* ●
Check the tire pressure. Refer to page [27](#), [82](#).



Dynamic Stability Control (DSC) ●
The DSC has been switched off or has been deactivated because of a malfunction. In the event of a malfunction, have the system checked by your authorized BMW center.
For additional information: Refer to page [81](#).



Add washer fluid
The washer fluid is too low. Top off the fluid at the earliest opportunity.
For additional information: Refer to page [122](#).



Service engine soon ●
There is a defect in the Engine Management system. It is important to note that an illuminated lamp is intended to inform the driver of the need for service, not of the need to stop the vehicle!
It can also be an indication that the filler cap was not properly tightened after refueling. Please have the system inspected by your authorized BMW center.
For additional information: Refer to page [137](#).



Engine Management warning lamp for Canadian models.



Electronic Engine output-adjustment (EML)* ●

Malfunction in engine timing. Higher brake application pressure may be necessary and brake pedal travel may be significantly longer. Please have the system inspected by your authorized BMW center.



Add coolant

The coolant level is too low. Top up the coolant at the earliest opportunity.

For additional information: Refer to page [126](#).

Green: For your information



Turn signal

Flashes when the turn signal is switched on. Rapid flashing indicates a system malfunction.

For additional information: Refer to page [69](#).



Cruise control*

Comes on when the cruise control is activated. Available for operation via the multi-function steering wheel.

For additional information: Refer to page [72](#).



Fog lamps*

Lights up whenever you switch on the fog lamps.

For additional information: Refer to page [85](#).

Blue: For your information



High beam

Lights up when the high beams are on or the headlamp flasher is actuated.

For additional information: Refer to page [69](#), [85](#).

24 Multi-function steering wheel (MFL)

The controls integrated in the multi-function steering wheel are provided so that you can operate a number of accessories quickly and without being distracted from traffic conditions. You may operate:

- ▷ selected radio functions
- ▷ the cruise control and
- ▷ selected cellular phone functions.



In order to operate a system via the MFL, the corresponding system controls must be switched on. ◀

The illustration shows the maximum possible number of controls, corresponding to a full range of optional equipment. Refer to the individual accessory manuals for more detailed descriptions.



- 1 Switch between the radio and the cellular phone
- 2 Cellular phone: Receive a call, start dialing, terminate a call
- 3 Radio/Cellular phone volume
- 4 Radio/Cellular phone: Search in reverse or station keys (or browse in list of names)
- 5 Radio/Cellular phone: Search forwards or station keys (or browse in list of names)
- 6 Horn: The entire surface
- 7 Cruise control: Resume stored setting
- 8 Cruise control: Store and accelerate (+); decelerate and store (-)
- 9 Cruise control: Activate/Interrupt/Cancel.

Hazard warning flashers



The push button flashes rhythmically when the hazard flashers are on. To help you locate the switch in an emergency, the button is also illuminated whenever the car lamps are on.

Warning triangle*



The hazard warning triangle is stored in a recess on the left-hand side of the luggage compartment where it is quickly available.



Comply with legal requirements that cover the availability of a hazard warning triangle in the car. ◀

First aid kit*



The first aid kit is located under the passenger seat.

To open: Pull the handle and fold the cover down.

To close: Fold the cover up.




Some of the articles in the first aid kit may be used within a limited time only. For this reason, check the expiration dates of each of the items regularly, and replace any whose expiration dates have passed. You can get replacements in any drugstore or pharmacy. Comply with legal requirements which cover availability of a first aid kit in the car. ◀



Fuel filler door


Press on the rear edge of the fuel filler door to open and close it.

To unlock the fuel filler door if the central locking system malfunctions, refer to page 155.

 When handling fuels, comply with all of the applicable safety precautions and regulations pertaining to fuels. Never carry spare fuel containers in your vehicle. Whether empty or full, these containers can leak, cause an explosion, or lead to fire in the event of a collision. ◀




Simple and environmentally friendly

 Carefully open the fuel filler cap, as otherwise fuel could spray out. Fuel spray may cause injury. ◀

Keep the filler cap in the bracket attached to the fuel filler door.

When refueling, insert the filler nozzle completely into the filler pipe. Pulling the nozzle out of the pipe during refueling

- ▷ results in premature pump shutoff
- ▷ and will reduce the effect of the vapor recovery system on the pump.

 Close the fuel filler cap carefully after refueling. A loose or missing cap will activate the Check Engine lamp. ◀


Fuel specifications

Use unleaded gasoline only.

Recommended fuel: premium with a minimum octane rating of 91 AKI.

BMW engines are equipped with knock sensors and will adapt automatically to different octane ratings, provided that the minimum octane requirement (87 AKI) is met.

Fuels with higher octane ratings will provide enhanced performance and lower fuel consumption, while the use of fuels with lower octane ratings will have the opposite effect.

 Do not use leaded fuels. The use of leaded fuels will cause permanent damage to the system's oxygen sensor and the catalytic convertor. ◀

AKI = Anti Knock Index

Tire inflation pressure



The inflation pressures are indicated on a sticker attached to the B-pillar behind the driver's door (visible with door open).

Check tire pressures

All pressure specifications are stated in psi (kilopascal) with cold tires (cold = ambient temperature). Refer to the next page as well.

For trailer towing, the inflation pressure for heavier loads always applies.

For vehicles with RDC (Tire Pressure Control)*:

After a correction of the tire inflation pressure, reactivate the system. Refer to page [82](#).



Check tire inflation pressures regularly – at least every two weeks and before beginning a longer trip. Incorrect tire pressure can otherwise lead to tire damage and accidents. Also check the inflation pressure of the space-saver tire or spare tire*. Inflate the spare tire to the highest inflation specified for your vehicle. ◀

Comply with tire approval specifications

The inflation pressures in the table apply to tires from BMW-approved manufacturers. Your BMW center is familiar with these pressures. Higher pressures may be specified for tires from other manufacturers. You will find a list of approved tires beginning on page [117](#).

28 Tire inflation pressure

BMW	Tires Inflation pressures in psi (kilopascal)				
323Ci	Summer tires	29 (200)	33 (230)	33 (230)	41 (280)
	Winter tires	32 (220)	36 (250)	36 (250)	44 (300)
328Ci	Summer tires	29 (200)	33 (230)	33 (230)	41 (280)
	Winter tires	32 (220)	36 (250)	36 (250)	44 (300)
All	Space-saver spare tire	61 (420)	61 (420)	61 (420)	61 (420)

For all-season tires, use the same tire inflation pressure as for summer tires.

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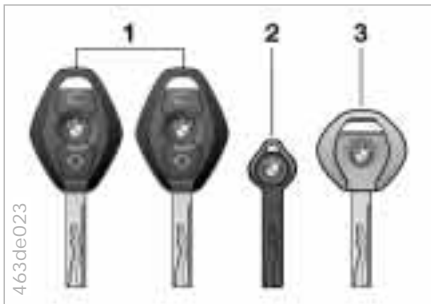
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1 Master key with transmitter for the remote control determines the Key Memory functions, see page 54.

▶ Every key contains a long-life rechargeable battery which is automatically recharged from the ignition lock, while the car is being driven. If you have spare master keys which are not otherwise in regular service, it is advisable to use them about once a year for a journey of some distance, so that their batteries are recharged. Also see page 35. ◀

2 Spare key for storage in a safe place, such as in your wallet. This key is not intended for continuous use.

3 Door and ignition key

The locks for the luggage compartment lid and glove compartment cannot be operated with this key – this may be beneficial for valet parking, for instance.

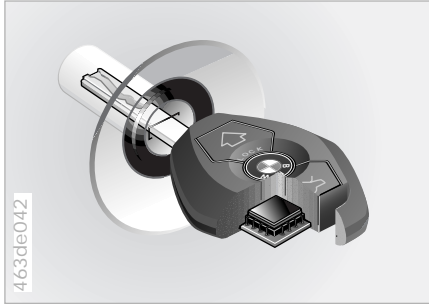
Replacement keys

are available exclusively through your authorized BMW center. Your BMW center is obligated to ensure that a person requesting a key is authorized to do so, since the keys belong to a security system (refer to "Electronic vehicle immobilizer" on page 33).

▶ Whenever you have been handed a replacement key, insert it into the ignition lock and turn it once to position 2 (ignition switched on), then back to the home position, so that the electronic immobiliser "accepts" the new key. ◀

See also "New transmitter", page 147.

Electronic vehicle immobilizer




The key to security

Your BMW is equipped with a passive anti-theft system. This electronic immobilization system is designed to reduce the susceptibility of the vehicle to theft by making it impossible to start the engine using any means other than the special keys furnished with the vehicle. Your BMW center can cancel the electronic system authorization for individual keys (in the event of loss, for instance). A deactivated key can no longer be used to start the engine.

How the electronics work

At the heart of this system is an electronic chip that is integrated into the key. The lock mechanism itself is actually a dual-function device, simultaneously serving as a communications interface designed to allow the security system to maintain a continuous stream of variable, vehicle-specific signals with the electronic circuitry in the key. The system will not release the ignition, fuel injection and starter unless it recognizes an "authorized" key.

 Force applied to the key can damage the integrated electronic circuitry. A damaged key can no longer be used to start the engine. ◀

The concept

The central locking system is ready for operation whenever the driver's door is closed. The system engages and releases the locks on the

- ▷ doors
- ▷ luggage compartment lid
- ▷ fuel filler door.

The central locking system can be operated

- ▷ from outside via the door lock and using the remote control
- ▷ from inside by pressing a button.

Activating it from inside does not lock the fuel filler door (see page 38).

When the system is actuated from the outside, the anti-theft system is activated simultaneously. Both the door locks and release handles remain locked. The alarm system* is also armed or disarmed.

In the event of an accident, the central locking system unlocks automatically. In addition, the hazard warning flashers and interior lamps come on.

**Using the key**

One turn of the key in the door lock opens only the driver's door, a second turn of the key opens the passenger door, the luggage compartment lid and the fuel filler door.



You can have a confirmation message set to inform you that the car has been properly locked. ◀

You will find additional information on the alarm system on page 42.

Convenience operating mode

You can also operate the electric windows and sliding/tilt sunroof via the door lock.

- ▷ To open: With the door closed, turn the key to the "Unlock" position and hold it.
- ▷ To close: With the door closed, turn the key to the "Lock" position and hold it.



Watch during the closing process to make sure that nobody is injured accidentally. Letting go of the key stops the operation. ◀

Manual operation

(in the event of electrical failure)

Turn the key all the way to the extreme left or right to unlock/lock the door.


Door locks – from outside

Using the remote control

The remote control makes opening and locking the doors of your vehicle very convenient. Furthermore, it provides two additional functions that can only be executed by means of the remote control:

- ▷ To switch on interior lamps
With this function, you can also "search for" your vehicle, when parked in an underground garage, for instance.
- ▷ To open luggage compartment
The luggage compartment lid will open slightly, regardless of whether the lid was previously locked or unlocked.


The anti-theft system is also deactivated/activated simultaneously with the unlocking or locking of the vehicle, and the alarm system* is disarmed/armed, and the interior lamps are turned on/off.


 You can have a confirmation message set to inform you that the car has been properly locked. ◀



Master keys

Keys with a transmitter for remote control are master keys. Refer to page 32.

 Children might be able to lock the doors from the inside. For this reason, always take the vehicle keys with you so that the vehicle can be opened again from the outside at any time. ◀

 Transmitters that are in regular use will always be operational, as the rechargeable battery in the transmitter is automatically recharged in the ignition lock while the car is being driven. If it should prove impossible to lock the car with a particular transmitter via the remote control, the battery is in need of recharging. Use this transmitter for a lengthy journey, to recharge its battery. Also see page 32. ◀

36 Door locks – from outside




Convenience opening mode: Press and hold button 1. The windows and the sliding/tilt sunroof are opened.




Unlocking and convenience opening mode

Unlock driver's door: Press button 1.

 Unlock and lower the driver's window: Press button 1 twice. If you wish, you can have this special feature adjusted. If the car is in a tight parking space, lowering the driver's-side window helps you when entering the car. After the door is closed, the driver's-side window closes automatically. ◀

After unlocking the driver's door, press button 1 again to unlock the entire vehicle.

 If you wish, you can have this special feature adjusted to be key-specific. ◀

To lock and secure

To lock and secure: Press button 2.

Switching off tilt alarm* and interior motion sensor*

Press button 2 again directly after locking.

For additional information: Refer to page [43](#)

To switch on interior lamps

After locking the car, press button 2 again.


Door locks – from outside



To open luggage compartment

Press button 3.

The luggage compartment lid will open slightly, regardless of whether the lid was previously locked or unlocked.

 Before and after a trip, be sure that the luggage compartment lid was not opened unintentionally. ◀

Panic-Mode (trigger alarm)

By pressing button 3 for 2 to 5 seconds, the alarm can be sounded in the event of danger, if it is armed*.

Pressing button 1 will deactivate the alarm.

The LED (light-emitting diode) lights up when individual buttons are pressed.

Non-BMW systems

The remote control system's functioning may be affected by other units or equipment operating in the immediate vicinity of your car.

Should this occur, you can still open and close the vehicle using the master key in both the door and luggage compartment locks.

For US owners only


The transmitter and receiver units comply with part 15 of the FCC (Federal Communications Commission) regulations. Operation is governed by the following:

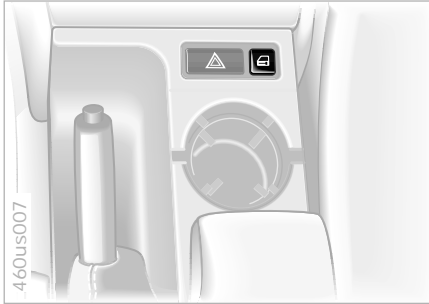
FCC ID: LX8EWS
LX8FZVS
LX8FZVE

Compliance statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:


- ▷ This device may not cause harmful interference, and
- ▷ this device must accept any interference received, including interference that may cause undesired operation.

 Any unauthorized modifications or changes to these devices could void the user's authority to operate this equipment. ◀




Use this button to operate the central locking system when the doors are closed. The doors and luggage compartment lid are unlocked or locked only. The anti-theft alarm system is not activated.

After opening the driver's door by activating the remote control once, the front passenger door can also be opened by pressing the button. When the driver's door is closed, it is automatically locked.

 If you desire, the central locking system will secure the locks as soon as you start to drive. This can be adjusted to be key-specific. ◀


To unlock and open the doors

- ▷ Either unlock the doors together with the button for the central locking system and then pull each of the release handles above the armrests or
- ▷ pull the release handle for each door twice: The first pull unlocks the door, and the second one opens it.

 Doors locked from outside can be opened from inside by first pressing the button and then pulling a release handle twice. ◀

To engage locks

- ▷ Either use the central locking button to lock all doors at once, or
- ▷ press down the individual door lock buttons. The fuel filler door then remains unlocked. As an added design feature to prevent the driver from being inadvertently locked out of the vehicle, the driver's door lock button will not engage as long as the door is open.

 Children might be able to lock the doors from the inside. For this reason, take the vehicle's keys with you so that the vehicle can be opened again from the outside at any time. ◀



The lock

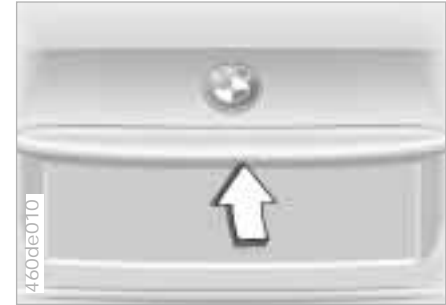
Only the master key (refer to page 32) fits in the lock of the luggage compartment.



Secure separately

Turn the master key to the right past the resistance point and then pull it out in the horizontal position.

This locks the luggage compartment lid and disconnects it from the central locking system. This feature can be used to prevent unauthorized access to the luggage compartment when you surrender the door and ignition key (refer to page 32) for valet parking, for instance.



To open from outside

Press the button in the handle recess (arrow): The luggage compartment lid opens slightly.

The luggage compartment is lit when the luggage compartment lid is opened.

Manual operation

(in the event of electrical failure)

Turn the master key to the left to the stop – the luggage compartment lid will open slightly.

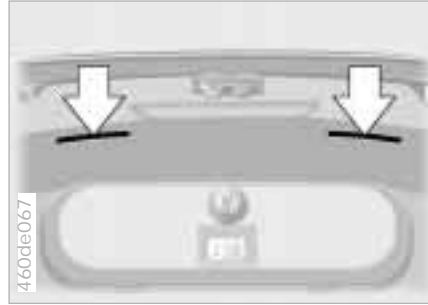
The luggage compartment is locked again as soon as you close the lid.

40 Luggage compartment lid




Opening from the inside


If the luggage compartment lid has not been locked separately, you can open it with this button in the footwell on the driver's side when the vehicle is stationary.



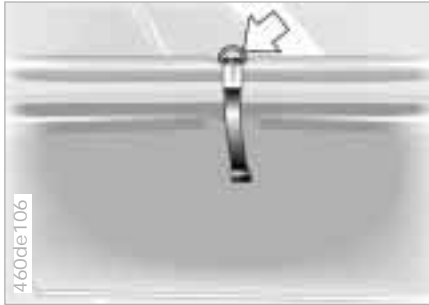
To close

The handle recesses in the interior trim panel of the luggage compartment lid (arrows) make it easier to pull the lid down.

 To avoid injuries, be sure that the travel path of the luggage compartment lid is clear when it is closed, as with all closing procedures. ◀

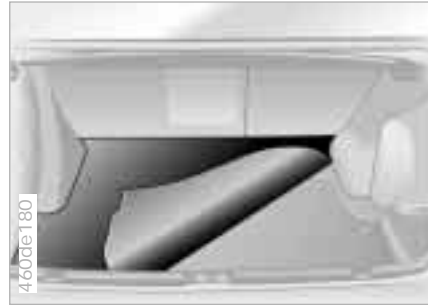
 Do not drive with the luggage compartment lid open, since exhaust fumes could penetrate the interior of the vehicle. Should it be absolutely necessary to operate the vehicle with the luggage compartment lid open:

- ▷ Close all windows. Shut the sliding/tilt sunroof
- ▷ Increase the airflow of the automatic climate control to a high level. Refer to page 88. ◀



Floor panel

To raise and secure the floor panel, lift it by the ring and hook it into the rubber seal of the run-off gutter with the hanger (arrow).



Floor mat

You can turn the floor mat over if required (for transporting soiled objects for instance). The rubberized side may be washed. It reduces movement of objects placed on it.

The fittings at the inner corners of the luggage compartment provide you with a convenient means of attaching luggage nets* and flexible straps for securing suitcases and luggage.

Refer also to "Cargo loading" on page [100](#).

42 Alarm system*

The concept

The vehicle's alarm system responds:

- ▷ When a door, the hood or the luggage compartment lid is opened
- ▷ To motion within the passenger compartment (interior motion sensor)
- ▷ To a change in the inclination of the vehicle, e.g. during an attempted wheel theft or unauthorized towing
- ▷ To interruption of battery voltage.

The alarm system signals unauthorized access to the vehicle or an attempted theft in different ways:

- ▷ Sounding an acoustical alarm for 30 seconds
- ▷ Activating the hazard warning flashers for approx. five minutes*.

To activate and deactivate the alarm system

When the vehicle is locked or unlocked by using a key or with the remote control, the alarm system is also simultaneously armed or disarmed.

The interior motion sensor is activated approx. 30 seconds after you have finished locking the car.

If the alarm system has been armed correctly, the hazard warning flashers cycle once. An acoustic warning signal sounds at the same time.



You can have various confirmation messages set to inform you that the alarm system has been armed or disarmed. ◀

You can also open the luggage compartment lid when the system is armed by pressing button 3 of the remote control (refer to page 37). When it is closed, the lid is once again secured.



Indicator lamp displays

The indicator lamp is located under the inside rearview mirror.

- ▷ When the indicator lamp flashes continuously: The system is armed
- ▷ The indicator lamp flashes when it is armed: The door(s), the hood or luggage compartment lid are not completely closed. Even if you do not close the alerted area, the system begins to monitor the remaining areas, and the indicator lamp flashes continuously after 10 seconds. However, the interior motion sensor is not activated
- ▷ If the indicator lamp goes out when the system is disarmed: No manipulation or attempted intrusions have been detected in the period since the system was armed

Alarm system*

- ▷ If the indicator lamp flashes for 10 seconds when the system is disarmed: An attempted entry has been detected in the period since the system was armed.

Following triggering of an alarm, the indicator lamp will flash continuously.

Avoiding unwanted alarm

The tilt alarm sensor and interior motion sensor may be switched off at the same time. You can prevent triggering false alarms in high-rise garages or if the vehicle is transported on a car-carrier train, for instance, by doing the following:

Lock the vehicle twice (= arm the system). Press button 2 on the remote control twice in succession or lock the vehicle twice with the key (refer to page 36). The indicator lamp lights up briefly and then flashes continuously. The tilt alarm sensor and the interior motion sensor are deactivated as long as the system is armed.



Interior motion sensor

The transmitter and receiver of the interior motion sensor are located in a trim panel in the vehicle's headliner.

In order for the interior motion sensor to function properly, the windows and sliding/tilt sunroof must be completely closed.

But make sure to turn off the interior motion sensor (see previous column), if

- ▷ children or animals are left in the vehicle
- ▷ the windows and/or sunroof are left open.

- ▷ The tilt sensor and interior motion sensor are deactivated if the convenience closing mode for the windows and the sliding/tilt sunroof is interrupted within the first 10 seconds and then reinitiated. If this happens, you must disarm the system and then re-arm it. ◀

44 Electric power windows



Open and close windows


In ignition key position 1 or 2:

- ▷ Press the switch up to but not past the pressure point:
The window moves downward or the rear vent window moves outward as long as the switch is pressed.
- ▷ Press the switch briefly past the pressure point:
The window moves automatically. Pressing the switch again briefly stops the opening cycle.

You can close windows in the same manner by pulling the switch. The rear vent window does not close automatically.

After the ignition has been switched off:


You can still operate the electric windows for up to 15 minutes, provided that no door has been opened and then closed.

 Remove the key from the ignition key and close the doors when you leave the vehicle, so that children cannot operate the power windows and possibly injure themselves. ◀

For the convenience operating mode with the door lock or the remote control, refer to page [34](#) or [35](#).


Safety feature

A contact strip is located on the inside upper frame of each of the windows. If pressure is exerted against this contact strip while a window is being raised, the system will respond by stopping the window and then retracting it a small distance.

 In spite of this safety feature, always make sure that the window's path is clear. Otherwise in some cases (e.g. with thin objects) proper contact with the contact strip is not ensured.

You can disable this safety feature by pressing the switch beyond the resistance point and holding it. ◀

Sliding/tilt sunroof*

 To prevent injuries, exercise care when closing the sliding/tilt sunroof and keep it in your field of vision until it is completely closed. Remove the key from the ignition and close the doors when you leave the vehicle, so that children cannot operate the sunroof and possibly injure themselves. ◀

To avoid pressure or drafts in the passenger compartment when the sunroof is open or raised, keep the air vents in the dashboard open and increase the air supply if necessary. Refer to page 91.

When completely opened, the sunroof may cause unpleasant vibrations in the vehicle interior. To eliminate these vibrations, close the sunroof until this natural effect disappears.

For the convenience operating mode with the door lock or the remote control, refer to page 34 or 35.



Lifting – opening – closing

In ignition key position 1 or 2, press the switch or slide it to the desired direction until you feel resistance.

When lifting, the headliner retracts several inches.

After the ignition has been switched off, you can still operate the sunroof for up to 15 minutes, as long as neither of the front doors has been opened and then closed.

Automatic opening and closing

- ▷ Press the switch past the resistance point briefly: The sunroof travels to either the fully-closed or fully-open position
- ▷ With the sunroof open, press the switch briefly toward "Lift": The sunroof automatically extends to its fully raised position.

Pressing the switch again briefly stops the motion immediately.

46 Sliding/tilt sunroof*

Safety feature

If the sliding/tilt sunroof encounters resistance at a point roughly past the middle of its travel when it is closing, the closing cycle is interrupted and the sunroof will open again slightly.



In spite of this safety feature, always make sure that the sunroof's path is clear. Otherwise in some cases (e.g. with thin objects) proper contact with the contact strip is not ensured.

You can disable this safety feature by pressing the switch beyond the resistance point and holding it. ◀

Power loss or malfunction

In the event of an electrical system malfunction, the sliding/tilt sunroof can be manually operated. Refer to page [155](#).

Seat adjustment

For maximum safety when adjusting the seat position, please observe the following:

⚠ Never try to adjust your seat while operating the vehicle. The seat could respond with an unexpected movement, and the ensuing loss of vehicle control could lead to an accident. Be sure that the safety belt remains firmly against your body at all times. In the event of a frontal impact, a loose lap belt could slide over the hips, leading to abdominal injury. In addition, the safety belt's restraint effectiveness is reduced if the belt is worn loosely. Never ride with the backrest reclined to an extreme horizontal angle (especially important for front passengers to remember). Keep the backrest relatively upright to minimize the risk of "sliding under" the safety belt and sustaining injury in a crash. ◀

Mechanical seat



- 1 Longitudinal adjustment
Pull the lever and slide the seat to the desired position.
After releasing the lever, apply pressure to the cushion to ensure that the latch engages securely.
- 2 Cushion height
Pull the lever and apply weight to or remove weight from the seat to reach the desired position.



- 3 Backrest angle
Pull the lever and apply weight to or remove weight from the backrest to reach the desired position.

Correct sitting posture

To reduce strain on the spinal column, sit all the way back in the seat and rest your back fully against the backrest. Ideal sitting posture is achieved with your head extending from your spine in a straight line.

For long-distance driving, you may wish to increase the backrest angle slightly to reduce muscular tension. You should be able to grab the steering wheel at its highest point with your arms slightly bent.

After a seat adjustment, adjust the height of the safety belt also. Refer to page 55.

Head restraints**Adjustments**

Height: Adjust by pulling up or pushing down.



In order to move to the lowest positions, press button 1. ◀

Tilting the front head restraints:
By swiveling.



Head restraints reduce the risk of neck and spinal injuries in accidents.

Adjust the head restraint so that its center is approximately at the height of the ear. ◀

Removal

- ▷ Pull the head restraint upward to the stop.
- ▷ Press the button (arrow) and remove the head restraint.

Installation


- ▷ Press the button (arrow) and insert the head restraint into the openings.
- ▷ Adjust the head restraint.

Entering rear



Pull up on the lever and push the backrest toward the front.

The outside stalks hold the safety belt in order to make it easier to reach.

 Lock both backrests while driving, otherwise there is a danger of an unexpected movement causing an accident. ◀

BMW Sports Seat*



With this seat, you can also adjust the tilt angle and the thigh support:

- 1 To adjust the tilt angle upward:
Pull the lever as often as necessary to reach the desired angle.
- 2 To adjust the tilt angle downward:
Push the lever as often as necessary to reach the desired angle.
- 3 Thigh support area:
Pull the lever and adjust the position of the cushion for thigh support as desired.

Lumbar support*



You can adjust the backrest's contour for additional support in the curvature of your spine's lumbar region.


The upper hips and spinal column receive supplementary support to help you maintain a relaxed, upright posture.

- ▷ Press front/rear of switch:
Increase/decrease curvature.
- ▷ Press the upper/lower end of the switch:
Increase the upper/lower curvature.



- 1 Longitudinal adjustment
- 2 Cushion height
- 3 Backrest angle

The head restraint is adjusted manually.


 Please refer to the adjustment instructions on page 47 to reduce the risk of personal injury. ◀

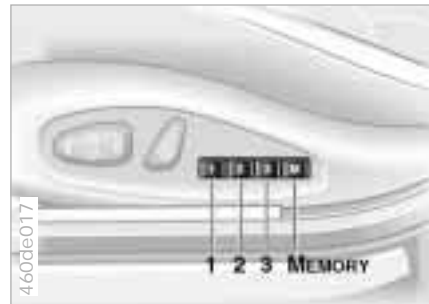


BMW Sports Seat


- 1 Tilt angle
- 2 Longitudinal adjustment
- 3 Cushion height
- 4 Backrest angle

Adjust the head restraints (page 48) and the thigh support (page 49) manually.

 Please refer to the adjustment instructions on page 47 to reduce the risk of personal injury. ◀



You can store and recall three different driver's seat and outside mirror positions.

 The adjustment setting of the lumbar support is not saved in the memory. ◀

To store

- 1 Turn the key to ignition key position 1 or 2
- 2 Adjust your seat and outside mirrors to the desired position
- 3 Press the **MEMORY** button: the indicator lamp in the button lights up
- 4 Press memory button 1, 2 or 3 as desired: the indicator lamp goes out.

Seat and mirror memory*

To select a stored setting:

Automatic:


- 1 Open driver's door after unlocking or ignition key in position 1
- 2 Briefly press memory button 1, 2 or 3 as desired.

The adjustment cycle is canceled immediately if you press a seat adjustment switch or one of the memory buttons.

Manual:

- 1 With driver's door closed and ignition key either removed or in position 0 or 2
- 2 Maintain pressure on desired memory button 1, 2 or 3 until the adjustment process is completed.

If you press the **MEMORY** button accidentally: Press the button a second time, the indicator lamp goes out.

 Do not select a memory position while the vehicle is moving. There is a risk of accident from unexpected seat movement. ◀



You can adapt the vehicle settings so that your own personalized seat setting is initiated when you unlock the car using your personalized remote control key. ◀



When this setting is used, be sure that the footwell behind the driver's seat is clear before unlocking the vehicle. Otherwise, persons or objects could be injured or damaged should the seat move backward. ◀

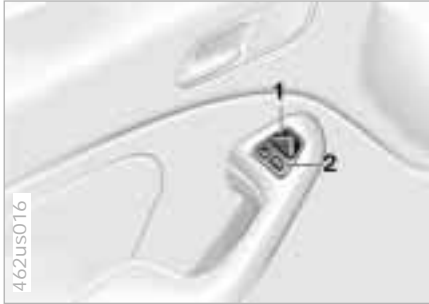
Adjusting steering wheel 51



- 1 Push the locking lever downward
- 2 Adjust the steering wheel (fore/aft and up/down) to the desired position
- 3 Pull the lever back in to clamp the steering wheel in the new position.




Do not adjust the steering wheel while the vehicle is moving. There is a risk of accident from unexpected movement. See pages 48 and 58 for information on correct seating/steering wheel position. ◀



Exterior mirrors

- 1 Switch for 4-way adjustment
- 2 Selection switch for changing between mirrors.

You can also adjust the mirrors manually by pressing against the outer edges of their lenses.

 The mirror on the passenger's side features a lens with a more convex surface than the mirror installed on the driver's side. When estimating the distance between yourself and other traffic, bear in mind that the objects reflected in the mirror are closer than they appear. Estimations of the distance to following traffic should therefore not be regarded as precise. ◀

Electric heaters

Both mirrors are automatically heated with the ignition key in position 2.



Inside rearview mirror

To reduce glare from behind when driving at night, tilt the small lever forward.

Lighted vanity mirror*

Fold down the sun visor and slide the cover panel to the side as required.

The mirror lamps come on in ignition key position 1 or 2.

Sun visors

These can be folded down toward the windshield or swiveled out against the side windows.



Inside rearview mirror with automatic dimming feature*

This mirror automatically dims with infinitely-variable settings, depending on light intensity due to ambient lighting and headlamp glare from the rear.

The mirror switches to its clear, undimmed mode whenever the transmission is placed in reverse gear (selector lever in "Reverse").

To ensure that the mirror continues to operate properly, keep the two photocells clean and unobstructed. One photocell (arrow) is in the mirror glass, while the other is offset somewhat on the other side of the mirror.

For an explanation of the electrochromic technology used in this mirror, refer to page [163](#).



How the system functions

You have probably frequently wished that you could configure individual functions of your vehicles to reflect your own personal requirements. BMW has included several user-defined functions in the vehicle's design. Your BMW center can make these settings for you in accordance with your wishes.

There are settings related to the vehicle ("Car Memory") and settings related to individuals ("Key Memory"). You can have up to four different basic settings adjusted for four different persons. The only requirement is that each person uses his or her own remote control key.

When your vehicle is unlocked with the remote control, the vehicle recognizes the individual user by means of a data exchange with the key, and makes adjustments accordingly.

In order for you to distinguish between different keys, colored decals are supplied together with the keys.

What the system can do

Your authorized BMW center can provide you with details on the capabilities of the Car Memory and Key Memory systems.



You will see this symbol throughout the Owner's Manual. It is to remind you at appropriate places of the settings that are available to you. ◀

An example of Key Memory is the automatic adjustment of the power driver's seat with stored settings for the individual person when the vehicle is unlocked.



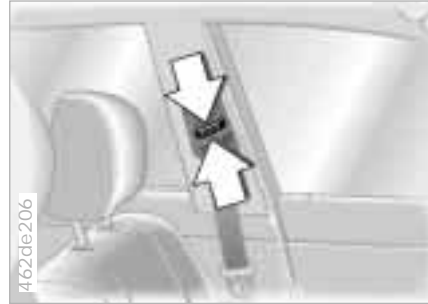
Fasten your safety belt before starting off.

To fasten:

Make sure you hear the catch engage in the belt buckle.

To release:

Press the red button in the buckle. Hold the belt and guide it back into its reel.




Safety belt height adjustment

You can adjust the safety belts to fit your own physical dimensions by using the safety belt height adjustment.

Slide the button downward or upward.

In the rear, the belt buckle with the word "CENTER" is provided exclusively for the passenger sitting in the middle.

 For your safety, please comply with the following instruction for wearing safety belts. If you do not, the safety belts may not be able to provide their maximum protection.

The following information also applies to your passengers:

Never allow more than one person to wear a single safety belt. Never allow infants or small children to ride in a passenger's lap.


Avoid twisting the belt while routing it firmly across the hips and shoulder. Do not allow the belt to rest against hard or fragile objects in your pockets. Never route the belt across your neck, do not run it across sharp edges and ensure that the belt does not become caught or jammed.


Be sure that the safety belt fits snugly against your body at all times, and avoid wearing clothing that prevents the belt from fitting properly. Pull on the belt periodically to readjust the tension across your shoulder. In the event of a frontal impact, a loose lap belt could slide over your hips, leading to abdominal injury. In addition, the safety belt's restraint effectiveness is reduced if the belt is worn loosely.

Expectant mothers should always wear the safety belt, taking special care to position the lap belt over the lower hips, where it will not exert pressure against the abdominal area. ◀

For child restraint system installation, refer to page [60](#).

For care instructions, refer to "Caring for your car" page [133](#).

 If the safety belt system has been subjected to the stresses involved in an accident or otherwise damaged: Replace the entire safety belt mechanism through you BMW center, including the safety belt tensioner and any child restraint systems* that are installed. In addition, have your BMW center inspect the safety belt anchors. ◀

 Never install a rear-facing child restraint device on the front passenger seat. Injuries could occur if the airbag is triggered in the event of an accident.

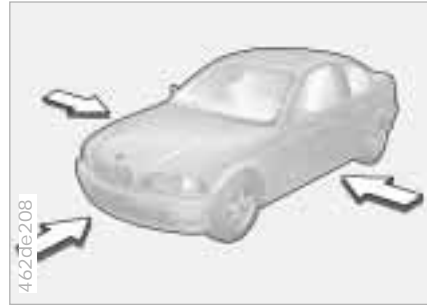
Children should always ride in the rear. Do not modify the child restraint system in any way, or it will not provide your child with maximum protection. ◀



- 1 Front airbag for driver and passenger
- 2 Side impact Head Protection System (front)
- 3 Side airbags (front and rear side*)

Protective effect

The front airbags supplement the three-point safety belts by providing additional protection for the front-seat occupants, in the event of a severe frontal collision in which the protection afforded by the belts alone may no longer be sufficient. The head and side airbags help provide protection in the event of a side impact. Each of the side airbags is designed to help support the upper body.



The illustration schematically depicts the primary directions of vehicle impact that initiate airbag deployment.

Indicator lamp



The indicator lamp shows that the airbag system is operational in ignition key positions 1 and 2.

System operational:

- ▷ The indicator lamp comes on briefly then goes out.

System malfunction:

- ▷ The indicator lamp fails to come on
- ▷ The indicator lamp comes on briefly before going out and then lighting up again.

If there is a system malfunction, there is a risk that the airbags will not be triggered in their normal response range in the event of an accident, even though the impact is severe.

Please have your authorized BMW center inspect and repair the system as soon as possible.



The airbag indicator lamp also comes on if the safety belt tensioners have been triggered. ◀



For your own safety, please observe the following precautions concerning airbags, as otherwise their protective function may be impaired and your personal safety endangered. The following information pertains to all occupants:

The airbags are supplemental restraint devices designed to provide extra protection; they are not a substitute for safety belts. Wear your safety belt at all times. The airbags will not be triggered in the event of a minor accident, a vehicle roll-over, or collisions from the rear. In this case, the safety belt offers the best protection.

Airbags are located under the cover panels in the steering wheel, in the instrument panel, in the side trim panels in the front and rear*, in the roof panels, and in the sides of the inside roof lining. Select a seat position that is comfortable and allows the greatest possible distance from each of the applicable airbags. Hold the steering wheel at the rim (hands at the "9 o'clock and 3 o'clock" positions) in order to avoid injuries to the hands or arms if the airbag is triggered.

Never allow any objects to obstruct the area between the airbag and an occupant.

Do not use the cover panel above the front passenger airbag as a storage area.

Never tape the airbag cover panels, cover them over or alter them in any other way.

Never install a rear-facing child restraint device on the front passenger seat. Children under 13 years of age and children who are smaller than 5 feet (150 cm), should only travel in the rear seat.

If your vehicle is equipped with side airbags in the rear, be sure that child seats are installed correctly and with the greatest possible distance from the side trim panels. Do not allow children to lean out of the child's seat in the direction of the side trim panels. Otherwise, serious injuries could occur if the airbag is triggered.

At all times, occupants should sit upright and be properly restrained (infants and small children in appropriate child restraint systems; larger children and adults using the safety belts). Never let an occupant's head rest near or on a side airbag because the inflating airbag could cause a serious or fatal injury.

Please note that the word "Airbag" imprinted on the door trim panel indicates the airbag's location.

Accident research shows that the safest place for children in an automobile is in the rear seat. However, a child sitting in the rear seat and not properly restrained may place his or her head on or near the side airbag, if so equipped. For example, a child – even though belted – may fall asleep with his or her head against the side airbag. It may be difficult for a driver to ensure that children in the rear seat will remain properly positioned at all times and not place their heads on or near the side airbag. Therefore, we recommend that the rear seat side airbags, if provided, be deactivated if you plan to transport children in the rear seat.

The rear seat side airbags may already have been deactivated, either at the time of manufacture or by a BMW center. Labels in the rear door opening should indicate the status of your rear seat side airbags. If you are uncertain of their status, or wish to have the airbags activated or deactivated, please contact your BMW center. ◀

Airbags

Even when all these guidelines are observed, there is still a small residual risk of injuries to the face, hands and arms occurring in isolated instances. The ignition and inflation noise may induce a mild temporary hearing loss in sensitive individuals.

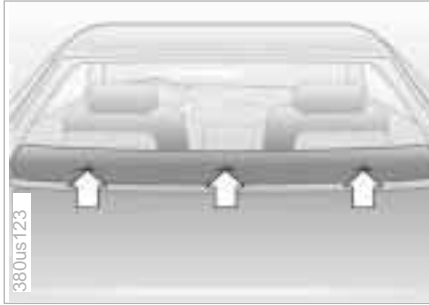
For additional information concerning the airbag system, refer to page [135](#) and [161](#).



This is the right way a child should sit in a child restraint when rear side airbags (arrow) are provided.



This is the right way a larger child should sit wearing the safety belt when rear side airbags (arrow) are provided.



All occupants and especially children should be restrained whenever riding in a motor vehicle.

Infants or small children should never be held on the lap of a passenger.

Children should always sit in the rear and, depending on age, use either a child restraint system or the existing safety belts. Accident statistics have shown that children are safer when properly restrained in the rear seats than in the front seating positions.

Infants or toddlers should be secured with a child restraint system appropriate for their size.

Commercially available child seats complying with the legal standard are designed to be secured with a lap belt or with the lap belt portion of a combination lap/shoulder belt.

Improperly or inadequately installed restraint systems can increase the risk of injury to children. Always read and follow the instructions that come with the system.

If the child restraint of your choice requires the use of a tether strap, three fastening points (see arrows) have been provided on the rear shelf for attachment. Ask your BMW center to perform the necessary work.



Before installing any child restraint device or child seat, please read the following:

Never install a rearward-facing child restraint system in the front passenger seat of this car.

Your car is equipped with an airbag supplemental restraint system for the front passenger. Because the backrest on any rear-facing child restraint system (of the kind designed for infants under 1 year and 20 lbs.) would be within the airbag's deployment range, you should never mount such a device in the front passenger seat, as the impact of the airbag against the child restraint's backrest could lead to serious or fatal injuries.

If it is necessary for a child (not an infant) to ride in the front seat, certain precautions should be taken. First,

move the passenger seat as far away from the dashboard as possible. This important precaution is intended to maximize the distance between the airbag and the child. Older children should be tightly secured with the safety belt. Younger children should be secured in an appropriate forward-facing child restraint system that has first been properly secured with a safety belt.

Never install a rear-facing child restraint system in the front passenger seat.

We strongly urge you to carefully read and comply with the instructions for installation and use provided by the child restraint's manufacturer whenever you use such a device.

Be sure that all occupants (of all ages) remain properly and securely restrained at all times. ◀

All rear seating positions in your vehicle meet the recommendations of SAE J1819, an industry recommended practice for securing child restraint systems in motor vehicles.

Child restraint installation



Release the safety belt

Release the safety belt, remove the child's seat and retract the safety belt to its end position on the belt retractor.

All of the rear belt retractors and the front passenger's safety belt can be locked for mounting and securing child restraint systems.

A label with the appropriate instructions for this is located in the immediate vicinity of the buckle latch of each safety belt.

Lock the safety belt

Extract the entire length of the belt from the inertia reel mechanism. Allow the reel to retract the belt somewhat and engage the buckle, then tighten the belt against the child restraint system. The retraction mechanism is now locked. The belt cannot be extracted further. Always observe the installation instructions provided by the manufacturer of the child restraint system.



0 Steering lock engaged

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

After removing the key, turn the steering wheel slightly to the left or right until you hear the lock engage.

If the key is not removed, an acoustic signal chimes after the driver's door has been opened.



Vehicles with automatic transmission:

Move the selector lever from position P only after the engine is running (ignition key in position 2).

In order to turn the key back to position 0 or to remove it, move the selector lever into position P first (Interlock).◀

1 Steering lock disengaged

Turning the steering wheel slightly to the right or left often makes it easier to turn the key from 0 to 1. Individual electrical devices are ready for operation.

2 Ignition on

All electrical equipment and accessories are available for use.

3 Starting the engine



Vehicles with manual transmission:

Step on the clutch when starting the vehicle. A lockout prevents the engine from starting if the clutch is not depressed.◀

Starting the engine

Before starting

- ▷ Engage parking brake
- ▷ Ensure that the transmission selector is in "Neutral" (or "Park" if vehicle is equipped with automatic transmission)
- ▷ Manual transmission: Depress the clutch pedal
- ▷ Automatic transmission: Depress the footbrake.



Never allow the engine to run with the vehicle standing in an enclosed area. The exhaust gases contain carbon monoxide, an odorless and colorless, but highly toxic gas. Breathing the exhaust gases poses an extreme health risk, and can lead to unconsciousness and death.

Do not leave the car unattended with the engine running. An unattended vehicle with a running engine represents a potential safety hazard.◀

- ▷ Start the engine. Do not press the accelerator pedal.

Starting the engine



Do not operate the starter too briefly, but not longer than approx. 20 seconds. Release the ignition key immediately as soon as the engine starts.

Do not allow the engine to warm up by leaving it running while the vehicle remains stationary. Instead, drive off immediately at a moderate engine speed. ◀

Should the engine fail to start on the first attempt, e.g. if it is very hot or cold:

▷ Press the accelerator pedal halfway down while engaging the starter.

Cold start at extremely low temperatures, from approx. + 5 °F (- 15 °C) and at elevations above 3300 feet (1000 meters):

- ▷ On the first start attempt, engage the starter for a longer period (approx. 10 seconds)
- ▷ Press the accelerator pedal halfway down while engaging the starter.

Switching off the engine

Turn the ignition key to position 1 or 0.



Do not pull the ignition key out of a rolling vehicle, otherwise the ignition switch could lock and it is impossible to steer the vehicle.

When you leave the vehicle, always remove the ignition key and engage the steering lock.

Vehicles with manual transmission:

Always engage the parking brake when parking on slopes and inclined surfaces, as placing the lever in 1st gear or reverse may not provide adequate resistance to rolling.

Vehicles with automatic transmission: Place the selector lever in "Park". ◀



To engage

The lock engages automatically when you lift the lever, and the indicator lamp in the instrument cluster will light up in ignition key position 2. See page 21.

To release

Pull up slightly on the lever, press the button (arrow) and lower the lever.

The parking brake is primarily designed to prevent the vehicle from rolling while parked, and operates against the rear wheels.



If, in exceptional circumstances, it should be necessary to engage the parking brake while the vehicle is in motion, do not pull it with excessive pressure. Keep your thumb pressed against the release button while carefully pulling up the lever to apply moderate pressure.

Excessive pressure can lead to over-braking and loss of traction (fishtailing) at the rear.

The brake lamps do not come on when the parking brake is engaged.

Vehicles with manual transmission:

Always engage the parking brake when parking on slopes and inclined surfaces, as placing the lever in 1st gear or reverse may not provide adequate resistance to rolling.

Vehicles with automatic transmission:

Place the selector lever in "Park". ◀

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

Manual transmission



The shift lever's neutral plane (dot in the illustration) is located between 3rd and 4th gears.

When shifting from each gear into "Neutral," the shift lever returns automatically to this neutral position because of its spring loading.

Reverse

Select only with the vehicle stationary. Press the shift lever to the left to overcome the slight resistance.

As you do this, the backup lamps will turn on automatically when the ignition key is in position 2.



Do not hold the vehicle in place on slopes by slipping or "riding" the clutch. Use the parking brake instead. A slipping clutch increases clutch wear. ◀

You have the option of driving a normal automatic transmission or switching to manual.

Whenever you shift the selector lever out of position D toward the left and into the M/S gate, the automatic transmission's sports-emphasized shift program activates. As soon as you even begin to move the selector lever in the direction "+" or "-", Steptronic shifts the gear and manual operation becomes active. Whenever you want to use automatic again, just shift the selector lever toward the right to position D.

The Steptronic automatic transmission is equipped with ATC (Adaptive Transmission Control). ATC reacts with precision to your individual driving style and the current driving conditions. This is the reason why various shift programs are used.

For details concerning ATC, please refer to the chapter "Advanced Technology" on page 160.



Selector lever positions


P R N D M/S + -


Starting the engine

The engine can only be started in selector lever positions P ("Park") or N ("Neutral").

Range selection

A lock prevents inadvertent shifts into some selector lever positions. To release the shift-lock mechanism, press the button on the front of the shift knob (arrow).

 While the vehicle is stationary and before shifting out of "Park" or "Neutral," depress the footbrake in order to disengage the selector lever's lock mechanism (Shiftlock). Hold the footbrake down until starting off. Otherwise the vehicle will "creep" when a drive position is engaged. ◀

 Before leaving the vehicle with the engine running, shift the selector lever to the "Park" or "Neutral" position and apply the parking brake. The vehicle will move if this is not done. Do not leave the car unattended with the engine running. An unattended vehicle with a running engine represents a potential safety hazard. ◀

P Park

Select only with the vehicle stationary. Transmission locks to prevent rear wheels from turning.

R Reverse

Select only with the vehicle stationary.

N Neutral

Select only if your journey is interrupted for a long period.

D Drive (automatic shift program)

This position is designed for driving under all normal operating conditions. All forward gears are available, the Adaptive Transmission Control (ATC) is fully operational.

"Kickdown" (automatic downshift)

In the "Kickdown" mode, you achieve maximum performance.

To activate this mode, depress the accelerator pedal beyond the full-throttle position, at which a resistance point must be overcome.




M/S Manual operation and Sport program

Shifting from D into M/S activates the Sport program and indicates SD in the gear indicator. This position is recommended in the event a performance-oriented driving style is desired.

At the slightest touch, the automatic transmission shifts out of the Sport program into manual operation.

Whenever you start to move the selector lever forward in the "+" direction, the transmission upshifts; moving it backward in the direction of "-", shifts it downward. M1 to M5 appear in the gear indicator.

The ATC will carry out upshifting and/or downshifting only at the appropriate number of RPMs and speed, e.g. downshifting will not occur if the engine speed is too high. The desired, then the actual gear, briefly show up in the instrument cluster.

 To accelerate quickly in the manual mode, e.g. to pass, downshift to manual or kickdown. ◀

Shifting from M/S to the selector lever positions P, R and N is possible only by going through D.

68 Automatic transmission with Steptronic*

The Steptronic will "think" for you in the following situations:

- ▷ In order to keep the engine from overrevving, it will automatically shift into the next higher gear shortly before the governed speed.
- ▷ If you do not do anything to interfere, it will automatically downshift at lower speeds.
- ▷ In kickdown, it will downshift into the lowest gear possible, depending on the engine speed.



Available displays

P R N D SD M1 M2 M3 M4 M5

Electronic transmission control module



If the indicator lamp comes on, there is a malfunction in the transmission system.

Bring the vehicle to a stop, select transmission position "P", set the parking brake and turn the engine off (ignition key to position 0).

Wait a few seconds, then start the engine. If the indicator lamp goes out after a few seconds, normal transmission performance has been restored. Drive off normally.

If the indicator lamp does not go out, all selector lever positions can still be selected; however in the forward positions the vehicle has limited performance as it drives only in 3rd and 4th gear.

If this happens, avoid extreme engine loads and consult the nearest authorized BMW center.



Do not carry out any work on the car in the engine compartment without first making sure that the selector lever is in position P or N, and that the parking brake has been set. ◀

For towing, tow-starting or jump-starting the vehicle, refer to the information beginning on page [156](#).

Turn signal/Headlamp flasher



To signal briefly

Press the lever up to but not beyond the detent. It then returns to the center position when released.

- 1 High beam (blue indicator)
- 2 Headlamp flasher (blue indicator)
- 3 Turn signal (green indicator accompanied by periodic clicking sound from the relay).

If the turn indicator lamp blinks and the blinker relay clicks faster than normal, then one of the turning indicators has burned out.

Wiper/washer system



- 0 Wipers retracted
- 1 Intermittent wipe or rain sensor*
- 2 Normal wipe
- 3 Fast wipe
- 4 Brief wipe
- 5 Automatic windshield washer
- 6 Rotary dial for control of the interval time or the sensitivity of the rain sensor



1 Intermittent wipe or rain sensor*

Intermittent wipe:

You can use rotary dial 6 to select from four wipe intervals. In addition, the wipe interval automatically adapts to variations in road speed.

Rain sensor:

When the rain sensor is activated, the windshield wiper is controlled automatically, depending on the degree of wetness of the windshield (in both snow and rain). You do not have to be concerned with switching the windshield wiper on or off or adjusting the wipe interval between intermittent and full wipe. Instead, you can concentrate fully on the traffic conditions. This is especially important under adverse weather conditions.

To activate the rain sensor:

In ignition key positions 1 or 2, move the lever to position 1. The wipers travel once across the windshield under all circumstances.

You can leave the lever permanently in position 1, and then activate the rain sensor in ignition key positions 1 or 2.

To do this,

- ▷ turn rotary dial 6 briefly or
- ▷ use the automatic windshield washer 5.

To modify the sensitivity of the rain sensor:

Turn rotary dial 6.



Switch the rain sensor off when the vehicle passes through the car wash. Failure to do so could result in damage caused by undesired wiper activation. ◀

2 Normal wiper speed

When the vehicle is stationary, the wipers switch automatically to intermittent wipe (not on vehicles with rain sensor).

3 Fast wiper speed

When the vehicle is stationary, the wipers operate at normal speed (not on vehicles with rain sensor).

5 Automatic windshield washer

The system sprays washer fluid against the windshield and activates the wipers for a brief period.

If you only pull the lever briefly, the system sprays washer fluid onto the windshield without activating the wipers.

Wiper/washer system

Headlamp washers*

When the vehicle's lighting system is switched on, the headlamps will also be cleaned every fifth time the automatic windshield washer is activated.



Do not use the washers if there is any danger that the fluid will freeze on the windshield, otherwise vision could be obscured. Use an antifreeze agent. Refer to page [122](#).

Do not use the washers when the reservoir is empty, otherwise damage to the washer pump could result. ◀

Windshield washer jets

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

Rear window defroster



To activate

Press the button: As long as the indicator lamp remains on, the rear window defroster continues at high-output (rapid thaw).

After the indicator lamp goes out, the defroster continues operating at reduced power for a limited period before deactivating automatically.

To deactivate

Press the button if the indicator lamp is on.



You can store and automatically maintain any desired vehicle speed above approx. 20 mph (30 km/h).


To activate the system

In ignition key positions 1 or 2. Press button 1. The indicator lamp in the instrument cluster comes on. You can now use the cruise control.

To store and maintain speed/ to accelerate

Press button 3 briefly:
The system records and maintains the current vehicle speed. The speed will now be increased by approx. 0.6 mph (approx. 1 km/h) every time you briefly press the button.

Press and hold button 3:
The vehicle accelerates without pressure on the accelerator pedal. When you release the button, the system records and maintains the current speed.

 If, on a downhill gradient, the engine braking effect is not sufficient, the controlled speed may be exceeded. Speed may drop on uphill grades if the engine output is insufficient. ◀

To decelerate

Press button 2 briefly:
When the cruise control is active, vehicle speed is reduced by approx. 0.6 mph (approx. 1 km/h) every time you briefly press the button.

Press and hold button 2:
With the cruise control active, the system automatically reduces the throttle opening to slow the vehicle. When you release the button, the system records and maintains the current speed.

To cancel the cruise control

When the system is activated, press button 1. The indicator lamp stays on. You can use the cruise control again as required.

In addition, cruise control is canceled automatically:

- ▷ if the brakes are applied
- ▷ if the clutch is depressed or the automatic transmission selector lever is moved from "Drive" to "Neutral"
- ▷ if the cruise speed is either exceeded or not met for an extended length of time, e.g., when you step on the accelerator pedal.

To resume the stored setting

Press button 4:

The vehicle accelerates to and maintains the last speed stored. When you turn the ignition key to position 0, the stored speed is deleted from the system's memory and the system is deactivated.

To deactivate the system

When the cruise control has been canceled, press button 1 again. The indicator lamp goes out and the stored speed is deleted.



Do not use cruise control on twisting roads, when high traffic density prevents driving at a constant speed, when the road surface is slick (snow, rain, ice), or when the road surface is loose (rocks, sand). ◀



1 Odometer

You can activate the displays shown in the illustration with the ignition key in position 0 by pressing the button in the instrument cluster (arrow).

2 Trip odometer

To reset the trip odometer to zero, press the button (arrow) with the ignition key in position 1 or 2.



Avoid engine speeds in the red warning zone of the gauge.

To protect the engine, the engine management system automatically interrupts the fuel supply in this range; the resulting effect resembles that associated with a sudden loss of power.



Indicates the current fuel consumption in mpg (on Canadian models in l/100 km). This instrument clearly shows whether your current driving style is conducive to economy and minimum exhaust emissions.

The needle goes back to zero when the car is stationary.

Fuel gauge



When you switch on the ignition, the indicator lamp comes on briefly to confirm that the system is operational.

Once the indicator lamp begins to light up continuously, there are still approx. 2.1 gallons (8 liters) of fuel in the fuel tank.

Tank capacity: page [173](#).

If the tilt of the vehicle varies, e.g., when you are driving in mountainous areas, this may cause the needle to fluctuate slightly.



Please refuel early, as driving to the last drop of fuel can result in damage to the engine and/or catalytic converter. ◀

Temperature gauge



Blue

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

Red

When you switch on the ignition, the indicator lamp comes on briefly to confirm that the system is operational.

If the lamp comes on while operating the vehicle, the engine is overheated. Switch the engine off immediately and allow it to cool down.

Between the blue and red zones

Normal operating range. It is not unusual for the needle to rise as far as the edge of the red zone in response to high outside temperatures or severe operating conditions.

Checking coolant level: page [126](#).

76 Service Interval Display



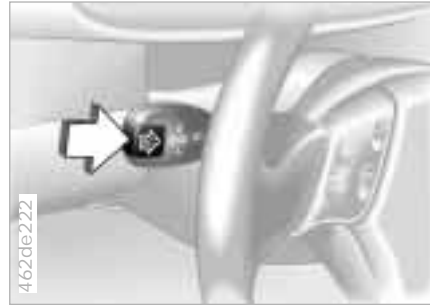
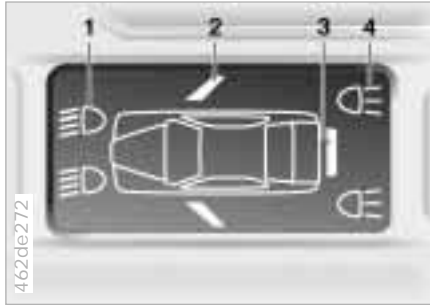
Remaining distance for service

The displays shown in the diagram appear for a few seconds with the ignition key in position 1 and 2 or for a few seconds after starting the engine.

The next service due appears with the message OILSERVICE or INSPECTION, together with the remaining distance before scheduled service.

The computer bases its calculations of the remaining distance on the rate of fuel consumption in the period immediately preceding your data request.

A flashing message and a "-" in front of the number mean that the service interval has already been exceeded by the distance shown on the display. Please contact your authorized BMW center for an appointment.



Graphic display

The following information and/or conditions are indicated using symbols, starting with the ignition key position 2, until the interference has been fixed:

- 1 Inspect the low-beam and high-beam headlamps, as well as the side marker lamps
- 2 Door open
- 3 Luggage compartment lid open
- 4 Check brake and taillamps.

After the completion of a trip and when the driver's door is opened, an acoustical signal is given for "Lamps on" if the lamps have not been switched off.

Mode selection

In ignition key positions 1 and 2, you can call up information from the onboard computer using the button in the turn signal lever. By pressing the button briefly in the direction of the steering column, you can call up a new function for display.

The displays appear in the following order:
Time, outside temperature, average fuel consumption, cruising range, average vehicle speed.

The function that was last selected will be indicated when the ignition is switched on.

Set the clock

In ignition key position 1 and 2

To set ahead: Turn the button to the right.

To set back: Turn the button to the left. The adjustment speed will increase the longer you continue to hold the button.

To change the display mode: Press the knob briefly.

Every time you press the knob, the clock display alternates between the 12-hour or 24-hour mode.

In ignition key position 0

The time is displayed for a few seconds after you press the left button (refer to "odometer", page 74).



Outside temperature

You can change the units of measure (°C/°F) for the outside temperature display by pressing the right-hand reset button in the instrument cluster when the temperature display is active.

Ice warning

If the outside temperature sinks to approx. 37.5 °F (+ 3 °C), a warning signal sounds and the display flashes briefly.

The warning is repeated whenever the temperature goes to at least 43 °F (+ 6 °C) and then drops again to 37.5 °F (+ 3 °C).



The ice warning does not alter the fact that surface ice can form at temperatures above 37.5 °F (+ 3 °C), e.g. on bridges or shaded road surfaces. ◀



Average fuel consumption

If you continue to hold the button on the turn signal lever, the average fuel consumption last displayed is recalculated from that point in time.



Range

The computer bases its calculations of the cruising range on the rate of fuel consumption in the period immediately preceding your data request.



Average speed

If you continue to hold the button, the average speed last displayed is recalculated from that point in time. Any time spent when the vehicle is stationary and the engine is shut off is ignored for the calculation.

The PDC assists you when you back into a parking space. A signal warns you of the distance to an obstacle. To do this, four ultrasonic sensors in the rear bumper measure the distance to the nearest object. The monitoring range of the two corner sensors extends to approx. 2 feet (60 cm) behind the bumper. The two center sensors cover a distance of approx. 4.9 feet (1.50 meters).

The system starts to operate automatically about one second after you select reverse with the ignition key in position 2. PDC is deactivated when you shift back out of reverse.

Acoustical signals

The distance to the nearest object is indicated by a tone sounding at various intervals. As the distance between vehicle and object decreases, the intervals between the tones become shorter. A continuous warning tone sounds if the distance to a recognized object is less than 1 foot (30 cm).

The warning signal is canceled after approx. three seconds if the distance to the obstacle remains constant during this time (if you are moving parallel to a wall, for instance).

System malfunctions will be indicated by a continuous high-pitched tone when the system is activated the first time. Please have your BMW center resolve the problem.



The PDC does not remove the driver's personal responsibility for evaluating the distance between the vehicle and any obstacles. Even when sensors are involved, there is a blind spot in which objects cannot be detected. This applies especially in those cases where the system approaches the physical limits of ultrasonic measurement, as occurs with tow bars and trailer couplings, and in the vicinity of thin and painted objects. Certain sources of sound, such as a loud radio, could drown out the PDC signal tone. ◀



Keep the sensors clean and free of ice or snow in order to ensure that they continue to operate effectively. Do not apply high-pressure spray to the sensors for a prolonged period of time. Maintain an adequate distance of more than approx. 4 inches (10 cm). ◀



Dynamic Stability Control (DSC)

This system provides enhanced driving stability, especially when you are just starting off or accelerating, and provide increased traction on curves.

In addition to optimizing road traction and vehicle stability when the vehicle is accelerating or starting, the system also provides enhanced stability when cornering within physically feasible limits.

The system starts up automatically each time you start the engine.

Indicator lamp



The indicator lamp in the instrument cluster goes out shortly after you switch on the ignition.

Refer to pages [21](#) and [22](#).

Indicator lamp flashes:

The system is actively regulating drive torque in response to monitored vehicle operating conditions.

If the indicator lamp fails to go out after the engine is started, or comes on during the course of normal vehicle operation:

If the system has not been deactivated, there is a system malfunction. The vehicle remains operational, but without DSC.

Please consult your authorized BMW center for repairs.

To deactivate the system

Press the button. The indicator lamp will come on.

The illustration depicts the arrangement of the buttons if the vehicle is fully equipped. This may vary, depending on the equipment actually installed.

When the DSC is deactivated, you are operating with conventional torque transfer.

In exceptional instances, it is effective to deactivate the system:

- ▷ when rocking the vehicle or starting off in deep snow or on loose surfaces
 - ▷ or when driving with snow chains.
- Refer also to page [110](#).

To reactivate the system

Press the button again; the indicator lamp goes out.



The laws of physics cannot be repealed, even with DSC. Any consequences arising from traction loss due to excessive vehicle speed remain the responsibility of the driver. We therefore urge you to avoid using the additional safety margin of the system as an excuse for taking risks. ◀

For additional details concerning DSC, please refer to the chapter "Advanced technology" on page [161](#).

The concept

The RDC monitors the tire pressures at all four wheels, even when the vehicle is moving. The system provides an alert whenever the inflation pressure drops significantly below the specified pressure in one or more tires.

In order for the RDC to "learn" the correct tire inflation pressure, first check the tire inflation pressure in all tires. Then compare these pressures with the tire inflation pressure chart (page 28) and adjust if necessary. Then activate the system.



This indicator lamp in the instrument cluster informs you whenever the tire pressure is not normal.



Activate the system

- 1 Turn ignition key to position 2
- 2 Press the switch long enough for the indicator lamp in the instrument cluster to light up yellow for a few seconds
- 3 After a few minutes of driving, the RDC sets the current inflation pressure in the tires as the target value to be monitored.

You will only have to repeat this procedure if the tire inflation pressure must be corrected. Otherwise, the RDC functions automatically when the ignition key is in position 2, and thus operates whenever the vehicle is driven.

Loss of tire pressure

If the inflation pressure has dropped too much over a period of time (which is normal for any tire), the indicator lamp will come on with a yellow lamp.

This alerts you to have the tires inflated to the specified pressures as soon as possible.




If you are prompted to check the tire pressure shortly after a correction has been made, this indicates that the corrected values were not accurate. Please check the inflation pressure again and make corrections according to the inflation pressure table. Then activate the system once again. ◀

Tire Pressure Control (RDC)*

Flat tire

If there is a tire failure with loss of pressure, the indicator lamp comes on with a red lamp. In addition, there is an acoustical warning signal.

If this occurs, reduce vehicle speed immediately and stop the vehicle in a safe location. Avoid hard brake applications. Do not oversteer. Replace the wheel and flat tire.

 The space-saver spare tire* is provided for temporary use only in the case of a tire failure. It does not have RDC electronics and is not monitored. A full-size spare tire* that has the same dimensions as the tires already mounted on the vehicle is equipped with the necessary RDC electronics, and will also be monitored once the tires have been mounted and the system activated. ◀



The RDC cannot alert you to severe and sudden tire damage caused by external factors. ◀



Have the tires changed by your authorized BMW center. Your authorized BMW center has been trained to work with the RDC system and is equipped with the necessary special tools. ◀

System interference

The RDC can be subjected to interference locally by outside equipment or devices which use the same radio frequency.

The indicator lamp will come on with a yellow lamp during the malfunction.

The indicator lamp also comes on

- ▷ in the event of a system fault
- ▷ if a wheel is mounted without the appropriate electronics
- ▷ if, in addition to the spare tire*, additional wheels with RDC electronics are on board.

Please contact your authorized BMW center for additional information.



Parking lamps




With the switch in this position, vehicle lighting is illuminated on both sides. For lighting on one side for parking, see page 85.

Low beam headlamps



When you switch the ignition off with the low beam headlamps on, only the parking lamps will remain on.

 "Follow-Me-Home" lamps:
If you activate the headlamp flasher after parking the car, then the low-beam headlamps will come on for a short time. You can also have this function deactivated. ◀

LAMPS ON warning

When you open the driver's door after turning the ignition key to position 0, a warning signal sounds for a few seconds to remind you that the headlamps have not been switched off.

Daytime-driving lamps*

If desired, the lamp switch can be left in the second position: When the ignition is switched off, the external lighting is also switched off.



Turn the rotary dial to adjust the illumination intensity.



- 1 High beam (blue indicator lamp)
- 2 Headlamp flasher (blue indicator lamp)
- 3 Parking lamp

Parking lamp, left or right

With the ignition key in position 0, engage the lever in the appropriate turn-signal position.



A green indicator lamp appears in the instrument cluster to indicate that the front fog lamps are on.



The interior lamps operate automatically.

Switching interior lamps on and off

Press the button briefly.

If you want the interior lamps to remain off continuously, maintain pressure on the button for approximately 3 seconds.

To revert to normal operation, press the button briefly.

Footwell lamps*

The footwell lamps operate in the same way as the interior lamp.

86 Reading lamps

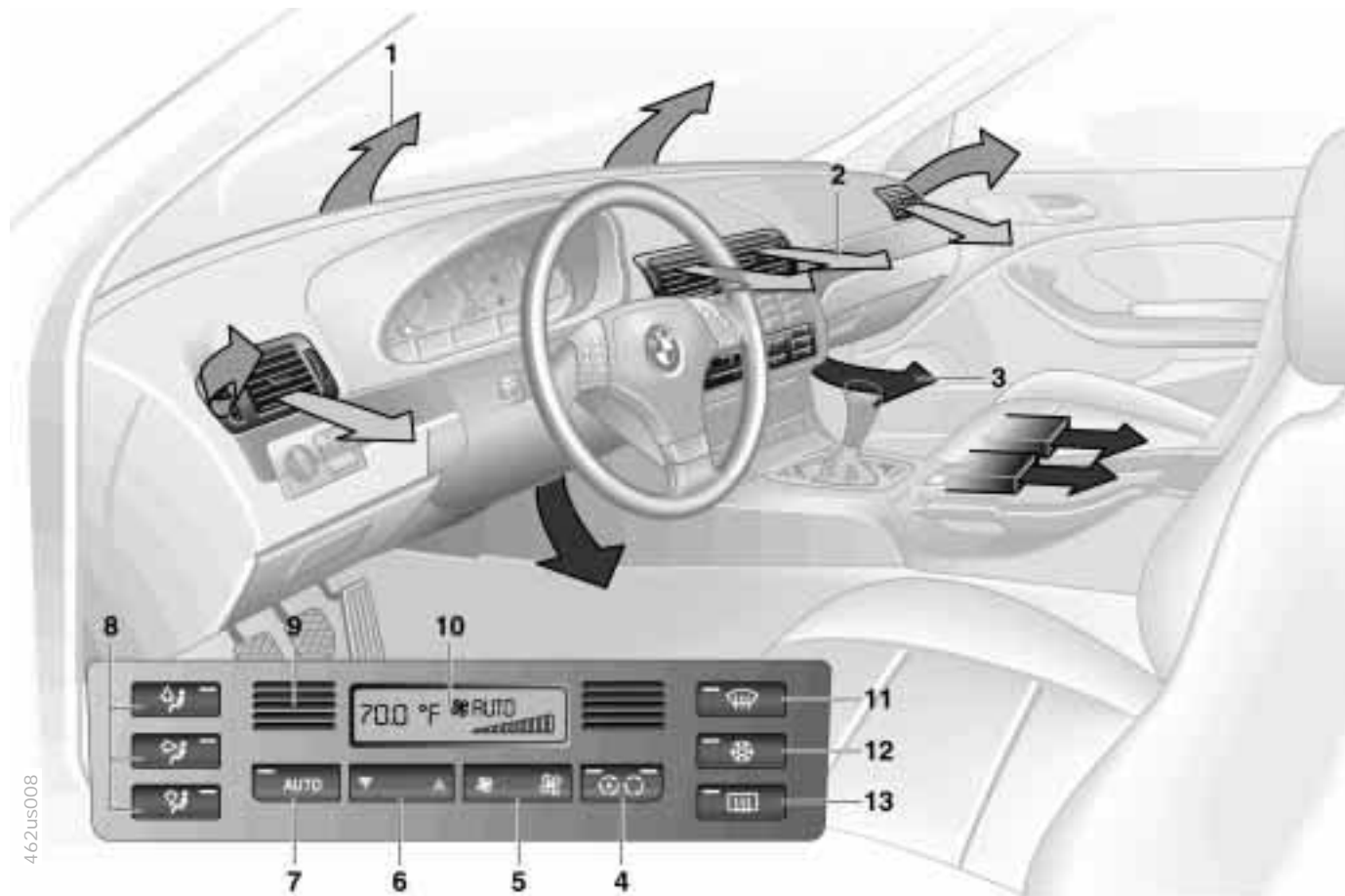


The reading lamps are located in the front near the interior lamp and in the rear of the vehicle (illustration). They can be switched on and off with the switch adjacent to each lamp.



In order to keep the battery from draining, all of the lamps in the vehicle are switched off automatically approx. 15 minutes after the ignition key is turned to position 0. ◀

88 Automatic climate control



Automatic climate control

- 1 Air on the windshield and on the side windows
- 2 Air flow toward upper body
The side rotary dials provide infinitely-variable regulation of the air supply, while the levers change the air-flow direction. The center rotary dial adjusts the temperature of the air as it flows out, see page [92](#)
- 3 Front footwell ventilation
There are corresponding air vents in the rear footwell as well
- 4 Recirculated air mode/Automatic recirculated-air control (AUC)* [91](#), [92](#)
- 5 Air supply [91](#)
- 6 Temperature [90](#)
- 7 Automatic air distribution [90](#)
- 8 Individual air distribution [90](#)
- 9 Air grill for interior temperature sensor – please keep clear and unobstructed
- 10 Display for temperature and air supply [90](#)
- 11 Defrost the windows and remove condensation [91](#)
- 12 Air conditioner [91](#)
- 13 Rear window defroster [71](#), [92](#)

Tips for pleasant driving



Use the automatic system; switch on AUTO-button 7. Select an interior temperature that is comfortable for you – we recommend 70 °F (22 °C) as a comfortable setting. When the outside temperature is above 40 °F (+ 5 °C), you can also use the air conditioning system (12). This system dries the air and prevents condensation on the windows (e.g. if persons are wearing damp clothing). Set the outlets (2) so that the air flows past you and is not directed straight at you. Set the rotary dial between the air outlets (2) for the upper body to a medium position, since air that is somewhat cooler promotes driving without fatigue.

Detailed setting options are described for you in the following section.









You can make the settings of your vehicle in such a manner that, when you unlock the car with your personalized remote control, your own personalized setting of the automatic climate control is initiated. ◀


Automatic air distribution

 The AUTO program assumes the adjustment of the air distribution and the air supply for you and in addition adapts the temperature to external influences (summer, winter) to meet preferences you can specify. This program maintains a comfortable in-car climate regardless of the season. Select an interior temperature that is comfortable for you – we recommend 70 °F (22 °C). The temperature selected and the word  AUTO for the air supply appear in display (10) (refer to the overview on page 88). Open the air outlets for the upper body area. Switch on the air conditioner in warm weather. The maximum cooling capacity is achieved when you set rotary dial (3) (refer to page 92) to cold.

Individual air distribution

   You can cancel the AUTO program by selecting specific distribution patterns to suit your own individual requirements. You can direct air to flow onto the windows , toward the upper body , and into the footwell .

Temperature

 The figures in the display provide a general indication of interior temperature. We recommend 70 °F (22 °C) as a comfortable setting, whether the air conditioner is operating or not. When you start the vehicle, the system ensures that the selected temperature is reached as quickly as possible. It then maintains this temperature, regardless of the season.

Set rotary dial 3 (refer to "Draft-free ventilation" on page 92) to a medium setting, since air that is somewhat cooler promotes driving without fatigue. You can use this setting for mixing air to make minor comfort modifications.



The full, uncontrolled heater output is available starting at an interior temperature setting of 90 °F (32 °C). At a setting of 60 °F (16 °C), the full cooling output is available when the air conditioner is activated. ◀

Automatic climate control

Air supply



By pressing the left or right half of the button, you can vary the air supply. By doing this, you switch off the automatic control of the air supply. Nevertheless, the automatic air distribution remains unchanged.

When you set the lowest blower speed by pressing the left half of the button, all of the displays are canceled: The blower, heating and air conditioner are switched off, and the air supply is stopped. You can reactivate the system by pressing any button of the automatic climate control.

To defrost windshield and side windows



This program quickly removes ice and condensation from the windshield and the side windows.

Air conditioner



The air is cooled and dehumidified and – depending on the temperature setting – rewarmed when the air conditioner system is switched on.

Depending on the weather, the windshield may fog over briefly when the engine is started.

Use the button to switch off the air conditioner at outside temperatures below approx. + 40 °F (+ 5 °C). This will help to prevent the windows from fogging up. If the windows fog over after switching the air conditioner off, switch it back on.



Condensation forms in the air conditioner system during operation, that then exits under the vehicle. Traces of condensed water of this kind are thus normal. ◀

Recirculated-air mode




You can respond to unpleasant external odors by temporarily blocking outside air. The system then recirculates the air already within the vehicle.




If the windows fog over in the recirculated air mode, switch this mode off and increase the air supply as required. ◀


Automatic recirculated-air control (AUC)*

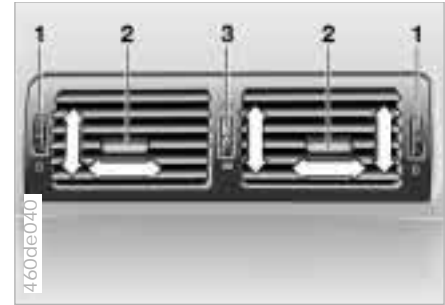
 You can respond to unpleasant external odors by temporarily blocking outside air. The system then recirculates the air already within the vehicle. By repeated actuations of the button, you can select one of three different operation modes.

- ▷ Indicator lamps off: Fresh air flows into the vehicle
- ▷ Left-hand indicator lamp on – AUC mode: The system detects pollutants in the outside air and responds by deactivating the outside air flow as required. The system then recirculates the air already within the vehicle. Depending on air quality requirements, the system automatically switches between outside air supply and recirculation of the air already within the vehicle.
- ▷ Right-hand indicator lamp on: The flow of outside air into the vehicle is permanently blocked. The system recirculates the air already within the vehicle.

 If the windows fog over in the recirculated air mode, switch this mode off and increase the air supply as required. ◀

Rear window defroster

 When the rear window defroster is activated, the indicator lamp comes on. The rear window defroster switches off automatically. Refer to page 71.



Draft-free ventilation

The air outlets for the upper body may be adjusted to meet your personal requirements:

Use the rotary dials (1) for an infinitely-variable opening and closing of the vents. You can use the levers (2) to adjust the flow direction.

Set the outlets so that the air flows past you and is not directed straight at you.

The rotary dial (3) allows you to mix the air from the outlets for your upper body by warming or cooling it as desired.

Microfilter, activated charcoal filter*

A microfilter traps dust and pollen from the outside air. The activated-charcoal filter provides additional protection by filtering gaseous pollutants from the outside air. Your BMW center replaces this combined filter* as a standard part of your scheduled maintenance. A substantial reduction in air flow indicates that the filter needs to be replaced early.

For additional details on the filter change, please refer to page [154](#).



The seat cushion and backrest can be heated with ignition key in position 2.

By repeated actuation of a button, you can select one of three different operation modes.

- ▷ Two indicator lamps on: Heating at a high temperature
- ▷ One indicator lamp on: Heating at a low temperature
- ▷ Indicator lamps off: Seat heating deactivated.



To actuate, press the button briefly with ignition key in position 2.

The illustration depicts the arrangement of the buttons if the vehicle is fully equipped. This may vary, depending on the equipment actually installed.



HiFi System – harman kardon

Every time you press the button, the feature is switched on or off.

When the system is switched on, the sensation of a significantly larger passenger area is created (spatial enhancement), with an improvement of the stereo effect throughout the seating area.

When reception is weak, the radio frequently switches between stereo and mono operation. Switch this feature off if this occurs.

Glove compartment



To open


Pull the handle and the lamp comes on.


To close

Fold up cover.

To lock


Use one of the master keys. A master key is also required for unlocking.

 For example, if you turn over only your door and ignition keys for valet parking (refer to page 32), access to the glove compartment is not possible. ◀

 To prevent injury in the event of a crash, close the glove compartment immediately after use. ◀

Rechargeable flashlight*

Located on the left-hand side of the glove compartment. Features integral overload-protection, so it can be left in its holder continuously.

 Be sure that the flashlight is switched off when it is inserted into its holder. Failure to comply with this precaution could lead to overcharging and damage. ◀



To open the storage shelf in the front center armrest*:
Press the button (arrow) and lift upward.

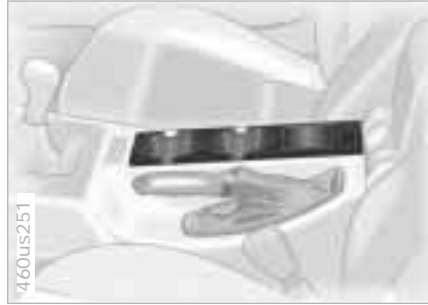
Other compartments are located on the front doors as well as on the center console over the ashtray*. Storage nets* are located on the back of the front seats.

Storage packet*

(Not released at this time)

For your comfort, there are:

- ▷ the rear center armrest with the pull-out cup/can holder and a clip for a trash bag,
- ▷ two flip-out sockets on the rear center console,
- ▷ an eyeglass storage compartment* in the center console in front over the ashtray.



Coin holder, cup holder

- ▷ A coin holder and two cup holders are provided in the center console.



Hands-free system

In vehicles with a telephone prep* or communications package*, the trim piece for the hands-free microphone is located in the headliner near the interior lamp.

For additional information concerning the cellular phone, please refer to the manufacturer's operating instructions.

96 Ashtray, front*



To open

Press briefly in direction indicated by arrow.

To extinguish a cigarette, tap off the ash and gently press the tip into the funnel.



To empty


Open the lid and press down (arrow): You can now pull the ashtray upward for removal.

On vehicles equipped for non-smokers, the insert is removed in the same way.

Cigarette lighter*



Press in. Remove as soon as the lighter jumps back out.

 Hold or touch the hot cigarette lighter by the knob only. Holding or touching it in other areas could result in burns.

The cigarette lighter remains operational when the ignition key has been removed. For this reason, children should never be left in the car unattended. ◀

Cigarette lighter socket

Suitable for attaching power supplies for flashlights, car vacuum cleaners, etc., up to a rating of approx. 200 watts at 12 volts. Avoid damaging the socket due to inserting plugs of different shapes or sizes.

On vehicles equipped for non-smokers, the socket is provided at the same location.

Ashtray, rear*



To open

Push the cover open.

To empty

Press on the edge of the raised cover in the opening direction (arrow). You can now pull the ashtray upward for removal.

On vehicles equipped for non-smokers, the insert is removed in the same way.

Clothes hooks



Press on the upper edge to fold it up.
Additional notes: Refer to page [105](#)

98 Through-loading facility



The rear backrest is divided into two sections, one-third and two-thirds of the seat respectively. For carrying longer objects, you can fold down either section of the backrest separately. To unlock, pull the lever corresponding to the section (arrow).



The rear backrest section will move forward slightly when it is unlocked. Reach into the gap and pull the backrest down.



When you close the backrest, be sure that the retainer engages correctly. If it is not correctly engaged, transported cargo could enter the passenger compartment during brake applications or evasive maneuvers and endanger the vehicle occupants. ◀

The fittings at the corners of the luggage compartment provide you with a convenient means of attaching luggage nets* and flexible straps for securing suitcases and luggage.

Refer also to "Cargo loading" on page 100.

Ski bag*


The ski bag allows the safe and clean transport of four pairs of skis or two snowboards.

The length of the ski bag and the additional space provided in the luggage compartment make it possible to carry skis with a length of up to 6.8 feet (2.1 meters). The ski bag can only accommodate two pairs of skis with a length of 6.8 feet (2.1 meters), because of the tapered shape of the bag.



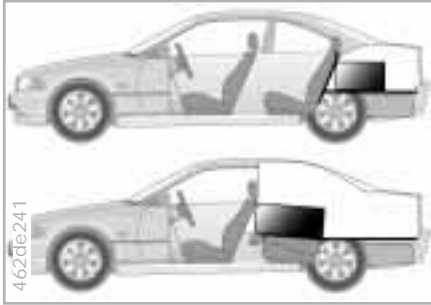
Loading

- 1 Pull down the center armrest. Loosen the trim from the upper Velcro fastener and place it on the armrest
- 2 Press button 1 downward and swing the cover forward
- 3 Press knob 2: The cover in the luggage compartment is unlocked
- 4 Extend the ski bag between the front seats. The zipper provides convenient access to the stored items, and can also be left open to promote drying.

 Secure the skis or other objects in the bag by tightening the strap at the buckle. ◀

Please ensure that the skis are clean before loading them into the bag. Take care to avoid damage from sharp edges.

To store the ski bag, perform the above steps in reverse sequence.



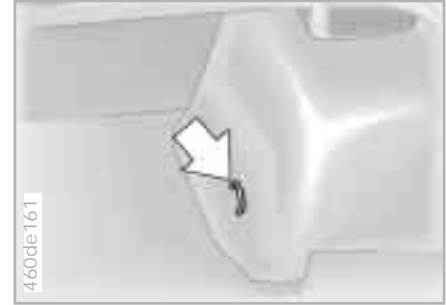
Stowing cargo

If you are transporting a load in your BMW:

- ▷ Load heavy cargo as far forward as possible – directly behind the backrests or the luggage compartment partition – and as low as possible
- ▷ Cover sharp edges and corners
- ▷ Do not pile objects higher than the top edge of the backrest




- ▷ When transporting heavy cargo while the rear seat is unoccupied, secure each of the outside safety belts in the opposite lock (refer to the illustration).



Securing the load

- ▷ For small, light items, use the rubber-lined non-skid side of the floor mat or secure with a luggage compartment net* or elastic straps (refer to page 41)
- ▷ For large, heavy pieces, see your BMW center for load-securing devices*. Lashing eyes (arrow) are provided at the corners of the luggage compartment for attaching these load-securing devices
- ▷ Comply with the information enclosed with the load-securing devices.

 Always position and secure the load correctly, otherwise it can endanger the passengers in the event of braking or swerving.

Do not exceed the permissible gross weight and axle load (refer to page 172), otherwise the vehicle's operating safety is no longer assured and you are in violation of the law.

Do not stow heavy or hard objects in the passenger compartment without first securing them. Otherwise they would be thrown around during braking and evasive maneuvers and endanger the occupants. ◀



Anchors

Access to the anchors:
To open the cover (arrow) please use the tool included with the luggage system.

A special luggage system is available as an option for your BMW. Please comply with the precautions included with the installation instructions.

Because roof racks raise the center of gravity of the car when loaded, they exercise a major effect on its handling and steering response.

You should therefore always remember not to exceed the approved roof weight, the approved gross vehicle weight or the axle weights when loading the rack. You will find the specifications under "Technical Data" on page 172.

Make sure that the load is not too heavy, and attempt to distribute it evenly. Always load the heaviest pieces first (on the bottom). Be sure that adequate clearance is maintained for raising the sliding/tilt sunroof, and that objects do not project into the opening path of the luggage compartment lid.

Secure the roof luggage correctly and securely to prevent it from shifting or being lost during driving (danger to following traffic).

Drive smoothly and avoid sudden acceleration or braking. Do not corner at high speeds.

The roof load increases the aerodynamic resistance. Increased fuel consumption and additional strain on the vehicle's body result from this.



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Overview**Controls and features****Operation, care and maintenance****Owner service procedures****Advanced technology****Technical data****Index**

To ensure that your vehicle provides maximum economy throughout a long service life, we request that you observe the following:

Engine and differential

Up to 1,200 miles (2,000 km):

Drive at varying engine speeds and road speeds, but do not exceed the following engine or road speeds at this time: 4,500/min or 100 mph (160 km/h).

Refrain from using full throttle and avoid pressing the accelerator beyond the kickdown point.

After 1,200 miles (2,000 km), you can gradually increase the engine speed or road speed.

You should also observe these break-in procedures if the engine or differential is replaced later in the course of the vehicle service life.

Tires

Due to technical factors associated with their manufacture, tires do not achieve their full traction potential until an initial break-in period has elapsed. For this reason, drive cautiously during the first 200 miles (300 km).

Brake system

Brake pads and disks do not attain their optimal wear patterns until after approx. 300 miles (500 km).

To break-in the separate parking brake drums, apply the parking brake lightly when coasting to a standstill (at a traffic signal, for instance), provided that traffic conditions allow you to do so.

To avoid corrosion, repeat this procedure from time to time.



The brake lamps do not come on when the parking brake is set.

Vacuum for the brake system servo unit on your BMW is available only when the engine is running. When you move the car with the engine off – when towing, for example – substantially higher levels of pedal force will be required to brake the vehicle. ◀



Brakes:

Do not drive with your foot resting on the brake pedal. Even light but consistent pedal pressure can lead to high temperatures, brake wear, and possibly to brake failure.

Aquaplaning:

A wedge of water can form between the tires and the road surface when you operate the vehicle on wet or slushy roads.

This phenomenon is referred to as aquaplaning or hydroplaning. It is characterized by a partial or complete loss of contact between the tires and the road surface. The ultimate results are loss of steering and braking control.

Driving through water:

Do not drive through water more than 1 ft (30 cm) deep. Drive only at walking speed, otherwise damage to the engine, the electrical system and the transmission can occur.

Rear parcel tray:

Never use the rear parcel tray to store heavy or bulky objects. They could pose a danger to the occupants when the car is braked heavily.

Clothes hooks:

When suspending clothing from the hooks, ensure that they will not obstruct the driver's vision. In order to avoid personal injuries during braking maneuvers, do not hang heavy objects on the hooks. ◀

The catalytic converter reduces harmful exhaust emissions, and is designed for use with unleaded fuel only.

Even minute quantities of lead would be enough to permanently damage both the catalytic converter and the system oxygen sensor.

To ensure efficient, trouble-free engine operation and avoid potential damage:

- ▷ Be sure to comply with the scheduled maintenance requirements
- ▷ Do not drive until the fuel tank is empty
- ▷ Tow-start only when the engine is cold, otherwise unburned, residual fuel in the catalytic converter could ignite and cause damage. It is better to start the vehicle with an outside starting aid
- ▷ Avoid other situations in which the fuel is not burned, or burns incompletely, such as engaging the starter frequently or for extended periods, or repeated start attempts in which the engine does not start (stopping and restarting an engine that is running properly does not present a problem). Never let the engine run with any of the spark plug cables disconnected.



Be sure to comply with the instructions above to prevent unburned fuel from reaching the catalytic converter. Otherwise, the catalytic converter could respond by overheating, leading to serious damage.

Extreme temperatures occur at the catalytic converter. Heat shields are installed adjacent to some sections of the exhaust system. Never remove these shields; do not apply undercoating to their surfaces. When driving, standing at idle, and parking the vehicle, take care to avoid contact between the exhaust system and flammable materials (grass, hay, leaves, etc.). Such contact could lead to a fire, resulting in serious injury and property damage. ◀

The concept

ABS enhances active safety by helping to prevent the wheels from locking during brake applications. Locked wheels are dangerous. When the front wheels slide, the driver loses steering control over the vehicle. Traction loss at the rear wheels can cause the rear end to break into an uncontrolled skid.

The system can achieve the shortest braking distances possible under most conditions (on straight-aways and in curves, on asphalt, ice, wet road surfaces, etc.).

ABS is designed to meet two essential requirements during every brake application:

- ▷ To help provide vehicle stability
- ▷ To help maintain steering control and maneuverability – on all types of road surfaces (asphalt, concrete, mud, wet, snow, ice).

Braking with ABS

The system becomes operative once the vehicle exceeds a speed of approx. 6 mph (10 km/h). Below approx. 3 mph (6 km/h), it is once again deactivated. This means that the wheels can lock in the final phase of a panic stop – a factor of no significance in actual use.

If you are in a situation that requires full braking, you will exploit the full benefits of the ABS system if you apply maximum brake pressure ("panic stop"). Since the vehicle maintains steering responsiveness, you can avoid possible obstacles with a minimum of steering effort, despite the full brake application.

The ABS system closed-loop control circuit cycles in fractions of a second. A pulsation at the brake pedal indicates to the driver that ABS is active, that is, that the vehicle is within its maximum braking range. In addition, a pulsation – a result of the control function cycles – indicates to the driver that vehicle speed should be reduced to adapt to road surface conditions when there is reduced traction and grip between tires and road surface (slippery road surface).

In driving conditions where there is a loose upper surface together with a subsurface that provides good traction

(on gravel or snow, for instance), or with snow chains, the braking distance may also be longer than when the wheels are locked. However, ABS continues to provide enhanced vehicle stability and steering response under these conditions.

Information for your safety

Not even ABS can suspend the laws of physics. ABS cannot prevent the consequences of brake applications with inadequate clearances for safety between vehicles, when exceeding the speed limit in curves, or the risks involved when aquaplaning occurs. Responsibility for these types of situations remains in the hands (and at the feet) of the driver.

You should never allow the added safety of ABS to lull you into a false sense of security, or mislead you into taking increased risks that could affect your own safety and that of others.



Do not make any modifications to the ABS system.


Service procedures on ABS are to be performed by authorized technicians only. ◀


Antilock Brake System (ABS)


Antilock Brake System (ABS)/ Cornering Brake Control (CBC)

CBC is an advanced engineering development of ABS. When braking while cornering at high speed or braking during high lateral acceleration, or when braking during a lane change, vehicle stability is improved and steering response is enhanced.

In the event of a fault

 If the ABS warning lamp in the instrument cluster lights up, refer to page 22. The brake system then reverts to conventional operation as on vehicles without ABS. However, have the brake system checked by your BMW center as soon as possible. To prevent undetected defects and cumulative faults from adversely affecting the brake system, refer any problems to your authorized BMW center at the earliest opportunity.

 ABS warning lamp for Canadian model.

 If the brake warning lamp comes on together with the indicator lamps for the ABS and DSC systems, refer to page 21. The entire ABS, CBC and DSC governing system has deactivated. Continue driving cautiously and defensively. Avoid full brake applications. This could cause the vehicle to lose stability and you might no longer be able to control it. Have the system checked as soon as possible by your authorized BMW center.




Warning lamps CBC, ABS and DSC for Canadian models.

Disc brakes furnish optimum deceleration and braking control and greater fade resistance under heavy use.

When the vehicle is driven only occasionally, during extended periods when the vehicle is not used at all, and in operating conditions where brake applications are less frequent, there is an increased tendency for corrosion of the rotors and accumulation of contamination on the brake pads. This occurs because the minimal pressure that must be exerted by the pads to clean the rotors by brake applications is not reached.

If the brake rotors are corroded, they will tend to respond to braking with a pulsating effect that even extended brake applications will fail to cure.

 For your own safety: Only use brake linings that BMW has released for your particular vehicle model. BMW cannot vouch for driving safety or the suitability of brake linings other than those they have released. ◀

Driving notes

While driving in wet conditions and in heavy rain, it is effective to apply light pressure to the brake pedal every few miles (kilometers). Watch traffic conditions to ensure that this maneuver does not endanger other road users. The heat that is generated by the brake applications helps to dry the brake pads and rotors.

Maximum braking force is obtained while the wheels continue to rotate, peaking when the wheels remain on the verge of locking without actually doing so. ABS maintains this state automatically. If the ABS fails, you should revert to the staggered braking technique described on page 110.

Long or steep mountain descents do not necessarily lead to reduced braking efficiency if you drive downhill with the transmission in a gear that allows minimal brake applications (or, with an automatic transmission, in an appropriate lower range).

You can further increase the engine's braking effect by selecting a lower gear, downshifting as far as first gear or placing the selector lever in position (1).

Should engine braking prove inadequate, you should still avoid extended, continuous braking. Instead of maintaining low to moderate pressure over an extended period of time, you should decelerate the vehicle by applying more substantial force on the pedal (watch for following traffic!) and then pausing before repeating the application. This staggered braking technique allows the brakes to cool in the intervals between active braking phases, preventing overheating and ensuring that full braking capacity remains available at all times.



Do not coast with the clutch depressed or with the transmission or selector lever in neutral. Do not drive with the engine shut off. The engine provides no braking effect when the clutch pedal is depressed or the transmission is in neutral, and there is no power-assist for brakes and steering when the engine is not running. Never allow floor mats, carpets or any other objects to protrude into the area around the accelerator, clutch and brake pedals and obstruct their movement. ◀

Brake system

Brake fluid level



If the brake-warning lamp comes on with the parking brake released:

The brake fluid level is too low in the reservoir (refer to page 127).

If the brake fluid level is too low and brake pedal travel has become noticeably longer, there may be a defect in one of the brake system's hydraulic circuits.



Brake-warning lamp for Canadian model.



Proceed to the nearest authorized BMW center. Higher brake application pressure may be necessary under these conditions, and brake pedal travel may be significantly longer. Please remember to adapt your driving style accordingly. ◀

Brake pads



If the warning lamp for the brake pads lights up:

The brake pads have reached their minimum pad thickness. Proceed to the nearest authorized BMW center as soon as possible to have the pads replaced.



For your own safety: Only use brake linings that BMW has released for your particular vehicle model. BMW cannot vouch for driving safety or the suitability of brake linings other than those they have released. ◀

The onset of winter is often accompanied by rapid changes in weather. Adaptations in driving style should be accompanied by preparations on the vehicle itself to ensure that your progress through the winter remains safe and trouble-free.

Coolant

Be sure that the coolant mixture is kept at the year-round ratio of 50:50 of water and antifreeze/corrosion protection. This mixture provides protection against freezing down to approx. - 34 °F (- 37 °C). Replace the coolant every four years.

Locks

BMW door lock deicer can be used to free them if frozen. This deicer also contains lubricant. After using deicer, treatment with BMW lock barrel grease is recommended.

Rubber seals and components

To prevent the weather-stripping from freezing, apply a spray-on rubber treatment or silicone spray to the door, hood and luggage compartment lid seals.

Snow chains

BMW snow chains* can be mounted on both summer and winter tires. Mount them in pairs on the rear wheels only and comply with the manufacturer's safety precautions. Do not exceed a maximum speed of 30 mph (50 km/h). In this situation (snow chains mounted), deactivate the DSC. Refer to page 81.

Starting off

We recommend that you use the manual control switch to deactivate DSC when starting off in deep snow or when rocking the car to free it (refer to page 81).

Driving on low-traction road surfaces

Use smooth, gentle pressure to control the accelerator pedal. Avoid excessive engine speeds and shift to the next higher gear at an early point. Adapt your speed and driving style when approaching grades or slopes. Maintain an adequate distance between yourself and the car ahead.

Brakes

Winter road conditions substantially reduce the traction available between the tires and the road surface. Remember that braking distances will be significantly longer as a result.

ABS is intended to prevent the wheels from locking during brake applications, thus helping to maintain vehicle stability and steering response.

If the ABS does not respond in a critical braking situation and the wheels lock: Reduce the pressure on the brake pedal until the wheels just start to roll again while still maintaining enough force to continue braking. Then increase the pressure, reduce the pressure when the wheels lock, reapply pressure etc.

This staggered braking procedure will reduce stopping distances while helping you maintain steering control. You can then attempt to steer around hazards after you have reduced pressure on the brake pedal.



A full range of car-care products is available from your BMW center. ◀

Winter operation



Do not shift down on slick road surfaces. Doing so could cause the rear wheels to lose traction and skid, that could result in the loss of vehicle control. ◀



Depress the clutch during hard braking on road surfaces that provide only poor or uneven traction. ◀

Skid control

Depress the clutch and release the accelerator pedal, or place the selector lever of the automatic transmission into the "Neutral" position. Countersteer carefully and attempt to regain control of the vehicle.

Parking

Engage 1st or reverse gear. If your car is equipped with an automatic transmission, place the selector lever in "Park". On vehicles with manual transmission, also apply the parking brake when parking on inclined surfaces. In order to prevent the parking brake linings from locking due to frost or corrosion, dry them by gently applying the parking brake as the vehicle is coming to a stop. Make sure that following traffic is not endangered.



The brake lamps do not light up when the parking brake is applied. ◀

High steering effort:

Please contact a BMW center.

High steering effort during sudden transitions:

Have your authorized BMW center inspect this system as soon as possible.



If the power steering fails, increased effort will be required to steer the vehicle. ◀

Cellular phones*

Mobile communications systems (cellular phone, two-way radios, etc.) are only allowed a power output of up to 10 Watt. Mobile communications devices not specifically designed for use in your car may trigger malfunctions while operating your vehicle. BMW can neither test nor assume responsibility for every individual product being offered on the market. We recommend that you consult your BMW center before purchasing any device of this kind.

To ensure that your BMW continues to provide reliable and trouble-free operation, refrain from using a mobile phone or other radio device with an antenna located inside the passenger compartment. The antenna should always be fitted on the outside of the vehicle.



Before loading the vehicle on a car-carrier train or driving it through a car-wash, remove the antenna. ◀

Radio reception

The reception and sound quality obtained from mobile radios varies according to a variety of factors, including the broadcast range of the transmitter and the directional orientation of the antenna. Interference factors such as high-tension power lines, buildings and natural obstructions can all lead to unavoidable reception interference, regardless of how well the vehicle's sound system is operating.

Climatic factors such as intense solar radiation, fog, rain and snow can also interfere with reception.

Car telephones or cellular phones not approved by BMW can also cause interference in the radio during a telephone call. This phenomenon assumes the form of a low-pitched hum emanating from the speaker system.

Please refer to the supplementary operating instructions provided with your sound system for detailed information on its use.


Tire inflation pressures

Information for your safety

The factory-approved radial tires are matched to the car and have been selected to provide optimum safety and driving comfort on your car.

It is not merely the tire's service life, but also driving comfort and – above all else – driving safety that depend on the condition of the tires and the maintenance of the specified tire pressure.

Incorrect inflation pressure is a frequent cause of tire damage. It also significantly influences the roadholding ability of your BMW.

 Check tire inflation pressure regularly – including the space-saver and/or the spare tire – at least twice a month and before beginning a longer road trip. Incorrect tire pressure can otherwise lead to tire damage and accidents. ◀

Tire condition




Tire tread – Tire damage

Inspect your tires frequently for tread wear, signs of damage and for foreign objects lodged in the tread. Check the tread depth.

The tread depth should not be any shallower than 0.12 in (3 mm).

Otherwise there is an increased risk of aquaplaning, even at relatively moderate speeds and with only small amounts of water on the road.

We recommend that you always replace the tires once the tread wears to 0.12 in (3 mm). If you continue to use the tires, wear indicators appear in the tread at 0.063 in (1.6 mm).

 Do not drive on a deflated (flat) tire. A flat tire greatly impairs steering and braking response, and can lead to complete loss of control over the vehicle.

Avoid overloading the vehicle so that the permitted load on the tires is not exceeded. Overloading can lead to overheating and increases the rate at which damage develops inside the tires. The ultimate result can assume the form of a sudden air loss.

Unusual vibrations encountered during normal vehicle operation can indicate tire failure or some other vehicle defect, as can variations in normal vehicle response, such as a pronounced tendency to pull to the left or right. Should this occur, respond by immediately reducing your speed and carefully proceeding to the nearest BMW center or professional tire center, or having the vehicle towed in to have it and its tires inspected.

Tire damage (up to and including blow-outs) can endanger the lives of both the vehicle occupants and other road users. ◀

To maintain good handling and vehicle response, use only tires of a single tread configuration from a single manufacturer. BMW tests and approves wheel/tire combinations. Refer to page 117.



Do not use retreaded tires, since driving safety may be impaired by their use. This due to the possible variations in casing structures and, in some cases, to their extreme age, that can lead to a decrease in their durability. ◀

Tire age

The date on which the tire was manufactured is indicated by the code on the sidewall:

DOT ... 129 indicates that the tire was manufactured in Week 12 of 1999.

BMW recommends the replacement of all tires when the tires are no more than 6 years old, even if a tire life of 10 years is possible.

Spare tires over 6 years old should be used only in case of emergency. Such a tire should be replaced by a new tire immediately, and should not be fitted together with new tires.

Tire rotation

Between the axles

The tread wear patterns at the front end differ from those at the rear – the actual patterns will vary according to individual driving conditions. In the interests of safety and maintaining optimal handling characteristics, tire rotation is not recommended.

If a proposed interaxle rotation of tires is based on economic considerations, one should consider whether the costs for the rotation are likely to be recaptured by any increase in the service life of the tires which might be realized. In principle, interaxle rotation should be performed in short intervals, with a maximum of 3,000 miles (5,000 km). Consult your authorized BMW center for more information.

Should you decide to rotate the tires, it is essential to comply with the following: Rotate tires on the same side only, since braking characteristics and road grip could otherwise be adversely affected.

Following rotation, correct the tire inflation pressure.



If different tire sizes are mounted on the front and rear axles (refer to page 117), the wheels may not be rotated from one axle to the other. ◀

Wheel and tire combinations

The right choice

Use only BMW-approved tires, refer to page 117.

Due to the high speeds this vehicle can achieve, the use of specific tire brands, specifications and dimensions is mandatory.

Consult any BMW center for details.

Comply with local/national regulations.



The correct wheel/tire combination affects different systems, such as ABS, ATC, DSC. The function of these systems can be impaired if the correct combination is not used.

Therefore, only use tires of the same brand and tread pattern. Replace a flat tire with an approved wheel/tire combination as soon as possible. ◀

Codes on the tires and wheels

The tire codes will aid you in selecting the correct tire.

Codes on radial tires:

Example: 225/50 R 16 92 W

Nominal width in mm ———— 225

Aspect ratio in % ———— 50

Radial tire code ———— R

Rim diameter in inches ———— 16

Load rating (not on ZR tires) ———— 92

Speed rating (before R on ZR tires) ———— W

The speed rating indicates the approved maximum speed for the tire.

Summer tires:

S = up to 112 mph (180 km/h)
 T = up to 118 mph (190 km/h)
 H = up to 130 mph (210 km/h)
 V = up to 150 mph (240 km/h)
 W = up to 167 mph (270 km/h)
 Y = above 167 mph (270 km/h)
 ZR = above 150 mph (240 km/h)

Winter tires:

Q M+S = up to 100 mph (160 km/h)
 T M+S = up to 118 mph (190 km/h)
 H M+S = up to 130 mph (210 km/h)

Codes stamped on light-alloy wheels:

Example: 7 J x 16 H 2

Rim width in inches ———— 7

Code letter for flange type ———— J

Symbol for full-drop center rim ———— x

Rim diameter in inches ———— 16

Hump on the 2 rim shoulders ———— H 2

Protect valve inserts against dirt using screw-on valve stem caps. Dirt in the valves frequently leads to slow leaks.

Choosing the right tire

BMW recommends winter tires (M+S radial tires) for driving in adverse winter road conditions. Although all-season M+S tires provide better winter traction than standard summer tires with H, V, W, Y and ZR speed ratings, they generally fail to provide the same levels of performance as standard snow tires in winter driving.

For safe tracking and steering response, install winter tires made by the same manufacturer having the same tread configuration on all four wheels.

Mount only winter tires approved by BMW. Any BMW center will be glad to provide you with information on the best winter tires for your particular driving conditions.



Never exceed the maximum speed for that the tires are rated.

Unprofessional attempts by laymen to service tires can lead to damage and accidents.

Have this work performed by skilled professionals only. Your BMW center will be glad to assist you with both their expertise and the proper equipment for your vehicle. ◀

Tire condition, tire pressure

Winter tires display a perceptible loss in their ability to cope with winter driving conditions once the tread wears to below 0.16 in (4 mm), and should thus be replaced.

Comply with the specified tire inflation pressures – and be sure to have the wheel and tire assemblies balanced every time you change the tires.

Storage

Store tires in a cool, dry place, away from light whenever possible. Protect the tires against contact with oil, grease and fuel.

Snow chains*

Use narrow-link BMW snow chains on summer or winter tires only in pairs and only on the rear wheels. Comply with all manufacturer's safety precautions when mounting the chains.

Approved wheel and tire specifications

Tire specifications	Steel rim (wheel rim)	Light-alloy wheel
BMW 323Ci		
All-Season		
195/65 R 15 91 H	-	6.5Jx15
Summer tires		
195/65 R 15 91 H	-	6.5Jx15
205/60 R 15 91 H	-	6.5Jx15 7Jx15
205/55 R 16 91 H	-	7Jx16
225/50 R 16 92 W		
225/50 ZR 16		
225/45 R 17 91 W	-	8Jx17
Front: 225/45 ZR 17	-	7.5Jx17
Rear: 245/40 ZR 17	-	8.5Jx17
Winter tires		
195/65 R 15 91 Q M+S	6.5Jx15	6.5Jx15
205/60 R 15 91 Q M+S	6.5Jx15	6.5Jx15 7Jx15
205/55 R 16 91 Q M + S	7Jx16	7Jx16
225/50 R 16 92 Q M + S		
225/45 R 17 91 Q M + S	-	8Jx17
Space-saver spare tire		
T 125/90 R 15 96 M	3.5Bx15	-
T 125/90 R 16 98 M	3.5Bx16	-

Pay attention to the specifications for tires and wheels in the vehicle's manuals. If you install tire sizes not approved by the manufacturer, you are required to enter this in the vehicle documents.

Snow chains*

Snow chains cannot be mounted on the following tires:

225/50 R 16 92 W
225/50 ZR 16
225/45 R 17 91 W
225/50 R 16 92 Q/T/H
225/45 R 17 91 Q/T/H

Mixed tires

For details concerning tire manufacturers for mixed tires, refer to the original-equipment specifications.

118 **Approved wheel and tire specifications**

Tire specifications	Steel rim (wheel rim)	Light-alloy wheel
BMW 328Ci		
All-Season		
205/55 R 16 91 H	-	7Jx16
Summer tires		
205/55 R 16 91 H 225/50 R 16 92 H 225/50 ZR 16	-	7Jx16
225/45 R 17 91 H	-	8Jx17
Front: 225/45 ZR 17	-	7.5Jx17
Rear: 245/40 ZR 17	-	8.5Jx17
Winter tires		
205/55 R 16 91 Q M + S 225/50 R 16 92 Q M + S	7Jx16	7Jx16
225/45 R 17 91 Q M + S	-	8Jx17
Space-saver spare tire		
T 125/90 R 16 98 M	3.5Bx16	-

Pay attention to the specifications for tires and wheels in the vehicle's manuals. If you install tire sizes not approved by the manufacturer, you are required to enter this in the vehicle documents.

Snow chains*

Snow chains cannot be mounted on the following tires:

225/50 R 16 92 W
225/50 ZR 16
225/45 R 17 91 W
225/50 R 16 92 Q/T/H
225/45 R 17 91 Q/T/H


Mixed tires

For details concerning tire manufacturers for mixed tires, refer to the original-equipment specifications.



To unlock

Pull the lever located under the left-hand side of the instrument panel.

 Do not work on your vehicle without appropriate skills. Always switch off the engine and allow it to cool down before working in the engine compartment. Always disconnect the battery before working on any electrical systems or equipment, especially when these are located within the engine compartment. Comply with all applicable instructions and warnings. Have your vehicle serviced by an authorized BMW service center if you are not familiar with the guidelines that need to be followed. Improper parts and materials servicing could create a safety hazard not only for passengers, but also for fellow drivers on the road. ◀




To open

Pull the release handle and open the hood.

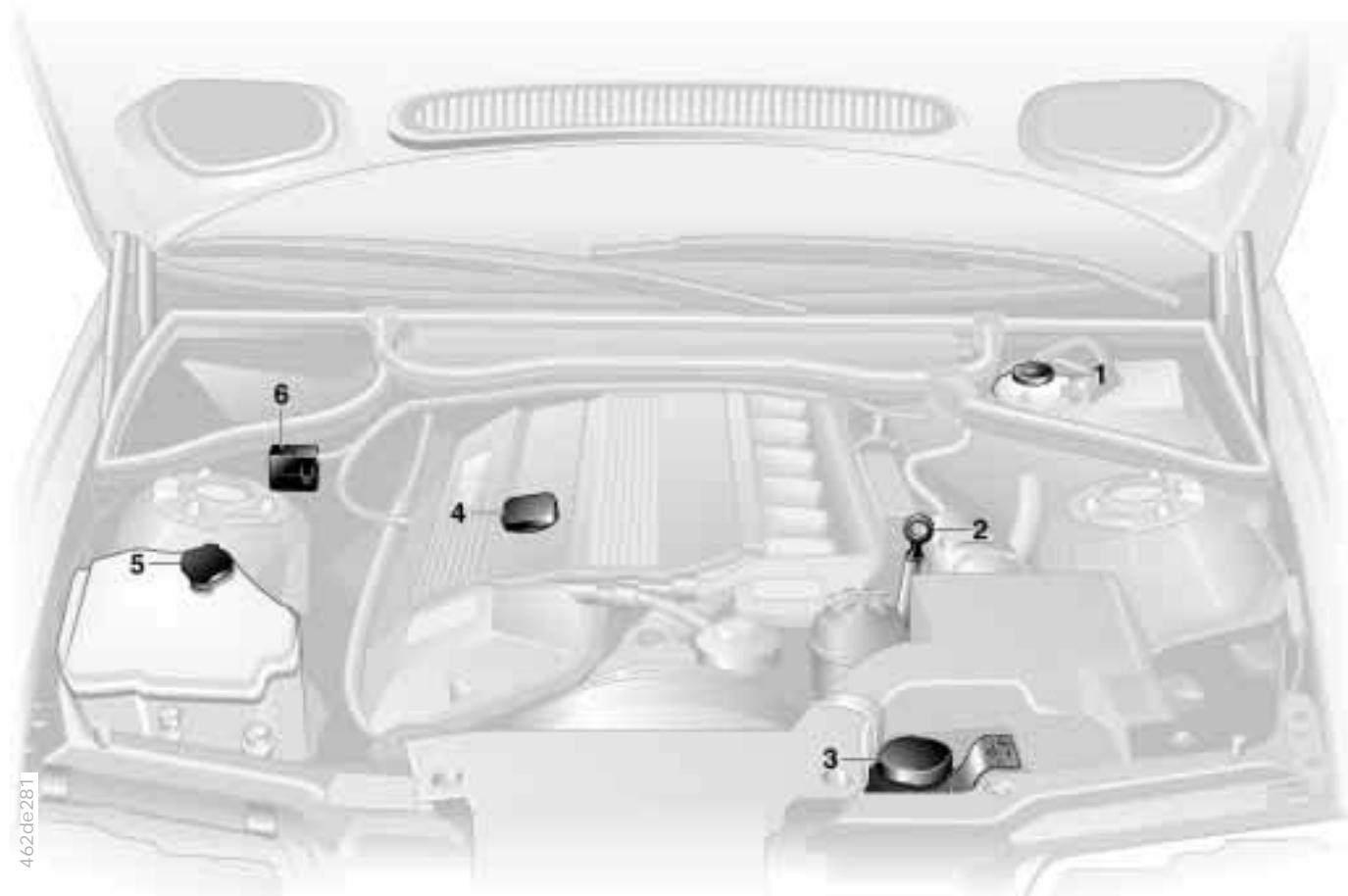


To close

Let the engine hood drop from about 30 cm (about 12 inches) up, so that it audibly engages.

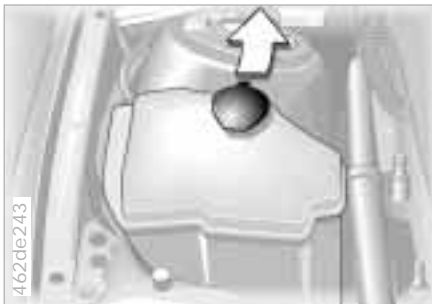
 To avoid injuries, be sure that the travel path of the hood is clear when it is closed, as with all closing procedures. If it is determined that the hood is not completely closed while driving, stop immediately and close it securely. ◀

120 Engine compartment



Engine compartment


- 1 Brake fluid reservoir [127](#)
- 2 Engine oil dipstick [123](#)
- 3 Coolant expansion tank [126](#)
- 4 Engine oil filler neck [123](#)
- 5 Reservoir for the windshield and headlamp washer system* [122](#)
- 6 Auxiliary terminal for jump starting [156](#)




Headlamps* and windshield washer

Filling capacity: approx. 5.6 US quarts (5.3 liters).

Fill with water and – if required – with a washer antifreeze (according to manufacturer's recommendations).

 We recommend that you mix the washer fluid before adding it to the reservoir. ◀

 Antifreeze agent for the washer systems is inflammable. For this reason, keep it away from sources of flame and store it only in its original container. Store it so that it is inaccessible to children. Comply with the instructions on the containers. ◀

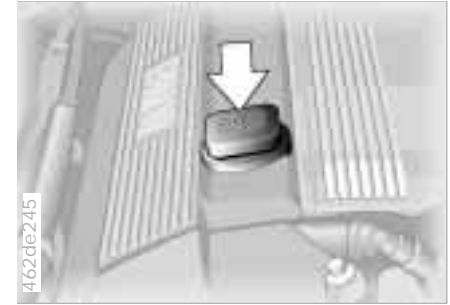
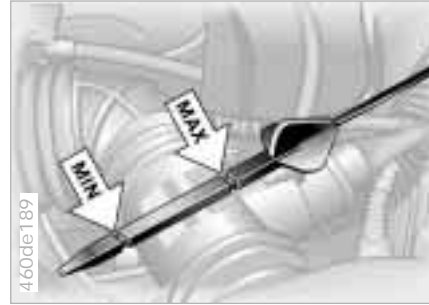
Washer nozzles

Windshield washer

The spray from the nozzles should be directed so as to ensure effective cleaning, even at high speeds. Use a needle to adjust the nozzles as required, or have them adjusted by your BMW center.

Headlamp washer system*

Have these adjusted by your BMW center as required.



Checking oil level


- 1 Park the vehicle on a level surface
- 2 Shut the engine off after it has reached normal operating temperature
- 3 After approx. 5 minutes, pull the dipstick out and wipe it off with a clean lint-free cloth, paper towel, or similar material
- 4 Push the dipstick all the way into the guide tube and pull it out again
- 5 The oil level should be between the two graduations on the dipstick.

As with fuel economy, oil consumption is directly influenced by your driving style and vehicle operating conditions.

The space between the two marks on the dipstick corresponds to approx. 1.1 US quarts (1 liter). Do not fill beyond the upper mark on the dipstick. Excess oil will damage the engine.

To add oil

Wait until the level has dropped to just above the lower mark before adding oil. But never let the oil drop below the lower mark.


 BMW engines are designed to operate without oil additives; the use of additives could lead to damage in some cases. This also applies for the manual transmission, automatic transmission, differential and the power steering system. ◀

Prescribed engine oil

The quality of the engine oil is extremely important for the function and life of an engine. Based on extensive testing, BMW has approved only certain kinds of engine oil.

Use only approved "BMW High Performance Synthetic Oil".

If you are unable to obtain "BMW High Performance Synthetic Oil", you can add small amounts of synthetic oil in between oil changes. Only use oils with the API SH specification or higher.

 Ask your authorized BMW center for details concerning the specific "BMW High Performance Synthetic Oil" or synthetic oils that have been approved. ◀

You can also call BMW of North America at 1-800-831-1117 or visit this website: www.bmwusa.com to obtain this information.

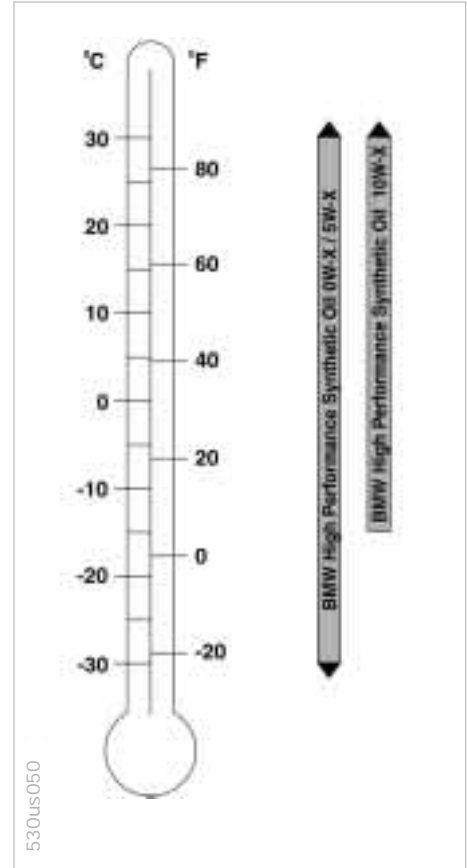
Viscosity ratings

Viscosity is the oil flow rating as established in SAE classes.

The selection of the correct SAE class depends on the climatic conditions in the area where you drive your BMW.

BMW recommends the use of oils in SAE classes SAE 5W-30 or SAE 5W-40.

These oils may be used for driving in all ambient temperatures.



Engine oil




Always observe all environmental protection laws when disposing of used oil. ◀

Recommendation: Have the oil changed by your BMW center only.




Continuous exposure to used oil has caused cancer in laboratory testing. Any skin areas that come in contact with oil should be thoroughly washed with soap and water. Always store oil, grease, etc., out of reach of children. Comply with all warning labels and information on lubricant containers. ◀

 Do not add coolant to the cooling system when the engine is hot, since escaping coolant can cause burns.

To avoid the possibility of damage later on, never use anything other than factory-approved, nitrite- and amino-free extended-duty antifreeze with corrosion inhibitor. Your authorized BMW center is familiar with the official specifications.

Antifreeze and anticorrosion agents are hazardous to health. Store antifreeze and anticorrosion agents in their original containers and inaccessible to children. Extended-duty antifreeze with corrosion inhibitor contains the flammable substance ethyleneglycol. Do not spill antifreeze containing corrosion inhibitor on hot engine components, since it could catch fire and cause serious burns. ◀

 Comply with the applicable environmental laws regulating the disposal of extended-duty antifreeze with corrosion inhibitor. ◀



Checking coolant level

Correct coolant level when the engine is cold (approx. 68 °F or 20 °C):

Unscrew the cap from the expansion tank.

The coolant level is correct when the end of the red float is aligned with the upper edge of the filler opening (refer to the arrow in the illustration or the schematic diagram next to the cap).

Add coolant

Wait until the engine cools before removing the cap from the expansion tank. The coolant gauge needle in the instrument cluster must be located in the blue field; otherwise, otherwise, you could be scalded.

- 1 Turn the cap slightly counterclockwise in order to allow accumulated pressure to escape. Then open.
- 2 If the coolant is low, slowly add coolant until the correct level is reached – do not overfill.

The coolant is a mixture of water and extended-duty antifreeze with corrosion inhibitor. Always maintain the prescribed all-season 50:50 mixture ratio for year-round protection against internal corrosion. No other additives are required.

Replace the coolant every four years.

Brake fluid



If the warning lamp for the brake hydraulic system lights up and the parking brake is released:

Check the brake fluid level and, if necessary, refill it to the top mark.

Should you determine that the brake fluid is low, refer the problem to your BMW center, who can trace and rectify any sources of leakage when refilling the reservoir.

Your BMW center is familiar with the specifications for approved brake fluids (DOT 4).

Brake fluid loss can result in extended pedal travel. Comply with the information provided on page [109](#).



Brake fluid is hygroscopic, that is, it absorbs moisture from the air over time.

In order to safeguard the proper operation of your brake system, have the brake fluid changed every two years by your authorized BMW center; also refer to page [153](#) and to the Service and Warranty Information Booklet (US models) or Warranty and Service Guide Booklet (Canadian models).

Brake fluid is toxic and damages the vehicle's paint. You should always store it in its original container and in a location that is out of reach of children.

Do not spill the fluid and do not fill the brake fluid reservoir beyond the "MAX" mark. The brake fluid could ignite upon contact with hot engine parts and cause serious burns. ◀



Comply with the applicable environmental laws regulating the disposal of brake fluid. ◀

128 Vehicle Identification Number



In the engine compartment, on the right-hand strut dome (arrow).



The BMW Maintenance System has been designed as a reliable means of providing maximum driving and operating safety – and as cost-effectively as possible for you. With respect to the previous version, maintenance costs can clearly be reduced due to technical innovations.

Please keep in mind that regular maintenance is not only necessary for the safety of your vehicle, but also plays a significant role in maintaining the resale value of the vehicle.

Service Interval Display

Advanced technology is employed to calculate the optimal maintenance intervals. These are then indicated in the Service Interval Display. While conventional systems rely on distance traveled alone to determine when service is due, the BMW Maintenance System has for years considered the actual conditions under that the vehicle operates, because miles can be traveled in many different manners:

From the point of view of maintenance, 62,000 miles (100,000 km) accumulated in short-distance urban driving are not the equivalent of the same distance covered at moderate speeds in long-distance highway travel.


The BMW Maintenance System includes the Engine Oil Service and Inspections I and II.

Determining the maintenance intervals according to the actual loads on the car covers every kind of operating situation. Minimal use drivers – those who drive significantly less than 6,000 miles (10,000 km) per year – should nevertheless have the oil changed at least every two years, since engine oil ages regardless of the load.

Service and Warranty Information Booklet (US models) Warranty and Service Guide Booklet (Canadian models)

Please refer to the Service and Warranty Information Booklet (US models) or Warranty and Service Guide Booklet (Canadian models) for additional information on maintenance intervals and procedures.

As a precaution against rust, it might be a good idea to have the body checked for damage from rocks or gravel at the same time, depending upon operating conditions.

 Have your BMW center do the maintenance and repair. Your BMW center is always informed on the latest maintenance work and repair techniques and equipped with the required special tools. In addition, checking parts known from experience to be subject to wear is a permanent part of the maintenance specifications. Be sure that all maintenance work is confirmed in the Service and Warranty Information Booklet or the Warranty and Service Guide Booklet (Canadian models). These entries are your proof that the vehicle has received regular maintenance. They are also a prerequisite for warranty claims. ◀

Washing your car

Right from the start, you can wash your new BMW in an automatic car wash. Car wash systems that do not employ brushes are preferable.

Wipe away tough dirt and loosen and remove dead insects before washing the car.

To prevent spots, avoid washing when the hood is still warm, or immediately after and during exposure to strong sunlight.

When using an automatic car wash, be sure that:

- ▷ The car wash system is suited for the dimensions of your vehicle
- ▷ No damage will occur on vehicles with attached body accessories (such as spoilers or antennas). Consult the car wash operator if necessary
- ▷ The wheels and tires of your vehicle cannot be damaged by the conveyance devices of the car wash system
- ▷ The vehicle is cleaned with minimum brush pressure, and that ample water is available for washing and rinsing.

Vehicles with rain sensor:

Clean the windshield regularly. Wax from car washes or the presence of dead insects can cause rain sensor malfunctions.



Switch the rain sensor off when the vehicle passes through the car wash (refer to page 70). Damage could occur by an undesired actuation of the wipers if the system is not deactivated. ◀

Parts of the car that are inaccessible to the automatic washer – such as door sills, door and hood edges, etc. – should be cleaned by hand.

In the winter months, it is especially important to ensure that the car is washed on a regular basis. Large quantities of dirt and road salt are difficult to remove, and they also cause damage to the vehicle.



If spray wands or high-pressure washers are used, be sure to maintain an adequate distance between the spray source and the vehicle's surface. Inadequate distance and excessive pressure can damage or weaken the finish, making it more susceptible to subsequent attack. In addition, moisture could penetrate to vehicle components, leading to long-term damage. ◀



When cleaning the headlamps, please observe the following:

- ▷ Do not rub dry. Never use abrasives or strong cleaning agents to clean the covers
- ▷ Remove dirt and contamination (such as insects) by soaking with BMW Car Shampoo and then rinsing with plenty of water
- ▷ Always use a deicer spray to remove accumulated ice and snow – never use a scraper. ◀



After washing the car, apply the brakes briefly to dry them. Braking efficiency might otherwise be reduced by the moisture and the brake rotors could also be corroded. ◀

Caring for your car

Exterior finish

To provide effective corrosion protection, multilayer paintwork is applied at the factory. Cathaphoretic immersion priming techniques are supplemented using special body-cavity protectants, with the application of specially-developed and extensively tested materials. A layer of flexible PVC is first applied to the undercarriage. Following this, a comprehensive undercoating treatment with a wax-based protectant is applied. Regular maintenance makes an important contribution to maintaining the safety and resale value of your vehicle.

Increasing awareness of the effects of harmful environmental factors on vehicle finishes have led paint and vehicle manufacturers to initiate ongoing programs designed to further improve the durability of their finishes. Despite this, environmental factors that occur locally or regionally can have negative effects on the finish of your vehicle. These should guide you in determining the frequency and extent of your efforts to maintain the vehicle finish.

Depending upon material and type of impact (perforation of paint layer), physical stresses from sand, road salt, gravel, etc., can cause corrosion to start extending beneath the finish, starting at the point of impact.

Road dirt, tar spots, dead insects, animal droppings (strong alkali concentration) and tree excretions (resins and pollen) all contain substances capable of causing damage when allowed to remain on the finish of your car for any period of time (spots, etching, flaking, separation in the top coat).

In industrial areas, deposits of flue dust, lime, oily soot, precipitation containing sulfur-dioxide (acid rain) and other environmental pollutants will damage the car's finish unless adequate care is provided – even though this generally limited to the outside horizontal surfaces.

In coastal regions, high levels of atmospheric salt and humidity promote corrosion.

In tropical zones temperatures of over 100 °F (40 °C) in the shade prevail, in addition to heavy ultraviolet radiation and high humidity. Under those circumstances light colored paints reach temperatures of up to 180 °F (80 °C) and dark paints up to 250 °F (120 °C).

Caring for the vehicle finish

Regular washing is a preventive measure against long-term effects from substances that are harmful to the vehicle's finish, especially if you drive your vehicle in areas with high levels of air pollution or aggressive natural substances (tree resins, pollen).

Nevertheless, you should immediately remove especially aggressive substances. Failure to do so can lead to changes in the paint's chemical structure or to discoloration. Gasoline spilled during refueling, oil, grease and brake fluid should always be cleaned away immediately, as should bird droppings. All of these substances cause damage to the finish.

Any contamination remaining on the surface of the vehicle will be especially conspicuous after washing. Use cleaning fluid or alcohol with a clean cloth or cotton pad to remove. Remove tar spots with tar remover. After cleaning, the affected areas should be waxed to ensure continued protection.



A full range of car-care products is available from your BMW center. ◀

Waxing your car

Protect the finish using carnauba or synthetic-based waxes only.

The best way to determine when the finish needs to be waxed is by noting when water stops beading on the surface.

You can use a glass cleaner to remove any wax or silicone that may have been left on the windows during waxing.



A full range of car-care products is available from your BMW center. ◀

Paint damage

You can touch up small areas of paint damage with a BMW spray paint or a BMW touch-up stick.

The paint color code for your car is provided on a sticker located next to the type plate and on the first page of your Service and Warranty Information Booklet.

Damage caused by flying stones, scratches, etc., must be touched up without delay to prevent rust from forming.

If corrosion has started to form in an area with paint damage, remove all rust and clean the area. Then prime the area with a BMW Primer Stick. Finally, apply the finish coat. Wait a few days, then polish the repaired area. Finish by applying a wax preservative.

More extensive paint damage should be professionally repaired in accordance with the manufacturer's instructions.

Your BMW center uses original BMW finish materials in accordance with official repair procedures.

Caring for other vehicle components and materials

Light-alloy wheels should be treated with alloy wheel cleaner, especially during the winter months. However, do not use aggressive products containing acids, strong alkalis or abrasives. Do not use steam cleaners operating at temperatures above 140 °F (60 °C). Follow the manufacturer's instructions.

If your vehicle has chrome parts* such as the window frames and door handles, be especially careful about cleaning them with plenty of water and possibly a shampoo supplement as well after the roads have been salted. Use chrome polish as an additional treatment.


You can use window and glass cleaner to clean inside window surfaces and mirrors without smearing and streaking. Never use polishing pastes or abrasive (quartz) cleansers on mirror lenses.

Caring for your car

Plastic components, vinyl upholstery, headliners, lamp lenses, the clear cover of the instrument panel and components with a sprayed dull black surface can be cleaned with water (add plastic shampoo as required). Do not allow moisture to soak through the seats or headliner. Never use solvents such as lacquer thinner, heavy-duty grease remover, fuels, etc.

Rubber components should be cleaned with water only; a rubber treatment or silicone spray may also be applied.

Clean the wiper blades with soapy water. The wiper blades should be replaced twice a year, before and after the cold season. This especially important for vehicles with a rain sensor.


 Use only wiper blades approved by BMW. ◀

The safety belts should be cleaned with a mild soap and water solution without removing them from the car. Never attempt chemical or dry cleaning, as damage to the belt fabric could result.

After cleaning, never allow the inertia reel to retract the belts until they are completely dry. Dirty safety belts prevent the inertia reel mechanism from retracting the strap properly, and thus constitute a safety hazard.

Heavily soiled floor carpets and mats* can be cleaned with an interior cleaner. The floor mats can be removed from the vehicle for cleaning.

Please use only a damp cloth to clean wooden fascia panels and components. Follow up by drying with a soft cloth.

 A full range of car-care products is available from your BMW center. ◀


Care of upholstery materials

Depressions in the upholstered materials resulting from everyday use can be brushed up by brushing "against the nap" with a lightly dampened 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.

Lint on upholstery materials, textile or leather remnants that have been worn into the upholstery may be removed with a lint brush or a Velcro® brush. A cleaning glove is available for particularly "stubborn" lint. 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.

If the vehicle will be stored for an extended period, or if it is exposed to intense sunlight, cover all seats or the windows to prevent fading.

 A full range of car-care products is available from your BMW center. ◀

The buildup of an electrostatic charge on the seat covers, particularly if atmospheric humidity is low, can give the occupants an unpleasant electric shock if they touch metal body parts after leaving the vehicle. Although this not dangerous in any way, it can be avoided by touching a bare or polished metal part of the car while getting out.

Leather care

The leather upholstery* used by BMW is a natural product of the highest quality, processed using state-of-the-art methods to ensure that it will maintain its high quality for years to come, provided that it is properly cared for.

Because this product is manufactured using natural materials, you must make allowance for its special characteristics and for the peculiarities of its use and care.

Regular periodic cleaning and care are essential, as dust and road dirt act as abrasives in the pores and creases of the material. This leads to wear spots and premature brittleness on the surface of the leather. We therefore suggest that you clean the leather with a vacuum cleaner or dust cloth at frequent intervals.

For cleaning use BMW leather cleaning foam.

Since dirt and grease gradually attack the protective layer of the leather, the cleaned surfaces should be treated with BMW leather care agent. This also acts as an antistatic agent.

To protect against moisture and water treat the leather with BMW Impregnating Agent.


We recommend that you perform this procedure twice a year on leather exposed to normal use.

Spills should be wiped up immediately. Remove grease and oil stains without rubbing, but rather by dabbing with spot remover.

If the upholstery is to be exposed to intense sunlight or if the vehicle is to be stored for an extended period, cover all leather surfaces (or, better yet, the windows) to prevent fading.




A full range of car-care products is available from your BMW center. ◀

 Cleaning agents can contain substances that are dangerous or pose health risks. Therefore always comply with the warnings and danger notices on the package. Open the doors or windows on your vehicle when cleaning the interior. Never clean your vehicle with solvents or other materials not specifically intended for this application. ◀



- 1 Front airbag for driver and passenger
- 2 Side impact Head Protection System (front)
- 3 Side airbags (front and rear* side)

Important safety notices

 Do not attempt to remove the gas generators of the airbag supplemental restraint system from the vehicle. Testing and service procedures are to be performed exclusively by specially-qualified technicians. In the event of a malfunction, deactivation or triggered actuation (as a response to an accident) of the airbag restraint system, consult your authorized BMW center for repairs or service operations.

Do not modify or tamper with either the wiring or the individual components in the airbag system. These include the padded steering wheel hub, the instrument panel, the side trim panels of the front or rear doors and the roof pillars or the sides of the headliner. Never tape the air bag cover panels, cover them over or alter them in any other way. Do not remove or dismantle the steering wheel.

To ensure compliance with official safety regulations, have an authorized BMW center dispose of airbag generators.

Unprofessional attempts to service the system could lead to failure in an emergency or undesired airbag activation, either of which could result in personal injury. ◀

Consult your authorized BMW center regarding special procedures if you intend to store the vehicle for more than three months.

Any BMW center will gladly provide information on the value of technical modifications to the car, the legal position and the manufacturer's recommendations. For this purpose, the center requires the Vehicle Identification Number and, in some cases, also the engine number.

Light-Emitting Diodes (LEDs)

Light-emitting diodes installed behind translucent lenses serve as the light source for many of the controls and displays in your vehicle. These LEDs resemble conventional lasers and are classified by law as "Class 1 light-emitting diodes".



Do not remove the protective lens and avoid staring directly at the unfiltered beam for extended periods (several hours), as inflammation of the iris could result. ◀

OBD connector



The Onboard Diagnostic (OBD) connector is on the driver's side, underneath the left-hand side of the instrument panel, under a cover. The cover has the letters "OBD" on it.

The purpose of the OBD system is to assure proper emission control system operation for the vehicle's lifetime by monitoring emission-related components and systems for deterioration and malfunction.

An illuminated indicator informs you of the need for service, not that you need to stop the vehicle. Your system should be checked, however, at the earliest possible opportunity.

If the indicator blinks or flashes, this indicates a high level of engine misfire. Reduce speed and contact your nearest BMW center immediately. Severe engine misfire over only a short period of time can seriously damage emission control components, especially the catalytic converter.

When the fuel filler cap is not properly tightened, the OBD system can detect the vapor leak and the indicator will light up. If the fuel filler cap is subsequently tightened, the indicator should extinguish after a short time.



**Replacement procedures:**

Onboard tool kit [140](#)
Windshield wiper blades [140](#)
Lamps and bulbs [140](#)
Remote control [147](#)
Changing tires [148](#)
Battery [151](#)
Fuses [153](#)
Microfilter [154](#)

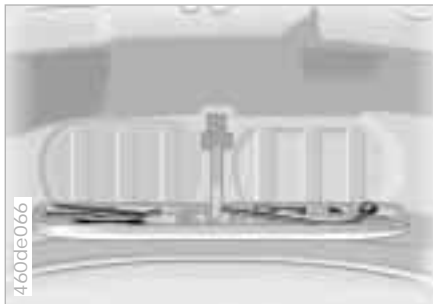
In case of electrical malfunction:

Fuel filler door [155](#)
Sliding/tilt sunroof [155](#)

Assistance, giving and receiving:

Jump-starting [156](#)
Towing the vehicle [157](#)

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The onboard tool kit is located in the luggage compartment lid.

Loosen the wingnut to open.

Windshield wiper blades




- 1 Rotate the wiper arm completely out from the windshield
- 2 Position the wiper blade at an angle and pull the release spring (arrow)
- 3 Fold the wiper blade down and unhook it toward the windshield
- 4 Pull the wiper blade past the wiper arm toward the top
- 5 Insert a new wiper blade and apply pressure until you hear it engage.


 Use only wiper blades approved by BMW. ◀

Lamps and bulbs

The lamps and bulbs make essential contributions to the safety of your vehicle. Observe the following instructions during bulb replacement carefully. If you are not familiar with any of the procedures, consult your authorized BMW center.

 Do not touch the glass portion of a new bulb with your bare hands since even small amounts of impurities burn in to the surface and reduce the service life of the bulb. Use a clean cloth, paper napkin, or a similar material, or hold the bulb by its metallic base. ◀

A replacement bulb set is available from your BMW center.

 Whenever working on the electrical system, switch off the electrical accessory you are working on or disconnect the cable from the negative terminal of the battery. Failure to do this could result in short circuits.

To prevent injuries and damage, comply with any instructions provided by the bulb manufacturer. ◀

Lamps and bulbs




The illustration shows the left-hand side of the engine compartment.

1 Low beams

H7, 55 watt bulb


2 High beams

H7, 55 watt bulb

 The H7 bulb is pressurized. Therefore, wear safety glasses and protective gloves. Failure to comply with this precaution could lead to injury if the bulb is accidentally damaged during replacement. ◀

1 Turn the bulb holder to the left and remove


2 Remove and replace the bulb.

 When cleaning the headlamps, please observe the following:

- ▷ Do not clean by wiping with a dry cloth (scratches). Never use abrasives or strong solvents to clean the covers
- ▷ Remove dirt and contamination (such as insects) by soaking with BMW Car Shampoo and then rinsing with plenty of water
- ▷ Always use a deicer spray to remove accumulated ice and snow – never use a scraper. ◀

Xenon lamp*

The service life of these bulbs is very long and the probability of a failure is very low, provided that they are not switched on and off an unusual number of times. If one of these bulbs should nevertheless fail, it is possible to continue driving with great caution using the fog lamps, provided traffic laws in your area do not prohibit this.

 Because of the extremely high voltages involved, any work on the lighting system should be carried out by qualified personnel only. ◀

142 Lamps and bulbs



The illustration shows the left-hand side of the engine compartment.

Parking lamp

5 watt bulb

- 1 Turn the bulb holder to the left (arrow) and remove
- 2 Remove and replace the bulb.



Front turn signals

21 watt bulb

- 1 Using a screwdriver, release the inner hook through the upper opening
- 2 Pull out the lamp toward the front
- 3 Applying light pressure, turn the bulb to the left. Remove and exchange the bulb



- 4 Insert the 2 pins on the lamp into the guides on the vehicle
- 5 Push the lamp in. Carefully apply pressure until you hear it engage.



Side turn signals*


5 watt bulb

- 1 Use finger pressure against the rear end of the lens (arrow) to press it forward for removal
- 2 Apply gentle pressure to the bulb while turning it to the left to remove.

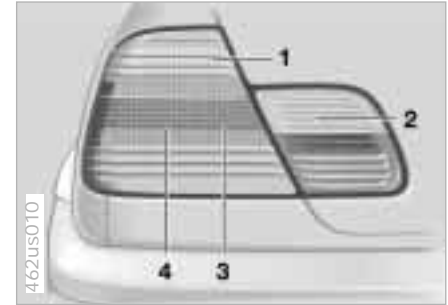


Fog lamps

HB4, 55 watt bulb

 The bulb is pressurized. Therefore, wear safety glasses and protective gloves. Failure to comply with this precaution could lead to injury if the bulb is accidentally damaged during replacement. ◀

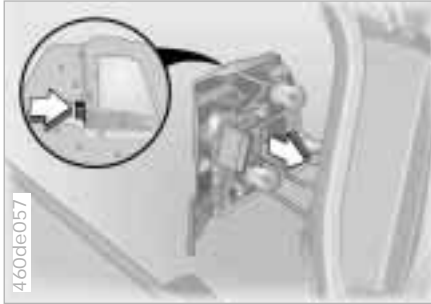
Please contact a BMW center in case of a malfunction.



Tail lamps

Tail lamps (4): Bulbs 21/4 watt
 Remaining bulbs: 21 watt

- | | |
|------------------------|--------|
| 1 Turn signal | yellow |
| 2 Backup lamp | white |
| 3 Tail lamp | red |
| 4 Tail lamp/Brake lamp | red |



The illustration shows the right-hand luggage compartment opening.

Bulbs in the fender:

All of the bulbs are integrated in a central bulb holder.

- 1 Release the bulb holder (arrow, partial view) and remove
- 2 Pull the power supply receptacle off and set the bulb holder aside (on the luggage compartment floor, for instance)
- 3 Applying light pressure, turn the bulb to the left. Remove and exchange the bulb
- 4 Plug in the power supply receptacle
- 5 Position the bulb holder for reinstallation. Apply gentle pressure on the button (arrow, partial view) until you hear it engage.



Bulbs in the luggage compartment lid:

- 1 Using a screwdriver, loosen the clip



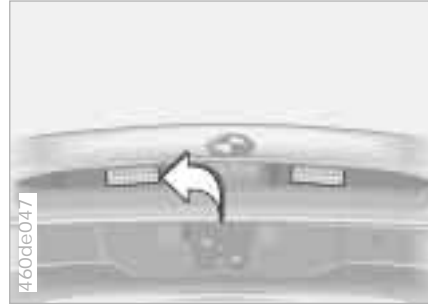
- 2 Rotate the trim downward (arrow 1). Release the bulb holder (arrow 2) and remove it
- 3 Applying light pressure, turn the bulb to the left. Remove and exchange the bulb
- 4 Press the bulb holder into position until you hear it engage
- 5 Reinstall the trim with the clip.



Center (high-mount) brake lamp

LED light bar on the rear window.

Please contact a BMW center in the case of a malfunction.



License plate lamps

5 watt bulb

- 1 Place a screwdriver in the slot and press toward the left (arrow) to release the lens
- 2 Replace the bulb.



Interior lamps

Front

Interior lamps (6 watt bulb) with reading lamps (2 x 6 watt bulbs)

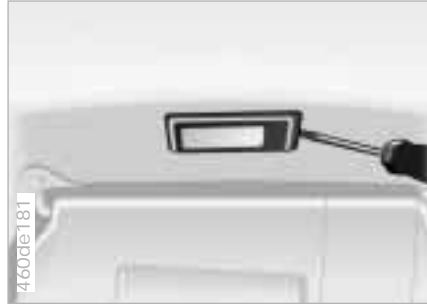
- 1 Using a screwdriver, press the lamp out toward the front
- 2 Turn the bulb holder to the left and remove
- 3 Remove and replace the bulb.



Rear

Interior lamp (6 watt bulb) with reading lamp (6 watt bulb)

- 1 Pry the lamp out using a screwdriver
- 2 Turn the bulb holder to the left and remove
- 3 Remove and replace the bulb.



Lighted make-up mirror

10 watt bulb

- 1 Remove the bulb housing – use a screwdriver if necessary
- 2 Replace the bulb.

Footwell lamps

5 watt bulb

- 1 Pry the lamp out using a screwdriver
- 2 Replace the bulb.

Glove compartment lamp

5 watt bulb

- 1 Pry the lamp out using a screwdriver
- 2 Replace the bulb.

Luggage compartment lamps

One lamp each in the bulb holder of the tail lamps: 10 watt bulb.

- 1 Apply a screwdriver to the recess and remove the lens
- 2 Replace the bulb.

Remote control



New transmitter


If you place a new transmitter into service (either a replacement or an additional transmitter), it must be initialized:

- 1 Enter the vehicle and close the doors
- 2 Turn the ignition key briefly (max. 5 seconds) to position 1 in the steering lock and then turn it back to position 0. Remove the key
- 3 Press button 1 (refer to the illustration) and hold it. Maintain pressure on button 1 while rapidly pressing button 2 three times in succession within a period of 10 seconds
- 4 Release button 1
- 5 The central locking system activates and releases all lock mechanisms in rapid succession to indicate that the initialization procedure has been successfully completed.


If the central locking system fails to respond, you must repeat the initialization procedure.

If you possess additional transmitters for your vehicle (up to a maximum of four units), you must now initialize these as well. Be sure that no more than 30 seconds is allowed to elapse between the individual initialization procedures. Repeat steps 3 and 4 for each of the transmitters when doing this. The central locking system will confirm every initialization procedure as described in step 5.

In the event of a system malfunction, please contact your authorized BMW center, who can also provide you with replacement transmitters.

 Whenever you take receipt of a new transmitter, always turn it to position 2 (ignition switched on) in the ignition lock and then back to the home position, so that the electronic immobiliser (see page 33) "accepts" the new key.

Protect the transmitters against unauthorized use, e.g. by handing in only door and ignition key 3 or the spare key (see page 32) at a hotel reception. ◀

 Take these precautionary measures if you have either a flat tire or are changing the tire:

Park the vehicle as far from the flow of traffic as possible and on firm ground. Switch on the hazard flashers. Turn the steering wheel to the straight-ahead position, remove the key and engage the steering lock. Shift into 1st or reverse (selector lever in "Park" with automatic) and engage the parking brake. All passengers should be outside the car and well away from your immediate working area (behind the guardrail, for instance).

If a warning triangle or portable hazard warning lamp is available, set it up on the roadside at an appropriate distance from the rear of the vehicle. Comply with all safety guidelines and regulations.


Change the wheel only on a level, firm surface that is not slippery. Avoid jacking the car on a soft or slippery support surface (snow, ice, loose gravel, etc.), as it could slide sideways.

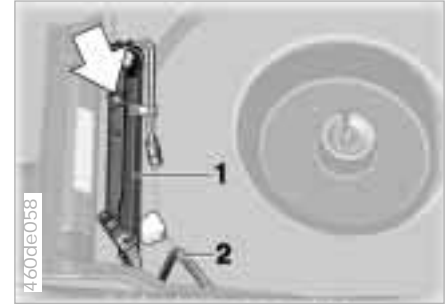
Ensure that the jack is positioned on a solid support surface.

Do not place wooden blocks or similar objects under the jack. If this done, the jack might not be able to reach its full support capacity because of the limited height.

Do not lie under the vehicle or start the engine when the vehicle is supported by the jack – risk of fatal injury. ◀

Your BMW has either a spare* or space-saver tire* for temporary use and to ensure your mobility.

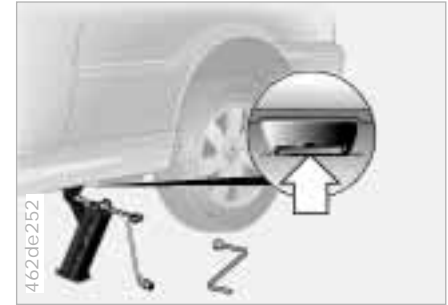
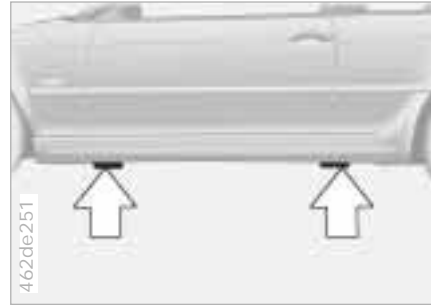
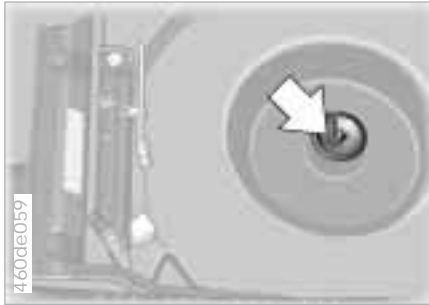
 Take the luggage compartment floor panel completely out to remove the spare tire* (refer to page 41). ◀



You will need the following

In order to avoid rattling noises later, note the position of the tools when you remove them and return them to their original position when you are through using them.

- ▷ A jack (1)
 - Raise the floor panel in the luggage compartment (refer to page 41) and unscrew the red wing nut (arrow).
 - When you have completed work, screw the jack all the way back down. Fold the handle back and insert it in its holder
- ▷ Wedge (2)
 - The wedge, or wheel chock, is located behind the jack on the luggage compartment's rear wall. Loosen the wing nut to remove it



- ▷ Spare tire* or space-saver spare tire*
Located next to the jack.
Loosen the wing nut (arrow) by hand, remove the storage tray and take out the spare wheel
- ▷ Lug wrench – is in the onboard tool kit on the underside of the luggage compartment lid (refer to page 140).

Procedure

- 1 Please observe the safety precautions stated on the previous page
- 2 Secure the vehicle against rolling: Place the wedge against the rear surface of the front tire on the side opposite the side being raised. If the vehicle is parked on a downward slope, place the wedge securely in front of the tire. If the wheel must be changed on a surface with a more severe slope, take additional precautions to secure the vehicle from rolling
- 3 Wheels with full wheel covers: Reach into the ventilation openings and pull the cover off


- 4 Loosen the lug bolts 1/2 turn
- 5 Place the jack under the jacking point nearest the wheel you are changing (refer to the illustration at the left) in such a way that the base of the jack is positioned vertically under the jacking point relative to the entire surface, and that the jack head fits securely into the square recess of the jacking point (refer to illustration detail) when the jack is cranked
- 6 Crank the car up until the wheel in question is raised from the ground
- 7 Unscrew the lug bolts and remove the wheel
- 8 Remove accumulations of mud or dirt from the mounting surfaces of the wheel and hub; clean the lug bolts




- 9 Position the new wheel or the space-saver spare tire* on the hub and screw at least two lug bolts finger-tight into opposite bolt holes
- 10 Screw in the remaining lug bolts. Tighten all the bolts securely
- 11 Lower the jack and remove it from beneath the car
- 12 Tighten the lug bolts, alternating between bolts positioned opposite one another



- 13 If your wheels are equipped with full wheel covers*: Position the wheel cover with the valve opening over the valve (arrow) and press it onto the wheel with both hands
- 14 Inflate tire to the proper pressure as soon as possible. For vehicles with RDC Tire Pressure Control*: Reactivate the system after mounting either the spare tire or after inflating tire to proper pressure. (Refer to page 82).

 Only use original BMW full wheel covers, otherwise, the trim piece may not fit securely. The full wheel cover may not be installed on the space-saver spare tire*, since this could damage the cover. ◀

 The vehicle jack is designed for changing tires only. Never use it to raise another vehicle model or any load of any kind, as this could lead to accidents and personal injury. Have the lug bolts checked for proper tightness with a calibrated torque wrench at the earliest possibility [torque specification: 72 lb.ft. (100 Nm)]. ◀

When storing the wheel, take care to ensure that you do not damage the retaining pin in the spare tire recess.

If light-alloy wheels other than Original BMW light-alloy wheels have been mounted, it may be necessary to use different lug bolts for those wheels.

Replace the defective tire as quickly as possible and have the new wheel balanced.


For black-painted aluminum wheels*, use only those balancing weights approved by BMW for use with light alloy wheels. Never attempt to balance these wheels using standard balance weights.

Driving with the space-saver spare tire*

Drive cautiously and do not exceed a speed of 45 mph (80 km/h).

Be aware that vehicle handling will be altered. Slower brake response time, longer braking distances and changed steering characteristics may be anticipated when approaching limit conditions.

The changes in handling characteristics will be even more pronounced in conjunction with winter tires.

 Only one space-saver spare tire may be mounted. Mount a wheel and tire with the same size and specifications as the others at the earliest possible opportunity. Maintain correct tire pressures. Refer to page 28. ◀



Battery location

The battery is located at the right-rear of the luggage compartment. Raise the luggage compartment floor panel (refer to page 41), and give a screwdriver or a coin a 1/4-turn counterclockwise to release the two fasteners plus an additional fastener in the upper-center side trim panel. In order to remove the storage tray, slide the side trim panel slightly upward.

Symbols

You will find the following symbols on your car battery. To avoid injury, please comply with the corresponding precautions whenever you work with or near the battery.



Before handling the battery, please read the following information.



Wear eye protection. Do not allow particles containing battery acid or lead to come into contact with your eyes, your skin, or your clothing.



Battery acid is extremely corrosive. Wear eye protection and protective gloves. Do not tip the battery. Battery acid can leak from the ventilation openings.



Ensure that children keep well away from batteries and battery acid.



Fire, sparks, an open flame and/or smoking are not allowed in the vicinity of the battery. Avoid sparks from electrical cables or electrical equipment. Turn the key to position 0 in the steering lock when the battery is disconnected or connected. Never short-circuit the battery terminal, otherwise you could be injured by electrical sparks.



A highly-explosive gas is generated when the battery is charged.



If you happen to get acid in your eyes, rinse thoroughly for 15 minutes with clear water. Consult a physician immediately. Rinse your skin or clothing with plenty of water if you get acid spray on them. If electrolyte is accidentally ingested, consult a physician immediately.



In order to protect the battery case from ultraviolet radiation, do not place it in direct sunlight. A discharged battery can freeze. Store the battery in areas where temperature remains above freezing.

Battery care

The battery is completely maintenance-free, as per DIN 43 539/2; that is, the amount of acid put in the battery originally will normally last for the service life of the battery.



Charge condition

With the help of the "Magic Eye", a hydrometer, you can read the battery's charge state:

- ▷ Green: Adequate charge.
- ▷ Black: Not adequately charged. The battery must be recharged. Please contact your authorized BMW center for additional information.
- ▷ Yellow: Replace the battery.



The service life specified for the battery can be achieved only if it is always kept adequately charged. If the vehicle is primarily used for stop-and-go traffic, be sure to check the charge state often. ◀

Removal and installation



Do not disconnect the battery cables when the engine is running, otherwise the ensuing voltage surge will damage the vehicle's on-board electronics.

Do not alter the positive terminal wiring in any way, otherwise the safety battery terminal's safety function will no longer be guaranteed. Repair and disposal are to be performed exclusively by trained technicians. ◀

When removing the battery, disconnect the cable on the negative terminal first, then the cable on the positive terminal. Loosen the center adjusting screw on the battery retaining strap (use the screwdriver included with the onboard tool kit) and disconnect the strap.


When installing a battery, connect the positive terminal first, then connect the negative terminal.



When installing a battery, be sure that it is mounted properly and that the retaining bracket is installed with the center adjustment screw. If this is not done, the battery will not be adequately secured in case of an accident. ◀


Charging the battery


Charge the battery in the vehicle only when the engine is not running.

 Before doing any work on the electrical system, be sure to unclamp the cable from the battery's negative terminal, or it could cause short-circuiting, a fire or personal injury. ◀

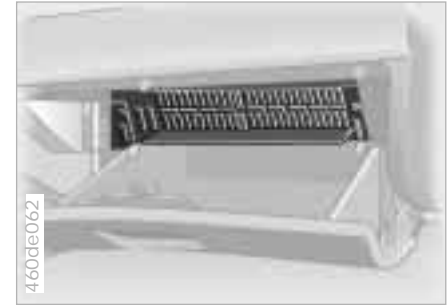
If the vehicle is to be parked longer than 4 weeks, disconnect the battery from the vehicle's electrical system by disconnecting the negative terminal cable.

If you intend to store your car for longer than six weeks: Remove the battery, charge it and store it in a cool (but frost-free) room. Recharge the battery every 6 months at the latest, at the very least before each installation, or else it will be unusable. Every time the battery is discharged, especially over extended periods, its service life is reduced.

 Return used batteries to a recycling point or your authorized BMW center. Maintain the battery in an upright position for transport and storage. Secure the battery against tilting in transit. ◀

 Storage periods during which the battery is disconnected are not taken into consideration by the Service Interval Display for changing the brake fluid.

Therefore, make sure that the brake fluid is changed every two years at the latest, regardless of the display. Comply with the information provided on page 127. ◀




If an electrical accessory should fail, switch it off and check the fuse.

In glove compartment

- 1 Open the glove compartment and turn the two white quick-release fasteners outward. Spare fuses and plastic tweezers are located on the fuse holder
- 2 Use the plastic tweezers to remove the fuse for the accessory or equipment that has stopped working
- 3 If the fuse is burned through (the metal strip is melted and separated), replace it with a new fuse of the same ampere rating (color code).

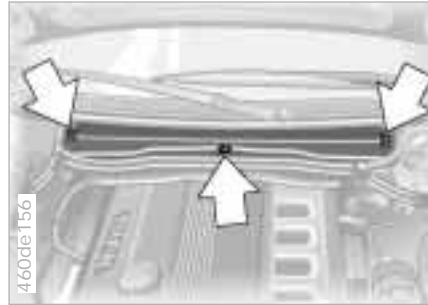
The fuses, their respective ampere ratings and the equipment in their circuits are all indicated below the fuse holder.

To close the fuse holder, snap it into position at the top and turn the two fasteners inward.

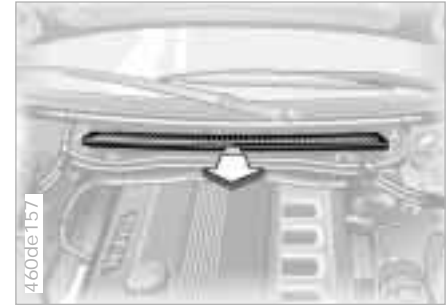
 Do not attempt to repair a burned fuse or replace it with a fuse having a different color or amperage rating. To do this could cause a fire in the vehicle resulting from a circuit overload. ◀

If a fuse blows repeatedly, refer the problem to your authorized BMW center for repair.

Microfilter



- 1 Open the hood
- 2 Release the three fasteners (arrow) with a 1/4-turn
- 3 Remove the filter cover



- 4 Remove the filter by pulling toward the front and install a new one
- 5 Position the filter cover and secure it with the three fasteners.



Manual release

Pull the knob with the fuel pump symbol (arrow) on the right trim panel of the luggage compartment.




Manual operation

- 1 Remove the interior lamp (refer to page [145](#)), reach into the opening and push out the panel
- 2 Turn the sunroof's steel crank with the Allen key from the onboard tool kit (refer to page [140](#)) in the desired direction.

Never use spray starter fluids.

If the battery is discharged the engine can be started with the use of two jumper cables and the battery of another vehicle. Always use jumper cables with fully insulated handles on the terminal clamps.

 Contact with parts conducting electrical current on a running engine can be harmful or fatal. ◀


Carefully comply with the following instructions to avoid personal injury and damage to one or both vehicles:

- 1 Ensure that the battery on the support vehicle is also rated at 12 volts, and that the capacities of the two batteries (Ah) are roughly comparable (printed on casing)
- 2 Leave your battery connected to the car electrical system
- 3 Make sure that there is no contact between the bodywork of the two vehicles – short circuit risk!
- 4 Start by connecting the jumper cable from the positive terminal of the support vehicle to the positive terminal connector located in your BMW's engine compartment.



The cover of the positive terminal connector is marked with a "+" sign. Refer to the illustration. Remove by pulling the tab (arrow 1)

- 5 Then connect the negative terminals. Attach the cable to either the support vehicle's negative battery terminal (-), or to a suitable ground on its engine or bodywork. Then connect the other end of the cable to a ground on the engine or on the bodywork of the vehicle that is to be started. This a special nut that is provided on the BMW (arrow 2)

 Observe the same sequence for connecting the jumper cables when helping other vehicles, otherwise there is the risk of injury if sparks generate at the battery. ◀

- 6 If the battery on the support vehicle is weak, start the engine and let it run
- 7 Start the engine on the vehicle needing the jump-start, and allow it to run as usual. If the first start attempt is not successful, wait a few minutes before another attempt in order to allow the discharged battery to recharge
- 8 Before disconnecting the jumper cables from your BMW, turn on the rear window defroster and set the blower to the highest speed; allow the engine to run approx. 10 seconds. This will prevent a voltage surge from the voltage regulator to the electrical accessories
- 9 Then disconnect the jumper cables in reverse sequence.

Depending on the cause of the fault, recharge the battery.



Tow fitting

The screw-in tow fitting is stored in the onboard tool kit; be sure that it remains in the vehicle at all times. This fitting is designed for installation in the tow sockets located at the front and rear of the vehicle, and is intended for towing on proper road surfaces only. This fitting should not be used to pull a vehicle out of deep snow, mud, sand, etc. Always observe all applicable towing laws and regulations.

Access to tow sockets


Front

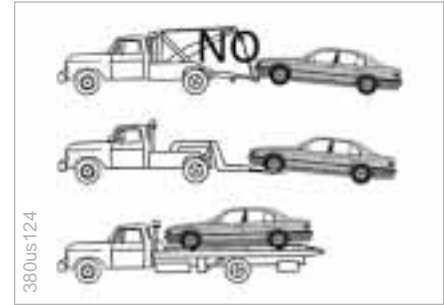
Press out the cover panel with a screwdriver above on the recess.



Rear


Press out the cover panel with a screwdriver above on the recess.

 Tightly screw in the tow fittings all the way, otherwise the threads could be damaged. Do not tow the vehicle by the chassis, as otherwise it could be damaged and also lead to an accident. ◀

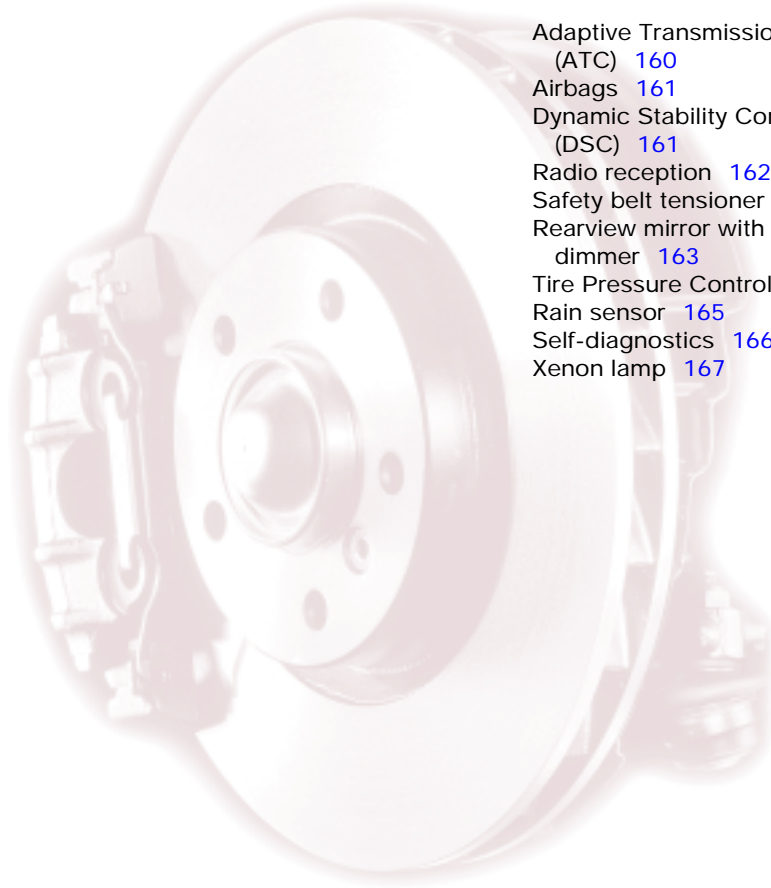


Towing with a commercial tow truck

- ▷ Do not tow with sling-type equipment.
- ▷ Use wheel lift or flat bed equipment.
- ▷ Please comply with applicable towing laws.

 Never allow passengers to ride in a towed vehicle for any reason. Never attach tie-down hooks, chains, straps, or tow hooks to tie rods, control arms, or any other part of the vehicle suspension, as severe damage to these components will occur. ◀





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In order to include driving conditions in its calculations, ATC registers curves and both uphill and downhill gradients. For example, if you maintain speed through a curve, it does not upshift. On uphill gradients, it shifts up only when the engine speed increases in order to make more efficient use of power reserves. On downhill gradients, ATC shifts down when the speed of the vehicle increases and the driver must apply the brakes.

On vehicles with automatic transmission, the ATC (Adaptive Transmission Control) uses a number of factors to calculate the maximally efficient gear. In this process, it considers your individual driving style as well as current driving conditions.

ATC recognizes your personal driving style from the positions and movements of the accelerator pedal, deceleration when braking and lateral acceleration through curves. Based on different shift characteristics – from comfort-oriented to performance-oriented – ATC will select the appropriate gear.



Deceleration sensors continuously monitor the physical forces acting upon the vehicle. If, as the result of a frontal collision, a deceleration is reached at which the protection of the safety belts alone is no longer adequate, the gas generators of the driver and passenger-front airbags are ignited. However, the passenger-side airbag is only triggered if an additional sensor has recognized that the passenger seat is occupied.

In the event of a side collision, the Head Protection and side airbags in the front or rear* are triggered if necessary.

The airbags located under the marked covers inflate and unfold in a matter of a few milliseconds. In this process they tear through the rated breaking points of the upholstered covers or press them out.

Because the inflation process must be virtually instantaneous, it is necessarily accompanied by a certain amount of ignition and inflation noise. The gas required to inflate the airbags is not dangerous, and the associated smoke then dissipates.

The entire process is completed within fractions of a second.

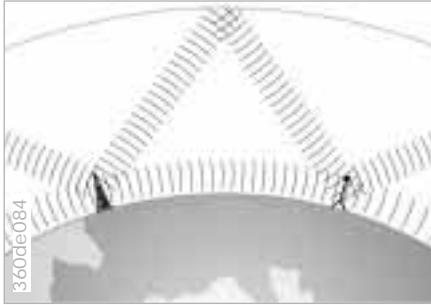
Highly sensitive sensors monitor the number of revolutions of the wheels, steering angle, lateral acceleration, brake pressure and the movement of the vehicle around its vertical axis.

If differences in the wheel speeds occur, the system counteracts the danger of wheelspin by reducing engine torque. If necessary, the system also responds with additional application of the brakes at the rear wheels.

If the system detects an instability in the vehicle's condition, the braking action can also be directed to the front wheels by the DSC in order to help stabilize the vehicle.

You may need some time to become accustomed to this system's intervention. However, it provides optimum propulsive force and driving stability.

The braking intervention may be accompanied by a certain degree of noise.



The radio waves – medium-wave, long-wave and short-wave – offer a wide range of reception, because the broadcast signals travel not only along the ground as surface waves, but also as atmospheric waves bounced back to earth from the ionosphere.

Frequency-modulation (FM) provides substantially better sound quality than AM. However, because FM transmissions rely on line-of-sight broadcast waves, their effective reception range is limited.

The limitations inherent to radio reception in a moving vehicle have been minimized by a number of innovative system designs:

The "Radio Data System" (RDS) makes sure that, for broadcast stations transmitting on several frequencies, the radio automatically tunes to the frequency with the best reception quality.

The Diversity Antenna system employs several FM antennas integrated within the rear window to provide three separate sources for receiving broadcast waves. An integral processor automatically selects the antenna with the best FM reception quality at any given time. The selection of the antenna takes place within milliseconds, and is therefore not noticed by the radio listener.



The safety belt tensioner responds to collisions by tightening the belts to ensure that occupants remain firmly positioned in their seats. A gas-pressure system retracts the buckle assembly to tension the shoulder and lap belts within fractions of a second. This reduces the tendency to slide under the lap belt.

Inside rearview mirror with automatic dimmer*



The semisolid reacts chemically to this electrical current, thus providing infinitely-variable dimming of the mirror (electrochromic technology).

As a result, it is no longer necessary to dim the mirror manually, and the driver can maintain full concentration on traffic.

The interior rearview mirror with automatic dimming feature reduces glare from following traffic by adapting the intensity of the reflected images to correspond to levels of light registered by the unit's sensors. The mirror reverts to its undimmed setting as soon as the light source disappears. One light sensor is mounted on the front of the mirror housing. This sensor, that is directed forward, measures light intensity in the area ahead of the vehicle. The second sensor is integrated within the mirror's glass. The electronic control system compares the light intensity from front and rear. The difference provides the basic parameter used to modulate an electrical current and induce chemical changes in a semisolid layer incorporated in the lens.

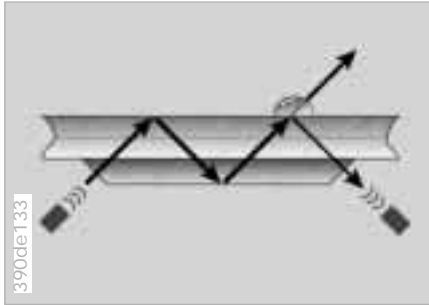
164 Tire Pressure Control (RDC)*



Near every wheel there is an antenna in the body that receives the signals from all four wheels. A central electronics system evaluates the quadruple signals and forwards any changes. The RDC plays an important part in driving safety.

This system regularly checks tire pressures and monitors all four tires even while driving, so you don't have to.

Behind the valve stem in every wheel, there is an extended-life electronic chip that has a pressure sensor, a transmitter and a battery. The pressure is measured in extremely short time intervals and then transmitted by a radio signal. If an irregularity is detected, the transmission rate is increased.



When the "Intermittent" wiper speed position is selected, the wiper reacts immediately if water is splashed onto the windshield from vehicles traveling ahead, for example. As a result, the rain sensor provides a contribution to driving safety and comfort.

Depending on the degree of wetness on the windshield, the rain sensor controls the operation of the windshield wipers.

Infrared light is carried along the surface of the windshield in an optical conductor in such a manner that it is reflected completely when the windshield is dry. The quantity of reflected light is measured.

If there is moisture on the glass, the amount of light reflected is reduced since the infrared light at the surface of the windshield can escape. The quantity of reflected light is thus a means of gauging the degree wetness on the windshield.



All of the important electrical and electronic systems in the vehicle are tested regularly and automatically – the driver does not have to perform any extra operations or adjustments.

The indicator lamps also come on briefly after the ignition has been turned on.

While you are driving, the functional status of the actuator motors (for the windshield wipers, power windows, seats, sunroof, etc.) is constantly analyzed by current measurements in their relays.

In the same manner, the electrical resistance of the airbag ignition generators and all of the remaining airbag components is measured at all times. Any fault in this system would be detected immediately by a current fluctuation that would necessarily accompany it. The fault would be indicated immediately by the airbag warning lamp.

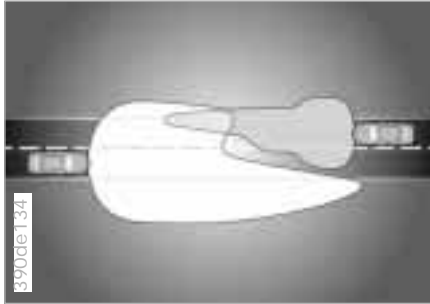
Even after you shut off the engine, the overall functional status of your vehicle is monitored. For example, all of the flaps of the heating and ventilation system travel to the nearest limit position. This action ensures that the system will be able to provide defrosting, regardless of other circumstances (if a malfunction in the heating or ventilation system should occur during the night while the vehicle is parked, for instance).

A calibration cycle runs every tenth time the engine is shut off. During this cycle, the actuator motors of all the heating and ventilation flaps travel to their limit stops in both directions. The limit positions and the return travel paths are checked in this manner in order to ensure that appropriate adjustments for the operating elements can be made at any time.

You will hear the sounds of the air flaps as the heater/ventilation system carries out its self-diagnostic functions after the ignition is shut off. All of the other self-diagnostics functions operate silently in the background.

Any faults detected during these self-diagnostics can be read out by your authorized BMW center during the next regularly-scheduled maintenance and corrected with a minimum of time.

Xenon lamp*

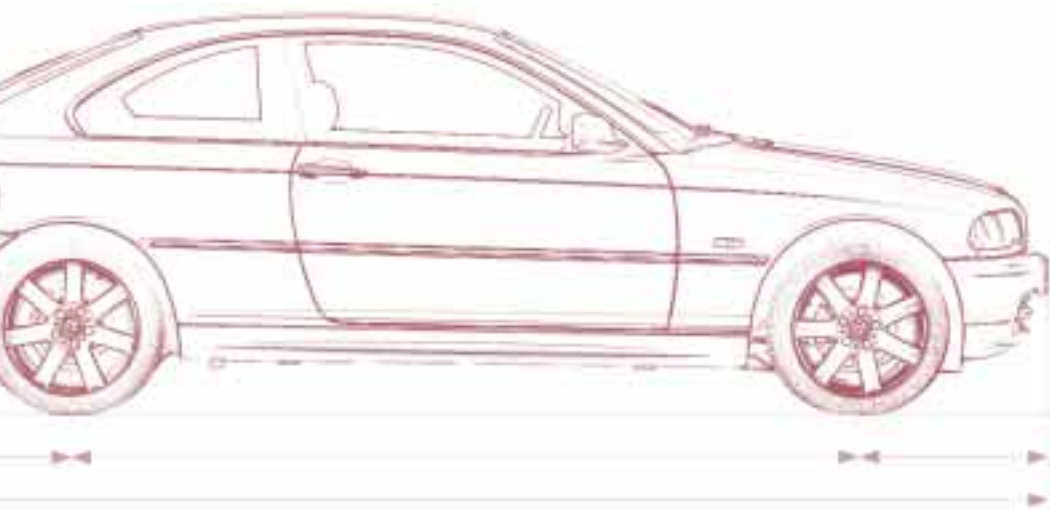


The xenon lamp provides forward illumination with significantly more brightness and uniformity than the traditional halogen lamp.

In a xenon lamp, an electric arc replaces the filament in order to generate intense illumination. A gas mixture in a quartz glass tube with metal vapor is ignited by a high electric voltage. The arc that is generated is then sustained by a lower voltage. When the lamp is turned on there is a brief period of high intensity. Maximum brightness is attained in approx. 15 seconds.

Xenon lamps provide significantly-improved visibility, especially during adverse weather conditions and driving situations (driving at night in heavy rain or through road repair areas where there are no lane markers, for instance).

Xenon lamps make a significant contribution to highway safety since other highway users, bicyclists and motorcyclists in the right lane, and pedestrians are more easily detected.



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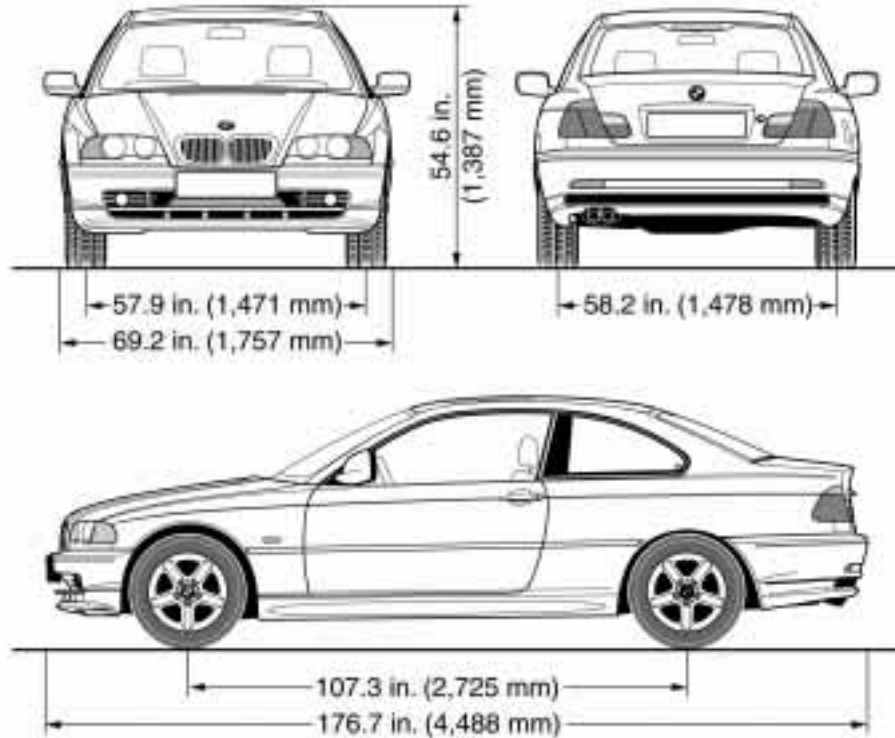
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170 **Engine data**

		BMW 323Ci	BMW 328Ci
Displacement	cu in (cm ³)	152.2 (2,494)	170.4 (2,793)
Number of cylinders		6	6
Max. output at engine speed	hp RPM	170 5,500	193 5,500
Maximum torque at engine speed	lb-ft (Nm) rpm	181 (245) 3,500	206 (280) 3,500
Compression ratio	ϵ	10.5	10.2
Stroke	in (mm)	2.95 (75)	3.31 (84)
Bore	in (mm)	3.31 (84)	3.31 (84)
Fuel-injection system		Digital Engine Electronics (DME)	



Minimum turning circle \varnothing 34.4 feet (10.5 m).

172 **Weights**

		BMW 323Ci	BMW 328Ci
Curb weight (with one person, ready for operation, full tank of fuel, options not included)			
with manual transmission	lbs (kg)	3,153 (1,430)	3,197 (1,450)
with automatic transmission	lbs (kg)	3,213 (1,457)	3,256 (1,477)
Approved gross vehicle weight			
with manual transmission	lbs (kg)	4,211 (1,910)	4,270 (1,937)
with automatic transmission	lbs (kg)	4,255 (1,930)	4,314 (1,957)
Approved front axle weight	lbs (kg)	1,962 (890)	1,973 (895)
Approved rear axle weight	lbs (kg)	2,348 (1,065)	2,370 (1,075)
Approved roof load capacity	lbs (kg)	165 (75)	165 (75)
Luggage compartment capacity	cu ft (liters)	14.5 (410)	14.5 (410)

Never exceed either the approved axle weights or the gross vehicle weight.

			Notes
Fuel tank reserve	gal. (liters) gal. (liters)	approx. 16.6 (approx. 63) approx. 2.1 (approx. 8)	Fuel specification: Page 26
Windshield washer system/ Headlamp washer system*	quarts (liters)	approx. 5.6 (approx. 5.3)	For details: Page 122
Cooling system including heater circuit	quarts (liters)	approx. 8.9 (approx. 8.4)	For details: Page 126
Engine oil and filter change	quarts (liters)	approx. 6.9 (approx. 6.5)	BMW High Performance Synthetic Oil Specifications: Page 124
Manual transmission, automatic transmission and differential		-	Lifetime fluid, no fluid change required

174 Electrical system

Battery

12 V, 80 Ah

Spark plugs

NGK BKR 6 EQUIP

Bosch FGR 7 DQP (under development)

Ribbed V-belt

Water pump – AC generator – Power steering

Ribbed V-belt 6 PK x 1538

A/C compressor

Ribbed V-belt 5 PK x 863



You can obtain Original BMW Parts and Accessories, as well as professional advice from your authorized BMW center. ◀

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P Q R

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Refueling

So that you will have important specifications available when you stop to refuel, we recommend that you supplement this table with data that apply to your vehicle.

Fuel

For a description, refer to page [26](#)

Designation	
AKI: minimum	
AKI: for rated performance	
AKI: for enhanced performance	

Engine oil

For a description, refer to page [124](#)

Quality	
---------	--

The space between the two marks on the dipstick corresponds to approx. 1.1 US quarts (1 liter).

Tire inflation pressures

For a description, refer to page [27](#)

	Summer		Winter	
	Front	Rear	Front	Rear
4 persons				
5 persons or 4 plus luggage				

**We wish you an enjoyable
driving experience.**



The Ultimate Driving Machine