

Rider's Manual

R 900 RT



BMW Motorrad



**The Ultimate Riding
Machine**

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.

Table of Contents

You can also consult the index at the end of this Rider's Manual if you want to find a particular topic or item of information.

1 General instructions ... 5

Overview 6

Abbreviations and symbols 6

Equipment 7

Technical data 7

Currency 7

2 General views 9

General view, left side ... 11

General view, right side 13

Underneath the seat 15

Handlebar fitting, left 16

Handlebar fitting, right ... 17

Instrument cluster 18

Headlight 19

3 Status indicators 21

Multifunction display 22

Warning and telltale lights 23

ABS warning light 23

Function indicators 23

Warnings, general 23

ABS warning indicators 30

4 Operation 37

Ignition switch and steering lock 38

Electronic immobiliser (EWS) 39

Hazard warning flashers 40

Odometer and tripmeters 41

Clock 42

Multifunction display 43

On-board computer^{OE} ... 43

Cruise-control system^{OE} 46

Emergency off switch (kill switch) 49

Grip heating^{OE} 50

Seat heating^{OE} 50

Clutch 52

Brakes 52

Lights 53

Headlight 54

Turn indicators 55

Stowage compartment... 57

Front and rear seats 57

Helmet holder 60

Mirrors 61

Windscreen 61

Spring preload 62

Shock absorbers 63

Electronic Suspension

Adjustment ESA^{OE} 64

Tyres 66

5 Riding 67

Safety instructions 68

Checklist 70

Starting 70

Pulling away	73	Tyres	100	Clutch	135
Running in	73	Rims	100	Transmission	135
Park your motorcycle	74	Wheels.....	100	Final drive	136
Refuelling	76	Front-wheel stand	106	Running gear	136
Brake system, general ...	77	Bulbs	108	Brakes	137
Brake system with BMW		Jump starting	117	Wheels and tyres	138
Integral ABS.....	78	Battery.....	118	Electrics	139
6 Accessories	81	8 Care	123	Frame.....	141
General instructions	82	Care products	124	Dimensions	141
Power socket	82	Washing motorcycle	124	Weights	142
Luggage	85	Cleaning easily damaged		10 Service	143
Case.....	86	components.....	125	BMW Motorrad	
Topcase ^{OA}	88	Paint care	126	service	144
7 Maintenance	91	Protective wax		BMW Motorrad service	
General instructions	92	coating	126	quality	144
Toolkit	92	Laying up the		BMW Motorrad Service	
Overview, toolkit	92	motorcycle	126	Card: on-the-spot	
Supplementary kit ^{OA}	92	Restoring motorcycle to		breakdown	
Overview, supplementary		use	127	assistance	145
kit	93	9 Technical data	129	BMW Motorrad service	
Engine oil	93	Troubleshooting		network	145
Brake system, general ...	94	chart	130	Maintenance work	145
Brake pads.....	95	Threaded fasteners	131	Maintenance	
Brake fluid	98	Engine	132	schedules	146
Clutch	99	Riding specifications	134		

Confirmation of
maintenance work 147

Confirmation of
service 152

General instructions

Overview	6
Abbreviations and symbols	6
Equipment	7
Technical data	7
Currency	7

Overview

Chapter 2 of this Rider's Manual 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 pro-

tect 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.



Indicates the end of a passage relating to specific accessories or items of equipment.



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).

DWA

Anti-theft alarm (Diebstahlwarnanlage)

- ABS Anti-lock brake system
- ESA Electronic Suspension Adjustment

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. Versions for individual countries may differ.

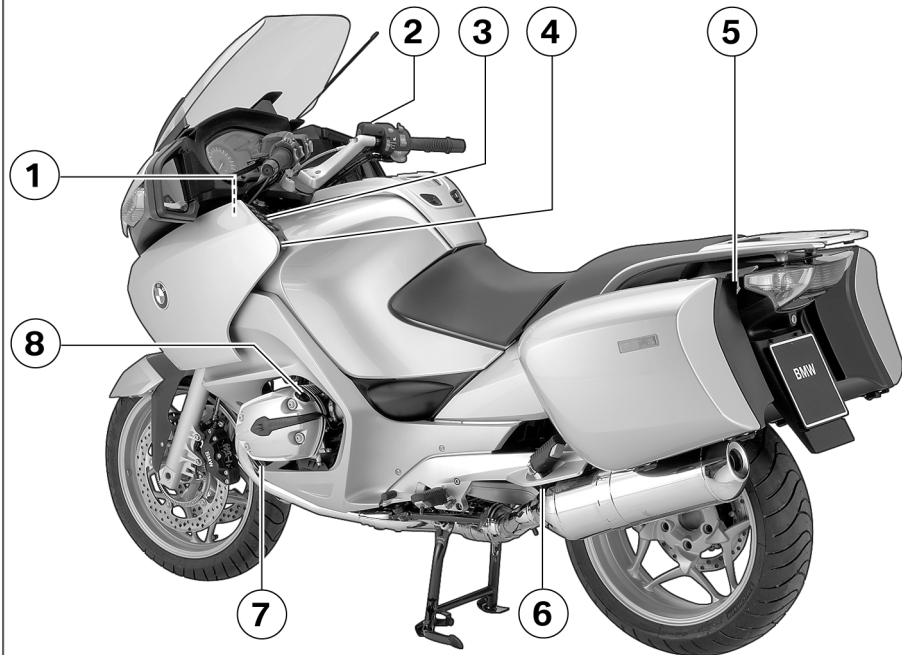
Currency

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 BMW Motorrad entirely rule out errors and omissions. We hope you will appreciate

that no claims can be entertained on the basis of the data, illustrations or descriptions in this manual.

General views

General view, left side	11
General view, right side	13
Underneath the seat	15
Handlebar fitting, left	16
Handlebar fitting, right	17
Instrument cluster	18
Headlight	19



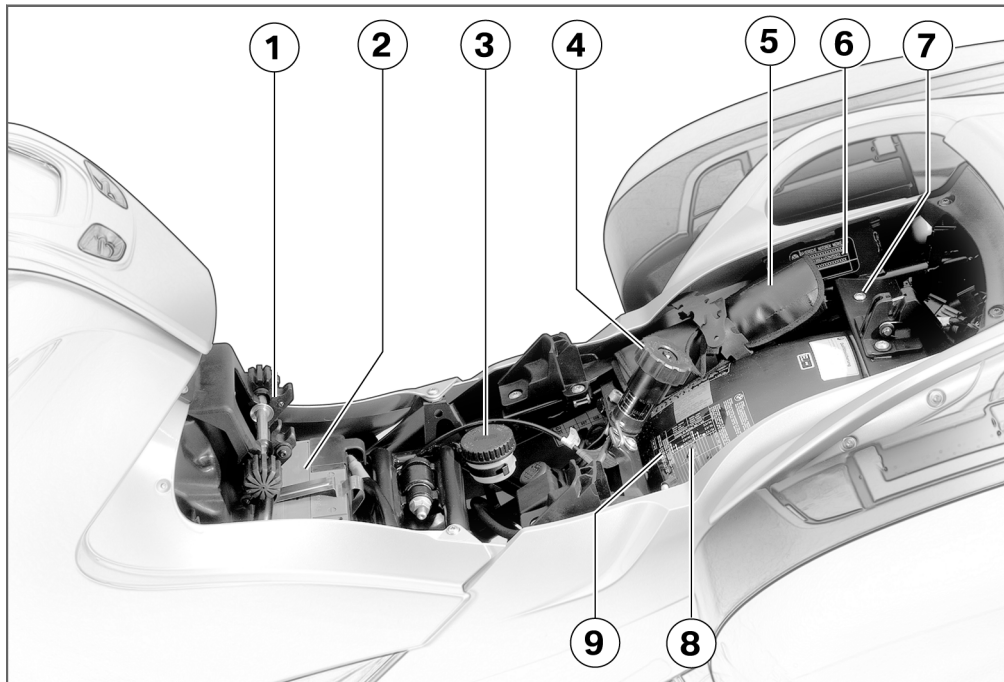
General view, left side

- 1** Adjuster for headlight beam throw underneath the instrument cluster
( 55)
- 2** Brake-fluid reservoir
( 98)
- 3** Radio operating unit (OE)
- 4** Power socket ( 82)
- 5** On-board socket (OE)
( 82)
- 6** Adjuster, rear shock absorber ( 63)
- 7** Oil sight glass ( 93)
- 8** Filler neck, engine oil
( 94)



General view, right side

- 1 Seat lock (➡ 57)
- 2 Switch, rear-seat heating (OE), underneath the rear seat (➡ 51)
- 3 Mount for tank rucksack (OE)
- 4 Filler neck, fuel tank (➡ 76)
- 5 Clutch-fluid reservoir
- 6 Electrically adjustable windscreen (➡ 61)
- 7 Stowage compartment or radio compartment (➡ 57)



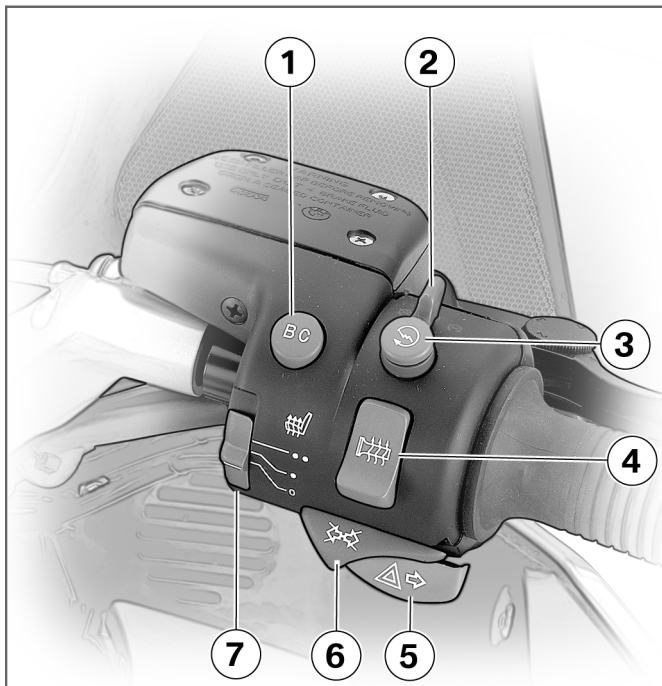
Underneath the seat

- 1 Height adjuster, front seat (➡ 59)
- 2 Battery (➡ 118)
- 3 Brake-fluid reservoir, rear (➡ 98)
- 4 Adjuster, spring preload, rear (➡ 62)
- 5 Toolkit (➡ 92)
- 6 Type plate
- 7 Helmet holder (➡ 60)
- 8 Table of tyre pressures
- 9 Label, payload

Handlebar fitting, left

- 1 Switch for cruise-control system (OE) (➡ 46)
- 2 Radio operating unit (OE)
- 3 ESA button (OE) (➡ 64)
- 4 Pushbutton, windscreen adjustment (➡ 61)
- 5 Pushbutton, horn
- 6 Pushbutton, left flashing turn indicators and hazard warning flashers (➡ 55) (➡ 40)
- 7 Switch, high-beam headlight and headlight flasher (➡ 54)





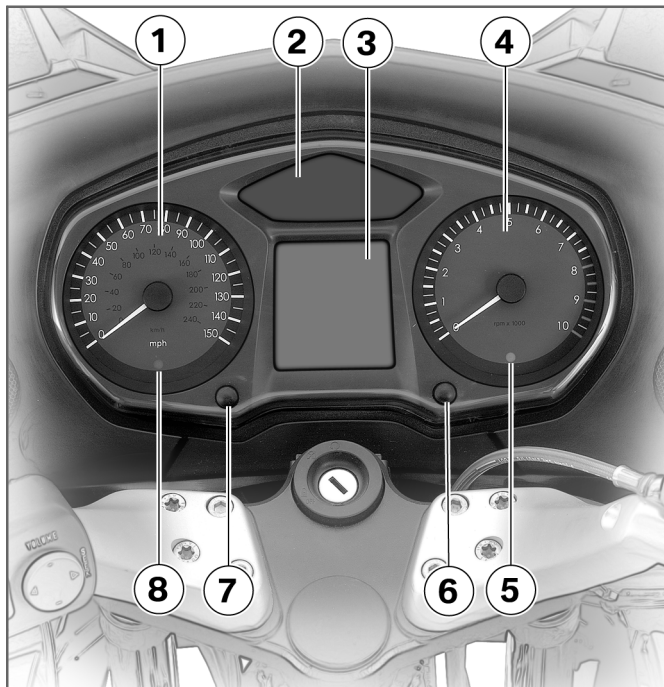
Handlebar fitting, right

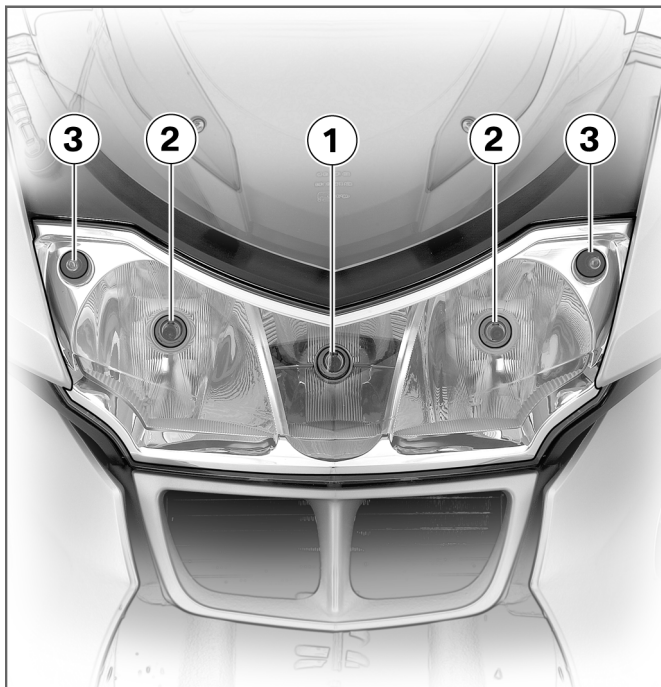
- 1** On-board computer button (OE) (➡ 43)
- 2** Emergency off switch (kill switch) (➡ 49)
- 3** Pushbutton, starter
- 4** With OE Heated handlebar grips:
Grip heating (➡ 50)
- 5** Pushbutton, right flashing turn indicators and hazard warning flashers (➡ 56) (➡ 40)
- 6** Cancel button, flashing turn indicators (➡ 56)
- 7** Front-seat heating switch (➡ 50)

Instrument cluster

- 1 Speedometer
- 2 Warning and telltale lights (► 23)
- 3 Multifunction display
- 4 Rev. counter
- 5 Anti-theft alarm telltale light
- 6 Button for setting clock and dimming display (► 42) (► 43)
- 7 Control, odometer (► 41)
- 8 Sensor for instrument cluster lighting

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





Headlight

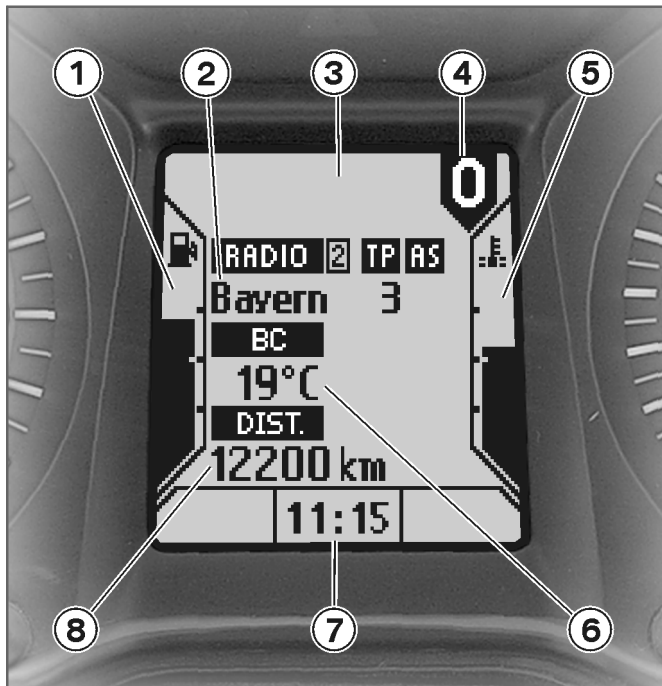
- 1 High-beam headlight
- 2 Low-beam headlight
- 3 Side lights

Status indicators

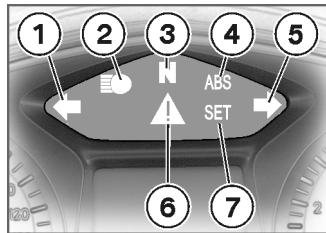
Multifunction display.....	22
Warning and telltale lights.....	23
ABS warning light	23
Function indicators	23
Warnings, general	23
ABS warning indicators	30

Multifunction display

- 1 Fuel gauge (➡ 23)
- 2 Panel for radio (see instructions for use for radio)
- 3 Panel for warnings (➡ 23)
- 4 Gear indicator (➡ 23)
- 5 Engine temperature readout (➡ 23)
- 6 Tripmeter or panel for on-board computer (OE) readings (➡ 41) (➡ 43)
- 7 Panel for clock, seat heating (OE), display dimmer and ESA (OE) (➡ 42) (➡ 50) (➡ 43) (➡ 64)
- 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 Warning light, general
- 7 Telltale light, cruise control

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 horizontal bars below the fuel-pump symbol indicate the remaining quantity of fuel.

Gear



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

Engine-oil temperature



The horizontal bars below the temperature symbol indicate the engine-oil 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 yellow		Appears on the display	Engine electronics (→ 26)
	Lights up red		Appears on the display	Insufficient engine oil pressure (→ 27)
	Lights up red		Appears on the display	Insufficient battery charge current (→ 27)
	Lights up yellow		Appears on the display	Rear light bulb defective (→ 28)
			Appears on the display	Front light bulb defective (→ 28)
	Lights up yellow		Appears on the display	Bulbs defective (→ 28)
			Appears on the display	Ice warning (→ 29)

Mode of presentation

Meaning

	 Appears on the display, accompanied by the letters DWA.	Anti-theft alarm battery weak ( 29)
 Lights up yellow	 Appears on the display, accompanied by the letters DWA.	Anti-theft alarm battery flat ( 29)

Electronic immobiliser active



General warning light lights up 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 lights up 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)

Engine electronics



General warning light lights up 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 lights up red.



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 sight glass. ◀

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

- Checking the engine oil level (➡ 93)

If the oil level is too low:

- Topping up the engine oil (➡ 94)

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.

Insufficient battery charge current



General warning light lights up red.



Battery charge current symbol is displayed.



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.

Rear light bulb defective



General warning light lights up yellow.



Defective bulb symbol with arrow pointing to

the rear appears on the display.



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 and rear-indicator bulbs (➡ 115)

Front light bulb defective



Defective bulb symbol with arrow pointing to the front appears on the display.



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 high-beam headlight bulb (➡ 109)
- Replacing left low-beam headlight bulb (➡ 110)
- Replacing right low-beam headlight bulb (➡ 111)
- Replacing parking-light bulb (➡ 113)
- Replacing front turn indicator bulb (➡ 116)

Bulbs defective



General warning light lights up yellow.



Defective bulb symbol with two arrows appears on the display.



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



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



General warning light lights up 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:



Version 1.



Version 2.

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 (➡ 32)
			Flashes once per second Pull-away test not completed (➡ 32)
			Flashes four times per second Self-diagnosis not completed (➡ 32)
	Lights up red		Lights up ABS warning indicators defective (➡ 33)
	Lights up red		Flashes once per second ABS function not available (➡ 33)
	Lights up red		Flashes four times per second Residual braking function active (➡ 34)
	Flashes red once per second		Flashes once per second Brake fluid level in wheel brake circuit too low (➡ 34)
	Flashes red four times per second		Flashes four times per second ABS fault (➡ 35)

Brake switch defective



General warning light lights up 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. However, bear in mind that the brakes may 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 completed.

- You can continue to ride. However, bear in mind that the ABS function is not

available until the end of the pull-away test.

- If possible, do not use emergency braking until the pull-away test has 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. Bear in mind that until self-diagnosis has completed, neither the ABS function nor the brake booster is available.
- 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 lights up 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. Bear in mind, however, that 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 lights up 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, bear in mind that 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 flashes up 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, bear in mind that neither the ABS function nor

the brake booster is 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; you cannot check the fluid level in this circuit 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 (▮▮▮ 95)
- Checking brake pad thickness, rear brakes (▮▮ 96)



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. However, bear in mind 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.

Operation

Ignition switch and steering lock.....	38	Headlight	54
Electronic immobiliser (EWS)...	39	Turn indicators	55
Hazard warning flashers	40	Stowage compartment	57
Odometer and tripmeters	41	Front and rear seats	57
Clock	42	Helmet holder	60
Multifunction display.....	43	Mirrors	61
On-board computer ^{OE}	43	Windscreen	61
Cruise-control system ^{OE}	46	Spring preload	62
Emergency off switch (kill switch)	49	Shock absorbers	63
Grip heating ^{OE}	50	Electronic Suspension Adjustment ESA ^{OE}	64
Seat heating ^{OE}	50	Tyres	66
Clutch	52		
Brakes	52		
Lights	53		

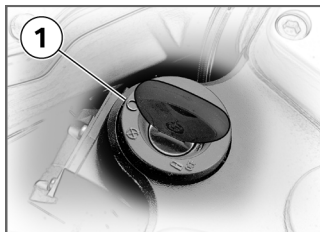
Ignition switch and steering lock

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).

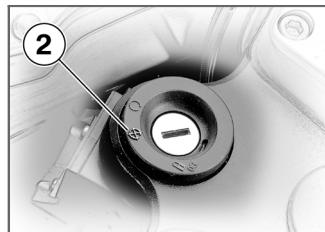
► Ignition switch and steering lock, tank filler cap lock and the seat and case locks are all operated with the same key. On request, the topcase available as an optional accessory can be arranged to lock with the same key. ◀

Switching on 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 ignition

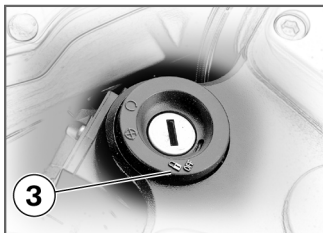


⚠ Brake servo assistance is not available when the ignition is off. Do not switch off the ignition when riding. ◀

- 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 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 (EWS)

Protection against theft

The electronic immobiliser helps protect your BMW 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 and extra keys

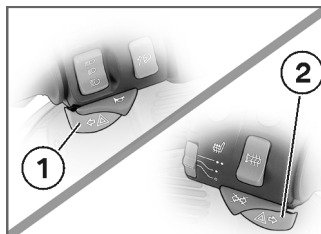
You can obtain replacement/extra keys only through an authorised BMW Motorrad dealer. The keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys. If you want to have a lost key barred, you have to bring 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 hazard warning flashers

- Switch on the ignition.



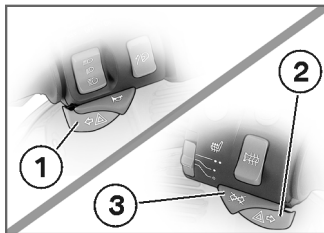
- Simultaneously press button 1 for left turn indicators and button 2 for right turn indicators.

▶ 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 tell-tale lights flash.
- Switch off the ignition.
- » The hazard warning flashers continue to operate.
- » Left/right turn indicator tell-tale lights off.

Switching off 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

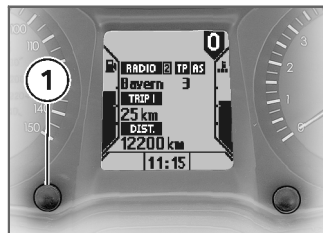


The odometer reading appears in display field **1**.

Selecting 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:

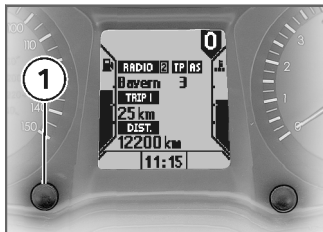
- Tripmeter 1 (Trip I)
- Tripmeter 2 (Trip II)

Tripmeter and on-board computer^{OE}

If your motorcycle is fitted with an on-board computer, the tripmeter readings in the display field alternate with the odometer reading.

Resetting tripmeter

- Switch on the ignition.



- Select the desired tripmeter.

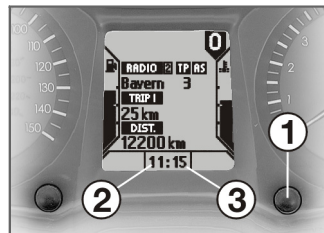
- Press tripmeter button **1** and hold it down for longer than 2 seconds.
» The tripmeter is reset to zero.

Clock

Setting 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.

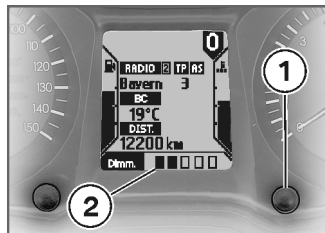
- Press button **1** for longer than 2 seconds.
- » Setting confirmed.

Multifunction display

Display dimming

The brightness of the backlit multifunction display is variable.

Adjusting dimmer



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

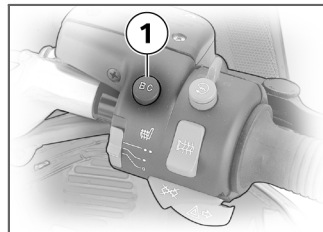
Do not attempt to adjust the

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
- 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.

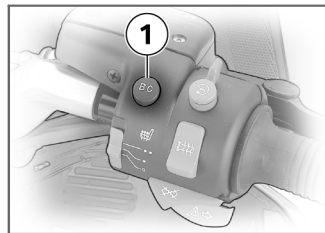
When you refuel, the on-board computer does not register the increase in fuel level unless several litres are added to the fuel already in the tank.

 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



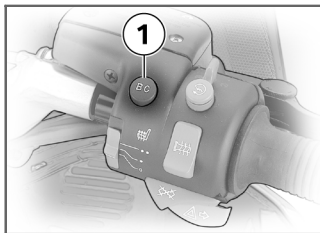
- Repeatedly press BC button **1** until the average speed appears in the display.

- 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.

The preconditions for the oil level check are as follows:

- Engine idling (for at least 10 seconds).
- Engine at operating temperature.
- Side stand retracted.

The readings mean:



Oil level is correct



Check the oil level.



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 the oil level in the oil sight glass is correct. In this case, consult your authorised BMW Motorrad dealer. ◀

Ambient temperature

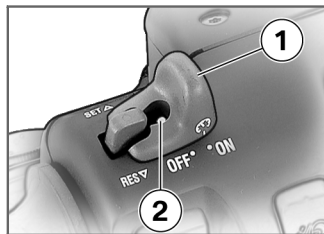
The current ambient temperature is displayed.



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.

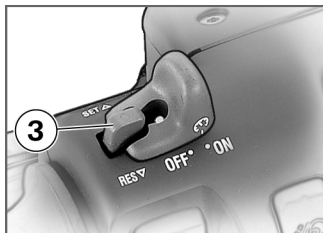
Cruise-control system^{OE}

Switching on cruise control



- Move switch **1** to ON.
- » Telltale light **2** in the switch lights up red.

Setting road speed

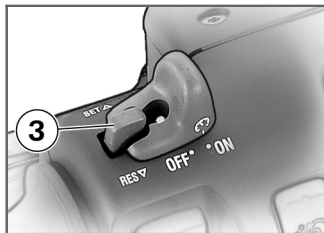


- Briefly push button **3** in the SET direction

SET Cruise control telltale light shows.

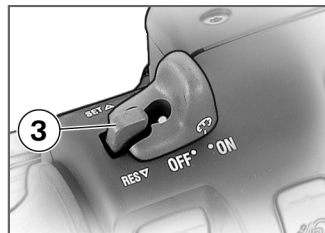
- » The motorcycle maintains your current cruising speed and the setting is saved.

Step-by-step acceleration



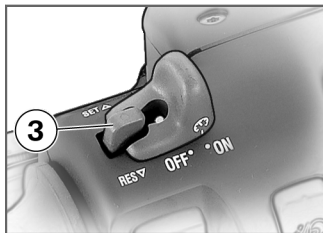
- Briefly push button **3** in the SET direction
 - » Speed is increased by approx. 2 km/h each time you push the button, and the new setting is saved.

Stepless acceleration



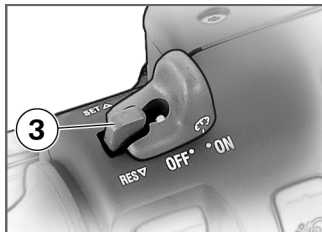
- Push button **3** in the SET direction and hold it in this position.
 - » The motorcycle accelerates steplessly.
- Release button **3**.
 - » The motorcycle maintains your current cruising speed and the setting is saved.

Step-by-step deceleration



- Briefly push button **3** in the RES direction
 - » Speed is decreased by approx. 2 km/h each time you push the button, and the new setting is saved.
- Release button **3**.
 - » The motorcycle maintains your current cruising speed and the setting is saved.

Stepless deceleration



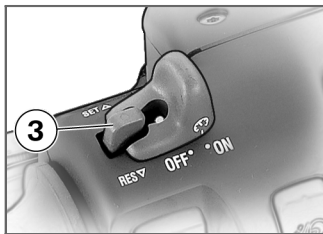
- Push button **3** in the RES direction and hold it in this position.
 - » The motorcycle decelerates steplessly.
- Release button **3**.
 - » The motorcycle maintains your current cruising speed and the setting is saved.

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.

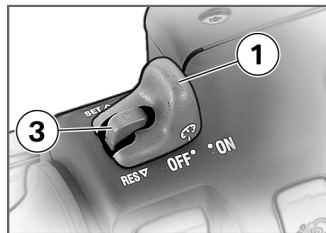
▶ Opening the throttle does not deactivate the cruise-control system. If

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.

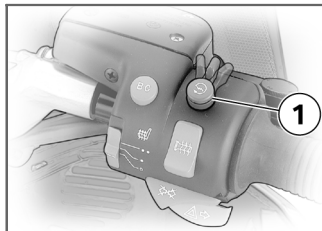
Switching off cruise control



- Move switch **1** to OFF.

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

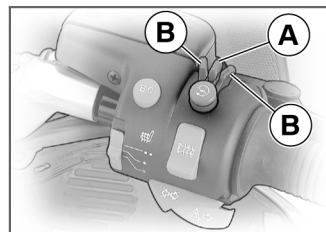
Emergency off switch (kill switch)



- 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.

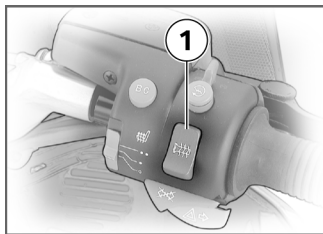


- A** Normal operating position (run)
B Engine switched off.

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

▶ If you move the kill switch away from the RUN position while the ignition is switched on, the BMW Motorrad Integral ABS remains operational.◀

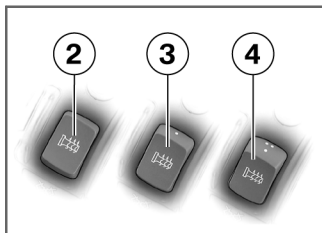
Grip heating^{OE}



1 Grip heating switch

The handlebar grips have two-stage heating. Grip heating can be activated only when the engine is running.

▶ 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 (one dot visible).
- 4 100 % heat output (three dots visible)

Seat heating^{OE}

Dependency on battery charge state

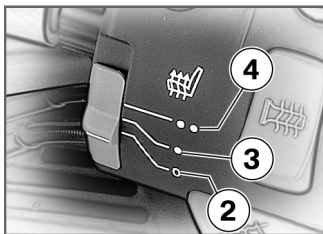
Seat heating can be activated only when the engine is running. If the charge level is low, the heating is switched off to ensure the battery's starting capability.

Seat heating, front seat



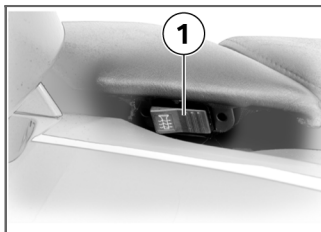
1 Switch for seat heating, front seat

The front seat has two-stage heating.



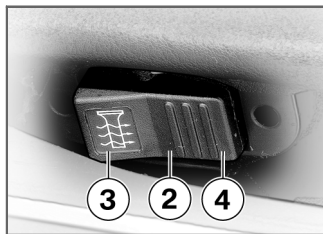
- 2** Heating off.
- 3** 50% heating power
- 4** 100% heating power

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 back: 50% heating power.
- 4** Switch pushed forward: 100% heating power.

Indicator in the multifunction display

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



The symbols shown below appear on the display to indicate which heating stage has been selected:

-  Front seat, 50 % heating power
-  Front seat, 100 % heating power
-  Rear seat, 50 % heating power
-  Rear seat, 100 % heating power

Clutch

Adjusting clutch lever

The distance between handlebar grip and clutch lever can be adjusted to any of three positions.

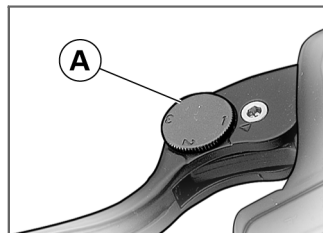
Adjusting clutch lever

 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 handbrake lever

The distance between handlebar grip and handlebar lever can be adjusted to any of four positions.

Adjusting handbrake lever



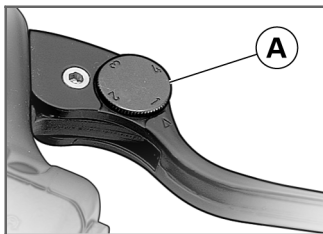
Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.

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.

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.◀

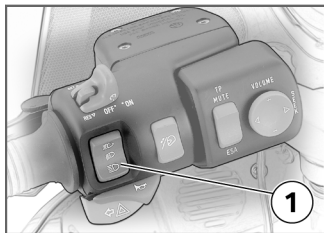
Switching on the low-beam headlight

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 high-beam headlight



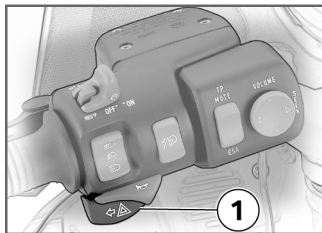
- Press the top section of switch **1** for the high-beam headlight.
- » High-beam headlight switched on.
- Move switch **1** for the high-beam headlight to the centre position.
- » High-beam headlight switched off.
- Press the bottom section of switch **1** for the high-beam headlight.

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

Switching on 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 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.



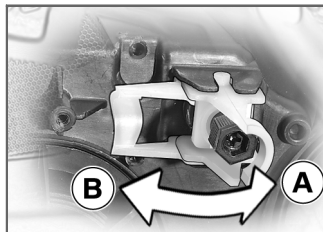
Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, if you are unsure whether the headlight basic setting is correct. ◀

Headlight beam-throw adjustment



1 Headlight beam-throw adjustment

Moving the pivot lever adjusts headlight beam throw so as not to dazzle oncoming traffic.

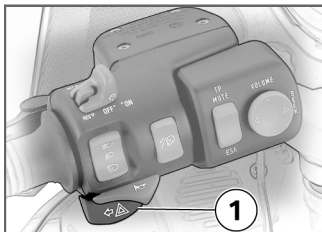


- A Position for heavy load
- B Normal position

Turn indicators

Switching on left flashing turn indicators

- Switch on the ignition.



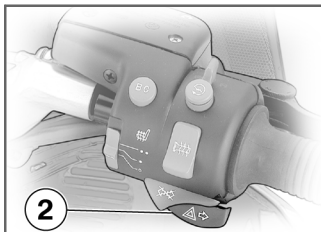
- Press left-hand turn indicator button **1**.

▶ 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 right flashing turn indicators

- Switch on the ignition.

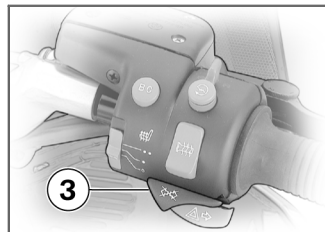


- Press right-hand turn indicator button **2**.

▶ 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 turn indicators



- Press cancel button **3**.
 - » Flashing turn indicators switched off.
 - » Turn indicator telltale light is off.

Stowage compartment

Stowage compartment in right side panel

The stowage compartment is integrated into the right side panel and opens with the ignition key.

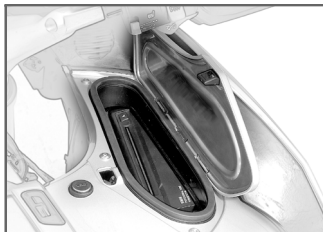
Opening stowage compartment



- Use the ignition key to turn lock barrel **1** to right angles with the forward direction of travel.

- » Lock of the stowage compartment unlocked.
- Push the lock barrel in.
- » The lid opens.

Closing stowage compartment



- Snap the lid of the compartment closed and push it down.
- » The lock engages with an audible click.
- Use the ignition key to turn the lock barrel in line with the forward direction of travel.

- » Lock of the stowage compartment locked.

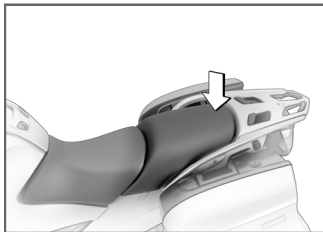
Front and rear seats

Remove the rear seat

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

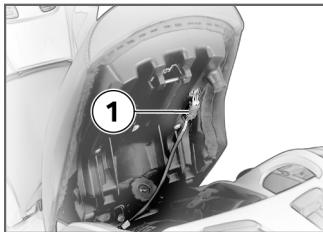


- Turn the key counter-clockwise in the seat lock.

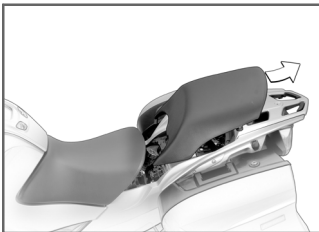


- At the same time, press down on the rear seat.
- Lift the seat at the rear and release the key.

With OE Seat heating:



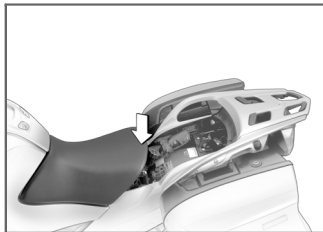
- Disconnect plug **1**.<



- Pull the seat to the rear to release it from its holders.

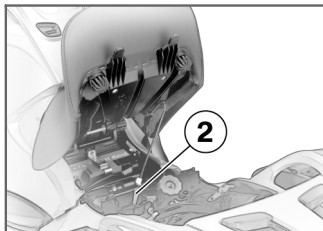
Removing front seat

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



- Lift the rear of the front seat.

With OE Seat heating:



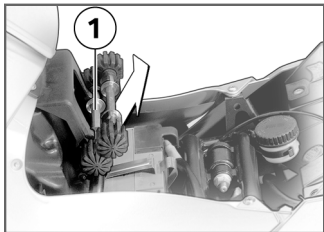
- Disconnect plug **2**.<
- Lift the seat up to remove.

Front-seat adjustment

The front seat can be raised or lowered to either of two positions.

Adjusting front seat

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



- Remove seat supporting rod **1** and reinsert it in the appropriate holder.

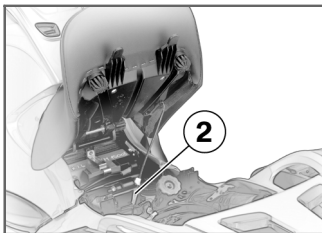
- Installing front seat (➡ 59)
- Installing rear seat (➡ 60)

Installing front seat

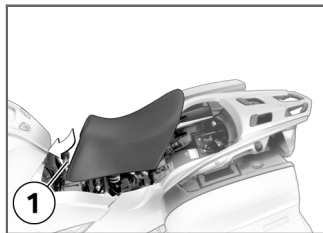
⚠ If too much pressure is applied in the forward direction, there is a danger that the motorcycle will be pushed off its stand.

Always make sure that the motorcycle is stable and firmly supported.◀

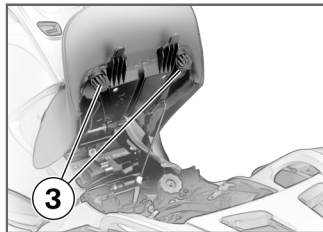
With OE Seat heating:



- Connect plug **2**.◀

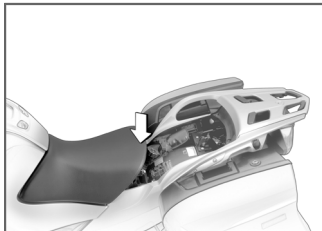


- Push the front seat forward into seat supporting rod **1**. Make sure that the seat is correctly located.



- If you install the seat in the low position, check that the seat's rubber buffers **3** en-

gage the bottom mounts in the frame.



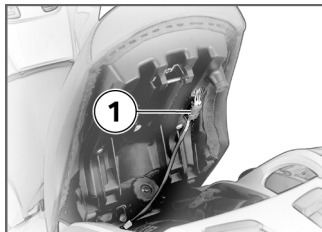
- Firmly press the front seat into the mount.

Installing rear seat

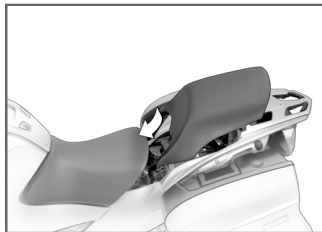
 If too much pressure is applied in the forward direction, there is a danger that the motorcycle will be pushed off its stand.

Always make sure that the motorcycle is stable and firmly supported. ◀

With OE Seat heating:



- Connect plug **1**. ◀

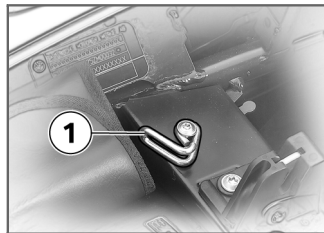


- Push the rear seat into the holders in such a way that the tongues engage the corresponding holders.

- Press down firmly at the rear of the seat.
» The seat engages with an audible click.

Helmet holder

Helmet holder underneath rear seat

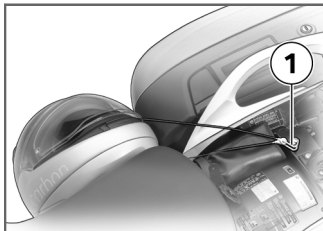


Helmet holder **1** is on the rear right, underneath the rear seat.

Using helmet holder

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

- Remove the rear seat (➡ 57)

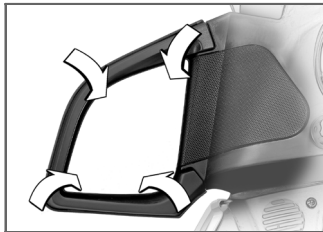


⚠ The helmet catch can scratch the panelling. Make sure the lock is out of the way when you hook the helmet into position. ◀

- Use the wire rope available as an optional extra to secure the helmet to helmet holder **1**.
- Installing rear seat (➡ 60)

Mirrors

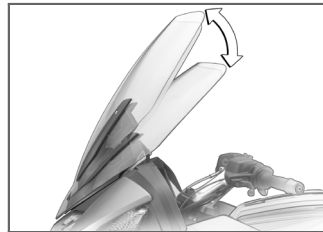
Adjusting mirrors



- Move the mirror to the desired position by pressing it lightly at the corner.

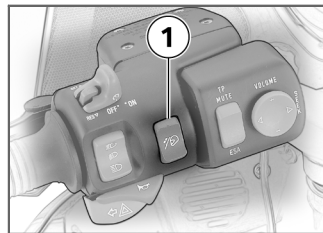
Windscreen

Adjustable windscreen



The windscreen is steplessly height-adjustable.

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.

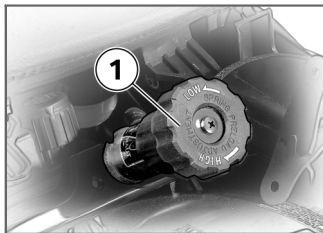
Adjust the damping characteristic to suit spring preload. ◀



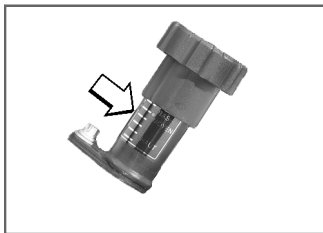
Adjusting spring preload while the motorcycle is being ridden can lead to accidents.

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

- 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.



Spring preload, basic setting

Knob at "STD" mark on scale at side (Rider weighing 85 kg, motorcycle fully fuelled)

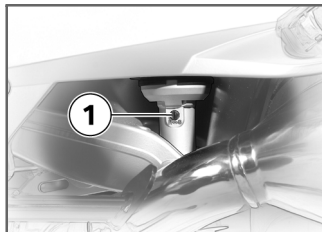
Shock absorbers

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

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

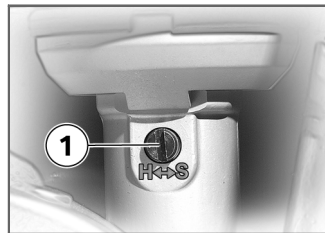


- ⚠ Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings. Adjust the damping characteristic to suit spring preload.◀



There is a risk of injury by burns if you adjust the damping characteristic while the end silencer is hot. Use a screwdriver extension and wear protective gloves.◀

- 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 the adjusting screw in the direction indicated by the **H** arrow.

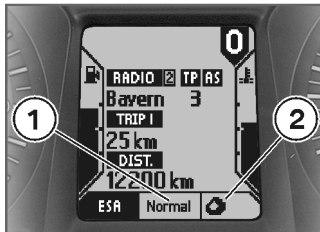
- If you want a softer damping characteristic, use a screwdriver to turn the adjusting screw in the direction indicated by the **S** arrow.



One-up, rider weighing 85 kg, motorcycle fully fuelled.

Turn the adjusting screw as far as it will go in the direction indicated by the H arrow, then back it off three quarters of a turn 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 charac-

teristic is shown in panel **1** of the multifunction display, and spring preload in panel **2**. The Tripmaster readings are not shown while the ESA readout is active.

Calling up settings

- Switch on the ignition.



- Briefly 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.



- Briefly press button **1**.
 - » The current setting is displayed.
- Press button **1** once briefly. The display field starts at the current status and cycles through the following sequence:

comf Comfortable damping characteristic

norm 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 off time to pass without pressing button **1**. During the setting procedure, the display flashes.

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

Adjusting spring preload

- Start the engine.



- Briefly 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)

- Spring preload is adjusted to the setting shown on the display if you do not press button **1** within one second. During the setting procedure, the display flashes.



You cannot adjust spring preload while the motor-cycle 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 tyre pressures against the data below.



Front wheel, tyre pressure, one-up

2.2 bar (Tyre cold)



Front wheel, tyre pressure, two-up or luggage

2.5 bar (Tyre cold)



Front wheel, tyre pressure, two-up and luggage

2.5 bar (Tyre cold)



Rear wheel, tyre pressure, one-up

2.5 bar (Tyre cold)



Rear wheel, tyre pressure, two-up or luggage

2.9 bar (Tyre cold)



Rear wheel, tyre pressure, two-up and luggage

2.9 bar (Tyre cold)

If tyre pressure is too low:

- Correct tyre pressure.

Riding

Safety instructions	68
Checklist	70
Starting	70
Pulling away	73
Running in	73
Park 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:

- 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 com-

ponents 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)
- Brake-pad wear (every third refuelling stop)

Starting

Side stand

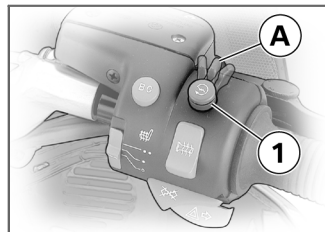
You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if you start it with the gearbox in neutral and then engage a gear before retracting the side stand.

Gearbox

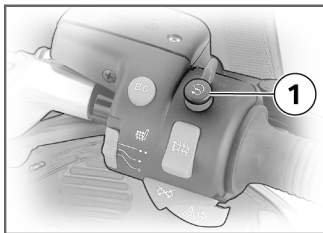
You can start the engine when the gearbox is in neutral or if you pull the clutch with a gear engaged. Do not pull the clutch until after you have

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 0.

Starting 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 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.
- » If the engine refuses to start, consult the troubleshooting chart in the section entitled "Technical data". (➡ 130)

ABS warning lights

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

 Version 1.

 Version 2.

The description below is based on version 1.

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 yellow and then red, 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 op-

tional extra, SET lights up as well. The test is aborted if you start the engine before it completes.

Phase 1



General warning light lights up red.

- The CHECK! reminder appears on the display.

Phase 2



General warning light lights up red.

- The CHECK! reminder appears on the display.



If the motorcycle is fitted with the cruise-control optional extra, 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 self-diagnosis

BMW 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 lights up 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

Starting on gradients

- Select a gear.
- Release the clutch lever and both brake levers.
- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- Apply the brakes and disengage the clutch.
- Start the engine.

ABS pull-away test

When you pull away, the BMW 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

4000 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 ef-

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. ◀

Park 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. ◀

Removing motorcycle from side 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. ◀

- Unlock the steering lock.
- 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.

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.

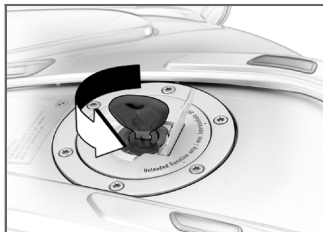
Do not fill the tank past the bottom edge of the filler neck. ◀

⚠ 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.

▷ The ratings for performance and consumption

are quoted for the recommended grade of fuel. ◀



Recommended fuel grade

Super unleaded (95 RON / 85 MON)



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

Regular unleaded (91 RON / 82 MON)



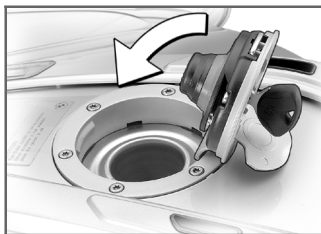
Usable fuel capacity

27 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 riding 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 brakes in good time until the brakes have been cleaned.◀

 The brake pads will wear more rapidly if you ride frequently on unsurfaced tracks or poor roads.

Check the thickness of the brake pads more frequently and replace the brake pads in good time.◀

Brake system with BMW Integral ABS

Sensitive electronic control

It takes skill and sensitive control of the brakes to pull up safely on a motorcycle. If the front brakes lock and the wheel skids, the necessary longitudinal and lateral stabilising forces are lost, and a fall can result. For this reason, the rider seldom makes full use of available braking performance in an emergency.

BMW Integral ABS provides improved braking deceleration by means of anti-lock braking for both wheels and braking force distribution by means of the integral braking function. Making full use of the motorcycle's technical braking capacity will minimise braking distances noticeably, even when road conditions are poor. When the motorcycle is travelling in a straight line, BMW Integral ABS enables safe optimised emergency braking adapted to match the road-surface conditions.

Reserves for safety

The potentially shorter braking 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.

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 foot-brake 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.

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.

ABS anti-lock braking system

ABS prevents the wheels locking under braking, thus contributing significantly to road safety.

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 highsidings 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. ◀

Residual braking function

When the ignition is switched off, during self-diagnosis, or if the BMW Integral ABS malfunctions, only a residual braking function remains available in the brake circuits in question. The residual

braking function is the braking power without the hydraulic servo assistance of the BMW Integral ABS. Under these circumstances, therefore, you must apply considerably higher pressure to the brake levers in question in order to apply the brakes, and lever travel is longer. When the residual braking function is active, the ABS function is unavailable in the brake system in question. When the residual braking function is active, the integral braking function is partially or entirely unavailable.



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. The

changed braking response can cause accidents.

Avoid hard braking if possible. Apply brakes in good time as increased effort is required.

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



The brake-lever travel needed to build up braking pressure can be considerably longer when the system is in residual braking function mode, so BMW Motorrad recommends setting the brake lever to a wider span. ◀



When the residual braking function is active for both brake circuits, the noise of the pump is no longer audible when you operate the brake levers. ◀

Accessories

General instructions	82
Power socket	82
Luggage	85
Case.....	86
Topcase ^{OA}	88

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 the socket is cut off automatically if battery voltage is low or if the load exceeds 5 A.



On-board socket, front left

With OE (Additional) socket:



On-board socket, rear left◀

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.◀



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 available is fitted, the maximum permissible speed is 180 km/h.

– Set spring preload, damping characteristic and tyre pressures to suit total weight.

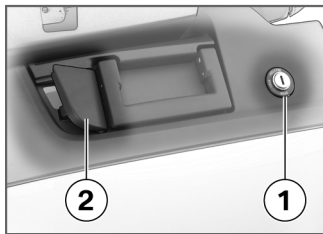
- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom and toward the in-board side.
- Max. load in each case (left and right): 10 kg.
- Max. load in tank rucksack 5 kg.

Case

Opening case



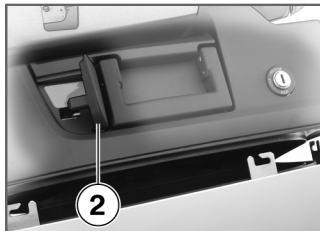
- Turn the key to the OPEN position in the case lock.
» The case is unlocked.



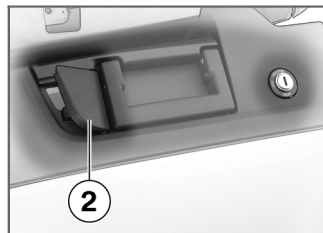
- Press lock barrel **1**.

» Lever **2** pops up.

Closing case



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

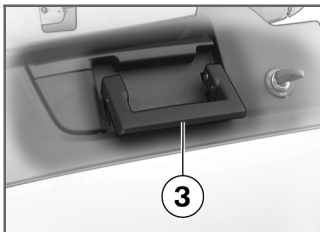


- Push release lever **2** down.
» The release lever engages.
- Turn the key to the LOCK position in the case lock.
» The case is closed.

Removing case



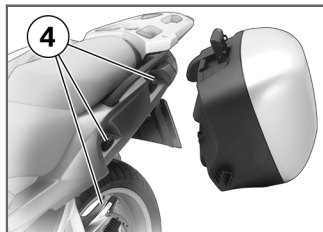
- Turn the key to the RELEASE position in the case lock.
 - » The handle pops out.



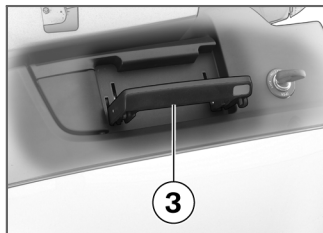
- Pull handle **3** out and then pull it up as far as it will go.
 - » The case is released and can be removed.

Installing case

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



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



- Push case handle **3** down until it engages.
 - » The case is correctly engaged on its holders.

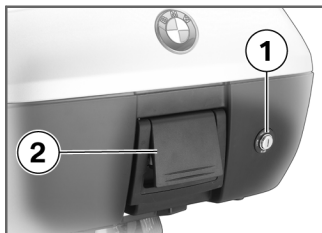
- Turn the key to the LOCK position in the case lock.
 - » The case is closed.
- Check that the case is secure.

Topcase^{OA}

Opening topcase



- Turn the key to the OPEN position in the topcase lock.
 - » The topcase is unlocked.

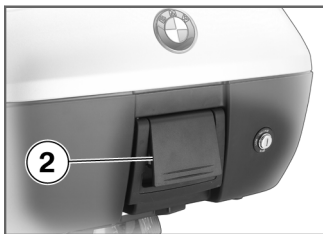


- Press lock barrel **1**.
 - » Lever **2** pops up.
- Pull the release lever up.
 - » The lid of the topcase opens.

Closing topcase



- Pull release lever **2** all the way to the back.
- 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

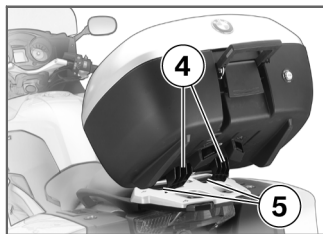
- Turn the key to the RELEASE position in the topcase lock.
» The handle pops out.



- 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 topcase 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

General instructions	92	Jump starting	117
Toolkit	92	Battery	118
Overview, toolkit	92		
Supplementary kit ^{OA}	92		
Overview, supplementary kit ...	93		
Engine oil	93		
Brake system, general	94		
Brake pads	95		
Brake fluid	98		
Clutch	99		
Tyres	100		
Rims	100		
Wheels	100		
Front-wheel stand	106		
Bulbs	108		

General instructions

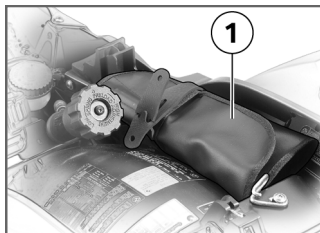
The Maintenance chapter describes straightforward procedures for checking and replacing certain wear parts. Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your motorcycle are listed in the section entitled "Technical data".

You will find information on more extensive maintenance and repair work in the Repair Manual on CD-ROM (ReproROM) for your motorcycle, which is available from your authorised BMW Motorrad dealer.

Toolkit

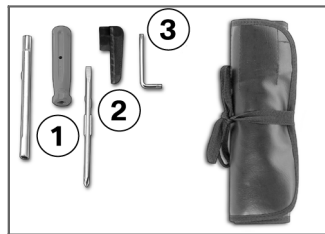
Removing toolkit

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



- Remove the rubber strap and remove tools wallet **1**.

Overview, toolkit

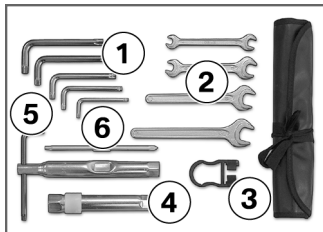


- 1** Screwdriver, reversible blade, with extension
- 2** Tool for oil cap
- 3** TORX bit, T25

Supplementary kit^{OA}

The supplementary kit is available as an optional accessory. Please consult your authorised BMW Motorrad dealer.

Overview, supplementary kit



- 1 TORX bits, T25, T30, T40, T45, T50
- 2 Open-ended spanners, w/f 8 mm/10 mm, 10 mm/13 mm, 15 mm, 17 mm
- 3 Puller tool, direct ignition coil
- 4 Socket wrench, w/f 17
- 5 Spark plug socket spanner with TORX wrench as lever
- 6 Screwdriver blade

Engine oil Checking the engine oil level

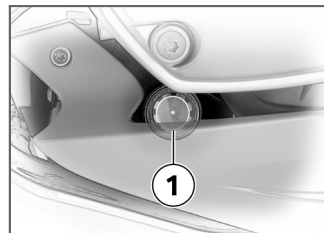
⚠ The engine can seize if the oil level is low, and this can lead to accidents. Always make sure that the oil level is correct.◀

⚠ The oil level varies with the temperature of the oil. The higher the temperature, the higher the level of oil in the sump. 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.

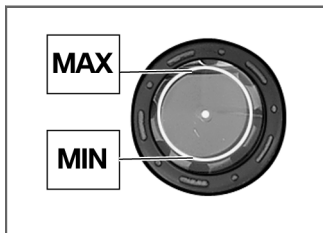
In order to ensure that the engine oil level is read correctly, check the oil level only after a long trip.◀

▶ 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 sight glass.◀

- Check that the engine is at operating temperature, make sure the ground is level and firm and place the motorcycle on its centre stand.



- Check the oil level in sight glass 1.



Engine oil, specified level

Oil level visible in sight glass

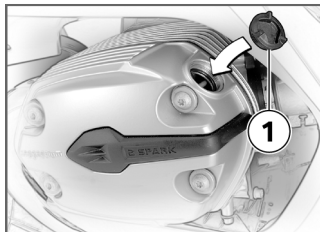
If the oil level is below the MIN mark:

- Topping up the engine oil (➡ 94)

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



Damage to the engine can result if it is operated without enough oil, but the same also applies if the oil level is too high.

Always make sure that the oil level is correct. ◀

- Wipe the area around the filler neck clean.
- Use the tool from the toolkit to remove cap **1** from the engine oil filler neck.
- Top up the engine oil to the specified level.

- Use the tool from the toolkit to install cap **1** in the engine oil filler neck.

Brake system, general Dependability of the brake system

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 brake function

- 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 of the BMW Integral ABS must be clearly audible.
- Press the footbrake lever.
 - » The pressure point must be clearly perceptible.
 - » The noise of the hydraulic pump of the BMW Integral

ABS must be clearly audible.

If the hydraulic pump does not run or if the pressure points are not clearly perceptible:

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

Brake pads

Checking brake-pad thickness, front brakes

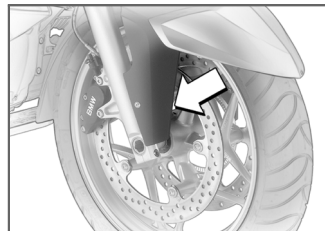


Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.

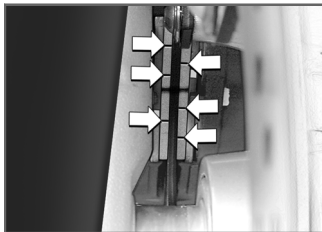
In order to ensure the dependability of the brake system, do not permit the brake

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.



Front brake pads, wear-indicating mark

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

If the wear indicating marks are no longer clearly visible:

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

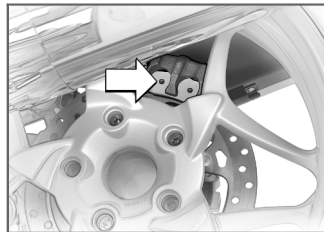
Checking brake pad thickness, rear brakes



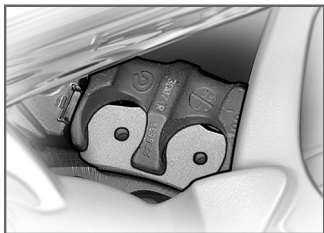
Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.

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 of the rear brake caliper from the left to ascertain their thickness.



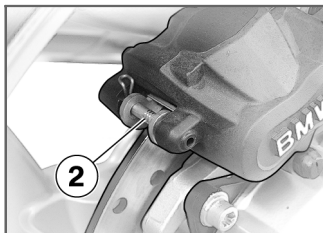
Make sure that the brake disc is not visible through the bore in the inboard brake block.



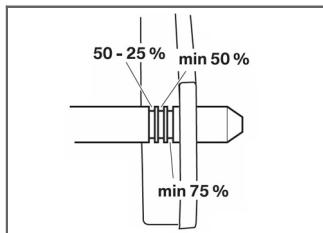
Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and damage the brake system. Replace the brake pads in good time.

Have the brake pads replaced before the minimum allowable thickness is reached. ◀

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



- Check wear indicator **2** to ascertain whether the brake pad is of adequate thickness.



Brake pad wear indicator, rear

Remaining brake pad
 min 75 % (3 rings visible)
 min 50 % (2 rings visible)
 50-25 % (1 ring visible)
 Replace brake pad (No ring visible)

If the brake pad is too thin:



Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and damage the brake system.

Replace the brake pads in good time.
Have the brake pads replaced before the minimum allowable thickness is reached.◀

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

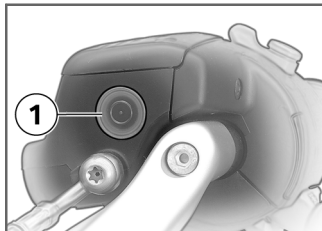
Brake fluid

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. Check the brake-fluid level at regular intervals.◀

- 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 drops below the permitted level:

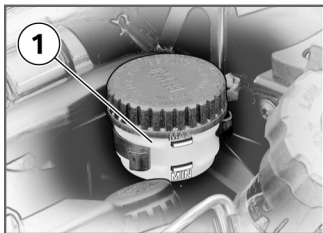
 A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency. Check the brake-fluid level at regular intervals.◀

- 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. Check the brake-fluid level at regular intervals.◀

- 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 drops below the permitted level:

 A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency. Check the brake-fluid level at regular intervals. ◀

- 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 loca-

tions 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 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.

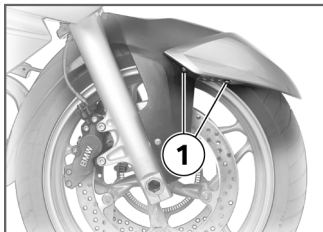
Use only wheels and tyres approved by BMW Motorrad for your type of motorcycle.

You can obtain detailed information from your authorised BMW Motorrad dealer or on the Internet at www.bmw-motorrad.com.

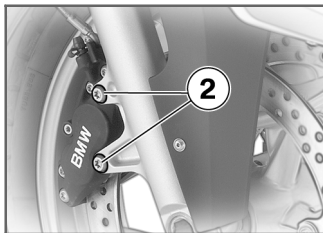
Removing front wheel

- Make sure the ground is level and firm and place

the motorcycle on its centre stand.

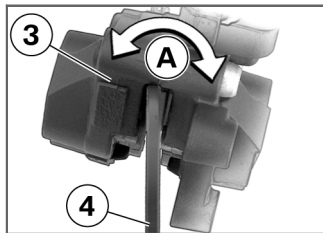


- Remove screws **1** on left and right.
- Lift the mudguard forward to remove, pulling the two sides slightly apart.



 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. ◀

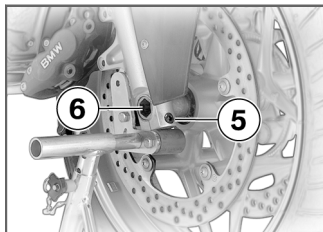
- Remove securing screws **2** of the left and right brake calipers.



- 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.
- 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 (➡ 107)



- Release axle clamping screw **5**.
- Remove quick-release axle **6**, while supporting the wheel.

▶ BMW Motorrad can supply an adapter for removing the quick-release axle. This adapter can be combined with any commercially available w/f 22 open-end or ring spanner.

The BMW special tool number is 363691 and the adapter is available from your authorised BMW Motorrad dealer. The supplementary toolkit available as an optional accessory also includes a tool for removing the quick-release axle. ◀



- Roll the front wheel forward to remove.
- Remove the spacing bushing from the left-hand side of the wheel hub.

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. ◀

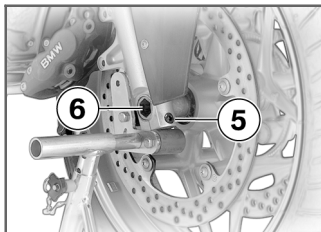
⚠ The front wheel must be installed right way round to rotate in the correct direction.

Note the direction-of-rotation arrows on the tyre or the wheel rim.◀

- Slip the spacing bushing into the left-hand side of the wheel hub.



- Roll the front wheel into position in the front suspension.
- Do not damage the ABS sensor on the left-hand side when rolling in the wheel.



- Install quick-release axle **6** and tighten to specified torque.

 Quick-release axle in axle holder

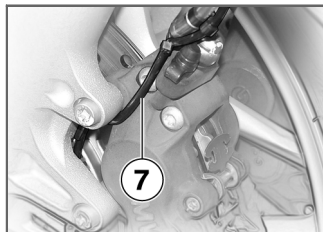
50 Nm

- Install axle clamping screw **5** and tighten to specified torque.

 Quick-release axle clamp screws

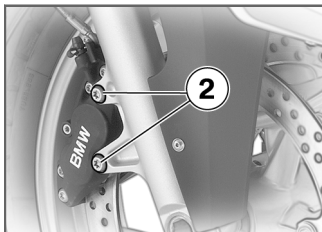
19 Nm

- Remove the front wheel stand.
- Slip the brake calipers onto the brake discs.



 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.◀

- Make sure that ABS sensor cable **7** is correctly routed.

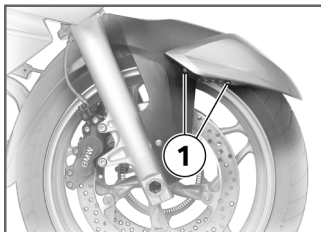


- Install securing screws **2** and tighten to specified torque.

 Brake caliper to slider tube

30 Nm

- Remove the adhesive tape from the wheel rim.



- Install screws **1** on left and right.
- Switch on the ignition.
- Wait for self-diagnosis to complete.
- Operate the brake until the pressure point is perceptible.

Remove the rear wheel

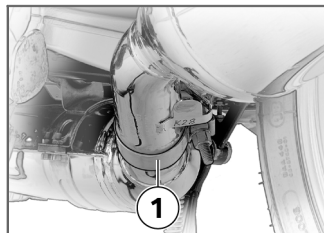


Parts of the exhaust system can be hot.

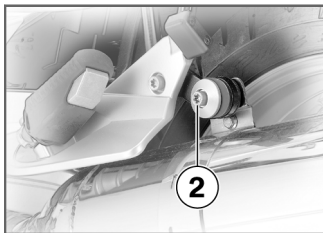
Do not touch hot parts of the exhaust system. ◀

- Make sure the ground is level and firm and place

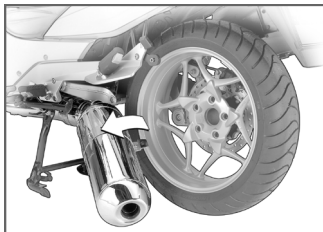
the motorcycle on its centre stand.



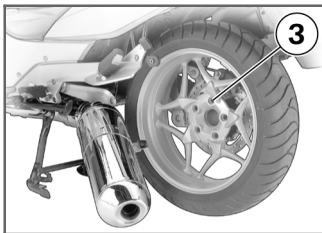
- Slacken clamping screw **1** on the silencer.
- Do not remove the sealing grease from the clamp.



- Remove screw **2** for the bracket of the end silencer from the rear footrest.



- Turn the end silencer out.
- Engage first gear.



- Remove studs **3** from the rear wheel, while supporting the wheel.
- Roll the rear wheel out toward the rear.

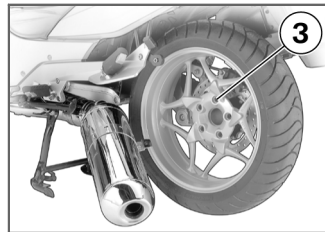
Installing rear wheel

⚠ 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, prefer-

ably an authorised BMW Motorrad dealer. ◀

- Insert the rear wheel into the centering hole.

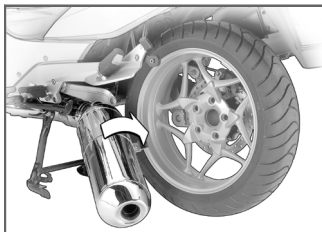


- Hand-tighten wheel studs **3** and then tighten to specified torque in diagonally opposite sequence.

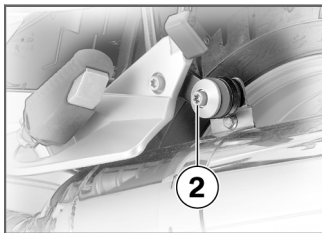
 Rear wheel to wheel carrier

60 Nm

Tightening sequence: In diagonally opposite sequence



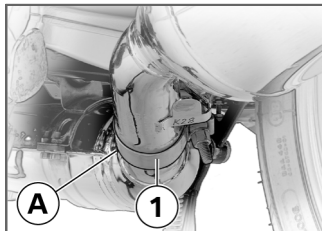
- Turn the end silencer to its initial position.



! 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 20 mm. ◀

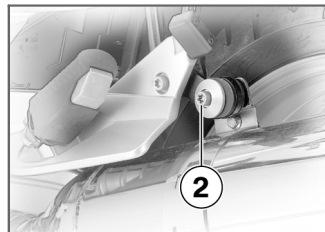
- Install screw **2** for the bracket of the end silencer in the rear footrest, but do not tighten it.



- Align clamp **1** on the end silencer with mark **A** and tighten to specified torque.
- Torca clamp to silencer and elbow

55 Nm

Thread-locking compound:
Optimoly TA



- Tighten screw **2** securing the bracket to the rear footrest to specified torque.

◀ Rear silencer to footrest system

19 Nm

Front-wheel stand

Use

A front wheel stand for simple, safe changing of the front wheel is available from BMW Motorrad. The BMW special tool number is 36 3 970 and the front-wheel stand is available from your

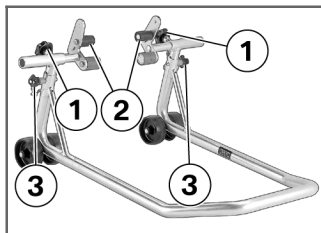
authorised BMW Motorrad dealer.

 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.

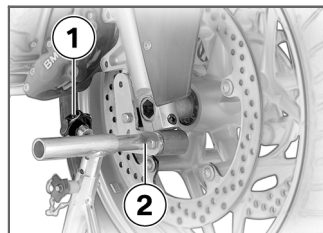
Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand. ◀

Fitting the front wheel stand

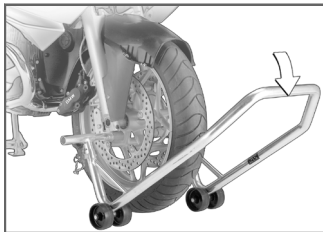
- Make sure the ground is level and firm and place the motorcycle on its centre stand or the auxiliary stand.



- Slacken adjusting screws **1**.
- Push the two adapters **2** apart until the front forks fit 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.



- Align the two adapters **2** so that the front forks are securely seated.
- Tighten adjusting screws **1**.



 If the motorcycle is on the centre stand and 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

A warning appears in the multifunction display if a bulb is defective. If the brake light or rear light fails, the warning is accompanied by the General warning light lighting up yellow. If the rear light fails the second filament of the brake light shines at reduced brightness to double as a rear light. Even though you have this substitute rear light, the indicators in the display tell you that a bulb defect has occurred.

 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".◀

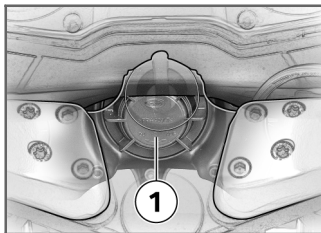
 Do not touch the glass of new bulbs with your fingers. Use a clean, dry cloth to hold the bulbs when handling them. Dirt deposits, in particular oil and grease, interfere with heat radiation from the bulb. This leads to overheating and shortens the bulb's operating life.◀

Replacing high-beam headlight bulb

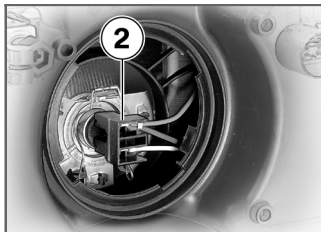
 If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported. ◀

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

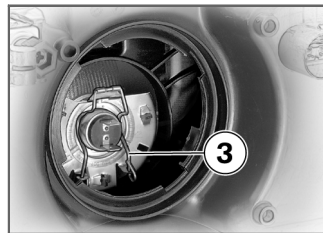
 Turn the handlebars to the left to facilitate access. ◀



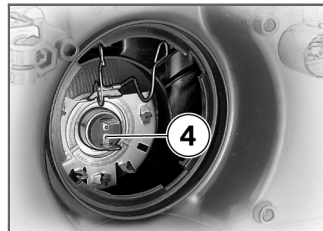
- Turn cover **1** counter-clockwise and remove it.



- Disconnect plug **2**.

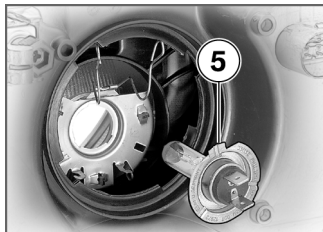


- Disengage spring clip **3** at left and right and secure it (preferably by hooking it into the headlight housing).



- Remove bulb **4**.

- Installation of the bulbs is the reverse of the removal procedure.



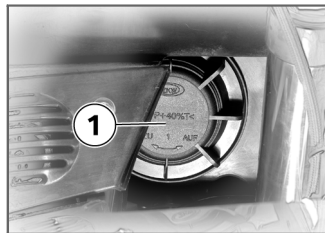
- When installing, make sure that lug **5** is pointing up and that the bulb is securely seated.
- Check that the bulb is correctly seated (by looking in through the headlight lens).

Replacing left low-beam headlight bulb

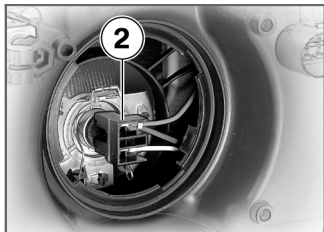
⚠ If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported. ◀

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

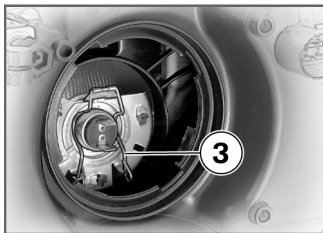
▶ Turn the handlebars to the left to facilitate access. ◀



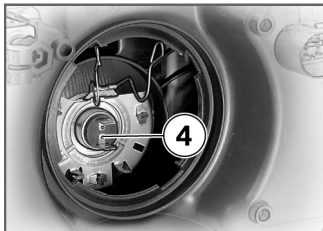
- Turn cover **1** counter-clockwise and remove it.



- Disconnect plug **2**.

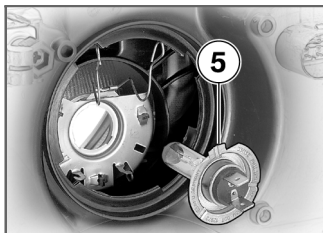


- Disengage spring clip **3** at left and right and secure it (preferably by hooking it into the headlight housing).



- Remove bulb **4**.

- Installation of the bulbs is the reverse of the removal procedure.



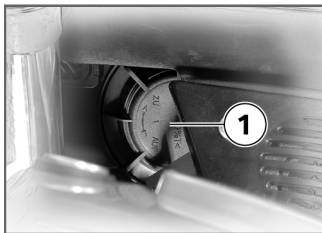
- When installing, make sure that lug **5** is pointing up and that the bulb is securely seated.
- Check that the bulb is correctly seated (by looking in through the headlight lens).

Replacing right low-beam headlight bulb

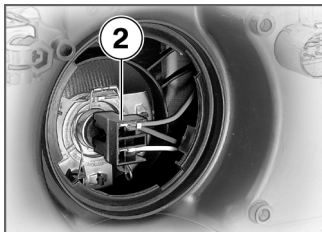
⚠ If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported. ◀

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

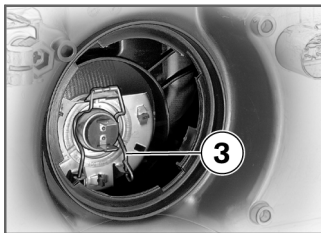
▷ Turn the handlebars to the left to facilitate access. ◀



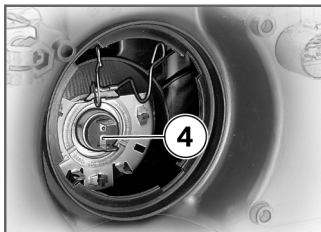
- Turn cover **1** counter-clockwise and remove it.



- Disconnect plug **2**.

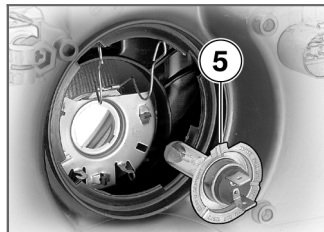


- Disengage spring clip **3** at left and right and secure it (preferably by hooking it into the headlight housing).



- Remove bulb **4**.

- Installation of the bulbs is the reverse of the removal procedure.



- When installing, make sure that lug **5** is pointing up and that the bulb is securely seated.
- Check that the bulb is correctly seated (by looking in through the headlight lens).

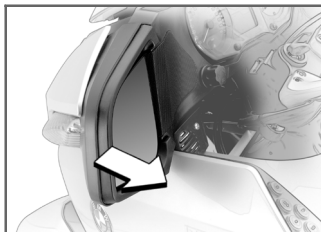
Side-light bulbs, left and right

The procedure for replacing the left side-light bulb is described below. The procedure for replacing the right side-light bulb is analogous.

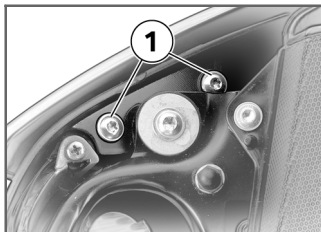
Replacing parking-light bulb

 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. ◀

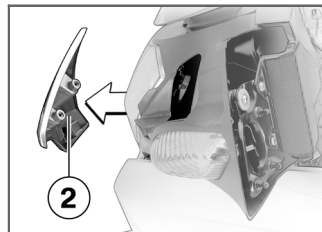
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



- Apply firm forward pressure with the flat of your hand to push the mirror back out of the anchorage.



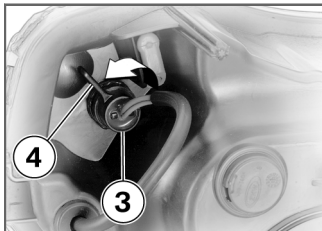
- While holding the side panel, remove screw **1**.



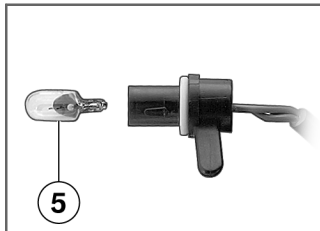
- Remove fairing side panel **2**.



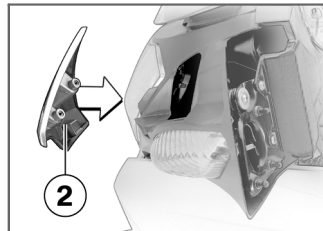
- The side-light bulb is accessible through the aperture.



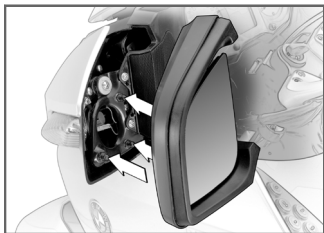
- Turn bulb socket **3** counter-clockwise to remove it from the headlight housing; to do so, pivot lever **4** at the socket down (right side of motorcycle: pivot the lever up).



- Pull bulb **5** out of the bulb holder.
- Installation of the bulb is the reverse of the removal procedure.
- Check that the bulb is correctly seated (by looking in through the headlight lens).



- When installing fairing panel **2**, make sure that the lug of the panel is correctly seated in the corresponding recess.



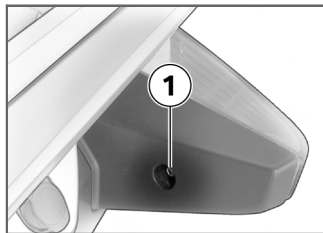
! The mirrors can easily work loose from their anchoring if the rubber holders or snap-fit studs are greased. Do not grease the rubber holder or snap-fit stud. ◀

- When installing the mirror housing, make sure that the three plugs all engage in their corresponding mounts.

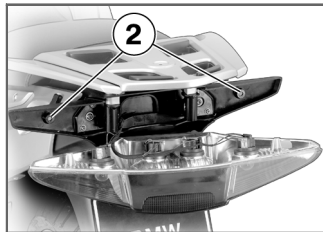
Replacing brake-light, rear light and rear-indicator bulbs

! 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. ◀

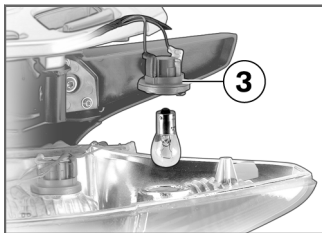
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



- Remove screws **1** on left and right.



- Pull the bulb housing to the rear until it is clear of holders **2**.



- Turn bulb holder **3** counter-clockwise to remove it from the bulb housing.
- Press the bulb into its socket and turn it counter-clockwise to remove.
- Installation of the new bulb is the reverse of the removal procedure.

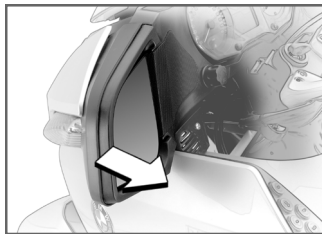
Replacing front turn indicator bulb



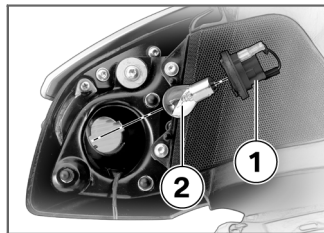
If it is not standing firmly, the motorcycle could

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

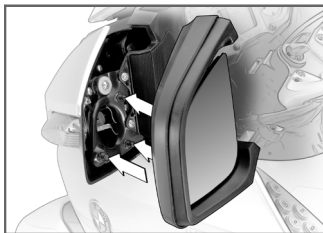
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



- Apply firm forward pressure with the flat of your hand to push the mirror out of the anchorage.



- Turn bulb holder **1** counter-clockwise to remove it from the bulb housing.
- Press bulb **2** into its socket and turn it counter-clockwise to remove.
- Installation of the new bulb is the reverse of the removal procedure.



! The mirrors can easily work loose from their anchoring if the rubber holders or snap-fit studs are greased. Do not grease the rubber holder or snap-fit stud.◀

- When installing the mirror housing, make sure that the three plugs all engage in their corresponding mounts.

Jump starting

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 accident-

ally 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.
- Remove the rear seat (➡ 57)

- Removing front seat (➡ 58)
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Remove the protective cap from the battery's positive terminal.
- 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.

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

- Installing front seat (➡ 59)
- Installing rear seat (➡ 60)

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.◀

 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.◀

 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.◀

- Charge via the power socket, with the battery connected 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 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 terminal clips from the battery terminals.

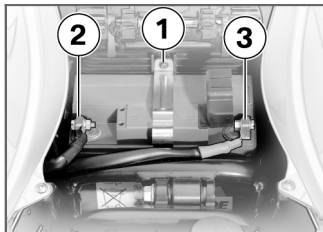
▷ The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.◀

Remove 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.
- Switch off the ignition
- Remove the rear seat (➡ 57)

- Removing front seat (➡ 58)



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

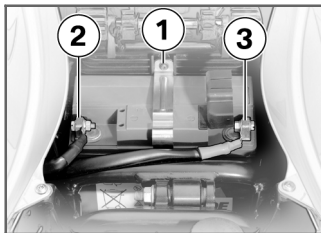
- Remove screw **1**.
- Disconnect negative battery lead **2** first.
- Then pull back the protective cap and disconnect positive lead **3**.
- Lift the battery up and out; work it slightly back and

forth if it is difficult to remove.

Install 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.
- Switch off the ignition.
- Insert the battery into the battery compartment, with the positive terminal on the right in the forward direction of travel.



- Engage the battery retainer at the bottom, slip it over the battery and tighten screw **1** to the specified torque.

 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 positive lead **3** first and tighten the fastener until hand-tight.

- Fit the protective cap to the positive terminal of the battery.
- Then connect negative lead **2** and tighten the fastener until hand-tight.
- Switch on the ignition.
- Without starting the engine, fully open the throttle for at least one second so that the control unit of the engine management system can register the throttle-valve positions.
- Switch off the ignition.
- Installing front seat (➡ 59)
- Installing rear seat (➡ 60)
- Set the clock (➡ 42)

Care

Care products	124
Washing motorcycle	124
Cleaning easily damaged components	125
Paint care	126
Protective wax coating	126
Laying up the motorcycle	126
Restoring motorcycle to use	127

Care products

BMW Motorrad recommends 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 damage vehicle 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 motorcycle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn 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 and slipstream deflectors
- Headlight lens made of plastic
- Glass cover of the instrument cluster
- Black, unpainted parts

 If plastic parts are cleaned using unsuitable cleaning agents, the surfaces can be damaged.

Do not use cleaning agents that contain alcohol, solvents or abrasives to clean plastic parts.

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. BMW Motorrad recommends BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

Protective wax coating

BMW Motorrad recommends applying only BMW car wax or products containing carnauba wax or synthetic wax.

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. Authorised BMW Motorrad dealers can provide suitable auxiliary stands.

 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

Troubleshooting chart	130
Threaded fasteners	131
Engine	132
Riding specifications	134
Clutch	135
Transmission	135
Final drive	136
Running gear	136
Brakes	137
Wheels and tyres	138
Electrics	139
Frame	141
Dimensions	141
Weights	142

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.	Charge the battery when connected (▮▮▮ 119)

Threaded fasteners

Front wheel	Value	Valid
Quick-release axle clamp screws		
M8 x 35	19 Nm	
Quick-release axle in axle holder		
M24 x 1.5	50 Nm	
Brake caliper to slider tube		
M8 x 32 - 10.9	30 Nm	
Rear wheel	Value	Valid
Rear wheel to wheel carrier		
Wheel flange	In diagonally opposite sequence	
	60 Nm	
Rear silencer to footrest system		
M8	19 Nm	
Torca clamp to silencer and elbow		

Rear wheel	Value	Valid
M8 Optimoly TA	55 Nm	

Engine

Engine, type	Four-stroke opposed twin, air-cooled with oil-cooled exhaust ports, installed longitudinally, two overhead camshafts, electronic engine management.
Effective displacement	878 cm ³
Cylinder bore	87.5 mm
Piston stroke	73 mm
Compression ratio	11.0 : 1
Nominal output	61 kW, At: 7250 min ⁻¹
Maximum torque	83 Nm, At: 6000 min ⁻¹
Maximum permissible engine speed	7800 min ⁻¹
Idle speed	1150 ^{±50} min ⁻¹ , Temporary increase in idle speed possible if electric power demand is high.

Fuel

Recommended fuel grade	Super unleaded (95 RON / 85 MON)
Fuel grade, usable with power- and consumption-related restrictions	Regular unleaded (91 RON / 82 MON)
Usable fuel capacity	27 l
Reserve fuel	4 l

Engine oil

Engine, oil capacity	4 l, with filter change
Lubricant	Engine oil, 20W-50
Engine oil, quantity for topping up	0.5 l, difference between MIN and MAX
Oil grades	Engine oils of API classification SF or better. Engine oils of ACEA classification A2 or better. BMW Motorrad recommends not using synthetic oils for the first 10,000 km. 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 5 W- ≥ 30	-20...20 °C, Operation at low temperatures
SAE 10 W-40	-10...30 °C, Operation at moderate temperatures
SAE 15 W- ≥ 40	≥ 0 °C
SAE 20 W- ≥ 40	≥ 0 °C
SAE 5 W- ≥ 50	≥ -20 °C, High-grade and synthetic oils, operation in all temperature ranges
SAE 10 W- ≥ 50	≥ -20 °C, High-grade and synthetic oils, operation in all temperature ranges

Riding specifications

Top speed	195 km/h, Without optional extras
	185 km/h, With optional extras
Acceleration 0-100 km/h	5.7 s

Clutch

Clutch type	Single dry plate with high-leverage pressure plate
-------------	--

Transmission

Gearbox type	Helical 6-speed gearbox with integral re-action damper, claw-action shift by sliding sleeves
--------------	--

Gear ratios

Primary transmission ratio	1.824 (31:17 teeth)
Gear ratio, 1st gear	2.277 (41:18 teeth)
Gear ratio, 2nd gear	1.583 (38:24 teeth)
Gear ratio, 3rd gear	1.259 (34:27 teeth)
Gear ratio, 4th gear	1.033 (31:30 teeth)
Gear ratio, 5th gear	0.903 (28:31 teeth)
Gear ratio, 6th gear	0.805 (29:36 teeth)

Final drive

Rear wheel drive, type	Shaft drive with bevel gears
Final drive gear ratio	3 : 1

Running gear

Front suspension, type	BMW Telelever, with anti-dive top fork bridge, leading link pivot-mounted on engine and telescopic forks, central spring strut supported by leading link and main frame
Front suspension, total suspension travel	120 mm, at wheel
Spring strut, rear, type	Central spring strut with single-tube gas-filled shock absorber, adjustable rebound damping and hydraulically adjustable spring preload
With OE Electronic Suspension Adjustment (ESA):	Central spring strut with single-tube gas-filled shock absorber, 3-stage electrically adjustable rebound damping and 3-stage electrohydraulically adjustable initial spring tension
Total suspension travel at rear wheel	135 mm

Brakes

Front brakes, type	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Front brake pads	Sintered metal
Front brake pads, wear-indicating mark	The wear-indicating marks must be clearly visible on the pads.
Rear brakes, type	Hydraulically operated disc brake with 2-piston floating caliper and fixed disc
Rear brake pads	Organic material
Brake pad wear indicator, rear (Remaining brake pad)	min 75 %, 3 rings visible min 50 %, 2 rings visible 50-25 %, 1 ring visible Replace brake pad, No ring visible

Wheels and tyres

Front wheel, type	Cast wheel with 5 double spokes, MT H2
Front wheel, rim size	3.50" x 17"
Front wheel, tyre designation	120/70 ZR17
Rear wheel, type	Cast wheel with 5 double spokes, MT H2
Rear wheel, rim size	5.50" x 17"
Rear wheel, tyre designation	180/55 ZR17
Tyre pressures	
Front wheel, tyre pressure, one-up	2.2 bar, Tyre cold
Rear wheel, tyre pressure, one-up	2.5 bar, Tyre cold
Front wheel, tyre pressure, two-up or luggage	2.5 bar, Tyre cold
Rear wheel, tyre pressure, two-up or luggage	2.9 bar, Tyre cold
Front wheel, tyre pressure, two-up and luggage	2.5 bar, Tyre cold
Rear wheel, tyre pressure, two-up and luggage	2.9 bar, Tyre cold

Electrics

Current limit value, on-board sockets	10 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.

Battery

Type, battery	Gel battery
Battery rated voltage	12 V
Battery rated capacity	19 Ah

Spark plugs

Spark plug manufacturer and designation	Bosch YR5LDE
Spark plug electrode gap	0.8±0.1 mm, When new
Spark plug electrode gap	1 mm, Wear limit

Lighting

High-beam headlight bulb, standard designation	H7 halogen bulb
High-beam headlight bulb, voltage	12 V
High-beam headlight bulb, power	55 W
Low-beam headlight bulb, standard designation	H7 halogen bulb
Low-beam headlight bulb, voltage	12 V
Low-beam headlight bulb, power	55 W
Parking light bulb, standard designation	Bulb T8/4
Parking light bulb, voltage	12 V
Parking light bulb, power	5 W
Tail light / brake light bulb, standard designation	Bulb, P25-1 (rear light dimmed)
Tail light / brake light bulb, voltage	12 V
Tail light / brake light bulb, standard designation	21 W
Flashing turn indicator bulbs, standard designation	Bulb, P21W
With OE White turn indicators:	Bulb, PY21W

Flashing turn indicator bulbs, voltage	12 V
Flashing turn indicator bulbs, power	21 W
Number-plate light bulb	Integrated in rear light

Frame

Type, frame	Tubular steel front frame with tubular steel rear frame, load-bearing drive unit
Data plate location	Underneath seat
Vehicle identification number location	Front frame top centre

Dimensions

Length of motorcycle	2230 mm
Height of motorcycle	1430 mm, To top of windscreen when lowered, at DIN unladen weight
maximum width across cases	980 mm
Maximum width (Across mirrors)	905 mm
Front-seat height	820...840 mm, At unladen weight
With OE Front seat, low:	780...800 mm

Weights

Unladen weight	259 kg, DIN unladen weight, ready for road 90 % load of fuel, without optional extras
Permissible gross weight	495 kg
Maximum payload	236 kg

Service

BMW Motorrad service	144
BMW Motorrad service quality	144
BMW Motorrad Service Card: on-the-spot breakdown assistance	145
BMW Motorrad service network	145
Maintenance work	145
Maintenance schedules	146
Confirmation of maintenance work	147
Confirmation of service	152

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, BMW Motorrad recommends that you have the maintenance work required for your motorcycle carried out reg-

ularly, preferably by your authorised BMW Motorrad dealer. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential. Certain signs of wear, moreover, may 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

BMW Motorrad has an extensive after-sales service network 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

- ☐ Without BMW Integral ABS
With BMW Integral ABS

- ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ 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

- ☐ Without BMW Integral ABS
- With BMW Integral ABS
 - ☐ Wheel circuit
 - ☐ Control circuit

Date, stamp, signature

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.

[illegible]

Item	Odometer reading	Date

A

Abbreviations and symbols, 6

ABS

Starting on gradients, 73

Warning light, 23

Accessories

General instructions, 82

Anti-theft alarm, 18

B**Battery**

Charging battery when connected, 119

Charging battery when disconnected, 120

Installation, 121

Maintenance instructions, 118

Removal, 120

Warning, battery charge current, 27

Brake fluid

Checking fluid level, front brakes, 98

Checking fluid level, rear brakes, 98

Brake lever

Adjusting handbrake lever, 53

Brake pads

Checking front, 95

Checking rear, 96

Running in, 73

Brakes, 95

BMW Integral ABS, 78

Fluid reservoir, rear, 15

Front fluid reservoir, 11

Safety instructions, 77

Technical data, 137

Bulbs

general instructions, 108

replacing brake-light bulb, 115

replacing front turn indicator bulb, 116

replacing high-beam headlight bulb, 109

replacing left low-beam headlight bulb, 110

replacing parking-light bulb, 113

replacing rear light

bulb, 115

replacing rear turn indicator bulb, 115

replacing right low-beam headlight bulb, 111

Technical data, 140

Warning, bulb failure, 28

C**Case**

Closing, 86

Installing, 87

Opening, 86

Removing, 87

Centre stand

Placing motorcycle on centre stand, 75

Removing motorcycle from centre stand, 76

Checklist, 70**Clock**

Adjusting, 18, 42

Clutch

- Adjusting clutch lever, 52
- Checking operation, 99
- Fluid reservoir, 13
- Technical data, 135

Confirmation of maintenance work, 147**Cruise-control system, 16, 46**

- Deactivating, 48
- Resuming cruising speed, 48
- Setting road speed, 47
- Step-by-step acceleration, 47
- Step-by-step deceleration, 48
- Stepless acceleration, 47
- Stepless deceleration, 48
- Switching off, 49
- Switching on, 46

Currency, 7**D****Dimensions**

- Technical data, 141

E**Electrics**

- Technical data, 139

Emergency off switch (kill switch), 17, 49**Engine**

- Starting, 70
- Technical data, 132
- Warning, engine electronics, 26

Engine oil

- checking level, 93
- Filler neck, 11
- Sight glass, 11
- Technical data, 133
- Temperature gauge, 23
- topping up, 94
- Warning, engine oil pressure, 27

Equipment, 7**ESA, 16**

- Adjusting spring preload, 65
- Adjusting suspension damping, 65
- Calling up settings, 64

EWS

- Function description, 39
- Warning, 26

F**Final drive**

- Technical data, 136

Frame

- Technical data, 141

Front seat

- Adjusting, 15, 59
- Heating, 17, 50
- Installation, 59
- Removal, 58

Front-wheel stand, 106**Fuel**

- Filler neck, 13
- Quantity reading, 23
- refuelling, 76
- Warning, fuel down to reserve, 26

Fuses, 139**G****Gear indicator, 23****Grip heating, 17, 50**

H

- Handlebar fittings
 - General view, left side, 16
 - General view, right side, 17
- Hazard warning flashers, 16, 17
 - Switching off, 41
 - Switching on, 40
- Headlight
 - Adjusting headlight beam throw, 55
 - Adjustment for driving on left/driving on right, 54
 - high-beam headlight, 19
 - low-beam headlight, 19
 - side lights, 19
- Helmet holder, 15, 60
- High-beam headlight, 16
 - Telltale light, 23
- Horn, 16

I

- Idle
 - Telltale light, 23

Ignition

- Switching off, 38
- Switching on, 38
- Ignition switch, 38
- Immobiliser
 - Function description, 39
 - Warning, 26
- Instrument cluster
 - Overview, 18
 - Sensor for lighting, 18

J

- Jump starting, 117

K

- Keys, 40

L

- Laying up, 126
- Lights
 - Adjusting headlight beam throw, 11, 55
 - Switching off parking lights, 54
 - Switching on high-beam headlight, 54

- Switching on low-beam headlight, 53
- Switching on parking lights, 54
- Switching on side lights, 53

M

- Maintenance
 - General instructions, 92
 - Intervals, 145
- Mirrors
 - adjusting, 61
- Multifunction display, 18

O

- Odometer and tripmeters
 - Odometer, 41
 - Resetting tripmeter, 42
 - Selecting tripmeter, 41
- On-board computer
 - Resetting average consumption, 45
 - Resetting average speed, 44
 - residual range, 44
 - Select readings, 43

P

- Power socket, 11, 82
- Pre-ride check, 71

R

- Rear seat
 - Heating, 13, 51
 - Installation, 60
 - Removal, 57
- Refuelling, 76
- Reserve
 - Warning, 26
- Residual range, 44
- Restoring to use, 127
- Rev. counter, 18
- Running gear
 - Technical data, 136
- Running in, 73

S

- Safety instructions, 68
 - Brakes, 77
- Service, 144
- Service Card, 145

Side stand

- Placing motorcycle on side stand, 74
 - Removing motorcycle from side stand, 75
 - starting the engine, 70
- Spark plugs
 - technical data, 139
 - Speedometer, 18
 - Spring preload
 - Adjusting, 62
 - Spring preload, rear
 - Adjusting, 15, 62
 - Starter, 17
 - Starting, 70
 - Steering lock
 - Locking, 39
 - Stowage compartment, 57
 - Suspension damping, rear
 - Adjusting, 11, 63

T

- Technical data
 - Brakes, 137
 - Bulbs, 140

Clutch, 135

- Dimensions, 141
 - Electrics, 139
 - Engine, 132
 - Engine oil, 133
 - Final drive, 136
 - Frame, 141
 - Running gear, 136
 - spark plugs, 139
 - Standards, 7
 - Transmission, 135
 - tyre pressures, 4, 138
 - Weights, 142
 - Wheels and tyres, 138
- Telltale lights, 18
 - Overview, 23
 - Toolkit
 - Overview, 92
 - Overview, supplementary kit, 93

Topcase

- Closing, 88
- Installing, 89
- Opening, 88
- Removing, 89

Torques, 131**Transmission**

- Starting engine, 70
- Technical data, 135

Troubleshooting chart, 130**Turn indicators**

- Left, 16, 55
- Right, 17, 56
- Switching off, 17, 56
- Telltale lights, 23

Type plate, 15**Tyres**

- Approved tyres, 100
- checking tread depth, 100
- checking tyre pressures, 66
- inflation pressures, 4, 138
- Running in, 74
- Table of air pressures, 15
- Technical data, 138

V**Vehicle**

- General view, left side, 11
- General view, right side, 13
- Laying up, 126
- Parking, 74
- Restoring to use, 127

W**Warning lights, 18**

- Overview, 23
- Warning light, general, 23

Warnings

- Mode of presentation, 23

Warnings, overview, 24, 31**Weights**

- Technical data, 142

Wheels

- Installing front wheel, 102
- Installing rear wheel, 105
- Remove the rear wheel, 104
- Removing front wheel, 100
- Technical data, 138

Windscreen

- Adjusting, 13, 16, 61

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.

The right to modify designs, equipment and accessories is reserved.

Errors and omissions excepted.

© 2006 BMW Motorrad

Not to be reproduced either wholly or in part without written permission from BMW Motorrad, After Sales.

Printed in Germany.

Important data for refuelling

Fuel

Recommended fuel grade	Super unleaded (95 RON / 85 MON)
Fuel grade, usable with power- and consumption-related restrictions	Regular unleaded (91 RON / 82 MON)
Usable fuel capacity	27 l
Reserve fuel	4 l

Tyre pressures

Front wheel, tyre pressure, one-up	2.2 bar, Tyre cold
Rear wheel, tyre pressure, one-up	2.5 bar, Tyre cold
Front wheel, tyre pressure, two-up or luggage	2.5 bar, Tyre cold
Rear wheel, tyre pressure, two-up or luggage	2.9 bar, Tyre cold
Front wheel, tyre pressure, two-up and luggage	2.5 bar, Tyre cold
Rear wheel, tyre pressure, two-up and luggage	2.9 bar, Tyre cold

BMW recommends 

Order No. 01 41 7 702 471
02.2006, 1st edition

