Rider's Manual
K 1200 GT

BMW Motorrad

Motorcycle data/dealership details

Motorcycle data

Model

Vehicle identification number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

We congratulate you on your choice of a motorcycle from BMW and welcome you to the community of BMW riders. Familiarise yourself with your new motorcycle so that you can ride it safely and confidently in all traffic situations. Please read this Rider's Manual carefully before starting to use your new BMW motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features. In addition, it contains information on maintenance and care to help you maintain your motorcycle's reliability and safety, as well as its value. If you have questions concerning your motorcycle, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

We hope that you will enjoy riding your BMW and that all your journeys will be pleasant and safe.

BMW Motorrad.

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General instructions

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Overview

Chapter 2 of this Rider's Manual contains the general views that will provide you with an initial overview of your motorcycle. All maintenance and servicing work on the motorcycle is documented in Chapter 10. This record of the maintenance work you have had performed on your motorcycle is a precondition for generous treatment of goodwill claims.
When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

Indicates warnings that you must comply with for reasons of your safety and the safety of others, and to protect your motorcycle against damage.

Specific instructions on how to operate, control, adjust or look after items of equipment on the motorcycle.

◄ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

Tightening torque.

Item of technical data.

OE Optional extra
Your motorcycle was assembled complete with all the BMW optional extras you ordered.

OA Optional accessory
You can obtain optional accessories through your authorised BMW Motorrad dealer; optional accessories have to be retrofitted to the motorcycle.

EWS Electronic immobiliser (Elektronische Wegfahrsicherung).

ESA Electronic Suspension Adjustment

DWA Anti-theft alarm (Diebstahlwarnanlage)

ABS Anti-lock brake system

Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional extras (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences. If your BMW was supplied with equipment not described in this Rider's Manual, you will find these features described in separate manuals.

Technical data

All dimensions, weights and power ratings stated in the Rider's Manual are quoted to the standards and comply with the tolerance requirements of the Deutsche Institut für Normung e.V. (DIN). Versions for individual countries may differ.

Currency

The high safety and quality standards of BMW motorcycles are maintained by constant development work on designs, equipment and accessories. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. Nor can errors and omissions be entirely ruled out. We hope you will appreciate that no claims can be entertained on the basis of the data, illustrations or descriptions in this manual.

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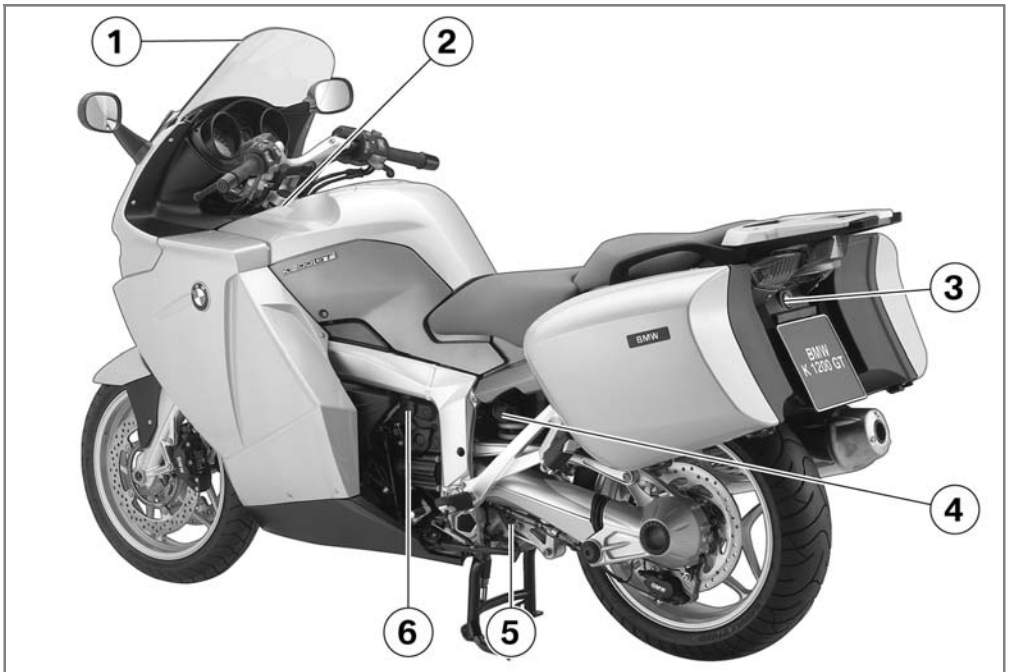
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BMW
BMW
K 1200 GT

General view, left side

1 Electrically adjustable windscreen (➡ 61)
2 Battery compartment (➡ 120)
3 Seat lock (➡ 57)
4 Adjuster, spring preload, rear (➡ 61)
5 Adjuster, damping, rear (➡ 62)
6 Power socket (➡ 84)

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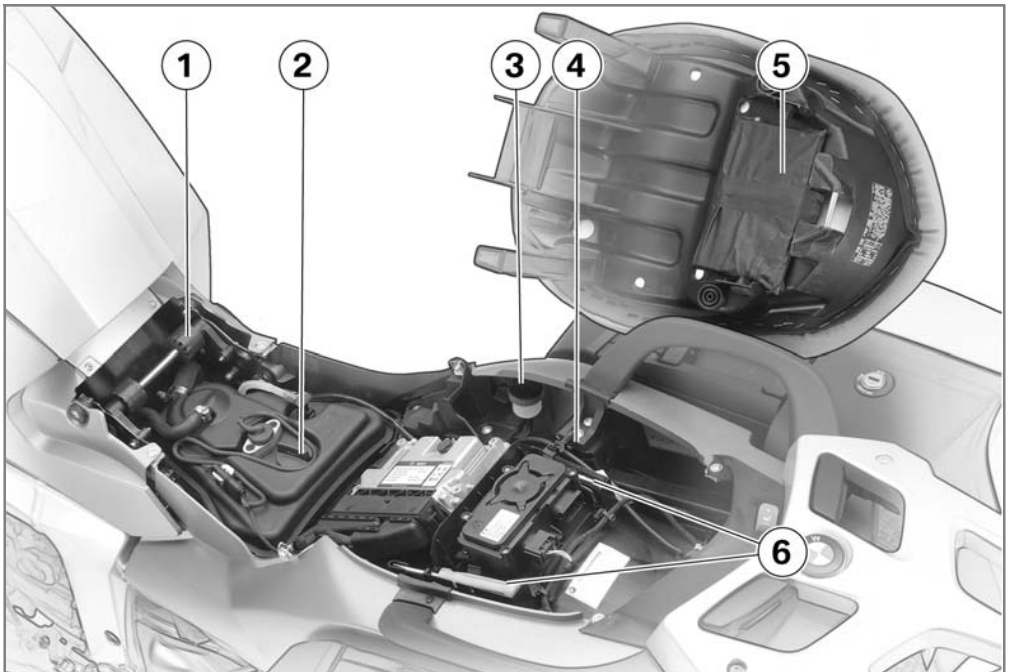
General view, right side

1 Filler neck, fuel (➡ 76)
2 Adjustable handlebars (➡ 53)
3 Brake-fluid reservoir, front (➡ 99)
4 Adjuster for headlight beam throw underneath the instrument cluster (➡ 55)
5 Stowage compartment (➡ 56)
6 Vehicle identification number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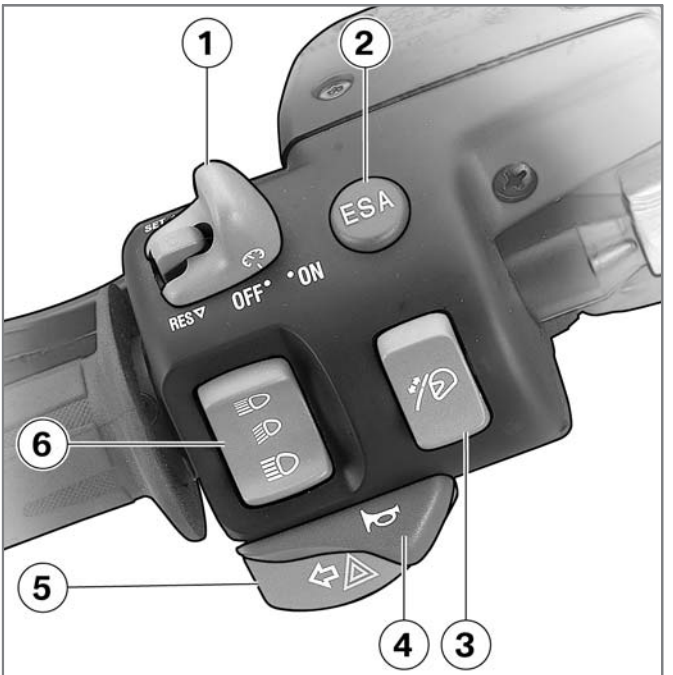
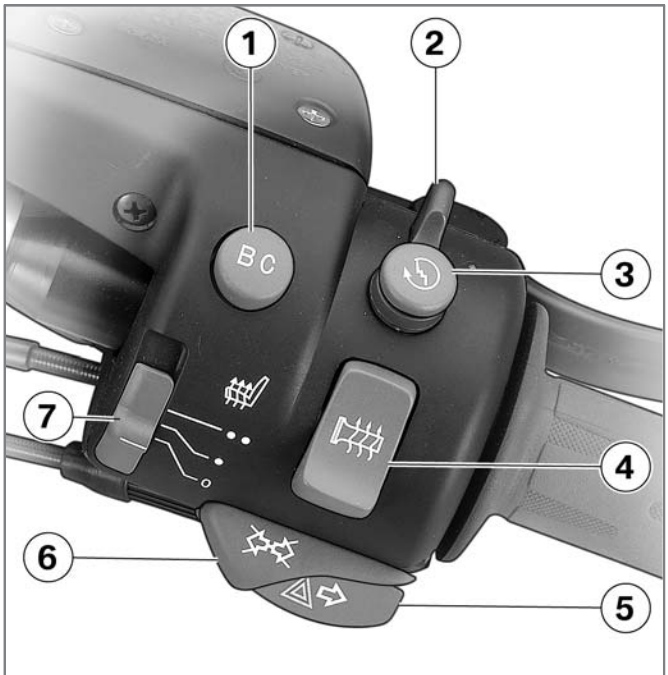
Underneath the seat

1 Seat height adjuster (➠ 58)
2 Filler neck for engine oil and holder for oil dipstick (➠ 95) (➠ 96)
3 Brake-fluid reservoir, rear (➠ 99)
4 Helmet holder underneath rear seat (➠ 60)
5 Rider's Manual
6 Standard on-board toolkit (➠ 94)

Handlebar fitting, left

1 Switch for cruise-control system (OE) (➡ 46)
2 ESA button (OE) (➡ 63)
3 Pushbutton, windscreen (➡ 61)
4 Pushbutton, horn
5 Pushbutton, left flashing turn indicators and hazard warning flashers (➡ 55) (➡ 40)
6 Switch, high-beam headlight and headlight flasher (➡ 53)





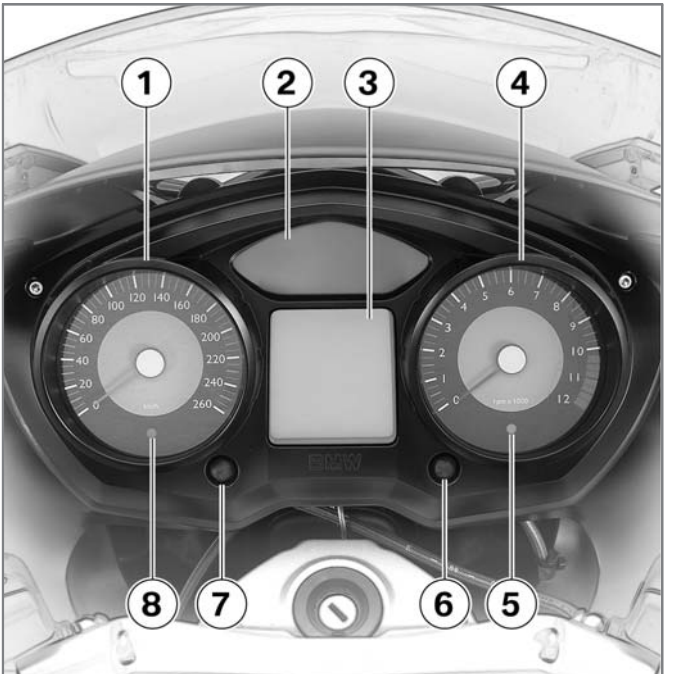
Handlebar fitting, right

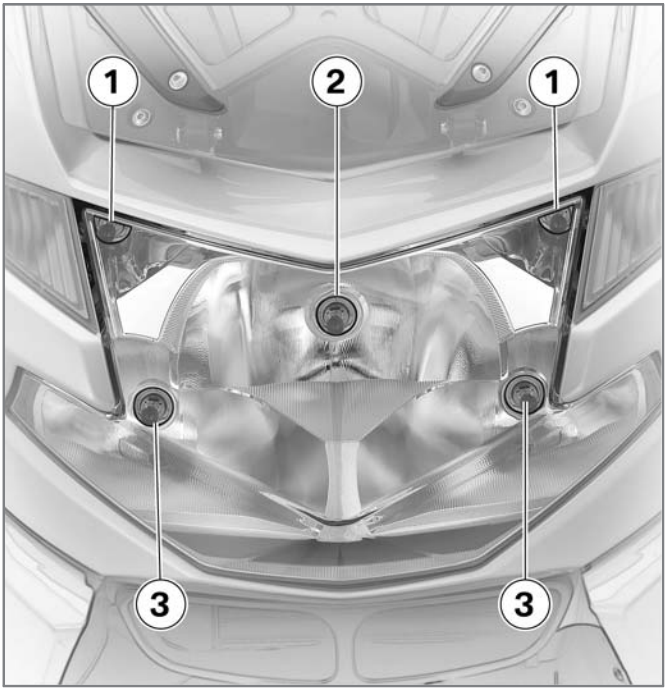
1 On-board computer button (OE) (➡ 43)
2 Emergency off switch (kill switch) (➡ 49)
3 Pushbutton, starter (➡ 70)
4 Switch for handlebar-grip heating (OE) (➡ 49)
5 Pushbutton, right flashing turn indicators and hazard warning flashers (➡ 55) (➡ 40)
6 Pushbutton, cancel flashing turn indicators and hazard warning flashers (➡ 56) (➡ 41)
7 Switch for front-seat heating (OE) (➡ 50)

Instrument cluster

1 Speedometer
2 Warning and telltale lights (➡ 23)
3 Multifunction display
4 Rev. counter
5 Telltale light, anti-theft alarm (OE)
6 Button for setting clock and dimming display (➡ 42) (➡ 42)
7 Control, odometer (➡ 41)
8 Sensor for instrument cluster lighting

The instrument-cluster lighting has automatic day and night switchover.◀





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1 Side lights
2 Low-beam headlight
3 High-beam headlight

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Multifunction display

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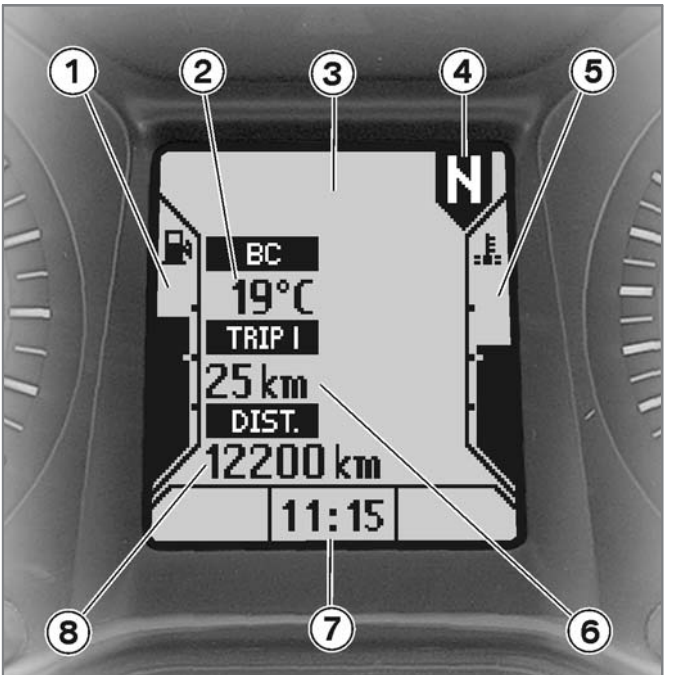
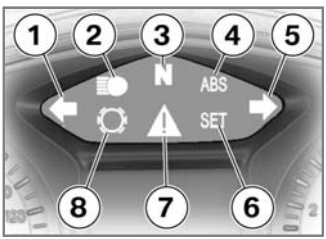
2 On-board computer display (OE) (➡ 43)
3 Panel for warnings (➡ 23)
4 Gear indicator (➡ 23)
5 Coolant temperature readout (➡ 23)
6 Trip meter (➡ 41)
7 Panel for clock, seat heating (OE), display dimmer and ESA (OE) (➡ 42) (➡ 50) (➡ 42) (➡ 63)
8 Odometer and tripmeters (➡ 41)



Warning and telltale lights



1 Telltale light, left turn indicator
2 Telltale light, high-beam headlight
3 Telltale light, neutral
4 ABS warning light
5 Telltale light, right turn indicator
6 Telltale light, cruise control (OE)
7 Warning light, general
8 Brake-pad wear indicator

ABS warning light

The way in which the ABS warning light indicates status can differ in some countries.

Alternative for the ABS warning light.

Function indicators

Fuel capacity

The column below the fuel-pump symbol indicates the remaining quantity of fuel.

Gear

N Shows which gear is engaged.

If no gear is engaged, the gear indicator shows N and the 'neutral' telltale light also lights up.

Coolant temperature

The column below the temperature symbol indicates the coolant temperature.

Warnings, general

Mode of presentation

General warnings are displayed by means of plain-text messages and symbols in the multifunction display. In some cases, they are accompanied by the 'General' warning light showing red or yellow. Two or more warnings can be issued at the same time.

Warnings, overview

Mode of presentation			Meaning
Lights up yellow		The EWS! warning appears on the display.	Electronic immobiliser active (➡ 26)
Lights up yellow		Appears on the display	Fuel down to reserve (➡ 26)
Lights up red		Coolant temperature indicator flashes.	Coolant temperature too high (➡ 26)
Lights up yellow		Appears on the display	Engine electronics (➡ 27)
Flashes red four times per second		Appears on the display	Insufficient engine oil pressure (➡ 27)
		Appears on the display	Engine-oil level too low (➡ 28)
Lights up red		Appears on the display	Insufficient battery charge current (➡ 28)
		Lights up	Brake pads worn down to the wear limit (➡ 29)
Lights up yellow		Appears on the display	Rear light bulb defective (➡ 29)

Mode of presentation		Meaning
	Appears on the display	Front light bulb defective (➠ 29)
Lights up yellow	Appears on the display	Bulbs defective (➠ 29)
	Appears on the display	Ice warning (➠ 30)
	Appears on the display, accompanied by the letters DWA	Anti-theft alarm battery weak (OE) (➠ 30)
Lights up yellow	Appears on the display, accompanied by the letters DWA	Anti-theft alarm battery flat (OE) (➠ 30)

Electronic immobiliser active

General warning light shows yellow.

The EWS! warning appears on the display.
The key being used is not authorised for starting, or communication between key and engine electronics is disrupted.

- Remove all other vehicle keys from the same ring as the ignition key.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorised BMW Motorrad dealer.

Fuel down to reserve

General warning light shows yellow.

The fuel-reserve symbol appears on the display.

Lack of fuel can result in the engine misfiring and cutting out unexpectedly. Misfiring can damage the catalytic converter; a hazardous situation can result if the engine cuts out unexpectedly.
Do not run the fuel tank dry.◀

The Tripmaster calculates the residual operating range and shows this estimated figure on the display.◀

The fuel tank contains no more than the reserve quantity of fuel.

Reserve fuel

4 l

• Refuelling (➠ 76)

Coolant temperature too high

General warning light shows red.

Coolant temperature indicator flashes.

Continuing to ride when the engine is overheated could result in engine damage.
You must comply with the instructions below.◀

The coolant temperature is too high.

- You can continue to ride, but ride in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but keep the ignition on so that the radiator fan continues to operate.
- If the coolant temperature is frequently too high, have the fault rectified as soon

as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine electronics

 General warning light shows yellow.

Engine electronics symbol appears on the display.

The engine is running in emergency operating mode. Engine power might be reduced and this can cause hazardous situations, particularly if you attempt to overtake other road users. Engine power level might be lower than normal: adapt your style of riding accordingly.◀

The engine electronics control unit has diagnosed a fault. In exceptional cases, the engine stops and refuses to start. Otherwise, the engine runs in emergency operating mode.

- You can continue to ride, but bear in mind that the usual engine power might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Insufficient engine oil pressure

General warning light flashes red four times per second.

Engine oil pressure symbol appears on the display.

The oil pressure in the lube-oil system is too low.

The insufficient oil pressure warning does not fulfil the function of an oil gauge. The only way of checking whether the oil level is correct is to check the oil level indicator.◀

A low oil level is one reason why a warning indicating insufficient oil pressure is issued.

- Checking the engine oil level (➠ 95)
- If the oil level is too low:
- Topping up the engine oil (➠ 96)

If the warning indicating insufficient engine oil level is issued and a check indicates that the engine oil level is correct:

Other engine problems besides a low oil level can cause the insufficient engine oil pressure warning to be issued. Continuing to ride in these cases can cause engine damage.

If this warning is issued even though the engine oil level is correct: do not continue to ride.◀

- Do not continue your journey.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine-oil level too low

The "check oil level" symbol appears on the display.

The electronic oil-level sensor has registered an excessively low oil level.

Dipping the oil with the dipstick is the only way of ascertaining the exact engine-oil level. The next time you stop for fuel:

- Checking the engine oil level (➡ 95)

If the oil level is too low:

- Topping up the engine oil (➡ 96)

The oil sensor might be defective if the "Check oil level" message appears even though a check with the dipstick reveals that the oil level is correct.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Insufficient battery charge current

General warning light shows red.

Battery charge current symbol appears on the display.

A discharged battery can result in the engine cutting out unexpectedly, causing a hazardous situation. Have faults rectified as soon as possible.◀

If the battery is not charging, continuing to ride can cause it to discharge completely, in which case it will suffer irreparable damage. If possible, do not continue your journey.◀

Battery is not being charged.

- You can continue to ride until the battery is discharged. Bear in mind, however, that the engine could cut out suddenly and that the battery could discharge until completely flat, in which case it might have suffered irreparable damage.

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Brake pads worn down to the wear limit

Warning light for brake-pad wear lights up.

The electric brake-pad wear detector has registered that the brake pads of the front or rear brakes have worn down to the acceptable limit.

- Checking brake-pad thickness, front brakes (➠ 97)
- Checking brake pad thickness, rear brakes (➠ 98)
- Have worn brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Rear light bulb defective

General warning light shows yellow.

Defective lamp symbol with arrow pointing to the rear is displayed.

A defective bulb places your safety at risk because it is easier for other users to oversee you and your motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Rear light or brake light bulb defective.

- Replacing brake-light, rear light or rear-indicator bulbs (➠ 113)

Front light bulb defective

Defective lamp symbol with arrow pointing to the front is displayed.

A defective bulb places your safety at risk because it is easier for other users to oversee you and your motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Low-beam headlight, high-beam headlight, side-light or turn-indicator bulb defective.

- Replacing low-beam or high-beam headlight bulb (➠ 110)
- Replacing parking-light bulbs (➠ 112)
- Replacing front turn indicator bulb (➠ 115)

Bulbs defective

General warning light shows yellow.

Defective lamp symbol with two arrows is displayed.

A defective bulb places your safety at risk because it is easier for other users to oversee you and your motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

A combination of the bulb defects described above has occurred.

- See the fault descriptions above.

Ice warning

Ice warning symbol appears on the display.

The air temperature measured at the motorcycle is lower than 3 °C.

The ice warning does not mean that there is no risk of black ice forming at measured temperatures above 3 °C.
Always take extra care and think well ahead when temperatures are low; remember that the danger of black ice is particularly high on bridges and where the road is in the shade.◀

- Ride carefully and think well ahead.

Anti-theft alarm battery weak (OE)

Battery symbol appears on the display, accompanied by the letters DWA.

The integral battery in the anti-theft alarm has lost a significant proportion of its original capacity. There is no assurance of how long the anti-theft alarm can remain operational if the motorcycle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Anti-theft alarm battery flat (OE)

 General warning light shows yellow.

Battery symbol appears on the display, accompanied by the letters DWA.

The integral battery in the anti-theft alarm has lost its entire original capacity. There is no assurance that the anti-theft alarm will be operational if the motorcycle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

ABS warning indicators

Mode of presentation

ABS warnings are indicated by a combination of the 'General' warning light and the ABS warning light. Both warning lights can light up continuously or flash at a rate of one or four flashes per second.
There are two country-dependent versions of the ABS warning light:

Country-dependent version 1.

Country-dependent version 2.

Country-dependent version 1 is used as the basis for the description of the warnings in this section.

Warnings, overview

Mode of presentation			Meaning
Lights up red			Brake switch defective (➡ 33)
		Flashes once per second	Pull-away test not completed (➡ 33)
		Flashes four times per second	Self-diagnosis not completed (➡ 33)
Lights up red		Lights up	ABS warning indicators defective (➡ 34)
Lights up red		Flashes once per second	ABS function not available (➡ 34)
Lights up red		Flashes four times per second	Residual braking function active (➡ 35)
Flashes red once per second		Flashes once per second	Brake fluid level in wheel brake circuit too low (➡ 35)
Flashes red four times per second		Flashes four times per second	ABS fault (➡ 36)

Brake switch defective

General warning light shows red.

 There is a defect in the brake system and it could result in delayed braking response and, consequently, accidents. Brake in good time as delayed braking response can be expected.◀

The brake switch is defective or incorrectly adjusted. The increase in pressure when the lever is pulled or the pedal depressed is the signal indicating to the BMW Integral ABS that the rider wants to apply the brakes. There may be an unusual response from the brakes.

- You can continue to ride. Bear in mind, however, that the brakes might respond in a manner to which you are not accustomed.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Pull-away test not completed

ABS warning light flashes once per second.

Without the assistance of the ABS function, the wheels could lock when the brakes are applied hard, and this could result in accidents. Avoid hard braking if possible.◀

The ABS function is not available because the pull-away test has not been completed.

- You can continue to ride. However, the ABS function is not available until the pull-away test has completed.
- If possible, do not use emergency braking until the pull-away test has been completed.

Self-diagnosis not completed

ABS warning light flashes four times per second.

Without the assistance of the ABS function, the wheels could lock when the brakes are applied hard. You have to apply considerably more force to the brake levers to brake without servo-assisted brakes. Avoid hard braking if possible. Apply brakes in good time as increased effort is required.◀

Only residual braking function available in both brake circuits, because self-diagnosis did not complete.

- You can continue to ride. However, the ABS function and brake servo assistance are not available until the pull-away test has completed.
- As soon as possible, leave the brake lever and the brake pedal released, so that self-diagnosis can complete.

ABS warning indicators defective

General warning light shows red.

ABS warning light ON.

ABS warnings not available. The system is unable to draw your attention to the non-availability of BMW Motorrad Integral ABS functions. This could result in unexpected braking response. Think well ahead, brake early and avoid sharp braking if possible, because BMW Motorrad Integral ABS might not be available.◀

The controller of the ABS warnings is defective. ABS faults cannot be displayed.

- You can continue to ride. However, the system is unable to notify you of ABS faults if they occur.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

ABS function not available

General warning light shows red.

ABS warning light flashes once per second.

Without the assistance of the ABS function, the wheels could lock when the brakes are applied hard, and this could result in accidents. Avoid hard braking if possible.◀

The ABS function is unavailable in at least one brake circuit.

- You can continue to ride. However, the ABS function is not available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Residual braking function active

 General warning light shows red.

 ABS warning light flashes four times per second.

Without the assistance of the ABS function, the wheels could lock when the brakes are applied hard. You have to apply considerably more force to the brake levers to brake without servo-assisted brakes.
Avoid hard braking if possible. Apply brakes in good time as increased effort is required.◀

Only residual braking function is available in at least one brake circuit.

- You can continue to ride. However, the ABS function and brake servo assistance are not available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Brake fluid level in wheel brake circuit too low

General warning light flashes red once per second.

ABS warning light flashes once per second.

The ABS wheel brake circuit is a closed system whose fluid level cannot be determined at the brake fluid reservoirs.◀

Very badly worn brake pads can also trigger the "Brake fluid too low" warning.

- Checking brake-pad thickness, front brakes (➡ 97)
- Checking brake pad thickness, rear brakes (➡ 98)

Worn brake pads can lengthen stopping distances by a significant margin and consequently cause accidents.
Apply the brakes in good time.◀

Worn brake pads can damage the brake discs.
Think well ahead and brake carefully; avoid severe braking.◀

- Have worn brake pads replaced as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

If the brake pads are not badly worn, the brake system

will have to be checked for malfunctions and leaks.

- Switch off the ignition and pull the brake lever, then release it and depress the brake pedal.

» Check the following:

– Brake pressure perceptible at brake lever and at brake pedal.
– Brakes acting on both wheels.
– No visible signs of brake fluid leaking.

There is a defect in the brake system and it could result in brake fade. Apply the brakes in good time.◀

- If these criteria are satisfied, you can continue riding. Bear in mind, however, that a loss of brake fluid that cannot be detected might be the cause of the warning.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

If the function and leak check reveals a fault:

There is a defect in the brake system and it could result in accidents. Do not continue your journey.◀

- Do not continue your journey.
- Notify a specialist workshop, preferably an authorised BMW Motorrad dealer.

ABS fault

 General warning light flashes red four times per second.

ABS warning light flashes four times per second.

There are at least two faults in the brake system. Only the residual braking function is available in at least one brake circuit and the fluid level in the brake system is too low.

- See the fault descriptions above.

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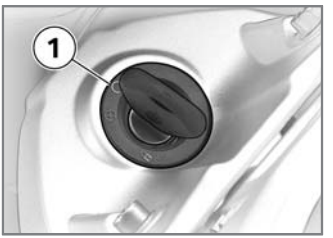
Ignition switch and steering lock

Keys

You receive one master key and one spare key. Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (➡ 39).

▷ Ignition switch and steering lock, tank filler cap lock and the seat and case locks are all operated with the same key. On request, the topcase available as an optional accessory can be arranged to lock with the same key.◀

Switching on the ignition



- Turn the key to position **1**.
- » Side lights and all function circuits switched on.
- » Engine can be started.
- » Pre-ride check is performed. (➡ 71)
- » ABS self-diagnosis is performed. (➡ 72)

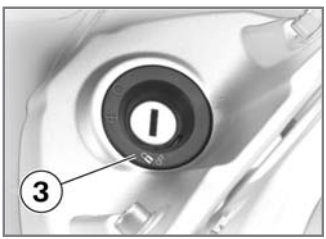
Switching off the ignition

⚠ Brake servo assistance is not available when the ignition is off.
Do not switch off the ignition when riding.◀

- Turn the key to position **2**.
- » Lights switched off.
- » Handlebars not locked.
- » Key can be removed.
- » Electrically powered accessories remain operational for a limited period of time.

» The battery can be recharged via the on-board socket.

Locking the handlebars



If the motorcycle is on the side stand, the surface of the ground will determine whether it is better to turn the handlebars to the left or right. However, the motorcycle is more stable on a level surface with the handlebars turned to the left than with the handlebars turned to the right.
On level ground, always turn the handlebars to the left to set the steering lock.◄

- Turn the handlebars to the full left or right lock position.
- Turn the key to position **3**, while moving the handlebars slightly.

» Ignition, lights and all function circuits switched off.
» Handlebars locked.
» Key can be removed.

Electronic immobiliser

Protection against theft

The electronic immobiliser helps protect your BMW Motorrad motorcycle from theft, and this enhanced security is at your disposal without any need for you to set parameters or activate additional systems. The engine of a motorcycle fitted with this electronic immobiliser can be started only with the keys that belong to the vehicle. You can also have your authorised BMW Motorrad dealer bar individual keys, for example if a particular key goes missing. The engine cannot be started with a key that has been barred.

In-key electronics

An electronic component is integrated into each of your keys. The motorcycle's electronics exchange certain continuously changing signals with the electronics in the key; these signals are specific to your motorcycle and they are transmitted via the ring aerial in the ignition lock. The ignition is not enabled for starting until the key has been recognised as "authorised" for your motorcycle.

A spare key attached to the same ring as the ignition key used to start the

engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS warning appears in the multifunction display.
Always keep the spare key separately from the ignition key.◄

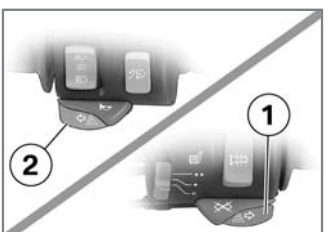
Replacement keys and extra keys

You can obtain replacement/extra keys only through an authorised BMW Motorrad dealer. The keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys. If you want to have a lost key barred, you have to bring with you all the other keys that belong to the motorcycle. A key that has been barred can subsequently be cleared and reactivated for use.

Hazard warning flashers

Switching on the hazard warning flashers

- Switch on the ignition.



- Simultaneously press button **1** for left turn indicators and button **2** for right turn indicators.

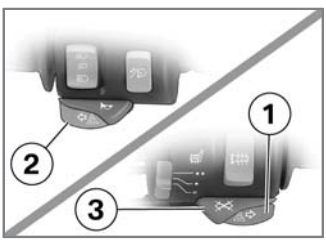
▷ The hazard warning flashers place a strain on the battery. Do not use the hazard warning flashers for longer than absolutely necessary.◄

▷ If you press a turn-indicator button with the ignition switched on, the turn-indicator function is activated instead of the hazard warning flashers, and remains active until you release the button. The hazard warning flashers recommence flashing as soon as the button is released.◄

» Hazard warning flashers in operation.
» Left/right turn indicator telltale lights flash.
- Switch off the ignition.
» The hazard warning flashers continue to operate.

» Left/right turn indicator telltale lights off.

Switching off the hazard warning flashers



- Press cancel button **3**.

» Hazard warning flashers switched off.

- Alternative: Simultaneously press button **1** for left turn indicators and button **2** for right turn indicators.

» Hazard warning flashers switched off.

Odometer and tripmeters

Odometer

The odometer reading appears in display field **1**.

Selecting the tripmeter

- Switch on the ignition.

When you switch on the ignition, the tripmeter reading shown when the ignition was switched off always reappears on the multifunction display.◀

- Briefly press tripmeter button **1** once to proceed to each subsequent step in the cycle.

The tripmeter display field alternately shows the following:

– Tripmeter 1 (Trip I)
– Tripmeter 2 (Trip II)

Resetting the tripmeter

• Switch on the ignition.

• Select the desired tripmeter.
• Press tripmeter button **1** and hold it down for longer than 2 seconds.
» The tripmeter is reset to zero.

Clock

Setting the clock

⚠ Attempting to set the clock while riding the motorcycle can lead to accidents.
Set the clock only when the motorcycle is stationary.◄

• Switch on the ignition.

• Press button **1** for longer than 2 seconds.
» Hours reading **2** starts to flash.
• Briefly press button **1**.
» The hour increments by one each time you press the button.
• Press button **1** for longer than 2 seconds.
» Minutes reading **3** starts to flash.
• Briefly press button **1**.
» The minute increments by one each time you press the button.
• Press button **1** for longer than 2 seconds.
» Setting confirmed.

Multifunction display

Display dimming

The brightness of the backlit multifunction display is adjustable.

Adjusting dimmer

Attempting to adjust the dimmer while riding the motorcycle can lead to accidents.

Do not attempt to adjust the dimmer unless the motorcycle is at a standstill.◀

- Press button **1**.

» The level of dimming appears in display field **2**.

- Press button **1** again.

» The brightness of the display increases one level each time you press the button. Each time you press the button after maximum brightness is reached, brightness is reduced by one level.

On-board computer[OE]

Selecting readings

- Switch on the ignition.
- Press BC button **1** briefly each time.

The on-board computer's display field cycles through the following sequence:

– Residual range
– Average speed
– Average consumption
– Oil-level reading (when motorcycle is at a standstill)
– Ambient temperature

Residual range

Residual range is calculated on the basis of your style of riding and the amount of fuel left in the tank; the reading indicates the estimated dis-

tance you can travel before the fuel supply runs out.
If the motorcycle is resting on its side stand, the level in the tank cannot be measured correctly, so this estimate of residual operating range will be inaccurate.
When you refuel, the on-board computer does not register the increase in fuel level unless several litres are added to the fuel already in the tank.

The calculated range is an approximate value. Consequently, BMW Motorrad recommends that you should not try to use the full residual range before refuelling.◀

Calculating average speed

Elapsed time since the last RESET is used as the basis for calculating average speed. Times during which the engine was stopped are excluded from the calculation.

Resetting average speed

- Repeatedly press BC button **1** until the average speed appears in the display.
- Hold the BC button down for at least 2 seconds (RESET).

» The display shows "---.-- km"

Calculating average consumption

Average consumption is calculated by dividing the distance covered since the last RESET by the corresponding amount of fuel used.

Resetting average consumption

- Repeatedly press BC button **1** until the average fuel consumption appears in the display.
- Hold the BC button down for at least 2 seconds (RESET).

» The display shows "--.- l/100 km".

Oil level

The "Oil" reading gives you an indication of the engine oil level. You can call up this reading only when the motorcycle is at a standstill.

The preconditions for automatic registration of the oil level are as follows:

– Engine idling for at least 30 seconds.
– Engine at operating temperature.
– Make sure the motorcycle is upright.

The readings mean:

✓ Oil level is correct

Check the oil level with the dipstick the next time you stop for fuel. If you call up another reading on the on-board computer, this symbol remains visible beside the BC line.

--- Oil level cannot be measured (conditions as stated above not satisfied).

The most recently measured level is displayed for 5 seconds when you next switch on the ignition.

The oil sensor might be defective if the "Check oil level" message reappears even though a check with the dipstick reveals that the oil level is correct. In this case,

consult your authorised BMW Motorrad dealer.◀

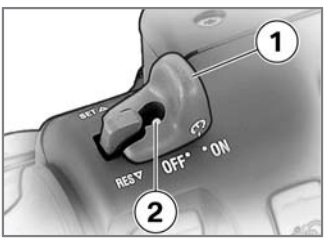
Ambient temperature

The current ambient temperature is displayed.

An ice warning appears if the ambient-temperature reading drops below 3 °C. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time. The reading flashes until you select some other display mode.

Cruise-control system[OE]

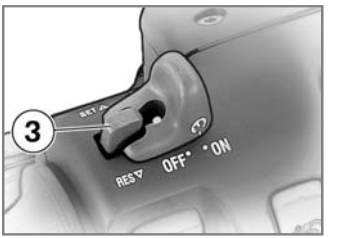
Switching on cruise control



- Move switch **1** to ON.

» Telltale light **2** in the switch lights up red.

Setting road speed

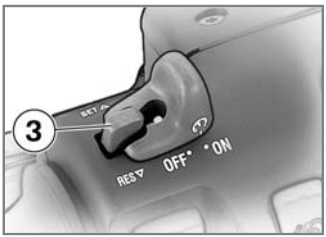


- Briefly push button **3** in the SET direction

SET Cruise control telltale light shows.

» The motorcycle maintains your current cruising speed and the setting is saved.

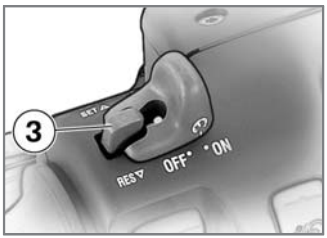
Step-by-step acceleration



- Briefly push button **3** in the SET direction

» Speed increases by approx. 2 km/h each time you push the button, and the new setting is saved.

Stepless acceleration



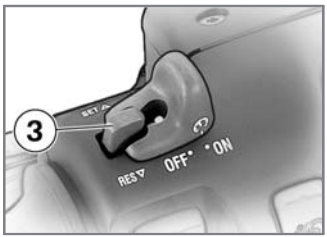
- Push button **3** in the SET direction and hold it in this position.

» The motorcycle accelerates steplessly.

- Release button **3**.

» The motorcycle maintains your current cruising speed and the setting is saved.

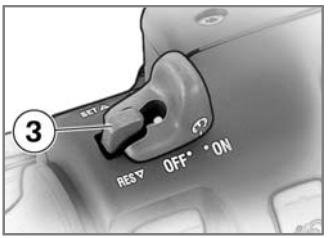
Step-by-step deceleration



- Briefly push button **3** in the RES direction

» Speed decreases by approx. 2 km/h each time you push the button, and the new setting is saved.

Stepless deceleration



- Push button **3** in the RES direction and hold it in this position.
- » The motorcycle decelerates steplessly.
- Release button **3**.
- » The motorcycle maintains your current cruising speed and the setting is saved.

Deactivating cruise control

- Apply the brakes or pull the clutch or close the throttle (turn the throttle twistgrip back past the idle position).
- » The cruise-control system is deactivated.
- » The cruise control telltale light goes out.
- » The telltale light in the switch remains on.

Resuming former cruising speed

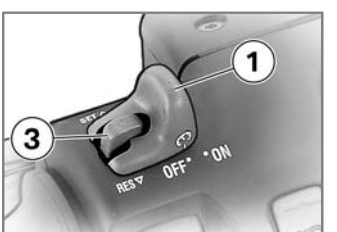
- Push button **3** in the RES direction.

Opening the throttle does not deactivate the cruise-control system. If you release the twistgrip the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀

SET Cruise control telltale light shows.

- » The motorcycle resumes the previous cruising speed.

Switching off cruise control



- Move switch **1** to OFF.

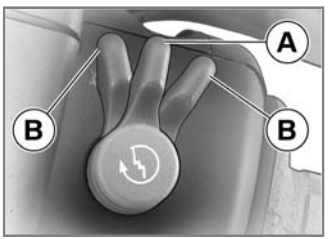
» The system is deactivated.
» Button **3** is locked.

Emergency off switch (kill switch)

1 Emergency off switch (kill switch).

Operating the kill switch when riding can cause the rear wheel to lock and thus cause a fall.
Do not operate the kill switch when riding.◀

The emergency off switch is a kill switch for switching off the engine quickly and easily.



A Normal operating position (run)
B Engine switched off.

You cannot start the engine unless the kill switch is in the run position.◀

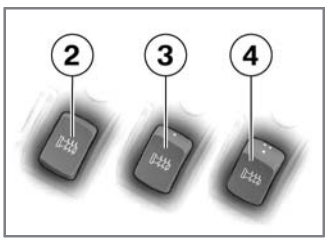
Grip heating[OE]

1 Grip heating switch

The handlebar grips have two-stage heating. Grip heating can be activated only when the engine is running. If the motorcycle is fitted with an optional-extra on-board computer, the first-stage heating adjusts to the air temperature measured by the temperature sensor.

The increase in power consumption caused by the grip heating can drain the

battery if you are riding at low engine speeds. If the charge level is low, grip heating is switched off to ensure the battery's starting capability.◀



2 Heating off.
3 50% heat output, adapted to suit air temperature if the motorcycle if fitted with an optional-extra on-board computer (one dot visible).
4 100 % heat output (three dots visible)

Seat heating[OE]

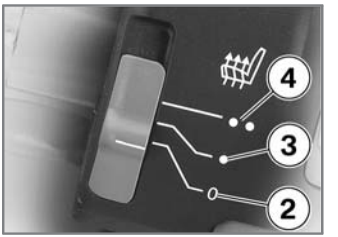
Dependency on battery charge state

Seat heating can be activated only when the engine is running. If the charge level is low, the heating is switched off to ensure the battery's starting capability.

Seat heating, front seat

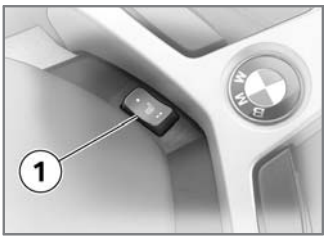
1 Switch for seat heating, front seat

The front seat has two-stage heating.



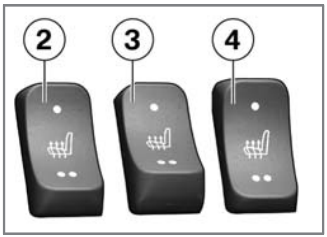
2 Heating off.
3 50% heat output
4 100% heat output

Seat heating, rear seat



1 Switch for seat heating, rear seat

The rear seat has two-stage heating.



2 Switch centred: Heating off.

3 Switch pushed to right: 50% heat output.

4 Switch pushed to left: 100% heat output.

Indicator in the multifunction display

- Switch on the front-seat or rear-seat heating.

The heating stages are indicated on the left of the seat-heating symbol for the front seat and on the right for the rear seat:

Appears when front-seat and/or rear-seat heating is on

50% heat output, for front seat on left, rear seat on right

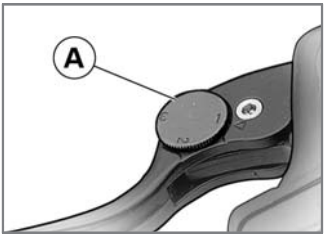
100% heat output, for front seat on left, rear seat on right

Clutch

Adjusting the clutch lever

If the position of the clutch fluid reservoir is changed, air can enter the clutch system.
Do not twist the handlebar fitting or the handlebars.◄

Attempting to adjust the clutch lever while riding the motorcycle can lead to accidents.
Do not attempt to adjust the clutch lever unless the motorcycle is at a standstill.◄



- Turn adjuster **A** to position **1**:

» Smallest span.

- Turn adjuster **A** to position **3**:

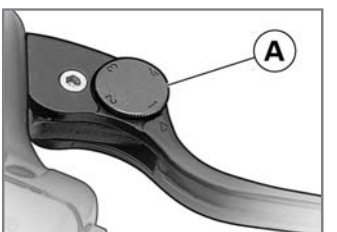
» Largest span.

Brakes

Adjusting the handbrake lever

Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.
Do not twist the handlebar fitting or the handlebars.◄

Attempting to adjust the brake lever while riding the motorcycle can lead to accidents.
Do not attempt to adjust the brake lever unless the motorcycle is at a standstill.◄



- Turn adjuster **A** to position **1**:

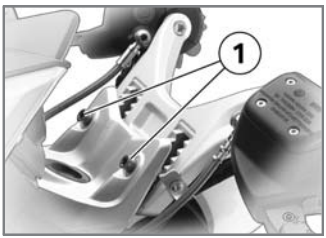
» Smallest span.

- Turn adjuster **A** to position **4**:

» Largest span.

Handlebars

Adjusting handlebars



- Fully slacken screws **1**.
- Sit on the motorcycle, pull the handlebars toward you and move them up or down to the desired position.
- Make sure that the handlebars are perfectly engaged in the handlebar mounts.
- Tighten screws **1** to the specified tightening torque.

Fastener, handlebar adjuster to bottom handlebar yoke

20 Nm

Lights

Switching on the side lights

The side lights switch on automatically when the ignition is switched on.

The side lights place a strain on the battery. Do not switch the ignition on for longer than absolutely necessary.◀

Switching on the low-beam headlight

The low-beam headlight switches on automatically when you start the engine.

When the engine is not running you can switch on the high-beam headlight by switching on the ignition and either switching on the high-beam headlight or operating the headlight flasher.◀

Switching on the high-beam headlight

- Press the top part of switch **1** for the high-beam headlight.

» High-beam headlight switched on.

- Move switch **1** for the high-beam headlight to the centre position.

» High-beam headlight switched off.

- Press the bottom part of switch **1** for the high-beam headlight.

» The high-beam headlight is switched on until you release the button (headlight flasher).

Switching on the parking lights

• Switch off the ignition.

You can switch on the parking lights only immediately after switching off the ignition.◀

• Press and hold down switch **1** for the left turn indicators until the parking lights are ON.

Switching off the parking lights

• Switch on the ignition.

» Parking lights switched off.

Headlight

Adjusting headlight for driving on left/driving on right

If the motorcycle is ridden in a country where the opposite rule of the road applies, its asymmetric low-beam headlight will tend to dazzle oncoming traffic.

Have the headlight set accordingly by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Commercially available adhesive tape will damage the plastic lens of the light.

Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, in order to avoid damaging the plastic lens of the light.◀

Headlight beam throw and spring preload

Headlight beam throw is generally kept constant when spring preload is adjusted to suit load.

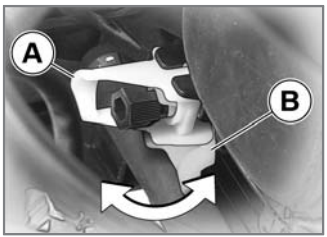
Spring preload adjustment might not suffice only if the motorcycle is very heavily loaded. Under these circumstances, headlight beam throw has to be adjusted to suit the weight carried by the motorcycle.

Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, if you are unsure whether the headlight basic setting is correct.◄

Headlight beam-throw adjustment

1 Adjuster for headlight beam throw underneath the instrument cluster

Spring preload adjustment might not suffice if the motorcycle is very heavily loaded. Moving the pivot lever adjusts headlight beam throw so as not to dazzle oncoming traffic.



A Neutral position
B Position for heavy load

Turn indicators

Switching on the left flashing turn indicators

- Switch on the ignition.

- Press left-hand turn indicator button **1**.

The turn indicators are cancelled automatically after you have ridden for approximately 10 seconds, or covered a distance of about 200 m.◄

» Left-hand turn indicators switched on.
» Telltale light for left-hand turn indicators flashes.

Switching on the right flashing turn indicators

- Switch on the ignition.

- Press right-hand turn indicator button **2**.

The turn indicators are cancelled automatically after you have ridden for approximately 10 seconds, or covered a distance of about 200 m.◀

» Right-hand turn indicators switched on.
» Telltale light for right-hand turn indicator flashes.

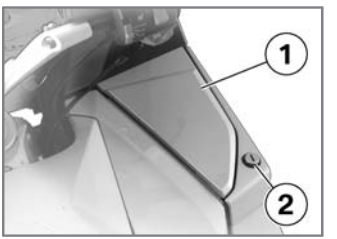
Cancelling the turn indicators

- Press cancel button **3**.

» Flashing turn indicators switched off.
» Turn indicator telltale light is off.

Stowage compartment

Opening the stowage compartment



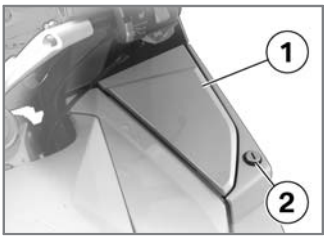
- Use the ignition key to turn lock barrel **2** to right angles with the forward direction of travel.

» Lock of the stowage compartment unlocked.

- Push the lock barrel in.

» Lid **1** pops up.

Closing the stowage compartment



- Snap lid **1** closed and push it down.

» The lock engages with an audible click.

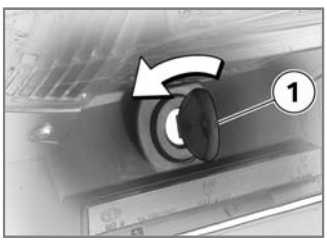
- Use the ignition key to turn lock barrel **2** in line with the forward direction of travel.

» Lock of the stowage compartment locked.

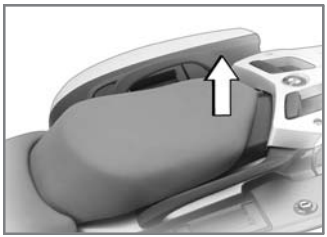
Front and rear seats

Removing rear seat

- Make sure the ground is level and firm and place the motorcycle on its stand.

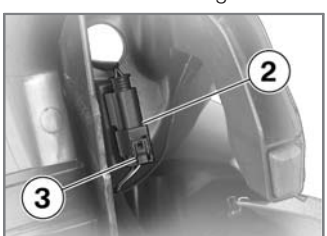


- Turn key **1** counter-clockwise in the seat lock.



- Lift the seat at the rear and release the key.

With OE Seat heating:

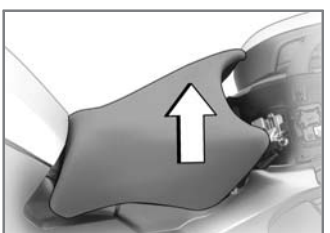


- Disconnect plug **2** by squeezing locking tabs **3** together at top and bottom.

- Pull the seat to the rear to release it from its holders.
- Place the seat, upholstered side down, on a clean surface.

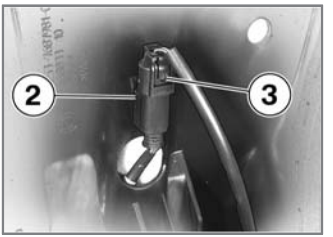
Removing front seat

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Removing rear seat (➡ 57)



- Lift the rear of the front seat.

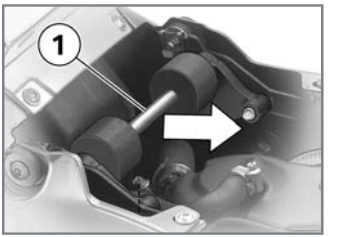
With OE Seat heating:



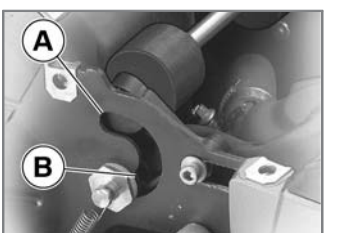
- Disconnect plug **2** by squeezing locking tabs **3** together at top and bottom.
- Lift the seat up to remove.
- Place the seat, upholstered side down, on a clean surface.

Adjusting front seat

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Removing rear seat (➡ 57)
- Removing front seat (➡ 58)



- Pull seat-height adjuster **1** to the limit position.



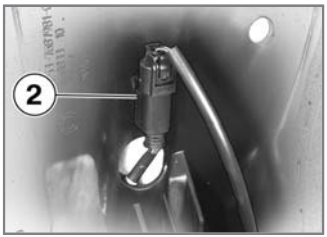
- Push the seat height adjuster fully forward and up or down, as applicable.
- Limit position **A**:

» Seat set to high position.
• Limit position **B**:
» Seat set to low position.
• Installing front seat (➡ 59)
• Installing rear seat (➡ 59)

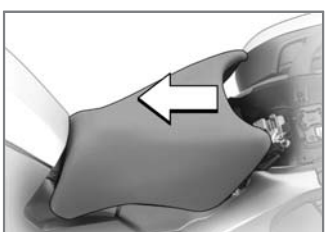
Installing front seat

⚠ If too much pressure is applied in the forward direction, there is a danger that the motorcycle will be pushed off its stand.
Always make sure that the motorcycle is stable and firmly supported.◀

With OE Seat heating:



• Connect plug **2**.

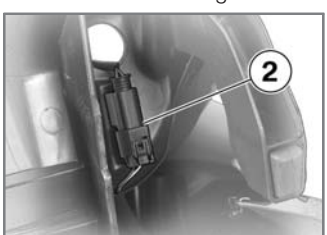


• Push the front seat forward into the seat height adjuster. Check that the seat is correctly seated.

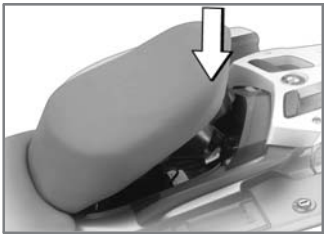
Installing rear seat

⚠ If too much pressure is applied in the forward direction, there is a danger that the motorcycle will be pushed off its stand.
Always make sure that the motorcycle is stable and firmly supported.◀

With OE Seat heating:



• Connect plug **2**.

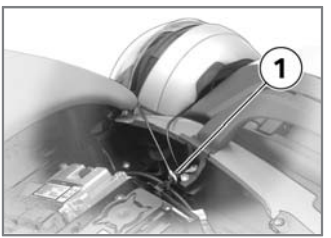


- Slide the rear seat underneath the front seat and push it down firmly at the rear.

» The seat engages with an audible click.

Helmet holder

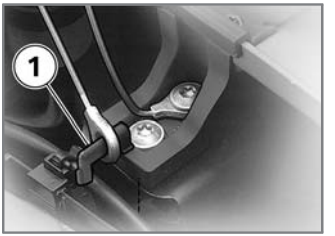
Helmet holder underneath rear seat



Helmet holder **1** is on the rear right, underneath the rear seat.

Using helmet holder

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Removing rear seat (➠ 57)

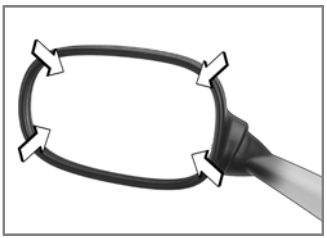


⚠ The helmet catch can scratch the panelling. Make sure the lock is out of the way when you hook the helmet into position.◀

- Use the wire rope available as an optional extra to secure the helmet to helmet holder **1**.
- Installing rear seat (➠ 59)

Mirrors

Adjusting mirrors



- Move the mirror to the desired position by pressing lightly at the appropriate point close to the rim.

Windscreen

Adjusting windscreen

- Switch on the ignition.
- Press the top section of button **1**.

» Windscreen higher

- Press the bottom section of button **1**.

» Windscreen lower

Spring preload

Spring preload and weight

It is essential to set spring preload to suit the load carried by the motorcycle. Increase spring preload when the motorcycle is heavily loaded and reduce spring preload accordingly when the motorcycle is lightly loaded.

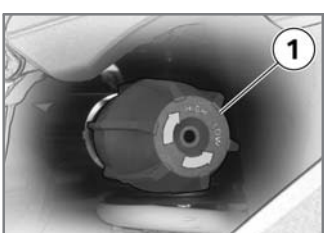
Adjusting spring preload for rear wheel

Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings.
Adjust the damping characteristic to suit spring preload.◀

Adjusting spring preload while the motorcycle is being ridden can lead to accidents.
Do not attempt to adjust spring preload unless the motorcycle is at a standstill.◀

The knob can be pulled out and angled down for easier accessibility.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.



- If you want to increase spring preload, turn knob **1** in the direction indicated by the HIGH arrow.
- If you want to reduce spring preload, turn knob **1** in the direction indicated by the LOW arrow.

One click corresponds to a half turn of the knob. The range of adjustment comprises 20 turns.◀

Rear spring preload, basic setting

One-up, rider weighing 85 kg
Turn the knob as far as it will go in the direction indicated by the LOW arrow and then turn it back 15 clicks in the direction indicated by the HIGH arrow.

Shock absorbers

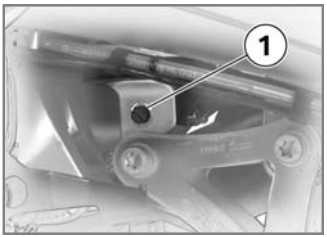
Shock-absorber settings and spring preload

Damping must be adapted to suit spring preload. An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting rear shock absorber

Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings.
Adjust the damping characteristic to suit spring preload.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.



- Adjust the rear shock absorber, using a screwdriver to turn adjusting screw **1**.

- If you want a harder damping characteristic, use a screwdriver to turn adjusting screw **1** in the direction indicated by the H arrow.
- If you want a softer damping characteristic, use a screwdriver to turn adjusting screw **1** in the direction indicated by the S arrow.

The adjusting screw can be turned through three and a half turns.◀

Rear suspension, basic setting

One-up, rider weighing 85 kg
Turn the adjusting screw as far as it will go in the direction indicated by the H arrow and then turn it back one and a half turns in the direction indicated by the S arrow.

Electronic Suspension Adjustment ESA[OE]

Settings

Electronic Suspension Adjustment ESA provides a convenient way of adapting the motorcycle to different conditions. Three spring preload settings can be combined with three damping characteristics to fine-tune the motorcycle's suspension to the load it carries and the surface over which you want to ride. The damping characteristic is shown in panel **1** of the mul-

tifunction display, and spring preload in panel **2**.

Calling up settings

• Switch on the ignition.

• Press button **1**.
» The current setting is displayed.
» The reading remains visible for a few seconds before disappearing automatically.

Adjusting suspension damping

• Switch on the ignition.

• Press button **1**.

You can adjust the damping characteristic while the motorcycle is on the move.◀

» The current setting is displayed.
• Press button **1** once briefly.

The display field starts at the current status and cycles through the following sequence:

– COMFORT Comfortable damping characteristic
– NORMAL Normal damping characteristic
– SPORT Sporty damping characteristic

» The setting shown on the display is automatically accepted as the damping characteristic if you allow a certain length of time to pass without pressing button **1**. The reading flashes while adjustment is in progress.

Adjusting spring preload

• Start the engine.

• Press button **1**.

» The current setting is displayed.
• Press and hold down button **1** until the reading changes.

The display field starts at the current status and cycles through the following sequence:

One-up

One-up with luggage

Two-up (with luggage)

• The setting shown on the display is automatically accepted as the spring preload if you allow a certain length of time to pass without pressing button **1**. The reading flashes while adjustment is in progress.

You cannot adjust spring preload while the motorcycle is on the move.◄

Tyres

Checking tyre pressures

Incorrect tyre pressure adversely affects the handling characteristics of the motorcycle and can lead to accidents.
Always check that the tyre pressures are correct.◄

At high road speeds, tyre valves have a tendency to open as a result of centrifugal force.
In order to avoid a sudden loss of tyre pressure, fit a metal valve cap with rubber sealing ring to the rear tyre and make sure that the cap is screwed on firmly.◄

Incorrect tyre pressure reduces the operating life of the tyres.
Always check that the tyre pressures are correct.◄

• Check that tyre pressures are correct as per the data below.

Front wheel, tyre pressure

2.5 bar (when cold)

Rear wheel, tyre pressure

2.9 bar (when cold)

If tyre pressure is too low:

• Correct the tyre pressures.

Riding

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Checklist 70
Starting 70
Pulling away with BMW Motorrad Integral ABS 73
Running in 73
Parking your motorcycle 74
Refuelling 76
Brake system, general 77
Brake system with BMW Integral ABS 78

Safety instructions

Rider's equipment

Do not ride without the correct clothing. Always wear:
– Helmet
– Motorcycling jacket and trousers
– Gloves
– Boots

This applies even to short journeys, and to every season of the year. Your authorised BMW Motorrad dealer will be glad to advise you on the correct clothing for every purpose.

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:
– Mismatched settings of the spring-strut and shock-absorber system
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– Etc.

Correct loading

Overloading and imbalanced loads can adversely affect the motorcycle's handling.
Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀

Alcohol and drugs

Even small amounts of alcohol or drugs will adversely affect your perception and your ability to assess situations and make decisions, and slow down your reflexes. Medication can exacerbate these effects.
Do not ride your motorcycle after consuming alcohol, drugs and/or medication.◀

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colourless and odourless but highly toxic.

Inhaling the exhaust fumes therefore represents a health hazard and can even cause loss of consciousness with fatal consequences.
Do not inhale exhaust fumes. Do not run the engine in an enclosed space.◀

High voltage

Touching live parts of the ignition system with the engine running can cause electric shock.
Do not touch parts of the ignition system when the engine is running.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
For this reason, observe the following points:
- Do not run the fuel tank dry.
- Do not attempt to start or run the engine with a spark-plug cap disconnected.
- Stop the engine immediately if it misfires.
- Use only unleaded fuel.
- Comply with all specified maintenance intervals.

Unburned fuel will destroy the catalytic converter.
Note the points listed for protection of the catalytic converter.◀

Risk of fire

Temperatures at the exhaust are high.

Flammable materials (e.g. hay, leaves, grass, clothing and luggage, etc.) could ignite if allowed to come into contact with the hot exhaust pipe.
Do not permit flammable materials to come into contact with the hot exhaust system.◀

Cooling would be inadequate if the engine were allowed to idle for a lengthy period with the motorcycle at a standstill: overheating would result. In extreme cases, the motorcycle could catch fire. Do not allow the engine to idle unnecessarily. Ride away immediately after starting the engine.◀

Tampering with the control unit of the electronic engine-management system

Tampering with the control unit of the electronic engine-management system can damage the motorcycle and cause accidents.
Do not tamper with the control unit of the electronic engine-management system.◀

Tampering with the control unit of the electronic engine-management system can result in mechanical loads that the motorcycle's

components are not designed to withstand. Damage caused in this way is not covered by the warranty.
Do not tamper with the control unit of the electronic engine-management system.◀

Checklist

Use the following checklist to check important functions, settings and wear limits before you ride off.
– Brakes
– Brake-fluid levels, front and rear
– Clutch
– Clutch fluid level
– Shock absorber setting and spring preload
– Tyre-tread depth and tyre pressures
– Cases correctly installed and luggage secured

At regular intervals:
– Engine oil level (every refuelling stop)

Starting

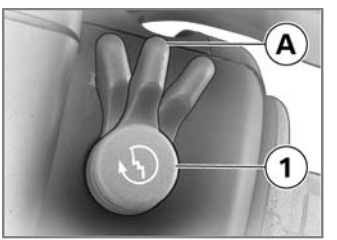
Side stand

You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if you start it with the gearbox in neutral and then engage a gear before retracting the side stand.

Gearbox

You can start the engine when the gearbox is in neutral or if you pull the clutch with a gear engaged. Do not pull the clutch until after you have switched on the ignition, as otherwise the engine will refuse to start. When the gearbox is in neutral, the green neutral telltale light is on and the gear indicator in the multifunction display shows N.

Starting the engine



- Kill switch **1** in run position **A**.
- Switch on the ignition.

» Pre-ride check is performed. (➠ 71)
» ABS self-diagnosis is performed. (➠ 72)

ABS self-diagnosis cannot be performed if the ignition is switched on while the brake lever is pulled or the brake pedal depressed. Self-diagnosis is performed as soon as the brake levers are in their fully released positions for the first time. Until this completes the ABS function is not available and the same applies to power assistance for the brakes; the system is in the residual braking function mode.
When you start the engine, wait for the ABS to complete its self-diagnosis.◀

• Press starter button **1**.

If ambient temperatures are very low, you might find it necessary to open the throttle slightly when starting the engine. At ambient temperatures below 0 °C, disengage the clutch after switching on the ignition.◀

The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.◀

» The engine starts.
» Consult the troubleshooting chart below if the engine refuses to start. (➡ 130)

Pre-ride check

The instrument cluster runs a test of the 'General' warning light when the ignition is switched on. The warning light shows first red and then yellow, so that you can check that it is in working order. This pre-ride check is indicated by the word CHECK! appearing in the display. If the motorcycle is equipped with the cruise control optional extra, SET lights up as well. The test is aborted if you start the engine before it completes.

Phase 1

General warning light shows red.

– The CHECK! reminder appears on the display.

Phase 2

 General warning light shows yellow.

– The CHECK! reminder appears on the display.

 If the motorcycle is fitted with the cruise-control OE, the cruise control telltale light shows.

If the 'General' warning light is not displayed:

Some malfunctions cannot be indicated if the 'General' warning light cannot be displayed.

Check that the 'General' warning light comes on, and that it lights up yellow and then red.◀

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

ABS warning lights

There are two country-dependent versions of the ABS warning light:

Country-dependent version 1.

 Country-dependent version 2.

The description below is based on country-dependent version 1.

ABS self-diagnosis

The BMW Motorrad Integral ABS performs self-diagnosis and a pull-away test to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition. Self-diagnosis is not performed unless both brake levers are in their fully released positions.

Phase 1

Self-diagnosis is in progress.

General warning light shows red.

 ABS warning light flashes four times per second.

Phase 2

Self-diagnosis is complete.

 ABS warning light flashes once per second.

If self-diagnosis did not complete:

- Release the brake levers as soon as possible.

If an error message appears when self-diagnosis completes:

- See the section entitled "Status indicators" for information on how to interpret these messages.

The ABS warning light does not go out until the pull-away test completes.◀

Pulling away with BMW Motorrad Integral ABS

Starting on gradients

- Select a gear.
- Release the clutch lever and both brake levers.
- Switch on the ignition.

» Pre-ride check is performed. (➡ 71)

» ABS self-diagnosis is performed. (➡ 72)

- Apply the brakes and disengage the clutch.
- Start the engine.

ABS pull-away test

When you pull away, the BMW Motorrad Integral ABS checks the ABS sensors.

ABS warning light flashes once per second.

» The ABS warning light goes out when the pull-away test completes.

If an error message appears when the pull-away test completes:

- See the section entitled "Status indicators" for information on how to interpret these messages.

Running in

The first 1000 km

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding high-speed main roads and highways if possible.

Exceeding the specified engine speeds while running in will lead to increased engine wear.
Keep to the specified engine speeds for running in.◀

- Do not exceed the rpm limits recommended for running in.

Running-in speed

7000 min^{-1}

- No full-load acceleration.
- Avoid low engine speeds at full load.
- Do not omit the first inspection after 500 - 1200 km.

Brake pads

New brake pads must "bed down" and therefore do not achieve their optimum friction levels during the first 500 km.

You can compensate for this initial reduction in braking efficiency by exerting greater pressure on the levers.

New brake pads can extend stopping distance by a significant margin. Apply the brakes in good time.◄

Tyres

New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in. This running in procedure is essential if the tyres are to achieve maximum grip.

Tyres do not have their full grip when new and there is a risk of accident at extreme angles of heel. Avoid extreme angles of heel.◄

Parking your motorcycle

Placing motorcycle on side stand

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand. Always check that the ground under the stand is level and firm.◄

- Switch off the engine.
- Pull the handbrake lever.
- Hold the motorcycle upright and balanced.
- Use your left foot to extend the side stand fully.

The side stand is designed to support only the weight of the motorcycle. Do not lean or sit on the motorcycle with the side stand extended.◄

- Slowly lean the motorcycle to the side until its weight is taken by the stand and dismount to the left.

If the motorcycle is on the side stand, the surface of the ground will determine whether it is better to turn the handlebars to the left or right. However, the motorcycle is more stable on a level surface with the handlebars turned to the left than with the handlebars turned to the right. On level ground, always turn the handlebars to the left to set the steering lock.◄

- Turn the handlebars to full left or right lock.
- Check that the motorcycle is standing firmly.

On a gradient, the motorcycle should always face uphill; select 1st gear.◀

- Lock the steering lock.

Removing motorcycle from side stand

- Unlock the steering lock.

Brake servo assistance is not available when the ignition is off; the motorcycle can start to roll.
Particularly when the motorcycle is parked on a gradient, switch on the ignition and wait for the ABS to complete its self-diagnosis.◀

- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- From the left, grip the handlebars with both hands.
- Pull the handbrake lever.
- Swing your right leg over the seat and lift the motorcycle to the upright position.
- Hold the motorcycle upright and balanced.

An extended side stand can catch on the ground when the motorcycle is moving and lead to a fall.
Retract the side stand before moving the motorcycle.◀

- Sit on the motorcycle and use your left foot to retract the side stand.

Placing motorcycle on centre stand

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.
Always check that the ground under the stand is level and firm.◀

- Switch off the engine.
- Dismount and keep your left hand on the left handlebar grip.
- With your right hand, grip the rear grab handle or the rear frame.
- Place your right foot on the pin of the centre stand, and press the stand down until its curved feet touch the ground.
- Place your full body weight on the centre stand and at the same time pull the motorcycle to the rear.

Excessive movements could cause the centre stand to retract, and the motorcycle would topple in consequence.
Do not lean or sit on the motorcycle with the centre stand extended.◀

- Check that the motorcycle is standing firmly.

- Lock the steering lock.

Removing motorcycle from centre stand

Brake servo assistance is not available when the ignition is off; the motorcycle can start to roll.
Particularly when the motorcycle is parked on a gradient, switch on the ignition and wait for the ABS to complete its self-diagnosis.◀

- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- Place your left hand on the left handlebar grip.
- Grip the rear grab handle with your right hand.
- Push the motorcycle forward off the centre stand.
- Check that the centre stand has fully retracted.

Refuelling

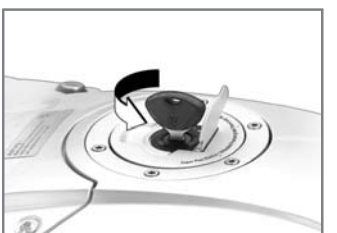
Fuel is highly flammable. A naked flame close to the fuel tank can cause a fire or explosion.
Do not smoke. Never bring a naked flame near the fuel tank.◀

Fuel expands when hot. Fuel escaping from an overfilled tank could make its way onto the rear tyre. This could cause a fall.
Do not fill the tank past the bottom edge of the filler neck.◀

Fuel attacks plastics, which become dull or unsightly.
Wipe off plastic parts immediately if they come into contact with fuel.◀

Leaded fuel will destroy the catalytic converter.
Use only unleaded fuel.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.



- Open the protective cap.
- Open the fuel tank cap with the ignition key by turning it counter-clockwise.
- Refuel with fuel of the grade stated below.

Recommended fuel grade

– Super Plus, unleaded

– 98 ROZ/RON

Fuel grade, usable with power- and consumption-related restrictions

– Super unleaded
– 95 ROZ/RON

Usable fuel capacity

24 l

Reserve fuel

4 l

- Press the filler cap down firmly to close.
- Remove the key and close the protective cap.

Brake system, general

Descending mountain passes

There is a danger of the brakes fading if you use only the rear brakes when descending mountain passes. Under extreme conditions, the brakes could overheat and suffer severe damage. Use both front and rear brakes, and make use of the engine's braking effect as well.◀

Wet brakes

After the motorcycle has been washed, ridden through water or ridden in the rain, the brake discs and pads might be wet and the brakes might not take effect immediately.
Apply the brakes in good time until the brakes have dried out.◀

Salt on brakes

The brakes may fail to take effect immediately if the motorcycle was ridden on salt-covered roads and the brakes were not applied for some time.
Apply the brakes in good time until the salt layer on the brake discs and brake pads has been removed.◀

Oil or grease on brakes

Oil and grease on the brake discs and pads considerably diminish braking efficiency.
Especially after repair and maintenance work, make sure that the brake discs and brake pads are free of oil and grease.◀

Dirt or mud on brakes

When the motorcycle is ridden on loose surfaces or muddy roads, the brakes may fail to take effect immediately because of dirt or moisture on the discs or brake pads.

Apply the brakes in good time until the brakes have been cleaned.◀

Brake system with BMW Integral ABS

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the stopping distance.
If the rider increases braking pressure to the extent that braking force exceeds the maximum transferrable limit, the wheels start to lock and the motorcycle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure to the maximum transferrable braking force, so the wheels continue to rotate and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero.
If the brakes are applied under these circumstances the ABS has to reduce braking force to ensure that directional stability is maintained when the wheels regain contact with the road surface.
At this instant, the BMW Motorrad Integral ABS must assume an extremely low coefficient of friction, so that the wheels will continue to rotate under all imaginable circumstances, because this is the precondition for ensuring directional stability. As soon as is registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load moving forward from the rear wheel to the front wheel.
The sharper the motorcycle decelerates, the more load is shifted to the front wheel.

The higher the wheel load, the more braking force can be transmitted without the wheel locking. To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the "panic braking situations" that are trained so frequently braking force is applied as rapidly as possible and with the rider's full force exerted on the brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. ABS has to intervene to keep the front wheel from locking; this increases stopping distance.

Reserves for safety

The potentially shorter stopping distances which BMW Integral ABS permits must not be used as an excuse for careless riding. ABS is primarily a means of ensuring a safety margin in genuine emergencies.
Take care when cornering. When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even BMW Integral ABS is unable to counteract their effects.

Rear wheel lift

Even under severe braking, a high level of tyre grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a highsiding situation in which the motorcycle can flip over.

Severe braking can cause the rear wheel to lift off the ground.
When you brake, bear in mind that ABS control cannot be relied on in all circumstances to prevent the rear wheel from lifting clear of the ground.◀

What happens if ABS fails?

A malfunction of the BMW Motorrad Integral ABS is brought to the rider's attention by a warning light in the instrument cluster. The integral braking function and the brake booster remain functional if only ABS control fails. If these systems fail as well, the residual braking function comes into play. Under these circumstances significantly more force has to be applied to the brake levers and brake lever travel increases.

The residual braking function is a mechanical function and irrespective of battery charge state, it is always available if the BMW Motorrad Integral ABS fails. It complies with all statutory requirements for the design of motor-vehicle brake systems in countries throughout the world and enables the rider to brake the motorcycle. Always bear the following in mind if you ride with the residual braking function active:

- Set the brake lever to maximum span to maximise possible brake-lever travel
- Always brake by applying both the front and rear brakes
- When justified by the road-traffic situation repeatedly test the brakes to familiarise yourself with brake response
- Take the road surface duly into account and adapt braking force accordingly
- This is a get-you-home function, so you should consult a specialist workshop, preferably an authorised BMW motorcycle dealer, at the earliest possible opportunity.

What is the design baseline for BMW Motorrad Integral ABS?

Within the limits imposed by physics, BMW Motorrad Integral ABS ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme competitive situations off-road or on racing circuits.

Brake booster

The hydraulic pump in the BMW Integral ABS boosts the braking force acting on the wheel when the brakes are applied. By boosting the braking force in this way, BMW Integral ABS achieves higher braking efficiency than standard brake systems.

Partially integral brakes

Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The footbrake lever acts only on the rear brake.
The electronic controller in the BMW Integral ABS regulates braking-force distribution between front and rear wheels. Braking-force distribution depends on load and is recalculated every time the ABS controller comes into action.

What significance devolves on regular maintenance?

Invariably, a technical system cannot perform beyond the abilities dictated by its level of maintenance. To ensure that the BMW Motorrad Integral ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.◀

What aspects are of importance as regards road-safety training courses?

Braking situations in which ABS actively intervenes produce a sharp rise in electricity consumption as opposed to ordinary braking manoeuvres, and this places a severe strain on the battery. Under normal riding conditions the battery is being charged constantly, so its charge capacity is usually adequate. If the motorcycle is to be off the road for a period of several weeks, a trickle charger available from an authorised BMW Motorrad dealer should be connected or the battery disconnected and its charge level topped up before the motorcycle is restored to use. It is typical of road-safety training courses that they involve an exceptionally high number of braking manoeuvres with ABS intervention occurring in rapid succession, alternating with breaks and assessment phases in which the motorcycle is not on the move. The ABS interventions place a severe load on the battery, and because very little actual riding is undertaken the battery is not being charged in the normal way. In isolated instances, this unusual set of circumstances can result in conditions in which the regulatory function is no longer at the rider's disposal when the brakes

are applied by extremely fast and vigourous actuation of the brake lever because this, in combination with the diminished level of power in the electrical system, brings ABS to the limit of its technical capabilities. Observations on the part of BMW Motorrad in the field indicate that a comparable situation has not arisen in ordinary road traffic or even during on-circuit training courses.

Always bear the following in mind when taking part in road-safety training courses:

- Check the telltale and warning lights before each braking practice
- After five braking practices at the most, ride the motorcycle a lengthy distance to recharge the battery
- Switch off consumers such as seat heating and heated handlebar grips, radio, navigation system and accessories connected to the sockets
- Keep the ignition switched off during breaks and consultations; if the engine is killed by means of the kill switch the light and all electronic systems remain on and will drain the power reserves of the battery

Accessories

General instructions 84
Power socket 84
Luggage 87
Case 88
Topcase[OA] 90

General instructions

BMW Motorrad recommends the use of parts and accessories for your motorcycle that are approved by BMW for this purpose.

Genuine BMW parts and accessories and other products which BMW has approved can be obtained from your authorised BMW Motorrad dealer, together with expert advice on their installation and use.

These parts and products have been tested by BMW for safety, function and suitability. BMW accepts product liability for them.

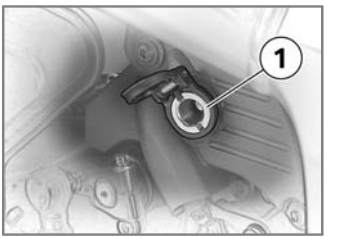
Conversely, BMW is unable to accept any liability whatsoever for parts and accessories which it has not approved.

⚠ BMW Motorrad cannot assess each non-BMW product to determine whether it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Country-specific official authorisation does not suffice as assurance. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances. Use only parts and accessories approved by BMW for your motorcycle.◀

Whenever you are planning modifications, comply with all the legal requirements. Make sure that the motorcycle does not infringe national road-vehicle construction and use regulations.

Power socket

Ratings



The supply to standard socket **1** and the extra socket (OA) is cut off automatically if battery voltage is low or the load exceeds the maximum of 8 A for both sockets combined.

Operating electrical accessories

You can start using electrical accessories only when the ignition is switched on. The accessory remains operational if the ignition is subsequently

switched off. In order to ensure that the drain on the on-board power supply system is minimised, the supply to the power socket is cut off approximately 15 minutes after the ignition is switched off, and it is also temporarily interrupted during the start procedure.

Cable routing

The cables from the power socket to the auxiliary device must be routed in such a way that they:

- Do not impede the rider
- Do not restrict or obstruct the steering angle and handling characteristics
- Cannot be trapped

Incorrectly routed cables can impede the rider. Route the cables as described above.◀

BMW
BMW
K 1200 GT

Luggage

Correct loading

Overloading and imbalanced loads can adversely affect the motorcycle's handling.
Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀

Fitting a luggage system will affect the handling of your motorcycle. The maximum speed recommended for riding with loaded cases is 180 km/h. If the large or small topcase (OA) is fitted, the maximum permissible speed is 180 km/h.

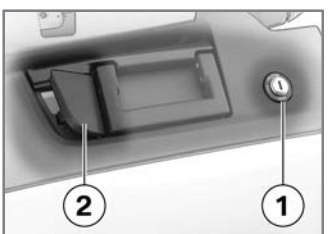
– Set spring preload, damping characteristic and tyre pressures to suit total weight.
– Make sure that the weight is uniformly distributed between right and left.
– Pack heavy items at the bottom and toward the inboard side.
– Max. load in each case (left and right): 10 kg.
– Max. load in tank rucksack 5 kg.

Case

Opening cases

- Turn the key to the OPEN position in the case lock.

» The case is unlocked.



- Press lock barrel **1**.

» Lever **2** pops up.

- Pull the release lever up.

» The lid of the case opens.

Closing cases

- Pull release lever **2** all the way up.
- Close the lid of the case and press it down. Check that nothing is trapped between the lid and the case.

- Push release lever **2** down.

» The release lever engages.

- Turn the key to the LOCK position in the case lock.

» The case is closed.

Removing the case

- Turn the key to the RELEASE position in the case lock.

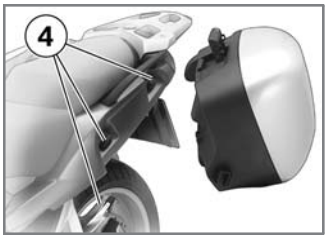
» The handle pops out.

- Pull handle **3** out and then pull it up as far as it will go.

» The case is released and can be removed.

Installing cases

- Pull the handle up as far as it will go.



- Seat the case in holders **4**.

- Push handle **3** down until it engages.

» The case is correctly engaged on its holders.

- Turn the key to the LOCK position in the case lock.

» The case is closed.

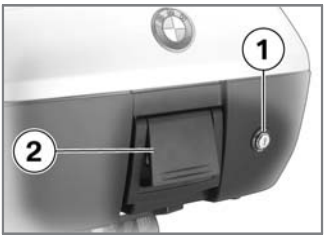
- Check that the case is secure.

Topcase[OA]

Opening topcase

- Turn the key to the OPEN position in the topcase lock.

» The topcase is unlocked.



- Press lock barrel **1**.

» Lever **2** pops up.

- Pull the release lever up.

» The lid of the topcase opens.

Closing topcase

- Pull release lever **2** all the way up.
- Close the lid of the topcase and press it down. Check that nothing is trapped between the lid and the case.

- Push release lever **2** down.

» The release lever engages.

- Turn the key to the LOCK position in the topcase lock.

» The topcase is locked.

Removing topcase

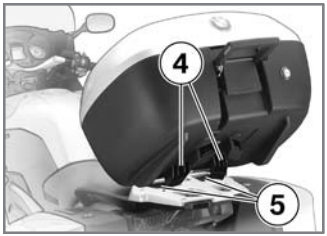
- Turn the key to the RELEASE position in the topcase lock.

» The handle pops out.

- Pull handle **3** up as far as it will go.
- Lift the topcase at the rear and pull it off the luggage carrier.

Installing topcase

- Pull the handle up as far as it will go.



- Hook the topcase into position on the luggage carrier. Make sure that hooks **4** are securely seated in the corresponding keepers **5**.

- Push handle **3** down until it engages.

» The topcase is correctly engaged on its carrier.

- Turn the key to the LOCK position in the topcase lock.

» The topcase is locked.

- Check that the topcase is secure.

Maintenance

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Brake fluid 99
Clutch 100
Tyres 100
Rims 101
Wheels 101
Front-wheel stand 108
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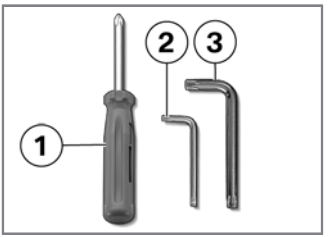
General instructions

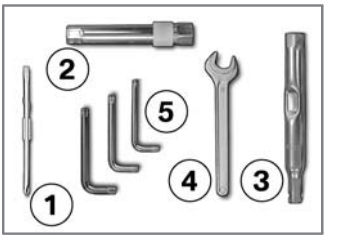
The 'Maintenance' chapter describes work involving the replacement of wear parts that can be performed with minimum effort.
Special tightening torques are listed as applicable.
If you are interested in information on more extensive work, we recommend the repair manual on CD-ROM which applies to your particular motorcycle. You can obtain a copy from your authorised BMW Motorrad dealer.

Standard on-board toolkit



1 Screwdriver with reversible blade
2 Torx wrench, T25
3 Torx wrench, T45

Supplementary on-board toolkit (OA)



1 Screwdriver blade
2 Socket wrench, w/f 17
3 Spark plug socket spanner
4 Open-ended spanner, w/f 17
5 TORX wrenches, T40, T45, T50

▷ The supplementary kit is available as an optional accessory (OA). Please consult your authorised BMW Motorrad dealer.◀

Engine oil

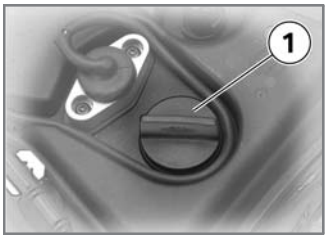
Checking the engine oil level

⚠ The engine can seize if the oil level is low, and this can lead to accidents. Always make sure that the oil level is correct.◀

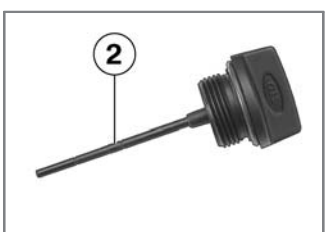
⚠ Oil can collect in the sump if the motorcycle is out of use for an extended period of time; this oil has to be pumped into the oil tank before the level is read. The engine oil must be at operating temperature to do this. Checking the oil level with the engine cold or after no more than a short ride will lead to misinterpretation; this in turn, means that the engine will be operated with the incorrect quantity of oil.
In order to ensure that the engine oil level is read correctly, check the oil level only after a lengthy trip.◀

▷ The oil level varies with the temperature of the oil. The higher the temperature the higher the oil level in the oil tank. Check the engine oil level immediately after a lengthy journey.◀

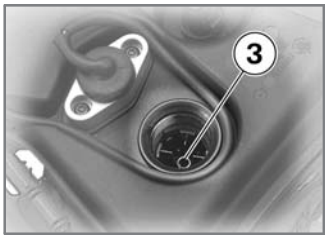
- Check that the engine is at operating temperature, make sure the ground is level and firm and place the motorcycle on its centre stand.
- Allow the engine to idle for one minute.
- Switch off the ignition.
- Removing front seat (➡ 58)
- Wipe the area around the oil filler neck clean.



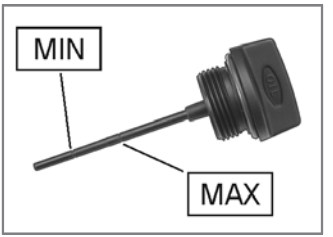
- Remove oil filler cap **1** by turning it counter-clockwise.



- Use a dry cloth to wipe oil dipstick **2** clean



- Seat the oil dipstick on the oil filler neck, but do not engage the threads. Make sure that the dipstick is seated in guide **3**.
- Remove the oil dipstick and check the oil level.



Engine oil, specified level

Between MIN and MAX marks

If the oil level is below the MIN mark:

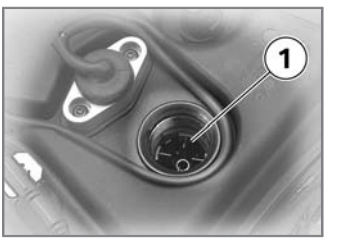
- Top up the engine oil.

If the oil level is above the MAX mark:

- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Topping up the engine oil

- Checking the engine oil level (➡ 95)



- Pour engine oil in through filler neck **1** until it reaches the specified level.

Brake system, general

Reliability

A fully functional brake system is a basic requirement for the road safety of your motorcycle.

Do not ride the motorcycle if you have any doubts about

the dependability of the brake system.
Under these circumstances have the brake system checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Incorrect working practices endanger the reliability of the brakes.
Have all work on the brake system performed by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Checking operation of the brakes

- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- Pull the handbrake lever.

» The pressure point must be clearly perceptible.
» The noise of the hydraulic pump running must be audible.

- Press the footbrake lever.

» The pressure point must be clearly perceptible.
» The noise of the hydraulic pump running must be audible.

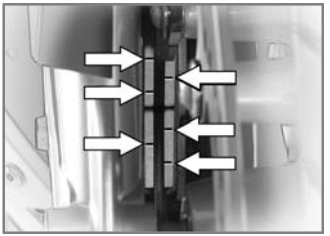
Brake pads

Checking brake-pad thickness, front brakes

Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.
In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.

- Visually inspect the left and right brake pads to ascertain their thickness. Viewing direction: Between wheel and front fork toward the brake caliper.



Brake-pad thickness, front

The wear indicating marks on the brake pads must be clearly visible.

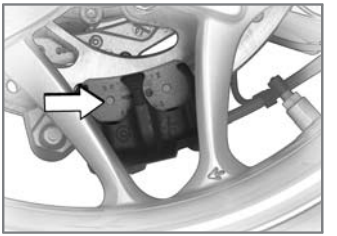
If the wear indicating mark is no longer clearly visible:

- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

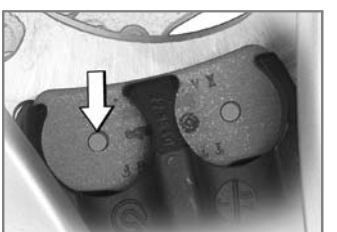
Checking brake pad thickness, rear brakes

Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.
In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.



- Visually inspect the brake pads from the right to ascertain their thickness.



Brake-pad thickness, rear

Make sure that the brake disc is not visible through the bore in the inboard brake block.

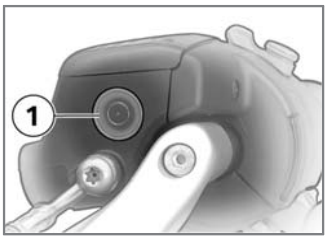
If the brake disc is visible:
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Brake fluid

Checking brake-fluid level, front brakes

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency. Apply the brakes in good time.◀

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Move the handlebars to the straight-ahead position.



- Check the brake fluid level in reservoir **1**.

The brake fluid level in the reservoir does not drop as the brake pads wear.◀

Brake fluid level, front

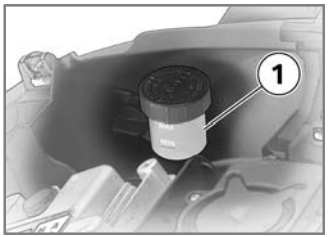
DOT4 brake fluid
Do not permit the brake fluid level to drop.

If the brake fluid level falls:
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking brake-fluid level, rear brakes

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency. Apply the brakes in good time.◀

- Make sure the ground is level and firm and place the motorcycle on its centre stand.



- Check the brake fluid level in reservoir **1**.

The brake fluid level in the reservoir does not drop as the brake pads wear.◀

Brake fluid level, rear

DOT4 brake fluid

Do not permit the brake fluid level to drop.

If the brake fluid level falls:

- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Clutch

Checking clutch operation

- Pull the clutch lever.

» The pressure point must be clearly perceptible.

If the pressure point is not clearly perceptible:

- Have the clutch checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Tyres

Checking tyre tread depth

Your motorcycle's handling and grip can be impaired even before the tyres wear to the minimum tyre tread depth permitted by law. Have the tyres changed in good time before they wear to the minimum permissible tread depth.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Measure the tyre tread depth in the main tread grooves with wear marks.

Tyres have wear indicators integrated into the main tread grooves. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g. by the letters TI, TWI or by an arrow.◀

If the tyre tread no longer complies with the minimum legally required tread depth:

- Replace the tyre.

Rims

Checking rims

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Visually inspect the rims for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

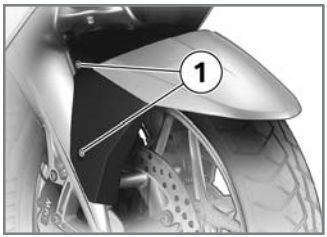
Wheels

Approved wheels and tyres

For each size of tyre BMW Motorrad tests certain makes, and approves those that it certifies as roadworthy. If BMW Motorrad has not approved the wheels and tyres, it cannot assess their suitability or provide any guarantee of road safety.
Use only wheels and tyres approved by BMW Motorrad for your type of motorcycle. You can obtain detailed information from your authorised BMW Motorrad dealer or on the Internet at www.bmw-motorrad.com.

Removing front wheel

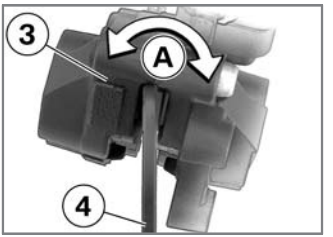
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



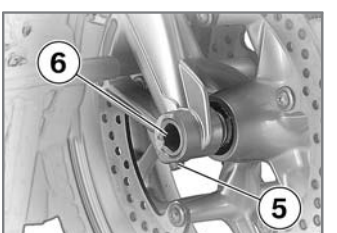
- Remove screws **1** on left and right.
- Pull the front mudguard forward to remove.

Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake disc on reassembly.
Do not operate the handbrake lever when the brake calipers have been removed.◀

- Remove securing screws **2** of the left and right brake calipers.



- Force the brake pads slightly apart by rocking brake calipers **3** back and forth **A** against brake discs **4**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.
- Carefully pull the brake calipers back and out until clear of the brake discs.
- When removing the left brake caliper, take care not to damage the ABS sensor cable.
- When removing the right brake caliper, take care not to alter the routing of the sensor cable of the brake-pad wear detector.
- Raise the front of the motorcycle until the front wheel can rotate freely. BMW Motorrad recommends the BMW Motorrad front wheel stand for lifting the motorcycle.
- Fitting the front wheel stand (➡ 108)



- Remove right-hand axle clamping screw **5**.

The left axle clamping screw locates the threaded bush in the front suspension. If the threaded bush is not correctly aligned the gap between the ABS sensor ring and the ABS sensor will not be correct and this can cause the ABS to malfunction or allow the ABS sensor to be damaged.
In order to ensure that the threaded bush remains correctly aligned, do not slacken or remove the left axle camping screw.◀

- Remove quick-release axle **6**, while supporting the wheel.

BMW Motorrad provides an adapter for removing the quick-release axle. This adapter can be combined with a commercially available w/f 22 open-end or ring spanner. The BMW special tool number is 36 3 691 and the adapter is available from your authorised BMW Motorrad dealer.◀

- Lower the front wheel to the ground between the front forks.

Take care not to damage the ABS sensor when rolling out the front wheel.
Note the ABS sensor when rolling out the front wheel.◀

- Roll the front wheel forward to remove.

Installing front wheel

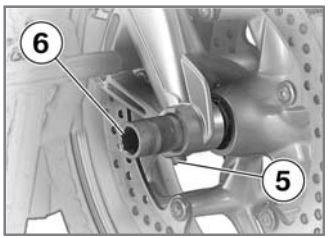
Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage.
Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

There is a risk of damaging parts of the front brake, particularly the BMW Integral ABS, in the course of the procedure described below.
Take care not to damage the brake system, in particular the ABS sensor with cable and the ABS sensor ring.◀

The front wheel must be installed right way round to rotate in the correct direction.
Note the direction-of-rotation arrows on the tyre or the wheel rim.◀

Take care not to damage the ABS sensor when rolling in the front wheel.
Note the ABS sensor when rolling in the front wheel.◀

- Roll the front wheel into position between the front forks.



- Raise the front wheel, insert quick-release axle **6** and tighten to specified torque.

Quick-release axle in threaded bush

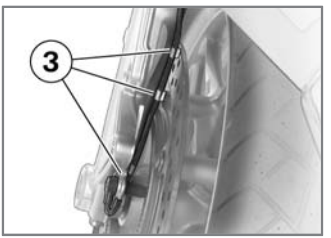
50 Nm

- Tighten right axle clamping screw **5** to the specified tightening torque.

Clamping screw for quick-release axle in wheel carrier

19 Nm

- Remove the front wheel stand.



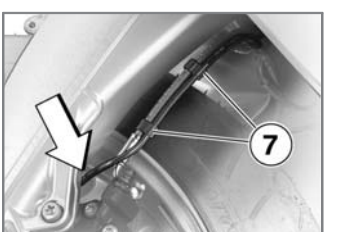
The cable of the ABS sensor could chafe through if it comes into contact with the brake disc. Make sure that the ABS sensor cable is routed correctly.◄

- Clip the ABS sensor cable into three retaining clips **3**.
- Ease the brake calipers on to the brake discs.

- Install securing screws **2**.

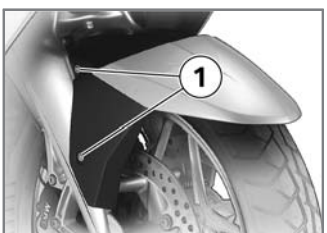
Front brake caliper to wheel carrier

30 Nm



- Route the ABS sensor cable between the brake caliper

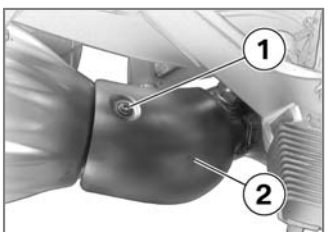
and the front forks as illustrated here.
- Clip the ABS sensor cable into two retaining clips **7**.
- Remove the adhesive tape from the wheel rim.



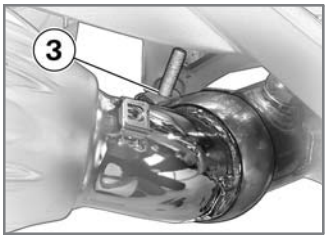
- Install the front mudguard and install screws **1** on left and right.
- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- Firmly pull the handbrake lever until the pressure point is perceptible, and repeat this operation several times.

Removing rear wheel

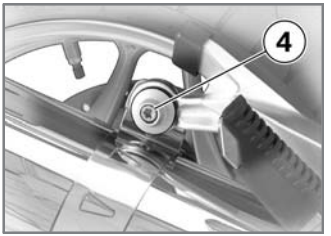
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



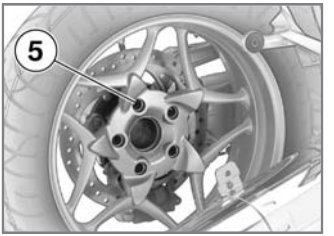
- Remove screw **1** from silencer cover **2**.
- Pull the cover to the rear to remove.



- Remove clamp **3** from the silencer.
- Do not remove the sealing grease from the clamp.



- Remove screw **4** for the bracket of the end silencer from the rear footrest.
- Turn the end silencer down.
- Engage first gear.

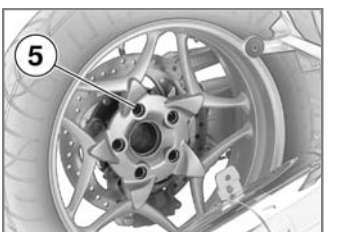


- Remove studs **5** from the rear wheel, holding the wheel as you do so.
- Lower the rear wheel to the ground.
- Roll the rear wheel out toward the rear.

Installing rear wheel

Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage.
Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Roll the rear wheel into position at the rear-wheel adapter.
- Seat the rear wheel on the rear-wheel adapter.

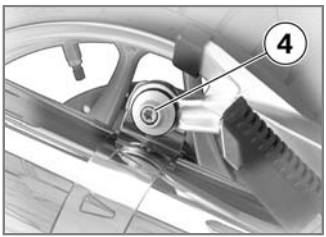


- Install wheel studs **5** and tighten to specified torque in diagonally opposite sequence.

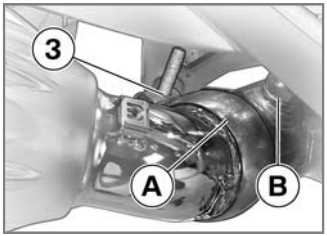
Rear wheel to wheel flange

60 Nm

- Turn the end silencer to its initial position.



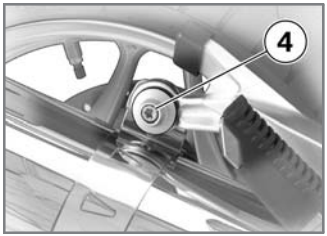
- Install screw **4** for the bracket of the end silencer in the rear footrest, but do not tighten it at this point.



- Align clamp **3** on the end silencer with mark **A** (arrow) on oxygen sensor **B**.
- Tighten clamp **3** on the end silencer to the specified tightening torque.

Silencer to manifold

35 Nm
Thread-locking compound: Optimoly TA

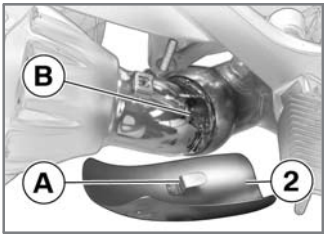


If the gap between the rear wheel and the end silencer is too small, the rear wheel can overheat.
The clearance between the rear wheel and the end silencer must be at least 15 mm.◀

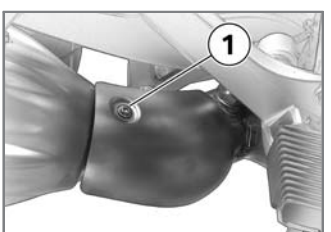
- Install screw **4** for the bracket of the end silencer in the rear footrest and tighten the screw to the specified torque.

Silencer to rear footrest, right

16 Nm



- Push silencer heat shield **2** with guide **A** into retainer **B**.



- Install screw **1** of the silencer heat shield.

Front-wheel stand

Front-wheel stand

A front wheel stand for simple, safe changing of the front wheel is available from BMW Motorrad. The BMW special tool number is 36 3 971 and the front-wheel stand is available from your authorised BMW Motorrad dealer. You also need the adapters with the BMW special tool number 36 3 973.

The BMW Motorrad front wheel stand is not designed to support motorcycles not fitted with a centre stand or without other auxiliary stands. A motorcycle resting only on the front wheel stand and the rear wheel can topple.

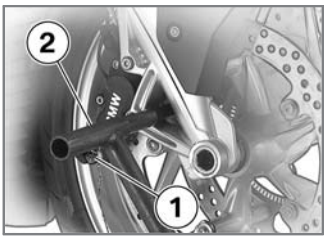
Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀

Fitting the front wheel stand

- Make sure the ground is level and firm and place the motorcycle on its centre stand.

- Slacken adjusting screws **1**.
- Push the two pins **2** apart until the front suspension fits between them.
- Use locating pins **3** to set the front wheel stand to the desired height.

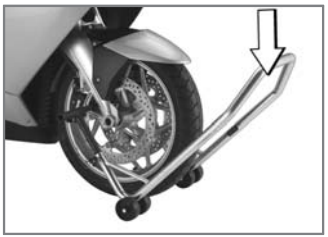
- Centre the front wheel stand relative to the front wheel and push it against the front axle.



- Push both mounting pins **2** through the triangles of the brake caliper anchorages just far enough to allow the front wheel to be rolled between them.

There is a risk of damaging the ABS sensor ring of the BMW Integral ABS. Push the pin in just far enough to ensure that it clears the sensor ring of the BMW Integral ABS.◀

- Tighten adjusting screws **1**.



If the motorcycle is raised too far the centre stand will lift clear of the ground and the motorcycle could topple to one side. When raising the motorcycle, make sure that the centre stand remains on the ground.◀

- Apply uniform pressure to push the front wheel stand down and raise the motorcycle.

Bulbs

General instructions

The failure of a bulb is signalled in the display by the defective lamp symbol. The bulbs for brake light and rear light are the same; the brightness of the light is regulated in accordance with the application.

A defective bulb places your safety at risk because it is easier for other users to oversee you and your motorcycle.
Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

The bulb is pressurised and can cause injury if damaged.

Wear protective goggles and gloves when changing bulbs.◀

The types of bulb fitted to your motorcycle are listed in the section entitled "Technical data".◀

Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when handling them. Dirt deposits, in particular oil and grease, interfere with heat radiation from the bulb. This leads to overheating and shortens the bulb's operating life.◀

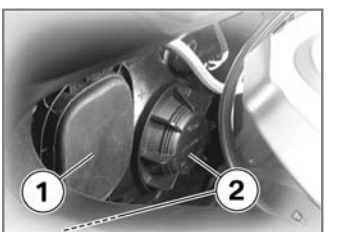
Replacing low-beam or high-beam headlight bulb

If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

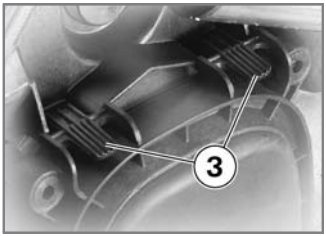
With OE Xenon lights :

Xenon lights operate with high voltage; incorrect working procedures can result in fatalities.
Have all work on the xenon light system, including the work involved in replacing bulbs, performed by a specialist workshop, preferably by an authorised BMW Motorrad dealer.◀

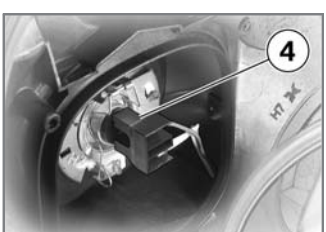
- For the time being, ride with the high-beam headlight switched on.
- In order not to dazzle oncoming traffic, set the headlight beam throw adjuster to the position for riding with maximum payload.
- Have the bulb replaced as soon as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



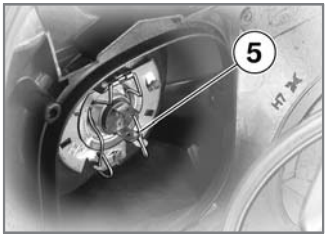
- Remove cover **1** (low-beam headlight) or covers **2** (high-beam headlight).
- Remove the covers of the high-beam headlight bulbs by turning them counterclockwise.



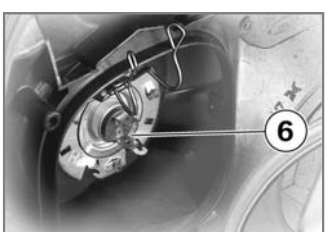
• To remove the cover of the low-beam headlight bulb, push locking lever **3** down, swing the cover down and remove.



• Disconnect plug **4**.



• Disengage spring clip **5** from the latches and swing it up.



• Remove bulb **6**.
• Replace the defective bulb.

High-beam headlight bulb

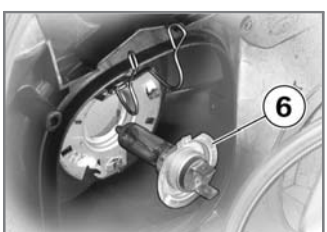
H7 / 12 V / 55 W

Low-beam headlight bulb

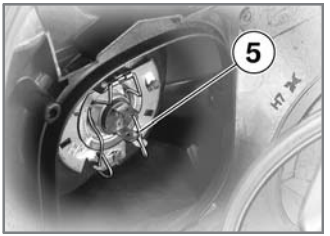
H7 / 12 V / 55 W

With OE Xenon lights :
Xenon bulb, D2R / 35 W

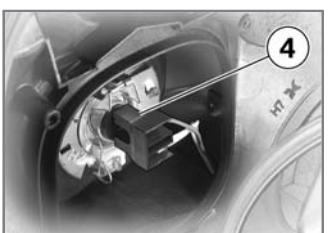
• Use a clean, dry cloth to hold the new bulb.



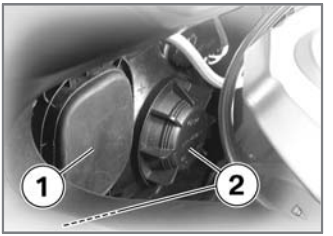
• Install bulb **6**.



• Close and lock spring clips **5**.



• Connect plug **4**.



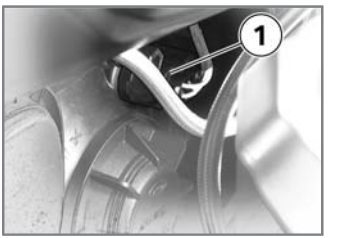
• Install cover **1** (low-beam headlight) or covers **2** (high-beam headlight).

Replacing parking-light bulbs

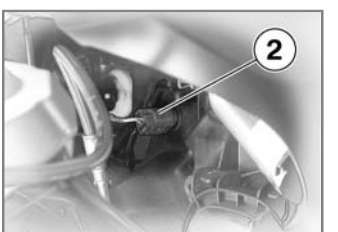
If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

• Make sure the ground is level and firm and place the motorcycle on its stand.

• Switch off the ignition.

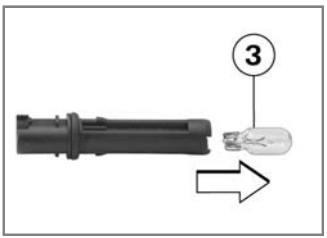


• Parking light, right: disconnect plug **1**.



• Parking light, left: disconnect plug **2**.

- Turn the bulb socket by counter-clockwise to remove.

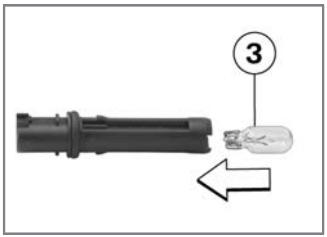


- Remove bulb **3** from the bulb holder.
- Replace the defective bulb.

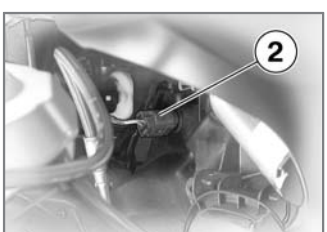
Parking-light bulb

W5W / 12 V / 5 W

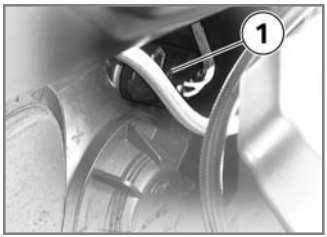
- Use a clean, dry cloth to hold the new bulb.



- Insert bulb **3** into the bulb socket.
- Turn the bulb socket clockwise to install.



- Parking light, left: connect plug **2**.



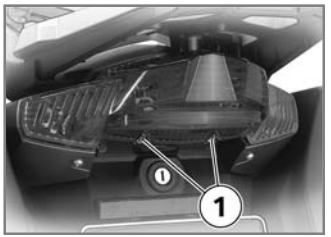
- Parking light, right: connect plug **1**.

Replacing brake-light, rear light or rear-indicator bulbs

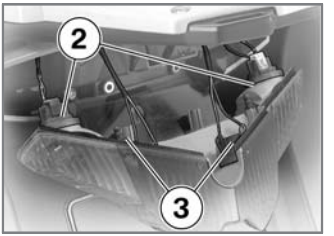
If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.

- Switch off the ignition.



- Remove screws **1**.
- Pull the bulb housing to the rear until it is clear of the holders.



- Turn bulb socket **2** (brake-light /rear-light bulb) or **3** (indicator bulb) counter-clockwise to remove from the bulb housing.

- Press bulb **4** into socket **5** and remove by turning it counter-clockwise.
- Replace the defective bulb.

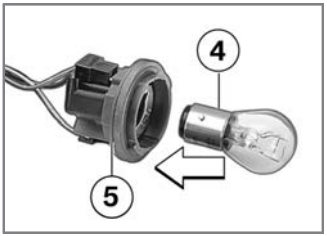
Rear-light /brake-light bulb

P21W / 12 V / 21 W

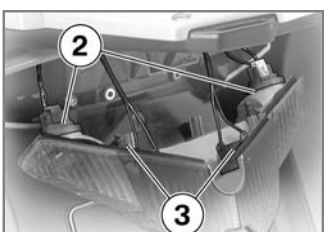
Rear flashing turn indicator bulbs

P21W / 12 V / 21 W

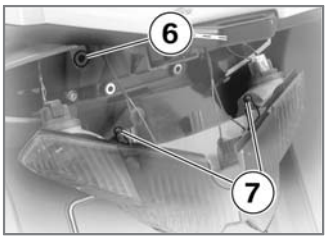
- Use a clean, dry cloth to hold the new bulb.



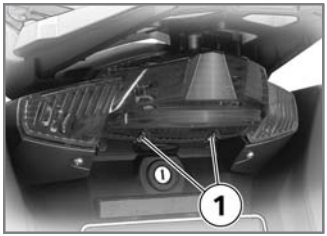
• Press bulb **4** into socket **5** and turn it clockwise to install.



• Turn bulb socket **2** (brake-light /rear-light bulb) or **3** (indicator bulb) clockwise to install it in the bulb housing.



• Seat retaining pins **7** of the bulb housing in retainers **6**. Make sure that the wires are not trapped.



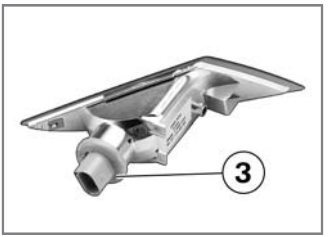
• Install screws **1**.

Replacing front turn indicator bulb

If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

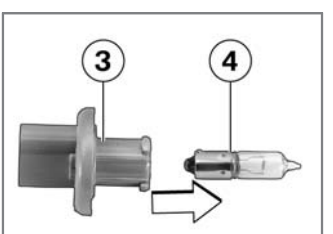
• Make sure the ground is level and firm and place the motorcycle on its stand.
• Switch off the ignition.

- Remove screw **1**.
- Pull the bulb housing forward to remove



- Turn bulb holder **3** counterclockwise to remove it from the bulb housing.

- Disconnect plug **2**.

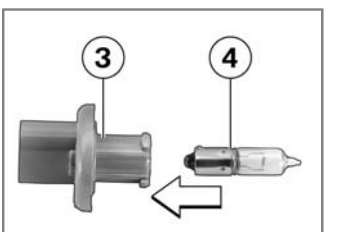


- Press bulb **4** into bulb housing **3** and remove by turning it counter-clockwise.
- Replace the defective bulb.

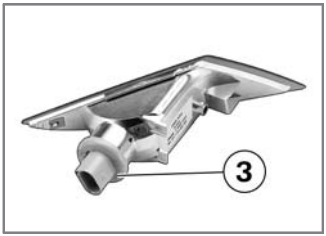
Front flashing turn indicator bulbs

P21W / 12 V / 21 W

- Use a clean, dry cloth to hold the new bulb.



- Press bulb **4** into socket **3** and turn it clockwise to install.



- Turn bulb socket **3** clockwise and install it in the bulb housing.

- Connect plug **2**.

- Seat the bulb housing in the fairing.
- Install screw **1**

Jump starting

The wires leading to the power socket do not have a load-capacity rating adequate for jump-starting the engine. Excessively high current can lead to a cable fire or damage to the vehicle electronics.
Do not use the on-board socket to jump-start the engine of the motorcycle.◀

Touching live parts of the ignition system with the engine running can cause electric shock.
Do not touch parts of the ignition system when the engine is running.◀

A short-circuit can result if the crocodile clips of the jump leads are accidentally brought into contact with the motorcycle.
Use only jump leads fitted with fully insulated crocodile clips at both ends.◀

Jump-starting with a donor-battery voltage higher than 12 V can damage the vehicle electronics.
Make sure that the battery of the donor vehicle has a voltage rating of 12 V.◀

If it is not standing firmly, the motorcycle could

topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Remove the battery-compartment cover.
- Run the engine of the donor vehicle during jump-starting.
- Begin by connecting one end of the red jump lead to the positive terminal of the discharged battery and the other end to the positive terminal of the donor battery.
- Then connect one end of the black jump lead to the negative terminal of the donor battery, and the other end to the negative terminal of the discharged battery.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.
- Allow both engines to idle for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from the negative terminals first, then disconnect the second lead from the positive terminals.
- Install the battery-compartment cover.

Do not use proprietary start-assist sprays or other products to start the engine.◀

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.
Compliance with the points below is important in order to maximise battery life:

– Keep the surface of the battery clean and dry
– Do not open the battery
– Do not top up with water
– Be sure to read and comply with the instructions for charging the battery on the following pages
– Do not turn the battery upside down

If the battery is not disconnected, the on-board electronics (e.g. clock, etc.) gradually drain the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.
If the motorcycle is to be out of use for more than four weeks, disconnect the battery or connect a suitable trickle charger to the battery.◀

BMW Motorrad has developed a trickle-charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods of disuse, without having to disconnect the battery from the motorcycle's on-board systems. You can obtain additional information from your authorised BMW Motorrad dealer.◀

Charging battery when connected

Charging the connected battery directly at the battery terminals can damage the vehicle electronics.
Always disconnect the battery from the on-board circuits before recharging it with a charger connected directly to the battery posts.◀

If you switch on the ignition and the multifunction display and telltale lights fail to light up, the battery is completely flat. Attempting to charge a completely flat battery via the on-board socket can cause damage to the motorcycle's electronics.
If a battery has discharged to the extent that it is completely flat, it has to be disconnected from the on-board circuits and charged with the charger connected directly to the battery posts.◀

Only chargers suitable for this mode of charging can be used to recharge the battery via the on-board socket. Unsuitable chargers could cause damage to the motorcycle's on-board electrics.
Use BMW chargers with the part numbers 71 60 7 688 864 (220 V) or, as applicable, 71 60 7 688 865 (110 V). If you are in doubt, disconnect the battery from the on-board systems and connect the charger directly to the battery.◀

- Charge via the power socket, with the battery connec-

ted to the motorcycle's on-board electrical system.

▷ The motorcycle's on-board electronics know when the battery is fully charged. The on-board socket is switched off when this happens.◀

- Comply with the operating instructions of the charger.

▷ If you are unable to charge the battery through the power socket, you may be using a charger that is not compatible with your motorcycle's electronics. If this happens, disconnect the battery from the on-board systems and connect the charger directly to the battery.◀

Charging the battery when disconnected

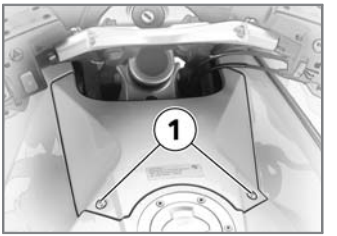
- Charge the battery using a suitable charger.
- Comply with the operating instructions of the charger.
- Once the battery is fully charged, disconnect the charger's terminal clips from the battery terminals.

▷ The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use◀

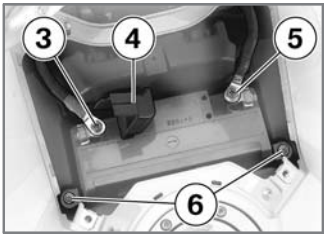
Removing the battery

⚠ If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.



- Remove screws **1**.
- Lift the battery compartment cover up and back to remove.



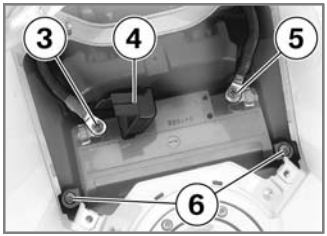
Disconnection in the wrong sequence increases the risk of short-circuits.
Always proceed in the correct sequence.◄

- Disconnect negative lead **5** first.
- Remove protective cap **4** from the positive terminal.
- Then disconnect positive lead **3**.
- Remove screws **6** and pull the retainer to the rear.
- Lift the battery up and out; work it slightly back and forth if it is difficult to remove.

Installing battery

If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◄

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.
- Place the battery in the battery compartment, positive terminal on the left in the forward direction of travel.

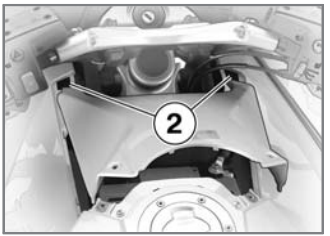


- Slip the battery retainer over the battery and install screws **6**.

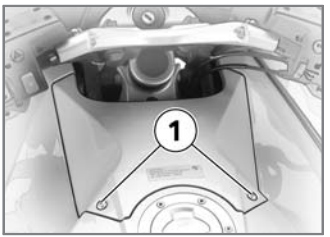
Installation in the wrong sequence increases the risk of short-circuits.
Always proceed in the correct sequence.
Never install the battery without the protective cap.◄

- Connect battery positive lead **3** first.
- Seat protective cap **4** on the positive terminal.

- Then connect battery negative lead **5**.



- Place the battery-compartment cover in mounts **2**



- Install screws **1**.

- Switch on the ignition.
- Fully open the throttle once or twice.

» The engine management system registers the throttle-valve position.

- Setting the clock (➠ 42)

Care

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Washing the motorcycle 124
Cleaning easily damaged components 125
Paint care 126
Protective wax coating..... 126
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Restoring motorcycle to use 127

Care products

We recommend that you use the cleaning and care products you can obtain from your authorised BMW Motorrad dealer. The substances in BMW Care Products have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.

The use of unsuitable cleaning and care products can result in damage to motorcycle components.
Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.◀

Washing the motorcycle

We recommend that you use BMW insect remover to soften and wash off insects and resilient dirt on painted parts prior to washing the motorcycle.
To prevent stains, do not wash the motorcycle immediately after it has been exposed to strong sunlight and do not wash it in the sun.
Make sure that the motorcycle is washed frequently, especially during the winter months.
To remove road salt, clean the motorcycle with cold water immediately after every trip.

After the motorcycle has been washed, ridden through water or ridden in the rain, the brake discs and pads might be wet and the brakes might not take effect immediately.
Apply the brakes in good time until the brakes have dried out.◀

Warm water intensifies the effect of salt.
Use only cold water to wash off road salt.◀

The high pressure of steam cleaners can damage seals, the hydraulic brake system, the electrical system and the seat.
Do not use a steam jet or high-pressure cleaning equipment.◀

Cleaning easily damaged components

Plastics

Clean plastic parts with water and BMW plastic care emulsion. This includes in particular:

- Windscreen
- Headlight lens made of plastic
- Glass cover of the instrument cluster
- Black, unpainted parts

The use of unsuitable products to clean plastic parts can damage the surface.
Do not use products that contain alcohol or solvents to clean plastic surfaces, and do not use scouring agents.
Even fly-remover pads or cleaning pads with hard surfaces can produce scratches.◀

Soften stubborn dirt and insects by covering the affected areas with a wet cloth.◀

Windscreen

Clean off dirt and insects with a soft sponge and plenty of water.

Fuel and chemical solvents attack the material of the windscreen; the windscreen becomes opaque or dull.
Do not use cleaning agents.◀

Chrome

Use plenty of water and BMW shampoo to clean chrome, particularly if it has been exposed to road salt. Use chrome polish for additional treatment.

Radiator

Clean the radiator regularly to prevent overheating of the engine due to inadequate cooling.
For example, use a garden hose with low water pressure.

Cooling fins can be bent easily.
Take care not to bend the fins when cleaning the radiator.◀

Rubber

Treat rubber components with water or BMW rubber-care products.

Using silicone sprays for the care of rubber seals can cause damage.
Do not use silicone sprays or other care products that contain silicon.◀

Paint care

Washing the motorcycle regularly will help counteract the long-term effects of substances that damage the paint, especially if your motorcycle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen. Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel, oil, grease, brake fluid and bird droppings. We recommend BMW vehicle polish or BMW paint cleaner for this purpose.
Marks on the paintwork are particularly easy to see after the motorcycle has been washed. Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. We recommend that specks of tar be removed with BMW tar remover. Remember to wax the parts treated in this way.

Protective wax coating

For the protective wax coating of paint, we recommend that you use only BMW vehicle wax or agents that contain carnauba wax or synthetic waxes.
It is time to rewax the paintwork when water "puddles" on the surface, instead of forming beads.

Laying up the motorcycle

- Clean the motorcycle.
- Remove the battery.
- Spray the brake and clutch lever pivots and the main and side stand pivots with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Stand the motorcycle in a dry room in such a way that there is no load on either wheel.

▷ Before laying the vehicle up out of use, have the engine oil and the oil filter element changed by a specialist workshop, preferably an authorised BMW Motorrad dealer. Combine work for laying up/restoring to use with a BMW service or inspection.◀

Restoring motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install a charged battery.
- Before starting: work through the checklist.

Technical data

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Transmission 135
Final drive 136
Running gear 136
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Troubleshooting chart

Engine does not start at all or is difficult to start.

Possible cause	Remedy
Kill switch activated.	Kill switch in operating position (run).
Side stand extended and gear engaged.	Retract the side stand (➠ 70).
Gear engaged and clutch not disengaged	Select neutral or pull clutch lever(➠ 70).
Clutch pulled when ignition was OFF	Switch on the ignition, then pull the clutch lever.
No fuel in tank.	Refuelling (➠ 76)
Battery not adequately charged.	Charging battery when connected (➠ 119)

Threaded fasteners

Front wheel	Value	Valid
Front brake caliper to wheel carrier		
M8 x 32 -10.9	30 Nm	
Clamping screw for quick-release axle in wheel carrier		
M8 x 30	19 Nm	

Front wheel	Value	Valid
Quick-release axle in threaded bush		
M24 x 1.5	50 Nm	

Rear wheel	Value	Valid
Silencer to rear footrest, right		
M8 x 30	16 Nm	
Silencer to manifold		
M8x60 - 10.9 Apply thin coat of grease between socket and ball, Optimoly TA	35 Nm	
Rear wheel to wheel flange		
Wheel carrier with cut thread, M10 x 40 x 1.25	60 Nm	

Handlebars	Value	Valid
Fastener, handlebar adjuster to bottom handlebar yoke		
M8 A2-70	20 Nm	

Engine

Type	
Type, engine	Transversely mounted, four-cylinder four-stroke in-line engine, DOHC with chain-and-sprocket drive, four valves per cylinder with cam followers; liquid cooled cylinders and heads, integrated coolant pump, electronic fuel injection, integrated six-speed gearbox, dry-sump lubrication
Technical data	
Effective displacement	1157 cm^3
Cylinder bore	79 mm
Piston stroke	59 mm
Compression ratio	13 : 1
Nominal output	112 kW, At engine rpm: 9500 min^{-1}
With OE Reduced power output, 79 kW:	79 kW, At engine rpm: 8500 min^{-1}
Max. torque	130 Nm, At engine rpm: 7750 min^{-1}
With OE Reduced power output, 79 kW:	111 Nm, At engine rpm: 5000 min^{-1}
Maximum permissible engine speed	10000 min^{-1}
Idle speed	$1050^{\pm 50}$ min^{-1}

Fuel	
Recommended fuel grade	Super Plus, unleaded 98 ROZ/RON
Fuel grade, usable with power- and consumption-related restrictions	Super unleaded 95 ROZ/RON
Fuel tank capacity	24 l, usable 4 l, including reserve of
Engine oil	
Engine oil capacity, total	3.5 l, With filter change 0.5 l, Difference between MIN / MAX marks
Lubricant	Castrol GPS 10W-40 (SAE 10W40; API SG; JASO MA)
Oil grades	Mineral oils of API classification SF through SH. BMW Motorrad recommends not using oil additives, because they can have a detrimental effect on clutch operation. Please do not hesitate to contact your authorised BMW Motorrad dealer if you have any questions relating the choice of a suitable engine oil for your motorcycle.

Permissible viscosity classes	
SAE 10 W-40	≥-20 °C, Operation at low temperatures
SAE 15 W-40	≥-10 °C

Riding specifications

Top speed	>200 km/h
Acceleration	3.1 s, From: 0...100 km/h

Clutch

Clutch type	Multiplate clutch running in oil bath

Transmission

Gearbox type	Claw-shift 6-speed cassette gearbox, integrated into engine block
Gear ratios	
Total gear ratio	2.521, 1st gear
Total gear ratio	1.842, 2nd gear
Total gear ratio	1.455, 3rd gear
Total gear ratio	1.287, 4th gear
Total gear ratio	1.143, 5th gear
Total gear ratio	1.015, 6th gear

Final drive

Rear wheel drive, type	Shaft drive with bevel gears
Final drive gear ratio	2.82 : 1

Running gear

Front suspension	Double leading link
Front suspension - total suspension travel	115 mm, Static 125 mm, Dynamic
Rear suspension, type	Single-tube gas-pressure shock absorber
Rear suspension, total suspension travel	135 mm, At wheel

Brakes

Front brake, type	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Front brake pads, material	Sintered metal
Rear brake, type	Hydraulically operated disc brake with 2-piston floating caliper and fixed disc
Rear brake pads, material	Organic material

Wheels and tyres

Front wheel, type	Cast aluminium, MT H2
Front wheel, rim size	3.50" x 17"
Front wheel, tyre designation	120/70 ZR 17
Rear wheel, type	Cast aluminium, MT H2
Rear wheel, rim size	5.50" x 17"
Rear wheel, tyre designation	180/55 ZR17
Tyre pressures	
Front wheel, tyre pressure	2.5 bar, when cold
Rear wheel, tyre pressure	2.9 bar, when cold

Electrics

On-board socket, rating (Total load rating for all sockets)	8 A
Fuses	All circuits are electronically protected, so plug-in fuses are no longer necessary. If an electronic fuse trips and de-energises a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified.
Type	
Type, battery	Gel battery
Technical data	
Battery rated voltage	12 V
Battery rated capacity	19 Ah
Technical data	
Spark plug manufacturer and designation	NGK KR9CI
Spark plug electrode gap (When new)	0.8 mm
Spark plug electrode gap (Wear limit)	Spark-plug replacement as per maintenance schedule

Lighting	
High-beam headlight bulb	H7 / 12 V / 55 W
Low-beam headlight bulb	H7 / 12 V / 55 W
With OE Xenon lights :	Xenon bulb, D2R / 35 W
Parking-light bulb	W5W / 12 V / 5 W
Rear-light /brake-light bulb	P21W / 12 V / 21 W
Front flashing turn indicator bulbs	P21W / 12 V / 21 W
Rear flashing turn indicator bulbs	P21W / 12 V / 21 W

Frame

Main frame, type	Composite with internal-high-pressure forming and extruded sections and chill castings
Type plate, location	Frame cross-tube, rear
Vehicle identification number (VIN), location	Frame side section, front right

Dimensions

Overall motorcycle length	2318 mm
Maximum width	982 mm, Across cases
Maximum height (To top edge of windscreen)	1438 mm, DIN unladen weight, windscreen down
Seat height, front	820 mm, Without rider
With OE Front seat, low:	790 mm, Without rider

Weights

Unladen weight	288 kg, DIN unladen weight, ready for road 90 % load of fuel, without OE
Permissible gross weight	520 kg
Maximum payload	238 kg

Service

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BMW Motorrad service

Advanced technology requires specially adapted methods of maintenance and repair.

If maintenance and repair work is performed inexpertly, it could result in consequential damage and thus constitute a safety risk. BMW Motorrad recommends you to have all the associated work on your motorcycle carried out by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Your authorised BMW Motorrad dealer can provide information on the specified Service, Inspection and Annual Inspection work needed. Have all maintenance and repair work carried out confirmed in the "Service" chapter in this manual. Authorised BMW Motorrad dealers are supplied with the latest technical information and have the necessary technical know-how. BMW Motorrad recommends that you contact your authorised BMW Motorrad dealer if you have questions regarding your motorcycle.

BMW Motorrad service quality

Along with its reputation for engineering quality and high reliability, BMW Motorrad is a byword for excellent quality of service.
To ensure that your BMW is always in optimum condition, we recommend that you have the maintenance work required for your motorcycle carried out regularly, preferably by your authorised BMW Motorrad dealer. Evidence of regular maintenance is essential for generous treatment of goodwill claims.
Certain signs of wear, moreover, might otherwise not be noticed until it is too late to put them right at moderate cost. Your authorised BMW Motorrad dealer's mechanics know every detail of your motorcycle and can take remedial action if necessary before minor faults develop into serious problems. By having the necessary repairs done properly and in good time, you save time and money in the long run.

BMW Motorrad Service Card - On-the-spot breakdown assistance

In the event of a breakdown, the BMW Motorrad Service Card issued with each new BMW motorcycle enables you to access an extensive range of services such as breakdown assistance, motorcycle transportation etc. (details can differ from country to country). In the event of a breakdown, contact BMW Motorrad's Mobile Service. The specialists will provide the necessary advice and assistance.
You will find important country-specific contact addresses and the after-sales service organisation phone numbers in the "Service Kontakt / Service Contact" brochures, along with information on Mobile Service and the dealership network.

BMW Motorrad service network

Our extensive after-sales service network is in place to look after you and your motorcycle in more than 100 countries. In Germany alone, you have the best possible access to approximately 200 authorised BMW Motorrad dealers.
All information concerning the international dealership network can be found in the brochures entitled "Service Contact Europe" and "Service Contact Africa, America, Asia, Australia, Oceania".

Maintenance work

Intervals

Some maintenance tasks have to be performed after a certain time, others depend on the distance covered by the motorcycle.

BMW Running-in Check

The BMW running-in check has to be performed when the motorcycle has covered between 500 km and 1,200 km

BMW Annual Inspection

Some maintenance work has to be carried out at least once a year. Other tasks depend on the distance the motorcycle has covered.

BMW Service

After the first 10,000 km and every additional 20,000 km (30,000 km, 50,000 km, 70,000 km, etc.) if this distance is covered within a year.

BMW Inspection

After the first 20,000 km and every additional 20,000 km (40,000 km, 60,000 km, 80,000 km, etc.) if this distance is covered within a year.

Maintenance schedules

The maintenance schedule for your motorcycle depends on the equipment fitted, and on the motorcycle's age and the distance it has covered. Your authorised BMW Motorrad dealer will be happy to supply a copy of the current maintenance schedule for your motorcycle on request.

Confirmation of maintenance work

BMW Pre-delivery Check

Carried out in accordance with manufacturer's instructions

Date, stamp, signature

BMW Running-in Check

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

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- ☐ BMW Service
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Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

BMW Service

- ☐ BMW Annual Inspection
- ☐ BMW Service
- ☐ BMW Inspection

Carried out in accordance with manufacturer's instructions

Odometer reading_____

Brake fluid, new
- ☐ Wheel circuit
- ☐ Control circuit

_____
Date, stamp, signature

Confirmation of service

The table is intended as a record of maintenance, warranty and repair work, the installation of optional accessories and, if appropriate, special campaign (recall) work.

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Details described or illustrated in this booklet may differ from the motorcycle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
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The most important data for a filling-station stop can be found in the following chart:

Fuel	
Recommended fuel grade	Super Plus, unleaded 98 ROZ/RON
Minimum octane number	95 ROZ/RON
Fuel tank capacity	24 l, usable 4 l, including reserve of
Tyre pressures	
Front wheel, tyre pressure	2.5 bar, when cold
Rear wheel, tyre pressure	2.9 bar, when cold

BMW recommends Castrol

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